Inelastic scattering 1965Li10

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 111, 1093 (2010)	3-Mar-2009

(d,d′): 1965Li10: E(d)=15 MeV, FWHM≈120 keV; measured $\sigma(\theta)$.
1969Jo01: E(d)=11.5, 11.8 MeV, FWHM≈25 keV; measured $\sigma(\theta)$, θ≈20°−100°; DWBA analysis.
(^{3}He,^{3}He′): 1971Ha45: E=24 MeV, FWHM≈300 keV; measured $\sigma(\theta)$, θ=15°−100°; coupled-channels analysis.
(^{14}C,^{14}C′): 1981Ha23: E=51 MeV, FWHM=60-100 keV; measured $\sigma(\theta)$, θ≈15°−60°; DWBA and coupled-channels analysis.
Data are mainly from the ^{66}Zn(d,d′) work of 1965Li10. Others: 1961Co07 and 1968Al20.

^{66}Zn Levels

Jp assignments only for the 1037, 1830, 2410, and 2819 keV levels are given in (d,d′) based on a comparison with levels in even-even selenium isotopes. Parities are from cross-section ratios at θ=35° and θ=47° (1965Li10). Level energies do not agree well with those given in Adopted Levels.

E(level)[†]	Jπ[‡]	S[#]	Comments
0	0^+		
1037[@]	2^+	3.8 *11*	β_2=0.242 *6* (1969Jo01) β_2: Others: 0.227 (1971Ha45), 0.21 (1981Ha23).
1830	2^+	0.31 *9*	
2410	4^+	0.34 *10*	E(level): possible doublet (1965Li10).
2819[@]	3^-	1.4 *4*	β_3=0.207 *7* (1969Jo01) β_3: Other: 0.180 (1971Ha45).
3080	4^+	0.33 *10*	
3220		0.08 *2*	
3340	2^+	0.10 *3*	
3450	$1^{(-)}$	0.09 *3*	
3570	4^+	0.13 *4*	
3760	(1^-)	0.32 *10*	
3940	(1^-)	0.19 *6*	
4100		0.11 *3*	

[†] From 1965Li10, except as noted, uncertainties not given.
[‡] From Adopted Levels.
[#] Cross section in mb/sr, at θ=45° (1965Li10).
[@] From 1969Jo01.