^{50}Ti(t,^{3}He) 1985Aj03

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen and Balraj Singh	NDS 157, 1 (2019)	15-Apr-2019

1985Aj03: E=25 MeV. 66.7% enriched target. Measured $\sigma(\theta$=5.5°−50°); Q3D magnetic spectrograph; position-sensitive detector. Comparison with coupled-channel Born approximation (CCBA) calculations.
Other: 1990PiZX: E(t)=33 MeV; analyzed $\sigma(\theta)$ results.

^{50}Sc Levels

E(level)[†]	L[@]	Comments
0.0	4+6	
257 *5*	2,2+4	L: $\sigma(\theta)$ better fit by L=2+4 (J^π=3$^+$) than L=2 (J^π=2$^+$).
331 *8*	2+4	
764 *10*	4	
1852 *10*	0+2	
2225 *10*	2,2+4	J^π,L: L=2+4 (J^π=3$^+$) preferred but L=2(J^π=2$^+$) not excluded. L=0+2 (J^π=1$^+$) is excluded.
2327 *10*	2+4	J^π: 2$^-$ not excluded in (t,^{3}He), but not allowed by L(^{3}He,p).
2527 *10*	1,0+2	
2614 *10*	0+2	
3028 *15*		
3089?[‡] *5*		
3250[#] *20*		
3300[#] *20*		
3355 *15*		
3388 *15*		
3475[#] *20*		
3556[#] *15*		
3598[#] *15*		
3682?[‡] *5*		

[†] Levels below 2330 keV were assigned by 1985Aj03 on the basis of the intensities and previously known levels. According to statement by the authors, positive assignments of states to ^{50}Sc is difficult above the 2327 group.
[‡] 1985Aj03 quote energy from 1984Al29. Observed at several angles; the groups were weak.
[#] The width of this group indicates that it is an unresolved group of states.
[@] From comparison of $\sigma(\theta)$ distributions with CCBA calculations for known or expected J^π. The $\sigma(\theta)$ distributions are given by 1985Aj03 up to 2614 keV.