

¹³⁰Te(p,t) 1971SeZH,2010BI06

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Zoltan Elekes and Janos Timar		NDS 129, 191 (2015)	28-Feb-2015

1971SeZH: Enge-split pole spectrometer, FWHM=10-15 keV.

1976Ma21, 1974Ma22: E=51.9 MeV, enriched metallic target, broad-range magnetic spectrometer.

2010BI06: E=23 MeV; 99.4% enriched target. Measured triton spectra and σ using the Yale split-pole magnetic spectrograph and a gas-filled focal plane detector. FWHM \approx 30 keV, $\theta_{lab}=5^\circ, 11^\circ, 17^\circ, 22^\circ$. Through the 2n transfer reactions, pair correlations studied in ¹³⁰Te, a candidate for neutrinoless double β decay experiments.

2010BIZY: Private communication received June 22, 2010 containing details of data in 2010BI06. Measured values in 2010BIZY at 5°. Uncertainty of ± 4 keV from e-mail reply (B. Kay).

L: from 1971SeZH unless otherwise noted.

¹²⁸Te Levels

E(level) [†]	L	Comments
0.0	0	
744 2	(2)	E(level): 735 4 from 2010BIZY.
1500.4 18	(4)	E(level): weighted average of 1971SeZH and 2010BIZY.
1523 2	(2)	
1972 2		E(level): 1969 4 derived from unresolved peak in 2010BIZY.
1982 2	0	E(level): 1981 4 derived from unresolved peak in 2010BIZY.
2030 2		Probable multiplet, 2024 4 in 2010BIZY.
2134 3	5 \ddagger	E(level): weighted average of 1971SeZH and 2010BIZY.
2163 4		E(level): from 2010BI06.
2196.0 20		E(level): weighted average of 1971SeZH and 2010BIZY.
2274 2		
2312.2 18	0	E(level): weighted average of 1971SeZH and 2010BIZY. L: from 2010BI06.
2341 2	7 \ddagger	
2353.8 18		E(level): weighted average of 1971SeZH and 2010BIZY.
2390 10		
2409 2		
2429 2		Probable multiplet; 2436 4 not resolved in 2010BIZY.
2485 2	3 \ddagger	E(level): 2490 4 not resolved in 2010BIZY.
2496 2	(3)	
2520 10		
2573 5		
2602? 5		
2633 5		
2650 3		E(level): weighted average of 1971SeZH and 2010BIZY.
2665 5		
2709 3		E(level): weighted average of 1971SeZH and 2010BIZY.
2759 4		E(level): weighted average of 1971SeZH and 2010BIZY.
2790 10		
2820? 10		
2886 5		
2910 10		
2932 5		E(level): 2010BIZY reports 2935 4 and 2955 4 derived from unresolved peak.
3000 10		
3031 5		
3055 5		
3069 5		
3098 5		
3137 5		
3185? 5		

Continued on next page (footnotes at end of table)

 $^{130}\text{Te}(\text{p,t})$ [1971SeZH,2010BI06](#) (continued) ^{128}Te Levels (continued)

<u>E(level)[†]</u>	<u>Comments</u>
3210 <i>10</i>	
3250 <i>10</i>	
3282 <i>4</i>	E(level): from 2010BIZY .
3296 <i>5</i>	
3327 <i>4</i>	E(level): from 2010BIZY .
3345 <i>5</i>	
3384 <i>5</i>	
3407 <i>5</i>	
3440 <i>10</i>	
3460 <i>10</i>	
3480 <i>10</i>	
3512 <i>5</i>	
3570 <i>10</i>	
3596 <i>10</i>	
3690 <i>10</i>	
3764 <i>5</i>	3674 keV in table of 1971SeZH . Probably a misprint.

[†] From [1971SeZH](#) unless otherwise noted.

[‡] From [1976Ma21](#).