

^{189}Tl ε decay (2.3 min) [1974Ha10](#),[1976Ha25](#),[1985Ab03](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	T. D. Johnson, Balraj Singh		NDS 142, 1 (2017)	15-Apr-2017

Parent: ^{189}Tl : $E=0$; $J^\pi=(1/2^+)$; $T_{1/2}=2.3$ min 2; $Q(\varepsilon)=5010$ 30; $\% \varepsilon + \% \beta^+$ decay=100.0

^{189}Tl - $J^\pi, T_{1/2}$: From ^{189}Tl Adopted Levels.

^{189}Tl - $Q(\varepsilon)$: From [2017Wa10](#).

Substantial amount of data available in [1976GoZE](#) thesis have not been included here based on advice from J. Wood ([1980WoZN](#)).

 ^{189}Hg Levels

E(level)	J^π [†]	$T_{1/2}$	Comments
0.0	$3/2^-$		
64.3 5	$(5/2)^-$	0.40 ns 4	$T_{1/2}$: measured by 1985Ab03 .

[†] From Adopted Levels.

 $\gamma(^{189}\text{Hg})$

E_γ [†]	I_γ [†]	E_i (level)	J_i^π	E_f	J_f^π	Mult.	δ	α [‡]	Comments
64.3 5		64.3	$(5/2)^-$	0.0	$3/2^-$	M1(+E2)	≈ 0.01	5.18	$\alpha(L)=3.98$; $\alpha(M)=0.93$; $\alpha(N)=0.233$; $\alpha(O)=0.0440$; $\alpha(P)=0.00336$ $E_\gamma, \text{Mult.}, \delta$: from 1985Ab03 . δ : other: 0.4 from 1987BoZT .
^x 333.7	100 13								
^x 451.0	49 9								
^x 522.3	27 7								
^x 942.2	69 16								

[†] From [1974Ha10](#), except as noted.

[‡] From BrIcc v2.3b (16-Dec-2014) [2008Ki07](#), "Frozen Orbitals" appr.

^x γ ray not placed in level scheme.

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Decay Scheme

Intensities: Relative I_γ 