^{203}Hg β^- decay

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 105,1 (2005)	1-Mar-2005

Parent: ^{203}Hg: E=0.0; $J^\pi=5/2^-$; $T_{1/2}$=46.610 d *10*; Q(β^-)=492.1 *12*; %β^- decay=100
^{203}Hg-Q(β^-): From 2021Wa16.

^{203}Tl Levels

E(level)†	J^π‡	$T_{1/2}$‡	Comments
0	$1/2^+$		
279.1955 *10*	$3/2^+$	283 ps *4*	$T_{1/2}$: Values from ^{203}Hg β^- decay: 208 ps *60* (1955Az33), 290 ps *30* (1957Be57), 290 ps *20* (1960Ba16), 283 ps *17* (1960Go15), 241 ps *10* (1960Pe16), 281 ps *6* (slope) and 291 ps *7* (centroid shift) (1961Sc04), 271 ps *2* (centroid shift) and 275 ps *14* (slope) (1962De14), and 283 ps *7* (1964Ro19).

† From a least-squares fit to Eγ.
‡ From Adopted Levels.

β^- radiations

E(decay)	E(level)	Iβ^-†	Log *ft*	Comments
(212.9 *12*)	279.1955	100	6.457 *8*	av Eβ=57.87 *36*
(492.1 *12*)	0	<0.003	>12.2[1u]	av Eβ=154.53 *39* Iβ^-: From 1956Wo09. Other: <0.00004 (1955Ma40).

† Absolute intensity per 100 decays.

γ(^{203}Tl)

Iγ normalization: Using ΣI(γ+ce)(to g.s.)=100% and by assuming that there is no direct feeding to the g.s.

E$_\gamma$‡	I$_\gamma$#	E$_i$(level)	J_i^π	E$_f$	J_f^π	Mult.‡	δ‡	α†	Comments
279.1952 *10*	100	279.1955	$3/2^+$	0	$1/2^+$	M1+E2	+1.686 *6*	0.2261 *9*	%Iγ=81.56 *6* α(K)=0.1580; α(L)=0.0515; α(M)=0.01279 α(N)=0.00321; α(O)=0.000587; α(P)=3.80×10^{-5} α: From adopted gammas.

† Additional information 1.
‡ From adopted gammas.
# For absolute intensity per 100 decays, multiply by 0.8156 *6*.

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Decay Scheme

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays