^{201}Hg IT decay 1990Lo17

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 187,355 (2023)	20-Sep-2022

Parent: ^{201}Hg: E=766.22 *15*; J^π=13/2$^+$; $T_{1/2}$=94 μs *2*; %IT decay=100

1990Lo17: ^{198}Pt(α,nγ); E(α)=18.1 MeV; Target: 1.55 mg/cm^2 thick enriched to 95.8% in ^{198}Pt; Detector: HPGe, electron spectrometer; Measured: γ singles, γγ coin, γ(t), Eγ, Iγ, ce; Deduced: α(K)exp, level scheme.

Others: 1976Uy01, 1964Br27, 1962Eu01, 1961Kr01.

^{201}Hg Levels

E(level)†	Jπ‡	$T_{1/2}$	Comments
0	3/2$^-$#		
26.2738 *3*	5/2$^-$#	629 ps *18*	$T_{1/2}$: From Adopted Levels.
547.32 *10*	9/2$^-$	<20 ns	$T_{1/2}$: Upper limit from 1964Br27.
766.22 *15*	13/2$^+$	94 μs *2*	$T_{1/2}$: Weighted average of 92 μs *3* (1961Kr01), 100 μs *6* (1962Eu01) and 94 μs *3* (1976Uy01).

† From a least-squares fit to Eγ.
‡ From deduced transition multipolarities, unless otherwise stated.
# From Adopted Levels.

γ(^{201}Hg)

Eγ‡	Iγ#@	Ei(level)	J_i^π	E_f	J_f^π	Mult.	δ	α†	Comments
26.2738 *3*	1.353 *24*	26.2738	5/2$^-$	0	3/2$^-$	M1+E2	0.012 *8*	72.9 *13*	α(L)=55.9 *10*; α(M)=13.05 *24* α(N)=3.27 *6*; α(O)=0.618 *11*; α(P)=0.0470 *7* Eγ,Mult.,δ: From adopted gammas.
218.9 *1*	20.8 *10*	766.22	13/2$^+$	547.32	9/2$^-$	M2+E3	0.33 *20*	3.81 *22*	α(K)=2.69 *31*; α(L)=0.84 *8*; α(M)=0.211 *23* α(N)=0.053 *6*; α(O)=0.0098 *8*; α(P)=0.00057 *6* Mult.: α(K)exp=4 *2*, K/L=3.2 *6*, L/M+=3.4 *9* (1990Lo17). δ: From K/L=3.2 *6*, L/M+=3.4 *9* (1990Lo17) and the briccmixing program.
521.05 *10*	97.62 *3*	547.32	9/2$^-$	26.2738	5/2$^-$	E2		0.02440 *34*	α(K)=0.01782 *25*; α(L)=0.00499 *7*; α(M)=0.001222 *17* α(N)=0.000305 *4*; α(O)=5.45×10^{-5} *8*; α(P)=2.364×10^{-6} *33* Mult.: α(K)exp=0.027 *13*, K/L=3.4 *9* (1990Lo17).

† Additional information 1.
‡ From 1976Uy01, unless otherwise stated.

Continued on next page (footnotes at end of table)

^{201}Hg IT decay 1990Lo17 (continued)

$\gamma(^{201}Hg)$ (continued)

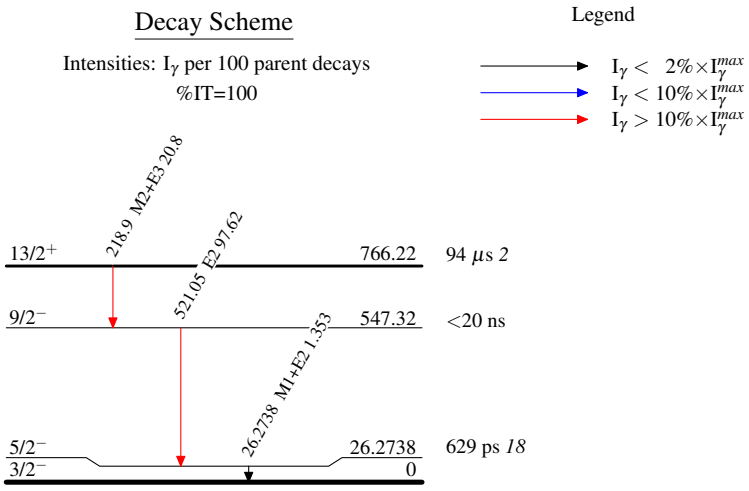
From α and by assuming I(γ+ce)=100 for each γ. I(K x ray):I(219γ):I(521γ)=100:26:134 (1964Br27).
@ Absolute intensity per 100 decays.

^{201}Hg IT decay 1990Lo17

Decay Scheme

Intensities: I_γ per 100 parent decays

%IT=100



$^{201}_{80}Hg_{121}$