

Adopted Levels

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

S(n)=10862 12; S(p)=-550 40; Q( $\alpha$ )=3420 13 2012Wa38

Q( $\epsilon$ p)=9703 11, S(2n)=24020 200 (syst), S(2p)=2105 12 (2012Wa38).

1982No08: identification and production of  $^{148}\text{Tm}$  isotope in  $^{92}\text{Mo}(^{58}\text{Ni},\text{X})$  reaction at 233-250 MeV at Munich MP tandem facility.

Mass measurement (Penning trap): 2008Ra03 (also 2007Ra37). Isotope production using  $^{92}\text{Mo}(^{58}\text{Ni},\text{X})$  at E=4.36, 4.60 MeV/nucleon at GSI facility, SHIPTRAP for mass measurements.

 $^{148}\text{Tm}$  Levels

E(level)	J $^{\pi}$	T $_{1/2}$	Comments
0+x	(10 $^{+}$ )	0.7 s 2	<p><math>\% \epsilon + \% \beta^{+} = 100</math></p> <p>E(level): although 2008Ra03 in their mass measurements did not find evidence of an isomer, it is unlikely that 10<math>^{+}</math> corresponds to the g.s. From shell-model analysis, this state is more likely an isomeric state. Also, in the complete chart of nuclides, maximum (definite) spin assigned to a g.s. is 8<math>^{+}</math>. From systematics of odd-odd Tm nuclides, two or three closely spaced isomers are expected in the spin range 1-10.</p> <p>T<math>_{1/2}</math>: from decay curve for 646.6<math>\gamma</math> (1982No08).</p> <p>J<math>^{\pi}</math>: possible <math>\beta</math> feeding of (10<math>^{+}</math>) state in <math>^{148}\text{Er}</math> with configuration=<math>(\pi 1h_{11/2})_{10+}^{+2}</math>; shell-model prediction of following configurations: <math>(\pi 1h_{11/2}^{+1} \otimes \nu 1h_{11/2})^{-1}</math> or <math>(\pi 1h_{11/2}^{+1} \otimes \nu 1h_{9/2}^{+1})</math>.</p> <p>1982No08 proposed J<math>\geq 6</math>.</p>