

⁴⁸Ti(n,γ) E=11-52 keV res 2003Vo05

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	T. W. Burrows ^a	NDS 109, 1879 (2008)	14-Jul-2008

Neutrons produced by ⁷Li(p,n) reaction. Measured γ's (Ge. Lead block for γ's from ⁷Li(p,γ) reaction); resolution of 8 keV.
Deduced radiative strength functions for ⁴⁸Ti.

⁴⁹Ti Levels

gΓ_γ, gΓ_nΓ_γ/Γ: from the evaluation of 2006MuZX.

gΓ_nΓ_{γ1}/Γ: from 2003Vo05.

E(level) [†]	J ^π [‡]	L [†]	Comments
0.0 [‡]	7/2 ⁻ [‡]		
1382 [‡]	3/2 ⁻ [‡]		
S(n)+11.490 2		1	gΓ _γ =5 eV 2; gΓ _n Γ _γ /Γ=0.29 eV; gΓ _n Γ _{γ1} /Γ=0.068 eV 20.
S(n)+13.420 3		1	gΓ _n Γ _γ /Γ=0.35 eV; gΓ _n Γ _{γ1} /Γ=0.073 eV 30.
S(n)+17.60 1	1/2 ⁺	0	gΓ _γ =8.71 keV 20; gΓ _n Γ _γ /Γ=0.054 eV 20.
S(n)+21.61 3		1	gΓ _n Γ _γ /Γ=0.19 eV; gΓ _n Γ _{γ1} /Γ=0.058 eV 10.
S(n)+36.80 1	1/2 ⁺	0	gΓ _γ =1.24 keV 15; gΓ _n Γ _{γ1} /Γ=0.190 eV 10.
S(n)+51.9 1	1/2 ⁺	0	gΓ _γ =2.36 keV 20; gΓ _n Γ _γ /Γ=1.5 eV; gΓ _n Γ _{γ1} /Γ=0.064 eV 10.

[†] From the evaluation of 2006MuZX, except As noted. S(n)=8142.39 keV 3 (2003Au03).

[‡] From the Adopted Levels. Nominal energies given.

γ(⁴⁹Ti)

E _i (level)	J _i ^π	E _γ [†]	I _γ [†]	E _f	J _f ^π
S(n)+11.490		6772	69 20	1382	3/2 ⁻
S(n)+13.420		6774	8.6 35	1382	3/2 ⁻
S(n)+17.60	1/2 ⁺	6778		1382	3/2 ⁻
S(n)+21.61		6782	5.3 9	1382	3/2 ⁻
S(n)+36.80	1/2 ⁺	6797		1382	3/2 ⁻
S(n)+51.9	1/2 ⁺	6812	0.67 10	1382	3/2 ⁻

[†] Nominal energies calculated from level energy differences and % photon branchings from gΓ_nΓ_γ/Γ and gΓ_nΓ_{γ1}/Γ (evaluator).

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Level Scheme

Intensities: % photon branching from each level

