

${}^{64}\text{Ni}({}^6\text{Li},\text{d})$  1979Ba11

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 113, 1735 (2012)	1-Mar-2012

1979Ba11: E( ${}^6\text{Li}$ )=28 MeV. Measured  $\sigma(\theta)$ ,  $\theta=5^\circ-50^\circ$  ( $5^\circ$  steps) using split pole spectrometer and sonic spark counter (FWHM=100 keV); DWBA analysis.

1972Gu12: E( ${}^6\text{Li}$ )=38 MeV. Similar experimental set-up as 1979Ba11.

 ${}^{68}\text{Zn}$  Levels

E(level) <sup>†</sup>	L <sup>‡</sup>	$\sigma(\text{exp})/\sigma(\text{DWBA})$ <sup>@</sup>	Comments
0	0	0.28	
1080 20	2	0.056	
1880 20	2	0.034	
2340?			
2440 20	4	0.031	E(level): unresolved from the 2340 level.
2750 20	3	0.039	
2820 20			E(level): Observed only by 1972Gu12.
2970 20	(4)	0.014	
3470 20	5	0.011	L: 5 on basis of (t,p) data.
3750 20	(1) <sup>#</sup>	0.073	$\sigma(\text{exp})/\sigma(\text{DWBA})$ : 0.045 + 0.006 for L=0+4 combination.
4550 20	2+3		E(level): probable doublet. $\sigma(\text{exp})/\sigma(\text{DWBA})$ : 0.042 (L=2) + 0.025 (L=3).
5030 20	(1) <sup>#</sup>	0.070	$\sigma(\text{exp})/\sigma(\text{DWBA})$ : 0.053 + 0.0073 for L=0+4 combination.

<sup>†</sup> From 1979Ba11, except where noted.

<sup>‡</sup> From DWBA fits to  $\sigma(\theta)$  for  $\alpha$  transfer.

<sup>#</sup> Best fit obtained for single L value is L=1, although mixture of L=0+4 also provides similar quality fit.

<sup>@</sup> The authors also give spectroscopic factors from shell-model and interacting boson model calculations.