

¹²⁴Te(p,p') 1995Ge06,1975Ma03,1970Ra13

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	J. Katakura, Z. D. Wu		NDS 109, 1655 (2008)	1-Apr-2008

1995Ge06: E=24 MeV, Q3D spectrograph FWHM=3-6 keV, enriched target 90.7%.

1975Ma03: E=51.9 MeV, broad-range magnetic spectrograph.

1970Ra13: E=12 MeV, ΔE=15-30 keV.

¹²⁴Te Levels

Deformation parameters are obtained by DWBA analysis; uncertainty is less than 7% (1975Ma03).

E(level) [†]	L [‡]	Relative population intensity [#]	Comments
0.0	0	3118 3	
602.731 15	2	100.0 5	β ₂ =0.166.
1248.56 3		0.951 17	
1325.52 3		4.8 5	
1654.1 21		0.795 20	
1699.5? 7		0.08 5	Probably from another isotope (1995Ge06).
1747.4 1		0.79 14	
1762.6? 6		0.124 13	Probably from another isotope (1995Ge06).
1883.6 4		0.124 10	
1957.916 24	4	3.69 4	β ₄ =0.048.
2039.16 7	(2)	1.35 20	Observed in only one of two spectra (1995Ge06).
2091.58 10		0.155 10	
2224.18 8		8.66 6	Observed in only two of three spectra (1995Ge06).
2282.43 17		0.359 17	
2293.724 5	3	48.81 9	L=3+(5) in 1975Ma03; β ₃ =0.128, β ₅ =0.059.
2306.9 12		0.96 3	
2321.8 6		0.51 5	
2334.21 5		9.29 4	
2347.5 5		0.48 24	
2453.76 24		0.25 8	
2481.7 3		0.16 3	
2491.8 3		0.38 13	
2496.6 8		0.12 3	
2512.51 22		5.05 13	
2534.31 6	(4)	1.59 3	β ₄ =0.035.
2552.54 16		1.16 3	
2576.81 16		1.27 3	
2603.01 17		0.148 13	
2620.3 3		0.0449 6	
2629.14 14		0.522 17	
2647.23 10		3.15 3	
2664.1 5		0.34 3	
2671.73 6		2.87 3	
2681.47 7		1.041 24	
2692.22 7		1.162 6	
2701.63 8		1.40 20	
2734.2 4		2.3594 10	
2745.30 6		1.301 17	
2768.1 3		0.14 3	
2773.29 22		0.24 4	
2782.0 6		0.069 24	
2808.3 3		0.31 3	
2815.97 18		8.96 5	

Continued on next page (footnotes at end of table)

 $^{124}\text{Te}(\text{p,p}')$ **1995Ge06,1975Ma03,1970Ra13** (continued) ^{124}Te Levels (continued)

<u>E(level)[†]</u>	<u>Relative population intensity[#]</u>	<u>E(level)[†]</u>	<u>Relative population intensity[#]</u>
2820.4 4	0.15 3	2939.75 9	3.1 10
2835.2 1	5.605 17	2944.8 6	0.37 8
2843.6 3	0.12 3	2964.16 21	0.86 13
2867.68 24	0.453 10	2973.5 3	3.28 4
2885.81 7	2.4 10	2988.23 8	2.32 9
2902.46 18	0.32 4	3001.94 14	0.93 13
2921.68 10	0.57 8	3030.7 3	1.05 7
2933.7 5	0.30 5	3037.5 4	0.36 4

[†] From 1995Ge06.

[‡] From 1975Ma03.

[#] From 1995Ge06; normalized transition to 602-keV level to be 100.