

⁴⁸Ti(d,α) 1972Gu10,1972WaZG,1969Le12

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. -c. Wu	NDS 91, 1 (2000)	15-Jul-2000

E=26.7 MeV (1972Gu10); Si detector; DWBA analysis of angular distributions.

E=19 MeV (1972WaZG); Enge split-pole magnetic spectrometer; DWBA analysis of angular distributions.

E=17 MeV (1969Le12); Enge split-pole magnetic spectrometer with position-sensitive detector; DWBA analysis of angular distributions.

Others: 1997Ta08, 1964Bj01.

⁴⁶Sc Levels

E(level) [†]	J ^π [‡]	L [†]	Comments
0.0	4 ⁺	4	
50 6	6 ⁺	6	
141 6	0 ⁻ ,1 ⁻ ,2 ⁻	1	
226 6	3 ⁺ #	2	
280 2		4	E(level),L: reported by 1972WaZG only.
286 6	2 ⁻	1+(3)	L: L=1 from 1972WaZG.
440 6	2 ⁺ ,(1 ⁺ ,3 ⁺)	2	
580 6	3 ⁻ ,(2 ⁻ ,4 ⁻)	3	
621 6	(4 ⁻)	(3+5)	
770 6	5 ⁺ #	4(+6)	L: L=4 from 1972WaZG.
825 6	3 ⁺ ,4 ⁺ ,5 ⁺	4	
974 6	7 ⁺	6	
985 6	1 ⁺ ,(2 ⁺ ,3 ⁺)	2(+0)	
1130 8	4 ⁻	5+3	L: L=5 from 1972WaZG.
1268 8	4 ⁻ ,5 ⁻ ,6 ⁻	5(+3)	
1322 8	0 ⁻ ,1 ⁻ ,2 ⁻	1	
1391 8	3 ⁻ ,(4 ⁻ ,5 ⁻)	(3)	
1434 8	0 ⁻ ,1 ⁻ ,2 ⁻	1	
1521 8	(≥4)	(3,4)	
1648 8	5 ⁻ ,4 ⁻	5(+3)	L: L=5(+3) (1969Le12), L=3 (1972Gu10), L=3 (1972WaZG).
1712 8	(2 ⁻)	(1+3)	
1759 8			
1804 8	(2 ⁻)	1(+3)	
1854 8	1 ⁺	0+2	
1884 8	1 ⁺ ,(2 ⁺ ,3 ⁺)	2(+0)	
1926 8			
2055 10			
2080 10			L: L=(2) (1969Le12), L=3 (1972Gu10), L=(4) (1972WaZG).
2121 10			L: L=(0+2) for 2150 level reported by 1972Gu10, L=0+2 for 2127 3 level reported by 1972WaZG.
2207 10			
2226 10			
2296 10			L: L=2+(5) for 2297 4 plus 2305 4 levels from 1972WaZG.
2336 10			
2410 10	3 ⁺ ,4 ⁺ ,5 ⁺	4	L: L=5 from 1972WaZG.
2450 10	3 ⁺ #	4	L: L=5 from 1972WaZG.
2529 10	(2 ⁻)#	(1)	
2552 10			
2646 10			
2665 10			
2711 10	2 ⁺ ,1 ⁺ ,3 ⁺	(2)	L: L=2 (1969Le12), L=(4) (1972Gu10).
2778 10	4 ⁻ ,3 ⁻ ,(2 ⁻)	3	
≈2810	1 ⁺	0+2	Observed by 1972Gu10 only.

Continued on next page (footnotes at end of table)

${}^{48}\text{Ti}(\text{d},\alpha)$ [1972Gu10](#),[1972WaZG](#),[1969Le12](#) (continued) ${}^{46}\text{Sc}$ Levels (continued)

<u>E(level)[†]</u>	<u>E(level)[†]</u>	<u>L[†]</u>	<u>E(level)[†]</u>	<u>E(level)[†]</u>
2834 [@] 5	2943 [@] 6		3033 [@] 10	3194 [@] 10
2868 [@] 6	2973 [@] 7	2+4	3068 [@] 10	3239 [@] 10
2897 [@] 7	3011 [@] 10		3089 [@] 10	

[†] From [1969Le12](#), except as noted.

[‡] Suggested by [1969Le12](#) from analysis of angular distributions, except as noted.

[#] From [1972Gu10](#) based on analysis of angular distributions.

[@] Reported by [1972WaZG](#) only.