

¹²³Sb(³He,d) 1995Ge06,1972Au02

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

1995Ge06: E=33 MeV, Q3D spectrograph FWHM=3-6 keV, enriched target (98.28%).

1972Au02: E=25 MeV broad-range magnetic spectrograph FWHM=25 keV; enriched target; $\sigma(\theta)$, DWBA analysis.

J^π of target is $7/2^+$.

¹²⁴Te Levels

E(level) [‡]	L ^a	C ² S [†]	Comments
0.0	4	≈0.2	
602.73 12	2+4	0.07+0.5	
1248.5 3	0+2	0.07+0.2	
1326.5 6			
1746.9 6	2	0.91	
1882.0 13			
1956.5 & 3	0+2	0.06+0.05	
2038.7? 7			
2092.9 @ 9	2	0.27	
2180.1 3	2	0.35	
2221.4 13	(0+2)	0.02+0.04	
2312.4 12			
2324.9 18			L=2,C ² S=0.29 for 2340 levels in 1972Au02 could be for 2325 or 2346 levels in 1995Ge06.
2345.8 3			
2454.15 3	2+4	0.08+0.3	
2509.7 5			
2540 # 13	0+2	0.05+0.32	
2618.3 5			L=2,C ² S=0.71 for 2600+2620 level in 1972Au02. The 2600+2620 level in 1972Au02 may be the same as 2618 level in 1995Ge06.
2638.8 6			
2681.3 11			
2694.5 8			
2721.7 6			L=0+2,C ² S=0.07+0.16 for 2710 level in 1972Au02 could be for 2694 or 2722 levels in 1995Ge06.
2775.1 6			
2809.7 12			
2870.9 13	2+4	0.10+0.6	
2884.9 6			
2944.3 5			L=0+2,C ² S=0.22+0.33 for 2950 level in 1972Au02 could be for 2945 or 2968 levels in 1995Ge06.
2968.4 5			
3046.3 11	2+4	0.05+0.07	The 3020 level in 1972Au02 is probably the same as 3046 level in 1995Ge06.
3091 4	2(+4)	0.88+3.2	E(level): reported by 1995Ge06 as 3086.7 9 with a comment that the peak happens to be positioned at the edge of the focal plane detector.
3130 # 16	2(+4)	0.32+2.4	
3200 # 16	(5)	0.6	
3240 # 16			
3260? # 16			
3330 # 16	0+2	0.08+0.11	Probable multiplet.
3400 # 17	0(+2+4)		
3520 # 18			
3560 # 18	0+2	0.32+0.2	

Continued on next page (footnotes at end of table)

 $^{123}\text{Sb}(^3\text{He,d})$ **1995Ge06,1972Au02 (continued)**

 ^{124}Te Levels (continued)E(level)[‡]3710[#] 193780[#] 19† **1972Au02** assumed 3s1/2, 2d5/2, 1g7/2, 1h11/2 transfers.‡ From **1995Ge06**, unless otherwise noted.# From **1972Au02**.

@ Probable doublet.

& Only observed in two of three spectra (**1995Ge06**).^a From **1972Au02**.