

¹³⁰Te(p,d) 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=42 MeV; measured deuteron spectra with a magnetic spectrometer, $\sigma(\theta)$ at 7°, 15°, 25°. FWHM=30-40 keV. DWBA analysis.

2013Ka04, 2013KaZZ: E(p)=23 MeV beam from Yale tandem accelerator of WNSL facility. Measured deuteron spectra, $\sigma(\theta)$ using a split-pole spectrograph. FWHM \approx 30 keV. Deduced levels, configuration of g.s. of ¹³⁰Te. DWBA analysis.

1971SeZH: E=17 MeV; magnetic spectrograph, FWHM=10-15 keV, $\theta=30^\circ$; enriched target.

 $d\sigma/d\Omega$ in mb/sr from (p,d) E=23 MeV (**2013KaZZ**)

Level	5°	20°	35°	42°
0	0.11	0.26	0.31	0.49
106	0.36	0.30	0.56	0.61
180	8.30	1.74	1.10	0.68
360		0.015	0.004	0.008
545	0.022	0.026	0.007	0.012
760	0.045	0.064	0.042	0.045
813			0.022	0.014
872	0.045	0.066	0.028	0.041
967	0.64	1.60	0.44	0.70
1210	0.037	0.16	0.16	0.12
1281	0.50	1.03	0.30	0.49
1435	0.10	0.19	0.049	0.088
1487	0.013	0.029	0.028	0.024
1599	0.033	0.054	0.018	0.019
1672	0.52	0.94	0.28	0.47
1782	0.16	0.26	0.075	0.12
1892	0.21	0.16	0.058	0.066
2085	0.054	0.023	0.006	0.009
2140	0.12	0.051	0.017	0.022
2288	0.072	0.031	0.013	0.018
2340	0.099	0.040	0.026	0.023
2395	0.23	0.090	0.017	0.012

¹²⁹Te Levels

E(level)	L#	Comments
0.0 [†]	2	
107 [†]	5	
181 [†]	5	0
250	5	
360 [†]	5	
455	5	4
539 [†]	5	
775 [†]	5	(0+2) Additional information 1.
819 [†]	5	(2)
872 [†]	5	(2)
971 [†]	5	2
1217 [†]	5	2 Additional information 2.

Continued on next page (footnotes at end of table)

$^{130}\text{Te}(\text{p,d})$ **1982Ga18** (continued) ^{129}Te Levels (continued)

E(level)	L#	Comments
1290 [†] 5	(2+4)	Additional information 3.
1430 [†] 5		
1490 [†] 5		
1599 [†] 10	2 [@]	
1672 [†] 10	2 [@]	
1797 [†] 10		Additional information 4.
1892 [†] 10	(4+2)	
2085 [‡]		
2140 [†] 10	(0+2)	
2220 10	(0+2)	
2288 [†] 10	(0+2)	
2370 ^{&} 10	(4+2)	
2395 [‡]		
2450 10		
2524 15	(2)	
2620 15	(0+2)	
2735 15	(4+2)	
2891 15	(4+2)	
3077 15	(2)	
3240 15	(4+2)	
3310 15		
3395 15		
3450 15		
3520 15		

[†] Level also reported in [2013Ka04](#), [2013KaZZ](#).

[‡] Level from [2013Ka04](#), [2013KaZZ](#) only.

[#] From DWBA analysis of $\sigma(\theta)$ data.

[@] From $\sigma(\theta)$ data in [2013Ka04](#), [2013KaZZ](#).

[&] Strong peak at 2370 in [1982Ga18](#) is assumed to correspond to 2340 in [2013Ka04](#), [2013KaZZ](#).