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**28 reference(s) found :**

**Keynumber:** 2001SHZW

**Reference:** INDC(CPR)-053/L, p.29 (2001)

**Authors:** Q.Shen, Y.Zhuang, Q.Liang

**Title:** Calculation and Recommendation of  $n + {}^{142-148,150}\text{Nd}$  Reactions in the Energy Region up to 20 MeV

**Keyword abstract:** NUCLEAR REACTIONS  ${}^{142, 143, 144, 145, 146, 147, 148, 150}\text{Nd}(n,n)$ ,  $(n,\gamma)$ ,  $(n,X)$ ,  $E < 20$  MeV; calculated  $\sigma, \sigma(\theta)$ . Comparisons with data.

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**Keynumber:** [1998WI18](#)

**Reference:** Phys.Rev. C57, 3452 (1998)

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

**Title:** Neutron Capture Resonances in  ${}^{142}\text{Nd}$  and  ${}^{144}\text{Nd}$

**Keyword abstract:** NUCLEAR REACTIONS  ${}^{142, 144}\text{Nd}(n,\gamma)$ ,  $E=2.8-20$  keV; measured  $\sigma(E)$ ; deduced resonance areas, averaged capture  $\sigma$ .

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**Keynumber:** [1998WI04](#)

**Reference:** Phys.Rev. C57, 391 (1998)

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

**Title:** Stellar Neutron Capture Cross Sections of the Nd Isotopes

**Keyword abstract:** NUCLEAR REACTIONS  ${}^{142, 143, 144, 145, 146, 148}\text{Nd}(n,\gamma)$ ,  $E=3-225$  keV; measured total, capture  $\sigma(E_n)$ ; deduced Maxwellian averaged  $\sigma$  at  $kT=10-100$  keV, astrophysical s-process implications.

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**Keynumber:** 1997WI13

**Reference:** Nucl.Phys. A621, 270c (1997)

**Authors:** K.Wisshak, F.Voss, F.Kappeler, L.Kazakov

**Title:** Neutron Capture in Neodymium Isotopes: Implications for the s-process

**Keyword abstract:** NUCLEAR REACTIONS  ${}^{142, 143, 144, 145, 146, 148}\text{Nd}(n,\gamma)$ ,  $E=10,30$  keV; measured capture  $\sigma$ . Other data compared, astrophysical s-process implications.

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

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**Keynumber:** 1997GU16

**Reference:** Nucl.Phys. A621, 266c (1997)

**Authors:** K.H.Guber, R.R.Spencer, P.E.Koehler, R.R.Winters

**Title:** Measurements of  ${}^{142, 144}\text{Nd}(n,\gamma)$  Cross Sections at ORELA for Astrophysical s-Process Studies

**Keyword abstract:** NUCLEAR REACTIONS  $^{142}, ^{144}\text{Nd}(n,\gamma), E < 200 \text{ keV}$ ; measured  $\sigma$ ; deduced reaction rates. Astrophysical s-process implications.

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**Keynumber:** [1997GU04](#)

**Reference:** Phys.Rev.Lett. 78, 2704 (1997)

**Authors:** K.H.Guber, R.R.Spencer, P.E.Koehler, R.R.Winters

**Title:** New  $^{142}, ^{144}\text{Nd}(n,\gamma)$  Cross Sections and the s-Process Origin of the Nd Anomalies in Presolar Meteoric Silicon Carbide Grains

**Keyword abstract:** NUCLEAR REACTIONS  $^{142}, ^{144}\text{Nd}(n,\gamma), E=5-50 \text{ keV}$ ; measured Maxwellian averaged  $\sigma$ ; deduced s-process nucleosynthesis related features in the Ce-Nd-Sm region.

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**Keynumber:** 1988ZA05

**Reference:** Izv.Akad.Nauk SSSR, Ser.Fiz. 52, 984 (1988); Bull.Acad.Sci.USSR, Phys.Ser. 52, No.5, 146 (1988)

**Authors:** D.F.Zaretsky, V.K.Sirotkin

**Title:** The Roles of Various Radiative Neutron-Capture Mechanisms

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}\text{Nd}(n,\gamma), E$  not given; calculated radiative strength function vs  $E(\gamma)$ ; deduced capture mechanisms role.

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**Keynumber:** 1988BO44

**Reference:** Izv.Akad.Nauk SSSR, Ser.Fiz. 52, 2082 (1988); Bull.Acad.Sci.USSR, Phys.Ser. 52, No.11, 1 (1988)

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

**Title:** Method of Summing the Amplitudes of Coinciding Pulses in Radiative Neutron Capture

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}\text{Nd}, ^{163}, ^{165}\text{Dy}, ^{168}\text{Er}, ^{175}\text{Yb}, ^{178}, ^{179}\text{Hf}, ^{183}\text{W}(n,\gamma), E$  not given; analyzed capture- $\gamma$  data. Coincident pulse amplitude summing technique.

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**Keynumber:** 1984MA66

**Reference:** Astrophys.J. 286, 810 (1984)

**Authors:** G.J.Mathews, F.Kappeler

**Title:** Neutron-Capture Nucleosynthesis of Neodymium Isotopes and the s-Process from  $A = 130$  to  $150$

**Keyword abstract:** NUCLEAR REACTIONS  $^{142}, ^{143}, ^{144}\text{Nd}(n,\gamma), E=6-200 \text{ keV}$ ; measured capture  $\sigma$  (E); deduced thermonuclear reaction rates, Maxwellian  $\langle \sigma \rangle$  recommended values for s-, r-processes.

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**Keynumber:** 1983MAZB

**Reference:** Bull.Am.Phys.Soc. 28, No.7, 997, ED3 (1983)

**Authors:** G.J.Mathews, R.A.Ward, F.Kaeppler

**Title:** Neutron Capture Cross Sections and the Stellar Nucleosynthesis of Neodymium Isotopes

**Keyword abstract:** NUCLEAR REACTIONS  $^{142}, ^{143}, ^{144}\text{Nd}(n,\gamma), E=5-200 \text{ keV}$ ; measured  $\sigma$ (capture); deduced 30 keV Maxwellian  $\langle \sigma \rangle$  implications to s-process.

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**Keynumber:** 1983MAYY

**Reference:** NEANDC(E)-242U, Vol.V, p.7 (1983)

**Authors:** G.J.Mathews, F.Kappeler

**Title:** Neutron Capture Cross Section of  $^{142}, ^{143}, ^{144}\text{Nd}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{142}, ^{143}, ^{144}\text{Nd}(n,\gamma), E=6-250 \text{ keV}$ ; measured capture  $\sigma$  (E); deduced Maxwellian averaged  $\sigma$  at 30 keV.

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

**Keynumber:** 1977MC09

**Reference:** Phys.Rev. C16, 1278 (1977)

**Authors:** D.A.McClure, S.Raman, G.G.Slaughter

**Title:** Resonance Neutron Capture Gamma-Ray Studies of Levels in  $^{145}\text{Nd}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}\text{Nd}(n,\gamma)$ ,  $E=0.04\text{-}11$  keV; measured  $E\gamma, I\gamma$ ; deduced Q.  $^{145}\text{Nd}$  deduced levels. Enriched target, Ge(Li) detectors.

**Keynumber:** 1977II01

**Reference:** J.Nucl.Sci.Technol. 14, 161 (1977)

**Authors:** S.Iijima, T.Nakagawa, Y.Kikuchi, M.Kawai, H.Matsunobu, K.Maki, S.Igarasi

**Title:** Evaluation of Neutron Cross Section of 27 Fission Product Nuclides Important for Fast Reactor

**Keyword abstract:** NUCLEAR REACTIONS  $^{93}\text{Zr}$ ,  $^{95, 97}\text{Mo}$ ,  $^{99}\text{Tc}$ ,  $^{101, 102, 104, 106}\text{Ru}$ ,  $^{103}\text{Rh}$ ,  $^{105, 107}\text{Pd}$ ,  $^{109}\text{Ag}$ ,  $^{129}\text{I}$ ,  $^{131}\text{Xe}$ ,  $^{133, 135, 137}\text{Cs}$ ,  $^{143, 144, 145}\text{Nd}$ ,  $^{144}\text{Ce}$ ,  $^{147}\text{Pm}$ ,  $^{147, 149, 151}\text{Sm}$ ,  $^{153, 155}\text{Eu}$  (n,n), (n, $\gamma$ ), (n,n'), (n,X),  $E=\text{th-}15$  MeV; calculated  $\sigma$ .

**Keynumber:** 1975NAZE

**Reference:** Proc.Int.Symp.Neutron Capture Gamma-Ray Spectroscopy and Related Topics, 2nd, Petten, p.566 (1975)

**Authors:** M.R.Najam, A.F.M.Ishaq, M.Anwar-ul-Islam, A.M.Khan, J.A.Mirza

**Title:** The  $^{144}\text{Nd}(n,\gamma)^{145}\text{Nd}$  Reactions

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}\text{Nd}(n,\gamma)$ ,  $E=\text{thermal}$ ; measured  $E\gamma, I\gamma$ ; deduced Q.  $^{145}\text{Nd}$  deduced levels,  $J, \pi$ .

**Keynumber:** 1975HI03

**Reference:** Phys.Rev. C12, 260 (1975)

**Authors:** D.L.Hillis, C.R.Bingham, D.A.McClure, N.S.Kendrick, Jr., J.C.Hill, S.Raman, J.B.Ball, J.A.Harvey

**Title:** Nuclear Spectroscopy of  $^{145}\text{Nd}$

**Keyword abstract:** RADIOACTIVITY  $^{145}\text{Pr}$ ; measured  $E\gamma, I\gamma, \gamma\gamma\text{-coin}$ ; deduced log ft.  $^{145}\text{Nd}$  deduced levels,  $J, \pi$ .

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}\text{Nd}(n,\gamma)$ ,  $E=\text{thermal}$ ; measured  $E\gamma, I\gamma, \gamma\gamma\text{-coin}$ .  $^{144}\text{Nd}$  (d,p),  $E=33.3$  MeV; measured  $\sigma(Ep, \theta)$ .  $^{144}\text{Nd}(\alpha, ^3\text{He})$ ,  $E=66.2$  MeV; measured  $\sigma(E(^3\text{He}))$ .  $^{146}\text{Nd}$  (p,d),  $E=31$  MeV; measured  $\sigma(Ed, \theta)$ .  $^{145}\text{Nd}$  deduced levels,  $J, \pi, L, S$ , neutron separation,  $\gamma$ -branching.

**Keynumber:** 1974NAZJ

**Coden:** CONF Petten(Neutron Capture Gamma Ray Spectroscopy), P365

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}\text{Nd}(n,\gamma)$ ,  $E=\text{thermal}$ ; measured  $E\gamma, I\gamma$ ; deduced Q.  $^{145}\text{Nd}$  deduced levels,  $J, \pi$ .

**Keynumber:** 1973MCZT

**Coden:** REPT ORNL-4844,P84

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}\text{Nd}(n,\gamma)^{145}\text{Nd}$ , En=thermal; measured  $E\gamma, I\gamma$ .  $^{145}\text{Nd}$  deduced levels. Enriched target.

**Keynumber:** 1973MCZR

**Coden:** REPT ORNL-4844,P82

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}\text{Nd}(n,\gamma)$ , E=thermal; measured  $E\gamma, I\gamma$ .  $^{145}\text{Nd}$  deduced levels. Enriched targets.

**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  $\sigma(E)$ .

**Keynumber:** 1972MCZI

**Coden:** CONF Budapest,Contributions,P128,D McClure,10/12/72

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}\text{Nd}(n,\gamma)$ , E=thermal; measured  $E\gamma, I\gamma, \gamma\gamma$ -coin.  $^{145}\text{Nd}$  deduced levels, J,  $\pi$ ,  $\gamma$ -branching.

**Keynumber:** 1972MCYX

**Reference:** Contrib.Conf.Nuclear Structure Study with Neutrons, Budapest, p.128 (1972)

**Authors:** D.A.McClure, S.Raman, J.A.Harvey

**Title:** The Low-Lying Excited States of  $^{145}\text{Nd}$  Populated by the Capture of Thermal Neutrons

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}\text{Nd}(n,\gamma)$ , E=thermal; measured  $E\gamma, I\gamma, \gamma\gamma$ -coin.  $^{145}\text{Nd}$  deduced levels,  $\gamma$ -branching. Ge(Li) detectors.

**Keynumber:** 1971MCZD

**Coden:** JOUR BAPSA 16 1161,D A McClure,10/29/71

**Keyword abstract:** NUCLEAR REACTIONS  $^{144}\text{Nd}(n,\gamma)$ , E=thermal; measured  $E\gamma, I\gamma, \gamma\gamma$ -coin.  $^{145}\text{Nd}$  deduced levels, transitions.

**Keynumber:** 1968KA28

**Reference:** Yadern.Fiz. 8, 639 (1968); Soviet J.Nucl.Phys. 8, 371 (1969)

**Authors:** E.N.Karzhavina, N.N.Fong, A.B.Popov, A.I.Taskaev

**Title:** Neutron Resonances of Nd Isotopes

**Keyword abstract:** NUCLEAR REACTIONS  $^{142}$ ,  $^{143}$ ,  $^{144}$ ,  $^{145}$ ,  $^{146}$ ,  $^{148}$ ,  $^{150}\text{Nd}(n,X)$ ,  $(n,\gamma)$ ,  $E < 10$  keV; measured  $\sigma(E;E\gamma)$ , transmission.  $^{143}$ ,  $^{144}$ ,  $^{145}$ ,  $^{146}$ ,  $^{147}$ ,  $^{149}$ ,  $^{151}\text{Nd}$  deduced resonances, level-width, strength functions, average level spacings.

**Keynumber:** 1968GR29

**Reference:** Yadern.Fiz. 8, 619 (1969)

**Authors:** L.V.Groshev, V.N.Dvoretiskii, A.M.Demidov, A.S.Rakhimov

**Title:** Spectra of  $\gamma$  Rays Produced Upon Capture of Thermal Neutrons

**Keyword abstract:** NUCLEAR REACTIONS  $^{142}, ^{143}, ^{144}, ^{145}, ^{146}\text{Nd}(n,\gamma)$ , E = thermal; measured  $E\gamma, I\gamma$ .  $^{143}, ^{144}, ^{145}, ^{146}, ^{147}\text{Nd}$  deduced levels, L(n), J,  $\pi$ .  $^{144}\text{Nd}$  transitions deduced  $\gamma$ -multipolarity.

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**Keynumber:** 1968CA28

**Reference:** J.Inorg.Nucl.Chem. 30, 897 (1968)

**Authors:** M.J.Cabell, M.Wilkins

**Title:** Mass Spectrometric Measurements of the Neutron Capture Cross Sections of  $^{142}\text{Nd}$ ,  $^{143}\text{Nd}$ ,  $^{144}\text{Nd}$  and  $^{145}\text{Nd}$  for Reactor and Maxwellian Neutrons

**Keyword abstract:** NUCLEAR REACTIONS  $^{142}, ^{143}, ^{144}, ^{145}\text{Nd}(n,\gamma)$ , E=reactor spectrum; measured  $\sigma$ .

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**Keynumber:** 1967GR27

**Reference:** IAE-1489 (1967); LA-4063-tr (1970)

**Authors:** L.V.Groshev, V.N.Dvoretiskii, A.M.Demidov, A.S.Rakhimov

**Title:** Spectra of  $\gamma$ -Rays Excited in Capture of Slow Neutrons by Neodymium Isotopes

**Keyword abstract:** NUCLEAR REACTIONS  $^{142}, ^{143}, ^{144}, ^{145}, ^{146}\text{Nd}(n,\gamma)$ , E= slow; measured  $E\gamma, I\gamma$ .  $^{143}, ^{144}, ^{145}, ^{146}, ^{147}\text{Nd}$  deduced levels. Ge(Li) detector.