^{65}Cu(p,n) 1970We02

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 111, 2425 (2010)	1-Aug-2009

1970We02: E(p)=3.62-4.50 MeV, FWHM≈15-40 keV; n time-of-flight; measured σ(E(n),θ), θ=0°−150°; Hauser-Feshbach analysis.
1970Fi03: E(p)=3.4-5.4 MeV, FWHM≈12-25 keV; n time-of-flight.
1960Mc12: E(p)=2.4-4.7 MeV, FWHM≈30 keV; resonant scattering technique.
1971Da32: E(p)=2.959 MeV (res); n time-of-flight; measured σ(E(n),θ), θ=20°−120°.
1989Sc24: measured Q value for ^{65}Cu(p,n)=−2.13355 MeV *43*.
Data are mainly from 1970We02. Other: 1966St20.
For p-induced cross section and threshold data see 1960Sh08, 1962An02, 1963Ok01, 1964Jo11, 1978Sw03, 1982Gr09 and 1983HeZZ.

^{65}Zn Levels

J from Hauser-Feshbach analysis (1970We02) is given in comments; 1970We02 assumed allowed ^{65}Ga ε decay (J^{π}(g.s.)=5/2$^-$ for ^{65}Ga) to the 769, 1047 and 1341 levels and known L(d,p) values for the other levels.

E(level)[†]	Comments
0	J=(5/2); confirmed by 1971Da32.
53 *5*	J=(1/2); confirmed by 1971Da32.
116 *5*	J=(3/2); confirmed by 1971Da32.
209 *5*	J=(3/2).
769 *5*	J=(3/2,5/2).
865 *5*	E(level): corresponds to an unresolved J=(1/2)+(7/2) level doublet (1970We02).
908 *5*	J=(3/2).
1047 *5*	J=(3/2,5/2).
1064 *5*	J=(9/2).
1251[‡] *5*	
1261[‡] *5*	
1341 *5*	J=(3/2,5/2).
1367 *5*	J=(5/2).
1470 *5*	J=(3/2).
1577 *5*	
1590 *5*	
1963 *14*	E(level): from 1960Mc12.

[†] Except as noted, E(level) are from 1970We02, in agreement with 1970Fi03.
[‡] Component of unresolved level doublet (1970We02).