^{126}Te(^{3}He,α) 1999Ho01,1998Ho16,1984Ro14

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	J. Katakura	NDS 112, 495 (2011)	1-Jan-2010

1999Ho01: E=32 MeV, FWHM=18 keV, enriched target 97.8%; θ=10° (also 1998Ho16).
1984Ro14: E=24 MeV, magnetic spectrograph, FWHM=35 keV, enriched target 97.0%; $\sigma(\theta)$ θ=7.5°−77.5°, DWBA, deduced C^2S'.
1980Ro06: E=24 MeV, FWHM=7 keV; CCBA calculation including two-step process.
Other: 1977Fe16: E=19.408 MeV, (E)(ΔE) counter telescope, FWHM≈45 keV, θ=25°−95°.

^{125}Te Levels

For dσ/dΩ: see 1999Ho01 (below 2530 keV) and 1998Ho16 (above 2557 keV).

E(level)[†]	L[‡]	C^2S'[‡]	Comments
0.0	0	1.3	
36.5 *19*	2	2.4	
145.0 *11*	5	5.1	
317[&] *3*	(5)	0.02	
446[a] *3*	2	0.39	
464 *3*			
521 *4*	(3)	0.04	
639.4 *21*	4[#]	3.8	
667 *3*	2	1.6	
786 *4*			1969Gr24 report 795-keV level. The 795-keV level is a doublet of 786-keV and 803-keV levels.
803 *4*			
843[@] *10*			J=13/2$^-$ suggested from combined CCBA analysis in 1984Ro14, which is in disagreement with 15/2$^-$ in Adopted Levels.
1026[b] *4*			
1054.3 *12*	2	1.2	
1086.3 *25*			
1135.7 *14*	2+4	0.66	
1152.9 *17*		0.41	
1237.0[c] *20*			
1264.8 *13*	2	0.88	
1315.6[d] *13*	4	0.59	
1357.8 *14*	4	0.32	
1434.5 *14*	2	0.63	
1527.2 *10*	2	0.25	
1583.4[c] *19*	(0+5)	0.10+0.04	
1643 *3*			1984Ro14 report 1654-keV level with L=(2+5) and C^2S=0.08+0.02. Evaluators assume that the 1654-keV level is a doublet of 1643-keV and 1662-keV levels.
1662 *3*			
1699 *3*			
1725.8[e] *14*	4	0.95	
1755.7[e] *19*			
1814 *3*			1984Ro14 report 1819-keV level with L=2+4 and C^2S=0.11+0.22. Evaluators assume that the 1819-keV level is a doublet of 1814-keV and 1826-keV levels.
1826 *3*			
1886 *3*			
1909.0 *19*	(0+4)	0.10+0.34	
1922 *3*			
1968.2[c] *21*	4	0.18	
2007.1[e] *14*	5	0.11	
2045 *3*			

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^{126}Te(^{3}He,α) 1999Ho01,1998Ho16,1984Ro14 (continued)

^{125}Te Levels (continued)

E(level)[†]	L[‡]	C^2S'[‡]	E(level)[†]	E(level)[†]	E(level)[†]
2082.2 *14*	(4)	0.32	2427 *4*	2772[c] *4*	3339 *5*
2105 *3*			2449 *3*	2847 *5*	3375 *5*
2159.9 *21*			2492 *4*	2911 *5*	3488 *5*
2189.5[c] *21*	(4)	0.35	2530 *4*	2966 *4*	3564 *5*
2226 *3*			2557 *4*	3005 *5*	4208 *5*
2259.4[e] *24*			2582[e] *3*	3049[c] *4*	4302 *4*
2317 *3*			2641.5 *24*	3105 *5*	4481 *4*
2364 *3*			2678 *5*	3164 *4*	4513 *4*
2389 *3*			2733 *4*	3215 *4*	

[†] From 1999Ho01, unless otherwise indicate. The levels above 2557 keV are from 1998Ho16. It is indicated in 1998Ho16 that the uncertainties of the energy values above 3049 keV could raise up faster than quoted due to the lack of calibration points at higher energies.

[‡] From DWBA analysis in 1984Ro14.

[#] For doublet of 636+642 levels with L=4 in (d,t) in 1984Ro14.

[@] Not reported in 1999Ho01.

[&] Possibly perturbed by transition in ^{123}Te.

[a] Perturbed by transition in ^{127}Te.

[b] Possibly perturbed by an unknown contaminant.

[c] Complex structure.

[d] There are unknown contaminant peaks on both tails.

[e] Doublet structure.