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**44 reference(s) found :**

**Keynumber:** [2001BE33](#)

**Reference:** Phys.Rev. C64, 015801 (2001)

**Authors:** J.Best, H.Stoll, C.Arlandini, S.Jaag, F.Kappeler, K.Wisshak, A.Mengoni, G.Reffo, T.Rauscher

**Title:** s-Process Branchings at  $^{151}\text{Sm}$ ,  $^{154}\text{Eu}$ , and  $^{163}\text{Dy}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}$ ,  $^{153}\text{Eu}$ ,  $^{152}$ ,  $^{154}\text{Sm}$ ,  $^{164}$ ,  $^{170}\text{Er}$ (n, $\gamma$ ), E=spectrum; measured  $\sigma$ .  $^{151}$ ,  $^{152}$ ,  $^{153}$ ,  $^{154}$ ,  $^{155}\text{Eu}$ (n, $\gamma$ ), E=1-2000 keV; calculated  $\sigma$ . Activation technique, comparisons with previous measurements. Astrophysical implications discussed.

**Keynumber:** 2000SHZR

**Reference:** INDC(CPR)-052/L, p.43 (2000)

**Authors:** Q.Shen

**Title:** Calculations of n +  $^{144,147-152,154}\text{Sm}$  Reactions in the Energy Region up to 20 MeV

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}$ ,  $^{147}$ ,  $^{148}$ ,  $^{149}$ ,  $^{150}$ ,  $^{151}$ ,  $^{152}$ ,  $^{154}\text{Sm}$ (n,X), (n,n), (n,xn), (n, $\gamma$ ), E < 20 MeV; calculated  $\sigma$ . Comparisons with data.

**Keynumber:** 1999DU16

**Reference:** J.Nucl.Sci.Technol.(Tokyo) 36, 865 (1999)

**Authors:** B.Duamet, M.Igashira, M.Mizumachi, S.Mizuno, J.-I.Hori, K.Masuda, T.Ohsaki

**Title:** Measurement of keV-Neutron Capture Cross Sections and Capture Gamma-Ray Spectra of  $^{147,148,149,150,152,154}\text{Sm}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{147}$ ,  $^{148}$ ,  $^{149}$ ,  $^{150}$ ,  $^{152}$ ,  $^{154}\text{Sm}$ (n, $\gamma$ ), E=10-90,550 keV; measured E $\gamma$ , I $\gamma$ , capture  $\sigma$ . Comparison with previous results.

**Keynumber:** 1997MUZV

**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.1624 (1997)

**Authors:** S.Mughabghab

**Title:** Neutron Capture Cross Sections for Nucleosynthesis

**Keyword abstract:** NUCLEAR REACTIONS  $^{93}\text{Nb}$ ,  $^{127}\text{I}$ ,  $^{141}\text{Pr}$ ,  $^{150}$ ,  $^{152}$ ,  $^{154}\text{Sm}$ ,  $^{181}\text{Ta}$ (n, $\gamma$ ), E=30 keV; calculated Maxwellian averaged capture  $\sigma$ .

**Keynumber:** 1990PI19

**Reference:** J.Radioanal.Nucl.Chem. 141, 393 (1990)

**Authors:** A.E.Pillay, C.Mboweni

**Title:** The Determination of Eu and Sm by Application of X-Ray Spectrometry to Isotope-Source Activation Analysis

**Keyword abstract:** NUCLEAR REACTIONS  $^{152}$ ,  $^{154}\text{Sm}$ ,  $^{151}$ ,  $^{153}\text{Eu}$ (n, $\gamma$ ), E=thermal; measured delayed X-ray spectra. Thermalized beam from  $^{252}\text{Cf}$  source.

**Keynumber:** 1986SA14

**Reference:** Ann.Nucl.Energy 13, 287 (1986)

**Authors:** H.S.Sahota, V.K.Mittal, N.P.S.Sidhu

**Title:** Neutron Capture Cross-Sections by Comparative  $\gamma$ -Activation

**Keyword abstract:** NUCLEAR REACTIONS  $^{103}\text{Rh}$ ,  $^{115}\text{In}$ ,  $^{160}\text{Gd}$ ,  $^{154}\text{Sm}$ ,  $^{51}\text{V}(\text{n},\gamma)$ , E=1.07-2.85 MeV; analyzed capture  $\sigma$  data; deduced revised values.

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**Keynumber:** 1985VOZV

**Reference:** Proc.AIP Conf.Capture Gamma-Ray Spectroscopy and Related Topics, Knoxville, Tenn., (1984), S.Raman, Ed., AIP, New York, p.305 (1985)

**Authors:** T.von Egidy, P.Hungerford, H.H.Schmidt, H.J.Scheerer, A.N.Behkami, G.Hlawatsch, B.Krusche, K.P.Lieb, H.G.Borner, S.A.Kerr, K.Schreckenbach

**Title:** Structural and Statistical Aspects of Extensive Level Schemes from  $(\text{n},\gamma)$  and Transfer Reactions

**Keyword abstract:** NUCLEAR REACTIONS  $^{19}\text{F}$ ,  $^{23}\text{Na}$ ,  $^{27}\text{Al}$ ,  $^{35}\text{Cl}$ ,  $^{39}$ ,  $^{40}$ ,  $^{41}\text{K}$ ,  $^{113}\text{Cd}$ ,  $^{133}\text{Cs}$ ,  $^{154}\text{Sm}$ ,  $^{153}\text{Eu}$ ,  $^{154}\text{Gd}$ ,  $^{160}$ ,  $^{162}\text{Dy}(\text{n},\gamma)$ ,  $(\text{n},\text{e})$ , E not given; measured not given.  $^{20}\text{F}$ ,  $^{24}\text{Na}$ ,  $^{28}\text{Al}$ ,  $^{36}\text{Cl}$ ,  $^{40}$ ,  $^{41}$ ,  $^{42}\text{K}$ ,  $^{114}\text{Cd}$ ,  $^{134}\text{Cs}$ ,  $^{155}\text{Sm}$ ,  $^{154}\text{Eu}$ ,  $^{155}\text{Gd}$ ,  $^{161}$ ,  $^{163}\text{Dy}$  deduced levels,  $\gamma$ -transition multipolarity, strength distribution.

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**Keynumber:** 1984AN07

**Reference:** Ann.Nucl.Energy 11, 173 (1984)

**Authors:** M.A.Anvari, R.K.Y.Singh, M.L.Seagal, V.K.Mittal, D.K.Avasthi, I.M.Govil

**Title:** Radiative Capture Cross-Sections of Isotopes of Gd,Sm and V between 1 and 3 MeV

**Keyword abstract:** NUCLEAR REACTIONS  $^{160}\text{Gd}$ ,  $^{154}\text{Sm}$ ,  $^{51}\text{V}(\text{n},\gamma)$ , E=1-3 MeV; measured capture  $\sigma(E)$  relative to  $^{127}\text{I}(\text{n},\gamma)$  reaction  $\sigma$ . Statistical model analysis.

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**Keynumber:** 1984ABZX

**Reference:** Proc.Conf.Neutron Physics, Kiev, Vol.2, p.105 (1984)

**Authors:** L.P.Abagyan, S.M.Zakharova

**Title:**

**Keyword abstract:** NUCLEAR REACTIONS  $^{147}$ ,  $^{148}$ ,  $^{148m}$ ,  $^{149}$ ,  $^{151}\text{Pm}$ ,  $^{144}$ ,  $^{148}$ ,  $^{150}$ ,  $^{152}$ ,  $^{154}$ ,  $^{156}\text{Sm}$  ( $\text{n},\gamma$ ), E=thermal-30 keV; analyzed, evaluated  $\sigma$ , capture resonance integral.  $^{148}$ ,  $^{149}$ ,  $^{150}$ ,  $^{152}\text{Pm}$ ,  $^{145}$ ,  $^{149}$ ,  $^{151}$ ,  $^{153}$ ,  $^{155}$ ,  $^{157}\text{Sm}$  evaluated average resonance parameters.

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**Keynumber:** 1982SC03

**Reference:** Nucl.Phys. A376, 149 (1982)

**Authors:** K.Schreckenbach, A.I.Namenson, W.F.Davidson, T.Von Egidy, H.G.Borner, J.A.Pinston, R.K.Smith, D.D.Warner, R.F.Casten, M.L.Stelts, D.H.White, W.Stoffl

**Title:** Rotational-Vibrational Band Structure in  $^{155}\text{Sm}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{154}\text{Sm}(\text{n},\gamma)$ , E=thermal,  $\geq 100$  eV, 2.24 keV; measured  $E\gamma, I\gamma$ ;  $^{154}\text{Sm}(\text{n},\text{e})$ , E=thermal; measured  $I(\text{ce})$ .  $^{155}\text{Sm}$  deduced levels, neutron binding energy, transitions,  $\gamma$ -multipolarity,  $J, \pi$ , ICC. Curved crystal, magnetic conversion electron, Ge(Li) pair spectrometers, enriched target. Nilsson model, Coriolis,  $\Delta N=2$  couplings.

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**Keynumber:** 1982BA15

**Reference:** Izv.Akad.Nauk SSSR, Ser.Fiz. 46, 63 (1982)

**Authors:** I.F.Barchuk, V.I.Golyshkin, E.N.Gorban

**Title:**  $\gamma$ -Quanta from the Reactions  $^{148}$ ,  $^{152}$ ,  $^{154}\text{Sm}(\text{n},\gamma)$ ,  $^{149}$ ,  $^{153}$ ,  $^{155}\text{Sm}$  using Thermal Neutrons

**Keyword abstract:** NUCLEAR REACTIONS  $^{148}$ ,  $^{152}$ ,  $^{154}\text{Sm}(\text{n},\gamma)$ , E=thermal; measured  $E\gamma, I\gamma$ .  $^{149}$ ,  $^{153}$ ,  $^{155}\text{Sm}$  deduced levels.

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**Keynumber:** 1981ST16

**Reference:** Phys.Rev. C24, 1419 (1981)

**Authors:** M.L.Stelts, R.E.Chrien, M.K.Martel

**Title:** Nuclear Level Densities from Resonance Averaged Neutron Capture  $\gamma$ -Ray Spectra

**Keyword abstract:** NUCLEAR REACTIONS  $^{147}, ^{149}, ^{154}\text{Sm}$ ,  $^{165}\text{Ho}$ ,  $^{167}\text{Er}$ ,  $^{181}\text{Ta}$ ,  $^{182}\text{W}$ ,  $^{189}\text{Os}$ ,  $^{195}\text{Pt}$ ,  $^{197}\text{Au}$ ,  $^{236}, ^{238}\text{U}(n,\gamma)$ , E=2.24 keV; measured  $E\gamma, I\gamma$  for average resonance capture.  $^{148}, ^{150}, ^{155}\text{Sm}$ ,  $^{166}\text{Ho}$ ,  $^{168}\text{Er}$ ,  $^{182}\text{Ta}$ ,  $^{183}\text{W}$ ,  $^{190}\text{Os}$ ,  $^{196}\text{Pt}$ ,  $^{198}\text{Au}$ ,  $^{237}, ^{239}\text{U}$  deduced level density parameters. Fermi gas model.

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**Keynumber:** 1981BAZF

**Reference:** Program and Thesis, Proc.31st Ann.Conf.Nucl.Spectrosc.Struct.At.Nuclei, Samarkand, p.101 (1981)

**Authors:** I.F.Barchuk, V.I.Golyshkin, E.N.Gorban

**Title:**

**Keyword abstract:** NUCLEAR REACTIONS  $^{148}, ^{152}, ^{154}\text{Sm}(n,\gamma)$ , E=thermal; measured  $E\gamma, I\gamma$ .  $^{149}, ^{153}\text{Sm}$  deduced levels, neutron separation energy (S(n)).  $^{155}\text{Sm}$  deduced transitions.

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**Keynumber:** 1980DEZJ

**Reference:** INDC(FR)-31/L (1980)

**Authors:** J.P.Delaroche, Ch.Lagrange

**Title:** Coherent Optical and Statistical Model Calculations of Neutron Capture Cross Sections for Samarium Isotopes Between 1 keV and 3 MeV

**Keyword abstract:** NUCLEAR REACTIONS  $^{147}, ^{148}, ^{149}, ^{150}, ^{151}, ^{152}, ^{154}\text{Sm}(n,\gamma)$ , E=0.001-3 MeV; calculated  $\sigma(E)$ . Statistical model, optical transmission coefficient input.

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**Keynumber:** 1979AG02

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

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

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

**Keyword abstract:** NUCLEAR REACTIONS  $^{45}\text{Sc}$ ,  $^{55}\text{Mn}$ ,  $^{63}, ^{65}\text{Cu}$ ,  $^{69}, ^{71}\text{Ga}$ ,  $^{75}\text{As}$ ,  $^{79}, ^{81}\text{Br}$ ,  $^{80}\text{Se}$ ,  $^{85}, ^{87}\text{Rb}$ ,  $^{89}\text{Y}$ ,  $^{93}\text{Nb}$ ,  $^{96}\text{Zr}$ ,  $^{98}, ^{100}\text{Mo}$ ,  $^{107}, ^{109}\text{Ag}$ ,  $^{108}\text{Pd}$ ,  $^{114}\text{Cd}$ ,  $^{115}\text{In}$ ,  $^{127}\text{I}$ ,  $^{133}\text{Cs}$ ,  $^{138}\text{Ba}$ ,  $^{139}\text{La}$ ,  $^{140}, ^{142}\text{Ce}$ ,  $^{141}\text{Pr}$ ,  $^{152}, ^{154}\text{Sm}$ ,  $^{158}, ^{160}\text{Gd}$ ,  $^{164}\text{Dy}$ ,  $^{165}\text{Ho}$ ,  $^{170}\text{Er}$ ,  $^{175}\text{Lu}$ ,  $^{180}\text{Hf}$ ,  $^{181}\text{Ta}$ ,  $^{184}, ^{186}\text{W}$ ,  $^{185}, ^{187}\text{Re}$ ,  $^{197}\text{Au}$ ,  $^{202}\text{Hg}$ ,  $^{208}\text{Pb}$ ,  $^{209}\text{Bi}$ ,  $^{232}\text{Th}(n,\gamma)$ , E=24 keV; calculated  $\sigma$ ; deduced ratio of average  $\Gamma\gamma$  to average level spacing. Margolis formula of statistical theory, low energy resonance parameters.

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**Keynumber:** 1978SCZW

**Coden:** JOUR BAPSA 23 91 JE7 Schrenkenbach

**Keyword abstract:** NUCLEAR REACTIONS  $^{154}\text{Sm}(n,\gamma)$ ; measured  $\gamma$ -spectra, ce-spectra.  $^{155}\text{Sm}$  deduced levels, K,J, $\pi$ .

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**Keynumber:** 1978KO04

**Reference:** Yad.Fiz. 27, 10 (1978); Sov.J.Nucl.Phys. 27, 5 (1978)

**Authors:** V.N.Kononov, B.D.Yurlov, E.D.Poletaev, V.M.Timokhov

**Title:** Fast-Neutron Capture Cross Sections for Even-Even Isotopes of Neodymium, Samarium, Gadolinium, and Erbium

**Keyword abstract:** NUCLEAR REACTIONS  $^{142}, ^{144}, ^{146}, ^{148}, ^{150}\text{Nd}$ ,  $^{144}, ^{148}, ^{150}, ^{152}, ^{154}\text{Sm}$ ,  $^{156}, ^{158}, ^{160}\text{Gd}$ ,  $^{166}, ^{168}, ^{170}\text{Er}(n,\gamma)$ , E=5-350 keV; measured  $\sigma(E)$ .

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**Keynumber:** 1977SMZW

**Coden:** JOUR VDPEA No6/1977,937,A7-5,Smither

**Keyword abstract:** NUCLEAR REACTIONS  $^{154}\text{Sm}(n,\gamma)$ ; measured  $\gamma$ ,ce spectra.  $^{155}\text{Sm}$  deduced resonances,levels, $\pi$ .

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**Keynumber:** 1977SMZN

**Coden:** CONF Tokyo (Nucl Structure),Proc,Vol1,P393,Smither

**Keyword abstract:** NUCLEAR REACTIONS  $^{154}\text{Sm}(n,\gamma)$ ; measured  $\gamma$ ,ce spectra.  $^{155}\text{Sm}$  deduced levels.

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**Keynumber:** 1976SMZP

**Reference:** ANL-76-96, p.126 (1976)

**Authors:** R.K.Smither, D.L.Bushnell, G.D.Loper

**Title:** Nuclear Structure of the Odd-N Sm Isotopes  $^{145}\text{Sm}$ ,  $^{149}\text{Sm}$ ,  $^{151}\text{Sm}$ ,  $^{153}\text{Sm}$ , and  $^{155}\text{Sm}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}$ ,  $^{148}$ ,  $^{150}$ ,  $^{152}$ ,  $^{154}\text{Sm}(n,\gamma)$ ,E=th,res; measured  $\gamma$ -spectra.  $^{145}$ ,  $^{149}$ ,  $^{151}$ ,  $^{153}$ ,  $^{155}\text{Sm}$  deduced levels.

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**Keynumber:** 1975SMZL

**Coden:** CONF Petten(Neutron Capture  $\gamma$ -ray Spectr),Proc P358

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}$ ,  $^{146}$ ,  $^{148}$ ,  $^{150}$ ,  $^{152}$ ,  $^{154}\text{Sm}(n,\gamma)$ ; measured  $\gamma$ -spectra.  $^{145}$ ,  $^{147}$ ,  $^{149}$ ,  $^{151}$ ,  $^{153}$ ,  $^{155}\text{Sm}$  deduced levels,J, $\pi$ .

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**Keynumber:** 1974SMZN

**Reference:** Contrib.Int.Symp.Neutron Capture Gamma Ray Spectroscopy and Related Topics, 2nd, Petten, p.133 (1974)

**Authors:** R.K.Smither

**Title:** Energy Levels in the Odd-N Sm Isotopes

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}$ ,  $^{148}$ ,  $^{150}$ ,  $^{152}$ ,  $^{154}\text{Sm}(n,\gamma)$ ,E=thermal; measured E $\gamma$ ,I $\gamma$ .  $^{145}$ ,  $^{149}$ ,  $^{151}$ ,  $^{153}$ ,  $^{155}\text{Sm}$  deduced levels,J, $\pi$ .

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**Keynumber:** 1974SMZC

**Reference:** CONF-740920-8 (1974)

**Authors:** R.K.Smither

**Title:** Energy Levels in the Odd-N Sm Isotopes

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}$ ,  $^{146}$ ,  $^{148}$ ,  $^{150}$ ,  $^{152}$ ,  $^{154}\text{Sm}(n,\gamma)$ ; measured E $\gamma$ ,I $\gamma$ .  $^{145}$ ,  $^{147}$ ,  $^{149}$ ,  $^{151}$ ,  $^{153}$ ,  $^{155}\text{Sm}$  deduced resonances,J, $\pi$ .

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**Keynumber:** 1974SI11

**Reference:** Ann.Phys.(New York) 83, 355 (1974)

**Authors:** K.Siddappa, M.S.Murty, J.R.Rao

**Title:** Neutron Strength Functions of Nuclei in the Deformed Region

**Keyword abstract:** NUCLEAR REACTIONS  $^{138}\text{Ba}$ ,  $^{140}\text{Ce}$ ,  $^{146}\text{Nd}$ ,  $^{148}\text{Nd}$ ,  $^{152}\text{Sm}$ ,  $^{154}\text{Sm}$ ,  $^{158}\text{Gd}$ ,  $^{159}\text{Tb}$ ,  $^{169}\text{Tm}$ ,  $^{170}\text{Er}$ ,  $^{174}\text{Yb}$ ,  $^{176}\text{Yb}$ ,  $^{180}\text{Hf}$ ,  $^{181}\text{Ta}$ ,  $^{186}\text{W}$ ,  $^{190}\text{Os}$ ,  $^{192}\text{Os}$ ,  $^{197}\text{Au}$ ,  $^{202}\text{Hg}(n,\gamma)$ ,E=18-28 keV; measured  $\sigma$ ; deduced p-wave strength functions.

**Reference:** Can.J.Phys. 52, 1160 (1974)

**Authors:** B.Singh, M.W.Johns

**Title:** Spin Determinations in Low Lying States of  $^{151}\text{Sm}$

**Keyword abstract:** RADIOACTIVITY  $^{151}\text{Pm}$ ; measured  $\gamma\gamma(\theta)$ ,I $\gamma$ .  $^{151}\text{Sm}$  levels deduced J, $\pi$ , $\gamma$

mixing, $\lambda$ .

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**Keynumber:** 1974COYZ

**Coden:** REPT USNDC-11 P42

**Keyword abstract:** NUCLEAR REACTIONS  $^{154}\text{Sm}$ ,  $^{170}\text{Yb}$ ,  $^{186}\text{W}$ ,  $^{156}\text{Gd}(\text{n},\gamma)$ ; measured  $\sigma(E\gamma)$ .

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**Keynumber:** 1973SMZJ

**Coden:** REPT ANL-8035 P13

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}$ ,  $^{148}$ ,  $^{150}$ ,  $^{152}$ ,  $^{154}\text{Sm}(\text{n},\gamma)$ ; measured  $\sigma(E\gamma)$ .  $^{145}$ ,  $^{149}$ ,  $^{151}$ ,  $^{153}$ ,  $^{155}\text{Sm}$  deduced levels.

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**Keynumber:** 1973SMZI

**Coden:** REPT ANL-8035 P17

**Keyword abstract:** NUCLEAR REACTIONS  $^{148}$ ,  $^{150}$ ,  $^{152}$ ,  $^{154}\text{Sm}(\text{n},\gamma)$ ; measured  $\sigma(E\gamma)$ .  $^{149}$ ,  $^{151}$ ,  $^{153}$ ,  $^{155}\text{Sm}$  deduced levels.

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**Keynumber:** 1973RAXW

**Coden:** REPT COO-2176-20 P1

**Keyword abstract:** NUCLEAR REACTIONS Er,  $^{152}$ ,  $^{154}\text{Sm}$ ,  $^{151}$ ,  $^{153}\text{Eu}$ ,  $^{232}\text{U}$ , Fe, La, In, Ta, F, Mg, Al, S, Cl, K, Ca( $\text{n},\gamma$ ); measured  $\sigma(E)$ .  $^{153}$ ,  $^{155}\text{Sm}$ ,  $^{152}$ ,  $^{154}\text{Eu}$ ,  $^{233}\text{U}$  deduced resonances.

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**Keynumber:** 1973LAYT

**Reference:** INDC(HUN)-11/L, p.26 (1973)

**Authors:** L.Lakosi, A.Veres

**Title:** Activation Experiments of Photo-Neutrons by using  $^{24}\text{Na}$ -Be Source

**Keyword abstract:** NUCLEAR REACTIONS  $^{55}\text{Mn}$ ,  $^{114}$ ,  $^{116}\text{Cd}$ ,  $^{115}\text{In}$ ,  $^{127}\text{I}$ ,  $^{152}$ ,  $^{154}\text{Sm}$ ,  $^{166}$ ,  $^{170}\text{Er}$ ,  $^{175}\text{Lu}$ ,  $^{191}$ ,  $^{193}\text{Ir}(\text{n},\gamma)$ ,  $^{107}$ ,  $^{109}\text{Ag}$ ,  $^{111}\text{Cd}$ ,  $^{115}\text{In}$ ,  $^{167}\text{Er}$ ,  $^{176}\text{Lu}(\text{n},\text{n}'\gamma)$ ; measured  $\sigma$ .

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**Keynumber:** 1973LAYG

**Reference:** RCN-191 (1973)

**Authors:** G.Lautenbach

**Title:** Calculated Neutron Absorption Cross Sections of 75 Fission Products

**Keyword abstract:** NUCLEAR REACTIONS  $^{81}\text{Br}$ ,  $^{83}$ ,  $^{84}$ ,  $^{85}$ ,  $^{86}\text{Kr}$ ,  $^{85}$ ,  $^{87}\text{Rb}$ ,  $^{88}$ ,  $^{90}\text{Sr}$ ,  $^{89}\text{Y}$ ,  $^{91}$ ,  $^{92}$ ,  $^{93}$ ,  $^{94}$ ,  $^{95}$ ,  $^{96}\text{Zr}$ ,  $^{95}$ ,  $^{97}$ ,  $^{98}$ ,  $^{100}\text{Mo}$ ,  $^{99}\text{Tc}$ ,  $^{101}$ ,  $^{102}$ ,  $^{104}$ ,  $^{106}\text{Ru}$ ,  $^{103}\text{Rh}$ ,  $^{105}$ ,  $^{106}$ ,  $^{107}$ ,  $^{108}$ ,  $^{110}\text{Pd}$ ,  $^{109}\text{Ag}$ ,  $^{111}$ ,  $^{112}$ ,  $^{113}$ ,  $^{114}\text{Cd}$ ,  $^{115}\text{In}$ ,  $^{126}$ ,  $^{128}$ ,  $^{130}\text{Te}$ ,  $^{127}$ ,  $^{129}\text{I}$ ,  $^{131}$ ,  $^{132}$ ,  $^{134}$ ,  $^{136}\text{Xe}$ ,  $^{133}$ ,  $^{135}$ ,  $^{137}\text{Cs}$ ,  $^{138}\text{Ba}$ ,  $^{139}\text{La}$ ,  $^{140}$ ,  $^{142}\text{Ce}$ ,  $^{141}\text{Pr}$ ,  $^{143}$ ,  $^{144}$ ,  $^{145}$ ,  $^{146}$ ,  $^{148}$ ,  $^{150}\text{Nd}$ ,  $^{147}\text{Pm}$ ,  $^{147}$ ,  $^{148}$ ,  $^{149}$ ,  $^{150}$ ,  $^{151}$ ,  $^{152}$ ,  $^{154}\text{Sm}$ ,  $^{153}$ ,  $^{154}$ ,  $^{155}\text{Eu}$ ,  $^{155}$ ,  $^{156}$ ,  $^{157}$ ,  $^{158}\text{Gd}$ ,  $^{159}\text{Tb}(\text{n},\gamma)$ ; calculated  $\sigma(E)$ .

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**Keynumber:** 1973HAYX

**Reference:** ANCR-1129, p.3 (1973)

**Authors:** Y.D.Harker, R.G.Nisle, E.H.Turk, J.R.Berreh

**Title:** Integral Capture Cross Section Measurements of Fission Product Isotopes (CFRMF)

**Keyword abstract:** NUCLEAR REACTIONS  $^{87}\text{Rb}$ ,  $^{99}\text{Tc}$ ,  $^{102}$ ,  $^{104}\text{Ru}$ ,  $^{115}\text{In}$ ,  $^{121}$ ,  $^{123}\text{Sb}$ ,  $^{127}\text{I}$ ,  $^{132}$ ,  $^{134}\text{Xe}$ ,  $^{133}\text{Cs}$ ,  $^{141}\text{Pr}$ ,  $^{147}\text{Pm}$ ,  $^{148}$ ,  $^{150}\text{Nd}$ ,  $^{152}$ ,  $^{154}\text{Sm}(\text{n},\gamma)$ , E=reactor spectrum; measured  $\sigma$ .

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**Keynumber:** 1972SMZO

**Reference:** ANL-7971, p.13 (1972)

**Authors:** R.K.Smither, D.J.Buss, D.L.Bushnell

**Title:** The Isotopes of Samarium

**Keyword abstract:** NUCLEAR REACTIONS  $^{149}, ^{150}, ^{152}, ^{154}$ Sm(n, $\gamma$ ); measured E $\gamma$ ,I $\gamma$ .  $^{150}, ^{151}, ^{153}$ ,  $^{155}$ Sm deduced levels,J, $\pi$ , $\gamma$ -multipolarities.

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**Keynumber:** 1972SMZJ

**Coden:** REPT ANL-7971,R Smither,2/27/73

**Keyword abstract:** NUCLEAR REACTIONS  $^{149}, ^{150}, ^{152}, ^{154}$ Sm(n, $\gamma$ ),E=resonance; measured E $\gamma$ ,I $\gamma$ .  $^{151}, ^{150}, ^{153}$ Sm deduced levels,J, $\pi$ .

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**Keynumber:** 1972RA26

**Reference:** Nucl.Sci.Eng. 48, 219 (1972)

**Authors:** F.Rahn, H.S.Camarda, G.Hacken, W.W.Havens,Jr., H.I.Liou, J.Rainwater, M.Slagowitz, S.Wynchank

**Title:** Values of the Neutron Resonance Capture Integral for Some Rare Earth Isotopes

**Keyword abstract:** NUCLEAR REACTIONS  $^{152}, ^{154}$ Sm,  $^{153}$ Eu,  $^{154}, ^{158}, ^{160}$ Gd,  $^{166}, ^{167}, ^{168}, ^{170}$ Er,  $^{168}, ^{170}, ^{171}, ^{172}, ^{174}, ^{176}$ Yb,  $^{175}$ Lu,  $^{182}, ^{183}, ^{184}, ^{186}$ W(n, $\gamma$ ); calculated resonance integrals.

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**Keynumber:** 1972KA21

**Reference:** Phys.Lett. 39B, 625 (1972)

**Authors:** J.Kantele, M.Valkonen

**Title:** Mass Number Dependence of Activation Capture Cross Sections for 14 MeV Neutrons

**Keyword abstract:** NUCLEAR REACTIONS  $^{51}$ V,  $^{81}$ Br,  $^{103}$ Rh,  $^{127}$ I,  $^{154}$ Sm,  $^{160}$ Gd,  $^{165}$ Ho,  $^{170}$ Er (n, $\gamma$ ),E=14.5 MeV; measured activation  $\sigma$ .

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**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.

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**Keynumber:** 1971SMZO

**Coden:** REPT BNL-50298,P16,10/21/71

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}, ^{148}, ^{150}, ^{152}, ^{154}$ Sm(n, $\gamma$ ),E=thermal,resonance; measured E $\gamma$ ,I $\gamma$ ; deduced Q.  $^{145}, ^{149}, ^{151}, ^{153}, ^{155}$ Sm deduced levels,J, $\pi$ .

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**Keynumber:** 1971HAXR

**Coden:** REPT NCSAC-42,P61,G Hacken,5/19/72

**Keyword abstract:** NUCLEAR REACTIONS  $^{152}, ^{154}$ Sm,  $^{151}, ^{153}$ Eu,  $^{154}, ^{158}, ^{160}$ Gd,  $^{166}, ^{167}, ^{168}, ^{170}$ Er,  $^{168}, ^{170}, ^{171}, ^{172}, ^{174}, ^{176}$ Yb,  $^{175}$ Lu,  $^{182}, ^{183}, ^{184}, ^{186}$ W(n, $\gamma$ ), measured capture resonance integrals.

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**Keynumber:** 1971GRZK

**Reference:** Program and Theses, Proc.21st Ann.Conf.Nucl.Spectrosc.Struct.At.Nuclei, Moscow, Pt.1, p.99 (1971)

**Authors:** L.V.Groshev, A.M.Demidov, L.L.Sokolovskii

**Title:** De-Excitation Even-Odd Isotopes of Samarium and Gadolinium after Capture of Slow Neutrons

**Keyword abstract:** NUCLEAR REACTIONS  $^{154}\text{Sm}$ ,  $^{158}\text{Gd}(\text{n},\gamma)$ , E=slow; measured  $E\gamma, I\gamma$ ; deduced Q.  $^{155}\text{Sm}$ ,  $^{159}\text{Gd}$  deduced transitions.

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**Keynumber:** 1971GRZC

**Coden:** CONF Moscow(NuclSpectros,Structure) Abstr P99

**Keyword abstract:** NUCLEAR REACTIONS  $^{154}\text{Sm}$ ,  $^{158}\text{Gd}(\text{n},\gamma)$ , E=th; measured  $E\gamma$ ; deduced Q.  $^{155}\text{Sm}$ ,  $^{159}\text{Gd}$  deduced levels.

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**Keynumber:** 1971GR42

**Reference:** Izv.Akad.Nauk SSSR, Ser.Fiz. 35, 1644 (1971); Bull.Acad.Sci.USSR, Phys.Ser. 35, 1497 (1972)

**Authors:** L.V.Groshev, A.M.Demidov, L.L.Sokolovskii

**Title:** Radiations from Even-Odd Samarium and Gadolinium Nuclei Following Thermal-Neutron Capture

**Keyword abstract:** NUCLEAR REACTIONS  $^{154}\text{Sm}$ ,  $^{156}$ ,  $^{158}$ ,  $^{160}\text{Gd}(\text{n},\gamma)$ , E=thermal; measured  $E\gamma, I\gamma, Q$ .  $^{155}\text{Sm}$ ,  $^{157}$ ,  $^{159}$ ,  $^{161}\text{Gd}$  deduced levels.

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**Keynumber:** 1971FAZS

**Coden:** CONF SESAPS 38th Mtg,P8,L R Fawcett,11/15/71

**Keyword abstract:** NUCLEAR REACTIONS  $^{154}\text{Sm}$ ,  $^{160}\text{Gd}$ ,  $^{164}\text{Dy}$ ,  $^{165}\text{Ho}(\text{n},\gamma)$ , E=5-160 keV; measured  $\sigma(E;E\gamma)$ .  $^{155}\text{Sm}$ ,  $^{161}\text{Gd}$ ,  $^{165}\text{Dy}$ ,  $^{166}\text{Ho}$  deduced strength functions.

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**Keynumber:** 1971FAZR

**Coden:** THESIS, Virginia Polytechnic Inst,L R Fawcett,DABBB 32B 2929,12/16/71

**Keyword abstract:** NUCLEAR REACTIONS  $^{154}\text{Sm}$ ,  $^{160}\text{Gd}$ ,  $^{164}\text{Dy}$ ,  $^{165}\text{Ho}(\text{n},\gamma)$ , E=5-160 keV; measured  $\sigma(E;E\gamma)$ .  $^{155}\text{Sm}$ ,  $^{161}\text{Gd}$ ,  $^{165}\text{Dy}$ ,  $^{166}\text{Ho}$  deduced resonances,strength functions.

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**Keynumber:** 1970SMZZ

**Reference:** Bull.Amer.Phys.Soc. 15, No.4, 549, EG5 (1970)

**Authors:** R.K.Smither, D.J.Buss, D.L.Bushnell

**Title:** Energy Levels in the Odd-A Sm Isotopes

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}$ ,  $^{148}$ ,  $^{150}$ ,  $^{152}$ ,  $^{154}\text{Sm}(\text{n},\gamma)$ , E = thermal; measured  $E\gamma$ ,  $I\gamma$ ; deduced Q.  $^{145}$ ,  $^{149}$ ,  $^{151}$ ,  $^{153}$ ,  $^{155}\text{Sm}$  deduced levels, J,  $\pi$ . Ge(Li) detector, bent-crystal spectrometer.

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