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**79 reference(s) found :**

**Keynumber:** 2001BO30

**Reference:** Nucl.Phys. A688, 493c (2001)

**Authors:** I.N.Borzov, A.V.Avdeenkov, B.Grun, H.Oberhummer

**Title:** Direct Neutron Capture in a Microscopic Model

**Keyword abstract:** NUCLEAR REACTIONS  $^{124}$ ,  $^{132}\text{Sn}$ ,  $^{208}$ ,  $^{232}\text{Pb}(n,\gamma)$ , E=30 keV; calculated non-resonant direct capture  $\sigma$ . Green's function formalism, comparison with other calculations and with data.

**Keynumber:** 2001BE15

**Reference:** Nucl.Phys. A686, 204 (2001)

**Authors:** E.Betak, F.Cvelbar, A.Likar, T.Vidmar

**Title:** Model Calculations of the Radiative Capture Process and the Brink-Axel Hypothesis

**Keyword abstract:** NUCLEAR REACTIONS  $^{140}\text{Ce}$ ,  $^{208}\text{Pb}(n,\gamma)$ , E=4-18 MeV; calculated  $\sigma$  (E), excitation functions. Consistent direct-semidirect and preequilibrium exciton models. Comparisons with data.

**Keynumber:** 2000ROZW

**Reference:** Proc.Intern.Symposium on Quasiparticle and Phonon Excitations in Nuclei (Soloviev 99), Riken, Japan, 4-7 December 1999, N.D.Dang, A.Arima, Editors, World Scientific, Singapore, p.211 (2000)

**Authors:** V.A.Rodin, M.H.Urin

**Title:** On the Neutron Radiative Capture in the Vicinity of the Giant Dipole Resonance

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ , E=4-18 MeV; calculated  $\sigma(E)$  near GDR energy. Semimicroscopical approach, comparisons with data.

**Keynumber:** 2000RO12

**Reference:** Phys.Lett. 480B, 45 (2000)

**Authors:** V.A.Rodin, M.H.Urin

**Title:** On the Neutron Radiative Capture in the Vicinity of the Giant Dipole Resonance

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ , E=5-18 MeV; calculated capture  $\sigma, \sigma(E, \theta)$  near GDR. Semimicroscopical approach, comparisons with data.

**Keynumber:** 1999CV01

**Reference:** Nucl.Phys. A645, 262 (1999)

**Authors:** F.Cvelbar, A.Likar, T.Vidmar

**Title:** Angular Distribution Effect on the Integrated Cross Section for Radiative Capture of 14 MeV Neutrons

**Keyword abstract:** NUCLEAR REACTIONS  $^{40}\text{Ca}$ ,  $^{28}\text{Si}$ ,  $^{89}\text{Y}$ ,  $^{208}\text{Pb}(n,\gamma)$ , E=14 MeV; calculated  $I\gamma(\theta)$ , Legendre coefficient  $a_2$ . Consistent direct-semidirect model. Comparisons with data.

**Keynumber:** 1999BLZY

**Reference:** ORNL-6957, Physics Division Progress Report 1998, RIB009 (1999)

**Authors:** J.C.Blackmon, J.K.Dickens, R.M.Lindstrom, R.L.Paul

**Title:** Measurement of the  $^{208}\text{Pb}(n,\gamma)^{209}\text{Pb}$  Reaction Near Thermal Neutron Energies

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ , E ≈ thermal; measured  $E\gamma, I\gamma$ , capture  $\sigma$ .

**Keynumber:** 1998LI26

**Reference:** Nucl.Phys. A637, 365 (1998)

**Authors:** A.Likar, T.Vidmar

**Title:** Integrated Cross Sections in Fast Neutron Capture in Medium Weight and Heavy Nuclei

**Keyword abstract:** NUCLEAR REACTIONS  $^{89}\text{Y}$ ,  $^{208}\text{Pb}(\text{n},\gamma)$ , E=4-20 MeV; calculated  $\sigma(\theta=90^\circ)$ .

$^{89}\text{Y}, \text{Ba}(\text{n},\gamma)$ , E=14 MeV; calculated  $\sigma(E\gamma)$ . Consistent direct-semi-direct capture model,capture systematics for A=20-240 discussed. Comparison with data.

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**Keynumber:** 1997LI03

**Reference:** Nucl.Phys. A615, 18 (1997)

**Authors:** A.Likar, T.Vidmar

**Title:** Neutron Optical Potential from Capture Reactions

**Keyword abstract:** NUCLEAR REACTIONS  $^{40}\text{Ca}$ ,  $^{89}\text{Y}$ ,  $^{140}\text{Ce}$ ,  $^{208}\text{Pb}(\text{n},\gamma)$ , E ≈ resonance; analyzed capture  $\sigma(\theta), \sigma(E)$ ; deduced model parameter dependence. Direct-semidirect model,optical model.

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**Keynumber:** 1997BEZZ

**Reference:** Proc.9th Intern.Symposium on Capture Gamma-Ray Spectroscopy and Related Topics, Budapest, Hungary, October 1996, G.L.Molnar, T.Belgya, Zs.Revay, Eds., Vol.1, p.424 (1997)

**Authors:** E.Betak, F.Cvelbar, M.Hocevar, A.Likar, T.Vidmar

**Title:** Excitation Functions of Pre-Equilibrium Discrete Gamma Transitions Populated in Nucleon Radiative Capture

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(\text{n},\gamma)$ , E=6-20 MeV; calculated  $\sigma$  for population of discrete states. Comparison with data. Direct-semi-direct,pre-equilibrium spin-independent calculations compared.

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**Keynumber:** 1997BE37

**Reference:** Astrophys.J. 474, 843 (1997)

**Authors:** H.Beer, F.Corvi, P.Mutti

**Title:** Neutron Capture of the Bottleneck Isotopes  $^{138}\text{Ba}$  and  $^{208}\text{Pb}$ ,s-Process Studies, and the r-Process Abundance Distribution

**Keyword abstract:** NUCLEAR REACTIONS  $^{138}\text{Ba}$ ,  $^{208}\text{Pb}(\text{n},\gamma)$ , E<00 keV; measured neutron capture  $\sigma$ ; deduced resonance parameters. Tof,pulsed beam. Astrophysical s-,r-process implications.

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**Keynumber:** 1996LI04

**Reference:** Nucl.Phys. A598, 235 (1996)

**Authors:** A.Likar

**Title:** Nuclear Dicke States and the Direct-Semidirect Model

**Keyword abstract:** NUCLEAR REACTIONS  $^{40}\text{Ca}$ ,  $^{208}\text{Pb}(\text{n},\gamma)$ , E ≤ 20 MeV; analyzed capture  $\sigma(\theta)$  vs E; deduced nuclear Dicke state role. Modified direct semidirect model.

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**Keynumber:** 1996AV07

**Reference:** Bull.Rus.Acad.Sci.Phys. 60, 1716 (1996)

**Authors:** A.V.Avdeenkov, S.P.Kamerdzhev

**Title:** On Application of the Optical Potential Theory to Calculation of Nucleon-Nucleus Cross Sections

**Keyword abstract:** NUCLEAR REACTIONS  $^{120}\text{Sn}$ ,  $^{208}\text{Pb}(\text{n},\gamma)$ , E=0-4 MeV; calculated optical potentials,s-wave absorption  $\sigma$ . Green function potential,particle+phonon states.

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**Keynumber:** 1995LI31

**Reference:** Nucl.Phys. A591, 458 (1995)

**Authors:** A.Likar, T.Vidmar

**Title:** Fast Neutron Capture Through a Consistent Version of the Direct-Semidirect Model

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}$ ,  $^{12}\text{C}(\text{n},\gamma), \text{E} \approx 6-20 \text{ MeV}$ ;  $^{40}\text{Ca}(\text{n},\gamma), \text{E} \approx 5-45 \text{ MeV}$ ;  $^{140}\text{Ce}$ ,  $^{89}\text{Y}(\text{n},\gamma), \text{E} \approx 1-20 \text{ MeV}$ ; calculated capture  $\sigma(\theta)$  vs E. Direct-semidirect model,new version.

**Keynumber:** 1995CV01

**Reference:** J.Phys.(London) G21, 377 (1995)

**Authors:** F.Cvelbar, E.Betak, A.Likar

**Title:** Pre-Equilibrium and Direct-Semi-Direct Model Calculations of Nucleon Radiative Capture Excitation Functions on Heavy Nuclei

**Keyword abstract:** NUCLEAR REACTIONS,ICPND  $^{142}\text{Ce}$ ,  $^{176}\text{Yb}$ ,  $^{208}\text{Pb}$ ,  $^{130}\text{Te}(\text{p},\gamma)$ ,  $^{89}\text{Y}$ ,  $^{208}\text{Pb}$ ,  $^{140}\text{Ce}(\text{n},\gamma), \text{E} \approx 4-24 \text{ MeV}$ ; analyzed  $\sigma(\text{E})$ . Preequilibrium,direct-semi-direct models,radiative capture.

**Keynumber:** 1992LI18

**Reference:** Chin.J.Nucl.Phys. 14, No 2, 127 (1992)

**Authors:** J.Liu, X.Zhang

**Title:** Fast Neutron Radiative Capture Cross Sections of  $^{208}\text{Pb}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(\text{n},\gamma), \text{E}=3-15 \text{ MeV}$ ; calculated radiative capture  $\sigma(\text{E})$ . Statistical theory,preequilibrium correction.

**Keynumber:** 1991ZH22

**Reference:** Chin.J.Nucl.Phys. 13, No 2, 139 (1991)

**Authors:** Z.Zhao, D.Zhou

**Title:** Systematics of Excitation Functions for  $(\text{n},\gamma)$  Reaction Above 4 MeV

**Keyword abstract:** NUCLEAR REACTIONS  $^{40}\text{Ca}$ ,  $^{89}\text{Y}$ ,  $^{140}\text{Ce}$ ,  $^{165}\text{Ho}$ ,  $^{208}\text{Pb}(\text{n},\gamma), \text{E} \approx 0.5-20 \text{ MeV}$ ; calculated  $\sigma(\text{E})$ . Statistical theory,exciton model.

**Keynumber:** [1991YU01](#)

**Reference:** Phys.Rev. C43, 2765 (1991)

**Authors:** Z.-S.Yuan, Y.-K.Ho

**Title:** Unified Formalism to Study Nonstatistical Effects in Radiative Capture Reactions

**Keyword abstract:** NUCLEAR REACTIONS  $^{55}\text{Mn}$ ,  $^{89}\text{Y}$ ,  $^{208}\text{Pb}$ ,  $^{27}\text{Al}(\text{n},\gamma), \text{E} < 20 \text{ MeV}$ ; calculated capture  $\sigma(\text{E})$ . Unified formalism,nonstatistical effects.

**Keynumber:** 1990GU15

**Reference:** Nucl.Phys. A516, 41 (1990)

**Authors:** R.Guidotti, F.Saporetti, G.Maino, A.Ventura

**Title:** Microscopic Approach to M1 Radiative Capture of Nucleons

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(\text{n},\gamma), \text{E} \approx 2-6 \text{ MeV}$ ; calculated  $\sigma(\theta)$  difference vs E. Microscopic model.

**Keynumber:** 1989CV01

**Reference:** Z.Phys. A332, 163 (1989)

**Authors:** F.Cvelbar, E.Betak

**Title:** Exciton Model Comparison of the Activation and the Integrated 14 MeV Neutron Radiative Capture Cross Sections

**Keyword abstract:** NUCLEAR REACTIONS  $^{27}\text{Al}$ ,  $^{51}\text{V}$ ,  $^{45}\text{Sc}$ ,  $^{55}\text{Mn}$ ,  $^{127}\text{I}$ ,  $^{141}\text{Pr}$ ,  $^{208}\text{Pb}$ ,  $^{209}\text{Bi}$  ( $\text{n},\gamma$ ),  $\text{E}=14.1 \text{ MeV}$ ; calculated  $\sigma(\text{E}(\gamma))$ . Exciton model.

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**Keynumber:** 1989BE45**Reference:** Nucl.Instrum.Methods Phys.Res. A284, 77 (1989)**Authors:** A.G.Beda, S.I.Burov, L.N.Bondarenko, G.V.Danilyan, P.Geltenbort, F.Gonnenwein, V.L.Kuznetsov, A.N.Martemyanov, Yu.A.Mostovoy, K.Schreckenbach**Title:** Investigation of the P-Odd Asymmetry in the Resonance Scattering of Neutron Capture Gamma-Rays**Keyword abstract:** NUCLEAR REACTIONS  $^{112}\text{Cd}$ ,  $^{118}\text{Sn}$ ,  $^{139}\text{La}$ ,  $^{141}\text{Pr}$ ,  $^{142}\text{Nd}$ ,  $^{205}\text{Tl}$ ,  $^{208}\text{Pb}$  (polarized n, $\gamma$ ), E=reactor; measured E $\gamma$ ,  $\gamma$  CP; deduced parity nonconserving asymmetry limits.

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**Keynumber:** 1988GU02**Reference:** Nucl.Phys. A480, 253 (1988)**Authors:** R.Guidotti, F.Saporetti, G.Maino, A.Ventura**Title:** Microscopic Effects of the Particle-Vibration Coupling on the Photon Emission in Nucleon Radiative Capture**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ , E  $\approx$  6-16 MeV; calculated  $\sigma(\theta)$ , asymmetry coefficients, photon emission probability vs E. Microscopic particle-vibration coupling.

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**Keynumber:** 1983DRZY**Reference:** Tandem Accelerator Lab, Uppsala, 1982 Biennial, p.47 (1983)**Authors:** D.M.Drake, K.Aniol, I.Halpern, D.Storm, J.Faucett, S.Joly, L.Nilsson, S.Wender**Title:** The  $^{208}\text{Pb}(n,\gamma)^{209}\text{Pb}$  Reaction in the Region of the Isovector Quadrupole Resonance**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ , E=10-20 MeV; analyzed  $\gamma$ -anisotropy data.  $^{209}\text{Pb}$  deduced isovector GQR.

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**Keynumber:** 1982KI05**Reference:** Nucl.Phys. A384, 129 (1982)**Authors:** S.E.King, M.Potokar, N.R.Roberson, H.R.Weller, D.R.Tilley**Title:** Neutron Capture in the Giant Resonance Region of  $^{209}\text{Pb}$ **Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ , E=7-13 MeV; measured  $\sigma(\theta)$ .  $^{209}\text{Pb}$  levels deduced dipole EWSR in GDR region. Direct-semidirect,pure resonance model calculations.

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**Keynumber:** 1982JO01**Reference:** Nucl.Phys. A382, 71 (1982)**Authors:** S.Joly, G.Grenier, D.M.Drake, I.Bergqvist, D.K.McDaniels, A.Lindholm, L.Nilsson, N.Olsson, A.Waheed, R.Zorro, F.Rigaud**Title:** Study of the  $^{208}\text{Pb}(n,\gamma_0)^{209}\text{Pb}$  Reaction between 0.8 and 7.7 MeV**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ , E=0.8-7.7 MeV; measured  $\sigma(E,\theta)$ . Compound nucleus,direct-semidirect model analyses.

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**Keynumber:** 1982BEZI**Reference:** NEANDC(OR)-157/U, p.27 (1982)**Authors:** I.Bergqvist, R.Zorro, N.Olsson, A.Lindholm, L.Nilsson, M.S.Saleem**Title:** Nucleon Capture Reactions in the Giant Multipole Resonance Region**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ , E=0.6-8 MeV; measured  $\sigma(E)$ , asymmetry. Compound nucleus,direct-semidirect models.

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**Keynumber:** 1982ANZR

**Reference:** NEANDC(E)-232-L, p.70 (1982)

**Authors:** K.Aniol, D.Drake, I.Halpern, S.Joly, L.Nilsson, D.Storm, S.Wender

**Title:** The E2 Isovector Giant Resonance as Seen Through the  $^{208}\text{Pb}(n,\gamma)$  Reaction

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ ,E=18-20 MeV; measured  $\sigma(\theta)$  ratio.  $^{209}\text{Pb}$  deduced isovector GQR role. Direct capture,particle-rotor model analysis.

**Keynumber:** 1981SA19

**Reference:** Phys.Lett. 102B, 81 (1981)

**Authors:** F.Saporetti, R.Guidotti

**Title:** On the Study of the M1 Resonance in the  $^{208}\text{Pb}(n,\gamma)$ Reaction

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ ,E not given; calculated  $I\gamma(E,\theta)$ . Direct-semidirect model,E1,E2,M1 admixture.

**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  $^{238}\text{U}$ ,  $^{56}\text{Fe}$ ,  $^{208}\text{Pb}(n,\gamma)$ ,E=5-19 MeV; calculated  $\sigma(E)$ . Preequilibrium exciton-phonon coupling model.

**Keynumber:** 1981LIZU

**Reference:** Tandem Accelerator Lab, Uppsala, Ann.Rept., p.40 (1981)

**Authors:** A.Lindholm, L.Nilsson, A.Waheed, I.Bergqvist, N.Olsson, R.Zorro, D.K.McDaniels, D.M.Drake, S.Joly

**Title:** The Region of the Isoscalar Quadrupole Resonance

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ ,E=0.8-7.7 MeV; measured  $\sigma(\theta,E),I\gamma(\theta)$  ratio. Direct semi-direct model.

**Keynumber:** 1981DRZX

**Reference:** LA-9026 (1981)

**Authors:** D.M.Drake, K.Aniol, I.Halpern, S.Joly, L.Nilsson, D.Storm, S.A.Wender

**Title:** The E2 Isovector Giant Resonance as Seen Through the Capture of Fast Neutrons

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ ,E=7-20 MeV; measured asymmetry.  $^{209}\text{Pb}$  deduced T=1,GQR.

**Keynumber:** 1981DR08

**Reference:** Phys.Rev.Lett. 47, 1581 (1981)

**Authors:** D.M.Drake, S.Joly, L.Nilsson, S.A.Wender, K.Anioil, I.Halpern, D.Storm

**Title:** E2 Isovector Giant Resonance as Seen through the Capture of Fast Neutrons

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ ,E=7-20 MeV; measured  $\sigma(E\gamma)$ ,asymmetry.  $^{209}\text{Pb}$  deduced E2 giant isovector resonance.

**Keynumber:** 1981CV02

**Reference:** Fizika(Zagreb) 13, Suppl.No.2, 16 (1981)

**Authors:** F.Cvelbar, R.Martincic, A.Likar

**Title:** Sensitivity of the Direct-Semidirect Model Calculations of the Integrated Neutron Capture Cross Section on the Exactness of the Final State Wave Function

**Keyword abstract:** NUCLEAR REACTIONS  $^{89}\text{Y}$ ,  $^{140}\text{Ce}$ ,  $^{208}\text{Pb}(n,\gamma)$ ,E not given; calculated integrated  $\sigma(E)$ . Direct semi-direct capture model.

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**Keynumber:** 1980POZW

**Coden:** CONF Berkeley(Int Conf on Nucl Phys) Proc,P222,Potokar

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}$ (polarized n, $\gamma$ ),E=4-24 MeV; calculated  $\sigma(E\gamma, E, \gamma(\theta))$ . Direct-semidirect,pure resonance,pure semidirect model.

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**Keynumber:** 1980LI17

**Reference:** Nucl.Phys. A350, 74 (1980)

**Authors:** A.Likar, R.Martincic

**Title:** Fast Neutron Capture in  $^{208}\text{Pb}$  as Seen Through Direct-Semidirect and Pure Resonance Models

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}$ (n, $\gamma$ ),E=8-32 MeV; calculated  $\sigma(\text{total}, E, \gamma(\theta))$ . Resonance,DSD models.

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**Keynumber:** 1979DI06

**Reference:** Phys.Rev.Lett. 43, 114 (1979)

**Authors:** F.S.Dietrich, A.K.Kerman

**Title:** Pure-Resonance Model for Radiative Capture of Fast Nucleons

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}$ (n, $\gamma$ ),E=6-16 MeV; calculated  $\sigma(E)$ . Direct semidirect model giant resonance projected from continuum space.

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**Keynumber:** 1979CH15

**Reference:** Phys.Lett. 83B, 271 (1979)

**Authors:** D.R.Chakrabarty, S.K.Gupta

**Title:** Fast Neutron Capture and the Microscopic Isovector Optical Potential

**Keyword abstract:** NUCLEAR REACTIONS  $^{89}\text{Y}$ , $^{93}\text{Nb}$ ,  $^{208}\text{Pb}$ (n, $\gamma$ ),E=6-16 MeV; calculated  $\sigma$ . direct-semidirect model,complex microscopic optical potential.

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**Keynumber:** 1979AG02

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

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

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

**Keyword abstract:** NUCLEAR REACTIONS  $^{45}\text{Sc}$ ,  $^{55}\text{Mn}$ ,  $^{63}\text{Cu}$ ,  $^{69}\text{Ga}$ ,  $^{71}\text{As}$ ,  $^{79}\text{Br}$ ,  $^{80}\text{Se}$ ,  $^{85}\text{Rb}$ ,  $^{89}\text{Y}$ ,  $^{93}\text{Nb}$ ,  $^{96}\text{Zr}$ ,  $^{98}\text{Mo}$ ,  $^{107}\text{Ag}$ ,  $^{108}\text{Pd}$ ,  $^{114}\text{Cd}$ ,  $^{115}\text{In}$ ,  $^{127}\text{I}$ ,  $^{133}\text{Cs}$ ,  $^{138}\text{Ba}$ ,  $^{139}\text{La}$ ,  $^{140}\text{Ce}$ ,  $^{141}\text{Pr}$ ,  $^{152}\text{Sm}$ ,  $^{158}\text{Gd}$ ,  $^{164}\text{Dy}$ ,  $^{165}\text{Ho}$ ,  $^{170}\text{Er}$ ,  $^{175}\text{Lu}$ ,  $^{180}\text{Hf}$ ,  $^{181}\text{Ta}$ ,  $^{184}\text{W}$ ,  $^{186}\text{W}$ ,  $^{185}\text{Re}$ ,  $^{187}\text{Re}$ ,  $^{197}\text{Au}$ ,  $^{202}\text{Hg}$ ,  $^{208}\text{Pb}$ ,  $^{209}\text{Bi}$ ,  $^{232}\text{Th}$ (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:** 1978SA27

**Reference:** Nucl.Phys. A311, 284 (1978)

**Authors:** F.Saporetti, R.Guidotti

**Title:** Giant M1 Resonance in the Direct-Semidirect Model for Nucleon Radiative Capture

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}$ (n, $\gamma_0$ ), (p, $\gamma_0$ ),  $^{140}\text{Ce}$ (n, $\gamma_0$ ), (p, $\gamma_0$ ),E=2-10 MeV;

calculated  $\sigma, \gamma(\theta)$  extending direct-semidirect model for nucleon radiative capture via E1,E2 resonances to collective M1 excitation.

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**Keynumber:** 1978SA22

**Reference:** Phys.Lett. 76B, 15 (1978)

**Authors:** F.Saporetti, G.Longo, R.Guidotti

**Title:** Investigation of Angular Distributions by the E1-E2 Direct-Semidirect Model

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(\text{n},\gamma)$ ,E=5-40 MeV; calculated  $\gamma(\theta)$ .

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**Keynumber:** 1978SA20

**Reference:** Lett.Nuovo Cim. 22, 202 (1978)

**Authors:** F.Saporetti, R.Guidotti

**Title:** Nucleon Radiative Capture Through Collective M1 Excitation

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(\text{n},\gamma)$ ,E=3.5,5.5 MeV; calculated  $\sigma(\theta)$ .

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**Keynumber:** 1978LO18

**Reference:** Nuovo Cim. 46A, 509 (1978)

**Authors:** G.Longo, F.Saporetti, R.Guidotti

**Title:** Interference between Dipole and Quadrupole Radiative Capture of Fast Nucleons

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(\text{n},\gamma)$ , ( $\text{p},\gamma$ ),E=6-40 MeV; calculated  $\sigma(\theta)$ . Direct-semidirect model with interference between E1,E2.

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**Keynumber:** 1978DIZO

**Coden:** CONF BNL(Neutron Capt  $\gamma$ -Ray Spectr),Contrib,No23,Dietrich

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(\text{n},\gamma)$ ,E=8-14 MeV; calculated  $\sigma(E,\theta)$ . Pure resonance model. Compared with direct-semidirect model predictions.

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**Keynumber:** 1978DIZL

**Coden:** CONF Brookhaven(Neutron Capt  $\gamma$ -Ray Spectr),Proc,P600,Dietrich

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(\text{n},\gamma)$ ,E=fast; calculated  $\sigma(En)$ . Direct-semidirect,Pre-resonance models.

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**Keynumber:** 1978CHYV

**Coden:** CONF BNL(Neutron Capt  $\gamma$ -Ray Spectr),Contrib,No16,Chakrabarty

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(\text{n},\text{n})$ ,  $^{208}\text{Pb}(\text{n},\gamma)$ ,E=8.05 MeV; calculated  $\sigma(\theta)$ . direct-semidirect capture formalism,microscopic isovector optical potential.

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**Keynumber:** 1978CHYJ

**Coden:** REPT BARC-990,P16,Chatterjee

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(\text{n},\gamma)$ ,E not given; calculated  $\sigma$ . Optical potential. Hard-core nucleon-nucleon interaction. Complex isovector part.

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**Keynumber:** 1978CHXS

**Coden:** CONF Brookhaven(Neutron Capt  $\gamma$ -Ray Spectr),Proc,P576,Chakrabarty

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(\text{n},\gamma)$ ,E=6-14 MeV; calculated  $\sigma(E)$ .  $^{208}\text{Pb}$  ( $\text{n},\text{n}$ ),E=8.05 MeV; calculated  $\sigma(\theta)$ . Microscopic isovector optical potential.

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**Keynumber:** 1978BEYD

**Coden:** REPT Uppsala,Tandem Accelerator Lab,1978 Ann,p55,7-4-2,Bergqvist

**Keyword abstract:** NUCLEAR REACTIONS  $^{28}\text{Si}$ ,  $^{32}\text{S}$ ,  $^{40}\text{Ca}$ ,  $^{89}\text{Y}$ ,  $^{140}\text{Ce}$ ,  $^{208}\text{Pb}(\text{n},\gamma)$ ,E=5-15 MeV; measured  $\sigma$ . direct-semidirect,compound nuclear models.

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**Keynumber:** 1978ARZY

**Coden:** JOUR BAPSA 23 62 GE5 Arthur

**Keyword abstract:** NUCLEAR REACTIONS C,Y,Sr,  $^{208}\text{Pb}(n,\gamma)$ ,E=7-14 MeV; measured  $\sigma(E,E\gamma,\theta)$ .

**Keynumber:** 1978ARZI

**Coden:** REPT Uppsala,Tandem Accelerator Lab,1978 Ann,p59,7-4-6,Arthur

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ ,E=7-19 MeV; measured  $\gamma(\theta)$ .

**Keynumber:** 1977PO01

**Reference:** Nucl.Phys. A277, 29 (1977)

**Authors:** M.Potokar, A.Likar, M.Budnar, F.Cvelbar

**Title:** Analysis of Fast Neutron Capture Data Based on the Refined Direct-Semidirect Model

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}$ ,  $^{88}\text{Sr}$ ,  $^{40}\text{Ca}$ ,  $^{89}\text{Y}(n,\gamma)$ ,E  $\approx$  14 MeV; calculated  $\sigma$ .

**Keynumber:** 1977LI08

**Reference:** Nucl.Phys. A280, 49 (1977)

**Authors:** A.Likar, M.Potokar, F.Cvelbar

**Title:** Angular Distribution of  $\gamma$ -Rays from the Radiative Capture of Fast Nucleons

**Keyword abstract:** NUCLEAR REACTIONS  $^{88}\text{Sr}$ ,  $^{40}\text{Ca}$ ,  $^{208}\text{Pb}(n,\gamma)$ ,E=4-20 MeV;  $^{39}\text{K}$ ,  $^{64}\text{Ni}(p,\gamma)$ ,E <25 MeV; calculated  $\gamma(\theta)$  coefficient.

**Keynumber:** 1977CHXW

**Reference:** Proc.Nucl.Phys.and Solid State Symposium, Pune, Vol.20B, p.147 (1977)

**Authors:** D.R.Chakrabarty, S.K.Gupta

**Title:** Direct and Collective Nucleon Capture using Microscopic Optical Potential

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ ,E=7-15 MeV; calculated  $\sigma(E)$ . Particle-vibration coupling,complex isovector term in nucleon-nucleus optical potential.

**Keynumber:** 1976LO10

**Reference:** Phys.Lett. 65B, 15 (1976)

**Authors:** G.Longo, F.Sapozetti

**Title:** Isoscalar and Isovector Quadrupole Capture of Nucleons

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ , (p, $\gamma$ ),E=5-50 MeV; calculated  $\sigma(E)$ .

**Keynumber:** 1976LO07

**Reference:** Lett.Nuovo Cim. 16, 193 (1976)

**Authors:** G.Longo, G.Reffo, F.Sapozetti

**Title:** Compound-Nucleus and Direct-Semidirect Contributions to Radiative Capture of Fast Neutrons

**Keyword abstract:** NUCLEAR REACTIONS  $^{89}\text{Y}$ ,  $^{140}\text{Ce}$ ,  $^{208}\text{Pb}(n,\gamma)$ ,E=5-15 MeV; calculated  $\sigma$ ; deduced compound nucleus contributions,direct,semidirect contributions.

**Keynumber:** 1976LE27

**Reference:** Phys.Lett. 65B, 201 (1976)

**Authors:** H.C.Lee, F.C.Khanna, M.A.Lone, A.B.McDonald

**Title:** Doubly Radiative Neutron Capture by  $^2\text{H}$ ,  $^3\text{He}$ ,  $^{16}\text{O}$  and  $^{208}\text{Pb}$

**Keyword abstract:** NUCLEAR REACTIONS  $^2\text{H}$ ,  $^3\text{He}$ ,  $^{16}\text{O}$ ,  $^{208}\text{Pb}(n,\gamma)$ ,E=th; calculated  $\sigma(2\gamma)$ , $\sigma(2\gamma)/\sigma(\gamma)$ .

**Keynumber:** 1976KI06

**Reference:** J.Phys.Soc.Jap. 41, 1102 (1976)

**Authors:** H.Kitazawa, N.Yamamoto

**Title:** Giant Quadrupole Capture of Energetic Nucleons by Nuclei

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(\text{n},\gamma)$ , E=5-20 MeV; calculated E1,E2 capture  $\sigma$ .

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**Keynumber:** 1975DRZY

**Coden:** JOUR BAPSA 20 173 IB19

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(\text{n},\gamma)$ , E=11 MeV; measured  $\sigma(E\gamma)$ .

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**Keynumber:** 1974SA14

**Reference:** Bull.Tokyo Inst.Technol.(Engl.Ed.) No.121, 1 (1974)

**Authors:** K.Sakurada, H.Kitazawa, N.Yamamuro

**Title:** Dependence of the Collective Neutron Capture Cross Section on Several Parameters

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(\text{n},\gamma)$ , E=12.0,14.7 MeV; calculated  $\sigma(E), \sigma(E\gamma)$ ; deduced dependence on potential parameters.

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**Keynumber:** 1974LO14

**Reference:** Nuovo Cim. 20A, 373 (1974)

**Authors:** G.Longo, F.Saporetti, F.Rigaud, J.L.Irigaray, G.Y.Petit

**Title:** Different Coupling Interactions in Semi-Direct Capture of 14 MeV Neutrons by Si, Sr, Ce and  $^{208}\text{Pb}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{28}\text{Si}, ^{88}\text{Sr}, ^{140}\text{Ce}, ^{208}\text{Pb}(\text{n},\gamma)$ , E=14 MeV; calculated  $\sigma(E\gamma)$ .

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**Keynumber:** 1974LE21

**Reference:** Phys.Rev. C10, 1223 (1974)

**Authors:** A.Lev, W.P.Beres

**Title:** Imaginary Optical Potential in  $^{206}\text{Pb}$  and its Comparison to  $^{208}\text{Pb}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{206}, ^{208}\text{Pb}(\text{n},\gamma)$ , E=0-12 MeV; calculated imaginary optical potential,  $\sigma(E)$ .

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**Keynumber:** 1974ALYP

**Coden:** REPT BARC-770 P30

**Keyword abstract:** NUCLEAR REACTIONS  $^{180}\text{Hf}, ^{203}\text{Tl}, ^{208}\text{Pb}, ^{209}\text{Bi}(\text{n},\alpha), (\text{n},\gamma)$ , E=thermal; measured  $\sigma(E,\text{E}\alpha)/\sigma(E,\text{E}\gamma)$ .  $^{178m}\text{Lu}$  deduced isomeric cross-section ratio,J.

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**Keynumber:** 1973RIZK

**Coden:** CONF Asilomar(Photonuclear Reactions),Vol2 P953

**Keyword abstract:** NUCLEAR REACTIONS  $^{28}\text{Si}, ^{88}\text{Sr}, ^{140}\text{Ce}, ^{208}\text{Pb}(\text{n},\gamma)$ ; measured  $\sigma(E\gamma)$ .  $^{29}\text{Si}, ^{89}\text{Sr}, ^{141}\text{Ce}, ^{209}\text{Pb}$  deduced levels.

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**Keynumber:** 1973MAXD

**Coden:** CONF Munich(Nucl Phys),Vol1 P639

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(\text{n},\gamma)$ ; calculated  $\sigma(E)$ .

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**Keynumber:** 1973MAWC

**Coden:** JOUR ZEPYA 263 No3 abstracts (Mantzouranis)

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(\text{n},\gamma)$ ; calculated  $\sigma$ .

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**Keynumber:** 1973MA37

**Reference:** Z.Phys. 264, 405 (1973)

**Authors:** G.Mantzouranis

**Title:** Direct and Compound Contributions to  $(n,\gamma)$  Cross Sections

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ , E=2.25-7.25 MeV; calculated  $\sigma(E)$ .

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**Keynumber:** 1973LO01

**Reference:** Nucl.Phys. A199, 530 (1973)

**Authors:** G.Longo, F.Saporetti

**Title:** Volume Form of Coupling Interaction in Semi-Direct  $(n,\gamma)$  and  $(p,\gamma)$  Reactions

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ ,  $^{142}\text{Ce}(p,\gamma)$ , E < 20, Ep < 50 MeV; calculated  $\sigma$  for giant resonance region.

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**Keynumber:** 1973LE12

**Reference:** Phys.Rev.Lett. 31, 555 (1973)

**Authors:** A.Lev, W.P.Beres, M.Divadeenam

**Title:** Imaginary Optical Potential for the Compound Nucleus  $^{209}\text{Pb}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ , E=0-12 MeV; measured nothing, calculated  $\sigma(E)$ , absorption  $\sigma$ , imaginary optical potential.

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**Keynumber:** 1973KIYT

**Coden:** REPT INDC(JAP)-17L PV-2

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ ; calculated  $\sigma(E)$ .

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**Keynumber:** 1973KI15

**Reference:** Bull.Tokyo Inst.Technol.(Engl.Ed.) No.116, 11 (1973)

**Authors:** H.Kitazawa, S.Karashima, K.Koyama, K.Sakurada, N.Yamamoto

**Title:** Direct and Semi-Direct Radiative Captures of 14 MeV Neutrons by Nuclei

**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(n,\gamma)$ , E=14.7,13.2,11.2,9.2 MeV; calculated  $E\gamma, I\gamma, \sigma$ .

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**Keynumber:** 1973AL18

**Reference:** Phys.Rev. C8, 1504 (1973)

**Authors:** B.J.Allen, R.L.Macklin, R.R.Winters, C.Y.Fu

**Title:** Neutron-Capture Cross Sections of the Stable Lead Isotopes

**Keyword abstract:** NUCLEAR REACTIONS  $^{204}, ^{206}, ^{207}, ^{208}\text{Pb}(n,\gamma)$ , E > 2.5 keV; measured  $\sigma(E; E\gamma)$ .  
 $^{205}, ^{207}, ^{208}, ^{209}\text{Pb}$  deduced resonances, level-width.

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**Keynumber:** 1973AL06

**Reference:** Nucl.Phys. A205, 614 (1973)

**Authors:** J.Alam, M.L.Sehgal

**Title:** Study of  $(n,\alpha)$  Reactions at Thermal Energies

**Keyword abstract:** NUCLEAR REACTIONS  $^{180}\text{Hf}$ ,  $^{203}\text{Tl}$ ,  $^{208}\text{Pb}$ ,  $^{209}\text{Bi}(n,\alpha)$ ,  $(n,\gamma)$ , E=thermal; measured  $\sigma(n,\alpha)/\sigma(n,\gamma)$ .

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**Keynumber:** 1972POZJ

**Coden:** CONF Budapest,Contributions,P250,10/13/72

**Keyword abstract:** NUCLEAR REACTIONS  $^{28}\text{Si}$ ,  $^{40}\text{Ca}$ ,  $^{88}\text{Sr}$ ,  $^{138}\text{Ba}$ ,  $^{208}\text{Pb}(n,\gamma)$ , E=14 MeV; calculated  $\sigma(E\gamma)$ .

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**Keynumber:** 1972BO23**Reference:** Nucl.Phys. A189, 334 (1972)**Authors:** J.P.Boisson, S.Jang**Title:** Direct and Semi-Direct Radiative Capture of Nucleons in Deformed Nuclei**Keyword abstract:** NUCLEAR REACTIONS  $^{160}\text{Gd}$ ,  $^{159}\text{Tb}$ ,  $^{208}\text{Pb}$ ,  $^{238}\text{U}(\text{n},\gamma)$ , E=14 MeV; calculated  $\sigma(E\gamma)$ .

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**Keynumber:** 1972BE46**Reference:** Nucl.Phys. A191, 641 (1972)**Authors:** I.Bergqvist, D.M.Drake, D.K.McDaniels**Title:** Radiative Capture of Energetic Neutrons by  $^{208}\text{Pb}$ **Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(\text{n},\gamma)$ , E=6.2-14.7 MeV; measured  $\sigma(E\gamma)$ ; deduced total  $\sigma$ ; tested semi-direct capture theory.  $^{209}\text{Pb}$  deduced giant resonance structure. Isotopic target.

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**Keynumber:** 1971DR07**Reference:** Phys.Lett. 36B, 557 (1971)**Authors:** D.Drake, I.Bergqvist, D.K.McDaniels**Title:** Dependence of 14 MeV Radiative Neutron Capture on Mass Number**Keyword abstract:** NUCLEAR REACTIONS  $^{165}\text{Ho}$ ,  $^{208}\text{Pb}$ ,  $^{238}\text{U,Gd,Ta,Au}(\text{n},\gamma)$ , E=14 MeV; measured  $\sigma$ .

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**Keynumber:** 1971BE38**Reference:** Phys.Rev.Lett. 27, 269 (1971)**Authors:** I.Bergqvist, D.Drake, D.K.McDaniels**Title:** Spectrum of the Reaction  $^{208}\text{Pb}(\text{n},\gamma)^{209}\text{Pb}$  and Semidirect Capture Theory**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(\text{n},\gamma)$ , E=9.2,11.2,13.2 MeV; measured  $\sigma(E\gamma)$ ; deduced agreement with semidirect capture theory.

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**Keynumber:** 1970LO06**Reference:** Nuovo Cimento 67A, 356 (1970)**Authors:** G.Longo, F.Saporetti**Title:** Different Contributions of Direct and Collective Capture in  $(\text{p},\gamma)$  and  $(\text{n},\gamma)$  Reactions**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(\text{n},\gamma)$ ,  $(\text{p},\gamma)$ , E=6-30 MeV; calculated  $\sigma(E)$ ; deduced direct, collective contributions.

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**Keynumber:** 1969MA30**Reference:** Phys.Rev. 181, 1639 (1969)**Authors:** R.L.Macklin, J.H.Gibbons**Title:**  $^{208}\text{Pb}(\text{n},\gamma)$  Cross Sections by Activation Between 10 and 200 keV**Keyword abstract:** NUCLEAR REACTIONS  $^{208}\text{Pb}(\text{n},\gamma)$ , E = 10-200 keV; measured  $\sigma(E)$ .  $^{209}\text{Pb}$  resonances deduced level-width.

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**Keynumber:** 1968EMZX**Coden:** REPT ORNL-4343,P71**Keyword abstract:** NUCLEAR REACTIONS  $^{64}\text{Ni}$ ,  $^{208}\text{Pb}(\text{n},\gamma)$  E=thermal; measured  $\sigma$ .