
 ^{184}Tl α decay [1980Sc09,1976To06](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 126, 151 (2015)	1-Feb-2015

Parent: ^{184}Tl : $E=0.0$; $J^\pi=(2^-)$; $T_{1/2}=10.1$ s 5; $Q(\alpha)=6296$ 26; $\% \alpha$ decay=2.1 7

^{184}Tl - J^π : from systematics ([2012Au07](#)), $\pi s1/2$ coupled to $\nu p3/2$ configuration.

[1980Sc09](#): ^{184}Tl activity from $^{142}\text{Nd}(^{48}\text{Ti},p9n)$, $E(^{48}\text{Ti})=278$ MeV. Channel selection using FEBIAD and mass separation with GSI online facility. Measured $E\alpha$, $I\alpha$ using surface barrier detector.

[1976To06](#): ^{184}Tl activity from $^{180}\text{W}(^{14}\text{N},10n)$, $E(^{14}\text{N})=168$ MeV. Channel selection using UNISOR isotope separator. Measured $E\alpha$, $I\alpha$, and $T_{1/2}$.

 α radiations

$E\alpha$	$I\alpha^{\dagger\ddagger}$	Comments
5987 4	40 2	$E\alpha$: weighted average of 5988 5 (1976To06) and 5983 10 (1980Sc09).
6066 15	6 1	$E\alpha$: from 1980Sc09 .
6161 4	54 3	$E\alpha$: weighted average of 6162 5 (1976To06) and 6155 10 (1980Sc09).

† From [1980Sc09](#).

‡ For absolute intensity per 100 decays, multiply by 0.021 7.