^{49}Ti(d,^{3}He) 1970Oh04

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 179, 1 (2022)	30-Nov-2021

$J^{\pi}(^{49}Ti)=7/2^{-}$.

1970Oh04: E=19.45 and 22.4 MeV deuteron beams were produced from the University of Minnesota Tandem Van de Graaff. Targets were metallic self-supporting foils, 77% enriched in ^{49}Ti. Reaction products were momentum-analyzed with a split-pole magnetic spectrograph (FWHM=15 keV) and detected with position-sensitive detectors. Measured $\sigma(\theta$(c.m.)=10° to 95°). Deduced levels, J, π, L-transfers, spectroscopic factors from DWBA analysis. Comparisons with available data.

^{48}Sc Levels

E(level)[†]	L[‡]	C^{2}S[#]	Comments
0.0	3	0.61	
133 *5*	3	0.79	
257 *7*	3	0.48	
622 *5*	3	0.21	
1091 *10*	(3)	0.18	
1150 *15*	(3)	0.07	
1398 *5*	2	0.75	
1892 *5*	0,0+2		C^{2}S: 0.61 for L=0,0.40+0.28 for L=0+2.
2100 *7*	0	1.03	
2164 *7*	2	0.75	
2395 *15*			
2565 *15*	(0)	(0.1)	
2732 *15*	3,0+2		C^{2}S: 0.31 for L=3,0.15+0.31 for L=0+2.

[†] From 1970Oh04.
[‡] From DWBA analysis of measured $\sigma(\theta)$ (1970Oh04).
[#] From 1970Oh04, at E(d)=19.45 MeV.