^{50}Ti(n,γ) E=thermal 1971Ar39

History

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

Enriched target(76.4%), Ge(Li) pair and anti-Compton spectrometer; measured Eγ and Iγ. Deduced decay scheme.
Deduced S(n)=6372.9 keV *6*. It is consistent with evaluated 6372.5 keV *5* (2017Wa10).
Others: 1971Te01 (measured $\gamma\gamma(\theta)$, γ's, (NaI)). 1972Kn07 (measured Eγ, Iγ).

^{51}Ti Levels

E(level)[†]	J$^\pi$[‡]
0.0	3/2$^-$
1166.6 *4*	1/2$^-$
2198.9 *8*	3/2$^-$
2905.1 *8*	1/2$^-$
3174.9 *8*	3/2$^-$
(6372.5 *5*)	1/2$^+$[#]

[†] From Eγ's and level scheme, using least-squares fit to data.
[‡] From Adopted Levels, except as noted.
[#] From L=0 neutron capture.

γ(^{51}Ti)

E$_\gamma$[†]	I$_\gamma$[‡#]	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
1166.6 *4*	41.7	1166.6	1/2$^-$	0.0	3/2$^-$
2198.9 *10*	17.3	2198.9	3/2$^-$	0.0	3/2$^-$
2904.2 *10*	5.3	2905.1	1/2$^-$	0.0	3/2$^-$
3174.5 *10*	8.3	3174.9	3/2$^-$	0.0	3/2$^-$
3197.3 *10*	9.9	(6372.5)	1/2$^+$	3174.9	3/2$^-$
3466.6 *10*	29.0	(6372.5)	1/2$^+$	2905.1	1/2$^-$
4173.6 *10*	21.5	(6372.5)	1/2$^+$	2198.9	3/2$^-$
5205.8 *10*	35.4	(6372.5)	1/2$^+$	1166.6	1/2$^-$
6373.1 *10*	4.2	(6372.5)	1/2$^+$	0.0	3/2$^-$

[†] The authors give "recoil-corrected" values. The corrections giving Eγ(exp) are done by evaluator.
[‡] Photons per 100 neutron captures obtained by authors assuming ΣIγ(primaries)=100. Uncertainties not given by authors.
[#] Intensity per 100 neutron captures.

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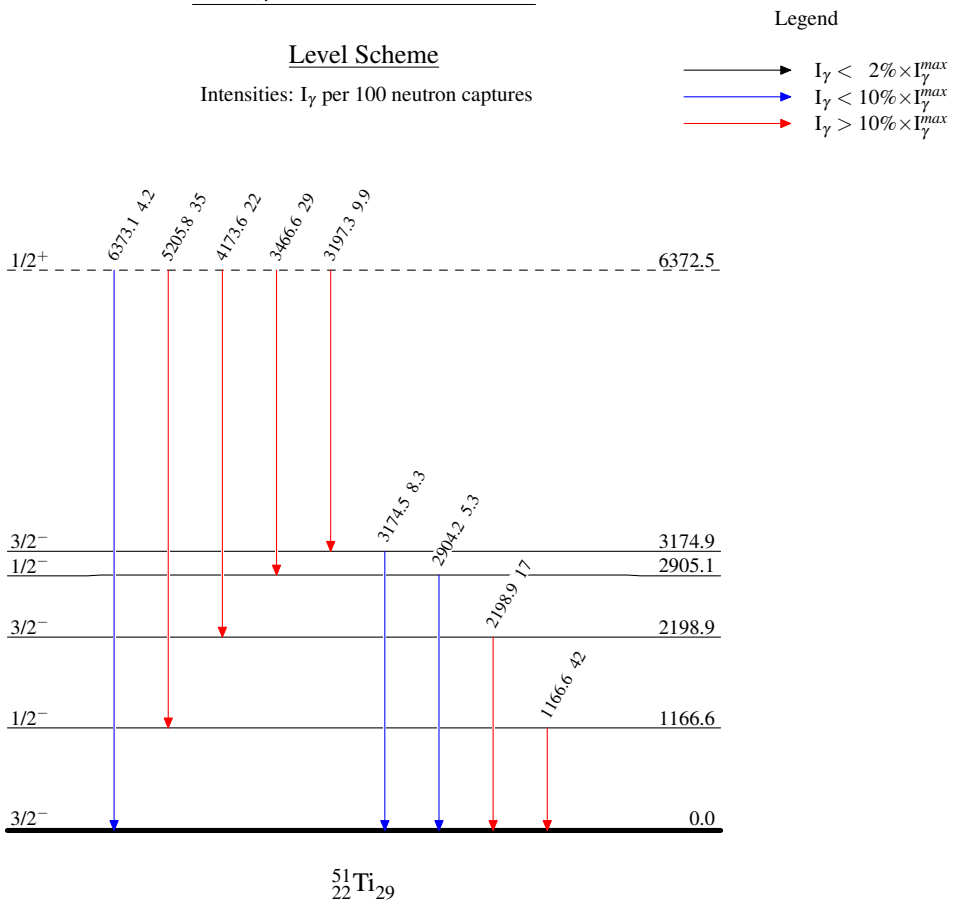
Level Scheme

Intensities: I_γ per 100 neutron captures



$^{51}_{22}Ti_{29}$