^{205}Tl(μ^-,nγ) 1972Ba53,1978Du01

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	C. J. Chiara and F. G. Kondev	NDS 111,141 (2010)	1-Oct-2009

1972Ba53: Natural Tl target; Ge(Li) detectors for Eγ and Iγ measurements.
The decay scheme is suggested by evaluators on the basis of the Adopted Levels.

^{204}Hg Levels

E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡
0	0^+	1841.46 *10*	1^+	2190.97 *20*	6^+	2726.2 *6*	$(2^+,3)$
436.552 *8*	2^+	1948.2 *3*	2^+	2262.9 *3*	5^-	2760.7 *4*	$(5)^-$
1128.26 *17*	4^+	1990.5 *4*	(2^+)	2264.6 *5*	(1,2,3)		
1827.9 *4*	(2^-)	2140.5 *4*	$(1^+,2^+,3^+)$	2300.65 *24*	7^-		

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

$\gamma(^{204}Hg)$

Eγ†	Iγ‡	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.#	Comments
109.68 *12*	0.98 *18*	2300.65	7^-	2190.97	6^+	E1	
436.551 *8*	25.4 *41*	436.552	2^+	0	0^+	E2	
497.8 *3*	0.77 *22*	2760.7	$(5)^-$	2262.9	5^-		
691.71 *17*	7.6 *9*	1128.26	4^+	436.552	2^+	E2	
1062.8 *1*		2190.97	6^+	1128.26	4^+	E2	Eγ: From adopted gammas. Not observed in ^{205}Tl(μ^-,nγ).
1134.67 *20*	3.0 *6*	2262.9	5^-	1128.26	4^+	E1	
1391.3 *4*	0.68 *17*	1827.9	(2^-)	436.552	2^+	(E1)	
1405.0 *1*		1841.46	1^+	436.552	2^+	M1+E2	Eγ: From adopted gammas. Not observed in ^{205}Tl(μ^-,nγ).
1511.6 *3*	1.5 *3*	1948.2	2^+	436.552	2^+	[M1+E2]	
1553.9 *4*	0.96 *24*	1990.5	(2^+)	436.552	2^+		
1597.9 *5*	0.62 *17*	2726.2	$(2^+,3)$	1128.26	4^+		
1703.9 *4*	0.70 *20*	2140.5	$(1^+,2^+,3^+)$	436.552	2^+	(M1+E2)	
1828.0 *5*	0.50 *16*	2264.6	(1,2,3)	436.552	2^+		

† From 1972Ba53, with γ's placed by evaluators based on the adopted level scheme, apart from the 437γ from 1978Du01.
‡ Per 100 μ^- stops in natural Tl (1972Ba53).
# From adopted gammas.

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Level Scheme

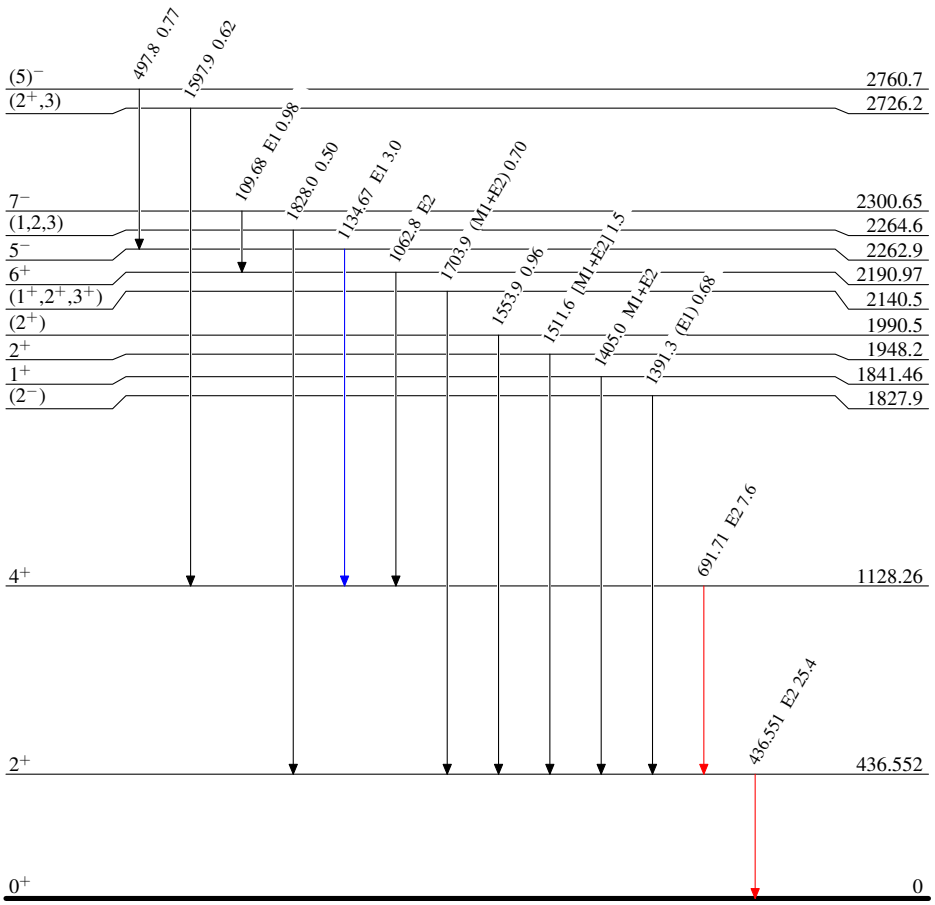
Intensities: Type not specified

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$



$^{204}_{80}Hg_{124}$