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## Visit the **Isotope Explorer** home page!

## 91 reference(s) found:

Keynumber: 2001KO35

**Reference:** Nucl.Instrum.Methods Phys.Res. A463, 544 (2001)

Authors: Yu.A.Korovin, A.Yu.Konobeyev, P.E.Pereslavtsev, A.Yu.Stankovsky, C.Broeders,

I.Broeders, U.Fischer, U.von Mollendorff

Title: Evaluated Nuclear Data Files for Accelerator Driven Systems and Other Intermediate and High-

**Energy Applications** 

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n,X), (n,n'X), (n,pX), (n,αX), (n,γ), (n,  $^{3}$ HeX),  $^{51}$ V,  $^{52}$ Cr,  $^{56}$ Fe,  $^{208}$ Pb(n,2n),  $^{232}$ Th,  $^{239}$ Pu(n,F),  $^{27}$ Al,  $^{197}$ Au(n,pX), (n,nX), (n,  $^{3}$ HeX),  $^{50}$ Cr(n,t),  $^{65}$ Cu (n,pX),  $^{181}$ Ta,  $^{197}$ Au(n,p),E <50 MeV;  $^{238}$ U(n,xn), (n,xnp), (n,xnα),E <100 MeV; compiled,analyzed σ.

Keynumber: 2001BOZU

**Reference:** JINR-E3-2001-55 (2001)

Authors: S.B.Borzakov, R.E.Chrien, H.Faikow-Stanczyk, Yu.V.Grigoriev, Ts.Ts.Panteleev, S.Pospisil,

L.M.Smotritsky, S.A.Telezhnikov

**Title:** An Accurate Redetermination of the <sup>118</sup>Sn Binding Energy

**Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>Fe, <sup>63</sup>Cu, <sup>117</sup>Sn(n,γ),E=thermal; measured Eγ,Iγ. <sup>57</sup>Fe,

<sup>64</sup>Cu, <sup>118</sup>Sn deduced binding energies.

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Keynumber: 1999PO06

**Reference:** Yad.Fiz. 62, No 5, 886 (1999); Phys.Atomic Nuclei 62, 827 (1999)

Authors: Yu.S.Popov, P.V.Sedyshev, A.P.Kobzev, S.S.Parzhitsky, N.A.Gundorin, D.G.Serov,

M.V.Sedysheva

Title: Measurement of the M1 Radiative Strength Function in Fe Resonances by using the Shift of the

Primary Gamma Line Emitted Upon the Capture of Intermediate-Energy Neutrons

**Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>Fe(n,γ),E=10-80 keV; measured Eγ,Iγ; deduced

resonances partial widths.

\_\_\_\_\_

Kevnumber: 1998PO22

Reference: Bull.Rus.Acad.Sci.Phys. 62, 709 (1998)

Authors: Yu.P.Popov, P.V.Sedyshev, N.A.Gundorin, M.V.Sedysheva, A.P.Kobzev, S.S.Parzhitsky

Title: Analysis of Neutron Spectra in the Energy Range of 2-100 keV using High-Resolution γ

Spectrometry

**Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>Fe, <sup>70</sup>Ge, <sup>58</sup>Ni(n,γ),E=spectrum; measured Eγ.Iγ.

Method proposed for neutron spectrometry.

\_\_\_\_\_

Keynumber: 1997RO26

**Reference:** IEEE Trans.Instrum.Meas. 46, 560 (1997)

Authors: S.Rottger, A.Paul, U.Keyser

**Title:** Prompt  $(n, \gamma)$ -Spectrometry for the Isotopic Analysis of Silicon Crystals for the Avogadro Project

**Keyword abstract:** NUCLEAR REACTIONS <sup>1</sup>H, <sup>14</sup>N, <sup>28</sup>, <sup>29</sup>Si, <sup>56</sup>Fe, <sup>27</sup>Al, <sup>63</sup>Cu(n,γ),E=thermal;

measured Eγ,Iγ.

**Keyword abstract:** ATOMIC MASSES <sup>1</sup>, <sup>2</sup>H, <sup>14</sup>, <sup>15</sup>N, <sup>28</sup>, <sup>29</sup>, <sup>30</sup>, <sup>31</sup>, <sup>32</sup>Si, <sup>56</sup>, <sup>57</sup>Fe; measured neutron-

induced γ spectra; deduced mass differences.

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Keynumber: 1994HO37

**Reference:** Chin.J.Nucl.Phys. 16, No 4, 344 (1994) **Authors:** L.Hou, Z.-D.Huang, L.-H.Zhu, D.-Z.Ding

**Title:** Measurement of Neutron Radiative Capture Cross Section for  $^{56}$ Fe(n, $\gamma$ ) $^{57}$ Fe Reaction from 9.0 to

20.0 MeV

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n, $\gamma$ ),E=9-20 MeV; measured radiative capture  $\sigma(\theta)$ 

vs E; deduced fore, aft  $\gamma$  asymmetry. To f technique for  $\gamma$ , n discrimination.

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Keynumber: 1992KU17

**Reference:** Nucl. Phys. A549, 59 (1992)

Authors: A.Kuronen, J.Keinonen, H.G.Borner, J.Jolie, S.Ulbig

Title: Molecular Dynamics Simulations Applied to the Determination of Nuclear Lifetimes from

Dopler-Broadened γ-Ray Line Shapes Produced in Thermal Neutron Capture Reactions

**Keyword abstract:** NUCLEAR REACTIONS  $^{35}$ Cl,  $^{48}$ Ti,  $^{53}$ Cr,  $^{56}$ Fe,  $^{60}$ ,  $^{58}$ Ni(n, $\gamma$ ),E=thermal; analyzed

Doppler broadened  $\gamma$ -ray line shapes. <sup>36</sup>Cl levels deduced  $T_{1/2}$ ,M1,E2 transition matrix

elements, branching ratio.  $^{49}$ Ti,  $^{54}$ Cr,  $^{57}$ Fe,  $^{61}$ ,  $^{59}$ Ni levels deduced  $T_{1/2}$ . Molecular dynamics

simulations.

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Keynumber: 1991WE13

**Reference:** Chin.J.Nucl.Phys. 13, No 2, 111 (1991)

Authors: Y.Wen, J.Zhang, X.Jin

**Title:** Master Equations in Exciton-Phonon Coupling System and Pre-Equilibrium γ Emission

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n, $\gamma$ ),E=14.1 MeV; calculated angle integrated  $\sigma$ 

(Εγ). Exciton model, preequilibrium emission.

\_\_\_\_\_

Keynumber: 1990WE11

**Reference:** Chin.J.Nucl.Phys. 12, No 4, 317 (1990)

Authors: Y.Wen, J.Zhang, X.Jin

**Title:** A Further Investigation on Pre-Equilibrium γ Emission with Exciton Model

**Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>Fe(n, $\gamma$ ),E=14.6 MeV; calculated  $\sigma(\theta)$  vs E $\gamma$ ; deduced

collective, single particle states coupling role. Exciton model.

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Keynumber: 1990VE17

**Reference:** Yad.Fiz. 52, 620 (1990); Sov.J.Nucl.Phys. 52, 398 (1990)

Authors: V.A. Vesna, I.A. Lomachenkov, I.S. Okunev, E.V. Shulgina, V.I. Furman

Title: Measurements and Analysis of Parity Nonconservation Effects in the Integrated γ Spectra in the

Reactions  $^{113}$ Cd(n, $\gamma$ ) $^{114}$ Cd and  $^{56}$ Fe(n, $\gamma$ ) $^{57}$ Fe

**Keyword abstract:** NUCLEAR REACTIONS <sup>113</sup>Cd, <sup>56</sup>Fe(polarized n,γ),E=thermal; measured P-odd

γ-asymmetry. <sup>114</sup>Cd, <sup>57</sup>Fe deduced weak interaction matrix elements.

\*\* 1 1000III

Keynumber: 1989UL01

**Reference:** Nucl.Phys. A505, 193 (1989)

Authors: S.Ulbig, K.P.Lieb, Ch.Winter, H.G.Borner, J.Jolie, S.Robinson, P.A.Mando, P.Sona,

N.Taccetti, M.S.Dewey, J.G.L.Booten, F.Brandolini

**Title:** Lifetime Measurements in  $^{57}$ Fe following the  $^{56}$ Fe(n, $\gamma$ ) and  $^{56}$ Fe(d,p) Reactions

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n, $\gamma$ ),E=thernal; measured  $\gamma$ -line shapes.  $^{56}$ Fe (d,p),E=6 MeV; measured  $\sigma$ (Ep),p $\gamma$ -coin,DSA centroid shifts; deduced  $^{57}$ Fe atom slowing in Fe target.

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 $^{57}$ Fe deduced levels, J,  $\pi$ , T<sub>1/2</sub>, γ-branching ratios, B( $\lambda$ ), δ. Shell model calculations.

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**Keynumber:** <u>1987OB01</u>

**Reference:** Phys.Rev. C35, 407 (1987)

**Authors:** P.Oblozinsky

**Title:** Preequilibrium γ Rays with Angular Momentum Coupling

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n, $\gamma$ ),E=14.6 MeV; analyzed  $\sigma$ (E $\gamma$ ). Exciton model.

-----

Keynumber: 1987LI05

Reference: Chin.J.Nucl.Phys. 9, 21 (1987)

Authors: Liu Zianfeng, Ho Yukun

**Title:** Non-Statistical Effects in the Radiative Neutron Capture at the 3s Giant Resonance Region **Keyword abstract:** NUCLEAR REACTIONS  $^{40}$ Ca,  $^{48}$ Ti,  $^{52}$ Cr,  $^{56}$ Fe,  $^{64}$ Ni,  $^{74}$ Ge(n, $\gamma$ ),E=0.1-3 MeV;

calculated σ(E). <sup>41</sup>Ca, <sup>49</sup>Ti, <sup>53</sup>Cr, <sup>57</sup>Fe, <sup>65</sup>Ni, <sup>75</sup>Ge deduced neutron giant resonance strength.

Statistical.nonstatistical effects.

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**Keynumber:** 1986PE18

**Reference:** Radiat.Eff. 96, 181 (1986)

**Authors:** F.G.Perey

**Title:** Status of the Parameters of the 1.15-keV Resonance of <sup>56</sup>Fe

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n,n), (n, $\gamma$ ),E  $\approx$  1.15 keV; analyzed 1.15 keV

resonance parameter status.

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**Keynumber:** 1986OBZY

Reference: Proc.Inter.Conf.on Fast Neutron Physics, Dubrovnik, Yugoslavia, May 26-31, 1986,

D.Miljanic, B.Antolkovic, G.Paic, Eds., Ruder Boskovic Institute, Zagreb, p.74 (1986)

**Authors:** P.Oblozinsky

**Title:** Preequilibrium γ Rays with Angular-Momentum Coupling

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n, $\gamma$ ),E=14.6 MeV; calculated  $\gamma$  spectrum. Exciton

model.

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Keynumber: 1986HO29

**Reference:** Radiat.Eff. 95, 47 (1986)

**Authors:** Y.Ho, J.Liu

Title: GRS: A Statistical and Non-Statistical Model Code for Calculations of Cross Sections and

Gamma-Ray Spectra

**Keyword abstract:** NUCLEAR REACTIONS <sup>52</sup>Cr, <sup>56</sup>Fe(n,γ),E=0.1 MeV; calculated Eγ,Iγ.

Statistical, non-statistical models.

Keynumber: 1986HI05

\_\_\_\_\_

**Reference:** J.Radioanal.Nucl.Chem. 105, 351 (1986) **Authors:** P.Z.Hien, T.K.Mai, T.X.Quang, T.N.Thuy

**Title:** Determination of k<sub>0</sub>-Factors by Thermal Neutron Activation Technique

**Keyword abstract:** NUCLEAR REACTIONS <sup>27</sup>Al, <sup>26</sup>Mg, <sup>51</sup>V, <sup>55</sup>Mn, <sup>56</sup>Fe, <sup>64</sup>Ni, <sup>59</sup>Co, <sup>63</sup>Cu, <sup>109</sup>Ag.

<sup>196</sup>, <sup>202</sup>Hg(n,γ),E=thermal; measured composite nuclear constant. Activation technique.

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Keynumber: 1986CO08

**Reference:** Nucl.Sci.Eng. 93, 348 (1986)

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Authors: F.Corvi, C.Bastian, K.Wisshak

**Title:** Neutron Capture in the 1.15-keV Resonance of <sup>56</sup>Fe using Moxon-Rae Detectors

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n, $\gamma$ ),E=1.152 keV; measured capture E $\gamma$ ,I $\gamma$ .  $^{57}$ Fe

deduced resonance,  $\Gamma$ ,  $(g\Gamma n\Gamma \gamma/\Gamma)$ .

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**Keynumber:** 1984REZT

**Reference:** Proc.Conf.Neutron Physics, Kiev, Vol.1, p.157 (1984)

**Authors:** G.Reffo, F.Fabbri

Title: Role of E1 and M1 Transitions in the γ-Decay following the Neutron Capture in  $^{58,60}$ Ni and  $^{56}$ Fe **Keyword abstract:** NUCLEAR STRUCTURE  $^{57}$ Fe,  $^{59}$ ,  $^{61}$ Ni; calculated resonances,  $\Gamma$ γ,  $\Gamma$ n, average

E1,M1 Γγ. Axel-Brink model.

**Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>Fe, <sup>58</sup>, <sup>60</sup>Ni(n,γ),  $E \approx 15$  keV; calculated total γ-spectra;

deduced E1,M1 transitions contributions.

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Keynumber: 1984KO02

**Reference:** Phys.Rev. C29, 345 (1984)

Authors: H.Komano, M.Igashira, M.Shimizu, H.Kitazawa

**Title:** Gamma Rays from 27.7-keV s-Wave Neutron Resonance Capture by <sup>56</sup>Fe

**Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>Fe(n,γ),E=27.7 keV; measured Eγ,Iγ following s-wave

resonance capture. <sup>57</sup>Fe deduced transition partial  $\Gamma \gamma$ . Valence capture model. Pure Ge detectors.

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**Keynumber:** 1983WIZR **Reference:** KfK-3516 (1983)

Authors: K.Wisshak, F.Kappeler, G.Reffo, F.Fabbri

**Title:** Neutron Capture in s-Wave Resonances of <sup>56</sup>Fe, <sup>58</sup>Ni, and <sup>60</sup>Ni

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n,γ),E=27.7 keV;  $^{58}$ Ni(n,γ),E=15.4 keV;  $^{60}$ Ni (n,γ),E=12.5 keV; measured capture γ-yield.  $^{57}$ Fe,  $^{59}$ ,  $^{61}$ Ni deduced s-wave resonance  $\Gamma$ γ,E1,M1

contributions to s-,p-,d-wave  $<\!\Gamma\gamma\!>$  strength functions.

**Keynumber:** 1983WIZL

**Reference:** NEANDC(E)-242U, Vol.V, p.3 (1983) **Authors:** K.Wisshak, F.Kappeler, G.Reffo, F.Fabbri

**Title:** Neutron Capture in s-Wave Resonances of <sup>56</sup>Fe, <sup>58</sup>Ni, <sup>60</sup>Ni

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe,  $^{58}$ ,  $^{60}$ Ni(n, $\gamma$ ),E=resonance; measured capture  $\gamma$ -

spectra.  $^{57}$ Fe,  $^{59}$ ,  $^{61}$ Ni deduced s-wave resonance capture  $\Gamma\gamma$ .

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Keynumber: 1983SA30

**Reference:** Aust.J.Phys. 36, 583 (1983)

Authors: D.G.Sargood

Title: Effect of Excited States on Thermonuclear Reaction Rates

**Keyword abstract:** NUCLEAR REACTIONS,ICPND  $^{20}$ ,  $^{21}$ ,  $^{22}$ Ne,  $^{23}$ Na,  $^{24}$ ,  $^{25}$ ,  $^{26}$ Mg,  $^{27}$ Al,  $^{28}$ ,  $^{29}$ ,  $^{30}$ Si,  $^{31}$ P,  $^{32}$ ,  $^{33}$ ,  $^{34}$ ,  $^{36}$ S,  $^{35}$ ,  $^{37}$ Cl,  $^{36}$ ,  $^{38}$ ,  $^{40}$ Ar,  $^{39}$ ,  $^{40}$ ,  $^{41}$ K,  $^{40}$ ,  $^{42}$ ,  $^{43}$ ,  $^{44}$ ,  $^{46}$ ,  $^{48}$ Ca,  $^{45}$ Sc,  $^{46}$ ,  $^{47}$ ,  $^{48}$ ,  $^{49}$ ,  $^{50}$ Ti,  $^{50}$ ,  $^{51}$ V,  $^{50}$ ,  $^{52}$ ,  $^{53}$ ,  $^{54}$ Cr,  $^{55}$ Mn,  $^{54}$ ,  $^{56}$ ,  $^{57}$ ,  $^{58}$ Fe,  $^{59}$ Co,  $^{58}$ ,  $^{60}$ ,  $^{61}$ ,  $^{62}$ ,  $^{64}$ Ni,  $^{63}$ ,  $^{65}$ Cu,  $^{64}$ ,  $^{66}$ ,  $^{67}$ Zn(n,γ), (n,p), (n,α), (p,γ), (p,n), (p,α), (α,γ), (α,n), (α,p),  $^{70}$ Zn(p,γ), (p,n), (p,α), (α,γ), (α,n), (α,p), E=low; compiled target thermal distribution energy state to ground state thermonuclear reaction rate of reaction

 $\sigma$  vs temperature. Statistical model.

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**Kevnumber:** 1983MA13

**Reference:** Nucl.Sci.Eng. 83, 309 (1983)

Authors: R.L.Macklin

Title: Neutron Capture in the 1.15-keV Resonance of Iron

**Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>Fe(n, $\gamma$ ),E  $\approx$  1.12-1.24 keV; measured  $\sigma$ (capture) vs E.

<sup>57</sup>Fe resonance deduced parameters, (gΓnΓ $\gamma$ /Γ).

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**Keynumber:** 1983KAZL

**Reference:** NEANDC(E)-242U, Vol.V, p.2 (1983) **Authors:** F.Kappeler, K.Wisshak, L.D.Hong

**Title:** Neutron Capture Resonances in <sup>56</sup>Fe and <sup>58</sup>Fe in the Energy Range from 10 to 100 keV

**Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>, <sup>58</sup>Fe(n, $\gamma$ ),E=10-250 keV; measured capture  $\sigma$ . Gold

standard.

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Keynumber: 1983KA09

**Reference:** Nucl.Sci.Eng. 84, 234 (1983) **Authors:** F.Kappeler, K.Wisshak, L.D.Hong

**Title:** Neutron Capture Resonances in  $^{56}$ Fe and  $^{58}$ Fe in the Energy Range from 10 to 100 keV **Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ ,  $^{58}$ Fe(n, $\gamma$ ),E=10-100 keV; calculated capture  $\gamma$ -

spectra; deduced capture yield,  $\sigma$  (capture) vs E.  $^{57}$ ,  $^{59}$ Fe deduced resonances, (g $\Gamma\gamma\Gamma$ n/ $\Gamma$ ), Maxwellian  $<\sigma$ 

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**Keynumber:** 1983COZZ

**Reference:** NEANDC(E)-242/U, Vol.III, p.18 (1983)

Authors: F.Corvi, A.Brusegan, R.Buyl, G.Rohr, R.Shelley, T. van der Veen

**Title:** High Resolution Neutron Capture Measurements of <sup>56</sup>Fe

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe,Fe(n, $\gamma$ ),E=thermal,resonance; measured  $\sigma$ (capture).

<sup>57</sup>Fe deduced <Γ $\gamma$ >for s-,p-,d-waves,absolute  $\gamma$ -transition strength.

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**Keynumber:** 1982RA32

**Reference:** Indian J.Pure Appl.Phys. 20, 627 (1982) **Authors:** S.K.Rathi, V.P.Varshney, H.M.Agrawal

Title: Calculations of Neutron Capture Cross-Sections for some Nuclei using Bilpuch Formula

**Keyword abstract:** NUCLEAR REACTIONS <sup>40</sup>, <sup>43</sup>Ca, <sup>52</sup>, <sup>53</sup>Cr, <sup>54</sup>, <sup>56</sup>Fe, <sup>88</sup>Sr, <sup>90</sup>, <sup>91</sup>, <sup>92</sup>, <sup>94</sup>Zr, <sup>93</sup>Nb,

92, 94, 95, 96, 97, 98,  $^{100}$ Mo,  $^{138}$ Ba,  $^{139}$ La,  $^{140}$ Ce,  $^{203}$ Tl(n, $\gamma$ ),E=24 keV; calculated  $\sigma$ (capture).

Experimental parameters, Bilpuch formula.

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Keynumber: 1982BA02

**Reference:** J.Phys.(London) G8, 275 (1982)

Authors: B.Basarragtscha, D.Hermsdorf, E.Paffrath

Title: An Approach for a Consistent Description of Gamma-Ray Spectra from (n,xγ) Reactions Induced

by Fast Neutrons

**Keyword abstract:** NUCLEAR REACTIONS <sup>28</sup>Si, <sup>56</sup>Fe(n, $\gamma$ ), (n,X),E=14 MeV; calculated  $\sigma$ (E $\gamma$ ).

Statistical model, equilibrium, preequilibrium superposition.

-- 10017

Keynumber: 1981WIZN

**Reference:** NEANDC(E)-222U, Vol.V, p.2 (1981) **Authors:** K.Wisshak, F.Kappeler, G.Reffo, F.Fabbri

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**Title:** Determination of the Capture Width of s-Wave Resonances in  $^{56}$ Fe,  $^{58,60}$ Ni and  $^{27}$ Al **Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n,γ),E=27.7 keV;  $^{58}$ Ni(n,γ),E=15.5 keV;  $^{60}$ Ni (n,γ),E=12.5 keV;  $^{27}$ Al(n,γ),E=34.7 keV; measured Eγ,Iγ.  $^{57}$ Fe,  $^{59}$ ,  $^{61}$ Ni,  $^{28}$ Al deduced s-wave resonance Γγ.

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Keynumber: 1981WI15

**Reference:** Nucl.Sci.Eng. 77, 58 (1981) **Authors:** K.Wisshak, F.Kappeler

**Title:** Determination of the Capture Width of the 27.7 keV s-Wave Neutron Resonance in Iron-56 **Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n, $\gamma$ ),E=21-42 keV; measured capture yield vs E.

<sup>57</sup>Fe resonances deduced Γγ, absolute γ-transition strength.

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Keynumber: 1981RA01

Reference: J.Phys.(London) G7, 53 (1981)

Authors: S.K.Rathi, H.M.Agarwal

**Title:** P-Wave Neutron Strength Functions

**Keyword abstract:** NUCLEAR REACTIONS <sup>43</sup>Ca, <sup>52</sup>Cr, <sup>56</sup>Fe, <sup>88</sup>Sr, <sup>89</sup>Y, <sup>90</sup>, <sup>92</sup>, <sup>94</sup>Zr, <sup>93</sup>Nb, <sup>92</sup>, <sup>94</sup>, <sup>95</sup>, <sup>96</sup>, <sup>97</sup>, <sup>98</sup>, <sup>100</sup>Mo, <sup>138</sup>Ba, <sup>139</sup>La, <sup>140</sup>Ce, <sup>203</sup>Tl(n,γ),E=24 keV; analyzed σ. <sup>44</sup>Ca, <sup>53</sup>Cr, <sup>57</sup>Fe, <sup>89</sup>Sr, <sup>90</sup>Y, <sup>91</sup>, <sup>93</sup>, <sup>95</sup>Zr, <sup>94</sup>Nb, <sup>93</sup>, <sup>95</sup>, <sup>96</sup>, <sup>97</sup>, <sup>98</sup>, <sup>99</sup>, <sup>101</sup>Mo, <sup>139</sup>Ba, <sup>140</sup>La, <sup>141</sup>Ce, <sup>204</sup>Tl deduced p-wave strength function.

runction.

Keynumber: 1981MC05

**Reference:** Phys.Rev. C23, 1394 (1981)

Authors: C.M.McCullagh, M.L.Stelts, R.E.Chrien

Title: Dipole Radiative Strength Functions from Resonance Neutron Capture

**Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>Fe(n,γ),E=1167 eV; <sup>105</sup>Pd(n,γ),E=11.8 eV; <sup>127</sup>I (n,γ),E=20.5 eV; <sup>143</sup>Nd(n,γ),E=55 eV; <sup>175</sup>Lu(n,γ),E=thermal; <sup>27</sup>Al, <sup>35</sup>Cl, <sup>125</sup>Te, <sup>181</sup>Ta, <sup>182</sup>, <sup>183</sup>W, <sup>195</sup>Pt, <sup>236</sup>U(n,γ),E not given; measured  $\sigma$ ; deduced E1,M1 strength function vs mass. <sup>57</sup>Fe, <sup>106</sup>Pd, <sup>128</sup>I, <sup>144</sup>Nd, <sup>176</sup>Lu resonances deduced Γγ.J. $\pi$ .

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Keynumber: 1981MA36

**Reference:** Chin.J.Nucl.Phys. 3, 217 (1981)

Authors: Ma Zhongyu, Sun Ziyang, Zhang Jingshang, Zhuo Yizhong, Ding Dazhao

**Title:** Pre-Equilibrium Exciton-Phonon Coupling Model for  $(n,\gamma)$  Reaction

**Keyword abstract:** NUCLEAR REACTIONS <sup>238</sup>U, <sup>56</sup>Fe, <sup>208</sup>Pb(n, $\gamma$ ),E=5-19 MeV; calculated  $\sigma$ (E).

Preequilibrium exciton-phonon coupling model.

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**Keynumber:** 1981KOZP

**Reference:** NEANDC(J)-75/U, p.70 (1981)

**Authors:** H.Komano, M.Igashira, S.Katsuta, N.Yamamuro **Title:** Gamma-Rays from Resonance Neutron Capture in <sup>56</sup>Fe

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n, $\gamma$ ),E=5-80 keV; measured E $\gamma$ ,I $\gamma$ .  $^{57}$ Fe resonances

deduced s-wave  $\Gamma\gamma$ ,p-wave absolute  $\gamma$ -transition strength.

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**Keynumber:** 1981KAZM

**Reference:** NEANDC(E)-222U, Vol.V, p.3 (1981) **Authors:** F.Kappeler, L.D.Hong, K.Wisshak

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**Title:** Determination of the Capture Widths of Neutron Resonances in <sup>56,58</sup>Fe in the Energy Range from 10 to 100 keV

**Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>, <sup>58</sup>Fe(n, $\gamma$ ),E=10-100 keV; measured σ(E). <sup>57</sup>, <sup>59</sup>Fe resonances deduced Γ $\gamma$ . Activation technique.

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**Keynumber:** 1980VE05

**Reference:** Nucl.Phys. A344, 421 (1980)

**Authors:** R.Vennink, J.Kopecky, P.M.Endt, P.W.M.Glaudemans **Title:** Investigation of the  $^{56}$ Fe(n, $\gamma$ ) $^{57}$ Fe and  $^{58}$ Fe(n, $\gamma$ ) $^{59}$ Fe Reactions

**Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>, <sup>58</sup>Fe(n,γ),E=thermal; measured Eγ,Iγ; deduced Q. <sup>57</sup>, <sup>59</sup>Fe deduced levels,γ-branching,J, $\pi$ . Enriched,natural targets.

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Keynumber: 1980PIZN

Coden: CONF Kiev(Neutron Physics) Proc,Part3,P270,Pisanko

**Keyword abstract:** NUCLEAR REACTIONS <sup>22</sup>, <sup>23</sup>Na,Mg, <sup>24</sup>, <sup>25</sup>, <sup>26</sup>Mg, <sup>27</sup>Al,Si, <sup>28</sup>, <sup>29</sup>, <sup>30</sup>Si, <sup>31</sup>P,S, <sup>32</sup>, <sup>33</sup>, <sup>34</sup>S,Cl, <sup>35</sup>, <sup>36</sup>, <sup>37</sup>Cl,Ar, <sup>36</sup>, <sup>38</sup>, <sup>40</sup>Ar,K, <sup>39</sup>, <sup>40</sup>, <sup>41</sup>K,Ca, <sup>40</sup>, <sup>42</sup>, <sup>43</sup>, <sup>44</sup>, <sup>46</sup>, <sup>48</sup>Ca, <sup>45</sup>, <sup>46</sup>Sc,Ti, <sup>46</sup>, <sup>47</sup>, <sup>48</sup>, <sup>49</sup>, <sup>50</sup>Ti,V, <sup>50</sup>, <sup>51</sup>V,Cr, <sup>50</sup>, <sup>52</sup>, <sup>53</sup>, <sup>54</sup>Cr,Fe, <sup>54</sup>, <sup>56</sup>, <sup>57</sup>, <sup>58</sup>Fe, <sup>59</sup>Co,Ni, <sup>58</sup>, <sup>59</sup>, <sup>60</sup>, <sup>61</sup>, <sup>62</sup>, <sup>64</sup>Ni,Cu, <sup>63</sup>, <sup>65</sup>Cu,Zn, <sup>64</sup>, <sup>66</sup>, <sup>67</sup>, <sup>68</sup>, <sup>70</sup>Zn,Ga, <sup>69</sup>, <sup>71</sup>Ga(n,γ), (n,n), (n,α),E=thermal; evaluated σ,radiative capture resonance integrals.

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Keynumber: 1980IS02

**Reference:** Can.J.Phys. 58, 168 (1980)

**Authors:** M.A.Islam, T.J.Kennett, S.A.Kerr, W.V.Prestwich **Title:** A Self-Consistent Set of Neutron Separation Energies

**Keyword abstract:** NUCLEAR REACTIONS <sup>1</sup>H, <sup>9</sup>Be, <sup>14</sup>N, <sup>24</sup>, <sup>25</sup>Mg, <sup>27</sup>Al, <sup>28</sup>, <sup>29</sup>Si, <sup>32</sup>S, <sup>35</sup>Cl, <sup>40</sup>, <sup>44</sup>Ca, <sup>47</sup>, <sup>48</sup>, <sup>49</sup>Ti, <sup>50</sup>, <sup>52</sup>, <sup>53</sup>Cr, <sup>55</sup>Mn, <sup>54</sup>, <sup>56</sup>, <sup>57</sup>Fe(n,γ),E=thermal; measured Eγ,Iγ. <sup>2</sup>H, <sup>10</sup>Be, <sup>25</sup>, <sup>26</sup>Mg, <sup>28</sup>Al, <sup>29</sup>, <sup>30</sup>Si, <sup>33</sup>S, <sup>36</sup>Cl, <sup>41</sup>, <sup>45</sup>Ca, <sup>48</sup>, <sup>49</sup>, <sup>50</sup>Ti, <sup>51</sup>, <sup>53</sup>, <sup>54</sup>Cr, <sup>56</sup>Mn, <sup>55</sup>, <sup>57</sup>, <sup>58</sup>Fe deduced Q,neutron binding energy.

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Keynumber: 1980BAYL

Coden: REPT ZFK-408,P32,Basarragtscha

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n, $\gamma$ ),E=14 MeV; analyzed  $\sigma$ (E $\gamma$ ); deduced reaction

mechanism.

**Keynumber:** 1980ANYR

Coden: CONF Kiev(Neutron Physics) Proc, Part1, P210, Antalik

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n, $\gamma$ ), (n,n' $\gamma$ ), (n,2n $\gamma$ ),E=14.6 MeV; measured  $\gamma$ -ray

multiplicity vs En, $\sigma$ (E $\gamma$ ). Statistical theory. Enriched target.

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**Keynumber:** 1980AL19

**Reference:** J.Phys.(London) G6, 1173 (1980) **Authors:** B.J.Allen, D.D.Cohen, F.Z.Company

**Title:** Radiative Widths of Neutron Scattering Resonances

**Keyword abstract:** NUCLEAR REACTIONS <sup>19</sup>F, <sup>24</sup>Mg, <sup>27</sup>Al, <sup>28</sup>Si, <sup>56</sup>Fe, <sup>207</sup>Pb(n,γ),E=20-80 keV; measured  $\sigma$ (Εγ,Ε). <sup>20</sup>F, <sup>25</sup>Mg, <sup>28</sup>Al, <sup>29</sup>Si, <sup>57</sup>Fe, <sup>208</sup>Pb deduced resonances,Γn,L,J, $\pi$ ,Γγ. Moxon-Rae

detectors, Monte-Carlo analysis.

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**Keynumber:** 1979WIZK

Reference: Bull.Am.Phys.Soc. 24, No.7, 866, BB6 (1979)

Authors: K.Wisshak, F.Kappeler

**Title:** Determination of the Capture Width of the 27.7 keV s-Wave Resonance in <sup>56</sup>Fe

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n, $\gamma$ ),E=resonance; measured S-wave  $\Gamma\gamma$ .

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**Keynumber:** 1979HOZY

**Reference:** NEANDC(OR)152L, p.31 (1979)

Authors: B.Holmqvist, V.Corcalciuc, A.Marcinkowski, G.A.Prokopets

**Title:** A Study of the Neutron Induced Reactions for <sup>19</sup>F, <sup>56</sup>Fe and <sup>59</sup>Co in the Energy Interval 16 to 22

MeV

**Keyword abstract:** NUCLEAR REACTIONS <sup>19</sup>F, <sup>56</sup>Fe, <sup>59</sup>Co(n, $\gamma$ ),E=16.2-21.8 MeV; measurd production  $\sigma$  for prompt  $\gamma$ ; deduced possible (n,2n), (n,np), (n,d) reactions; discussed reaction

mechanism.

**Keynumber:** 1979BRZN

**Reference:** Bull.Am.Phys.Soc. 24, No.7, 867, BB8 (1979)

**Authors:** A.Brusegan, F.Corvi, G.Rohr, R.Shelley, T.Van der Veen **Title:** Neutron Capture Cross Section Measurements of Fe-54 and Fe-56

**Keyword abstract:** NUCLEAR REACTIONS <sup>54</sup>, <sup>56</sup>Fe(n, $\gamma$ ),E=0.5-600 keV; measured  $\sigma$ .

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**Keynumber:** 1978VE06

**Reference:** Nucl.Phys. A299, 429 (1978) **Authors:** R.Vennink, W.Ratynski, J.Kopecky

Title: Circular Polarization of Neutron Capture  $\gamma$ -Rays from Ca, Ti, Fe and Ni

**Keyword abstract:** NUCLEAR REACTIONS <sup>42</sup>Ca, <sup>44</sup>Ca, <sup>46</sup>Ti, <sup>56</sup>Fe, <sup>58</sup>Fe, <sup>64</sup>Ni(polarized n,γ),E=th;

measured γ-CP. <sup>43</sup>Ca, <sup>45</sup>Ca, <sup>47</sup>Ti, <sup>57</sup>Fe, <sup>59</sup>Fe, <sup>65</sup>Ni levels deduced J. Enriched targets.

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**Kevnumber:** 1978SAYY

Reference: Proc.Intern.Symp.Neutron Capture Gamma Ray Spectroscopy and Related Topics, 3rd,

BNL, Upton, (1978), R.E.Chrien, W.R.Kane, Eds., Plenum Press, New York, p.737 (1978)

**Authors:** S.Sakamoto

Title: Measurement of Thermal Neutron Capture Gamma Rays using a Neutron Guide Tube

**Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>Fe(n,γ),E=thermal; measured Eγ,Iγ. Curved neutron

guide tube.

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**Keynumber:** 1978PEZZ

**Coden:** CONF Brookhaven(Neutron Capt γ-Ray Spectr), Proc, P714, Peker

**Keyword abstract:** NUCLEAR REACTIONS <sup>35</sup>Cl, <sup>56</sup>Fe(n,γ),E=thermal,resonance; analyzed data.

<sup>36</sup>Cl, <sup>57</sup>Fe resonances deduced M1 strengths, doorway characteristics.

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Keynumber: 1978PEZI

Coden: CONF BNL(Neutron Capt γ-Ray Spectr), Contrib, No60, Peker

**Keyword abstract:** NUCLEAR REACTIONS <sup>35</sup>Cl, <sup>56</sup>Fe(n,γ); analyzed data on M1,E1 transitions.

 $^{36}$ Cl,  $^{57}$ Fe levels deduced L,J, $\pi$ . Evidence for doorway mechanism.

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Kevnumber: 1978BE04

**Reference:** Z.Phys. A284, 173 (1978)

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Authors: H.Beer, R.R.Spencer, F.Kappeler

Title: Measurement of Partial Radiation Widths of High Energy Transitions from keV Capture

Resonances in <sup>56</sup>Fe and <sup>58</sup>, <sup>60</sup>Ni

**Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>Fe, <sup>58</sup>, <sup>60</sup>Ni(n, $\gamma$ ),E=7-70 keV; measured σ(E $\gamma$ ). <sup>57</sup>Fe, <sup>59</sup>, <sup>61</sup>Ni deduced resonances, partial radiation Γ.M1 strength.

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**Keynumber:** 1978ALZK

**Coden:** CONF Brookhaven(Neutron Capt γ-Ray Spectr), Proc, P535, Allen

**Keyword abstract:** NUCLEAR REACTIONS <sup>40</sup>Ca, <sup>45</sup>Sc, <sup>54</sup>, <sup>56</sup>, <sup>57</sup>Fe(n,γ),E=thermal; calculated

radiative widths, variances. Statistical, valence, door-way models.

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**Keynumber:** 1978ALYZ

**Coden:** CONF BNL(Neutron Capt γ-Ray Spectr), Contrib, No5, Allen

**Keyword abstract:** NUCLEAR REACTIONS <sup>40</sup>Ca, <sup>45</sup>Sc, <sup>54</sup>, <sup>56</sup>, <sup>57</sup>Fe(n,γ); calculated L=0,1 radiative widths. <sup>55</sup>Fe deduced dominance of valence effects. <sup>41</sup>Ca, <sup>46</sup>Sc, <sup>57</sup>, <sup>58</sup>Fe deduced evidence for doorway

components.

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Keynumber: 1977RI14

**Reference:** Nucl.Instrum.Methods 144, 323 (1977)

Authors: M.Riihonen, J.Keinonen

**Title:** Measurements of Absolute Resonance Strengths in  $(p,\gamma)$  Reactions on Rare or Gaseous Nuclei **Keyword abstract:** NUCLEAR REACTIONS <sup>20</sup>, <sup>21</sup>, <sup>22</sup>Ne, <sup>54</sup>, <sup>56</sup>, <sup>57</sup>, <sup>58</sup>Fe $(n,\gamma)$ ; measured yields. <sup>55</sup>, <sup>57</sup>, <sup>58</sup>, <sup>59</sup>, <sup>59</sup>,

<sup>58</sup>, <sup>59</sup>Co deduced resonance strength.

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Keynumber: 1976RUZW

Coden: CONF Lowell(Interactions of Neutrons), CONF-760715-P2, Vol 2P1289

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n, $\gamma$ ); measured E $\gamma$ ,I $\gamma$ .  $^{57}$ Fe deduced transitions.

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**Keynumber:** 1976AL16

**Reference:** Nucl.Instrum.Methods 136, 323 (1976)

Authors: D.E.Alburger

Title: Precision Energy Measurement of γ Rays from <sup>15</sup>N, <sup>16</sup>O, and <sup>57</sup>Fe

**Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>Fe(n,γ); measured Eγ; deduced Q. <sup>57</sup>Fe deduced

transitions.

**Keyword abstract:** RADIOACTIVITY <sup>15</sup>C, <sup>16</sup>N; measured Eγ.

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**Keynumber:** 1976AL12

**Reference:** Nucl.Phys. A269, 408 (1976)

Authors: B.J.Allen, A.R.de L.Musgrove, J.W.Boldeman, M.J.Kenny, R.L.Macklin

**Title:** Resonance Neutron Capture in <sup>56</sup>Fe

**Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>Fe(n,γ),E=2.5-870 keV; measured  $\sigma$ (E,Eγ); deduced average  $\sigma$ (E,Eγ). <sup>57</sup>Fe deduced resonances,resonance parameters,correlation coefficient,valence component,doorway states. <sup>6</sup>Li(n,α) monitor,enriched target.

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**Keynumber:** 1975YOZW

Coden: REPT LA-UR-75-317,mf

Keyword abstract: NUCLEAR REACTIONS <sup>14</sup>N, <sup>27</sup>Al, <sup>56</sup>Fe,Mo, <sup>93</sup>Nb, <sup>181</sup>Ta,W, <sup>238</sup>U

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 $(n,\gamma)$ , E=thermal, 14 MeV; calculated  $\sigma$ .

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Keynumber: 1975TA09

**Reference:** Aust.J.Phys. 28, 21 (1975)

Authors: R.B.Taylor, F.Hille

**Title:** Angular Correlation Measurements in <sup>57</sup>Fe

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n, $\gamma$ ),E=thermal; measured  $\gamma\gamma(\theta)$ .  $^{57}$ Fe levels

deduced  $J,\pi$ .

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**Keynumber:** 1975FRZV

Coden: JOUR BAPSA 20 174 IB21

**Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>Fe, <sup>58</sup>, <sup>60</sup>, <sup>61</sup>Ni(n, $\gamma$ ); calculated  $\sigma$ .

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**Keynumber:** 1975BEZW

Coden: JOUR BAPSA 20 169 HB27

**Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>Fe(n, $\gamma$ ),E=7-70 keV; measured  $\sigma$ (E,E $\gamma$ ).

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Keynumber: 1974LU04

**Reference:** Nucl.Phys. A230, 83 (1974) **Authors:** M.Lubert, N.C.Francis, R.C.Block

Title: Correlations between Reduced Neutron and Radiative Widths in Neutron Resonances

**Keyword abstract:** NUCLEAR REACTIONS <sup>61</sup>Ni, <sup>57</sup>Fe, <sup>53</sup>Cr(γ,n), <sup>60</sup>Ni, <sup>56</sup>Fe, <sup>52</sup>Cr(n,γ),E=thermal;

calculated σ. <sup>61</sup>Ni, <sup>57</sup>Fe, <sup>53</sup>Cr resonances deduced γ-width.

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**Keynumber:** 1974HIZF

Coden: REPT CONF-740218, Paper 71

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n, $\gamma$ ),E=thermal; measured  $\gamma \gamma(\theta)$ .  $^{57}$ Fe levels

deduced  $\gamma$ -mixing.

**Keynumber:** 1974BRXT

Coden: REPT CONF-740218, Paper 5

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n, $\gamma$ ),E <460 keV; measured  $\sigma$ (E,E $\gamma$ ).

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**Keynumber:** 1974ALZL

Coden: CONF Petten(Neutron Capture Gamma Ray Spectroscopy),P145

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n, $\gamma$ ),E <1 MeV; measured E $\gamma$ ,I $\gamma$ .  $^{57}$ Fe resonances

deduced γ-width,L.

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**Keynumber:** 1974ALYV

Coden: REPT ANU-P-588 P34

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n, $\gamma$ ),E <460 keV; measured  $\sigma$ (E,E $\gamma$ ).

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**Keynumber:** 1973WH06

**Reference:** Nucl.Sci.Eng. 51, 496 (1973) **Authors:** J.E.White, C.Y.Fu, K.J.Yost

Title: Neutron Capture Gamma-Ray Yields in Iron

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n, $\gamma$ ),E=thermal-1 MeV; calculated  $\sigma$ (E;E $\gamma$ ),I $\gamma$ .  $^{57}$ Fe

deduced levels, J,  $\pi$ .

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**Keynumber:** 1973SP06

**Reference:** Nucl.Phys. A215, 260 (1973) **Authors:** A.M.J.Spits, J.A.Akkermans

**Title:** Investigation of the Reaction  $^{37}Cl(n,\gamma)^{38}Cl$ 

**Keyword abstract:** NUCLEAR REACTIONS <sup>37</sup>Cl, <sup>32</sup>S, <sup>50</sup>, <sup>52</sup>, <sup>53</sup>Cr, <sup>56</sup>Fe(n,γ),E=thermal; measured

Eγ,Ιγ; deduced Q. <sup>38</sup>Cl deduced levels,γ-branching.

**Keyword abstract:** RADIOACTIVITY <sup>38</sup>Cl; measured Εγ,Ιγ. Deduced β- branching, <sup>38</sup>Ar deduced

transitions. Natural, <sup>37</sup>Cl enriched target.

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Keynumber: 1973BRXJ

Coden: REPT COO-3058-38 P4

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n, $\gamma$ ); measured E $\gamma$ ,I $\gamma$ .

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Keynumber: 1973BO47

**Reference:** Nucl. Phys. A215, 605 (1973)

Authors: E.Boridy, C.Mahaux

**Title:** Radiative Capture of Low-Energy Neutrons in the Shell-Model Approach to Nuclear Reactions **Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>Fe, <sup>58</sup>Ni(n,γ); calculated Iγ. <sup>57</sup>Fe, <sup>59</sup>Ni resonances

calculated level-width.

Keynumber: 1972OP01

**Reference:** Nucl.Phys. A180, 569 (1972) **Authors:** A.M.F.Op den Kamp, A.M.J.Spits

Title: Gamma Rays from Thermal-Neutron Capture in Natural and <sup>39</sup>K Enriched Potassium

**Keyword abstract:** NUCLEAR REACTIONS <sup>39</sup>, <sup>41</sup>K, <sup>1</sup>H, <sup>6</sup>Li, <sup>12</sup>C, <sup>19</sup>F, <sup>40</sup>Ar, <sup>56</sup>Fe, <sup>207</sup>Pb(n, $\gamma$ ),E= thermal; <sup>19</sup>F, <sup>28</sup>Si(n,n' $\gamma$ ),E=fast; measured E $\gamma$ ,I $\gamma$ , <sup>39</sup>K(n, $\gamma$ ),E=thermal; measured E $\gamma$ ,I $\gamma$ , $\gamma\gamma$ -coin; deduced O. <sup>40</sup>, <sup>42</sup>K deduced levels, $\gamma$ -branching. Ge(Li),NaI detectors.

**Kevnumber:** 1972BHZZ

Coden: CONF Budapest, Contributions, P60, M Bhat, 10/11/72

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe,  $^{96}$ Zr,  $^{98}$ Mo,  $^{116}$ ,  $^{118}$ ,  $^{120}$ ,  $^{122}$ ,  $^{124}$ Sn

(n, $\gamma$ ),E=resonance; measured I $\gamma$ ( $\theta$ ). <sup>57</sup>Fe, <sup>97</sup>Zr, <sup>99</sup>Mo, <sup>117</sup>, <sup>119</sup>, <sup>121</sup>, <sup>123</sup>, <sup>125</sup>Sn resonances, levels deduced I

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**Kevnumber:** 1971WHZV

Coden: REPT ORNL-TM-3442,J E White,10/11/71

**Keyword abstract:** NUCLEAR REACTIONS Fe,  $^{54}$ ,  $^{56}$ Fe(n, $\gamma$ ),E <10 MeV; calculated  $\sigma$ (E;E $\gamma$ ).  $^{55}$ ,

<sup>57</sup>Fe calculated levels, J, $\pi$ , $\gamma$ -branching.

Kevnumber: 1971KN02

**Reference:** Yad.Fiz. 13, 521 (1971); Sov.J.Nucl.Phys. 13, 292 (1971)

**Authors:** V.A.Knatko, E.A.Rudak

**Title:** Role of Doorway States of the 'Phonon + Particle' Type in the  $(n,\gamma)$  Reaction

**Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>Fe, <sup>62</sup>Ni, <sup>64</sup>, <sup>66</sup>Zn, <sup>70</sup>, <sup>72</sup>Ge(n,γ); calculated particle +

doorway state effects. <sup>57</sup>Fe, <sup>63</sup>Ni, <sup>65</sup>, <sup>67</sup>Zn, <sup>71</sup>, <sup>73</sup>Ge calculated n-widths,B(E1).

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Keynumber: 1971KN01

**Reference:** Nucl.Phys. A164, 417 (1971)

Authors: V.A.Knatko, E.A.Rudak

**Title:** Phonon-Particle Doorway States in  $(n,\gamma)$  Reactions on Nuclei with A <80

**Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>Fe, <sup>62</sup>Ni(n, $\gamma$ ),E=slow; calculated E1 transition

probabilities,n-widths. <sup>57</sup>Fe, <sup>63</sup>Ni, <sup>65</sup>Zn, <sup>67</sup>Zn, <sup>71</sup>, <sup>73</sup>Ge calculated levels, wave functions.

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Keynumber: 1971EI02

**Reference:** Z.Phys. 243, 114 (1971) **Authors:** E.A.Eissa, J.Honzatko

**Title:** Study of the <sup>57</sup>Fe Low-Energy States

**Keyword abstract:** NUCLEAR REACTIONS <sup>56</sup>Fe(n,γ),E=thermal; measured Eγ,Iγ. <sup>57</sup>Fe deduced

levels, $\gamma$ -branching.

**Kevnumber:** 1971BIZV

Coden: REPT ORNL-TM-3379, J R Bird,9/14/71

**Keyword abstract:** NUCLEAR REACTIONS F,Na,Mg,Al,S, <sup>35</sup>Cl,K,Ca, <sup>40</sup>, <sup>42</sup>, <sup>44</sup>Ca,Ti,V,Fe, <sup>54</sup>,

 $^{56}$ Fe,Ni,  $^{58}$ ,  $^{60}$ Ni,  $^{63}$ Cu,Zn(n, $\gamma$ ),E=10-100 keV; measured E $\gamma$ ,I $\gamma$ . 9 inx 12 in NaI detector.

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Kevnumber: 1970SP02

**Reference:** Nucl. Phys. A145, 449 (1970)

Authors: A.M.J.Spits, A.M.F. Op den Kamp, H.Gruppelaar

**Title:** Gamma Rays from Thermal-Neutron Capture in Natural and <sup>28</sup>Si Enriched Silicon

**Keyword abstract:** NUCLEAR REACTIONS <sup>28</sup>, <sup>29</sup>, <sup>30</sup>Si, <sup>6</sup>Li, <sup>14</sup>N, <sup>19</sup>F, <sup>27</sup>Al, <sup>54</sup>, <sup>56</sup>Fe, <sup>207</sup>Pb(n,γ), E=thermal; <sup>28</sup>Si(n,n'γ), E=fast; measured Eγ, Iγ; deduced Q. <sup>29</sup>, <sup>30</sup>, <sup>31</sup>Si deduced levels, γ-branching.

Natural, <sup>28</sup>Si enriched targets, Ge(Li) detector.

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Keynumber: 1970CH10

**Reference:** Phys.Rev. C1, 973 (1970)

Authors: R.E.Chrien, M.R.Bhat, O.A.Wasson

**Title:** Gamma Rays Following Resonant Neutron Capture in <sup>56</sup>Fe

**Keyword abstract:** NUCLEAR REACTIONS  $^{56}$ Fe(n, $\gamma$ ), E <2 keV; measured  $\sigma$ (E $\gamma$ ).  $^{57}$ Fe resonance

deduced level-width, J,  $\pi$ ,  $\gamma$ -multipolarity.

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Kevnumber: 1970BRZJ

Coden: REPT FEI-205,D Broder,5/29/72

**Keyword abstract:** NUCLEAR REACTIONS  $^{50}$ ,  $^{52}$ ,  $^{53}$ Cr,  $^{54}$ ,  $^{56}$ Fe(n, $\gamma$ ); measured E $\gamma$ ,I $\gamma$ .  $^{51}$ ,  $^{53}$ ,  $^{54}$ Cr

deduced levels,γ-branching.

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Keynumber: 1969KO05

**Reference:** Nucl. Phys. A127, 385 (1969)

Authors: J.Kopecky, E.Warming

Title: Circular Polarization Measurements with a Ge(Li) Detector

**Keyword abstract:** NUCLEAR REACTIONS <sup>32</sup>S, <sup>35</sup>Cl, <sup>48</sup>Ti, <sup>55</sup>Mn, <sup>56</sup>Fe, <sup>59</sup>Co, <sup>63</sup>Cu(polarized n,γ), E = thermal; measured γ circular polarization. <sup>33</sup>S, <sup>36</sup>Cl, <sup>49</sup>Ti, <sup>56</sup>Mn, <sup>57</sup>Fe, <sup>60</sup>Co, <sup>64</sup>Cu levels deduced J, γ-

mixing. Natural targets.

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Keynumber: 1969KE15

**Reference:** Yadern.Fiz. 10, 907 (1969); Soviet J.Nucl.Phys. 10, 524 (1970)

Authors: J.Kecskemeti, D.Kiss

**Title:** Measurement of Average Multiplicity in  $(n, \gamma)$  Reactions Induced by Thermal Neutrons

**Keyword abstract:** NUCLEAR REACTIONS <sup>23</sup>Na, <sup>27</sup>Al, <sup>31</sup>P, <sup>32</sup>S, <sup>35</sup>Cl, <sup>48</sup>Ti, <sup>51</sup>V, <sup>53</sup>Cr, <sup>52</sup>Cr, <sup>55</sup>Mn, <sup>56</sup>Fe, <sup>59</sup>Co, <sup>60</sup>Ni,Ni,Cu, <sup>63</sup>Cu, Ge, <sup>73</sup>Ge, <sup>75</sup>As,Se,Br, Sr, Zr, <sup>93</sup>Nb,Mo, <sup>103</sup>Rh,Ag(n,γ) E=thermal;

measured average  $\gamma$  multiplicity.

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Keynumber: 1969HO12

**Reference:** Phys.Rev. 178, 1746 (1969)

Authors: R.W.Hockenbury, Z.M.Bartolome, J.R.Tatarczuk, W.R.Moyer, R.C.Block

Title: Neutron Radiative Capture in Na, Al, Fe, and Ni from 1 to 200 keV

**Keyword abstract:** NUCLEAR REACTIONS  $^{23}$ Na,  $^{27}$ Al,  $^{54}$ ,  $^{56}$ ,  $^{57}$ ,  $^{58}$ Fe,  $^{58}$ ,  $^{60}$ ,  $^{61}$ ,  $^{62}$ ,  $^{64}$ Ni(n, $\gamma$ ), E=0.1-200 keV; measured  $\sigma$ (E).  $^{24}$ Na,  $^{28}$ Al,  $^{55}$ ,  $^{57}$ ,  $^{58}$ ,  $^{59}$ Fe,  $^{59}$ ,  $^{61}$ ,  $^{62}$ ,  $^{63}$ ,  $^{65}$ Ni deduced resonance

parameters.

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Keynumber: 1969CV02

**Reference:** Nucl. Phys. A130, 413 (1969)

Authors: F.Cvelbar, A.Hudoklin, M.V.Mihailovic, M.Najzer, M.Petrisic

**Title:** Radiative Capture of Neutrons in the Region of the Dipole Giant Resonance (II). Calculation **Keyword abstract:** NUCLEAR REACTIONS  $^{32}$ S,  $^{52}$ Cr,  $^{56}$ Fe(n, $\gamma$ ), E=14.1 MeV; calculated  $\sigma$ (E $\gamma$ ).

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Keynumber: 1968TS02

Reference: Izv.Akad.Nauk SSSR, Ser.Fiz. 32, 1972 (1968); Bull.Acad.Sci.USSR, Phys.Ser. 32, 1816

(1969)

Authors: F.Tsvelbar, A.Khudoklin, M.V.Mikhailovich, M.Naizher, M.Petrishich

Title: Coarse Structure of the Spectra of Gamma Rays Emitted in Radiative Capture of 14.1 MeV

Neutrons

**Keyword abstract:** NUCLEAR REACTIONS <sup>51</sup>V, <sup>52</sup>Cr, <sup>55</sup>Mn, <sup>56</sup>Fe(n, $\gamma$ ), E=14 MeV; measured  $\sigma$  (E $\gamma$ ); deduced coarse structure.

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**Keynumber:** 1968SP01

**Reference:** Nucl. Phys. A113, 395(1968)

Authors: P.Spilling, H.Gruppelaar, H.F.De vries, A.M.J.Spits

**Title:** The Reactions  ${}^{12}C(n,\gamma){}^{13}C$  and  ${}^{19}F(n,\gamma){}^{20}F$ 

**Keyword abstract:** NUCLEAR REACTIONS  $^6$ Li,  $^{12}$ C,  $^{19}$ F,  $^{56}$ Fe(n, $\gamma$ ), E=thermal;  $^{19}$ F(n,n' $\gamma$ ), E= fast;  $^{19}$ F(n, $\alpha$ ), E= fast; measured E $\gamma$ ,I $\gamma$ ; deduced Q.  $^7$ Li,  $^{13}$ C,  $^{16}$ O,  $^{19}$ F,  $^{20}$ F deduced levels, branchings.

Natural targets.

Keynumber: 1968SC02

**Reference:** Nucl. Phys. A107, 14 (1968)

Authors: R.Schaub, W.Schuler

Title: Circular Polarization of Neutron-Capture Gamma Rays from <sup>65</sup>Zn, <sup>68</sup>Zn and <sup>57</sup>Fe

**Keyword abstract:** NUCLEAR REACTIONS <sup>64</sup>, <sup>67</sup>Zn, <sup>56</sup>Fe(polarized n,γ), E=thermal; measured γ

circular polarization. <sup>65</sup>, <sup>68</sup>Zn levels deduced J; <sup>57</sup>Fe level deduced Iγ. Natural targets.

T7 1 10.601

Kevnumber: 1968BI06

**Reference:** Nucl. Phys. A120, 113 (1968)

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**Authors:** J.R.Bird

Title: keV Neutron Capture in Iron

**Keyword abstract:** NUCLEAR REACTIONS <sup>54</sup>Fe, <sup>56</sup>Fe(n, $\gamma$ ) E=15-80 keV, measured  $\sigma$ (E; E $\gamma$ ). <sup>55</sup>Fe,

<sup>57</sup>Fe deduced levels, resonances. Natural, enriched targets.

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**Keynumber:** 1967SP05

**Reference:** Nucl. Phys. A102, 209 (1967)

Authors: P.Spilling, H.Gruppelaar, A.M.F.Op Den Kamp

**Title:** Thermal-Neutron Capture Gamma Rays from Natural Magnesium and Enriched <sup>25</sup>Mg **Keyword abstract:** NUCLEAR REACTIONS <sup>24</sup>, <sup>25</sup>, <sup>26</sup>Mg, <sup>56</sup>Fe, <sup>63</sup>Cu, <sup>207</sup>Pb(n,γ), E=thermal; measured σ(Εγ); deduced Q. <sup>25</sup>, <sup>26</sup>, <sup>27</sup>Mg deduced levels, branching. Enriched <sup>25</sup>Mg target, Ge(Li)

detector.

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**Keynumber:** 1967RA24

Reference: Proc.Intern.Conf.Atomic Masses, 3rd, Winnipeg, Canada, R.C.Barber, Ed., Univ.Manitoba

Press, p.278(1967)

Authors: N.C.Rasmussen, V.J.Orphan, Y.Hukai

**Title:** Determination of  $(n,\gamma)$  Reaction Q Values from Capture  $\gamma$ -Ray Spectra

**Keyword abstract:** NUCLEAR REACTIONS  $^6$ Li,  $^7$ Li,  $^9$ Be,  $^{10}$ B,  $^{12}$ C,  $^{14}$ N,  $^{19}$ F,  $^{23}$ Na,  $^{24}$ Mg,  $^{25}$ Mg,  $^{26}$ Mg,  $^{27}$ Al,  $^{28}$ Si,  $^{31}$ P,  $^{32}$ S,  $^{35}$ Cl,  $^{40}$ Ca,  $^{45}$ Sc,  $^{48}$ Ti,  $^{51}$ V,  $^{55}$ Mn,  $^{54}$ Fe,  $^{56}$ Fe,  $^{59}$ Co,  $^{58}$ Ni,  $^{60}$ Ni,  $^{63}$ Cu,  $^{65}$ Cu,  $^{66}$ Zn,  $^{67}$ Zn,  $^{73}$ Ge,  $^{76}$ Se,  $^{85}$ Rb,  $^{87}$ Rb,  $^{89}$ Y,  $^{93}$ Nb,  $^{103}$ Rh,  $^{113}$ Cd,  $^{123}$ Te,  $^{133}$ Cs,  $^{139}$ La,  $^{141}$ Pr,  $^{149}$ Sm,  $^{153}$ Eu,  $^{157}$ Gd,  $^{159}$ Tb,  $^{165}$ Ho,  $^{167}$ Er,  $^{169}$ Tm,  $^{181}$ Ta,  $^{182}$ W,  $^{195}$ Pt,  $^{197}$ Au,  $^{199}$ Hg,  $^{203}$ Tl,  $^{207}$ Pb(n,γ), E = thermal; measured Eγ; deduced Q. Natural targets.

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Kevnumber: 1965FI04

**Reference:** Nucl. Phys. 73, 312 (1965)

Authors: E.I.Firsov, N.G.Loskutova, E.A.Rudak

**Title:** Spectrum of  $\gamma$ -Rays from the  $^{54}$ Fe(n, $\gamma$ ) $^{55}$ Fe Reaction

**Keyword abstract:** NUCLEAR REACTIONS <sup>54</sup>Fe, <sup>56</sup>Fe(n, $\gamma$ ), E = thermal; measured  $\sigma$ (E $\gamma$ ). <sup>55</sup>Fe

deduced levels. Enriched <sup>54</sup>Fe target.

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Kevnumber: 1964GR36

**Reference:** Nucl. Phys. 58, 465(1964)

Authors: L.V.Groshev, A.M.Demidov, G.A.Kotelnikov, V.N.Lutsenko

**Title:** Spectrum of  $\gamma$ -Rays from the Fe<sup>56</sup>(n, $\gamma$ )Fe<sup>57</sup> Reaction

**Keyword abstract:** NUCLEAR REACTIONS <sup>54</sup>, <sup>56</sup>, <sup>57</sup>Fe(n,γ),E=thermal; measured Eγ, Iγ, Q. <sup>57</sup>Fe

deduced levels, J,  $\pi$ . Natural target.

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