Adopted Levels, Gammas

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

Q(β^-)=−50.6 *5*; S(n)=7546.1 *5*; S(p)=6419.1 *13*; Q(α)=155 *3* 2017Wa10

^{205}Tl Levels

Cross Reference (XREF) Flags

A	^{205}Hg β^- decay	G	^{205}Tl(γ,γ')	M	^{206}Pb(pol t,α)
B	^{205}Pb ε decay	H	^{205}Tl(μ^-,γ)	N	^{207}Pb(μ^-,2nγ)
C	^{209}Bi α decay	I	^{205}Tl(n,n'γ)	O	^{208}Pb(pol p,α)
D	^{204}Hg(t,2nγ)	J	^{205}Tl(p,p')	P	^{208}Pb(^{48}Ca,Xγ)
E	^{204}Hg(α,p2nγ)	K	^{205}Tl(d,d')	Q	Coulomb excitation
F	^{204}Hg(^{7}Li,α2nγ)	L	^{206}Pb(pol d,^{3}He)		

E(level)†	Jπ	$T_{1/2}$	XREF	Comments
0.0[c]	1/2+	stable	ABCDEFGHIJKLMNOPQ	μ=+1.63821461 *12* Jπ: Optical spectroscopy (1931Sc02,1932Ja02), Nuclear Magnetic Resonance (1950Pr51) and Hyperfine Structure (2013Ba41); π from μ and L=0 in ^{206}Pb(pol d,^{3}He), ^{206}Pb(pol t,α) and ^{208}Pb(pol p,α). μ: From 1963Ba23,2014StZZ using the nuclear magnetic resonance technique. Others: +1.6379 *13* (1998Gu22), based on a value given by 1968FoZZ using the atomic beam magnetic resonance technique.
203.70[d] *4*	3/2+	1.46 ns *5*	A CDEFGHIJKLMNOPQ	μ=−0.080 *45*; Q=+0.74 *15* XREF: M(205)O(207). Jπ: 203.67γ M1+E2 to 1/2+; L=2 in ^{206}Pb(pol d,^{3}He), ^{206}Pb(pol t,α) and ^{208}Pb(pol p,α). $T_{1/2}$: Weighted average of 1.46 ns *8* (1971Sh35) in ^{205}Hg β^- decay, 1.41 ns *10* (1972Ba53) in ^{205}Tl(μ^-,γ) and 1.50 ns *10* (1967Ma45) in Coulomb excitation. μ: From 2014StZZ using the transient field integral perturbed angular correlations technique. Others: +0.02 *12* (1979Ha06) in Coulomb excitation, using the transient field integral perturbed angular correlations technique and 0.41 *5* (1972Ch07) in ^{205}Tl(μ^-,γ) using hyperfine structure of muonic x-rays technique. Q: From 1972Ch07,2016St14 in ^{205}Tl(μ^-,γ) using hyperfine structure of muonic x-rays technique.
619.40[e] *4*	5/2+	0.90 ps *14*	A D GHIJKLMNO Q	μ=+2.2 *7* XREF: K(616)L(618)M(614). Jπ: 415.71γ M1+E2 to 3/2+; 619.35γ E2 to 1/2+; L=2 in ^{206}Pb(pol d,^{3}He),^{206}Pb(pol t,α) and ^{208}Pb(pol p,α). $T_{1/2}$: From Coulomb excitation (1973Kr02). μ: From g=0.89 *26* in Coulomb excitation (1979Ha06,2014StZZ), using the transient field integral perturbed angular correlations technique; Others: +2.0 *3* (2014StZZ).
923.75[f] *5*	7/2+		DEFG IJKL NOP	XREF: K(920)L(925). Jπ: 720.09γ E2 to 3/2+; L=4 and Ay(θ) in ^{208}Pb(pol p,α).
1140.74 *4*	3/2+		A GHIJKLMNO	XREF: K(1136)L(1142)M(1138). Jπ: 521.30γ M1+E2 to 5/2+; 937.08γ M1+E2 to 3/2+; L=2 and Ay(θ) in ^{208}Pb(pol p,α), ^{206}Pb(pol t,α), and ^{206}Pb(pol d,^{3}He).
1180.00 *6*	(5/2+)		G I K N	XREF: K(1174).

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Adopted Levels, Gammas (continued)

^{205}Tl Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$	XREF	Comments
				Jπ: 256.14γ to 7/2+; 560.7γ to 5/2+; 976.30γ to 3/2+ and 1180.2γ to 1/2+. The level is not populated in ^{205}Hg β− decay (Jπ=1/2−), which argue against Jπ=3/2+.
1219.16 *9*	1/2+		A G I LMNO	XREF: L(1217)M(1222)N(1218.88)O(1218). Jπ: L=0 and Ay(θ) in ^{208}Pb(pol p,α), ^{206}Pb(pol t,α) and ^{206}Pb(pol d,^{3}He); 1014.7γ to 3/2+; 1218.7γ to 1/2+.
1340.28 *6*	3/2+		A GHIJKLMNO	XREF: K(1336)L(1342)O(1342). Jπ: L=2 and Ay(θ) in ^{208}Pb(pol p,α), ^{206}Pb(pol t,α) and ^{206}Pb(pol d,^{3}He); 1136.56γ M1+E2 to 3/2+; 720.8γ to 5/2+ level; 1340.28γ to 1/2+.
1429.55[g] *6*	9/2+		DEF IJk NOP	XREF: J(1431)k(1426). Jπ: 505.82γ M1+E2 to 7/2+; 810.13γ to 5/2+; L=4 and Ay(θ) in ^{208}Pb(pol p,α) and ^{205}Tl(p,p′).
1433.9 *4*	(1/2)+		A G I klmn	XREF: k(1426)l(1434)m(1436)n(1437.4). Jπ: L=0 in ^{206}Pb(pol d,^{3}He); 1230.8γ to 3/2+; 1433.9γ to 1/2+.
1438.43 *10*	(1/2)+		I klmn	XREF: k(1426)l(1434)m(1436)n(1437.4). Jπ: L=0 in ^{206}Pb(pol d,^{3}He); 1234.75γ to 3/2+; 1438.34γ to 1/2+.
1483.93[h] *6*	11/2−	4.5 ns *5*	DEF JKLM OP	XREF: J(1480)K(1479)M(1491). Jπ: 54.38γ (E1) to 9/2+; L=5 and Ay(θ) in ^{208}Pb(pol p,α) and ^{206}Pb(pol d,^{3}He). $T_{1/2}$: From 203.9γ(t), 720.1γ(t) and 505.9γ(t) in ^{204}Hg(^{7}Li,α2nγ) (1977HaZJ).
1553[‡] *3*	(7/2+)		O	Jπ: L=(4,5) and Ay(θ) in ^{208}Pb(pol p,α).
1554.62 *6*	(3/2+)		G I	Jπ: 6091.9γ, most likely E1 or M1 from 1/2−; 374.70γ to (5/2+), 630.90γ to 7/2+, 1350.73γ to 3/2+ and 1555.9γ to 1/2+.
1574.03 *8*	(5/2+)		G I KLM O	XREF: K(1571)L(1580)M(1580?). Jπ: L=(2) in ^{206}Pb(pol d,^{3}He); L=(2,3) and Ay(θ) in ^{208}Pb(pol p,α); 1574.02γ to 1/2+.
1644[@] *5*	(3/2+,5/2+)		KL	XREF: K(1637). Jπ: L=(2) in ^{206}Pb(pol d,^{3}He).
1668[#]			K	
1694[‡] *3*	3/2+		O	Jπ: L=2 and Ay(θ) in ^{208}Pb(pol p,α).
1711.05 *8*	(1/2,3/2,5/2+)		I	Jπ: 491.88γ to 1/2+; 570.33γ to 3/2+.
1765[@] *5*	(3/2+,5/2+)		KL	XREF: K(1768). Jπ: L=(2) in ^{206}Pb(pol d,^{3}He).
1829[‡] *3*	1/2+		O	Jπ: L=0 and Ay(θ) in ^{208}Pb(pol p,α).
1848[@] *5*	3/2+,5/2+		jklm O	XREF: j(1860)k(1858)l(1848)m(1859)O(1850). Jπ: L=2 in ^{206}Pb(pol d,^{3}He).
1866.1 *5*	5/2+		G Ijklm O	XREF: j(1860)k(1858)l(1848)m(1859)O(1860). Jπ: L=2 and Ay(θ) in ^{208}Pb(pol p,α) and ^{206}Pb(pol d,^{3}He); 646.9γ to 1/2+; 1247.2γ to 5/2+.
1916[‡] *3*	11/2+		J O	XREF: J(1920). Jπ: L=6 and Ay(θ) in ^{208}Pb(pol p,α).
1946[‡] *3*	5/2+		LM O	XREF: L(1949)M(1953). Jπ: L=2 and Ay(θ) in ^{208}Pb(pol p,α) and ^{206}Pb(pol d,^{3}He).
1966.39 *9*	1/2+,3/2		G I	Jπ: 1762.5γ to 3/2+; 1966.39γ to 1/2+; 5679.6γ from 1/2−.
2002.44 *8*	(3/2+,5/2+)		G I NO	XREF: O(2006). Jπ: 1077.8γ to 7/2+; 1383.05γ to 5/2+.
2036[‡] *3*	3/2+,5/2+		J LM O	XREF: J(2040)L(2037)M(2044). Jπ: L=2 in ^{206}Pb(pol d,^{3}He).

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Adopted Levels, Gammas (continued)

^{205}Tl Levels (continued)

E(level)[†]	J^π	XREF	Comments
2054.49[i] *12*	$15/2^-$	DE OP	XREF: O(2056). J^π: 570.55γ E2 to $11/2^-$; L=(6,7) and Ay(θ) in ^{208}Pb(pol p,α).
2089.02 *9*	$(1/2^+,3/2)$	G I	J^π: 1469.60γ to $5/2^+$; 1885.24γ to $3/2^+$; 2089.09γ to $1/2^+$; 5557.4γ from $1/2^-$.
2098.22 *14*	$3/2^+,5/2^+$	G I lm	XREF: l(2104)m(2112). J^π: 1478.4γ to $5/2^+$; 2098.22γ to $1/2^+$; L=2 in ^{206}Pb(pol d,^{3}He).
2112[a] *10*	$11/2^-,5/2^+$	lm	XREF: l(2104)m(2112). J^π: L=5,2 in ^{206}Pb(pol t,α).
2126[‡] *3*	$7/2^-$	J O	XREF: J(2120). J^π: L=3 and Ay(θ) in ^{208}Pb(pol p,α).
2163.23 *9*	$(1/2^+,3/2)$	G I O	XREF: O(2162). J^π: 1543.7γ to $5/2^+$; 1959.46γ to $3/2^+$; 2163.36γ to $1/2^+$; 5483.1γ from $1/2^-$.
2185[‡] *3*	$(11/2^+,13/2^-)$	J O	XREF: J(2180). J^π: L=(6,7) and Ay(θ) in ^{208}Pb(pol p,α).
2209.3? *6*	$(1/2,3/2,5/2,7/2^+)$	G	J^π: 2005.6γ to $3/2^+$.
2220.5 *3*	$(3/2^+)$	G I O	XREF: I(?)O(2222). J^π: 1001.2γ to $1/2^+$; 1600.2γ to $5/2^+$; 2220.9γ to $1/2^+$; 5425.3γ from $1/2^-$; L=2 and Ay(θ) in ^{208}Pb(pol p,α).
2286[‡] *5*	$(11/2^-)$	O	J^π: L=5 and Ay(θ) in ^{208}Pb(pol p,α).
2303.97 *15*	$(3/2^+)$	G IJ Lm O	XREF: J(2300)L(2305)m(2304)O(2302). J^π: 964.85γ to $3/2^+$; 1163.23γ to $3/2^+$; L=2 in ^{206}Pb(pol d,^{3}He); Eγ from 7646.16 keV ($J^\pi=1/2^-$) state.
2316.25 *7*	$(1/2^+,3/2^+)$	G I m	XREF: m(2304). J^π: 1173.0γ to $3/2^+$; 1696.82γ to $5/2^+$; 2112.57γ to $3/2^+$; 5329.8γ from $1/2^-$.
2339[‡] *3*	$(7/2^+)$	O	J^π: L=4 and Ay(θ) in ^{208}Pb(pol p,α).
2394.09[j] *13*	$17/2^-$	DE j OP	XREF: j(2400)O(2393). J^π: 339.61γ M1+E2 to $15/2^-$; L=9 and Ay(θ) in ^{208}Pb(pol p,α).
2410[@] *5*	$3/2^+,5/2^+$	j LM	XREF: j(2400)M(2420). J^π: L=2 in ^{206}Pb(pol d,^{3}He).
2445[‡] *3*	$(11/2^+,13/2^-)$	O	J^π: L=(6,7) and Ay(θ) in ^{208}Pb(pol p,α).
2479[@] *5*	$(11/2)^-$	kLm	XREF: k(2482)m(2482). J^π: L=5 in ^{206}Pb(pol d,^{3}He).
2486[‡] *3*	$9/2^+$	k m O	XREF: k(2482)m(2482). J^π: L=4 and Ay(θ) in ^{208}Pb(pol p,α).
2488.45 *13*	$(5/2)^-$	IJk m	XREF: J(2487)k(2482)m(2482). J^π: 1564.9γ to $7/2^+$; 1868.6γ to $5/2^+$; 2284.77γ to $3/2^+$; L=3 in ^{205}Tl(p,p′).
2537[‡] *5*		O	
2551.45[k] *14*	$19/2^-$	DE j oP	XREF: j(2550)o(2553). J^π: 157.38γ M1+E2 to $17/2^-$; 496.94γ to $15/2^-$.
2554.19 *15*	$(1/2^+,3/2)$	G Ij o	XREF: j(2550)o(2553). J^π: 2351.5γ to $3/2^+$; 2554.08γ to $1/2^+$; 5091.0γ from $1/2^-$.
2560.2 *4*	$(1/2^+,3/2)$	G j o	XREF: j(2550)o(2553). J^π: 1419.0γ to $3/2^+$; 1941.1γ to $5/2^+$; 2557.0γ to $1/2^+$; 5086.5γ from $1/2^-$.
2584[‡] *3*	$(11/2^-)$	LM O	XREF: L(2583)M(2588). J^π: L=5 and Ay(θ) in ^{208}Pb(pol p,α) and ^{206}Pb(pol d,^{3}He).
2623.07 *8*	$(5/2)^-$	HIJK O	μ=0.71 *15*; Q=−0.54 *20* XREF: H(2630.56)J(2625)K(2623)O(2630). J^π: 1291.14γ to $3/2^+,5/2^+$; 1491.50γ to $3/2^+$; 2011.3γ to $5/2^+$.

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Adopted Levels, Gammas (continued)

^{205}Tl Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$	XREF	Comments
				μ,Q: using hyperfine structure of muonic x-rays (1972Ch07,2014StZZ,2016St14). Jπ: 1282.75γ to 3/2+; 2003.79γ to 5/2+; L=3 in ^{205}Tl(p,p′).
2711[‡] *3*	7/2−		Jk m O	XREF: J(2716)k(2717)m(2714). Jπ: L=3 in ^{205}Tl(p,p′); L=(3,4) and Ay(θ) in ^{208}Pb(pol p,α).
2721.0 *4*	(1/2+,3/2)		G I k m	XREF: k(2717)m(2714). Jπ: 854.9γ to 5/2+; 2101.7γ to 5/2+; 2518.8γ to 3/2+; 2720.0γ to 1/2+; 4925.0γ from 1/2−.
2740[@] *5*	(3/2,5/2)+		L o	XREF: o(2749). Jπ: L=2 in ^{206}Pb(pol d,^{3}He).
2750.5 *5*	3/2+		G o	XREF: o(2749). Jπ: 2134.0γ to 5/2+; 2753.0γ to 1/2+; 4896.8γ from 1/2−; L=2 and Ay(θ) in ^{208}Pb(pol p,α).
2838[‡] *3*	(5/2+)		O	Jπ: L=2 and Ay(θ) in ^{208}Pb(pol p,α).
2845[‡] *3*			O	
2869[@] *5*	(3/2+,5/2+)		L	Jπ: L=(2) in ^{206}Pb(pol d,^{3}He).
2885[‡] *3*	(5/2+,7/2+)		j O	XREF: j(2900). Jπ: L=(2,4) and Ay(θ) in ^{208}Pb(pol p,α).
2893.4 *3*	(1/2+,3/2)		G j	XREF: j(2900). Jπ: 892.4γ to (3/2+,5/2+); 1713.0γ to (5/2+); 2275.8γ to 5/2+; 2693.3γ to 3/2+; 4752.1γ from 1/2−.
2923[‡] *3*	13/2+		k O	XREF: k(2933). Jπ: L=6 and Ay(θ) in ^{208}Pb(pol p,α).
2942[@] *5*	(3/2+,5/2+)		kL	XREF: k(2933). Jπ: L=(2) in ^{206}Pb(pol d,^{3}He).
2970[&] *10*	(5/2−,7/2−)		JK	XREF: K(2974). Jπ: L=(3) in ^{205}Tl(p,p′).
2998[@] *5*	(3/2+,5/2+)		L O	XREF: O(2996). Jπ: L=(2) in ^{206}Pb(pol d,^{3}He).
3017.7 *7*	(3/2+)		G	Jπ: 714.7γ to (7/2+); 1876.6γ to 3/2+; 4628.0γ from 1/2−.
3072[‡] *8*			O	
3117[@] *5*	(3/2+,5/2+)		L O	XREF: O(3111). Jπ: L=(2) in ^{206}Pb(pol d,^{3}He).
3133[‡] *8*			O	
3159[‡] *8*			k O	XREF: k(3173).
3177.1 *9*	(1/2+,3/2)		G k o	XREF: k(3173)o(3182). Jπ: 1623.6γ to (3/2+); 3179.3γ to 1/2+; 4470.0γ from 1/2−.
3182[‡] *8*	(5/2−,7/2−)		Jk o	XREF: J(3180)k(3173)o(3182). Jπ: L=(3) in ^{205}Tl(p,p′).
3213[&] *10*	5/2−,7/2−		JK	Jπ: L=3 in ^{205}Tl(p,p′).
3259[&] *4*	5/2−		G JK	XREF: J(3256). Jπ: L=3 in ^{205}Tl(p,p′); Eγ from 7646.16-keV (J^π=1/2−) state.
3279[@] *5*	(3/2+,5/2+)		L O	XREF: O(3273). Jπ: L=(2) in ^{206}Pb(pol d,^{3}He).
3287.5 *7*	(1/2+,3/2)		G	Jπ: 3288.0γ to (1/2+); 4359.0γ from 1/2−.
3290.61[l] *17*	25/2+	2.6 μs *2*	DE P	μ=+6.80 *10* Jπ: 739.16γ E3 to 19/2−. $T_{1/2}$: From From γ(t) in 1982Ma05 and 1984Be14 (^{204}Hg(t,2nγ)). Other:≥3 μs in ^{204}Hg(α,p2nγ) (1976BeXF). μ: using g=0.544 *8* (1982Ma05,2014StZZ) and the differential perturbed γ ray angular distribution technique in ^{204}Hg(t,2nγ).
3370[@] *5*	(3/2+,5/2+)		L O	XREF: O(3363).

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Adopted Levels, Gammas (continued)

^{205}Tl Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$	XREF	Comments
				Jπ: L=(2) in ^{206}Pb(pol d,^{3}He).
3427[‡] *8*	(9/2⁻,11/2⁻)		JK O	XREF: J(3414)K(3411). Jπ: L≥5 in ^{205}Tl(p,p′).
3473[#] *10*			JK	XREF: J(3480).
3511[‡] *8*			kl O	XREF: k(3523)l(3525).
3525[@] *5*	(3/2⁺,5/2⁺)		kl O	XREF: k(3523)l(3525)O(3531). Jπ: L=(2) in ^{206}Pb(pol d,^{3}He).
3540[&] *10*	(9/2⁻,11/2⁻)		JK	Jπ: L≥5 in ^{205}Tl(p,p′).
3618.6[m] *11*	(29/2⁺)		P	Jπ: 328γ to 25/2⁺; systematics of similar structures in neighboring nuclei.
3636[‡] *8*			J O	XREF: J(3660).
3692[‡] *8*			O	
3813[‡] *8*			O	
3960[‡] *8*			O	
4000.6[b] *2*			G O	XREF: O(3990).
4159.95[b] *20*			G	
4262.5[b] *4*			G	
4341.9[b] *5*			G	
4348.4[b] *4*			G	
4731.7[b] *7*			G	
4741.5[b] *9*			G	
4828.2[b] *11*			G	
4835.6[n] *15*	(35/2⁻)	235 ns *10*	P	Jπ: 1217γ to (29/2⁺); systematics of similar structures in neighboring nuclei. $T_{1/2}$: From 2256γ-1217γ(Δt) + 2256γ-328γ(Δt) in ^{208}Pb(^{48}Ca,xγ) (2004Wr01).
4878.5[b] *4*			G	
4926.6[b] *6*			G	
4938.04[b] *20*			G	
4947.1[b] *10*			G	
4961.33[b] *19*			G	
4967.86[b] *10*			G	
4975.2[b] *6*			G	
4994.2[b] *3*			G	
5007.6[b] *6*			G	
5036.6[b] *6*			G	
5071.5[b] *5*			G	
5123.9[b] *5*			G	
5164.7[b] *7*			G	
5211.9[b] *6*			G	
5240.5[b] *7*			G	
5308.7[b] *4*			G	
5343.7[b] *9*			G	
5357.4[b] *5*			G	
5391.0[b] *4*			G	
5406.7[b] *8*			G	

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Adopted Levels, Gammas (continued)

^{205}Tl Levels (continued)

E(level)[†]	Jπ	XREF		Comments
5433.0[b] 6		G		
5451.3[b] 5		G		
5480.3[b] 5		G		
5552.7[b] 6		G		
5577.2[b] 7		G		
5589.7[b] 9		G		
5598.2[b] 8		G		
5610.4[b] 6		G		
5619.9[b] 7		G		
5652.4[b] 5		G		
5664.8[b] 6		G		
5685.7[b] 3		G		
5693.4[b] 9		G		
5737.7[b] 8		G		
5756.0[b] 3		G		
5781.2[b] 5		G		
5797.9[b] 9		G		
5802.8[b] 6		G		
5811.7[b] 9		G		
5819.8[b] 4		G		
5864.8[b] 9		G		
5878.2[b] 5		G		
5910.6[b] 6		G		
5963.2[b] 8		G		
6060.8[b] 4		G		
6088.6[b] 5		G		
6109.5[b] 8		G		
6146.9[b] 9		G		
6176.7[b] 4		G		
6189.0[b] 6		G		
6213.4[b] 9		G		
6315.3[b] 10		G		
6364.7[b] 6		G		
7091.6 18	(41/2$^+$)		P	Jπ: 2256γ to (35/2$^-$); systematics of similar structures in neighboring nuclei. configuration: [π($h^{-1}_{11/2}$)⊗ν($i^{-2}_{13/2}$)]⊗3$^-$. Assignment is tentative.
7251.5 7	(3/2$^+$)	G		Jπ: From radiation strength in ^{205}Tl(γ,γ′).
7331.6 18			P	
7646.16 14	1/2$^-$	G		Jπ: From multiple decay branches. E(level): Resonant state.
7898.6 20			P	
8033.6 20			P	
8408.6 23			P	

[†] From a least-squares fit to Eγ, unless otherwise stated.
[‡] From ^{208}Pb(pol p,α).

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Adopted Levels, Gammas (continued)

^{205}Tl Levels (continued)

[#] From ^{205}Tl(d,d′).
[@] From ^{206}Pb(pol d,^{3}He).
[&] From ^{205}Tl(p,p′).
[a] From ^{206}Pb(pol t,α).
[b] From ^{205}Tl(γ,γ').
[c] configuration=$\pi(s^{-1}_{1/2})$.
[d] configuration=$\pi(d^{-1}_{3/2})$.
[e] Probably a mixture of configuration=$\pi(d^{-1}_{5/2})$ and configuration=$\pi(s^{-1}_{1/2})\otimes 2^+$.
[f] Dominant configuration=$\pi(d^{-1}_{3/2})\otimes 2^+$.
[g] Dominant configuration=$\pi(d^{-1}_{5/2})\otimes 2^+$.
[h] configuration=$\pi(h^{-1}_{11/2})$.
[i] configuration=$\pi(h^{-1}_{11/2})\otimes\nu(p^{-1}_{1/2},f^{-1}_{5/2})_{2^+}$.
[j] A mixture of configuration=$\pi(d^{-1}_{3/2})\otimes\nu(p^{-1}_{1/2},i^{-1}_{13/2})_{7^-}$ and $\pi(s^{-1}_{1/2})\otimes\nu(f^{-1}_{5/2},i^{-1}_{13/2})_{8^-}$.
[k] A mixture of configuration=$\pi(s^{-1}_{1/2})\otimes\nu(f^{-1}_{5/2},i^{-1}_{13/2})_{9^-}$ and $\pi(d^{-1}_{5/2})\otimes\nu(p^{-1}_{1/2},i^{-1}_{13/2})_{7^-}$.
[l] configuration=$\pi(h^{-1}_{11/2})\otimes\nu(p^{-1}_{1/2},i^{-1}_{13/2})_{7^-}$.
[m] configuration=$\pi(h^{-1}_{11/2})\otimes\nu(f^{-1}_{5/2},i^{-1}_{13/2})$.
[n] configuration=$\pi(h^{-1}_{11/2})\otimes\nu(i^{-2}_{13/2})$.

Adopted Levels, Gammas (continued)

$\gamma(^{205}Tl)$

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.	δ	α[a]	Comments
203.70	3/2$^+$	203.67[‡] *5*	100[‡]	0.0	1/2$^+$	M1+E2	+1.18 *19*	0.46 *4*	α(K)=0.49 *7*; α(L)=0.1631 *24*; α(M)=0.0406 *8* α(N)=0.01020 *19*; α(O)=0.00186 *3*; α(P)=0.000118 *9* B(M1)(W.u.)=0.00051 *10*; B(E2)(W.u.)=6.1 *9* Mult.: From $\gamma(\theta)$ in ^{204}Hg(t,2nγ), ^{205}Tl(μ^-,γ), ^{205}Tl(n,n′γ) and Coulomb excitation; conversion electron measurements in ^{205}Tl(p,p′). α: 0.46 *4* from α(K)exp=0.29 *4* + α(L)exp=0.132 *6* + α(M+...)exp=0.0397 *34* (1982Gi11) in ^{205}Tl(p,p′). Anomalous conversion coefficient, penetration factor λ=13.1 *27* (1982Gi11). δ: From ^{205}Tl(p,p′) (1982Gi11). Others: 2 *1* in ^{204}Hg(t,2nγ) (1984Be14), +1.00 *5* in ^{205}Tl(μ^-,γ), +1.7 *+50−8* in ^{205}Tl(n,n′γ) and +1.56 *15* in Coulomb excitation.
619.40	5/2$^+$	415.71 *5*	100 *7*	203.70	3/2$^+$	M1+E2	−0.069 *11*	0.1619	B(M1)(W.u.)=0.27 *5*; B(E2)(W.u.)=2.7 *10* α(K)=0.1329 *19*; α(L)=0.0223 *4*; α(M)=0.00519 *8* α(N)=0.001311 *19*; α(O)=0.000255 *4*; α(P)=2.41×10^{-5} *4* I_γ: From Coulomb excitation. Mult.: From $\gamma(\theta)$ in ^{205}Tl(n,n′γ) and Coulomb excitation, and α(exp) in ^{207}Pb(μ^-,2nγ). δ: Weighted average of δ=−0.066 *14* (1973Kr02) and −0.073 *16* (1979Ha06) in Coulomb excitation. Others: −0.05 in Coulomb excitation (1958Mc02) and +0.09 *12* in ^{205}Tl(n,n′γ) (1977Da06).
		619.35 *7*	7.7 *7*	0.0	1/2$^+$	E2		0.01713	α(K)=0.01287 *18*; α(L)=0.00323 *5*; α(M)=0.000787 *11* α(N)=0.000198 *3*; α(O)=3.68×10^{-5} *6*; α(P)=2.72×10^{-6} *4* B(E2)(W.u.)=6.0 *12* I_γ: From Coulomb excitation. Mult.: From $\gamma(\theta)$ in Coulomb excitation.
923.75	7/2$^+$	720.09[‡] *5*	100[‡]	203.70	3/2$^+$	E2		0.01235	α(K)=0.00952 *14*; α(L)=0.00215 *3*; α(M)=0.000519 *8* α(N)=0.0001306 *19*; α(O)=2.45×10^{-5} *4*; α(P)=1.91×10^{-6} *3* Mult.: From $\gamma(\theta)$ in ^{204}Hg(t,2nγ) and α(exp) in ^{207}Pb(μ^-,2nγ).
1140.74	3/2$^+$	521.30 *5*	34 *4*	619.40	5/2$^+$	M1+E2	>2.2	0.031 *6*	α(K)=0.023 *5*; α(L)=0.0059 *6*; α(M)=0.00144 *14* α(N)=0.00036 *4*; α(O)=6.8×10^{-5} *7*; α(P)=5.0×10^{-6} *8* Mult.,δ: From $\gamma(\theta)$ in ^{205}Tl(n,n′γ) (1977Da06).
		937.08 *7*	100.0 *7*	203.70	3/2$^+$	M1+E2	>4	0.0076 *4*	α(K)=0.0060 *4*; α(L)=0.00117 *5*; α(M)=0.000277 *11* α(N)=7.0×10^{-5} *3*; α(O)=1.33×10^{-5} *6*; α(P)=1.12×10^{-6} *6* Mult.,δ: From $\gamma(\theta)$ in ^{205}Tl(n,n′γ) (1977Da06).
		1140.74 *6*	34 *4*	0.0	1/2$^+$	M1(+E2)	−0.25 *24*	0.0114 *10*	α(K)=0.0094 *8*; α(L)=0.00153 *12*; α(M)=0.00035 *3* α(N)=8.9×10^{-5} *7*; α(O)=1.74×10^{-5} *14*; α(P)=1.65×10^{-6} *14*; α(IPF)=1.31×10^{-6} *9* Mult.,δ: From $\gamma(\theta)$ in ^{205}Tl(n,n′γ) (1977Da06).

$^{205}_{81}Tl_{124}$-8

Adopted Levels, Gammas (continued)

γ(^{205}Tl) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.	δ	α[a]	Comments
1180.00	(5/2$^+$)	256.14 *13*	33 *4*	923.75	7/2$^+$				
		560.7 *3*	64 *10*	619.40	5/2$^+$				
		976.30 *5*	100 *10*	203.70	3/2$^+$				
		1180.2 *5*	3.4 *6*	0.0	1/2$^+$				
1219.16	1/2$^+$	1014.7[#] *8*	11[#] *4*	203.70	3/2$^+$				
		1218.7[#] *4*	100[#] *18*	0.0	1/2$^+$				
1340.28	3/2$^+$	720.8[#] *8*	24[#] *7*	619.40	5/2$^+$				I_γ: Relative to Iγ for 1136.8γ in ^{205}Hg β^- decay.
		1136.56 *6*	100 *24*	203.70	3/2$^+$	M1+E2	>0.5	0.008 *3*	α(K)=0.0063 *24*; α(L)=0.0011 *4*; α(M)=0.00025 *8* α(N)=6.3×10^{-5} *20*; α(O)=1.2×10^{-5} *4*; α(P)=1.1×10^{-6} *4*; α(IPF)=8.6×10^{-7} *21* I_γ: From ^{205}Hg β^- decay. Mult.,δ: From γ(θ) in ^{205}Tl(n,n′γ) (1977Da06).
		1340.28 *16*	7.1 *24*	0.0	1/2$^+$				I_γ: From ^{205}Hg β^- decay.
1429.55	9/2$^+$	505.82 *5*	100 *3*	923.75	7/2$^+$	M1+E2	−0.10 *2*	0.0958	α(K)=0.0787 *12*; α(L)=0.01312 *19*; α(M)=0.00306 *5* α(N)=0.000772 *11*; α(O)=0.0001500 *22*; α(P)=1.420×10^{-5} *21* Mult.,δ: From γ(θ) in ^{204}Hg(t,2nγ).
		810.13 *5*	21 *3*	619.40	5/2$^+$				
1433.9	(1/2)$^+$	1230.11 *10*	54 *9*	203.70	3/2$^+$				
		1433.4 *3*	100 *9*	0.0	1/2$^+$				
1438.43	(1/2)$^+$	1234.75 *10*	100.0 *11*	203.70	3/2$^+$				
		1438.34 *21*	6.6 *11*	0.0	1/2$^+$				
1483.93	11/2$^-$	54.38[‡] *3*	100[‡]	1429.55	9/2$^+$	(E1)		0.460	α(L)=0.352 *5*; α(M)=0.0834 *12* α(N)=0.0205 *3*; α(O)=0.00361 *5*; α(P)=0.000208 *3* B(E1)(W.u.)=0.000184 *21* Mult.: From γ(θ) in ^{204}Hg(t,2nγ) (1984Be14).
1554.62	(3/2$^+$)	374.70 *19*	38 *6*	1180.00	(5/2$^+$)				
		630.90 *5*	100 *6*	923.75	7/2$^+$				
		1350.73 *10*	71 *6*	203.70	3/2$^+$				
		1555.9[@] *7*	≈12[@]	0.0	1/2$^+$				I_γ: Relative to Iγ for 1350.7γ in ^{205}Tl(γ,γ′).
1574.03	(5/2$^+$)	1574.02 *8*	100	0.0	1/2$^+$				
1711.05	(1/2,3/2,5/2$^+$)	491.88 *5*	100 *5*	1219.16	1/2$^+$				
		570.33 *7*	49 *5*	1140.74	3/2$^+$				
1866.1	5/2$^+$	646.9[@] *5*	100[@]	1219.16	1/2$^+$				
		1247.2[b] *14*		619.40	5/2$^+$				
1966.39	1/2$^+$,3/2	747.3 *3*	37 *6*	1219.16	1/2$^+$				
		1762.5 *4*	24 *5*	203.70	3/2$^+$				
		1966.39 *9*	100 *7*	0.0	1/2$^+$				
2002.44	(3/2$^+$,5/2$^+$)	1077.8 *5*	11 *5*	923.75	7/2$^+$				
		1383.05 *7*	100 *5*	619.40	5/2$^+$				
		2002.1[@] *4*	19[@]	0.0	1/2$^+$				

$^{205}_{81}Tl_{124}$-9

Adopted Levels, Gammas (continued)

γ(^{205}Tl) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.	δ	α[a]	Comments
2054.49	15/2$^-$	570.55[‡] *10*	100[‡]	1483.93	11/2$^-$	E2		0.0206	α(K)=0.01523 *22*; α(L)=0.00408 *6*; α(M)=0.001000 *14* α(N)=0.000251 *4*; α(O)=4.65×10^{-5} *7*; α(P)=3.33×10^{-6} *5* Mult.: From γ(θ) in ^{204}Hg(t,2nγ).
2089.02	(1/2$^+$,3/2)	1469.60 *20*	100 *14*	619.40	5/2$^+$				
		1885.24 *14*	89 *11*	203.70	3/2$^+$				
		2089.09 *12*	81 *11*	0.0	1/2$^+$				
2098.22	3/2$^+$,5/2$^+$	1478.4 *10*	32 *14*	619.40	5/2$^+$				
		2098.22 *14*	100 *14*	0.0	1/2$^+$				
2163.23	(1/2$^+$,3/2)	1543.7 *4*	65 *11*	619.40	5/2$^+$				
		1959.46 *11*	100 *8*	203.70	3/2$^+$				
		2163.36 *14*	44 *6*	0.0	1/2$^+$				
2209.3?	(1/2,3/2,5/2,7/2$^+$)	2005.6[@] *6*	100[@]	203.70	3/2$^+$				
2220.5	(3/2$^+$)	1001.2[@] *5*	100[@]	1219.16	1/2$^+$				
		1600.2[@] *8*	50[@]	619.40	5/2$^+$				
		2220.9[@] *7*	60[@]	0.0	1/2$^+$				
2303.97	(3/2$^+$)	964.85[b] *20*	80	1340.28	3/2$^+$				I_γ: From ^{205}Tl(γ,γ′).
		1163.23 *15*	100	1140.74	3/2$^+$				
2316.25	(1/2$^+$,3/2$^+$)	1173.0[@] *20*	67[@]	1140.74	3/2$^+$				
		1696.82 *7*	100 *4*	619.40	5/2$^+$				
		2112.57 *10*	27 *4*	203.70	3/2$^+$				
2394.09	17/2$^-$	339.61[‡] *5*	100[‡]	2054.49	15/2$^-$	M1+E2	−0.12 *2*	0.277	α(K)=0.227 *4*; α(L)=0.0384 *6*; α(M)=0.00896 *13* α(N)=0.00226 *4*; α(O)=0.000439 *7*; α(P)=4.14×10^{-5} *6* Mult.,δ: From γ(θ) in ^{204}Hg(t,2nγ).
2488.45	(5/2)$^-$	1564.9 *4*	75 *13*	923.75	7/2$^+$				
		1868.6 *4*	75 *13*	619.40	5/2$^+$				
		2284.77 *13*	100 *13*	203.70	3/2$^+$				
2551.45	19/2$^-$	157.38[‡] *10*	100[‡]	2394.09	17/2$^-$	M1+E2	−0.03 *1*	2.36	α(K)=1.93 *3*; α(L)=0.330 *5*; α(M)=0.0770 *11* α(N)=0.0195 *3*; α(O)=0.00378 *6*; α(P)=0.000357 *5* Mult.,δ: From γ(θ) in ^{204}Hg(t,2nγ).
		496.94[‡] *10*	54[‡]	2054.49	15/2$^-$				α(K)=0.02051; α(L)=0.00625; α(M)=0.00154; α(N+..)=0.00050
2554.19	(1/2$^+$,3/2)	2351.5[@] *6*	75[@]	203.70	3/2$^+$				
		2554.08 *15*	100	0.0	1/2$^+$				
2560.2	(1/2$^+$,3/2)	1419.0[@] *10*	25[@]	1140.74	3/2$^+$				
		1941.1[@] *4*	30[@]	619.40	5/2$^+$				
		2557.0[@] *20*	100[@]	0.0	1/2$^+$				
2623.07	(5/2)$^-$	1282.75 *8*	100 *10*	1340.28	3/2$^+$				
		1481.6 *4*	44 *10*	1140.74	3/2$^+$				
		2003.79 *12*	56 *8*	619.40	5/2$^+$				

$^{205}_{81}Tl_{124}$-10

Adopted Levels, Gammas (continued)

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

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.	α[a]	Comments
2721.0	(1/2$^+$,3/2)	854.9[@] *10*	55[@]	1866.1	5/2$^+$			
		2101.7[@] *8*	73[@]	619.40	5/2$^+$			
		2518.8[@] *15*	100[@]	203.70	3/2$^+$			
		2720.0[@] *9*	64[@]	0.0	1/2$^+$			
2750.5	3/2$^+$	2134.0 *16*		619.40	5/2$^+$			
		2753.0 *11*		0.0	1/2$^+$			
2893.4	(1/2$^+$,3/2)	892.4[@] *8*	86[@]	2002.44	(3/2$^+$,5/2$^+$)			
		1713.0[@] *3*	100[@]	1180.00	(5/2$^+$)			
		2275.8[@b] *14*	43[@]	619.40	5/2$^+$			
		2693.3[@] *15*	71[@]	203.70	3/2$^+$			
3017.7	(3/2$^+$)	714.7[@b] *5*	60[@]	2303.97	(3/2$^+$)			
		1876.6[@] *9*	100[@]	1140.74	3/2$^+$			
3177.1	(1/2$^+$,3/2)	1623.6[b] *8*	100	1554.62	(3/2$^+$)			
		3179.3 *15*	83	0.0	1/2$^+$			
3287.5	(1/2$^+$,3/2)	3288.0[@] *10*	100[@]	0.0	1/2$^+$			
3290.61	25/2$^+$	739.16[‡] *10*	100[‡]	2551.45	19/2$^-$	E3	0.0305	α(K)=0.0208 *3*; α(L)=0.00735 *11*; α(M)=0.00184 *3* α(N)=0.000465 *7*; α(O)=8.57×10^{-5} *12*; α(P)=6.06×10^{-6} *9* B(E3)(W.u.)=1.51 *12* Mult.: From $\gamma(\theta)$ in ^{204}Hg(t,2nγ) (1984Be14).
3618.6	(29/2$^+$)	328[&] *1*		3290.61	25/2$^+$			
4000.6		4000.6[@] *2*	100[@]	0.0	1/2$^+$			
4159.95		4159.9[@] *2*	100[@]	0.0	1/2$^+$			
4262.5		4262.5[@] *4*	100[@]	0.0	1/2$^+$			
4341.9		4341.9[@] *5*	100[@]	0.0	1/2$^+$			
4348.4		4348.4[@] *4*	[@]	0.0	1/2$^+$			
4731.7		4731.6[@] *7*	[@]	0.0	1/2$^+$			
4741.5		4741.4[@] *9*	[@]	0.0	1/2$^+$			
4828.2		4828.1[@] *11*	[@]	0.0	1/2$^+$			
4835.6	(35/2$^-$)	1217[&] *1*	100	3618.6	(29/2$^+$)	[E3]	0.00944	α(K)=0.00728 *11*; α(L)=0.001642 *24*; α(M)=0.000397 *6* α(N)=0.0001001 *15*; α(O)=1.89×10^{-5} *3*; α(P)=1.571×10^{-6} *23*; α(IPF)=1.74×10^{-6} *5* B(E3)(W.u.)=0.519 *23*
4878.5		4878.4[@] *4*	100[@]	0.0	1/2$^+$			
4926.6		4926.5[@] *6*	100[@]	0.0	1/2$^+$			
4938.04		4731.6[@] *7*	19[@]	203.70	3/2$^+$			
		4938.2[@] *2*	100[@] *4*	0.0	1/2$^+$			

$^{205}_{81}Tl_{124}$-11

Adopted Levels, Gammas (continued)

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

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π
4947.1		4947.0@ *10*	100@	0.0	$1/2^+$
4961.33		4342.1@ *6*	@	619.40	$5/2^+$
		4759.3@ *7*	@	203.70	$3/2^+$
		4961.1@ *2*	100@	0.0	$1/2^+$
4967.86		4348.4@ *4*	@	619.40	$5/2^+$
		4764.1@ *4*	@	203.70	$3/2^+$
		4967.8@ *1*	100@	0.0	$1/2^+$
4975.2		4975.1@ *6*	100@	0.0	$1/2^+$
4994.2		4994.1@ *3*	100@	0.0	$1/2^+$
5007.6		5007.5@ *6*	100@	0.0	$1/2^+$
5036.6		5036.5@ *6*	100@	0.0	$1/2^+$
5071.5		5071.4@ *5*	100@	0.0	$1/2^+$
5123.9		5123.8@ *5*	100@	0.0	$1/2^+$
5164.7		5164.6@ *7*	100@	0.0	$1/2^+$
5211.9		5211.8@ *6*	100@	0.0	$1/2^+$
5240.5		5240.4@ *7*	100@	0.0	$1/2^+$
5308.7		5308.6@ *4*	100@	0.0	$1/2^+$
5343.7		5343.6@ *9*	100@	0.0	$1/2^+$
5357.4		5357.3@ *5*	100@	0.0	$1/2^+$
5391.0		5390.9@ *4*	100@	0.0	$1/2^+$
5406.7		5406.6@ *8*	100@	0.0	$1/2^+$
5433.0		5432.9@ *6*	100@	0.0	$1/2^+$
5451.3		5451.2@ *5*	100@	0.0	$1/2^+$
5480.3		5480.2@ *5*	100@	0.0	$1/2^+$
5552.7		5552.6@ *6*	100@	0.0	$1/2^+$
5577.2		5577.1@ *7*	100@	0.0	$1/2^+$
5589.7		5589.6@ *9*	100@	0.0	$1/2^+$
5598.2		5598.1@ *8*	100@	0.0	$1/2^+$
5610.4		5406.6@ *8*	37@	203.70	$3/2^+$
		5610.4@ *8*	100@ *3*	0.0	$1/2^+$
5619.9		5619.8@ *7*	100@	0.0	$1/2^+$
5652.4		5652.3@ *5*	100@	0.0	$1/2^+$
5664.8		5664.7@ *6*	100@	0.0	$1/2^+$
5685.7		5480.2@ *5*	30@	203.70	$3/2^+$
		5686.2@ *3*	100@ *3*	0.0	$1/2^+$
5693.4		5693.3@ *9*	100@	0.0	$1/2^+$
5737.7		5737.6@ *8*	100@	0.0	$1/2^+$
5756.0		5552.6@ *6*	28@	203.70	$3/2^+$
		5755.8@ *3*	100@ *9*	0.0	$1/2^+$
5781.2		5577.1@ *7*	100@	203.70	$3/2^+$
		5781.4@ *6*	100@ *14*	0.0	$1/2^+$
5797.9		5797.8@ *9*	100@	0.0	$1/2^+$
5802.8		5598.1@ *8*	64@	203.70	$3/2^+$
		5803.8@ *9*	100@ *12*	0.0	$1/2^+$
5811.7		5811.6@ *9*	100@	0.0	$1/2^+$
5819.8		5819.7@ *4*	100@	0.0	$1/2^+$
5864.8		5864.7@ *9*	100@	0.0	$1/2^+$
5878.2		5878.1@ *5*	100@	0.0	$1/2^+$
5910.6		5910.5@ *6*	100@	0.0	$1/2^+$
5963.2		5343.6@ *9*	75@	619.40	$5/2^+$
		5963.8@ *18*	100@ *11*	0.0	$1/2^+$
6060.8		6060.7@ *4*	100@	0.0	$1/2^+$
6088.6		6088.5@ *5*	100@	0.0	$1/2^+$
6109.5		6109.4@ *8*	100@	0.0	$1/2^+$
6146.9		6146.8@ *9*	100@	0.0	$1/2^+$
6176.7		6176.6@ *4*	100@	0.0	$1/2^+$
6189.0		6188.9@ *6*	100@	0.0	$1/2^+$
6213.4		6213.3@ *9*	100@	0.0	$1/2^+$
6315.3		6315.2@ *10*	100@	0.0	$1/2^+$
6364.7		6364.6@ *6*	100@	0.0	$1/2^+$
7091.6	$(41/2^+)$	2256& *1*		4835.6	$(35/2^-)$
7251.5	$(3/2^+)$	7047@	100@	203.70	$3/2^+$
		7252@	100@	0.0	$1/2^+$
7331.6		2496& *1*		4835.6	$(35/2^-)$
7646.16	$1/2^-$	4359.0@ *8*	1.2@	3287.5	$(1/2^+,3/2)$
		4387@ *4*	0.17@	3259	$5/2^-$
		4470.0@ *10*	1.0@	3177.1	$(1/2^+,3/2)$
		4628.0@ *10*	1.3@	3017.7	$(3/2^+)$
		4752.1@ *7*	3.7@	2893.4	$(1/2^+,3/2)$
		4896.8@ *6*	2.7@	2750.5	$3/2^+$

$^{205}_{81}Tl_{124}$-12

Adopted Levels, Gammas (continued)

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

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π
7646.16	1/2⁻	4925.0@ *5*	5.0@	2721.0	(1/2⁺,3/2)
		5086.5@ *8*	5.0@	2560.2	(1/2⁺,3/2)
		5091.0@ *8*	4.0@	2554.19	(1/2⁺,3/2)
		5329.8@ *6*	1.5@	2316.25	(1/2⁺,3/2⁺)
		5342.2@ *6*	1.3@	2303.97	(3/2⁺)
		5425.3@ *5*	4.0@	2220.5	(3/2⁺)
		5483.1@ *5*	1.7@	2163.23	(1/2⁺,3/2)
		5548@ *4*	4.5@	2098.22	3/2⁺,5/2⁺
		5557.4@ *5*	5.3@	2089.02	(1/2⁺,3/2)
		5643.4@ *5*	5.3@	2002.44	(3/2⁺,5/2⁺)
		5679.9@ *4*	11.3@	1966.39	1/2⁺,3/2
7646.16	1/2⁻	6071.2@ *8*	2.4@	1574.03	(5/2⁺)
		6091.9@ *7*	1.3@	1554.62	(3/2⁺)
		6212.5@ *8*	2.0@	1433.9	(1/2)⁺
		6305.0@ *7*	1.3@	1340.28	3/2⁺
		6427@ *4*	1.0@	1219.16	1/2⁺
		6505.1@ *4*	6.2@	1140.74	3/2⁺
		7442.0@ *20*	1.2@	203.70	3/2⁺
		7645.8@ *4*	100@	0.0	1/2⁺
7898.6		807& *1*		7091.6	(41/2⁺)
8033.6		942& *1*		7091.6	(41/2⁺)
8408.6		375& *1*		8033.6	

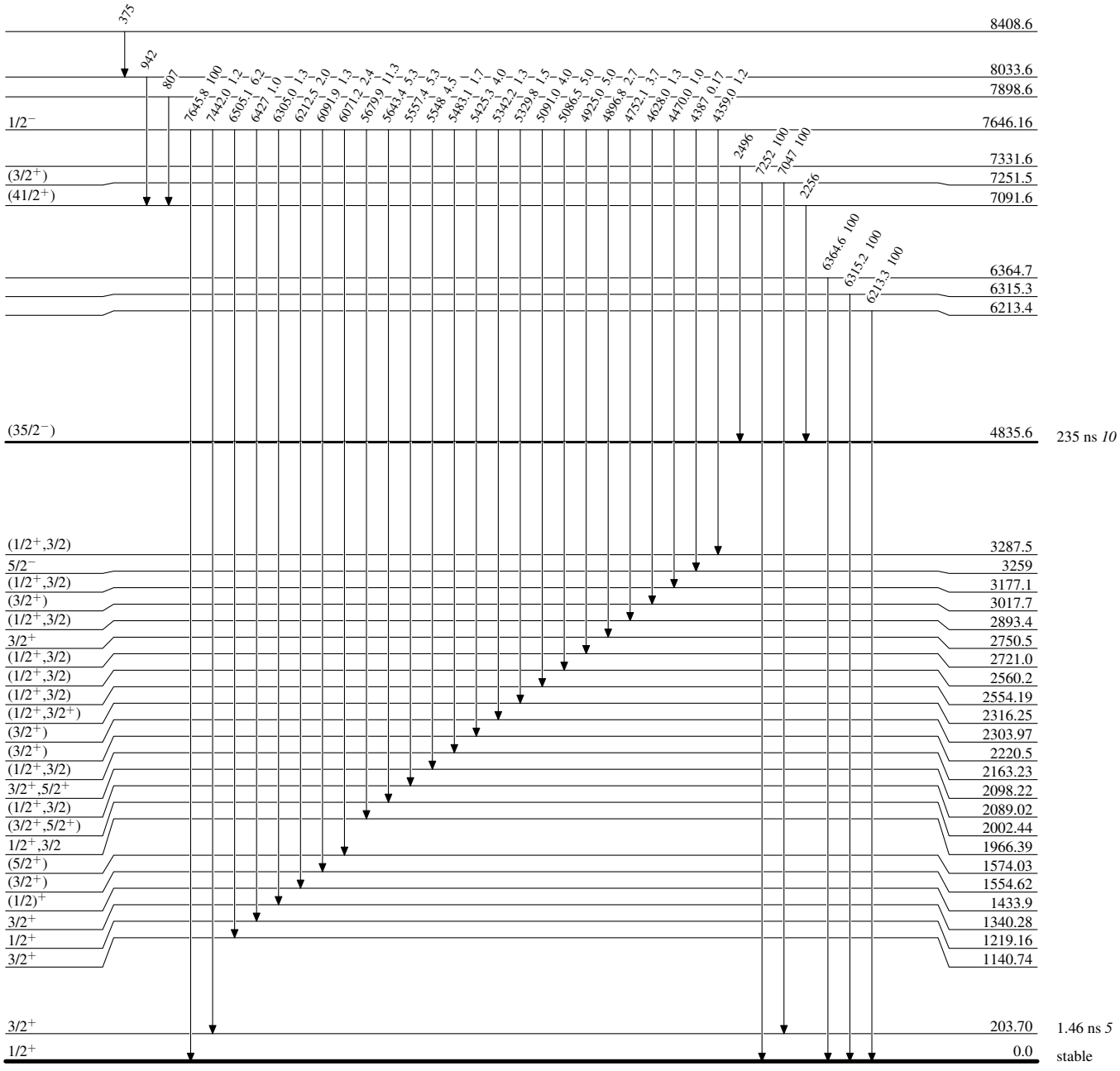
† From ^{205}Tl(n,n′γ), unless otherwise stated.
‡ From ^{204}Hg(t,2nγ).
# From ^{205}Hg β^- decay.
@ From ^{205}Tl(γ,γ′). Eγ are based on the measured level energies.
& From ^{208}Pb(^{48}Ca,Xγ).
a Additional information 1.
b Placement of transition in the level scheme is uncertain.

$^{205}_{81}Tl_{124}$-13

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level

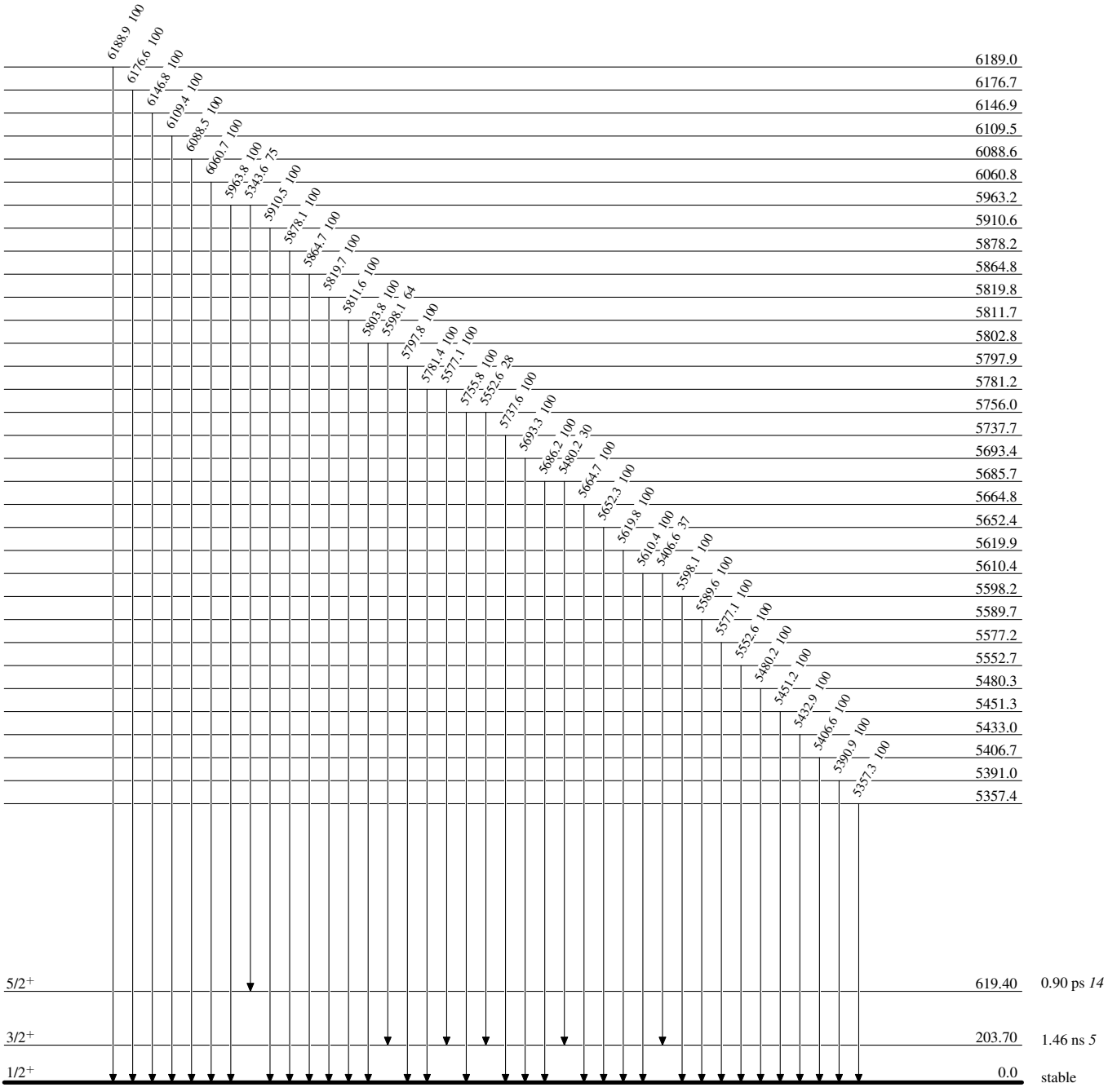


$^{205}_{81}Tl_{124}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

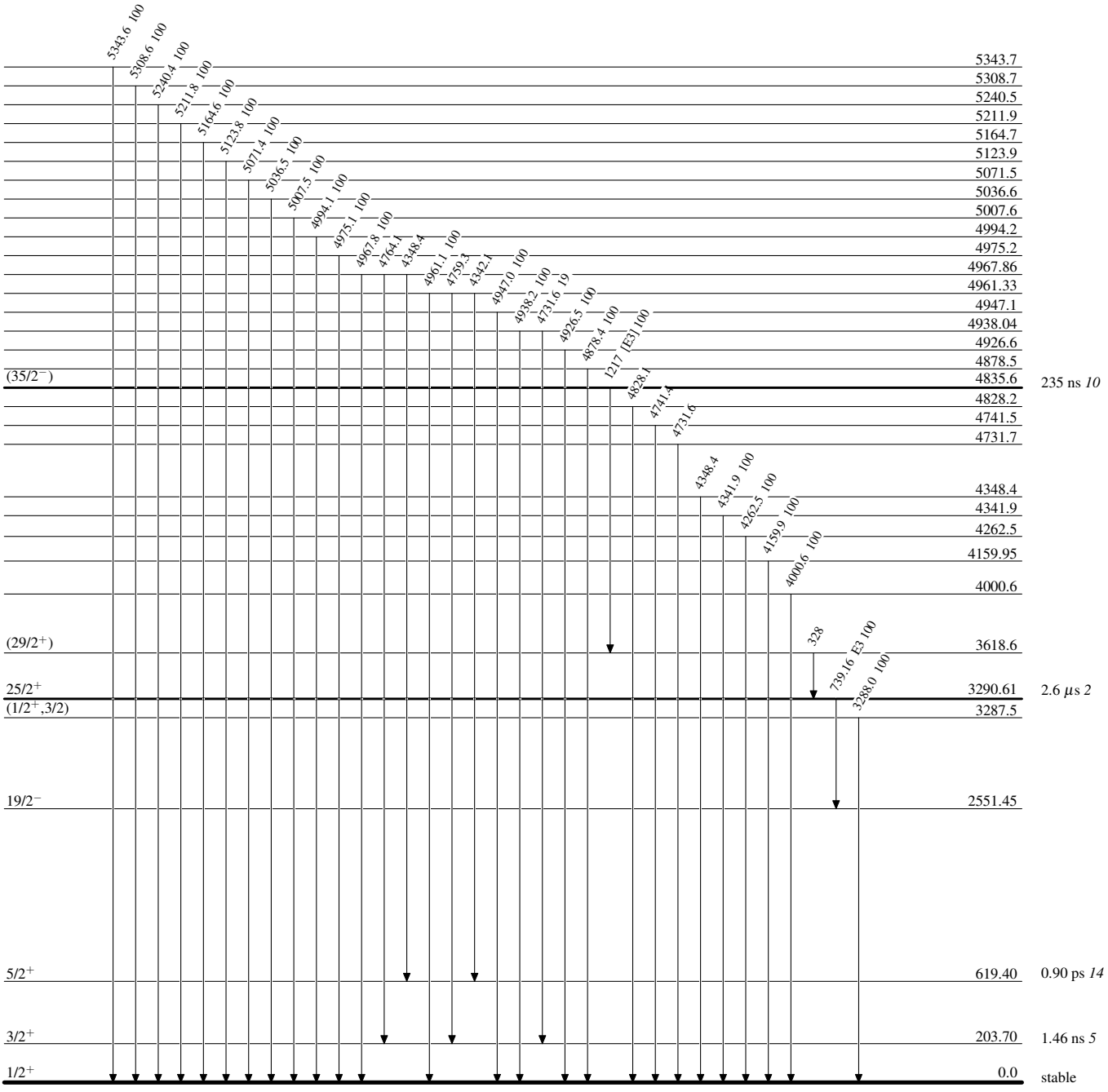


$^{205}_{81}Tl_{124}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



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

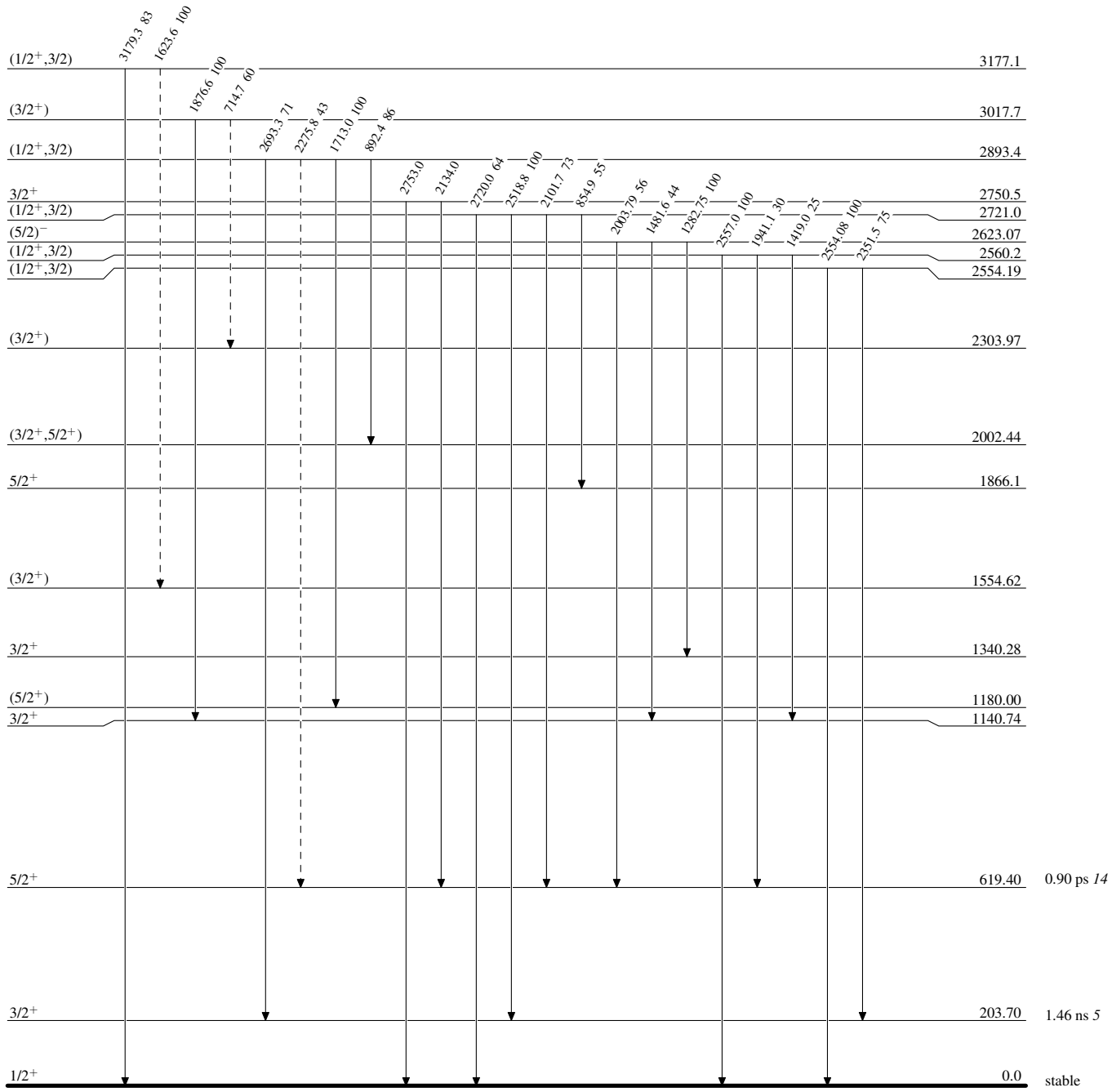
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



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

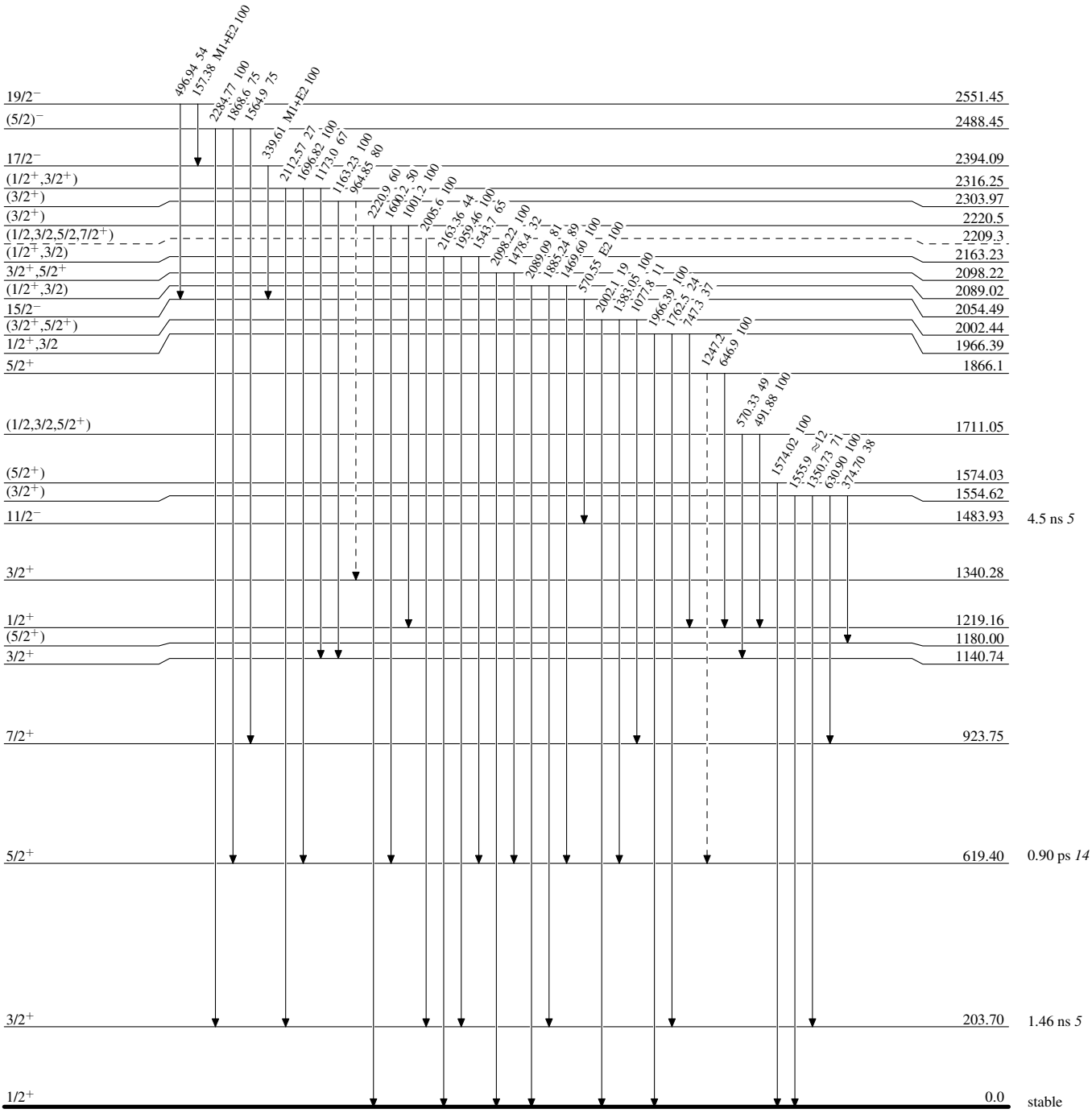
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)

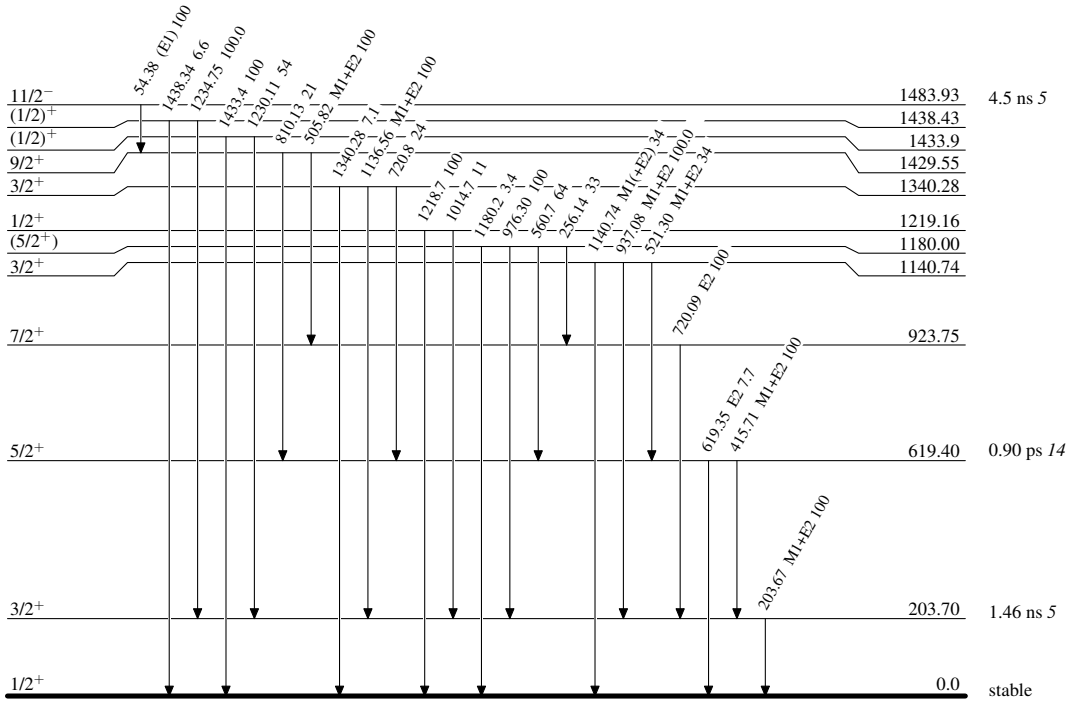


$^{205}_{81}Tl_{124}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



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