

⁵⁰Ti(d,pγ) 1987Ta03

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Wang Jimin and Huang Xiaolong		NDS 144,1 (2017)	1-Mar-2016

E=6 MeV, target (90% ⁵⁰Ti, 8% ⁴⁸Ti); measured Eγ, Iγ, σ(E(p)), pγ coin, DSA.

⁵¹Ti Levels

E(level) [†]	J ^{π‡}	T _{1/2} [#]	E(level) [†]	J ^{π‡}	T _{1/2} [#]
0.0	3/2 ⁻		2345.0 6	(11/2) ⁻	
1166.7 4	1/2 ⁻	34 fs +3-4	2905.7 5	1/2 ⁻	7.6 fs 21
1437.5 4	7/2 ⁻	0.42 ps +37-15	2919.5 4	(5/2,7/2) ⁻	<14 fs
1567.4 4	5/2 ⁻	86 fs +26-21	3173.8 5	3/2 ⁻	11.8 fs 21
2144.2 5	5/2 ⁻	0.110 ps +21-16	3771.7 7	9/2 ⁺	116 fs +21-17
2198.0 4	3/2 ⁻	10 fs 3			

[†] From Eγ's and level scheme, using least-squares fit to data.

[‡] From Adopted Levels.

[#] From DSA measurements.

γ(⁵¹Ti)

E _γ	I _γ [†]	E _i (level)	J _i ^π	E _f	J _f ^π	E _γ	I _γ [†]	E _i (level)	J _i ^π	E _f	J _f ^π
576.8 5	12	2144.2	5/2 ⁻	1567.4	5/2 ⁻	1482.0 5	52	2919.5	(5/2,7/2) ⁻	1437.5	7/2 ⁻
630.7 5	20	2198.0	3/2 ⁻	1567.4	5/2 ⁻	1567.5 5	100	1567.4	5/2 ⁻	0.0	3/2 ⁻
707.8 5	28	2905.7	1/2 ⁻	2198.0	3/2 ⁻	1738.9 5	47	2905.7	1/2 ⁻	1166.7	1/2 ⁻
775.4 5	19	2919.5	(5/2,7/2) ⁻	2144.2	5/2 ⁻	2007.0 10	8	3173.8	3/2 ⁻	1166.7	1/2 ⁻
907.5 5	100	2345.0	(11/2) ⁻	1437.5	7/2 ⁻	2144.3 10	88	2144.2	5/2 ⁻	0.0	3/2 ⁻
975.7 5	11	3173.8	3/2 ⁻	2198.0	3/2 ⁻	2198.0 10	66	2198.0	3/2 ⁻	0.0	3/2 ⁻
1031.3 5	14	2198.0	3/2 ⁻	1166.7	1/2 ⁻	2334.0 10	57	3771.7	9/2 ⁺	1437.5	7/2 ⁻
1166.5 5	100	1166.7	1/2 ⁻	0.0	3/2 ⁻	2905.5 10	25	2905.7	1/2 ⁻	0.0	3/2 ⁻
1351.9 5	22	2919.5	(5/2,7/2) ⁻	1567.4	5/2 ⁻	2919.0 10	7	2919.5	(5/2,7/2) ⁻	0.0	3/2 ⁻
1426.7 5	43	3771.7	9/2 ⁺	2345.0	(11/2) ⁻	3174.0 10	81	3173.8	3/2 ⁻	0.0	3/2 ⁻
1437.6 5	100	1437.5	7/2 ⁻	0.0	3/2 ⁻						

[†] % branching ratios from each level. Values are deduced from coincidence spectra and are not corrected for γ(θ).

$^{50}\text{Ti}(\text{d,p}\gamma)$ 1987Ta03

Level Scheme

Intensities: Relative I_γ

Legend

- \longrightarrow $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
- \longrightarrow $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
- \longrightarrow $I_\gamma > 10\% \times I_\gamma^{\text{max}}$
- Coincidence

