

$^{130}\text{Te}(^3\text{He},\alpha)$  1982Ga18

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Janos Timar and Zoltan Elekes, Balraj Singh		NDS 121, 143 (2014)	31-May-2014

**1982Ga18:** E=70 MeV; measured  $\alpha$  spectra with a magnetic spectrometer,  $\sigma(\theta)$  at  $7^\circ$ ,  $15^\circ$ ,  $25^\circ$ . FWHM=70 keV. DWBA analysis.  
**2013Ka04, 2013KaZZ:** E( $^3\text{He}$ )=40 MeV beam from Yale tandem accelerator of WNSL facility. Measured  $\alpha$  spectra,  $\sigma(\theta)$  using a split-pole. magnetic spectrograph. FWHM  $\approx 70$  keV. Deduced cross section for 105,  $11/2^-$  level.

 $^{129}\text{Te}$  Levels

E(level)	L <sup>†</sup>	C <sup>2</sup> S <sup>†</sup>	Comments
0.0	2	2.1	C <sup>2</sup> S: if $2d_{3/2}$ .
105 10	5	7.2	E(level): level reported in <a href="#">2013Ka04</a> and <a href="#">2013KaZZ</a> with $d\sigma/d\Omega=5.16$ mb/sr at $5^\circ$ and 1.11 mb/sr at $22.5^\circ$ . C <sup>2</sup> S: if $1h_{11/2}$ .
372 10	(2)		
461 10	4	0.21	C <sup>2</sup> S: if $1g_{7/2}$ .
783 10	(2)	0.26	
880 10	2	0.28	
970 10	2	1.7	C <sup>2</sup> S: if $2d_{5/2}$ .
1280 10	4	3.6	C <sup>2</sup> S: if $1g_{7/2}$ .
1535 10	4	0.65	C <sup>2</sup> S: if $1g_{7/2}$ .
1845 10	4	1.04	C <sup>2</sup> S: if $1g_{7/2}$ .
1920 10	2	0.71	C <sup>2</sup> S: if $2d_{5/2}$ .
2180 25	(2+4)	0.2+0.3	C <sup>2</sup> S: <0.2, <0.3 if $2d_{5/2}+1g_{7/2}$ .
2370 25	4,5	0.8, 0.4	C <sup>2</sup> S: if $1g_{7/2}$ , $1h_{11/2}$ .
2515 25	5	0.28	C <sup>2</sup> S: if $1h_{11/2}$ .
2745 25	(4)		
2980 25	4	0.51	C <sup>2</sup> S: if $1g_{7/2}$ .
3500 25	4	0.47	C <sup>2</sup> S: if $1g_{7/2}$ .

<sup>†</sup> From DWBA.