^{187}Tl IT decay (15.60 s) 1976To06,1977Sc03,1981Mi12

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia	NDS 110, 999 (2009)	1-Nov-2008

Parent: ^{187}Tl: E=334 *4*; J^π=(9/2$^-$); $T_{1/2}$=15.60 s *12*; %IT decay<99.9

^{187}Tl Levels

E(level)†	J^π†	$T_{1/2}$‡	Comments
0.0	(1/2$^+$)		
299.5 *3*	(3/2$^+$)		
334 *4*	(9/2$^-$)	15.60 s *12*	%α=0.15 *5* (1991Wa21); %ε+%β^+<99.9; %IT<99.9

† From Adopted Levels.
‡ From 1981Mi12. Other values: 18 s *3* (1976To06), 16 s *1* (1977Sc03).

γ(^{187}Tl)

E_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ	α†	Comments
(35 *4*)	334	(9/2$^-$)	299.5	(3/2$^+$)	[E3]		6.58×10^4	α(L)≈4.58×10^4; α(M)≈1.532×10^4; α(N+..)≈4.65×10^3 α(N)≈3.97×10^3; α(O)≈661; α(P)≈17.46 E_γ: the peak observed by 1977Sc03 near energy threshold of electron detector in their γ-ce coin experiment is attributed by authors to ce(N) for an E≈30 transition. Eγ from level energy difference.
299.5 *3*	299.5	(3/2$^+$)	0.0	(1/2$^+$)	M1+E2	2.0 *+5−3*	0.168 *18*	α(K)=0.116 *17*; α(L)=0.0392 *14*; α(M)=0.0098 *3*; α(N+..)=0.00293 *9* α(N)=0.00245 *7*; α(O)=0.000447 *16*; α(P)=2.85×10^{-5} *24* E_γ: measurement of 1981Mi12 (semi). Other measurement: Eγ=300 (1977Sc03; uncertainty not reported). Mult.,δ: α(K)exp=0.121 *18* from Ice(K)/Iγ (1977Sc03).

† Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

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Legend

Decay Scheme

%IT<99.9