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**46 reference(s) found :**

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

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

**Authors:** J.Best, H.Stoll, C.Arandini, 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.

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**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.

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**Keynumber:** 2000OHZZ

**Reference:** BNL-NCS-67469 (2000)

**Authors:** S.-Y.Oh, J.Chang, S.Mughabghab

**Title:** Neutron Cross Section Evaluations of Fission Products Below the Fast Energy Region

**Keyword abstract:** NUCLEAR REACTIONS  $^{95}\text{Mo}$ ,  $^{99}\text{Tc}$ ,  $^{101}\text{Ru}$ ,  $^{103}\text{Rh}$ ,  $^{105}\text{Pd}$ ,  $^{109}\text{Ag}$ ,  $^{131}\text{Xe}$ ,  $^{133}\text{Cs}$ ,  $^{141}\text{Pr}$ ,  $^{143}$ ,  $^{145}\text{Nd}$ ,  $^{147}$ ,  $^{149}$ ,  $^{150}$ ,  $^{151}$ ,  $^{152}\text{Sm}$ ,  $^{153}\text{Eu}$ ,  $^{155}$ ,  $^{157}\text{Gd}(n,\gamma)$ , E <250 keV; compiled, analyzed capture  $\sigma$ , resonance parameters, related features. Comparison with data, previous evaluations.

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**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.

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**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  $\sigma$ .

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**Keynumber:** 1997KA47

**Reference:** J.Radioanal.Nucl.Chem. 215, 193 (1997)

**Authors:** S.I.Kafala, T.D.MacMahon, S.B.Borzakov

**Title:** Neutron Activation for Precise Nuclear Data

**Keyword abstract:** NUCLEAR REACTIONS  $^{45}\text{Sc}$ ,  $^{50}\text{Cr}$ ,  $^{59}\text{Co}$ ,  $^{64}\text{Zn}$ ,  $^{75}\text{As}$ ,  $^{85}\text{Rb}$ ,  $^{113}\text{In}$ ,  $^{121}$ ,  $^{123}\text{Sb}$ ,  $^{130}\text{Ba}$ ,  $^{133}\text{Cs}$ ,  $^{139}\text{La}$ ,  $^{140}$ ,  $^{142}\text{Ce}$ ,  $^{146}\text{Nd}$ ,  $^{151}$ ,  $^{153}\text{Eu}$ ,  $^{152}\text{Gd}$ ,  $^{152}\text{Sm}$ ,  $^{159}\text{Tb}$ ,  $^{165}\text{Ho}$ ,  $^{174}\text{Yb}$ ,  $^{180}\text{Hf}$ ,  $^{181}\text{Ta}$ ,  $^{186}\text{W}$ ,  $^{232}\text{Pa}$ ,  $^{238}\text{Np}(n,\gamma)$ , E=reactor; measured  $E\gamma$ ,  $I\gamma$ ; deduced capture  $\sigma$ , resonance integral, least-squares fit parameters. Multi-element standard.

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**Keynumber:** 1997GOZZ

**Reference:** Priv.Comm. (1997)

**Authors:** A.Gollwitzer

**Title:**

**Keyword abstract:** NUCLEAR REACTIONS  $^{152}\text{Sm}(n,\gamma)$ ,  $^{154}\text{Sm}(\text{polarized d,t})$ , (p,d), E not given; analyzed data.  $^{153}\text{Sm}$  deduced levels,  $J,\pi$ , spectroscopic factors.

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**Keynumber:** 1994LU22

**Reference:** Chin.J.Nucl.Phys. 16, No 3, 275 (1994)

**Authors:** X.-B.Luo, Y.-J.Xia, Z.-H.Yang, M.-T.Liu

**Title:** Measurement of Neutron Capture Cross Section for  $^{152}\text{Sm}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{152}\text{Sm}(n,\gamma)$ , E=22-1019 keV; measured capture  $\sigma(E)$ . Activation technique.

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**Keynumber:** [1993WI12](#)

**Reference:** Phys.Rev. C48, 1401 (1993)

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

**Title:** Neutron Capture in  $^{148}$ ,  $^{150}\text{Sm}$ : A sensitive probe of the s-process neutron density

**Keyword abstract:** NUCLEAR REACTIONS  $^{147}$ ,  $^{148}$ ,  $^{149}$ ,  $^{150}$ ,  $^{152}\text{Sm}(n,\gamma)$ , E=3-225 keV; measured  $\sigma(E)$ ; deduced stellar cross sections at  $kT=10-100$  keV, s-process neutron density.

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**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.

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**Keynumber:** 1989LI28

**Reference:** J.Radioanal.Nucl.Chem. 133, 153 (1989)

**Authors:** X.Lin, D.Van Renterghem, F.De Corte, R.Cornelis

**Title:** Correction for Neutron Induced Reaction Interferences in the NAA  $k_0$ -Standardization Method

**Keyword abstract:** NUCLEAR REACTIONS  $^{94}\text{Zr}$ ,  $^{133}\text{Cs}$ ,  $^{139}\text{La}$ ,  $^{140}$ ,  $^{142}\text{Ce}$ ,  $^{146}\text{Nd}$ ,  $^{152}\text{Sm}(n,\gamma)$ , E=fast;  $^{235}\text{U}(n,f)$ , E not given; analyzed threshld reaction, fission data; deduced  $k_0$  standardization corrections.

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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  $^{147}$ ,  $^{148}$ ,  $^{148m}$ ,  $^{149}$ ,  $^{151}\text{Pm}$ ,  $^{144}$ ,  $^{148}$ ,  $^{150}$ ,  $^{152}$ ,  $^{154}$ ,  $^{156}\text{Sm}$

(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:** 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  $^{148, 152, 154}\text{Sm}(n,\gamma)^{149, 153, 155}\text{Sm}$  using Thermal Neutrons

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

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**Keynumber:** 1981BEZC

**Reference:** NEANDC(E)-222U, Vol.V, p.5 (1981)

**Authors:** H.Beer, F.Kappeler, G.Reffo

**Title:** Capture Cross Section Measurements on Xe, Sm, Eu and Gd-Isotopes with the Activation Method

**Keyword abstract:** NUCLEAR REACTIONS  $^{124, 132, 134}\text{Xe}$ ,  $^{152}\text{Sm}$ ,  $^{151}\text{Eu}$ ,  $^{152, 158, 160}\text{Gd}(n,\gamma)$ ,E=25 keV; measured  $\sigma$ (capture). Activation technique.  $^{197}\text{Au}$  standard.

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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:** 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 <sup>142</sup>, <sup>144</sup>, <sup>146</sup>, <sup>148</sup>, <sup>150</sup>Nd, <sup>144</sup>, <sup>148</sup>, <sup>150</sup>, <sup>152</sup>, <sup>154</sup>Sm, <sup>156</sup>, <sup>158</sup>, <sup>160</sup>Gd, <sup>166</sup>, <sup>168</sup>, <sup>170</sup>Er(n,γ),E=5-350 keV; measured σ(E).

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**Keynumber:** 1976SMZP

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

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

**Title:** Nuclear Structure of the Odd-N Sm Isotopes <sup>145</sup>Sm, <sup>149</sup>Sm, <sup>151</sup>Sm, <sup>153</sup>Sm, and <sup>155</sup>Sm

**Keyword abstract:** NUCLEAR REACTIONS <sup>144</sup>, <sup>148</sup>, <sup>150</sup>, <sup>152</sup>, <sup>154</sup>Sm(n,γ),E=th,res; measured γ-spectra. <sup>145</sup>, <sup>149</sup>, <sup>151</sup>, <sup>153</sup>, <sup>155</sup>Sm deduced levels.

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**Keynumber:** 1975SMZL

**Coden:** CONF Petten(Neutron Capture γ-ray Spect),Proc P358

**Keyword abstract:** NUCLEAR REACTIONS <sup>144</sup>, <sup>146</sup>, <sup>148</sup>, <sup>150</sup>, <sup>152</sup>, <sup>154</sup>Sm(n,γ); measured γ-spectra. <sup>145</sup>, <sup>147</sup>, <sup>149</sup>, <sup>151</sup>, <sup>153</sup>, <sup>155</sup>Sm deduced levels,J,π.

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**Keynumber:** 1975CHZT

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

**Keyword abstract:** NUCLEAR REACTIONS <sup>162</sup>, <sup>164</sup>Dy, <sup>152</sup>Sm, <sup>156</sup>Gd, <sup>170</sup>Yb, <sup>158</sup>, <sup>160</sup>Gd, <sup>164</sup>, <sup>166</sup>, <sup>168</sup>, <sup>170</sup>Er(n,γ), E=0.0253 eV; measured σ(Eγ). <sup>163</sup>, <sup>165</sup>Dy, <sup>153</sup>Sm, <sup>151</sup>Gd, <sup>171</sup>Yb resonances deduced J,π.

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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.Smithers

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

**Keyword abstract:** NUCLEAR REACTIONS <sup>144</sup>, <sup>148</sup>, <sup>150</sup>, <sup>152</sup>, <sup>154</sup>Sm(n,γ),E=thermal; measured Eγ,Iγ. <sup>145</sup>, <sup>149</sup>, <sup>151</sup>, <sup>153</sup>, <sup>155</sup>Sm deduced levels,J,π.

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**Keynumber:** 1974SMZC

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

**Authors:** R.K.Smithers

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

**Keyword abstract:** NUCLEAR REACTIONS <sup>144</sup>, <sup>146</sup>, <sup>148</sup>, <sup>150</sup>, <sup>152</sup>, <sup>154</sup>Sm(n,γ); measured Eγ,Iγ. <sup>145</sup>, <sup>147</sup>, <sup>149</sup>, <sup>151</sup>, <sup>153</sup>, <sup>155</sup>Sm deduced resonances,J,π.

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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 <sup>138</sup>Ba, <sup>140</sup>, <sup>142</sup>Ce, <sup>146</sup>, <sup>148</sup>Nd, <sup>152</sup>, <sup>154</sup>Sm, <sup>158</sup>, <sup>160</sup>Gd, <sup>159</sup>Tb, <sup>169</sup>Tm, <sup>170</sup>Er, <sup>174</sup>, <sup>176</sup>Yb, <sup>180</sup>Hf, <sup>181</sup>Ta, <sup>186</sup>W, <sup>190</sup>, <sup>192</sup>Os, <sup>197</sup>Au, <sup>202</sup>Hg(n,γ),E=18-28 keV; measured σ; 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 <sup>151</sup>Sm

**Keyword abstract:** RADIOACTIVITY <sup>151</sup>Pm; measured γγ(θ),Iγ. <sup>151</sup>Sm levels deduced J,π,γ-

mixing, $\lambda$ .

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**Keynumber:** 1974COZX

**Coden:** JOUR BAPSA 19 111 KI13

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

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**Keynumber:** 1974COYX

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

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

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**Keynumber:** 1974COYK

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

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

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**Keynumber:** 1973SMZJ

**Coden:** REPT ANL-8035 P13

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}$ ,  $^{148}$ ,  $^{150}$ ,  $^{152}$ ,  $^{154}\text{Sm}(n,\gamma)$ ; 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  $^{148}$ ,  $^{150}$ ,  $^{152}$ ,  $^{154}\text{Sm}(n,\gamma)$ ; 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(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  $^{55}\text{Mn}$ ,  $^{114}$ ,  $^{116}\text{Cd}$ ,  $^{115}\text{In}$ ,  $^{127}\text{I}$ ,  $^{152}$ ,  $^{154}\text{Sm}$ ,  $^{166}$ ,  $^{170}\text{Er}$ ,  $^{175}\text{Lu}$ ,  $^{191}$ ,  $^{193}\text{Ir}(n,\gamma)$ ,  $^{107}$ ,  $^{109}\text{Ag}$ ,  $^{111}\text{Cd}$ ,  $^{115}\text{In}$ ,  $^{167}\text{Er}$ ,  $^{176}\text{Lu}(n,n'\gamma)$ ; 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  $^{81}\text{Br}$ ,  $^{83}$ ,  $^{84}$ ,  $^{85}$ ,  $^{86}\text{Kr}$ ,  $^{85}$ ,  $^{87}\text{Rb}$ ,  $^{88}$ ,  $^{90}\text{Sr}$ ,  $^{89}\text{Y}$ ,  $^{91}$ ,  $^{92}$ ,  $^{93}$ ,  $^{94}$ ,  $^{95}$ ,  $^{96}\text{Zr}$ ,  $^{95}$ ,  $^{97}$ ,  $^{98}$ ,  $^{100}\text{Mo}$ ,  $^{99}\text{Tc}$ ,  $^{101}$ ,  $^{102}$ ,  $^{104}$ ,  $^{106}\text{Ru}$ ,  $^{103}\text{Rh}$ ,  $^{105}$ ,  $^{106}$ ,  $^{107}$ ,  $^{108}$ ,  $^{110}\text{Pd}$ ,  $^{109}\text{Ag}$ ,  $^{111}$ ,  $^{112}$ ,  $^{113}$ ,  $^{114}\text{Cd}$ ,  $^{115}\text{In}$ ,  $^{126}$ ,  $^{128}$ ,  $^{130}\text{Te}$ ,  $^{127}$ ,  $^{129}\text{I}$ ,  $^{131}$ ,  $^{132}$ ,  $^{134}$ ,  $^{136}\text{Xe}$ ,  $^{133}$ ,  $^{135}$ ,  $^{137}\text{Cs}$ ,  $^{138}\text{Ba}$ ,  $^{139}\text{La}$ ,  $^{140}$ ,  $^{142}\text{Ce}$ ,  $^{141}\text{Pr}$ ,  $^{143}$ ,  $^{144}$ ,  $^{145}$ ,  $^{146}$ ,  $^{148}$ ,  $^{150}\text{Nd}$ ,  $^{147}\text{Pm}$ ,  $^{147}$ ,  $^{148}$ ,  $^{149}$ ,  $^{150}$ ,  $^{151}$ ,  $^{152}$ ,  $^{154}\text{Sm}$ ,  $^{153}$ ,  $^{154}$ ,  $^{155}\text{Eu}$ ,  $^{155}$ ,  $^{156}$ ,

$^{157}, ^{158}\text{Gd}, ^{159}\text{Tb}(n,\gamma)$ ; 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.Berreth

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

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

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**Keynumber:** 1973COYA

**Coden:** JOUR BAPSA 18 1402 CE8

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

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**Keynumber:** 1973COXE

**Coden:** REPT EANDC(US)-186'U' P39

**Keyword abstract:** NUCLEAR REACTIONS  $^{152}\text{Sm}(n,\gamma)$ , E=8-238 eV; measured  $\sigma(E;E\gamma)$ .  $^{153}\text{Sm}$  deduced levels.

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**Keynumber:** 1972SMZO

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

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

**Title:** The Isotopes of Samarium

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

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**Keynumber:** 1972SMZJ

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

**Keyword abstract:** NUCLEAR REACTIONS  $^{149}, ^{150}, ^{152}, ^{154}\text{Sm}(n,\gamma)$ , E=resonance; measured  $E\gamma, I\gamma$ .  $^{151}, ^{150}, ^{153}\text{Sm}$  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  $^{152}, ^{154}\text{Sm}, ^{153}\text{Eu}, ^{154}, ^{158}, ^{160}\text{Gd}, ^{166}, ^{167}, ^{168}, ^{170}\text{Er}, ^{168}, ^{170}, ^{171}, ^{172}, ^{174}, ^{176}\text{Yb}, ^{175}\text{Lu}, ^{182}, ^{183}, ^{184}, ^{186}\text{W}(n,\gamma)$ ; calculated resonance integrals.

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**Keynumber:** 1971SMZO

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

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

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**Keynumber:** 1971HAXR

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

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

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**Keynumber:** 1971BE41

**Reference:** Nucl.Phys. A171, 113 (1971)

**Authors:** M.J.Bennett, R.K.Sheline, Y.Shida

**Title:** Levels in  $^{153}\text{Sm}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{152}\text{Sm}(n,\gamma)$ , E=thermal; measured  $E\gamma, I\gamma$ , deduced  $q$ .  $^{154}\text{Sm}$  (d,t), E=12.0 MeV; measured  $\sigma(E, \theta)$ .  $^{153}\text{Sm}$  deduced levels, J,  $\pi$ , K.

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**Keynumber:** 1970SMZZ

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

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

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

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}, ^{148}, ^{150}, ^{152}, ^{154}\text{Sm}(n,\gamma)$ , 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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**Keynumber:** 1969SM04

**Reference:** Phys.Rev. 187, 1632 (1969)

**Authors:** R.K.Smith, E.Bieber, T.von Egidy, W.Kaiser, K.Wien

**Title:** Level Scheme of  $^{153}\text{Sm}$  Based on (n, $\gamma$ ), (n, $e^-$ ), and  $\beta$ -Decay Experiments

**Keyword abstract:** NUCLEAR REACTIONS  $^{152}\text{Sm}(n,\gamma)$ , E=thermal; measured  $E\gamma, I\gamma, I(\text{ce})$ ; deduced Q.  $^{153}\text{Sm}$  deduced levels, J,  $\pi$ , ICC,  $\gamma$ -multipolarity, branching ratios. Curved-crystal spectrometer.

**Keyword abstract:** RADIOACTIVITY  $^{153}\text{Pm}$ [from  $^{154}\text{Sm}(\gamma,p)$ ]; measured  $E\gamma, I\gamma, T_{1/2}$ ; deduced  $I\beta$ , log ft.

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**Keynumber:** 1969REZZ

**Reference:** Thesis, Univ.Leiden (1969)

**Authors:** E.R.Reddingius

**Title:** A Study of Neutron-Capture Gamma-Ray Spectra from Aligned Neodymium and Samarium Nuclei

**Keyword abstract:** NUCLEAR REACTIONS  $^{143}, ^{145}\text{Nd}, ^{147}, ^{149}, ^{152}\text{Sm}(n,\gamma)$ , E=0.047 eV; measured  $E\gamma, I\gamma, \gamma$ -anisotropy, linear polarization; deduced Q.  $^{144}, ^{146}\text{Nd}, ^{148}, ^{150}, ^{153}\text{Sm}$  deduced levels, J,  $\pi$ , ICC,  $\gamma$ -mixing. Ge(Li) detector, aligned nuclei.

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**Keynumber:** 1969RE04

**Reference:** Physica 40, 567 (1969)

**Authors:** E.R.Reddingius, H.Postma

**Title:** A Study of Gamma-Ray Spectra of Thermal-Neutron Capture in  $^{147}\text{Sm}, ^{149}\text{Sm}$  and  $^{152}\text{Sm}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{147}, ^{149}, ^{152}\text{Sm}(n,\gamma)$ , E=th; measured  $E\gamma, I\gamma$ ; deduced Q.  $^{148}, ^{153}\text{Sm}$  deduced levels. Enriched  $^{147}, ^{152}\text{Sm}$  target, Ge(Li) detector.

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**Keynumber:** 1968NA21

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

**Authors:** H.Nabielek

**Title:** Untersuchung von Obergangsraten Elektromagnetischer Übergänge 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  $T_{1/2}$ .

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