^{207}Pb(μ^-,2nγ) 1983Bu02

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

Target: ^{207}Pb, enriched to 92.77%; Detectors:Ge(Li); Measured: Eγ,Iγ.

^{205}Tl Levels

E(level)†	J$^\pi$‡	E(level)†	J$^\pi$‡	E(level)†	J$^\pi$‡	E(level)†	J$^\pi$‡
0.0	1/2$^+$	923.91 *8*	(7/2$^+$)	1218.88 *22*	1/2$^+$	1437.4 *3*	(1/2$^+$)
203.749 *9*	3/2$^+$	1140.97 *18*	3/2$^+$	1340.5 *5*	3/2$^+$	2001.5 *3*	(3/2$^+$)
619.43 *4*	5/2$^+$	1179.93 *13*	(5/2,7/2)	1429.78 *9*	(9/2$^+$)		

† From a least-squares fit to Eγ.
‡ From 1983Bu02.

γ(^{205}Tl)

E$_\gamma$†	I$_\gamma$‡	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.†	I$_{(\gamma+ce)}$†	Comments
203.750 *9*	15 *4*	203.749	3/2$^+$	0.0	1/2$^+$		22 *5*	α: 0.44.
415.70 *4*	4.3 *8*	619.43	5/2$^+$	203.749	3/2$^+$		5.0 *9*	α: 0.17.
^{x}481.98 *25*							0.4 *1*	
505.87 *4*	2.8 *5*	1429.78	(9/2$^+$)	923.91	(7/2$^+$)	(M1)	3.1 *6*	α: 0.11.
560.70 *15*	0.74 *28*	1179.93	(5/2,7/2)	619.43	5/2$^+$	(M1)	0.8 *3*	α: 0.08.
720.14 *8*	7.3 *9*	923.91	(7/2$^+$)	203.749	3/2$^+$	E2	7.4 *9*	α: 0.01.
810.6 *3*	0.7 *3*	1429.78	(9/2$^+$)	619.43	5/2$^+$	(E2)	0.7 *3*	α: 0.01.
937.46 *20*	1.9 *4*	1140.97	3/2$^+$	203.749	3/2$^+$	E2	1.9 *4*	α: 0.01.
^{x}954.9 *3*							0.6 *2*	
975.75 *22*	1.9 *4*	1179.93	(5/2,7/2)	203.749	3/2$^+$	(E2)	1.9 *4*	α: 0.01.
1014.8 *3*	0.6 *2*	1218.88	1/2$^+$	203.749	3/2$^+$	(M1)	0.6 *2*	α: 0.007.
1136.7 *5*	0.9 *2*	1340.5	3/2$^+$	203.749	3/2$^+$	(M1)	0.9 *2*	α: 0.01.
1140.0 *4*	0.6 *2*	1140.97	3/2$^+$	0.0	1/2$^+$		0.6 *2*	α: 0.01.
1219.2 *3*	0.8 *2*	1218.88	1/2$^+$	0.0	1/2$^+$	(M1)	0.8 *2*	α: 0.01.
1234.9 *3*	0.8 *4*	1437.4	(1/2$^+$)	203.749	3/2$^+$	(M1)	0.8 *4*	E$_\gamma$: 1230.8γ in adopted gammas. α: 0.01.
1382.1 *3*	0.4 *1*	2001.5	(3/2$^+$)	619.43	5/2$^+$	(M1)	0.4 *1*	α: 0.01.
1432.2 *6*	0.4 *1*	1437.4	(1/2$^+$)	0.0	1/2$^+$		0.4 *1*	α: 0.01.
^{x}1435.9 *3*						(M1)	0.9 *2*	α: 0.01.

† From 1983Bu02. The α used in 1983Bu02 to convert Iγ to I(γ+ce) are given in the comments. I(γ+ce) is level population per 100 muons.
‡ From I(γ+ce) and α quoted in 1983Bu02 (and given in the comments).
^{x} γ ray not placed in level scheme.

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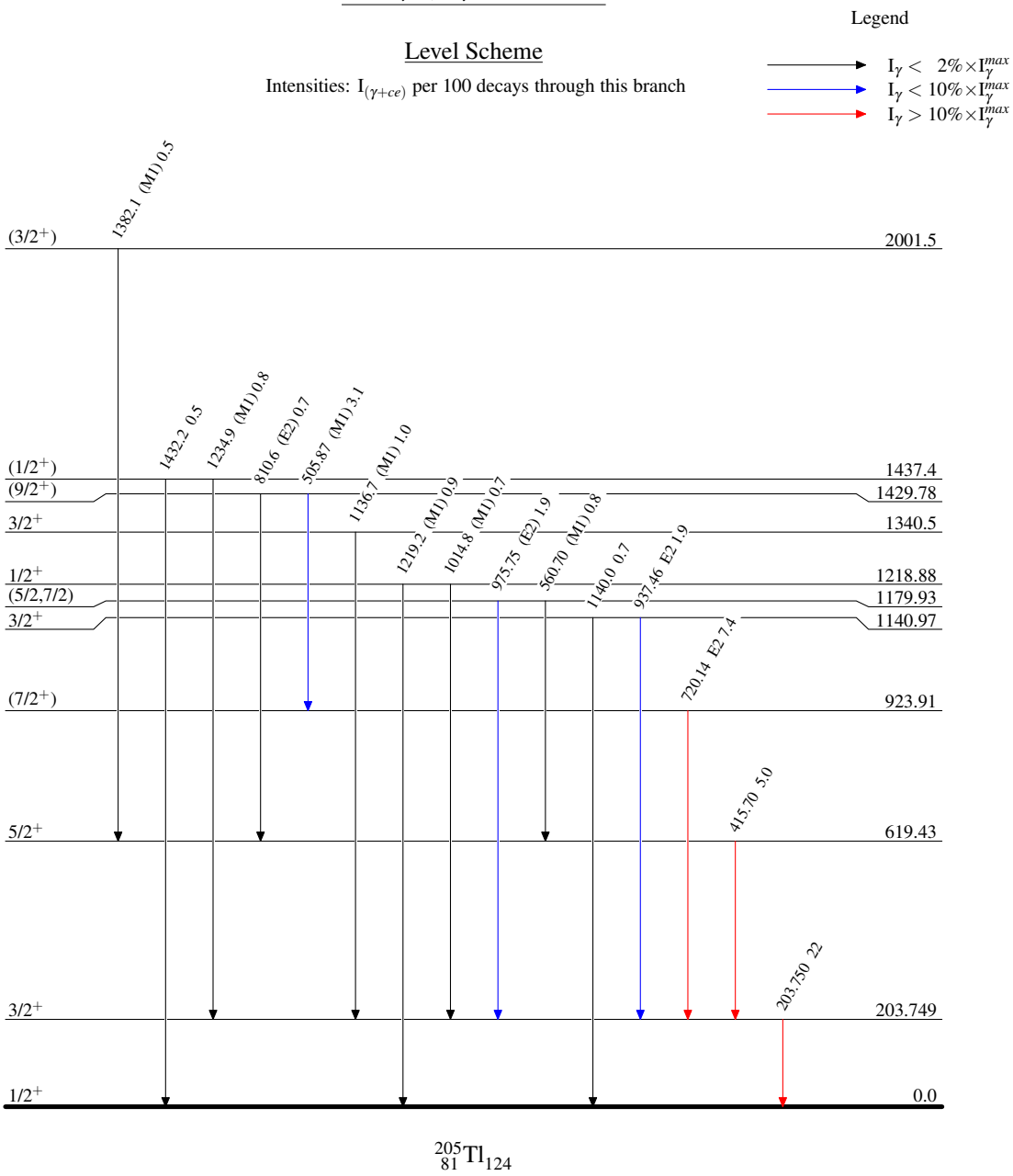
Level Scheme

Intensities: $I_{(\gamma+ce)}$ per 100 decays through this branch



$^{205}_{81}Tl_{124}$