

$^{71}\text{Ga}(d,^3\text{He})$  1977Ro22

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	G. Gürdal, E. A. Mccutchan		NDS 136, 1 (2016)	1-Jul-2016

Target:  $J^\pi=3/2^-$ .

E(d)=26 MeV. Measured  $\sigma(\theta)$  using split-pole magnetic spectrograph and four solid-state position sensitive detectors (FWHM=18-20 keV); DWBA analysis. Subset of results given in [1978RoYT](#).

$\Sigma C^2S$  compared to theory is as follows:

L	expt	theory
---	----	-----
1	2.76	
3	0.25	
sum	3.01	3

 $^{70}\text{Zn}$  Levels

E(level)	L <sup>†</sup>	C <sup>2</sup> S <sup>‡</sup>	Comments
0.0	1	0.5	
880 <i>IO</i>	1+3	0.21+0.13	
1069 <i>IO</i>	1	0.11	
1756 <i>IO</i>	1(+3)	0.25+0.0	C <sup>2</sup> S: 0.22+0.22.
1786? <i>IO</i>	3	0.1	
1949 <i>IO</i>	1(+3)	1.4+0.0	C <sup>2</sup> S: 1.4+0.23.
2126? <i>IO</i>	1	0.011	
2524? <i>IO</i>	1+3		C <sup>2</sup> S: 0.004+0.006.
2652 <i>IO</i>	1(+3)	0.096+0.0	C <sup>2</sup> S: 0.074+0.17.
2930? <i>IO</i>	1(+3)	0.024+0.0	C <sup>2</sup> S: 0.016+0.038.
3022 <i>IO</i>	(1)	0.055	L: adopted $J^\pi=5^-$ is inconsistent with L=1.
3503? <i>IO</i>	1+3	0.02+0.02	L: adopted $J^\pi=5^-$ is inconsistent with L=1. C <sup>2</sup> S: 0.008+0.1.
3616? <i>IO</i>	1(+3)	0.027+0.0	C <sup>2</sup> S: 0.022+0.049.
3661? <i>IO</i>	1(+3)	0.052+0.0	C <sup>2</sup> S: 0.039+0.087.

<sup>†</sup> From DWBA analysis of  $\sigma(\theta)$ .

<sup>‡</sup> For L=1 computed assuming p3/2 transfer. For mixed transitions the authors provide two spectroscopic factors for each level corresponding to the extreme mixing coefficients compatible with observed angular distribution; the second set of values are given in the level comment.