^{64}Zn(d,^{3}He) 1979Ha03,1978Ze04,1991Se09

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Huo Junde, Yang Dong, Huo Meirong,	ENSDF	28-Aug-2008

1979Ha03 E=55 MeV, FWHM≈100 keV.
1978Ze04 E=23.3 MeV, FWHM<50 keV.
1991Se09: ^{64}Ni(d,^{3}He),(polarized d,^{3}He), E=52 MeV; measured σ(E(^{3}He)), $\sigma(\theta)$, vector-analyzing power.
Other: 1977Br27.

^{63}Cu Levels

E(level)[#]	J$^{\pi}$[‡]	L[†]	C^{2}S[#]	Comments
0.0	3/2$^-$	1	1.2	C^{2}S: other: 1.6 (1978Ze04).
671[@] *5*	1/2$^-$	1	0.33[&]	C^{2}S: other: 0.43 (1978Ze04).
961 *3*	5/2$^-$	3	0.7	C^{2}S: other: 0.5 (1978Ze04).
1331 *3*	7/2$^-$	3	1.4	
1411[@] *5*	5/2$^-$	3	0.28[&]	C^{2}S: other: 0.2 (1978Ze04).
1546[@] *5*	3/2$^-$	1	0.02[&]	C^{2}S: other: 0.045 (1978Ze04).
1862 *5*	7/2$^-$	3	1.9	
2092[@] *5*	7/2$^-$	3	0.34[&]	C^{2}S: other: 0.5 (1978Ze04).
2340[@] *5*			0.05[&]	
2405[@] *5*			0.05[&]	
2507[@] *5*	5/2$^-$,9/2$^+$	3+4	0.2[&]	Both L=3 and L=4 strength are required in $\sigma(\theta)$, C^{2}S=0.2 for each component (1979Ha03).
2673 *6*	7/2$^-$	3	0.4	
2798[@] *5*			0.02,0.01[&]	
2835[@] *5*	7/2$^-$	3	0.2,0.1[&]	C^{2}S: other: 0.3 (1978Ze04).
2847[@] *5*	7/2$^-$	3	0.06,0.05[&]	
3037[@] *5*			0.01[&]	
3224[@] *5*				
3297[@] *7*	3/2$^-$	1,(3)	0.06[&]	
3434[@] *5*			0.03,0.02[&]	
3460[@] *5*			0.06,0.05[&]	
3578[@] *5*	7/2$^-$	3	0.06,0.05[&]	C^{2}S: other: 0.8 (1978Ze04).
3678[@] *5*			0.79,0.42[&]	
3730 *20*	7/2$^-$	3	0.8	
3774[@] *5*			0.72,0.38[&]	
3890[@] *5*	7/2$^-$	3	1.0,0.52[&]	C^{2}S: other: 0.8 (1978Ze04).
4023[@] *5*			0.02,0.01[&]	
4111[@] *5*	1/2$^+$	0	0.4	
4133[@] *5*				
4222[@] *5*			0.71,0.37[&]	
4286[@] *5*	7/2$^-$	3,(1)	0.33,0.17[&]	
4356[@] *5*			0.04,0.03[&]	
4375[@] *5*			0.16,0.08[&]	
4436 *5*	1/2$^+$	0	0.36	C^{2}S: other: 0.6 (1978Ze04).
4503[@] *5*			1.02,0.52[&]	
4580 *40*	7/2$^-$	3	0.6	
4735[@] *5*			0.08[&]	
4799[@] *5*	(1/2$^+$)	(0)	0.13[&]	C^{2}S: other: 0.3 (1978Ze04).

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^{64}Zn(d,^{3}He) 1979Ha03,1978Ze04,1991Se09 (continued)

^{63}Cu Levels (continued)

E(level)[#]	Jπ[‡]	L[†]	C^{2}S[#]	Comments
4958[@] *5*	7/2$^-$	3	0.29,0.15[&]	C^{2}S: other: 0.4 (1978Ze04).
5163[@] *5*	3/2$^-$	3,1	0.2	L: L=1 and L=3 are equally likely.
5191[@] *5*				
5342[@] *5*	(1/2$^+$)	(0)	(0.3)	
5420[@] *5*				
5646[@] *5*	(7/2$^-$)	(3)	(0.3)	
5713[@] *5*				
5831[@] *5*	(7/2$^-$)	(3)	(0.3)	
6.5×10^3 *10*	3/2$^+$	2	2.7	C^{2}S: integral from 5.5 to 7.5 MeV of excitation.
8.5×10^3 *10*	3/2$^+$	2	1.8	C^{2}S: integral from 7.5 to 9.5 MeV of excitation.

[†] From DWBA analysis (1979Ha03).
[‡] Value assumed by the authors for the extraction of S.
[#] From 1979Ha03, except as noted.
[@] From 1991Se09.
[&] S=c2s*0.47, from 1991Se09.