^{148}Tm ε decay (0.7 s) 1982No08

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 117, 1 (2014)	1-Oct-2013

Parent: ^{148}Tm: E=0+x; J^π=(10$^+$); $T_{1/2}$=0.7 s *2*; Q(ε)=12714 *14*; %ε+%β^+ decay=100.0

^{148}Tm-Q(ε): From 2012Wa38.

1982No08: ^{148}Tm produced in ^{92}Mo(^{58}Ni,np) E=233-250 MeV. Measured: Eγ, Iγ, $\gamma\gamma$, γ(t).

Level scheme is from 1982No08. The present decay scheme seems incomplete and several γ rays may have been unobserved. In addition, from systematics of odd-odd Tm nuclei, several isomers in ^{148}Tm are expected with J^π values in the range of 1-10, although evidence of isomerism in ^{148}Tm was not found in the mass measurement by 2008Ra03.

^{148}Er Levels

E(level)	J^π[†]
0.0	0$^+$
646.6 *3*	2$^+$
1524.0 *4*	(4$^+$)
2254.3? *5*	(5$^-$)
2526.9? *5*	(6$^+$)
2537.3 *6*	(7$^-$)
2784.4 *6*	(8$^+$)
2915.5 *7*	(10$^+$)

[†] From Adopted Levels.

γ(^{148}Er)

E$_\gamma$	I$_\gamma$	E$_i$(level)	J_i^π	E$_f$	J_f^π
131.1 *3*		2915.5	(10$^+$)	2784.4	(8$^+$)
247.1[†] *3*	15 *10*	2784.4	(8$^+$)	2537.3	(7$^-$)
257.5 *3*	52 *20*	2784.4	(8$^+$)	2526.9?	(6$^+$)
283.0[†] *3*	46 *20*	2537.3	(7$^-$)	2254.3?	(5$^-$)
646.6 *3*	100	646.6	2$^+$	0.0	0$^+$
730.3 *3*	35 *15*	2254.3?	(5$^-$)	1524.0	(4$^+$)
877.4 *3*	72 *25*	1524.0	(4$^+$)	646.6	2$^+$
1002.9 *3*	55 *20*	2526.9?	(6$^+$)	1524.0	(4$^+$)

[†] Placement of transition in the level scheme is uncertain.

^{148}Tm ε decay (0.7 s) 1982No08

Decay Scheme

Intensities: Relative I_γ