^{68}Zn(^{3}He,α) 1973DaXY,1967Bo39

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Huo Junde, Huang Xiaolong, J. K. Tuli	NDS 106, 159 (2005)	1-Apr-2005

1973DaXY: E(^{3}He)=15,17 MeV, FWHM=15-20 keV at most angles, measured $\sigma(\theta)$, θ=5°- 35°, DWBA analysis.
1967Bo39: E(^{3}He)=33 MeV, FWHM=35 keV, measured $\sigma(\theta)$, θ=15°- 45°, DWBA analysis.
The level properties are based on 1973DaXY, except where noted otherwise.

^{67}Zn Levels

E(level)[†]	J$^{\pi}$[&]	L[‡]	C^{2}S	Comments
0	5/2$^-$	3	4.80	
90 *20*	1/2$^-$	1	0.90	
180 *20*				
400 *20*	3/2$^-$	1	2.1	
610 *20*	9/2$^+$	4	0.96	
870 *20*	(5/2$^-$)	(3)[@]	(0.28)	
980 *20*	(1/2$^-$)	(1)[@]	(0.23)	
1060 *20*				
1130 *20*	(1/2$^-$)	(1)	(0.4)	
1370 *20*		(1,3)[@]		
1670 *20*	(7/2$^-$)	3	0.42	
1800 *20*		(3)		C^{2}S: 1.17 for J=(5/2$^-$); 0.77 for J=(7/2$^-$).
1880 *20*				
2110	(3/2$^+$)	(2)	(0.6)	
2260				
2420		(3)		C^{2}S: 0.22 for J=(7/2$^-$); 0.33 for J=(5/2$^-$).
2510				
2570				
2700				
2870		(3)		C^{2}S: 0.43 for J=(7/2$^-$); 0.62 for J=(5/2$^-$).
3350				
3690		3		C^{2}S: 0.23 for J=7/2$^-$; 0.38 for J=5/2$^-$.
3880				C^{2}S: 0.64 for J=7/2$^-$; 0.96 for J=5/2$^-$.
4030				
4110				
4170				
4230				
4310	(7/2$^-$)	(3)	(0.34)	
4409				
4480	(7/2$^-$)	(3)	(0.22)	
4550	(7/2$^-$)	(3)	(0.15)	
4680	(7/2$^-$)	(3)	(0.13)	
4790	(7/2$^-$)	(3)	(0.20)	
5040				
5090				
9020?				
9280	(3/2$^-$)		(0.31)	
11470[#]				

[†] Energy uncertainty is about 20 keV below 2 MeV and could not be estimated by authors above 2 MeV (1973DaXY).
[‡] From 1973DaXY, unless indicated otherwise; determined by comparison with data for low-lying levels with known spin since the DWBA calculations did not reproduce the data well.
[#] Observed only by 1967Bo39.

Continued on next page (footnotes at end of table)

^{68}Zn(^{3}He,α) 1973DaXY,1967Bo39 (continued)

^{67}Zn Levels (continued)

@ L values and associated S values from 1967Bo39.
& Assumed to extract spectroscopic factors.