

$^{50}\text{Ti}(t,p\gamma)$ 1974Pr04

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Yang Dong, Huo Junde		NDS 128, 185 (2015)	10-Jul-2015

E=2.9 MeV, measured $p\gamma(\theta)$ with an angular correlation spectrometer which consisted of five 10*10 cm NaI(Tl) detectors positioned at angles 5°, 35°, 45°, 60°, and 90° with respect to the beam axis, measured $p\gamma$ -coin and DSA, γ -ray detected with a 20 cm³ Ge(Li), proton detected with 1000 μm annular silicon counter. γ -data for levels ≥ 3900 keV were obtained with NaI detectors.

 ^{52}Ti Levels

E(level)	J^π [†]	$T_{1/2}$ [#]
0.0	0 ⁺	
1049.8 [‡] 6	2 ⁺	3.3 ps +56-15
2264.5 [‡] 10	2	35 fs +20-13
2431.7 [‡] 12	2 ⁺	≤ 70 fs
3588.8 [‡] 20	≥ 1	≤ 62 fs
3900 15		
4230 15		
4300 20		

[†] From $p\gamma(\theta)$ and χ^2 analysis.

[‡] From the authors's reexamination of the data, see Physical Review C10, 1249, 1974.

[#] From DSAM.

 $\gamma(^{52}\text{Ti})$

$E_i(\text{level})$	J_i^π	E_γ	I_γ [†]	E_f	J_f^π	Mult. [‡]	δ [‡]
1049.8	2 ⁺	1050	100	0.0	0 ⁺		
2264.5	2	1215	≥ 95	1049.8	2 ⁺	D(+Q)	+0.03 10
		2265	≤ 5	0.0	0 ⁺		
2431.7	2 ⁺	1382	≥ 85	1049.8	2 ⁺	M1+E2	-0.39 8
		2432	≤ 15	0.0	0 ⁺		
3588.8	≥ 1	1157	≤ 15	2431.7	2 ⁺		
		1324	69 8	2264.5	2		
		2539	31 8	1049.8	2 ⁺		
		3589	≤ 10	0.0	0 ⁺		
3900		1472	≤ 10	2431.7	2 ⁺		
		1641	45 5	2264.5	2	D+Q	-0.31 22
		2853	55 5	1049.8	2 ⁺	Q(+D)	≤ -0.46
		3900	≤ 5	0.0	0 ⁺		
4230		3180		1049.8	2 ⁺	D(+Q)	+0.12 13
		4230		0.0	0 ⁺		
4300		3250		1049.8	2 ⁺		
		4300		0.0	0 ⁺		

[†] Branching ratio for each level.

[‡] From $p\gamma(\theta)$.

$^{50}\text{Ti}(t,p\gamma)$ 1974Pr04

Level Scheme

Intensities: photon branching (%)

