
 ^{154}Tb IT decay (9.973 h) [1973Ba20,1973La20,1983Be03](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 200,2 (2025)	22-Aug-2022

Parent: ^{154}Tb : $E=0+x$; $J^\pi=3^-$; $T_{1/2}=9.973\text{ h }44$; %IT decay=21.8 7

^{154}Tb -%IT decay: From [1973La20](#). Other: 0.15 5 ([1973Ba20](#)).

[Additional information 1.](#)

Experimental methods:

[1972Vy04](#): ^{154}Tb from spallation on Ta target with 680 MeV p. Measured $T_{1/2}$ of two isomers.

[1973Ba20](#): from spallation on Ta target with 680 MeV p. Measured IT branching intensities.

[1973La20](#): from (p,xn) on natural Gd. Measured $T_{1/2}$ of the three isomers and the IT branching intensities.

[1983Be03](#): ^{154}Tb isomers, from Gd(d,xnp), $E(d)=25\text{ MeV}$, and Eu(α ,xn). Measured $\gamma(\theta,t)$ from oriented nuclei. Deduced J, μ , Q.

 ^{154}Tb Levels

E(level)	J^π [†]	$T_{1/2}$ [†]	Comments
0	0	21.5 h 4	
0+x	3 ⁻	9.973 h 44	%IT=21.8 7; % ε +% β^+ =78.2 7 E(level): $\leq 25\text{ keV}$ (1973Ba20) based on lack of Tb K x rays and lack of conversion lines above 18 keV. 2003Au02 list x=12 7.

[†] From ^{154}Tb Adopted Levels.