## Adopted Levels

| History | | | |
|---|---|---|---|
| Type | Author | Citation | Literature Cutoff Date |
| Full Evaluation | Balraj Singh and Scott Geraedts | ENSDF | 21-Feb-2008 |

S(p)=−1712 *16*; Q($\alpha$)=4.7×10$^3$ *syst* 2012Wa38

Note: Current evaluation has used the following Q record 11890 calc −1070 calc 4490 calc 1997Mo25.

2005Bi24, 2005Gr32: $^{144}$Tm formed in reaction $^{92}$Mo($^{58}$Ni,5np) with the 340 MeV beam provided by the Recoil Mass Spectrometer at HRIBF, Oak Ridge facility. The ions with mass 144 were separated and implanted in a Double-sided Silicon Strip Detector. Measured half-life.

### $^{144}$Tm Levels

| E(level) | J$^\pi$ | T$_{1/2}$ | Comments |
|---|---|---|---|
| 0 | (10$^+$) | 1.9 $\mu$s *+12−5* | %p>0<br>%p decay (to $^{143}$Er) is expected to be 100%. Calculated $\beta$ decay half-life is 0.14 s (1997Mo25).<br>E(level): the observed 1.9−$\mu$s activity is assumed to belong to g.s.<br>T$_{1/2}$: from timing of protons (2005Gr32,2005Bi24).<br>J$^\pi$: possible configuration=$\pi$h$_{11/2}\otimes\nu$h$_{11/2}$ (2005Bi24,2005Gr32). $J^\pi$=5$^-$ state from $\pi$h$_{11/2}\otimes\nu$s$_{1/2}$ is also possible but it is expected to have much lower population in the fusion reaction.<br>Proton emission of energy ≈1700 keV with L=5. |