^{63}Cu(d,α) 1969Da09,1967Hj01

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	ENSDF	20-Jan-2020

No changes made since the 2015 update.

1969Da09: E=10.5-12.5 MeV. Measured σ(E,Eα,θ), θ=50°, 70°, semi, FWHM≈60 keV, measured Eα, magnetic spectrograph, FWHM≈11 keV, the authors proposed only an α-particle spectral Fig. 2 up to 3550 keV.

1967Hj01: E=15 MeV. Measured σ(Eα,θ), 15 angles between 20° and 90°, magnetic spectrograph, FWHM≈50 keV, enriched target.

J^{π}(^{63}Cu g.s.)=3/2$^-$.

^{61}Ni Levels

E(level)[†]	L[‡]	S[#]	Comments
0.0	(0+2)	4.16	
68	4	1.98	
283	(0+2)	1.16	
656	(0+2)	0.47	
910			
1017			
1101			
1133	(0+2)	1.77	L,S: for 1100+1132 levels.
1186	(0+2)	1.19	
1455	(4)	1.46	
1610?			
1730			
1809			
1984	(4)	1.89	L,S: for 1988+2018 levels. doublet 1984 and 1997.
2015			
2116	(4)	1.10	doublet 2116 and 2124.
2407			
2466	(4)	1.64	L,S: for 2407+2464 levels.
2527			
2594			
2641			
2696			
2762?			
2791			doublet 2791 and 2801.
2857			
2895	4	2.57	
3040			
3060			
3105	(2)	0.60	L,S: for 3106+3125+3145 levels.
3125			
3145			
3189?			
3236?			
3256[‡]	4	8.61	L,S: for 3260+3288 levels. doublet 3256 and 3265.
3282			doublet 3282 and 3293.
3354?			
3430			
3530			
3748[‡] *50*			
3960[‡] *50*			

Continued on next page (footnotes at end of table)

^{63}Cu(d,α) 1969Da09,1967Hj01 (continued)

^{61}Ni Levels (continued)

E(level)†	E(level)†	E(level)†
4050‡ *50*	4291‡ *50*	4657‡ *50*
4201‡ *50*	4430‡ *50*	4824‡ *50*
		5074‡ *50*

† The level energies from Fig. 2 in 1969Da09, except as noted.
‡ From 1967Hj01.
# Spectroscopic coefficient from comparison to DWBA calculations with theoretical admixture of L values (1967Hj01).