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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, 2011 to March 31, 2011. 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

^1n	2009TUZZ	NUCLEAR REACTIONS $^2\text{H}(\text{p}, 2\text{p})$, $E=4.7, 5\text{MeV}$; measured E_{p} , $I_{\text{p}}(\theta)$, pp-coin; deduced neutron momentum distribution using PWIA, proton-proton elastic σ . CONF Dub(Nucl Struct and Dynamics,09) Proc,P335
	2010CH58	NUCLEAR REACTIONS $^1,^2\text{H}(\gamma, \text{K}^+)$, $E=1.5\text{-}2.4\text{ GeV}$; measured $\sigma(\theta)$, photon-beam asymmetry, polarized γ . Comparison with other data. JOUR NUPAB 835 239c
	2011K009	RADIOACTIVITY $^1\text{n}(\beta^-)$; measured E_{e} , I_{e} ; deduced bounds on scalar vs. tensor normalized couplings, T, P-correlation coefficients. JOUR APOBB 42 789
^1H	2010CIZZ	NUCLEAR REACTIONS $^2\text{H}(^{130}\text{Sn}, ^{131}\text{Sn})$, $(^{132}\text{Sn}, ^{133}\text{Sn})$, $(^{134}\text{Te}, ^{135}\text{Te})$, $E\approx 4.7\text{ MeV / nucleon}$; measured E_{p} , $I_{\text{p}}(\theta)$; deduced levels, J, π , Q-values. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P147
	2010IMZZ	NUCLEAR REACTIONS $^1\text{H}(^{68}\text{Zn}, ^{68}\text{Zn})$, $E=5.5\text{ MeV / nucleon}$; measured thick target E_{p} , $I_{\text{p}}(\theta(\text{cm})=180^0)$; deduced $\sigma(\theta)$, $E(\text{cm})\approx 4.6\text{-}5.4\text{ MeV}$; calculated $\sigma(\theta)$, $E(\text{cm})\approx 4.6\text{-}5.4\text{ MeV}$ using R-matrix. REPT JAEA-Review 2010-056,P27,Imai
	2010MAZP	NUCLEAR REACTIONS $^1\text{H}(^9\text{C}, ^9\text{C})$, $E=290\text{ MeV / nucleon}$; measured E_{p} , $I_{\text{p}}(\theta)$; deduced $\sigma(\theta)$; calculated $\sigma(\theta)$, charge and mass radii, distribution using AMD and RMF. $\sigma(\theta)$ compared with reaction of ^{12}C . REPT RIKEN 2009 Annual,P25,Matsuda
	2010SAZW	NUCLEAR REACTIONS $^1\text{H}(^6\text{He}, ^6\text{He})$, $(^8\text{He}, ^8\text{He})$, $E=71\text{ MeV / nucleon}$; measured E_{p} , $I_{\text{p}}(\theta)$, $E(\text{particle})$, $I(\text{particle}, \theta)$ using polarized target; deduced $\sigma(\theta)$, analyzing powers, spin-orbit potential parameters; calculated $\sigma(\theta)$, analyzing powers using ECIS79. REPT RIKEN 2009 Annual,P14,Sakaguchi
	2010SEZY	NUCLEAR REACTIONS $^1\text{H}(\text{d}, \text{d})$, $E=250\text{ MeV / nucleon}$; measured polarized $I(\text{d}, \theta)$; deduced analyzing power. REPT RIKEN 2009 Annual,Pxi,Sekiguchi
	2010SPZZ	NUCLEAR REACTIONS $^2\text{H}(^3\text{He}, \text{pt})$, $E=17\text{ MeV}$; measured $E(\text{particle})$, $I(\text{particle}, \theta)$. $^2\text{H}(\text{d}, \text{p})$, $E(\text{cm})=0\text{-}0.4\text{ MeV}$; deduced σ , $\sigma(\theta)$. Trojan horse method. CONF Santa Tecla(Exper.Nucl.Astroph.) Proc.P242,Sparta
	2010TSZZ	NUCLEAR REACTIONS $^1\text{H}(^{24}\text{O}, ^{24}\text{O}')$, $E=63\text{ MeV / nucleon}$; measured E_{n} , I_{n} from decay of ^{24}O to $^{23}\text{O}+\text{n}$. ^{24}O deduced first 2^+ excited state. REPT RIKEN 2009 Annual,P10,Tshoo
	2010VAZW	NUCLEAR REACTIONS $^1\text{H}(^{21}\text{Ne}, ^{21}\text{Ne}')$, E not given [^{21}Ne from $^{181}\text{Ta}(^{40}\text{Ar}, \text{X})$, $E=63\text{ MeV}$ and isotope separation]; measured E_{γ} , I_{γ} , $\gamma\gamma$ -coin; deduced ^{21}N first two excited levels. REPT ATOMKI 2009 Annual,P26,Vajta
	2011K009	RADIOACTIVITY $^1\text{n}(\beta^-)$; measured E_{e} , I_{e} ; deduced bounds on scalar vs. tensor normalized couplings, T, P-correlation coefficients. JOUR APOBB 42 789

KEYNUMBERS AND KEYWORDS

A=2

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|--------------|----------|--|
| ^2n | 2010CH58 | NUCLEAR REACTIONS $^1\text{H}(\gamma, \text{K}^+)$, E=1.5-2.4 GeV; measured $\sigma(\theta)$, photon-beam asymmetry, polarized γ . Comparison with other data. JOUR NUPAB 835 239c |
| ^2H | 2011AG04 | NUCLEAR REACTIONS ^2H , $^6,7\text{Li}$, ^9Be , ^{13}C , $^{16}\text{O}(\text{K}^-, \pi^-)^7\text{Li}$ / ^9Be / ^{13}C / ^{16}O , E at rest; measured reaction products; deduced hypernuclei binding energies formation probabilities. FINUDA experiment. JOUR PYLBB 698 219 |
| | 2011GE01 | NUCLEAR REACTIONS $^1\text{H}(\text{polarized n}, \gamma)$, E=2-15 milli-eV; measured $E\gamma$, $I\gamma$, time-of-flight, photon circular polarization; deduced parity-violating up-down asymmetry A_γ asymmetry, and upper limit for the parity-allowed (PA) left-right asymmetry. $^{34}\text{Cl}(\text{polarized n}, \gamma)$, E=2-15 milli-eV, deduced large parity-odd A_γ asymmetry for test purpose. ^6Li , $^{27}\text{Al}(\text{polarized n}, \gamma)$, E=2-15 milli-eV; deduced false asymmetries to correct data for $^1\text{H}(\text{n}, \gamma)$. The NPDGamma collaboration using LANSCE spallation source. JOUR PRVCA 83 015505 |
| | 2011RA01 | NUCLEAR REACTIONS $^2\text{H}(\text{polarized d}, \text{d})$, (polarized d, X)E=65 MeV / nucleon; measured particle spectra, σ , (particle)(particle)-coin, TOF, vector and tensor polarizations of the beam, $E(\text{d})(\theta, \phi) - E(\text{p})(\theta, \phi)$ correlations using Big Instrument for Nuclear-polarization Analysis (BINA) system; deduced vector and tensor analyzing powers (T_{22} , T_{20} , iT_{11}), multibody final states. Three-body breakup mechanism. JOUR PRVCA 83 024002 |
| | 2011SU03 | NUCLEAR REACTIONS $^{208}\text{Pb}(^6\text{Li}, \text{X})^2\text{H}$ / ^4He , E=150 MeV / nucleon; measured reaction fragments, d- α -coin.; deduced Coulomb and nuclear contribution to $\sigma(\theta)$, $\sigma(E)$, S-factors, reaction rates. GEANT3 simulations. JOUR PPNPD 66 298 |

A=3

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|--------------|----------|---|
| ^3H | 2010SPZZ | NUCLEAR REACTIONS $^2\text{H}(^3\text{He}, \text{pt})$, E=17 MeV; measured $E(\text{particle})$, $I(\text{particle}, \theta)$. $^2\text{H}(\text{d}, \text{p})$, $E(\text{cm})=0-0.4$ MeV; deduced σ , $\sigma(\theta)$. Trojan horse method. CONF Santa Tecla(Exper.Nucl.Astrophy.) Proc.P242,Sparta |
| | 2011LU01 | NUCLEAR REACTIONS $^2\text{H}(\text{d}, \text{p})$, $E(\text{cm})=5.5-10$ keV; measured E_p , I_p ; deduced relative thick target yield of protons, screening energy. Comparison with theoretical calculations. JOUR CPCHC 35 26 |

A=4

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|---------------|----------|---|
| ^4He | 2009ASZZ | NUCLEAR REACTIONS $^4\text{He}(^{12}\text{C}, ^{12}\text{C}')$, E=46, 51, 56, 63 MeV; measured $E(\text{particle})$, $I(\text{particle}, \theta)$. ^{16}O deduced resonances, J, π , excitation energy spectra; calculated resonances using R-matrix. CONF Dub(Nucl Struct and Dynamics,09) Proc,P327 |
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KEYNUMBERS AND KEYWORDS

A=4 (*continued*)

- 2009BRZU NUCLEAR REACTIONS ${}^3\text{He}({}^3\text{He}, 2\text{p})$, $E=16\text{-}28$ keV; ${}^3\text{He}(\alpha, \gamma)$, $E(\text{cm})\approx 90\text{-}200$ keV; ${}^{14}\text{N}(\text{p}, \gamma)$, $E\approx 70\text{-}230$ keV; measured $E\gamma$, $I\gamma$; deduced S-factor, σ . Comparison with other data and calculations below $E(\text{cm})=1500$ keV. CONF Dub(Nucl Struct and Dynamics,09) Proc,P405
- 2009LIZU NUCLEAR REACTIONS ${}^1\text{H}({}^7\text{Li}, \alpha)$, $E=0.34\text{-}1.05$ MeV; measured σ ; calculated electron screening for different alloys used as targets. CONF Dub(Nucl Struct and Dynamics,09) Proc,P419
- 2010BIZZ NUCLEAR REACTIONS ${}^4\text{He}({}^{21}\text{Ne}, {}^{21}\text{Ne}')$, $E=39.5$ MeV; measured $E\alpha$, $I\alpha(\theta)$, $E\text{p}$, $I\text{p}(\theta)$; deduced $\sigma(\theta)$, resonances, R-matrix parameters. REPT RIKEN 2009 Annual,P29,Binh
- 2010YAZZ NUCLEAR REACTIONS ${}^4\text{He}({}^7\text{Li}, {}^7\text{Li})$, $E=13.7$ MeV; measured thick target $E\alpha$, $I\alpha$, $E(\text{particle})$, $I(\text{particle})$. REPT RIKEN 2009 Annual,P31,Yamaguchi
- 2011J002 NUCLEAR REACTIONS ${}^{16}\text{O}({}^{12}\text{C}, {}^2\text{C})$, $E=118.8$ MeV; measured reaction products, ${}^{12}\text{C}\text{-}{}^{12}\text{C}\text{-coin.}$; deduced $\sigma(\theta)$, $\sigma(\theta, E)$, optical potentials. Comparison with finite range DWIA framework. JOUR PRLTA 106 022501
- 2011SN01 NUCLEAR REACTIONS ${}^4\text{He}(\text{polarized } n, n)$, $E=\text{slow}$; measured neutron spin rotation angle per unit length; deduced upper bound on parity-violating neutron spin rotation. JOUR PRVCA 83 022501
- 2011SU03 NUCLEAR REACTIONS ${}^{208}\text{Pb}({}^6\text{Li}, \text{X}){}^2\text{H} / {}^4\text{He}$, $E=150$ MeV / nucleon; measured reaction fragments, $d\text{-}\alpha\text{-coin.}$; deduced Coulomb and nuclear contribution to $\sigma(\theta)$, $\sigma(E)$, S-factors, reaction rates. GEANT3 simulations. JOUR PPNPD 66 298

A=5

No references found

A=6

- ${}^6\text{Li}$ 2010HA28 NUCLEAR REACTIONS ${}^{208}\text{Pb}({}^6\text{Li}, d\alpha)$, $E=150$ MeV / nucleon; measured ${}^2\text{H}$ and α particle spectra, angles, positions and energy loss of ${}^2\text{H}$ and α particles, cross section, $\sigma(\theta)$ of excited ${}^6\text{Li}$; deduced $E1$, $E2$, and total S_{24} factors. Comparison with previous experimental data and GEANT simulations. ${}^2\text{H}(\alpha, \gamma)$; deduced astrophysical nuclear reaction rates from breakup of ${}^6\text{Li}$. Predictions for the ${}^6\text{Li} / {}^1\text{H}$ production ratio in Big Bang nucleosynthesis. JOUR PRVCA 82 065803
- 2010M030 ATOMIC MASSES ${}^6\text{Li}$, ${}^{23}\text{Na}$, ${}^{39,41}\text{K}$, ${}^{85,87}\text{Rb}$, ${}^{133}\text{Cs}$; measured cyclotron frequency ratios of pairs of ions simultaneously trapped in a Penning trap; deduced mass. Comparison with AME2003 and other experimental results. JOUR PLRAA 82 042513
- 2011AG04 NUCLEAR REACTIONS ${}^2\text{H}$, ${}^{6,7}\text{Li}$, ${}^9\text{Be}$, ${}^{13}\text{C}$, ${}^{16}\text{O}(\text{K}^-, \pi^-){}^7\text{Li} / {}^9\text{Be} / {}^{13}\text{C} / {}^{16}\text{O}$, E at rest; measured reaction products; deduced hypernuclei binding energies formation probabilities. FINUDA experiment. JOUR PYLBB 698 219

KEYNUMBERS AND KEYWORDS

A=7

⁷ He	2010FU13	NUCLEAR REACTIONS ⁷ Li, ¹² C, ²⁸ Si(E, EK ⁺) ⁷ He / ¹² B / ²⁸ Al, E=1.2 GeV; measured reaction products; deduced hypernuclear spectroscopy, missing mass spectrum. JOUR IMPEE 19 2480
	2010HA29	NUCLEAR REACTIONS ⁷ Li, ²⁸ Si(e, e'K ⁺), E=1.8 GeV; measured hypernuclei mass spectra. JOUR NUPAB 835 121c
	2010NIZY	NUCLEAR REACTIONS ² H(⁸ He, t), E=42 MeV / nucleon; measured triton E, I(θ=11-22 ⁰) of transitions to ground state; deduced σ(θ); calculated σ(α) using DWUCK5; deduced optical model parameters. REPT RIKEN 2009 Annual,P8,Nikolskii
⁷ Li	2009CAZT	NUCLEAR REACTIONS ⁷ Li(p, p'), E=57 MeV; measured E _p , I _p (θ); deduced σ(θ). CONF Dub(Nucl Struct and Dynamics,09) Proc,P309
	2010B021	RADIOACTIVITY ⁷ Li, ⁹ Be, ¹¹ B, ¹⁵ N(π ⁻); measured decay products; deduced mesonic weak decay kinetic energy spectra, decay constants. JOUR IMPEE 19 2566
	2011AG04	NUCLEAR REACTIONS ² H, ^{6,7} Li, ⁹ Be, ¹³ C, ¹⁶ O(K ⁻ , π ⁻) ⁷ Li / ⁹ Be / ¹³ C / ¹⁶ O, E at rest; measured reaction products; deduced hypernuclei binding energies formation probabilities. FINUDA experiment. JOUR PYLBB 698 219
	2011GE01	NUCLEAR REACTIONS ¹ H(polarized n, γ), E=2-15 milli-eV; measured E _γ , I _γ , time-of-flight, photon circular polarization; deduced parity-violating up-down asymmetry A _γ asymmetry, and upper limit for the parity-allowed (PA) left-right asymmetry. ³⁴ Cl(polarized n, γ), E=2-15 milli-eV, deduced large parity-odd A _γ asymmetry for test purpose. ⁶ Li, ²⁷ Al(polarized n, γ), E=2-15 milli-eV; deduced false asymmetries to correct data for ¹ H(n, γ). The NPDGamma collaboration using LANSCE spallation source. JOUR PRVCA 83 015505
⁷ Be	2009BRZU	NUCLEAR REACTIONS ³ He(³ He, 2p), E=16-28 keV; ³ He(α, γ), E(cm)≈90-200 keV; ¹⁴ N(p, γ), E≈70-230 keV; measured E _γ , I _γ ; deduced S-factor, σ. Comparison with other data and calculations below E(cm)=1500 keV. CONF Dub(Nucl Struct and Dynamics,09) Proc,P405
	2010B021	RADIOACTIVITY ⁷ Li, ⁹ Be, ¹¹ B, ¹⁵ N(π ⁻); measured decay products; deduced mesonic weak decay kinetic energy spectra, decay constants. JOUR IMPEE 19 2566
	2010MAZO	NUCLEAR REACTIONS ⁷ Li(p, n), E=1912 keV; ^{174,176} Yb, ^{184,186} W, ^{190,192} Os, ^{196,198} Pt, ²⁰² Hg(n, X), E≈low; measured E _γ , I _γ ; deduced Maxwellian averaged σ at 25 keV. Comparison with older measurements. CONF Santa Tecla(Exper.Nucl.Astrophy.) Proc.P219,Marganec
	2010TAZX	NUCLEAR MOMENTS ^{7,8,10,11} Be; measured halo nuclei charge radii using laser spectroscopy with ion trap. REPT RIKEN 2009 Annual,P21,Takamine

KEYNUMBERS AND KEYWORDS

A=8

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|---------------|----------|--|
| ^8He | 2010J007 | NUCLEAR REACTIONS $^1\text{H}(^{11}\text{Li}, 2n2p)$, $E=280$ MeV / nucleon; $^1\text{H}(^{14}\text{Be}, 2n2p)$, $E=304$ MeV / nucleon; measured fragment spectra, neutron spectra, (fragment)(neutron)-coin. ^{11}Li , ^{14}Be ; deduced energy, angular three-body correlation coefficients, reaction mechanism features including final state interactions. Comparison with three-body wave function analysis. JOUR NUPAB 847 66 |
| ^8Be | 2010TAZX | NUCLEAR MOMENTS $^{7,8,10,11}\text{Be}$; measured halo nuclei charge radii using laser spectroscopy with ion trap. REPT RIKEN 2009 Annual,P21,Takamine |
| | 2011RU01 | NUCLEAR REACTIONS $^7\text{Li}(^{18}\text{O}, ^{17}\text{N})^8\text{Be}$, $E=114$ MeV; measured ^{17}N spectra by E- Δ E method, $\sigma(\theta)$ for transitions to ground state of ^8Be and to ground and excited states of ^{17}N . $^{18}\text{O}(d, ^3\text{He})$, (d, d) , $E=52$ MeV; analyzed $\sigma(\theta)$ data for elastic scattering and for transitions to the excited states in ^{17}N ; deduced optical potentials for $^{17}\text{N}+^8\text{Be}$ and $^{17}\text{N}+^3\text{He}$ systems. Optical model analysis with in the coupled-reaction channels (CRC) method and using spectroscopic amplitudes from shell model calculations. JOUR PRVCA 83 024606 |
| | 2011ST01 | NUCLEAR REACTIONS $^{11}\text{B}(p, \alpha)$, $E=2.64$ MeV; measured $E\alpha$, $I\alpha$, α - α coin.; deduced implications on reaction model, astrophysical reaction rates. JOUR PYLBB 696 26 |

A=9

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|---------------|----------|--|
| ^9Li | 2010GA29 | NUCLEAR REACTIONS ^9B , ^{12}C , $^{16}\text{O}(E, EK)^9\text{Li}$ / ^{12}B / ^{16}N , $E=4$ GeV; measured reaction products; deduced $\sigma(\theta, E)$, hypernuclear levels and relative strengths. Comparison with theoretical calculations. JOUR IMPEE 19 2487 |
| ^9Be | 2010B021 | RADIOACTIVITY ^7Li , ^9Be , ^{11}B , $^{15}\text{N}(\pi^-)$; measured decay products; deduced mesonic weak decay kinetic energy spectra, decay constants. JOUR IMPEE 19 2566 |
| | 2011AG04 | NUCLEAR REACTIONS ^2H , $^{6,7}\text{Li}$, ^9Be , ^{13}C , $^{16}\text{O}(K^-, \pi^-)^7\text{Li}$ / ^9Be / ^{13}C / ^{16}O , E at rest; measured reaction products; deduced hypernuclei binding energies formation probabilities. FINUDA experiment. JOUR PYLBB 698 219 |
| ^9B | 2010B021 | RADIOACTIVITY ^7Li , ^9Be , ^{11}B , $^{15}\text{N}(\pi^-)$; measured decay products; deduced mesonic weak decay kinetic energy spectra, decay constants. JOUR IMPEE 19 2566 |

A=10

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| ^{10}Be | 2009J0ZY | NUCLEAR REACTIONS $^1,2\text{H}(^{11}\text{Be}, X)$, $E=2.25$ MeV / nucleon; measured E_p , $I_p(\theta)$, $E\alpha$, $I\alpha(\theta)$, $E(\text{particle})$, $I(\text{particle}, \theta)$. $^{10,11,12}\text{Be}$ deduced excitation spectra. Spectroscopic factors and $d\sigma$ to be deduced. CONF Dub(Nucl Struct and Dynamics,09) Proc,P321 |
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KEYNUMBERS AND KEYWORDS

A=10 (continued)

- 2009PRZW NUCLEAR REACTIONS ${}^7\text{Li}({}^7\text{Li}, \alpha)$, $E=2.75\text{-}10.00$ MeV; measured $\sigma(\theta=10^\circ)$, $\sigma(\theta=20^\circ)$. Also measured ${}^7\text{Li}({}^7\text{Li}, {}^3\text{H})$, ${}^6\text{Li}({}^7\text{Li}, \alpha)$ and ${}^6\text{Li}({}^7\text{Li}, {}^3\text{H})$, but the results are not given in the paper. CONF Dub(Nucl Struct and Dynamics,09) Proc,P349
- 2010TAZX NUCLEAR MOMENTS ${}^{7,8,10,11}\text{Be}$; measured halo nuclei charge radii using laser spectroscopy with ion trap. REPT RIKEN 2009 Annual,P21,Takamine

A=11

- ${}^{11}\text{Li}$ 2010J007 NUCLEAR REACTIONS ${}^1\text{H}({}^{11}\text{Li}, 2n2p)$, $E=280$ MeV / nucleon; ${}^1\text{H}({}^{14}\text{Be}, 2n2p)$, $E=304$ MeV / nucleon; measured fragment spectra, neutron spectra, (fragment)(neutron)-coin. ${}^{11}\text{Li}$, ${}^{14}\text{Be}$; deduced energy, angular three-body correlation coefficients, reaction mechanism features including final state interactions. Comparison with three-body wave function analysis. JOUR NUPAB 847 66
- ${}^{11}\text{Be}$ 2009J0ZY NUCLEAR REACTIONS ${}^{1,2}\text{H}({}^{11}\text{Be}, X)$, $E=2.25$ MeV / nucleon; measured E_p , $I_p(\theta)$, $E\alpha$, $I\alpha(\theta)$, $E(\text{particle})$, $I(\text{particle}, \theta)$. ${}^{10,11,12}\text{Be}$ deduced excitation spectra. Spectroscopic factors and $d\sigma$ to be deduced. CONF Dub(Nucl Struct and Dynamics,09) Proc,P321
- 2010TAZX NUCLEAR MOMENTS ${}^{7,8,10,11}\text{Be}$; measured halo nuclei charge radii using laser spectroscopy with ion trap. REPT RIKEN 2009 Annual,P21,Takamine
- 2010TAZY NUCLEAR MOMENTS ${}^{11}\text{Be}$; measured halo nuclei hyperfine structure, hyperfine constant. REPT RIKEN 2009 Annual,P20,Takamine
- ${}^{11}\text{B}$ 2010B021 RADIOACTIVITY ${}^7\text{Li}$, ${}^9\text{Be}$, ${}^{11}\text{B}$, ${}^{15}\text{N}(\pi^-)$; measured decay products; deduced mesonic weak decay kinetic energy spectra, decay constants. JOUR IMPEE 19 2566
- ${}^{11}\text{C}$ 2010B021 RADIOACTIVITY ${}^7\text{Li}$, ${}^9\text{Be}$, ${}^{11}\text{B}$, ${}^{15}\text{N}(\pi^-)$; measured decay products; deduced mesonic weak decay kinetic energy spectra, decay constants. JOUR IMPEE 19 2566

A=12

- ${}^{12}\text{Be}$ 2009J0ZY NUCLEAR REACTIONS ${}^{1,2}\text{H}({}^{11}\text{Be}, X)$, $E=2.25$ MeV / nucleon; measured E_p , $I_p(\theta)$, $E\alpha$, $I\alpha(\theta)$, $E(\text{particle})$, $I(\text{particle}, \theta)$. ${}^{10,11,12}\text{Be}$ deduced excitation spectra. Spectroscopic factors and $d\sigma$ to be deduced. CONF Dub(Nucl Struct and Dynamics,09) Proc,P321
- ${}^{12}\text{B}$ 2010FU13 NUCLEAR REACTIONS ${}^7\text{Li}$, ${}^{12}\text{C}$, ${}^{28}\text{Si}(E, EK^+){}^7\text{He}$ / ${}^{12}\text{B}$ / ${}^{28}\text{Al}$, $E=1.2$ GeV; measured reaction products; deduced hypernuclear spectroscopy, missing mass spectrum. JOUR IMPEE 19 2480
- 2010GA29 NUCLEAR REACTIONS ${}^9\text{B}$, ${}^{12}\text{C}$, ${}^{16}\text{O}(E, EK^+){}^9\text{Li}$ / ${}^{12}\text{B}$ / ${}^{16}\text{N}$, $E=4$ GeV; measured reaction products; deduced $\sigma(\theta, E)$, hypernuclear levels and relative strengths. Comparison with theoretical calculations. JOUR IMPEE 19 2487

KEYNUMBERS AND KEYWORDS

A=12 (continued)

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|-----------------|----------|--|
| ^{12}C | 2010BH10 | RADIOACTIVITY $^{12}\text{C}(\pi^-)$; measured decay products in Λ hypernuclei; deduced nonmesonic weak decay proton and neutron energy spectra, momentum sum yields. asymmetry parameter. Comparison with theoretical calculations. JOUR IMPEE 19 2558 |
| | 2010CAZR | NUCLEAR REACTIONS $^{15}\text{N}(\text{p}, \gamma)$, $E \approx 400$ keV, $(\text{p}, \alpha\gamma)$, $E=425-455$ keV; measured $E\gamma$, $I\gamma$. $^{15}\text{N}(\text{p}, \alpha\gamma)$, E not given; deduced beam-spot and off-spot yield. CONF Santa Tecla(Exper.Nucl.Astrophy.) Proc.P195,Capogrosso |
| | 2010MCZY | NUCLEAR REACTIONS $^{13}\text{C}(^{14}\text{C}, ^{15}\text{C})$, $(^{14}\text{C}, ^{14}\text{C})$, $E=12$ MeV / nucleon; measured reaction products; deduced $\sigma(\theta)$; calculated $\sigma(\theta)$ using optical model with JLM interaction, DWBA using PTOLEMY code. CONF Santa Tecla(Exper.Nucl.Astrophy.) Proc.P225,McCleskey |
| | 2010TA26 | NUCLEAR REACTIONS $^{12}\text{C}(\pi^+, \text{K}^+)$, E at 1.05 GeV / nucleon; measured $E\gamma$, $I\gamma$. ^{12}C deduced hypernuclei levels, J , π . JOUR NUPAB 835 3c |
| | 2011GA08 | NUCLEAR REACTIONS ^{12}C , $^{112,114,116,118,120,122,124}\text{Sn}$, $^{106,110,112,114,116}\text{Cd}(\alpha, \alpha')$, $E=386$ MeV; measured $E\alpha$, $I\alpha$. $^{112,114,116,118,120,122,124}\text{Sn}$, $^{106,110,112,114,116}\text{Cd}$; deduced Isoscalar Giant Monopole Resonance (ISGMR) strength distribution, incompressibility of nucleus systematics. JOUR APOBB 42 659 |
| | 2011GA09 | NUCLEAR REACTIONS $^{12}\text{C}(\gamma, 3\alpha)$, $E=9.51-11.14$ MeV; measured $E\alpha$, $I\alpha$, α - α - α -coin. ^{12}C ; deduced dissociation events, $\sigma(\theta)$ for E2 transition, ft^{-1} , 2^+ state below 10 MeV. JOUR APOBB 42 775 |
| | 2011MA04 | NUCLEAR REACTIONS $^{12}\text{C}(^{12}\text{C}, ^{12}\text{C})$, $(^{12}\text{C}, ^{12}\text{C}')$, $E=121.5$ MeV; measured reaction products; deduced $\sigma(\theta)$, diffraction radii, spectrum of scattered nuclei, properties of Hoyle states. JOUR PPNLA 8 31 |
| | 2011MA09 | NUCLEAR REACTIONS $^{14}\text{N}(\text{p}, \gamma)$, $^{15}\text{N}(\text{p}, \alpha\gamma)$ $E < 2.5$ MeV; measured $E\gamma$, $I\gamma$; deduced S-factors, proton resonances. R-matrix fits. JOUR PPNPD 66 303 |
| ^{12}N | 2010BH10 | RADIOACTIVITY $^{12}\text{C}(\pi^-)$; measured decay products in Λ hypernuclei; deduced nonmesonic weak decay proton and neutron energy spectra, momentum sum yields. asymmetry parameter. Comparison with theoretical calculations. JOUR IMPEE 19 2558 |
| ^{12}O | 2010SUZZ | NUCLEAR REACTIONS $^1\text{H}(^{14}\text{O}, \text{t})$, $E=51$ MeV / nucleon; measured triton E , I . ^{12}O deduced new excited unbound state using missing-mass spectroscopy. REPT RIKEN 2009 Annual,P9,Suzuki |

A=13

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| ^{13}C | 2010MCZY | NUCLEAR REACTIONS $^{13}\text{C}(^{14}\text{C}, ^{15}\text{C})$, $(^{14}\text{C}, ^{14}\text{C})$, $E=12$ MeV / nucleon; measured reaction products; deduced $\sigma(\theta)$; calculated $\sigma(\theta)$ using optical model with JLM interaction, DWBA using PTOLEMY code. CONF Santa Tecla(Exper.Nucl.Astrophy.) Proc.P225,McCleskey |
| | 2011AG04 | NUCLEAR REACTIONS ^2H , $^6,^7\text{Li}$, ^9Be , ^{13}C , $^{16}\text{O}(\text{K}^-, \pi^-)^7\text{Li}$ / ^9Be / ^{13}C / ^{16}O , E at rest; measured reaction products; deduced hypernuclei binding energies formation probabilities. FINUDA experiment. JOUR PYLBB 698 219 |

KEYNUMBERS AND KEYWORDS

A=14

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| ^{14}Be | 2010J007 | NUCLEAR REACTIONS $^1\text{H}(^{11}\text{Li}, 2n2p)$, $E=280$ MeV / nucleon; $^1\text{H}(^{14}\text{Be}, 2n2p)$, $E=304$ MeV / nucleon; measured fragment spectra, neutron spectra, (fragment)(neutron)-coin. ^{11}Li , ^{14}Be ; deduced energy, angular three-body correlation coefficients, reaction mechanism features including final state interactions. Comparison with three-body wave function analysis. JOUR NUPAB 847 66 |
| ^{14}B | 2011SA02 | NUCLEAR REACTIONS $^1\text{H}(^{14}\text{Be}, n)$, $E=69$ MeV / nucleon; measured reaction fragments, E_γ , I_γ ; deduced resonance parameters, energy spectrum, $\sigma(\theta)$, Gamow-Teller transition, J , π . DWBA calculations. JOUR PYLBB 697 459 |
| ^{14}N | 2011BE04 | NUCLEAR REACTIONS $\text{N}(p, X)^{14}\text{N}$, $E=6.55\text{-}25.0$ MeV; $\text{N}(\alpha, X)^{14}\text{N}$, $E=7.0\text{-}39.2$ MeV; $\text{Ne}(p, X)^{16}\text{O} / ^{20}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Na}$, $E=7.5\text{-}26.2$ MeV; $\text{Ne}(\alpha, X)^{16}\text{O} / ^{20}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Na}$, $E=10\text{-}39.2$ MeV; $\text{O}(p, X)^{16}\text{O}$, $E=15.0\text{-}26.2$ MeV; $\text{O}(\alpha, X)^{16}\text{O}$, $E=15.0\text{-}39.2$ MeV; $\text{Si}(p, X)^{28}\text{Si} / ^{29}\text{Si} / ^{30}\text{Si}$, $E=10.0\text{-}20.0$ MeV; measured E_γ , I_γ , $\sigma(E)$; deduced line shapes. ^{14}N , ^{16}O , $^{20,22}\text{Ne}$, ^{23}Na , $^{28,29,30}\text{Si}$; deduced levels, J , π , γ transitions, deformation parameters. Comparison with results from TALYS code. Relevance to modeling of γ rays in astrophysical applications. JOUR PRVCA 83 024603 |
| ^{14}O | 2010MU12 | NUCLEAR REACTIONS $^9\text{Be}(^{17}\text{Ne}, X)^{16}\text{Ne}$, $E=410$ MeV / nucleon; $^9\text{Be}(^{20}\text{Mg}, X)$, $E=450$ MeV / nucleon; measured E_p , I_p , $p(\text{heavy-ion})\text{-coin}$, $p(\text{heavy-ion})(\theta)$, $pp(\text{heavy-ion fragment})\text{-coin}$, $pp(\text{heavy-ion fragment})(\theta)$, Monte-Carlo simulations. ^{14}O , ^{15}F , ^{16}Ne ; deduced levels, J , resonances, proton-decay modes, widths. ^{17}Ne and ^{20}Mg beams from fragmentation of ^{24}Mg beam at 591 MeV / nucleon. JOUR PRVCA 82 054315 |
| | 2010MU12 | RADIOACTIVITY ^{15}F , $^{19}\text{Na}(p)$; $^{16}\text{Ne}(2p)$; measured E_p , I_p , $p(^{14}\text{O})\text{-coin}$, $p(^{14}\text{O})(\theta)$, $p(^{18}\text{Ne})\text{-coin}$, $p(^{18}\text{Ne})(\theta)$, $pp(^{14}\text{O})(\theta)$, $pp(^{14}\text{O})\text{-coin}$; deduced decay energies and widths. Monte-Carlo simulations of angular correlation spectra. JOUR PRVCA 82 054315 |

A=15

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| ^{15}N | 2010B021 | RADIOACTIVITY ^7Li , ^9Be , ^{11}B , $^{15}\text{N}(\pi^-)$; measured decay products; deduced mesonic weak decay kinetic energy spectra, decay constants. JOUR IMPEE 19 2566 |
| ^{15}O | 2009BRZU | NUCLEAR REACTIONS $^3\text{He}(^3\text{He}, 2p)$, $E=16\text{-}28$ keV; $^3\text{He}(\alpha, \gamma)$, $E(\text{cm})\approx 90\text{-}200$ keV; $^{14}\text{N}(p, \gamma)$, $E\approx 70\text{-}230$ keV; measured E_γ , I_γ ; deduced S-factor, σ . Comparison with other data and calculations below $E(\text{cm})=1500$ keV. CONF Dub(Nucl Struct and Dynamics,09) Proc,P405 |
| | 2010B021 | RADIOACTIVITY ^7Li , ^9Be , ^{11}B , $^{15}\text{N}(\pi^-)$; measured decay products; deduced mesonic weak decay kinetic energy spectra, decay constants. JOUR IMPEE 19 2566 |
| | 2010CAZS | NUCLEAR REACTIONS $^{14}\text{N}(p, \gamma)$, $E(\text{cm})=0\text{-}400$ keV; measured E_γ , I_γ ; deduced S-factor. Comparison with other data, R-matrix fit and NACRE extrapolation. CONF Santa Tecla(Exper.Nucl.Astrophy.) Proc.P192,Cacioli |

KEYNUMBERS AND KEYWORDS

A=15 (continued)

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| | 2010MAZN | NUCLEAR REACTIONS $^{14}\text{N}(\text{p}, \gamma)$, $E=1040, 1074, 1133$ keV; measured $E\gamma$, $I\gamma(\theta)$; deduced yields, 987 keV resonance decay. CONF Santa Tecla(Exper.Nucl.Astrophy.) Proc.P222,Marta |
| | 2011MA09 | NUCLEAR REACTIONS $^{14}\text{N}(\text{p}, \gamma)$, $^{15}\text{N}(\text{p}, \alpha\gamma)$ $E<2.5$ MeV; measured $E\gamma$, $I\gamma$; deduced S-factors, proton resonances. R-matrix fits. JOUR PPNPD 66 303 |
| ^{15}F | 2010MU12 | NUCLEAR REACTIONS $^9\text{Be}(^{17}\text{Ne}, \text{X})^{16}\text{Ne}$, $E=410$ MeV / nucleon; $^9\text{Be}(^{20}\text{Mg}, \text{X})$, $E=450$ MeV / nucleon; measured E_p , I_p , $p(\text{heavy-ion-coin})$, $p(\text{heavy-ion})(\theta)$, $pp(\text{heavy-ion fragment-coin})$, $pp(\text{heavy-ion fragment})(\theta)$, Monte-Carlo simulations. ^{14}O , ^{15}F , ^{16}Ne ; deduced levels, J, resonances, proton-decay modes, widths. ^{17}Ne and ^{20}Mg beams from fragmentation of ^{24}Mg beam at 591 MeV / nucleon. JOUR PRVCA 82 054315 |
| | 2010MU12 | RADIOACTIVITY ^{15}F , $^{19}\text{Na}(\text{p})$; $^{16}\text{Ne}(2\text{p})$; measured E_p , I_p , $p(^{14}\text{O})\text{-coin}$, $p(^{14}\text{O})(\theta)$, $p(^{18}\text{Ne})\text{-coin}$, $p(^{18}\text{Ne})(\theta)$, $pp(^{14}\text{O})(\theta)$, $pp(^{14}\text{O})\text{-coin}$; deduced decay energies and widths. Monte-Carlo simulations of angular correlation spectra. JOUR PRVCA 82 054315 |

A=16

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| ^{16}N | 2010GA29 | NUCLEAR REACTIONS ^9B , ^{12}C , $^{16}\text{O}(\text{E}, \text{EK}^+)^9\text{Li}$ / ^{12}B / ^{16}N , $E=4$ GeV; measured reaction products; deduced $\sigma(\theta, E)$, hypernuclear levels and relative strengths. Comparison with theoretical calculations. JOUR IMPEE 19 2487 |
| ^{16}O | 2009ASZZ | NUCLEAR REACTIONS $^4\text{He}(^{12}\text{C}, ^{12}\text{C}')$, $E=46, 51, 56, 63$ MeV; measured $E(\text{particle})$, $I(\text{particle}, \theta)$. ^{16}O deduced resonances, J, π , excitation energy spectra; calculated resonances using R-matrix. CONF Dub(Nucl Struct and Dynamics,09) Proc,P327 |
| | 2010CAZR | NUCLEAR REACTIONS $^{15}\text{N}(\text{p}, \gamma)$, $E\approx 400$ keV, $(\text{p}, \alpha\gamma)$, $E=425\text{-}455$ keV; measured $E\gamma$, $I\gamma$. $^{15}\text{N}(\text{p}, \alpha\gamma)$, E not given; deduced beam-spot and off-spot yield. CONF Santa Tecla(Exper.Nucl.Astrophy.) Proc.P195,Capogrosso |
| | 2010LE21 | NUCLEAR REACTIONS $^{15}\text{N}(\text{p}, \gamma)$, $E=130\text{-}1800$ keV; measured E_p , I_p , $E\gamma$, $I\gamma$, $\sigma(E)$, $\sigma(\theta)$; deduced resonances, branching ratios, astrophysical S factors and reaction rates. Multilevel R-matrix analysis. Implications for the first and second cycles of the CNO cycles. JOUR PRVCA 82 055804 |
| | 2011AG04 | NUCLEAR REACTIONS ^2H , $^{6,7}\text{Li}$, ^9Be , ^{13}C , $^{16}\text{O}(\text{K}^-, \pi^-)^7\text{Li}$ / ^9Be / ^{13}C / ^{16}O , E at rest; measured reaction products; deduced hypernuclei binding energies formation probabilities. FINUDA experiment. JOUR PYLBB 698 219 |

KEYNUMBERS AND KEYWORDS

A=16 (continued)

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| 2011BE04 | | NUCLEAR REACTIONS N(p, X) ¹⁴ N, E=6.55-25.0 MeV; N(α , X) ¹⁴ N, E=7.0-39.2 MeV; Ne(p, X) ¹⁶ O / ²⁰ Ne / ²² Ne / ²³ Na, E=7.5-26.2 MeV; Ne(α , X) ¹⁶ O / ²⁰ Ne / ²² Ne / ²³ Na, E=10-39.2 MeV; O(p, X) ¹⁶ O, E=15.0-26.2 MeV; O(α , X) ¹⁶ O, E=15.0-39.2 MeV; Si(p, X) ²⁸ Si / ²⁹ Si / ³⁰ Si, E=10.0-20.0 MeV; measured E γ , I γ , σ (E); deduced line shapes. ¹⁴ N, ¹⁶ O, ^{20,22} Ne, ²³ Na, ^{28,29,30} Si; deduced levels, J, π , γ transitions, deformation parameters. Comparison with results from TALYS code. Relevance to modeling of γ rays in astrophysical applications. JOUR PRVCA 83 024603 |
| ¹⁶ Ne | 2010MU12 | NUCLEAR REACTIONS ⁹ Be(¹⁷ Ne, X) ¹⁶ Ne, E=410 MeV / nucleon; ⁹ Be(²⁰ Mg, X), E=450 MeV / nucleon; measured Ep, Ip, p(heavy-ion)-coin, p(heavy-ion)(θ), pp(heavy-ion fragment)-coin, pp(heavy-ion fragment)(θ), Monte-Carlo simulations. ¹⁴ O, ¹⁵ F, ¹⁶ Ne; deduced levels, J, resonances, proton-decay modes, widths. ¹⁷ Ne and ²⁰ Mg beams from fragmentation of ²⁴ Mg beam at 591 MeV / nucleon. JOUR PRVCA 82 054315 |
| | 2010MU12 | RADIOACTIVITY ¹⁵ F, ¹⁹ Na(p); ¹⁶ Ne(2p); measured Ep, Ip, p(¹⁴ O)-coin, p(¹⁴ O)(θ), p(¹⁸ Ne)-coin, p(¹⁸ Ne)(θ), pp(¹⁴ O)(θ), pp(¹⁴ O)-coin; deduced decay energies and widths. Monte-Carlo simulations of angular correlation spectra. JOUR PRVCA 82 054315 |

A=17

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| ¹⁷ N | 2011RU01 | NUCLEAR REACTIONS ⁷ Li(¹⁸ O, ¹⁷ N) ⁸ Be, E=114 MeV; measured ¹⁷ N spectra by E- Δ E method, σ (θ) for transitions to ground state of ⁸ Be and to ground and excited states of ¹⁷ N. ¹⁸ O(d, ³ He), (d, d), E=52 MeV; analyzed σ (θ) data for elastic scattering and for transitions to the excited states in ¹⁷ N; deduced optical potentials for ¹⁷ N+ ⁸ Be and ¹⁷ N+ ³ He systems. Optical model analysis with in the coupled-reaction channels (CRC) method and using spectroscopic amplitudes from shell model calculations. JOUR PRVCA 83 024606 |
| ¹⁷ O | 2010M029 | ATOMIC MASSES ¹⁷ O; measured average cyclotron frequency ratios; deduced mass. Florida State University precision Penning-trap mass spectrometer, Dunham-Watson model. JOUR PLRAA 81 064501 |
| ¹⁷ Ne | 2010MU12 | NUCLEAR REACTIONS ⁹ Be(¹⁷ Ne, X) ¹⁶ Ne, E=410 MeV / nucleon; ⁹ Be(²⁰ Mg, X), E=450 MeV / nucleon; measured Ep, Ip, p(heavy-ion)-coin, p(heavy-ion)(θ), pp(heavy-ion fragment)-coin, pp(heavy-ion fragment)(θ), Monte-Carlo simulations. ¹⁴ O, ¹⁵ F, ¹⁶ Ne; deduced levels, J, resonances, proton-decay modes, widths. ¹⁷ Ne and ²⁰ Mg beams from fragmentation of ²⁴ Mg beam at 591 MeV / nucleon. JOUR PRVCA 82 054315 |

A=18

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| ^{18}O | 2011RU01 | NUCLEAR REACTIONS $^7\text{Li}(^{18}\text{O}, ^{17}\text{N})^8\text{Be}$, E=114 MeV; measured ^{17}N spectra by E- Δ E method, $\sigma(\theta)$ for transitions to ground state of ^8Be and to ground and excited states of ^{17}N . $^{18}\text{O}(\text{d}, ^3\text{He})$, (d, d), E=52 MeV; analyzed $\sigma(\theta)$ data for elastic scattering and for transitions to the excited states in ^{17}N ; deduced optical potentials for $^{17}\text{N}+^8\text{Be}$ and $^{17}\text{N}+^3\text{He}$ systems. Optical model analysis with in the coupled-reaction channels (CRC) method and using spectroscopic amplitudes from shell model calculations. JOUR PRVCA 83 024606 |
| ^{18}Ne | 2010MU12 | RADIOACTIVITY ^{15}F , $^{19}\text{Na}(\text{p})$; $^{16}\text{Ne}(2\text{p})$; measured E_p , I_p , $\text{p}(^{14}\text{O})$ -coin, $\text{p}(^{14}\text{O})(\theta)$, $\text{p}(^{18}\text{Ne})$ -coin, $\text{p}(^{18}\text{Ne})(\theta)$, $\text{pp}(^{14}\text{O})(\theta)$, $\text{pp}(^{14}\text{O})$ -coin; deduced decay energies and widths. Monte-Carlo simulations of angular correlation spectra. JOUR PRVCA 82 054315 |
| | 2010XU11 | NUCLEAR REACTIONS $^{197}\text{Au}(^{18}\text{Ne}, ^{18}\text{Ne}')$, E=51.8 MeV, [^{18}Ne secondary beam from $^9\text{Be}(^{20}\text{Ne}, \text{X})$, E=78.2 MeV / nucleon primary reaction]; measured $E\alpha$, time-of-flight, $(^{10}\text{C})\alpha\alpha$ -coin. ^{18}Ne ; deduced levels, $\alpha\alpha(\theta)$, relative momentum, sequential two-alpha emission via ^{14}O excited states. Monte-Carlo simulations. JOUR PRVCA 82 064316 |

A=19

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| ^{19}Na | 2010MU12 | RADIOACTIVITY ^{15}F , $^{19}\text{Na}(\text{p})$; $^{16}\text{Ne}(2\text{p})$; measured E_p , I_p , $\text{p}(^{14}\text{O})$ -coin, $\text{p}(^{14}\text{O})(\theta)$, $\text{p}(^{18}\text{Ne})$ -coin, $\text{p}(^{18}\text{Ne})(\theta)$, $\text{pp}(^{14}\text{O})(\theta)$, $\text{pp}(^{14}\text{O})$ -coin; deduced decay energies and widths. Monte-Carlo simulations of angular correlation spectra. JOUR PRVCA 82 054315 |
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A=20

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| ^{20}Ne | 2011BE04 | NUCLEAR REACTIONS $\text{N}(\text{p}, \text{X})^{14}\text{N}$, E=6.55-25.0 MeV; $\text{N}(\alpha, \text{X})^{14}\text{N}$, E=7.0-39.2 MeV; $\text{Ne}(\text{p}, \text{X})^{16}\text{O} / ^{20}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Na}$, E=7.5-26.2 MeV; $\text{Ne}(\alpha, \text{X})^{16}\text{O} / ^{20}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Na}$, E=10-39.2 MeV; $\text{O}(\text{p}, \text{X})^{16}\text{O}$, E=15.0-26.2 MeV; $\text{O}(\alpha, \text{X})^{16}\text{O}$, E=15.0-39.2 MeV; $\text{Si}(\text{p}, \text{X})^{28}\text{Si} / ^{29}\text{Si} / ^{30}\text{Si}$, E=10.0-20.0 MeV; measured $E\gamma$, $I\gamma$, $\sigma(E)$; deduced line shapes. ^{14}N , ^{16}O , $^{20,22}\text{Ne}$, ^{23}Na , $^{28,29,30}\text{Si}$; deduced levels, J, π , γ transitions, deformation parameters. Comparison with results from TALYS code. Relevance to modeling of γ rays in astrophysical applications. JOUR PRVCA 83 024603 |
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A=21

No references found

A=22

- ²²Ne 2011BE04 NUCLEAR REACTIONS N(p, X)¹⁴N, E=6.55-25.0 MeV; N(α , X)¹⁴N, E=7.0-39.2 MeV; Ne(p, X)¹⁶O / ²⁰Ne / ²²Ne / ²³Na, E=7.5-26.2 MeV; Ne(α , X)¹⁶O / ²⁰Ne / ²²Ne / ²³Na, E=10-39.2 MeV; O(p, X)¹⁶O, E=15.0-26.2 MeV; O(α , X)¹⁶O, E=15.0-39.2 MeV; Si(p, X)²⁸Si / ²⁹Si / ³⁰Si, E=10.0-20.0 MeV; measured E γ , I γ , σ (E); deduced line shapes. ¹⁴N, ¹⁶O, ^{20,22}Ne, ²³Na, ^{28,29,30}Si; deduced levels, J, π , γ transitions, deformation parameters. Comparison with results from TALYS code. Relevance to modeling of γ rays in astrophysical applications. JOUR PRVCA 83 024603
- 2011DE01 RADIOACTIVITY ¹⁵²Eu(β^-), (β^+), (EC), ¹³⁷Cs(β^-), ²²Na, ⁵⁴Mn(EC); measured E γ , I γ , x-rays; deduced decay constant ratio. JOUR ARISE 69 320
- 2011FR01 RADIOACTIVITY ²²Na(β^+); measured positron annihilation lifetime spectra and time delay between the ²²Na decay and positron annihilation using fast coincidence system and organic scintillators; deduced ortho-positronium formation probability and mean lifetime. Relevance to properties of popular organic liquid scintillators used in neutrino physics. JOUR PRVCA 83 015504
- ²²Na 2011DE01 RADIOACTIVITY ¹⁵²Eu(β^-), (β^+), (EC), ¹³⁷Cs(β^-), ²²Na, ⁵⁴Mn(EC); measured E γ , I γ , x-rays; deduced decay constant ratio. JOUR ARISE 69 320
- 2011FR01 RADIOACTIVITY ²²Na(β^+); measured positron annihilation lifetime spectra and time delay between the ²²Na decay and positron annihilation using fast coincidence system and organic scintillators; deduced ortho-positronium formation probability and mean lifetime. Relevance to properties of popular organic liquid scintillators used in neutrino physics. JOUR PRVCA 83 015504
- 2011TA03 NUCLEAR REACTIONS Sn(d, xn)¹¹⁵Sb / ¹¹⁶Sb / ¹¹⁷Sb / ¹¹⁸Sb / ¹²⁰Sb / ¹²²Sb / ¹²⁴Sb / ¹²⁵Sb, E<40 MeV; Ti(d, X)⁴⁸V, Al(d, X)²²Na / ²⁴Na, E<40 MeV; measured E γ , I γ ; deduced σ . Comparison with ALICE-IPPE, EMPIRE nuclear model calculations, TENDL nuclear data library, experimental data. JOUR NIMBE 269 405
- ²²Mg 2010SIZX RADIOACTIVITY ²³Al, ³¹Cl(β^+), (p); measured E p , I p , E γ , I γ , E β , I β , $p\gamma$ -coin, $\beta\gamma$ -coin. CONF Santa Tecla(Exper.Nucl.Astrophy.) Proc.P239,Simmons

A=23

- ²³Na 2010M030 ATOMIC MASSES ⁶Li, ²³Na, ^{39,41}K, ^{85,87}Rb, ¹³³Cs; measured cyclotron frequency ratios of pairs of ions simultaneously trapped in a Penning trap; deduced mass. Comparison with AME2003 and other experimental results. JOUR PLRAA 82 042513

KEYNUMBERS AND KEYWORDS

A=23 (continued)

- 2011BE04 NUCLEAR REACTIONS N(p, X)¹⁴N, E=6.55-25.0 MeV; N(α , X)¹⁴N, E=7.0-39.2 MeV; Ne(p, X)¹⁶O / ²⁰Ne / ²²Ne / ²³Na, E=7.5-26.2 MeV; Ne(α , X)¹⁶O / ²⁰Ne / ²²Ne / ²³Na, E=10-39.2 MeV; O(p, X)¹⁶O, E=15.0-26.2 MeV; O(α , X)¹⁶O, E=15.0-39.2 MeV; Si(p, X)²⁸Si / ²⁹Si / ³⁰Si, E=10.0-20.0 MeV; measured E γ , I γ , σ (E); deduced line shapes. ¹⁴N, ¹⁶O, ^{20,22}Ne, ²³Na, ^{28,29,30}Si; deduced levels, J, π , γ transitions, deformation parameters. Comparison with results from TALYS code. Relevance to modeling of γ rays in astrophysical applications. JOUR PRVCA 83 024603
- ²³Mg 2010SIZX RADIOACTIVITY ²³Al, ³¹Cl(β^+), (p); measured Ep, Ip, E γ , I γ , E β , I β , p γ -coin, $\beta\gamma$ -coin. CONF Santa Tecla(Exper.Nucl.Astrophy.) Proc.P239,Simmons
- ²³Al 2010SIZX RADIOACTIVITY ²³Al, ³¹Cl(β^+), (p); measured Ep, Ip, E γ , I γ , E β , I β , p γ -coin, $\beta\gamma$ -coin. CONF Santa Tecla(Exper.Nucl.Astrophy.) Proc.P239,Simmons
- 2010TRZZ NUCLEAR REACTIONS ¹²C(³²S, X), E=95 MeV / nucleon. ²³Al, ²⁴Si measured breakup momentum distribution; calculated momentum distribution. Deduced ²³Al(p, γ) S-factor. CONF Santa Tecla(Exper.Nucl.Astrophy.) Proc.P125,Trache

A=24

- ²⁴O 2010TSZZ NUCLEAR REACTIONS ¹H(²⁴O, ²⁴O'), E=63 MeV / nucleon; measured En, In from decay of ²⁴O to ²³O+n. ²⁴O deduced first 2⁺ excited state. REPT RIKEN 2009 Annual,P10,Tshoo
- ²⁴Na 2011PU01 NUCLEAR REACTIONS ²⁷Al, ^{118,120}Sn(n, α), ⁹⁰Zr(n, 2n), E=13.5-14.6 MeV; measured E γ , I γ ; deduced σ . Comparison with ENDF / B-VII.0, CENDL-3.1, JENDL-4.0 evaluated neutron libraries. JOUR JRNCD 288 507
- 2011TA03 NUCLEAR REACTIONS Sn(d, xn)¹¹⁵Sb / ¹¹⁶Sb / ¹¹⁷Sb / ¹¹⁸Sb / ¹²⁰Sb / ¹²²Sb / ¹²⁴Sb / ¹²⁵Sb, E<40 MeV; Ti(d, X)⁴⁸V, Al(d, X)²²Na / ²⁴Na, E<40 MeV; measured E γ , I γ ; deduced σ . Comparison with ALICE-IPPE, EMPIRE nuclear model calculations, TENDL nuclear data library, experimental data. JOUR NIMBE 269 405
- 2011TS02 NUCLEAR REACTIONS ¹⁹⁷Au(n, 2n), E=9.0, 9.5, 10.0, 10.5 MeV; ²⁷Al(n, α), E=3.5 MeV; measured E γ , I γ ; deduced cross section for 9.7-h isomer of ¹⁹⁶Au, for ground state and 8.1-s isomer of ¹⁹⁶Au relative to that of ²⁷Al(n, α)²⁴Na reaction. Comparison with calculations using STAPRE-F, EMPIRE, and TALYS codes employing the exciton model and Hauser-Feshbach theory. JOUR PRVCA 83 024609
- 2011ZH04 NUCLEAR REACTIONS ^{58,60,61,62}Ni(n, p), ²⁷Al(n, α), E \approx 14 MeV; measured reaction products, E γ , I γ ; deduced σ . Comparison with experimental and evaluated data. JOUR NIMBE 269 642
- ²⁴Al 2010ICZZ RADIOACTIVITY ²⁴Si(β^+)[from ²⁸Si fragmentation]; measured delayed E γ , I γ , delayed Ep, Ip. ²⁴Si deduced decay scheme, β -branching, γ -branching, B(GT), wave function configuration. ²⁴Al deduced bound 1⁺ states. REPT RIKEN 2009 Annual,P11,Ichikawa

KEYNUMBERS AND KEYWORDS

A=24 (continued)

- ²⁴Si 2010ICZZ RADIOACTIVITY ²⁴Si(β^+)[from ²⁸Si fragmentation]; measured delayed E γ , I γ , delayed Ep, Ip. ²⁴Si deduced decay scheme, β -branching, γ -branching, B(GT), wave function configuration. ²⁴Al deduced bound 1⁺ states. REPT RIKEN 2009 Annual,P11,Ichikawa
- 2010TRZZ NUCLEAR REACTIONS ¹²C(³²S, X), E=95 MeV / nucleon. ²³Al, ²⁴Si measured breakup momentum distribution; calculated momentum distribution. Deduced ²³Al(p, γ) S-factor. CONF Santa Tecla(Exper.Nucl.Astrophy.) Proc.P125,Trache

A=25

No references found

A=26

- ²⁶Mg 2011FI01 RADIOACTIVITY ²⁶Al(β^+) [from Si(p, X), E=500 MeV]; measured decay products; deduced T_{1/2}. Comparison with Skyrme-Hartree-Fock calculations. JOUR PRLTA 106 032501
- ²⁶Al 2011FI01 RADIOACTIVITY ²⁶Al(β^+) [from Si(p, X), E=500 MeV]; measured decay products; deduced T_{1/2}. Comparison with Skyrme-Hartree-Fock calculations. JOUR PRLTA 106 032501

A=27

No references found

A=28

- ²⁸Al 2010FU13 NUCLEAR REACTIONS ⁷Li, ¹²C, ²⁸Si(E, EK⁺)⁷He / ¹²B / ²⁸Al, E=1.2 GeV; measured reaction products; deduced hypernuclear spectroscopy, missing mass spectrum. JOUR IMPEE 19 2480
- 2010HA29 NUCLEAR REACTIONS ⁷Li, ²⁸Si(e, e'K⁺), E=1.8 GeV; measured hypernuclei mass spectra. JOUR NUPAB 835 121c
- 2011GE01 NUCLEAR REACTIONS ¹H(polarized n, γ), E=2-15 milli-eV; measured E γ , I γ , time-of-flight, photon circular polarization; deduced parity-violating up-down asymmetry A γ asymmetry, and upper limit for the parity-allowed (PA) left-right asymmetry. ³⁴Cl(polarized n, γ), E=2-15 milli-eV, deduced large parity-odd A γ asymmetry for test purpose. ⁶Li, ²⁷Al(polarized n, γ), E=2-15 milli-eV; deduced false asymmetries to correct data for ¹H(n, γ). The NPDGamma collaboration using LANSCE spallation source. JOUR PRVCA 83 015505

A=28 (continued)

- ²⁸Si 2009LEZR NUCLEAR REACTIONS $^{12}\text{C}(^{16}\text{O}, \gamma)$, E=19.8, 20.5, 21 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, (recoil) γ -coin; calculated $E\gamma$, $I\gamma$ using statistical and cluster scenarii; deduced deformed prolate band J, π , σ (radiative capture). CONF Dub(Nucl Struct and Dynamics,09) Proc,P331
- 2011BE04 NUCLEAR REACTIONS $\text{N}(\text{p}, \text{X})^{14}\text{N}$, E=6.55-25.0 MeV; $\text{N}(\alpha, \text{X})^{14}\text{N}$, E=7.0-39.2 MeV; $\text{Ne}(\text{p}, \text{X})^{16}\text{O} / ^{20}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Na}$, E=7.5-26.2 MeV; $\text{Ne}(\alpha, \text{X})^{16}\text{O} / ^{20}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Na}$, E=10-39.2 MeV; $\text{O}(\text{p}, \text{X})^{16}\text{O}$, E=15.0-26.2 MeV; $\text{O}(\alpha, \text{X})^{16}\text{O}$, E=15.0-39.2 MeV; $\text{Si}(\text{p}, \text{X})^{28}\text{Si} / ^{29}\text{Si} / ^{30}\text{Si}$, E=10.0-20.0 MeV; measured $E\gamma$, $I\gamma$, $\sigma(\text{E})$; deduced line shapes. ^{14}N , ^{16}O , $^{20,22}\text{Ne}$, ^{23}Na , $^{28,29,30}\text{Si}$; deduced levels, J, π , γ transitions, deformation parameters. Comparison with results from TALYS code. Relevance to modeling of γ rays in astrophysical applications. JOUR PRVCA 83 024603
- 2011C005 NUCLEAR REACTIONS $^{12}\text{C}(^{16}\text{O}, \gamma)^{28}\text{Si}$, E=34 MeV; measured reaction products, $E\gamma$, $I\gamma$; deduced σ , doorway transition mechanism. JOUR APOBB 42 757
- 2011L002 NUCLEAR REACTIONS $^{28}\text{Si}(\alpha, \alpha)$, E=22-30 MeV; measured reaction products; deduced $\sigma(\theta)$, energies, spins and widths of strong resonances, α -cluster levels, cross section reduction at high energies. Comparison with R-matrix fit. JOUR JPGPE 38 035107

A=29

- ²⁹Si 2011BE04 NUCLEAR REACTIONS $\text{N}(\text{p}, \text{X})^{14}\text{N}$, E=6.55-25.0 MeV; $\text{N}(\alpha, \text{X})^{14}\text{N}$, E=7.0-39.2 MeV; $\text{Ne}(\text{p}, \text{X})^{16}\text{O} / ^{20}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Na}$, E=7.5-26.2 MeV; $\text{Ne}(\alpha, \text{X})^{16}\text{O} / ^{20}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Na}$, E=10-39.2 MeV; $\text{O}(\text{p}, \text{X})^{16}\text{O}$, E=15.0-26.2 MeV; $\text{O}(\alpha, \text{X})^{16}\text{O}$, E=15.0-39.2 MeV; $\text{Si}(\text{p}, \text{X})^{28}\text{Si} / ^{29}\text{Si} / ^{30}\text{Si}$, E=10.0-20.0 MeV; measured $E\gamma$, $I\gamma$, $\sigma(\text{E})$; deduced line shapes. ^{14}N , ^{16}O , $^{20,22}\text{Ne}$, ^{23}Na , $^{28,29,30}\text{Si}$; deduced levels, J, π , γ transitions, deformation parameters. Comparison with results from TALYS code. Relevance to modeling of γ rays in astrophysical applications. JOUR PRVCA 83 024603

A=30

- ³⁰Si 2011BE04 NUCLEAR REACTIONS $\text{N}(\text{p}, \text{X})^{14}\text{N}$, E=6.55-25.0 MeV; $\text{N}(\alpha, \text{X})^{14}\text{N}$, E=7.0-39.2 MeV; $\text{Ne}(\text{p}, \text{X})^{16}\text{O} / ^{20}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Na}$, E=7.5-26.2 MeV; $\text{Ne}(\alpha, \text{X})^{16}\text{O} / ^{20}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Na}$, E=10-39.2 MeV; $\text{O}(\text{p}, \text{X})^{16}\text{O}$, E=15.0-26.2 MeV; $\text{O}(\alpha, \text{X})^{16}\text{O}$, E=15.0-39.2 MeV; $\text{Si}(\text{p}, \text{X})^{28}\text{Si} / ^{29}\text{Si} / ^{30}\text{Si}$, E=10.0-20.0 MeV; measured $E\gamma$, $I\gamma$, $\sigma(\text{E})$; deduced line shapes. ^{14}N , ^{16}O , $^{20,22}\text{Ne}$, ^{23}Na , $^{28,29,30}\text{Si}$; deduced levels, J, π , γ transitions, deformation parameters. Comparison with results from TALYS code. Relevance to modeling of γ rays in astrophysical applications. JOUR PRVCA 83 024603

KEYNUMBERS AND KEYWORDS

A=30 (continued)

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|-----------------|----------|---|
| ^{30}S | 2010SEZX | NUCLEAR REACTIONS $^{32}\text{S}(p, t)$, $E=33.5, 34.5$ MeV; measured $E(\text{particle})$, $I(\text{particle}, \theta)$. ^{30}S deduced levels, E . Further elaboration in progress. CONF Santa Tecla(Exper.Nucl.Astrophy.) Proc.P235,Setoodehnia |
| | 2010SIZX | RADIOACTIVITY ^{23}Al , $^{31}\text{Cl}(\beta^+)$, (p); measured E_p , I_p , E_γ , I_γ , $E\beta$, $I\beta$, $p\gamma$ -coin, $\beta\gamma$ -coin. CONF Santa Tecla(Exper.Nucl.Astrophy.) Proc.P239,Simmons |
| | 2010TRZZ | RADIOACTIVITY $^{31}\text{Cl}(\beta^+)$, (p); measured E_γ , I_γ , $\beta\gamma$ -coin; deduced ^{31}S isobaric analog state, mass excess. CONF Santa Tecla(Exper.Nucl.Astrophy.) Proc.P125,Trache |
| | 2011SE03 | NUCLEAR REACTIONS $^{28}\text{Si}(^3\text{He}, n)$, $E=9$ MeV; measured E_γ , I_γ , $\gamma\gamma$ -coin, natural Si target. ^{30}S ; deduced levels, J , π . Comparison with mirror nucleus ^{30}Si . Astrophysical relevance to the reaction rates for $^{29}\text{P}(p, \gamma)$. JOUR PRVCA 83 018803 |

A=31

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|------------------|----------|--|
| ^{31}Mg | 2010Y008 | NUCLEAR MOMENTS $^{31,33}\text{Mg}$; measured hyperfine structure using collinear laser spectroscopy following β^- decay, β (asymmetry) at ISOLDE-CERN; deduced spins, magnetic moments. Evidence for collectivity and relevance to island of Inversion. JOUR HYIND 196 53 |
| | 2010Y008 | RADIOACTIVITY $^{31,33}\text{Mg}(\beta^-)$ [from $U(p, X)$, $E=1.4$ GeV]; measured β asymmetry; deduced spins and parities. JOUR HYIND 196 53 |
| ^{31}Al | 2010Y008 | RADIOACTIVITY $^{31,33}\text{Mg}(\beta^-)$ [from $U(p, X)$, $E=1.4$ GeV]; measured β asymmetry; deduced spins and parities. JOUR HYIND 196 53 |
| ^{31}P | 2010KA30 | RADIOACTIVITY $^{31}\text{S}(\text{EC})$ [from $^{32}\text{S}(p, pn)$, $E=40$ MeV]; measured mass using IGISOL and JYFLTRAP facilities; deduced Q value, logft. ^{32}S , ^{32}Cl , $^{32}\text{Ar}(\text{EC})$; analyzed Q values, logft. Implication for superallowed β decay of ^{32}Ar . JOUR PRVCA 82 052501 |
| ^{31}S | 2010KA30 | ATOMIC MASSES ^{31}S ; measured mass by time-of-flight (TOF) ion-cyclotron resonance method using JYFLTRAP double Penning trap mass spectrometer using ^{31}P as reference; deduced mass excess and Q value for EC decay. ^{32}Cl ; analyzed mass excess from $S(p)$; deduced improved $Q(\varepsilon)$ value and logft. ^{32}Si , ^{32}P , ^{32}S , ^{32}Cl , ^{32}Ar ; analyzed isobaric mass multiplet equation (IMME) for $A=32$, $T=2$ quintet. Comparison of masses with previous measurements and evaluations. JOUR PRVCA 82 052501 |
| | 2010KA30 | RADIOACTIVITY $^{31}\text{S}(\text{EC})$ [from $^{32}\text{S}(p, pn)$, $E=40$ MeV]; measured mass using IGISOL and JYFLTRAP facilities; deduced Q value, logft. ^{32}S , ^{32}Cl , $^{32}\text{Ar}(\text{EC})$; analyzed Q values, logft. Implication for superallowed β decay of ^{32}Ar . JOUR PRVCA 82 052501 |
| | 2010SIZX | RADIOACTIVITY ^{23}Al , $^{31}\text{Cl}(\beta^+)$, (p); measured E_p , I_p , E_γ , I_γ , $E\beta$, $I\beta$, $p\gamma$ -coin, $\beta\gamma$ -coin. CONF Santa Tecla(Exper.Nucl.Astrophy.) Proc.P239,Simmons |
| | 2010TRZZ | RADIOACTIVITY $^{31}\text{Cl}(\beta^+)$, (p); measured E_γ , I_γ , $\beta\gamma$ -coin; deduced ^{31}S isobaric analog state, mass excess. CONF Santa Tecla(Exper.Nucl.Astrophy.) Proc.P125,Trache |

KEYNUMBERS AND KEYWORDS

A=31 (continued)

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|------------------|----------|---|
| ^{31}Cl | 2010SIZX | RADIOACTIVITY ^{23}Al , $^{31}\text{Cl}(\beta^+)$, (p); measured E_p , I_p , E_γ , I_γ , E_β , I_β , $p\gamma$ -coin, $\beta\gamma$ -coin. CONF Santa Tecla(Exper.Nucl.Astrophy.) Proc.P239,Simmons |
| | 2010TRZZ | RADIOACTIVITY $^{31}\text{Cl}(\beta^+)$, (p); measured E_γ , I_γ , $\beta\gamma$ -coin; deduced ^{31}S isobaric analog state, mass excess. CONF Santa Tecla(Exper.Nucl.Astrophy.) Proc.P125,Trache |

A=32

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|------------------|----------|--|
| ^{32}Mg | 2011KA01 | NUCLEAR REACTIONS C, H(^{32}Mg , X), (^{33}Mg , X)(^{34}Mg , X)(^{35}Mg , X), E=900 MeV / nucleon, [secondary Mg beams from Be(^{48}Ca , X) primary reaction]; measured interaction cross sections by detecting unreacted Mg particles by $B\rho$ - ΔE -TOF method. $^{32,33,34,35}\text{Mg}$; deduced matter radii by Glauber model analysis. Comparison with HF and RMF predictions. Neutron skin thickness. JOUR PRVCA 83 021302 |
| ^{32}Si | 2010KA30 | ATOMIC MASSES ^{31}S ; measured mass by time-of-flight (TOF) ion-cyclotron resonance method using JYFLTRAP double Penning trap mass spectrometer using ^{31}P as reference; deduced mass excess and Q value for EC decay. ^{32}Cl ; analyzed mass excess from S(p); deduced improved Q(ε) value and logft. ^{32}Si , ^{32}P , ^{32}S , ^{32}Cl , ^{32}Ar ; analyzed isobaric mass multiplet equation (IMME) for A=32, T=2 quintet. Comparison of masses with previous measurements and evaluations. JOUR PRVCA 82 052501 |
| ^{32}P | 2010KA30 | ATOMIC MASSES ^{31}S ; measured mass by time-of-flight (TOF) ion-cyclotron resonance method using JYFLTRAP double Penning trap mass spectrometer using ^{31}P as reference; deduced mass excess and Q value for EC decay. ^{32}Cl ; analyzed mass excess from S(p); deduced improved Q(ε) value and logft. ^{32}Si , ^{32}P , ^{32}S , ^{32}Cl , ^{32}Ar ; analyzed isobaric mass multiplet equation (IMME) for A=32, T=2 quintet. Comparison of masses with previous measurements and evaluations. JOUR PRVCA 82 052501 |
| | 2010KA30 | RADIOACTIVITY $^{31}\text{S}(\text{EC})$ [from $^{32}\text{S}(p, pn)$, E=40 MeV]; measured mass using IGISOL and JYFLTRAP facilities; deduced Q value, logft. ^{32}S , ^{32}Cl , $^{32}\text{Ar}(\text{EC})$; analyzed Q values, logft. Implication for superallowed β decay of ^{32}Ar . JOUR PRVCA 82 052501 |
| ^{32}S | 2010KA30 | ATOMIC MASSES ^{31}S ; measured mass by time-of-flight (TOF) ion-cyclotron resonance method using JYFLTRAP double Penning trap mass spectrometer using ^{31}P as reference; deduced mass excess and Q value for EC decay. ^{32}Cl ; analyzed mass excess from S(p); deduced improved Q(ε) value and logft. ^{32}Si , ^{32}P , ^{32}S , ^{32}Cl , ^{32}Ar ; analyzed isobaric mass multiplet equation (IMME) for A=32, T=2 quintet. Comparison of masses with previous measurements and evaluations. JOUR PRVCA 82 052501 |
| | 2010KA30 | RADIOACTIVITY $^{31}\text{S}(\text{EC})$ [from $^{32}\text{S}(p, pn)$, E=40 MeV]; measured mass using IGISOL and JYFLTRAP facilities; deduced Q value, logft. ^{32}S , ^{32}Cl , $^{32}\text{Ar}(\text{EC})$; analyzed Q values, logft. Implication for superallowed β decay of ^{32}Ar . JOUR PRVCA 82 052501 |

A=32 (continued)

- ³²Cl 2010KA30 ATOMIC MASSES ³¹S; measured mass by time-of-flight (TOF) ion-cyclotron resonance method using JYFLTRAP double Penning trap mass spectrometer using ³¹P as reference; deduced mass excess and Q value for EC decay. ³²Cl; analyzed mass excess from S(p); deduced improved Q(ε) value and logft. ³²Si, ³²P, ³²S, ³²Cl, ³²Ar; analyzed isobaric mass multiplet equation (IMME) for A=32, T=2 quintet. Comparison of masses with previous measurements and evaluations. JOUR PRVCA 82 052501
- 2010KA30 RADIOACTIVITY ³¹S(EC)[from ³²S(p, pn), E=40 MeV]; measured mass using IGISOL and JYFLTRAP facilities; deduced Q value, logft. ³²S, ³²Cl, ³²Ar(EC); analyzed Q values, logft. Implication for superallowed β decay of ³²Ar. JOUR PRVCA 82 052501
- ³²Ar 2010KA30 ATOMIC MASSES ³¹S; measured mass by time-of-flight (TOF) ion-cyclotron resonance method using JYFLTRAP double Penning trap mass spectrometer using ³¹P as reference; deduced mass excess and Q value for EC decay. ³²Cl; analyzed mass excess from S(p); deduced improved Q(ε) value and logft. ³²Si, ³²P, ³²S, ³²Cl, ³²Ar; analyzed isobaric mass multiplet equation (IMME) for A=32, T=2 quintet. Comparison of masses with previous measurements and evaluations. JOUR PRVCA 82 052501
- 2010KA30 RADIOACTIVITY ³¹S(EC)[from ³²S(p, pn), E=40 MeV]; measured mass using IGISOL and JYFLTRAP facilities; deduced Q value, logft. ³²S, ³²Cl, ³²Ar(EC); analyzed Q values, logft. Implication for superallowed β decay of ³²Ar. JOUR PRVCA 82 052501

A=33

- ³³Na 2011GAZZ NUCLEAR REACTIONS ⁹Be(³⁸Si, X)³³Na / ³⁵Mg / ³⁶Mg / ³⁸Si, E=83 MeV / nucleon, [secondary ³⁸Si beam from ⁹Be(⁴⁸Ca, X), E=140 MeV / nucleon primary reaction]; measured E γ , production σ , (³³Na) γ -, (³⁵Mg) γ -coin. using SeGA array. ³³Na, ³⁵Mg; deduced levels, J, π , rotational band in ³³Na. Comparison with large-scale Monte-Carlo shell model (MCSM) calculations with SDPF-M interaction, and with large-scale shell-model calculations with SDPF-U interaction. Calculated composition of ³⁵Mg wave functions, quadrupole moments and B(E2) values. Systematics of S(n) for A=30-35 Mg nuclei. Relevance to Island of Inversion. PREPRINT arXiv:1103.2413v2 [nucl-ex]
- ³³Mg 2010Y008 NUCLEAR MOMENTS ^{31,33}Mg; measured hyperfine structure using collinear laser spectroscopy following β^- decay, β (asymmetry) at ISOLDE-CERN; deduced spins, magnetic moments. Evidence for collectivity and relevance to island of Inversion. JOUR HYIND 196 53
- 2010Y008 RADIOACTIVITY ^{31,33}Mg(β^-)[from U(p, X), E=1.4 GeV]; measured β asymmetry; deduced spins and parities. JOUR HYIND 196 53

A=33 (continued)

- 2011KA01 NUCLEAR REACTIONS C, H(^{32}Mg , X), (^{33}Mg , X)(^{34}Mg , X)(^{35}Mg , X), E=900 MeV / nucleon, [secondary Mg beams from Be(^{48}Ca , X) primary reaction]; measured interaction cross sections by detecting unreacted Mg particles by $B\rho\text{-}\Delta E\text{-TOF}$ method. $^{32,33,34,35}\text{Mg}$; deduced matter radii by Glauber model analysis. Comparison with HF and RMF predictions. Neutron skin thickness. JOUR PRVCA 83 021302
- ^{33}Al 2010Y008 RADIOACTIVITY $^{31,33}\text{Mg}(\beta^-)$ [from U(p, X), E=1.4 GeV]; measured β asymmetry; deduced spins and parities. JOUR HYIND 196 53
- ^{33}Ar 2011LE01 NUCLEAR REACTIONS $^1\text{H}(\text{}^{34}\text{Ar}$, d), (^{36}Ar , d), (^{46}Ar , d), E=33 MeV / nucleon, [$^{34,46}\text{Ar}$ secondary beams from $^9\text{Be}(\text{}^{36}\text{Ar}$, X), E=150 MeV / nucleon and $^9\text{Be}(\text{}^{48}\text{Ca}$, X), E=140 MeV / nucleon primary reactions]; measured Ed, Id, $\sigma(\theta)$; $^{34,36,46}\text{Ar}$; deduced neutron ground-state spectroscopic factors. Comparison with shell model calculations. JOUR PRVCA 83 014606

A=34

- ^{34}Mg 2011KA01 NUCLEAR REACTIONS C, H(^{32}Mg , X), (^{33}Mg , X)(^{34}Mg , X)(^{35}Mg , X), E=900 MeV / nucleon, [secondary Mg beams from Be(^{48}Ca , X) primary reaction]; measured interaction cross sections by detecting unreacted Mg particles by $B\rho\text{-}\Delta E\text{-TOF}$ method. $^{32,33,34,35}\text{Mg}$; deduced matter radii by Glauber model analysis. Comparison with HF and RMF predictions. Neutron skin thickness. JOUR PRVCA 83 021302
- ^{34}Ar 2011LE01 NUCLEAR REACTIONS $^1\text{H}(\text{}^{34}\text{Ar}$, d), (^{36}Ar , d), (^{46}Ar , d), E=33 MeV / nucleon, [$^{34,46}\text{Ar}$ secondary beams from $^9\text{Be}(\text{}^{36}\text{Ar}$, X), E=150 MeV / nucleon and $^9\text{Be}(\text{}^{48}\text{Ca}$, X), E=140 MeV / nucleon primary reactions]; measured Ed, Id, $\sigma(\theta)$; $^{34,36,46}\text{Ar}$; deduced neutron ground-state spectroscopic factors. Comparison with shell model calculations. JOUR PRVCA 83 014606

A=35

- ^{35}Mg 2011GAZZ NUCLEAR REACTIONS $^9\text{Be}(\text{}^{38}\text{Si}$, X) ^{33}Na / ^{35}Mg / ^{36}Mg / ^{38}Si , E=83 MeV / nucleon, [secondary ^{38}Si beam from $^9\text{Be}(\text{}^{48}\text{Ca}$, X), E=140 MeV / nucleon primary reaction]; measured $E\gamma$, production σ , (^{33}Na) γ^- , (^{35}Mg) γ^- -coin. using SeGA array. ^{33}Na , ^{35}Mg ; deduced levels, J, π , rotational band in ^{33}Na . Comparison with large-scale Monte-Carlo shell model (MCSM) calculations with SDPF-M interaction, and with large-scale shell-model calculations with SDPF-U interaction. Calculated composition of ^{35}Mg wave functions, quadrupole moments and B(E2) values. Systematics of S(n) for A=30-35 Mg nuclei. Relevance to Island of Inversion. PREPRINT arXiv:1103.2413v2 [nucl-ex]

A=35 (continued)

- 2011KA01 NUCLEAR REACTIONS C, H(^{32}Mg , X), (^{33}Mg , X)(^{34}Mg , X)(^{35}Mg , X), E=900 MeV / nucleon, [secondary Mg beams from Be(^{48}Ca , X) primary reaction]; measured interaction cross sections by detecting unreacted Mg particles by B ρ - Δ E-TOF method. $^{32,33,34,35}\text{Mg}$; deduced matter radii by Glauber model analysis. Comparison with HF and RMF predictions. Neutron skin thickness. JOUR PRVCA 83 021302
- ^{35}Ar 2011LE01 NUCLEAR REACTIONS ^1H (^{34}Ar , d), (^{36}Ar , d), (^{46}Ar , d), E=33 MeV / nucleon, [$^{34,46}\text{Ar}$ secondary beams from ^9Be (^{36}Ar , X), E=150 MeV / nucleon and ^9Be (^{48}Ca , X), E=140 MeV / nucleon primary reactions]; measured Ed, Id, $\sigma(\theta)$; $^{34,36,46}\text{Ar}$; deduced neutron ground-state spectroscopic factors. Comparison with shell model calculations. JOUR PRVCA 83 014606

A=36

- ^{36}Mg 2011GAZZ NUCLEAR REACTIONS ^9Be (^{38}Si , X) ^{33}Na / ^{35}Mg / ^{36}Mg / ^{38}Si , E=83 MeV / nucleon, [secondary ^{38}Si beam from ^9Be (^{48}Ca , X), E=140 MeV / nucleon primary reaction]; measured E γ , production σ , (^{33}Na) γ -, (^{35}Mg) γ -coin. using SeGA array. ^{33}Na , ^{35}Mg ; deduced levels, J, π , rotational band in ^{33}Na . Comparison with large-scale Monte-Carlo shell model (MCSM) calculations with SDPF-M interaction, and with large-scale shell-model calculations with SDPF-U interaction. Calculated composition of ^{35}Mg wave functions, quadrupole moments and B(E2) values. Systematics of S(n) for A=30-35 Mg nuclei. Relevance to Island of Inversion. PREPRINT arXiv:1103.2413v2 [nucl-ex]
- ^{36}Ar 2011LE01 NUCLEAR REACTIONS ^1H (^{34}Ar , d), (^{36}Ar , d), (^{46}Ar , d), E=33 MeV / nucleon, [$^{34,46}\text{Ar}$ secondary beams from ^9Be (^{36}Ar , X), E=150 MeV / nucleon and ^9Be (^{48}Ca , X), E=140 MeV / nucleon primary reactions]; measured Ed, Id, $\sigma(\theta)$; $^{34,36,46}\text{Ar}$; deduced neutron ground-state spectroscopic factors. Comparison with shell model calculations. JOUR PRVCA 83 014606

A=37

No references found

A=38

³⁸Si 2011GAZZ NUCLEAR REACTIONS ⁹Be(³⁸Si, X)³³Na / ³⁵Mg / ³⁶Mg / ³⁸Si, E=83 MeV / nucleon, [secondary ³⁸Si beam from ⁹Be(⁴⁸Ca, X), E=140 MeV / nucleon primary reaction]; measured E γ , production σ , (³³Na) γ -, (³⁵Mg) γ -coin. using SeGA array. ³³Na, ³⁵Mg; deduced levels, J, π , rotational band in ³³Na. Comparison with large-scale Monte-Carlo shell model (MCSM) calculations with SDPF-M interaction, and with large-scale shell-model calculations with SDPF-U interaction. Calculated composition of ³⁵Mg wave functions, quadrupole moments and B(E2) values. Systematics of S(n) for A=30-35 Mg nuclei. Relevance to Island of Inversion. PREPRINT arXiv:1103.2413v2 [nucl-ex]

A=39

³⁹K 2010M030 ATOMIC MASSES ⁶Li, ²³Na, ^{39,41}K, ^{85,87}Rb, ¹³³Cs; measured cyclotron frequency ratios of pairs of ions simultaneously trapped in a Penning trap; deduced mass. Comparison with AME2003 and other experimental results. JOUR PLRAA 82 042513

A=40

⁴⁰Ca 2010STZY RADIOACTIVITY ^{40,42,44}Sc(β^+), (EC), ⁴⁸Sc(β^-)[from ^{40,42,44,48}Ca(³He, t)]; measured Et, It; deduced GT strength distributions of β -decay. REPT ATOMKI 2009 Annual,P30,Stuhl

2011P001 RADIOACTIVITY ⁴³Cr(β^+), ⁴³Cr(β^+ p), ⁴³Cr(β^+ 2p), ⁴³Cr(β^+ 3p); measured Ep, Ip, branching ratio for different decay modes, half-life. No evidence found for delayed 3-proton decay mode. JOUR PRVCA 83 014306

2011US01 NUCLEAR REACTIONS ⁴⁰Ca(p, p'), E=200 MeV; measured proton spectra. ⁴⁰Ca; deduced energy scale for isoscalar giant quadrupole resonance, fine structure. Comparison with RPA and SRPA calculations. JOUR PYLBB 698 191

⁴⁰Sc 2010STZY RADIOACTIVITY ^{40,42,44}Sc(β^+), (EC), ⁴⁸Sc(β^-)[from ^{40,42,44,48}Ca(³He, t)]; measured Et, It; deduced GT strength distributions of β -decay. REPT ATOMKI 2009 Annual,P30,Stuhl

2011ST03 NUCLEAR REACTIONS Ca(³He, t)⁴⁰Sc / ⁴²Sc / ⁴⁴Sc / ⁴⁸Sc, E=420 MeV; measured triton spectra; deduced $\sigma(\theta)$, dipole strength, possible existence of soft dipole vibrations. JOUR APOBB 42 667

KEYNUMBERS AND KEYWORDS

A=41

- ⁴¹K 2010M030 ATOMIC MASSES ⁶Li, ²³Na, ^{39,41}K, ^{85,87}Rb, ¹³³Cs; measured cyclotron frequency ratios of pairs of ions simultaneously trapped in a Penning trap; deduced mass. Comparison with AME2003 and other experimental results. JOUR PLRAA 82 042513
- ⁴¹Sc 2011P001 RADIOACTIVITY ⁴³Cr(β^+), ⁴³Cr(β^+ p), ⁴³Cr(β^+ 2p), ⁴³Cr(β^+ 3p); measured Ep, Ip, branching ratio for different decay modes, half-life. No evidence found for delayed 3-proton decay mode. JOUR PRVCA 83 014306

A=42

- ⁴²Ca 2010STZY RADIOACTIVITY ^{40,42,44}Sc(β^+), (EC), ⁴⁸Sc(β^-)[from ^{40,42,44,48}Ca(³He, t)]; measured Et, It; deduced GT strength distributions of β -decay. REPT ATOMKI 2009 Annual,P30,Stuhl
- ⁴²Sc 2010STZY RADIOACTIVITY ^{40,42,44}Sc(β^+), (EC), ⁴⁸Sc(β^-)[from ^{40,42,44,48}Ca(³He, t)]; measured Et, It; deduced GT strength distributions of β -decay. REPT ATOMKI 2009 Annual,P30,Stuhl
- 2011ST03 NUCLEAR REACTIONS Ca(³He, t)⁴⁰Sc / ⁴²Sc / ⁴⁴Sc / ⁴⁸Sc, E=420 MeV; measured triton spectra; deduced $\sigma(\theta)$, dipole strength, possible existence of soft dipole vibrations. JOUR APOBB 42 667
- ⁴²Ti 2011P001 RADIOACTIVITY ⁴³Cr(β^+), ⁴³Cr(β^+ p), ⁴³Cr(β^+ 2p), ⁴³Cr(β^+ 3p); measured Ep, Ip, branching ratio for different decay modes, half-life. No evidence found for delayed 3-proton decay mode. JOUR PRVCA 83 014306

A=43

- ⁴³Ti 2011H002 NUCLEAR REACTIONS Be(⁵⁸Ni, X)⁴³Ti / ⁴⁵Cr / ⁴⁵V, E=550 MeV / nucleon; measured reaction products, E γ , I γ ; deduced mirror isomers, level scheme, J, π , T_{1/2}, B(E2), B(M2). Comparison with isospin breaking pf shell model calculations. JOUR JPGPE 38 035104
- ⁴³V 2011P001 RADIOACTIVITY ⁴³Cr(β^+), ⁴³Cr(β^+ p), ⁴³Cr(β^+ 2p), ⁴³Cr(β^+ 3p); measured Ep, Ip, branching ratio for different decay modes, half-life. No evidence found for delayed 3-proton decay mode. JOUR PRVCA 83 014306
- ⁴³Cr 2011BL01 RADIOACTIVITY ⁴⁵Fe, ⁵⁴Zn(2p); measured proton spectra; deduced T_{1/2}, proton energy and angular distributions. JOUR APOBB 42 545
- 2011P001 RADIOACTIVITY ⁴³Cr(β^+), ⁴³Cr(β^+ p), ⁴³Cr(β^+ 2p), ⁴³Cr(β^+ 3p); measured Ep, Ip, branching ratio for different decay modes, half-life. No evidence found for delayed 3-proton decay mode. JOUR PRVCA 83 014306

KEYNUMBERS AND KEYWORDS

A=44

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|------------------|----------|--|
| ^{44}S | 2011CA04 | NUCLEAR REACTIONS $^9\text{Be}(^{48}\text{Ca}, \text{X})^{44}\text{S}$, E=60 MeV / nucleon; measured reaction fragments, E_γ , I_γ ; deduced $T_{1/2}$ for the isomeric state, B(E2). Comparison with Large Scale Shell Model using the SDPF-U interaction. JOUR APOBB 42 533 |
| ^{44}Ca | 2010STZY | RADIOACTIVITY $^{40,42,44}\text{Sc}(\beta^+)$, (EC), $^{48}\text{Sc}(\beta^-)$ [from $^{40,42,44,48}\text{Ca}(^3\text{He}, \text{t})$]; measured Et, It; deduced GT strength distributions of β -decay. REPT ATOMKI 2009 Annual,P30,Stuhl |
| | 2011IS01 | NUCLEAR REACTIONS $^{44}\text{Ca}(\text{polarized } \gamma, \gamma')$, E = 6-10, 9.9 MeV; measured E_γ , I_γ , $\gamma(\theta)$, integrated cross sections, and polarization asymmetry at DHIPS facility using S-DALINAC accelerator, and at HI γ S facility. ^{44}Ca ; deduced levels, J, π , photon branching ratios, widths, B(E1) and B(M1) transition strengths. Comparisons with dipole strengths in $^{40,48}\text{Ca}$ and with microscopic calculations within the extended theory of finite Fermi systems. Dependence of total E1 strength on neutron number. JOUR PRVCA 83 034304 |
| ^{44}Sc | 2010STZY | RADIOACTIVITY $^{40,42,44}\text{Sc}(\beta^+)$, (EC), $^{48}\text{Sc}(\beta^-)$ [from $^{40,42,44,48}\text{Ca}(^3\text{He}, \text{t})$]; measured Et, It; deduced GT strength distributions of β -decay. REPT ATOMKI 2009 Annual,P30,Stuhl |
| | 2011NG02 | NUCLEAR REACTIONS $^{45}\text{Sc}(\gamma, \text{n})$, $\text{Ti}(\gamma, \text{xnp})^{44}\text{Sc}$, E<70 MeV; measured E_γ , I_γ ; deduced isomeric yield ratios. Comparison with experimental data. JOUR JRNCD 287 813 |
| | 2011SK01 | NUCLEAR REACTIONS $^{45}\text{Sc}(\text{d}, \text{p})$, (d, t) , $(\text{d}, \text{X})^{44}\text{Sc} / ^{46}\text{Sc} / ^{47}\text{Sc} / ^{48}\text{V}$, E=11.7 MeV; measured reaction products, E_γ , I_γ ; deduced σ . Comparison with experimental data. JOUR JPGPE 38 035106 |
| | 2011ST03 | NUCLEAR REACTIONS $\text{Ca}(^3\text{He}, \text{t})^{40}\text{Sc} / ^{42}\text{Sc} / ^{44}\text{Sc} / ^{48}\text{Sc}$, E=420 MeV; measured triton spectra; deduced $\sigma(\theta)$, dipole strength, possible existence of soft dipole vibrations. JOUR APOBB 42 667 |
| ^{44}Ti | 2011MI02 | NUCLEAR REACTIONS $^{40}\text{Ca}(^6\text{Li}, \text{np})^{44}\text{Ti}$, E=21 MeV; measured reaction products, E_γ , I_γ ; deduced lifetime, B(E3). JOUR APOBB 42 825 |

A=45

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| ^{45}Ar | 2011LE01 | NUCLEAR REACTIONS $^1\text{H}(^{34}\text{Ar}, \text{d})$, $(^{36}\text{Ar}, \text{d})$, $(^{46}\text{Ar}, \text{d})$, E=33 MeV / nucleon, [$^{34,46}\text{Ar}$ secondary beams from $^9\text{Be}(^{36}\text{Ar}, \text{X})$, E=150 MeV / nucleon and $^9\text{Be}(^{48}\text{Ca}, \text{X})$, E=140 MeV / nucleon primary reactions]; measured Ed, Id, $\sigma(\theta)$; $^{34,36,46}\text{Ar}$; deduced neutron ground-state spectroscopic factors. Comparison with shell model calculations. JOUR PRVCA 83 014606 |
| ^{45}V | 2011H002 | NUCLEAR REACTIONS $\text{Be}(^{58}\text{Ni}, \text{X})^{43}\text{Ti} / ^{45}\text{Cr} / ^{45}\text{V}$, E=550 MeV / nucleon; measured reaction products, E_γ , I_γ ; deduced mirror isomers, level scheme, J, π , $T_{1/2}$, B(E2), B(M2). Comparison with isospin breaking pf shell model calculations. JOUR JPGPE 38 035104 |

KEYNUMBERS AND KEYWORDS

A=45 (continued)

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| ⁴⁵ Cr | 2011H002 | NUCLEAR REACTIONS Be(⁵⁸ Ni, X) ⁴³ Ti / ⁴⁵ Cr / ⁴⁵ V, E=550 MeV / nucleon; measured reaction products, E γ , I γ ; deduced mirror isomers, level scheme, J, π , T _{1/2} , B(E2), B(M2). Comparison with isospin breaking pf shell model calculations. JOUR JPGPE 38 035104 |
| ⁴⁵ Fe | 2011BL01 | RADIOACTIVITY ⁴⁵ Fe, ⁵⁴ Zn(2p); measured proton spectra; deduced T _{1/2} , proton energy and angular distributions. JOUR APOBB 42 545 |

A=46

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| ⁴⁶ Ar | 2011LE01 | NUCLEAR REACTIONS ¹ H(³⁴ Ar, d), (³⁶ Ar, d), (⁴⁶ Ar, d), E=33 MeV / nucleon, [^{34,46} Ar secondary beams from ⁹ Be(³⁶ Ar, X), E=150 MeV / nucleon and ⁹ Be(⁴⁸ Ca, X), E=140 MeV / nucleon primary reactions]; measured Ed, Id, $\sigma(\theta)$; ^{34,36,46} Ar; deduced neutron ground-state spectroscopic factors. Comparison with shell model calculations. JOUR PRVCA 83 014606 |
| ⁴⁶ Sc | 2011SK01 | NUCLEAR REACTIONS ⁴⁵ Sc(d, p), (d, t), (d, X) ⁴⁴ Sc / ⁴⁶ Sc / ⁴⁷ Sc / ⁴⁸ V, E=11.7 MeV; measured reaction products, E γ , I γ ; deduced σ . Comparison with experimental data. JOUR JPGPE 38 035106 |
| ⁴⁶ Ti | 2011GU02 | NUCLEAR REACTIONS ⁴⁶ Ti(p, p'), E=15 MeV; measured Ep, Ip, p γ -coin, excitation functions; deduced level density and radiative strength function (RSF) using Oslo method. Fermi's golden rule employed to disentangle the γ strength and level density in the γ decay between states in the quasicontinuum of ⁴⁶ Ti. JOUR PRVCA 83 014312 |

A=47

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| ⁴⁷ Sc | 2011SK01 | NUCLEAR REACTIONS ⁴⁵ Sc(d, p), (d, t), (d, X) ⁴⁴ Sc / ⁴⁶ Sc / ⁴⁷ Sc / ⁴⁸ V, E=11.7 MeV; measured reaction products, E γ , I γ ; deduced σ . Comparison with experimental data. JOUR JPGPE 38 035106 |
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A=48

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| ⁴⁸ Ar | 2010SOZZ | NUCLEAR REACTIONS ⁹ Be(⁴⁰ P, p), (⁴¹ P, np), (⁴² S, n2p), (⁴³ S, 2n2p), E not given[from ¹² C(⁴⁸ Ca, X), E=60 MeV / nucleon]; measured E γ , I γ , $\gamma\gamma$ -coin, (³⁹ Si) γ -coin. REPT ATOMKI 2009 Annual,P29,Sohler |
| ⁴⁸ Ca | 2009SAZR | RADIOACTIVITY ⁴⁸ Ca(2 β^-); deduced B(GT), matrix elements. CONF Dub(Nucl Struct and Dynamics,09) Proc,P427 |
| ⁴⁸ Sc | 2009SAZR | NUCLEAR REACTIONS ⁴⁸ Ca(p, n), E=295 MeV; ⁴⁸ Ti(n, p), E=293 MeV; measured Ep, Ip(θ), In(θ), En using neutron ToF; deduced $\sigma(\theta, E)$, $\Delta L=0$ components; calculated $\sigma(\theta, E)$ using DWIA. CONF Dub(Nucl Struct and Dynamics,09) Proc,P427 |
| | 2010STZY | RADIOACTIVITY ^{40,42,44} Sc(β^+), (EC), ⁴⁸ Sc(β^-)[from ^{40,42,44,48} Ca(³ He, t)]; measured Et, It; deduced GT strength distributions of β -decay. REPT ATOMKI 2009 Annual,P30,Stuhl |

KEYNUMBERS AND KEYWORDS

A=48 (continued)

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| | 2011ST03 | NUCLEAR REACTIONS Ca(³ He, t) ⁴⁰ Sc / ⁴² Sc / ⁴⁴ Sc / ⁴⁸ Sc, E=420 MeV; measured triton spectra; deduced $\sigma(\theta)$, dipole strength, possible existence of soft dipole vibrations. JOUR APOBB 42 667 |
| ⁴⁸ Ti | 2009SAZR | RADIOACTIVITY ⁴⁸ Ca($2\beta^-$); deduced B(GT), matrix elements. CONF Dub(Nucl Struct and Dynamics,09) Proc,P427 |
| | 2010STZY | RADIOACTIVITY ^{40,42,44} Sc(β^+), (EC), ⁴⁸ Sc(β^-)[from ^{40,42,44,48} Ca(³ He, t)]; measured Et, It; deduced GT strength distributions of β -decay. REPT ATOMKI 2009 Annual,P30,Stuhl |
| ⁴⁸ V | 2011HE03 | NUCLEAR REACTIONS Ti(p, X) ⁴⁸ V, Er(p, X) ¹⁶⁷ Tm / ¹⁶⁸ Tm / ¹⁷⁰ Tm, E<16 MeV; measured reaction products, E γ , I γ ; deduced σ . Comparison with experimental data, ALICE-IPPE, EMPIRE II and TALYS nuclear model codes. JOUR NIMBE 269 695 |
| | 2011SK01 | NUCLEAR REACTIONS ⁴⁵ Sc(d, p), (d, t), (d, X) ⁴⁴ Sc / ⁴⁶ Sc / ⁴⁷ Sc / ⁴⁸ V, E=11.7 MeV; measured reaction products, E γ , I γ ; deduced σ . Comparison with experimental data. JOUR JPGPE 38 035106 |
| | 2011TA03 | NUCLEAR REACTIONS Sn(d, xn) ¹¹⁵ Sb / ¹¹⁶ Sb / ¹¹⁷ Sb / ¹¹⁸ Sb / ¹²⁰ Sb / ¹²² Sb / ¹²⁴ Sb / ¹²⁵ Sb, E<40 MeV; Ti(d, X) ⁴⁸ V, Al(d, X) ²² Na / ²⁴ Na, E<40 MeV; measured E γ , I γ ; deduced σ . Comparison with ALICE-IPPE, EMPIRE nuclear model calculations, TENDL nuclear data library, experimental data. JOUR NIMBE 269 405 |

A=49

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| ⁴⁹ Ca | 2011LE09 | NUCLEAR REACTIONS ⁶⁴ Ni(⁴⁸ Ca, X), E=282 MeV; measured reaction products, E γ , I γ . ^{49,50} Ca; deduced angular distributions of high-spin charge states, level energies, J, π . Comparison with theoretical calculations. JOUR APOBB 42 681 |
| | 2011M002 | NUCLEAR REACTIONS ⁴⁸ Ca(⁶⁴ Ni, X) ⁴⁹ Ca / ⁵⁰ Ca, E=282 MeV; measured reaction products, E γ , I γ ; deduced deduced level scheme, J, π , B(E2). Comparison with shell model calculations, KB3G effective interaction. JOUR PYLBB 697 288 |

A=50

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| ⁵⁰ Ca | 2011LE09 | NUCLEAR REACTIONS ⁶⁴ Ni(⁴⁸ Ca, X), E=282 MeV; measured reaction products, E γ , I γ . ^{49,50} Ca; deduced angular distributions of high-spin charge states, level energies, J, π . Comparison with theoretical calculations. JOUR APOBB 42 681 |
| | 2011M002 | NUCLEAR REACTIONS ⁴⁸ Ca(⁶⁴ Ni, X) ⁴⁹ Ca / ⁵⁰ Ca, E=282 MeV; measured reaction products, E γ , I γ ; deduced deduced level scheme, J, π , B(E2). Comparison with shell model calculations, KB3G effective interaction. JOUR PYLBB 697 288 |

A=51

⁵¹Cr 2011UD01 NUCLEAR REACTIONS Ti(α , X)⁵¹Cr, E=9-40 MeV; ¹²¹Sb(α , n), (α , 2n), E=9-40 MeV; ¹²³Sb(α , n), (α , 2n), (α , 2n), (α , 4n), E=9-40 MeV; measured E γ , I γ ; deduced σ , integral yields. Comparison with experimental data, TALYS nuclear model code calculations. JOUR ARISE 69 699

A=52

⁵²Ni 2011BL01 RADIOACTIVITY ⁴⁵Fe, ⁵⁴Zn(2p); measured proton spectra; deduced T_{1/2}, proton energy and angular distributions. JOUR APOBB 42 545

A=53

No references found

A=54

⁵⁴Cr 2010WA40 RADIOACTIVITY ⁶⁰Co(β^-); measured E(β), I(β), $\gamma(\theta)$, β asymmetry parameter using a polarized ⁶⁰Co source with low-temperature nuclear orientation method. ⁵⁷Co, ⁵⁴Mn(EC); measured $\gamma(\theta)$ and used as references for temperature measurement. Systematics of β -asymmetry parameters for Gamow-Teller transitions and for T=1 / 2 mirror nuclei. Tensor currents in weak interactions. JOUR PRVCA 82 055502

2011DE01 RADIOACTIVITY ¹⁵²Eu(β^-), (β^+), (EC), ¹³⁷Cs(β^-), ²²Na, ⁵⁴Mn(EC); measured E γ , I γ , x-rays; deduced decay constant ratio. JOUR ARISE 69 320

⁵⁴Mn 2010EL09 NUCLEAR REACTIONS ⁷⁶Ge(n, X)⁵⁴Mn / ⁵⁷Co / ⁶⁰Co / ⁶⁵Zn / ⁶⁸Ge, E=0-700 MeV; measured E γ , I γ , production rates, pulsed neutron beam. ^{70,72,73,74,76}Ge(n, X)⁵⁴Mn / ⁵⁷Co / ⁶⁰Co / ⁶⁵Zn / ⁶⁸Ge, E=10-2000 MeV; calculated production σ . Comparison with cross section calculations based on based on CEM03.02. Predicted cosmogenic production rates of ⁵⁴Mn, ^{57,60}Co, ⁶⁵Zn and ⁶⁸Ge isotopes. Relevance to background radiation in Ge detectors used in double-beta decay experiments. JOUR PRVCA 82 054610

2010WA40 RADIOACTIVITY ⁶⁰Co(β^-); measured E(β), I(β), $\gamma(\theta)$, β asymmetry parameter using a polarized ⁶⁰Co source with low-temperature nuclear orientation method. ⁵⁷Co, ⁵⁴Mn(EC); measured $\gamma(\theta)$ and used as references for temperature measurement. Systematics of β -asymmetry parameters for Gamow-Teller transitions and for T=1 / 2 mirror nuclei. Tensor currents in weak interactions. JOUR PRVCA 82 055502

2011DE01 RADIOACTIVITY ¹⁵²Eu(β^-), (β^+), (EC), ¹³⁷Cs(β^-), ²²Na, ⁵⁴Mn(EC); measured E γ , I γ , x-rays; deduced decay constant ratio. JOUR ARISE 69 320

KEYNUMBERS AND KEYWORDS

A=54 (continued)

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| ^{54}Co | 2010RU10 | NUCLEAR REACTIONS $^{28}\text{Si}(^{32}\text{S}, \text{np}\alpha)$, $E=130$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -, $\alpha\gamma$ -, $\text{n}\gamma$ -, $\text{p}\gamma$ -coin, $\gamma\gamma(\theta)$ using Gammasphere and Microball arrays. ^{54}Co ; deduced levels, J, π , multipolarities, mixing ratios, configurations. Comparison with large-scale shell-model calculations in the fp shell. JOUR PRVCA 82 054309 |
| ^{54}Zn | 2011BL01 | RADIOACTIVITY ^{45}Fe , $^{54}\text{Zn}(2\text{p})$; measured proton spectra; deduced $T_{1/2}$, proton energy and angular distributions. JOUR APOBB 42 545 |

A=55

No references found

A=56

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| ^{56}Mn | 2011AG01 | NUCLEAR REACTIONS ^{55}Mn , $^{138}\text{Ba}(\text{n}, \gamma)$, $E=\text{thermal}$; measured $E\gamma$, $I\gamma$; deduced thermal σ , resonance integral. JOUR ANEND 38 379 |
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A=57

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| ^{57}Fe | 2010WA40 | RADIOACTIVITY $^{60}\text{Co}(\beta^-)$; measured $E(\beta)$, $I(\beta)$, $\gamma(\theta)$, β asymmetry parameter using a polarized ^{60}Co source with low-temperature nuclear orientation method. ^{57}Co , $^{54}\text{Mn}(\text{EC})$; measured $\gamma(\theta)$ and used as references for temperature measurement. Systematics of β -asymmetry parameters for Gamow-Teller transitions and for T=1 / 2 mirror nuclei. Tensor currents in weak interactions. JOUR PRVCA 82 055502 |
| ^{57}Co | 2010EL09 | NUCLEAR REACTIONS $^{76}\text{Ge}(\text{n}, \text{X})^{54}\text{Mn}$ / ^{57}Co / ^{60}Co / ^{65}Zn / ^{68}Ge , $E=0-700$ MeV; measured $E\gamma$, $I\gamma$, production rates, pulsed neutron beam. $^{70,72,73,74,76}\text{Ge}(\text{n}, \text{X})^{54}\text{Mn}$ / ^{57}Co / ^{60}Co / ^{65}Zn / ^{68}Ge , $E=10-2000$ MeV; calculated production σ . Comparison with cross section calculations based on based on CEM03.02. Predicted cosmogenic production rates of ^{54}Mn , $^{57,60}\text{Co}$, ^{65}Zn and ^{68}Ge isotopes. Relevance to background radiation in Ge detectors used in double-beta decay experiments. JOUR PRVCA 82 054610 |
| | 2010WA40 | RADIOACTIVITY $^{60}\text{Co}(\beta^-)$; measured $E(\beta)$, $I(\beta)$, $\gamma(\theta)$, β asymmetry parameter using a polarized ^{60}Co source with low-temperature nuclear orientation method. ^{57}Co , $^{54}\text{Mn}(\text{EC})$; measured $\gamma(\theta)$ and used as references for temperature measurement. Systematics of β -asymmetry parameters for Gamow-Teller transitions and for T=1 / 2 mirror nuclei. Tensor currents in weak interactions. JOUR PRVCA 82 055502 |

A=58

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| ^{58}Co | 2011ZH04 | NUCLEAR REACTIONS $^{58,60,61,62}\text{Ni}(\text{n}, \text{p})$, $^{27}\text{Al}(\text{n}, \alpha)$, $E \approx 14$ MeV; measured reaction products, $E\gamma$, $I\gamma$; deduced σ . Comparison with experimental and evaluated data. JOUR NIMBE 269 642 |
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KEYNUMBERS AND KEYWORDS

A=58 (continued)

⁵⁸Ni 2011KU05 NUCLEAR REACTIONS ⁵⁸Ni(¹¹⁴Sn, ¹¹⁴Sn'), (¹¹⁶Sn, ¹¹⁶Sn'), E=3.4 MeV / nucleon; measured E γ , I γ , particle- γ -coin. ^{112,114}Sn; deduced B(E2). Comparison with RQRPA calculations. JOUR APOBB 42 813

A=59

⁵⁹Ni 2010GU19 NUCLEAR REACTIONS ^{58,60}Ni(n, γ), E=0.100-600 keV; measured E(n), I(n) using time-of-flight method, Maxwellian-averaged σ in the region of astrophysics. R-matrix analysis. Comparison with evaluated reaction cross section libraries. JOUR PRVCA 82 057601

A=60

⁶⁰Co 2010EL09 NUCLEAR REACTIONS ⁷⁶Ge(n, X)⁵⁴Mn / ⁵⁷Co / ⁶⁰Co / ⁶⁵Zn / ⁶⁸Ge, E=0-700 MeV; measured E γ , I γ , production rates, pulsed neutron beam. ^{70,72,73,74,76}Ge(n, X)⁵⁴Mn / ⁵⁷Co / ⁶⁰Co / ⁶⁵Zn / ⁶⁸Ge, E=10-2000 MeV; calculated production σ . Comparison with cross section calculations based on based on CEM03.02. Predicted cosmogenic production rates of ⁵⁴Mn, ^{57,60}Co, ⁶⁵Zn and ⁶⁸Ge isotopes. Relevance to background radiation in Ge detectors used in double-beta decay experiments. JOUR PRVCA 82 054610

2010WA40 RADIOACTIVITY ⁶⁰Co(β^-); measured E(β), I(β), $\gamma(\theta)$, β asymmetry parameter using a polarized ⁶⁰Co source with low-temperature nuclear orientation method. ⁵⁷Co, ⁵⁴Mn(EC); measured $\gamma(\theta)$ and used as references for temperature measurement. Systematics of β -asymmetry parameters for Gamow-Teller transitions and for T=1 / 2 mirror nuclei. Tensor currents in weak interactions. JOUR PRVCA 82 055502

2011ZH04 NUCLEAR REACTIONS ^{58,60,61,62}Ni(n, p), ²⁷Al(n, α), E \approx 14 MeV; measured reaction products, E γ , I γ ; deduced σ . Comparison with experimental and evaluated data. JOUR NIMBE 269 642

⁶⁰Ni 2010WA40 RADIOACTIVITY ⁶⁰Co(β^-); measured E(β), I(β), $\gamma(\theta)$, β asymmetry parameter using a polarized ⁶⁰Co source with low-temperature nuclear orientation method. ⁵⁷Co, ⁵⁴Mn(EC); measured $\gamma(\theta)$ and used as references for temperature measurement. Systematics of β -asymmetry parameters for Gamow-Teller transitions and for T=1 / 2 mirror nuclei. Tensor currents in weak interactions. JOUR PRVCA 82 055502

A=61

⁶¹Mn 2010CH51 NUCLEAR REACTIONS ²³⁸U(⁶⁴Ni, X)⁶¹Mn / ⁶²Mn, E=430 MeV; measured E γ , I γ , $\gamma\gamma$ -coin using Gammasphere array. ^{61,62}Mn; deduced levels, J, π . Comparison with level structures of ^{53,55,57,59,58,60,64}Mn. JOUR PRVCA 82 054313

⁶¹Co 2011ZH04 NUCLEAR REACTIONS ^{58,60,61,62}Ni(n, p), ²⁷Al(n, α), E \approx 14 MeV; measured reaction products, E γ , I γ ; deduced σ . Comparison with experimental and evaluated data. JOUR NIMBE 269 642

KEYNUMBERS AND KEYWORDS

A=61 (continued)

- ⁶¹Ni 2010GU19 NUCLEAR REACTIONS ^{58,60}Ni(n, γ), E=0.100-600 keV; measured E(n), I(n) using time-of-flight method, Maxwellian-averaged σ in the region of astrophysics. R-matrix analysis. Comparison with evaluated reaction cross section libraries. JOUR PRVCA 82 057601
- ⁶¹Cu 2010VI07 NUCLEAR MOMENTS ^{61,62,63,64,65,66,67,68,69,70,71,72,73,74,75}Cu; measured hyperfine structure spectra, spins, magnetic dipole moments, electric quadrupole moments using collinear laser spectroscopy at CERN-ISOLDE. RILIS source and Paul trap ISCOOL. Comparison with shell-model calculations. JOUR PRVCA 82 064311
- 2010VI07 NUCLEAR REACTIONS U(p, X)⁶¹Cu / ⁶²Cu / ⁶³Cu / ⁶⁴Cu / ⁶⁵Cu / ⁶⁶Cu / ⁶⁷Cu / ⁶⁸Cu / ^{68m}Cu / ⁶⁹Cu / ⁷⁰Cu / ^{70m}Cu / ⁷¹Cu / ⁷²Cu / ⁷³Cu / ⁷⁴Cu / ⁷⁵Cu / , E=1.4 GeV; measured production yields. JOUR PRVCA 82 064311

A=62

- ⁶²Mn 2010CH51 NUCLEAR REACTIONS ²³⁸U(⁶⁴Ni, X)⁶¹Mn / ⁶²Mn, E=430 MeV; measured E γ , I γ , $\gamma\gamma$ -coin using Gammasphere array. ^{61,62}Mn; deduced levels, J, π . Comparison with level structures of ^{53,55,57,59,58,60,64}Mn. JOUR PRVCA 82 054313
- ⁶²Fe 2011DI04 NUCLEAR REACTIONS ⁶⁴Ni(²³⁸U, X)⁶²Fe / ⁶⁴Fe / ⁶³Co / ⁶⁵Co, E=6.5 MeV / nucleon; measured reaction products, E γ , I γ ; deduced lifetimes of yrast states, B(E2). JOUR APOBB 42 829
- 2011R002 NUCLEAR REACTIONS ¹⁹⁷Au(⁶²Fe, ⁶²Fe'), (⁶⁴Fe, ⁶⁴Fe'), (⁶⁶Fe, ⁶⁶Fe'), E=97.8, 95, 88.3 MeV / nucleon; measured E γ , I γ . ^{62,64,66}Fe; deduced lifetimes, B(E2), deformation parameters. Comparison with shell model calculations, experimental data. Secondary beams from ⁷⁶Ge fragmentation. JOUR PRLTA 106 022502
- ⁶²Co 2011ZH04 NUCLEAR REACTIONS ^{58,60,61,62}Ni(n, p), ²⁷Al(n, α), E \approx 14 MeV; measured reaction products, E γ , I γ ; deduced σ . Comparison with experimental and evaluated data. JOUR NIMBE 269 642
- ⁶²Ni 2011CH05 NUCLEAR REACTIONS ⁶²Ni(n, n' γ), E=2.8-4.1 MeV; measured E γ , I γ , $\gamma(\theta)$, excitation functions, Doppler shift attenuations. ⁶²Ni; deduced levels, J, π , multipolarities, mixing ratios, level half-lives, B(E2), B(M1). Comparison of experimental reduced transition probabilities with the predictions of the quadrupole vibrator model and with large-scale shell-model calculations in the fp shell configuration space. No evidence for three-phonon states. Role of Z=28 proton core excitations. Systematics of energies and B(E2) values for of 2+ states in A=56-68 even-even Ni nuclei. JOUR PRVCA 83 034316
- ⁶²Cu 2010VI07 NUCLEAR MOMENTS ^{61,62,63,64,65,66,67,68,69,70,71,72,73,74,75}Cu; measured hyperfine structure spectra, spins, magnetic dipole moments, electric quadrupole moments using collinear laser spectroscopy at CERN-ISOLDE. RILIS source and Paul trap ISCOOL. Comparison with shell-model calculations. JOUR PRVCA 82 064311

KEYNUMBERS AND KEYWORDS

A=62 (continued)

2010VI07 NUCLEAR REACTIONS U(p, X)⁶¹Cu / ⁶²Cu / ⁶³Cu / ⁶⁴Cu / ⁶⁵Cu / ⁶⁶Cu / ⁶⁷Cu / ⁶⁸Cu / ^{68m}Cu / ⁶⁹Cu / ⁷⁰Cu / ^{70m}Cu / ⁷¹Cu / ⁷²Cu / ⁷³Cu / ⁷⁴Cu / ⁷⁵Cu / , E=1.4 GeV; measured production yields. JOUR PRVCA 82 064311

A=63

⁶³Co 2009MOZR NUCLEAR REACTIONS ⁶⁴Ni(⁴⁸Ca, ⁴⁷Ca), (⁴⁸Ca, ⁴⁸Ca), (⁴⁸Ca, ⁴⁹Ca), (⁴⁸Ca, ⁴⁷K), (⁴⁸Ca, ⁴⁹Sc), E=270 MeV; measured A(particle), Z(particle), E(particle), I(particle, θ); deduced $\sigma(\theta)$; calculated $\sigma(\theta)$ using semiclassical model. CONF Dub(Nucl Struct and Dynamics,09) Proc,P386

2011DI04 NUCLEAR REACTIONS ⁶⁴Ni(²³⁸U, X)⁶²Fe / ⁶⁴Fe / ⁶³Co / ⁶⁵Co, E=6.5 MeV / nucleon; measured reaction products, E γ , I γ ; deduced lifetimes of yrast states, B(E2). JOUR APOBB 42 829

⁶³Ni 2009MOZR NUCLEAR REACTIONS ⁶⁴Ni(⁴⁸Ca, ⁴⁷Ca), (⁴⁸Ca, ⁴⁸Ca), (⁴⁸Ca, ⁴⁹Ca), (⁴⁸Ca, ⁴⁷K), (⁴⁸Ca, ⁴⁹Sc), E=270 MeV; measured A(particle), Z(particle), E(particle), I(particle, θ); deduced $\sigma(\theta)$; calculated $\sigma(\theta)$ using semiclassical model. CONF Dub(Nucl Struct and Dynamics,09) Proc,P386

⁶³Cu 2010VI07 NUCLEAR MOMENTS ^{61,62,63,64,65,66,67,68,69,70,71,72,73,74,75}Cu; measured hyperfine structure spectra, spins, magnetic dipole moments, electric quadrupole moments using collinear laser spectroscopy at CERN-ISOLDE. RILIS source and Paul trap ISCOOL. Comparison with shell-model calculations. JOUR PRVCA 82 064311

2010VI07 NUCLEAR REACTIONS U(p, X)⁶¹Cu / ⁶²Cu / ⁶³Cu / ⁶⁴Cu / ⁶⁵Cu / ⁶⁶Cu / ⁶⁷Cu / ⁶⁸Cu / ^{68m}Cu / ⁶⁹Cu / ⁷⁰Cu / ^{70m}Cu / ⁷¹Cu / ⁷²Cu / ⁷³Cu / ⁷⁴Cu / ⁷⁵Cu / , E=1.4 GeV; measured production yields. JOUR PRVCA 82 064311

⁶³Ge 2011TU02 ATOMIC MASSES ⁶³Ge, ⁶⁵As, ⁶⁷Se, ⁷¹Kr; measured ion time resolution; deduced mass excesses, proton separation energy. Comparison with AME03 and mirror nuclei, x-ray luminosity and mass number abundances calculations. JOUR PRLTA 106 112501

A=64

⁶⁴Fe 2011DI04 NUCLEAR REACTIONS ⁶⁴Ni(²³⁸U, X)⁶²Fe / ⁶⁴Fe / ⁶³Co / ⁶⁵Co, E=6.5 MeV / nucleon; measured reaction products, E γ , I γ ; deduced lifetimes of yrast states, B(E2). JOUR APOBB 42 829

2011R002 NUCLEAR REACTIONS ¹⁹⁷Au(⁶²Fe, ⁶²Fe'), (⁶⁴Fe, ⁶⁴Fe'), (⁶⁶Fe, ⁶⁶Fe'), E=97.8, 95, 88.3 MeV / nucleon; measured E γ , I γ . ^{62,64,66}Fe; deduced lifetimes, B(E2), deformation parameters. Comparison with shell model calculations, experimental data. Secondary beams from ⁷⁶Ge fragmentation. JOUR PRLTA 106 022502

KEYNUMBERS AND KEYWORDS

A=64 (continued)

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| ^{64}Ni | 2009MOZR | NUCLEAR REACTIONS $^{64}\text{Ni}(^{48}\text{Ca}, ^{47}\text{Ca}), (^{48}\text{Ca}, ^{48}\text{Ca}), (^{48}\text{Ca}, ^{49}\text{Ca}), (^{48}\text{Ca}, ^{47}\text{K}), (^{48}\text{Ca}, ^{49}\text{Sc}), E=270$ MeV; measured $A(\text{particle}), Z(\text{particle}), E(\text{particle}), I(\text{particle}, \theta)$; deduced $\sigma(\theta)$; calculated $\sigma(\theta)$ using semiclassical model. CONF Dub(Nucl Struct and Dynamics,09) Proc,P386 |
| | 2010ZH47 | NUCLEAR REACTIONS $^{67}\text{Zn}(n, \alpha)^{64}\text{Ni}, E=4.0, 5.0, 6.0$ MeV; measured $E\alpha, I\alpha$, partial σ to ^{64}Ni g.s. and total σ . Comparison with previous measurements, evaluations and calculations using TALYS code. JOUR PRVCA 82 054619 |
| ^{64}Cu | 2010VI07 | NUCLEAR MOMENTS $^{61,62,63,64,65,66,67,68,69,70,71,72,73,74,75}\text{Cu}$; measured hyperfine structure spectra, spins, magnetic dipole moments, electric quadrupole moments using collinear laser spectroscopy at CERN-ISOLDE. RILIS source and Paul trap ISCOOL. Comparison with shell-model calculations. JOUR PRVCA 82 064311 |
| | 2010VI07 | NUCLEAR REACTIONS $U(p, X)^{61}\text{Cu} / ^{62}\text{Cu} / ^{63}\text{Cu} / ^{64}\text{Cu} / ^{65}\text{Cu} / ^{66}\text{Cu} / ^{67}\text{Cu} / ^{68}\text{Cu} / ^{68m}\text{Cu} / ^{69}\text{Cu} / ^{70}\text{Cu} / ^{70m}\text{Cu} / ^{71}\text{Cu} / ^{72}\text{Cu} / ^{73}\text{Cu} / ^{74}\text{Cu} / ^{75}\text{Cu} /$, $E=1.4$ GeV; measured production yields. JOUR PRVCA 82 064311 |
| ^{64}Zn | 2009DIZV | NUCLEAR REACTIONS $^{64}\text{Zn}(^9\text{Be}, ^9\text{Be}), (^{11}\text{Be}, ^{11}\text{Be}), E(\text{cm})=25.4$ MeV; measured halo nuclei $E(\text{particle}), I(\text{particle}, \theta)$; deduced $\sigma(\theta), \sigma. ^{64}\text{Zn}(^{11}\text{Be}, ^5\text{He}^6\text{He}), E(\text{cm})=25.4$ MeV; measured $\sigma. ^{64}\text{Zn}(^6\text{Li}, \gamma), E=\text{cyclotron}$; measured σ . CONF Dub(Nucl Struct and Dynamics,09) Proc,P299 |

A=65

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| ^{65}Co | 2011DI04 | NUCLEAR REACTIONS $^{64}\text{Ni}(^{238}\text{U}, X)^{62}\text{Fe} / ^{64}\text{Fe} / ^{63}\text{Co} / ^{65}\text{Co}, E=6.5$ MeV / nucleon; measured reaction products, $E\gamma, I\gamma$; deduced lifetimes of yrast states, $B(E2)$. JOUR APOBB 42 829 |
| ^{65}Ni | 2009MOZR | NUCLEAR REACTIONS $^{64}\text{Ni}(^{48}\text{Ca}, ^{47}\text{Ca}), (^{48}\text{Ca}, ^{48}\text{Ca}), (^{48}\text{Ca}, ^{49}\text{Ca}), (^{48}\text{Ca}, ^{47}\text{K}), (^{48}\text{Ca}, ^{49}\text{Sc}), E=270$ MeV; measured $A(\text{particle}), Z(\text{particle}), E(\text{particle}), I(\text{particle}, \theta)$; deduced $\sigma(\theta)$; calculated $\sigma(\theta)$ using semiclassical model. CONF Dub(Nucl Struct and Dynamics,09) Proc,P386 |
| ^{65}Cu | 2009MOZR | NUCLEAR REACTIONS $^{64}\text{Ni}(^{48}\text{Ca}, ^{47}\text{Ca}), (^{48}\text{Ca}, ^{48}\text{Ca}), (^{48}\text{Ca}, ^{49}\text{Ca}), (^{48}\text{Ca}, ^{47}\text{K}), (^{48}\text{Ca}, ^{49}\text{Sc}), E=270$ MeV; measured $A(\text{particle}), Z(\text{particle}), E(\text{particle}), I(\text{particle}, \theta)$; deduced $\sigma(\theta)$; calculated $\sigma(\theta)$ using semiclassical model. CONF Dub(Nucl Struct and Dynamics,09) Proc,P386 |
| | 2010VI07 | NUCLEAR MOMENTS $^{61,62,63,64,65,66,67,68,69,70,71,72,73,74,75}\text{Cu}$; measured hyperfine structure spectra, spins, magnetic dipole moments, electric quadrupole moments using collinear laser spectroscopy at CERN-ISOLDE. RILIS source and Paul trap ISCOOL. Comparison with shell-model calculations. JOUR PRVCA 82 064311 |
| | 2010VI07 | NUCLEAR REACTIONS $U(p, X)^{61}\text{Cu} / ^{62}\text{Cu} / ^{63}\text{Cu} / ^{64}\text{Cu} / ^{65}\text{Cu} / ^{66}\text{Cu} / ^{67}\text{Cu} / ^{68}\text{Cu} / ^{68m}\text{Cu} / ^{69}\text{Cu} / ^{70}\text{Cu} / ^{70m}\text{Cu} / ^{71}\text{Cu} / ^{72}\text{Cu} / ^{73}\text{Cu} / ^{74}\text{Cu} / ^{75}\text{Cu} /$, $E=1.4$ GeV; measured production yields. JOUR PRVCA 82 064311 |

KEYNUMBERS AND KEYWORDS

A=65 (continued)

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| ^{65}Zn | 2010EL09 | NUCLEAR REACTIONS $^{76}\text{Ge}(n, X)^{54}\text{Mn} / ^{57}\text{Co} / ^{60}\text{Co} / ^{65}\text{Zn} / ^{68}\text{Ge}$, E=0-700 MeV; measured E_γ , I_γ , production rates, pulsed neutron beam. $^{70,72,73,74,76}\text{Ge}(n, X)^{54}\text{Mn} / ^{57}\text{Co} / ^{60}\text{Co} / ^{65}\text{Zn} / ^{68}\text{Ge}$, E=10-2000 MeV; calculated production σ . Comparison with cross section calculations based on based on CEM03.02. Predicted cosmogenic production rates of ^{54}Mn , $^{57,60}\text{Co}$, ^{65}Zn and ^{68}Ge isotopes. Relevance to background radiation in Ge detectors used in double-beta decay experiments. JOUR PRVCA 82 054610 |
| ^{65}As | 2011TU02 | ATOMIC MASSES ^{63}Ge , ^{65}As , ^{67}Se , ^{71}Kr ; measured ion time resolution; deduced mass excesses, proton separation energy. Comparison with AME03 and mirror nuclei, x-ray luminosity and mass number abundances calculations. JOUR PRLTA 106 112501 |

A=66

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| ^{66}Fe | 2011R002 | NUCLEAR REACTIONS $^{197}\text{Au}(^{62}\text{Fe}, ^{62}\text{Fe}')$, $(^{64}\text{Fe}, ^{64}\text{Fe}')$, $(^{66}\text{Fe}, ^{66}\text{Fe}')$, E=97.8, 95, 88.3 MeV / nucleon; measured E_γ , I_γ . $^{62,64,66}\text{Fe}$; deduced lifetimes, B(E2), deformation parameters. Comparison with shell model calculations, experimental data. Secondary beams from ^{76}Ge fragmentation. JOUR PRLTA 106 022502 |
| ^{66}Cu | 2010VI07 | NUCLEAR MOMENTS $^{61,62,63,64,65,66,67,68,69,70,71,72,73,74,75}\text{Cu}$; measured hyperfine structure spectra, spins, magnetic dipole moments, electric quadrupole moments using collinear laser spectroscopy at CERN-ISOLDE. RILIS source and Paul trap ISCOOL. Comparison with shell-model calculations. JOUR PRVCA 82 064311 |
| | 2010VI07 | NUCLEAR REACTIONS $\text{U}(p, X)^{61}\text{Cu} / ^{62}\text{Cu} / ^{63}\text{Cu} / ^{64}\text{Cu} / ^{65}\text{Cu} / ^{66}\text{Cu} / ^{67}\text{Cu} / ^{68}\text{Cu} / ^{68m}\text{Cu} / ^{69}\text{Cu} / ^{70}\text{Cu} / ^{70m}\text{Cu} / ^{71}\text{Cu} / ^{72}\text{Cu} / ^{73}\text{Cu} / ^{74}\text{Cu} / ^{75}\text{Cu} /$, E=1.4 GeV; measured production yields. JOUR PRVCA 82 064311 |
| ^{66}Zn | 2010SE16 | RADIOACTIVITY $^{66}\text{Ga}(\beta^+)$ [from $^{66}\text{Zn}(p, n)$, E=7 MeV]; measured E_β , I_β , isotopic half-life. Comparison with previous studies and evaluations. JOUR PRVCA 82 067301 |
| ^{66}Ga | 2010SE16 | RADIOACTIVITY $^{66}\text{Ga}(\beta^+)$ [from $^{66}\text{Zn}(p, n)$, E=7 MeV]; measured E_β , I_β , isotopic half-life. Comparison with previous studies and evaluations. JOUR PRVCA 82 067301 |

A=67

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| ^{67}Cu | 2010VI07 | NUCLEAR MOMENTS $^{61,62,63,64,65,66,67,68,69,70,71,72,73,74,75}\text{Cu}$; measured hyperfine structure spectra, spins, magnetic dipole moments, electric quadrupole moments using collinear laser spectroscopy at CERN-ISOLDE. RILIS source and Paul trap ISCOOL. Comparison with shell-model calculations. JOUR PRVCA 82 064311 |
| | 2010VI07 | NUCLEAR REACTIONS $\text{U}(p, X)^{61}\text{Cu} / ^{62}\text{Cu} / ^{63}\text{Cu} / ^{64}\text{Cu} / ^{65}\text{Cu} / ^{66}\text{Cu} / ^{67}\text{Cu} / ^{68}\text{Cu} / ^{68m}\text{Cu} / ^{69}\text{Cu} / ^{70}\text{Cu} / ^{70m}\text{Cu} / ^{71}\text{Cu} / ^{72}\text{Cu} / ^{73}\text{Cu} / ^{74}\text{Cu} / ^{75}\text{Cu} /$, E=1.4 GeV; measured production yields. JOUR PRVCA 82 064311 |

KEYNUMBERS AND KEYWORDS

A=67 (continued)

⁶⁷Se 2011TU02 ATOMIC MASSES ⁶³Ge, ⁶⁵As, ⁶⁷Se, ⁷¹Kr; measured ion time resolution; deduced mass excesses, proton separation energy. Comparison with AME03 and mirror nuclei, x-ray luminosity and mass number abundances calculations. JOUR PRLTA 106 112501

A=68

⁶⁸Ni 2011WI03 NUCLEAR REACTIONS ¹⁹⁷Au(⁶⁸Ni, ⁶⁸Ni⁺), E=600 MeV / nucleon; measured reaction products, E γ , I γ . ⁶⁸Ni; deduced pygmy dipole resonance, σ (E), σ , B(E2), photoabsorption strengths, neutron skin thickness. Energy-weighted sum rule. JOUR PPNPD 66 374

⁶⁸Cu 2010VI07 NUCLEAR MOMENTS ^{61,62,63,64,65,66,67,68,69,70,71,72,73,74,75}Cu; measured hyperfine structure spectra, spins, magnetic dipole moments, electric quadrupole moments using collinear laser spectroscopy at CERN-ISOLDE. RILIS source and Paul trap ISCOOL. Comparison with shell-model calculations. JOUR PRVCA 82 064311

 2010VI07 NUCLEAR REACTIONS U(p, X)⁶¹Cu / ⁶²Cu / ⁶³Cu / ⁶⁴Cu / ⁶⁵Cu / ⁶⁶Cu / ⁶⁷Cu / ⁶⁸Cu / ^{68m}Cu / ⁶⁹Cu / ⁷⁰Cu / ^{70m}Cu / ⁷¹Cu / ⁷²Cu / ⁷³Cu / ⁷⁴Cu / ⁷⁵Cu / , E=1.4 GeV; measured production yields. JOUR PRVCA 82 064311

⁶⁸Ge 2010EL09 NUCLEAR REACTIONS ⁷⁶Ge(n, X)⁵⁴Mn / ⁵⁷Co / ⁶⁰Co / ⁶⁵Zn / ⁶⁸Ge, E=0-700 MeV; measured E γ , I γ , production rates, pulsed neutron beam. ^{70,72,73,74,76}Ge(n, X)⁵⁴Mn / ⁵⁷Co / ⁶⁰Co / ⁶⁵Zn / ⁶⁸Ge, E=10-2000 MeV; calculated production σ . Comparison with cross section calculations based on based on CEM03.02. Predicted cosmogenic production rates of ⁵⁴Mn, ^{57,60}Co, ⁶⁵Zn and ⁶⁸Ge isotopes. Relevance to background radiation in Ge detectors used in double-beta decay experiments. JOUR PRVCA 82 054610

A=69

⁶⁹Ni 2011M003 NUCLEAR REACTIONS ²H(⁶⁸Ni, p), E=25.14 MeV / nucleon; measured reaction fragments, E γ , I γ ; deduced excited states, shell gaps. Three-nucleon forces, shell model calculations. JOUR APOBB 42 541

⁶⁹Cu 2010VI07 NUCLEAR MOMENTS ^{61,62,63,64,65,66,67,68,69,70,71,72,73,74,75}Cu; measured hyperfine structure spectra, spins, magnetic dipole moments, electric quadrupole moments using collinear laser spectroscopy at CERN-ISOLDE. RILIS source and Paul trap ISCOOL. Comparison with shell-model calculations. JOUR PRVCA 82 064311

 2010VI07 NUCLEAR REACTIONS U(p, X)⁶¹Cu / ⁶²Cu / ⁶³Cu / ⁶⁴Cu / ⁶⁵Cu / ⁶⁶Cu / ⁶⁷Cu / ⁶⁸Cu / ^{68m}Cu / ⁶⁹Cu / ⁷⁰Cu / ^{70m}Cu / ⁷¹Cu / ⁷²Cu / ⁷³Cu / ⁷⁴Cu / ⁷⁵Cu / , E=1.4 GeV; measured production yields. JOUR PRVCA 82 064311

KEYNUMBERS AND KEYWORDS

A=70

- ⁷⁰Cu 2010VI07 NUCLEAR MOMENTS ^{61,62,63,64,65,66,67,68,69,70,71,72,73,74,75}Cu; measured hyperfine structure spectra, spins, magnetic dipole moments, electric quadrupole moments using collinear laser spectroscopy at CERN-ISOLDE. RILIS source and Paul trap ISCOOL. Comparison with shell-model calculations. JOUR PRVCA 82 064311
- 2010VI07 NUCLEAR REACTIONS U(p, X)⁶¹Cu / ⁶²Cu / ⁶³Cu / ⁶⁴Cu / ⁶⁵Cu / ⁶⁶Cu / ⁶⁷Cu / ⁶⁸Cu / ^{68m}Cu / ⁶⁹Cu / ⁷⁰Cu / ^{70m}Cu / ⁷¹Cu / ⁷²Cu / ⁷³Cu / ⁷⁴Cu / ⁷⁵Cu / , E=1.4 GeV; measured production yields. JOUR PRVCA 82 064311
- ⁷⁰As 2009DIZV NUCLEAR REACTIONS ⁶⁴Zn(⁹Be, ⁹Be), (¹¹Be, ¹¹Be), E(cm)=25.4 MeV; measured halo nuclei E(particle), I(particle, θ); deduced $\sigma(\theta)$, σ . ⁶⁴Zn(¹¹Be, ⁵He⁶He), E(cm)=25.4 MeV; measured σ . ⁶⁴Zn(⁶Li, γ), E=cyclotron; measured σ . CONF Dub(Nucl Struct and Dynamics,09) Proc,P299

A=71

- ⁷¹Cu 2010VI07 NUCLEAR MOMENTS ^{61,62,63,64,65,66,67,68,69,70,71,72,73,74,75}Cu; measured hyperfine structure spectra, spins, magnetic dipole moments, electric quadrupole moments using collinear laser spectroscopy at CERN-ISOLDE. RILIS source and Paul trap ISCOOL. Comparison with shell-model calculations. JOUR PRVCA 82 064311
- 2010VI07 NUCLEAR REACTIONS U(p, X)⁶¹Cu / ⁶²Cu / ⁶³Cu / ⁶⁴Cu / ⁶⁵Cu / ⁶⁶Cu / ⁶⁷Cu / ⁶⁸Cu / ^{68m}Cu / ⁶⁹Cu / ⁷⁰Cu / ^{70m}Cu / ⁷¹Cu / ⁷²Cu / ⁷³Cu / ⁷⁴Cu / ⁷⁵Cu / , E=1.4 GeV; measured production yields. JOUR PRVCA 82 064311
- ⁷¹Ga 2010DI14 NUCLEAR REACTIONS ¹⁰⁴Pd(⁷¹Ga, ⁷¹Ga'), ¹²⁰Sn(⁷³Ga, ⁷³Ga'), E=2.95 MeV / nucleon, [secondary ^{71,73}Ga beams from U(p, X), E=1 GeV]; measured E γ , I γ , (particle) γ -, $\gamma\gamma$ -coin at REX-ISOLDE. ⁷¹Ga, ⁷³Ga; deduced levels, J, π , B(E2). Comparison with level systematics of ^{63,65,67,69,71,73,75,77}Ga. Collectivity due to g_{9/2} neutron orbital. JOUR PRVCA 82 064309
- ⁷¹Kr 2011TU02 ATOMIC MASSES ⁶³Ge, ⁶⁵As, ⁶⁷Se, ⁷¹Kr; measured ion time resolution; deduced mass excesses, proton separation energy. Comparison with AME03 and mirror nuclei, x-ray luminosity and mass number abundances calculations. JOUR PRLTA 106 112501

A=72

- ⁷²Cu 2010VI07 NUCLEAR MOMENTS ^{61,62,63,64,65,66,67,68,69,70,71,72,73,74,75}Cu; measured hyperfine structure spectra, spins, magnetic dipole moments, electric quadrupole moments using collinear laser spectroscopy at CERN-ISOLDE. RILIS source and Paul trap ISCOOL. Comparison with shell-model calculations. JOUR PRVCA 82 064311

KEYNUMBERS AND KEYWORDS

A=72 (continued)

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| 2010VI07 | | NUCLEAR REACTIONS U(p, X) ⁶¹ Cu / ⁶² Cu / ⁶³ Cu / ⁶⁴ Cu / ⁶⁵ Cu / ⁶⁶ Cu / ⁶⁷ Cu / ⁶⁸ Cu / ^{68m} Cu / ⁶⁹ Cu / ⁷⁰ Cu / ^{70m} Cu / ⁷¹ Cu / ⁷² Cu / ⁷³ Cu / ⁷⁴ Cu / ⁷⁵ Cu / , E=1.4 GeV; measured production yields.
JOUR PRVCA 82 064311 |
| ⁷² Se | 2011MC01 | RADIOACTIVITY ⁷² Br(β^+), (EC)[from ⁵⁸ Ni(¹⁶ O, pn), E=50 MeV]; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$ using YRAST array. ⁷² Se; deduced levels, J, π , multipolarity, mixing ratio, β feedings, B(E2) strengths. Comparison with interacting boson model. Evidence of shape coexistence and configuration mixings. JOUR PRVCA 83 024310 |
| ⁷² Br | 2011MC01 | RADIOACTIVITY ⁷² Br(β^+), (EC)[from ⁵⁸ Ni(¹⁶ O, pn), E=50 MeV]; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$ using YRAST array. ⁷² Se; deduced levels, J, π , multipolarity, mixing ratio, β feedings, B(E2) strengths. Comparison with interacting boson model. Evidence of shape coexistence and configuration mixings. JOUR PRVCA 83 024310 |

A=73

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| ⁷³ Cu | 2010VI07 | NUCLEAR MOMENTS ^{61,62,63,64,65,66,67,68,69,70,71,72,73,74,75} Cu; measured hyperfine structure spectra, spins, magnetic dipole moments, electric quadrupole moments using collinear laser spectroscopy at CERN-ISOLDE. RILIS source and Paul trap ISCOOL. Comparison with shell-model calculations. JOUR PRVCA 82 064311 |
| | 2010VI07 | NUCLEAR REACTIONS U(p, X) ⁶¹ Cu / ⁶² Cu / ⁶³ Cu / ⁶⁴ Cu / ⁶⁵ Cu / ⁶⁶ Cu / ⁶⁷ Cu / ⁶⁸ Cu / ^{68m} Cu / ⁶⁹ Cu / ⁷⁰ Cu / ^{70m} Cu / ⁷¹ Cu / ⁷² Cu / ⁷³ Cu / ⁷⁴ Cu / ⁷⁵ Cu / , E=1.4 GeV; measured production yields.
JOUR PRVCA 82 064311 |
| ⁷³ Zn | 2010DI14 | RADIOACTIVITY ⁷³ Zn(β^-)[from U(p, X), E=1 GeV]; measured E γ .
JOUR PRVCA 82 064309 |
| | 2011NI03 | NUCLEAR REACTIONS ⁹ Be(⁷⁶ Ge, X) ⁷³ Zn / ⁷⁴ Zn, E=60 MeV / nucleon; measured reaction fragments, E γ , I γ ; deduced B(E2), γ -ray yields. JOUR APOBB 42 537 |
| ⁷³ Ga | 2010DI14 | NUCLEAR REACTIONS ¹⁰⁴ Pd(⁷¹ Ga, ⁷¹ Ga'), ¹²⁰ Sn(⁷³ Ga, ⁷³ Ga'), E=2.95 MeV / nucleon, [secondary ^{71,73} Ga beams from U(p, X), E=1 GeV]; measured E γ , I γ , (particle) γ^- , $\gamma\gamma$ -coin at REX-ISOLDE. ⁷¹ Ga, ⁷³ Ga; deduced levels, J, π , B(E2). Comparison with level systematics of ^{63,65,67,69,71,73,75,77} Ga. Collectivity due to g _{9/2} neutron orbital.
JOUR PRVCA 82 064309 |
| | 2010DI14 | RADIOACTIVITY ⁷³ Zn(β^-)[from U(p, X), E=1 GeV]; measured E γ .
JOUR PRVCA 82 064309 |

A=74

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| ⁷⁴ Cu | 2010VI07 | NUCLEAR MOMENTS ^{61,62,63,64,65,66,67,68,69,70,71,72,73,74,75} Cu; measured hyperfine structure spectra, spins, magnetic dipole moments, electric quadrupole moments using collinear laser spectroscopy at CERN-ISOLDE. RILIS source and Paul trap ISCOOL. Comparison with shell-model calculations. JOUR PRVCA 82 064311 |
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KEYNUMBERS AND KEYWORDS

A=74 (continued)

- 2010VI07 NUCLEAR REACTIONS U(p, X)⁶¹Cu / ⁶²Cu / ⁶³Cu / ⁶⁴Cu / ⁶⁵Cu / ⁶⁶Cu / ⁶⁷Cu / ⁶⁸Cu / ^{68m}Cu / ⁶⁹Cu / ⁷⁰Cu / ^{70m}Cu / ⁷¹Cu / ⁷²Cu / ⁷³Cu / ⁷⁴Cu / ⁷⁵Cu / , E=1.4 GeV; measured production yields. JOUR PRVCA 82 064311
- ⁷⁴Zn 2011NI03 NUCLEAR REACTIONS ⁹Be(⁷⁶Ge, X)⁷³Zn / ⁷⁴Zn, E=60 MeV / nucleon; measured reaction fragments, E γ , I γ ; deduced B(E2), γ -ray yields. JOUR APOBB 42 537

A=75

- ⁷⁵Cu 2010VI07 NUCLEAR MOMENTS ^{61,62,63,64,65,66,67,68,69,70,71,72,73,74,75}Cu; measured hyperfine structure spectra, spins, magnetic dipole moments, electric quadrupole moments using collinear laser spectroscopy at CERN-ISOLDE. RILIS source and Paul trap ISCOOL. Comparison with shell-model calculations. JOUR PRVCA 82 064311
- 2010VI07 NUCLEAR REACTIONS U(p, X)⁶¹Cu / ⁶²Cu / ⁶³Cu / ⁶⁴Cu / ⁶⁵Cu / ⁶⁶Cu / ⁶⁷Cu / ⁶⁸Cu / ^{68m}Cu / ⁶⁹Cu / ⁷⁰Cu / ^{70m}Cu / ⁷¹Cu / ⁷²Cu / ⁷³Cu / ⁷⁴Cu / ⁷⁵Cu / , E=1.4 GeV; measured production yields. JOUR PRVCA 82 064311
- 2011IL01 RADIOACTIVITY ⁷⁵Cu(β^-)[from U(p, X), E not given]; measured E γ , I γ , $\beta\gamma$ -, $\gamma\gamma$ -coin, half-life at the LeRIBSS. ⁷⁵Zn; deduced levels, J π , isomer, logft configurations. Level systematics of odd-A Cu(A=69-77), Zn(A=67-77), Ge(A=69-79), and N=45(Ge, Se, Kr, Sr) nuclei. JOUR PRVCA 83 014322
- ⁷⁵Zn 2011IL01 RADIOACTIVITY ⁷⁵Cu(β^-)[from U(p, X), E not given]; measured E γ , I γ , $\beta\gamma$ -, $\gamma\gamma$ -coin, half-life at the LeRIBSS. ⁷⁵Zn; deduced levels, J π , isomer, logft configurations. Level systematics of odd-A Cu(A=69-77), Zn(A=67-77), Ge(A=69-79), and N=45(Ge, Se, Kr, Sr) nuclei. JOUR PRVCA 83 014322
- ⁷⁵Kr 2010DA19 NUCLEAR REACTIONS ⁴⁰Ca(⁴⁰Ca, p α), E=165 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, level half-lives with residual Doppler attenuation method using Gammasphere array. ⁷⁵Kr; deduced transition quadrupole moments for two rotational bands from measured half-lives. Comparison with data for bands in ⁷⁴Kr and ¹⁰⁹Sb. Cranked Nilsson-Strutinsky (CNS) and cranked relativistic mean field (CRMF) calculations. JOUR PRVCA 82 061303
- ⁷⁵Rb 2010DA19 NUCLEAR REACTIONS ⁴⁰Ca(⁴⁰Ca, p α), E=165 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, level half-lives with residual Doppler attenuation method using Gammasphere array. ⁷⁵Kr; deduced transition quadrupole moments for two rotational bands from measured half-lives. Comparison with data for bands in ⁷⁴Kr and ¹⁰⁹Sb. Cranked Nilsson-Strutinsky (CNS) and cranked relativistic mean field (CRMF) calculations. JOUR PRVCA 82 061303

A=76

No references found

KEYNUMBERS AND KEYWORDS

A=77

No references found

A=78

^{78}Zn	2010KAZX	RADIOACTIVITY $^{238}\text{U}(\text{SF})$ [in-flight fission at 345 MeV / nucleon]; measured fission A(fragment), Z(fragment), $E\gamma$, $I\gamma$. ^{78}Zn , ^{95}Kr , $^{128,130}\text{Cd}$, ^{132}Sn deduced isomer ratio, spin cut-off parameter. Comparison with published results on α -induced fission. REPT RIKEN 2009 Annual,P6,Kameda
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A=79

^{79}Ni	2010PA33	RADIOACTIVITY $^{81}\text{Zn}(\beta^-)$, (β^-n) [from U(p, X), E not given]; measured $E\gamma$, $I\gamma$, $\beta\gamma^-$, $\gamma\gamma$ -coin, parent half-life, delayed-neutron branching ratio. ^{81}Ga ; deduced levels, J, π , logft. Comparison with shell-model calculations. Systematics of level energies in N=51, Z=28-42(even) and core-excited states and B(GT) distributions in N=50, Z=31, 33, 35 nuclei. Strengthening of the N=40 subshell gap near ^{78}Ni . $^{79}\text{Ni}(\beta^-)$; predicted decay properties from systematics of neighboring nuclides. JOUR PRVCA 82 064314
^{79}Cu	2010PA33	RADIOACTIVITY $^{81}\text{Zn}(\beta^-)$, (β^-n) [from U(p, X), E not given]; measured $E\gamma$, $I\gamma$, $\beta\gamma^-$, $\gamma\gamma$ -coin, parent half-life, delayed-neutron branching ratio. ^{81}Ga ; deduced levels, J, π , logft. Comparison with shell-model calculations. Systematics of level energies in N=51, Z=28-42(even) and core-excited states and B(GT) distributions in N=50, Z=31, 33, 35 nuclei. Strengthening of the N=40 subshell gap near ^{78}Ni . $^{79}\text{Ni}(\beta^-)$; predicted decay properties from systematics of neighboring nuclides. JOUR PRVCA 82 064314

A=80

^{80}Ga	2010CH50	NUCLEAR MOMENTS ^{80}Ga ; measured optical hyperfine structure spectra, spins, magnetic dipole moments, electric quadrupole moments, half-lives using Collinear laser spectroscopy at ISOLDE, CERN. ^{80}Ga ; deduced levels, J, π , isomer, configurations. Comparison with shell-model calculations in restricted and full pfg-model space with a ^{56}Ni core JOUR PRVCA 82 051302
	2010PA33	RADIOACTIVITY $^{81}\text{Zn}(\beta^-)$, (β^-n) [from U(p, X), E not given]; measured $E\gamma$, $I\gamma$, $\beta\gamma^-$, $\gamma\gamma$ -coin, parent half-life, delayed-neutron branching ratio. ^{81}Ga ; deduced levels, J, π , logft. Comparison with shell-model calculations. Systematics of level energies in N=51, Z=28-42(even) and core-excited states and B(GT) distributions in N=50, Z=31, 33, 35 nuclei. Strengthening of the N=40 subshell gap near ^{78}Ni . $^{79}\text{Ni}(\beta^-)$; predicted decay properties from systematics of neighboring nuclides. JOUR PRVCA 82 064314

KEYNUMBERS AND KEYWORDS

A=80 (continued)

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| ^{80}Sr | 2011HA08 | ATOMIC MASSES ^{81}Rb , $^{80,81,84}\text{Sr}$, ^{86}Zr , ^{85}Nb , $^{85,86,87}\text{Mo}$, ^{87}Tc ; measured frequency ratios; deduced masses, proton separation energies, possible limitations for rp astrophysical process. Comparison with AME03, Penning trap mass measurement. JOUR PRLTA 106 122501 |
| ^{80}Zr | 2011C004 | NUCLEAR REACTIONS $^{44}\text{Ca}(^{37}\text{Cl}, \text{X})^{81}\text{Rb}$, $^{40}\text{Ca}(^{40}\text{Ca}, \text{X})^{80}\text{Zr}$, E=83 MeV; $^{116}\text{Sn}(^{16}\text{O}, \text{X})$, E= 8.1, 12, 15.6 MeV / nucleon; measured reaction products, $E\gamma$, $I\gamma$; deduced total yield of the dynamical dipole, isospin mixing. JOUR APOBB 42 619 |

A=81

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| ^{81}Zn | 2010PA33 | RADIOACTIVITY $^{81}\text{Zn}(\beta^-)$, (β^-n) [from U(p, X), E not given]; measured $E\gamma$, $I\gamma$, $\beta\gamma^-$, $\gamma\gamma$ -coin, parent half-life, delayed-neutron branching ratio. ^{81}Ga ; deduced levels, J, π , logft. Comparison with shell-model calculations. Systematics of level energies in N=51, Z=28-42(even) and core-excited states and B(GT) distributions in N=50, Z=31, 33, 35 nuclei. Strengthening of the N=40 subshell gap near ^{78}Ni . $^{79}\text{Ni}(\beta^-)$; predicted decay properties from systematics of neighboring nuclides. JOUR PRVCA 82 064314 |
| ^{81}Ga | 2010PA33 | RADIOACTIVITY $^{81}\text{Zn}(\beta^-)$, (β^-n) [from U(p, X), E not given]; measured $E\gamma$, $I\gamma$, $\beta\gamma^-$, $\gamma\gamma$ -coin, parent half-life, delayed-neutron branching ratio. ^{81}Ga ; deduced levels, J, π , logft. Comparison with shell-model calculations. Systematics of level energies in N=51, Z=28-42(even) and core-excited states and B(GT) distributions in N=50, Z=31, 33, 35 nuclei. Strengthening of the N=40 subshell gap near ^{78}Ni . $^{79}\text{Ni}(\beta^-)$; predicted decay properties from systematics of neighboring nuclides. JOUR PRVCA 82 064314 |
| ^{81}Rb | 2011C004 | NUCLEAR REACTIONS $^{44}\text{Ca}(^{37}\text{Cl}, \text{X})^{81}\text{Rb}$, $^{40}\text{Ca}(^{40}\text{Ca}, \text{X})^{80}\text{Zr}$, E=83 MeV; $^{116}\text{Sn}(^{16}\text{O}, \text{X})$, E= 8.1, 12, 15.6 MeV / nucleon; measured reaction products, $E\gamma$, $I\gamma$; deduced total yield of the dynamical dipole, isospin mixing. JOUR APOBB 42 619 |
| | 2011HA08 | ATOMIC MASSES ^{81}Rb , $^{80,81,84}\text{Sr}$, ^{86}Zr , ^{85}Nb , $^{85,86,87}\text{Mo}$, ^{87}Tc ; measured frequency ratios; deduced masses, proton separation energies, possible limitations for rp astrophysical process. Comparison with AME03, Penning trap mass measurement. JOUR PRLTA 106 122501 |
| ^{81}Sr | 2011HA08 | ATOMIC MASSES ^{81}Rb , $^{80,81,84}\text{Sr}$, ^{86}Zr , ^{85}Nb , $^{85,86,87}\text{Mo}$, ^{87}Tc ; measured frequency ratios; deduced masses, proton separation energies, possible limitations for rp astrophysical process. Comparison with AME03, Penning trap mass measurement. JOUR PRLTA 106 122501 |

A=82

No references found

KEYNUMBERS AND KEYWORDS

A=83

No references found

A=84

- ⁸⁴Br 2010ASZZ NUCLEAR REACTIONS ²⁰⁸Pb(¹⁸O, X), E=85 MeV; measured E γ , I γ (θ , t), A(fragment), Z(fragment). ⁸⁴Br deduced energy of proton-neutron residual interaction vs angular momentum. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P186
- ⁸⁴Sr 2011HA08 ATOMIC MASSES ⁸¹Rb, ^{80,81,84}Sr, ⁸⁶Zr, ⁸⁵Nb, ^{85,86,87}Mo, ⁸⁷Tc; measured frequency ratios; deduced masses, proton separation energies, possible limitations for rp astrophysical process. Comparison with AME03, Penning trap mass measurement. JOUR PRLTA 106 122501

A=85

- ⁸⁵Rb 2010M030 ATOMIC MASSES ⁶Li, ²³Na, ^{39,41}K, ^{85,87}Rb, ¹³³Cs; measured cyclotron frequency ratios of pairs of ions simultaneously trapped in a Penning trap; deduced mass. Comparison with AME2003 and other experimental results. JOUR PLRAA 82 042513
- ⁸⁵Nb 2011HA08 ATOMIC MASSES ⁸¹Rb, ^{80,81,84}Sr, ⁸⁶Zr, ⁸⁵Nb, ^{85,86,87}Mo, ⁸⁷Tc; measured frequency ratios; deduced masses, proton separation energies, possible limitations for rp astrophysical process. Comparison with AME03, Penning trap mass measurement. JOUR PRLTA 106 122501
- ⁸⁵Mo 2011HA08 ATOMIC MASSES ⁸¹Rb, ^{80,81,84}Sr, ⁸⁶Zr, ⁸⁵Nb, ^{85,86,87}Mo, ⁸⁷Tc; measured frequency ratios; deduced masses, proton separation energies, possible limitations for rp astrophysical process. Comparison with AME03, Penning trap mass measurement. JOUR PRLTA 106 122501

A=86

- ⁸⁶Zr 2011HA08 ATOMIC MASSES ⁸¹Rb, ^{80,81,84}Sr, ⁸⁶Zr, ⁸⁵Nb, ^{85,86,87}Mo, ⁸⁷Tc; measured frequency ratios; deduced masses, proton separation energies, possible limitations for rp astrophysical process. Comparison with AME03, Penning trap mass measurement. JOUR PRLTA 106 122501
- ⁸⁶Mo 2011HA08 ATOMIC MASSES ⁸¹Rb, ^{80,81,84}Sr, ⁸⁶Zr, ⁸⁵Nb, ^{85,86,87}Mo, ⁸⁷Tc; measured frequency ratios; deduced masses, proton separation energies, possible limitations for rp astrophysical process. Comparison with AME03, Penning trap mass measurement. JOUR PRLTA 106 122501

A=87

- ⁸⁷Rb 2010M030 ATOMIC MASSES ⁶Li, ²³Na, ^{39,41}K, ^{85,87}Rb, ¹³³Cs; measured cyclotron frequency ratios of pairs of ions simultaneously trapped in a Penning trap; deduced mass. Comparison with AME2003 and other experimental results. JOUR PLRAA 82 042513

KEYNUMBERS AND KEYWORDS

A=87 (continued)

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|------------------|----------|---|
| ^{87}Mo | 2011HA08 | ATOMIC MASSES ^{81}Rb , $^{80,81,84}\text{Sr}$, ^{86}Zr , ^{85}Nb , $^{85,86,87}\text{Mo}$, ^{87}Tc ; measured frequency ratios; deduced masses, proton separation energies, possible limitations for rp astrophysical process. Comparison with AME03, Penning trap mass measurement. JOUR PRLTA 106 122501 |
| ^{87}Tc | 2011HA08 | ATOMIC MASSES ^{81}Rb , $^{80,81,84}\text{Sr}$, ^{86}Zr , ^{85}Nb , $^{85,86,87}\text{Mo}$, ^{87}Tc ; measured frequency ratios; deduced masses, proton separation energies, possible limitations for rp astrophysical process. Comparison with AME03, Penning trap mass measurement. JOUR PRLTA 106 122501 |

A=88

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|------------------|----------|---|
| ^{88}Mo | 2011BA07 | NUCLEAR REACTIONS $^{40}\text{Ca}(^{48}\text{Ti}, \text{X})^{88}\text{Mo}$, E = 600 MeV; measured TOF, proton spectra, $E\alpha$, $I\alpha$. JOUR APOBB 42 639 |
| | 2011CI01 | NUCLEAR REACTIONS $^{40}\text{Ca}(^{48}\text{Ti}, \text{X})^{88}\text{Mo}$, E=300, 450, 600 MeV; measured $E\gamma$, $I\gamma$; deduced increase of low-energy component of Giant Dipole Resonance strength function, possible existence of the Jacobi shape transition. Comparison with theoretical calculations. JOUR APOBB 42 633 |

A=89

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|------------------|----------|---|
| ^{89}Rb | 2010TOZY | NUCLEAR REACTIONS $^{124}\text{Sn}(^{96}\text{Zr}, \text{x})$, E=530 MeV; measured $E\gamma$, $I\gamma$, A(particle), Z(particle), (particle) γ -coin. $^{176}\text{Yb}(^{36}\text{S}, \text{X})$, E=230 MeV; measured thick target $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin. ^{89}Rb deduced high-spin states, J, π , long-lived states $T_{1/2}$, isomer decay B(M2). CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P162 |
| ^{89}Y | 2010KIZY | NUCLEAR REACTIONS $^{89}\text{Y}(\alpha, \alpha)$, E(cm)=15.51, 18.63 MeV; measured $E\alpha$, $I\alpha(\theta)$; deduced $\sigma(\theta)$. Comparison with $^{92}\text{Mo}(\alpha, \alpha)$ and some published calculations. REPT ATOMKI 2009 Annual,P31,Kiss |
| ^{89}Zr | 2011PU01 | NUCLEAR REACTIONS ^{27}Al , $^{118,120}\text{Sn}(\text{n}, \alpha)$, $^{90}\text{Zr}(\text{n}, 2\text{n})$, E=13.5-14.6 MeV; measured $E\gamma$, $I\gamma$; deduced σ . Comparison with ENDF / B-VII.0, CENDL-3.1, JENDL-4.0 evaluated neutron libraries. JOUR JRNC 288 507 |
| ^{89}Nb | 2011KI02 | NUCLEAR REACTIONS $^{93}\text{Nb}(\gamma, 4\text{n})^{89}\text{Nb}$, $\text{Mo}(\gamma, \text{xnp})^{95}\text{Nb}$, E<70 MeV; measured $E\gamma$, $I\gamma$; deduced isomeric yield ratios. Comparison with experimental data, GEANT4 calculations. JOUR JRNC 287 869 |

A=90

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| ^{90}Y | 2010MIZY | NUCLEAR REACTIONS ^{90}Zr , $^{208}\text{Pb}(^3\text{H}, ^3\text{He})$, E=300 MeV / nucleon; measured E(particle), I(particle, θ). Data reduction and analysis in progress. REPT RIKEN 2009 Annual,P7,Miki |
| ^{90}Zr | 2011NI04 | NUCLEAR REACTIONS ^{90}Zr , $^{208}\text{Pb}(^{17}\text{O}, ^{17}\text{O}')$, E=20 MeV / nucleon; measured reaction products, $E\gamma$, $I\gamma$. ^{208}Pb ; deduced population of pygmy resonance. JOUR APOBB 42 653 |

KEYNUMBERS AND KEYWORDS

A=91

- ⁹¹Ru 2011CE01 NUCLEAR REACTIONS ⁵⁸Ni(³⁶Ar, 2n), (³⁶Ar, 2np), (³⁶Ar, n2p), E=111 MeV; measured E α , I α , Ep, Ip, E γ , I γ , particle- γ coin. ⁹²Pd; deduced level energies, J, π , spin-aligned, isoscalar neutron-proton coupling scheme. Comparison with shell-model calculations. JOUR NATUA 469 68
- ⁹¹Rh 2011CE01 NUCLEAR REACTIONS ⁵⁸Ni(³⁶Ar, 2n), (³⁶Ar, 2np), (³⁶Ar, n2p), E=111 MeV; measured E α , I α , Ep, Ip, E γ , I γ , particle- γ coin. ⁹²Pd; deduced level energies, J, π , spin-aligned, isoscalar neutron-proton coupling scheme. Comparison with shell-model calculations. JOUR NATUA 469 68

A=92

- ⁹²Nb 2011LU03 NUCLEAR REACTIONS Hf(n, X)¹⁷⁸Hf / ¹⁷⁹Hf, ⁹³Nb(n, 2n), E=14.6-15.0 MeV; measured E γ , I γ ; deduced σ and uncertainties. JOUR JRNC D 288 143
- ⁹²Pd 2011CE01 NUCLEAR REACTIONS ⁵⁸Ni(³⁶Ar, 2n), (³⁶Ar, 2np), (³⁶Ar, n2p), E=111 MeV; measured E α , I α , Ep, Ip, E γ , I γ , particle- γ coin. ⁹²Pd; deduced level energies, J, π , spin-aligned, isoscalar neutron-proton coupling scheme. Comparison with shell-model calculations. JOUR NATUA 469 68

A=93

- ⁹³Tc 2011SA03 NUCLEAR REACTIONS ¹⁴¹Pr(α , n), E=15 MeV; ⁹²Mo(p, γ), E=2.5-3.5 MeV; measured reaction products, E γ , I γ , γ - γ -coin.; deduced σ . Comparison with NON-SMOKER code calculations and other measurements. JOUR PPNPD 66 363

A=94

- ⁹⁴Rb 2010MAZS RADIOACTIVITY ^{94,100,101}Rb, ^{133,134}In, ^{137,138}I, ¹⁴⁷Cs(β^-); measured E γ , I γ , En, In; deduced β -delayed neutron decay probability. Comparison with data, JEFF3.1, NNDC. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P285
- ⁹⁴Sr 2010MAZS RADIOACTIVITY ^{94,100,101}Rb, ^{133,134}In, ^{137,138}I, ¹⁴⁷Cs(β^-); measured E γ , I γ , En, In; deduced β -delayed neutron decay probability. Comparison with data, JEFF3.1, NNDC. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P285
- ⁹⁴Pd 2011BR01 NUCLEAR REACTIONS ⁹Be(¹²⁴Xe, X), E=850 MeV / nucleon; measured E γ , I γ , γ γ -, (⁹⁴Pd ions) γ -coin, and half-lives of isomers. ⁹⁴Pd; deduced levels, J, π , B(E1), B(E2) and B(E3), configuration. Comparison with shell-model calculations. JOUR PRVCA 82 061309

KEYNUMBERS AND KEYWORDS

A=95

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|------------------|----------|---|
| ^{95}Kr | 2010KAZX | RADIOACTIVITY $^{238}\text{U}(\text{SF})$ [in-flight fission at 345 MeV / nucleon]; measured fission A(fragment), Z(fragment), E_γ , I_γ . ^{78}Zn , ^{95}Kr , $^{128,130}\text{Cd}$, ^{132}Sn deduced isomer ratio, spin cut-off parameter. Comparison with published results on α -induced fission. REPT RIKEN 2009 Annual,P6,Kameda |
| ^{95}Nb | 2011KI02 | NUCLEAR REACTIONS $^{93}\text{Nb}(\gamma, 4n)^{89}\text{Nb}$, $\text{Mo}(\gamma, \text{xnp})^{95}\text{Nb}$, $E < 70$ MeV; measured E_γ , I_γ ; deduced isomeric yield ratios. Comparison with experimental data, GEANT4 calculations. JOUR JRNC D 287 869 |

A=96

No references found

A=97

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|------------------|----------|--|
| ^{97}Kr | 2011NI01 | RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}(^{238}\text{U}, \text{X})$, $E=345$ MeV / nucleon]; measured decay products, E_e , I_e ; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502 |
| ^{97}Rb | 2011NI01 | RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}(^{238}\text{U}, \text{X})$, $E=345$ MeV / nucleon]; measured decay products, E_e , I_e ; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502 |
| ^{97}Sr | 2011NI01 | RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}(^{238}\text{U}, \text{X})$, $E=345$ MeV / nucleon]; measured decay products, E_e , I_e ; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502 |

A=98

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| ^{98}Kr | 2011NI01 | RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}(^{238}\text{U}, \text{X})$, $E=345$ MeV / nucleon]; measured decay products, E_e , I_e ; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502 |
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KEYNUMBERS AND KEYWORDS

A=98 (continued)

^{98}Rb	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}^{(238}\text{U, X)}$, $E=345$ MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502
^{98}Sr	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}^{(238}\text{U, X)}$, $E=345$ MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502
^{98}Y	2010RZ02	RADIOACTIVITY ^{248}Cm , $^{252}\text{Cf}(\text{SF})$; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, conversion coefficients, and half-life of isomer using EUROGAM2 and Gammasphere arrays. ^{149}Pr ; deduced levels, J, π , band, multiplicity, B(E1), electric dipole moment, configuration. Comparison with quasiparticle-rotor model calculations. $^{98,99,100,101}\text{Y}$; measured $E\gamma$, $\gamma\gamma$ -coin. JOUR PRVCA 82 067304

A=99

^{99}Kr	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}^{(238}\text{U, X)}$, $E=345$ MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502
^{99}Rb	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}^{(238}\text{U, X)}$, $E=345$ MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502
^{99}Sr	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}^{(238}\text{U, X)}$, $E=345$ MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502
^{99}Y	2010RZ02	RADIOACTIVITY ^{248}Cm , $^{252}\text{Cf}(\text{SF})$; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, conversion coefficients, and half-life of isomer using EUROGAM2 and Gammasphere arrays. ^{149}Pr ; deduced levels, J, π , band, multiplicity, B(E1), electric dipole moment, configuration. Comparison with quasiparticle-rotor model calculations. $^{98,99,100,101}\text{Y}$; measured $E\gamma$, $\gamma\gamma$ -coin. JOUR PRVCA 82 067304

KEYNUMBERS AND KEYWORDS

A=99 (continued)

⁹⁹Pd 2011SI04 NUCLEAR REACTIONS ⁷⁵As(²⁸Si, 3np)⁹⁹Pd, E=120 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$ (DCO), $\gamma\gamma$ (linear polarization). ⁹⁹Pd; deduced levels, J, π , bands, configurations, multipolarity, B(E1) / B(E2) ratios and octupole collectivity. Comparison with deformed Hartree-Fock and angular-momentum projection calculations. JOUR PRVCA 83 024313

A=100

¹⁰⁰Kr 2011NI01 RADIOACTIVITY ^{97,98,99,100}Kr(β^-), ^{97,98,99,100,101,102}Rb(β^-), ^{101,102,103,104,105}Sr, ^{103,104,105,106,107,108}Y(β^-), ^{108,109,110}Zr(β^-), ^{111,112}Nb(β^-), ^{112,113,114,115}Mo(β^-), ^{116,117}Tc(β^-) [from Be(²³⁸U, X), E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced T_{1/2}. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502

¹⁰⁰Rb 2010MAZS RADIOACTIVITY ^{94,100,101}Rb, ^{133,134}In, ^{137,138}I, ¹⁴⁷Cs(β^-); measured E γ , I γ , En, In; deduced β -delayed neutron decay probability. Comparison with data, JEFF3.1, NNDC. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P285

 2011NI01 RADIOACTIVITY ^{97,98,99,100}Kr(β^-), ^{97,98,99,100,101,102}Rb(β^-), ^{101,102,103,104,105}Sr, ^{103,104,105,106,107,108}Y(β^-), ^{108,109,110}Zr(β^-), ^{111,112}Nb(β^-), ^{112,113,114,115}Mo(β^-), ^{116,117}Tc(β^-) [from Be(²³⁸U, X), E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced T_{1/2}. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502

¹⁰⁰Sr 2010MAZS RADIOACTIVITY ^{94,100,101}Rb, ^{133,134}In, ^{137,138}I, ¹⁴⁷Cs(β^-); measured E γ , I γ , En, In; deduced β -delayed neutron decay probability. Comparison with data, JEFF3.1, NNDC. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P285

 2011NI01 RADIOACTIVITY ^{97,98,99,100}Kr(β^-), ^{97,98,99,100,101,102}Rb(β^-), ^{101,102,103,104,105}Sr, ^{103,104,105,106,107,108}Y(β^-), ^{108,109,110}Zr(β^-), ^{111,112}Nb(β^-), ^{112,113,114,115}Mo(β^-), ^{116,117}Tc(β^-) [from Be(²³⁸U, X), E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced T_{1/2}. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502

¹⁰⁰Y 2010RZ02 RADIOACTIVITY ²⁴⁸Cm, ²⁵²Cf(SF); measured E γ , I γ , $\gamma\gamma$ -coin, conversion coefficients, and half-life of isomer using EUROGAM2 and Gammasphere arrays. ¹⁴⁹Pr; deduced levels, J, π , band, multipolarity, B(E1), electric dipole moment, configuration. Comparison with quasiparticle-rotor model calculations. ^{98,99,100,101}Y; measured E γ , $\gamma\gamma$ -coin. JOUR PRVCA 82 067304

¹⁰⁰Zr 2010SMZZ RADIOACTIVITY ²⁵²Cf(SF); measured E γ , I $\gamma(\theta)$, I(fragment, q), (fragment) γ -coin. ^{100,102}Zr, ^{104,106}Mo, ¹¹⁴Pd, ¹³⁴Te, ^{138,140}Xe, ^{142,144}Ba, ^{146,148}Ce deduced (fragment)- γ angular correlations for low-lying states, anisotropy coefficient. EUROBALL and GAMMASPHERE data; comparison with other results. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P193

KEYNUMBERS AND KEYWORDS

A=100 (continued)

¹⁰⁰ Mo	2010BE34	RADIOACTIVITY ¹⁰⁰ Mo($2\beta^-$); measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $T_{1/2}$ for 2ν -accompanied $2\beta^-$ -decay to first 0^+ excited level. ¹⁰⁰ Mo(β^-); deduced $T_{1/2}$ lower limit for charge non-conserving β -decay. Enriched sample MoO ₃ with HPGe detectors at the Gran Sasso National Laboratory underground facility. JOUR NUPAB 846 143
	2011WR01	NUCLEAR REACTIONS ¹⁰⁰ Mo(³² S, ³² S'), E not given; measured reaction products, $E\gamma$, $I\gamma$, particle- γ -coin. ¹⁰⁰ Mo; deduced quadrupole moment. JOUR APOBB 42 803
¹⁰⁰ Tc	2010BE34	RADIOACTIVITY ¹⁰⁰ Mo($2\beta^-$); measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $T_{1/2}$ for 2ν -accompanied $2\beta^-$ -decay to first 0^+ excited level. ¹⁰⁰ Mo(β^-); deduced $T_{1/2}$ lower limit for charge non-conserving β -decay. Enriched sample MoO ₃ with HPGe detectors at the Gran Sasso National Laboratory underground facility. JOUR NUPAB 846 143
¹⁰⁰ Ru	2010BE34	RADIOACTIVITY ¹⁰⁰ Mo($2\beta^-$); measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $T_{1/2}$ for 2ν -accompanied $2\beta^-$ -decay to first 0^+ excited level. ¹⁰⁰ Mo(β^-); deduced $T_{1/2}$ lower limit for charge non-conserving β -decay. Enriched sample MoO ₃ with HPGe detectors at the Gran Sasso National Laboratory underground facility. JOUR NUPAB 846 143
	2010MI24	NUCLEAR REACTIONS ⁹³ Nb(¹² C, $p\alpha$), E=37.5, 40, 42.5, 45, 50, 60 MeV; ⁹³ Nb(¹⁶ O, $p\alpha$), E=54, 60, 75 MeV; measured $E\alpha$, $I\alpha$, E_p , I_p , $E\gamma$, $I\gamma$, $\alpha\gamma$ -, $p\gamma$ -coin, σ , $\sigma(\theta)$, $\sigma(E_p, E\alpha)$. Comparison with statistical model calculations using computer code CASCADE. JOUR PRVCA 82 064608
¹⁰⁰ Pd	2011AN04	NUCLEAR REACTIONS ²⁴ Mg(⁸⁰ Se, $4n$) ¹⁰⁰ Pd, E=268 MeV; measured fusion-evaporation products, $E\gamma$, $I\gamma$; deduced weak deformation, energies, J , π , B(E2), yrast sequence. JOUR APOBB 42 807

A=101

¹⁰¹ Rb	2010MAZS	RADIOACTIVITY ^{94,100,101} Rb, ^{133,134} In, ^{137,138} I, ¹⁴⁷ Cs(β^-); measured $E\gamma$, $I\gamma$, En, In; deduced β -delayed neutron decay probability. Comparison with data, JEFF3.1, NNDC. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P285
	2011NI01	RADIOACTIVITY ^{97,98,99,100} Kr(β^-), ^{97,98,99,100,101,102} Rb(β^-), ^{101,102,103,104,105} Sr, ^{103,104,105,106,107,108} Y(β^-), ^{108,109,110} Zr(β^-), ^{111,112} Nb(β^-), ^{112,113,114,115} Mo(β^-), ^{116,117} Tc(β^-) [from Be(²³⁸ U, X), E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502
¹⁰¹ Sr	2010MAZS	RADIOACTIVITY ^{94,100,101} Rb, ^{133,134} In, ^{137,138} I, ¹⁴⁷ Cs(β^-); measured $E\gamma$, $I\gamma$, En, In; deduced β -delayed neutron decay probability. Comparison with data, JEFF3.1, NNDC. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P285

KEYNUMBERS AND KEYWORDS

A=101 (continued)

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|-------------------|---------------|---|
| 2011NI01 | RADIOACTIVITY | ^{97,98,99,100} Kr(β^-), ^{97,98,99,100,101,102} Rb(β^-),
^{101,102,103,104,105} Sr, ^{103,104,105,106,107,108} Y(β^-), ^{108,109,110} Zr(β^-),
^{111,112} Nb(β^-), ^{112,113,114,115} Mo(β^-), ^{116,117} Tc(β^-) [from Be(²³⁸ U, X),
E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced
T _{1/2} . Comparison with FRDM+QRPA, KTUY+GT2 model
calculations, astrophysical r-process path. JOUR PRLTA 106 052502 |
| ¹⁰¹ Y | 2010RZ02 | RADIOACTIVITY ²⁴⁸ Cm, ²⁵² Cf(SF); measured E γ , I γ , $\gamma\gamma$ -coin,
conversion coefficients, and half-life of isomer using EUROAM2 and
Gammasphere arrays. ¹⁴⁹ Pr; deduced levels, J, π , band, multiplicity,
B(E1), electric dipole moment, configuration. Comparison with
quasiparticle-rotor model calculations. ^{98,99,100,101} Y; measured E γ ,
$\gamma\gamma$ -coin. JOUR PRVCA 82 067304 |
| | 2011NI01 | RADIOACTIVITY ^{97,98,99,100} Kr(β^-), ^{97,98,99,100,101,102} Rb(β^-),
^{101,102,103,104,105} Sr, ^{103,104,105,106,107,108} Y(β^-), ^{108,109,110} Zr(β^-),
^{111,112} Nb(β^-), ^{112,113,114,115} Mo(β^-), ^{116,117} Tc(β^-) [from Be(²³⁸ U, X),
E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced
T _{1/2} . Comparison with FRDM+QRPA, KTUY+GT2 model
calculations, astrophysical r-process path. JOUR PRLTA 106 052502 |
| ¹⁰¹ Tc | 2011Y001 | RADIOACTIVITY ¹⁰¹ Tc(β^-); measured E γ , I γ ; deduced T _{1/2} .
Comparison with previous measurements. JOUR JRNC D 287 267 |
| ¹⁰¹ Ru | 2011Y001 | RADIOACTIVITY ¹⁰¹ Tc(β^-); measured E γ , I γ ; deduced T _{1/2} .
Comparison with previous measurements. JOUR JRNC D 287 267 |
| ¹⁰¹ Pd | 2010ZHZW | NUCLEAR REACTIONS ⁷⁶ Ge(²⁸ Si, 3n), E=85, 95 MeV; measured
E γ , I γ , $\gamma\gamma$ -coin. ¹⁰¹ Pd deduced levels, J, π , bands, yrast band. REPT
JAEA-Review 2010-056,P25,Zhou |

A=102

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|-------------------|----------|---|
| ¹⁰² Rb | 2011NI01 | RADIOACTIVITY ^{97,98,99,100} Kr(β^-), ^{97,98,99,100,101,102} Rb(β^-),
^{101,102,103,104,105} Sr, ^{103,104,105,106,107,108} Y(β^-), ^{108,109,110} Zr(β^-),
^{111,112} Nb(β^-), ^{112,113,114,115} Mo(β^-), ^{116,117} Tc(β^-) [from Be(²³⁸ U, X),
E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced
T _{1/2} . Comparison with FRDM+QRPA, KTUY+GT2 model
calculations, astrophysical r-process path. JOUR PRLTA 106 052502 |
| ¹⁰² Sr | 2011NI01 | RADIOACTIVITY ^{97,98,99,100} Kr(β^-), ^{97,98,99,100,101,102} Rb(β^-),
^{101,102,103,104,105} Sr, ^{103,104,105,106,107,108} Y(β^-), ^{108,109,110} Zr(β^-),
^{111,112} Nb(β^-), ^{112,113,114,115} Mo(β^-), ^{116,117} Tc(β^-) [from Be(²³⁸ U, X),
E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced
T _{1/2} . Comparison with FRDM+QRPA, KTUY+GT2 model
calculations, astrophysical r-process path. JOUR PRLTA 106 052502 |
| ¹⁰² Y | 2011NI01 | RADIOACTIVITY ^{97,98,99,100} Kr(β^-), ^{97,98,99,100,101,102} Rb(β^-),
^{101,102,103,104,105} Sr, ^{103,104,105,106,107,108} Y(β^-), ^{108,109,110} Zr(β^-),
^{111,112} Nb(β^-), ^{112,113,114,115} Mo(β^-), ^{116,117} Tc(β^-) [from Be(²³⁸ U, X),
E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced
T _{1/2} . Comparison with FRDM+QRPA, KTUY+GT2 model
calculations, astrophysical r-process path. JOUR PRLTA 106 052502 |

KEYNUMBERS AND KEYWORDS

A=102 (continued)

^{102}Zr	2010SMZZ	RADIOACTIVITY $^{252}\text{Cf}(\text{SF})$; measured $E\gamma$, $I\gamma(\theta)$, $I(\text{fragment}, q)$, $(\text{fragment})\gamma$ -coin. $^{100,102}\text{Zr}$, $^{104,106}\text{Mo}$, ^{114}Pd , ^{134}Te , $^{138,140}\text{Xe}$, $^{142,144}\text{Ba}$, $^{146,148}\text{Ce}$ deduced (fragment)- γ angular correlations for low-lying states, anisotropy coefficient. EUROBALL and GAMMASPHERE data; comparison with other results. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P193
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A=103

^{103}Sr	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}(^{238}\text{U}, \text{X})$, $E=345$ MeV / nucleon]; measured decay products, E_e , I_e ; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502
^{103}Y	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}(^{238}\text{U}, \text{X})$, $E=345$ MeV / nucleon]; measured decay products, E_e , I_e ; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502
^{103}Zr	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}(^{238}\text{U}, \text{X})$, $E=345$ MeV / nucleon]; measured decay products, E_e , I_e ; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502

A=104

^{104}Sr	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}(^{238}\text{U}, \text{X})$, $E=345$ MeV / nucleon]; measured decay products, E_e , I_e ; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502
^{104}Y	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}(^{238}\text{U}, \text{X})$, $E=345$ MeV / nucleon]; measured decay products, E_e , I_e ; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502

KEYNUMBERS AND KEYWORDS

A=104 (continued)

^{104}Zr	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from Be^{238}U , X), E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502
^{104}Mo	2010SMZZ	RADIOACTIVITY $^{252}\text{Cf}(\text{SF})$; measured $E\gamma$, $I\gamma(\theta)$, I(fragment, q), (fragment) γ -coin. $^{100,102}\text{Zr}$, $^{104,106}\text{Mo}$, ^{114}Pd , ^{134}Te , $^{138,140}\text{Xe}$, $^{142,144}\text{Ba}$, $^{146,148}\text{Ce}$ deduced (fragment)- γ angular correlations for low-lying states, anisotropy coefficient. EUROBALL and GAMMASPHERE data; comparison with other results. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P193
^{104}Pd	2010DI14	NUCLEAR REACTIONS $^{104}\text{Pd}(^{71}\text{Ga}, ^{71}\text{Ga}')$, $^{120}\text{Sn}(^{73}\text{Ga}, ^{73}\text{Ga}')$, E=2.95 MeV / nucleon, [secondary $^{71,73}\text{Ga}$ beams from U(p, X), E=1 GeV]; measured $E\gamma$, $I\gamma$, (particle) γ -, $\gamma\gamma$ -coin at REX-ISOLDE. ^{71}Ga , ^{73}Ga ; deduced levels, J, π , B(E2). Comparison with level systematics of $^{63,65,67,69,71,73,75,77}\text{Ga}$. Collectivity due to $g_{9/2}$ neutron orbital. JOUR PRVCA 82 064309
	2010MI24	NUCLEAR REACTIONS $^{93}\text{Nb}(^{12}\text{C}, p\alpha)$, E=37.5, 40, 42.5, 45, 50, 60 MeV; $^{93}\text{Nb}(^{16}\text{O}, p\alpha)$, E=54, 60, 75 MeV; measured $E\alpha$, $I\alpha$, Ep, Ip, $E\gamma$, $I\gamma$, $\alpha\gamma$ -, p γ -coin, σ , $\sigma(\theta)$, $\sigma(\text{Ep}, E\alpha)$. Comparison with statistical model calculations using computer code CASCADE. JOUR PRVCA 82 064608
	2010SOZY	NUCLEAR REACTIONS $^{96}\text{Zr}(^{13}\text{C}, 5n)$, E=51, 58 MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, E(particle), I(particle), (particle) γ -coin; deduced levels, J, π , high-spin band states configuration; calculated levels, J, π using Woods-Saxon cranking formalism. REPT ATOMKI 2009 Annual,P32,Sohler

A=105

^{105}Sr	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from Be^{238}U , X), E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502
^{105}Y	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from Be^{238}U , X), E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502

KEYNUMBERS AND KEYWORDS

A=105 (continued)

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| ^{105}Zr | 2011NI01 | RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}(^{238}\text{U}, \text{X})$, $E=345$ MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502 |
| ^{105}Cd | 2010CH54 | NUCLEAR REACTIONS $^{94}\text{Zr}(^{16}\text{O}, 5n)$, $E=93$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$ (DCO), and half-lives using Doppler shift attenuation method. ^{105}Cd ; deduced levels, J, π , band, B(E2), antimagnetic rotation. Comparison with semiclassical particle rotor model (SCM). JOUR PRVCA 82 061308 |

A=106

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|-------------------|----------|--|
| ^{106}Y | 2011NI01 | RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}(^{238}\text{U}, \text{X})$, $E=345$ MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502 |
| ^{106}Zr | 2011NI01 | RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}(^{238}\text{U}, \text{X})$, $E=345$ MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502 |
| ^{106}Mo | 2010SMZZ | RADIOACTIVITY $^{252}\text{Cf}(\text{SF})$; measured $E\gamma$, $I\gamma(\theta)$, I(fragment, q), (fragment) γ -coin. $^{100,102}\text{Zr}$, $^{104,106}\text{Mo}$, ^{114}Pd , ^{134}Te , $^{138,140}\text{Xe}$, $^{142,144}\text{Ba}$, $^{146,148}\text{Ce}$ deduced (fragment)- γ angular correlations for low-lying states, anisotropy coefficient. EUROBALL and GAMMASPHERE data; comparison with other results. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P193 |
| ^{106}Pd | 2010GU20 | NUCLEAR MOMENTS ^{106}Pd ; measured g factors and half-lives of low lying 2+ and 4+ states using transient field (TF) technique in inverse kinematics in Coulomb excitation. Comparison with previous measurements and theoretical predictions. JOUR PRVCA 82 064301 |
| | 2010GU20 | NUCLEAR REACTIONS $\text{C}(^{106}\text{Pd}, \text{C}')$, $E=230, 280, 290, 300$ MeV; measured scattered C ions, $E\gamma$, $I\gamma$, $\gamma(\theta, \text{H})$, $(^{12}\text{C})\gamma$ -coin, level half-lives by line-shape method. ^{106}Pd ; deduced g factors, B(E2) values. JOUR PRVCA 82 064301 |
| ^{106}Cd | 2011GA08 | NUCLEAR REACTIONS ^{12}C , $^{112,114,116,118,120,122,124}\text{Sn}$, $^{106,110,112,114,116}\text{Cd}(\alpha, \alpha')$, $E=386$ MeV; measured $E\alpha$, $I\alpha$. $^{112,114,116,118,120,122,124}\text{Sn}$, $^{106,110,112,114,116}\text{Cd}$; deduced Isoscalar Giant Monopole Resonance (ISGMR) strength distribution, incompressibility of nucleus systematics. JOUR APOBB 42 659 |

KEYNUMBERS AND KEYWORDS

A=107

^{107}Y	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}^{(238}\text{U, X)}$, E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502
^{107}Zr	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}^{(238}\text{U, X)}$, E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502

A=108

^{108}Y	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}^{(238}\text{U, X)}$, E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502
^{108}Zr	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}^{(238}\text{U, X)}$, E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502
^{108}Nb	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}^{(238}\text{U, X)}$, E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502

A=109

^{109}Zr	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}^{(238}\text{U, X)}$, E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502
	2011WA03	NUCLEAR REACTIONS $\text{Be}^{(238}\text{U, X)}$ ^{109}Nb / ^{109}Zr , E=345 MeV / nucleon; measured fission fragments, $E\gamma$, $I\gamma$, β - γ -coin.; deduced level scheme, J, π , $T_{1/2}$ for isomeric state in ^{109}Nb , B(E1), B(M1), B(E2), B(M2), low-lying oblate-deformed states. Nilsson diagrams, calculation of potential energy surfaces. JOUR PYLBB 696 186

KEYNUMBERS AND KEYWORDS

A=109 (continued)

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| ^{109}Nb | 2011NI01 | RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}(^{238}\text{U}, \text{X})$, $E=345$ MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502 |
| | 2011WA03 | NUCLEAR REACTIONS $\text{Be}(^{238}\text{U}, \text{X})^{109}\text{Nb}$ / ^{109}Zr , $E=345$ MeV / nucleon; measured fission fragments, $E\gamma$, $I\gamma$, β - γ -coin.; deduced level scheme, J , π , $T_{1/2}$ for isomeric state in ^{109}Nb , B(E1), B(M1), B(E2), B(M2), low-lying oblate-deformed states. Nilsson diagrams, calculation of potential energy surfaces. JOUR PYLBB 696 186 |
| ^{109}Tc | 2010UR03 | RADIOACTIVITY $^{248}\text{Cm}(\text{SF})$; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$ using EUROGAM2 array. ^{109}Tc ; deduced levels, J , π , conversion coefficients, multipolarities, rotational bands. ^{110}Tc , $^{135,136,137}\text{I}$; measured $E\gamma$. Comparison with level systematics of $^{103,105,107,109,111}\text{Tc}$. Comparison with quasiparticle-rotor model (QPRM) calculations. Evidence for triaxial nature of ^{109}Tc . JOUR PRVCA 82 064308 |
| ^{109}Ag | 2011VA02 | RADIOACTIVITY $^{109}\text{Cd}(\text{EC})$; measured ionization, $E\gamma$, $I\gamma$; deduced $T_{1/2}$ and uncertainties. Comparison with experimental data. JOUR ARISE 69 785 |
| ^{109}Cd | 2011VA02 | RADIOACTIVITY $^{109}\text{Cd}(\text{EC})$; measured ionization, $E\gamma$, $I\gamma$; deduced $T_{1/2}$ and uncertainties. Comparison with experimental data. JOUR ARISE 69 785 |

A=110

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|-------------------|----------|--|
| ^{110}Zr | 2011NI01 | RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}(^{238}\text{U}, \text{X})$, $E=345$ MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502 |
| ^{110}Nb | 2011NI01 | RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}(^{238}\text{U}, \text{X})$, $E=345$ MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502 |
| ^{110}Tc | 2010UR03 | RADIOACTIVITY $^{248}\text{Cm}(\text{SF})$; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$ using EUROGAM2 array. ^{109}Tc ; deduced levels, J , π , conversion coefficients, multipolarities, rotational bands. ^{110}Tc , $^{135,136,137}\text{I}$; measured $E\gamma$. Comparison with level systematics of $^{103,105,107,109,111}\text{Tc}$. Comparison with quasiparticle-rotor model (QPRM) calculations. Evidence for triaxial nature of ^{109}Tc . JOUR PRVCA 82 064308 |

KEYNUMBERS AND KEYWORDS

A=110 (continued)

¹¹⁰Cd 2011GA08 NUCLEAR REACTIONS ¹²C, ^{112,114,116,118,120,122,124}Sn, ^{106,110,112,114,116}Cd(α , α'), E=386 MeV; measured E α , I α . ^{112,114,116,118,120,122,124}Sn, ^{106,110,112,114,116}Cd; deduced Isoscalar Giant Monopole Resonance (ISGMR) strength distribution, incompressibility of nucleus systematics. JOUR APOBB 42 659

A=111

¹¹¹Nb 2011NI01 RADIOACTIVITY ^{97,98,99,100}Kr(β^-), ^{97,98,99,100,101,102}Rb(β^-), ^{101,102,103,104,105}Sr, ^{103,104,105,106,107,108}Y(β^-), ^{108,109,110}Zr(β^-), ^{111,112}Nb(β^-), ^{112,113,114,115}Mo(β^-), ^{116,117}Tc(β^-) [from Be(²³⁸U, X), E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced T_{1/2}. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502

¹¹¹Mo 2011NI01 RADIOACTIVITY ^{97,98,99,100}Kr(β^-), ^{97,98,99,100,101,102}Rb(β^-), ^{101,102,103,104,105}Sr, ^{103,104,105,106,107,108}Y(β^-), ^{108,109,110}Zr(β^-), ^{111,112}Nb(β^-), ^{112,113,114,115}Mo(β^-), ^{116,117}Tc(β^-) [from Be(²³⁸U, X), E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced T_{1/2}. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502

¹¹¹In 2011BA05 NUCLEAR REACTIONS ¹⁰⁰Mo(¹⁹F, 4n α), E=105 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$ (DCO), level half-lives via DSAM using INGA array. ¹¹¹In; deduced levels, J, π , bands, shears band, B(M1), B(E2), mixing ratio, shears angle, proton angle, gyromagnetic ratios. Comparison of B(M1) values with predictions of semi-classical model. JOUR PRVCA 83 024316

A=112

¹¹²Nb 2011NI01 RADIOACTIVITY ^{97,98,99,100}Kr(β^-), ^{97,98,99,100,101,102}Rb(β^-), ^{101,102,103,104,105}Sr, ^{103,104,105,106,107,108}Y(β^-), ^{108,109,110}Zr(β^-), ^{111,112}Nb(β^-), ^{112,113,114,115}Mo(β^-), ^{116,117}Tc(β^-) [from Be(²³⁸U, X), E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced T_{1/2}. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502

¹¹²Mo 2011NI01 RADIOACTIVITY ^{97,98,99,100}Kr(β^-), ^{97,98,99,100,101,102}Rb(β^-), ^{101,102,103,104,105}Sr, ^{103,104,105,106,107,108}Y(β^-), ^{108,109,110}Zr(β^-), ^{111,112}Nb(β^-), ^{112,113,114,115}Mo(β^-), ^{116,117}Tc(β^-) [from Be(²³⁸U, X), E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced T_{1/2}. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502

¹¹²Tc 2011NI01 RADIOACTIVITY ^{97,98,99,100}Kr(β^-), ^{97,98,99,100,101,102}Rb(β^-), ^{101,102,103,104,105}Sr, ^{103,104,105,106,107,108}Y(β^-), ^{108,109,110}Zr(β^-), ^{111,112}Nb(β^-), ^{112,113,114,115}Mo(β^-), ^{116,117}Tc(β^-) [from Be(²³⁸U, X), E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced T_{1/2}. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502

KEYNUMBERS AND KEYWORDS

A=112 (continued)

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|-------------------|----------|--|
| ^{112}Ag | 2011GA10 | RADIOACTIVITY $^{112}\text{Ag}(\beta^-)$ [from Ta(p, X), E=500 MeV]; measured $E\gamma$, γ , γ - γ -coin.; deduced branching ratios, B(E2), rotational interpretation. JOUR APOBB 42 799 |
| ^{112}Cd | 2011GA08 | NUCLEAR REACTIONS ^{12}C , $^{112,114,116,118,120,122,124}\text{Sn}$, $^{106,110,112,114,116}\text{Cd}(\alpha, \alpha')$, E=386 MeV; measured $E\alpha$, $I\alpha$. $^{112,114,116,118,120,122,124}\text{Sn}$, $^{106,110,112,114,116}\text{Cd}$; deduced Isoscalar Giant Monopole Resonance (ISGMR) strength distribution, incompressibility of nucleus systematics. JOUR APOBB 42 659 |
| | 2011GA10 | RADIOACTIVITY $^{112}\text{Ag}(\beta^-)$ [from Ta(p, X), E=500 MeV]; measured $E\gamma$, γ , γ - γ -coin.; deduced branching ratios, B(E2), rotational interpretation. JOUR APOBB 42 799 |
| ^{112}In | 2011HE04 | NUCLEAR REACTIONS $^{110}\text{Pd}({}^7\text{Li}, 5n)$, E=40-50 MeV; measured $E\gamma$, $I\gamma$, γ - γ -coin, $\gamma\gamma(\theta)$ (DCO), excitation functions. ^{112}In ; deduced levels, J, π , rotational bands, multipolarities, B(M1) / B(E2), alignments, configurations. Comparison with particle-plus-rotor model calculations. JOUR PRVCA 83 024309 |
| ^{112}Sn | 2011DE05 | NUCLEAR REACTIONS $^{112}\text{Sn}({}^6\text{Li}, {}^6\text{Li})$, (${}^6\text{Li}$, X), E=21, 23, 25, 35 MeV; $^{116}\text{Sn}({}^6\text{Li}, {}^6\text{Li})$, (${}^6\text{Li}$, X), E=20, 21, 22, 23, 26, 30, 35 MeV; measured ${}^6\text{Li}$ spectra by E- Δ E method; deduced elastic scattering σ and total reaction σ . Optical model analysis with phenomenological Woods-Saxon potential. Comparison of reduced cross sections with reaction cross sections for several other systems. Presence of the breakup threshold anomaly. JOUR PRVCA 83 024607 |
| | 2011GA08 | NUCLEAR REACTIONS ^{12}C , $^{112,114,116,118,120,122,124}\text{Sn}$, $^{106,110,112,114,116}\text{Cd}(\alpha, \alpha')$, E=386 MeV; measured $E\alpha$, $I\alpha$. $^{112,114,116,118,120,122,124}\text{Sn}$, $^{106,110,112,114,116}\text{Cd}$; deduced Isoscalar Giant Monopole Resonance (ISGMR) strength distribution, incompressibility of nucleus systematics. JOUR APOBB 42 659 |
| | 2011JU01 | NUCLEAR REACTIONS C, Gd, Cu(^{112}Sn , $^{112}\text{Sn}'$), (^{114}Sn , $^{114}\text{Sn}'$), (^{116}Sn , $^{116}\text{Sn}'$), (^{118}Sn , $^{118}\text{Sn}'$), (^{120}Sn , $^{120}\text{Sn}'$), (^{122}Sn , $^{122}\text{Sn}'$), (^{124}Sn , $^{124}\text{Sn}'$), E=4 MeV / nucleon; measured $E\gamma$, $I\gamma$, particle- γ coin. $^{112,114,116,118,120,122,124}\text{Sn}$; deduced energy levels, lifetimes, B(E2). Comparison with shell model calculations. JOUR PYLBB 695 110 |
| | 2011KU05 | NUCLEAR REACTIONS $^{58}\text{Ni}({}^{114}\text{Sn}$, $^{114}\text{Sn}'$), (^{116}Sn , $^{116}\text{Sn}'$), E=3.4 MeV / nucleon; measured $E\gamma$, $I\gamma$, particle- γ -coin. $^{112,114}\text{Sn}$; deduced B(E2). Comparison with RQRPA calculations. JOUR APOBB 42 813 |

A=113

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|-------------------|----------|---|
| ^{113}Mo | 2011NI01 | RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from Be(^{238}U , X), E=345 MeV / nucleon]; measured decay products, E_e , I_e ; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502 |
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KEYNUMBERS AND KEYWORDS

A=113 (continued)

^{113}Tc	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}^{(238}\text{U, X)}$, $E=345$ MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502
^{113}Cd	2011K001	RADIOACTIVITY $^{113}\text{Cd}(\beta^-)$, (IT); measured $E\gamma$, $I\gamma$; deduced $T_{1/2}$ with low uncertainty. CIEMAT / NIST and triple-to-double coincidence counting technique. JOUR ARISE 69 500
^{113}In	2011K001	RADIOACTIVITY $^{113}\text{Cd}(\beta^-)$, (IT); measured $E\gamma$, $I\gamma$; deduced $T_{1/2}$ with low uncertainty. CIEMAT / NIST and triple-to-double coincidence counting technique. JOUR ARISE 69 500

A=114

^{114}Mo	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}^{(238}\text{U, X)}$, $E=345$ MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502
^{114}Tc	2011NI01	RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from $\text{Be}^{(238}\text{U, X)}$, $E=345$ MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502
	2011RI01	RADIOACTIVITY $^{114}\text{Tc}(\beta^-)$ [from $\text{U}(\text{d, X})$, $E=25$ MeV]; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, half-lives, mass difference by Penning-Trap (JYFLTRAP) assisted spectroscopy. IGISOL facility. ^{114}Ru ; deduced levels, isomers, J, π , configurations, Q value for β decay, logft. Comparison with microscopic Bohr-Hamiltonian calculations using Sly4 Skyrme interaction. JOUR PRVCA 83 011301
^{114}Ru	2011RI01	RADIOACTIVITY $^{114}\text{Tc}(\beta^-)$ [from $\text{U}(\text{d, X})$, $E=25$ MeV]; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, half-lives, mass difference by Penning-Trap (JYFLTRAP) assisted spectroscopy. IGISOL facility. ^{114}Ru ; deduced levels, isomers, J, π , configurations, Q value for β decay, logft. Comparison with microscopic Bohr-Hamiltonian calculations using Sly4 Skyrme interaction. JOUR PRVCA 83 011301
^{114}Pd	2010SMZZ	RADIOACTIVITY $^{252}\text{Cf}(\text{SF})$; measured $E\gamma$, $I\gamma(\theta)$, I(fragment, q), (fragment) γ -coin. $^{100,102}\text{Zr}$, $^{104,106}\text{Mo}$, ^{114}Pd , ^{134}Te , $^{138,140}\text{Xe}$, $^{142,144}\text{Ba}$, $^{146,148}\text{Ce}$ deduced (fragment)- γ angular correlations for low-lying states, anisotropy coefficient. EUROBALL and GAMMASPHERE data; comparison with other results. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P193

KEYNUMBERS AND KEYWORDS

A=114 (continued)

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| ^{114}Cd | 2011GA08 | NUCLEAR REACTIONS ^{12}C , $^{112,114,116,118,120,122,124}\text{Sn}$, $^{106,110,112,114,116}\text{Cd}(\alpha, \alpha')$, E=386 MeV; measured $E\alpha$, $I\alpha$. $^{112,114,116,118,120,122,124}\text{Sn}$, $^{106,110,112,114,116}\text{Cd}$; deduced Isoscalar Giant Monopole Resonance (ISGMR) strength distribution, incompressibility of nucleus systematics. JOUR APOBB 42 659 |
| ^{114}Sn | 2011GA08 | NUCLEAR REACTIONS ^{12}C , $^{112,114,116,118,120,122,124}\text{Sn}$, $^{106,110,112,114,116}\text{Cd}(\alpha, \alpha')$, E=386 MeV; measured $E\alpha$, $I\alpha$. $^{112,114,116,118,120,122,124}\text{Sn}$, $^{106,110,112,114,116}\text{Cd}$; deduced Isoscalar Giant Monopole Resonance (ISGMR) strength distribution, incompressibility of nucleus systematics. JOUR APOBB 42 659 |
| | 2011JU01 | NUCLEAR REACTIONS C, Gd, Cu(^{112}Sn , $^{112}\text{Sn}'$), (^{114}Sn , $^{114}\text{Sn}'$), (^{116}Sn , $^{116}\text{Sn}'$), (^{118}Sn , $^{118}\text{Sn}'$), (^{120}Sn , $^{120}\text{Sn}'$), (^{122}Sn , $^{122}\text{Sn}'$), (^{124}Sn , $^{124}\text{Sn}'$), E=4 MeV / nucleon; measured $E\gamma$, $I\gamma$, particle- γ coin. $^{112,114,116,118,120,122,124}\text{Sn}$; deduced energy levels, lifetimes, B(E2). Comparison with shell model calculations. JOUR PYLBB 695 110 |
| | 2011KU05 | NUCLEAR REACTIONS ^{58}Ni (^{114}Sn , $^{114}\text{Sn}'$), (^{116}Sn , $^{116}\text{Sn}'$), E=3.4 MeV / nucleon; measured $E\gamma$, $I\gamma$, particle- γ -coin. $^{112,114}\text{Sn}$; deduced B(E2). Comparison with RQRPA calculations. JOUR APOBB 42 813 |

A=115

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| ^{115}Mo | 2011NI01 | RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from Be(^{238}U , X), E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502 |
| ^{115}Tc | 2011NI01 | RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from Be(^{238}U , X), E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502 |
| ^{115}Ru | 2010KU25 | RADIOACTIVITY $^{115}\text{Ru}(\text{IT})$, (β^-) [From $^{238}\text{U}(\text{p}, \text{X})$, E=25 MeV]; measured $E\gamma$, $I\gamma$, $\beta\gamma$ -, $\gamma\gamma$ -coin, isomer and ground state half-lives, JYFLTRAP assisted $\beta\gamma$ spectroscopy. ^{115}Ru , ^{115}Rh ; deduced levels, J, π , conversion coefficients, multipolarity. systematics of low-lying levels and isomers in $^{113,115,117}\text{Pd}$, $^{113,115}\text{Ru}$. JOUR PRVCA 82 064318 |
| ^{115}Rh | 2010KU25 | RADIOACTIVITY $^{115}\text{Ru}(\text{IT})$, (β^-) [From $^{238}\text{U}(\text{p}, \text{X})$, E=25 MeV]; measured $E\gamma$, $I\gamma$, $\beta\gamma$ -, $\gamma\gamma$ -coin, isomer and ground state half-lives, JYFLTRAP assisted $\beta\gamma$ spectroscopy. ^{115}Ru , ^{115}Rh ; deduced levels, J, π , conversion coefficients, multipolarity. systematics of low-lying levels and isomers in $^{113,115,117}\text{Pd}$, $^{113,115}\text{Ru}$. JOUR PRVCA 82 064318 |
| ^{115}Cd | 2011PU01 | NUCLEAR REACTIONS ^{27}Al , $^{118,120}\text{Sn}(\text{n}, \alpha)$, $^{90}\text{Zr}(\text{n}, 2\text{n})$, E=13.5-14.6 MeV; measured $E\gamma$, $I\gamma$; deduced σ . Comparison with ENDF / B-VII.0, CENDL-3.1, JENDL-4.0 evaluated neutron libraries. JOUR JRNC D 288 507 |

KEYNUMBERS AND KEYWORDS

A=115 (continued)

¹¹⁵Sb 2011TA03 NUCLEAR REACTIONS Sn(d, xn)¹¹⁵Sb / ¹¹⁶Sb / ¹¹⁷Sb / ¹¹⁸Sb / ¹²⁰Sb / ¹²²Sb / ¹²⁴Sb / ¹²⁵Sb, E<40 MeV; Ti(d, X)⁴⁸V, Al(d, X)²²Na / ²⁴Na, E<40 MeV; measured E γ , I γ ; deduced σ . Comparison with ALICE-IPPE, EMPIRE nuclear model calculations, TENDL nuclear data library, experimental data. JOUR NIMBE 269 405

A=116

¹¹⁶Tc 2011NI01 RADIOACTIVITY ^{97,98,99,100}Kr(β^-), ^{97,98,99,100,101,102}Rb(β^-), ^{101,102,103,104,105}Sr, ^{103,104,105,106,107,108}Y(β^-), ^{108,109,110}Zr(β^-), ^{111,112}Nb(β^-), ^{112,113,114,115}Mo(β^-), ^{116,117}Tc(β^-) [from Be(²³⁸U, X), E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced T_{1/2}. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502

¹¹⁶Ru 2011NI01 RADIOACTIVITY ^{97,98,99,100}Kr(β^-), ^{97,98,99,100,101,102}Rb(β^-), ^{101,102,103,104,105}Sr, ^{103,104,105,106,107,108}Y(β^-), ^{108,109,110}Zr(β^-), ^{111,112}Nb(β^-), ^{112,113,114,115}Mo(β^-), ^{116,117}Tc(β^-) [from Be(²³⁸U, X), E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced T_{1/2}. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502

¹¹⁶Cd 2011GA08 NUCLEAR REACTIONS ¹²C, ^{112,114,116,118,120,122,124}Sn, ^{106,110,112,114,116}Cd(α , α'), E=386 MeV; measured E α , I α . ^{112,114,116,118,120,122,124}Sn, ^{106,110,112,114,116}Cd; deduced Isoscalar Giant Monopole Resonance (ISGMR) strength distribution, incompressibility of nucleus systematics. JOUR APOBB 42 659

¹¹⁶In 2011NG01 NUCLEAR REACTIONS ¹⁶⁵Ho, ¹⁹⁷Au, ¹¹⁵In(n, γ), E=0.45 MeV; measured E γ , I γ ; deduced thermal σ , resonance integrals. Comparison with evaluated libraries and experimental data. JOUR NIMBE 269 159

¹¹⁶Sn 2009GUZR NUCLEAR REACTIONS ¹¹⁸Sn(p, t), E=24.6 MeV; ¹²⁴Sn(p, t), E=25 MeV; measured E(particle), I(particle, θ); deduced $\sigma(\theta)$; calculated $\sigma(\theta)$ using cluster DWBA. CONF Dub(Nucl Struct and Dynamics,09) Proc,P353

2011DE05 NUCLEAR REACTIONS ¹¹²Sn(⁶Li, ⁶Li), (⁶Li, X), E=21, 23, 25, 35 MeV; ¹¹⁶Sn(⁶Li, ⁶Li), (⁶Li, X), E=20, 21, 22, 23, 26, 30, 35 MeV; measured ⁶Li spectra by E- Δ E method; deduced elastic scattering σ and total reaction σ . Optical model analysis with phenomenological Woods-Saxon potential. Comparison of reduced cross sections with reaction cross sections for several other systems. Presence of the breakup threshold anomaly. JOUR PRVCA 83 024607

2011GA08 NUCLEAR REACTIONS ¹²C, ^{112,114,116,118,120,122,124}Sn, ^{106,110,112,114,116}Cd(α , α'), E=386 MeV; measured E α , I α . ^{112,114,116,118,120,122,124}Sn, ^{106,110,112,114,116}Cd; deduced Isoscalar Giant Monopole Resonance (ISGMR) strength distribution, incompressibility of nucleus systematics. JOUR APOBB 42 659

A=116 (continued)

- 2011JU01 NUCLEAR REACTIONS C, Gd, Cu(^{112}Sn , $^{112}\text{Sn}'$), (^{114}Sn , $^{114}\text{Sn}'$), (^{116}Sn , $^{116}\text{Sn}'$), (^{118}Sn , $^{118}\text{Sn}'$), (^{120}Sn , $^{120}\text{Sn}'$), (^{122}Sn , $^{122}\text{Sn}'$), (^{124}Sn , $^{124}\text{Sn}'$), E=4 MeV / nucleon; measured $E\gamma$, $I\gamma$, particle- γ coin. $^{112,114,116,118,120,122,124}\text{Sn}$; deduced energy levels, lifetimes, B(E2). Comparison with shell model calculations. JOUR PYLBB 695 110
- ^{116}Sb 2011TA03 NUCLEAR REACTIONS Sn(d, xn) ^{115}Sb / ^{116}Sb / ^{117}Sb / ^{118}Sb / ^{120}Sb / ^{122}Sb / ^{124}Sb / ^{125}Sb , E<40 MeV; Ti(d, X) ^{48}V , Al(d, X) ^{22}Na / ^{24}Na , E<40 MeV; measured $E\gamma$, $I\gamma$; deduced σ . Comparison with ALICE-IPPE, EMPIRE nuclear model calculations, TENDL nuclear data library, experimental data. JOUR NIMBE 269 405

A=117

- ^{117}Tc 2011NI01 RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from Be(^{238}U , X), E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502
- ^{117}Ru 2011NI01 RADIOACTIVITY $^{97,98,99,100}\text{Kr}(\beta^-)$, $^{97,98,99,100,101,102}\text{Rb}(\beta^-)$, $^{101,102,103,104,105}\text{Sr}$, $^{103,104,105,106,107,108}\text{Y}(\beta^-)$, $^{108,109,110}\text{Zr}(\beta^-)$, $^{111,112}\text{Nb}(\beta^-)$, $^{112,113,114,115}\text{Mo}(\beta^-)$, $^{116,117}\text{Tc}(\beta^-)$ [from Be(^{238}U , X), E=345 MeV / nucleon]; measured decay products, Ee, Ie; deduced $T_{1/2}$. Comparison with FRDM+QRPA, KTUY+GT2 model calculations, astrophysical r-process path. JOUR PRLTA 106 052502
- ^{117}Cd 2011PU01 NUCLEAR REACTIONS ^{27}Al , $^{118,120}\text{Sn}(n, \alpha)$, $^{90}\text{Zr}(n, 2n)$, E=13.5-14.6 MeV; measured $E\gamma$, $I\gamma$; deduced σ . Comparison with ENDF / B-VII.0, CENDL-3.1, JENDL-4.0 evaluated neutron libraries. JOUR JRNC 288 507
- ^{117}Sb 2011TA03 NUCLEAR REACTIONS Sn(d, xn) ^{115}Sb / ^{116}Sb / ^{117}Sb / ^{118}Sb / ^{120}Sb / ^{122}Sb / ^{124}Sb / ^{125}Sb , E<40 MeV; Ti(d, X) ^{48}V , Al(d, X) ^{22}Na / ^{24}Na , E<40 MeV; measured $E\gamma$, $I\gamma$; deduced σ . Comparison with ALICE-IPPE, EMPIRE nuclear model calculations, TENDL nuclear data library, experimental data. JOUR NIMBE 269 405

A=118

- ^{118}Sn 2011GA08 NUCLEAR REACTIONS ^{12}C , $^{112,114,116,118,120,122,124}\text{Sn}$, $^{106,110,112,114,116}\text{Cd}(\alpha, \alpha')$, E=386 MeV; measured $E\alpha$, $I\alpha$. $^{112,114,116,118,120,122,124}\text{Sn}$, $^{106,110,112,114,116}\text{Cd}$; deduced Isoscalar Giant Monopole Resonance (ISGMR) strength distribution, incompressibility of nucleus systematics. JOUR APOBB 42 659
- 2011JU01 NUCLEAR REACTIONS C, Gd, Cu(^{112}Sn , $^{112}\text{Sn}'$), (^{114}Sn , $^{114}\text{Sn}'$), (^{116}Sn , $^{116}\text{Sn}'$), (^{118}Sn , $^{118}\text{Sn}'$), (^{120}Sn , $^{120}\text{Sn}'$), (^{122}Sn , $^{122}\text{Sn}'$), (^{124}Sn , $^{124}\text{Sn}'$), E=4 MeV / nucleon; measured $E\gamma$, $I\gamma$, particle- γ coin. $^{112,114,116,118,120,122,124}\text{Sn}$; deduced energy levels, lifetimes, B(E2). Comparison with shell model calculations. JOUR PYLBB 695 110

KEYNUMBERS AND KEYWORDS

A=118 (continued)

- ¹¹⁸Sb 2010WA41 NUCLEAR REACTIONS ¹¹⁶Cd(⁷Li, 5n), E=50 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$ (DCO). ¹¹⁸Sb; deduced levels, J, π , bands, B(M1) / B(E2) ratios and configurations. Comparison with particle-rotor model (PRM) and triaxial relativistic mean-field approach. JOUR PRVCA 82 057303
- 2011TA03 NUCLEAR REACTIONS Sn(d, xn)¹¹⁵Sb / ¹¹⁶Sb / ¹¹⁷Sb / ¹¹⁸Sb / ¹²⁰Sb / ¹²²Sb / ¹²⁴Sb / ¹²⁵Sb, E<40 MeV; Ti(d, X)⁴⁸V, Al(d, X)²²Na / ²⁴Na, E<40 MeV; measured E γ , I γ ; deduced σ . Comparison with ALICE-IPPE, EMPIRE nuclear model calculations, TENDL nuclear data library, experimental data. JOUR NIMBE 269 405

A=119

No references found

A=120

- ¹²⁰Sn 2009ACZX NUCLEAR REACTIONS ¹²⁰Sn(¹¹Be, ¹¹Be'), (¹¹Be, n¹⁰Be), E=32 MeV; measured thick target E(particle), I(particle, θ), (particle)(particle)-coin; deduced halo nuclei $\sigma(\theta)$, breakup probability; calculated $\sigma(\theta)$ using CDCC (Continuum-Discretized CC). CONF Dub(Nucl Struct and Dynamics,09) Proc,P317
- 2010DI14 NUCLEAR REACTIONS ¹⁰⁴Pd(⁷¹Ga, ⁷¹Ga'), ¹²⁰Sn(⁷³Ga, ⁷³Ga'), E=2.95 MeV / nucleon, [secondary ^{71,73}Ga beams from U(p, X), E=1 GeV]; measured E γ , I γ , (particle) γ -, $\gamma\gamma$ -coin at REX-ISOLDE. ⁷¹Ga, ⁷³Ga; deduced levels, J, π , B(E2). Comparison with level systematics of ^{63,65,67,69,71,73,75,77}Ga. Collectivity due to g_{9/2} neutron orbital. JOUR PRVCA 82 064309
- 2011AN01 RADIOACTIVITY ¹²⁰Te(β^+ EC); measured E γ , I γ ; deduced double beta decay 0 ν - and 2 ν -mode T_{1/2} limits. JOUR APHYE 34 643
- 2011GA08 NUCLEAR REACTIONS ¹²C, ^{112,114,116,118,120,122,124}Sn, ^{106,110,112,114,116}Cd(α , α'), E=386 MeV; measured E α , I α . ^{112,114,116,118,120,122,124}Sn, ^{106,110,112,114,116}Cd; deduced Isoscalar Giant Monopole Resonance (ISGMR) strength distribution, incompressibility of nucleus systematics. JOUR APOBB 42 659
- 2011JU01 NUCLEAR REACTIONS C, Gd, Cu(¹¹²Sn, ¹¹²Sn'), (¹¹⁴Sn, ¹¹⁴Sn'), (¹¹⁶Sn, ¹¹⁶Sn'), (¹¹⁸Sn, ¹¹⁸Sn'), (¹²⁰Sn, ¹²⁰Sn'), (¹²²Sn, ¹²²Sn'), (¹²⁴Sn, ¹²⁴Sn'), E=4 MeV / nucleon; measured E γ , I γ , particle- γ coin. ^{112,114,116,118,120,122,124}Sn; deduced energy levels, lifetimes, B(E2). Comparison with shell model calculations. JOUR PYLBB 695 110
- ¹²⁰Sb 2011TA03 NUCLEAR REACTIONS Sn(d, xn)¹¹⁵Sb / ¹¹⁶Sb / ¹¹⁷Sb / ¹¹⁸Sb / ¹²⁰Sb / ¹²²Sb / ¹²⁴Sb / ¹²⁵Sb, E<40 MeV; Ti(d, X)⁴⁸V, Al(d, X)²²Na / ²⁴Na, E<40 MeV; measured E γ , I γ ; deduced σ . Comparison with ALICE-IPPE, EMPIRE nuclear model calculations, TENDL nuclear data library, experimental data. JOUR NIMBE 269 405
- ¹²⁰Te 2011AN01 RADIOACTIVITY ¹²⁰Te(β^+ EC); measured E γ , I γ ; deduced double beta decay 0 ν - and 2 ν -mode T_{1/2} limits. JOUR APHYE 34 643

KEYNUMBERS AND KEYWORDS

A=121

¹²¹I 2011HE01 NUCLEAR REACTIONS ¹²⁴Xe(p, α), (p, 2n), (p, 2p), E<35 MeV; measured reaction products; deduced σ, thick target yields. Comparison with ALICE-IPPE, EMPIRE and TALYS model codes. JOUR ARISE 69 358

A=122

¹²²Sn 2009GUZR NUCLEAR REACTIONS ¹¹⁸Sn(p, t), E=24.6 MeV; ¹²⁴Sn(p, t), E=25 MeV; measured E(particle), I(particle, θ); deduced σ(θ); calculated σ(θ) using cluster DWBA. CONF Dub(Nucl Struct and Dynamics,09) Proc,P353

 2011GA08 NUCLEAR REACTIONS ¹²C, ^{112,114,116,118,120,122,124}Sn, ^{106,110,112,114,116}Cd(α, α'), E=386 MeV; measured Eα, Iα. ^{112,114,116,118,120,122,124}Sn, ^{106,110,112,114,116}Cd; deduced Isoscalar Giant Monopole Resonance (ISGMR) strength distribution, incompressibility of nucleus systematics. JOUR APOBB 42 659

 2011JU01 NUCLEAR REACTIONS C, Gd, Cu(¹¹²Sn, ¹¹²Sn'), (¹¹⁴Sn, ¹¹⁴Sn'), (¹¹⁶Sn, ¹¹⁶Sn'), (¹¹⁸Sn, ¹¹⁸Sn'), (¹²⁰Sn, ¹²⁰Sn'), (¹²²Sn, ¹²²Sn'), (¹²⁴Sn, ¹²⁴Sn'), E=4 MeV / nucleon; measured Eγ, Iγ, particle-γ coin. ^{112,114,116,118,120,122,124}Sn; deduced energy levels, lifetimes, B(E2). Comparison with shell model calculations. JOUR PYLBB 695 110

¹²²Sb 2011TA03 NUCLEAR REACTIONS Sn(d, xn)¹¹⁵Sb / ¹¹⁶Sb / ¹¹⁷Sb / ¹¹⁸Sb / ¹²⁰Sb / ¹²²Sb / ¹²⁴Sb / ¹²⁵Sb, E<40 MeV; Ti(d, X)⁴⁸V, Al(d, X)²²Na / ²⁴Na, E<40 MeV; measured Eγ, Iγ; deduced σ. Comparison with ALICE-IPPE, EMPIRE nuclear model calculations, TENDL nuclear data library, experimental data. JOUR NIMBE 269 405

¹²²Ba 2010BI11 NUCLEAR REACTIONS ¹⁰⁸Cd(¹⁶O, 2n), E=62, 64, 65 MeV; ¹¹²Sn(¹³C, 3n), E=59 MeV; measured Eγ, Iγ, γγ-coin, half-lives by recoil-distance Doppler-shift (RDDS) method using plunger device, and differential decay curve method (DDCM). ¹²²Ba; deduced levels, B(E2). Comparison with X(5), IBA-1 and IBA-2 model calculations. JOUR PRVCA 82 054311

A=123

¹²³I 2011HE01 NUCLEAR REACTIONS ¹²⁴Xe(p, α), (p, 2n), (p, 2p), E<35 MeV; measured reaction products; deduced σ, thick target yields. Comparison with ALICE-IPPE, EMPIRE and TALYS model codes. JOUR ARISE 69 358

 2011UD01 NUCLEAR REACTIONS Ti(α, X)⁵¹Cr, E=9-40 MeV; ¹²¹Sb(α, n), (α, 2n), E=9-40 MeV; ¹²³Sb(α, n), (α, 2n), (α, 2n), (α, 4n), E=9-40 MeV; measured Eγ, Iγ; deduced σ, integral yields. Comparison with experimental data, TALYS nuclear model code calculations. JOUR ARISE 69 699

KEYNUMBERS AND KEYWORDS

A=123 (continued)

¹²³Cs 2011HE01 NUCLEAR REACTIONS ¹²⁴Xe(p, α), (p, 2n), (p, 2p), E<35 MeV; measured reaction products; deduced σ, thick target yields. Comparison with ALICE-IPPE, EMPIRE and TALYS model codes. JOUR ARISE 69 358

A=124

¹²⁴Sn 2011GA08 NUCLEAR REACTIONS ¹²C, ^{112,114,116,118,120,122,124}Sn, ^{106,110,112,114,116}Cd(α, α'), E=386 MeV; measured Eα, Iα. ^{112,114,116,118,120,122,124}Sn, ^{106,110,112,114,116}Cd; deduced Isoscalar Giant Monopole Resonance (ISGMR) strength distribution, incompressibility of nucleus systematics. JOUR APOBB 42 659

2011JU01 NUCLEAR REACTIONS C, Gd, Cu(¹¹²Sn, ¹¹²Sn'), (¹¹⁴Sn, ¹¹⁴Sn'), (¹¹⁶Sn, ¹¹⁶Sn'), (¹¹⁸Sn, ¹¹⁸Sn'), (¹²⁰Sn, ¹²⁰Sn'), (¹²²Sn, ¹²²Sn'), (¹²⁴Sn, ¹²⁴Sn'), E=4 MeV / nucleon; measured Eγ, Iγ, particle-γ coin. ^{112,114,116,118,120,122,124}Sn; deduced energy levels, lifetimes, B(E2). Comparison with shell model calculations. JOUR PYLBB 695 110

¹²⁴Sb 2011TA03 NUCLEAR REACTIONS Sn(d, xn)¹¹⁵Sb / ¹¹⁶Sb / ¹¹⁷Sb / ¹¹⁸Sb / ¹²⁰Sb / ¹²²Sb / ¹²⁴Sb / ¹²⁵Sb, E<40 MeV; Ti(d, X)⁴⁸V, Al(d, X)²²Na / ²⁴Na, E<40 MeV; measured Eγ, Iγ; deduced σ. Comparison with ALICE-IPPE, EMPIRE nuclear model calculations, TENDL nuclear data library, experimental data. JOUR NIMBE 269 405

¹²⁴I 2011UD01 NUCLEAR REACTIONS Ti(α, X)⁵¹Cr, E=9-40 MeV; ¹²¹Sb(α, n), (α, 2n), E=9-40 MeV; ¹²³Sb(α, n), (α, 2n), (α, 2n), (α, 4n), E=9-40 MeV; measured Eγ, Iγ; deduced σ, integral yields. Comparison with experimental data, TALYS nuclear model code calculations. JOUR ARISE 69 699

A=125

¹²⁵Sb 2011TA03 NUCLEAR REACTIONS Sn(d, xn)¹¹⁵Sb / ¹¹⁶Sb / ¹¹⁷Sb / ¹¹⁸Sb / ¹²⁰Sb / ¹²²Sb / ¹²⁴Sb / ¹²⁵Sb, E<40 MeV; Ti(d, X)⁴⁸V, Al(d, X)²²Na / ²⁴Na, E<40 MeV; measured Eγ, Iγ; deduced σ. Comparison with ALICE-IPPE, EMPIRE nuclear model calculations, TENDL nuclear data library, experimental data. JOUR NIMBE 269 405

¹²⁵I 2011UD01 NUCLEAR REACTIONS Ti(α, X)⁵¹Cr, E=9-40 MeV; ¹²¹Sb(α, n), (α, 2n), E=9-40 MeV; ¹²³Sb(α, n), (α, 2n), (α, 2n), (α, 4n), E=9-40 MeV; measured Eγ, Iγ; deduced σ, integral yields. Comparison with experimental data, TALYS nuclear model code calculations. JOUR ARISE 69 699

¹²⁵Xe 2011AL02 NUCLEAR REACTIONS ⁸²Se(⁴⁸Ca, 5n)¹²⁵Xe, E=205 MeV; measured Eγ, Iγ, γγ-coin, DCO ratios, half-lives by DSAM using Gammasphere array. ¹²⁵Xe; deduced levels, Jπ, rotational bands, multipolarities, highly-deformed bands, transition quadrupole moments from lifetime data, moment of inertia plots, configurations, alignments, band crossings. Calculated potential energy surfaces, Routhians using cranked shell model calculations (CSM). JOUR PRVCA 83 024306

A=126

¹²⁶I 2011UD01 NUCLEAR REACTIONS Ti(α , X)⁵¹Cr, E=9-40 MeV; ¹²¹Sb(α , n), (α , 2n), E=9-40 MeV; ¹²³Sb(α , n), (α , 2n), (α , 2n), (α , 4n), E=9-40 MeV; measured E γ , I γ ; deduced σ , integral yields. Comparison with experimental data, TALYS nuclear model code calculations. JOURNAL OF RADIATION INDUCED REACTIONS 69 699

A=127

No references found

A=128

¹²⁸Cd 2010KAZX RADIOACTIVITY ²³⁸U(SF)[in-flight fission at 345 MeV / nucleon]; measured fission A(fragment), Z(fragment), E γ , I γ . ⁷⁸Zn, ⁹⁵Kr, ^{128,130}Cd, ¹³²Sn deduced isomer ratio, spin cut-off parameter. Comparison with published results on α -induced fission. REPT RIKEN 2009 Annual,P6,Kameda

A=129

No references found

A=130

¹³⁰Cd 2010KAZX RADIOACTIVITY ²³⁸U(SF)[in-flight fission at 345 MeV / nucleon]; measured fission A(fragment), Z(fragment), E γ , I γ . ⁷⁸Zn, ⁹⁵Kr, ^{128,130}Cd, ¹³²Sn deduced isomer ratio, spin cut-off parameter. Comparison with published results on α -induced fission. REPT RIKEN 2009 Annual,P6,Kameda

A=131

No references found

A=132

¹³²Sn 2010KAZX RADIOACTIVITY ²³⁸U(SF)[in-flight fission at 345 MeV / nucleon]; measured fission A(fragment), Z(fragment), E γ , I γ . ⁷⁸Zn, ⁹⁵Kr, ^{128,130}Cd, ¹³²Sn deduced isomer ratio, spin cut-off parameter. Comparison with published results on α -induced fission. REPT RIKEN 2009 Annual,P6,Kameda

KEYNUMBERS AND KEYWORDS

A=132 (continued)

^{132}Ba	2010KUZZ	RADIOACTIVITY $^{132}\text{La}(\beta^+)$, (EC); measured $E\gamma$, $I\gamma(\theta)$, $\gamma\gamma$ -coin; deduced DCO vs $E\gamma$ for quadrupole and dipole transitions. REPT ATOMKI 2009 Annual,P33,Kuti
^{132}La	2010KU23	NUCLEAR REACTIONS $^{122}\text{Sn}(^{14}\text{N}, xn)$, ($^{15}\text{N}, xn)$, $E=62$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, half-lives by Doppler-shift recoil distance method (RDM). ^{132}La ; deduced levels, J, π . Comparison with particle-rotor coupling model calculations and with structure of ^{131}La and ^{130}Ba . Pseudospin coupling model and decoupled structures. JOUR PRVCA 82 054302
	2010KUZZ	RADIOACTIVITY $^{132}\text{La}(\beta^+)$, (EC); measured $E\gamma$, $I\gamma(\theta)$, $\gamma\gamma$ -coin; deduced DCO vs $E\gamma$ for quadrupole and dipole transitions. REPT ATOMKI 2009 Annual,P33,Kuti

A=133

^{133}In	2010MAZS	RADIOACTIVITY $^{94,100,101}\text{Rb}$, $^{133,134}\text{In}$, $^{137,138}\text{I}$, $^{147}\text{Cs}(\beta^-)$; measured $E\gamma$, $I\gamma$, En, In; deduced β -delayed neutron decay probability. Comparison with data, JEFF3.1, NNDC. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P285
^{133}Sn	2010MAZS	RADIOACTIVITY $^{94,100,101}\text{Rb}$, $^{133,134}\text{In}$, $^{137,138}\text{I}$, $^{147}\text{Cs}(\beta^-)$; measured $E\gamma$, $I\gamma$, En, In; deduced β -delayed neutron decay probability. Comparison with data, JEFF3.1, NNDC. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P285
^{133}Cs	2010M030	ATOMIC MASSES ^6Li , ^{23}Na , $^{39,41}\text{K}$, $^{85,87}\text{Rb}$, ^{133}Cs ; measured cyclotron frequency ratios of pairs of ions simultaneously trapped in a Penning trap; deduced mass. Comparison with AME2003 and other experimental results. JOUR PLRAA 82 042513
	2011GR01	RADIOACTIVITY $^{133}\text{Ba}(\text{EC})$ [from $^{133}\text{Cs}(p, n)$, $E=5-9.8$ MeV]; measured $E\gamma$, $I\gamma$; deduced $T_{1/2}$ of the $11 / 2^-$ isomer, limit for E5 / M4 ratio, B (λ). comparison with MQPM calculations. JOUR JPGPE 38 015101
^{133}Ba	2011GR01	RADIOACTIVITY $^{133}\text{Ba}(\text{EC})$ [from $^{133}\text{Cs}(p, n)$, $E=5-9.8$ MeV]; measured $E\gamma$, $I\gamma$; deduced $T_{1/2}$ of the $11 / 2^-$ isomer, limit for E5 / M4 ratio, B (λ). comparison with MQPM calculations. JOUR JPGPE 38 015101

A=134

^{134}In	2010MAZS	RADIOACTIVITY $^{94,100,101}\text{Rb}$, $^{133,134}\text{In}$, $^{137,138}\text{I}$, $^{147}\text{Cs}(\beta^-)$; measured $E\gamma$, $I\gamma$, En, In; deduced β -delayed neutron decay probability. Comparison with data, JEFF3.1, NNDC. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P285
^{134}Sn	2010MAZS	RADIOACTIVITY $^{94,100,101}\text{Rb}$, $^{133,134}\text{In}$, $^{137,138}\text{I}$, $^{147}\text{Cs}(\beta^-)$; measured $E\gamma$, $I\gamma$, En, In; deduced β -delayed neutron decay probability. Comparison with data, JEFF3.1, NNDC. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P285

KEYNUMBERS AND KEYWORDS

A=134 (continued)

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| ^{134}Te | 2010SMZZ | RADIOACTIVITY $^{252}\text{Cf}(\text{SF})$; measured $E\gamma$, $I\gamma(\theta)$, $I(\text{fragment}, q)$, (fragment) γ -coin. $^{100,102}\text{Zr}$, $^{104,106}\text{Mo}$, ^{114}Pd , ^{134}Te , $^{138,140}\text{Xe}$, $^{142,144}\text{Ba}$, $^{146,148}\text{Ce}$ deduced (fragment)- γ angular correlations for low-lying states, anisotropy coefficient. EUROBALL and GAMMASPHERE data; comparison with other results. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P193 |
| ^{134}Xe | 2011KE01 | NUCLEAR REACTIONS $^{208}\text{Pb}(^{136}\text{Xe}, \text{X})^{134}\text{Xe} / ^{135}\text{Xe} / ^{136}\text{Xe} / ^{137}\text{Xe} / ^{207}\text{Pb} / ^{208}\text{Pb} / ^{209}\text{Pb} / ^{210}\text{Pb}$, $E=940$ MeV; measured reaction products, $E\gamma$, $I\gamma$. JOUR APOBB 42 717 |
| ^{134}Pr | 2010TIZZ | NUCLEAR REACTIONS $^{116}\text{Cd}(^{23}\text{Na}, 5n)$, $E=115$ MeV; measured $E\gamma$, $I\gamma(\theta)$, $\gamma\gamma$ -coin; deduced levels, J , π , rotational bands. REPT ATOMKI 2009 Annual,P34,Timar |

A=135

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| ^{135}I | 2010UR03 | RADIOACTIVITY $^{248}\text{Cm}(\text{SF})$; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$ using EUROGAM2 array. ^{109}Tc ; deduced levels, J , π , conversion coefficients, multipolarities, rotational bands. ^{110}Tc , $^{135,136,137}\text{I}$; measured $E\gamma$. Comparison with level systematics of $^{103,105,107,109,111}\text{Tc}$. Comparison with quasiparticle-rotor model (QPRM) calculations. Evidence for triaxial nature of ^{109}Tc . JOUR PRVCA 82 064308 |
| ^{135}Xe | 2011KE01 | NUCLEAR REACTIONS $^{208}\text{Pb}(^{136}\text{Xe}, \text{X})^{134}\text{Xe} / ^{135}\text{Xe} / ^{136}\text{Xe} / ^{137}\text{Xe} / ^{207}\text{Pb} / ^{208}\text{Pb} / ^{209}\text{Pb} / ^{210}\text{Pb}$, $E=940$ MeV; measured reaction products, $E\gamma$, $I\gamma$. JOUR APOBB 42 717 |

A=136

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| ^{136}I | 2010UR03 | RADIOACTIVITY $^{248}\text{Cm}(\text{SF})$; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$ using EUROGAM2 array. ^{109}Tc ; deduced levels, J , π , conversion coefficients, multipolarities, rotational bands. ^{110}Tc , $^{135,136,137}\text{I}$; measured $E\gamma$. Comparison with level systematics of $^{103,105,107,109,111}\text{Tc}$. Comparison with quasiparticle-rotor model (QPRM) calculations. Evidence for triaxial nature of ^{109}Tc . JOUR PRVCA 82 064308 |
| ^{136}Xe | 2011KE01 | NUCLEAR REACTIONS $^{208}\text{Pb}(^{136}\text{Xe}, \text{X})^{134}\text{Xe} / ^{135}\text{Xe} / ^{136}\text{Xe} / ^{137}\text{Xe} / ^{207}\text{Pb} / ^{208}\text{Pb} / ^{209}\text{Pb} / ^{210}\text{Pb}$, $E=940$ MeV; measured reaction products, $E\gamma$, $I\gamma$. JOUR APOBB 42 717 |
| | 2011K003 | ATOMIC MASSES ^{136}Ce , ^{136}Ba , ^{136}Xe ; measured tof ion-cyclotron resonances; deduced mass differences, double electron capture Q-value. Comparison with previous measurements. JOUR PYLBB 697 116 |
| ^{136}Ba | 2011BE02 | RADIOACTIVITY $^{136}\text{Ce}(2\beta^+)$, $(\beta^+\text{EC})$, (2EC) ; $^{138}\text{Ce}(2\text{EC})$; $^{142}\text{Ce}(2\beta^-)$; measured low-background energy spectrum in CeCl3 scintillator; deduced limits on $T_{1/2}$. Comparison with experimental data. JOUR JPGPE 38 015103 |
| | 2011K003 | ATOMIC MASSES ^{136}Ce , ^{136}Ba , ^{136}Xe ; measured tof ion-cyclotron resonances; deduced mass differences, double electron capture Q-value. Comparison with previous measurements. JOUR PYLBB 697 116 |

KEYNUMBERS AND KEYWORDS

A=136 (continued)

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| | 2011K003 | RADIOACTIVITY $^{136}\text{Ce}(2\text{EC})$; calculated $T_{1/2}$ for neutrinoless double beta decay. Multi-Commutator Model (MCM). JOUR PYLBB 697 116 |
| ^{136}Ce | 2011BE02 | RADIOACTIVITY $^{136}\text{Ce}(2\beta^+)$, $(\beta^+\text{EC})$, (2EC) ; $^{138}\text{Ce}(2\text{EC})$; $^{142}\text{Ce}(2\beta^-)$; measured low-background energy spectrum in CeCl3 scintillator; deduced limits on $T_{1/2}$. Comparison with experimental data. JOUR JPGPE 38 015103 |
| | 2011K003 | ATOMIC MASSES ^{136}Ce , ^{136}Ba , ^{136}Xe ; measured tof ion-cyclotron resonances; deduced mass differences, double electron capture Q-value. Comparison with previous measurements. JOUR PYLBB 697 116 |
| | 2011K003 | RADIOACTIVITY $^{136}\text{Ce}(2\text{EC})$; calculated $T_{1/2}$ for neutrinoless double beta decay. Multi-Commutator Model (MCM). JOUR PYLBB 697 116 |

A=137

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| ^{137}I | 2010MAZS | RADIOACTIVITY $^{94,100,101}\text{Rb}$, $^{133,134}\text{In}$, $^{137,138}\text{I}$, $^{147}\text{Cs}(\beta^-)$; measured E_γ , I_γ , E_n , In ; deduced β -delayed neutron decay probability. Comparison with data, JEFF3.1, NNDC. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P285 |
| | 2010UR03 | RADIOACTIVITY $^{248}\text{Cm}(\text{SF})$; measured E_γ , I_γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$ using EUROGAM2 array. ^{109}Tc ; deduced levels, J , π , conversion coefficients, multipolarities, rotational bands. ^{110}Tc , $^{135,136,137}\text{I}$; measured E_γ . Comparison with level systematics of $^{103,105,107,109,111}\text{Tc}$. Comparison with quasiparticle-rotor model (QPRM) calculations. Evidence for triaxial nature of ^{109}Tc . JOUR PRVCA 82 064308 |
| ^{137}Xe | 2010MAZS | RADIOACTIVITY $^{94,100,101}\text{Rb}$, $^{133,134}\text{In}$, $^{137,138}\text{I}$, $^{147}\text{Cs}(\beta^-)$; measured E_γ , I_γ , E_n , In ; deduced β -delayed neutron decay probability. Comparison with data, JEFF3.1, NNDC. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P285 |
| | 2011KE01 | NUCLEAR REACTIONS $^{208}\text{Pb}(^{136}\text{Xe}, \text{X})^{134}\text{Xe} / ^{135}\text{Xe} / ^{136}\text{Xe} / ^{137}\text{Xe} / ^{207}\text{Pb} / ^{208}\text{Pb} / ^{209}\text{Pb} / ^{210}\text{Pb}$, $E=940$ MeV; measured reaction products, E_γ , I_γ . JOUR APOBB 42 717 |
| ^{137}Cs | 2011DE01 | RADIOACTIVITY $^{152}\text{Eu}(\beta^-)$, (β^+) , (EC) , $^{137}\text{Cs}(\beta^-)$, ^{22}Na , $^{54}\text{Mn}(\text{EC})$; measured E_γ , I_γ , x-rays; deduced decay constant ratio. JOUR ARISE 69 320 |
| ^{137}Ba | 2011DE01 | RADIOACTIVITY $^{152}\text{Eu}(\beta^-)$, (β^+) , (EC) , $^{137}\text{Cs}(\beta^-)$, ^{22}Na , $^{54}\text{Mn}(\text{EC})$; measured E_γ , I_γ , x-rays; deduced decay constant ratio. JOUR ARISE 69 320 |

A=138

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| ^{138}I | 2010MAZR | NUCLEAR REACTIONS $^{235}\text{U}(\text{n}, \text{f})$, $E=\text{reactor}$; measured ^{137}Te , $^{137,138}\text{I}$, ^{137}Xe , $^{142,144}\text{Cs}$ ionic charge distribution using mass separator Lohengrin. ^{138}I , $^{142,144}\text{Cs}$ deduced nanosecond isomer decay. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P367 |
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KEYNUMBERS AND KEYWORDS

A=138 (continued)

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|-------------------|----------|---|
| | 2010MAZS | RADIOACTIVITY $^{94,100,101}\text{Rb}$, $^{133,134}\text{In}$, $^{137,138}\text{I}$, $^{147}\text{Cs}(\beta^-)$; measured $E\gamma$, $I\gamma$, En, In; deduced β -delayed neutron decay probability. Comparison with data, JEFF3.1, NNDC. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P285 |
| ^{138}Xe | 2010MAZS | RADIOACTIVITY $^{94,100,101}\text{Rb}$, $^{133,134}\text{In}$, $^{137,138}\text{I}$, $^{147}\text{Cs}(\beta^-)$; measured $E\gamma$, $I\gamma$, En, In; deduced β -delayed neutron decay probability. Comparison with data, JEFF3.1, NNDC. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P285 |
| | 2010SMZZ | RADIOACTIVITY $^{252}\text{Cf}(\text{SF})$; measured $E\gamma$, $I\gamma(\theta)$, I(fragment, q), (fragment) γ -coin. $^{100,102}\text{Zr}$, $^{104,106}\text{Mo}$, ^{114}Pd , ^{134}Te , $^{138,140}\text{Xe}$, $^{142,144}\text{Ba}$, $^{146,148}\text{Ce}$ deduced (fragment)- γ angular correlations for low-lying states, anisotropy coefficient. EUROBALL and GAMMASPHERE data; comparison with other results. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P193 |
| ^{138}Ba | 2011BE02 | RADIOACTIVITY $^{136}\text{Ce}(2\beta^+)$, $(\beta^+ \text{EC})$, (2EC) ; $^{138}\text{Ce}(2\text{EC})$; $^{142}\text{Ce}(2\beta^-)$; measured low-background energy spectrum in CeCl3 scintillator; deduced limits on $T_{1/2}$. Comparison with experimental data. JOUR JPGPE 38 015103 |
| ^{138}Ce | 2011BE02 | RADIOACTIVITY $^{136}\text{Ce}(2\beta^+)$, $(\beta^+ \text{EC})$, (2EC) ; $^{138}\text{Ce}(2\text{EC})$; $^{142}\text{Ce}(2\beta^-)$; measured low-background energy spectrum in CeCl3 scintillator; deduced limits on $T_{1/2}$. Comparison with experimental data. JOUR JPGPE 38 015103 |

A=139

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|-------------------|----------|--|
| ^{139}Ba | 2011AG01 | NUCLEAR REACTIONS ^{55}Mn , $^{138}\text{Ba}(n, \gamma)$, E=thermal; measured $E\gamma$, $I\gamma$; deduced thermal σ , resonance integral. JOUR ANEND 38 379 |
| ^{139}Eu | 2011CU01 | NUCLEAR REACTIONS $^{92}\text{Mo}(^{54}\text{Fe}, 2n5p)$, E=305, 315 MeV; measured $E\gamma$, $I\gamma$, prompt and delayed γ -spectra, (recoil) γ -coin, (recoil) $\gamma(t)$, isomer half-life using recoil-isomer tagging technique. ^{139}Eu ; deduced levels, J, π , internal conversion coefficients, multipolarities, band, alignment plot, configuration, B(E1) strength. Comparison of E1 strength with those in $^{128,130,132}\text{Te}$, ^{131}I , $^{134,138,147,149}\text{Pm}$, ^{136}Sm , ^{140}Eu , ^{138}Gd , ^{142}Tb , $^{140,148}\text{Dy}$, ^{144}Ho . JOUR PRVCA 83 014316 |

A=140

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| ^{140}Xe | 2010SMZZ | RADIOACTIVITY $^{252}\text{Cf}(\text{SF})$; measured $E\gamma$, $I\gamma(\theta)$, I(fragment, q), (fragment) γ -coin. $^{100,102}\text{Zr}$, $^{104,106}\text{Mo}$, ^{114}Pd , ^{134}Te , $^{138,140}\text{Xe}$, $^{142,144}\text{Ba}$, $^{146,148}\text{Ce}$ deduced (fragment)- γ angular correlations for low-lying states, anisotropy coefficient. EUROBALL and GAMMASPHERE data; comparison with other results. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P193 |
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KEYNUMBERS AND KEYWORDS

A=141

¹⁴¹Nd 2011BH01 NUCLEAR REACTIONS ¹³⁰Te(¹⁶O, 5n)¹⁴¹Nd, E=80-85 MeV; ¹²⁴Sn(²⁴Mg, 3nα)¹⁴¹Nd, E=107 MeV; measured Eγ, Iγ; deduced level scheme, J, π, quadrupole band-like structure. Comparison with shell model calculations. JOUR JPGPE 38 035105

A=142

¹⁴²Cs 2010MAZR NUCLEAR REACTIONS ²³⁵U(n, f), E=reactor; measured ¹³⁷Te, ^{137,138}I, ¹³⁷Xe, ^{142,144}Cs ionic charge distribution using mass separator Lohengrin. ¹³⁸I, ^{142,144}Cs deduced nanosecond isomer decay. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P367

¹⁴²Ba 2010SMZZ RADIOACTIVITY ²⁵²Cf(SF); measured Eγ, Iγ(θ), I(fragment, q), (fragment)γ-coin. ^{100,102}Zr, ^{104,106}Mo, ¹¹⁴Pd, ¹³⁴Te, ^{138,140}Xe, ^{142,144}Ba, ^{146,148}Ce deduced (fragment)-γ angular correlations for low-lying states, anisotropy coefficient. EUROBALL and GAMMASPHERE data; comparison with other results. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P193

¹⁴²Ce 2011BE02 RADIOACTIVITY ¹³⁶Ce(2β⁺), (β⁺EC), (2EC);¹³⁸Ce(2EC);¹⁴²Ce(2β⁻); measured low-background energy spectrum in CeCl3 scintillator; deduced limits on T_{1/2}. Comparison with experimental data. JOUR JPGPE 38 015103

¹⁴²Nd 2011BE02 RADIOACTIVITY ¹³⁶Ce(2β⁺), (β⁺EC), (2EC);¹³⁸Ce(2EC);¹⁴²Ce(2β⁻); measured low-background energy spectrum in CeCl3 scintillator; deduced limits on T_{1/2}. Comparison with experimental data. JOUR JPGPE 38 015103

A=143

No references found

A=144

¹⁴⁴Cs 2010MAZR NUCLEAR REACTIONS ²³⁵U(n, f), E=reactor; measured ¹³⁷Te, ^{137,138}I, ¹³⁷Xe, ^{142,144}Cs ionic charge distribution using mass separator Lohengrin. ¹³⁸I, ^{142,144}Cs deduced nanosecond isomer decay. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P367

¹⁴⁴Ba 2010SMZZ RADIOACTIVITY ²⁵²Cf(SF); measured Eγ, Iγ(θ), I(fragment, q), (fragment)γ-coin. ^{100,102}Zr, ^{104,106}Mo, ¹¹⁴Pd, ¹³⁴Te, ^{138,140}Xe, ^{142,144}Ba, ^{146,148}Ce deduced (fragment)-γ angular correlations for low-lying states, anisotropy coefficient. EUROBALL and GAMMASPHERE data; comparison with other results. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P193

¹⁴⁴Pm 2011SA03 NUCLEAR REACTIONS ¹⁴¹Pr(α, n), E=15 MeV; ⁹²Mo(p, γ), E=2.5-3.5 MeV; measured reaction products, Eγ, Iγ, γ-γ-coin.; deduced σ. Comparison with NON-SMOKER code calculations and other measurements. JOUR PPNPD 66 363

KEYNUMBERS AND KEYWORDS

A=145

No references found

A=146

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|-------------------|----------|---|
| ^{146}Ce | 2010SMZZ | RADIOACTIVITY $^{252}\text{Cf}(\text{SF})$; measured $E\gamma$, $I\gamma(\theta)$, $I(\text{fragment}, q)$, (fragment) γ -coin. $^{100,102}\text{Zr}$, $^{104,106}\text{Mo}$, ^{114}Pd , ^{134}Te , $^{138,140}\text{Xe}$, $^{142,144}\text{Ba}$, $^{146,148}\text{Ce}$ deduced (fragment)- γ angular correlations for low-lying states, anisotropy coefficient. EUROBALL and GAMMASPHERE data; comparison with other results. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P193 |
| ^{146}Gd | 2011K008 | RADIOACTIVITY $^{146}\text{Tb}(\beta^+)$, (EC); measured $E\gamma$, $I\gamma$, $\gamma\gamma$. ^{146}Gd ; deduced levels, J , π , $I(\beta+\varepsilon)$ feedings, Logft values. JOUR PRVCA 83 027301 |
| ^{146}Tb | 2011K008 | RADIOACTIVITY $^{146}\text{Tb}(\beta^+)$, (EC); measured $E\gamma$, $I\gamma$, $\gamma\gamma$. ^{146}Gd ; deduced levels, J , π , $I(\beta+\varepsilon)$ feedings, Logft values. JOUR PRVCA 83 027301 |
| | 2011K008 | NUCLEAR REACTIONS $^{112}\text{Sn}(^{40}\text{Ar}, 3n3p)$, $E=232$ MeV; measured $E\gamma$, $I\gamma$, ce, level half-lives. ^{146}Tb ; deduced levels, J , π , conversion coefficients, multipolarity, isomers, configurations, $B(M1) / B(E2)$ ratios. Comparison with systematics of isomers and level structures of ^{148}Ho and ^{150}Tm . Comparison with shell-model predictions. JOUR PRVCA 83 027301 |

A=147

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|-------------------|----------|---|
| ^{147}Cs | 2010MAZS | RADIOACTIVITY $^{94,100,101}\text{Rb}$, $^{133,134}\text{In}$, $^{137,138}\text{I}$, $^{147}\text{Cs}(\beta^-)$; measured $E\gamma$, $I\gamma$, En, In; deduced β -delayed neutron decay probability. Comparison with data, JEFF3.1, NNDC. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P285 |
| ^{147}Ba | 2010MAZS | RADIOACTIVITY $^{94,100,101}\text{Rb}$, $^{133,134}\text{In}$, $^{137,138}\text{I}$, $^{147}\text{Cs}(\beta^-)$; measured $E\gamma$, $I\gamma$, En, In; deduced β -delayed neutron decay probability. Comparison with data, JEFF3.1, NNDC. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P285 |

A=148

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|-------------------|----------|---|
| ^{148}Ce | 2010SMZZ | RADIOACTIVITY $^{252}\text{Cf}(\text{SF})$; measured $E\gamma$, $I\gamma(\theta)$, $I(\text{fragment}, q)$, (fragment) γ -coin. $^{100,102}\text{Zr}$, $^{104,106}\text{Mo}$, ^{114}Pd , ^{134}Te , $^{138,140}\text{Xe}$, $^{142,144}\text{Ba}$, $^{146,148}\text{Ce}$ deduced (fragment)- γ angular correlations for low-lying states, anisotropy coefficient. EUROBALL and GAMMASPHERE data; comparison with other results. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P193 |
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KEYNUMBERS AND KEYWORDS

A=149

¹⁴⁹Pr 2010RZ02 RADIOACTIVITY ²⁴⁸Cm, ²⁵²Cf(SF); measured E γ , I γ , $\gamma\gamma$ -coin, conversion coefficients, and half-life of isomer using EUROGAM2 and Gammasphere arrays. ¹⁴⁹Pr; deduced levels, J, π , band, multipolarity, B(E1), electric dipole moment, configuration. Comparison with quasiparticle-rotor model calculations. ^{98,99,100,101}Y; measured E γ , $\gamma\gamma$ -coin. JOUR PRVCA 82 067304

A=150

No references found

A=151

No references found

A=152

¹⁵²Sm 2011DE01 RADIOACTIVITY ¹⁵²Eu(β^-), (β^+), (EC), ¹³⁷Cs(β^-), ²²Na, ⁵⁴Mn(EC); measured E γ , I γ , x-rays; deduced decay constant ratio. JOUR ARISE 69 320

2011EL02 ATOMIC MASSES ¹⁵²Gd, ¹⁵²Sm; measured cyclotron frequency ratio, TOF; deduced Q-value for double beta decay. Penning-trap mass ratio. JOUR PRLTA 106 052504

¹⁵²Eu 2011DE01 RADIOACTIVITY ¹⁵²Eu(β^-), (β^+), (EC), ¹³⁷Cs(β^-), ²²Na, ⁵⁴Mn(EC); measured E γ , I γ , x-rays; deduced decay constant ratio. JOUR ARISE 69 320

¹⁵²Gd 2011DE01 RADIOACTIVITY ¹⁵²Eu(β^-), (β^+), (EC), ¹³⁷Cs(β^-), ²²Na, ⁵⁴Mn(EC); measured E γ , I γ , x-rays; deduced decay constant ratio. JOUR ARISE 69 320

2011EL02 ATOMIC MASSES ¹⁵²Gd, ¹⁵²Sm; measured cyclotron frequency ratio, TOF; deduced Q-value for double beta decay. Penning-trap mass ratio. JOUR PRLTA 106 052504

A=153

No references found

A=154

¹⁵⁴Nd 2010SIZZ RADIOACTIVITY ¹⁵⁴Nd(β^-), ¹⁵⁶Nd(β^-), ¹⁵⁶Sm(β^-), ¹⁵⁸Sm(β^-); measured E γ , I γ , delayed E γ , I γ , $\gamma\gamma$ -coin. ¹⁵⁴Nd deduced isomer decay. ^{154,156}Nd deduced levels, J, π ; calculated M1 transition strengths, structure of states, collective bands using QRPM. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P154

KEYNUMBERS AND KEYWORDS

A=154 (continued)

^{154}Pm	2010SIZZ	RADIOACTIVITY $^{154}\text{Nd}(\beta^-)$, $^{156}\text{Nd}(\beta^-)$, $^{156}\text{Sm}(\beta^-)$, $^{158}\text{Sm}(\beta^-)$; measured $E\gamma$, $I\gamma$, delayed $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin. ^{154}Nd deduced isomer decay. $^{154,156}\text{Nd}$ deduced levels, J, π ; calculated M1 transition strengths, structure of states, collective bands using QRPM. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P154
^{154}Tb	2010GY02	NUCLEAR REACTIONS $^{151}\text{Eu}(\alpha, \gamma)$, (α, n) , $E=11.5-17.5$ MeV; measured $E\gamma$, $I\gamma$; deduced $T_{1/2}$, σ , S-factors, using activation method. Statistical model calculations using NON-SMOKER model. Relevance to astrophysical γ process. JOUR JPGPE 37 115201
	2010GYZZ	NUCLEAR REACTIONS $^{151}\text{Eu}(\alpha, n)$, $E=\text{cyclotron}$; measured β -delayed $E\gamma$, $I\gamma(t)$; deduced m1, m2 isomer $T_{1/2}$. REPT ATOMKI 2009 Annual,P35.Gyurky

A=155

^{155}Tb	2010GY02	NUCLEAR REACTIONS $^{151}\text{Eu}(\alpha, \gamma)$, (α, n) , $E=11.5-17.5$ MeV; measured $E\gamma$, $I\gamma$; deduced $T_{1/2}$, σ , S-factors, using activation method. Statistical model calculations using NON-SMOKER model. Relevance to astrophysical γ process. JOUR JPGPE 37 115201
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A=156

^{156}Nd	2010SIZZ	RADIOACTIVITY $^{154}\text{Nd}(\beta^-)$, $^{156}\text{Nd}(\beta^-)$, $^{156}\text{Sm}(\beta^-)$, $^{158}\text{Sm}(\beta^-)$; measured $E\gamma$, $I\gamma$, delayed $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin. ^{154}Nd deduced isomer decay. $^{154,156}\text{Nd}$ deduced levels, J, π ; calculated M1 transition strengths, structure of states, collective bands using QRPM. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P154
^{156}Pm	2010SIZZ	RADIOACTIVITY $^{154}\text{Nd}(\beta^-)$, $^{156}\text{Nd}(\beta^-)$, $^{156}\text{Sm}(\beta^-)$, $^{158}\text{Sm}(\beta^-)$; measured $E\gamma$, $I\gamma$, delayed $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin. ^{154}Nd deduced isomer decay. $^{154,156}\text{Nd}$ deduced levels, J, π ; calculated M1 transition strengths, structure of states, collective bands using QRPM. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P154
^{156}Sm	2010SIZZ	RADIOACTIVITY $^{154}\text{Nd}(\beta^-)$, $^{156}\text{Nd}(\beta^-)$, $^{156}\text{Sm}(\beta^-)$, $^{158}\text{Sm}(\beta^-)$; measured $E\gamma$, $I\gamma$, delayed $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin. ^{154}Nd deduced isomer decay. $^{154,156}\text{Nd}$ deduced levels, J, π ; calculated M1 transition strengths, structure of states, collective bands using QRPM. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P154
^{156}Eu	2010SIZZ	RADIOACTIVITY $^{154}\text{Nd}(\beta^-)$, $^{156}\text{Nd}(\beta^-)$, $^{156}\text{Sm}(\beta^-)$, $^{158}\text{Sm}(\beta^-)$; measured $E\gamma$, $I\gamma$, delayed $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin. ^{154}Nd deduced isomer decay. $^{154,156}\text{Nd}$ deduced levels, J, π ; calculated M1 transition strengths, structure of states, collective bands using QRPM. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P154
^{156}Gd	2010D013	NUCLEAR REACTIONS $^{154}\text{Sm}(^4\text{He}, 2n)$, $E=27$ MeV; measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin, $\gamma(\theta)$ using JUROGAM array. ^{156}Gd ; deduced levels, J, π , bands, multipolarity, mixing ratio. Search for evidence of hypothetical tetrahedral configuration in ^{156}Gd . JOUR PRVCA 82 067306

KEYNUMBERS AND KEYWORDS

A=157

¹⁵⁷Yb 2011XU01 NUCLEAR REACTIONS ¹⁴⁴Sm(¹⁶O, 3n), E=85 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, DCO ratios, ¹⁵⁷Yb; deduced levels, J, π , high-spin structures, alignments, rotational bands, configurations. Comparisons with total Routhian surface (TRS) calculations and evidence of prolate, triaxial, and oblate shapes. Systematics of low-lying levels in N=87 isotones: ¹⁵¹Gd, ¹⁵³Dy, ¹⁵⁵Er, ¹⁵⁷Yb and ¹⁵⁹Hf. JOUR PRVCA 83 014318

A=158

¹⁵⁸Sm 2010SIZZ RADIOACTIVITY ¹⁵⁴Nd(β^-), ¹⁵⁶Nd(β^-), ¹⁵⁶Sm(β^-), ¹⁵⁸Sm(β^-); measured E γ , I γ , delayed E γ , I γ , $\gamma\gamma$ -coin. ¹⁵⁴Nd deduced isomer decay. ^{154,156}Nd deduced levels, J, π ; calculated M1 transition strengths, structure of states, collective bands using QRPM. CONF
Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P154

¹⁵⁸Eu 2010SIZZ RADIOACTIVITY ¹⁵⁴Nd(β^-), ¹⁵⁶Nd(β^-), ¹⁵⁶Sm(β^-), ¹⁵⁸Sm(β^-); measured E γ , I γ , delayed E γ , I γ , $\gamma\gamma$ -coin. ¹⁵⁴Nd deduced isomer decay. ^{154,156}Nd deduced levels, J, π ; calculated M1 transition strengths, structure of states, collective bands using QRPM. CONF
Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P154

A=159

No references found

A=160

No references found

A=161

¹⁶¹Ta 2011LA01 NUCLEAR REACTIONS ¹⁰⁶Cd(⁵⁸Ni, 3p), E=270 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$ (DCO), (evaporation residues) γ -correlations using JUROGAM array. ¹⁶¹Ta; deduced levels, J, π , multipolarity, rotational bands, configurations, alignments, staggering, B(M1) / B(E2). Comparison with cranked shell-model calculations. Calculated total Routhians as a function of γ deformation parameter. JOUR PRVCA 83 014313

A=162

¹⁶²Gd 2010NAZZ RADIOACTIVITY ¹⁶²Gd(β^-)[from U(p, f), E=32 MeV and ISOL]; measured E β , I β , E γ , I γ (t), X-rays; deduced T_{1/2}, B(E2) of the first 2⁺ state. REPT JAEA-Review 2010-056,P17,Nagae

KEYNUMBERS AND KEYWORDS

A=162 (continued)

¹⁶²Tb 2010NAZZ RADIOACTIVITY ¹⁶²Gd(β^-)[from U(p, f), E=32 MeV and ISOL]; measured E β , I β , E γ , I γ (t), X-rays; deduced T_{1/2}, B(E2) of the first 2⁺ state. REPT JAEA-Review 2010-056,P17,Nagae

A=163

¹⁶³Eu 2008OS02 NUCLEAR REACTIONS ²³⁸U(p, F)¹⁶³Eu / ¹⁶⁴Eu / ¹⁶⁵Eu / ¹⁶⁶Eu, E=36 MeV; measured separation yields, E γ , I γ ; deduced T_{1/2}. A forced electron beam induced arc discharge (FEBIAD-B2) type ion source. JOUR NIMBE 266 4394

A=164

¹⁶⁴Eu 2008OS02 NUCLEAR REACTIONS ²³⁸U(p, F)¹⁶³Eu / ¹⁶⁴Eu / ¹⁶⁵Eu / ¹⁶⁶Eu, E=36 MeV; measured separation yields, E γ , I γ ; deduced T_{1/2}. A forced electron beam induced arc discharge (FEBIAD-B2) type ion source. JOUR NIMBE 266 4394

A=165

¹⁶⁵Eu 2008OS02 NUCLEAR REACTIONS ²³⁸U(p, F)¹⁶³Eu / ¹⁶⁴Eu / ¹⁶⁵Eu / ¹⁶⁶Eu, E=36 MeV; measured separation yields, E γ , I γ ; deduced T_{1/2}. A forced electron beam induced arc discharge (FEBIAD-B2) type ion source. JOUR NIMBE 266 4394

A=166

¹⁶⁶Eu 2008OS02 NUCLEAR REACTIONS ²³⁸U(p, F)¹⁶³Eu / ¹⁶⁴Eu / ¹⁶⁵Eu / ¹⁶⁶Eu, E=36 MeV; measured separation yields, E γ , I γ ; deduced T_{1/2}. A forced electron beam induced arc discharge (FEBIAD-B2) type ion source. JOUR NIMBE 266 4394

¹⁶⁶Ho 2011NG01 NUCLEAR REACTIONS ¹⁶⁵Ho, ¹⁹⁷Au, ¹¹⁵In(n, γ), E=0.45 MeV; measured E γ , I γ ; deduced thermal σ , resonance integrals. Comparison with evaluated libraries and experimental data. JOUR NIMBE 269 159

¹⁶⁶Ta 2010HA26 NUCLEAR REACTIONS ¹²⁰Sn(⁵¹V, 5n), E=235 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$ using Gammasphere array. ¹⁶⁶Ta; deduced levels, J, π , rotational bands, alignments and B(M1) / B(E2) ratios. Comparison of alignments with those in ¹⁶⁵Hf bands. Comparison with theoretical B(M1) / B(E2) ratios. JOUR PRVCA 82 057302

A=167

- ¹⁶⁷Tm 2011HE02 NUCLEAR REACTIONS ¹⁶⁷Er(d, 2n), E<20 MeV; measured E γ , I γ ; deduced σ , integral yields. Comparison with experimental data and ALICE-D, EMPIRE-D and TALYS nuclear model codes. JOUR ARISE 69 475
- 2011HE03 NUCLEAR REACTIONS Ti(p, X)⁴⁸V, Er(p, X)¹⁶⁷Tm / ¹⁶⁸Tm / ¹⁷⁰Tm, E<16 MeV; measured reaction products, E γ , I γ ; deduced σ . Comparison with experimental data, ALICE-IPPE, EMPIRE II and TALYS nuclear model codes. JOUR NIMBE 269 695

A=168

- ¹⁶⁸Tm 2011HE03 NUCLEAR REACTIONS Ti(p, X)⁴⁸V, Er(p, X)¹⁶⁷Tm / ¹⁶⁸Tm / ¹⁷⁰Tm, E<16 MeV; measured reaction products, E γ , I γ ; deduced σ . Comparison with experimental data, ALICE-IPPE, EMPIRE II and TALYS nuclear model codes. JOUR NIMBE 269 695

A=169

- ¹⁶⁹Yb 2011GL01 NUCLEAR REACTIONS ¹⁷⁰Yb(γ , n), E<9.9 MeV; ¹⁶⁶Er(α , n), E=30 MeV; ¹⁶⁹Tm(p, n), E=3.3-7 MeV; measured E γ , I γ ; deduced σ . Comparison with TALYS and NON-SMOKER calculations. JOUR PPNPD 66 379

A=170

- ¹⁷⁰Tm 2011HE03 NUCLEAR REACTIONS Ti(p, X)⁴⁸V, Er(p, X)¹⁶⁷Tm / ¹⁶⁸Tm / ¹⁷⁰Tm, E<16 MeV; measured reaction products, E γ , I γ ; deduced σ . Comparison with experimental data, ALICE-IPPE, EMPIRE II and TALYS nuclear model codes. JOUR NIMBE 269 695

A=171

No references found

A=172

- ¹⁷²Yb 2010FA19 NUCLEAR REACTIONS ¹⁷³Yb(¹⁹F, 4n), E=86, 90 MeV; measured E γ , I γ , (x ray) γ -, $\gamma\gamma$ -coin, $\gamma(\theta)$. ¹⁸⁸Au; deduced levels, J, π , multipolarities, rotational bands, B(M1) / B(E2) ratios, and configurations. ^{172,174}Yb, ^{187,189}Au; measured E γ . Comparison with systematics of level energies, bands and signature splittings in ^{182,184,186,187,189,191,193}Au, ¹⁸⁴Os, ¹⁸⁶Ir. Comparison with total Routhian surface (TRS) and cranked-shell-model (CSM) calculations. Evidence of prolate to oblate shape. JOUR PRVCA 82 064303

KEYNUMBERS AND KEYWORDS

A=172 (continued)

- ¹⁷²Lu 2011KI01 NUCLEAR REACTIONS ¹⁶⁹Tm(α , γ), (α , n), E=11.5-17.5 MeV; measured E γ , I γ , x-rays; deduced yield, σ , S-factors. Comparison with theoretical calculations. JOUR PYLBB 695 419
- ¹⁷²W 2010RU12 NUCLEAR REACTIONS ¹⁶⁰Dy(¹⁶O, 4n), E=85 MeV; ¹⁷⁰Er(¹²C, 4n), E=62 MeV; measured E(ce), I(ce), (ce)(ce)-coin using the Double Orange Spectrometer. ^{172,178}W; deduced T_{1/2}, B(E2) of excited states. Comparison with IBM calculations and systematics. JOUR NUPAB 847 89

A=173

- ¹⁷³Lu 2011KI01 NUCLEAR REACTIONS ¹⁶⁹Tm(α , γ), (α , n), E=11.5-17.5 MeV; measured E γ , I γ , x-rays; deduced yield, σ , S-factors. Comparison with theoretical calculations. JOUR PYLBB 695 419

A=174

- ¹⁷⁴Yb 2010FA19 NUCLEAR REACTIONS ¹⁷³Yb(¹⁹F, 4n), E=86, 90 MeV; measured E γ , I γ , (x ray) γ -, $\gamma\gamma$ -coin, $\gamma(\theta)$. ¹⁸⁸Au; deduced levels, J, π , multipolarities, rotational bands, B(M1) / B(E2) ratios, and configurations. ^{172,174}Yb, ^{187,189}Au; measured E γ . Comparison with systematics of level energies, bands and signature splittings in ^{182,184,186,187,189,191,193}Au, ¹⁸⁴Os, ¹⁸⁶Ir. Comparison with total Routhian surface (TRS) and cranked-shell-model (CSM) calculations. Evidence of prolate to oblate shape. JOUR PRVCA 82 064303

A=175

No references found

A=176

- ¹⁷⁶Hf 2010MU13 NUCLEAR REACTIONS ¹³⁰Te(⁴⁸Ca, 2n), E=194 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, half-lives using Gammasphere array. Beam-on, beam-off measurements of γ spectra. ¹⁷⁶Hf; deduced levels, J, π , rotational bands, isomers, multipolarity, configurations, reduced hindrance factors for K-isomers. JOUR PRVCA 82 054316
- ¹⁷⁶Os 2011HA02 NUCLEAR REACTIONS ¹⁵²Sm(²⁸Si, 4n), E=140 MeV; measured E γ , I γ , $\gamma\gamma$ -coin.; deduced energies of high-spin states, side feedings, T_{1/2}, quadrupole moments, deformation parameters, B(E2). Comparison with IBM and X(5) predictions. JOUR JPGPE 38 025102

KEYNUMBERS AND KEYWORDS

A=177

No references found

A=178

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|-------------------|----------|---|
| ^{178}Hf | 2011LU03 | NUCLEAR REACTIONS $\text{Hf}(n, X)^{178}\text{Hf} / ^{179}\text{Hf}$, $^{93}\text{Nb}(n, 2n)$, $E=14.6\text{-}15.0$ MeV; measured E_γ , I_γ ; deduced σ and uncertainties. JOUR JRNC D 288 143 |
| ^{178}W | 2010RU12 | NUCLEAR REACTIONS $^{160}\text{Dy}(^{16}\text{O}, 4n)$, $E=85$ MeV; $^{170}\text{Er}(^{12}\text{C}, 4n)$, $E=62$ MeV; measured $E(\text{ce})$, $I(\text{ce})$, $(\text{ce})(\text{ce})$ -coin using the Double Orange Spectrometer. $^{172,178}\text{W}$; deduced $T_{1/2}$, $B(E2)$ of excited states. Comparison with IBM calculations and systematics. JOUR NUPAB 847 89 |

A=179

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|-------------------|----------|---|
| ^{179}Hf | 2011LU03 | NUCLEAR REACTIONS $\text{Hf}(n, X)^{178}\text{Hf} / ^{179}\text{Hf}$, $^{93}\text{Nb}(n, 2n)$, $E=14.6\text{-}15.0$ MeV; measured E_γ , I_γ ; deduced σ and uncertainties. JOUR JRNC D 288 143 |
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A=180

No references found

A=181

No references found

A=182

No references found

A=183

No references found

A=184

No references found

A=185

No references found

A=186

- ¹⁸⁶W 2010LA16 NUCLEAR REACTIONS ¹⁸⁶W, ¹⁹²Os(¹³⁶Xe, X), E=840 MeV pulsed beam; measured E γ , I γ , prompt and delayed γ spectra, $\gamma\gamma$ -coin, $\gamma\gamma(t)$, half-lives. ¹⁸⁸W, ¹⁹⁰W; deduced levels, J, π , isomers, internal conversion coefficients, multipolarity, configurations, transition strengths, K-hindrances. ^{186,188,190}W; systematics of calculated two-particle states. JOUR PRVCA 82 051304

A=187

- ¹⁸⁷Au 2010FA19 NUCLEAR REACTIONS ¹⁷³Yb(¹⁹F, 4n), E=86, 90 MeV; measured E γ , I γ , (x ray) γ -, $\gamma\gamma$ -coin, $\gamma(\theta)$. ¹⁸⁸Au; deduced levels, J, π , multipolarities, rotational bands, B(M1) / B(E2) ratios, and configurations. ^{172,174}Yb, ^{187,189}Au; measured E γ . Comparison with systematics of level energies, bands and signature splittings in ^{182,184,186,187,189,191,193}Au, ¹⁸⁴Os, ¹⁸⁶Ir. Comparison with total Routhian surface (TRS) and cranked-shell-model (CSM) calculations. Evidence of prolate to oblate shape. JOUR PRVCA 82 064303

A=188

- ¹⁸⁸W 2010LA16 NUCLEAR REACTIONS ¹⁸⁶W, ¹⁹²Os(¹³⁶Xe, X), E=840 MeV pulsed beam; measured E γ , I γ , prompt and delayed γ spectra, $\gamma\gamma$ -coin, $\gamma\gamma(t)$, half-lives. ¹⁸⁸W, ¹⁹⁰W; deduced levels, J, π , isomers, internal conversion coefficients, multipolarity, configurations, transition strengths, K-hindrances. ^{186,188,190}W; systematics of calculated two-particle states. JOUR PRVCA 82 051304
- ¹⁸⁸Os 2011MA12 NUCLEAR REACTIONS ¹⁸⁰Hf(¹²C, X)¹⁹²Pt / ¹⁸⁸Os, E=65 MeV; measured E γ , I γ ; deduced deformed non-spherical shape, excess yield of high-energy γ -rays, possible first observation of the Isovector Giant Quadrupole Resonance (IVGQR) on excited state. JOUR APOBB 42 643
- ¹⁸⁸Au 2010FA19 NUCLEAR REACTIONS ¹⁷³Yb(¹⁹F, 4n), E=86, 90 MeV; measured E γ , I γ , (x ray) γ -, $\gamma\gamma$ -coin, $\gamma(\theta)$. ¹⁸⁸Au; deduced levels, J, π , multipolarities, rotational bands, B(M1) / B(E2) ratios, and configurations. ^{172,174}Yb, ^{187,189}Au; measured E γ . Comparison with systematics of level energies, bands and signature splittings in ^{182,184,186,187,189,191,193}Au, ¹⁸⁴Os, ¹⁸⁶Ir. Comparison with total Routhian surface (TRS) and cranked-shell-model (CSM) calculations. Evidence of prolate to oblate shape. JOUR PRVCA 82 064303

A=189

- ¹⁸⁹Au 2010FA19 NUCLEAR REACTIONS ¹⁷³Yb(¹⁹F, 4n), E=86, 90 MeV; measured E γ , I γ , (x ray) γ -, $\gamma\gamma$ -coin, $\gamma(\theta)$. ¹⁸⁸Au; deduced levels, J, π , multipolarities, rotational bands, B(M1) / B(E2) ratios, and configurations. ^{172,174}Yb, ^{187,189}Au; measured E γ . Comparison with systematics of level energies, bands and signature splittings in ^{182,184,186,187,189,191,193}Au, ¹⁸⁴Os, ¹⁸⁶Ir. Comparison with total Routhian surface (TRS) and cranked-shell-model (CSM) calculations. Evidence of prolate to oblate shape. JOUR PRVCA 82 064303

A=190

- ¹⁹⁰W 2010LA16 NUCLEAR REACTIONS ¹⁸⁶W, ¹⁹²Os(¹³⁶Xe, X), E=840 MeV pulsed beam; measured E γ , I γ , prompt and delayed γ spectra, $\gamma\gamma$ -coin, $\gamma\gamma(t)$, half-lives. ¹⁸⁸W, ¹⁹⁰W; deduced levels, J, π , isomers, internal conversion coefficients, multipolarity, configurations, transition strengths, K-hindrances. ^{186,188,190}W; systematics of calculated two-particle states. JOUR PRVCA 82 051304

A=191

No references found

A=192

- ¹⁹²Pt 2011MA12 NUCLEAR REACTIONS ¹⁸⁰Hf(¹²C, X)¹⁹²Pt / ¹⁸⁸Os, E=65 MeV; measured E γ , I γ ; deduced deformed non-spherical shape, excess yield of high-energy γ -rays, possible first observation of the Isovector Giant Quadrupole Resonance (IVGQR) on excited state. JOUR APOBB 42 643
- ¹⁹²Pb 2011PA07 NUCLEAR REACTIONS ¹⁵²Sm(⁴⁰Ca, X)¹⁹²Pb, E=11 MeV / nucleon; ¹⁴⁴Sm(⁴⁸Ca, X)¹⁹²Pb, E=10.1 MeV / nucleon; measured E γ , I γ ; deduced γ -spectra difference for fusion-evaporation and fission events. JOUR APOBB 42 629
- ¹⁹²Po 2011C001 NUCLEAR REACTIONS U(p, X)¹⁹²Po / ¹⁹⁴Po / ¹⁹⁶Po / ¹⁹⁸Po / ²⁰⁰Po / ²⁰²Po / ²⁰⁴Po / ²⁰⁶Po / ²⁰⁸Po / ²¹⁰Po / ²¹⁶Po / ²¹⁸Po, E=1.4 GeV; measured reaction products, Ee, Ie, E α , I α ; deduced isotope shifts, mean-square charge radii. Comparison with systematics and FRDM calculations. JOUR PRLTA 106 052503

A=193

- ¹⁹³Pt 2011UD02 NUCLEAR REACTIONS ¹⁹²Os(α , 3n), E=40 MeV; measured E γ , I γ , X-rays; deduced ^{193m}Pt yield, high radionuclidic purity compare to (n, γ) reactions. Chemical separation of radioplatinum. JOUR RAACA 99 131

KEYNUMBERS AND KEYWORDS

A=193 (continued)

- ¹⁹³Pb 2011BA02 NUCLEAR REACTIONS ¹⁷⁰Er(²⁸Si, 5n), E=143 MeV; measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma(\theta)$, $\gamma(t)$, time-differential perturbed angular distribution (TDPAD). ¹⁹³Pb; deduced levels, J, π , half-lives, spectroscopic quadrupole moments of the isomer and other states, configuration. Comparison with pairing-plus-quadrupole tilted-axis cranking calculations. JOUR PRVCA 83 014304
- 2011BA02 NUCLEAR MOMENTS ¹⁹³Pb; measured spectroscopic quadrupole moments of the 13 / 2+ isomer and excited states by TDPAD. Comparison with values of ^{192,194,195,196}Pb nuclei. JOUR PRVCA 83 014304

A=194

- ¹⁹⁴Po 2011C001 NUCLEAR REACTIONS U(p, X)¹⁹²Po / ¹⁹⁴Po / ¹⁹⁶Po / ¹⁹⁸Po / ²⁰⁰Po / ²⁰²Po / ²⁰⁴Po / ²⁰⁶Po / ²⁰⁸Po / ²¹⁰Po / ²¹⁶Po / ²¹⁸Po, E=1.4 GeV; measured reaction products, Ee, Ie, E α , I α ; deduced isotope shifts, mean-square charge radii. Comparison with systematics and FRDM calculations. JOUR PRLTA 106 052503

A=195

No references found

A=196

- ¹⁹⁶Au 2011TS02 NUCLEAR REACTIONS ¹⁹⁷Au(n, 2n), E=9.0, 9.5, 10.0, 10.5 MeV; ²⁷Al(n, α), E=3.5 MeV; measured E γ , I γ ; deduced cross section for 9.7-h isomer of ¹⁹⁶Au, for ground state and 8.1-s isomer of ¹⁹⁶Au relative to that of ²⁷Al(n, α)²⁴Na reaction. Comparison with calculations using STAPRE-F, EMPIRE, and TALYS codes employing the exciton model and Hauser-Feshbach theory. JOUR PRVCA 83 024609
- ¹⁹⁶Po 2011C001 NUCLEAR REACTIONS U(p, X)¹⁹²Po / ¹⁹⁴Po / ¹⁹⁶Po / ¹⁹⁸Po / ²⁰⁰Po / ²⁰²Po / ²⁰⁴Po / ²⁰⁶Po / ²⁰⁸Po / ²¹⁰Po / ²¹⁶Po / ²¹⁸Po, E=1.4 GeV; measured reaction products, Ee, Ie, E α , I α ; deduced isotope shifts, mean-square charge radii. Comparison with systematics and FRDM calculations. JOUR PRLTA 106 052503

A=197

- ¹⁹⁷Au 2010XU11 NUCLEAR REACTIONS ¹⁹⁷Au(¹⁸Ne, ¹⁸Ne'), E=51.8 MeV, [¹⁸Ne secondary beam from ⁹Be(²⁰Ne, X), E=78.2 MeV / nucleon primary reaction]; measured E α , time-of-flight, (¹⁰C) $\alpha\alpha$ -coin. ¹⁸Ne; deduced levels, $\alpha\alpha(\theta)$, relative momentum, sequential two-alpha emission via ¹⁴O excited states. Monte-Carlo simulations. JOUR PRVCA 82 064316

KEYNUMBERS AND KEYWORDS

A=197 (continued)

- 2011R002 NUCLEAR REACTIONS $^{197}\text{Au}(^{62}\text{Fe}, ^{62}\text{Fe}')$, $(^{64}\text{Fe}, ^{64}\text{Fe}')$, $(^{66}\text{Fe}, ^{66}\text{Fe}')$, $E=97.8, 95, 88.3$ MeV / nucleon; measured $E\gamma, I\gamma$. $^{62,64,66}\text{Fe}$; deduced lifetimes, $B(E2)$, deformation parameters. Comparison with shell model calculations, experimental data. Secondary beams from ^{76}Ge fragmentation. JOUR PRLTA 106 022502
- 2011WI03 NUCLEAR REACTIONS $^{197}\text{Au}(^{68}\text{Ni}, ^{68}\text{Ni}')$, $E=600$ MeV / nucleon; measured reaction products, $E\gamma, I\gamma$. ^{68}Ni ; deduced pygmy dipole resonance, $\sigma(E)$, σ , $B(E2)$, photoabsorption strengths, neutron skin thickness. Energy-weighted sum rule. JOUR PPNPD 66 374

A=198

- ^{198}Au 2011NG01 NUCLEAR REACTIONS $^{165}\text{Ho}, ^{197}\text{Au}, ^{115}\text{In}(n, \gamma)$, $E=0.45$ MeV; measured $E\gamma, I\gamma$; deduced thermal σ , resonance integrals. Comparison with evaluated libraries and experimental data. JOUR NIMBE 269 159
- ^{198}Po 2011C001 NUCLEAR REACTIONS $\text{U}(p, X)^{192}\text{Po} / ^{194}\text{Po} / ^{196}\text{Po} / ^{198}\text{Po} / ^{200}\text{Po} / ^{202}\text{Po} / ^{204}\text{Po} / ^{206}\text{Po} / ^{208}\text{Po} / ^{210}\text{Po} / ^{216}\text{Po} / ^{218}\text{Po}$, $E=1.4$ GeV; measured reaction products, $Ee, Ie, E\alpha, I\alpha$; deduced isotope shifts, mean-square charge radii. Comparison with systematics and FRDM calculations. JOUR PRLTA 106 052503

A=199

- ^{199}Au 2011LE03 NUCLEAR REACTIONS $^{197}\text{Au}(^8\text{He}, X)^{199}\text{Au}$, $^{65}\text{Cu}(^8\text{He}, X)$, $E=19.9$ MeV; measured reaction products, $E\gamma, I\gamma$; deduced 2n-transfer σ , model-independent ratio of 2n to 1n transfer reactions, absence of ^{67}Cu nuclei. JOUR PYLBB 697 454

A=200

- ^{200}Po 2011C001 NUCLEAR REACTIONS $\text{U}(p, X)^{192}\text{Po} / ^{194}\text{Po} / ^{196}\text{Po} / ^{198}\text{Po} / ^{200}\text{Po} / ^{202}\text{Po} / ^{204}\text{Po} / ^{206}\text{Po} / ^{208}\text{Po} / ^{210}\text{Po} / ^{216}\text{Po} / ^{218}\text{Po}$, $E=1.4$ GeV; measured reaction products, $Ee, Ie, E\alpha, I\alpha$; deduced isotope shifts, mean-square charge radii. Comparison with systematics and FRDM calculations. JOUR PRLTA 106 052503

A=201

No references found

A=202

²⁰²Po 2011C001 NUCLEAR REACTIONS U(p, X)¹⁹²Po / ¹⁹⁴Po / ¹⁹⁶Po / ¹⁹⁸Po / ²⁰⁰Po / ²⁰²Po / ²⁰⁴Po / ²⁰⁶Po / ²⁰⁸Po / ²¹⁰Po / ²¹⁶Po / ²¹⁸Po, E=1.4 GeV; measured reaction products, Ee, Ie, Eα, Iα; deduced isotope shifts, mean-square charge radii. Comparison with systematics and FRDM calculations. JOUR PRLTA 106 052503

A=203

No references found

A=204

²⁰⁴Po 2011C001 NUCLEAR REACTIONS U(p, X)¹⁹²Po / ¹⁹⁴Po / ¹⁹⁶Po / ¹⁹⁸Po / ²⁰⁰Po / ²⁰²Po / ²⁰⁴Po / ²⁰⁶Po / ²⁰⁸Po / ²¹⁰Po / ²¹⁶Po / ²¹⁸Po, E=1.4 GeV; measured reaction products, Ee, Ie, Eα, Iα; deduced isotope shifts, mean-square charge radii. Comparison with systematics and FRDM calculations. JOUR PRLTA 106 052503

A=205

No references found

A=206

²⁰⁶Po 2011C001 NUCLEAR REACTIONS U(p, X)¹⁹²Po / ¹⁹⁴Po / ¹⁹⁶Po / ¹⁹⁸Po / ²⁰⁰Po / ²⁰²Po / ²⁰⁴Po / ²⁰⁶Po / ²⁰⁸Po / ²¹⁰Po / ²¹⁶Po / ²¹⁸Po, E=1.4 GeV; measured reaction products, Ee, Ie, Eα, Iα; deduced isotope shifts, mean-square charge radii. Comparison with systematics and FRDM calculations. JOUR PRLTA 106 052503

A=207

²⁰⁷Pb 2011KE01 NUCLEAR REACTIONS ²⁰⁸Pb(¹³⁶Xe, X)¹³⁴Xe / ¹³⁵Xe / ¹³⁶Xe / ¹³⁷Xe / ²⁰⁷Pb / ²⁰⁸Pb / ²⁰⁹Pb / ²¹⁰Pb, E=940 MeV; measured reaction products, Eγ, Iγ. JOUR APOBB 42 717

²⁰⁷Rn 2010SCZY RADIOACTIVITY ²⁰⁷Rn(SF), ²¹⁵Ra(SF), ²²¹Ra(SF), ²²³Ac(SF)[from ²³⁸U fragmentation at 1 GeV / nucleon]; measured width of fragment charge distribution; calculated width of fragment charge distribution. At(SF), Rn(SF), Fr(SF), Ra(SF), Ac(SF), Th(SF), Pa(SF), U(SF)[from ²³⁸U fragmentation at 1 GeV / nucleon]; measured width of fragment charge distribution. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P43

KEYNUMBERS AND KEYWORDS

A=208

^{208}Tl	2010MIZY	NUCLEAR REACTIONS ^{90}Zr , $^{208}\text{Pb}(^3\text{H}, ^3\text{He})$, $E=300$ MeV / nucleon; measured $E(\text{particle})$, $I(\text{particle}, \theta)$. Data reduction and analysis in progress. REPT RIKEN 2009 Annual,P7,Miki
^{208}Pb	2009COZS	NUCLEAR REACTIONS $^{208}\text{Pb}(^{90}\text{Zr}, ^{90}\text{Zr}')$, $E=560$ MeV; measured $E(\text{particle})$, $I(\text{particle}, \theta)$, $E\gamma$, $I\gamma$, $(\text{particle})\gamma$ -coin; deduced elastic σ , $\sigma(\theta)$. CONF Dub(Nucl Struct and Dynamics,09) Proc,P357
	2010HA28	NUCLEAR REACTIONS $^{208}\text{Pb}(^6\text{Li}, d\alpha)$, $E=150$ MeV / nucleon; measured ^2H and α particle spectra, angles, positions and energy loss of ^2H and α particles, cross section, $\sigma(\theta)$ of excited ^6Li ; deduced $E1$, $E2$, and total S_{24} factors. Comparison with previous experimental data and GEANT simulations. $^2\text{H}(\alpha, \gamma)$; deduced astrophysical nuclear reaction rates from breakup of ^6Li . Predictions for the $^6\text{Li} / ^1\text{H}$ production ratio in Big Bang nucleosynthesis. JOUR PRVCA 82 065803
	2010HA28	NUCLEAR REACTIONS $^{208}\text{Pb}(d, d)$, $E=110, 140$ MeV; $^{208}\text{Pb}(\alpha, \alpha)$, $E=480, 699$ MeV; $^{208}\text{Pb}(^6\text{Li}, ^6\text{Li})$, $E=600$ MeV; analyzed $\sigma(\theta)$ data; deduced Woods-Saxon potential parameters. JOUR PRVCA 82 065803
	2010TOZX	NUCLEAR REACTIONS $^{208}\text{Pb}(^{31}\text{Cl}, p^{30}\text{S})$, $E=58$ MeV / nucleon; measured Coulomb dissociation thick target $E(\text{particle})$, $I(\text{particle}, \theta)$, E_p , $I_p(\theta)$, $(\text{particle})p$ -coin. Further analysis in progress. REPT RIKEN 2009 Annual,P18,Togano
	2011KE01	NUCLEAR REACTIONS $^{208}\text{Pb}(^{136}\text{Xe}, X)^{134}\text{Xe} / ^{135}\text{Xe} / ^{136}\text{Xe} / ^{137}\text{Xe} / ^{207}\text{Pb} / ^{208}\text{Pb} / ^{209}\text{Pb} / ^{210}\text{Pb}$, $E=940$ MeV; measured reaction products, $E\gamma$, $I\gamma$. JOUR APOBB 42 717
	2011NI04	NUCLEAR REACTIONS ^{90}Zr , $^{208}\text{Pb}(^{17}\text{O}, ^{17}\text{O}')$, $E=20$ MeV / nucleon; measured reaction products, $E\gamma$, $I\gamma$. ^{208}Pb ; deduced population of pygmy resonance. JOUR APOBB 42 653
	2011PA08	NUCLEAR REACTIONS $^{208}\text{Pb}(^6\text{He}, ^6\text{He})$, $E=18$ MeV; measured reaction products; deduced σ , dipole polarizability. Optical model calculations. JOUR APOBB 42 761
^{208}Po	2011C001	NUCLEAR REACTIONS $U(p, X)^{192}\text{Po} / ^{194}\text{Po} / ^{196}\text{Po} / ^{198}\text{Po} / ^{200}\text{Po} / ^{202}\text{Po} / ^{204}\text{Po} / ^{206}\text{Po} / ^{208}\text{Po} / ^{210}\text{Po} / ^{216}\text{Po} / ^{218}\text{Po}$, $E=1.4$ GeV; measured reaction products, E_e , I_e , $E\alpha$, $I\alpha$; deduced isotope shifts, mean-square charge radii. Comparison with systematics and FRDM calculations. JOUR PRLTA 106 052503

A=209

^{209}Pb	2011KE01	NUCLEAR REACTIONS $^{208}\text{Pb}(^{136}\text{Xe}, X)^{134}\text{Xe} / ^{135}\text{Xe} / ^{136}\text{Xe} / ^{137}\text{Xe} / ^{207}\text{Pb} / ^{208}\text{Pb} / ^{209}\text{Pb} / ^{210}\text{Pb}$, $E=940$ MeV; measured reaction products, $E\gamma$, $I\gamma$. JOUR APOBB 42 717
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A=210

^{210}Pb	2011KE01	NUCLEAR REACTIONS $^{208}\text{Pb}(^{136}\text{Xe}, X)^{134}\text{Xe} / ^{135}\text{Xe} / ^{136}\text{Xe} / ^{137}\text{Xe} / ^{207}\text{Pb} / ^{208}\text{Pb} / ^{209}\text{Pb} / ^{210}\text{Pb}$, $E=940$ MeV; measured reaction products, $E\gamma$, $I\gamma$. JOUR APOBB 42 717
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KEYNUMBERS AND KEYWORDS

A=210 (continued)

^{210}Po	2011C001	NUCLEAR REACTIONS $\text{U}(\text{p}, \text{X})^{192}\text{Po} / ^{194}\text{Po} / ^{196}\text{Po} / ^{198}\text{Po} / ^{200}\text{Po} / ^{202}\text{Po} / ^{204}\text{Po} / ^{206}\text{Po} / ^{208}\text{Po} / ^{210}\text{Po} / ^{216}\text{Po} / ^{218}\text{Po}$, $E=1.4$ GeV; measured reaction products, E_e , I_e , E_α , I_α ; deduced isotope shifts, mean-square charge radii. Comparison with systematics and FRDM calculations. JOUR PRLTA 106 052503
^{210}Rn	2009MUZV	RADIOACTIVITY $^{214}\text{Ra}(\alpha)$; measured $T_{1/2}$ considering electron screening effects. CONF Dub(Nucl Struct and Dynamics,09) Proc,P415

A=211

No references found

A=212

No references found

A=213

No references found

A=214

^{214}Pb	2011V001	RADIOACTIVITY $^{214}\text{Pb}(\beta^-)$; measured E_γ , I_γ ; deduced $T_{1/2}$. Comparison with other experimental data. JOUR ARISE 69 705
^{214}Bi	2011V001	RADIOACTIVITY $^{214}\text{Pb}(\beta^-)$; measured E_γ , I_γ ; deduced $T_{1/2}$. Comparison with other experimental data. JOUR ARISE 69 705
^{214}Po	2011AS02	NUCLEAR REACTIONS $^{208}\text{Pb}(^{18}\text{O}, \text{X})$, $E=85$ MeV; measured E_γ , I_γ , $(\text{x ray})\gamma^-$, $\gamma\gamma\gamma$ -coin, $\gamma(\theta)$, ADO ratios, level half-life by $\gamma\gamma(t)$ using Euroball IV array. ^{214}Po ; deduced levels, J , π , yrast structure, internal conversion electron coefficients, multipolarities, configurations. Comparison with empirical shell model predictions and with systematics (levels and $B(E2)$) of ^{210}Pb , $^{210,212,214,216,218}\text{Po}$. JOUR PRVCA 83 014311
^{214}Ra	2009MUZV	RADIOACTIVITY $^{214}\text{Ra}(\alpha)$; measured $T_{1/2}$ considering electron screening effects. CONF Dub(Nucl Struct and Dynamics,09) Proc,P415

KEYNUMBERS AND KEYWORDS

A=215

²¹⁵Ra 2010SCZY RADIOACTIVITY ²⁰⁷Rn(SF), ²¹⁵Ra(SF), ²²¹Ra(SF), ²²³Ac(SF)[from ²³⁸U fragmentation at 1 GeV / nucleon]; measured width of fragment charge distribution; calculated width of fragment charge distribution. At(SF), Rn(SF), Fr(SF), Ra(SF), Ac(SF), Th(SF), Pa(SF), U(SF)[from ²³⁸U fragmentation at 1 GeV / nucleon]; measured width of fragment charge distribution. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P43

A=216

²¹⁶Po 2011C001 NUCLEAR REACTIONS U(p, X)¹⁹²Po / ¹⁹⁴Po / ¹⁹⁶Po / ¹⁹⁸Po / ²⁰⁰Po / ²⁰²Po / ²⁰⁴Po / ²⁰⁶Po / ²⁰⁸Po / ²¹⁰Po / ²¹⁶Po / ²¹⁸Po, E=1.4 GeV; measured reaction products, Ee, Ie, Eα, Iα; deduced isotope shifts, mean-square charge radii. Comparison with systematics and FRDM calculations. JOUR PRLTA 106 052503

²¹⁶U 2010WAZZ NUCLEAR REACTIONS ¹³⁸Ba(⁸²Kr, 4n), E=393 MeV; measured evaporation residues, Eα, Iα. Analysis in progress. REPT JAEA-Review 2010-056,P50,Wakabayashi

A=217

²¹⁷At 2010WA42 RADIOACTIVITY ²²¹Fr(α)[from U(p, X), E=1.4 GeV]; measured Eα, Iα, Eγ, Iγ parent half-life at 20 mK and 4 K in Si and Au host media. No dependency on the solid-state environment and temperature of this α decaying isotope is observed up to a level of 0.1%. JOUR PRVCA 82 064317

A=218

²¹⁸Po 2011C001 NUCLEAR REACTIONS U(p, X)¹⁹²Po / ¹⁹⁴Po / ¹⁹⁶Po / ¹⁹⁸Po / ²⁰⁰Po / ²⁰²Po / ²⁰⁴Po / ²⁰⁶Po / ²⁰⁸Po / ²¹⁰Po / ²¹⁶Po / ²¹⁸Po, E=1.4 GeV; measured reaction products, Ee, Ie, Eα, Iα; deduced isotope shifts, mean-square charge radii. Comparison with systematics and FRDM calculations. JOUR PRLTA 106 052503

²¹⁸Ra 2011RE04 NUCLEAR REACTIONS ¹⁹⁸Pt(²⁶Mg, X)²¹⁹Th / ²²⁰Th, E=128 MeV; ²⁰⁷Pb(¹⁸O, X)²¹⁸Ra / ²²¹Th, E=96 MeV; measured reaction products, Eγ, Iγ, ER nucleus-γ-coin.; deduced level scheme, B(E1) / B(E2) ratios as a function of spin, tidal-wave concept. JOUR APOBB 42 671

A=219

²¹⁹Th 2011RE04 NUCLEAR REACTIONS ¹⁹⁸Pt(²⁶Mg, X)²¹⁹Th / ²²⁰Th, E=128 MeV; ²⁰⁷Pb(¹⁸O, X)²¹⁸Ra / ²²¹Th, E=96 MeV; measured reaction products, Eγ, Iγ, ER nucleus-γ-coin.; deduced level scheme, B(E1) / B(E2) ratios as a function of spin, tidal-wave concept. JOUR APOBB 42 671

KEYNUMBERS AND KEYWORDS

A=220

- ²²⁰Th 2011RE04 NUCLEAR REACTIONS ¹⁹⁸Pt(²⁶Mg, X)²¹⁹Th / ²²⁰Th, E=128 MeV; ²⁰⁷Pb(¹⁸O, X)²¹⁸Ra / ²²¹Th, E=96 MeV; measured reaction products, E γ , I γ , ER nucleus- γ -coin.; deduced level scheme, B(E1) / B(E2) ratios as a function of spin, tidal-wave concept. JOUR APOBB 42 671
- ²²⁰Pu 2010NIZV NUCLEAR REACTIONS ¹⁴⁰Ce(⁸²Kr, 2n), E(cm)=228 MeV; measured recoils, E α , I α ; calculated σ . Analysis in progress. REPT JAEA-Review 2010-056,P48,Nishio

A=221

- ²²¹Fr 2010WA42 RADIOACTIVITY ²²¹Fr(α)[from U(p, X), E=1.4 GeV]; measured E α , I α , E γ , I γ parent half-life at 20 mK and 4 K in Si and Au host media. No dependency on the solid-state environment and temperature of this α decaying isotope is observed up to a level of 0.1%. JOUR PRVCA 82 064317
- ²²¹Ra 2010SCZY RADIOACTIVITY ²⁰⁷Rn(SF), ²¹⁵Ra(SF), ²²¹Ra(SF), ²²³Ac(SF)[from ²³⁸U fragmentation at 1 GeV / nucleon]; measured width of fragment charge distribution; calculated width of fragment charge distribution. At(SF), Rn(SF), Fr(SF), Ra(SF), Ac(SF), Th(SF), Pa(SF), U(SF)[from ²³⁸U fragmentation at 1 GeV / nucleon]; measured width of fragment charge distribution. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P43
- ²²¹Th 2011RE04 NUCLEAR REACTIONS ¹⁹⁸Pt(²⁶Mg, X)²¹⁹Th / ²²⁰Th, E=128 MeV; ²⁰⁷Pb(¹⁸O, X)²¹⁸Ra / ²²¹Th, E=96 MeV; measured reaction products, E γ , I γ , ER nucleus- γ -coin.; deduced level scheme, B(E1) / B(E2) ratios as a function of spin, tidal-wave concept. JOUR APOBB 42 671

A=222

No references found

A=223

- ²²³Ac 2010SCZY RADIOACTIVITY ²⁰⁷Rn(SF), ²¹⁵Ra(SF), ²²¹Ra(SF), ²²³Ac(SF)[from ²³⁸U fragmentation at 1 GeV / nucleon]; measured width of fragment charge distribution; calculated width of fragment charge distribution. At(SF), Rn(SF), Fr(SF), Ra(SF), Ac(SF), Th(SF), Pa(SF), U(SF)[from ²³⁸U fragmentation at 1 GeV / nucleon]; measured width of fragment charge distribution. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P43

A=224

No references found

A=225

No references found

A=226

²²⁶Np 2010KAZV RADIOACTIVITY ²³⁴Bk(α), (EC)[from ¹⁹⁷Au(⁴⁰Ar, 3n), E=189.5 MeV], ²³⁰Am(SF), (α)[from ²³⁴Bk]; measured E α , I α (t), $\alpha\alpha$ -coin; deduced T_{1/2}. REPT RIKEN 2009 Annual,P28,Kaji

A=227

No references found

A=228

No references found

A=229

No references found

A=230

²³⁰Am 2010KAZV RADIOACTIVITY ²³⁴Bk(α), (EC)[from ¹⁹⁷Au(⁴⁰Ar, 3n), E=189.5 MeV], ²³⁰Am(SF), (α)[from ²³⁴Bk]; measured E α , I α (t), $\alpha\alpha$ -coin; deduced T_{1/2}. REPT RIKEN 2009 Annual,P28,Kaji

A=231

No references found

A=232

²³²Pu 2010ASZX RADIOACTIVITY ²³⁶Cm, ^{240,241}Cf(α)[from ²³³U(¹²C, X), E=80 MeV]; measured E α , I α (t). ²⁴⁰Cf deduced E(2⁺), T_{1/2}. REPT JAEA-Review 2010-056,P21,Asai

A=233

No references found

KEYNUMBERS AND KEYWORDS

A=234

- ^{234}Cm 2010KAZV RADIOACTIVITY $^{234}\text{Bk}(\alpha)$, (EC)[from $^{197}\text{Au}(^{40}\text{Ar}, 3n)$, E=189.5 MeV], $^{230}\text{Am}(\text{SF})$, (α)[from ^{234}Bk]; measured $E\alpha$, $I\alpha(t)$, $\alpha\alpha$ -coin; deduced $T_{1/2}$. REPT RIKEN 2009 Annual,P28,Kaji
- ^{234}Bk 2010KAZV RADIOACTIVITY $^{234}\text{Bk}(\alpha)$, (EC)[from $^{197}\text{Au}(^{40}\text{Ar}, 3n)$, E=189.5 MeV], $^{230}\text{Am}(\text{SF})$, (α)[from ^{234}Bk]; measured $E\alpha$, $I\alpha(t)$, $\alpha\alpha$ -coin; deduced $T_{1/2}$. REPT RIKEN 2009 Annual,P28,Kaji

A=235

No references found

A=236

- ^{236}Cm 2010ASZX RADIOACTIVITY ^{236}Cm , $^{240,241}\text{Cf}(\alpha)$ [from $^{233}\text{U}(^{12}\text{C}, X)$, E=80 MeV]; measured $E\alpha$, $I\alpha(t)$. ^{240}Cf deduced $E(2^+)$, $T_{1/2}$. REPT JAEA-Review 2010-056,P21,Asai

A=237

- ^{237}Np 2010AN15 NUCLEAR REACTIONS $^{237}\text{Np}(\gamma, \gamma')$, E=1.7-2.5 MeV; measured $E\gamma$, $I\gamma$, NRF-integrated cross sections. ^{237}Np ; deduced levels, B(M1) strength. Comparison with NRF-integrated cross sections in ^{235}U and ^{239}Pu . JOUR PRVCA 82 054310
- ^{237}Cm 2010ASZX RADIOACTIVITY ^{236}Cm , $^{240,241}\text{Cf}(\alpha)$ [from $^{233}\text{U}(^{12}\text{C}, X)$, E=80 MeV]; measured $E\alpha$, $I\alpha(t)$. ^{240}Cf deduced $E(2^+)$, $T_{1/2}$. REPT JAEA-Review 2010-056,P21,Asai

A=238

- ^{238}U 2010KAZX RADIOACTIVITY $^{238}\text{U}(\text{SF})$ [in-flight fission at 345 MeV / nucleon]; measured fission A(fragment), Z(fragment), $E\gamma$, $I\gamma$. ^{78}Zn , ^{95}Kr , $^{128,130}\text{Cd}$, ^{132}Sn deduced isomer ratio, spin cut-off parameter. Comparison with published results on α -induced fission. REPT RIKEN 2009 Annual,P6,Kameda
- 2011BE01 RADIOACTIVITY $^{242}\text{Pu}(\alpha)$, (SF); measured reaction products, $E\gamma$, $I\gamma$; deduced level energy, γ -emission probability. Comparison with previous results. JOUR ARISE 69 531

A=239

No references found

KEYNUMBERS AND KEYWORDS

A=240

- ²⁴⁰U 2010NIZU NUCLEAR REACTIONS ²³⁸U(¹⁸O, ¹⁶O), E=144 MeV; measured fission fragments, ¹⁶O, (fragments)(¹⁶O)-coin; deduced fission fragments - ¹⁶O coin vs E*(²⁴⁰U). REPT JAEA-Review 2010-056,P54,Nishio
- ²⁴⁰Am 2010T009 NUCLEAR REACTIONS ²⁴¹Am(γ , n), E=9.0-15.6 MeV; measured E γ , I γ , σ using HI γ S facility. Giant dipole resonance region. Comparison with previous measurements and statistical nuclear-model calculations. JOUR PRVCA 82 054620
- ²⁴⁰Cf 2010ASZX RADIOACTIVITY ²³⁶Cm, ^{240,241}Cf(α)[from ²³³U(¹²C, X), E=80 MeV]; measured E α , I α (t). ²⁴⁰Cf deduced E(2⁺), T_{1/2}. REPT JAEA-Review 2010-056,P21,Asai

A=241

- ²⁴¹Cf 2010ASZX RADIOACTIVITY ²³⁶Cm, ^{240,241}Cf(α)[from ²³³U(¹²C, X), E=80 MeV]; measured E α , I α (t). ²⁴⁰Cf deduced E(2⁺), T_{1/2}. REPT JAEA-Review 2010-056,P21,Asai

A=242

- ²⁴²Pu 2011BE01 RADIOACTIVITY ²⁴²Pu(α), (SF); measured reaction products, E γ , I γ ; deduced level energy, γ -emission probability. Comparison with previous results. JOUR ARISE 69 531

A=243

No references found

A=244

No references found

A=245

No references found

A=246

- ²⁴⁶Fm 2010SVZX RADIOACTIVITY ²⁴⁶Fm(SF)[from ²⁰⁸Pb(⁴⁰Ar, 2n), E=186 MeV]; measured ln(t), fission fragments, α ; deduced T_{1/2}, neutron multiplicity. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P397

KEYNUMBERS AND KEYWORDS

A=247

No references found

A=248

- ²⁴⁸Cm 2010RZ02 RADIOACTIVITY ²⁴⁸Cm, ²⁵²Cf(SF); measured E γ , I γ , $\gamma\gamma$ -coin, conversion coefficients, and half-life of isomer using EUROGAM2 and Gammasphere arrays. ¹⁴⁹Pr; deduced levels, J, π , band, multipolarity, B(E1), electric dipole moment, configuration. Comparison with quasiparticle-rotor model calculations. ^{98,99,100,101}Y; measured E γ , $\gamma\gamma$ -coin. JOUR PRVCA 82 067304
- 2010TEZZ RADIOACTIVITY ²⁵²Cf(SF), (α); measured E α , I α , Z(particle), E(particle), I(particle); deduced α , light particle mean energy, yields, fragment pair yields; calculated light particle yields, energy costs. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P311
- 2010UR03 RADIOACTIVITY ²⁴⁸Cm(SF); measured E γ , I γ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$ using EUROGAM2 array. ¹⁰⁹Tc; deduced levels, J, π , conversion coefficients, multipolarities, rotational bands. ¹¹⁰Tc, ^{135,136,137}I; measured E γ . Comparison with level systematics of ^{103,105,107,109,111}Tc. Comparison with quasiparticle-rotor model (QPRM) calculations. Evidence for triaxial nature of ¹⁰⁹Tc. JOUR PRVCA 82 064308

A=249

No references found

A=250

- ²⁵⁰Cf 2010CAZW RADIOACTIVITY ²⁵⁰Cf(SF)[from ¹²C+²³⁸U]; measured A(fragment), Z(fragment), I(fragment, θ) in-flight. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P15
- 2010VEZZ RADIOACTIVITY ²⁵⁰Cf(SF)[and also from ²⁴⁹Cf(n, f), E=low]; measured A(particle), Z(particle), E(particle), I(particle); deduced average light-particle energy, emission probabilities. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P303

A=251

No references found

A=252

- ²⁵²Cf 2010RZ02 RADIOACTIVITY ²⁴⁸Cm, ²⁵²Cf(SF); measured E γ , I γ , $\gamma\gamma$ -coin, conversion coefficients, and half-life of isomer using EUROAM2 and Gammasphere arrays. ¹⁴⁹Pr; deduced levels, J, π , band, multipolarity, B(E1), electric dipole moment, configuration. Comparison with quasiparticle-rotor model calculations. ^{98,99,100,101}Y; measured E γ , $\gamma\gamma$ -coin. JOUR PRVCA 82 067304
- 2010SMZZ RADIOACTIVITY ²⁵²Cf(SF); measured E γ , I $\gamma(\theta)$, I(fragment, q), (fragment) γ -coin. ^{100,102}Zr, ^{104,106}Mo, ¹¹⁴Pd, ¹³⁴Te, ^{138,140}Xe, ^{142,144}Ba, ^{146,148}Ce deduced (fragment)- γ angular correlations for low-lying states, anisotropy coefficient. EUROBALL and GAMMASPHERE data; comparison with other results. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P193
- 2010TEZZ RADIOACTIVITY ²⁵²Cf(SF), (α); measured E α , I α , Z(particle), E(particle), I(particle); deduced α , light particle mean energy, yields, fragment pair yields; calculated light particle yields, energy costs. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P311
- 2010ZEZZ RADIOACTIVITY ²⁵²Cf(SF); measured E(fragment), I(fragment, θ), En, In, (fragment)n-coin; deduced mass yields, $\sigma(\theta)$, neutron multiplicity. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P359

A=253

No references found

A=254

No references found

A=255

No references found

A=256

- ²⁵⁶Lr 2010SAZV NUCLEAR REACTIONS ^{249,250,251}Cf(¹¹B, xn), E=57, 60, 63, 66, 69, 72 MeV; ²⁴³Am(¹⁸O, 5n), E=93, 96, 99 MeV; measured E α , I $\alpha(t)$; deduced σ . ²⁵⁶Lr deduced T_{1/2}. REPT JAEA-Review 2010-056,P52,Sato

KEYNUMBERS AND KEYWORDS

A=257

²⁵⁷Lr 2010ASZY NUCLEAR REACTIONS ²⁴⁸Cm(¹⁴N, 5n), (¹⁵N, 4n), E=cyclotron; measured E α , I α . ²⁵⁷Lr deduced states, state configuration. ²⁵⁹Lr to be published. REPT RIKEN 2009 Annual, Pix, Asai

A=258

No references found

A=259

²⁵⁹Lr 2010ASZY NUCLEAR REACTIONS ²⁴⁸Cm(¹⁴N, 5n), (¹⁵N, 4n), E=cyclotron; measured E α , I α . ²⁵⁷Lr deduced states, state configuration. ²⁵⁹Lr to be published. REPT RIKEN 2009 Annual, Pix, Asai

A=260

No references found

A=261

²⁶¹Rg 2011DE03 ATOMIC MASSES ^{261,265,289,290,291,292,293,294,295,296}Rg; measured abundance in natural gold using accelerator mass spectrometry (AMS). No events observed for ²⁶¹Rg and ²⁶⁵Rg, not confirming a positive identification in another recent study. No events observed for ^{289,290,292,293,295,296}Rg. Two and nine events recorded apparently for ²⁹¹Rg and ²⁹⁴Rg, respectively could be explained otherwise, thus making positive identification for Rg unlikely. Upper limits established in the range of 10₁₆. JOUR PRVCA 83 015801

A=262

²⁶²Sg 2011AC01 RADIOACTIVITY ²⁷⁰Ds, ²⁶⁶Hs(α), ²⁶²Sg(SF); measured decay fragments, alpha spectrum; deduced T_{1/2}, J, π . Comparison with HFB calculations. JOUR APOBB 42 577

A=263

No references found

A=264

No references found

KEYNUMBERS AND KEYWORDS

A=265

²⁶⁵Rg 2011DE03 ATOMIC MASSES ^{261,265,289,290,291,292,293,294,295,296}Rg; measured abundance in natural gold using accelerator mass spectrometry (AMS). No events observed for ²⁶¹Rg and ²⁶⁵Rg, not confirming a positive identification in another recent study. No events observed for ^{289,290,292,293,295,296}Rg. Two and nine events recorded apparently for ²⁹¹Rg and ²⁹⁴Rg, respectively could be explained otherwise, thus making positive identification for Rg unlikely. Upper limits established in the range of 10₁₆. JOUR PRVCA 83 015801

A=266

²⁶⁶Hs 2011AC01 RADIOACTIVITY ²⁷⁰Ds, ²⁶⁶Hs(α), ²⁶²Sg(SF); measured decay fragments, alpha spectrum; deduced T_{1/2}, J, π . Comparison with HFB calculations. JOUR APOBB 42 577

A=267

No references found

A=268

²⁶⁸Db 2010SVZY RADIOACTIVITY ²⁶⁸Db(SF)[from ²⁴³Am+⁴⁸Ca and 5 consecutive α decays]; measured En, In; deduced average neutron multiplicity per fission. Experiment at LSM Modano. Considered search for long-lived isotopes of super-heavies in nature. CONF Cadarache(Nuclear Fission and Fission-Product Spectrosc)Proc,P297

A=269

No references found

A=270

²⁷⁰Ds 2011AC01 RADIOACTIVITY ²⁷⁰Ds, ²⁶⁶Hs(α), ²⁶²Sg(SF); measured decay fragments, alpha spectrum; deduced T_{1/2}, J, π . Comparison with HFB calculations. JOUR APOBB 42 577

A=271

No references found

A=272

No references found

A=273

No references found

A=274

No references found

A=275

No references found

A=276

No references found

A=277

²⁷⁷Hs 2010DUZY RADIOACTIVITY ²⁷⁷Hs, ²⁸⁴Cn(SF), ²⁸¹Ds(SF), (α), ^{284,285}Cn, ^{288,289}114(α)[from ²⁴⁴Pu(⁴⁸Ca, X), E \approx 239, 244 MeV]; measured E α , I α , E(fragment), I(fragment), $\alpha\alpha$ -coin, (fragment) α -coin, (ER) α -coin, (ER)(fragment)-coin; deduced T_{1/2}. Comparison with Oganessian results. REPT Univ Mainz,2009 Annual,PA1,Dullman

A=278

No references found

A=279

No references found

A=280

²⁸⁰Ds 2010DUZY RADIOACTIVITY ²⁷⁷Hs, ²⁸⁴Cn(SF), ²⁸¹Ds(SF), (α), ^{284,285}Cn, ^{288,289}114(α)[from ²⁴⁴Pu(⁴⁸Ca, X), E \approx 239, 244 MeV]; measured E α , I α , E(fragment), I(fragment), $\alpha\alpha$ -coin, (fragment) α -coin, (ER) α -coin, (ER)(fragment)-coin; deduced T_{1/2}. Comparison with Oganessian results. REPT Univ Mainz,2009 Annual,PA1,Dullman

A=281

²⁸¹Ds 2010DUZY RADIOACTIVITY ²⁷⁷Hs, ²⁸⁴Cn(SF), ²⁸¹Ds(SF), (α), ^{284,285}Cn, ^{288,289}114(α)[from ²⁴⁴Pu(⁴⁸Ca, X), E \approx 239, 244 MeV]; measured E α , I α , E(fragment), I(fragment), $\alpha\alpha$ -coin, (fragment) α -coin, (ER) α -coin, (ER)(fragment)-coin; deduced T_{1/2}. Comparison with Oganessian results. REPT Univ Mainz,2009 Annual,PA1,Dullman

A=282

No references found

A=283

No references found

A=284

No references found

A=285

No references found

A=286

No references found

A=287

No references found

A=288

²⁸⁸114 2010DUZY NUCLEAR REACTIONS ²⁴⁴Pu(⁴⁸Ca, 3n), (⁴⁸Ca, 4n)E* =38, 42 MeV; measured reaction products; deduced σ . REPT Univ Mainz,2009 Annual,PA1,Dullman

2010DUZY RADIOACTIVITY ²⁷⁷Hs, ²⁸⁴Cn(SF), ²⁸¹Ds(SF), (α), ^{284,285}Cn, ^{288,289}114(α)[from ²⁴⁴Pu(⁴⁸Ca, X), E \approx 239, 244 MeV]; measured E α , I α , E(fragment), I(fragment), $\alpha\alpha$ -coin, (fragment) α -coin, (ER) α -coin, (ER)(fragment)-coin; deduced T_{1/2}. Comparison with Oganessian results. REPT Univ Mainz,2009 Annual,PA1,Dullman

KEYNUMBERS AND KEYWORDS

A=289

- ²⁸⁹Rg 2011DE03 ATOMIC MASSES ^{261,265,289,290,291,292,293,294,295,296}Rg; measured abundance in natural gold using accelerator mass spectrometry (AMS). No events observed for ²⁶¹Rg and ²⁶⁵Rg, not confirming a positive identification in another recent study. No events observed for ^{289,290,292,293,295,296}Rg. Two and nine events recorded apparently for ²⁹¹Rg and ²⁹⁴Rg, respectively could be explained otherwise, thus making positive identification for Rg unlikely. Upper limits established in the range of 10₁₆. JOUR PRVCA 83 015801
- ²⁸⁹114 2010DUZY NUCLEAR REACTIONS ²⁴⁴Pu(⁴⁸Ca, 3n), (⁴⁸Ca, 4n)E* = 38, 42 MeV; measured reaction products; deduced σ . REPT Univ Mainz, 2009 Annual, PA1, Dullman
- 2010DUZY RADIOACTIVITY ²⁷⁷Hs, ²⁸⁴Cn(SF), ²⁸¹Ds(SF), (α), ^{284,285}Cn, ^{288,289}114(α) [from ²⁴⁴Pu(⁴⁸Ca, X), E \approx 239, 244 MeV]; measured E α , I α , E(fragment), I(fragment), $\alpha\alpha$ -coin, (fragment) α -coin, (ER) α -coin, (ER)(fragment)-coin; deduced T_{1/2}. Comparison with Oganessian results. REPT Univ Mainz, 2009 Annual, PA1, Dullman

A=290

- ²⁹⁰Rg 2011DE03 ATOMIC MASSES ^{261,265,289,290,291,292,293,294,295,296}Rg; measured abundance in natural gold using accelerator mass spectrometry (AMS). No events observed for ²⁶¹Rg and ²⁶⁵Rg, not confirming a positive identification in another recent study. No events observed for ^{289,290,292,293,295,296}Rg. Two and nine events recorded apparently for ²⁹¹Rg and ²⁹⁴Rg, respectively could be explained otherwise, thus making positive identification for Rg unlikely. Upper limits established in the range of 10₁₆. JOUR PRVCA 83 015801

A=291

- ²⁹¹Rg 2011DE03 ATOMIC MASSES ^{261,265,289,290,291,292,293,294,295,296}Rg; measured abundance in natural gold using accelerator mass spectrometry (AMS). No events observed for ²⁶¹Rg and ²⁶⁵Rg, not confirming a positive identification in another recent study. No events observed for ^{289,290,292,293,295,296}Rg. Two and nine events recorded apparently for ²⁹¹Rg and ²⁹⁴Rg, respectively could be explained otherwise, thus making positive identification for Rg unlikely. Upper limits established in the range of 10₁₆. JOUR PRVCA 83 015801

A=292

²⁹²Rg 2011DE03 ATOMIC MASSES ^{261,265,289,290,291,292,293,294,295,296}Rg; measured abundance in natural gold using accelerator mass spectrometry (AMS). No events observed for ²⁶¹Rg and ²⁶⁵Rg, not confirming a positive identification in another recent study. No events observed for ^{289,290,292,293,295,296}Rg. Two and nine events recorded apparently for ²⁹¹Rg and ²⁹⁴Rg, respectively could be explained otherwise, thus making positive identification for Rg unlikely. Upper limits established in the range of 10₁₆. JOUR PRVCA 83 015801

A=293

²⁹³Rg 2011DE03 ATOMIC MASSES ^{261,265,289,290,291,292,293,294,295,296}Rg; measured abundance in natural gold using accelerator mass spectrometry (AMS). No events observed for ²⁶¹Rg and ²⁶⁵Rg, not confirming a positive identification in another recent study. No events observed for ^{289,290,292,293,295,296}Rg. Two and nine events recorded apparently for ²⁹¹Rg and ²⁹⁴Rg, respectively could be explained otherwise, thus making positive identification for Rg unlikely. Upper limits established in the range of 10₁₆. JOUR PRVCA 83 015801

A=294

²⁹⁴Rg 2011DE03 ATOMIC MASSES ^{261,265,289,290,291,292,293,294,295,296}Rg; measured abundance in natural gold using accelerator mass spectrometry (AMS). No events observed for ²⁶¹Rg and ²⁶⁵Rg, not confirming a positive identification in another recent study. No events observed for ^{289,290,292,293,295,296}Rg. Two and nine events recorded apparently for ²⁹¹Rg and ²⁹⁴Rg, respectively could be explained otherwise, thus making positive identification for Rg unlikely. Upper limits established in the range of 10₁₆. JOUR PRVCA 83 015801

A=295

²⁹⁵Rg 2011DE03 ATOMIC MASSES ^{261,265,289,290,291,292,293,294,295,296}Rg; measured abundance in natural gold using accelerator mass spectrometry (AMS). No events observed for ²⁶¹Rg and ²⁶⁵Rg, not confirming a positive identification in another recent study. No events observed for ^{289,290,292,293,295,296}Rg. Two and nine events recorded apparently for ²⁹¹Rg and ²⁹⁴Rg, respectively could be explained otherwise, thus making positive identification for Rg unlikely. Upper limits established in the range of 10₁₆. JOUR PRVCA 83 015801

KEYNUMBERS AND KEYWORDS

A=296

²⁹⁶Rg 2011DE03 ATOMIC MASSES ^{261,265,289,290,291,292,293,294,295,296}Rg; measured abundance in natural gold using accelerator mass spectrometry (AMS). No events observed for ²⁶¹Rg and ²⁶⁵Rg, not confirming a positive identification in another recent study. No events observed for ^{289,290,292,293,295,296}Rg. Two and nine events recorded apparently for ²⁹¹Rg and ²⁹⁴Rg, respectively could be explained otherwise, thus making positive identification for Rg unlikely. Upper limits established in the range of 10₁₆. JOUR PRVCA 83 015801

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