
Adopted Levels

Type	History		Literature Cutoff Date
	Author	Citation	
Full Evaluation	E. A. Mccutchan	ENSDF	1-Jul-2022

$Q(\beta^-)=4.12\times 10^3$ *l*0; $S(n)=5.13\times 10^3$ *l*1; $S(p)=8.0\times 10^3$ *S*Y; $Q(\alpha)=-3.1\times 10^2$ *S*Y [2021Wa16](#)

[1995ItZY](#): ^{176}Tm activity from $^{176}\text{Yb}(n,p)$ reaction. Measured $E\gamma$, $I\gamma$, $\gamma(t)$; deduced $T_{1/2}$ of ground state.

[1970Tu07](#): ^{176}Tm activity from $^{176}\text{Yb}(n,p)$ reaction. Measured $E\gamma$, $I\gamma$, $\gamma(t)$; deduced $T_{1/2}$ of ground state.

 ^{176}Tm Levels

E(level)	J^π	$T_{1/2}$	Comments
0.0	(4 ⁺)	1.85 min 3	$\% \beta^- = 100$ $T_{1/2}$: from 190 $\gamma(t)$ (1995ItZY). Others: 1.9 m <i>I</i> from 190 $\gamma(t)$ (1970Tu07), 1.4 min 2 (1967Gu11), 1.5 min 5 (1961Ta08), 1973DrZK . J^π : allowed β^- decay to ^{176}Yb states above 2900 keV which then decay to 3 ⁺ , 4 ⁺ , and 4 ⁺ , 5 ⁺ , suggest $J^\pi=(3^+, 4^+, 5^+)$ for ^{176}Tm . $J^\pi=(4^+)$ and possible configuration= $((\pi 1/2[411])+(\nu 9/2[624]))$ from Gallagher-Moszkowski rule. The Nilsson states 1/2 ⁺ , 1/2[411] and 9/2 ⁺ , 9/2[624] are the ground states of ^{163}Tm to ^{175}Tm (69-proton nuclei), and of ^{177}Yb , ^{179}Hf , ^{181}W , ^{183}Os , ^{185}Pt (107-neutron nuclei), respectively.