^{205}Hg IT decay (1.09 ms) 1994Po21,1986Ze03,1985Ma48

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 166, 1 (2020)	20-Apr-2020

Parent: ^{205}Hg: E=1556.4 *3*; $J^\pi=13/2^+$; $T_{1/2}$=1.09 ms *4*; %IT decay=100.0
1994Po21: ^{204}Hg(^{9}Be,2$\alpha\gamma$); E=62 MeV; pulsed beam.
1986Ze03: ^{204}Hg(d,pγ); E=14,18 MeV; μs and ms pulsed beams;
1985Ma48: ^{204}Hg(t,dγ); E=14.2 MeV pulsed beam with 1 ns on and 12.8 μs off; E=16 MeV, pulsed beam with 25 ms on and 25 ms off, but the data were collected only during beam off period.
Others: 2011St21.

^{205}Hg Levels

E(level)†	J^π‡	$T_{1/2}$‡
0.0	$1/2^-$	5.14 min *9*
379.5 *9*	$5/2^-$	
467.5 *9*	$3/2^-$	
1346.1 *10*	$7/2^-$	
1395.0 *12*	$9/2^-$	
1556.4 *12*	$13/2^+$	1.09 ms *4*

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

γ(^{205}Hg)

Iγ normalization: From I(γ+ce)(161.4γ) + I(γ+ce)(210.3γ) = 100.

E$_\gamma$†	I$_\gamma$‡@	E$_i$(level)	J_i^π	E$_f$	J_f^π	Mult.†	α#	Comments
(49.0 *3*)	19.2 *11*	1395.0	$9/2^-$	1346.1	$7/2^-$	[M1]	11.5 *3*	%Iγ=1.25 *8* α(L)=8.82 *21*; α(M)=2.06 *5* α(N)=0.516 *12*; α(O)=0.0975 *23*; α(P)=0.00746 *18*
161.4 *5*	100	1556.4	$13/2^+$	1395.0	$9/2^-$	M2	11.63 *21*	%Iγ=6.51 *14* α(K)=8.30 *15*; α(L)=2.51 *5*; α(M)=0.628 *12* α(N)=0.159 *3*; α(O)=0.0296 *6*; α(P)=0.00198 *4*
210.3 *5*	73 *7*	1556.4	$13/2^+$	1346.1	$7/2^-$	E3	2.73 *5*	%Iγ=4.8 *4* α(K)=0.407 *7*; α(L)=1.72 *4*; α(M)=0.466 *9* α(N)=0.1167 *22*; α(O)=0.0196 *4*; α(P)=0.0001193 *20* Iγ: 10% uncertainty was assumed by the evaluator.
379.42 *11*	1426 *27*	379.5	$5/2^-$	0.0	$1/2^-$	E2	0.0546	%Iγ=92.9 *27* α(K)=0.0362 *5*; α(L)=0.01395 *20*; α(M)=0.00349 *5* α(N)=0.000870 *13*; α(O)=0.0001522 *22*; α(P)=4.74×10^{-6} *7*
467.58 *12*	28 *5*	467.5	$3/2^-$	0.0	$1/2^-$	M1	0.1095	%Iγ=1.82 *33* α(K)=0.0901 *13*; α(L)=0.01486 *21*; α(M)=0.00345 *5* α(N)=0.000865 *13*; α(O)=0.0001638 *23*; α(P)=1.261×10^{-5} *18*
878.83 *21*	31 *5*	1346.1	$7/2^-$	467.5	$3/2^-$	[E2]	0.00780	%Iγ=2.02 *33*

Continued on next page (footnotes at end of table)

^{205}Hg IT decay (1.09 ms) 1994Po21,1986Ze03,1985Ma48 (continued)

$\gamma(^{205}Hg)$ (continued)

E_γ [†]	I_γ [‡@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[†]	α[#]	Comments
								α(K)=0.00620 *9*; α(L)=0.001226 *18*; α(M)=0.000291 *4* α(N)=7.27×10^{-5} *11*; α(O)=1.340×10^{-5} *19*; α(P)=8.17×10^{-7} *12*
966.62 *10*	473 *18*	1346.1	7/2$^-$	379.5	5/2$^-$	(M1)	0.01663	%Iγ=30.8 *14* α(K)=0.01374 *20*; α(L)=0.00222 *4*; α(M)=0.000513 *8* α(N)=0.0001286 *18*; α(O)=2.44×10^{-5} *4*; α(P)=1.90×10^{-6} *3*
1015.63 *25*	1017 *21*	1395.0	9/2$^-$	379.5	5/2$^-$	[E2]	0.00586	%Iγ=66.2 *20* α(K)=0.00471 *7*; α(L)=0.000876 *13*; α(M)=0.000206 *3* α(N)=5.16×10^{-5} *8*; α(O)=9.57×10^{-6} *14*; α(P)=6.18×10^{-7} *9*

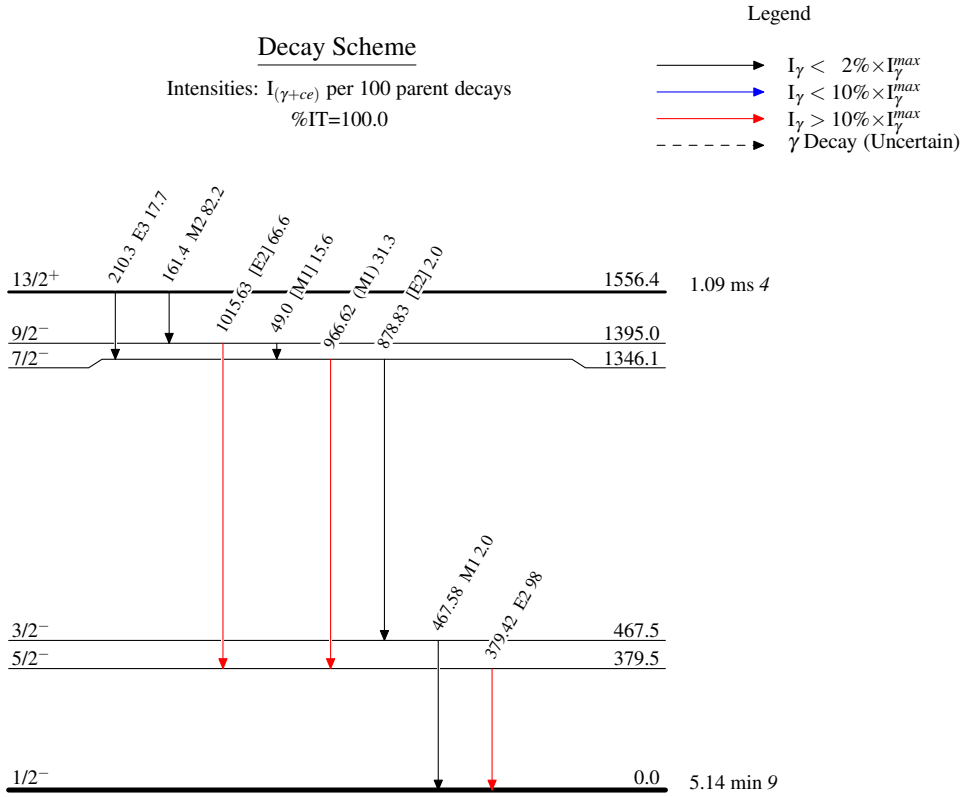
[†] From adopted gammas.
[‡] From Iγ(161.4γ)/Iγ(210.3γ) in 1994Po21 and intensity balances.
[#] Additional information 1.
[@] For absolute intensity per 100 decays, multiply by 0.0651 *14*.

^{205}Hg IT decay (1.09 ms) 1994Po21,1986Ze03,1985Ma48

Decay Scheme

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

%IT=100.0



$^{205}_{80}Hg_{125}$