^{58}Ni(n,γ) E=2-120 keV 1986MaYZ,1978Be04,1972KeZT

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia	NDS 151, 1 (2018)	1-Apr-2018

1972KeZT: E(n)=4-90 keV, natural target (see also 1968Al18).
1978Be04: E(n)=7-70 keV, time of flight. Measured Eγ, Iγ. Natural target.
1986MaYZ: E(n)=15.4 keV, natural Ni target.
Others: 1972GrZA (E(n)=2 keV, natural target); 1984Wi02 (E(n)=15.4 resonance, enriched target); 2000Po08 (E(n)=10-120 keV).
Primary γ rays from various n resonances have been observed to feed the levels listed below; for their relative Iγ, see 1986MaYZ (15.4-keV resonance), 1972GrZA (E(n)=2 keV) and 1972KeZT (E(n)=15.4, 32.4, 47.8, 63 resonances), and for partial Γ_γ data for several resonances, see 1978Be04. An additional level reported at 3045 keV by 1972KeZT is omitted here. It is fed by Eγ=5961 primary, measured by 1972KeZT using thermalized neutrons; however, that Eγ implies E(level)=3039 and, in any case, no such γ has been reported in ^{58}Ni(n,γ) E=thermal.
Resonance data are not included here. For resonance parameters of many resonances in the range −50 to 650 keV, see 1981MuZQ.

^{59}Ni Levels

E(level)[†]	Comments
0.0	
339[‡]	
465	
878	
1301	
1735	
2415	
2894[#]	
(8999.28 *5*)	E(level): neutron separation energy (2017Wa10).

[†] From Adopted Levels, rounded to nearest keV.
[‡] Fed from 47.8, 26.1+26.7 and 20.0+21.2 keV resonances (1978Be04).
[#] Reported by 1972KeZT only.