

Recent References:
January 1, 2008 to March 31, 2008

National Nuclear Data Center, Brookhaven National Laboratory

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This document lists experimental references added to Nuclear Science References (NSR) during the period January 1, 2008 to March 31, 2008. The first section lists keynumbers and keywords sorted by mass and nuclide. The second section lists all references, ordered by keynumber.

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Keynumbers and Keywords

A=1

- ^1_0n 2007FI16 NUCLEAR REACTIONS $^1\text{H}(\text{polarized n, p})$, E=230-590 MeV; measured analyzing powers, polarization of recoil particles; deduced polarization and depolarization coefficients. Nucleon-nucleon scattering and data on spin observables. JOUR PPNLA 4 503
- ^1_1H 2006TAZT NUCLEAR REACTIONS $^1\text{H}(^{32}\text{Mg}, ^{32}\text{Mg}')$, E=56 MeV / nucleon; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, particle angular distributions. $^{32}\text{Mg}(\text{p}, \text{p}')$; inverse kinematics. CONF Tokyo (SENUF 06),P153,Takeuchi
- 2007EL10 NUCLEAR REACTIONS $^1\text{H}(^{28}\text{Ne}, ^{28}\text{Ne}')$, $(^{28}\text{Ne}, ^{27}\text{Ne})$, E=51.3 MeV / nucleon; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin. $^{27,28}\text{Ne}$; deduced level energies. JOUR ZSTNE 150 99
- 2007ST29 NUCLEAR REACTIONS $^1\text{H}(\text{polarized d, d})$, E=130 MeV; measured cross sections, angular distributions, vector and tensor analyzing powers. JOUR PRVCA 76 057001
- 2008BR01 NUCLEAR REACTIONS $^1\text{H}(\text{polarized n, n})$, E=12 MeV; measured analyzing power $A_y(\theta)$ and compared with various model predictions. JOUR PYLBB 660 161
- 2008LA01 NUCLEAR REACTIONS $^1\text{H}, ^{12}\text{C}(^{10}\text{Be}, ^{10}\text{Be})$, E=39.1 MeV / nucleon; $^1\text{H}, ^{12}\text{C}(^{11}\text{Be}, ^{11}\text{Be})$, E=38.4 MeV / nucleon; measured $\sigma(\theta)$. Comparison with optical models including a virtual coupling potential. JOUR PYLBB 658 198
- 2008PE02 NUCLEAR REACTIONS $^1\text{H}(^{18}\text{Ne}, ^{18}\text{Ne})$, $(^{18}\text{Ne}, ^{18}\text{Ne}')$, E=66 MeV; measured $\sigma(\theta)$, proton spectra. ^{19}Na deduced levels, J, π . Microscopic cluster model and R-matrix analysis. JOUR PYLBB 659 864

A=2

- ^2_0n 2007CL04 NUCLEAR REACTIONS $^2\text{H}, ^{12}\text{C}, ^{27}\text{Al}, ^{63}\text{Cu}, ^{197}\text{Au}(\text{e}, \text{e}^-\pi^+)$, E=4.021-5.767 GeV; measured electron and pion energies. Deduced nuclear transparency. JOUR PRLTA 99 242502
- 2007SU25 NUCLEAR REACTIONS $^4\text{He}(\text{K}^-, \text{d})$, E at rest; measured particle spectra, particle-particle coincidences, Δd correlation analysis. JOUR PRVCA 76 068202
- 2007TE12 NUCLEAR REACTIONS $^2\text{H}(^8\text{He}, ^3\text{He})$, $E \approx 25$ MeV / nucleon; measured $^3\text{He}, ^3\text{H}$ energies, yields and coincidences. Deduced ^7H missing mass spectrum, limit for the reaction exit channel populating a resonance lying 0-3 MeV above decay threshold. $^4\text{He}(^6\text{He}, 2\alpha)$, E=25 MeV / nucleon; measured $E\alpha$, $I\alpha$, $\alpha\alpha$ -coin, angular and momentum distributions. Deduced cross section. JOUR ZSTNE 150 61
- ^2_1H 2007AT06 NUCLEAR REACTIONS $^2\text{H}(\text{n, n})$, E=low; measured ultra cold neutron production cross sections. JOUR PRLTA 99 262502
- 2007EL10 NUCLEAR REACTIONS $^1\text{H}(^{28}\text{Ne}, ^{28}\text{Ne}')$, $(^{28}\text{Ne}, ^{27}\text{Ne})$, E=51.3 MeV / nucleon; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin. $^{27,28}\text{Ne}$; deduced level energies. JOUR ZSTNE 150 99
- 2007FR24 NUCLEAR REACTIONS $^2\text{H}(\text{n, n}')$, E=thermal; measured ultracold neutron yield. JOUR ZAANE 34 119

KEYNUMBERS AND KEYWORDS

A=2 (*continued*)

- 2008LI03 NUCLEAR REACTIONS $^1\text{H}(^8\text{Li}, ^7\text{Li})$, $E=39.8$ MeV; measured particle energies and yields. $^8\text{Li}(p, d)$, $E(\text{cm})=4.0$ MeV; deduced cross sections and backward angular distributions. JOUR CPLEE 25 455
- 2008M002 NUCLEAR REACTIONS $^2\text{H}(^{56}\text{Ni}, ^{56}\text{Ni})$, $E=50$ MeV / nucleon; measured deuteron recoil energies and yields. ^{56}Ni ; deduced isoscalar giant monopole and giant quadrupole resonance centroids and angular distributions. JOUR PRLTA 100 042501
- 2008SA03 NUCLEAR REACTIONS $^1\text{H}(^{19}\text{C}, ^{18}\text{C})$, $(^{19}\text{C}, ^{16}\text{C})$, $(^{17}\text{C}, ^{16}\text{C})$, $E=70$ MeV / nucleon; measured σ , $\sigma(\theta)$, relative energy spectra. $^{17,19}\text{C}$ deduced level energies, J , π using DWBA analysis. JOUR PYLBB 660 320

A=3

- ^3n 2008SA01 NUCLEAR REACTIONS $^4\text{He}(K^-, p)$, E at rest; measured charged-particle and proton momenta spectra and missing mass spectrum; deduced upper limit for a strange tribaryon state. JOUR PYLBB 659 107
- ^3H 2008XI03 NUCLEAR REACTIONS $^3\text{H}(p, p)$, $E=1.4-3.4$ MeV; measured proton energies, yields, σ at backward angle. JOUR NIMBE 266 705
- ^3He 2007AN34 NUCLEAR REACTIONS $^4\text{He}(\pi^-, \pi^-)$, $(\pi^-, \pi^-\gamma)$, (π^-, π^-n) , $E=106$ MeV; measured $E\gamma$, $I\gamma$, $\sigma(\theta)$, branching ratios using a streamer chamber. JOUR ZAANE 34 255
- 2007ES07 NUCLEAR MOMENTS ^3He ; measured precessional frequency in magnetic field; deduced dressed spin effects of polarized ^3He . Proposed measurement for neutron electric dipole moment. JOUR PRVCA 76 051302
- 2008AM01 NUCLEAR REACTIONS $\text{Fe}, \text{Ni}(p, X)^3\text{He} / ^4\text{He} / ^{21}\text{Ne} / ^{22}\text{Ne} / ^{36}\text{Ar} / ^{38}\text{Ar}$, $E < 1.6$ GeV; measured cross sections and excitation functions. JOUR NIMBE 266 2
- 2008IM01 NUCLEAR REACTIONS $^2\text{H}(d, n)$, E not given; measured muon-catalyzed fusion neutron emission time spectra. JOUR PYLBB 658 120

A=4

- ^4H 2008SA03 NUCLEAR REACTIONS $^1\text{H}(^{19}\text{C}, ^{18}\text{C})$, $(^{19}\text{C}, ^{16}\text{C})$, $(^{17}\text{C}, ^{16}\text{C})$, $E=70$ MeV / nucleon; measured σ , $\sigma(\theta)$, relative energy spectra. $^{17,19}\text{C}$ deduced level energies, J , π using DWBA analysis. JOUR PYLBB 660 320
- ^4He 2007AN34 NUCLEAR REACTIONS $^4\text{He}(\pi^-, \pi^-)$, $(\pi^-, \pi^-\gamma)$, (π^-, π^-n) , $E=106$ MeV; measured $E\gamma$, $I\gamma$, $\sigma(\theta)$, branching ratios using a streamer chamber. JOUR ZAANE 34 255
- 2007SC46 NUCLEAR REACTIONS $^4\text{He}(^9\text{Be}, ^9\text{Be})$, $E=30$ MeV; $^4\text{He}(^{18}\text{O}, ^{18}\text{O})$, $E=56$ MeV; measured elastic scattering excitation functions. JOUR ZSTNE 150 53

KEYNUMBERS AND KEYWORDS

A=4 (continued)

2008AM01 NUCLEAR REACTIONS Fe, Ni(p, X)³He / ⁴He / ²¹Ne / ²²Ne / ³⁶Ar / ³⁸Ar, E < 1.6 GeV; measured cross sections and excitation functions. JOUR NIMBE 266 2

A=5

No references found

A=6

⁶He 2007MU17 NUCLEAR MOMENTS ^{6,8}He; measured isotope shifts. ^{6,8}He; Deduced nuclear charge radii. JOUR PRLTA 99 252501

2008YA05 NUCLEAR REACTIONS ^{6,7}Li(⁷Li, ⁷Be), E=455 MeV; measured charged particle spectra, (particle)(particle)-coin, branching ratios. ^{6,7}He; measured decay channels, dipole resonances for charged particle decay. JOUR PRVCA 77 021303

⁶Li 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

⁶Be 2008CU01 error - unable to convert to LaTeX : Illegal close bracket JOUR PRVCA 77 021301

A=7

⁷H 2007CA47 NUCLEAR REACTIONS ¹²C(⁸He, ⁷H), E=15.4 MeV / nucleon; measured production $\sigma(\theta)$. ⁷H; deduced resonance parameters. JOUR ZSTNE 150 9

2007TE12 NUCLEAR REACTIONS ²H(⁸He, ³He), E \approx 25 MeV / nucleon; measured ³He, ³H energies, yields and coincidences. Deduced ⁷H missing mass spectrum, limit for the reaction exit channel populating a resonance lying 0-3 MeV above decay threshold. ⁴He(⁶He, 2 α), E=25 MeV / nucleon; measured E α , I α , $\alpha\alpha$ -coin, angular and momentum distributions. Deduced cross section. JOUR ZSTNE 150 61

KEYNUMBERS AND KEYWORDS

A=7 (continued)

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|-----------------|----------|--|
| ${}^7\text{He}$ | 2008YA05 | NUCLEAR REACTIONS ${}^6,7\text{Li}({}^7\text{Li}, {}^7\text{Be})$, $E=455$ MeV; measured charged particle spectra, (particle)(particle)-coin, branching ratios. ${}^6,7\text{He}$; measured decay channels, dipole resonances for charged particle decay. JOUR PRVCA 77 021303 |
| ${}^7\text{Li}$ | 2007BR30 | NUCLEAR REACTIONS ${}^9\text{Be}({}^6\text{Li}, {}^6\text{Li})$, $E=60$ MeV; measured charged particle spectra, branching ratios, $\alpha\alpha$ -correlations. ${}^7\text{Li}$, ${}^9\text{Be}$; deduced excitation energies. JOUR PRVCA 76 054605 |
| | 2007NA31 | NUCLEAR REACTIONS ${}^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. ${}^6,7,8\text{Li}$, ${}^9,10,11,12\text{Be}$, ${}^{10,11,12,13}\text{B}$, ${}^{11,12,13,14,15}\text{C}$, ${}^{13,14,15,16,17}\text{N}$, ${}^{15,16,17,18,19}\text{O}$, ${}^{17,18,19,20,21}\text{F}$, ${}^{19,20,21,22,23}\text{Ne}$, ${}^{22,23,24,25}\text{Na}$, ${}^{23,24,25,26,27}\text{Mg}$, ${}^{25,26,27,28,29,30}\text{Al}$, ${}^{28,29,30,31,32}\text{Si}$, ${}^{30,31,32,33,34}\text{P}$, ${}^{32,33,34,35,36,37,38}\text{S}$, ${}^{34,35,36,37,38,39,40}\text{Cl}$, ${}^{36,37,38,39,40,41,42,43}\text{Ar}$, ${}^{39,40,41,42,43,44,45}\text{K}$, ${}^{41,42,43,44,45,46,47}\text{Ca}$, ${}^{43,44,45,46,47,48,49,50}\text{Sc}$, ${}^{45,46,47,48,49,50,51,52}\text{Ti}$, ${}^{46,47,48,49,50,51,52,53,54,55}\text{V}$, ${}^{49,50,51,52,53,54,55,56,57}\text{Cr}$, ${}^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, ${}^{55,56,57,58,59,60,61,62}\text{Fe}$, ${}^{57,58,59,60,61,62,63,64,65}\text{Co}$, ${}^{59,60,61,62,63,64,65,66,67}\text{Ni}$, ${}^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, ${}^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, ${}^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, ${}^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, ${}^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, ${}^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, ${}^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, ${}^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609 |
| | 2008AR01 | RADIOACTIVITY ${}^7\text{Be}(\text{EC})$; measured solar neutrino spectrum with the Borexino detector and compared to solar models. JOUR PYLBB 658 101 |
| | 2008LI03 | NUCLEAR REACTIONS ${}^1\text{H}({}^8\text{Li}, {}^7\text{Li})$, $E=39.8$ MeV; measured particle energies and yields. ${}^8\text{Li}(p, d)$, $E(\text{cm})=4.0$ MeV; deduced cross sections and backward angular distributions. JOUR CPLEE 25 455 |
| ${}^7\text{Be}$ | 2007BR32 | NUCLEAR REACTIONS ${}^3\text{He}(\alpha, \gamma){}^7\text{Be}$, $E(\text{cm})=0.33-1.23$ MeV; measured $E\gamma$, $I\gamma$, cross sections; deduced astrophysical S-factors. JOUR PRVCA 76 055801 |
| | 2008AR01 | RADIOACTIVITY ${}^7\text{Be}(\text{EC})$; measured solar neutrino spectrum with the Borexino detector and compared to solar models. JOUR PYLBB 658 101 |

A=8

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| ${}^8\text{He}$ | 2007MU17 | NUCLEAR MOMENTS ${}^6,8\text{He}$; measured isotope shifts. ${}^6,8\text{He}$; Deduced nuclear charge radii. JOUR PRLTA 99 252501 |
| ${}^8\text{Li}$ | 2007GA58 | NUCLEAR REACTIONS ${}^9\text{Be}({}^{20}\text{Ne}, {}^{21}\text{Na})$, $E=63$ MeV / nucleon; measured cross sections, $E\gamma$, $I\gamma$, $\gamma\gamma$ -, $({}^{21}\text{Na})\gamma$ -coin, momentum distributions. ${}^{21}\text{Na}$; deduced levels, J, π . JOUR PRVCA 76 061302 |

KEYNUMBERS AND KEYWORDS

A=8 (*continued*)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- ^{8}Be 2008KA04 NUCLEAR REACTIONS $^2\text{H}(^9\text{Li}, t)$, $(^9\text{Li}, d)$, $E=1.68$ MeV / nucleon; measured $\sigma(\theta)$; deduced spectroscopic factors. JOUR PYLBB 660 26
- ^{8}Be 2007BA75 RADIOACTIVITY $^8\text{B}(\beta^+)$ [from $^3\text{He}(^6\text{Li}, n)$, $E=15.5$ MeV]; measured delayed α particles, branching ratio to the ground state of ^8Be . JOUR PRVCA 76 055806
- 2008VI02 RADIOACTIVITY ^8Be [from $^7\text{Li}(p, \gamma)$, $E=441$ keV]; measured angular distribution of the e^+e^- pairs from the M1 decay of the 17.64 MeV state. Compared results to model calculations and previous measurement. JOUR APOBB 39 483
- ^8B 2007BA75 RADIOACTIVITY $^8\text{B}(\beta^+)$ [from $^3\text{He}(^6\text{Li}, n)$, $E=15.5$ MeV]; measured delayed α particles, branching ratio to the ground state of ^8Be . JOUR PRVCA 76 055806

A=9

- ^9He 2007G041 NUCLEAR REACTIONS $^2\text{H}(^8\text{He}, p)$, $E=25$ MeV / nucleon; measured proton and ^8He energies. ^9He ; deduced resonance parameters. JOUR ZSTNE 150 23
- ^9Li 2007MA91 RADIOACTIVITY $^9\text{Li}(\beta^-)$; measured delayed $E\alpha$, $I\alpha$, angular distributions. ^9Be deduced decay channels. JOUR ZSTNE 150 137
- 2008KA04 NUCLEAR REACTIONS $^2\text{H}(^9\text{Li}, t)$, $(^9\text{Li}, d)$, $E=1.68$ MeV / nucleon; measured $\sigma(\theta)$; deduced spectroscopic factors. JOUR PYLBB 660 26
- ^9Be 2007BR30 NUCLEAR REACTIONS $^9\text{Be}(^6\text{Li}, ^6\text{Li})$, $E=60$ MeV; measured charged particle spectra, branching ratios, $\alpha\alpha$ -correlations. ^7Li , ^9Be ; deduced excitation energies. JOUR PRVCA 76 054605
- 2007MA91 RADIOACTIVITY $^9\text{Li}(\beta^-)$; measured delayed $E\alpha$, $I\alpha$, angular distributions. ^9Be deduced decay channels. JOUR ZSTNE 150 137

KEYNUMBERS AND KEYWORDS

A=9 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- 2007ONZZ NUCLEAR REACTIONS $^9\text{Be}(^{18}\text{C}, ^{18}\text{C}')$, $(^{18}\text{C}, 2n^{16}\text{C}')$, $E=79$ MeV / nucleon; $^9\text{Be}(^{16}\text{C}, ^{16}\text{C}')$, $E=40, 72$ MeV / nucleon; measured $E\gamma$, $I\gamma$, angular distributions, and lifetimes using the RSM method. $^{18,16}\text{C}$;
deduced $B(E2)$. REPT RIKEN-NC-NP-16,Ong
- 2007VE13 NUCLEAR REACTIONS $^9\text{Be}(^7\text{Li}, ^7\text{Li})$, $E=17, 19, 21$ MeV; $^9\text{Be}(^7\text{Li}, ^7\text{Li})$, $E=15.75, 24.00, 30.00$ MeV; measured elastic scattering $\sigma(\theta)$.
Compared results to optical model calculations. $^9\text{Be}(^7\text{Li}, X)$, $E=15.75, 24.00, 30.00$ MeV; measured $E\alpha$, $I\alpha$ from compound nuclear evaporation, fusion cross sections. JOUR ZSTNE 150 75
- 2008K002 NUCLEAR REACTIONS $^{12}\text{C}(n, n')$, (n, α) , $E < 14.2$ MeV; measured $E\alpha$, $I\alpha$, $\sigma(\theta)$. Compared results to model calculations. JOUR JNSTA 45 103
- ^9B 2008CU01 error - unable to convert to LaTeX : Illegal close bracket JOUR PRVCA 77 021301

A=10

- ^{10}Li 2008CH07 NUCLEAR REACTIONS $^9\text{Be}(^{48}\text{Ca}, X)$, $E=60$ MeV / nucleon; measured neutron decay energy spectra, (fragment)(neutron)-coin using sequential neutron decay spectroscopy technique. ^{10}Li , $^{12,13}\text{Be}$, ^{23}O observed unbound states. JOUR NUPAB 801 101
- ^{10}Be 2007MI46 NUCLEAR REACTIONS $^{12,14}\text{C}(^6\text{He}, 2\alpha)$, $E=35$ MeV; measured $E\alpha$, $I\alpha$, $\alpha\alpha$ -coin. ^{14}C ; deduced level energies. JOUR ZSTNE 150 41

KEYNUMBERS AND KEYWORDS

A=10 (*continued*)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- ^{10}B 2008TE02 NUCLEAR REACTIONS $^9\text{Be}(^{30}\text{Mg}, ^{29}\text{Mg})$, E=85.8 MeV / nucleon; $^9\text{Be}(^{32}\text{Mg}, ^{31}\text{Mg})$, E=75.7 MeV / nucleon; measured E_γ , I_γ , (fragment) γ -coin, cross sections; deduced spectroscopic factors. $^{29,31}\text{Mg}$; deduced levels, angular momenta, half-lives. Single-particle knockout reaction. JOUR PRVCA 77 014316
- ^{10}B 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- ^{10}C 2008CU01 error - unable to convert to LaTeX : Illegal close bracket JOUR PRVCA 77 021301

A=11

- ¹¹Be 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ¹¹B 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ¹¹C 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=12

- ^{12}Be 2007CH81 NUCLEAR REACTIONS $^{12}\text{C}(^{12}\text{Be}, \text{X})$, $E=50$ MeV / nucleon; measured charged particle spectra. ^{12}Be ; measured breakup cross sections for decay modes $\alpha+^8\text{He}$, $^6\text{He}+^6\text{He}$, $^3\text{H}+^9\text{Li}$, $\text{p}+^{11}\text{Li}$; deduced excitation energies. JOUR PRVCA 76 064313
- 2007MI46 NUCLEAR REACTIONS $^{12,14}\text{C}(^6\text{He}, 2\alpha)$, $E=35$ MeV; measured $E\alpha$, $I\alpha$, $\alpha\alpha$ -coin. ^{14}C ; deduced level energies. JOUR ZSTNE 150 41
- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(\text{p}, \text{X})$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- 2008CH07 NUCLEAR REACTIONS $^9\text{Be}(^{48}\text{Ca}, \text{X})$, $E=60$ MeV / nucleon; measured neutron decay energy spectra, (fragment)(neutron)-coin using sequential neutron decay spectroscopy technique. ^{10}Li , $^{12,13}\text{Be}$, ^{23}O observed unbound states. JOUR NUPAB 801 101
- ^{12}B 2007CL04 NUCLEAR REACTIONS ^2H , ^{12}C , ^{27}Al , ^{63}Cu , $^{197}\text{Au}(\text{e}, \text{e}'\pi^+)$, $E=4.021\text{-}5.767$ GeV; measured electron and pion energies. Deduced nuclear transparency. JOUR PRLTA 99 242502
- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(\text{p}, \text{X})$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- ^{12}C 2007B049 NUCLEAR REACTIONS $^{10}\text{B}(^3\text{He}, \text{p})$, $E=2.45$ MeV; measured $E\alpha$, $I\alpha$ from the triple α breakup of ^{12}C from ground state upto 18 MeV. JOUR ZSTNE 150 207

KEYNUMBERS AND KEYWORDS

A=12 (continued)

- 2007LA37 NUCLEAR REACTIONS $^2\text{H}(^{15}\text{N}, n\alpha)$, $E=60$ MeV; measured ^{12}C energies, particle coincidences, momentum. $^{15}\text{N}(p, \alpha)^{12}\text{C}$, $E(\text{cm})=19.2-576.0$ MeV; deduced angular distributions, excitation functions, astrophysical S-factors using Trojan horse method. JOUR PRVCA 76 065804
- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- 2008K002 NUCLEAR REACTIONS $^{12}\text{C}(n, n')$, (n, α) , $E < 14.2$ MeV; measured $E\alpha$, $I\alpha$, $\sigma(\theta)$. Compared results to model calculations. JOUR JNSTA 45 103
- 2008LA01 NUCLEAR REACTIONS ^1H , $^{12}\text{C}(^{10}\text{Be}, ^{10}\text{Be})$, $E=39.1$ MeV / nucleon; ^1H , $^{12}\text{C}(^{11}\text{Be}, ^{11}\text{Be})$, $E=38.4$ MeV / nucleon; measured $\sigma(\theta)$. Comparison with optical models including a virtual coupling potential. JOUR PYLBB 658 198
- 2008OH02 NUCLEAR REACTIONS ^{56}Fe , ^{89}Y , $^{208}\text{Pb}(n, n)$, $E=96$ MeV; measured $\sigma(\theta)$; ^{12}C , ^{16}O ; systematics, compared with Wick's limit. JOUR PRVCA 77 024605
- ^{12}N 2008D002 NUCLEAR REACTIONS $^{12}\text{C}(p, n)$, $E=296$ MeV; measured cross sections and polarization transfer observables as a function of excitation energy. JOUR JUPSA 77 014201

A=13

- ^{13}Be 2008CH07 NUCLEAR REACTIONS $^9\text{Be}(^{48}\text{Ca}, X)$, $E=60$ MeV / nucleon; measured neutron decay energy spectra, (fragment)(neutron)-coin using sequential neutron decay spectroscopy technique. ^{10}Li , $^{12,13}\text{Be}$, ^{23}O observed unbound states. JOUR NUPAB 801 101

A=13 (continued)

- ¹³B 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ¹³C 2007NA26 NUCLEAR REACTIONS ¹⁸O(n, γ), E=thermal; measured E γ , I γ , $\gamma\gamma$ -coin, cross sections; deduced levels, J, π , configurations, B(E1). ¹³C, ^{17,19}O; systematics. JOUR PRVCA 76 051301
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ¹³N 2007CA47 NUCLEAR REACTIONS ¹²C(⁸He, ⁷H), E=15.4 MeV / nucleon; measured production $\sigma(\theta)$. ⁷H; deduced resonance parameters. JOUR ZSTNE 150 9
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=13 (continued)

- 2008ZE01 NUCLEAR REACTIONS $^{13}\text{C}(^3\text{He}, t)$, $E=420$ MeV; measured charged particles, $\sigma(\theta)$; deduced $B(\text{GT})$, levels, J , π . $^{13}\text{C}(p, n)$; deduced electron capture rates in stellar environments as a function of temperature. JOUR PRVCA 77 024307

A=14

- ^{14}C 2007MI46 NUCLEAR REACTIONS $^{12,14}\text{C}(^6\text{He}, 2\alpha)$, $E=35$ MeV; measured $E\alpha$, $I\alpha$, $\alpha\alpha$ -coin. ^{14}C ; deduced level energies. JOUR ZSTNE 150 41
- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- ^{14}N 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609

A=15

- ¹⁵C 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2008RE01 NUCLEAR REACTIONS ¹⁴C(n, γ), E=10-1000 keV; measured neutron spectra, neutron flux, E γ , I γ , cross sections; deduced reaction rate. ¹⁵C; measured half-life. JOUR PRVCA 77 015804
- ¹⁵N 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ¹⁵O 2007DE61 NUCLEAR REACTIONS ¹H(¹⁸F, α), E=13.8 MeV; measured E α , I α , cross sections. JOUR ZSTNE 150 211
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=16

- ¹⁶C 2007ONZZ NUCLEAR REACTIONS ⁹Be(¹⁸C, ¹⁸C'), (¹⁸C, 2n¹⁶C'), E=79 MeV / nucleon; ⁹Be(¹⁶C, ¹⁶C'), E=40, 72 MeV / nucleon; measured E γ , I γ , angular distributions, and lifetimes using the RSM method. ^{18,16}C; deduced B(E2). REPT RIKEN-NC-NP-16,Ong
- ¹⁶N 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ¹⁶O 2007AM10 NUCLEAR REACTIONS ¹²C(⁷Be, ³He), E=34 MeV; measured σ and angular distributions. JOUR ZSTNE 150 1
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2007RA36 RADIOACTIVITY ¹⁸Ne(2p); measured decay proton energies and yields. JOUR ZSTNE 150 169
- 2008C003 NUCLEAR REACTIONS ¹⁹F(p, γ), E(cm)=200-700 keV; measured E γ , I γ , resonance parameters, interference signs. ²⁰Ne, ¹⁶O, ¹⁹F; deduced levels, J, π . JOUR PRVCA 77 015802
- 2008OH02 NUCLEAR REACTIONS ⁵⁶Fe, ⁸⁹Y, ²⁰⁸Pb(n, n), E=96 MeV; measured $\sigma(\theta)$; ¹²C, ¹⁶O; systematics, compared with Wick's limit. JOUR PRVCA 77 024605

A=17

- ¹⁷C 2008SA03 NUCLEAR REACTIONS ¹H(¹⁹C, ¹⁸C), (¹⁹C, ¹⁶C), (¹⁷C, ¹⁶C), E=70 MeV / nucleon; measured σ , $\sigma(\theta)$, relative energy spectra. ^{17,19}C deduced level energies, J, π using DWBA analysis. JOUR PYLBB 660 320
- 2008SAZZ NUCLEAR REACTIONS ¹H(¹⁷C, X), (¹⁹C, X), E=70 MeV / nucleon; measured fragment energies, yields, neutron-fragment-coinc, $\sigma(\theta)$. ¹⁷C, ¹⁹C; deduced levels, J, π . REPT RIKEN-NC-NP-18,Satou
- ¹⁷N 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ¹⁷O 2007NA26 NUCLEAR REACTIONS ¹⁸O(n, γ), E=thermal; measured E γ , I γ , $\gamma\gamma$ -coin, cross sections; deduced levels, J, π , configurations, B(E1). ¹³C, ^{17,19}O; systematics. JOUR PRVCA 76 051301
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=17 (continued)

¹⁷F 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=18

¹⁸C 2007ONZZ NUCLEAR REACTIONS ⁹Be(¹⁸C, ¹⁸C'), (¹⁸C, 2n¹⁶C'), E=79 MeV / nucleon; ⁹Be(¹⁶C, ¹⁶C'), E=40, 72 MeV / nucleon; measured E_γ, I_γ, angular distributions, and lifetimes using the RSM method. ^{18,16}C; deduced B(E2). REPT RIKEN-NC-NP-16,Ong

¹⁸O 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=18 (continued)

- ¹⁸F 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ¹⁸Ne 2007RA36 RADIOACTIVITY ¹⁸Ne(2p); measured decay proton energies and yields. JOUR ZSTNE 150 169

A=19

- ¹⁹C 2008SA03 NUCLEAR REACTIONS ¹H(¹⁹C, ¹⁸C), (¹⁹C, ¹⁶C), (¹⁷C, ¹⁶C), E=70 MeV / nucleon; measured σ , $\sigma(\theta)$, relative energy spectra. ^{17,19}C deduced level energies, J, π using DWBA analysis. JOUR PYLBB 660 320
- 2008SAZZ NUCLEAR REACTIONS ¹H(¹⁷C, X), (¹⁹C, X), E=70 MeV / nucleon; measured fragment energies, yields, neutron-fragment-coinc, $\sigma(\theta)$. ¹⁷C, ¹⁹C; deduced levels, J, π . REPT RIKEN-NC-NP-18,Satou
- ¹⁹O 2007NA26 NUCLEAR REACTIONS ¹⁸O(n, γ), E=thermal; measured E γ , I γ , $\gamma\gamma$ -coin, cross sections; deduced levels, J, π , configurations, B(E1). ¹³C, ^{17,19}O; systematics. JOUR PRVCA 76 051301
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=19 (continued)

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| ^{19}F | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| | 2008C003 | <p>NUCLEAR REACTIONS $^{19}\text{F}(p, \gamma)$, $E(\text{cm})=200-700$ keV; measured $E\gamma$, $I\gamma$, resonance parameters, interference signs. ^{20}Ne, ^{16}O, ^{19}F;</p> <p>deduced levels, J, π. JOUR PRVCA 77 015802</p> |
| ^{19}Ne | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{19}Na | 2008PE02 | <p>NUCLEAR REACTIONS $^1\text{H}(^{18}\text{Ne}, ^{18}\text{Ne})$, $(^{18}\text{Ne}, ^{18}\text{Ne}')$, $E=66$ MeV; measured $\sigma(\theta)$, proton spectra. ^{19}Na deduced levels, J, π. Microscopic cluster model and R-matrix analysis. JOUR PYLBB 659 864</p> |

A=20

- ²⁰F 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ²⁰Ne 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2008C003 NUCLEAR REACTIONS ¹⁹F(p, γ), E(cm)=200-700 keV; measured E γ , I γ , resonance parameters, interference signs. ²⁰Ne, ¹⁶O, ¹⁹F; deduced levels, J, π . JOUR PRVCA 77 015802

A=21

- ²¹F 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=21 (continued)

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| ^{21}Ne | 2007NA31 | NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609 |
| | 2008AM01 | NUCLEAR REACTIONS Fe, Ni(p, X) ^3He / ^4He / ^{21}Ne / ^{22}Ne / ^{36}Ar / ^{38}Ar , $E < 1.6$ GeV; measured cross sections and excitation functions. JOUR NIMBE 266 2 |
| ^{21}Na | 2007GA58 | NUCLEAR REACTIONS $^9\text{Be}(^{20}\text{Ne}, ^{21}\text{Na})$, $E=63$ MeV / nucleon; measured cross sections, $E\gamma$, $I\gamma$, $\gamma\gamma$ -, (^{21}Na) γ -coin, momentum distributions. ^{21}Na ; deduced levels, J, π . JOUR PRVCA 76 061302 |
| | 2008MU05 | ATOMIC MASSES $^{21,22,23}\text{Na}$, $^{22,24}\text{Mg}$, $^{37,39}\text{K}$; measured and evaluated masses using the ISOLTRAP Penning trap mass spectrometer. JOUR ZAANE 35 31 |

A=22

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| ^{22}Ne | 2007NA31 | NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609 |
| | 2008AM01 | NUCLEAR REACTIONS Fe, Ni(p, X) ^3He / ^4He / ^{21}Ne / ^{22}Ne / ^{36}Ar / ^{38}Ar , $E < 1.6$ GeV; measured cross sections and excitation functions. JOUR NIMBE 266 2 |
| | 2008LI02 | RADIOACTIVITY $^{22}\text{Na}(\beta^+)$; measured $E\gamma$, $I\gamma$. Deduced evidence for temperature dependence of half life for decays in metallic environment. JOUR CPLEE 25 70 |

KEYNUMBERS AND KEYWORDS

A=22 (continued)

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| ^{22}Na | 2007NA31 | NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609 |
| | 2008LI02 | RADIOACTIVITY $^{22}\text{Na}(\beta^+)$; measured $E\gamma$, $I\gamma$. Deduced evidence for temperature dependence of half life for decays in metallic environment. JOUR CPLEE 25 70 |
| | 2008MU05 | ATOMIC MASSES $^{21,22,23}\text{Na}$, $^{22,24}\text{Mg}$, $^{37,39}\text{K}$; measured and evaluated masses using the ISOLTRAP Penning trap mass spectrometer. JOUR ZAANE 35 31 |
| ^{22}Mg | 2007HE30 | NUCLEAR REACTIONS $^1\text{H}(^{22}\text{Mg}, p)$, $(^{22}\text{Mg}, \gamma)$, $E=4.38$ MeV / nucleon; measured E_p , I_p , angular distributions; deduced reaction rate using R-matrix analysis. ^{23}Al ; deduced levels, J , π , B(E2), B(M1). ^{23}Ne ; systematics. JOUR PRVCA 76 055802 |
| | 2008MU05 | ATOMIC MASSES $^{21,22,23}\text{Na}$, $^{22,24}\text{Mg}$, $^{37,39}\text{K}$; measured and evaluated masses using the ISOLTRAP Penning trap mass spectrometer. JOUR ZAANE 35 31 |

A=23

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| ^{23}O | 2008CH07 | NUCLEAR REACTIONS $^9\text{Be}(^{48}\text{Ca}, X)$, $E=60$ MeV / nucleon; measured neutron decay energy spectra, (fragment)(neutron)-coin using sequential neutron decay spectroscopy technique. ^{10}Li , $^{12,13}\text{Be}$, ^{23}O observed unbound states. JOUR NUPAB 801 101 |
| ^{23}Ne | 2007HE30 | NUCLEAR REACTIONS $^1\text{H}(^{22}\text{Mg}, p)$, $(^{22}\text{Mg}, \gamma)$, $E=4.38$ MeV / nucleon; measured E_p , I_p , angular distributions; deduced reaction rate using R-matrix analysis. ^{23}Al ; deduced levels, J , π , B(E2), B(M1). ^{23}Ne ; systematics. JOUR PRVCA 76 055802 |

KEYNUMBERS AND KEYWORDS

A=23 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- ^{23}Na 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- 2008MU05 ATOMIC MASSES $^{21,22,23}\text{Na}$, $^{22,24}\text{Mg}$, $^{37,39}\text{K}$; measured and evaluated masses using the ISOLTRAP Penning trap mass spectrometer. JOUR ZAANE 35 31
- ^{23}Mg 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- ^{23}Al 2007HE30 NUCLEAR REACTIONS $^1\text{H}(^{22}\text{Mg}, p)$, $(^{22}\text{Mg}, \gamma)$, $E=4.38$ MeV / nucleon; measured E_p , I_p , angular distributions; deduced reaction rate using R-matrix analysis. ^{23}Al ; deduced levels, J, π , B(E2), B(M1). ^{23}Ne ; systematics. JOUR PRVCA 76 055802

A=24

- ²⁴Ne 2007BE66 NUCLEAR REACTIONS ²⁰⁸Pb(²⁴Ne, X), E=7.9 MeV / nucleon; measured E γ , I γ , (particle) γ -coin. ^{24,25}Ne; deduced levels. JOUR ZSTNE 150 83
- ²⁴Na 2007LU19 NUCLEAR REACTIONS ²⁷Al(n, α), E=13.5-14.8 MeV; ^{96,98,104}Ru(n, 2n), E=13.5-14.8 MeV; ^{96,102,104}Ru(n, p)⁹⁶Tc / ^{96m}Tc / ^{102m}Tc / ¹⁰⁴Tc, E=13.5-14.8 MeV; ^{96,102,104}Ru(n, α)^{93m}Mo / ⁹⁹Mo / ¹⁰¹Mo, E=13.5-14.8 MeV; ⁹⁶Ru(n, d)^{95m}Tc, E=13.5-14.8 MeV; measured E γ , I γ , cross sections. JOUR PRVCA 76 057601
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ²⁴Mg 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2008MU05 ATOMIC MASSES ^{21,22,23}Na, ^{22,24}Mg, ^{37,39}K; measured and evaluated masses using the ISOLTRAP Penning trap mass spectrometer. JOUR ZAANE 35 31
- 2008SA04 NUCLEAR REACTIONS ²⁴Mg(²⁴Mg, ²⁴Mg'), ²⁴Mg(²⁴Mg, X)⁴⁵Ti / ⁴⁴Sc / ⁴²Ca / ⁴¹Ca / ⁴¹K / ³⁹K / ³⁸Ar / ³⁷Ar, E=91.72, 92.62 MeV; measured (fragment) γ -, (charged particle) γ - and $\gamma\gamma$ -coin; deduced ON / OFF resonance yield ratios for the inelastic and fusion evaporation channels. ON resonance formation of ⁴⁸Cr discussed. ⁴⁵Ti deduced levels, J, π . JOUR NUPAB 801 1

KEYNUMBERS AND KEYWORDS

A=24 (continued)

²⁴Al 2007VI16 NUCLEAR REACTIONS ²⁴Mg(³He, t), E=30 MeV / nucleon; measured triton spectra, angular distributions. ²⁴Al; deduced resonance energies, reaction rates. ²³Mg(p, γ)²⁴Al; resonance parameters. JOUR PRVCA 76 065803

A=25

²⁵Ne 2007BE66 NUCLEAR REACTIONS ²⁰⁸Pb(²⁴Ne, X), E=7.9 MeV / nucleon; measured E γ , I γ , (particle) γ -coin. ^{24,25}Ne; deduced levels. JOUR ZSTNE 150 83

²⁵Na 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

²⁵Mg 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=25 (continued)

- ²⁵Al 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=26

- ²⁶Mg 2007MU20 NUCLEAR REACTIONS ²⁴Mg(t, p), E=1.65-3.40 MeV; measured $\sigma(\tau)$. Deduced resonance parameters. JOUR JNSTA 44 1484
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ²⁶Al 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=27

- ²⁷Ne 2007EL10 NUCLEAR REACTIONS ¹H(²⁸Ne, ²⁸Ne'), (²⁸Ne, ²⁷Ne), E=51.3 MeV / nucleon; measured E γ , I γ , $\gamma\gamma$ -coin. ^{27,28}Ne; deduced level energies. JOUR ZSTNE 150 99
- 2007GI17 NUCLEAR REACTIONS ²H(²⁶Ne, p), E=9.7 MeV / nucleon; measured E γ , I γ , (particle) γ -coin. ²⁷Ne; deduced levels, cross sections, and spectroscopic factors. JOUR ZSTNE 150 161
- ²⁷Mg 2007CL04 NUCLEAR REACTIONS ²H, ¹²C, ²⁷Al, ⁶³Cu, ¹⁹⁷Au(e, e' π^+), E=4.021-5.767 GeV; measured electron and pion energies. Deduced nuclear transparency. JOUR PRLTA 99 242502
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ²⁷Al 2007LI81 NUCLEAR REACTIONS ²⁷Al(⁶He, ⁶He'), E=9.5-13.4 MeV; ⁵¹V(⁷Be, ⁷Be'), E=26 MeV; measured reaction cross sections and angular distributions. Compared results to model calculations. JOUR ZSTNE 150 27
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=28

- ²⁸Ne 2007EL10 NUCLEAR REACTIONS ¹H(²⁸Ne, ²⁸Ne'), (²⁸Ne, ²⁷Ne), E=51.3 MeV / nucleon; measured E γ , I γ , $\gamma\gamma$ -coin. ^{27,28}Ne; deduced level energies. JOUR ZSTNE 150 99

KEYNUMBERS AND KEYWORDS

A=28 (continued)

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| | 2007ROZY | RADIOACTIVITY ^{28,29,30} Ne; measured E γ , I γ , $\gamma\gamma$ -coinc. ^{28,29,30} Ne; deduced levels, J, π . THESIS E Rodriguez-Vieitez, Berkeley University of California |
| ²⁸ Al | 2007NA31 | NUCLEAR REACTIONS ¹³⁶ Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8} Li, ^{9,10,11,12} Be, ^{10,11,12,13} B, ^{11,12,13,14,15} C, ^{13,14,15,16,17} N, ^{15,16,17,18,19} O, ^{17,18,19,20,21} F, ^{19,20,21,22,23} Ne, ^{22,23,24,25} Na, ^{23,24,25,26,27} Mg, ^{25,26,27,28,29,30} Al, ^{28,29,30,31,32} Si, ^{30,31,32,33,34} P, ^{32,33,34,35,36,37,38} S, ^{34,35,36,37,38,39,40} Cl, ^{36,37,38,39,40,41,42,43} Ar, ^{39,40,41,42,43,44,45} K, ^{41,42,43,44,45,46,47} Ca, ^{43,44,45,46,47,48,49,50} Sc, ^{45,46,47,48,49,50,51,52} Ti, ^{46,47,48,49,50,51,52,53,54,55} V, ^{49,50,51,52,53,54,55,56,57} Cr, ^{50,51,52,53,54,55,56,57,58,59,60} Mn, ^{55,56,57,58,59,60,61,62} Fe, ^{57,58,59,60,61,62,63,64,65} Co, ^{59,60,61,62,63,64,65,66,67} Ni, ^{60,61,62,63,64,65,66,67,68,69,70} Cu, ^{62,63,64,65,66,67,68,69,70,71,72} Zn, ^{66,67,68,69,70,71,72,73,74,75} Ga, ^{68,69,70,71,72,73,74,75,76,77} Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81} As, ^{72,73,74,75,76,77,78,79,80,81,82,83} Se, ^{74,75,76,77,78,79,80,81,82,83,84,85} Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88} Kr; measured cross sections. JOUR PRVCA 76 064609 |
| ²⁸ Si | 2007NA31 | NUCLEAR REACTIONS ¹³⁶ Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8} Li, ^{9,10,11,12} Be, ^{10,11,12,13} B, ^{11,12,13,14,15} C, ^{13,14,15,16,17} N, ^{15,16,17,18,19} O, ^{17,18,19,20,21} F, ^{19,20,21,22,23} Ne, ^{22,23,24,25} Na, ^{23,24,25,26,27} Mg, ^{25,26,27,28,29,30} Al, ^{28,29,30,31,32} Si, ^{30,31,32,33,34} P, ^{32,33,34,35,36,37,38} S, ^{34,35,36,37,38,39,40} Cl, ^{36,37,38,39,40,41,42,43} Ar, ^{39,40,41,42,43,44,45} K, ^{41,42,43,44,45,46,47} Ca, ^{43,44,45,46,47,48,49,50} Sc, ^{45,46,47,48,49,50,51,52} Ti, ^{46,47,48,49,50,51,52,53,54,55} V, ^{49,50,51,52,53,54,55,56,57} Cr, ^{50,51,52,53,54,55,56,57,58,59,60} Mn, ^{55,56,57,58,59,60,61,62} Fe, ^{57,58,59,60,61,62,63,64,65} Co, ^{59,60,61,62,63,64,65,66,67} Ni, ^{60,61,62,63,64,65,66,67,68,69,70} Cu, ^{62,63,64,65,66,67,68,69,70,71,72} Zn, ^{66,67,68,69,70,71,72,73,74,75} Ga, ^{68,69,70,71,72,73,74,75,76,77} Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81} As, ^{72,73,74,75,76,77,78,79,80,81,82,83} Se, ^{74,75,76,77,78,79,80,81,82,83,84,85} Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88} Kr; measured cross sections. JOUR PRVCA 76 064609 |
| | 2007PA42 | NUCLEAR REACTIONS ²⁸ Si(⁶ Li, X) ²⁹ Si / ³² S / ²⁹ P / ²⁸ Si, E=9, 13 MeV; measured production cross sections, E γ , I γ , angular distributions. JOUR PRVCA 76 054601 |
| ²⁸ S | 2007BU36 | NUCLEAR REACTIONS ⁹ Be(³⁷ Ca, X) ³⁶ Ca / ²⁸ S, E=61 MeV / nucleon; measured E γ , I γ , $\gamma\gamma$ -coinc. ³⁶ Ca, ²⁸ S; deduced levels. JOUR ZSTNE 150 89 |

A=29

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| ²⁹ Ne | 2007ROZY | RADIOACTIVITY ^{28,29,30} Ne; measured E γ , I γ , $\gamma\gamma$ -coinc. ^{28,29,30} Ne; deduced levels, J, π . THESIS E Rodriguez-Vieitez, Berkeley University of California |
| ²⁹ Mg | 2008TE02 | NUCLEAR REACTIONS ⁹ Be(³⁰ Mg, ²⁹ Mg), E=85.8 MeV / nucleon; ⁹ Be(³² Mg, ³¹ Mg), E=75.7 MeV / nucleon; measured E γ , I γ , (fragment) γ -coin, cross sections; deduced spectroscopic factors. ^{29,31} Mg; deduced levels, angular momenta, half-lives. Single-particle knockout reaction. JOUR PRVCA 77 014316 |

KEYNUMBERS AND KEYWORDS

A=29 (continued)

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| ^{29}Al | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{29}Si | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| | 2007PA42 | <p>NUCLEAR REACTIONS $^{28}\text{Si}(^6\text{Li}, X)^{29}\text{Si}$ / ^{32}S / ^{29}P / ^{28}Si, $E=9, 13$ MeV; measured production cross sections, $E\gamma$, $I\gamma$, angular distributions. JOUR PRVCA 76 054601</p> |
| ^{29}P | 2007PA42 | <p>NUCLEAR REACTIONS $^{28}\text{Si}(^6\text{Li}, X)^{29}\text{Si}$ / ^{32}S / ^{29}P / ^{28}Si, $E=9, 13$ MeV; measured production cross sections, $E\gamma$, $I\gamma$, angular distributions. JOUR PRVCA 76 054601</p> |

A=30

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| ^{30}Ne | 2007ROZY | <p>RADIOACTIVITY $^{28,29,30}\text{Ne}$; measured $E\gamma$, $I\gamma$, $\gamma\gamma$-coinc. $^{28,29,30}\text{Ne}$; deduced levels, J, π. THESIS E Rodriguez-Vieitez, Berkeley University of California</p> |
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A=30 (continued)

- ³⁰Al 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2007UE02 RADIOACTIVITY ^{30,31,32}Al(β^-); measured magnetic dipole and electric quadrupole moments using the β -NMR method. JOUR ZSTNE 150 185
- ³⁰Si 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2007UE02 RADIOACTIVITY ^{30,31,32}Al(β^-); measured magnetic dipole and electric quadrupole moments using the β -NMR method. JOUR ZSTNE 150 185
- ³⁰P 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=31

- ³¹Mg 2008TE02 NUCLEAR REACTIONS ⁹Be(³⁰Mg, ²⁹Mg), E=85.8 MeV / nucleon; ⁹Be(³²Mg, ³¹Mg), E=75.7 MeV / nucleon; measured E γ , I γ , (fragment) γ -coin, cross sections; deduced spectroscopic factors. ^{29,31}Mg; deduced levels, angular momenta, half-lives. Single-particle knockout reaction. JOUR PRVCA 77 014316
- ³¹Al 2007UE02 RADIOACTIVITY ^{30,31,32}Al(β^-); measured magnetic dipole and electric quadrupole moments using the β -NMR method. JOUR ZSTNE 150 185
- ³¹Si 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2007UE02 RADIOACTIVITY ^{30,31,32}Al(β^-); measured magnetic dipole and electric quadrupole moments using the β -NMR method. JOUR ZSTNE 150 185
- ³¹P 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ³¹S 2007WR01 NUCLEAR REACTIONS ³¹P(³He, t), E=20 MeV; measured charged particle spectra, angular distributions; ³¹S; deduced resonance energies, levels, J, π , ³⁰P(p, γ) reaction rates, width parameters, spectroscopic factors. Comparison with ³¹P level scheme. JOUR PRVCA 76 052802

A=32

^{32}Mg	2006TAZT	NUCLEAR REACTIONS $^1\text{H}(^{32}\text{Mg}, ^{32}\text{Mg}')$, E=56 MeV / nucleon; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, particle angular distributions. $^{32}\text{Mg}(p, p')$; inverse kinematics. CONF Tokyo (SENUF 06), P153, Takeuchi
^{32}Al	2007UE02	RADIOACTIVITY $^{30,31,32}\text{Al}(\beta^-)$; measured magnetic dipole and electric quadrupole moments using the β -NMR method. JOUR ZSTNE 150 185
^{32}Si	2007NA31	NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$; measured cross sections. JOUR PRVCA 76 064609
	2007UE02	RADIOACTIVITY $^{30,31,32}\text{Al}(\beta^-)$; measured magnetic dipole and electric quadrupole moments using the β -NMR method. JOUR ZSTNE 150 185
^{32}P	2007NA31	NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=32 (continued)

- ³²S 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2007PA42 NUCLEAR REACTIONS ²⁸Si(⁶Li, X)²⁹Si / ³²S / ²⁹P / ²⁸Si, E=9, 13 MeV; measured production cross sections, E_γ, I_γ, angular distributions. JOUR PRVCA 76 054601

A=33

- ³³P 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ³³S 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=35

- ³⁵Si 2007NE14 RADIOACTIVITY ³⁵Si(β^-); measured ground state g-factor using the β -NMR method. JOUR ZSTNE 150 149
- ³⁵P 2007NE14 RADIOACTIVITY ³⁵Si(β^-); measured ground state g-factor using the β -NMR method. JOUR ZSTNE 150 149
- ³⁵S 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ³⁵Cl 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=37 (continued)

³⁷K 2008MU05 ATOMIC MASSES ^{21,22,23}Na, ^{22,24}Mg, ^{37,39}K; measured and evaluated masses using the ISOLTRAP Penning trap mass spectrometer. JOUR ZAANE 35 31

A=38

³⁸S 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr;

measured cross sections. JOUR PRVCA 76 064609

³⁸Cl 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr;

measured cross sections. JOUR PRVCA 76 064609

³⁸Ar 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr;

measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=38 (continued)

- 2008AM01 NUCLEAR REACTIONS Fe, Ni(p, X)³He / ⁴He / ²¹Ne / ²²Ne / ³⁶Ar / ³⁸Ar, E < 1.6 GeV; measured cross sections and excitation functions. JOUR NIMBE 266 2
- 2008BL01 NUCLEAR MOMENTS ^{38,40,41,42,43,44}Ar; measured isotope shifts, hfs; deduced charge radii, J, μ , quadrupole moment. Fast-beam collinear laser spectroscopy. JOUR NUPAB 799 30
- 2008SA04 NUCLEAR REACTIONS ²⁴Mg(²⁴Mg, ²⁴Mg'), ²⁴Mg(²⁴Mg, X)⁴⁵Ti / ⁴⁴Sc / ⁴²Ca / ⁴¹Ca / ⁴¹K / ³⁹K / ³⁸Ar / ³⁷Ar, E=91.72, 92.62 MeV; measured (fragment) γ -, (charged particle) γ - and $\gamma\gamma$ -coin; deduced ON / OFF resonance yield ratios for the inelastic and fusion evaporation channels. ON resonance formation of ⁴⁸Cr discussed. ⁴⁵Ti deduced levels, J, π . JOUR NUPAB 801 1

A=39

- ³⁹Cl 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ³⁹Ar 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=39 (continued)

- ³⁹K 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2008MU05 ATOMIC MASSES ^{21,22,23}Na, ^{22,24}Mg, ^{37,39}K; measured and evaluated masses using the ISOLTRAP Penning trap mass spectrometer. JOUR ZAANE 35 31
- 2008SA04 NUCLEAR REACTIONS ²⁴Mg(²⁴Mg, ²⁴Mg'), ²⁴Mg(²⁴Mg, X)⁴⁵Ti / ⁴⁴Sc / ⁴²Ca / ⁴¹Ca / ⁴¹K / ³⁹K / ³⁸Ar / ³⁷Ar, E=91.72, 92.62 MeV; measured (fragment)γ-, (charged particle)γ- and γγ-coin; deduced ON / OFF resonance yield ratios for the inelastic and fusion evaporation channels. ON resonance formation of ⁴⁸Cr discussed. ⁴⁵Ti deduced levels, J, π. JOUR NUPAB 801 1

A=40

- ⁴⁰Cl 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=40 (continued)

- ⁴⁰Ar 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2008BL01 NUCLEAR MOMENTS ^{38,40,41,42,43,44}Ar; measured isotope shifts, hfs; deduced charge radii, J, μ , quadrupole moment. Fast-beam collinear laser spectroscopy. JOUR NUPAB 799 30
- ⁴⁰K 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=41

- ⁴¹Cl 2007WH01 RADIOACTIVITY ⁴¹Cl(β^-) [from U(p, X), E=1.4 GeV]; measured E γ , I γ , $\gamma\gamma$ -coin, $\beta\gamma\gamma$ -coin, $\beta\gamma(t)$. ⁴¹Ar; measured half-lives of isomeric states; deduced levels, J, π , multipolarities, B(E2), B(M1). JOUR PRVCA 76 057303

A=41 (continued)

- ⁴¹Ar 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2007WH01 RADIOACTIVITY ⁴¹Cl(β^-) [from U(p, X), E=1.4 GeV]; measured E γ , I γ , $\gamma\gamma$ -coin, $\beta\gamma\gamma$ -coin, $\beta\gamma$ (t). ⁴¹Ar; measured half-lives of isomeric states; deduced levels, J, π , multipolarities, B(E2), B(M1). JOUR PRVCA 76 057303
- 2008BL01 NUCLEAR MOMENTS ^{38,40,41,42,43,44}Ar; measured isotope shifts, hfs; deduced charge radii, J, μ , quadrupole moment. Fast-beam collinear laser spectroscopy. JOUR NUPAB 799 30
- ⁴¹K 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2008SA04 NUCLEAR REACTIONS ²⁴Mg(²⁴Mg, ²⁴Mg'), ²⁴Mg(²⁴Mg, X)⁴⁵Ti / ⁴⁴Sc / ⁴²Ca / ⁴¹Ca / ⁴¹K / ³⁹K / ³⁸Ar / ³⁷Ar, E=91.72, 92.62 MeV; measured (fragment) γ -, (charged particle) γ - and $\gamma\gamma$ -coin; deduced ON / OFF resonance yield ratios for the inelastic and fusion evaporation channels. ON resonance formation of ⁴⁸Cr discussed. ⁴⁵Ti deduced levels, J, π . JOUR NUPAB 801 1

KEYNUMBERS AND KEYWORDS

A=41 (continued)

- ⁴¹Ca 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2008SA04 NUCLEAR REACTIONS ²⁴Mg(²⁴Mg, ²⁴Mg'), ²⁴Mg(²⁴Mg, X)⁴⁵Ti / ⁴⁴Sc / ⁴²Ca / ⁴¹Ca / ⁴¹K / ³⁹K / ³⁸Ar / ³⁷Ar, E=91.72, 92.62 MeV; measured (fragment) γ -, (charged particle) γ - and $\gamma\gamma$ -coin; deduced ON / OFF resonance yield ratios for the inelastic and fusion evaporation channels. ON resonance formation of ⁴⁸Cr discussed. ⁴⁵Ti deduced levels, J, π . JOUR NUPAB 801 1

A=42

- ⁴²Ar 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2008BL01 NUCLEAR MOMENTS ^{38,40,41,42,43,44}Ar; measured isotope shifts, hfs; deduced charge radii, J, μ , quadrupole moment. Fast-beam collinear laser spectroscopy. JOUR NUPAB 799 30

KEYNUMBERS AND KEYWORDS

A=42 (continued)

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| ^{42}K | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{42}Ca | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| | 2008SA04 | <p>NUCLEAR REACTIONS $^{24}\text{Mg}(^{24}\text{Mg}, ^{24}\text{Mg}')$, $^{24}\text{Mg}(^{24}\text{Mg}, X)^{45}\text{Ti}$ / ^{44}Sc / ^{42}Ca / ^{41}Ca / ^{41}K / ^{39}K / ^{38}Ar / ^{37}Ar, $E=91.72, 92.62$ MeV; measured (fragment)γ^-, (charged particle)γ^- and $\gamma\gamma$-coin; deduced ON / OFF resonance yield ratios for the inelastic and fusion evaporation channels. ON resonance formation of ^{48}Cr discussed. ^{45}Ti deduced levels, J, π. JOUR NUPAB 801 1</p> |
| ^{42}Ti | 2008MI03 | <p>RADIOACTIVITY $^{45}\text{Fe}(2p)$, (β^+p), (β^+2p), (β^+3p); measured E_p, I_p, delayed proton angular and energy correlations. JOUR APOBB 39 477</p> |

A=43

- ⁴³Ar 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2008BL01 NUCLEAR MOMENTS ^{38,40,41,42,43,44}Ar; measured isotope shifts, hfs; deduced charge radii, J, μ , quadrupole moment. Fast-beam collinear laser spectroscopy. JOUR NUPAB 799 30
- ⁴³K 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁴³Ca 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=43 (continued)

- ⁴³Sc 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2008FE02 NUCLEAR REACTIONS ¹²⁶Te(¹⁸O, 4n), (¹⁸O, 5n), E=75 MeV; measured E γ , I γ , $\gamma\gamma$ -coin. ^{139,140}Nd deduced level energies, J, π , T_{1/2}. ²⁷Al(¹⁸O, 2n), E=75 MeV; measured E γ , I γ . ⁴³Sc; measured half-life of isomeric state. ALTO facility. JOUR ZAANE 35 167
- ⁴³V 2008MI03 RADIOACTIVITY ⁴⁵Fe(2p), (β^+ p), (β^+ 2p), (β^+ 3p); measured Ep, Ip, delayed proton angular and energy correlations. JOUR APOBB 39 477
- ⁴³Cr 2007MI40 RADIOACTIVITY ⁴⁵Fe(2p) [from Ni(⁵⁸Ni, X), E=161 MeV / nucleon]; measured proton energies, angular correlations, branching ratio, and half-life. JOUR PRLTA 99 192501
- 2008MI03 RADIOACTIVITY ⁴⁵Fe(2p), (β^+ p), (β^+ 2p), (β^+ 3p); measured Ep, Ip, delayed proton angular and energy correlations. JOUR APOBB 39 477

A=44

- ⁴⁴Ar 2008BL01 NUCLEAR MOMENTS ^{38,40,41,42,43,44}Ar; measured isotope shifts, hfs; deduced charge radii, J, μ , quadrupole moment. Fast-beam collinear laser spectroscopy. JOUR NUPAB 799 30
- ⁴⁴K 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=44 (*continued*)

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| ^{44}Ca | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{44}Sc | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| | 2008SA04 | <p>NUCLEAR REACTIONS $^{24}\text{Mg}(^{24}\text{Mg}, ^{24}\text{Mg}')$, $^{24}\text{Mg}(^{24}\text{Mg}, X)^{45}\text{Ti}$ / ^{44}Sc / ^{42}Ca / ^{41}Ca / ^{41}K / ^{39}K / ^{38}Ar / ^{37}Ar, E=91.72, 92.62 MeV; measured (fragment)γ^-, (charged particle)γ^- and $\gamma\gamma$-coin; deduced ON / OFF resonance yield ratios for the inelastic and fusion evaporation channels. ON resonance formation of ^{48}Cr discussed. ^{45}Ti deduced levels, J, π. JOUR NUPAB 801 1</p> |
| ^{44}Cr | 2008MI03 | <p>RADIOACTIVITY $^{45}\text{Fe}(2p)$, (β^+p), (β^+2p), (β^+3p); measured E_p, I_p, delayed proton angular and energy correlations. JOUR APOBB 39 477</p> |

A=45

- ⁴⁵K 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁴⁵Ca 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁴⁵Sc 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=45 (continued)

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| ^{45}Ti | 2007NA31 | NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609 |
| | 2008SA04 | NUCLEAR REACTIONS $^{24}\text{Mg}(^{24}\text{Mg}, ^{24}\text{Mg}')$, $^{24}\text{Mg}(^{24}\text{Mg}, X)^{45}\text{Ti}$ / ^{44}Sc / ^{42}Ca / ^{41}Ca / ^{41}K / ^{39}K / ^{38}Ar / ^{37}Ar , $E=91.72, 92.62$ MeV; measured (fragment) γ -, (charged particle) γ - and $\gamma\gamma$ -coin; deduced ON / OFF resonance yield ratios for the inelastic and fusion evaporation channels. ON resonance formation of ^{48}Cr discussed. ^{45}Ti deduced levels, J, π . JOUR NUPAB 801 1 |
| ^{45}Fe | 2007MI40 | RADIOACTIVITY $^{45}\text{Fe}(2p)$ [from $\text{Ni}(^{58}\text{Ni}, X)$, $E=161$ MeV / nucleon]; measured proton energies, angular correlations, branching ratio, and half-life. JOUR PRLTA 99 192501 |
| | 2008MI03 | RADIOACTIVITY $^{45}\text{Fe}(2p)$, (β^+p) , (β^+2p) , (β^+3p) ; measured E_p , I_p , delayed proton angular and energy correlations. JOUR APOBB 39 477 |

A=46

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| ^{46}Ca | 2007NA31 | NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609 |
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A=46 (continued)

- ⁴⁶Sc 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁴⁶Ti 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁴⁶V 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=47

- ⁴⁷Ca 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁴⁷Sc 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁴⁷Ti 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=47 (continued)

- ⁴⁷V 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2008FA03 NUCLEAR REACTIONS ⁴⁶Ti, ⁶⁴Zn, ^{114,116}Sn(p, γ), E(cm)=13.7 MeV; measured E γ , I γ following residual decay, σ ; deduced astrophysical S-factors, reaction rates. Activation technique. JOUR NUPAB 802 26

A=48

- ⁴⁸Ca 2007GR22 NUCLEAR REACTIONS ⁴⁸Ca(³He, t), E=420 MeV; measured charged particles, angular distributions; calculated Gamow-Teller strengths. ⁴⁸Sc; deduced levels, J, π . Compared with ⁴⁸Ca(p, n), E=134 MeV and ⁴⁸Ca(d, ²He), E=183 MeV reactions. ⁴⁸Ca; implications for 2β decay. JOUR PRVCA 76 054307
- ⁴⁸Sc 2007GR22 NUCLEAR REACTIONS ⁴⁸Ca(³He, t), E=420 MeV; measured charged particles, angular distributions; calculated Gamow-Teller strengths. ⁴⁸Sc; deduced levels, J, π . Compared with ⁴⁸Ca(p, n), E=134 MeV and ⁴⁸Ca(d, ²He), E=183 MeV reactions. ⁴⁸Ca; implications for 2β decay. JOUR PRVCA 76 054307
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=48 (continued)

- ⁴⁸Ti 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁴⁸V 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=49

- ⁴⁹Cl 2008MA01 NUCLEAR REACTIONS ⁹Be(⁷⁶Ge, X)⁴⁹Cl / ⁵⁰Ar / ⁵¹Ar / ⁵²K / ⁵³K / ⁵⁴K / ⁵³Ca / ⁵⁴Ca / ⁵⁵Ca / ⁵⁶Ca / ⁵⁵Sc / ⁵⁶Sc / ⁵⁷Sc / ⁵⁷Ti / ⁵⁸Ti / ⁵⁹Ti / ⁶⁰V, E=140 MeV / nucleon; measured reaction yields. JOUR PRVCA 77 014313

A=49 (continued)

- ⁴⁹Sc 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁴⁹Ti 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁴⁹V 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=49 (continued)

⁴⁹Cr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=50

⁵⁰Ar 2008MA01 NUCLEAR REACTIONS ⁹Be(⁷⁶Ge, X)⁴⁹Cl / ⁵⁰Ar / ⁵¹Ar / ⁵²K / ⁵³K / ⁵⁴K / ⁵³Ca / ⁵⁴Ca / ⁵⁵Ca / ⁵⁶Ca / ⁵⁵Sc / ⁵⁶Sc / ⁵⁷Sc / ⁵⁷Ti / ⁵⁸Ti / ⁵⁹Ti / ⁶⁰V, E=140 MeV / nucleon; measured reaction yields. JOUR PRVCA 77 014313

⁵⁰Sc 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=50 (continued)

- ⁵⁰Ti 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁵⁰V 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁵⁰Cr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=50 (continued)

⁵⁰Mn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=51

⁵¹Ar 2008MA01 NUCLEAR REACTIONS ⁹Be(⁷⁶Ge, X)⁴⁹Cl / ⁵⁰Ar / ⁵¹Ar / ⁵²K / ⁵³K / ⁵⁴K / ⁵³Ca / ⁵⁴Ca / ⁵⁵Ca / ⁵⁶Ca / ⁵⁵Sc / ⁵⁶Sc / ⁵⁷Sc / ⁵⁷Ti / ⁵⁸Ti / ⁵⁹Ti / ⁶⁰V, E=140 MeV / nucleon; measured reaction yields. JOUR PRVCA 77 014313

⁵¹Ca 2008F001 NUCLEAR REACTIONS ²³⁸U(⁴⁸Ca, X), E=330 MeV; measured E γ , I γ , $\gamma\gamma$ -coin. ⁵¹Ca, ⁵²Sc; deduced levels, J, π , configurations. Comparison with shell model calculations. JOUR PRVCA 77 014304

⁵¹Ti 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

⁵¹V 2007LI81 NUCLEAR REACTIONS ²⁷Al(⁶He, ⁶He'), E=9.5-13.4 MeV; ⁵¹V(⁷Be, ⁷Be'), E=26 MeV; measured reaction cross sections and angular distributions. Compared results to model calculations. JOUR ZSTNE 150 27

A=51 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- ^{51}Cr 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- ^{51}Mn 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609

A=52

- ⁵²K 2008MA01 NUCLEAR REACTIONS ⁹Be(⁷⁶Ge, X)⁴⁹Cl / ⁵⁰Ar / ⁵¹Ar / ⁵²K / ⁵³K / ⁵⁴K / ⁵³Ca / ⁵⁴Ca / ⁵⁵Ca / ⁵⁶Ca / ⁵⁵Sc / ⁵⁶Sc / ⁵⁷Sc / ⁵⁷Ti / ⁵⁸Ti / ⁵⁹Ti / ⁶⁰V, E=140 MeV / nucleon; measured reaction yields. JOUR PRVCA 77 014313
- ⁵²Sc 2008F001 NUCLEAR REACTIONS ²³⁸U(⁴⁸Ca, X), E=330 MeV; measured E_γ, I_γ, γγ-coin. ⁵¹Ca, ⁵²Sc; deduced levels, J, π, configurations. Comparison with shell model calculations. JOUR PRVCA 77 014304
- ⁵²Ti 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁵²V 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=52 (continued)

- ⁵²Cr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁵²Mn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=53

- ⁵³K 2008MA01 NUCLEAR REACTIONS ⁹Be(⁷⁶Ge, X)⁴⁹Cl / ⁵⁰Ar / ⁵¹Ar / ⁵²K / ⁵³K / ⁵⁴K / ⁵³Ca / ⁵⁴Ca / ⁵⁵Ca / ⁵⁶Ca / ⁵⁵Sc / ⁵⁶Sc / ⁵⁷Sc / ⁵⁷Ti / ⁵⁸Ti / ⁵⁹Ti / ⁶⁰V, E=140 MeV / nucleon; measured reaction yields. JOUR PRVCA 77 014313
- ⁵³Ca 2008MA01 RADIOACTIVITY ^{53,54,55,56}Ca(β^-) [from ⁹Be(⁷⁶Ge, X), E=140 MeV / nucleon; measured E γ , I γ , $\beta\gamma$ -coin, half-lives. ⁵⁴Ca; deduced I β , logft. ⁵⁴Sc; levels, J, π , half-lives, B(M1), B(E2), comparison with calculations. JOUR PRVCA 77 014313
- 2008MA01 NUCLEAR REACTIONS ⁹Be(⁷⁶Ge, X)⁴⁹Cl / ⁵⁰Ar / ⁵¹Ar / ⁵²K / ⁵³K / ⁵⁴K / ⁵³Ca / ⁵⁴Ca / ⁵⁵Ca / ⁵⁶Ca / ⁵⁵Sc / ⁵⁶Sc / ⁵⁷Sc / ⁵⁷Ti / ⁵⁸Ti / ⁵⁹Ti / ⁶⁰V, E=140 MeV / nucleon; measured reaction yields. JOUR PRVCA 77 014313
- ⁵³Sc 2008MA01 RADIOACTIVITY ^{53,54,55,56}Ca(β^-) [from ⁹Be(⁷⁶Ge, X), E=140 MeV / nucleon; measured E γ , I γ , $\beta\gamma$ -coin, half-lives. ⁵⁴Ca; deduced I β , logft. ⁵⁴Sc; levels, J, π , half-lives, B(M1), B(E2), comparison with calculations. JOUR PRVCA 77 014313

A=53 (continued)

- ⁵³V 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁵³Cr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁵³Mn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁵³Fe 2008KU01 NUCLEAR REACTIONS ⁴⁶Ti(¹²C, X)⁵⁸Ni, E=80 MeV; ²⁷Al(³¹P, X)⁵⁸Ni, E=131 MeV; measured inclusive and exclusive neutron evaporation spectra, E γ , I γ , n γ -coin. ^{53,55}Fe, ⁵⁶Co deduced average excitation energy and angular momenta. Comparison with statistical model calculations. JOUR NUPAB 798 1

A=54

⁵⁴ K	2008MA01	NUCLEAR REACTIONS ⁹ Be(⁷⁶ Ge, X) ⁴⁹ Cl / ⁵⁰ Ar / ⁵¹ Ar / ⁵² K / ⁵³ K / ⁵⁴ K / ⁵³ Ca / ⁵⁴ Ca / ⁵⁵ Ca / ⁵⁶ Ca / ⁵⁵ Sc / ⁵⁶ Sc / ⁵⁷ Sc / ⁵⁷ Ti / ⁵⁸ Ti / ⁵⁹ Ti / ⁶⁰ V, E=140 MeV / nucleon; measured reaction yields. JOUR PRVCA 77 014313
⁵⁴ Ca	2008MA01	RADIOACTIVITY ^{53,54,55,56} Ca(β^-) [from ⁹ Be(⁷⁶ Ge, X), E=140 MeV / nucleon; measured E γ , I γ , $\beta\gamma$ -coin, half-lives. ⁵⁴ Ca; deduced I β , logft. ⁵⁴ Sc; levels, J, π , half-lives, B(M1), B(E2), comparison with calculations. JOUR PRVCA 77 014313
	2008MA01	NUCLEAR REACTIONS ⁹ Be(⁷⁶ Ge, X) ⁴⁹ Cl / ⁵⁰ Ar / ⁵¹ Ar / ⁵² K / ⁵³ K / ⁵⁴ K / ⁵³ Ca / ⁵⁴ Ca / ⁵⁵ Ca / ⁵⁶ Ca / ⁵⁵ Sc / ⁵⁶ Sc / ⁵⁷ Sc / ⁵⁷ Ti / ⁵⁸ Ti / ⁵⁹ Ti / ⁶⁰ V, E=140 MeV / nucleon; measured reaction yields. JOUR PRVCA 77 014313
⁵⁴ Sc	2008MA01	RADIOACTIVITY ^{53,54,55,56} Ca(β^-) [from ⁹ Be(⁷⁶ Ge, X), E=140 MeV / nucleon; measured E γ , I γ , $\beta\gamma$ -coin, half-lives. ⁵⁴ Ca; deduced I β , logft. ⁵⁴ Sc; levels, J, π , half-lives, B(M1), B(E2), comparison with calculations. JOUR PRVCA 77 014313
⁵⁴ V	2007NA31	NUCLEAR REACTIONS ¹³⁶ Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8} Li, ^{9,10,11,12} Be, ^{10,11,12,13} B, ^{11,12,13,14,15} C, ^{13,14,15,16,17} N, ^{15,16,17,18,19} O, ^{17,18,19,20,21} F, ^{19,20,21,22,23} Ne, ^{22,23,24,25} Na, ^{23,24,25,26,27} Mg, ^{25,26,27,28,29,30} Al, ^{28,29,30,31,32} Si, ^{30,31,32,33,34} P, ^{32,33,34,35,36,37,38} S, ^{34,35,36,37,38,39,40} Cl, ^{36,37,38,39,40,41,42,43} Ar, ^{39,40,41,42,43,44,45} K, ^{41,42,43,44,45,46,47} Ca, ^{43,44,45,46,47,48,49,50} Sc, ^{45,46,47,48,49,50,51,52} Ti, ^{46,47,48,49,50,51,52,53,54,55} V, ^{49,50,51,52,53,54,55,56,57} Cr, ^{50,51,52,53,54,55,56,57,58,59,60} Mn, ^{55,56,57,58,59,60,61,62} Fe, ^{57,58,59,60,61,62,63,64,65} Co, ^{59,60,61,62,63,64,65,66,67} Ni, ^{60,61,62,63,64,65,66,67,68,69,70} Cu, ^{62,63,64,65,66,67,68,69,70,71,72} Zn, ^{66,67,68,69,70,71,72,73,74,75} Ga, ^{68,69,70,71,72,73,74,75,76,77} Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81} As, ^{72,73,74,75,76,77,78,79,80,81,82,83} Se, ^{74,75,76,77,78,79,80,81,82,83,84,85} Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88} Kr; measured cross sections. JOUR PRVCA 76 064609
⁵⁴ Cr	2007NA31	NUCLEAR REACTIONS ¹³⁶ Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8} Li, ^{9,10,11,12} Be, ^{10,11,12,13} B, ^{11,12,13,14,15} C, ^{13,14,15,16,17} N, ^{15,16,17,18,19} O, ^{17,18,19,20,21} F, ^{19,20,21,22,23} Ne, ^{22,23,24,25} Na, ^{23,24,25,26,27} Mg, ^{25,26,27,28,29,30} Al, ^{28,29,30,31,32} Si, ^{30,31,32,33,34} P, ^{32,33,34,35,36,37,38} S, ^{34,35,36,37,38,39,40} Cl, ^{36,37,38,39,40,41,42,43} Ar, ^{39,40,41,42,43,44,45} K, ^{41,42,43,44,45,46,47} Ca, ^{43,44,45,46,47,48,49,50} Sc, ^{45,46,47,48,49,50,51,52} Ti, ^{46,47,48,49,50,51,52,53,54,55} V, ^{49,50,51,52,53,54,55,56,57} Cr, ^{50,51,52,53,54,55,56,57,58,59,60} Mn, ^{55,56,57,58,59,60,61,62} Fe, ^{57,58,59,60,61,62,63,64,65} Co, ^{59,60,61,62,63,64,65,66,67} Ni, ^{60,61,62,63,64,65,66,67,68,69,70} Cu, ^{62,63,64,65,66,67,68,69,70,71,72} Zn, ^{66,67,68,69,70,71,72,73,74,75} Ga, ^{68,69,70,71,72,73,74,75,76,77} Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81} As, ^{72,73,74,75,76,77,78,79,80,81,82,83} Se, ^{74,75,76,77,78,79,80,81,82,83,84,85} Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88} Kr; measured cross sections. JOUR PRVCA 76 064609

A=54 (continued)

- ⁵⁴Mn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=55

- ⁵⁵Ca 2008MA01 RADIOACTIVITY ^{53,54,55,56}Ca(β^-) [from ⁹Be(⁷⁶Ge, X), E=140 MeV / nucleon; measured E γ , I γ , $\beta\gamma$ -coin, half-lives. ⁵⁴Ca; deduced I β , logft. ⁵⁴Sc; levels, J, π , half-lives, B(M1), B(E2), comparison with calculations. JOUR PRVCA 77 014313
- 2008MA01 NUCLEAR REACTIONS ⁹Be(⁷⁶Ge, X)⁴⁹Cl / ⁵⁰Ar / ⁵¹Ar / ⁵²K / ⁵³K / ⁵⁴K / ⁵³Ca / ⁵⁴Ca / ⁵⁵Ca / ⁵⁶Ca / ⁵⁵Sc / ⁵⁶Sc / ⁵⁷Sc / ⁵⁷Ti / ⁵⁸Ti / ⁵⁹Ti / ⁶⁰V, E=140 MeV / nucleon; measured reaction yields. JOUR PRVCA 77 014313
- ⁵⁵Sc 2008MA01 RADIOACTIVITY ^{53,54,55,56}Ca(β^-) [from ⁹Be(⁷⁶Ge, X), E=140 MeV / nucleon; measured E γ , I γ , $\beta\gamma$ -coin, half-lives. ⁵⁴Ca; deduced I β , logft. ⁵⁴Sc; levels, J, π , half-lives, B(M1), B(E2), comparison with calculations. JOUR PRVCA 77 014313
- 2008MA01 NUCLEAR REACTIONS ⁹Be(⁷⁶Ge, X)⁴⁹Cl / ⁵⁰Ar / ⁵¹Ar / ⁵²K / ⁵³K / ⁵⁴K / ⁵³Ca / ⁵⁴Ca / ⁵⁵Ca / ⁵⁶Ca / ⁵⁵Sc / ⁵⁶Sc / ⁵⁷Sc / ⁵⁷Ti / ⁵⁸Ti / ⁵⁹Ti / ⁶⁰V, E=140 MeV / nucleon; measured reaction yields. JOUR PRVCA 77 014313
- ⁵⁵V 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=56

- ⁵⁶Ca 2008MA01 RADIOACTIVITY ^{53,54,55,56}Ca(β^-) [from ⁹Be(⁷⁶Ge, X), E=140 MeV / nucleon; measured E γ , I γ , $\beta\gamma$ -coin, half-lives. ⁵⁴Ca; deduced I β , logft. ⁵⁴Sc; levels, J, π , half-lives, B(M1), B(E2), comparison with calculations. JOUR PRVCA 77 014313
- 2008MA01 NUCLEAR REACTIONS ⁹Be(⁷⁶Ge, X)⁴⁹Cl / ⁵⁰Ar / ⁵¹Ar / ⁵²K / ⁵³K / ⁵⁴K / ⁵³Ca / ⁵⁴Ca / ⁵⁵Ca / ⁵⁶Ca / ⁵⁵Sc / ⁵⁶Sc / ⁵⁷Sc / ⁵⁷Ti / ⁵⁸Ti / ⁵⁹Ti / ⁶⁰V, E=140 MeV / nucleon; measured reaction yields. JOUR PRVCA 77 014313
- ⁵⁶Sc 2008MA01 RADIOACTIVITY ^{53,54,55,56}Ca(β^-) [from ⁹Be(⁷⁶Ge, X), E=140 MeV / nucleon; measured E γ , I γ , $\beta\gamma$ -coin, half-lives. ⁵⁴Ca; deduced I β , logft. ⁵⁴Sc; levels, J, π , half-lives, B(M1), B(E2), comparison with calculations. JOUR PRVCA 77 014313
- 2008MA01 NUCLEAR REACTIONS ⁹Be(⁷⁶Ge, X)⁴⁹Cl / ⁵⁰Ar / ⁵¹Ar / ⁵²K / ⁵³K / ⁵⁴K / ⁵³Ca / ⁵⁴Ca / ⁵⁵Ca / ⁵⁶Ca / ⁵⁵Sc / ⁵⁶Sc / ⁵⁷Sc / ⁵⁷Ti / ⁵⁸Ti / ⁵⁹Ti / ⁶⁰V, E=140 MeV / nucleon; measured reaction yields. JOUR PRVCA 77 014313
- ⁵⁶Cr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁵⁶Mn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=56 (continued)

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| ^{56}Fe | 2007NA31 | NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609 |
| | 2008OH02 | NUCLEAR REACTIONS ^{56}Fe , ^{89}Y , $^{208}\text{Pb}(n, n)$, $E=96$ MeV; measured $\sigma(\theta)$; ^{12}C , ^{16}O ; systematics, compared with Wick's limit. JOUR PRVCA 77 024605 |
| ^{56}Co | 2008KU01 | NUCLEAR REACTIONS $^{46}\text{Ti}(^{12}\text{C}, X)^{58}\text{Ni}$, $E=80$ MeV; $^{27}\text{Al}(^{31}\text{P}, X)^{58}\text{Ni}$, $E=131$ MeV; measured inclusive and exclusive neutron evaporation spectra, E_γ , I_γ , $n\gamma$ -coin. $^{53,55}\text{Fe}$, ^{56}Co deduced average excitation energy and angular momenta. Comparison with statistical model calculations. JOUR NUPAB 798 1 |
| ^{56}Ni | 2008M002 | NUCLEAR REACTIONS $^2\text{H}(^{56}\text{Ni}, ^{56}\text{Ni})$, $E=50$ MeV / nucleon; measured deuteron recoil energies and yields. ^{56}Ni ; deduced isoscalar giant monopole and giant quadrupole resonance centroids and angular distributions. JOUR PRLTA 100 042501 |

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| ^{57}Sc | 2008MA01 | NUCLEAR REACTIONS $^9\text{Be}(^{76}\text{Ge}, X)^{49}\text{Cl} / ^{50}\text{Ar} / ^{51}\text{Ar} / ^{52}\text{K} / ^{53}\text{K} / ^{54}\text{K} / ^{53}\text{Ca} / ^{54}\text{Ca} / ^{55}\text{Ca} / ^{56}\text{Ca} / ^{55}\text{Sc} / ^{56}\text{Sc} / ^{57}\text{Sc} / ^{57}\text{Ti} / ^{58}\text{Ti} / ^{59}\text{Ti} / ^{60}\text{V}$, $E=140$ MeV / nucleon; measured reaction yields. JOUR PRVCA 77 014313 |
| ^{57}Ti | 2008MA01 | NUCLEAR REACTIONS $^9\text{Be}(^{76}\text{Ge}, X)^{49}\text{Cl} / ^{50}\text{Ar} / ^{51}\text{Ar} / ^{52}\text{K} / ^{53}\text{K} / ^{54}\text{K} / ^{53}\text{Ca} / ^{54}\text{Ca} / ^{55}\text{Ca} / ^{56}\text{Ca} / ^{55}\text{Sc} / ^{56}\text{Sc} / ^{57}\text{Sc} / ^{57}\text{Ti} / ^{58}\text{Ti} / ^{59}\text{Ti} / ^{60}\text{V}$, $E=140$ MeV / nucleon; measured reaction yields. JOUR PRVCA 77 014313 |

A=57 (continued)

- ⁵⁷Cr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁵⁷Mn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁵⁷Fe 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=57 (continued)

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| ^{57}Co | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{57}Ni | 2007MI48 | <p>RADIOACTIVITY $^{57}\text{Cu}(\beta^+)$; measured ground state magnetic moment using the β-NMR technique. Deduced spin expectation value. JOUR ZSTNE 150 145</p> |
| ^{57}Cu | 2007MI48 | <p>RADIOACTIVITY $^{57}\text{Cu}(\beta^+)$; measured ground state magnetic moment using the β-NMR technique. Deduced spin expectation value. JOUR ZSTNE 150 145</p> |

A=58

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| ^{58}Ti | 2008MA01 | <p>NUCLEAR REACTIONS $^9\text{Be}(^{76}\text{Ge}, X)^{49}\text{Cl} / ^{50}\text{Ar} / ^{51}\text{Ar} / ^{52}\text{K} / ^{53}\text{K} / ^{54}\text{K} / ^{53}\text{Ca} / ^{54}\text{Ca} / ^{55}\text{Ca} / ^{56}\text{Ca} / ^{55}\text{Sc} / ^{56}\text{Sc} / ^{57}\text{Sc} / ^{57}\text{Ti} / ^{58}\text{Ti} / ^{59}\text{Ti} / ^{60}\text{V}$, $E=140$ MeV / nucleon; measured reaction yields. JOUR PRVCA 77 014313</p> |
| ^{58}Mn | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |

A=58 (continued)

- ⁵⁸Fe 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁵⁸Co 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁵⁸Ni 2008BI04 NUCLEAR REACTIONS ⁶⁴Ni(⁶Li, ⁶Li), E=1326 MeV; measured $\sigma(\theta)$; ⁵⁸Ni(⁶Li, ⁶Li), E=1220 MeV; analyzed $\sigma(\theta)$. Double folding optical model, threshold behaviour. JOUR NUPAB 802 67
- 2008KU01 NUCLEAR REACTIONS ⁴⁶Ti(¹²C, X)⁵⁸Ni, E=80 MeV; ²⁷Al(³¹P, X)⁵⁸Ni, E=131 MeV; measured inclusive and exclusive neutron evaporation spectra, E γ , I γ , n γ -coin. ^{53,55}Fe, ⁵⁶Co deduced average excitation energy and angular momenta. Comparison with statistical model calculations. JOUR NUPAB 798 1
- 2008TE03 NUCLEAR REACTIONS ^{116,118,120,122,124}Sn(p, p), E=295 MeV; measured $\sigma(\theta)$, analyzing powers, nucleon density distributions, rms radii. ⁵⁸Ni; calculated proton, neutron density distributions. JOUR PRVCA 77 024317

A=59

- ⁵⁹Ti 2008MA01 NUCLEAR REACTIONS ⁹Be(⁷⁶Ge, X)⁴⁹Cl / ⁵⁰Ar / ⁵¹Ar / ⁵²K / ⁵³K / ⁵⁴K / ⁵³Ca / ⁵⁴Ca / ⁵⁵Ca / ⁵⁶Ca / ⁵⁵Sc / ⁵⁶Sc / ⁵⁷Sc / ⁵⁷Ti / ⁵⁸Ti / ⁵⁹Ti / ⁶⁰V, E=140 MeV / nucleon; measured reaction yields. JOUR PRVCA 77 014313

KEYNUMBERS AND KEYWORDS

A=59 (continued)

- ⁵⁹Mn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁵⁹Fe 2007DE56 NUCLEAR REACTIONS ^{13,14}C(⁴⁸Ca, 2n), E=2.75 MeV / nucleon; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma(\theta)$, symmetry parameters. ^{59,60}Fe; deduced angular momenta, levels, J, π ; calculated potential energy surfaces. Shell model calculations. JOUR PRVCA 76 054303
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2008HE01 NUCLEAR REACTIONS ⁵⁸Fe, ⁵⁹Co, ⁶⁴Ni, ^{63,65}Cu(n, γ), E=25 keV; measured neutron capture cross sections, E γ ; ⁵⁹Fe, ⁶⁰Co, ⁶⁵Ni, ^{64,66}Cu, ¹⁹⁸Au; deduced nucleosynthesis yields in stars. JOUR PRVCA 77 015808

KEYNUMBERS AND KEYWORDS

A=59 (continued)

- ⁵⁹Co 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁵⁹Ni 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=60

- ⁶⁰V 2008MA01 NUCLEAR REACTIONS ⁹Be(⁷⁶Ge, X)⁴⁹Cl / ⁵⁰Ar / ⁵¹Ar / ⁵²K / ⁵³K / ⁵⁴K / ⁵³Ca / ⁵⁴Ca / ⁵⁵Ca / ⁵⁶Ca / ⁵⁵Sc / ⁵⁶Sc / ⁵⁷Sc / ⁵⁷Ti / ⁵⁸Ti / ⁵⁹Ti / ⁶⁰V, E=140 MeV / nucleon; measured reaction yields. JOUR PRVCA 77 014313

A=60 (continued)

- ⁶⁰Mn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁶⁰Fe 2007DE56 NUCLEAR REACTIONS ^{13,14}C(⁴⁸Ca, 2n), E=2.75 MeV / nucleon; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma(\theta)$, symmetry parameters. ^{59,60}Fe; deduced angular momenta, levels, J, π ; calculated potential energy surfaces. Shell model calculations. JOUR PRVCA 76 054303
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁶⁰Co 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=60 (continued)

- 2008HE01 NUCLEAR REACTIONS ^{58}Fe , ^{59}Co , ^{64}Ni , $^{63,65}\text{Cu}(n, \gamma)$, $E=25$ keV; measured neutron capture cross sections, $E\gamma$; ^{59}Fe , ^{60}Co , ^{65}Ni , $^{64,66}\text{Cu}$, ^{198}Au ; deduced nucleosynthesis yields in stars. JOUR PRVCA 77 015808
- ^{60}Ni 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- ^{60}Cu 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609

A=61

- ⁶¹Fe 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁶¹Co 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁶¹Ni 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=61 (continued)

- ⁶¹Cu 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2008DA01 NUCLEAR REACTIONS ⁶⁴Zn(d, 2p)⁶⁴Cu, E=11.9-18.2 MeV; ⁶⁴Zn(d, nα)⁶¹Cu, E=12.9-18.4 MeV; measured Eγ, Iγ from residual nuclei; deduced excitation functions, cross sections. Compared results to of theoretical cross sections. JOUR ARISE 66 261

A=62

- ⁶²Fe 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=62 (continued)

- ^{62}Co 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- ^{62}Ni 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- ^{62}Cu 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=62 (continued)

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| ^{62}Zn | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| | 2008GR03 | <p>RADIOACTIVITY $^{62}\text{Ga}(\beta^+)$ [from $\text{Zr}(p, \gamma)$, $E=500$ MeV]; measured $E\gamma$, β^+ particles; deduced half-life. JOUR PRVCA 77 015501</p> |
| ^{62}Ga | 2008GR03 | <p>RADIOACTIVITY $^{62}\text{Ga}(\beta^+)$ [from $\text{Zr}(p, \gamma)$, $E=500$ MeV]; measured $E\gamma$, β^+ particles; deduced half-life. JOUR PRVCA 77 015501</p> |

A=63

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| ^{63}Co | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{63}Ni | 2007CL04 | <p>NUCLEAR REACTIONS ^2H, ^{12}C, ^{27}Al, ^{63}Cu, $^{197}\text{Au}(e, e'\pi^+)$, $E=4.021\text{-}5.767$ GeV; measured electron and pion energies. Deduced nuclear transparency. JOUR PRLTA 99 242502</p> |

KEYNUMBERS AND KEYWORDS

A=63 (continued)

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| 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| 2008AL03 | <p>NUCLEAR REACTIONS $^{62}\text{Ni}(n, \gamma)$, $E=35$ eV-500 keV; measured neutron capture cross sections, $E\gamma$. JOUR PRVCA 77 015806</p> |
| ^{63}Cu 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{63}Zn 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |

A=64

- ⁶⁴Co 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁶⁴Ni 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2008BE02 RADIOACTIVITY ⁶⁴Zn(2EC), (β^+ EC); measured T_{1/2} lower limits for various 2 β -decay modes. JOUR PYLBB 658 193
- 2008BI04 NUCLEAR REACTIONS ⁶⁴Ni(⁶Li, ⁶Li), E=1326 MeV; measured $\sigma(\theta)$; ⁵⁸Ni(⁶Li, ⁶Li), E=1220 MeV; analyzed $\sigma(\theta)$. Double folding optical model, threshold behaviour. JOUR NUPAB 802 67
- ⁶⁴Cu 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=64 (continued)

- 2008DA01 NUCLEAR REACTIONS $^{64}\text{Zn}(d, 2p)^{64}\text{Cu}$, $E=11.9\text{-}18.2$ MeV; $^{64}\text{Zn}(d, n\alpha)^{61}\text{Cu}$, $E=12.9\text{-}18.4$ MeV; measured $E\gamma$, $I\gamma$ from residual nuclei; deduced excitation functions, cross sections. Compared results to of theoretical cross sections. JOUR ARISE 66 261
- 2008HE01 NUCLEAR REACTIONS ^{58}Fe , ^{59}Co , ^{64}Ni , $^{63,65}\text{Cu}(n, \gamma)$, $E=25$ keV; measured neutron capture cross sections, $E\gamma$; ^{59}Fe , ^{60}Co , ^{65}Ni , $^{64,66}\text{Cu}$, ^{198}Au ; deduced nucleosynthesis yields in stars. JOUR PRVCA 77 015808
- ^{64}Zn 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- 2008BE02 RADIOACTIVITY $^{64}\text{Zn}(2\text{EC})$, $(\beta^+\text{EC})$; measured $T_{1/2}$ lower limits for various 2β -decay modes. JOUR PYLBB 658 193

A=65

- ^{65}Co 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=65 (continued)

- ⁶⁵Ni 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2008HE01 NUCLEAR REACTIONS ⁵⁸Fe, ⁵⁹Co, ⁶⁴Ni, ^{63,65}Cu(n, γ), E=25 keV; measured neutron capture cross sections, Eγ; ⁵⁹Fe, ⁶⁰Co, ⁶⁵Ni, ^{64,66}Cu, ¹⁹⁸Au; deduced nucleosynthesis yields in stars. JOUR PRVCA 77 015808
- ⁶⁵Cu 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁶⁵Zn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=65 (continued)

⁶⁵Ga 2008FA03 NUCLEAR REACTIONS ⁴⁶Ti, ⁶⁴Zn, ^{114,116}Sn(p, γ), E(cm)=13.7 MeV; measured E γ , I γ following residual decay, σ ; deduced astrophysical S-factors, reaction rates. Activation technique. JOUR NUPAB 802 26

A=66

⁶⁶Ni 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr;

measured cross sections. JOUR PRVCA 76 064609

⁶⁶Cu 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr;

measured cross sections. JOUR PRVCA 76 064609

2008HE01 NUCLEAR REACTIONS ⁵⁸Fe, ⁵⁹Co, ⁶⁴Ni, ^{63,65}Cu(n, γ), E=25 keV; measured neutron capture cross sections, E γ ; ⁵⁹Fe, ⁶⁰Co, ⁶⁵Ni, ^{64,66}Cu, ¹⁹⁸Au; deduced nucleosynthesis yields in stars. JOUR PRVCA 77 015808

KEYNUMBERS AND KEYWORDS

A=66 (continued)

- ⁶⁶Zn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁶⁶Ga 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=67

- ⁶⁷Ni 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=67 (continued)

- ⁶⁷Cu 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2008ST04 NUCLEAR REACTIONS ¹⁰⁴Pd(⁶⁷Cu, ⁶⁷Cu'), (⁶⁹Cu, ⁶⁹Cu'), (⁷¹Cu, ⁷¹Cu'), E=2.99 MeV / nucleon; ¹²⁰Sn(⁷¹Cu, ⁷¹Cu'), (⁷³Cu, ⁷³Cu'), E=2.99 MeV / nucleon; measured E γ , I γ following coulomb excitation. ^{67,69,71,73}Cu; deduced level energies, B(E2). JOUR PRLTA 100 112502
- ⁶⁷Zn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁶⁷Ga 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=68

- ⁶⁸Cu 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁶⁸Zn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁶⁸Ga 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=68 (continued)

⁶⁸Ge 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=69

⁶⁹Cu 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

2008ST04 NUCLEAR REACTIONS ¹⁰⁴Pd(⁶⁷Cu, ⁶⁷Cu'), (⁶⁹Cu, ⁶⁹Cu'), (⁷¹Cu, ⁷¹Cu'), E=2.99 MeV / nucleon; ¹²⁰Sn(⁷¹Cu, ⁷¹Cu'), (⁷³Cu, ⁷³Cu'), E=2.99 MeV / nucleon; measured E γ , I γ following coulomb excitation. ^{67,69,71,73}Cu; deduced level energies, B(E2). JOUR PRLTA 100 112502

A=69 (continued)

- ⁶⁹Zn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁶⁹Ga 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁶⁹Ge 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=70

- ⁷⁰Cu 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁷⁰Zn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁷⁰Ga 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁷⁰Ge 2007B041 NUCLEAR REACTIONS C(⁷⁰Ge, X)⁷⁰Ge, E=190, 225 MeV; measured E γ , I γ ; deduced levels, J, π , g-factors for 2⁺, 3⁺ and 4⁺ states, B(E2), half-lives. Comparison with calculated and measured g-factors of ^{64,66,68}Zn, ^{74,76,78,80,82}Se. JOUR PRVCA 76 054311

KEYNUMBERS AND KEYWORDS

A=70 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- ^{70}As 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- ^{70}Se 2008LJ01 NUCLEAR REACTIONS $^{40}\text{Ca}(^{36}\text{Ar}, 2p\alpha)$, $(^{36}\text{Ar}, 4p)$, $E=136$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, lifetimes using recoil distance doppler shift method. $^{70,72}\text{Se}$; deduced level energies and $B(E2)$. JOUR PRLTA 100 102502

A=71

- ^{71}Cu 2008ST01 RADIOACTIVITY $^{71}\text{Cu}(\beta^-)$; measured magnetic moment of ground state. Compared with magnetic dipole moments of $^{57,59,61,63,65,67,69}\text{Cu}$. JOUR PRVCA 77 014315
- 2008ST04 NUCLEAR REACTIONS $^{104}\text{Pd}(^{67}\text{Cu}, ^{67}\text{Cu}')$, $(^{69}\text{Cu}, ^{69}\text{Cu}')$, $(^{71}\text{Cu}, ^{71}\text{Cu}')$, $E=2.99$ MeV / nucleon; $^{120}\text{Sn}(^{71}\text{Cu}, ^{71}\text{Cu}')$, $(^{73}\text{Cu}, ^{73}\text{Cu}')$, $E=2.99$ MeV / nucleon; measured $E\gamma$, $I\gamma$ following coulomb excitation. $^{67,69,71,73}\text{Cu}$; deduced level energies, $B(E2)$. JOUR PRLTA 100 112502

KEYNUMBERS AND KEYWORDS

A=71 (continued)

- ⁷¹Zn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2008ST01 RADIOACTIVITY ⁷¹Cu(β^-); measured magnetic moment of ground state. Compared with magnetic dipole moments of ^{57,59,61,63,65,67,69}Cu. JOUR PRVCA 77 014315
- ⁷¹Ga 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁷¹Ge 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁷¹As 2007KI17 NUCLEAR REACTIONS ⁷⁰Ge(p, γ), E=1.5-4.5 MeV; ⁷⁶Ge(p, n), E=1.5-4.5 MeV; measured E γ , I γ , cross sections; deduced astrophysical S-factors, reaction rates. JOUR PRVCA 76 055807

A=71 (continued)

2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609

A=72

^{72}Zn 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609

^{72}Ga 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=72 (continued)

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| ^{72}Ge | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{72}As | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{72}Se | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| | 2008LJ01 | <p>NUCLEAR REACTIONS $^{40}\text{Ca}(^{36}\text{Ar}, 2p\alpha)$, $(^{36}\text{Ar}, 4p)$, $E=136$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$-coin, lifetimes using recoil distance doppler shift method. $^{70,72}\text{Se}$; deduced level energies and $B(E2)$. JOUR PRLTA 100 102502</p> |

KEYNUMBERS AND KEYWORDS

A=72 (continued)

⁷²Kr 2007YA20 NUCLEAR REACTIONS C(⁷²Kr, X), (⁷⁶Kr, X), (⁸⁰Kr, X), E < 1 GeV / nucleon; measured particle energies, yields, and interaction cross sections. ^{72,76,80}Kr; deduced effective rms matter radii. JOUR ZSTNE 150 197

A=73

⁷³Cu 2008ST04 NUCLEAR REACTIONS ¹⁰⁴Pd(⁶⁷Cu, ⁶⁷Cu'), (⁶⁹Cu, ⁶⁹Cu'), (⁷¹Cu, ⁷¹Cu'), E=2.99 MeV / nucleon; ¹²⁰Sn(⁷¹Cu, ⁷¹Cu'), (⁷³Cu, ⁷³Cu'), E=2.99 MeV / nucleon; measured E_γ, I_γ following coulomb excitation. ^{67,69,71,73}Cu; deduced level energies, B(E2). JOUR PRLTA 100 112502

⁷³Ga 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

⁷³Ge 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr;

measured cross sections. JOUR PRVCA 76 064609

2008SC03 NUCLEAR REACTIONS ^{74,76}Ge, ^{76,78}Se(d, p), E=15 MeV; ⁷⁶Ge, ⁷⁶Se(p, d), E=23 MeV; ^{74,76}Ge, ^{76,78}Se(³He, α), E=26 MeV; ^{74,76}Ge, ^{76,78}Se(α, ³He), E=40 MeV; measured reaction products energy spectra, cross sections. Deduced summed spectroscopic strengths, neutron vacancies. JOUR PRLTA 100 112501

KEYNUMBERS AND KEYWORDS

A=73 (continued)

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| ^{73}As | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{73}Se | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |

A=74

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| ^{74}Ga | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
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A=74 (continued)

- ⁷⁴Ge 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁷⁴As 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁷⁴Se 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=74 (continued)

- ⁷⁴Br 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁷⁴Kr 2007G042 NUCLEAR REACTIONS ²⁰⁹Pb(⁷⁴Kr, ⁷⁴Kr'), (⁷⁶Kr, ⁷⁶Kr'), E=4.7 MeV / nucleon; measured E γ , I γ , (particle) γ -coin, angular distributions. ^{74,76}Kr; deduced B(E2), static quadrupole moments, shape coexistence. JOUR ZSTNE 150 117
- 2008VA03 NUCLEAR REACTIONS ⁴⁰Ca(⁴⁰Ca, 2p α), E=165 MeV; measured E γ , I γ , half-lives, transition quadrupole moments. ⁷⁴Kr; deduced excitation energies, rotational bands. JOUR PRVCA 77 024312

A=75

- ⁷⁵Zn 2008WI01 RADIOACTIVITY ⁷⁶Cu(β^- n); ⁷⁸Cu(β^-); ⁷⁹Cu(β^- n); measured E γ , I γ , $\beta\gamma$ -coin. ^{75,78}Zn; deduced levels. JOUR APOBB 39 525
- ⁷⁵Ga 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=75 (continued)

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| ^{75}Ge | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| | 2008SC03 | <p>NUCLEAR REACTIONS $^{74,76}\text{Ge}$, $^{76,78}\text{Se}(d, p)$, $E=15$ MeV; ^{76}Ge, $^{76}\text{Se}(p, d)$, $E=23$ MeV; $^{74,76}\text{Ge}$, $^{76,78}\text{Se}(^3\text{He}, \alpha)$, $E=26$ MeV; $^{74,76}\text{Ge}$, $^{76,78}\text{Se}(\alpha, ^3\text{He})$, $E=40$ MeV; measured reaction products energy spectra, cross sections. Deduced summed spectroscopic strengths, neutron vacancies. JOUR PRLTA 100 112501</p> |
| ^{75}As | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{75}Se | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |

KEYNUMBERS AND KEYWORDS

A=75 (continued)

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| 2008SC03 | NUCLEAR REACTIONS $^{74,76}\text{Ge}$, $^{76,78}\text{Se}(\text{d}, \text{p})$, $E=15$ MeV; ^{76}Ge , $^{76}\text{Se}(\text{p}, \text{d})$, $E=23$ MeV; $^{74,76}\text{Ge}$, $^{76,78}\text{Se}(\text{}^3\text{He}, \alpha)$, $E=26$ MeV; $^{74,76}\text{Ge}$, $^{76,78}\text{Se}(\alpha, \text{}^3\text{He})$, $E=40$ MeV; measured reaction products energy spectra, cross sections. Deduced summed spectroscopic strengths, neutron vacancies. JOUR PRLTA 100 112501 |
| ^{75}Br 2007NA31 | NUCLEAR REACTIONS $^{136}\text{Xe}(\text{p}, \text{X})$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$; measured cross sections. JOUR PRVCA 76 064609 |

A=76

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| ^{76}Cu 2008WI01 | RADIOACTIVITY $^{76}\text{Cu}(\beta^- \text{n})$; $^{78}\text{Cu}(\beta^-)$; $^{79}\text{Cu}(\beta^- \text{n})$; measured $E\gamma$, $I\gamma$, $\beta\gamma$ -coin. $^{75,78}\text{Zn}$; deduced levels. JOUR APOBB 39 525 |
| ^{76}Ge 2007NA31 | NUCLEAR REACTIONS $^{136}\text{Xe}(\text{p}, \text{X})$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$; measured cross sections. JOUR PRVCA 76 064609 |
| ^{76}As 2007KI17 | NUCLEAR REACTIONS $^{70}\text{Ge}(\text{p}, \gamma)$, $E=1.5\text{--}4.5$ MeV; $^{76}\text{Ge}(\text{p}, \text{n})$, $E=1.5\text{--}4.5$ MeV; measured $E\gamma$, $I\gamma$, cross sections; deduced astrophysical S-factors, reaction rates. JOUR PRVCA 76 055807 |

A=76 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- ^{76}Se 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- ^{76}Br 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- ^{76}Kr 2007G042 NUCLEAR REACTIONS $^{209}\text{Pb}(^{74}\text{Kr}, ^{74}\text{Kr}')$, $(^{76}\text{Kr}, ^{76}\text{Kr}')$, $E=4.7$ MeV / nucleon; measured $E\gamma$, $I\gamma$, (particle) γ -coin, angular distributions. $^{74,76}\text{Kr}$; deduced $B(E2)$, static quadrupole moments, shape coexistence. JOUR ZSTNE 150 117

A=76 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- 2007YA20 NUCLEAR REACTIONS $\text{C}(^{72}\text{Kr}, X)$, $(^{76}\text{Kr}, X)$, $(^{80}\text{Kr}, X)$, $E < 1$ GeV / nucleon; measured particle energies, yields, and interaction cross sections. $^{72,76,80}\text{Kr}$; deduced effective rms matter radii. JOUR ZSTNE 150 197

A=77

- ^{77}Ge 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- 2008SC03 NUCLEAR REACTIONS $^{74,76}\text{Ge}$, $^{76,78}\text{Se}(d, p)$, $E=15$ MeV; ^{76}Ge , $^{76}\text{Se}(p, d)$, $E=23$ MeV; $^{74,76}\text{Ge}$, $^{76,78}\text{Se}(^3\text{He}, \alpha)$, $E=26$ MeV; $^{74,76}\text{Ge}$, $^{76,78}\text{Se}(\alpha, ^3\text{He})$, $E=40$ MeV; measured reaction products energy spectra, cross sections. Deduced summed spectroscopic strengths, neutron vacancies. JOUR PRLTA 100 112501

A=77 (continued)

- ⁷⁷As 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁷⁷Se 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2008SC03 NUCLEAR REACTIONS ^{74,76}Ge, ^{76,78}Se(d, p), E=15 MeV; ⁷⁶Ge, ⁷⁶Se(p, d), E=23 MeV; ^{74,76}Ge, ^{76,78}Se(³He, α), E=26 MeV; ^{74,76}Ge, ^{76,78}Se(α, ³He), E=40 MeV; measured reaction products energy spectra, cross sections. Deduced summed spectroscopic strengths, neutron vacancies. JOUR PRLTA 100 112501
- ⁷⁷Br 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=77 (continued)

- ⁷⁷Kr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=78

- ⁷⁸Cu 2008WI01 RADIOACTIVITY ⁷⁶Cu(β^- n); ⁷⁸Cu(β^-); ⁷⁹Cu(β^- n); measured E γ , I γ , $\beta\gamma$ -coin. ^{75,78}Zn; deduced levels. JOUR APOBB 39 525
- ⁷⁸Zn 2008WI01 RADIOACTIVITY ⁷⁶Cu(β^- n); ⁷⁸Cu(β^-); ⁷⁹Cu(β^- n); measured E γ , I γ , $\beta\gamma$ -coin. ^{75,78}Zn; deduced levels. JOUR APOBB 39 525
- ⁷⁸As 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=78 (continued)

- ⁷⁸Se 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁷⁸Br 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁷⁸Kr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁷⁸Sr 2007NA37 RADIOACTIVITY ⁷⁸Y(β^+) [from ⁴⁰Ca(⁴⁰Ca, np), E=118, 121 MeV]; measured E γ , I γ , $\gamma\gamma$, $\beta\gamma$ -coin. ⁷⁸Y deduced levels. JOUR ZSTNE 150 147
- ⁷⁸Y 2007NA37 RADIOACTIVITY ⁷⁸Y(β^+) [from ⁴⁰Ca(⁴⁰Ca, np), E=118, 121 MeV]; measured E γ , I γ , $\gamma\gamma$, $\beta\gamma$ -coin. ⁷⁸Y deduced levels. JOUR ZSTNE 150 147

A=79

⁷⁹ Cu	2008WI01	RADIOACTIVITY ⁷⁶ Cu(β^- n); ⁷⁸ Cu(β^-); ⁷⁹ Cu(β^- n); measured E γ , I γ , $\beta\gamma$ -coin. ^{75,78} Zn; deduced levels. JOUR APOBB 39 525
⁷⁹ As	2007NA31	NUCLEAR REACTIONS ¹³⁶ Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8} Li, ^{9,10,11,12} Be, ^{10,11,12,13} B, ^{11,12,13,14,15} C, ^{13,14,15,16,17} N, ^{15,16,17,18,19} O, ^{17,18,19,20,21} F, ^{19,20,21,22,23} Ne, ^{22,23,24,25} Na, ^{23,24,25,26,27} Mg, ^{25,26,27,28,29,30} Al, ^{28,29,30,31,32} Si, ^{30,31,32,33,34} P, ^{32,33,34,35,36,37,38} S, ^{34,35,36,37,38,39,40} Cl, ^{36,37,38,39,40,41,42,43} Ar, ^{39,40,41,42,43,44,45} K, ^{41,42,43,44,45,46,47} Ca, ^{43,44,45,46,47,48,49,50} Sc, ^{45,46,47,48,49,50,51,52} Ti, ^{46,47,48,49,50,51,52,53,54,55} V, ^{49,50,51,52,53,54,55,56,57} Cr, ^{50,51,52,53,54,55,56,57,58,59,60} Mn, ^{55,56,57,58,59,60,61,62} Fe, ^{57,58,59,60,61,62,63,64,65} Co, ^{59,60,61,62,63,64,65,66,67} Ni, ^{60,61,62,63,64,65,66,67,68,69,70} Cu, ^{62,63,64,65,66,67,68,69,70,71,72} Zn, ^{66,67,68,69,70,71,72,73,74,75} Ga, ^{68,69,70,71,72,73,74,75,76,77} Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81} As, ^{72,73,74,75,76,77,78,79,80,81,82,83} Se, ^{74,75,76,77,78,79,80,81,82,83,84,85} Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88} Kr; measured cross sections. JOUR PRVCA 76 064609
⁷⁹ Se	2007NA31	NUCLEAR REACTIONS ¹³⁶ Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8} Li, ^{9,10,11,12} Be, ^{10,11,12,13} B, ^{11,12,13,14,15} C, ^{13,14,15,16,17} N, ^{15,16,17,18,19} O, ^{17,18,19,20,21} F, ^{19,20,21,22,23} Ne, ^{22,23,24,25} Na, ^{23,24,25,26,27} Mg, ^{25,26,27,28,29,30} Al, ^{28,29,30,31,32} Si, ^{30,31,32,33,34} P, ^{32,33,34,35,36,37,38} S, ^{34,35,36,37,38,39,40} Cl, ^{36,37,38,39,40,41,42,43} Ar, ^{39,40,41,42,43,44,45} K, ^{41,42,43,44,45,46,47} Ca, ^{43,44,45,46,47,48,49,50} Sc, ^{45,46,47,48,49,50,51,52} Ti, ^{46,47,48,49,50,51,52,53,54,55} V, ^{49,50,51,52,53,54,55,56,57} Cr, ^{50,51,52,53,54,55,56,57,58,59,60} Mn, ^{55,56,57,58,59,60,61,62} Fe, ^{57,58,59,60,61,62,63,64,65} Co, ^{59,60,61,62,63,64,65,66,67} Ni, ^{60,61,62,63,64,65,66,67,68,69,70} Cu, ^{62,63,64,65,66,67,68,69,70,71,72} Zn, ^{66,67,68,69,70,71,72,73,74,75} Ga, ^{68,69,70,71,72,73,74,75,76,77} Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81} As, ^{72,73,74,75,76,77,78,79,80,81,82,83} Se, ^{74,75,76,77,78,79,80,81,82,83,84,85} Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88} Kr; measured cross sections. JOUR PRVCA 76 064609
	2008SC03	NUCLEAR REACTIONS ^{74,76} Ge, ^{76,78} Se(d, p), E=15 MeV; ⁷⁶ Ge, ⁷⁶ Se(p, d), E=23 MeV; ^{74,76} Ge, ^{76,78} Se(³ He, α), E=26 MeV; ^{74,76} Ge, ^{76,78} Se(α , ³ He), E=40 MeV; measured reaction products energy spectra, cross sections. Deduced summed spectroscopic strengths, neutron vacancies. JOUR PRLTA 100 112501

KEYNUMBERS AND KEYWORDS

A=79 (continued)

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| ⁷⁹ Br | 2007NA31 | <p>NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| ⁷⁹ Kr | 2007NA31 | <p>NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr;</p> <p>measured cross sections. JOUR PRVCA 76 064609</p> |
| | 2008SI05 | <p>NUCLEAR REACTIONS ⁷⁴Ge(¹⁶O, 4n), (¹⁶O, 2np), (¹⁶O, 3np), (¹⁶O, 4np), (¹⁶O, nα), (¹⁶O, 3nα), (¹⁶O, 2npα), (¹⁶O, 3npα), (¹⁶O, 3n2α), E=60.2-111.6 MeV; measured E_γ, I_γ, cross sections using stacked foil activation. JOUR CJOPA 46 27</p> |

KEYNUMBERS AND KEYWORDS

A=79 (continued)

⁷⁹Rb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=80

⁸⁰Zn 2007VE08 RADIOACTIVITY ⁸¹Zn, ⁸¹Ga, ⁸¹Ge, ⁸¹As (β^-) [from U(d, F), E=26 MeV]; ⁸¹Zn, ⁸¹Ga (β^-n); measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -, $\beta\gamma$ -coin, half-lives. ⁸¹Ga; deduced levels, J, π , configurations. ⁸¹Ga, ⁸³As; calculated levels, J, π , configurations. ⁸⁰Zn, ⁸¹Ga, ⁸²Ge, ⁸³As, ⁸⁴Se, ⁸⁵Br, ⁸⁶Kr, ⁸⁷Rb; systematics. JOUR PRVCA 76 054312

⁸⁰As 2007B050 ATOMIC MASSES ⁸⁰As, ⁸¹Se; measured masses a penning trap mass spectrometer. JOUR ZSTNE 150 337

 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

⁸⁰Se 2007J014 NUCLEAR REACTIONS ¹⁹²Os(⁸²Se, X), E=460 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin. ^{80,82}Se; deduced levels, J, π , configurations. JOUR PRVCA 76 054317

A=80 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- ^{80}Br 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- ^{80}Kr 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609
- 2007YA20 NUCLEAR REACTIONS $\text{C}(^{72}\text{Kr}, X)$, $(^{76}\text{Kr}, X)$, $(^{80}\text{Kr}, X)$, $E < 1$ GeV / nucleon; measured particle energies, yields, and interaction cross sections. $^{72,76,80}\text{Kr}$; deduced effective rms matter radii. JOUR ZSTNE 150 197

A=80 (continued)

⁸⁰Rb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=81

⁸¹Zn 2007VE08 RADIOACTIVITY ⁸¹Zn, ⁸¹Ga, ⁸¹Ge, ⁸¹As (β^-) [from U(d, F), E=26 MeV]; ⁸¹Zn, ⁸¹Ga (β^-n); measured E γ , I γ , $\gamma\gamma$ -, $\beta\gamma$ -coin, half-lives. ⁸¹Ga; deduced levels, J, π , configurations. ⁸¹Ga, ⁸³As; calculated levels, J, π , configurations. ⁸⁰Zn, ⁸¹Ga, ⁸²Ge, ⁸³As, ⁸⁴Se, ⁸⁵Br, ⁸⁶Kr, ⁸⁷Rb; systematics. JOUR PRVCA 76 054312

⁸¹Ga 2007VE08 RADIOACTIVITY ⁸¹Zn, ⁸¹Ga, ⁸¹Ge, ⁸¹As (β^-) [from U(d, F), E=26 MeV]; ⁸¹Zn, ⁸¹Ga (β^-n); measured E γ , I γ , $\gamma\gamma$ -, $\beta\gamma$ -coin, half-lives. ⁸¹Ga; deduced levels, J, π , configurations. ⁸¹Ga, ⁸³As; calculated levels, J, π , configurations. ⁸⁰Zn, ⁸¹Ga, ⁸²Ge, ⁸³As, ⁸⁴Se, ⁸⁵Br, ⁸⁶Kr, ⁸⁷Rb; systematics. JOUR PRVCA 76 054312

⁸¹Ge 2007VE08 RADIOACTIVITY ⁸¹Zn, ⁸¹Ga, ⁸¹Ge, ⁸¹As (β^-) [from U(d, F), E=26 MeV]; ⁸¹Zn, ⁸¹Ga (β^-n); measured E γ , I γ , $\gamma\gamma$ -, $\beta\gamma$ -coin, half-lives. ⁸¹Ga; deduced levels, J, π , configurations. ⁸¹Ga, ⁸³As; calculated levels, J, π , configurations. ⁸⁰Zn, ⁸¹Ga, ⁸²Ge, ⁸³As, ⁸⁴Se, ⁸⁵Br, ⁸⁶Kr, ⁸⁷Rb; systematics. JOUR PRVCA 76 054312

A=81 (continued)

- ⁸¹As 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2007VE08 RADIOACTIVITY ⁸¹Zn, ⁸¹Ga, ⁸¹Ge, ⁸¹As (β^-) [from U(d, F), E=26 MeV]; ⁸¹Zn, ⁸¹Ga (β^-n); measured E γ , I γ , $\gamma\gamma$ -, $\beta\gamma$ -coin, half-lives. ⁸¹Ga; deduced levels, J, π , configurations. ⁸¹Ga, ⁸³As; calculated levels, J, π , configurations. ⁸⁰Zn, ⁸¹Ga, ⁸²Ge, ⁸³As, ⁸⁴Se, ⁸⁵Br, ⁸⁶Kr, ⁸⁷Rb; systematics. JOUR PRVCA 76 054312
- ⁸¹Se 2007B050 ATOMIC MASSES ⁸⁰As, ⁸¹Se; measured masses a penning trap mass spectrometer. JOUR ZSTNE 150 337
- 2007LU18 NUCLEAR REACTIONS ¹⁷⁵Lu, ¹⁹⁸Pt, ⁸²Se(n, 2n), E=13.5-14.6 MeV; measured E γ , I γ ; deduced cross sections, isomeric cross section ratios. ⁹³Nb(n, 2n), E=13.5-14.6 MeV; compared cross sections. Comparisons with nuclear model calculations using the HFTT code. JOUR NIMBE 265 453
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- 2008NA01 NUCLEAR REACTIONS ⁸⁰Se(n, γ), E=thermal; measured E γ , I γ , thermal neutron capture cross sections to the ground and isomeric states using stacked foil activation. JOUR JNSTA 45 116

A=81 (continued)

- ⁸¹Br 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁸¹Kr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁸¹Rb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=81 (continued)

- ⁸¹Sr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=82

- ⁸²Ge 2007VE08 RADIOACTIVITY ⁸¹Zn, ⁸¹Ga, ⁸¹Ge, ⁸¹As (β^-) [from U(d, F), E=26 MeV]; ⁸¹Zn, ⁸¹Ga (β^-n); measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -, $\beta\gamma$ -coin, half-lives. ⁸¹Ga; deduced levels, J, π , configurations. ⁸¹Ga, ⁸³As; calculated levels, J, π , configurations. ⁸⁰Zn, ⁸¹Ga, ⁸²Ge, ⁸³As, ⁸⁴Se, ⁸⁵Br, ⁸⁶Kr, ⁸⁷Rb; systematics. JOUR PRVCA 76 054312
- ⁸²Se 2007J014 NUCLEAR REACTIONS ¹⁹²Os(⁸²Se, X), E=460 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin. ^{80,82}Se; deduced levels, J, π , configurations. JOUR PRVCA 76 054317
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

A=82 (continued)

- ⁸²Br 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁸²Kr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁸²Rb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=82 (continued)

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| 2008SI05 | | NUCLEAR REACTIONS $^{74}\text{Ge}(^{16}\text{O}, 4n)$, $(^{16}\text{O}, 2np)$, $(^{16}\text{O}, 3np)$, $(^{16}\text{O}, 4np)$, $(^{16}\text{O}, n\alpha)$, $(^{16}\text{O}, 3n\alpha)$, $(^{16}\text{O}, 2np\alpha)$, $(^{16}\text{O}, 3np\alpha)$, $(^{16}\text{O}, 3n2\alpha)$, $E=60.2\text{-}111.6$ MeV; measured E_γ , I_γ , cross sections using stacked foil activation. JOUR CJOPA 46 27 |
| ^{82}Sr | 2007NA31 | NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609 |
| ^{82}Nb | 2008GA04 | NUCLEAR REACTIONS $^9\text{Be}(^{107}\text{Ag}, X)^{82}\text{Nb} / ^{86}\text{Tc}$, $E=750$ MeV / nucleon; measured fragment and delayed γ spectra, (fragment) γ -coin. ^{82}Nb , ^{86}Tc deduced level energies, J , π , $T_{1/2}$, conversion coefficients. Deformation and K hindrance discussed. JOUR PYLBB 660 326 |

A=83

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| ^{83}As | 2007VE08 | RADIOACTIVITY ^{81}Zn , ^{81}Ga , ^{81}Ge , $^{81}\text{As} (\beta^-)$ [from U(d, F), $E=26$ MeV]; ^{81}Zn , $^{81}\text{Ga} (\beta^-n)$; measured E_γ , I_γ , $\gamma\gamma^-$, $\beta\gamma$ -coin, half-lives. ^{81}Ga ; deduced levels, J , π , configurations. ^{81}Ga , ^{83}As ; calculated levels, J , π , configurations. ^{80}Zn , ^{81}Ga , ^{82}Ge , ^{83}As , ^{84}Se , ^{85}Br , ^{86}Kr , ^{87}Rb ; systematics. JOUR PRVCA 76 054312 |
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A=83 (continued)

- ⁸³Se 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁸³Br 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁸³Kr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=83 (continued)

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| ^{83}Rb | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |
| | 2008SI05 | <p>NUCLEAR REACTIONS $^{74}\text{Ge}(^{16}\text{O}, 4n)$, $(^{16}\text{O}, 2np)$, $(^{16}\text{O}, 3np)$, $(^{16}\text{O}, 4np)$, $(^{16}\text{O}, n\alpha)$, $(^{16}\text{O}, 3n\alpha)$, $(^{16}\text{O}, 2np\alpha)$, $(^{16}\text{O}, 3np\alpha)$, $(^{16}\text{O}, 3n2\alpha)$, E=60.2-111.6 MeV; measured E_γ, I_γ, cross sections using stacked foil activation. JOUR CJOPA 46 27</p> |
| ^{83}Sr | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |

KEYNUMBERS AND KEYWORDS

A=83 (continued)

2008SI05 NUCLEAR REACTIONS $^{74}\text{Ge}(^{16}\text{O}, 4n)$, $(^{16}\text{O}, 2np)$, $(^{16}\text{O}, 3np)$, $(^{16}\text{O}, 4np)$, $(^{16}\text{O}, n\alpha)$, $(^{16}\text{O}, 3n\alpha)$, $(^{16}\text{O}, 2np\alpha)$, $(^{16}\text{O}, 3np\alpha)$, $(^{16}\text{O}, 3n2\alpha)$, $E=60.2\text{-}111.6$ MeV; measured $E\gamma$, $I\gamma$, cross sections using stacked foil activation. JOUR CJOPA 46 27

A=84

^{84}Se 2007VE08 RADIOACTIVITY ^{81}Zn , ^{81}Ga , ^{81}Ge , ^{81}As (β^-) [from U(d, F), $E=26$ MeV]; ^{81}Zn , ^{81}Ga (β^-n); measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -, $\beta\gamma$ -coin, half-lives. ^{81}Ga ; deduced levels, J, π , configurations. ^{81}Ga , ^{83}As ; calculated levels, J, π , configurations. ^{80}Zn , ^{81}Ga , ^{82}Ge , ^{83}As , ^{84}Se , ^{85}Br , ^{86}Kr , ^{87}Rb ; systematics. JOUR PRVCA 76 054312

^{84}Br 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609

^{84}Kr 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{6,7,8}\text{Li}$, $^{9,10,11,12}\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609

A=84 (continued)

- ⁸⁴Rb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁸⁴Sr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=84 (continued)

⁸⁴Y 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=85

⁸⁵Br 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609

2007VE08 RADIOACTIVITY ⁸¹Zn, ⁸¹Ga, ⁸¹Ge, ⁸¹As (β^-) [from U(d, F), E=26 MeV]; ⁸¹Zn, ⁸¹Ga (β^-n); measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -, $\beta\gamma$ -coin, half-lives. ⁸¹Ga; deduced levels, J, π , configurations. ⁸¹Ga, ⁸³As; calculated levels, J, π , configurations. ⁸⁰Zn, ⁸¹Ga, ⁸²Ge, ⁸³As, ⁸⁴Se, ⁸⁵Br, ⁸⁶Kr, ⁸⁷Rb; systematics. JOUR PRVCA 76 054312

A=85 (continued)

- ⁸⁵Kr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁸⁵Rb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=85 (continued)

^{85}Sr	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>
	2008SI05	<p>NUCLEAR REACTIONS $^{74}\text{Ge}(^{16}\text{O}, 4n)$, $(^{16}\text{O}, 2np)$, $(^{16}\text{O}, 3np)$, $(^{16}\text{O}, 4np)$, $(^{16}\text{O}, n\alpha)$, $(^{16}\text{O}, 3n\alpha)$, $(^{16}\text{O}, 2np\alpha)$, $(^{16}\text{O}, 3np\alpha)$, $(^{16}\text{O}, 3n2\alpha)$, E=60.2-111.6 MeV; measured E_γ, I_γ, cross sections using stacked foil activation. JOUR CJOPA 46 27</p>
^{85}Y	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>

A=85 (continued)

2008SI05 NUCLEAR REACTIONS $^{74}\text{Ge}(^{16}\text{O}, 4n)$, $(^{16}\text{O}, 2np)$, $(^{16}\text{O}, 3np)$, $(^{16}\text{O}, 4np)$, $(^{16}\text{O}, n\alpha)$, $(^{16}\text{O}, 3n\alpha)$, $(^{16}\text{O}, 2np\alpha)$, $(^{16}\text{O}, 3np\alpha)$, $(^{16}\text{O}, 3n2\alpha)$, $E=60.2\text{-}111.6$ MeV; measured E_γ , I_γ , cross sections using stacked foil activation. JOUR CJOPA 46 27

A=86

^{86}Kr 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^6,7,8\text{Li}$, $^9,10,11,12\text{Be}$, $^{10,11,12,13}\text{B}$, $^{11,12,13,14,15}\text{C}$, $^{13,14,15,16,17}\text{N}$, $^{15,16,17,18,19}\text{O}$, $^{17,18,19,20,21}\text{F}$, $^{19,20,21,22,23}\text{Ne}$, $^{22,23,24,25}\text{Na}$, $^{23,24,25,26,27}\text{Mg}$, $^{25,26,27,28,29,30}\text{Al}$, $^{28,29,30,31,32}\text{Si}$, $^{30,31,32,33,34}\text{P}$, $^{32,33,34,35,36,37,38}\text{S}$, $^{34,35,36,37,38,39,40}\text{Cl}$, $^{36,37,38,39,40,41,42,43}\text{Ar}$, $^{39,40,41,42,43,44,45}\text{K}$, $^{41,42,43,44,45,46,47}\text{Ca}$, $^{43,44,45,46,47,48,49,50}\text{Sc}$, $^{45,46,47,48,49,50,51,52}\text{Ti}$, $^{46,47,48,49,50,51,52,53,54,55}\text{V}$, $^{49,50,51,52,53,54,55,56,57}\text{Cr}$, $^{50,51,52,53,54,55,56,57,58,59,60}\text{Mn}$, $^{55,56,57,58,59,60,61,62}\text{Fe}$, $^{57,58,59,60,61,62,63,64,65}\text{Co}$, $^{59,60,61,62,63,64,65,66,67}\text{Ni}$, $^{60,61,62,63,64,65,66,67,68,69,70}\text{Cu}$, $^{62,63,64,65,66,67,68,69,70,71,72}\text{Zn}$, $^{66,67,68,69,70,71,72,73,74,75}\text{Ga}$, $^{68,69,70,71,72,73,74,75,76,77}\text{Ge}$, $^{70,71,72,73,74,75,76,77,78,79,80,81}\text{As}$, $^{72,73,74,75,76,77,78,79,80,81,82,83}\text{Se}$, $^{74,75,76,77,78,79,80,81,82,83,84,85}\text{Br}$, $^{76,77,78,79,80,81,82,83,84,85,86,87,88}\text{Kr}$;
measured cross sections. JOUR PRVCA 76 064609

2007VE08 RADIOACTIVITY ^{81}Zn , ^{81}Ga , ^{81}Ge , ^{81}As (β^-) [from U(d, F), $E=26$ MeV]; ^{81}Zn , ^{81}Ga (β^-n); measured E_γ , I_γ , $\gamma\gamma^-$, $\beta\gamma$ -coin, half-lives. ^{81}Ga ; deduced levels, J, π , configurations. ^{81}Ga , ^{83}As ; calculated levels, J, π , configurations. ^{80}Zn , ^{81}Ga , ^{82}Ge , ^{83}As , ^{84}Se , ^{85}Br , ^{86}Kr , ^{87}Rb ; systematics. JOUR PRVCA 76 054312

^{86}Rb 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=86 (continued)

- ⁸⁶Sr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁸⁶Y 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2008SI05 NUCLEAR REACTIONS ⁷⁴Ge(¹⁶O, 4n), (¹⁶O, 2np), (¹⁶O, 3np), (¹⁶O, 4np), (¹⁶O, nα), (¹⁶O, 3nα), (¹⁶O, 2npα), (¹⁶O, 3npα), (¹⁶O, 3n2α), E=60.2-111.6 MeV; measured E_γ, I_γ, cross sections using stacked foil activation. JOUR CJOPA 46 27

KEYNUMBERS AND KEYWORDS

A=86 (continued)

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| 2008UD02 | NUCLEAR REACTIONS Zr(p, X) ⁸⁸ Zr / ⁸⁹ Zr / ⁸⁶ Y / ⁸⁷ Y / ⁸⁸ Y / ⁹⁰ Nb / ⁹² Nb / ⁹⁵ Nb / ⁹⁶ Nb, E=4-40 MeV; measured E γ , I γ , cross sections, and excitation functions using the stacked foil activation technique. JOUR NIMBE 266 13 |
| ⁸⁶ Zr | <p>2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609</p> <p>2008SI05 NUCLEAR REACTIONS ⁷⁴Ge(¹⁶O, 4n), (¹⁶O, 2np), (¹⁶O, 3np), (¹⁶O, 4np), (¹⁶O, nα), (¹⁶O, 3nα), (¹⁶O, 2npα), (¹⁶O, 3npα), (¹⁶O, 3n2α), E=60.2-111.6 MeV; measured Eγ, Iγ, cross sections using stacked foil activation. JOUR CJOPA 46 27</p> <p>⁸⁶Tc 2008GA04 NUCLEAR REACTIONS ⁹Be(¹⁰⁷Ag, X)⁸²Nb / ⁸⁶Tc, E=750 MeV / nucleon; measured fragment and delayed γ spectra, (fragment)γ-coin. ⁸²Nb, ⁸⁶Tc deduced level energies, J, π, T_{1/2}, conversion coefficients. Deformation and K hindrance discussed. JOUR PYLBB 660 326</p> |

A=87

- ⁸⁷Kr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁸⁷Rb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2007VE08 RADIOACTIVITY ⁸¹Zn, ⁸¹Ga, ⁸¹Ge, ⁸¹As (β^-) [from U(d, F), E=26 MeV]; ⁸¹Zn, ⁸¹Ga (β^-n); measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -, $\beta\gamma$ -coin, half-lives. ⁸¹Ga; deduced levels, J, π , configurations. ⁸¹Ga, ⁸³As; calculated levels, J, π , configurations. ⁸⁰Zn, ⁸¹Ga, ⁸²Ge, ⁸³As, ⁸⁴Se, ⁸⁵Br, ⁸⁶Kr, ⁸⁷Rb; systematics. JOUR PRVCA 76 054312

A=87 (continued)

- ⁸⁷Sr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁸⁷Y 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2008SI05 NUCLEAR REACTIONS ⁷⁴Ge(¹⁶O, 4n), (¹⁶O, 2np), (¹⁶O, 3np), (¹⁶O, 4np), (¹⁶O, nα), (¹⁶O, 3nα), (¹⁶O, 2npα), (¹⁶O, 3npα), (¹⁶O, 3n2α), E=60.2-111.6 MeV; measured E_γ, I_γ, cross sections using stacked foil activation. JOUR CJOPA 46 27

KEYNUMBERS AND KEYWORDS

A=87 (continued)

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| 2008UD02 | NUCLEAR REACTIONS Zr(p, X) ⁸⁸ Zr / ⁸⁹ Zr / ⁸⁶ Y / ⁸⁷ Y / ⁸⁸ Y / ⁹⁰ Nb / ⁹² Nb / ⁹⁵ Nb / ⁹⁶ Nb, E=4-40 MeV; measured E γ , I γ , cross sections, and excitation functions using the stacked foil activation technique. JOUR NIMBE 266 13 |
| ⁸⁷ Zr | <p>2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609</p> |
| ⁸⁷ Nb | <p>2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609</p> |

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- ⁸⁸Kr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{6,7,8}Li, ^{9,10,11,12}Be, ^{10,11,12,13}B, ^{11,12,13,14,15}C, ^{13,14,15,16,17}N, ^{15,16,17,18,19}O, ^{17,18,19,20,21}F, ^{19,20,21,22,23}Ne, ^{22,23,24,25}Na, ^{23,24,25,26,27}Mg, ^{25,26,27,28,29,30}Al, ^{28,29,30,31,32}Si, ^{30,31,32,33,34}P, ^{32,33,34,35,36,37,38}S, ^{34,35,36,37,38,39,40}Cl, ^{36,37,38,39,40,41,42,43}Ar, ^{39,40,41,42,43,44,45}K, ^{41,42,43,44,45,46,47}Ca, ^{43,44,45,46,47,48,49,50}Sc, ^{45,46,47,48,49,50,51,52}Ti, ^{46,47,48,49,50,51,52,53,54,55}V, ^{49,50,51,52,53,54,55,56,57}Cr, ^{50,51,52,53,54,55,56,57,58,59,60}Mn, ^{55,56,57,58,59,60,61,62}Fe, ^{57,58,59,60,61,62,63,64,65}Co, ^{59,60,61,62,63,64,65,66,67}Ni, ^{60,61,62,63,64,65,66,67,68,69,70}Cu, ^{62,63,64,65,66,67,68,69,70,71,72}Zn, ^{66,67,68,69,70,71,72,73,74,75}Ga, ^{68,69,70,71,72,73,74,75,76,77}Ge, ^{70,71,72,73,74,75,76,77,78,79,80,81}As, ^{72,73,74,75,76,77,78,79,80,81,82,83}Se, ^{74,75,76,77,78,79,80,81,82,83,84,85}Br, ^{76,77,78,79,80,81,82,83,84,85,86,87,88}Kr; measured cross sections. JOUR PRVCA 76 064609
- ⁸⁸Rb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=88 (continued)

- ⁸⁸Sr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁸⁸Y 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2008UD02 NUCLEAR REACTIONS Zr(p, X)⁸⁸Zr / ⁸⁹Zr / ⁸⁶Y / ⁸⁷Y / ⁸⁸Y / ⁹⁰Nb / ⁹²Nb / ⁹⁵Nb / ⁹⁶Nb, E=4-40 MeV; measured E_γ, I_γ, cross sections, and excitation functions using the stacked foil activation technique. JOUR NIMBE 266 13

KEYNUMBERS AND KEYWORDS

A=88 (continued)

^{88}Zr	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>
	2008UD02	<p>NUCLEAR REACTIONS $\text{Zr}(p, X)^{88}\text{Zr} / ^{89}\text{Zr} / ^{86}\text{Y} / ^{87}\text{Y} / ^{88}\text{Y} / ^{90}\text{Nb} / ^{92}\text{Nb} / ^{95}\text{Nb} / ^{96}\text{Nb}$, E=4-40 MeV; measured $E\gamma$, $I\gamma$, cross sections, and excitation functions using the stacked foil activation technique. JOUR NIMBE 266 13</p>
^{88}Nb	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>

KEYNUMBERS AND KEYWORDS

A=89

^{89}Rb	2007BU35	NUCLEAR REACTIONS $^{208}\text{Pb}(^{90}\text{Zr}, \text{X})^{89}\text{Rb}$, E=590 MeV; $^{238}\text{U}(^{82}\text{Se}, \text{X})^{92}\text{Y} / ^{93}\text{Y}$, E=505 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma\gamma$ -coin, angular distribution, multipolarity. ^{89}Rb , $^{92,93}\text{Y}$; deduced levels, J, π , configurations. Comparisons to shell model calculations, and structure in ^{94}Nb . JOUR PRVCA 76 064301
	2007NA31	NUCLEAR REACTIONS $^{136}\text{Xe}(\text{p}, \text{X})$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
^{89}Sr	2007NA31	NUCLEAR REACTIONS $^{136}\text{Xe}(\text{p}, \text{X})$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=89 (continued)

- ⁸⁹Y 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2008OH02 NUCLEAR REACTIONS ⁵⁶Fe, ⁸⁹Y, ²⁰⁸Pb(n, n), E=96 MeV; measured $\sigma(\theta)$; ¹²C, ¹⁶O; systematics, compared with Wick's limit. JOUR PRVCA 77 024605
- ⁸⁹Zr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2008AT01 NUCLEAR REACTIONS ⁹⁰Zr(n, 2n), E=13.73-14.77 MeV; measured E γ , I γ , σ for metastable state production; calculated $\sigma(E)$ using EMPIRE and TALYS codes. JOUR NUPAB 802 1

KEYNUMBERS AND KEYWORDS

A=89 (continued)

- 2008UD02 NUCLEAR REACTIONS Zr(p, X)⁸⁸Zr / ⁸⁹Zr / ⁸⁶Y / ⁸⁷Y / ⁸⁸Y / ⁹⁰Nb / ⁹²Nb / ⁹⁵Nb / ⁹⁶Nb, E=4-40 MeV; measured E γ , I γ , cross sections, and excitation functions using the stacked foil activation technique. JOUR NIMBE 266 13
- ⁸⁹Nb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2008UD01 NUCLEAR REACTIONS Mo(p, X)^{89g}Nb / ^{93m,93g}Tc / ^{94m}Tc, E=25.9-67.8 MeV; Mo(p, X)⁹⁰Mo / ⁹⁷Nb, E=31.9-67.8 MeV; Mo(p, X)^{89m}Nb, E=46.6-67.8 MeV; measured E γ , I γ , excitation functions, cross sections and integral yields using stacked-foil activation technique, natural Mo target. ⁸⁹Nb, ^{89m}Nb, ⁹⁰Mo, ^{93m}Tc, ^{93g}Tc, ^{94m}Tc, ⁹⁷Nb; isotopic yields and production. JOUR ARISE 66 208

A=90

- ⁹⁰Rb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹⁰Sr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=90 (continued)

- ⁹⁰Y 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹⁰Zr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=90 (continued)

- ⁹⁰Nb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2008UD02 NUCLEAR REACTIONS Zr(p, X)⁸⁸Zr / ⁸⁹Zr / ⁸⁶Y / ⁸⁷Y / ⁸⁸Y / ⁹⁰Nb / ⁹²Nb / ⁹⁵Nb / ⁹⁶Nb, E=4-40 MeV; measured E_γ, I_γ, cross sections, and excitation functions using the stacked foil activation technique. JOUR NIMBE 266 13
- ⁹⁰Mo 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=90 (continued)

2008UD01 NUCLEAR REACTIONS Mo(p, X)^{89g}Nb / ^{93m,93g}Tc / ^{94m}Tc, E=25.9-67.8 MeV; Mo(p, X)⁹⁰Mo / ⁹⁷Nb, E=31.9-67.8 MeV; Mo(p, X)^{89m}Nb, E=46.6-67.8 MeV; measured E γ , I γ , excitation functions, cross sections and integral yields using stacked-foil activation technique, natural Mo target. ⁸⁹Nb, ^{89m}Nb, ⁹⁰Mo, ^{93m}Tc, ^{93g}Tc, ^{94m}Tc, ⁹⁷Nb; isotopic yields and production. JOUR ARISE 66 208

A=91

⁹¹Sr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=91 (continued)

- ⁹¹Y 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹¹Zr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=91 (continued)

- ⁹¹Nb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹¹Mo 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=92

- ⁹²Sr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹²Y 2007BU35 NUCLEAR REACTIONS ²⁰⁸Pb(⁹⁰Zr, X)⁸⁹Rb, E=590 MeV; ²³⁸U(⁸²Se, X)⁹²Y / ⁹³Y, E=505 MeV; measured E γ , I γ , $\gamma\gamma\gamma$ -coin, angular distribution, multipolarity. ⁸⁹Rb, ^{92,93}Y; deduced levels, J, π , configurations. Comparisons to shell model calculations, and structure in ⁹⁴Nb. JOUR PRVCA 76 064301
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=92 (continued)

- ⁹²Zr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹²Nb 2007LU18 NUCLEAR REACTIONS ¹⁷⁵Lu, ¹⁹⁸Pt, ⁸²Se(n, 2n), E=13.5-14.6 MeV; measured E γ , I γ ; deduced cross sections, isomeric cross section ratios. ⁹³Nb(n, 2n), E=13.5-14.6 MeV; compared cross sections. Comparisons with nuclear model calculations using the HFTT code. JOUR NIMBE 265 453
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=92 (continued)

	2008UD02	NUCLEAR REACTIONS Zr(p, X) ⁸⁸ Zr / ⁸⁹ Zr / ⁸⁶ Y / ⁸⁷ Y / ⁸⁸ Y / ⁹⁰ Nb / ⁹² Nb / ⁹⁵ Nb / ⁹⁶ Nb, E=4-40 MeV; measured E γ , I γ , cross sections, and excitation functions using the stacked foil activation technique. JOUR NIMBE 266 13
⁹² Mo	2007NA31	NUCLEAR REACTIONS ¹³⁶ Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90} Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93} Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96} Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99} Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100} Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104} Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106} Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109} Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111} Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115} Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122} Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125} Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127} In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130} Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132} Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134} Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135} I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135} Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136} Cs, ^{127,128,129,130,131,132} Ba; measured cross sections. JOUR PRVCA 76 064609
⁹² Tc	2007NA31	NUCLEAR REACTIONS ¹³⁶ Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90} Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93} Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96} Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99} Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100} Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104} Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106} Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109} Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111} Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115} Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122} Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125} Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127} In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130} Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132} Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134} Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135} I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135} Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136} Cs, ^{127,128,129,130,131,132} Ba; measured cross sections. JOUR PRVCA 76 064609

A=93

- ⁹³Sr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹³Y 2007BU35 NUCLEAR REACTIONS ²⁰⁸Pb(⁹⁰Zr, X)⁸⁹Rb, E=590 MeV; ²³⁸U(⁸²Se, X)⁹²Y / ⁹³Y, E=505 MeV; measured E γ , I γ , $\gamma\gamma\gamma$ -coin, angular distribution, multipolarity. ⁸⁹Rb, ^{92,93}Y; deduced levels, J, π , configurations. Comparisons to shell model calculations, and structure in ⁹⁴Nb. JOUR PRVCA 76 064301
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=93 (continued)

- ⁹³Zr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹³Nb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹³Mo 2007LU19 NUCLEAR REACTIONS ²⁷Al(n, α), E=13.5-14.8 MeV; ^{96,98,104}Ru(n, 2n), E=13.5-14.8 MeV; ^{96,102,104}Ru(n, p)⁹⁶Tc / ^{96m}Tc / ^{102m}Tc / ¹⁰⁴Tc, E=13.5-14.8 MeV; ^{96,102,104}Ru(n, α)^{93m}Mo / ⁹⁹Mo / ¹⁰¹Mo, E=13.5-14.8 MeV; ⁹⁶Ru(n, d)^{95m}Tc, E=13.5-14.8 MeV; measured E_γ, I_γ; cross sections. JOUR PRVCA 76 057601

A=93 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{93}Tc 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- 2008UD01 NUCLEAR REACTIONS $\text{Mo}(p, X)^{89g}\text{Nb}$ / $^{93m,93g}\text{Tc}$ / ^{94m}Tc , $E=25.9-67.8$ MeV; $\text{Mo}(p, X)^{90}\text{Mo}$ / ^{97}Nb , $E=31.9-67.8$ MeV; $\text{Mo}(p, X)^{89m}\text{Nb}$, $E=46.6-67.8$ MeV; measured $E\gamma$, $I\gamma$, excitation functions, cross sections and integral yields using stacked-foil activation technique, natural Mo target. ^{89}Nb , ^{89m}Nb , ^{90}Mo , ^{93m}Tc , ^{93g}Tc , ^{94m}Tc , ^{97}Nb ; isotopic yields and production. JOUR ARISE 66 208

A=94

- ⁹⁴Y 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹⁴Zr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=94 (continued)

- ⁹⁴Nb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹⁴Mo 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=94 (continued)

^{94}Tc	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>
	2008UD01	<p>NUCLEAR REACTIONS $\text{Mo}(p, X)^{89g}\text{Nb} / ^{93m,93g}\text{Tc} / ^{94m}\text{Tc}$, $E=25.9-67.8$ MeV; $\text{Mo}(p, X)^{90}\text{Mo} / ^{97}\text{Nb}$, $E=31.9-67.8$ MeV; $\text{Mo}(p, X)^{89m}\text{Nb}$, $E=46.6-67.8$ MeV; measured $E\gamma$, $I\gamma$, excitation functions, cross sections and integral yields using stacked-foil activation technique, natural Mo target. ^{89}Nb, ^{89m}Nb, ^{90}Mo, ^{93m}Tc, ^{93g}Tc, ^{94m}Tc, ^{97}Nb; isotopic yields and production. JOUR ARISE 66 208</p>

A=95

- ⁹⁵Y 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹⁵Zr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=95 (continued)

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| ⁹⁵ Nb | 2007NA31 | <p>NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609</p> |
| | 2008UD02 | <p>NUCLEAR REACTIONS Zr(p, X)⁸⁸Zr / ⁸⁹Zr / ⁸⁶Y / ⁸⁷Y / ⁸⁸Y / ⁹⁰Nb / ⁹²Nb / ⁹⁵Nb / ⁹⁶Nb, E=4-40 MeV; measured E_γ, I_γ, cross sections, and excitation functions using the stacked foil activation technique. JOUR NIMBE 266 13</p> |
| ⁹⁵ Mo | 2007NA31 | <p>NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609</p> |
| | 2007SH46 | <p>NUCLEAR REACTIONS ^{94,95}Mo(n, γ), E=800 MeV; measured neutron energies, E_γ, I_γ, γ-ray multiplicities. ^{95,96}Mo; deduced neutron resonance levels, J, π. JOUR PRVCA 76 064317</p> |

A=95 (continued)

- ⁹⁵Tc 2007LU19 NUCLEAR REACTIONS ²⁷Al(n, α), E=13.5-14.8 MeV; ^{96,98,104}Ru(n, 2n), E=13.5-14.8 MeV; ^{96,102,104}Ru(n, p)⁹⁶Tc / ^{96m}Tc / ^{102m}Tc / ¹⁰⁴Tc, E=13.5-14.8 MeV; ^{96,102,104}Ru(n, α)^{93m}Mo / ⁹⁹Mo / ¹⁰¹Mo, E=13.5-14.8 MeV; ⁹⁶Ru(n, d)^{95m}Tc, E=13.5-14.8 MeV; measured E_γ, I_γ, cross sections. JOUR PRVCA 76 057601
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹⁵Ru 2007LU19 NUCLEAR REACTIONS ²⁷Al(n, α), E=13.5-14.8 MeV; ^{96,98,104}Ru(n, 2n), E=13.5-14.8 MeV; ^{96,102,104}Ru(n, p)⁹⁶Tc / ^{96m}Tc / ^{102m}Tc / ¹⁰⁴Tc, E=13.5-14.8 MeV; ^{96,102,104}Ru(n, α)^{93m}Mo / ⁹⁹Mo / ¹⁰¹Mo, E=13.5-14.8 MeV; ⁹⁶Ru(n, d)^{95m}Tc, E=13.5-14.8 MeV; measured E_γ, I_γ, cross sections. JOUR PRVCA 76 057601

KEYNUMBERS AND KEYWORDS

A=95 (continued)

2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=96

^{96}Y 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=96 (continued)

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| ⁹⁶ Zr | 2007NA31 | <p>NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609</p> |
| ⁹⁶ Nb | 2007NA31 | <p>NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609</p> |
| | 2008UD02 | <p>NUCLEAR REACTIONS Zr(p, X)⁸⁸Zr / ⁸⁹Zr / ⁸⁶Y / ⁸⁷Y / ⁸⁸Y / ⁹⁰Nb / ⁹²Nb / ⁹⁵Nb / ⁹⁶Nb, E=4-40 MeV; measured E_γ, I_γ, cross sections, and excitation functions using the stacked foil activation technique. JOUR NIMBE 266 13</p> |
| ⁹⁶ Mo | 2007KR19 | <p>NUCLEAR REACTIONS ⁹⁶Mo(¹³⁸Xe, ¹³⁸Xe'), (¹⁴⁰Xe, ¹⁴⁰Xe'), (¹⁴²Xe, ¹⁴²Xe'), E=2.84 MeV / nucleon; measured E_γ, I_γ. ^{138,140,142}Xe; deduced B(E2). JOUR ZSTNE 150 127</p> |

A=96 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- 2007SH46 NUCLEAR REACTIONS $^{94,95}\text{Mo}(n, \gamma)$, $E=800$ MeV; measured neutron energies, $E\gamma$, $I\gamma$, γ -ray multiplicities. $^{95,96}\text{Mo}$; deduced neutron resonance levels, J , π . JOUR PRVCA 76 064317
- ^{96}Tc 2007LU19 NUCLEAR REACTIONS $^{27}\text{Al}(n, \alpha)$, $E=13.5-14.8$ MeV; $^{96,98,104}\text{Ru}(n, 2n)$, $E=13.5-14.8$ MeV; $^{96,102,104}\text{Ru}(n, p)^{96}\text{Tc} / ^{96m}\text{Tc} / ^{102m}\text{Tc} / ^{104}\text{Tc}$, $E=13.5-14.8$ MeV; $^{96,102,104}\text{Ru}(n, \alpha)^{93m}\text{Mo} / ^{99}\text{Mo} / ^{101}\text{Mo}$, $E=13.5-14.8$ MeV; $^{96}\text{Ru}(n, d)^{95m}\text{Tc}$, $E=13.5-14.8$ MeV; measured $E\gamma$, $I\gamma$, cross sections. JOUR PRVCA 76 057601

A=96 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{96}Ru 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=97

- ⁹⁷Zr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹⁷Nb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2008UD01 NUCLEAR REACTIONS Mo(p, X)^{89g}Nb / ^{93m,93g}Tc / ^{94m}Tc, E=25.9-67.8 MeV; Mo(p, X)⁹⁰Mo / ⁹⁷Nb, E=31.9-67.8 MeV; Mo(p, X)^{89m}Nb, E=46.6-67.8 MeV; measured E γ , I γ , excitation functions, cross sections and integral yields using stacked-foil activation technique, natural Mo target. ⁸⁹Nb, ^{89m}Nb, ⁹⁰Mo, ^{93m}Tc, ^{93g}Tc, ^{94m}Tc, ⁹⁷Nb; isotopic yields and production. JOUR ARISE 66 208

A=97 (continued)

- ⁹⁷Mo 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹⁷Tc 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹⁷Ru 2007LU19 NUCLEAR REACTIONS ²⁷Al(n, α), E=13.5-14.8 MeV; ^{96,98,104}Ru(n, 2n), E=13.5-14.8 MeV; ^{96,102,104}Ru(n, p)⁹⁶Tc / ^{96m}Tc / ^{102m}Tc / ¹⁰⁴Tc, E=13.5-14.8 MeV; ^{96,102,104}Ru(n, α)^{93m}Mo / ⁹⁹Mo / ¹⁰¹Mo, E=13.5-14.8 MeV; ⁹⁶Ru(n, d)^{95m}Tc, E=13.5-14.8 MeV; measured E_γ, I_γ; cross sections. JOUR PRVCA 76 057601

A=97 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{97}Rh 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=98

- ⁹⁸Zr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹⁸Nb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=98 (continued)

- ⁹⁸Mo 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹⁸Tc 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=98 (continued)

- ⁹⁸Ru 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹⁸Rh 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=99

- ⁹⁹Zr 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹⁹Nb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹⁹Mo 2007LU19 NUCLEAR REACTIONS ²⁷Al(n, α), E=13.5-14.8 MeV; ^{96,98,104}Ru(n, 2n), E=13.5-14.8 MeV; ^{96,102,104}Ru(n, p)⁹⁶Tc / ^{96m}Tc / ^{102m}Tc / ¹⁰⁴Tc, E=13.5-14.8 MeV; ^{96,102,104}Ru(n, α)^{93m}Mo / ⁹⁹Mo / ¹⁰¹Mo, E=13.5-14.8 MeV; ⁹⁶Ru(n, d)^{95m}Tc, E=13.5-14.8 MeV; measured E_γ, I_γ; cross sections. JOUR PRVCA 76 057601

A=99 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{99}Tc 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=99 (continued)

- ⁹⁹Ru 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ⁹⁹Rh 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=99 (continued)

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| ⁹⁹ Pd | 2007NA31 | <p>NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609</p> |
| ⁹⁹ Ag | 2007MA92 | <p>ATOMIC MASSES ^{99,101,103}Ag, ^{101,102,103,104}Cd, ^{102,103,104,105}In, ^{105,106}Sn, ^{107,109,111}Sb, ^{109,110,111,112}Te, ^{111,112,113}I, ¹¹³Xe; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ¹⁰⁴Sn, ¹⁰⁵Sb, ¹⁰⁸Te, ¹⁰⁹I, ¹¹²Xe, ¹¹³Cs; evaluated masses. JOUR ZAANE 34 341</p> |

A=100

- ^{100}Nb 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{100}Mo 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=100 (continued)

- ^{100}Tc 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{100}Ru 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=100 (continued)

^{100}Rh	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>
^{100}Pd	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>

A=101

- ¹⁰¹Mo 2007LU19 NUCLEAR REACTIONS ²⁷Al(n, α), E=13.5-14.8 MeV; ^{96,98,104}Ru(n, 2n), E=13.5-14.8 MeV; ^{96,102,104}Ru(n, p)⁹⁶Tc / ^{96m}Tc / ^{102m}Tc / ¹⁰⁴Tc, E=13.5-14.8 MeV; ^{96,102,104}Ru(n, α)^{93m}Mo / ⁹⁹Mo / ¹⁰¹Mo, E=13.5-14.8 MeV; ⁹⁶Ru(n, d)^{95m}Tc, E=13.5-14.8 MeV; measured E_γ, I_γ, cross sections. JOUR PRVCA 76 057601
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹⁰¹Tc 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=101 (continued)

- ¹⁰¹Ru 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹⁰¹Rh 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=101 (continued)

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| ^{101}Pd | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{101}Ag | 2007MA92 | <p>ATOMIC MASSES $^{99,101,103}\text{Ag}$, $^{101,102,103,104}\text{Cd}$, $^{102,103,104,105}\text{In}$, $^{105,106}\text{Sn}$, $^{107,109,111}\text{Sb}$, $^{109,110,111,112}\text{Te}$, $^{111,112,113}\text{I}$, ^{113}Xe; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ^{104}Sn, ^{105}Sb, ^{108}Te, ^{109}I, ^{112}Xe, ^{113}Cs; evaluated masses. JOUR ZAANE 34 341</p> |
| | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |

KEYNUMBERS AND KEYWORDS

A=101 (continued)

- ¹⁰¹Cd 2007MA92 ATOMIC MASSES ^{99,101,103}Ag, ^{101,102,103,104}Cd, ^{102,103,104,105}In, ^{105,106}Sn, ^{107,109,111}Sb, ^{109,110,111,112}Te, ^{111,112,113}I, ¹¹³Xe; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ¹⁰⁴Sn, ¹⁰⁵Sb, ¹⁰⁸Te, ¹⁰⁹I, ¹¹²Xe, ¹¹³Cs; evaluated masses. JOUR ZAANE 34 341
- ¹⁰¹Sn 2007LI83 RADIOACTIVITY ¹⁰⁵Te, ¹⁰⁹Xe(α) [from ⁵⁴Fe(⁵⁸Ni, 3n), E=220-225 MeV]; measured E α , I α . ¹⁰⁵Te, ¹⁰⁹Xe; deduced Q α . JOUR ZSTNE 150 131

A=102

- ¹⁰²Mo 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹⁰²Tc 2007LU19 NUCLEAR REACTIONS ²⁷Al(n, α), E=13.5-14.8 MeV; ^{96,98,104}Ru(n, 2n), E=13.5-14.8 MeV; ^{96,102,104}Ru(n, p)⁹⁶Tc / ^{96m}Tc / ^{102m}Tc / ¹⁰⁴Tc, E=13.5-14.8 MeV; ^{96,102,104}Ru(n, α)^{93m}Mo / ⁹⁹Mo / ¹⁰¹Mo, E=13.5-14.8 MeV; ⁹⁶Ru(n, d)^{95m}Tc, E=13.5-14.8 MeV; measured E γ , I γ , cross sections. JOUR PRVCA 76 057601

A=102 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{102}Ru 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=102 (continued)

^{102}Rh	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>
^{102}Pd	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>

KEYNUMBERS AND KEYWORDS

A=102 (continued)

- ¹⁰²Ag 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹⁰²Cd 2007MA92 ATOMIC MASSES ^{99,101,103}Ag, ^{101,102,103,104}Cd, ^{102,103,104,105}In, ^{105,106}Sn, ^{107,109,111}Sb, ^{109,110,111,112}Te, ^{111,112,113}I, ¹¹³Xe; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ¹⁰⁴Sn, ¹⁰⁵Sb, ¹⁰⁸Te, ¹⁰⁹I, ¹¹²Xe, ¹¹³Cs; evaluated masses. JOUR ZAANE 34 341
- ¹⁰²In 2007MA92 ATOMIC MASSES ^{99,101,103}Ag, ^{101,102,103,104}Cd, ^{102,103,104,105}In, ^{105,106}Sn, ^{107,109,111}Sb, ^{109,110,111,112}Te, ^{111,112,113}I, ¹¹³Xe; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ¹⁰⁴Sn, ¹⁰⁵Sb, ¹⁰⁸Te, ¹⁰⁹I, ¹¹²Xe, ¹¹³Cs; evaluated masses. JOUR ZAANE 34 341

A=103

- ^{103}Mo 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{103}Tc 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{103}Ru 2007LU19 NUCLEAR REACTIONS $^{27}\text{Al}(n, \alpha)$, $E=13.5-14.8$ MeV; $^{96,98,104}\text{Ru}(n, 2n)$, $E=13.5-14.8$ MeV; $^{96,102,104}\text{Ru}(n, p)^{96}\text{Tc} / ^{96m}\text{Tc} / ^{102m}\text{Tc} / ^{104}\text{Tc}$, $E=13.5-14.8$ MeV; $^{96,102,104}\text{Ru}(n, \alpha)^{93m}\text{Mo} / ^{99}\text{Mo} / ^{101}\text{Mo}$, $E=13.5-14.8$ MeV; $^{96}\text{Ru}(n, d)^{95m}\text{Tc}$, $E=13.5-14.8$ MeV; measured $E\gamma$, $I\gamma$, cross sections. JOUR PRVCA 76 057601

A=103 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{103}Rh 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{103}Pd 2007AS07 NUCLEAR REACTIONS $^{98}\text{Mo}(^{12}\text{C}, 3n)$, $(^{12}\text{C}, 4n)$, $(^{12}\text{C}, 2n\alpha)$, $(^{12}\text{C}, 3n\alpha)$, $E=60$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ coin. ^{103}Pd , $^{106,107}\text{Cd}$; deduced levels, J , π , configurations, lifetimes using recoil distance Doppler shift and differential decay cutoff methods. JOUR PRVCA 76 064302

A=103 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{103}Ag 2007MA92 ATOMIC MASSES $^{99,101,103}\text{Ag}$, $^{101,102,103,104}\text{Cd}$, $^{102,103,104,105}\text{In}$, $^{105,106}\text{Sn}$, $^{107,109,111}\text{Sb}$, $^{109,110,111,112}\text{Te}$, $^{111,112,113}\text{I}$, ^{113}Xe ; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ^{104}Sn , ^{105}Sb , ^{108}Te , ^{109}I , ^{112}Xe , ^{113}Cs ; evaluated masses. JOUR ZAANE 34 341
- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=103 (continued)

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| 2008RA06 | NUCLEAR REACTIONS $^{72}\text{Ge}(^{35}\text{Cl}, 2n2p\gamma)$, $E=135$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, angular distributions, half-lives; deduced level energies, J , π , $B(M1)$, $B(E2)$, configurations, existence of magnetic dipole bands. JOUR PRVCA 77 024305 |
| 2008UD03 | NUCLEAR REACTIONS $\text{Ag}(p, xn)^{104}\text{Cd}$ / ^{105}Cd , $E=32$ -60 MeV; $\text{Ag}(p, xnp)^{103}\text{Ag}$ / ^{104}Ag , $E=32$ -60 MeV; measured $E\gamma$, $I\gamma$, excitation functions using stacked foil activation. Compared results to |
| ^{103}Cd | precompound hybrid model calculations. JOUR RAACA 96 67 |
| 2007MA92 | ATOMIC MASSES $^{99,101,103}\text{Ag}$, $^{101,102,103,104}\text{Cd}$, $^{102,103,104,105}\text{In}$, $^{105,106}\text{Sn}$, $^{107,109,111}\text{Sb}$, $^{109,110,111,112}\text{Te}$, $^{111,112,113}\text{I}$, ^{113}Xe ; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ^{104}Sn , ^{105}Sb , ^{108}Te , ^{109}I , ^{112}Xe , ^{113}Cs ; evaluated masses. JOUR ZAANE 34 341 |
| ^{103}In | 2007MA92 |
| | ATOMIC MASSES $^{99,101,103}\text{Ag}$, $^{101,102,103,104}\text{Cd}$, $^{102,103,104,105}\text{In}$, $^{105,106}\text{Sn}$, $^{107,109,111}\text{Sb}$, $^{109,110,111,112}\text{Te}$, $^{111,112,113}\text{I}$, ^{113}Xe ; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ^{104}Sn , ^{105}Sb , ^{108}Te , ^{109}I , ^{112}Xe , ^{113}Cs ; evaluated masses. JOUR ZAANE 34 341 |

A=104

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| ^{104}Mo | 2007NA31 | NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609 |
| ^{104}Tc | 2007LU19 | NUCLEAR REACTIONS $^{27}\text{Al}(n, \alpha)$, $E=13.5$ -14.8 MeV; $^{96,98,104}\text{Ru}(n, 2n)$, $E=13.5$ -14.8 MeV; $^{96,102,104}\text{Ru}(n, p)^{96}\text{Tc}$ / ^{96m}Tc / ^{102m}Tc / ^{104}Tc , $E=13.5$ -14.8 MeV; $^{96,102,104}\text{Ru}(n, \alpha)^{93m}\text{Mo}$ / ^{99}Mo / ^{101}Mo , $E=13.5$ -14.8 MeV; $^{96}\text{Ru}(n, d)^{95m}\text{Tc}$, $E=13.5$ -14.8 MeV; measured $E\gamma$, $I\gamma$, cross sections. JOUR PRVCA 76 057601 |

A=104 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{104}Ru 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=104 (continued)

^{104}Rh	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>
^{104}Pd	2007AS07	<p>NUCLEAR REACTIONS $^{98}\text{Mo}(^{12}\text{C}, 3n)$, $(^{12}\text{C}, 4n)$, $(^{12}\text{C}, 2n\alpha)$, $(^{12}\text{C}, 3n\alpha)$, E=60 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ coin. ^{103}Pd, $^{106,107}\text{Cd}$; deduced levels, J, π, configurations, lifetimes using recoil distance Doppler shift and differential decay cutoff methods. JOUR PRVCA 76 064302</p>
	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>

KEYNUMBERS AND KEYWORDS

A=104 (*continued*)

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| 2008ST04 | NUCLEAR REACTIONS $^{104}\text{Pd}(^{67}\text{Cu}, ^{67}\text{Cu}')$, ($^{69}\text{Cu}, ^{69}\text{Cu}'$), ($^{71}\text{Cu}, ^{71}\text{Cu}'$), E=2.99 MeV / nucleon; $^{120}\text{Sn}(^{71}\text{Cu}, ^{71}\text{Cu}')$, ($^{73}\text{Cu}, ^{73}\text{Cu}'$), E=2.99 MeV / nucleon; measured E_γ , I_γ following coulomb excitation. $^{67,69,71,73}\text{Cu}$; deduced level energies, B(E2). JOUR PRLTA 100 112502 |
| ^{104}Ag | 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609 |
| 2008UD03 | NUCLEAR REACTIONS $\text{Ag}(p, xn)^{104}\text{Cd} / ^{105}\text{Cd}$, E=32-60 MeV; $\text{Ag}(p, xnp)^{103}\text{Ag} / ^{104}\text{Ag}$, E=32-60 MeV; measured E_γ , I_γ , excitation functions using stacked foil activation. Compared results to precompound hybrid model calculations. JOUR RAACA 96 67 |
| ^{104}Cd | 2007MA92 ATOMIC MASSES $^{99,101,103}\text{Ag}$, $^{101,102,103,104}\text{Cd}$, $^{102,103,104,105}\text{In}$, $^{105,106}\text{Sn}$, $^{107,109,111}\text{Sb}$, $^{109,110,111,112}\text{Te}$, $^{111,112,113}\text{I}$, ^{113}Xe ; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ^{104}Sn , ^{105}Sb , ^{108}Te , ^{109}I , ^{112}Xe , ^{113}Cs ; evaluated masses. JOUR ZAANE 34 341 |

KEYNUMBERS AND KEYWORDS

A=104 (*continued*)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- 2008UD03 NUCLEAR REACTIONS $\text{Ag}(p, xn)^{104}\text{Cd}$ / ^{105}Cd , $E=32-60$ MeV; $\text{Ag}(p, xnp)^{103}\text{Ag}$ / ^{104}Ag , $E=32-60$ MeV; measured $E\gamma$, $I\gamma$, excitation functions using stacked foil activation. Compared results to precompound hybrid model calculations. JOUR RAACA 96 67
- ^{104}In 2007MA92 ATOMIC MASSES $^{99,101,103}\text{Ag}$, $^{101,102,103,104}\text{Cd}$, $^{102,103,104,105}\text{In}$, $^{105,106}\text{Sn}$, $^{107,109,111}\text{Sb}$, $^{109,110,111,112}\text{Te}$, $^{111,112,113}\text{I}$, ^{113}Xe ; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ^{104}Sn , ^{105}Sb , ^{108}Te , ^{109}I , ^{112}Xe , ^{113}Cs ; evaluated masses. JOUR ZAANE 34 341
- ^{104}Sn 2007MA92 ATOMIC MASSES $^{99,101,103}\text{Ag}$, $^{101,102,103,104}\text{Cd}$, $^{102,103,104,105}\text{In}$, $^{105,106}\text{Sn}$, $^{107,109,111}\text{Sb}$, $^{109,110,111,112}\text{Te}$, $^{111,112,113}\text{I}$, ^{113}Xe ; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ^{104}Sn , ^{105}Sb , ^{108}Te , ^{109}I , ^{112}Xe , ^{113}Cs ; evaluated masses. JOUR ZAANE 34 341

A=105

- ^{105}Tc 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{105}Ru 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=105 (continued)

- ¹⁰⁵Rh 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹⁰⁵Pd 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=105 (continued)

- ^{105}Ag 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{105}Cd 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- 2008UD03 NUCLEAR REACTIONS $\text{Ag}(p, xn)^{104}\text{Cd}$ / ^{105}Cd , $E=32-60$ MeV; $\text{Ag}(p, xnp)^{103}\text{Ag}$ / ^{104}Ag , $E=32-60$ MeV; measured $E\gamma$, $I\gamma$, excitation functions using stacked foil activation. Compared results to precompound hybrid model calculations. JOUR RAACA 96 67

KEYNUMBERS AND KEYWORDS

A=105 (continued)

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| ^{105}In | 2007MA92 | ATOMIC MASSES $^{99,101,103}\text{Ag}$, $^{101,102,103,104}\text{Cd}$, $^{102,103,104,105}\text{In}$, $^{105,106}\text{Sn}$, $^{107,109,111}\text{Sb}$, $^{109,110,111,112}\text{Te}$, $^{111,112,113}\text{I}$, ^{113}Xe ; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ^{104}Sn , ^{105}Sb , ^{108}Te , ^{109}I , ^{112}Xe , ^{113}Cs ; evaluated masses. JOUR ZAANE 34 341 |
| | 2007NA31 | NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609 |
| ^{105}Sn | 2007MA92 | ATOMIC MASSES $^{99,101,103}\text{Ag}$, $^{101,102,103,104}\text{Cd}$, $^{102,103,104,105}\text{In}$, $^{105,106}\text{Sn}$, $^{107,109,111}\text{Sb}$, $^{109,110,111,112}\text{Te}$, $^{111,112,113}\text{I}$, ^{113}Xe ; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ^{104}Sn , ^{105}Sb , ^{108}Te , ^{109}I , ^{112}Xe , ^{113}Cs ; evaluated masses. JOUR ZAANE 34 341 |
| ^{105}Sb | 2007MA92 | ATOMIC MASSES $^{99,101,103}\text{Ag}$, $^{101,102,103,104}\text{Cd}$, $^{102,103,104,105}\text{In}$, $^{105,106}\text{Sn}$, $^{107,109,111}\text{Sb}$, $^{109,110,111,112}\text{Te}$, $^{111,112,113}\text{I}$, ^{113}Xe ; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ^{104}Sn , ^{105}Sb , ^{108}Te , ^{109}I , ^{112}Xe , ^{113}Cs ; evaluated masses. JOUR ZAANE 34 341 |
| ^{105}Te | 2007LI83 | RADIOACTIVITY ^{105}Te , $^{109}\text{Xe}(\alpha)$ [from $^{54}\text{Fe}(^{58}\text{Ni}, 3n)$, $E=220-225$ MeV]; measured $E\alpha$, $I\alpha$. ^{105}Te , ^{109}Xe ; deduced $Q\alpha$. JOUR ZSTNE 150 131 |

A=106

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| ^{106}Mo | 2008SA05 | RADIOACTIVITY $^{106}\text{Tc}(\beta^+)$ [from $^{238}\text{U}(p, F)$, $E=25$ MeV]; measured $E\gamma$, $I\gamma$, $\gamma\gamma^-$, $\beta\gamma$ -coin, $T_{1/2}$, $B(E2)$ using advanced time-delayed method. ^{106}Ru deduced levels, J , π , $T_{1/2}$. Comparison with various models. JOUR ZAANE 35 159 |
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KEYNUMBERS AND KEYWORDS

A=106 (*continued*)

^{106}Tc	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>
	2008SA05	<p>RADIOACTIVITY $^{106}\text{Tc}(\beta^+)$ [from $^{238}\text{U}(p, F)$, E=25 MeV]; measured Eγ, Iγ, $\gamma\gamma$-, $\beta\gamma$-coin, $T_{1/2}$, B(E2) using advanced time-delayed method. ^{106}Ru deduced levels, J, π, $T_{1/2}$. Comparison with various models. JOUR ZAANE 35 159</p>
^{106}Ru	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>

A=106 (continued)

- 2008SA05 RADIOACTIVITY $^{106}\text{Tc}(\beta^+)$ [from $^{238}\text{U}(\text{p}, \text{F})$, $E=25$ MeV]; measured $E\gamma$, $I\gamma$, $\gamma\gamma^-$, $\beta\gamma$ -coin, $T_{1/2}$, $B(E2)$ using advanced time-delayed method. ^{106}Ru deduced levels, J , π , $T_{1/2}$. Comparison with various models. JOUR ZAANE 35 159
- ^{106}Rh 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(\text{p}, \text{X})$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{106}Pd 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(\text{p}, \text{X})$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=106 (*continued*)

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| ^{106}Ag | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{106}Cd | 2007AS07 | <p>NUCLEAR REACTIONS $^{98}\text{Mo}(^{12}\text{C}, 3n)$, $(^{12}\text{C}, 4n)$, $(^{12}\text{C}, 2n\alpha)$, $(^{12}\text{C}, 3n\alpha)$, E=60 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ coin. ^{103}Pd, $^{106,107}\text{Cd}$; deduced levels, J, π, configurations, lifetimes using recoil distance Doppler shift and differential decay cutoff methods. JOUR PRVCA 76 064302</p> |
| | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |

KEYNUMBERS AND KEYWORDS

A=106 (continued)

- ¹⁰⁶In 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹⁰⁶Sn 2007MA92 ATOMIC MASSES ^{99,101,103}Ag, ^{101,102,103,104}Cd, ^{102,103,104,105}In, ^{105,106}Sn, ^{107,109,111}Sb, ^{109,110,111,112}Te, ^{111,112,113}I, ¹¹³Xe; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ¹⁰⁴Sn, ¹⁰⁵Sb, ¹⁰⁸Te, ¹⁰⁹I, ¹¹²Xe, ¹¹³Cs; evaluated masses. JOUR ZAANE 34 341
- ¹⁰⁶Te 2007PE32 NUCLEAR REACTIONS ⁵⁸Ni(⁵⁴Fe, 2np), E=195 MeV; measured E_γ, I_γ, γγ-coin, γγ(θ), multipolarities. ¹⁰⁹I; deduced levels, J, π, rotational bands; calculated configurations. JUROGAM array. ^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}Te, ^{109,111,113,115,117,119,121,123,125,127,129,131}I, ^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}Xe, ^{117,119,121,123,125,127,129}Cs; systematics. JOUR PRVCA 76 054301

A=107

- ^{107}Ru 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{107}Rh 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=107 (continued)

- ¹⁰⁷Pd 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹⁰⁷Ag 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹⁰⁷Cd 2007AS07 NUCLEAR REACTIONS ⁹⁸Mo(¹²C, 3n), (¹²C, 4n), (¹²C, 2nα), (¹²C, 3nα), E=60 MeV; measured Eγ, Iγ, γγ coin. ¹⁰³Pd, ^{106,107}Cd; deduced levels, J, π, configurations, lifetimes using recoil distance Doppler shift and differential decay cutoff methods. JOUR PRVCA 76 064302

A=107 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{107}In 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{107}Sb 2007MA92 ATOMIC MASSES $^{99,101,103}\text{Ag}$, $^{101,102,103,104}\text{Cd}$, $^{102,103,104,105}\text{In}$, $^{105,106}\text{Sn}$, $^{107,109,111}\text{Sb}$, $^{109,110,111,112}\text{Te}$, $^{111,112,113}\text{I}$, ^{113}Xe ; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ^{104}Sn , ^{105}Sb , ^{108}Te , ^{109}I , ^{112}Xe , ^{113}Cs ; evaluated masses. JOUR ZAANE 34 341

A=108

- ^{108}Ru 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{108}Rh 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=108 (continued)

- ¹⁰⁸Pd 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹⁰⁸Ag 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹⁰⁸Cd 2007BA73 NUCLEAR REACTIONS ¹¹⁴Cd(n, n'γ), E*=3.5 MeV; measured Eγ, Iγ, γ-yields, γγ-coin, angular distributions, half-lives; deduced levels, J, π, multipolarities, mixing ratios, configurations, B(E2), B(M1), B(E1). Comparisons with IBA model calculations. ^{108,110,112,114,116,118}Cd; systematics. JOUR PRVCA 76 054308

A=108 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{108}In 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=108 (continued)

^{108}Sn	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>
^{108}Te	2007MA92	<p>ATOMIC MASSES $^{99,101,103}\text{Ag}$, $^{101,102,103,104}\text{Cd}$, $^{102,103,104,105}\text{In}$, $^{105,106}\text{Sn}$, $^{107,109,111}\text{Sb}$, $^{109,110,111,112}\text{Te}$, $^{111,112,113}\text{I}$, ^{113}Xe; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ^{104}Sn, ^{105}Sb, ^{108}Te, ^{109}I, ^{112}Xe, ^{113}Cs; evaluated masses. JOUR ZAANE 34 341</p>
	2007PE32	<p>NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2np)$, $E=195$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$-coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I; deduced levels, J, π, rotational bands; calculated configurations. JUROGAM array. $^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}\text{Te}$, $^{109,111,113,115,117,119,121,123,125,127,129,131}\text{I}$, $^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}\text{Xe}$, $^{117,119,121,123,125,127,129}\text{Cs}$; systematics. JOUR PRVCA 76 054301</p>

A=109

- ^{109}Ru 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{109}Rh 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=109 (continued)

- ¹⁰⁹Pd 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹⁰⁹Ag 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2008ZI01 NUCLEAR REACTIONS ¹⁰⁹Ag, ²⁰⁸Pb(⁴⁴Ar, ⁴⁴Ar'), E=2.7, 3.7 MeV / nucleon; measured E γ , I γ , (charged-particle) γ -coin. Deduced coulomb excitation $\sigma(\theta)$, B(E2). JOUR APOBB 39 519

A=109 (continued)

- ^{109}Cd 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{109}In 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=109 (continued)

^{109}Sn	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>
^{109}Sb	2007MA92	<p>ATOMIC MASSES $^{99,101,103}\text{Ag}$, $^{101,102,103,104}\text{Cd}$, $^{102,103,104,105}\text{In}$, $^{105,106}\text{Sn}$, $^{107,109,111}\text{Sb}$, $^{109,110,111,112}\text{Te}$, $^{111,112,113}\text{I}$, ^{113}Xe; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ^{104}Sn, ^{105}Sb, ^{108}Te, ^{109}I, ^{112}Xe, ^{113}Cs; evaluated masses. JOUR ZAANE 34 341</p>
^{109}Te	2007MA92	<p>ATOMIC MASSES $^{99,101,103}\text{Ag}$, $^{101,102,103,104}\text{Cd}$, $^{102,103,104,105}\text{In}$, $^{105,106}\text{Sn}$, $^{107,109,111}\text{Sb}$, $^{109,110,111,112}\text{Te}$, $^{111,112,113}\text{I}$, ^{113}Xe; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ^{104}Sn, ^{105}Sb, ^{108}Te, ^{109}I, ^{112}Xe, ^{113}Cs; evaluated masses. JOUR ZAANE 34 341</p>
^{109}I	2007MA92	<p>ATOMIC MASSES $^{99,101,103}\text{Ag}$, $^{101,102,103,104}\text{Cd}$, $^{102,103,104,105}\text{In}$, $^{105,106}\text{Sn}$, $^{107,109,111}\text{Sb}$, $^{109,110,111,112}\text{Te}$, $^{111,112,113}\text{I}$, ^{113}Xe; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ^{104}Sn, ^{105}Sb, ^{108}Te, ^{109}I, ^{112}Xe, ^{113}Cs; evaluated masses. JOUR ZAANE 34 341</p>
	2007PE32	<p>NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2np)$, $E=195$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$-coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I; deduced levels, J, π, rotational bands; calculated configurations. JUROGAM array. $^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}\text{Te}$, $^{109,111,113,115,117,119,121,123,125,127,129,131}\text{I}$, $^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}\text{Xe}$, $^{117,119,121,123,125,127,129}\text{Cs}$; systematics. JOUR PRVCA 76 054301</p>
^{109}Xe	2007LI83	<p>RADIOACTIVITY ^{105}Te, $^{109}\text{Xe}(\alpha)$ [from $^{54}\text{Fe}(^{58}\text{Ni}, 3n)$, $E=220-225$ MeV]; measured $E\alpha$, $I\alpha$. ^{105}Te, ^{109}Xe; deduced $Q\alpha$. JOUR ZSTNE 150 131</p>

A=110

- ¹¹⁰Rh 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹¹⁰Pd 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=110 (*continued*)

- ¹¹⁰Ag 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹¹⁰Cd 2007BA73 NUCLEAR REACTIONS ¹¹⁴Cd(n, n'γ), E*=3.5 MeV; measured Eγ, Iγ, γ-yields, γγ-coin, angular distributions, half-lives; deduced levels, J, π, multipolarities, mixing ratios, configurations, B(E2), B(M1), B(E1). Comparisons with IBA model calculations. ^{108,110,112,114,116,118}Cd; systematics. JOUR PRVCA 76 054308
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=110 (continued)

- ^{110}In 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{110}Sn 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=110 (continued)

- ^{110}Sb 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{110}Te 2007MA92 ATOMIC MASSES $^{99,101,103}\text{Ag}$, $^{101,102,103,104}\text{Cd}$, $^{102,103,104,105}\text{In}$, $^{105,106}\text{Sn}$, $^{107,109,111}\text{Sb}$, $^{109,110,111,112}\text{Te}$, $^{111,112,113}\text{I}$, ^{113}Xe ; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ^{104}Sn , ^{105}Sb , ^{108}Te , ^{109}I , ^{112}Xe , ^{113}Cs ; evaluated masses. JOUR ZAANE 34 341
- 2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2np)$, $E=195$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J , π , rotational bands; calculated configurations. JUROGAM array. $^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}\text{Te}$, $^{109,111,113,115,117,119,121,123,125,127,129,131}\text{I}$, $^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}\text{Xe}$, $^{117,119,121,123,125,127,129}\text{Cs}$; systematics. JOUR PRVCA 76 054301
- ^{110}Xe 2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2np)$, $E=195$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J , π , rotational bands; calculated configurations. JUROGAM array. $^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}\text{Te}$, $^{109,111,113,115,117,119,121,123,125,127,129,131}\text{I}$, $^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}\text{Xe}$, $^{117,119,121,123,125,127,129}\text{Cs}$; systematics. JOUR PRVCA 76 054301

A=111

- ¹¹¹Rh 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹¹¹Pd 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=111 (*continued*)

- ¹¹¹Ag 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹¹¹Cd 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=111 (*continued*)

- ¹¹¹In 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹¹¹Sn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹¹¹Sb 2007MA92 ATOMIC MASSES ^{99,101,103}Ag, ^{101,102,103,104}Cd, ^{102,103,104,105}In, ^{105,106}Sn, ^{107,109,111}Sb, ^{109,110,111,112}Te, ^{111,112,113}I, ¹¹³Xe; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ¹⁰⁴Sn, ¹⁰⁵Sb, ¹⁰⁸Te, ¹⁰⁹I, ¹¹²Xe, ¹¹³Cs; evaluated masses. JOUR ZAANE 34 341

A=111 (*continued*)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{111}Te 2007MA92 ATOMIC MASSES $^{99,101,103}\text{Ag}$, $^{101,102,103,104}\text{Cd}$, $^{102,103,104,105}\text{In}$, $^{105,106}\text{Sn}$, $^{107,109,111}\text{Sb}$, $^{109,110,111,112}\text{Te}$, $^{111,112,113}\text{I}$, ^{113}Xe ; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ^{104}Sn , ^{105}Sb , ^{108}Te , ^{109}I , ^{112}Xe , ^{113}Cs ; evaluated masses. JOUR ZAANE 34 341
- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=111 (*continued*)

- ¹¹¹I 2007MA92 ATOMIC MASSES ^{99,101,103}Ag, ^{101,102,103,104}Cd, ^{102,103,104,105}In, ^{105,106}Sn, ^{107,109,111}Sb, ^{109,110,111,112}Te, ^{111,112,113}I, ¹¹³Xe; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ¹⁰⁴Sn, ¹⁰⁵Sb, ¹⁰⁸Te, ¹⁰⁹I, ¹¹²Xe, ¹¹³Cs; evaluated masses. JOUR ZAANE 34 341
- 2007PE32 NUCLEAR REACTIONS ⁵⁸Ni(⁵⁴Fe, 2np), E=195 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ¹⁰⁹I; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array. ^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}Te, ^{109,111,113,115,117,119,121,123,125,127,129,131}I, ^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}Xe, ^{117,119,121,123,125,127,129}Cs; systematics. JOUR PRVCA 76 054301

A=112

- ¹¹²Pd 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=112 (continued)

- ¹¹²Ag 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹¹²Cd 2007BA73 NUCLEAR REACTIONS ¹¹⁴Cd(n, n'γ), E*=3.5 MeV; measured Eγ, Iγ, γ-yields, γγ-coin, angular distributions, half-lives; deduced levels, J, π, multipolarities, mixing ratios, configurations, B(E2), B(M1), B(E1). Comparisons with IBA model calculations. ^{108,110,112,114,116,118}Cd; systematics. JOUR PRVCA 76 054308
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2008DA02 RADIOACTIVITY ¹¹²Sn(2EC), (β⁺EC), ¹²⁴Sn(2β⁻); measured Eγ, Iγ; deduced T_{1/2} lower limits. JOUR NUPAB 799 167

A=112 (continued)

- ¹¹²In 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹¹²Sn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2008DA02 RADIOACTIVITY ¹¹²Sn(2EC), (β^+ EC), ¹²⁴Sn(2 β^-); measured E γ , I γ ; deduced T_{1/2} lower limits. JOUR NUPAB 799 167

KEYNUMBERS AND KEYWORDS

A=112 (continued)

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| ^{112}Sb | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{112}Te | 2007MA92 | <p>ATOMIC MASSES $^{99,101,103}\text{Ag}$, $^{101,102,103,104}\text{Cd}$, $^{102,103,104,105}\text{In}$, $^{105,106}\text{Sn}$, $^{107,109,111}\text{Sb}$, $^{109,110,111,112}\text{Te}$, $^{111,112,113}\text{I}$, ^{113}Xe; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ^{104}Sn, ^{105}Sb, ^{108}Te, ^{109}I, ^{112}Xe, ^{113}Cs; evaluated masses. JOUR ZAANE 34 341</p> |
| | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |

KEYNUMBERS AND KEYWORDS

A=112 (continued)

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| 2007PE32 | NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, E=195 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array.
106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138Te,
109,111,113,115,117,119,121,123,125,127,129,131I,
110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144Xe,
117,119,121,123,125,127,129Cs; systematics. JOUR PRVCA 76 054301 |
| ^{112}I | 2007MA92 ATOMIC MASSES $^{99,101,103}\text{Ag}$, $^{101,102,103,104}\text{Cd}$, $^{102,103,104,105}\text{In}$, $^{105,106}\text{Sn}$, $^{107,109,111}\text{Sb}$, $^{109,110,111,112}\text{Te}$, $^{111,112,113}\text{I}$, ^{113}Xe ; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ^{104}Sn , ^{105}Sb , ^{108}Te , ^{109}I , ^{112}Xe , ^{113}Cs ; evaluated masses. JOUR ZAANE 34 341 |
| ^{112}Xe | 2007MA92 ATOMIC MASSES $^{99,101,103}\text{Ag}$, $^{101,102,103,104}\text{Cd}$, $^{102,103,104,105}\text{In}$, $^{105,106}\text{Sn}$, $^{107,109,111}\text{Sb}$, $^{109,110,111,112}\text{Te}$, $^{111,112,113}\text{I}$, ^{113}Xe ; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ^{104}Sn , ^{105}Sb , ^{108}Te , ^{109}I , ^{112}Xe , ^{113}Cs ; evaluated masses. JOUR ZAANE 34 341 |
| 2007PE32 | NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, E=195 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array.
106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138Te,
109,111,113,115,117,119,121,123,125,127,129,131I,
110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144Xe,
117,119,121,123,125,127,129Cs; systematics. JOUR PRVCA 76 054301 |

A=113

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| ^{113}Pd | 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609 |
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KEYNUMBERS AND KEYWORDS

A=113 (continued)

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| ^{113}Ag | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{113}Cd | 2007BE61 | <p>RADIOACTIVITY $^{113}\text{Cd}(\beta^-)$; measured β spectra, half-life. Low background experiment. JOUR PRVCA 76 064603</p> |
| | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{113}In | 2007BE61 | <p>RADIOACTIVITY $^{113}\text{Cd}(\beta^-)$; measured β spectra, half-life. Low background experiment. JOUR PRVCA 76 064603</p> |

A=113 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{113}Sn 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=113 (continued)

^{113}Sb	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>
	2008BH02	<p>NUCLEAR REACTIONS $^{93}\text{Nb}(^{20}\text{Ne}, X)$, E=145, 160 MeV; measured $E\gamma$, $I\gamma$, neutron-spectra, fusion cross sections. ^{113}Sb; deduced giant dipole resonance parameters, J. JOUR PRVCA 77 024318</p>
^{113}Te	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>

A=113 (continued)

- ¹¹³I 2007MA92 ATOMIC MASSES ^{99,101,103}Ag, ^{101,102,103,104}Cd, ^{102,103,104,105}In, ^{105,106}Sn, ^{107,109,111}Sb, ^{109,110,111,112}Te, ^{111,112,113}I, ¹¹³Xe; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ¹⁰⁴Sn, ¹⁰⁵Sb, ¹⁰⁸Te, ¹⁰⁹I, ¹¹²Xe, ¹¹³Cs; evaluated masses. JOUR ZAANE 34 341
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS ⁵⁸Ni(⁵⁴Fe, 2np), E=195 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ¹⁰⁹I; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array. ^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}Te, ^{109,111,113,115,117,119,121,123,125,127,129,131}I, ^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}Xe, ^{117,119,121,123,125,127,129}Cs; systematics. JOUR PRVCA 76 054301
- ¹¹³Xe 2007MA92 ATOMIC MASSES ^{99,101,103}Ag, ^{101,102,103,104}Cd, ^{102,103,104,105}In, ^{105,106}Sn, ^{107,109,111}Sb, ^{109,110,111,112}Te, ^{111,112,113}I, ¹¹³Xe; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ¹⁰⁴Sn, ¹⁰⁵Sb, ¹⁰⁸Te, ¹⁰⁹I, ¹¹²Xe, ¹¹³Cs; evaluated masses. JOUR ZAANE 34 341
- ¹¹³Cs 2007MA92 ATOMIC MASSES ^{99,101,103}Ag, ^{101,102,103,104}Cd, ^{102,103,104,105}In, ^{105,106}Sn, ^{107,109,111}Sb, ^{109,110,111,112}Te, ^{111,112,113}I, ¹¹³Xe; measured and evaluated masses using the SHIPTRAP Penning trap mass spectrometer. ¹⁰⁴Sn, ¹⁰⁵Sb, ¹⁰⁸Te, ¹⁰⁹I, ¹¹²Xe, ¹¹³Cs; evaluated masses. JOUR ZAANE 34 341

A=114

- ^{114}Pd 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{114}Ag 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{114}Cd 2007BA73 NUCLEAR REACTIONS $^{114}\text{Cd}(n, n'\gamma)$, $E^*=3.5$ MeV; measured $E\gamma$, $I\gamma$, γ -yields, $\gamma\gamma$ -coin, angular distributions, half-lives; deduced levels, J, π , multipolarities, mixing ratios, configurations, B(E2), B(M1), B(E1). Comparisons with IBA model calculations. $^{108,110,112,114,116,118}\text{Cd}$; systematics. JOUR PRVCA 76 054308

A=114 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{114}In 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=114 (continued)

- ¹¹⁴Sn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹¹⁴Sb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=114 (*continued*)

- ^{114}Te 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2np)$, $E=195$ MeV; measured E_γ , I_γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array. $^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}\text{Te}$, $^{109,111,113,115,117,119,121,123,125,127,129,131}\text{I}$, $^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}\text{Xe}$, $^{117,119,121,123,125,127,129}\text{Cs}$; systematics. JOUR PRVCA 76 054301
- ^{114}I 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=114 (continued)

¹¹⁴Xe 2007PE32 NUCLEAR REACTIONS ⁵⁸Ni(⁵⁴Fe, 2np), E=195 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ¹⁰⁹I; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array. 106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138Te, 109,111,113,115,117,119,121,123,125,127,129,131I, 110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144Xe, 117,119,121,123,125,127,129Cs; systematics. JOUR PRVCA 76 054301

A=115

¹¹⁵Pd 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=115 (continued)

- ^{115}Ag 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{115}Cd 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=115 (continued)

- ¹¹⁵In 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹¹⁵Sn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=115 (continued)

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| ^{115}Sb | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |
| | 2008FA03 | <p>NUCLEAR REACTIONS ^{46}Ti, ^{64}Zn, $^{114,116}\text{Sn}(p, \gamma)$, $E(\text{cm})=13.7$ MeV; measured $E\gamma$, $I\gamma$ following residual decay, σ; deduced astrophysical S-factors, reaction rates. Activation technique. JOUR NUPAB 802 26</p> |
| ^{115}Te | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |

A=115 (continued)

- ¹¹⁵I 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS ⁵⁸Ni(⁵⁴Fe, 2np), E=195 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ¹⁰⁹I; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array. ^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}Te, ^{109,111,113,115,117,119,121,123,125,127,129,131}I, ^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}Xe, ^{117,119,121,123,125,127,129}Cs; systematics. JOUR PRVCA 76 054301

A=116

- ¹¹⁶Ag 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹¹⁶Cd 2007BA73 NUCLEAR REACTIONS ¹¹⁴Cd(n, n'γ), E*=3.5 MeV; measured Eγ, Iγ, γ-yields, γγ-coin, angular distributions, half-lives; deduced levels, J, π, multipolarities, mixing ratios, configurations, B(E2), B(M1), B(E1). Comparisons with IBA model calculations. ^{108,110,112,114,116,118}Cd; systematics. JOUR PRVCA 76 054308
- 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=116 (continued)

- ¹¹⁶In 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹¹⁶Sn 2007CH76 NUCLEAR REACTIONS ¹¹⁶Sn(⁶Li, ⁶Li'), E=240 MeV; measured particle spectra, angular distributions, cross sections; deduced B(E2), B(E3). Comparison with ⁹⁰Zr. ¹¹⁶Sn; deduced J, π. DWBA calculations. JOUR PRVCA 76 054606
- ¹¹⁶Sn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=116 (*continued*)

- 2008TE03 NUCLEAR REACTIONS $^{116,118,120,122,124}\text{Sn}(p, p)$, E=295 MeV; measured $\sigma(\theta)$, analyzing powers, nucleon density distributions, rms radii. ^{58}Ni ; calculated proton, neutron density distributions. JOUR PRVCA 77 024317
- ^{116}Sb 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{116}Te 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=116 (*continued*)

- 2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, $E=195$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array.
106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138Te,
109,111,113,115,117,119,121,123,125,127,129,131I,
110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144Xe,
117,119,121,123,125,127, ^{129}Cs ; systematics. JOUR PRVCA 76 054301
- ^{116}I 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$,
81,82,83,84,85,86,87,88,89,90,91,92,93Sr, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$,
86,87,88,89,90,91,92,93,94,95,96,97,98,99Zr,
87,88,89,90,91,92,93,94,95,96,97,98,99,100Nb,
90,91,92,93,94,95,96,97,98,99,100,101,102,103,104Mo,
92,93,94,95,96,97,98,99,100,101,102,103,104,105,106Tc,
95,96,97,98,99,100,101,102,103,104,105,106,107,108,109Ru,
97,98,99,100,101,102,103,104,105,106,107,108,109,110,111Rh,
99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115Pd,
101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122Ag,
104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125Cd,
105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127In,
108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130Sn,
110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132Sb,
111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134Te,
113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135I,
116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135Xe,
122,123,124,125,126,127,128,129,130,131,132,133,134,135Cs,
127,128,129,130,131,132Ba; measured cross sections. JOUR PRVCA 76
064609
- ^{116}Xe 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$,
81,82,83,84,85,86,87,88,89,90,91,92,93Sr, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$,
86,87,88,89,90,91,92,93,94,95,96,97,98,99Zr,
87,88,89,90,91,92,93,94,95,96,97,98,99,100Nb,
90,91,92,93,94,95,96,97,98,99,100,101,102,103,104Mo,
92,93,94,95,96,97,98,99,100,101,102,103,104,105,106Tc,
95,96,97,98,99,100,101,102,103,104,105,106,107,108,109Ru,
97,98,99,100,101,102,103,104,105,106,107,108,109,110,111Rh,
99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115Pd,
101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122Ag,
104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125Cd,
105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127In,
108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130Sn,
110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132Sb,
111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134Te,
113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135I,
116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135Xe,
122,123,124,125,126,127,128,129,130,131,132,133,134,135Cs,
127,128,129,130,131,132Ba; measured cross sections. JOUR PRVCA 76
064609

KEYNUMBERS AND KEYWORDS

A=116 (continued)

2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, $E=195$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array. 106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138Te, 109,111,113,115,117,119,121,123,125,127,129,131I, 110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144Xe, 117,119,121,123,125,127,129Cs; systematics. JOUR PRVCA 76 054301

A=117

^{117}Ru 2007T023 RADIOACTIVITY ^{117}Ru , ^{120}Rh , ^{121}Pd , $^{123,124,125}\text{Ag}$, $^{125,126,127}\text{Cd(IT)}$; measured $E\gamma$, $I\gamma$ from isomer decays. JOUR ZSTNE 150 183

^{117}Pd 2007RI17 RADIOACTIVITY ^{117m}Pd , ^{118m}Ag , ^{120m}Ag , $^{118m}\text{In(IT)}$ [from U(p, F), E not given]; measured conversion electron spectra with the JYFLTRAP double Penning trap; deduced transition energies. Comparison with other data. JOUR ZAANE 34 113

^{117}Ag 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=117 (continued)

- ¹¹⁷Cd 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹¹⁷In 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=117 (continued)

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| ^{117}Sn | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{117}Sb | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |
| | 2008FA03 | <p>NUCLEAR REACTIONS ^{46}Ti, ^{64}Zn, $^{114,116}\text{Sn}(p, \gamma)$, $E(\text{cm})=13.7$ MeV; measured $E\gamma$, $I\gamma$ following residual decay, σ; deduced astrophysical S-factors, reaction rates. Activation technique. JOUR NUPAB 802 26</p> |

A=117 (continued)

- ¹¹⁷Te 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹¹⁷I 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS ⁵⁸Ni(⁵⁴Fe, 2np), E=195 MeV; measured E_γ, I_γ, γγ-coin, γγ(θ), multipolarities. ¹⁰⁹I; deduced levels, J, π, rotational bands; calculated configurations. JUROGAM array. ^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}Te, ^{109,111,113,115,117,119,121,123,125,127,129,131}I, ^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}Xe, ^{117,119,121,123,125,127,129}Cs; systematics. JOUR PRVCA 76 054301

A=117 (continued)

- ^{117}Xe 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{117}Cs 2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2np)$, $E=195$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J , π , rotational bands; calculated configurations. JUROGAM array. $^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}\text{Te}$, $^{109,111,113,115,117,119,121,123,125,127,129,131}\text{I}$, $^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}\text{Xe}$, $^{117,119,121,123,125,127,129}\text{Cs}$; systematics. JOUR PRVCA 76 054301

A=118

- ^{118}Ag 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{118}Ag 2007RI17 RADIOACTIVITY ^{117m}Pd , ^{118m}Ag , ^{120m}Ag , $^{118m}\text{In(IT)}$ [from U(p, F), E not given]; measured conversion electron spectra with the JYFLTRAP double Penning trap; deduced transition energies. Comparison with other data. JOUR ZAANE 34 113
- ^{118}Cd 2007BA73 NUCLEAR REACTIONS $^{114}\text{Cd}(n, n'\gamma)$, $E^*=3.5$ MeV; measured $E\gamma$, $I\gamma$, γ -yields, $\gamma\gamma$ -coin, angular distributions, half-lives; deduced levels, J, π , multipolarities, mixing ratios, configurations, B(E2), B(M1), B(E1). Comparisons with IBA model calculations. $^{108,110,112,114,116,118}\text{Cd}$; systematics. JOUR PRVCA 76 054308

A=118 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{118}In 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- 2007RI17 RADIOACTIVITY ^{117m}Pd , ^{118m}Ag , ^{120m}Ag , $^{118m}\text{In(IT)}$ [from U(p, F), E not given]; measured conversion electron spectra with the JYFLTRAP double Penning trap; deduced transition energies. Comparison with other data. JOUR ZAANE 34 113

KEYNUMBERS AND KEYWORDS

A=118 (continued)

^{118}Sn	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>
	2008TE03	<p>NUCLEAR REACTIONS $^{116,118,120,122,124}\text{Sn}(p, p)$, E=295 MeV; measured $\sigma(\theta)$, analyzing powers, nucleon density distributions, rms radii. ^{58}Ni; calculated proton, neutron density distributions. JOUR PRVCA 77 024317</p>
^{118}Sb	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>

A=118 (continued)

- ¹¹⁸Te 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS ⁵⁸Ni(⁵⁴Fe, 2np), E=195 MeV; measured E_γ, I_γ, γγ-coin, γγ(θ), multipolarities. ¹⁰⁹I; deduced levels, J, π, rotational bands; calculated configurations. JUROGAM array. ^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}Te, ^{109,111,113,115,117,119,121,123,125,127,129,131}I, ^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}Xe, ^{117,119,121,123,125,127,129}Cs; systematics. JOUR PRVCA 76 054301
- ¹¹⁸I 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=118 (continued)

- ¹¹⁸Xe 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS ⁵⁸Ni(⁵⁴Fe, 2np), E=195 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ¹⁰⁹I; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array. ^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}Te, ^{109,111,113,115,117,119,121,123,125,127,129,131}I, ^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}Xe, ^{117,119,121,123,125,127,129}Cs; systematics. JOUR PRVCA 76 054301

A=119

- ^{119}Ag 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{119}Cd 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=119 (continued)

- ¹¹⁹In 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹¹⁹Sn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹¹⁹Sb 2007GU30 NUCLEAR REACTIONS ¹²¹Sb(p, t), E=21 MeV; measured triton spectra, $\sigma(\theta)$. ¹¹⁹Sb; deduced level energies, J, π . DWBA analysis. JOUR JPGPE 34 2665

A=119 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{119}Te 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=119 (*continued*)

- ¹¹⁹I 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS ⁵⁸Ni(⁵⁴Fe, 2np), E=195 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ¹⁰⁹I; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array. ^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}Te, ^{109,111,113,115,117,119,121,123,125,127,129,131}I, ^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}Xe, ^{117,119,121,123,125,127,129}Cs; systematics. JOUR PRVCA 76 054301
- ¹¹⁹Xe 2007M037 NUCLEAR REACTIONS ¹¹⁶Cd(¹³C, 4n), E=62 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$. ¹²⁵Xe; deduced levels, J, π , configurations. ^{119,121,123,125}Xe; systematics of yrast and yrare levels. JOUR PRVCA 76 067301

KEYNUMBERS AND KEYWORDS

A=119 (*continued*)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{119}Cs 2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2np)$, $E=195$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J , π , rotational bands; calculated configurations. JUROGAM array. $^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}\text{Te}$, $^{109,111,113,115,117,119,121,123,125,127,129,131}\text{I}$, $^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}\text{Xe}$, $^{117,119,121,123,125,127,129}\text{Cs}$; systematics. JOUR PRVCA 76 054301

A=120

- ^{120}Rh 2007T023 RADIOACTIVITY ^{117}Ru , ^{120}Rh , ^{121}Pd , $^{123,124,125}\text{Ag}$, $^{125,126,127}\text{Cd(IT)}$; measured $E\gamma$, $I\gamma$ from isomer decays. JOUR ZSTNE 150 183

KEYNUMBERS AND KEYWORDS

A=120 (continued)

- | | | |
|-------------------|----------|--|
| ^{120}Ag | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |
| | 2007RI17 | <p>RADIOACTIVITY ^{117m}Pd, ^{118m}Ag, ^{120m}Ag, $^{118m}\text{In(IT)}$ [from U(p, F), E not given]; measured conversion electron spectra with the JYFLTRAP double Penning trap; deduced transition energies. Comparison with other data. JOUR ZAANE 34 113</p> |
| ^{120}Cd | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |

A=120 (continued)

- ^{120}In 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{120}Sn 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- 2008ST04 NUCLEAR REACTIONS $^{104}\text{Pd}(^{67}\text{Cu}, ^{67}\text{Cu}')$, $(^{69}\text{Cu}, ^{69}\text{Cu}')$, $(^{71}\text{Cu}, ^{71}\text{Cu}')$, $E=2.99$ MeV / nucleon; $^{120}\text{Sn}(^{71}\text{Cu}, ^{71}\text{Cu}')$, $(^{73}\text{Cu}, ^{73}\text{Cu}')$, $E=2.99$ MeV / nucleon; measured $E\gamma$, $I\gamma$ following coulomb excitation. $^{67,69,71,73}\text{Cu}$; deduced level energies, $B(E2)$. JOUR PRLTA 100 112502

KEYNUMBERS AND KEYWORDS

A=120 (continued)

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| 2008TE03 | NUCLEAR REACTIONS ^{116,118,120,122,124} Sn(p, p), E=295 MeV; measured $\sigma(\theta)$, analyzing powers, nucleon density distributions, rms radii. ⁵⁸ Ni; calculated proton, neutron density distributions. JOUR PRVCA 77 024317 |
| ¹²⁰ Sb | 2007NA31 NUCLEAR REACTIONS ¹³⁶ Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90} Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93} Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96} Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99} Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100} Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104} Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106} Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109} Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111} Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115} Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122} Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125} Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127} In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130} Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132} Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134} Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135} I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135} Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136} Cs, ^{127,128,129,130,131,132} Ba; measured cross sections. JOUR PRVCA 76 064609 |
| ¹²⁰ Te | 2007NA31 NUCLEAR REACTIONS ¹³⁶ Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90} Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93} Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96} Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99} Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100} Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104} Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106} Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109} Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111} Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115} Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122} Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125} Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127} In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130} Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132} Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134} Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135} I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135} Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136} Cs, ^{127,128,129,130,131,132} Ba; measured cross sections. JOUR PRVCA 76 064609 |

A=120 (continued)

- 2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, E=195 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array.
106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138Te,
109,111,113,115,117,119,121,123,125,127,129,131I,
110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144Xe,
117,119,121,123,125,127, ^{129}Cs ; systematics. JOUR PRVCA 76 054301
- ^{120}I 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$,
81,82,83,84,85,86,87,88,89,90,91,92,93Sr, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$,
86,87,88,89,90,91,92,93,94,95,96,97,98,99Zr,
87,88,89,90,91,92,93,94,95,96,97,98,99,100Nb,
90,91,92,93,94,95,96,97,98,99,100,101,102,103,104Mo,
92,93,94,95,96,97,98,99,100,101,102,103,104,105,106Tc,
95,96,97,98,99,100,101,102,103,104,105,106,107,108,109Ru,
97,98,99,100,101,102,103,104,105,106,107,108,109,110,111Rh,
99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115Pd,
101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122Ag,
104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125Cd,
105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127In,
108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130Sn,
110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132Sb,
111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134Te,
113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135I,
116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135Xe,
122,123,124,125,126,127,128,129,130,131,132,133,134,135Cs,
127,128,129,130,131,132Ba; measured cross sections. JOUR PRVCA 76
064609
- ^{120}Xe 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$,
81,82,83,84,85,86,87,88,89,90,91,92,93Sr, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$,
86,87,88,89,90,91,92,93,94,95,96,97,98,99Zr,
87,88,89,90,91,92,93,94,95,96,97,98,99,100Nb,
90,91,92,93,94,95,96,97,98,99,100,101,102,103,104Mo,
92,93,94,95,96,97,98,99,100,101,102,103,104,105,106Tc,
95,96,97,98,99,100,101,102,103,104,105,106,107,108,109Ru,
97,98,99,100,101,102,103,104,105,106,107,108,109,110,111Rh,
99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115Pd,
101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122Ag,
104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125Cd,
105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127In,
108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130Sn,
110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132Sb,
111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134Te,
113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135I,
116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135Xe,
122,123,124,125,126,127,128,129,130,131,132,133,134,135Cs,
127,128,129,130,131,132Ba; measured cross sections. JOUR PRVCA 76
064609

KEYNUMBERS AND KEYWORDS

A=120 (continued)

2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, $E=195$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array. 106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138 Te , 109,111,113,115,117,119,121,123,125,127,129,131 I , 110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144 Xe , 117,119,121,123,125,127,129 Cs ; systematics. JOUR PRVCA 76 054301

A=121

^{121}Pd 2007T023 RADIOACTIVITY ^{117}Ru , ^{120}Rh , ^{121}Pd , $^{123,124,125}\text{Ag}$, $^{125,126,127}\text{Cd(IT)}$; measured $E\gamma$, $I\gamma$ from isomer decays. JOUR ZSTNE 150 183

^{121}Ag 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=121 (continued)

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| ^{121}Cd | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{121}In | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |

KEYNUMBERS AND KEYWORDS

A=121 (continued)

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| ^{121}Sn | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{121}Sb | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |
| | 2008K003 | <p>RADIOACTIVITY $^{121}\text{Sb}(\text{IT})$; measured $E\gamma$, $I\gamma$, $\gamma\gamma$-coin. ^{121}Sb; deduced levels, J, π, new isomer, half-life. JOUR APOBB 39 489</p> |

KEYNUMBERS AND KEYWORDS

A=121 (continued)

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| ^{121}Te | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |
| | 2008EA01 | <p>NUCLEAR REACTIONS $^{120,122,124,126,128,130}\text{Te}(n, \gamma)$, E not given; measured E_γ, I_γ, cross sections, resonance integral. JOUR PRVCA 77 024303</p> |
| | 2008EA01 | <p>RADIOACTIVITY ^{121m}Te, ^{121}Te, ^{127m}Te, ^{131m}Te; measured half-lives. JOUR PRVCA 77 024303</p> |
| ^{121}I | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |

KEYNUMBERS AND KEYWORDS

A=121 (continued)

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| 2007PE32 | NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, E=195 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array.
106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138Te,
109,111,113,115,117,119,121,123,125,127,129,131I,
110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144Xe,
117,119,121,123,125,127,129Cs; systematics. JOUR PRVCA 76 054301 |
| ^{121}Xe | 2007M037 NUCLEAR REACTIONS $^{116}\text{Cd}(^{13}\text{C}, 4\text{n})$, E=62 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$. ^{125}Xe ; deduced levels, J, π , configurations.
119,121,123,125Xe; systematics of yrast and yrare levels. JOUR PRVCA 76 067301 |
| 2007NA31 | NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$,
$^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$,
$^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$,
$^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$,
$^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$,
$^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$,
$^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$,
$^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$,
$^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$,
$^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$,
$^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$,
$^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$,
$^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$,
$^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$,
$^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$,
$^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$,
$^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$,
$^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$,
$^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609 |
| ^{121}Cs | 2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, E=195 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array.
106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138Te,
109,111,113,115,117,119,121,123,125,127,129,131I,
110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144Xe,
117,119,121,123,125,127,129Cs; systematics. JOUR PRVCA 76 054301 |

A=122

^{122}Ag	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>
	2008SM01	<p>RADIOACTIVITY $^{122}\text{Ag}(\beta^-)$ [from $^{238}\text{U}(p, F)$, $E=50$ MeV]; measured $E\gamma$, $I\gamma$, $\gamma\gamma$-coin, lifetimes. ^{122}Cd; deduced levels, B(M1), B(E1), B(E2), half-lives using Advanced Time-delayed $\beta\gamma\gamma(t)$ method. Comparison with ^{124}Sn, ^{126}Te. JOUR PRVCA 77 014309</p>
^{122}Cd	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>

A=122 (continued)

- 2008SM01 RADIOACTIVITY $^{122}\text{Ag}(\beta^-)$ [from $^{238}\text{U}(\text{p}, \text{F})$, E=50 MeV]; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, lifetimes. ^{122}Cd ; deduced levels, B(M1), B(E1), B(E2), half-lives using Advanced Time-delayed $\beta\gamma\gamma(t)$ method. Comparison with ^{124}Sn , ^{126}Te . JOUR PRVCA 77 014309
- ^{122}In 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(\text{p}, \text{X})$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{122}Sn 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(\text{p}, \text{X})$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=122 (continued)

- 2008TE03 NUCLEAR REACTIONS $^{116,118,120,122,124}\text{Sn}(p, p)$, E=295 MeV; measured $\sigma(\theta)$, analyzing powers, nucleon density distributions, rms radii. ^{58}Ni ; calculated proton, neutron density distributions. JOUR PRVCA 77 024317
- ^{122}Sb 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{122}Te 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=122 (continued)

- 2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, E=195 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array.
106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138Te,
109,111,113,115,117,119,121,123,125,127,129,131I,
110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144Xe,
117,119,121,123,125,127, ^{129}Cs ; systematics. JOUR PRVCA 76 054301
- ^{122}I 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$,
81,82,83,84,85,86,87,88,89,90,91,92,93Sr, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$,
86,87,88,89,90,91,92,93,94,95,96,97,98,99Zr,
87,88,89,90,91,92,93,94,95,96,97,98,99,100Nb,
90,91,92,93,94,95,96,97,98,99,100,101,102,103,104Mo,
92,93,94,95,96,97,98,99,100,101,102,103,104,105,106Tc,
95,96,97,98,99,100,101,102,103,104,105,106,107,108,109Ru,
97,98,99,100,101,102,103,104,105,106,107,108,109,110,111Rh,
99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115Pd,
101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122Ag,
104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125Cd,
105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127In,
108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130Sn,
110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132Sb,
111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134Te,
113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135I,
116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135Xe,
122,123,124,125,126,127,128,129,130,131,132,133,134,135Cs,
127,128,129,130,131,132Ba; measured cross sections. JOUR PRVCA 76
064609
- ^{122}Xe 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$,
81,82,83,84,85,86,87,88,89,90,91,92,93Sr, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$,
86,87,88,89,90,91,92,93,94,95,96,97,98,99Zr,
87,88,89,90,91,92,93,94,95,96,97,98,99,100Nb,
90,91,92,93,94,95,96,97,98,99,100,101,102,103,104Mo,
92,93,94,95,96,97,98,99,100,101,102,103,104,105,106Tc,
95,96,97,98,99,100,101,102,103,104,105,106,107,108,109Ru,
97,98,99,100,101,102,103,104,105,106,107,108,109,110,111Rh,
99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115Pd,
101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122Ag,
104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125Cd,
105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127In,
108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130Sn,
110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132Sb,
111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134Te,
113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135I,
116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135Xe,
122,123,124,125,126,127,128,129,130,131,132,133,134,135Cs,
127,128,129,130,131,132Ba; measured cross sections. JOUR PRVCA 76
064609

KEYNUMBERS AND KEYWORDS

A=122 (continued)

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|----------------------------|---|
| 2007PE32 | NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, $E=195$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array.
106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138Te,
109,111,113,115,117,119,121,123,125,127,129,131I,
110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144Xe,
117,119,121,123,125,127, ^{129}Cs ; systematics. JOUR PRVCA 76 054301 |
| ^{122}Cs 2007NA31 | NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$,
81,82,83,84,85,86,87,88,89,90,91,92,93Sr, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$,
86,87,88,89,90,91,92,93,94,95,96,97,98,99Zr,
87,88,89,90,91,92,93,94,95,96,97,98,99,100Nb,
90,91,92,93,94,95,96,97,98,99,100,101,102,103,104Mo,
92,93,94,95,96,97,98,99,100,101,102,103,104,105,106Tc,
95,96,97,98,99,100,101,102,103,104,105,106,107,108,109Ru,
97,98,99,100,101,102,103,104,105,106,107,108,109,110,111Rh,
99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115Pd,
101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122Ag,
104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125Cd,
105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127In,
108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130Sn,
110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132Sb,
111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134Te,
113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135I,
116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135Xe,
122,123,124,125,126,127,128,129,130,131,132,133,134,135,136Cs,
127,128,129,130,131,132Ba; measured cross sections. JOUR PRVCA 76
064609 |

A=123

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| ^{123}Ag 2007T023 | RADIOACTIVITY ^{117}Ru , ^{120}Rh , ^{121}Pd , $^{123,124,125}\text{Ag}$,
$^{125,126,127}\text{Cd}(\text{IT})$; measured $E\gamma$, $I\gamma$ from isomer decays. JOUR ZSTNE
150 183 |
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KEYNUMBERS AND KEYWORDS

A=123 (continued)

^{123}Cd	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>
^{123}In	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>

KEYNUMBERS AND KEYWORDS

A=123 (continued)

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| ^{123}Sn | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{123}Sb | 2007JU06 | <p>NUCLEAR REACTIONS $^{122}\text{Sn}(^7\text{Li}, \alpha 2n\gamma)$, $E=35$ MeV; $^{124}\text{Sn}(^7\text{Li}, \alpha 2n\gamma)$, $E=37$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$-coin, internal conversion coefficients, conversion electron spectra; deduced multipolarities, $B(E1)$, $B(E2)$, $B(E3)$, $B(M2)$, $B(M4)$. $^{123,125}\text{Sb}$; measured half-lives; deduced levels, J, π. JOUR PRVCA 76 054306</p> |
| | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |

KEYNUMBERS AND KEYWORDS

A=123 (continued)

^{123}Te	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>
	2008EA01	<p>NUCLEAR REACTIONS $^{120,122,124,126,128,130}\text{Te}(n, \gamma)$, E not given; measured E_γ, I_γ, cross sections, resonance integral. JOUR PRVCA 77 024303</p>
^{123}I	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>

KEYNUMBERS AND KEYWORDS

A=123 (continued)

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| 2007PE32 | <p>NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, $E=195$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$-coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I; deduced levels, J, π, rotational bands; calculated configurations. JUROGAM array.
 $106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138\text{Te}$,
 $109,111,113,115,117,119,121,123,125,127,129,131\text{I}$,
 $110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144\text{Xe}$,
 $117,119,121,123,125,127,129\text{Cs}$; systematics. JOUR PRVCA 76 054301</p> |
| ^{123}Xe 2007M037 | <p>NUCLEAR REACTIONS $^{116}\text{Cd}(^{13}\text{C}, 4\text{n})$, $E=62$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$-coin, $\gamma\gamma(\theta)$. ^{125}Xe; deduced levels, J, π, configurations.
 $119,121,123,125\text{Xe}$; systematics of yrast and yrare levels. JOUR PRVCA 76 067301</p> |
| 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$,
 $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$,
 $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$,
 $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$,
 $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$,
 $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$,
 $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$,
 $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$,
 $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$,
 $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$,
 $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$,
 $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$,
 $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$,
 $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$,
 $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$,
 $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$,
 $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$,
 $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$,
 $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |

KEYNUMBERS AND KEYWORDS

A=123 (continued)

- ¹²³Cs 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS ⁵⁸Ni(⁵⁴Fe, 2np), E=195 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ¹⁰⁹I; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array. ^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}Te, ^{109,111,113,115,117,119,121,123,125,127,129,131}I, ^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}Xe, ^{117,119,121,123,125,127,129}Cs; systematics. JOUR PRVCA 76 054301

A=124

- ¹²⁴Ag 2007T023 RADIOACTIVITY ¹¹⁷Ru, ¹²⁰Rh, ¹²¹Pd, ^{123,124,125}Ag, ^{125,126,127}Cd(IT); measured E γ , I γ from isomer decays. JOUR ZSTNE 150 183

A=124 (continued)

- ^{124}Cd 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{124}In 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=124 (continued)

- ¹²⁴Sn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2008DA02 RADIOACTIVITY ¹¹²Sn(2EC), (β^+ EC), ¹²⁴Sn(2 β^-); measured E γ , I γ ; deduced T_{1/2} lower limits. JOUR NUPAB 799 167
- 2008TE03 NUCLEAR REACTIONS ^{116,118,120,122,124}Sn(p, p), E=295 MeV; measured $\sigma(\theta)$, analyzing powers, nucleon density distributions, rms radii. ⁵⁸Ni; calculated proton, neutron density distributions. JOUR PRVCA 77 024317
- ¹²⁴Sb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=124 (*continued*)

- ¹²⁴Te 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS ⁵⁸Ni(⁵⁴Fe, 2np), E=195 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ¹⁰⁹I; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array. ^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}Te, ^{109,111,113,115,117,119,121,123,125,127,129,131}I, ^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}Xe, ^{117,119,121,123,125,127,129}Cs; systematics. JOUR PRVCA 76 054301
- 2008DA02 RADIOACTIVITY ¹¹²Sn(2EC), (β^+ EC), ¹²⁴Sn(2 β^-); measured E γ , I γ ; deduced T_{1/2} lower limits. JOUR NUPAB 799 167

A=124 (continued)

- ¹²⁴I 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹²⁴Xe 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS ⁵⁸Ni(⁵⁴Fe, 2np), E=195 MeV; measured E_γ, I_γ, γγ-coin, γγ(θ), multipolarities. ¹⁰⁹I; deduced levels, J, π, rotational bands; calculated configurations. JUROGAM array. ^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}Te, ^{109,111,113,115,117,119,121,123,125,127,129,131}I, ^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}Xe, ^{117,119,121,123,125,127,129}Cs; systematics. JOUR PRVCA 76 054301

KEYNUMBERS AND KEYWORDS

A=124 (continued)

¹²⁴Cs 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=125

¹²⁵Ag 2007T023 RADIOACTIVITY ¹¹⁷Ru, ¹²⁰Rh, ¹²¹Pd, ^{123,124,125}Ag, ^{125,126,127}Cd(IT); measured E γ , I γ from isomer decays. JOUR ZSTNE 150 183

¹²⁵Cd 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=125 (continued)

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| 2007T023 | RADIOACTIVITY ¹¹⁷ Ru, ¹²⁰ Rh, ¹²¹ Pd, ^{123,124,125} Ag,
^{125,126,127} Cd(IT); measured E γ , I γ from isomer decays. JOUR ZSTNE
150 183 |
| ¹²⁵ In | 2007NA31 NUCLEAR REACTIONS ¹³⁶ Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90} Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93} Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96} Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99} Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100} Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104} Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106} Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109} Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111} Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115} Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122} Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125} Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127} In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130} Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132} Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134} Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135} I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135} Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136} Cs, ^{127,128,129,130,131,132} Ba; measured cross sections. JOUR PRVCA 76
064609 |
| ¹²⁵ Sn | 2007NA31 NUCLEAR REACTIONS ¹³⁶ Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90} Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93} Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96} Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99} Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100} Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104} Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106} Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109} Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111} Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115} Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122} Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125} Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127} In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130} Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132} Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134} Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135} I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135} Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136} Cs, ^{127,128,129,130,131,132} Ba; measured cross sections. JOUR PRVCA 76
064609 |

KEYNUMBERS AND KEYWORDS

A=125 (continued)

^{125}Sb	2007JU06	NUCLEAR REACTIONS $^{122}\text{Sn}({}^7\text{Li}, \alpha 2n\gamma)$, E=35 MeV; $^{124}\text{Sn}({}^7\text{Li}, \alpha 2n\gamma)$, E=37 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, internal conversion coefficients, conversion electron spectra; deduced multipolarities, B(E1), B(E2), B(E3), B(M2), B(M4). $^{123,125}\text{Sb}$; measured half-lives; deduced levels, J, π . JOUR PRVCA 76 054306
	2007NA31	NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
^{125}Te	2007NA31	NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=125 (continued)

- 2008EA01 NUCLEAR REACTIONS $^{120,122,124,126,128,130}\text{Te}(n, \gamma)$, E not given; measured $E\gamma$, $I\gamma$, cross sections, resonance integral. JOUR PRVCA 77 024303
- ^{125}I 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2np)$, E=195 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multiplicities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array. $^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}\text{Te}$, $^{109,111,113,115,117,119,121,123,125,127,129,131}\text{I}$, $^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}\text{Xe}$, $^{117,119,121,123,125,127,129}\text{Cs}$; systematics. JOUR PRVCA 76 054301
- ^{125}Xe 2007M037 NUCLEAR REACTIONS $^{116}\text{Cd}(^{13}\text{C}, 4n)$, E=62 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$. ^{125}Xe ; deduced levels, J, π , configurations. $^{119,121,123,125}\text{Xe}$; systematics of yrast and yrare levels. JOUR PRVCA 76 067301

A=125 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{125}Cs 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2np)$, $E=195$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J , π , rotational bands; calculated configurations. JUROGAM array. $^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}\text{Te}$, $^{109,111,113,115,117,119,121,123,125,127,129,131}\text{I}$, $^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}\text{Xe}$, $^{117,119,121,123,125,127,129}\text{Cs}$; systematics. JOUR PRVCA 76 054301

KEYNUMBERS AND KEYWORDS

A=126

^{126}Cd	2007T023	RADIOACTIVITY ^{117}Ru , ^{120}Rh , ^{121}Pd , $^{123,124,125}\text{Ag}$, $^{125,126,127}\text{Cd}(\text{IT})$; measured E_γ , I_γ from isomer decays. JOUR ZSTNE 150 183
^{126}In	2007NA31	NUCLEAR REACTIONS $^{136}\text{Xe}(\text{p}, \text{X})$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
^{126}Sn	2007NA31	NUCLEAR REACTIONS $^{136}\text{Xe}(\text{p}, \text{X})$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=126 (continued)

- ¹²⁶Sb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹²⁶Te 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS ⁵⁸Ni(⁵⁴Fe, 2np), E=195 MeV; measured E_γ, I_γ, γγ-coin, γγ(θ), multipolarities. ¹⁰⁹I; deduced levels, J, π, rotational bands; calculated configurations. JUROGAM array. ^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}Te, ^{109,111,113,115,117,119,121,123,125,127,129,131}I, ^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}Xe, ^{117,119,121,123,125,127,129}Cs; systematics. JOUR PRVCA 76 054301

A=126 (continued)

- ¹²⁶I 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹²⁶Xe 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS ⁵⁸Ni(⁵⁴Fe, 2np), E=195 MeV; measured E_γ, I_γ, γγ-coin, γγ(θ), multipolarities. ¹⁰⁹I; deduced levels, J, π, rotational bands; calculated configurations. JUROGAM array. ^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}Te, ^{109,111,113,115,117,119,121,123,125,127,129,131}I, ^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}Xe, ^{117,119,121,123,125,127,129}Cs; systematics. JOUR PRVCA 76 054301

KEYNUMBERS AND KEYWORDS

A=126 (continued)

¹²⁶Cs 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=127

¹²⁷Cd 2007T023 RADIOACTIVITY ¹¹⁷Ru, ¹²⁰Rh, ¹²¹Pd, ^{123,124,125}Ag, ^{125,126,127}Cd(IT); measured E γ , I γ from isomer decays. JOUR ZSTNE 150 183

¹²⁷In 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=127 (continued)

- ¹²⁷Sn 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2008DW01 ATOMIC MASSES ^{127,131,132,133,134}Sn; measured masses using the ISOLTRAP mass spectrometer. Discussed implications on the N=82 neutron-shell gap. JOUR PRLTA 100 072501
- ¹²⁷Sb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=127 (continued)

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| ^{127}Te | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |
| | 2008EA01 | <p>NUCLEAR REACTIONS $^{120,122,124,126,128,130}\text{Te}(n, \gamma)$, E not given; measured E_γ, I_γ, cross sections, resonance integral. JOUR PRVCA 77 024303</p> |
| | 2008EA01 | <p>RADIOACTIVITY ^{121m}Te, ^{121}Te, ^{127m}Te, ^{131m}Te; measured half-lives. JOUR PRVCA 77 024303</p> |
| ^{127}I | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |

A=127 (continued)

- 2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, E=195 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array.
106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138Te,
109,111,113,115,117,119,121,123,125,127,129,131I,
110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144Xe,
117,119,121,123,125,127, ^{129}Cs ; systematics. JOUR PRVCA 76 054301
- ^{127}Xe 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$,
81,82,83,84,85,86,87,88,89,90,91,92,93Sr, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$,
86,87,88,89,90,91,92,93,94,95,96,97,98,99Zr,
87,88,89,90,91,92,93,94,95,96,97,98,99,100Nb,
90,91,92,93,94,95,96,97,98,99,100,101,102,103,104Mo,
92,93,94,95,96,97,98,99,100,101,102,103,104,105,106Tc,
95,96,97,98,99,100,101,102,103,104,105,106,107,108,109Ru,
97,98,99,100,101,102,103,104,105,106,107,108,109,110,111Rh,
99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115Pd,
101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122Ag,
104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125Cd,
105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127In,
108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130Sn,
110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132Sb,
111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134Te,
113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135I,
116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135Xe,
122,123,124,125,126,127,128,129,130,131,132,133,134,135Cs,
127,128,129,130,131,132Ba; measured cross sections. JOUR PRVCA 76
064609
- ^{127}Cs 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$,
81,82,83,84,85,86,87,88,89,90,91,92,93Sr, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$,
86,87,88,89,90,91,92,93,94,95,96,97,98,99Zr,
87,88,89,90,91,92,93,94,95,96,97,98,99,100Nb,
90,91,92,93,94,95,96,97,98,99,100,101,102,103,104Mo,
92,93,94,95,96,97,98,99,100,101,102,103,104,105,106Tc,
95,96,97,98,99,100,101,102,103,104,105,106,107,108,109Ru,
97,98,99,100,101,102,103,104,105,106,107,108,109,110,111Rh,
99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115Pd,
101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122Ag,
104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125Cd,
105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127In,
108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130Sn,
110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132Sb,
111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134Te,
113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135I,
116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135Xe,
122,123,124,125,126,127,128,129,130,131,132,133,134,135Cs,
127,128,129,130,131,132Ba; measured cross sections. JOUR PRVCA 76
064609

KEYNUMBERS AND KEYWORDS

A=127 (*continued*)

- 2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, E=195 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array. 106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138Te, 109,111,113,115,117,119,121,123,125,127,129,131I, 110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144Xe, 117,119,121,123,125,127,129Cs; systematics. JOUR PRVCA 76 054301
- ^{127}Ba 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=128

- ^{128}Sn 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{128}Sb 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=128 (continued)

- ¹²⁸Te 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS ⁵⁸Ni(⁵⁴Fe, 2np), E=195 MeV; measured E_γ, I_γ, γγ-coin, γγ(θ), multipolarities. ¹⁰⁹I; deduced levels, J, π, rotational bands; calculated configurations. JUROGAM array. ^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}Te, ^{109,111,113,115,117,119,121,123,125,127,129,131}I, ^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}Xe, ^{117,119,121,123,125,127,129}Cs; systematics. JOUR PRVCA 76 054301
- ¹²⁸I 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=128 (continued)

- ^{128}Xe 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2np)$, $E=195$ MeV; measured E_γ , I_γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array. $^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}\text{Te}$, $^{109,111,113,115,117,119,121,123,125,127,129,131}\text{I}$, $^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}\text{Xe}$, $^{117,119,121,123,125,127,129}\text{Cs}$; systematics. JOUR PRVCA 76 054301
- ^{128}Cs 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=128 (continued)

¹²⁸Ba 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=129

¹²⁹Sn 2007KL06 NUCLEAR REACTIONS Be(²³⁸U, X)¹²⁹Sn / ¹³⁰Sn / ¹³¹Sn / ¹³²Sn / ¹³³Sb / ¹³⁴Sb, E=500 MeV / nucleon; measured pygmy dipole resonance strength, neutron skin thickness, symmetry parameters; deduced neutron separation energy, B(E1) using RQRPA approach. Compared to ¹¹⁶Sn, ¹⁴⁰Ce, ¹⁴²Nd, ¹⁴⁴Sm, ²⁰⁸Pb. JOUR PRVCA 76 051603

KEYNUMBERS AND KEYWORDS

A=129 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{129}Sb 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=129 (continued)

^{129}Te	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>
	2008EA01	<p>NUCLEAR REACTIONS $^{120,122,124,126,128,130}\text{Te}(n, \gamma)$, E not given; measured E_γ, I_γ, cross sections, resonance integral. JOUR PRVCA 77 024303</p>
^{129}I	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>

A=129 (continued)

- 2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, E=195 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array.
106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138Te,
109,111,113,115,117,119,121,123,125,127,129,131I,
110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144Xe,
117,119,121,123,125,127, ^{129}Cs ; systematics. JOUR PRVCA 76 054301
- ^{129}Xe 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$,
81,82,83,84,85,86,87,88,89,90,91,92,93Sr, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$,
86,87,88,89,90,91,92,93,94,95,96,97,98,99Zr,
87,88,89,90,91,92,93,94,95,96,97,98,99,100Nb,
90,91,92,93,94,95,96,97,98,99,100,101,102,103,104Mo,
92,93,94,95,96,97,98,99,100,101,102,103,104,105,106Tc,
95,96,97,98,99,100,101,102,103,104,105,106,107,108,109Ru,
97,98,99,100,101,102,103,104,105,106,107,108,109,110,111Rh,
99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115Pd,
101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122Ag,
104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125Cd,
105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127In,
108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130Sn,
110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132Sb,
111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134Te,
113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135I,
116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135Xe,
122,123,124,125,126,127,128,129,130,131,132,133,134,135Cs,
127,128,129,130,131,132Ba; measured cross sections. JOUR PRVCA 76
064609
- ^{129}Cs 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$,
81,82,83,84,85,86,87,88,89,90,91,92,93Sr, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$,
86,87,88,89,90,91,92,93,94,95,96,97,98,99Zr,
87,88,89,90,91,92,93,94,95,96,97,98,99,100Nb,
90,91,92,93,94,95,96,97,98,99,100,101,102,103,104Mo,
92,93,94,95,96,97,98,99,100,101,102,103,104,105,106Tc,
95,96,97,98,99,100,101,102,103,104,105,106,107,108,109Ru,
97,98,99,100,101,102,103,104,105,106,107,108,109,110,111Rh,
99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115Pd,
101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122Ag,
104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125Cd,
105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127In,
108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130Sn,
110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132Sb,
111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134Te,
113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135I,
116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135Xe,
122,123,124,125,126,127,128,129,130,131,132,133,134,135Cs,
127,128,129,130,131,132Ba; measured cross sections. JOUR PRVCA 76
064609

A=129 (continued)

- 2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, $E=195$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array. 106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138 Te , 109,111,113,115,117,119,121,123,125,127,129,131 I , 110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144 Xe , 117,119,121,123,125,127, ^{129}Cs ; systematics. JOUR PRVCA 76 054301
- ^{129}Ba 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=130

- ^{130}Sn 2007KL06 NUCLEAR REACTIONS $\text{Be}(^{238}\text{U}, X)^{129}\text{Sn} / ^{130}\text{Sn} / ^{131}\text{Sn} / ^{132}\text{Sn} / ^{133}\text{Sb} / ^{134}\text{Sb}$, $E=500$ MeV / nucleon; measured pygmy dipole resonance strength, neutron skin thickness, symmetry parameters; deduced neutron separation energy, $B(E1)$ using RQRPA approach. Compared to ^{116}Sn , ^{140}Ce , ^{142}Nd , ^{144}Sm , ^{208}Pb . JOUR PRVCA 76 051603

A=130 (continued)

- 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{130}Sb 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=130 (continued)

- ¹³⁰Te 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS ⁵⁸Ni(⁵⁴Fe, 2np), E=195 MeV; measured E_γ, I_γ, γγ-coin, γγ(θ), multipolarities. ¹⁰⁹I; deduced levels, J, π, rotational bands; calculated configurations. JUROGAM array. ^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}Te, ^{109,111,113,115,117,119,121,123,125,127,129,131}I, ^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}Xe, ^{117,119,121,123,125,127,129}Cs; systematics. JOUR PRVCA 76 054301
- ¹³⁰I 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=130 (continued)

- ^{130}Xe 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2np)$, $E=195$ MeV; measured E_γ , I_γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array. $^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}\text{Te}$, $^{109,111,113,115,117,119,121,123,125,127,129,131}\text{I}$, $^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}\text{Xe}$, $^{117,119,121,123,125,127,129}\text{Cs}$; systematics. JOUR PRVCA 76 054301
- ^{130}Cs 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=130 (continued)

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| ^{130}Ba | 2007NA31 | <p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p> |
| ^{130}Ce | 2008ME02 | <p>RADIOACTIVITY $^{130}\text{Pr}(\beta^+)(\text{EC})$ [from $^{107}\text{Ag}(^{27}\text{Al}, p3n)$, $E=113$ MeV]; measured E_γ, I_γ, $\gamma\gamma$-coin. ^{130}Ce; deduced levels, J, π, $B(E2)$, comparison with calculations using X(5) and IBA models. JOUR PRVCA 77 014307</p> |
| ^{130}Pr | 2008ME02 | <p>RADIOACTIVITY $^{130}\text{Pr}(\beta^+)(\text{EC})$ [from $^{107}\text{Ag}(^{27}\text{Al}, p3n)$, $E=113$ MeV]; measured E_γ, I_γ, $\gamma\gamma$-coin. ^{130}Ce; deduced levels, J, π, $B(E2)$, comparison with calculations using X(5) and IBA models. JOUR PRVCA 77 014307</p> |

A=131

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| ^{131}Sn | 2007KL06 | <p>NUCLEAR REACTIONS $\text{Be}(^{238}\text{U}, X)^{129}\text{Sn} / ^{130}\text{Sn} / ^{131}\text{Sn} / ^{132}\text{Sn} / ^{133}\text{Sb} / ^{134}\text{Sb}$, $E=500$ MeV / nucleon; measured pygmy dipole resonance strength, neutron skin thickness, symmetry parameters; deduced neutron separation energy, $B(E1)$ using RQRPA approach. Compared to ^{116}Sn, ^{140}Ce, ^{142}Nd, ^{144}Sm, ^{208}Pb. JOUR PRVCA 76 051603</p> |
| | 2008DW01 | <p>ATOMIC MASSES $^{127,131,132,133,134}\text{Sn}$; measured masses using the ISOLTRAP mass spectrometer. Discussed implications on the $N=82$ neutron-shell gap. JOUR PRLTA 100 072501</p> |

A=131 (continued)

- ¹³¹Sb 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹³¹Te 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2008EA01 NUCLEAR REACTIONS ^{120,122,124,126,128,130}Te(n, γ), E not given; measured E γ , I γ , cross sections, resonance integral. JOUR PRVCA 77 024303
- 2008EA01 RADIOACTIVITY ^{121m}Te, ¹²¹Te, ^{127m}Te, ^{131m}Te; measured half-lives. JOUR PRVCA 77 024303

A=131 (*continued*)

- ¹³¹I 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS ⁵⁸Ni(⁵⁴Fe, 2np), E=195 MeV; measured E_γ, I_γ, γγ-coin, γγ(θ), multipolarities. ¹⁰⁹I; deduced levels, J, π, rotational bands; calculated configurations. JUROGAM array. ^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}Te, ^{109,111,113,115,117,119,121,123,125,127,129,131}I, ^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}Xe, ^{117,119,121,123,125,127,129}Cs; systematics. JOUR PRVCA 76 054301
- ¹³¹Xe 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=131 (continued)

- ¹³¹Cs 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2008RA04 RADIOACTIVITY ¹³¹Ba(β^+); measured E γ , I γ , conversion electrons. ¹³¹Cs; deduced levels, ICC, transition multipolarities. JOUR ARISE 66 377
- ¹³¹Ba 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2008RA04 RADIOACTIVITY ¹³¹Ba(β^+); measured E γ , I γ , conversion electrons. ¹³¹Cs; deduced levels, ICC, transition multipolarities. JOUR ARISE 66 377

A=132

^{132}Sn	2007KL06	NUCLEAR REACTIONS $\text{Be}(^{238}\text{U}, \text{X})^{129}\text{Sn} / ^{130}\text{Sn} / ^{131}\text{Sn} / ^{132}\text{Sn} / ^{133}\text{Sb} / ^{134}\text{Sb}$, $E=500$ MeV / nucleon; measured pygmy dipole resonance strength, neutron skin thickness, symmetry parameters; deduced neutron separation energy, $B(E1)$ using RQRPA approach. Compared to ^{116}Sn , ^{140}Ce , ^{142}Nd , ^{144}Sm , ^{208}Pb . JOUR PRVCA 76 051603
	2008DW01	ATOMIC MASSES $^{127,131,132,133,134}\text{Sn}$; measured masses using the ISOLTRAP mass spectrometer. Discussed implications on the $N=82$ neutron-shell gap. JOUR PRLTA 100 072501
^{132}Sb	2007NA31	NUCLEAR REACTIONS $^{136}\text{Xe}(p, \text{X})$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=132 (continued)

- ^{132}Te 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2np)$, $E=195$ MeV; measured E_γ , I_γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array. $^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}\text{Te}$, $^{109,111,113,115,117,119,121,123,125,127,129,131}\text{I}$, $^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}\text{Xe}$, $^{117,119,121,123,125,127,129}\text{Cs}$; systematics. JOUR PRVCA 76 054301
- ^{132}I 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=132 (continued)

- ^{132}Xe 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2np)$, $E=195$ MeV; measured E_γ , I_γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array. $^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}\text{Te}$, $^{109,111,113,115,117,119,121,123,125,127,129,131}\text{I}$, $^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}\text{Xe}$, $^{117,119,121,123,125,127,129}\text{Cs}$; systematics. JOUR PRVCA 76 054301
- ^{132}Cs 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=132 (continued)

¹³²Ba 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=133

¹³³Sn 2008DW01 ATOMIC MASSES ^{127,131,132,133,134}Sn; measured masses using the ISOLTRAP mass spectrometer. Discussed implications on the N=82 neutron-shell gap. JOUR PRLTA 100 072501

¹³³Sb 2007KL06 NUCLEAR REACTIONS Be(²³⁸U, X)¹²⁹Sn / ¹³⁰Sn / ¹³¹Sn / ¹³²Sn / ¹³³Sb / ¹³⁴Sb, E=500 MeV / nucleon; measured pygmy dipole resonance strength, neutron skin thickness, symmetry parameters; deduced neutron separation energy, B(E1) using RQRPA approach. Compared to ¹¹⁶Sn, ¹⁴⁰Ce, ¹⁴²Nd, ¹⁴⁴Sm, ²⁰⁸Pb. JOUR PRVCA 76 051603

A=133 (continued)

- ¹³³Te 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹³³I 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=133 (continued)

- ^{133}Xe 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- 2008PE04 RADIOACTIVITY $^{133}\text{Xe}(\text{IT})$; measured $E\gamma$, $I\gamma$, conversion electrons. Deduced ICC. JOUR ARISE 66 530
- ^{133}Cs 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, $E=1$ GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

A=134

- ^{134}Sn 2008DW01 ATOMIC MASSES $^{127,131,132,133,134}\text{Sn}$; measured masses using the ISOLTRAP mass spectrometer. Discussed implications on the N=82 neutron-shell gap. JOUR PRLTA 100 072501
- ^{134}Sb 2007KL06 NUCLEAR REACTIONS $\text{Be}(^{238}\text{U}, \text{X})^{129}\text{Sn} / ^{130}\text{Sn} / ^{131}\text{Sn} / ^{132}\text{Sn} / ^{133}\text{Sb} / ^{134}\text{Sb}$, E=500 MeV / nucleon; measured pygmy dipole resonance strength, neutron skin thickness, symmetry parameters; deduced neutron separation energy, B(E1) using RQRPA approach. Compared to ^{116}Sn , ^{140}Ce , ^{142}Nd , ^{144}Sm , ^{208}Pb . JOUR PRVCA 76 051603
- ^{134}Te 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, \text{X})$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, E=195 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array. $^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}\text{Te}$, $^{109,111,113,115,117,119,121,123,125,127,129,131}\text{I}$, $^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}\text{Xe}$, $^{117,119,121,123,125,127,129}\text{Cs}$; systematics. JOUR PRVCA 76 054301

A=134 (continued)

- ¹³⁴I 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- ¹³⁴Xe 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609
- 2007PE32 NUCLEAR REACTIONS ⁵⁸Ni(⁵⁴Fe, 2np), E=195 MeV; measured E_γ, I_γ, γγ-coin, γγ(θ), multipolarities. ¹⁰⁹I; deduced levels, J, π, rotational bands; calculated configurations. JUROGAM array. ^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}Te, ^{109,111,113,115,117,119,121,123,125,127,129,131}I, ^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}Xe, ^{117,119,121,123,125,127,129}Cs; systematics. JOUR PRVCA 76 054301

KEYNUMBERS AND KEYWORDS

A=134 (continued)

¹³⁴Cs 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=135

¹³⁵I 2007NA31 NUCLEAR REACTIONS ¹³⁶Xe(p, X), E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. ^{79,80,81,82,83,84,85,86,87,88,89,90}Rb, ^{81,82,83,84,85,86,87,88,89,90,91,92,93}Sr, ^{84,85,86,87,88,89,90,91,92,93,94,95,96}Y, ^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}Zr, ^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}Nb, ^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}Mo, ^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}Tc, ^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}Ru, ^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}Rh, ^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}Pd, ^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}Ag, ^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}Cd, ^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}In, ^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}Sn, ^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}Sb, ^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}Te, ^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}I, ^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}Xe, ^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}Cs, ^{127,128,129,130,131,132}Ba; measured cross sections. JOUR PRVCA 76 064609

A=135 (continued)

- ^{135}Xe 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609
- ^{135}Cs 2007NA31 NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609

KEYNUMBERS AND KEYWORDS

A=136

^{136}Te	2007PE32	<p>NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, E=195 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$-coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I; deduced levels, J, π, rotational bands; calculated configurations. JUROGAM array. 106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138Te, 109,111,113,115,117,119,121,123,125,127,129,131I, 110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144Xe, 117,119,121,123,125,127,129Cs; systematics. JOUR PRVCA 76 054301</p>
^{136}Xe	2007PE32	<p>NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, E=195 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$-coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I; deduced levels, J, π, rotational bands; calculated configurations. JUROGAM array. 106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138Te, 109,111,113,115,117,119,121,123,125,127,129,131I, 110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144Xe, 117,119,121,123,125,127,129Cs; systematics. JOUR PRVCA 76 054301</p>
^{136}Cs	2007NA31	<p>NUCLEAR REACTIONS $^{136}\text{Xe}(p, X)$, E=1 GeV / nucleon; measured isotopic cross sections, kinetic energies. $^{79,80,81,82,83,84,85,86,87,88,89,90}\text{Rb}$, $^{81,82,83,84,85,86,87,88,89,90,91,92,93}\text{Sr}$, $^{84,85,86,87,88,89,90,91,92,93,94,95,96}\text{Y}$, $^{86,87,88,89,90,91,92,93,94,95,96,97,98,99}\text{Zr}$, $^{87,88,89,90,91,92,93,94,95,96,97,98,99,100}\text{Nb}$, $^{90,91,92,93,94,95,96,97,98,99,100,101,102,103,104}\text{Mo}$, $^{92,93,94,95,96,97,98,99,100,101,102,103,104,105,106}\text{Tc}$, $^{95,96,97,98,99,100,101,102,103,104,105,106,107,108,109}\text{Ru}$, $^{97,98,99,100,101,102,103,104,105,106,107,108,109,110,111}\text{Rh}$, $^{99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115}\text{Pd}$, $^{101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122}\text{Ag}$, $^{104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125}\text{Cd}$, $^{105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127}\text{In}$, $^{108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130}\text{Sn}$, $^{110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132}\text{Sb}$, $^{111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134}\text{Te}$, $^{113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{I}$, $^{116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135}\text{Xe}$, $^{122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Cs}$, $^{127,128,129,130,131,132}\text{Ba}$; measured cross sections. JOUR PRVCA 76 064609</p>

A=137

No references found

KEYNUMBERS AND KEYWORDS

A=138

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|-------------------|----------|--|
| ^{138}Te | 2007PE32 | NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, $E=195$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J , π , rotational bands; calculated configurations. JUROGAM array.
106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136, ^{138}Te ,
109,111,113,115,117,119,121,123,125,127,129,131 I ,
110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144 Xe ,
117,119,121,123,125,127, ^{129}Cs ; systematics. JOUR PRVCA 76 054301 |
| ^{138}Xe | 2007KR19 | NUCLEAR REACTIONS $^{96}\text{Mo}(^{138}\text{Xe}, ^{138}\text{Xe}')$, $(^{140}\text{Xe}, ^{140}\text{Xe}')$, $(^{142}\text{Xe}, ^{142}\text{Xe}')$, $E=2.84$ MeV / nucleon; measured $E\gamma$, $I\gamma$. $^{138,140,142}\text{Xe}$;
deduced $B(E2)$. JOUR ZSTNE 150 127 |
| | 2007PE32 | NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, $E=195$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J , π , rotational bands; calculated configurations. JUROGAM array.
106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136, ^{138}Te ,
109,111,113,115,117,119,121,123,125,127,129,131 I ,
110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144 Xe ,
117,119,121,123,125,127, ^{129}Cs ; systematics. JOUR PRVCA 76 054301 |

A=139

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|-------------------|----------|---|
| ^{139}Ba | 2008KA01 | NUCLEAR REACTIONS ^{138}Ba , ^{140}Ce , ^{142}Nd , $^{144}\text{Sm}(\alpha, ^3\text{He})$, $E=51$ MeV; measured $\sigma(\theta)$, excitation energy spectra; deduced spectroscopic factor and single-neutron energies. JOUR PYLBB 658 216 |
| ^{139}Nd | 2007HI13 | NUCLEAR REACTIONS $^{141}\text{Pr}(p, n)^{141}\text{Nd}^m$, $E=9.0, 9.6, 10.3, 10.8, 11.3, 12.4, 12.7, 13.3, 14.3, 15.6$ MeV; $^{141}\text{Pr}(p, 3n)^{139}\text{Nd}^m$, $E=21.0, 25.3, 26.6, 29.5, 30.4, 32.9, 39.1, 41.6, 43.8, 44.8$ MeV; $\text{Ce}(^3\text{He}, \text{xn})^{141}\text{Nd}^m$, $E=18.3, 19.4, 20.7, 22.1, 22.9, 23.3, 24.5, 25.6, 26.5, 28.1, 29.2, 30.3, 31.3, 32.3, 34.2$ MeV; $\text{Ce}(^3\text{He}, \text{xn})^{141}\text{Nd}^m$, $E=27.7, 29.1, 30.5, 32.0, 32.0, 33.2, 33.8, 35.2$ MeV; measured $E\gamma$, $I\gamma$, cross sections, excitation functions. Comparison with experimental values. JOUR PRVCA 76 064601 |
| | 2008FE02 | NUCLEAR REACTIONS $^{126}\text{Te}(^{18}\text{O}, 4\text{n})$, $(^{18}\text{O}, 5\text{n})$, $E=75$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin. $^{139,140}\text{Nd}$ deduced level energies, J , π , $T_{1/2}$. $^{27}\text{Al}(^{18}\text{O}, 2\text{n})$, $E=75$ MeV; measured $E\gamma$, $I\gamma$. ^{43}Sc ; measured half-life of isomeric state. ALTO facility. JOUR ZAANE 35 167 |

A=140

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|-------------------|----------|--|
| ^{140}Xe | 2007KR19 | NUCLEAR REACTIONS $^{96}\text{Mo}(^{138}\text{Xe}, ^{138}\text{Xe}')$, $(^{140}\text{Xe}, ^{140}\text{Xe}')$, $(^{142}\text{Xe}, ^{142}\text{Xe}')$, $E=2.84$ MeV / nucleon; measured $E\gamma$, $I\gamma$. $^{138,140,142}\text{Xe}$;
deduced $B(E2)$. JOUR ZSTNE 150 127 |
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KEYNUMBERS AND KEYWORDS

A=140 (*continued*)

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|-------------------|----------|---|
| 2007PE32 | | NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, $E=195$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J, π , rotational bands; calculated configurations. JUROGAM array.
106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138 Te ,
109,111,113,115,117,119,121,123,125,127,129,131 I ,
110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144 Xe ,
117,119,121,123,125,127,129 Cs ; systematics. JOUR PRVCA 76 054301 |
| ^{140}Ba | 2007VE14 | NUCLEAR REACTIONS $^{238}\text{U}(^{12}\text{C}, \text{X})^{140}\text{Ba} / ^{142}\text{Ce}$, $E=90$ MeV; $^{208}\text{Pb}(^{18}\text{O}, \text{X})^{140}\text{Ba} / ^{142}\text{Ce}$, $E=85$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin. ^{140}Ba , ^{142}Ce deduced high-spin levels, J, π , configurations. Euroball III and IV arrays. JOUR ZAANE 34 349 |
| ^{140}Ce | 2007LI71 | RADIOACTIVITY $^{140}\text{Pr}(\beta^+)$, (EC); measured decay rates for bare nuclei, hydrogenlike, and heliumlike configurations. JOUR PRLTA 99 262501 |
| | 2008KU06 | RADIOACTIVITY $^{140}\text{Pr}(\text{EC})$, (β^+); measured Schottky frequency spectra of ions stored in an ESR storage ring. $^{140}\text{Pr}(\text{EC})$, (β^+); deduced decay constant and half-life. JOUR APOBB 39 501 |
| ^{140}Pr | 2007LI71 | RADIOACTIVITY $^{140}\text{Pr}(\beta^+)$, (EC); measured decay rates for bare nuclei, hydrogenlike, and heliumlike configurations. JOUR PRLTA 99 262501 |
| | 2008KU06 | RADIOACTIVITY $^{140}\text{Pr}(\text{EC})$, (β^+); measured Schottky frequency spectra of ions stored in an ESR storage ring. $^{140}\text{Pr}(\text{EC})$, (β^+); deduced decay constant and half-life. JOUR APOBB 39 501 |
| ^{140}Nd | 2008FE02 | NUCLEAR REACTIONS $^{126}\text{Te}(^{18}\text{O}, 4\text{n})$, ($^{18}\text{O}, 5\text{n}$), $E=75$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin. $^{139,140}\text{Nd}$ deduced level energies, J, π , $T_{1/2}$. $^{27}\text{Al}(^{18}\text{O}, 2\text{n})$, $E=75$ MeV; measured $E\gamma$, $I\gamma$. ^{43}Sc ; measured half-life of isomeric state. ALTO facility. JOUR ZAANE 35 167 |

A=141

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|-------------------|----------|---|
| ^{141}Ce | 2008KA01 | NUCLEAR REACTIONS ^{138}Ba , ^{140}Ce , ^{142}Nd , $^{144}\text{Sm}(\alpha, ^3\text{He})$, $E=51$ MeV; measured $\sigma(\theta)$, excitation energy spectra; deduced spectroscopic factor and single-neutron energies. JOUR PYLBB 658 216 |
| ^{141}Nd | 2007HI13 | NUCLEAR REACTIONS $^{141}\text{Pr}(\text{p}, \text{n})^{141}\text{Nd}^m$, $E=9.0, 9.6, 10.3, 10.8, 11.3, 12.4, 12.7, 13.3, 14.3, 15.6$ MeV; $^{141}\text{Pr}(\text{p}, 3\text{n})^{139}\text{Nd}^m$, $E=21.0, 25.3, 26.6, 29.5, 30.4, 32.9, 39.1, 41.6, 43.8, 44.8$ MeV; $\text{Ce}(^3\text{He}, \text{xn})^{141}\text{Nd}^m$, $E=18.3, 19.4, 20.7, 22.1, 22.9, 23.3, 24.5, 25.6, 26.5, 28.1, 29.2, 30.3, 31.3, 32.3, 34.2$ MeV; $\text{Ce}(^3\text{He}, \text{xn})^{141}\text{Nd}^m$, $E=27.7, 29.1, 30.5, 32.0, 32.0, 33.2, 33.8, 35.2$ MeV; measured $E\gamma$, $I\gamma$, cross sections, excitation functions. Comparison with experimental values. JOUR PRVCA 76 064601 |
| | 2007PA45 | NUCLEAR REACTIONS $^{142}\text{Nd}(\gamma, \text{n})$, $E < 35$ MeV; measured $E\gamma$, $I\gamma$. Deduced isomeric yield ratio. JOUR AENGA 103 827 |

KEYNUMBERS AND KEYWORDS

A=142

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|-------------------|----------|--|
| ^{142}Xe | 2007KR19 | NUCLEAR REACTIONS $^{96}\text{Mo}(^{138}\text{Xe}, ^{138}\text{Xe}')$, ($^{140}\text{Xe}, ^{140}\text{Xe}'$), ($^{142}\text{Xe}, ^{142}\text{Xe}'$), $E=2.84$ MeV / nucleon; measured $E\gamma$, $I\gamma$. $^{138,140,142}\text{Xe}$; deduced $B(E2)$. JOUR ZSTNE 150 127 |
| | 2007PE32 | NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, $E=195$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J , π , rotational bands; calculated configurations. JUROGAM array. $^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}\text{Te}$, $^{109,111,113,115,117,119,121,123,125,127,129,131}\text{I}$, $^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}\text{Xe}$, $^{117,119,121,123,125,127,129}\text{Cs}$; systematics. JOUR PRVCA 76 054301 |
| ^{142}Ce | 2007VE14 | NUCLEAR REACTIONS $^{238}\text{U}(^{12}\text{C}, \text{X})^{140}\text{Ba} / ^{142}\text{Ce}$, $E=90$ MeV; $^{208}\text{Pb}(^{18}\text{O}, \text{X})^{140}\text{Ba} / ^{142}\text{Ce}$, $E=85$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin. ^{140}Ba , ^{142}Ce deduced high-spin levels, J , π , configurations. Euroball III and IV arrays. JOUR ZAANE 34 349 |
| ^{142}Gd | 2008LI08 | NUCLEAR REACTIONS $^{114}\text{Sn}(^{32}\text{S}, 2\text{n}2\text{p})$, $E=160$ MeV; $^{99}\text{Ru}(^{48}\text{Ti}, 3\text{n}2\text{p})$, $E=240$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, DSA. ^{142}Gd deduced high-spin levels, J , π , $B(E2)$, $T_{1/2}$; calculated configurations with cranked Nilsson-Strutinsky and interacting boson models. Euroball III and IV arrays. JOUR ZAANE 35 135 |

A=143

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|-------------------|----------|---|
| ^{143}Nd | 2008KA01 | NUCLEAR REACTIONS ^{138}Ba , ^{140}Ce , ^{142}Nd , $^{144}\text{Sm}(\alpha, ^3\text{He})$, $E=51$ MeV; measured $\sigma(\theta)$, excitation energy spectra; deduced spectroscopic factor and single-neutron energies. JOUR PYLBB 658 216 |
| ^{143}Tb | 2007RA37 | ATOMIC MASSES $^{143,147}\text{Tb}$, $^{143,144,145,146,147,148}\text{Dy}$, $^{144,145,146,147,148}\text{Ho}$, $^{146,147,148}\text{Er}$, $^{147,148}\text{Tm}$; measured masses using the SHIPTRAP penning trap mass spectrometer. Compared results to previous results. JOUR ZSTNE 150 329 |
| ^{143}Dy | 2007RA37 | ATOMIC MASSES $^{143,147}\text{Tb}$, $^{143,144,145,146,147,148}\text{Dy}$, $^{144,145,146,147,148}\text{Ho}$, $^{146,147,148}\text{Er}$, $^{147,148}\text{Tm}$; measured masses using the SHIPTRAP penning trap mass spectrometer. Compared results to previous results. JOUR ZSTNE 150 329 |

A=144

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|-------------------|----------|--|
| ^{144}Xe | 2007PE32 | NUCLEAR REACTIONS $^{58}\text{Ni}(^{54}\text{Fe}, 2\text{np})$, $E=195$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, multipolarities. ^{109}I ; deduced levels, J , π , rotational bands; calculated configurations. JUROGAM array. $^{106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,138}\text{Te}$, $^{109,111,113,115,117,119,121,123,125,127,129,131}\text{I}$, $^{110,112,114,116,118,120,122,124,126,128,130,132,134,136,138,140,142,144}\text{Xe}$, $^{117,119,121,123,125,127,129}\text{Cs}$; systematics. JOUR PRVCA 76 054301 |
| ^{144}Dy | 2007RA37 | ATOMIC MASSES $^{143,147}\text{Tb}$, $^{143,144,145,146,147,148}\text{Dy}$, $^{144,145,146,147,148}\text{Ho}$, $^{146,147,148}\text{Er}$, $^{147,148}\text{Tm}$; measured masses using the SHIPTRAP penning trap mass spectrometer. Compared results to previous results. JOUR ZSTNE 150 329 |

KEYNUMBERS AND KEYWORDS

A=144 (*continued*)

- ¹⁴⁴Ho 2007RA37 ATOMIC MASSES ^{143,147}Tb, ^{143,144,145,146,147,148}Dy,
^{144,145,146,147,148}Ho, ^{146,147,148}Er, ^{147,148}Tm; measured masses using the
SHIPTRAP penning trap mass spectrometer. Compared results to
previous results. JOUR ZSTNE 150 329
- 2008RA03 ATOMIC MASSES ^{144,145,146,147}Ho, ^{147,148}Tm; measured masses using
the SHIPTRAP penning trap mass spectrometer. JOUR PRLTA 100
012501

A=145

- ¹⁴⁵Sm 2008KA01 NUCLEAR REACTIONS ¹³⁸Ba, ¹⁴⁰Ce, ¹⁴²Nd, ¹⁴⁴Sm(α , ³He), E=51
MeV; measured $\sigma(\theta)$, excitation energy spectra; deduced spectroscopic
factor and single-neutron energies. JOUR PYLBB 658 216
- ¹⁴⁵Dy 2007RA37 ATOMIC MASSES ^{143,147}Tb, ^{143,144,145,146,147,148}Dy,
^{144,145,146,147,148}Ho, ^{146,147,148}Er, ^{147,148}Tm; measured masses using the
SHIPTRAP penning trap mass spectrometer. Compared results to
previous results. JOUR ZSTNE 150 329
- ¹⁴⁵Ho 2007RA37 ATOMIC MASSES ^{143,147}Tb, ^{143,144,145,146,147,148}Dy,
^{144,145,146,147,148}Ho, ^{146,147,148}Er, ^{147,148}Tm; measured masses using the
SHIPTRAP penning trap mass spectrometer. Compared results to
previous results. JOUR ZSTNE 150 329
- 2008RA03 ATOMIC MASSES ^{144,145,146,147}Ho, ^{147,148}Tm; measured masses using
the SHIPTRAP penning trap mass spectrometer. JOUR PRLTA 100
012501

A=146

- ¹⁴⁶Dy 2007RA37 ATOMIC MASSES ^{143,147}Tb, ^{143,144,145,146,147,148}Dy,
^{144,145,146,147,148}Ho, ^{146,147,148}Er, ^{147,148}Tm; measured masses using the
SHIPTRAP penning trap mass spectrometer. Compared results to
previous results. JOUR ZSTNE 150 329
- ¹⁴⁶Ho 2007RA37 ATOMIC MASSES ^{143,147}Tb, ^{143,144,145,146,147,148}Dy,
^{144,145,146,147,148}Ho, ^{146,147,148}Er, ^{147,148}Tm; measured masses using the
SHIPTRAP penning trap mass spectrometer. Compared results to
previous results. JOUR ZSTNE 150 329
- 2008RA03 ATOMIC MASSES ^{144,145,146,147}Ho, ^{147,148}Tm; measured masses using
the SHIPTRAP penning trap mass spectrometer. JOUR PRLTA 100
012501
- ¹⁴⁶Er 2007RA37 ATOMIC MASSES ^{143,147}Tb, ^{143,144,145,146,147,148}Dy,
^{144,145,146,147,148}Ho, ^{146,147,148}Er, ^{147,148}Tm; measured masses using the
SHIPTRAP penning trap mass spectrometer. Compared results to
previous results. JOUR ZSTNE 150 329

KEYNUMBERS AND KEYWORDS

A=147

^{147}Nd	2008HA04	NUCLEAR REACTIONS $^{148,150}\text{Nd}$, ^{154}Sm , $^{154,160}\text{Gd}(\gamma, n)$, E=7450-9800 keV [from $\text{Cu}(e, \gamma)$]; measured E_γ , I_γ , photon flux, normalization, cross section; deduced reaction rates. JOUR PRVCA 77 015803
^{147}Gd	2007P013	RADIOACTIVITY ^{147}Gd , ^{148}Tb , $^{204}\text{Pt(IT)}$; measured delayed E_γ , I_γ from isomer decays. JOUR ZSTNE 150 165
^{147}Tb	2007RA37	ATOMIC MASSES $^{143,147}\text{Tb}$, $^{143,144,145,146,147,148}\text{Dy}$, $^{144,145,146,147,148}\text{Ho}$, $^{146,147,148}\text{Er}$, $^{147,148}\text{Tm}$; measured masses using the SHIPTRAP penning trap mass spectrometer. Compared results to previous results. JOUR ZSTNE 150 329
^{147}Dy	2007RA37	ATOMIC MASSES $^{143,147}\text{Tb}$, $^{143,144,145,146,147,148}\text{Dy}$, $^{144,145,146,147,148}\text{Ho}$, $^{146,147,148}\text{Er}$, $^{147,148}\text{Tm}$; measured masses using the SHIPTRAP penning trap mass spectrometer. Compared results to previous results. JOUR ZSTNE 150 329
^{147}Ho	2007RA37	ATOMIC MASSES $^{143,147}\text{Tb}$, $^{143,144,145,146,147,148}\text{Dy}$, $^{144,145,146,147,148}\text{Ho}$, $^{146,147,148}\text{Er}$, $^{147,148}\text{Tm}$; measured masses using the SHIPTRAP penning trap mass spectrometer. Compared results to previous results. JOUR ZSTNE 150 329
	2008RA03	ATOMIC MASSES $^{144,145,146,147}\text{Ho}$, $^{147,148}\text{Tm}$; measured masses using the SHIPTRAP penning trap mass spectrometer. JOUR PRLTA 100 012501
^{147}Er	2007RA37	ATOMIC MASSES $^{143,147}\text{Tb}$, $^{143,144,145,146,147,148}\text{Dy}$, $^{144,145,146,147,148}\text{Ho}$, $^{146,147,148}\text{Er}$, $^{147,148}\text{Tm}$; measured masses using the SHIPTRAP penning trap mass spectrometer. Compared results to previous results. JOUR ZSTNE 150 329
^{147}Tm	2007RA37	ATOMIC MASSES $^{143,147}\text{Tb}$, $^{143,144,145,146,147,148}\text{Dy}$, $^{144,145,146,147,148}\text{Ho}$, $^{146,147,148}\text{Er}$, $^{147,148}\text{Tm}$; measured masses using the SHIPTRAP penning trap mass spectrometer. Compared results to previous results. JOUR ZSTNE 150 329
	2008RA03	ATOMIC MASSES $^{144,145,146,147}\text{Ho}$, $^{147,148}\text{Tm}$; measured masses using the SHIPTRAP penning trap mass spectrometer. JOUR PRLTA 100 012501

A=148

^{148}Tb	2007P013	RADIOACTIVITY ^{147}Gd , ^{148}Tb , $^{204}\text{Pt(IT)}$; measured delayed E_γ , I_γ from isomer decays. JOUR ZSTNE 150 165
^{148}Dy	2007RA37	ATOMIC MASSES $^{143,147}\text{Tb}$, $^{143,144,145,146,147,148}\text{Dy}$, $^{144,145,146,147,148}\text{Ho}$, $^{146,147,148}\text{Er}$, $^{147,148}\text{Tm}$; measured masses using the SHIPTRAP penning trap mass spectrometer. Compared results to previous results. JOUR ZSTNE 150 329
^{148}Ho	2007RA37	ATOMIC MASSES $^{143,147}\text{Tb}$, $^{143,144,145,146,147,148}\text{Dy}$, $^{144,145,146,147,148}\text{Ho}$, $^{146,147,148}\text{Er}$, $^{147,148}\text{Tm}$; measured masses using the SHIPTRAP penning trap mass spectrometer. Compared results to previous results. JOUR ZSTNE 150 329

KEYNUMBERS AND KEYWORDS

A=148 (continued)

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|-------------------|----------|--|
| ^{148}Er | 2007RA37 | ATOMIC MASSES $^{143,147}\text{Tb}$, $^{143,144,145,146,147,148}\text{Dy}$,
$^{144,145,146,147,148}\text{Ho}$, $^{146,147,148}\text{Er}$, $^{147,148}\text{Tm}$; measured masses using the SHIPTRAP penning trap mass spectrometer. Compared results to previous results. JOUR ZSTNE 150 329 |
| ^{148}Tm | 2007RA37 | ATOMIC MASSES $^{143,147}\text{Tb}$, $^{143,144,145,146,147,148}\text{Dy}$,
$^{144,145,146,147,148}\text{Ho}$, $^{146,147,148}\text{Er}$, $^{147,148}\text{Tm}$; measured masses using the SHIPTRAP penning trap mass spectrometer. Compared results to previous results. JOUR ZSTNE 150 329 |
| | 2008RA03 | ATOMIC MASSES $^{144,145,146,147}\text{Ho}$, $^{147,148}\text{Tm}$; measured masses using the SHIPTRAP penning trap mass spectrometer. JOUR PRLTA 100 012501 |

A=149

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| ^{149}Nd | 2008HA04 | NUCLEAR REACTIONS $^{148,150}\text{Nd}$, ^{154}Sm , $^{154,160}\text{Gd}(\gamma, n)$,
$E=7450\text{-}9800$ keV [from $\text{Cu}(e, \gamma)$]; measured $E\gamma$, $I\gamma$, photon flux,
normalization, cross section; deduced reaction rates. JOUR PRVCA 77
015803 |
| | 2008JA01 | NUCLEAR REACTIONS $^{148}\text{Nd}(d, p)$, $E=12.1$ MeV; $^{150}\text{Nd}(d, t)$,
$E=12.1$ MeV; measured reaction product spectra and angular
distributions, cross sections. ^{149}Nd ; deduced levels, J , π . DWBA
analysis. JOUR APOBB 39 695 |

A=150

No references found

A=151

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|-------------------|----------|--|
| ^{151}Tb | 2008R002 | NUCLEAR REACTIONS $^{130}\text{Te}(^{27}\text{Al}, xn)$, $E=155$ MeV; measured $E\gamma$,
$I\gamma$, $\gamma\gamma$ -coin. $^{151,152}\text{Tb}$; deduced levels, J , π , superdeformed bands,
dynamical moments, configurations; calculated single-particle energy
levels. Compared with calculations and superdeformed bands in ^{150}Tb ,
^{152}Dy . JOUR PRVCA 77 014308 |
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A=152

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|-------------------|----------|--|
| ^{152}Tb | 2008R002 | NUCLEAR REACTIONS $^{130}\text{Te}(^{27}\text{Al}, xn)$, $E=155$ MeV; measured $E\gamma$,
$I\gamma$, $\gamma\gamma$ -coin. $^{151,152}\text{Tb}$; deduced levels, J , π , superdeformed bands,
dynamical moments, configurations; calculated single-particle energy
levels. Compared with calculations and superdeformed bands in ^{150}Tb ,
^{152}Dy . JOUR PRVCA 77 014308 |
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KEYNUMBERS AND KEYWORDS

A=153

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|-------------------|----------|--|
| ^{153}Sm | 2008HA04 | NUCLEAR REACTIONS $^{148,150}\text{Nd}$, ^{154}Sm , $^{154,160}\text{Gd}(\gamma, n)$,
E=7450-9800 keV [from $\text{Cu}(e, \gamma)$]; measured $E\gamma$, $I\gamma$, photon flux,
normalization, cross section; deduced reaction rates. JOUR PRVCA 77
015803 |
| ^{153}Gd | 2008HA04 | NUCLEAR REACTIONS $^{148,150}\text{Nd}$, ^{154}Sm , $^{154,160}\text{Gd}(\gamma, n)$,
E=7450-9800 keV [from $\text{Cu}(e, \gamma)$]; measured $E\gamma$, $I\gamma$, photon flux,
normalization, cross section; deduced reaction rates. JOUR PRVCA 77
015803 |

A=154

No references found

A=155

No references found

A=156

No references found

A=157

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|-------------------|----------|--|
| ^{157}Er | 2008AG04 | NUCLEAR REACTIONS $^{120}\text{Sn}(^{44}\text{Ca}, 4n)$, E=210 MeV; measured $E\gamma$,
$I\gamma$, $\gamma\gamma$ -coin; calculated potential energy surfaces; ^{160}Yb ; deduced
excitation energies, configurations, high-spin rotational bands, triaxial
strongly-deformed bands. $^{157,158}\text{Er}$, ^{161}Lu ; systematics, comparison
with theory. JOUR PRVCA 77 021302 |
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A=158

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|-------------------|----------|--|
| ^{158}Pm | 2007HA57 | RADIOACTIVITY $^{158,159}\text{Pm}$, $^{159,161}\text{Sm}$, $^{160,161,162,163,164,165}\text{Eu}$,
^{163}Gd , $^{166}\text{Tb}(\beta^-)$ [from $^{238}\text{U}(p, F)$, E=24 MeV and subsequent decay];
measured $E\gamma$, $I\gamma$, $E\beta$, $I\beta$; deduced $Q\beta$, mass excess and two-neutron
separation energies. Mass separator. JOUR ZAANE 34 363 |
| ^{158}Sm | 2007HA57 | RADIOACTIVITY $^{158,159}\text{Pm}$, $^{159,161}\text{Sm}$, $^{160,161,162,163,164,165}\text{Eu}$,
^{163}Gd , $^{166}\text{Tb}(\beta^-)$ [from $^{238}\text{U}(p, F)$, E=24 MeV and subsequent decay];
measured $E\gamma$, $I\gamma$, $E\beta$, $I\beta$; deduced $Q\beta$, mass excess and two-neutron
separation energies. Mass separator. JOUR ZAANE 34 363 |
| ^{158}Er | 2008AG04 | NUCLEAR REACTIONS $^{120}\text{Sn}(^{44}\text{Ca}, 4n)$, E=210 MeV; measured $E\gamma$,
$I\gamma$, $\gamma\gamma$ -coin; calculated potential energy surfaces; ^{160}Yb ; deduced
excitation energies, configurations, high-spin rotational bands, triaxial
strongly-deformed bands. $^{157,158}\text{Er}$, ^{161}Lu ; systematics, comparison
with theory. JOUR PRVCA 77 021302 |

A=159

- ¹⁵⁹Pm 2007HA57 RADIOACTIVITY ^{158,159}Pm, ^{159,161}Sm, ^{160,161,162,163,164,165}Eu, ¹⁶³Gd, ¹⁶⁶Tb(β^-) [from ²³⁸U(p, F), E=24 MeV and subsequent decay]; measured E γ , I γ , E β , I β ; deduced Q β , mass excess and two-neutron separation energies. Mass separator. JOUR ZAANE 34 363
- ¹⁵⁹Sm 2007HA57 RADIOACTIVITY ^{158,159}Pm, ^{159,161}Sm, ^{160,161,162,163,164,165}Eu, ¹⁶³Gd, ¹⁶⁶Tb(β^-) [from ²³⁸U(p, F), E=24 MeV and subsequent decay]; measured E γ , I γ , E β , I β ; deduced Q β , mass excess and two-neutron separation energies. Mass separator. JOUR ZAANE 34 363
- ¹⁵⁹Eu 2007HA57 RADIOACTIVITY ^{158,159}Pm, ^{159,161}Sm, ^{160,161,162,163,164,165}Eu, ¹⁶³Gd, ¹⁶⁶Tb(β^-) [from ²³⁸U(p, F), E=24 MeV and subsequent decay]; measured E γ , I γ , E β , I β ; deduced Q β , mass excess and two-neutron separation energies. Mass separator. JOUR ZAANE 34 363
- ¹⁵⁹Gd 2008HA04 NUCLEAR REACTIONS ^{148,150}Nd, ¹⁵⁴Sm, ^{154,160}Gd(γ , n), E=7450-9800 keV [from Cu(e, γ)]; measured E γ , I γ , photon flux, normalization, cross section; deduced reaction rates. JOUR PRVCA 77 015803

A=160

- ¹⁶⁰Eu 2007HA57 RADIOACTIVITY ^{158,159}Pm, ^{159,161}Sm, ^{160,161,162,163,164,165}Eu, ¹⁶³Gd, ¹⁶⁶Tb(β^-) [from ²³⁸U(p, F), E=24 MeV and subsequent decay]; measured E γ , I γ , E β , I β ; deduced Q β , mass excess and two-neutron separation energies. Mass separator. JOUR ZAANE 34 363
- ¹⁶⁰Gd 2007HA57 RADIOACTIVITY ^{158,159}Pm, ^{159,161}Sm, ^{160,161,162,163,164,165}Eu, ¹⁶³Gd, ¹⁶⁶Tb(β^-) [from ²³⁸U(p, F), E=24 MeV and subsequent decay]; measured E γ , I γ , E β , I β ; deduced Q β , mass excess and two-neutron separation energies. Mass separator. JOUR ZAANE 34 363
- ¹⁶⁰Yb 2008AG04 NUCLEAR REACTIONS ¹²⁰Sn(⁴⁴Ca, 4n), E=210 MeV; measured E γ , I γ , $\gamma\gamma$ -coin; calculated potential energy surfaces; ¹⁶⁰Yb; deduced excitation energies, configurations, high-spin rotational bands, triaxial strongly-deformed bands. ^{157,158}Er, ¹⁶¹Lu; systematics, comparison with theory. JOUR PRVCA 77 021302

A=161

- ¹⁶¹Sm 2007HA57 RADIOACTIVITY ^{158,159}Pm, ^{159,161}Sm, ^{160,161,162,163,164,165}Eu, ¹⁶³Gd, ¹⁶⁶Tb(β^-) [from ²³⁸U(p, F), E=24 MeV and subsequent decay]; measured E γ , I γ , E β , I β ; deduced Q β , mass excess and two-neutron separation energies. Mass separator. JOUR ZAANE 34 363
- ¹⁶¹Eu 2007HA57 RADIOACTIVITY ^{158,159}Pm, ^{159,161}Sm, ^{160,161,162,163,164,165}Eu, ¹⁶³Gd, ¹⁶⁶Tb(β^-) [from ²³⁸U(p, F), E=24 MeV and subsequent decay]; measured E γ , I γ , E β , I β ; deduced Q β , mass excess and two-neutron separation energies. Mass separator. JOUR ZAANE 34 363
- ¹⁶¹Gd 2007HA57 RADIOACTIVITY ^{158,159}Pm, ^{159,161}Sm, ^{160,161,162,163,164,165}Eu, ¹⁶³Gd, ¹⁶⁶Tb(β^-) [from ²³⁸U(p, F), E=24 MeV and subsequent decay]; measured E γ , I γ , E β , I β ; deduced Q β , mass excess and two-neutron separation energies. Mass separator. JOUR ZAANE 34 363

KEYNUMBERS AND KEYWORDS

A=161 (continued)

¹⁶¹Lu 2008AG04 NUCLEAR REACTIONS ¹²⁰Sn(⁴⁴Ca, 4n), E=210 MeV; measured E γ , I γ , $\gamma\gamma$ -coin; calculated potential energy surfaces; ¹⁶⁰Yb; deduced excitation energies, configurations, high-spin rotational bands, triaxial strongly-deformed bands. ^{157,158}Er, ¹⁶¹Lu; systematics, comparison with theory. JOUR PRVCA 77 021302

A=162

¹⁶²Eu 2007HA57 RADIOACTIVITY ^{158,159}Pm, ^{159,161}Sm, ^{160,161,162,163,164,165}Eu, ¹⁶³Gd, ¹⁶⁶Tb(β^-) [from ²³⁸U(p, F), E=24 MeV and subsequent decay]; measured E γ , I γ , E β , I β ; deduced Q β , mass excess and two-neutron separation energies. Mass separator. JOUR ZAANE 34 363

¹⁶²Gd 2007HA57 RADIOACTIVITY ^{158,159}Pm, ^{159,161}Sm, ^{160,161,162,163,164,165}Eu, ¹⁶³Gd, ¹⁶⁶Tb(β^-) [from ²³⁸U(p, F), E=24 MeV and subsequent decay]; measured E γ , I γ , E β , I β ; deduced Q β , mass excess and two-neutron separation energies. Mass separator. JOUR ZAANE 34 363

A=163

¹⁶³Eu 2007HA57 RADIOACTIVITY ^{158,159}Pm, ^{159,161}Sm, ^{160,161,162,163,164,165}Eu, ¹⁶³Gd, ¹⁶⁶Tb(β^-) [from ²³⁸U(p, F), E=24 MeV and subsequent decay]; measured E γ , I γ , E β , I β ; deduced Q β , mass excess and two-neutron separation energies. Mass separator. JOUR ZAANE 34 363

¹⁶³Gd 2007HA57 RADIOACTIVITY ^{158,159}Pm, ^{159,161}Sm, ^{160,161,162,163,164,165}Eu, ¹⁶³Gd, ¹⁶⁶Tb(β^-) [from ²³⁸U(p, F), E=24 MeV and subsequent decay]; measured E γ , I γ , E β , I β ; deduced Q β , mass excess and two-neutron separation energies. Mass separator. JOUR ZAANE 34 363

¹⁶³Tb 2007HA57 RADIOACTIVITY ^{158,159}Pm, ^{159,161}Sm, ^{160,161,162,163,164,165}Eu, ¹⁶³Gd, ¹⁶⁶Tb(β^-) [from ²³⁸U(p, F), E=24 MeV and subsequent decay]; measured E γ , I γ , E β , I β ; deduced Q β , mass excess and two-neutron separation energies. Mass separator. JOUR ZAANE 34 363

¹⁶³Lu 2007ZH46 NUCLEAR REACTIONS ¹²⁸Te(⁴⁸Ca, 4n), (⁴⁸Ca, 5n), E=209 MeV; measured E γ , I γ , $\gamma\gamma$ -coin. ^{171,172}Hf; deduced levels, J, π , configurations, superdeformed bands. ¹⁶³Lu, ^{170,173,174,175}Hf; systematics. JOUR PRVCA 76 064321

 2008TA03 NUCLEAR REACTIONS ¹²⁸Te(⁵⁰Ti, 4n), E=230 MeV; measured E γ , I γ , $\gamma\gamma$ -coin; ¹⁷⁴W; deduced levels, J, π , band alignments, searched for triaxial strongly deformed bands. ^{163,164,165,167}Lu, ^{174,175}Hf; analyzed energy spacings. JOUR PRVCA 77 024313

A=164

¹⁶⁴Eu 2007HA57 RADIOACTIVITY ^{158,159}Pm, ^{159,161}Sm, ^{160,161,162,163,164,165}Eu, ¹⁶³Gd, ¹⁶⁶Tb(β^-) [from ²³⁸U(p, F), E=24 MeV and subsequent decay]; measured E γ , I γ , E β , I β ; deduced Q β , mass excess and two-neutron separation energies. Mass separator. JOUR ZAANE 34 363

KEYNUMBERS AND KEYWORDS

A=164 (continued)

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|-------------------|----------|--|
| ^{164}Gd | 2007HA57 | RADIOACTIVITY $^{158,159}\text{Pm}$, $^{159,161}\text{Sm}$, $^{160,161,162,163,164,165}\text{Eu}$, ^{163}Gd , $^{166}\text{Tb}(\beta^-)$ [from $^{238}\text{U}(\text{p}, \text{F})$, $E=24$ MeV and subsequent decay]; measured $E\gamma$, $I\gamma$, $E\beta$, $I\beta$; deduced $Q\beta$, mass excess and two-neutron separation energies. Mass separator. JOUR ZAANE 34 363 |
| ^{164}Lu | 2008TA03 | NUCLEAR REACTIONS $^{128}\text{Te}(^{50}\text{Ti}, 4\text{n})$, $E=230$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin; ^{174}W ; deduced levels, J , π , band alignments, searched for triaxial strongly deformed bands. $^{163,164,165,167}\text{Lu}$, $^{174,175}\text{Hf}$; analyzed energy spacings. JOUR PRVCA 77 024313 |

A=165

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|-------------------|----------|--|
| ^{165}Eu | 2007HA57 | RADIOACTIVITY $^{158,159}\text{Pm}$, $^{159,161}\text{Sm}$, $^{160,161,162,163,164,165}\text{Eu}$, ^{163}Gd , $^{166}\text{Tb}(\beta^-)$ [from $^{238}\text{U}(\text{p}, \text{F})$, $E=24$ MeV and subsequent decay]; measured $E\gamma$, $I\gamma$, $E\beta$, $I\beta$; deduced $Q\beta$, mass excess and two-neutron separation energies. Mass separator. JOUR ZAANE 34 363 |
| ^{165}Gd | 2007HA57 | RADIOACTIVITY $^{158,159}\text{Pm}$, $^{159,161}\text{Sm}$, $^{160,161,162,163,164,165}\text{Eu}$, ^{163}Gd , $^{166}\text{Tb}(\beta^-)$ [from $^{238}\text{U}(\text{p}, \text{F})$, $E=24$ MeV and subsequent decay]; measured $E\gamma$, $I\gamma$, $E\beta$, $I\beta$; deduced $Q\beta$, mass excess and two-neutron separation energies. Mass separator. JOUR ZAANE 34 363 |
| ^{165}Lu | 2008TA03 | NUCLEAR REACTIONS $^{128}\text{Te}(^{50}\text{Ti}, 4\text{n})$, $E=230$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin; ^{174}W ; deduced levels, J , π , band alignments, searched for triaxial strongly deformed bands. $^{163,164,165,167}\text{Lu}$, $^{174,175}\text{Hf}$; analyzed energy spacings. JOUR PRVCA 77 024313 |

A=166

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|-------------------|----------|---|
| ^{166}Tb | 2007HA57 | RADIOACTIVITY $^{158,159}\text{Pm}$, $^{159,161}\text{Sm}$, $^{160,161,162,163,164,165}\text{Eu}$, ^{163}Gd , $^{166}\text{Tb}(\beta^-)$ [from $^{238}\text{U}(\text{p}, \text{F})$, $E=24$ MeV and subsequent decay]; measured $E\gamma$, $I\gamma$, $E\beta$, $I\beta$; deduced $Q\beta$, mass excess and two-neutron separation energies. Mass separator. JOUR ZAANE 34 363 |
| | 2008SI02 | NUCLEAR REACTIONS $^{159}\text{Tb}(^{16}\text{O}, 3\text{n}\alpha)$, $(^{16}\text{O}, 4\text{n}\alpha)$, $(^{16}\text{O}, 3\text{np}\alpha)$, $(^{16}\text{O}, \text{n}2\alpha)$, $E=95$ MeV; $^{159}\text{Tb}(^{16}\text{O}, 3\text{np}\alpha)$, $(^{16}\text{O}, \text{n}2\text{p}\alpha)$, $(^{16}\text{O}, \text{n}3\text{p}\alpha)$, $(^{16}\text{O}, 4\text{n}\alpha)$, $(^{16}\text{O}, 2\text{n}\alpha)$, $E=95$ MeV; measured $E\gamma$, $I\gamma$, production cross sections, excitation functions. $^{167,168}\text{Lu}$, ^{167}Yb , ^{177}W , ^{166}Tb , ^{178}Ta , ^{177}Hf , $^{177,179}\text{Re}$; measured excitation functions in fusion reactions. JOUR PRVCA 77 014607 |
| ^{166}Dy | 2007HA57 | RADIOACTIVITY $^{158,159}\text{Pm}$, $^{159,161}\text{Sm}$, $^{160,161,162,163,164,165}\text{Eu}$, ^{163}Gd , $^{166}\text{Tb}(\beta^-)$ [from $^{238}\text{U}(\text{p}, \text{F})$, $E=24$ MeV and subsequent decay]; measured $E\gamma$, $I\gamma$, $E\beta$, $I\beta$; deduced $Q\beta$, mass excess and two-neutron separation energies. Mass separator. JOUR ZAANE 34 363 |
| ^{166}Tm | 2008SI02 | NUCLEAR REACTIONS $^{159}\text{Tb}(^{16}\text{O}, 3\text{n}\alpha)$, $(^{16}\text{O}, 4\text{n}\alpha)$, $(^{16}\text{O}, 3\text{np}\alpha)$, $(^{16}\text{O}, \text{n}2\alpha)$, $E=95$ MeV; $^{159}\text{Tb}(^{16}\text{O}, 3\text{np}\alpha)$, $(^{16}\text{O}, \text{n}2\text{p}\alpha)$, $(^{16}\text{O}, \text{n}3\text{p}\alpha)$, $(^{16}\text{O}, 4\text{n}\alpha)$, $(^{16}\text{O}, 2\text{n}\alpha)$, $E=95$ MeV; measured $E\gamma$, $I\gamma$, production cross sections, excitation functions. $^{167,168}\text{Lu}$, ^{167}Yb , ^{177}W , ^{166}Tb , ^{178}Ta , ^{177}Hf , $^{177,179}\text{Re}$; measured excitation functions in fusion reactions. JOUR PRVCA 77 014607 |

KEYNUMBERS AND KEYWORDS

A=166 (continued)

¹⁶⁶Yb 2007MC08 RADIOACTIVITY ¹⁶⁸Ta (β^+), (EC) [from ¹⁵⁹Tb(¹⁶O, 7n), E=130 MeV]; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$. ¹⁶⁸Hf; deduced levels, J, π , multipolarities, mixing ratios, B(E2). Compared with calculations using CBS and Davidson models and IBA model. ^{166,168}Yb; measured E γ . JOUR PRVCA 76 064307

A=167

¹⁶⁷Er 2008SI02 NUCLEAR REACTIONS ¹⁵⁹Tb(¹⁶O, 3n α), (¹⁶O, 4n α), (¹⁶O, 3np α), (¹⁶O, n2 α), E=95 MeV; ¹⁵⁹Tb(¹⁶O, 3np α), (¹⁶O, n2p α), (¹⁶O, n3p α), (¹⁶O, 4n α), (¹⁶O, 2n α), E=95 MeV; measured E γ , I γ , production cross sections, excitation functions. ^{167,168}Lu, ¹⁶⁷Yb, ¹⁷⁷W, ¹⁶⁶Tb, ¹⁷⁸Ta, ¹⁷⁷Hf, ^{177,179}Re; measured excitation functions in fusion reactions.

JOUR PRVCA 77 014607

¹⁶⁷Yb 2008SI02 NUCLEAR REACTIONS ¹⁵⁹Tb(¹⁶O, 3n α), (¹⁶O, 4n α), (¹⁶O, 3np α), (¹⁶O, n2 α), E=95 MeV; ¹⁵⁹Tb(¹⁶O, 3np α), (¹⁶O, n2p α), (¹⁶O, n3p α), (¹⁶O, 4n α), (¹⁶O, 2n α), E=95 MeV; measured E γ , I γ , production cross sections, excitation functions. ^{167,168}Lu, ¹⁶⁷Yb, ¹⁷⁷W, ¹⁶⁶Tb, ¹⁷⁸Ta, ¹⁷⁷Hf, ^{177,179}Re; measured excitation functions in fusion reactions.

JOUR PRVCA 77 014607

¹⁶⁷Lu 2008GU02 NUCLEAR REACTIONS ¹²³Sb(⁴⁸Ca, 4n), E=203 MeV; measured E γ , I γ , conversion electrons; ¹⁶⁷Lu; deduced conversion coefficients. JOUR PRVCA 77 024314

2008SI02 NUCLEAR REACTIONS ¹⁵⁹Tb(¹⁶O, 3n α), (¹⁶O, 4n α), (¹⁶O, 3np α), (¹⁶O, n2 α), E=95 MeV; ¹⁵⁹Tb(¹⁶O, 3np α), (¹⁶O, n2p α), (¹⁶O, n3p α), (¹⁶O, 4n α), (¹⁶O, 2n α), E=95 MeV; measured E γ , I γ , production cross sections, excitation functions. ^{167,168}Lu, ¹⁶⁷Yb, ¹⁷⁷W, ¹⁶⁶Tb, ¹⁷⁸Ta, ¹⁷⁷Hf, ^{177,179}Re; measured excitation functions in fusion reactions.

JOUR PRVCA 77 014607

2008TA03 NUCLEAR REACTIONS ¹²⁸Te(⁵⁰Ti, 4n), E=230 MeV; measured E γ , I γ , $\gamma\gamma$ -coin; ¹⁷⁴W; deduced levels, J, π , band alignments, searched for triaxial strongly deformed bands. ^{163,164,165,167}Lu, ^{174,175}Hf; analyzed energy spacings. JOUR PRVCA 77 024313

A=168

¹⁶⁸Tm 2008SI02 NUCLEAR REACTIONS ¹⁵⁹Tb(¹⁶O, 3n α), (¹⁶O, 4n α), (¹⁶O, 3np α), (¹⁶O, n2 α), E=95 MeV; ¹⁵⁹Tb(¹⁶O, 3np α), (¹⁶O, n2p α), (¹⁶O, n3p α), (¹⁶O, 4n α), (¹⁶O, 2n α), E=95 MeV; measured E γ , I γ , production cross sections, excitation functions. ^{167,168}Lu, ¹⁶⁷Yb, ¹⁷⁷W, ¹⁶⁶Tb, ¹⁷⁸Ta, ¹⁷⁷Hf, ^{177,179}Re; measured excitation functions in fusion reactions.

JOUR PRVCA 77 014607

¹⁶⁸Yb 2007MC08 RADIOACTIVITY ¹⁶⁸Ta (β^+), (EC) [from ¹⁵⁹Tb(¹⁶O, 7n), E=130 MeV]; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$. ¹⁶⁸Hf; deduced levels, J, π , multipolarities, mixing ratios, B(E2). Compared with calculations using CBS and Davidson models and IBA model. ^{166,168}Yb; measured E γ . JOUR PRVCA 76 064307

KEYNUMBERS AND KEYWORDS

A=168 (continued)

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| ^{168}Lu | 2008SI02 | NUCLEAR REACTIONS $^{159}\text{Tb}(^{16}\text{O}, 3n\alpha)$, $(^{16}\text{O}, 4n\alpha)$, $(^{16}\text{O}, 3np\alpha)$, $(^{16}\text{O}, n2\alpha)$, E=95 MeV; $^{159}\text{Tb}(^{16}\text{O}, 3np\alpha)$, $(^{16}\text{O}, n2p\alpha)$, $(^{16}\text{O}, n3p\alpha)$, $(^{16}\text{O}, 4n\alpha)$, $(^{16}\text{O}, 2n\alpha)$, E=95 MeV; measured $E\gamma$, $I\gamma$, production cross sections, excitation functions. $^{167,168}\text{Lu}$, ^{167}Yb , ^{177}W , ^{166}Tb , ^{178}Ta , ^{177}Hf , $^{177,179}\text{Re}$; measured excitation functions in fusion reactions. JOUR PRVCA 77 014607 |
| ^{168}Hf | 2007MC08 | RADIOACTIVITY $^{168}\text{Ta}(\beta^+)$, (EC) [from $^{159}\text{Tb}(^{16}\text{O}, 7n)$, E=130 MeV]; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$. ^{168}Hf ; deduced levels, J, π , multipolarities, mixing ratios, B(E2). Compared with calculations using CBS and Davidson models and IBA model. $^{166,168}\text{Yb}$; measured $E\gamma$. JOUR PRVCA 76 064307 |
| ^{168}Ta | 2007MC08 | RADIOACTIVITY $^{168}\text{Ta}(\beta^+)$, (EC) [from $^{159}\text{Tb}(^{16}\text{O}, 7n)$, E=130 MeV]; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$. ^{168}Hf ; deduced levels, J, π , multipolarities, mixing ratios, B(E2). Compared with calculations using CBS and Davidson models and IBA model. $^{166,168}\text{Yb}$; measured $E\gamma$. JOUR PRVCA 76 064307 |

A=169

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|-------------------|----------|--|
| ^{169}Lu | 2008SI02 | NUCLEAR REACTIONS $^{159}\text{Tb}(^{16}\text{O}, 3n\alpha)$, $(^{16}\text{O}, 4n\alpha)$, $(^{16}\text{O}, 3np\alpha)$, $(^{16}\text{O}, n2\alpha)$, E=95 MeV; $^{159}\text{Tb}(^{16}\text{O}, 3np\alpha)$, $(^{16}\text{O}, n2p\alpha)$, $(^{16}\text{O}, n3p\alpha)$, $(^{16}\text{O}, 4n\alpha)$, $(^{16}\text{O}, 2n\alpha)$, E=95 MeV; measured $E\gamma$, $I\gamma$, production cross sections, excitation functions. $^{167,168}\text{Lu}$, ^{167}Yb , ^{177}W , ^{166}Tb , ^{178}Ta , ^{177}Hf , $^{177,179}\text{Re}$; measured excitation functions in fusion reactions. JOUR PRVCA 77 014607 |
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A=170

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|-------------------|----------|--|
| ^{170}Hf | 2007ZH46 | NUCLEAR REACTIONS $^{128}\text{Te}(^{48}\text{Ca}, 4n)$, $(^{48}\text{Ca}, 5n)$, E=209 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin. $^{171,172}\text{Hf}$; deduced levels, J, π , configurations, superdeformed bands. ^{163}Lu , $^{170,173,174,175}\text{Hf}$; systematics. JOUR PRVCA 76 064321 |
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A=171

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|-------------------|----------|--|
| ^{171}Hf | 2007ZH46 | NUCLEAR REACTIONS $^{128}\text{Te}(^{48}\text{Ca}, 4n)$, $(^{48}\text{Ca}, 5n)$, E=209 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin. $^{171,172}\text{Hf}$; deduced levels, J, π , configurations, superdeformed bands. ^{163}Lu , $^{170,173,174,175}\text{Hf}$; systematics. JOUR PRVCA 76 064321 |
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KEYNUMBERS AND KEYWORDS

A=172

¹⁷²Hf 2007ZH46 NUCLEAR REACTIONS ¹²⁸Te(⁴⁸Ca, 4n), (⁴⁸Ca, 5n), E=209 MeV; measured E γ , I γ , $\gamma\gamma$ -coin. ^{171,172}Hf; deduced levels, J, π , configurations, superdeformed bands. ¹⁶³Lu, ^{170,173,174,175}Hf; systematics. JOUR PRVCA 76 064321

A=173

¹⁷³Hf 2007ZH46 NUCLEAR REACTIONS ¹²⁸Te(⁴⁸Ca, 4n), (⁴⁸Ca, 5n), E=209 MeV; measured E γ , I γ , $\gamma\gamma$ -coin. ^{171,172}Hf; deduced levels, J, π , configurations, superdeformed bands. ¹⁶³Lu, ^{170,173,174,175}Hf; systematics. JOUR PRVCA 76 064321

A=174

¹⁷⁴Lu 2007LU18 NUCLEAR REACTIONS ¹⁷⁵Lu, ¹⁹⁸Pt, ⁸²Se(n, 2n), E=13.5-14.6 MeV; measured E γ , I γ ; deduced cross sections, isomeric cross section ratios. ⁹³Nb(n, 2n), E=13.5-14.6 MeV; compared cross sections. Comparisons with nuclear model calculations using the HFTT code. JOUR NIMBE 265 453

¹⁷⁴Hf 2007ZH46 NUCLEAR REACTIONS ¹²⁸Te(⁴⁸Ca, 4n), (⁴⁸Ca, 5n), E=209 MeV; measured E γ , I γ , $\gamma\gamma$ -coin. ^{171,172}Hf; deduced levels, J, π , configurations, superdeformed bands. ¹⁶³Lu, ^{170,173,174,175}Hf; systematics. JOUR PRVCA 76 064321

2008TA03 NUCLEAR REACTIONS ¹²⁸Te(⁵⁰Ti, 4n), E=230 MeV; measured E γ , I γ , $\gamma\gamma$ -coin; ¹⁷⁴W; deduced levels, J, π , band alignments, searched for triaxial strongly deformed bands. ^{163,164,165,167}Lu, ^{174,175}Hf; analyzed energy spacings. JOUR PRVCA 77 024313

¹⁷⁴W 2008TA03 NUCLEAR REACTIONS ¹²⁸Te(⁵⁰Ti, 4n), E=230 MeV; measured E γ , I γ , $\gamma\gamma$ -coin; ¹⁷⁴W; deduced levels, J, π , band alignments, searched for triaxial strongly deformed bands. ^{163,164,165,167}Lu, ^{174,175}Hf; analyzed energy spacings. JOUR PRVCA 77 024313

A=175

¹⁷⁵Hf 2007ZH46 NUCLEAR REACTIONS ¹²⁸Te(⁴⁸Ca, 4n), (⁴⁸Ca, 5n), E=209 MeV; measured E γ , I γ , $\gamma\gamma$ -coin. ^{171,172}Hf; deduced levels, J, π , configurations, superdeformed bands. ¹⁶³Lu, ^{170,173,174,175}Hf; systematics. JOUR PRVCA 76 064321

2008TA03 NUCLEAR REACTIONS ¹²⁸Te(⁵⁰Ti, 4n), E=230 MeV; measured E γ , I γ , $\gamma\gamma$ -coin; ¹⁷⁴W; deduced levels, J, π , band alignments, searched for triaxial strongly deformed bands. ^{163,164,165,167}Lu, ^{174,175}Hf; analyzed energy spacings. JOUR PRVCA 77 024313

KEYNUMBERS AND KEYWORDS

A=176

No references found

A=177

- ¹⁷⁷Lu 2008DV01 NUCLEAR REACTIONS ¹⁷⁶Lu(n, γ)¹⁷⁷Lu, E=thermal; measured E γ , I γ . deduced reactor neutron spectrum, and irradiation yield of ¹⁷⁷Lu using the Westcott convention. Calculated k-factor, comparisons of Westcott, Hogdahl, and experimental irradiation yield of ¹⁷⁷Lu. JOURNAL OF RADIOLOGICAL ISOTOPES 66 147
- ¹⁷⁷Hf 2008SI02 NUCLEAR REACTIONS ¹⁵⁹Tb(¹⁶O, 3n α), (¹⁶O, 4n α), (¹⁶O, 3np α), (¹⁶O, n2 α), E=95 MeV; ¹⁵⁹Tb(¹⁶O, 3np α), (¹⁶O, n2p α), (¹⁶O, n3p α), (¹⁶O, 4n α), (¹⁶O, 2n α), E=95 MeV; measured E γ , I γ , production cross sections, excitation functions. ^{167,168}Lu, ¹⁶⁷Yb, ¹⁷⁷W, ¹⁶⁶Tb, ¹⁷⁸Ta, ¹⁷⁷Hf, ^{177,179}Re; measured excitation functions in fusion reactions. JOURNAL OF RADIOLOGICAL ISOTOPES 66 147
- ¹⁷⁷W 2008SI02 NUCLEAR REACTIONS ¹⁵⁹Tb(¹⁶O, 3n α), (¹⁶O, 4n α), (¹⁶O, 3np α), (¹⁶O, n2 α), E=95 MeV; ¹⁵⁹Tb(¹⁶O, 3np α), (¹⁶O, n2p α), (¹⁶O, n3p α), (¹⁶O, 4n α), (¹⁶O, 2n α), E=95 MeV; measured E γ , I γ , production cross sections, excitation functions. ^{167,168}Lu, ¹⁶⁷Yb, ¹⁷⁷W, ¹⁶⁶Tb, ¹⁷⁸Ta, ¹⁷⁷Hf, ^{177,179}Re; measured excitation functions in fusion reactions. JOURNAL OF RADIOLOGICAL ISOTOPES 66 147
- ¹⁷⁷Re 2008SI02 NUCLEAR REACTIONS ¹⁵⁹Tb(¹⁶O, 3n α), (¹⁶O, 4n α), (¹⁶O, 3np α), (¹⁶O, n2 α), E=95 MeV; ¹⁵⁹Tb(¹⁶O, 3np α), (¹⁶O, n2p α), (¹⁶O, n3p α), (¹⁶O, 4n α), (¹⁶O, 2n α), E=95 MeV; measured E γ , I γ , production cross sections, excitation functions. ^{167,168}Lu, ¹⁶⁷Yb, ¹⁷⁷W, ¹⁶⁶Tb, ¹⁷⁸Ta, ¹⁷⁷Hf, ^{177,179}Re; measured excitation functions in fusion reactions. JOURNAL OF RADIOLOGICAL ISOTOPES 66 147

A=178

- ¹⁷⁸Ta 2008SI02 NUCLEAR REACTIONS ¹⁵⁹Tb(¹⁶O, 3n α), (¹⁶O, 4n α), (¹⁶O, 3np α), (¹⁶O, n2 α), E=95 MeV; ¹⁵⁹Tb(¹⁶O, 3np α), (¹⁶O, n2p α), (¹⁶O, n3p α), (¹⁶O, 4n α), (¹⁶O, 2n α), E=95 MeV; measured E γ , I γ , production cross sections, excitation functions. ^{167,168}Lu, ¹⁶⁷Yb, ¹⁷⁷W, ¹⁶⁶Tb, ¹⁷⁸Ta, ¹⁷⁷Hf, ^{177,179}Re; measured excitation functions in fusion reactions. JOURNAL OF RADIOLOGICAL ISOTOPES 66 147

A=179

- ¹⁷⁹Re 2008SI02 NUCLEAR REACTIONS ¹⁵⁹Tb(¹⁶O, 3n α), (¹⁶O, 4n α), (¹⁶O, 3np α), (¹⁶O, n2 α), E=95 MeV; ¹⁵⁹Tb(¹⁶O, 3np α), (¹⁶O, n2p α), (¹⁶O, n3p α), (¹⁶O, 4n α), (¹⁶O, 2n α), E=95 MeV; measured E γ , I γ , production cross sections, excitation functions. ^{167,168}Lu, ¹⁶⁷Yb, ¹⁷⁷W, ¹⁶⁶Tb, ¹⁷⁸Ta, ¹⁷⁷Hf, ^{177,179}Re; measured excitation functions in fusion reactions. JOURNAL OF RADIOLOGICAL ISOTOPES 66 147

KEYNUMBERS AND KEYWORDS

A=180

- ^{180}Hf 2008NG01 NUCLEAR REACTIONS $^{179,180}\text{Hf}(n, \gamma)$, E=thermal; measured $E\gamma$, $I\gamma$, cross sections, and resonance integrals using the stacked foil activation technique. JOUR NIMBE 266 21
- 2008ZA01 RADIOACTIVITY $^{180}\text{Hf}(\text{IT})$; measured $E\gamma$, $I\gamma$ as a function of temperature and nuclear orientation. Deduced assymetry of the isomeric transition, parity mixing. JOUR APOBB 39 411
- ^{180}W 2007KA62 NUCLEAR REACTIONS $\text{W}(n, \gamma)$, E=thermal; measured $E\gamma$, $I\gamma$. $^{180,181,185,187}\text{W}$; measured capture cross sections. JOUR PRVCA 76 067602

A=181

- ^{181}Hf 2008NG01 NUCLEAR REACTIONS $^{179,180}\text{Hf}(n, \gamma)$, E=thermal; measured $E\gamma$, $I\gamma$, cross sections, and resonance integrals using the stacked foil activation technique. JOUR NIMBE 266 21
- ^{181}W 2007KA62 NUCLEAR REACTIONS $\text{W}(n, \gamma)$, E=thermal; measured $E\gamma$, $I\gamma$. $^{180,181,185,187}\text{W}$; measured capture cross sections. JOUR PRVCA 76 067602

A=182

No references found

A=183

No references found

A=184

No references found

A=185

- ^{185}W 2007KA62 NUCLEAR REACTIONS $\text{W}(n, \gamma)$, E=thermal; measured $E\gamma$, $I\gamma$. $^{180,181,185,187}\text{W}$; measured capture cross sections. JOUR PRVCA 76 067602

A=186

- ^{186}Pb 2007WI11 RADIOACTIVITY $^{190,197}\text{Po}(\alpha)$; measured $E\alpha$. JOUR ZAANE 34 275

KEYNUMBERS AND KEYWORDS

A=186 (*continued*)

- 2008GR04 NUCLEAR REACTIONS $^{106,108}\text{Pd}$, $^{114}\text{Cd}(^{83}\text{Kr}, 3n)$, $E=340, 357, 375$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -, (recoil) γ -coin and lifetimes for intruder states using the recoil distance Doppler-shift method. $^{186,188}\text{Pb}$, ^{194}Po ; deduced $B(E2)$, quadrupole moment and deformation parameters. JUROGAM array used with RITU, GREAT spectrometer. Recoil-decay tagging. JOUR NUPAB 801 83

A=187

- ^{187}W 2007KA62 NUCLEAR REACTIONS $\text{W}(n, \gamma)$, $E=\text{thermal}$; measured $E\gamma$, $I\gamma$. $^{180,181,185,187}\text{W}$; measured capture cross sections. JOUR PRVCA 76 067602

A=188

- ^{188}Ir 2008JU02 NUCLEAR REACTIONS $^{186}\text{W}(^7\text{Li}, 5n\gamma)$, $E=59$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin. ^{188}Ir ; deduced levels, J , π , deformation parameters. JOUR PRVCA 77 024310
- ^{188}Pb 2008GR04 NUCLEAR REACTIONS $^{106,108}\text{Pd}$, $^{114}\text{Cd}(^{83}\text{Kr}, 3n)$, $E=340, 357, 375$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -, (recoil) γ -coin and lifetimes for intruder states using the recoil distance Doppler-shift method. $^{186,188}\text{Pb}$, ^{194}Po ; deduced $B(E2)$, quadrupole moment and deformation parameters. JUROGAM array used with RITU, GREAT spectrometer. Recoil-decay tagging. JOUR NUPAB 801 83

A=189

No references found

A=190

- ^{190}Po 2007WI11 NUCLEAR REACTIONS $^{144}\text{Sm}(^{49}\text{Ti}, 3n)$, $E=222$ MeV; measured $E\gamma$, $I\gamma$, recoil decay tagging, $\gamma\gamma$ -, $\alpha\gamma$ -coin. $^{190,197}\text{Po}$ deduced levels, J , π , bands. JUROGAM array used with RITU, GREAT spectrometer. JOUR ZAANE 34 275
- 2007WI11 RADIOACTIVITY $^{190,197}\text{Po}(\alpha)$; measured $E\alpha$. JOUR ZAANE 34 275

A=191

No references found

KEYNUMBERS AND KEYWORDS

A=192

No references found

A=193

- ¹⁹³Pt 2008HI03 NUCLEAR REACTIONS ¹⁹²Os(α , n), (α , 3n), E < 28 MeV; measured E γ , I γ , cross sections using stacked foil activation. JOUR ARISE 66 545
- ¹⁹³Pb 2007WI11 RADIOACTIVITY ^{190,197}Po(α); measured E α . JOUR ZAANE 34 275

A=194

- ¹⁹⁴Po 2008GR04 NUCLEAR REACTIONS ^{106,108}Pd, ¹¹⁴Cd(⁸³Kr, 3n), E=340, 357, 375 MeV; measured E γ , I γ , $\gamma\gamma$ -, (recoil) γ -coin and lifetimes for intruder states using the recoil distance Doppler-shift method. ^{186,188}Pb, ¹⁹⁴Po; deduced B(E2), quadrupole moment and deformation parameters. JUROGAM array used with RITU, GREAT spectrometer. Recoil-decay tagging. JOUR NUPAB 801 83

A=195

- ¹⁹⁵Pt 2008HI03 NUCLEAR REACTIONS ¹⁹²Os(α , n), (α , 3n), E < 28 MeV; measured E γ , I γ , cross sections using stacked foil activation. JOUR ARISE 66 545

A=196

- ¹⁹⁶Tl 2008F003 NUCLEAR REACTIONS ²⁰⁵Tl(n, 2n γ), E<25 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, half-lives; ²⁰⁴Tl; deduced levels, J, π , configurations. ^{196,198,200,202,206}Tl; systematics. JOUR PRVCA 77 024306

A=197

- ¹⁹⁷Pt 2007CL04 NUCLEAR REACTIONS ²H, ¹²C, ²⁷Al, ⁶³Cu, ¹⁹⁷Au(e, e' π^+), E=4.021-5.767 GeV; measured electron and pion energies. Deduced nuclear transparency. JOUR PRLTA 99 242502
- 2007LU18 NUCLEAR REACTIONS ¹⁷⁵Lu, ¹⁹⁸Pt, ⁸²Se(n, 2n), E=13.5-14.6 MeV; measured E γ , I γ ; deduced cross sections, isomeric cross section ratios. ⁹³Nb(n, 2n), E=13.5-14.6 MeV; compared cross sections. Comparisons with nuclear model calculations using the HFTT code. JOUR NIMBE 265 453
- ¹⁹⁷Po 2007WI11 NUCLEAR REACTIONS ¹⁴⁴Sm(⁴⁹Ti, 3n), E=222 MeV; measured E γ , I γ , recoil decay tagging, $\gamma\gamma$ -, $\alpha\gamma$ -coin. ^{190,197}Po deduced levels, J, π , bands. JUROGAM array used with RITU, GREAT spectrometer. JOUR ZAANE 34 275

KEYNUMBERS AND KEYWORDS

A=197 (continued)

2007WI11 RADIOACTIVITY $^{190,197}\text{Po}(\alpha)$; measured $E\alpha$. JOUR ZAANE 34 275

A=198

^{198}Au 2007G039 RADIOACTIVITY $^{198}\text{Au}(\beta^-)$; measured $E\gamma$, $I\gamma$, $T_{1/2}$. Temperature dependence not observed. JOUR ZAANE 34 271

2008HE01 NUCLEAR REACTIONS ^{58}Fe , ^{59}Co , ^{64}Ni , $^{63,65}\text{Cu}(n, \gamma)$, $E=25$ keV; measured neutron capture cross sections, $E\gamma$; ^{59}Fe , ^{60}Co , ^{65}Ni , $^{64,66}\text{Cu}$, ^{198}Au ; deduced nucleosynthesis yields in stars. JOUR PRVCA 77 015808

^{198}Hg 2007G039 RADIOACTIVITY $^{198}\text{Au}(\beta^-)$; measured $E\gamma$, $I\gamma$, $T_{1/2}$. Temperature dependence not observed. JOUR ZAANE 34 271

^{198}Tl 2008F003 NUCLEAR REACTIONS $^{205}\text{Tl}(n, 2n\gamma)$, $E<25$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, half-lives; ^{204}Tl ; deduced levels, J , π , configurations. $^{196,198,200,202,206}\text{Tl}$; systematics. JOUR PRVCA 77 024306

A=199

No references found

A=200

^{200}Tl 2008F003 NUCLEAR REACTIONS $^{205}\text{Tl}(n, 2n\gamma)$, $E<25$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, half-lives; ^{204}Tl ; deduced levels, J , π , configurations. $^{196,198,200,202,206}\text{Tl}$; systematics. JOUR PRVCA 77 024306

A=201

No references found

A=202

^{202}Tl 2008F003 NUCLEAR REACTIONS $^{205}\text{Tl}(n, 2n\gamma)$, $E<25$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, half-lives; ^{204}Tl ; deduced levels, J , π , configurations. $^{196,198,200,202,206}\text{Tl}$; systematics. JOUR PRVCA 77 024306

^{202}Po 2008RA07 NUCLEAR REACTIONS $^{186}\text{Os}(^{16}\text{O}, X)^{202}\text{Po}$, $E=74-105$ MeV; $^{178}\text{Hf}(^{24}\text{Mg}, X)^{202}\text{Po}$, $E=106-144$ MeV; $^{168}\text{Er}(^{34}\text{S}, X)^{202}\text{Po}$, $E=141-174$ MeV; $^{154}\text{Sm}(^{48}\text{Ti}, X)^{202}\text{Po}$, $E=198-235$ MeV; measured mass-angle correlations, mass ratio distributions, cross sections. JOUR PRVCA 77 024606

KEYNUMBERS AND KEYWORDS

A=203

No references found

A=204

- ²⁰⁴Pt 2007P013 RADIOACTIVITY ¹⁴⁷Gd, ¹⁴⁸Tb, ²⁰⁴Pt(IT); measured delayed E γ , I γ from isomer decays. JOUR ZSTNE 150 165
- ²⁰⁴Tl 2008F003 NUCLEAR REACTIONS ²⁰⁵Tl(n, 2n γ), E<25 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, half-lives; ²⁰⁴Tl; deduced levels, J, π , configurations. ^{196,198,200,202,206}Tl; systematics. JOUR PRVCA 77 024306

A=205

No references found

A=206

- ²⁰⁶Tl 2008F003 NUCLEAR REACTIONS ²⁰⁵Tl(n, 2n γ), E<25 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, half-lives; ²⁰⁴Tl; deduced levels, J, π , configurations. ^{196,198,200,202,206}Tl; systematics. JOUR PRVCA 77 024306
- ²⁰⁶Rn 2008AN01 NUCLEAR REACTIONS ¹⁹⁷Au(¹⁴N, 5n), E=82 MeV; measured E γ , I γ , conversion electrons. ²⁰⁶Rn; deduced level energies, ICCs, transition multipolarities. JOUR NIMAE 585 155
- 2008KR01 NUCLEAR REACTIONS ¹⁹⁷Au(¹⁴N, 5n), E=80 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, conversion electron spectra using in-beam spectroscopy. ²⁰⁶Rn; deduced levels, J, π . JOUR APOBB 39 495

A=207

No references found

A=208

- ²⁰⁸Pb 2007BA76 NUCLEAR REACTIONS ²⁰⁸Pb(¹⁷F, ¹⁷F), E=141 MeV; ²⁰⁸Pb(¹⁷O, ¹⁷O), E=128 MeV; measured differential cross sections, angular dispersion plots. ²⁰⁸Pb(¹⁶O, ¹⁶O), E=170.1 MeV; ²⁰⁸Pb(⁶He, ⁶He), E=27, 29.6 MeV; ²⁰⁸Pb(⁶Li, ⁶Li), E=73.7, 99 MeV; ²⁰⁸Pb(α , α), E=40 MeV; analyzed differential cross sections, angular dispersion plots. JOUR CPLEE 24 3384
- 2008OH02 NUCLEAR REACTIONS ⁵⁶Fe, ⁸⁹Y, ²⁰⁸Pb(n, n), E=96 MeV; measured $\sigma(\theta)$; ¹²C, ¹⁶O; systematics, compared with Wick's limit. JOUR PRVCA 77 024605
- 2008ZI01 NUCLEAR REACTIONS ¹⁰⁹Ag, ²⁰⁸Pb(⁴⁴Ar, ⁴⁴Ar'), E=2.7, 3.7 MeV / nucleon; measured E γ , I γ , (charged-particle) γ -coin. Deduced coulomb excitation $\sigma(\theta)$, B(E2). JOUR APOBB 39 519

KEYNUMBERS AND KEYWORDS

A=208 (continued)

- ²⁰⁸Bi 2007MA83 NUCLEAR REACTIONS ²⁰⁸Pb(p, n), E=9 MeV; measured ce, (ce)(ce)-, γ (ce)-coin; analyzed E γ , I γ , $\gamma\gamma$ -coin. ²⁰⁸Bi; deduced levels, J, π , multipolarities, configurations, angular momenta, spectroscopic factors for proton transfer and neutron pickup. Detailed shell-model calculations. JOUR PRVCA 76 064304
- 2007MAZR NUCLEAR REACTIONS ²⁰⁸Pb(p, n), E=9.0 MeV; measured E γ , I γ , conversion electrons. ²⁰⁸Bi; deduced internal conversion coefficients. PREPRINT ANU-P/1815, Maier
- 2008MI01 NUCLEAR REACTIONS ²⁰⁹Bi(n, n' γ), (n, 2n γ), E=threshold - 20 MeV; measured, E γ , I γ , En, In, σ , $\sigma(\theta)$. ²⁰⁹Bi deduced level energies, branching ratios. Comparison with existing data and TALYS calculations. JOUR NUPAB 799 1

A=209

- ²⁰⁹Pb 2007G042 NUCLEAR REACTIONS ²⁰⁹Pb(⁷⁴Kr, ⁷⁴Kr'), (⁷⁶Kr, ⁷⁶Kr'), E=4.7 MeV / nucleon; measured E γ , I γ , (particle) γ -coin, angular distributions. ^{74,76}Kr; deduced B(E2), static quadrupole moments, shape coexistence. JOUR ZSTNE 150 117
- ²⁰⁹Bi 2007MA90 NUCLEAR REACTIONS ²⁰⁹Bi(¹¹Be, ¹¹Be), E=38-50 MeV; measured elastic scattering $\sigma(\theta)$. Compared results to model calculations. Deduced reaction and fusion cross sections. JOUR ZSTNE 150 37
- 2008MI01 NUCLEAR REACTIONS ²⁰⁹Bi(n, n' γ), (n, 2n γ), E=threshold - 20 MeV; measured, E γ , I γ , En, In, σ , $\sigma(\theta)$. ²⁰⁹Bi deduced level energies, branching ratios. Comparison with existing data and TALYS calculations. JOUR NUPAB 799 1

A=210

No references found

A=211

No references found

A=212

- ²¹²At 2007KU30 RADIOACTIVITY ²²⁰Ac, ²¹⁶Fr, ²¹²At (α) [from ²⁰⁹Bi(¹⁴N, F), E=5.6 MeV / nucleon]; measured α -spectra. ²¹²At, ²¹⁶Fr; deduced levels, J, π , half-lives. ²¹⁶Fr; deduced E α , Q α , excitation energies, mass excess. JOUR PRVCA 76 054320

KEYNUMBERS AND KEYWORDS

A=213

²¹³Th 2007KH22 NUCLEAR REACTIONS ¹⁶⁴Dy(⁵⁴Cr, X)²¹³Th / ²¹⁴Th, E=246, 258 MeV; measured σ , E γ , I γ , $\alpha\gamma$ -coin following residual nucleus decay. ^{213,214}Th deduced levels, J, π , T_{1/2}. JOUR ZAANE 34 355

A=214

²¹⁴Th 2007KH22 NUCLEAR REACTIONS ¹⁶⁴Dy(⁵⁴Cr, X)²¹³Th / ²¹⁴Th, E=246, 258 MeV; measured σ , E γ , I γ , $\alpha\gamma$ -coin following residual nucleus decay. ^{213,214}Th deduced levels, J, π , T_{1/2}. JOUR ZAANE 34 355

A=215

No references found

A=216

²¹⁶Fr 2007KU30 RADIOACTIVITY ²²⁰Ac, ²¹⁶Fr, ²¹²At (α) [from ²⁰⁹Bi(¹⁴N, F), E=5.6 MeV / nucleon]; measured α -spectra. ²¹²At, ²¹⁶Fr; deduced levels, J, π , half-lives. ²¹⁶Fr; deduced E α , Q α , excitation energies, mass excess. JOUR PRVCA 76 054320

A=217

No references found

A=218

No references found

A=219

No references found

A=220

²²⁰Ac 2007KU30 RADIOACTIVITY ²²⁰Ac, ²¹⁶Fr, ²¹²At (α) [from ²⁰⁹Bi(¹⁴N, F), E=5.6 MeV / nucleon]; measured α -spectra. ²¹²At, ²¹⁶Fr; deduced levels, J, π , half-lives. ²¹⁶Fr; deduced E α , Q α , excitation energies, mass excess. JOUR PRVCA 76 054320

A=221

No references found

A=222

No references found

A=223

No references found

A=224

No references found

A=225

No references found

A=226

No references found

A=227

No references found

A=228

No references found

A=229

No references found

A=230

No references found

KEYNUMBERS AND KEYWORDS

A=231

^{231}Ra	2007B048	RADIOACTIVITY $^{231}\text{Ra}(\beta^-)$ [from U(p, X), E=1 GeV]; measured E_γ , I_γ , $\gamma\gamma$ -coin, conversion electrons. ^{231}Ac ; deduced level energies, lifetimes. JOUR ZSTNE 150 87
^{231}Ac	2007B048	RADIOACTIVITY $^{231}\text{Ra}(\beta^-)$ [from U(p, X), E=1 GeV]; measured E_γ , I_γ , $\gamma\gamma$ -coin, conversion electrons. ^{231}Ac ; deduced level energies, lifetimes. JOUR ZSTNE 150 87
^{231}Th	2008WE01	RADIOACTIVITY $^{238,235}\text{U}(\alpha)$; measured isotopic ratios in natural samples. JOUR GCACA 72 345

A=232

No references found

A=233

No references found

A=234

^{234}Th	2008WE01	RADIOACTIVITY $^{238,235}\text{U}(\alpha)$; measured isotopic ratios in natural samples. JOUR GCACA 72 345
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A=235

^{235}U	2008WE01	RADIOACTIVITY $^{238,235}\text{U}(\alpha)$; measured isotopic ratios in natural samples. JOUR GCACA 72 345
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A=236

No references found

A=237

^{237}Np	2008SA02	RADIOACTIVITY $^{237}\text{Np}(\text{SF})$ [from $^{236}\text{U}(\text{n}, \gamma)^{237}\text{U}(\beta^-)$, $^{238}\text{U}(\text{n}, 2\text{n})^{237}\text{U}(\beta^-)$]; measured criticality conditions. JOUR NSENA 158 1
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A=238

^{238}U	2008WE01	RADIOACTIVITY $^{238,235}\text{U}(\alpha)$; measured isotopic ratios in natural samples. JOUR GCACA 72 345
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KEYNUMBERS AND KEYWORDS

A=239

No references found

A=240

No references found

A=241

No references found

A=242

²⁴²Am 2007NA33 NUCLEAR REACTIONS ²⁴¹Am(n, γ), E=thermal; measured decay $E\alpha$, $I\alpha$, cross section and resonance integral for thermal neutron capture leading to ground state using the activation method. JOUR JNSTA 44 1500

A=243

No references found

A=244

No references found

A=245

²⁴⁵Pu 2007MA82 NUCLEAR REACTIONS ²⁴⁴Pu(¹⁸O, ¹⁷O), (¹⁸O, ¹⁶O), E=162 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, half-lives. ^{245,246}Pu; deduced levels, J, π , configurations. Compared with experimental and calculated values for the first 2⁺ level energy in ^{232,234,236,238,240,242}U, ^{234,236,238,240,242,244,248}Pu, ^{240,242,244,246,248,250}Cm, ^{244,246,248,250,252,254}Cf, ^{250,252,254,256}Fm, ^{248,250,252,254,256,258}No. ²⁴⁷Cm, ²⁴⁹Cf, ²⁵¹Fm, ²⁵³No; systematics. JOUR PRVCA 76 061301

A=246

²⁴⁶Pu 2007MA82 NUCLEAR REACTIONS ²⁴⁴Pu(¹⁸O, ¹⁷O), (¹⁸O, ¹⁶O), E=162 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, half-lives. ^{245,246}Pu; deduced levels, J, π , configurations. Compared with experimental and calculated values for the first 2⁺ level energy in ^{232,234,236,238,240,242}U, ^{234,236,238,240,242,244,248}Pu, ^{240,242,244,246,248,250}Cm, ^{244,246,248,250,252,254}Cf, ^{250,252,254,256}Fm, ^{248,250,252,254,256,258}No. ²⁴⁷Cm, ²⁴⁹Cf, ²⁵¹Fm, ²⁵³No; systematics. JOUR PRVCA 76 061301

A=247

²⁴⁷Cm 2007MA82 NUCLEAR REACTIONS ²⁴⁴Pu(¹⁸O, ¹⁷O), (¹⁸O, ¹⁶O), E=162 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, half-lives. ^{245,246}Pu; deduced levels, J, π , configurations. Compared with experimental and calculated values for the first 2⁺ level energy in ^{232,234,236,238,240,242}U, ^{234,236,238,240,242,244,248}Pu, ^{240,242,244,246,248,250}Cm, ^{244,246,248,250,252,254}Cf, ^{250,252,254,256}Fm, ^{248,250,252,254,256,258}No. ²⁴⁷Cm, ²⁴⁹Cf, ²⁵¹Fm, ²⁵³No; systematics. JOUR PRVCA 76 061301

A=248

No references found

A=249

²⁴⁹Cf 2007MA82 NUCLEAR REACTIONS ²⁴⁴Pu(¹⁸O, ¹⁷O), (¹⁸O, ¹⁶O), E=162 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, half-lives. ^{245,246}Pu; deduced levels, J, π , configurations. Compared with experimental and calculated values for the first 2⁺ level energy in ^{232,234,236,238,240,242}U, ^{234,236,238,240,242,244,248}Pu, ^{240,242,244,246,248,250}Cm, ^{244,246,248,250,252,254}Cf, ^{250,252,254,256}Fm, ^{248,250,252,254,256,258}No. ²⁴⁷Cm, ²⁴⁹Cf, ²⁵¹Fm, ²⁵³No; systematics. JOUR PRVCA 76 061301

A=250

²⁵⁰No 2008KN01 NUCLEAR REACTIONS ²⁰⁶Pb(⁴⁴Ca, X), E=217, 227 MeV; ¹⁸⁶W(⁶⁴Ni, X), E=300, 311 MeV; measured mass-energy distributions of binary fragments, $\sigma(\theta)$ for fissionlike fragments. ²⁵⁰No; deduced influence of mass assymetry of the entrance channel in compound nucleus formation. JOUR PPNLA 5 21

KEYNUMBERS AND KEYWORDS

A=251

²⁵¹Fm 2007MA82 NUCLEAR REACTIONS ²⁴⁴Pu(¹⁸O, ¹⁷O), (¹⁸O, ¹⁶O), E=162 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, half-lives. ^{245,246}Pu; deduced levels, J, π , configurations. Compared with experimental and calculated values for the first 2⁺ level energy in ^{232,234,236,238,240,242}U, ^{234,236,238,240,242,244,248}Pu, ^{240,242,244,246,248,250}Cm, ^{244,246,248,250,252,254}Cf, ^{250,252,254,256}Fm, ^{248,250,252,254,256,258}No. ²⁴⁷Cm, ²⁴⁹Cf, ²⁵¹Fm, ²⁵³No; systematics. JOUR PRVCA 76 061301

A=252

No references found

A=253

²⁵³No 2007MA82 NUCLEAR REACTIONS ²⁴⁴Pu(¹⁸O, ¹⁷O), (¹⁸O, ¹⁶O), E=162 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, half-lives. ^{245,246}Pu; deduced levels, J, π , configurations. Compared with experimental and calculated values for the first 2⁺ level energy in ^{232,234,236,238,240,242}U, ^{234,236,238,240,242,244,248}Pu, ^{240,242,244,246,248,250}Cm, ^{244,246,248,250,252,254}Cf, ^{250,252,254,256}Fm, ^{248,250,252,254,256,258}No. ²⁴⁷Cm, ²⁴⁹Cf, ²⁵¹Fm, ²⁵³No; systematics. JOUR PRVCA 76 061301

A=254

No references found

A=255

No references found

A=256

No references found

A=257

No references found

A=258

No references found

KEYNUMBERS AND KEYWORDS

A=259

No references found

A=260

^{260}Bh	2008NE01	NUCLEAR REACTIONS $^{209}\text{Bi}(^{52}\text{Cr}, n)$, E=257 MeV; measured correlated decay chain $E\alpha$, $I\alpha$, production cross section. JOUR PRLTA 100 022501
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