

Visit the [Isotope Explorer](#) home page!

**57 reference(s) found :**

**Keynumber:** 2001KI26

**Reference:** Ann.Nucl.Energy 28, 1549 (2001)

**Authors:** G.Kim, Y.Lee, I.S.Ko, M.-H.Cho, W.Namkung, D.Lee, H.Kim, Y.Kim, T.-I.Ro, Y.Min, J.Moon, M.Igashira, S.Mizuno, T.Ohsaki, S.Y.Lee

**Title:** Measurement of keV-Neutron Capture Cross-Sections for  $^{164}\text{Dy}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{164}\text{Dy}(\text{n},\gamma), \text{E}=10\text{-}90 \text{ keV}$ ; measured  $\text{E}\gamma, \text{I}\gamma, \text{capture } \sigma$ . Comparison with previous results.

---

**Keynumber:** 2001CH38

**Reference:** Nucl.Instrum.Methods Phys.Res. A462, 442 (2001)

**Authors:** H.-J.Cho, K.Kobayashi, S.Yamamoto, K.-W.Seo, H.Y.Hwang, S.K.Nha, S.K.Ko

**Title:** Measurement of Thermal Neutron Cross-Sections and Resonance Integrals for  $^{164}\text{Dy}(\text{n},\gamma)^{165}\text{Dy}$  and  $^{180}\text{Hf}(\text{n},\gamma)^{181}\text{Hf}$  Reactions

**Keyword abstract:** NUCLEAR REACTIONS  $^{164}\text{Dy}, ^{180}\text{Hf}(\text{n},\gamma), \text{E}=\text{thermal}$ ; measured  $\sigma$ ; deduced resonance integrals. Activation technique, comparisons with previous results.

---

**Keynumber:** 1999VO02

**Reference:** Phys.Rev. C59, 1154 (1999)

**Authors:** F.Voss, K.Wissak, C.Arlandini, F.Kappeler, L.Kazakov, T.Rauscher

**Title:** Stellar Neutron Capture Cross Sections of Pr and Dy Isotopes

**Keyword abstract:** NUCLEAR REACTIONS  $^{141}\text{Pr}, ^{160}, ^{161}, ^{162}, ^{163}, ^{164}\text{Dy}(\text{n},\gamma), \text{E}=3\text{-}225 \text{ keV}$ ; measured total,capture  $\sigma$ ; deduced Maxwellian averaged neutron capture  $\sigma$  at stellar energies. Astrophysical implications discussed.

---

**Keynumber:** 1999SU03

**Reference:** Yad.Fiz. 62, No 1, 24 (1999); Phys.Atomic Nuclei 62, 19 (1999)

**Authors:** A.M.Sukhovoi, V.A.Khitrov

**Title:** Experimental Estimate of the Density of Levels in a Heavy Nucleus That Are Excited in  $(\text{n},\gamma)$  Reactions at Excitation Energies of 3 to 4 MeV

**Keyword abstract:** NUCLEAR REACTIONS  $^{113}\text{Cd}, ^{123}\text{Te}, ^{145}\text{Nd}, ^{149}\text{Sm}, ^{155}, ^{157}\text{Gd}, ^{162}, ^{163}, ^{164}\text{Dy}, ^{167}\text{Er}, ^{173}, ^{174}\text{Yb}, ^{177}, ^{178}, ^{180}\text{Hf}, ^{187}, ^{189}\text{Os}, ^{195}\text{Pt}, ^{199}\text{Hg}, ^{127}\text{I}, ^{159}\text{Tb}, ^{165}\text{Ho}, ^{169}\text{Tm}, ^{175}\text{Lu}, ^{181}\text{Ta}, ^{191}\text{Ir}, ^{197}\text{Au}, ^{124}\text{Te}, ^{182}, ^{185}\text{W}(\text{n},\gamma), \text{E}=\text{thermal}$ ; analyzed  $\text{I}\gamma$ ; deduced non-exponential level densities.

---

**Keynumber:** 1999HO33

**Reference:** Pure Appl.Chem. 71, 2309 (1999)

**Authors:** N.E.Holden

**Title:** Temperature Dependence of the Westcott g-Factor for Neutron Reactions in Activation Analysis (Technical Report)

**Keyword abstract:** NUCLEAR REACTIONS  $^{103}\text{Rh}, ^{113}\text{Cd}, ^{115}\text{In}, ^{135}\text{Xe}, ^{148}\text{Pm}, ^{149}, ^{151}\text{Sm}, ^{151}, ^{152}, ^{153}, ^{154}, ^{155}\text{Eu}, ^{155}, ^{157}\text{Gd}, ^{164}\text{Dy}, ^{175}, ^{176}\text{Lu}, ^{177}\text{Hf}, ^{182}\text{Ta}, ^{185}, ^{187}\text{Re}, ^{197}\text{Au}, ^{231}, ^{233}\text{Pa}, ^{235}, ^{238}\text{U}$  ( $\text{n},\gamma$ ), $\text{E}=\text{low}$ ; calculated Westcott g-factors vs temperature.

---

**Keynumber:** 1999BO14

**Reference:** Yad.Fiz. 62, No 5, 892 (1999); Phys.Atomic Nuclei 62, 832 (1999)

**Authors:** S.T.Boneva, E.V.Vasilieva, L.I.Simonova, V.A.Bondarenko, A.M.Sukhovoi, V.A.Khitrov  
**Title:** (n, $\gamma$ ) Reactions in Heavy Nuclei: Manifestations of nuclear structure at excitation energies up to the neutron binding energy

**Keyword abstract:** NUCLEAR REACTIONS  $^{113}\text{Cd}$ ,  $^{123}\text{Te}$ ,  $^{127}\text{I}$ ,  $^{134}\text{I}$ ,  $^{136}\text{I}$ ,  $^{137}\text{I}$ ,  $^{138}\text{Ba}$ ,  $^{139}\text{La}$ ,  $^{142}\text{Nd}$ ,  $^{143}\text{Nd}$ ,  $^{145}\text{Nd}$ ,  $^{149}\text{Sm}$ ,  $^{155}\text{Gd}$ ,  $^{157}\text{Gd}$ ,  $^{159}\text{Tb}$ ,  $^{162}\text{Tb}$ ,  $^{163}\text{Tb}$ ,  $^{164}\text{Dy}$ ,  $^{165}\text{Ho}$ ,  $^{167}\text{Er}$ ,  $^{169}\text{Tm}$ ,  $^{173}\text{Tm}$ ,  $^{174}\text{Tm}$ ,  $^{176}\text{Yb}$ ,  $^{175}\text{Lu}$ ,  $^{176}\text{Lu}$ ,  $^{177}\text{Lu}$ ,  $^{178}\text{Lu}$ ,  $^{179}\text{Lu}$ ,  $^{180}\text{Hf}$ ,  $^{181}\text{Ta}$ ,  $^{182}\text{W}$ ,  $^{186}\text{W}$ ,  $^{187}\text{Os}$ ,  $^{189}\text{Os}$ ,  $^{191}\text{Ir}$ ,  $^{195}\text{Pt}$ ,  $^{197}\text{Au}$ ,  $^{199}\text{Hg}$ (n, $\gamma$ ), E not given; analyzed two-photon  $\gamma$  cascade data; deduced structure effects.

**Keynumber:** 1998WIZW

**Reference:** Proc.Intern.Symposium on Nuclear Astrophysics, Nuclei in the Cosmos V, Volos, Greece, July 6-11, 1998, N.Prantzos, S.Harissopoulos, Eds., Editions Frontieres, Paris, p.212 (1998)

**Authors:** K.Wisshak, F.Voss, C.Arlandini, F.Kappeler, T.Rauscher

**Title:** Neutron Capture in Dy and Yb Isotopes: Implications for the s-process

**Keyword abstract:** NUCLEAR REACTIONS  $^{141}\text{Pr}$ ,  $^{160}\text{Pr}$ ,  $^{161}\text{Pr}$ ,  $^{162}\text{Pr}$ ,  $^{163}\text{Pr}$ ,  $^{164}\text{Dy}$ ,  $^{170}\text{Yb}$ ,  $^{171}\text{Yb}$ ,  $^{172}\text{Yb}$ ,  $^{173}\text{Yb}$ ,  $^{174}\text{Yb}$ ,  $^{176}\text{Yb}$ (n, $\gamma$ ), E=3-225 keV; measured capture  $\sigma$ ; deduced stellar capture  $\sigma$ , s-process implications.

**Keynumber:** 1997SU29

**Reference:** Bull.Rus.Acad.Sci.Phys. 61, 1611 (1997)

**Authors:** A.M.Sukhovoi, V.A.Khitrov

**Title:** Cascade Gamma Decay of the Compound State of Heavy Nucleus as Seen Experimentally

**Keyword abstract:** NUCLEAR REACTIONS  $^{113}\text{Cd}$ ,  $^{127}\text{I}$ ,  $^{123}\text{Te}$ ,  $^{134}\text{I}$ ,  $^{136}\text{I}$ ,  $^{137}\text{I}$ ,  $^{138}\text{Ba}$ ,  $^{142}\text{Nd}$ ,  $^{143}\text{Nd}$ ,  $^{145}\text{Nd}$ ,  $^{149}\text{Sm}$ ,  $^{155}\text{Sm}$ ,  $^{157}\text{Gd}$ ,  $^{159}\text{Tb}$ ,  $^{165}\text{Ho}$ ,  $^{162}\text{Tb}$ ,  $^{163}\text{Tb}$ ,  $^{164}\text{Dy}$ ,  $^{167}\text{Er}$ ,  $^{169}\text{Tm}$ ,  $^{173}\text{Tm}$ ,  $^{174}\text{Tm}$ ,  $^{176}\text{Yb}$ ,  $^{175}\text{Lu}$ ,  $^{177}\text{Lu}$ ,  $^{178}\text{Lu}$ ,  $^{179}\text{Lu}$ ,  $^{180}\text{Hf}$ ,  $^{195}\text{Pt}$ ,  $^{199}\text{Hg}$ ,  $^{181}\text{Ta}$ ,  $^{182}\text{W}$ ,  $^{186}\text{W}$ ,  $^{191}\text{Ir}$ ,  $^{197}\text{Au}$ (n, $\gamma$ ), E=thermal; analyzed  $\gamma$  spectra,  $\gamma\gamma$ -coin.  $^{114}\text{Cd}$ ,  $^{124}\text{Te}$ ,  $^{137}\text{I}$ ,  $^{138}\text{I}$ ,  $^{139}\text{Ba}$ ,  $^{146}\text{Nd}$ ,  $^{150}\text{Sm}$ ,  $^{156}\text{Gd}$ ,  $^{158}\text{Gd}$ ,  $^{160}\text{Tb}$ ,  $^{164}\text{Dy}$ ,  $^{168}\text{Er}$ ,  $^{170}\text{Tm}$ ,  $^{174}\text{Yb}$ ,  $^{181}\text{Hf}$ ,  $^{196}\text{Pt}$ ,  $^{200}\text{Hg}$ ,  $^{182}\text{Ta}$ ,  $^{183}\text{W}$ ,  $^{192}\text{Ir}$ ,  $^{198}\text{Au}$  deduced two-quantum cascade intensities vs excitation energy, level density parameters, pairing features.

**Keynumber:** 1997KAZR

**Reference:** Proc.Intern.on Nuclear Data for Science and Technology, Trieste, Italy, 19-24 May, 1997, G.Reffo, A.Ventura, C.Grandi, Eds., Editrice Compositori, Italy, Pt.2, p.1576 (1997)

**Authors:** F.Kappeler, K.Wisshak, F.Voss, G.Reffo

**Title:** Improved (n, $\gamma$ ) Cross Sections in the Rare Earth Region: Implications for s- and r-Process Nucleosynthesis

**Keyword abstract:** NUCLEAR REACTIONS  $^{141}\text{Pr}$ ,  $^{142}\text{Pr}$ ,  $^{143}\text{Pr}$ ,  $^{144}\text{Pr}$ ,  $^{145}\text{Pr}$ ,  $^{146}\text{Pr}$ ,  $^{148}\text{Nd}$ ,  $^{160}\text{Nd}$ ,  $^{161}\text{Nd}$ ,  $^{162}\text{Nd}$ ,  $^{163}\text{Nd}$ ,  $^{164}\text{Dy}$ ,  $^{164}\text{Dy}$ ,  $^{170}\text{Er}$ (n, $\gamma$ ), E not given; measured Maxwellian averaged  $\sigma$  at kT=30 keV. Activation technique.

**Keynumber:** 1991HI23

**Reference:** J.Radioanal.Nucl.Chem. 153, 169 (1991)

**Authors:** P.Z.Hien, T.K.Mai, T.X.Quang, N.V.Loc, T.N.Thuy

**Title:** Determination of  $k_0$ -Factors of Short-Lived Nuclides ( $T \geq 1$  Min) by Thermal Neutron Activation Technique

**Keyword abstract:** NUCLEAR REACTIONS  $^{19}\text{F}$ ,  $^{37}\text{Cl}$ ,  $^{45}\text{Sc}$ ,  $^{76}\text{Se}$ ,  $^{103}\text{Rh}$ ,  $^{106}\text{Pd}$ ,  $^{109}\text{Ag}$ ,  $^{138}\text{Ce}$ ,  $^{164}\text{Dy}$ ,  $^{166}\text{Er}$ ,  $^{178}\text{Hf}$ (n, $\gamma$ ), E=thermal; measured  $\gamma$ -spectra.  $^{20}\text{F}$ ,  $^{38m}\text{Cl}$ ,  $^{46m}\text{Sc}$ ,  $^{77m}\text{Se}$ ,  $^{104}\text{Rh}$ ,  $^{107}\text{Pd}$ ,  $^{110}\text{Ag}$ ,  $^{139m}\text{Ce}$ ,  $^{165m}\text{Dy}$ ,  $^{167m}\text{Er}$ ,  $^{179m}\text{Hf}$  deduced  $k_0$ -Au factors.

**Keynumber:** 1990KA21

**Reference:** Nucl.Phys. A514, 173 (1990)

**Authors:** E.Kaerts, P.H.M.Van Assche, S.A.Kerr, F.Hoyer, H.G.Borner, R.F.Casten, D.D.Warner

**Title:** A Study of the Low-Energy Level Structure of  $^{165}\text{Dy}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{164}\text{Dy}(\text{n},\gamma), \text{E=thermal}, 2 \text{ keV}, 24 \text{ keV}$ ; measured  $\text{E}\gamma, \text{I}\gamma$ .

$^{165}\text{Dy}$  deduced levels,  $J, \pi, \gamma$ -branching, band structure, neutron binding energy. Curved crystal spectrometers, HPGe pair spectrometers, enriched targets.

---

**Keynumber:** 1989PE04

**Reference:** Nucl.Instrum.Methods Phys.Res. B40/41, 1205 (1989)

**Authors:** R.Pepelnik

**Title:** Sensitivities of High-Flux 14 MeV Neutron Activation Analysis

**Keyword abstract:** NUCLEAR REACTIONS  $^{11}\text{B}, ^{16}\text{O}, ^{19}\text{F}, ^{20}\text{Ne}, ^{23}\text{Na}, ^{24}\text{Mg}, ^{27}\text{Al}, ^{28}\text{Si}, ^{34}\text{S}, ^{44}\text{Ca}, ^{51}\text{V}, ^{60}\text{Ni}, ^{75}\text{As}, ^{109}\text{Ag}(\text{n},\text{p}), ^{31}\text{P}, ^{40}\text{Ar}, ^{55}\text{Mn}, ^{65}\text{Cu}, ^{93}\text{Nb}(\text{n},\alpha), ^{35}\text{Cl}, ^{45}\text{Sc}, ^{64}\text{Zn}, ^{71}\text{Ga}, ^{76}\text{Ge}, ^{80}\text{Se}, ^{79}\text{Br}, ^{86}\text{Kr}, ^{85}\text{Rb}, ^{90}\text{Zr}, ^{100}\text{Mo}, ^{96}\text{Ru}, ^{110}\text{Pd}, ^{124}\text{Sn}, ^{123}\text{Sb}, ^{130}\text{Te}, ^{136}\text{Xe}, ^{133}\text{Cs}, ^{138}\text{Ba}, ^{140}\text{Ce}, ^{141}\text{Pr}, ^{142}\text{Nd}, ^{144}\text{Sm}, ^{160}\text{Gd}, ^{159}\text{Tb}, ^{165}\text{Ho}, ^{164}\text{Er}, ^{169}\text{Tm}, ^{168}\text{Yb}, ^{181}\text{Ta}, ^{186}\text{W}, ^{198}\text{Pt}, ^{191}\text{Ir}, ^{197}\text{Au}, ^{203}\text{Tl}, ^{208}\text{Pb}(\text{n},2\text{n}), \text{Ti,Cr,Fe,Sr,Cd,Eu,Hf}, ^{200}\text{Hg}(\text{n},\text{X}), ^{59}\text{Co}, ^{103}\text{Rh}, ^{115}\text{In}, ^{127}\text{I}, ^{164}\text{Dy}, ^{175}\text{Lu}, ^{187}\text{Re}, ^{226}\text{Ra}(\text{n},\gamma), ^{232}\text{Th}, ^{238}\text{U}(\text{n},\text{F}), \text{E=14 MeV}$ ; calculated analytical sensitivities. Activation analysis.

---

**Keynumber:** 1988KA44

**Reference:** Nucl.Instrum.Methods Phys.Res. A267, 473 (1988)

**Authors:** E.Kaerts, L.Jacobs, G.Vandenput, P.H.M.Van Assche

**Title:** The Bent Crystal Diffraction Spectrometer at the BR2 Reactor in Mol

**Keyword abstract:** NUCLEAR REACTIONS  $^{165}\text{Dy}, ^{164}\text{Dy}(\text{n},\gamma), \text{E=thermal}$ ; measured capture  $\gamma$ -spectra.  $^{165}\text{Dy}$  deduced  $(7/2)^+$  level energy.  $^{166}\text{Dy}$  deduced transitions.

---

**Keynumber:** 1988BOZI

**Reference:** JINR-P3-88-371 (1988)

**Authors:** S.T.Boneva, E.V.Vasileva, L.A.Malov, Yu.P.Popov, A.M.Sukhovoi, V.A.Khitrov

**Title:** Intensive Two-Quantum Cascades and Quasiparticle State Fragmentation in Some Deformed Nuclei

**Keyword abstract:** NUCLEAR REACTIONS  $^{164}\text{Dy}, ^{174}\text{Yb}, ^{178}\text{Hf}(\text{n},\gamma), \text{E=thermal}$ ; analyzed primary  $\text{I}\gamma$  distributions.  $^{165}\text{Dy}, ^{175}\text{Yb}, ^{179}\text{Hf}$  deduced two quantum cascade enhancement features. Analyzed single quasiparticle state strength distributions.

---

**Keynumber:** 1987KAZZ

**Reference:** Bull.Am.Phys.Soc. 32, No.4, 1018, AG11 (1987)

**Authors:** E.Kaerts, P.H.M.van Assche, S.Kerr, F.Hoyer, H.Borner, D.D.Warner

**Title:** Thermal and Resonance Neutron Capture Studies of  $^{165}, ^{166}\text{Dy}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{164}\text{Dy}(\text{n},\gamma), \text{E=thermal}, 2, 24 \text{ keV}$ ; measured  $\text{E}\gamma, \text{I}\gamma$ .  $^{165}, ^{166}\text{Dy}$  deduced levels.

---

**Keynumber:** 1986KAZO

**Reference:** Proc.Intern.Nuclear Physics Conference, Harrogate, U.K., p.106 (1986)

**Authors:** E.Kaerts, P.H.M.Van Assche

**Title:** Progress in the Level Scheme of  $^{165}\text{Dy}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{164}\text{Dy}(\text{n},\gamma), \text{E=thermal}$ ; measured  $\gamma$ -spectra.  $^{165}\text{Dy}$  deduced levels,  $J, \pi, \gamma$ -multipolarity.

---

**Keynumber:** 1985PO24

**Reference:** Izv.Akad.Nauk SSSR, Ser.Fiz. 49, 91 (1985); Bull.Acad.Sci.USSR, Phys.Ser. 49, No.1, 94 (1985)

**Authors:** Yu.P.Popov, A.M.Sukhovoi, V.A.Khitrov, Yu.S.Yazvitsky

**Title:** Singularities of  $\gamma$ -Cascades that De-Excite Compound-States in the Region of the 4s-Shell

**Keyword abstract:** NUCLEAR REACTIONS  $^{164}\text{Dy}$ ,  $^{174}\text{Yb}$ ,  $^{143}\text{Nd}(\text{n},\gamma)$ , E=thermal; analyzed coincident pulse amplitude summing data.  $^{165}\text{Dy}$ ,  $^{175}\text{Yb}$ ,  $^{144}\text{Nd}$  deduced two-quanta transition I $\gamma$ .

---

**Keynumber:** 1984PR03

**Reference:** Z.Phys. A315, 103 (1984)

**Authors:** W.V.Prestwich, M.A.Islam, T.J.Kennett

**Title:** Primary E2 Transitions Observed following Neutron Capture for the Mass Region  $144 \leq A \leq 180$

**Keyword abstract:** NUCLEAR REACTIONS  $^{143}\text{Nd}$ ,  $^{162}\text{Ho}$ ,  $^{164}\text{Dy}$ ,  $^{165}\text{Ho}$ ,  $^{167}\text{Er}$ ,  $^{173}\text{Yb}$ ,  $^{179}\text{Hf}$  ( $\text{n},\gamma$ ), E=thermal; measured E $\gamma$ , I $\gamma$ .  $^{144}\text{Nd}$ ,  $^{163}\text{Ho}$ ,  $^{165}\text{Dy}$ ,  $^{166}\text{Ho}$ ,  $^{168}\text{Er}$ ,  $^{174}\text{Yb}$ ,  $^{180}\text{Hf}$  deduced E2 transition  $\Gamma\gamma$  upper limits. Axel-Brink hypothesis based analysis.

---

**Keynumber:** 1984POZZ

**Reference:** Program and Theses, Proc.34th Ann.Conf.Nucl.Spectrosc.Struct.At.Nuclei, Alma-Ata, p.133 (1984)

**Authors:** Yu.P.Popov, A.M.Sukhovoy, V.A.Khitrov, Yu.S.Yazvitsky

**Title:**

**Keyword abstract:** NUCLEAR REACTIONS  $^{164}\text{Dy}(\text{n},\gamma)$ , E=thermal; measured  $\gamma\gamma$ -coin.  $^{165}\text{Dy}$  deduced levels. Amplitude summation method.

---

**Keynumber:** 1984POZT

**Reference:** Proc.Conf.Neutron Physics, Kiev, Vol.3, p.3 (1984)

**Authors:** Yu.P.Popov, A.M.Sukhovoy, V.A.Khitrov, Yu.S.Yazvitsky

**Title:**

**Keyword abstract:** NUCLEAR REACTIONS  $^{143}\text{Nd}$ ,  $^{164}\text{Dy}(\text{n},\gamma)$ , E not given; measured  $\gamma\gamma$ -coin; deduced  $\gamma$ -spectra shape.  $^{144}\text{Nd}$ ,  $^{165}\text{Dy}$  deduced transition characteristics. Ge(Li) detectors, amplitude summation method. Statistical theory.

---

**Keynumber:** 1984PO10

**Reference:** Yad.Fiz. 39, 1329 (1984)

**Authors:** Yu.P.Popov, A.M.Sukhovoy, V.A.Khitrov, Yu.S.Yazvitsky

**Title:** On Correlation between Intensities of Two-Quantum Cascades in the Reaction  $^{164}\text{Dy}(\text{n},\gamma)^{165}\text{Dy}$  and the Effective Cross Sections of the Reaction  $^{164}\text{Dy}(\text{d},\text{p})^{165}\text{Dy}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{164}\text{Dy}(\text{n},\gamma)$ , E  $\approx$  resonance; measured  $\gamma\gamma(\theta)$ , two quanta cascade; deduced residual production  $\sigma$  by (d,p) reaction.  $^{165}\text{Dy}$  deduced role of one-neutron component in wave function vs excitation.

---

**Keynumber:** 1983POZZ

**Coden:** REPT JINR-P6-83-316,Popov

**Keyword abstract:** NUCLEAR REACTIONS  $^{164}\text{Dy}(\text{n},\gamma)$ , E=thermal; measured two-quanta  $\gamma$ -cascades, summed  $\gamma$ -spectra.  $^{165}\text{Dy}$  deduced levels.

---

**Keynumber:** 1983POZV

**Coden:** REPT JINR-P3-83-407,Popov

**Keyword abstract:** NUCLEAR REACTIONS  $^{164}\text{Dy}(n,\gamma)$ ,E=thermal; measured  $E\gamma$ ,two-quanta cascade  $I\gamma$ .  $^{165}\text{Dy}$  levels deduced single particle neutron component role. Channel correlation analysis, (d,p) data input.

---

**Keynumber:** 1983IS05

**Reference:** Z.Phys. A311, 195 (1983)

**Authors:** M.A.Islam, T.J.Kennett, W.V.Prestwich

**Title:** A Probabilistic Model for Spectral Assignment in the  $(n,\gamma)$  Reaction

**Keyword abstract:** NUCLEAR REACTIONS  $^{45}\text{Sc}$ ,  $^{35}\text{Cl}$ ,  $^{162}$ ,  $^{164}\text{Dy}$ ,  $^{165}\text{Ho}(n,\gamma)$ ,E not given; analyzed capture data; deduced  $\gamma$ -transition spectral assignment. Probabilistic model.

---

**Keynumber:** 1983IS04

**Reference:** Phys.Rev. C27, 2401 (1983)

**Authors:** M.A.Islam, W.V.Prestwich, T.J.Kennett

**Title:** Possible Low-Lying Levels in  $^{165}\text{Dy}$  Deduced from Neutron Capture  $\gamma$  Rays

**Keyword abstract:** NUCLEAR REACTIONS  $^{164}\text{Dy}(n,\gamma)$ ,E=thermal; measured  $E\gamma$ , $I\gamma$ .  $^{165}\text{Dy}$  deduced levels,possible  $J,\pi$ .

---

**Keynumber:** 1982IS05

**Reference:** Phys.Rev. C25, 3184 (1982)

**Authors:** M.A.Islam, T.J.Kennett, W.V.Prestwich

**Title:** Neutron Separation Energies of Some Heavy Nuclides

**Keyword abstract:** NUCLEAR REACTIONS  $^{142}$ ,  $^{143}$ ,  $^{145}\text{Nd}$ ,  $^{155}$ ,  $^{157}\text{Gd}$ ,  $^{161}$ ,  $^{162}$ ,  $^{164}\text{Dy}$ ,  $^{165}\text{Ho}$ ,  $^{174}$ ,  $^{173}\text{Yb}(n,\gamma)$ ,E=thermal; measured  $E\gamma$ .  $^{143}$ ,  $^{144}$ ,  $^{146}\text{Nd}$ ,  $^{156}$ ,  $^{158}\text{Gd}$ ,  $^{162}$ ,  $^{163}$ ,  $^{164}$ ,  $^{165}\text{Dy}$ ,  $^{166}\text{Ho}$ ,  $^{175}$ ,  $^{174}\text{Yb}$  deduced neutron separation energy.

---

**Keynumber:** 1981SE09

**Reference:** J.Inorg.Nucl.Chem. 43, 1107 (1981)

**Authors:** T.Sekine, H.Baba

**Title:** Reactor-Neutron-Capture Cross Sections of  $^{165}\text{Dy}$  Isomers

**Keyword abstract:** RADIOACTIVITY  $^{166}\text{Dy}$  [from double thermal neutron capture]; measured yield vs irradiation time; deduced thermal neutron capture  $\sigma$  for  $^{165}$ ,  $^{165m}\text{Dy}$ . Activation technique.

**Keyword abstract:** NUCLEAR REACTIONS  $^{164}\text{Dy}(n,\gamma)$ ,E=thermal; measured  $E\gamma$ , $I\gamma$ ; deduced  $^{165}\text{Dy}$  yield. Activation technique.

---

**Keynumber:** 1981ISZY

**Reference:** Phys.Can. 37, No.3, 35, DF3 (1981)

**Authors:** M.A.Islam, W.V.Prestwich, T.J.Kennett

**Title:** The Level Structure of  $^{165}\text{Dy}$  Deduced from the  $^{164}\text{Dy}(n,\gamma)^{165}\text{Dy}$  Reaction

**Keyword abstract:** NUCLEAR REACTIONS  $^{164}\text{Dy}(n,\gamma)$ ,E not given; measured absolute  $I\gamma$ ; deduced E1,M1 strength functions.  $^{165}\text{Dy}$  deduced levels, $\pi$ ,S(n). Statistical model.

---

**Keynumber:** 1981AR22

**Reference:** Yad.Fiz. 34, 1028 (1981)

**Authors:** L.Ya.Arifov, B.S.Mazitov, V.G.Ulanov

**Title:** Relative Probability of Isomer Population in Radiative Capture

**Keyword abstract:** NUCLEAR REACTIONS  $^{45}\text{Sc}$ ,  $^{59}\text{Co}$ ,  $^{68}\text{Zn}$ ,  $^{74}\text{Ge}$ ,  $^{80}\text{Se}$ ,  $^{84}\text{Kr}$ ,  $^{85}\text{Rb}$ ,  $^{84}\text{Sr}$ ,  $^{89}\text{Y}$ ,  $^{103}\text{Rh}$ ,  $^{108}\text{Pd}$ ,  $^{109}\text{Ag}$ ,  $^{114}\text{Cd}$ ,  $^{113}\text{In}$ ,  $^{112}\text{Sn}$ ,  $^{121}\text{Sb}$ ,  $^{120}\text{Te}$ ,  $^{130}\text{Te}$ ,  $^{133}\text{Cs}$ ,  $^{132}\text{Ba}$ ,  $^{136}\text{Ce}$ ,  $^{151}\text{Eu}$ ,  $^{164}\text{Dy}$ ,  $^{181}\text{Ta}$ ,  $^{184}\text{W}$ ,  $^{187}\text{Re}$ ,  $^{190}\text{Os}$ ,  $^{191}\text{Ir}$ ,  $^{196}\text{Pt}$ ,  $^{196}\text{Hg}$

( $n,\gamma$ ), E=thermal, 0.2-2.8 MeV;  $^{92}\text{Mo}(p,\gamma)$ , E=1.8-7.4 MeV; analyzed  $\sigma$ (capture) isomer ratio vs E. Statistical theory.

---

**Keynumber:** 1979BR25

**Reference:** Nucl.Instrum.Methods 166, 243 (1979)

**Authors:** F.Braumandl, K.Schreckenbach, T.von Egidy

**Title:** Precision Measurements of Neutron Binding Energies of  $^{28}\text{Al}$ ,  $^{92}\text{Zr}$ ,  $^{114}\text{Cd}$ ,  $^{165}\text{Dy}$ ,  $^{168}\text{Er}$ ,  $^{200}\text{Hg}$  and  $^{239}\text{U}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{27}\text{Al}$ ,  $^{91}\text{Zr}$ ,  $^{113}\text{Cd}$ ,  $^{164}\text{Dy}$ ,  $^{167}\text{Er}$ ,  $^{199}\text{Hg}$ ,  $^{238}\text{U}$  ( $n,\gamma$ ), E=reactor; measured  $E\gamma$ , I(ce).  $^{28}\text{Al}$ ,  $^{92}\text{Zr}$ ,  $^{114}\text{Cd}$ ,  $^{165}\text{Dy}$ ,  $^{168}\text{Er}$ ,  $^{200}\text{Hg}$ ,  $^{239}\text{U}$  deduced B( $n$ ). Bent crystal Gams,pair, $\beta$ -spectrometers.

---

**Keynumber:** 1979AG02

**Reference:** J.Phys.Soc.Jpn. 46, 1 (1979)

**Authors:** H.M.Agrawal, M.L.Seagal

**Title:** Statistical Theory Calculations of Neutron-Capture Cross-Sections at 24 keV

**Keyword abstract:** NUCLEAR REACTIONS  $^{45}\text{Sc}$ ,  $^{55}\text{Mn}$ ,  $^{63}\text{Cu}$ ,  $^{69}\text{Ga}$ ,  $^{75}\text{As}$ ,  $^{79}\text{Br}$ ,  $^{80}\text{Se}$ ,  $^{85}\text{Rb}$ ,  $^{89}\text{Y}$ ,  $^{93}\text{Nb}$ ,  $^{96}\text{Zr}$ ,  $^{98}\text{Mo}$ ,  $^{107}\text{Ag}$ ,  $^{108}\text{Pd}$ ,  $^{114}\text{Cd}$ ,  $^{115}\text{In}$ ,  $^{127}\text{I}$ ,  $^{133}\text{Cs}$ ,  $^{138}\text{Ba}$ ,  $^{139}\text{La}$ ,  $^{140}\text{Ce}$ ,  $^{141}\text{Pr}$ ,  $^{152}\text{Sm}$ ,  $^{154}\text{Gd}$ ,  $^{164}\text{Dy}$ ,  $^{165}\text{Ho}$ ,  $^{170}\text{Er}$ ,  $^{175}\text{Lu}$ ,  $^{180}\text{Hf}$ ,  $^{181}\text{Ta}$ ,  $^{184}\text{W}$ ,  $^{186}\text{W}$ ,  $^{185}\text{Re}$ ,  $^{197}\text{Au}$ ,  $^{202}\text{Hg}$ ,  $^{208}\text{Pb}$ ,  $^{209}\text{Bi}$ ,  $^{232}\text{Th}$ ( $n,\gamma$ ), E=24 keV; calculated  $\sigma$ ; deduced ratio of average  $\Gamma\gamma$  to average level spacing. Margolis formula of statistical theory, low energy resonance parameters.

---

**Keynumber:** 1978HUZR

**Coden:** CONF BNL(Neutron Capt  $\gamma$ -Ray Spectr),Contrib,No35,Hungerford

**Keyword abstract:** NUCLEAR REACTIONS  $^{164}\text{Dy}(n,\gamma)$ , E=th; measured  $\gamma\gamma(\theta)$ .  $^{165}\text{Dy}$  deduced levels,  $J, \pi, \gamma$ -branching,  $\delta$ .

---

**Keynumber:** 1978AR22

**Reference:** Izv.Akad.Nauk SSSR, Ser.Fiz. 42, 831 (1978); Bull.Acad.Sci.USSR, Phys.Ser. 42, No.4, 120 (1978)

**Authors:** L.Y.Arifov, B.S.Mazitov, V.G.Ulanov, S.A.Yusupbekova

**Title:** Measurement of the Relative Probabilities of Excitation of Isomer States during Radiative Capture of Thermal Neutrons

**Keyword abstract:** NUCLEAR REACTIONS  $^{59}\text{Co}$ ,  $^{89}\text{Y}$ ,  $^{164}\text{Dy}$ ,  $^{181}\text{Ta}$ ,  $^{187}\text{Re}$ ,  $^{191}\text{Ir}$ ( $n,\gamma$ ), E=thermal; measured nothing; analyzed data; deduced relative probabilities of excitation of isomeric states.

---

**Keynumber:** 1978AN22

**Reference:** Z.Phys. A289, 107 (1978)

**Authors:** W.Andrejtscheff, R.D.Schilling

**Title:** Collective Contributions to E1,  $\Delta K=1$  Matrix Elements in Odd-Odd Deformed Nuclei

**Keyword abstract:** NUCLEAR REACTIONS  $^{164}\text{Dy}(n,\gamma)$ , E not given; measured  $\gamma\gamma(t)$ .  $^{165}\text{Dy}$  184.3-keV level deduced  $T_{1/2}$ , E1 transition matrix-element associated with 5/2- to 7/2+. Enriched target.

---

**Keynumber:** 1975LI02

**Reference:** Phys.Rev. C11, 462 (1975)

**Authors:** H.I.Liou, G.Hacken, J.Rainwater, U.N.Singh

**Title:** Neutron Resonance Spectroscopy: The Separated Isotopes of Dy

**Keyword abstract:** NUCLEAR REACTIONS  $^{160}$ ,  $^{161}$ ,  $^{162}$ ,  $^{163}$ ,  $^{164}$ Dy(n,n), (n, $\gamma$ ), E=1-2.5 keV; measured total  $\sigma(E)$ .  $^{161}$ ,  $^{162}$ ,  $^{163}$ ,  $^{164}$ ,  $^{165}$ Dy deduced resonances, n-width,  $\gamma$ -width.

---

**Keynumber:** 1975CHZT

**Coden:** REPT ERDA/NDC-2, p31, Chrien

**Keyword abstract:** NUCLEAR REACTIONS  $^{162}$ ,  $^{164}$ Dy,  $^{152}$ Sm,  $^{156}$ Gd,  $^{170}$ Yb,  $^{158}$ ,  $^{160}$ Gd,  $^{164}$ ,  $^{166}$ ,  $^{168}$ ,  $^{170}$ Er(n, $\gamma$ ), E=0.0253 eV; measured  $\sigma(E\gamma)$ .  $^{163}$ ,  $^{165}$ Dy,  $^{153}$ Sm,  $^{151}$ Gd,  $^{171}$ Yb resonances deduced J, $\pi$ .

---

**Keynumber:** 1974GIZN

**Reference:** Thesis, Carleton Univ. (1972); Diss.Abst.Int. 34B, 5613 (1974)

**Authors:** D.R.Gill

**Title:** Isomeric Ratios in  $^{69}$ Zn,  $^{80}$ Br,  $^{81}$ Se and  $^{165}$ Dy

**Keyword abstract:** NUCLEAR REACTIONS  $^{68}$ Zn,  $^{79}$ Br,  $^{80}$ Se,  $^{164}$ Dy(n, $\gamma$ ); measured isomeric state ratios.

---

**Keynumber:** 1974COZX

**Coden:** JOUR BAPSA 19 111 KI13

**Keyword abstract:** NUCLEAR REACTIONS  $^{152}$ Sm,  $^{162}$ ,  $^{164}$ Dy,  $^{170}$ Yb,  $^{186}$ W(n, $\gamma$ ); measured  $\sigma(E)$ .  $^{153}$ Sm,  $^{163}$ ,  $^{165}$ Dy,  $^{171}$ Yb,  $^{187}$ W levels deduced level-width.

---

**Keynumber:** 1974COZA

**Coden:** REPT USNDC-11 P35

**Keyword abstract:** NUCLEAR REACTIONS  $^{164}$ Dy(n, $\gamma$ ), E=thermal, 145 eV; measured  $\sigma(E\gamma)$ .  $^{165}$ Dy deduced resonances,  $\gamma$ -width, n-width.

---

**Keynumber:** 1974COYX

**Coden:** CONF Petten(Neutron Capture Gamma Ray Spectroscopy),P31

**Keyword abstract:** NUCLEAR REACTIONS  $^{152}$ Sm,  $^{170}$ Yb,  $^{162}$ ,  $^{164}$ Dy,  $^{186}$ W(n, $\gamma$ ), E=0.025 eV, thermal; measured  $\sigma$ .

---

**Keynumber:** 1974COYK

**Coden:** REPT BNL-18976,mf

**Keyword abstract:** NUCLEAR REACTIONS  $^{162}$ ,  $^{164}$ Dy,  $^{152}$ Sm,  $^{170}$ Yb,  $^{186}$ W(n, $\gamma$ ), E=epithermal; measured  $\sigma(E\gamma)$ .  $^{163}$ ,  $^{165}$ Dy,  $^{153}$ Sm resonances deduced J.

---

**Keynumber:** 1974CHYN

**Coden:** REPT BNL-19191,R E Chrien

**Keyword abstract:** NUCLEAR REACTIONS  $^{149}$ Sm,  $^{162}$ ,  $^{164}$ Dy,  $^{92}$ ,  $^{94}$ ,  $^{96}$ ,  $^{98}$ Mo(n, $\gamma$ ); measured nothing; calculated  $\sigma(E,E\gamma)$ .

---

**Keynumber:** 1974CHXL

**Coden:** REPT BNL-19191,mf

**Keyword abstract:** NUCLEAR REACTIONS  $^{162}$ ,  $^{164}$ Dy(n, $\gamma$ ); calculated  $\sigma$ .  $^{163}$ ,  $^{165}$ Dy deduced resonant state configurations.

---

**Keynumber:** 1973LAYN**Coden:** REPT LF-42 P1**Keyword abstract:** NUCLEAR REACTIONS  $^{163}$ ,  $^{164}$ Dy(n, $\gamma$ ); measured  $\sigma(E\gamma)$ .  $^{164}$ Dy deduced levels.  
 $^{165}$ Dy deduced transitions.

---

**Keynumber:** 1973CL08**Reference:** Nucl.Phys. A213, 349 (1973)**Authors:** R.L.Clarke, D.R.Gill**Title:** A New  $\gamma$ -Ray Cascade Model for Isomeric Ratio Calculations**Keyword abstract:** NUCLEAR REACTIONS  $^{68}$ Zn,  $^{79}$ Br,  $^{80}$ Se,  $^{164}$ Dy(n, $\gamma$ )E=0.1-2.5 MeV; measured isomeric ratios(E). calculated isomeric ratios from  $\gamma$  cascade model.

---

**Keynumber:** 1972MOYY**Coden:** REPT ZFK-243,P93**Keyword abstract:** NUCLEAR REACTIONS  $^{164}$ Dy,  $^{166}$ ,  $^{168}$ ,  $^{170}$ Er,  $^{168}$ ,  $^{170}$ Yb,  $^{178}$ ,  $^{180}$ Hf,  $^{182}$ ,  $^{184}$ W (n, $\gamma$ ); compiled n-resonance data, (n, $\gamma$ ) decay modes.

---

**Keynumber:** 1972LAYK**Coden:** REPT NP-19337,P1**Keyword abstract:** NUCLEAR REACTIONS  $^{163}$ ,  $^{164}$ Dy(n, $\gamma$ );  $^{164}$ ,  $^{165}$ Dy deduced levels.

---

**Keynumber:** 1972LA15**Reference:** Phys.Rev. C6, 572 (1972)**Authors:** A.Lakshmana Rao, J.Rama Rao**Title:** Isomer Ratios in (n, $\gamma$ ) Reactions at 25 keV**Keyword abstract:** NUCLEAR REACTIONS  $^{74}$ Ge,  $^{79}$ Br,  $^{80}$ Se,  $^{85}$ Rb,  $^{103}$ Rh,  $^{121}$ Sb,  $^{151}$ Eu,  $^{164}$ Dy (n, $\gamma$ ),E=25 keV; measured  $\sigma$ ,isomeric ratio.

---

**Keynumber:** 1972FA20**Reference:** Nucl.Sci.Eng. 49, 317 (1972)**Authors:** L.R.Fawcett,Jr., A.K.Furr, J.G.Lindsay**Title:** Neutron Capture Cross Sections in the keV Region for  $^{154}$ Sm,  $^{160}$ Gd,  $^{164}$ Dy, and  $^{165}$ Ho**Keyword abstract:** NUCLEAR REACTIONS  $^{154}$ Sm,  $^{160}$ Gd,  $^{164}$ Dy,  $^{165}$ Ho(n, $\gamma$ ),E=5-160 keV; measured  $\sigma(E)$ .  $^{155}$ Sm,  $^{161}$ Gd,  $^{165}$ Dy,  $^{166}$ Ho deduced resonance parameters.

---

**Keynumber:** 1971FAZS**Coden:** CONF SESAPS 38th Mtg,P8,L R Fawcett,11/15/71**Keyword abstract:** NUCLEAR REACTIONS  $^{154}$ Sm,  $^{160}$ Gd,  $^{164}$ Dy,  $^{165}$ Ho(n, $\gamma$ ),E=5-160 keV; measured  $\sigma(E;E\gamma)$ .  $^{155}$ Sm,  $^{161}$ Gd,  $^{165}$ Dy,  $^{166}$ Ho deduced strength functions.

---

**Keynumber:** 1971FAZR**Coden:** THESIS, Virginia Polytechnic Inst,L R Fawcett,DABBB 32B 2929,12/16/71**Keyword abstract:** NUCLEAR REACTIONS  $^{154}$ Sm,  $^{160}$ Gd,  $^{164}$ Dy,  $^{165}$ Ho(n, $\gamma$ ),E=5-160 keV; measured  $\sigma(E;E\gamma)$ .  $^{155}$ Sm,  $^{161}$ Gd,  $^{165}$ Dy,  $^{166}$ Ho deduced resonances,strength functions.

---

**Keynumber:** 1970VEZZ**Coden:** REPT BNL-tr-495,V P Vertebnyi,1/3/73

**Keyword abstract:** NUCLEAR REACTIONS  $^{161, 162, 163, 164}\text{Dy}(n, X)$ ,  $(n, \gamma), E < 1 \text{ eV}$ ; measured  $\sigma(nT)$  ( $E$ ).  $^{11}\text{B}, \text{C}, \text{V}, \text{Cu}, ^{63, 65}\text{Cu}, \text{Ge}, ^{70, 72, 73, 74}\text{Ge}, \text{Cd}, ^{110, 111, 112, 114, 116}\text{Cd}, \text{Ce}, ^{140, 142}\text{Ce}, ^{153}\text{Eu}, \text{Dy}, ^{161, 162, 163, 164}\text{Dy}, \text{Ho}, \text{Er}, ^{162, 164, 166, 167, 168, 170}\text{Er}, \text{Yb}, \text{Lu}, \text{Pb}(n, n), E < 10 \text{ eV}$ ; measured  $\sigma(E)$ .

---

**Keynumber:** 1968NA21

**Reference:** Thesis, Physikinstitut, Reaktorzentrum Seibersdorf, Austria (1968); SGAE-PH-78/1968

**Authors:** H.Nabielek

**Title:** Untersuchung von Obergangsraten Elektromagnetischer Übergange durch Messung der Lebensdauer Angeregter Kernniveaus nach Neutroneneinfang

**Keyword abstract:** NUCLEAR REACTIONS  $^{55}\text{Mn}, ^{197}\text{Au}, ^{152}\text{Sm}, ^{162, 164}\text{Dy}, ^{166}\text{Er}, ^{168}\text{Yb}(n, \gamma), E$  not given; measured  $\gamma\gamma$ -delay.  $^{56}\text{Mn}, ^{153}\text{Sm}, ^{163, 165}\text{Dy}, ^{198}\text{Au}, ^{167}\text{Er}, ^{169}\text{Yb}$  levels deduced  $T_{1/2}$ .

---

**Keynumber:** 1968CH23

**Reference:** Nucl.Phys. A117, 545(1968)

**Authors:** A.K.Chaubey, M.L.Seagal

**Title:** Energy Dependence of Spin Fall-Off Parameter

**Keyword abstract:** NUCLEAR REACTIONS  $^{76}\text{Ge}, ^{108}\text{Pd}, ^{130}\text{Te}, ^{164}\text{Dy}(n, \gamma), E = 24 \text{ keV}$ ; measured  $\sigma$ , isomeric cross-section ratios; deduced spin-cutoff parameter.

---

**Keynumber:** 1967MI12

**Reference:** KFK-562 (1967)

**Authors:** W.Michaelis, U.Fanger, D.Lange, G.Markus, H.Schmidt, C.Weitkamp

**Title:** Koinzidenzexperimente bei Neutroneneinfangreaktionen

**Keyword abstract:** NUCLEAR REACTIONS  $^{57}\text{Fe}, ^{164}\text{Dy}, ^{168}\text{Yb}(n, \gamma), E = \text{thermal}$ ; measured  $E\gamma, I\gamma, \gamma\gamma$ -coin.  $^{58}\text{Fe}, ^{165}\text{Dy}, ^{169}\text{Yb}$  deduced levels.  $^{87}\text{Sr}(n, \gamma), E = \text{thermal}$ ; measured  $\gamma\gamma(\theta)$ .  $^{88}\text{Sr}$  deduced levels,  $J, \pi$ .

---

**Keynumber:** 1967MA25

**Reference:** Z.Physik 206, 84 (1967)

**Authors:** G.Markus, W.Michaelis, H.Schmidt, C.Weitkamp

**Title:** Investigation of the Reaction  $\text{Dy}^{164}(n, \gamma)\text{Dy}^{165}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{164}\text{Dy}(n, \gamma), E = \text{thermal}$ ; measured  $E\gamma, I\gamma, \gamma\gamma$ -coin.  $^{165}\text{Dy}$  deduced levels,  $J, \pi, B(E2), B(M1)$ .  $^{166}\text{Er}, ^{168}\text{Yb}(n, \gamma), E = \text{thermal}$ ; measured  $E\gamma, I\gamma$ .  $^{167}\text{Er}, ^{169}\text{Yb}$  deduced levels.

---

**Keynumber:** 1967BO31

**Reference:** Izv.Akad.Nauk SSSR, Ser.Fiz. 31, 596 (1967); Bull.Acad.Sci.USSR, Phys.Ser. 31, 591 (1968)

**Authors:** V.A.Bondarenko, P.T.Prokofev

**Title:** Levels of  $^{165}\text{Dy}$  Excited Incident to Radiative Neutron Capture

**Keyword abstract:** NUCLEAR REACTIONS  $^{164}\text{Dy}(n, \gamma), E$  not given; measured  $E\gamma, I\gamma, I(\text{ce})$ .  $^{165}\text{Dy}$  deduced levels, ICC,  $\gamma$ -multipolarity.

---