

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 196,342 (2024)	1-Sep-2023

Q(β^-)=-5190 15; S(n)=8741 14; S(p)=6049 15; Q(α)=2589 4 2021Wa16
S(2n)=15832 11, S(2p)=11015 4 (2021Wa16).

²⁰²Pb Levels

Cross Reference (XREF) Flags

A	²⁰² Pb IT decay	E	¹⁹² Os(¹⁴ C,4n γ)	I	²⁰³ Tl(p,2n γ)
B	²⁰² Bi ϵ decay	F	¹⁹⁷ Au(²⁰⁷ Pb,X γ)	J	²⁰⁴ Pb(p,t)
C	²⁰⁶ Po α decay	G	¹⁹⁸ Pt(⁹ Be,5n γ)	K	²⁰⁹ Bi(π^- ,7n γ)
D	⁹ Be(²⁰⁸ Pb,X γ), ⁹ Be(²³⁸ U,X γ)	H	²⁰² Hg(α ,4n γ), ²⁰⁰ Hg(α ,2n γ)		

E(level) [†]	J ^{π} #	T _{1/2}	XREF		Comments
0.0	0 ⁺	5.25×10 ⁴ y 28	ABCD	HIJK	% ϵ =100 T _{1/2} : From 1981Na15. Others: $\approx$ 3×10 ⁵ y (1954Hu61), 5.42×10 ⁴ y 24 (1979NiZV). $\delta\langle r^2 \rangle$ (²⁰⁸ Pb, ²⁰² Pb)=-0.3280 fm ² 27 (1986An06). Others: 1983Th03 (same authors as 1986An06), 1985Ki03. J ^{π} : 960.67 γ E2 to 0 ⁺ ; L(p,t)=2. T _{1/2} : From $\gamma\gamma$ (t) in 1959Jo21. μ =+0.008 16 (1977Th02,2020StZV) J ^{π} : 422.13 γ E2 to 2 ⁺ ; L(p,t)=4. T _{1/2} : From $\gamma\gamma$ (t) in 1977Th02. Other: 2.00 ns 15 [$\gamma\gamma$ (t), 1959Jo21]. μ : Using g=0.002 4 measured with integral perturbed angular correlation technique (1977Th02).
960.67 5	2 ⁺	$\leq$ 0.1 ns	AB D	HIJK	J ^{π} : L(p,t)=(2).
1382.84 6	4 ⁺	1.97 ns 2	AB D	H JK	J ^{π} : 662.55 γ E2 to 2 ⁺ , 240.18 γ M1(+E2) to 4 ⁺ ; L(p,t)=4.
1584 [‡] 2	(2 ⁺)			J	J ^{π} : L(p,t)=2.
1623.05 6	4 ⁺		AB D	J	J ^{π} : 1658 γ E0 to 0 ⁺ .
1657 [‡] 2	2 ⁺			J	T _{1/2} : From 1986Ka07 using the centroid-shift technique.
1658.0 5	0 ⁺	<30 ps		I	J ^{π} : 2 ⁺ or 4 ⁺ from L(p,t)=(2,4). Nonobservation in ²⁰² Bi ϵ decay (J ^{π} =5 ⁺) favors 2 ⁺ .
1798 [‡] 2	(2 ⁺)			J	J ^{π} : 1862 γ E0 to 0 ⁺ .
1815 [‡] 2				J	T _{1/2} : From 1986Ka07 using the centroid-shift technique.
1862.0 5	0 ⁺	<30 ps		I	J ^{π} : L(p,t)=4; 954.47 γ E2 to 2 ⁺ , 291.93 γ M1(+E2) to 4 ⁺ .
1915.12 6	4 ⁺		AB D	J	XREF: J(1963).
1965.14 7	4 ⁺		B	J	J ^{π} : 1004.44 γ E2 to 2 ⁺ , 582.33 γ M1+E2 to 4 ⁺ .
2040.33 6	5 ⁻		AB D	H JK	J ^{π} : L(p,t)=5; 125.21 γ and 657.49 γ E1 to 4 ⁺ .
2159.0 5	0 ⁺	<30 ps		I	J ^{π} : 2159 E0 to 0 ⁺ .
2169.83 8	9 ⁻	3.54 h 2	A	DEFGH JK	T _{1/2} : From 1986Ka07 using the centroid-shift technique. %IT=90.3 4; % ϵ +% β^+ =9.7 4 μ =-0.2276 7 (1986An06); Q=+0.58 9 (1986An06,2021StZZ) J ^{π} : 786.99 γ E5 to 4 ⁺ ; L(p,t)=9. T _{1/2} : Weighted average of 3.53 h 1 (1981An11), 3.5 h 1 (1954Ma78) and 3.62 h 3 (1957As65). % ϵ +% β^+ is weighted average of 9.8% 5 in (1957Mc40) and 9.3 % 8 (1972Gu06). The value of 1957Mc40 is weighted average of 9.9 % 6 (using ce data) and 9.5 % 10 (using γ -ray data). The value of 1972Gu06 is determined from I γ (490 γ)/I γ (961 γ)=0.100 10 and α (490 γ ,E2) and α (961 γ ,E2).

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Adopted Levels, Gammas (continued)

202Pb Levels (continued)					
E(level) [†]	J ^π #	T _{1/2}	XREF		Comments
μ, Q : From 1986An06 , 2021StZZ (LASER spectroscopy). Other: 1983Th03 (same authors as 1986An06). $\delta\langle r^2 \rangle(^{208}\text{Pb}, ^{202\text{m}}\text{Pb}) = -0.3299 \text{ fm}^2$ 27 (1986An06). Other: 1983Th03 (same authors as 1986An06). configuration: $\nu(f_{5/2}^{-1}, i_{13/2}^{-1})$. J^π : 802.25 γ M1+E2 to 4 ⁺ , 1224.24 γ M1+E2 to 2 ⁺ ; $Q=0.28$ 2 (2021StZZ) J^π : 168.11 γ E2 to 5 ⁻ and 825.4 γ E3 to 4 ⁺ . $T_{1/2}$: Weighted average of 65.0 ns 5 [168.1 γ (t)], 65.0 ns 3 [422.1 γ (t)], 66.7 ns 3 [657.3 γ (t)], 65.0 ns 3 [960.7 γ (t)] in 1986Ja13 and 64.5 ns 3 (2018La03). Other: 42 ns 4 in 1974Lu03 . configuration: $\nu(p_{1/2}^{-1}, i_{13/2}^{-1})$. J^π : 852 γ E2 to 4 ⁺ , no γ ray to 0 ⁺ . Direct population in ²⁰² Bi ε decay ($J^\pi=5^+$). J^π : 80 γ M1 to 7 ⁻ , 248 γ M1 to 5 ⁻ . J^π : L(p,t)=7. J^π : 942.07 γ M1+E2 to 4 ⁺ ; direct population in ²⁰² Bi ε decay ($J^\pi=5^+$). XREF: J(2364). J^π : 320.14 γ M1 to 5 ⁻ ; 1363.14 γ M1(+E2) from 4 ⁻ . XREF: J(2389). J^π : 97.58 γ M1 to 6 ⁻ , 346.47 γ M1+E2 to 5 ⁻ ; 1336.48 γ M1+E2 from 4 ⁻ . J^π : L(p,t)=4. J^π : 1134.33 γ E1 to 4 ⁺ ; 1556.69 γ E1 to 2 ⁺ . XREF: J(2600). J^π : 569.27 γ M1+E2 to 5 ⁻ , 644.44 γ E1 to 4 ⁺ ; L(p,t)=5. J^π : 232.06 γ M1(+E2) and 578.56 γ M1+E2 to 5 ⁻ . J^π : L(p,t)=4. XREF: J(2747). J^π : L(p,t)=6; 1367.7 γ E2 to 4 ⁺ . configuration: Dominant $\nu(f_{5/2}^{-1}, f_{7/2}^{-1})$ (1974Or01). J^π : 690.33 γ E2 to 7 ⁻ , 983.63 γ and 1515.89 γ E1 to 4 ⁺ . J^π : 876.21 γ M1+E2 to 5 ⁻ . 369.27 γ M1(+E2) from 4 ⁻ . J^π : 927.28 γ M1 to 5 ⁻ , 1584.9 γ (E1) to 4 ⁺ . J^π : L(p,t)=5. J^π : 888.1 γ E2 to 9 ⁻ . J^π : L(p,t)=4. J^π : 1021.5 γ D to 9 ⁻ , 46 γ from 12 ⁺ . J^π : L(p,t)=8. J^π : 179.7 γ stretched E1 to 11 ⁻ . $T_{1/2}$: Weighted average of 24.6 ns 5 [179.7 γ (t)], 23.4 ns 3 [888.1 γ (t)], 24.5 ns 2 [1021.5 γ (t)] in 1986Ja13 and 23.5 ns 6 [γ - γ (Δt)] in 2019Ro12 . configuration: $\nu(i_{13/2}^{-2})$. J^π : 768.57 γ M1(+E2) to 3 ⁻ , 1245 γ M1(+E2) to 5 ⁻ . J^π : 271 γ D to 11 ⁻ . J^π : 269 γ D to 12 ⁺ . J^π : 1072.59 γ M1(+E2) to 5 ⁻ , 1164.9 γ to 3 ⁻ . J^π : 1206.25 γ M1(+E2) to 3 ⁻ , 1363.14 γ M1(+E2) to 5 ⁻ , 6 ⁻ . XREF: J(3800). J^π : 534.7 γ to 4 ⁻ , 2198.03 γ to 4 ⁺ , 1584.9 γ E1+M2 to 6 ⁺ ; L(p,t)=5. J^π : 717 γ M1(+E2) to 12 ⁺ . J^π : L(p,t)=7.					
2185.06 8	3 ⁺	65.3 ns 4	B	J	
2208.44 7	7 ⁻		B D	H J	
2235.42 9	6 ⁺		B		
2289.25 7	6 ⁻		B		
2307 [‡] 3	7 ⁻			J	
2324.93 9	4 ⁺ , 5 ⁺		B		
2360.47 8	4 ⁻ , 5 ⁻		B	J	
2386.82 7	5 ⁻		B	J	
2516 [‡] 3	4 ⁺			J	
2517.28 7	3 ⁻		B		
2609.59 7	5 ⁻		B	J	
2618.89 7	4 ⁻ , 5 ⁻ , 6 ⁻		B		
2666 [‡] 3	4 ⁺			J	
2750.49 12	6 ⁺		B	J	
2898.76 7	5 ⁻		B		
2916.54 7	4 ⁻ , 5 ⁻		B		
2967.62 7	4 ⁻ , 5 ⁻		B		
2995 [‡] 3	5 ⁻			J	
3057.9 5	11 ⁻		DEFGH		
3131 [‡] 3				J	
3180 [‡] 3	4 ⁺			J	
3191.3 5	10 ⁺		E GH		
3200 [‡] 30	8 ⁺			J	
3237.7 7	12 ⁺	24.2 ns 3	DEFGH		
3285.80 7	4 ⁻		B		
3329.0 7	12		E GH		
3507.3 8	(13)		G		
3682.22 10	4 ⁻ , 5 ⁻		B		
3723.52 9	4 ⁻		B		
3820.88 8	5 ⁻		B	J	
3955.6 7	13 ⁺		E GH		
4000 [‡] 30	7 ⁻			J	

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Adopted Levels, Gammas (continued) ^{202}Pb Levels (continued)

E(level) [†]	J ^π #	T _{1/2}	XREF	Comments
4022.8 10	(14)		G	J ^π : 515γ D to (13).
4022.9 8	(12)		DE GH	J ^π : 785γ (D,Q) to 12 ⁺ .
4068.3 8	13		DE GH	J ^π : 830.6γ D to 12 ⁺ .
4091.0 8	14 ⁺		DEFGH	J ^π : 853γ E2 to 12 ⁺ .
4091.0+x	16 ⁺	106 ns 3	DEFGH	μ=−0.67 16 (1986Ja13,2020StZV) Additional information 1. J ^π : μ; syst of similar structures in neighboring nuclei. T _{1/2} : Weighted average of 120 ns 6 [179.7γ(t)], 108.5 ns 20 [853.3γ(t)], 105.5 ns 30 [888.1γ(t)] and 112 ns 9 [1021.5γ(t)] in 1986Ja13, 93 ns 4 [797γ-(689γ+841γ)(Δt) and 354γ-(689γ+841γ)(Δt)] in 2019Ro12 and 103 ns 10 [γ(t)] in 2018La03. μ: From g=−0.042 10 (corrected for Knight shift and diamagnetic shielding) in 1986Ja13.
4170.6 8	14 ⁺		E GH	configuration: Dominant ν(f _{5/2} ^{−2} , i _{13/2} ^{−2}). J ^π : 215.0γ M1(+E2) to 13 ⁺ , 932.9γ E2 to 12 ⁺ .
4322.8+x 4	15		E H	configuration: Dominant ν(p _{1/2} ^{−1} , f _{5/2} ^{−1} , i _{13/2} ^{−2}). J ^π : 231γ D to 14 ⁺ .
4400 [‡] 30	11 [−]		J	J ^π : L(p,t)=11.
4445.4+x 4	16 ⁺		DEFGH	J ^π : 122.5γ to 15, 354γ M1, ΔJ=0 to 16 ⁺ .
4452.5+x 6	16		E H	J ^π : 129γ D to 15.
4500 [‡] 30	11 [−]		J	J ^π : L(p,t)=11.
4513.1 11	(15)		G	J ^π : 490γ D to 14.
4600 [‡] 30	6 ⁺		J	J ^π : L(p,t)=6.
5059.0 12	(16)		G	J ^π : 545γ D to (15).
5059.0+y [@]			G	Additional information 2. E(level): this level decays to the 5059.0-keV and 5242.6+x-keV levels, but the deexciting transitions are not known.
5059.0+z ^{&}			G	Additional information 3. E(level): This level decays to 5059.0 keV level, but the deexcitation transitions are not known (2000Go47).
5189.0+z ^{&} 5			G	
5200 [‡] 30	9 [−]		J	J ^π : L(p,t)=9.
5220.3+y [@] 5			E G	
5242.0+x 4	17		DEFGH	J ^π : 1151.0γ D to 16 ⁺ .
5251.0+x 5	18 ⁺		DE GH	J ^π : 1160γ E2 to 16 ⁺ .
5251.0+u	(19 [−])	108 ns 3	DEFGH	μ=−1.88 6 (1987Fa15,2020StZV) Additional information 4. J ^π : Based on analogy to the 19 [−] state in ²⁰⁰ Pb; μ. μ: From g=−0.099 3 (corrected for Knight shift and diamagnetic shielding) in 1987Fa15 and 1987Ja08. T _{1/2} : Weighted average of 107 ns 3 [1151.0γ(t)] and 109 ns 8 [796.6γ(t)] in 1987Fa15, 113 ns 6 [797γ-(689γ+841γ)(Δt) and 354γ-(689γ+841γ)(Δt)] in 2019Ro12, and 105 ns 38 [γ(t)] in 2018La03. configuration: Dominant ν(f _{5/2} ^{−1} , i _{13/2} ^{−3}). J ^π : L(p,t)=9.
5300 [‡] 30	9 [−]		J	
5380.7+z ^{&} 7			G	
5453.5+u 5	(18)		E H	J ^π : 202γ D to (19 [−]), non-yrast level due to the weak 202.5γ.
5463.5+y [@] 7			E G	
5650.5+z ^{&} 9			G	
5796.4+y [@] 9			E G	
5940.2+u 4	(20 [−])		E GH	J ^π : 689γ (M1+E2) to (19 [−]).

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Adopted Levels, Gammas (continued) ^{202}Pb Levels (continued)

E(level) [†]	J ^π [#]	XREF	Comments
5999.9+z ^{&} 10		G	
6091.6+u 4	(21 ⁻)	EFGH	J ^π : 840γ E2 to (19 ⁻).
6091.6+w? ^a		E	Additional information 5.
6204.0+y [@] 10		E G	
6274.6+w? ^a 5		E	
6323.4+u 6	(22)	G	J ^π : 231γ D to (21 ⁻).
6416.3+z ^{&} 11		G	
6514.7+w? ^a 7		E	
6670.5+y [@] 11		E G	
6799.7+u 4	(21)	G	J ^π : 1548γ (Q) to (19 ⁻).
6811.0+w? ^a 9		E	
6894.2+z ^{&} 12		G	
7172.9+w? ^a 10		E	
7188.2+y [@] 12		E G	
7301.6+u 4	(21)	G	J ^π : 501.9γ (D) to (21).
7405.9+u 7	(23)	G	J ^π : 1082.2γ D to (22).
7417.6+z ^{&} 13		G	
7554.4+u 5	22	G	J ^π : 1463.0γ D to (21 ⁻).
7592.4+w? ^a 11		E	
7708.5+u 6	23	G	J ^π : 154.3γ D to 22.
8079.6+w? ^a 12		E	
8305.5+u 8	(24)	G	J ^π : 597.1γ D to 23.
8361.1+u 7	(24)	G	J ^π : 652.8γ D to 22.
8646.0+u 8	(24)	G	J ^π : 340.6γ ΔJ=0 to (24).
8786.6+u 7	(25)	G	J ^π : 1380.5γ (Q) to (23), 425.7γ D to (24).
9205.4+u 9	(26)	G	J ^π : 418γ D to (25).

[†] From a least-square fit to Eγ.[‡] From $^{204}\text{Pb}(\text{p},\text{t})$.[#] From γ-ray transition multipolarities and the observed γ-ray de-excitation patterns, and L(p,t).[@] Band(A): Magnetic-rotation Band 1.[&] Band(B): Magnetic-rotation Band 2.^a Band(C): Magnetic-rotation Band 3. Tentatively assigned in 1995Ba70 to ^{202}Pb [$^{192}\text{Os}(^{14}\text{C},4\text{n}\gamma)$] because the coincidence relations were ambiguous. Not observed in 2000Go47 [$^{198}\text{Pt}(^9\text{Be},5\text{n})$].

Adopted Levels, Gammas (continued)

$\gamma(^{202}\text{Pb})$									
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\delta^\#$	α^b	Comments
960.67	2 ⁺	960.67 5	100	0.0	0 ⁺	E2		0.00720 10	$\alpha(\text{K})=0.00572$ 8; $\alpha(\text{L})=0.001132$ 16; $\alpha(\text{M})=0.000270$ 4 $\alpha(\text{N})=6.84\times 10^{-5}$ 10; $\alpha(\text{O})=1.336\times 10^{-5}$ 19; $\alpha(\text{P})=1.278\times 10^{-6}$ 18 Mult.: $\alpha(\text{K})_{\text{exp}}=0.00585$ 28, K/L=4.90 22 (1974Go32); $\alpha(\text{K})_{\text{exp}}=0.0056$ (1972Gu06) and K/L=5.0 7, L12/L3=15 (1957Mc40).
1382.84	4 ⁺	422.13 4	100 5	960.67	2 ⁺	E2		0.0448 6	$\alpha(\text{K})=0.0299$ 4; $\alpha(\text{L})=0.01119$ 16; $\alpha(\text{M})=0.00281$ 4 $\alpha(\text{N})=0.000712$ 10; $\alpha(\text{O})=0.0001333$ 19; $\alpha(\text{P})=9.64\times 10^{-6}$ 14 B(E2)(W.u.)=0.291 3 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0296$ 8, K/L=2.68 9 (1974Go32); K/L=2.6 3, L12/L3=5.6 8 (1957Mc40).
		1382.8 5	3.8×10^{-4} 6	0.0	0 ⁺	E4		0.01446 20	$\alpha(\text{K})=0.01072$ 15; $\alpha(\text{L})=0.00283$ 4; $\alpha(\text{M})=0.000697$ 10 $\alpha(\text{N})=0.0001775$ 25; $\alpha(\text{O})=3.44\times 10^{-5}$ 5; $\alpha(\text{P})=3.21\times 10^{-6}$ 5 B(E4)(W.u.)=4.6 8 E_γ : From ²⁰² Pb IT decay. I_γ : From $I(\gamma+\text{ce})/(1382.8\gamma)/I(\gamma+\text{ce})(422.1\gamma)=3.8\times 10^{-6}$ 6 in 1975Ha25.
1623.05	4 ⁺	240.18 4	100 7	1382.84	4 ⁺	M1(+E2)	<0.5	0.73 6	Mult.: K/L=3.4 7 in 1975Ha25. $\alpha(\text{K})=0.59$ 5; $\alpha(\text{L})=0.1082$ 25; $\alpha(\text{M})=0.0256$ 4 $\alpha(\text{N})=0.00650$ 11; $\alpha(\text{O})=0.001285$ 29; $\alpha(\text{P})=0.000132$ 8 Mult.: $\alpha(\text{L}12)_{\text{exp}}=0.126$ 12, $\alpha(\text{L}3)_{\text{exp}}<0.004$ (1974Go32) and $\alpha(\text{L}12)_{\text{exp}}=0.120$ 14 (1985Dz05); K/L=5.0 6 (1957Mc40).
		662.55 11	29 4	960.67	2 ⁺	E2		0.01546 22	$\alpha(\text{K})=0.01168$ 16; $\alpha(\text{L})=0.00287$ 4; $\alpha(\text{M})=0.000700$ 10 $\alpha(\text{N})=0.0001773$ 25; $\alpha(\text{O})=3.40\times 10^{-5}$ 5; $\alpha(\text{P})=2.95\times 10^{-6}$ 4 Mult.: $\alpha(\text{K})_{\text{exp}}=0.016$ 5, K/L $\approx$ 5 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.017$ 5 (1985Dz05).
1658.0	0 ⁺	697.3	100	960.67	2 ⁺	E2		0.01385 19	$\alpha(\text{K})=0.01056$ 15; $\alpha(\text{L})=0.002503$ 35; $\alpha(\text{M})=0.000608$ 9 $\alpha(\text{N})=0.0001541$ 22; $\alpha(\text{O})=2.97\times 10^{-5}$ 4; $\alpha(\text{P})=2.61\times 10^{-6}$ 4 E_γ , Mult.: From 1986Ka07.
1862.0	0 ⁺	1658 901.3	100	0.0 960.67	0 ⁺ 2 ⁺	E0 E2		0.00817 11	E_γ , Mult.: From 1986Ka07; $\text{ce}(\text{K})(\text{E}0)/\text{ce}(\text{K})(\text{E}2)=15$ 6 (1986Ka07). $\alpha(\text{K})=0.00645$ 9; $\alpha(\text{L})=0.001315$ 18; $\alpha(\text{M})=0.000315$ 4 $\alpha(\text{N})=7.98\times 10^{-5}$ 11; $\alpha(\text{O})=1.553\times 10^{-5}$ 22; $\alpha(\text{P})=1.465\times 10^{-6}$ 21 E_γ , Mult.: From 1986Ka07.
1915.12	4 ⁺	1862 291.93 9	3.3 5	0.0 1623.05	0 ⁺ 4 ⁺	E0 M1+E2		0.39 8	E_γ , Mult.: From 1986Ka07; $\text{ce}(\text{K})(\text{E}0)/\text{ce}(\text{K})(\text{E}2)=6$ 2 (1986Ka07). $\alpha(\text{K})=0.31$ 8; $\alpha(\text{L})=0.060$ 6; $\alpha(\text{M})=0.0142$ 11 $\alpha(\text{N})=0.00360$ 27; $\alpha(\text{O})=0.00071$ 7; $\alpha(\text{P})=7.1\times 10^{-5}$ 13 Mult.: $\alpha(\text{K})_{\text{exp}}=0.30$ 12 (1974Go32) and 0.31 10 (1985Dz05).
		532.34 10	5.6 9	1382.84	4 ⁺	[M1]		0.0915 13	$\alpha(\text{K})=0.0750$ 11; $\alpha(\text{L})=0.01261$ 18; $\alpha(\text{M})=0.00295$ 4 $\alpha(\text{N})=0.000749$ 10; $\alpha(\text{O})=0.0001494$ 21; $\alpha(\text{P})=1.601\times 10^{-5}$ 22
		954.47 6	100 6	960.67	2 ⁺	E2		0.00730 10	$\alpha(\text{K})=0.00579$ 8; $\alpha(\text{L})=0.001150$ 16; $\alpha(\text{M})=0.000274$ 4 $\alpha(\text{N})=6.95\times 10^{-5}$ 10; $\alpha(\text{O})=1.356\times 10^{-5}$ 19; $\alpha(\text{P})=1.295\times 10^{-6}$ 18

Adopted Levels, Gammas (continued)

$\gamma(^{202}\text{Pb})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\delta^\#$	α^b	Comments
1915.12 1965.14	4 ⁺ 4 ⁺	1915 ^c 342.04 11	44 6	0.0 1623.05	0 ⁺ 4 ⁺				Mult.: $\alpha(\text{K})_{\text{exp}}=0.0058$ 3, $\text{K/L}=4.90$ 22 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.0061$ 7, $\alpha(\text{L})_{\text{exp}}=0.00118$ 24 (1985Dz05). E_γ : From $^9\text{Be}(^{208}\text{Pb},\text{X}\gamma)$ (2018La03). $\alpha(\text{K})=0.18$ 4; $\alpha(\text{L})=0.035$ 4; $\alpha(\text{M})=0.0084$ 8 $\alpha(\text{N})=0.00214$ 21; $\alpha(\text{O})=0.00042$ 5; $\alpha(\text{P})=4.1\times 10^{-5}$ 7 Mult.: $\alpha(\text{K})_{\text{exp}}=0.15$ 5 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.23$ 7 (1985Dz05).
		582.33 8	100 15	1382.84	4 ⁺	M1+E2	0.46 28	0.063 9	$\alpha(\text{K})=0.052$ 8; $\alpha(\text{L})=0.0089$ 10; $\alpha(\text{M})=0.00209$ 24 $\alpha(\text{N})=0.00053$ 6; $\alpha(\text{O})=0.000106$ 12; $\alpha(\text{P})=1.11\times 10^{-5}$ 15 Mult.: $\alpha(\text{K})_{\text{exp}}=0.047$ 11 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.056$ 11 (1985Dz05).
		1004.44 8	89 13	960.67	2 ⁺	E2		0.00660 9	$\alpha(\text{K})=0.00526$ 7; $\alpha(\text{L})=0.001022$ 14; $\alpha(\text{M})=0.0002432$ 34 $\alpha(\text{N})=6.16\times 10^{-5}$ 9; $\alpha(\text{O})=1.205\times 10^{-5}$ 17; $\alpha(\text{P})=1.163\times 10^{-6}$ 16 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0065$ 20 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.0070$ 17 (1985Dz05).
2040.33	5 ⁻	125.21 8	2.0 3	1915.12	4 ⁺	E1		0.2500 35	$\alpha(\text{K})=0.2001$ 28; $\alpha(\text{L})=0.0382$ 5; $\alpha(\text{M})=0.00899$ 13 $\alpha(\text{N})=0.002251$ 32; $\alpha(\text{O})=0.000426$ 6; $\alpha(\text{P})=3.43\times 10^{-5}$ 5 Mult.: $\alpha(\text{L}12)_{\text{exp}}<0.21$ (1974Go32).
		417.25 12	0.69 10	1623.05	4 ⁺	[E1]		0.01406 20	$\alpha(\text{K})=0.01159$ 16; $\alpha(\text{L})=0.001895$ 27; $\alpha(\text{M})=0.000441$ 6 $\alpha(\text{N})=0.0001113$ 16; $\alpha(\text{O})=2.177\times 10^{-5}$ 31; $\alpha(\text{P})=2.097\times 10^{-6}$ 29
		657.49 4	100 3	1382.84	4 ⁺	E1		0.00550 8	$\alpha(\text{K})=0.00456$ 6; $\alpha(\text{L})=0.000716$ 10; $\alpha(\text{M})=0.0001659$ 23 $\alpha(\text{N})=4.19\times 10^{-5}$ 6; $\alpha(\text{O})=8.27\times 10^{-6}$ 12; $\alpha(\text{P})=8.31\times 10^{-7}$ 12 Mult.: $\alpha(\text{K})_{\text{exp}}=0.00445$ 14, $\text{K/L}=5.8$ 7 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.0049$ 4, $\alpha(\text{L})_{\text{exp}}=0.00082$ 9 (1985Dz05).
2159.0	0 ⁺	1198.3	100	960.67	2 ⁺	E2		0.00471 7	$\alpha(\text{K})=0.00380$ 5; $\alpha(\text{L})=0.000691$ 10; $\alpha(\text{M})=0.0001632$ 23 $\alpha(\text{N})=4.14\times 10^{-5}$ 6; $\alpha(\text{O})=8.13\times 10^{-6}$ 11; $\alpha(\text{P})=8.08\times 10^{-7}$ 11; $\alpha(\text{IPF})=3.71\times 10^{-6}$ 5 E_γ , Mult.: From 1986Ka07.
		2159		0.0	0 ⁺	E0			E_γ , Mult.: From 1986Ka07; $\text{ce}(\text{K})(\text{E0})/\text{ce}(\text{K})(\text{E2})=24$ 10 (1986Ka07), $\text{K/L}=5.7$ 4 (1990Tr01).
2169.83	9 ⁻	129.1 2	0.08 3	2040.33	5 ⁻	E4		514 9	$\alpha(\text{K})=1.506$ 21; $\alpha(\text{L})=361$ 6; $\alpha(\text{M})=115.6$ 20 $\alpha(\text{N})=30.1$ 5; $\alpha(\text{O})=5.24$ 9; $\alpha(\text{P})=0.225$ 4 $\text{B}(\text{E4})(\text{W.u.})=0.17$ 5 E_γ, I_γ : From 1972Gu06 (^{202}Pb IT decay). Mult.: $\text{K/L}<0.008$, $\text{L12/L3}=1.88$ 12 (1957Mc40). $\text{B}(\text{E5})(\text{W.u.})=0.51$ 17
		547.6 3	0.25 8	1623.05	4 ⁺	E5		0.739 11	$\alpha(\text{K})=0.2319$ 33; $\alpha(\text{L})=0.373$ 5; $\alpha(\text{M})=0.1031$ 15 $\alpha(\text{N})=0.0265$ 4; $\alpha(\text{O})=0.00487$ 7; $\alpha(\text{P})=0.000327$ 5 E_γ, I_γ : From 1972Gu06 (^{202}Pb IT decay). Mult.: $\alpha(\text{L})_{\text{exp}}=0.34$ 15 (1972Gu06), $\text{K/L}=0.8+1-8$ L12/L3=6.0 15 (1957Mc40).

Adopted Levels, Gammas (continued)

$\gamma(^{202}\text{Pb})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\delta^\#$	α^b	Comments
2169.83	9 ⁻	786.99 6	100	1382.84	4 ⁺	E5		0.1624 23	$\alpha(\text{K})=0.0816$ 11; $\alpha(\text{L})=0.0599$ 8; $\alpha(\text{M})=0.01596$ 22 $\alpha(\text{N})=0.00408$ 6; $\alpha(\text{O})=0.000764$ 11; $\alpha(\text{P})=5.80\times 10^{-5}$ 8 B(E5)(W.u.)=3.7 4 E_γ, I_γ : From 1972Gu06 (²⁰² Pb IT decay). Mult.: $\alpha(\text{K})_{\text{exp}}=0.078$ 8 (1972Gu06), K/L=1.18 10 and L12/L3 $\approx$ 10 (1957Mc40).
2185.06	3 ⁺	802.25 8	27 4	1382.84	4 ⁺	M1+E2	0.7 6	0.024 7	$\alpha(\text{K})=0.020$ 6; $\alpha(\text{L})=0.0034$ 8; $\alpha(\text{M})=0.00081$ 18 $\alpha(\text{N})=0.00021$ 5; $\alpha(\text{O})=4.1\times 10^{-5}$ 10; $\alpha(\text{P})=4.3\times 10^{-6}$ 11 Mult.: $\alpha(\text{K})_{\text{exp}}=0.020$ 5 (1985Dz05).
		1224.24 10	100 15	960.67	2 ⁺	M1+E2	1.0 +8-4	0.0076 16	$\alpha(\text{K})=0.0062$ 13; $\alpha(\text{L})=0.00105$ 20; $\alpha(\text{M})=0.00024$ 5 $\alpha(\text{N})=6.2\times 10^{-5}$ 12; $\alpha(\text{O})=1.23\times 10^{-5}$ 24; $\alpha(\text{P})=1.30\times 10^{-6}$ 28; $\alpha(\text{IPF})=8.5\times 10^{-6}$ 13 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0061$ 13 (1985Dz05).
2208.44	7 ⁻	168.11 4	100 6	2040.33	5 ⁻	E2		0.797 11	$\alpha(\text{K})=0.2485$ 35; $\alpha(\text{L})=0.409$ 6; $\alpha(\text{M})=0.1074$ 15 $\alpha(\text{N})=0.0271$ 4; $\alpha(\text{O})=0.00487$ 7; $\alpha(\text{P})=0.0002271$ 32 B(E2)(W.u.)=0.497 7 Mult.: $\alpha(\text{K})_{\text{exp}}=0.32$ 7, $\alpha(\text{L3})_{\text{exp}}=0.142$ 11 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.27$ 3, $\alpha(\text{L3})_{\text{exp}}=0.140$ 23 (1985Dz05).
		825.4 3	4.6 17	1382.84	4 ⁺	E3		0.02440 34	B(E3)(W.u.)=0.7 3 $\alpha(\text{K})=0.01708$ 24; $\alpha(\text{L})=0.00552$ 8; $\alpha(\text{M})=0.001379$ 19 $\alpha(\text{N})=0.000351$ 5; $\alpha(\text{O})=6.70\times 10^{-5}$ 9; $\alpha(\text{P})=5.71\times 10^{-6}$ 8 Mult.: $\alpha(\text{K})_{\text{exp}}=0.05$ 3 (1985Dz05).
2235.42	6 ⁺	852.57 7	100	1382.84	4 ⁺	E2		0.00914 13	$\alpha(\text{K})=0.00716$ 10; $\alpha(\text{L})=0.001503$ 21; $\alpha(\text{M})=0.000361$ 5 $\alpha(\text{N})=9.14\times 10^{-5}$ 13; $\alpha(\text{O})=1.776\times 10^{-5}$ 25; $\alpha(\text{P})=1.654\times 10^{-6}$ 23 Mult.: $\alpha(\text{K})_{\text{exp}}=0.05$ 3 (1985Dz05).
2289.25	6 ⁻	80.75 13	25 4	2208.44	7 ⁻	M1		3.23 5	$\alpha(\text{L})=2.47$ 4; $\alpha(\text{M})=0.580$ 9 $\alpha(\text{N})=0.1474$ 22; $\alpha(\text{O})=0.0294$ 4; $\alpha(\text{P})=0.00314$ 5 Mult.: $\alpha(\text{L12})_{\text{exp}}=2.5$ 5, $\alpha(\text{L3})_{\text{exp}}<0.8$ (1974Go32) and $\alpha(\text{M})_{\text{exp}}=0.55$ 13 (1985Dz05).
		248.92 4	100 6	2040.33	5 ⁻	M1+E2	0.39 +9-11	0.646 31	$\alpha(\text{K})=0.519$ 29; $\alpha(\text{L})=0.0969$ 19; $\alpha(\text{M})=0.0230$ 4 $\alpha(\text{N})=0.00583$ 9; $\alpha(\text{O})=0.001151$ 22; $\alpha(\text{P})=0.000117$ 5 Mult.: $\alpha(\text{K})_{\text{exp}}=0.51$ 3 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.55$ 6 (1985Dz05).
2324.93	4 ⁺ , 5 ⁺	702.2 4	83 25	1623.05	4 ⁺	M1(+E2)	≤ 0.8	0.038 6	$\alpha(\text{K})=0.031$ 5; $\alpha(\text{L})=0.0054$ 7; $\alpha(\text{M})=0.00126$ 16 $\alpha(\text{N})=0.00032$ 4; $\alpha(\text{O})=6.3\times 10^{-5}$ 8; $\alpha(\text{P})=6.7\times 10^{-6}$ 10 Mult.: $\alpha(\text{K})_{\text{exp}}=0.03$ 1 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.042$ 13 (1985Dz05).
		942.07 7	100 17	1382.84	4 ⁺	M1+E2	0.6 5	0.017 4	$\alpha(\text{K})=0.0141$ 32; $\alpha(\text{L})=0.0024$ 5; $\alpha(\text{M})=0.00056$ 11 $\alpha(\text{N})=0.000142$ 27; $\alpha(\text{O})=2.8\times 10^{-5}$ 5; $\alpha(\text{P})=3.0\times 10^{-6}$ 6 Mult.: $\alpha(\text{K})_{\text{exp}}=0.014$ 3 (1985Dz05).

Adopted Levels, Gammas (continued)

$\gamma(^{202}\text{Pb})$ (continued)

$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\delta^\#$	α^b	Comments
2360.47	4 ⁻ , 5 ⁻	320.14 5	100	2040.33	5 ⁻	M1		0.357 5	$\alpha(\text{K})=0.292$ 4; $\alpha(\text{L})=0.0498$ 7; $\alpha(\text{M})=0.01166$ 16 $\alpha(\text{N})=0.00296$ 4; $\alpha(\text{O})=0.000591$ 8; $\alpha(\text{P})=6.32\times 10^{-5}$ 9 Mult.: $\alpha(\text{K})_{\text{exp}}=0.28$ 4 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.30$ 3 (1985Dz05).
2386.82	5 ⁻	97.58 13	5.2 9	2289.25	6 ⁻	M1		10.02 15	$\alpha(\text{K})=8.16$ 12; $\alpha(\text{L})=1.427$ 21; $\alpha(\text{M})=0.335$ 5 $\alpha(\text{N})=0.0851$ 12; $\alpha(\text{O})=0.01696$ 25; $\alpha(\text{P})=0.001811$ 26 Mult.: $\alpha(\text{L}12)_{\text{exp}}=1.4$ 6, $\alpha(\text{L}3)_{\text{exp}}<0.3$ (1974Go32) and $\alpha(\text{L}12)_{\text{exp}}=1.3$ 3 (1985Dz05).
		346.47 6	100 7	2040.33	5 ⁻	M1+E2	0.19 14	0.281 14	$\alpha(\text{K})=0.229$ 12; $\alpha(\text{L})=0.0395$ 13; $\alpha(\text{M})=0.00926$ 27 $\alpha(\text{N})=0.00235$ 7; $\alpha(\text{O})=0.000468$ 15; $\alpha(\text{P})=4.97\times 10^{-5}$ 22 Mult.: $\alpha(\text{K})_{\text{exp}}=0.229$ 12 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.257$ 23 (1985Dz05).
2517.28	3 ⁻	1134.33 11	11.1 16	1382.84	4 ⁺	E1		2.00×10^{-3} 3	δ : From $\alpha(\text{K})_{\text{exp}}=0.229$ 12 (1974Go32). $\alpha(\text{K})=0.001670$ 23; $\alpha(\text{L})=0.0002527$ 35; $\alpha(\text{M})=5.82\times 10^{-5}$ 8 $\alpha(\text{N})=1.473\times 10^{-5}$ 21; $\alpha(\text{O})=2.92\times 10^{-6}$ 4; $\alpha(\text{P})=3.04\times 10^{-7}$ 4; $\alpha(\text{IPF})=2.74\times 10^{-6}$ 4 Mult.: $\alpha(\text{K})_{\text{exp}}\leq 0.0048$ 7 (1985Dz05).
		1556.69 7	100 16	960.67	2 ⁺	E1		1.37×10^{-3} 2	$\alpha(\text{K})=0.000971$ 14; $\alpha(\text{L})=0.0001448$ 20; $\alpha(\text{M})=3.33\times 10^{-5}$ 5 $\alpha(\text{N})=8.43\times 10^{-6}$ 12; $\alpha(\text{O})=1.677\times 10^{-6}$ 23; $\alpha(\text{P})=1.766\times 10^{-7}$ 25; $\alpha(\text{IPF})=0.0002091$ 29 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0012$ 3 (1985Dz05).
2609.59	5 ⁻	222.79 5	14.6 21	2386.82	5 ⁻	M1+E2	0.26 25	0.93 10	$\alpha(\text{K})=0.75$ 10; $\alpha(\text{L})=0.1351$ 26; $\alpha(\text{M})=0.0318$ 4 $\alpha(\text{N})=0.00809$ 11; $\alpha(\text{O})=0.001604$ 30; $\alpha(\text{P})=0.000166$ 14 Mult.: $\alpha(\text{K})_{\text{exp}}=0.72$ 12 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.80$ 16 (1985Dz05).
		569.27 4	100 6	2040.33	5 ⁻	M1+E2	0.58 9	0.0628 33	$\alpha(\text{K})=0.0511$ 28; $\alpha(\text{L})=0.0090$ 4; $\alpha(\text{M})=0.00212$ 9 $\alpha(\text{N})=0.000538$ 22; $\alpha(\text{O})=0.000107$ 4; $\alpha(\text{P})=1.11\times 10^{-5}$ 6 Mult.: $\alpha(\text{K})_{\text{exp}}=0.049$ 3, K/L=6.3 1 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.056$ 5 (1985Dz05).
		644.44 5	14.0 21	1965.14	4 ⁺	E1		0.00572 8	$\alpha(\text{K})=0.00475$ 7; $\alpha(\text{L})=0.000746$ 10; $\alpha(\text{M})=0.0001729$ 24 $\alpha(\text{N})=4.37\times 10^{-5}$ 6; $\alpha(\text{O})=8.61\times 10^{-6}$ 12; $\alpha(\text{P})=8.64\times 10^{-7}$ 12 Mult.: $\alpha(\text{K})_{\text{exp}}\leq 0.0075$ (1985Dz05) and $\alpha(\text{K})_{\text{exp}}<0.015$ (1974Go32).
		1226.7 4	9.4 31	1382.84	4 ⁺	E1+M2	0.51 +20-22	0.0066 30	$\alpha(\text{K})=0.0054$ 24; $\alpha(\text{L})=9.\text{E}-4$ 4; $\alpha(\text{M})=2.2\times 10^{-4}$ 10 $\alpha(\text{N})=5.5\times 10^{-5}$ 27; $\alpha(\text{O})=1.1\times 10^{-5}$ 5; $\alpha(\text{P})=1.2\times 10^{-6}$ 6; $\alpha(\text{IPF})=1.97\times 10^{-5}$ 28 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0053$ 24 (1985Dz05).

Adopted Levels, Gammas (continued)

<u>$\gamma(^{202}\text{Pb})$ (continued)</u>									Comments
<u>$E_i(\text{level})$</u>	<u>J_i^π</u>	<u>$E_\gamma^\dagger$</u>	<u>$I_\gamma^\dagger$</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult.[‡]</u>	<u>$\delta^\#$</u>	<u>α^b</u>	
2618.89	4 ⁻ ,5 ⁻ ,6 ⁻	232.06 5	4.6 7	2386.82	5 ⁻	M1(+E2)	≤0.4	0.82 4	$\alpha(\text{K})=0.67$ 4; $\alpha(\text{L})=0.1201$ 20; $\alpha(\text{M})=0.0283$ 4 $\alpha(\text{N})=0.00719$ 10; $\alpha(\text{O})=0.001426$ 24; $\alpha(\text{P})=0.000148$ 6 Mult.: $\alpha(\text{K})\text{exp}=0.70$ 25 (1974Go32) and $\alpha(\text{K})\text{exp}=0.88$ 22 (1985Dz05).
		578.56 4	100 5	2040.33	5 ⁻	M1+E2	0.21 16	0.071 4	$\alpha(\text{K})=0.058$ 4; $\alpha(\text{L})=0.0099$ 5; $\alpha(\text{M})=0.00231$ 11 $\alpha(\text{N})=0.000586$ 28; $\alpha(\text{O})=0.000117$ 6; $\alpha(\text{P})=1.25\times 10^{-5}$ 7 Mult.: $\alpha(\text{K})\text{exp}=0.0566$ 22, K/L=6.4 8 (1974Go32) and $\alpha(\text{K})\text{exp}=0.064$ 5, $\alpha(\text{L})\text{exp}=0.0108$ 12 (1985Dz05).
2750.49	6 ⁺	1127.45 11	64 10	1623.05	4 ⁺	(E2)		0.00528 7	$\alpha(\text{K})=0.00425$ 6; $\alpha(\text{L})=0.000789$ 11; $\alpha(\text{M})=0.0001868$ 26 $\alpha(\text{N})=4.74\times 10^{-5}$ 7; $\alpha(\text{O})=9.29\times 10^{-6}$ 13; $\alpha(\text{P})=9.15\times 10^{-7}$ 13; $\alpha(\text{IPF})=4.52\times 10^{-7}$ 7 Mult.: $\alpha(\text{K})\text{exp}=0.0094$ 24 (1985Dz05).
		1367.5 4	100 40	1382.84	4 ⁺	E2		0.00370 5	$\alpha(\text{K})=0.00299$ 4; $\alpha(\text{L})=0.000522$ 7; $\alpha(\text{M})=0.0001228$ 17 $\alpha(\text{N})=3.11\times 10^{-5}$ 4; $\alpha(\text{O})=6.14\times 10^{-6}$ 9; $\alpha(\text{P})=6.21\times 10^{-7}$ 9; $\alpha(\text{IPF})=2.83\times 10^{-5}$ 4 Mult.: $\alpha(\text{K})\text{exp}=0.0034$ 16 (1985Dz05).
2898.76	5 ⁻	690.33 17	11.5 18	2208.44	7 ⁻	E2		0.01415 20	$\alpha(\text{K})=0.01077$ 15; $\alpha(\text{L})=0.00257$ 4; $\alpha(\text{M})=0.000625$ 9 $\alpha(\text{N})=0.0001583$ 22; $\alpha(\text{O})=3.05\times 10^{-5}$ 4; $\alpha(\text{P})=2.68\times 10^{-6}$ 4 Mult.: $\alpha(\text{K})\text{exp}<0.028$ (1974Go32).
		858.42 5 983.63 6	100 15 54 8	2040.33 5 ⁻ 1915.12 4 ⁺		E1		0.00258 4	$\alpha(\text{K})=0.002151$ 30; $\alpha(\text{L})=0.000328$ 5; $\alpha(\text{M})=7.57\times 10^{-5}$ 11 $\alpha(\text{N})=1.915\times 10^{-5}$ 27; $\alpha(\text{O})=3.80\times 10^{-6}$ 5; $\alpha(\text{P})=3.92\times 10^{-7}$ 5 Mult.: $\alpha(\text{K})\text{exp}=0.0055$ 14 (1985Dz05) and $\alpha(\text{K})\text{exp}<0.005$ (1974Go32).
		1515.89 20	44 7	1382.84	4 ⁺	E1		1.39×10 ⁻³ 2	$\alpha(\text{K})=0.001016$ 14; $\alpha(\text{L})=0.0001515$ 21; $\alpha(\text{M})=3.49\times 10^{-5}$ 5 $\alpha(\text{N})=8.82\times 10^{-6}$ 12; $\alpha(\text{O})=1.755\times 10^{-6}$ 25; $\alpha(\text{P})=1.847\times 10^{-7}$ 26; $\alpha(\text{IPF})=0.0001810$ 25 Mult.: $\alpha(\text{K})\text{exp}\leq 0.0014$ (1985Dz05).
2916.54	4 ⁻ ,5 ⁻	529.61 10	38 6	2386.82	5 ⁻	M1(+E2)	≤1.2	0.073 20	$\alpha(\text{K})=0.059$ 17; $\alpha(\text{L})=0.0106$ 22; $\alpha(\text{M})=0.0025$ 5 $\alpha(\text{N})=0.00064$ 12; $\alpha(\text{O})=0.000126$ 26; $\alpha(\text{P})=1.30\times 10^{-5}$ 33 Mult.: $\alpha(\text{K})\text{exp}=0.068$ 25 (1974Go32) and $\alpha(\text{K})\text{exp}=0.09$ 3 (1985Dz05).
		591.5 3	13.1 19	2324.93	4 ⁺ ,5 ⁺				

Adopted Levels, Gammas (continued)

$\gamma(^{202}\text{Pb})$ (continued)									Comments
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\delta^\#$	α^b	
2916.54	4 ⁻ ,5 ⁻	876.21 6	100 15	2040.33	5 ⁻	M1+E2	1.3 +10-5	0.015 4	$\alpha(\text{K})=0.0119$ 33; $\alpha(\text{L})=0.0021$ 5; $\alpha(\text{M})=0.00051$ 11 $\alpha(\text{N})=0.000129$ 28; $\alpha(\text{O})=2.5\times 10^{-5}$ 6; $\alpha(\text{P})=2.6\times 10^{-6}$ 7 Mult.: $\alpha(\text{K})_{\text{exp}}=0.012$ 3 (1985Dz05). $\alpha(\text{K})=0.201$ 31; $\alpha(\text{L})=0.0365$ 30; $\alpha(\text{M})=0.0086$ 6 $\alpha(\text{N})=0.00219$ 16; $\alpha(\text{O})=0.000433$ 35; $\alpha(\text{P})=4.5\times 10^{-5}$ 5 Mult.: $\alpha(\text{K})_{\text{exp}}=0.26$ 8 (1974Go32) and $\alpha(\text{K})_{\text{exp}}\approx 0.32$ (1985Dz05). $\alpha(\text{K})=0.113$ 23; $\alpha(\text{L})=0.0266$ 22; $\alpha(\text{M})=0.0065$ 5 $\alpha(\text{N})=0.00164$ 12; $\alpha(\text{O})=0.000316$ 26; $\alpha(\text{P})=2.8\times 10^{-5}$ 4 Mult.: $\alpha(\text{K})_{\text{exp}}=0.103$ 24 (1985Dz05) and $\alpha(\text{K})_{\text{exp}}=0.17$ 6 (1974Go32). $\alpha(\text{K})=0.01776$ 25; $\alpha(\text{L})=0.00294$ 4; $\alpha(\text{M})=0.000684$ 10 $\alpha(\text{N})=0.0001739$ 24; $\alpha(\text{O})=3.47\times 10^{-5}$ 5; $\alpha(\text{P})=3.73\times 10^{-6}$ 5 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0186$ 10, K/L=5.4 6 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.0192$ 18 (1985Dz05). $\alpha(\text{K})=0.000943$ 13; $\alpha(\text{L})=0.0001404$ 20; $\alpha(\text{M})=3.23\times 10^{-5}$ 5 $\alpha(\text{N})=8.17\times 10^{-6}$ 11; $\alpha(\text{O})=1.627\times 10^{-6}$ 23; $\alpha(\text{P})=1.714\times 10^{-7}$ 24; $\alpha(\text{IPF})=0.0002290$ 32 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0037$ 13 (1985Dz05). $\alpha(\text{K})=0.00663$ 9; $\alpha(\text{L})=0.001362$ 19; $\alpha(\text{M})=0.000326$ 5 $\alpha(\text{N})=8.27\times 10^{-5}$ 12; $\alpha(\text{O})=1.609\times 10^{-5}$ 23; $\alpha(\text{P})=1.513\times 10^{-6}$ 21 Mult.: $\alpha(\text{K})_{\text{exp}}=0.00673$ (1986Ja13), DCO=1 (2000Go47). $\alpha(\text{K})=0.00201$ 3; $\alpha(\text{L})=0.000306$ 5; $\alpha(\text{M})=7.06\times 10^{-5}$ 10; $\alpha(\text{N}+..)=2.18\times 10^{-5}$ 3 $\alpha(\text{N})=1.79\times 10^{-5}$ 3; $\alpha(\text{O})=3.54\times 10^{-6}$ 5; $\alpha(\text{P})=3.66\times 10^{-7}$ 6 Mult.: DCO=0.71 7 (2000Go47) and $A_2=-0.22$ 4, $A_4=0.06$ 6 (1986Ja13,1987Fa15). $\alpha(\text{L})=172.1$ 24; $\alpha(\text{M})=45.2$ 6
2967.62	4 ⁻ ,5 ⁻	348.77 17	8 3	2618.89	4 ⁻ ,5 ⁻ ,6 ⁻	M1(+E2)	≤ 0.7	0.249 34	
		358.05 13	4.2 7	2609.59	5 ⁻	M1+E2	1.22 +42-28	0.148 25	
		927.28 4	100 6	2040.33	5 ⁻	M1		0.02159 30	
		1584.9 5	10 3	1382.84	4 ⁺	(E1)		1.35×10^{-3} 2	
3057.9	11 ⁻	888.1 @	100 @	2169.83	9 ⁻	E2		0.00842 12	
3191.3	10 ⁺	1021.5 @	100 @	2169.83	9 ⁻	D		0.00241	
3237.7	12 ⁺	(46.4)	0.062 4	3191.3	10 ⁺	[E2]		230.8 32	

Adopted Levels, Gammas (continued)

$\gamma(^{202}\text{Pb})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\delta^\#$	α^b	Comments
									$\alpha(\text{N})=11.38$ 16; $\alpha(\text{O})=2.014$ 28; $\alpha(\text{P})=0.0689$ 10 B(E2)(W.u.)=0.77 10 E $_\gamma$: Calculated from level energy differences. I $_\gamma$: From intensity ratio of the delayed component of 888.1 γ and 1021.5 γ , I(γ +ce)(179.7 γ)/I(γ +ce)(46.3 γ)=7.6 4 in 1986Ja13. $\alpha(\text{K})=0.0823$ 12; $\alpha(\text{L})=0.01477$ 21; $\alpha(\text{M})=0.00347$ 5 $\alpha(\text{N})=0.000870$ 12; $\alpha(\text{O})=0.0001668$ 23; $\alpha(\text{P})=1.435\times 10^{-5}$ 20 B(E1)(W.u.)=1.123 $\times 10^{-6}$ 25 Mult.: From $\alpha(\text{exp})$ [intensity balance] and A $_2=-0.20$ 7, A $_4=0.06$ 9 in 1986Ja13; DCO=0.63 6 (2000Go47). $\alpha(\text{K})=0.298$ 4; $\alpha(\text{L})=0.0507$ 7; $\alpha(\text{M})=0.01188$ 17 $\alpha(\text{N})=0.00302$ 4; $\alpha(\text{O})=0.000602$ 9; $\alpha(\text{P})=6.44\times 10^{-5}$ 9 $\alpha(\text{K})=0.183$ 16; $\alpha(\text{L})=0.0321$ 17; $\alpha(\text{M})=0.0076$ 4 $\alpha(\text{N})=0.00192$ 9; $\alpha(\text{O})=0.000381$ 20; $\alpha(\text{P})=4.00\times 10^{-5}$ 29 Mult.: $\alpha(\text{K})_{\text{exp}}=0.18$ 4 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.22$ 4 (1985Dz05). $\alpha(\text{K})=0.14$ 4; $\alpha(\text{L})=0.026$ 4; $\alpha(\text{M})=0.0061$ 9 $\alpha(\text{N})=0.00155$ 22; $\alpha(\text{O})=0.00031$ 5; $\alpha(\text{P})=3.1\times 10^{-5}$ 7 Mult.: $\alpha(\text{K})_{\text{exp}}=0.15$ 5 (1974Go32). $\alpha(\text{K})=0.0372$ 29; $\alpha(\text{L})=0.0063$ 4; $\alpha(\text{M})=0.00147$ 9 $\alpha(\text{N})=0.000374$ 24; $\alpha(\text{O})=7.5\times 10^{-5}$ 5; $\alpha(\text{P})=7.9\times 10^{-6}$ 6 Mult.: $\alpha(\text{K})_{\text{exp}}=0.039$ 10 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.042$ 9 (1985Dz05). $\alpha(\text{K})=0.0278$ 11; $\alpha(\text{L})=0.00464$ 16; $\alpha(\text{M})=0.00108$ 4 $\alpha(\text{N})=0.000275$ 9; $\alpha(\text{O})=5.49\times 10^{-5}$ 19; $\alpha(\text{P})=5.87\times 10^{-6}$ 22 Mult.: $\alpha(\text{K})_{\text{exp}}=0.036$ 8 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.032$ 6 (1985Dz05). $\alpha(\text{K})=0.0183$ 9; $\alpha(\text{L})=0.00305$ 14; $\alpha(\text{M})=0.000713$ 31 $\alpha(\text{N})=0.000181$ 8; $\alpha(\text{O})=3.61\times 10^{-5}$ 16; $\alpha(\text{P})=3.87\times 10^{-6}$ 19 Mult.: $\alpha(\text{K})_{\text{exp}}=0.020$ 5 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.021$ 4 (1985Dz05). $\alpha(\text{K})=0.00818$ 21; $\alpha(\text{L})=0.001343$ 33; $\alpha(\text{M})=0.000313$ 8 $\alpha(\text{N})=7.95\times 10^{-5}$ 19; $\alpha(\text{O})=1.59\times 10^{-5}$ 4; $\alpha(\text{P})=1.71\times 10^{-6}$ 4; $\alpha(\text{IPF})=1.471\times 10^{-5}$ 31 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0099$ 20 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.0107$ 12, $\alpha(\text{L})_{\text{exp}}=0.0021$ 4 (1985Dz05). Mult.: A $_2=-0.44$ 5, A $_4=0.08$ 7 (1987Fa15); DCO=0.51 6 (2000Go47). Mult.: DCO=0.76 14 (2000Go47). $\alpha(\text{K})=0.0323$ 25; $\alpha(\text{L})=0.00545$ 35; $\alpha(\text{M})=0.00127$ 8
3237.7	12 ⁺	179.7 [@]	100 [@] 1	3057.9	11 ⁻	E1		0.1015 14	
3285.80	4 ⁻	318.0 5	3.6 11	2967.62	4 ⁻ ,5 ⁻	[M1]		0.364 5	
		369.27 6	17.8 25	2916.54	4 ⁻ ,5 ⁻	M1(+E2)	≤0.5	0.225 18	
		386.86 13	5.0 7	2898.76	5 ⁻	M1(+E2)	≤1.1	0.17 4	
		676.19 5	68 11	2609.59	5 ⁻	M1(+E2)	≤0.5	0.0455 35	
		768.57 10	24 4	2517.28	3 ⁻	M1(+E2)	≤0.34	0.0338 13	
		899.00 11	12.1 18	2386.82	5 ⁻	M1(+E2)	≤0.4	0.0223 11	
		1245.48 5	100 6	2040.33	5 ⁻	M1(+E2)	≤0.28	0.00995 25	
3329.0	12	271.1 [@]	100 [@]	3057.9	11 ⁻	D			
3507.3	(13)	269.6 ^{&} 5	100 ^{&}	3237.7	12 ⁺	D			
3682.22	4 ⁻ ,5 ⁻	714.63 25	32 5	2967.62	4 ⁻ ,5 ⁻	M1(+E2)	≤0.5	0.0394 30	

Adopted Levels, Gammas (continued)

$\gamma(^{202}\text{Pb})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\delta^\#$	α^b	Comments
3682.22	$4^-, 5^-$	783.54 25	39 6	2898.76 5 ⁻		M1(+E2)	≤ 0.6	0.0304 30	$\alpha(\text{N})=0.000324$ 20; $\alpha(\text{O})=6.4\times 10^{-5}$ 4; $\alpha(\text{P})=6.9\times 10^{-6}$ 5 Mult.: $\alpha(\text{K})_{\text{exp}}=0.044$ 14 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.035$ 9 (1985Dz05).
		1072.59 13	100 16	2609.59 5 ⁻		M1(+E2)	≤ 0.5	0.0140 9	$\alpha(\text{K})=0.0249$ 25; $\alpha(\text{L})=0.0042$ 4; $\alpha(\text{M})=0.00098$ 8 $\alpha(\text{N})=0.000249$ 21; $\alpha(\text{O})=5.0\times 10^{-5}$ 4; $\alpha(\text{P})=5.3\times 10^{-6}$ 5 Mult.: $\alpha(\text{K})_{\text{exp}}=0.03$ 1 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.028$ 7 (1985Dz05).
		1164.9 4 1295.35 13	19.1 24 24 4	2517.28 3 ⁻ 2386.82 5 ⁻		[M1]		0.00920 13	$\alpha(\text{K})=0.0115$ 8; $\alpha(\text{L})=0.00190$ 12; $\alpha(\text{M})=0.000443$ 27 $\alpha(\text{N})=0.000113$ 7; $\alpha(\text{O})=2.25\times 10^{-5}$ 14; $\alpha(\text{P})=2.41\times 10^{-6}$ 16 Mult.: $\alpha(\text{K})_{\text{exp}}=0.012$ 4 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.014$ 3 (1985Dz05).
		2059.5 3	43 6	1623.05 4 ⁺		[E1]		1.30×10^{-3} 2	$\alpha(\text{K})=0.00756$ 11; $\alpha(\text{L})=0.001238$ 17; $\alpha(\text{M})=0.000288$ 4 $\alpha(\text{N})=7.32\times 10^{-5}$ 10; $\alpha(\text{O})=1.462\times 10^{-5}$ 20; $\alpha(\text{P})=1.575\times 10^{-6}$ 22; $\alpha(\text{IPF})=2.63\times 10^{-5}$ 4
3723.52	4^-	1206.25 7	100 16	2517.28 3 ⁻		M1(+E2)	≤ 0.3	0.01075 30	$\alpha(\text{K})=0.000612$ 9; $\alpha(\text{L})=9.03\times 10^{-5}$ 13; $\alpha(\text{M})=2.075\times 10^{-5}$ 29 $\alpha(\text{N})=5.25\times 10^{-6}$ 7; $\alpha(\text{O})=1.047\times 10^{-6}$ 15; $\alpha(\text{P})=1.111\times 10^{-7}$ 16; $\alpha(\text{IPF})=0.000572$ 8
		1336.48 20	45 7	2386.82 5 ⁻		M1+E2	1.8 8	0.0050 12	$\alpha(\text{K})=0.00885$ 25; $\alpha(\text{L})=0.00145$ 4; $\alpha(\text{M})=0.000339$ 9 $\alpha(\text{N})=8.61\times 10^{-5}$ 23; $\alpha(\text{O})=1.72\times 10^{-5}$ 5; $\alpha(\text{P})=1.85\times 10^{-6}$ 5; $\alpha(\text{IPF})=7.73\times 10^{-6}$ 18 Mult.: $\alpha(\text{K})_{\text{exp}}=0.013$ 3 (1974Go32) and $\alpha(\text{K})_{\text{exp}}=0.015$ 3 (1985Dz05).
		1363.14 20	35 5	2360.47 4 ⁻ , 5 ⁻		M1(+E2)	≤ 0.8	0.0073 9	$\alpha(\text{K})=0.0040$ 10; $\alpha(\text{L})=0.00069$ 16; $\alpha(\text{M})=0.00016$ 4 $\alpha(\text{N})=4.1\times 10^{-5}$ 9; $\alpha(\text{O})=8.1\times 10^{-6}$ 19; $\alpha(\text{P})=8.4\times 10^{-7}$ 21; $\alpha(\text{IPF})=2.6\times 10^{-5}$ 4 Mult.: $\alpha(\text{K})_{\text{exp}}=0.004$ 10 (1985Dz05).
		2100.46 25	34 5	1623.05 4 ⁺		[E1]		1.31×10^{-3} 2	$\alpha(\text{K})=0.0059$ 7; $\alpha(\text{L})=0.00098$ 11; $\alpha(\text{M})=0.000228$ 25 $\alpha(\text{N})=5.8\times 10^{-5}$ 6; $\alpha(\text{O})=1.15\times 10^{-5}$ 13; $\alpha(\text{P})=1.23\times 10^{-6}$ 15; $\alpha(\text{IPF})=4.4\times 10^{-5}$ 4 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0080$ 23 (1985Dz05).
3820.88	5^-	2340.5 15	34 12	1382.84 4 ⁺		[E1]		1.35×10^{-3} 2	$\alpha(\text{K})=0.000593$ 8; $\alpha(\text{L})=8.74\times 10^{-5}$ 12; $\alpha(\text{M})=2.008\times 10^{-5}$ 28 $\alpha(\text{N})=5.08\times 10^{-6}$ 7; $\alpha(\text{O})=1.013\times 10^{-6}$ 14; $\alpha(\text{P})=1.076\times 10^{-7}$ 15; $\alpha(\text{IPF})=0.000600$ 8
		534.7 5	24 4	3285.80 4 ⁻		[M1]		0.0904 13	$\alpha(\text{K})=0.000498$ 7; $\alpha(\text{L})=7.32\times 10^{-5}$ 10; $\alpha(\text{M})=1.681\times 10^{-5}$ 24 $\alpha(\text{N})=4.25\times 10^{-6}$ 6; $\alpha(\text{O})=8.49\times 10^{-7}$ 12; $\alpha(\text{P})=9.04\times 10^{-8}$ 13; $\alpha(\text{IPF})=0.000761$ 11
									$\alpha(\text{K})=0.0741$ 11; $\alpha(\text{L})=0.01246$ 18; $\alpha(\text{M})=0.00291$ 4 $\alpha(\text{N})=0.000740$ 11; $\alpha(\text{O})=0.0001476$ 21; $\alpha(\text{P})=1.582\times 10^{-5}$ 23

Adopted Levels, Gammas (continued)

$\gamma(^{202}\text{Pb})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\delta^\#$	α^b	Comments
3820.88	5 ⁻	904.24 9	43 7	2916.54	4 ⁻ , 5 ⁻	M1+E2	2.9 11	0.0097 19	$\alpha(\text{K})=0.0077$ 16; $\alpha(\text{L})=0.00150$ 24; $\alpha(\text{M})=0.00036$ 5 $\alpha(\text{N})=9.0\times 10^{-5}$ 14; $\alpha(\text{O})=1.77\times 10^{-5}$ 28; $\alpha(\text{P})=1.72\times 10^{-6}$ 33 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0077$ 16 (1985Dz05).
		1211.52 10	31 4	2609.59	5 ⁻	M1(+E2)	≤ 0.7	0.0099 10	$\alpha(\text{K})=0.0081$ 9; $\alpha(\text{L})=0.00134$ 13; $\alpha(\text{M})=0.000312$ 30 $\alpha(\text{N})=7.9\times 10^{-5}$ 8; $\alpha(\text{O})=1.58\times 10^{-5}$ 16; $\alpha(\text{P})=1.69\times 10^{-6}$ 18; $\alpha(\text{IPF})=8.1\times 10^{-6}$ 6 Mult.: $\alpha(\text{K})_{\text{exp}}=0.011$ 3 (1985Dz05).
		1584.9 5	100 29	2235.42	6 ⁺	E1+M2	0.63 22	0.0047 16	$\alpha(\text{K})=0.0037$ 13; $\alpha(\text{L})=6.2\times 10^{-4}$ 24; $\alpha(\text{M})=1.5\times 10^{-4}$ 6 $\alpha(\text{N})=3.7\times 10^{-5}$ 14; $\alpha(\text{O})=7.4\times 10^{-6}$ 28; $\alpha(\text{P})=7.9\times 10^{-7}$ 30; $\alpha(\text{IPF})=0.000180$ 24 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0037$ 13 (1985Dz05).
		1635.55 17	24 4	2185.06	3 ⁺	[M2]		0.01204 17	$\alpha(\text{K})=0.00976$ 14; $\alpha(\text{L})=0.001691$ 24; $\alpha(\text{M})=0.000397$ 6 $\alpha(\text{N})=0.0001010$ 14; $\alpha(\text{O})=2.014\times 10^{-5}$ 28; $\alpha(\text{P})=2.154\times 10^{-6}$ 30; $\alpha(\text{IPF})=7.18\times 10^{-5}$ 10
		1780.53 8	97 14	2040.33	5 ⁻	M1(+E2)	≤ 0.7	0.00405 33	$\alpha(\text{K})=0.00313$ 25; $\alpha(\text{L})=0.00051$ 4; $\alpha(\text{M})=0.000118$ 9 $\alpha(\text{N})=3.00\times 10^{-5}$ 24; $\alpha(\text{O})=6.0\times 10^{-6}$ 5; $\alpha(\text{P})=6.4\times 10^{-7}$ 5; $\alpha(\text{IPF})=0.000261$ 19 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0040$ 9 (1985Dz05).
3955.6	13 ⁺	2198.03 25 626.7@ 717.9@	14 3 5.5@ 100@	1623.05 4 ⁺ 3329.0 12 3237.7 12 ⁺		M1(+E2)		0.027 14	$\alpha(\text{K})=0.022$ 12; $\alpha(\text{L})=0.0040$ 17; $\alpha(\text{M})=9\text{E}-4$ 4 $\alpha(\text{N})=2.4\times 10^{-4}$ 10; $\alpha(\text{O})=4.8\times 10^{-5}$ 20; $\alpha(\text{P})=4.9\times 10^{-6}$ 24 Mult.: $\alpha(\text{K})_{\text{exp}}=0.039$ 4 (1986Ja13); $A_2=-0.85$ 6, $A_4=0.15$ 8 (1986Ja13,1987Fa15); DCO=0.29 5 (2000Go47).
4022.8	(14)	515.5&	100&	3507.3 (13)		D			Mult.: DCO=0.50 14 (2000Go47).
4022.9	(12)	785.2@	100@	3237.7 12 ⁺		(D,Q)			Mult.: $A_2=0.13$ 3, $A_4=-0.01$ 5 (1987Fa15) and DCO=1.01 9 (2000Go47) consistent with $\Delta J=0$ or Q transition.
4068.3	13	830.6@	100@	3237.7 12 ⁺		D			Mult.: $A_2=-0.31$ 5, $A_4=0.24$ 7 (1987Fa15); DCO=0.63 8 (2000Go47).
4091.0	14 ⁺	853.3@	100@	3237.7 12 ⁺		E2		0.00912 13	$\alpha(\text{K})=0.00715$ 10; $\alpha(\text{L})=0.001500$ 21; $\alpha(\text{M})=0.000360$ 5 $\alpha(\text{N})=9.12\times 10^{-5}$ 13; $\alpha(\text{O})=1.772\times 10^{-5}$ 25; $\alpha(\text{P})=1.651\times 10^{-6}$ 23 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0074$ 6 (1986Ja13); DCO=1.06 8 (2000Go47).
4170.6	14 ⁺	215.0@	22@	3955.6 13 ⁺		M1(+E2)		0.7 4	$\alpha(\text{K})=0.5$ 4; $\alpha(\text{L})=0.147$ 4; $\alpha(\text{M})=0.0362$ 12 $\alpha(\text{N})=0.00917$ 27; $\alpha(\text{O})=0.00174$ 5; $\alpha(\text{P})=1.4\times 10^{-4}$ 5 Mult.: From $A_2=-0.6$ 4, $A_4=0.29$ 55 (1987Fa15); DCO=0.55 7 (2000Go47).
		932.9@	100@	3237.7 12 ⁺		E2		0.00763 11	I_γ : 31 6 in ¹⁹² Os(¹⁴ C,4n γ); 50 5 in ¹⁹⁸ Pt(⁹ Be,5n γ). $\alpha(\text{K})=0.00604$ 8; $\alpha(\text{L})=0.001213$ 17; $\alpha(\text{M})=0.000290$ 4 $\alpha(\text{N})=7.34\times 10^{-5}$ 10; $\alpha(\text{O})=1.431\times 10^{-5}$ 20; $\alpha(\text{P})=1.360\times 10^{-6}$ 19

Adopted Levels, Gammas (continued)

$\gamma(^{202}\text{Pb})$ (continued)

$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	α^b	Comments
4322.8+x	15	231.8 [@] 5	100 [@]	4091.0+x	16 ⁺	D		Mult.: From $A_2=0.21$ 6, $A_4=0.09$ 8 (1987Fa15); DCO=1.03 10 (2000Go47).
4445.4+x	16 ⁺	122.5		4322.8+x	15			Mult.: $A_2=-0.24$ 3, $A_4=0.05$ 5 (1987Fa15).
		354.4 [@]	100 [@]	4091.0+x	16 ⁺	M1,E2	0.17 10	E_γ : From ²⁰² Hg(α ,4n γ). $\alpha(\text{K})=0.13$ 9; $\alpha(\text{L})=0.029$ 9; $\alpha(\text{M})=0.0070$ 18 $\alpha(\text{N})=0.0018$ 5; $\alpha(\text{O})=3.5\times 10^{-4}$ 10; $\alpha(\text{P})=3.2\times 10^{-5}$ 16 Mult.: $A_2=0.17$ 6, $A_4=0.08$ 8 (1987Fa15); DCO=0.98 8 (2000Go47), consistent with $\Delta J=0$.
4452.5+x	16	129.7 [@]	100 [@]	4322.8+x	15	D		Mult.: From $A_2=-0.38$ 17, $A_4=0.01$ 28 (1987Fa15).
4513.1	(15)	490.3 ^{&}	100 ^{&}	4022.8	(14)	D		Mult.: DCO=0.48 14 (2000Go47).
5059.0	(16)	545.9 ^{&} 5	100 ^{&}	4513.1	(15)	D		Mult.: DCO=0.51 16 (2000Go47).
5189.0+z		130.0 ^{&}	100 ^{&}	5059.0+z		M1	4.42 6	$\alpha(\text{K})=3.61$ 5; $\alpha(\text{L})=0.625$ 9; $\alpha(\text{M})=0.1465$ 21 $\alpha(\text{N})=0.0372$ 5; $\alpha(\text{O})=0.00742$ 10; $\alpha(\text{P})=0.000793$ 11 Mult.: DCO=0.62 11 (2000Go47).
5220.3+y		161.3 ^{&}	100 ^{&}	5059.0+y		M1	2.398 34	$\alpha(\text{K})=1.956$ 27; $\alpha(\text{L})=0.338$ 5; $\alpha(\text{M})=0.0791$ 11 $\alpha(\text{N})=0.02012$ 28; $\alpha(\text{O})=0.00401$ 6; $\alpha(\text{P})=0.000428$ 6 Mult.: DCO=0.53 6 (2000Go47).
5242.0+x	17	796.6 [@]	49.5 [@]	4445.4+x	16 ⁺	D	0.00380	$\alpha(\text{K})=0.00317$ 5; $\alpha(\text{L})=0.000490$ 7; $\alpha(\text{M})=0.0001132$ 16; $\alpha(\text{N}+..)=3.49\times 10^{-5}$ 5 $\alpha(\text{N})=2.86\times 10^{-5}$ 4; $\alpha(\text{O})=5.66\times 10^{-6}$ 8; $\alpha(\text{P})=5.76\times 10^{-7}$ 8 Mult.: $A_2=-0.22$ 4, $A_4=0.09$ 6 (1987Fa15); DCO=0.65 15 (2000Go47).
		1151.0 [@]	100 [@]	4091.0+x	16 ⁺	D	0.00195	$\alpha(\text{N})=1.436\times 10^{-5}$ 21; $\alpha(\text{O})=2.85\times 10^{-6}$ 4; $\alpha(\text{P})=2.96\times 10^{-7}$ 5; $\alpha(\text{IPF})=4.66\times 10^{-6}$ 10 Mult.: From $A_2=-0.16$ 4, $A_4=0.04$ 6 (1987Fa15); DCO=0.66 7 (2000Go47).
5251.0+x	18 ⁺	1160.0 [@]	100 [@]	4091.0+x	16 ⁺	E2	0.00501 7	$\alpha(\text{K})=0.00403$ 6; $\alpha(\text{L})=0.000741$ 10; $\alpha(\text{M})=0.0001753$ 25 $\alpha(\text{N})=4.44\times 10^{-5}$ 6; $\alpha(\text{O})=8.73\times 10^{-6}$ 12; $\alpha(\text{P})=8.63\times 10^{-7}$ 12; $\alpha(\text{IPF})=1.376\times 10^{-6}$ 19 Mult.: From $A_2=0.25$ 6, $A_4=0.05$ 8 (1987Fa15); DCO=1.08 9 (2000Go47).
5380.7+z		191.7 ^{&}	100 ^{&}	5189.0+z		M1	1.474 21	$\alpha(\text{K})=1.204$ 17; $\alpha(\text{L})=0.2072$ 29; $\alpha(\text{M})=0.0486$ 7 $\alpha(\text{N})=0.01234$ 17; $\alpha(\text{O})=0.002460$ 34; $\alpha(\text{P})=0.000263$ 4 Mult.: DCO=0.62 7 (2000Go47).
5453.5+u	(18)	202.5 [@]	100 [@]	5251.0+u	(19 ⁻)	D		Mult.: From $A_2=-0.48$ 10, $A_4=-0.05$ 15 (1987Fa15).
5463.5+y		243.2 ^{&}	100 ^{&}	5220.3+y		M1	0.760 11	$\alpha(\text{K})=0.621$ 9; $\alpha(\text{L})=0.1064$ 15; $\alpha(\text{M})=0.02492$ 35 $\alpha(\text{N})=0.00633$ 9; $\alpha(\text{O})=0.001263$ 18; $\alpha(\text{P})=0.0001350$ 19 Mult.: From DCO=0.56 6 (2000Go47).
5650.5+z		269.8 ^{&}	100 ^{&}	5380.7+z		M1	0.570 8	$\alpha(\text{K})=0.466$ 7; $\alpha(\text{L})=0.0798$ 11; $\alpha(\text{M})=0.01868$ 26 $\alpha(\text{N})=0.00475$ 7; $\alpha(\text{O})=0.000947$ 13; $\alpha(\text{P})=0.0001012$ 14 Mult.: DCO=0.58 6 (2000Go47).
5796.4+y		332.9 ^{&}	100 ^{&}	5463.5+y		M1	0.321 4	$\alpha(\text{K})=0.263$ 4; $\alpha(\text{L})=0.0448$ 6; $\alpha(\text{M})=0.01047$ 15

Adopted Levels, Gammas (continued)

$\gamma(^{202}\text{Pb})$ (continued)								
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	α^b	Comments
								$\alpha(\text{N})=0.00266$ 4; $\alpha(\text{O})=0.000531$ 7; $\alpha(\text{P})=5.68\times 10^{-5}$ 8 Mult.: From DCO=0.57 8 (2000Go47).
5940.2+u	(20 ⁻)	689.2 [@]	100 [@]	5251.0+u	(19 ⁻)	(M1+E2)	0.030 16	$\alpha(\text{K})=0.024$ 14; $\alpha(\text{L})=0.0045$ 19; $\alpha(\text{M})=0.0011$ 4 $\alpha(\text{N})=2.7\times 10^{-4}$ 11; $\alpha(\text{O})=5.3\times 10^{-5}$ 22; $\alpha(\text{P})=5.4\times 10^{-6}$ 27 Mult.: $A_2=-0.76$ 20, $A_4=0.12$ 27 (1987Fa15); DCO=0.33 9 (2000Go47).
5999.9+z		349.4 ^{&}	100 ^{&}	5650.5+z		M1	0.282 4	$\alpha(\text{K})=0.2305$ 32; $\alpha(\text{L})=0.0392$ 5; $\alpha(\text{M})=0.00918$ 13 $\alpha(\text{N})=0.002332$ 33; $\alpha(\text{O})=0.000465$ 7; $\alpha(\text{P})=4.98\times 10^{-5}$ 7 Mult.: DCO=0.61 7 (2000Go47).
6091.6+u	(21 ⁻)	840.5 [@]	100 [@]	5251.0+u	(19 ⁻)	E2	0.00940 13	$\alpha(\text{K})=0.00736$ 10; $\alpha(\text{L})=0.001556$ 22; $\alpha(\text{M})=0.000374$ 5 $\alpha(\text{N})=9.47\times 10^{-5}$ 13; $\alpha(\text{O})=1.839\times 10^{-5}$ 26; $\alpha(\text{P})=1.707\times 10^{-6}$ 24 Mult.: $A_2=0.29$ 3, $A_4=-0.03$ 4 (1987Fa15); DCO=1 (2000Go47).
6204.0+y		407.6 ^{&}	100 ^{&}	5796.4+y		M1	0.1861 26	$\alpha(\text{K})=0.1523$ 21; $\alpha(\text{L})=0.0258$ 4; $\alpha(\text{M})=0.00604$ 8 $\alpha(\text{N})=0.001534$ 21; $\alpha(\text{O})=0.000306$ 4; $\alpha(\text{P})=3.28\times 10^{-5}$ 5 Mult.: From DCO=0.62 9 (2000Go47).
6274.6+w?		183.0 ^a	100 ^a	6091.6+w?		M1(+E2) ^a	1.1 5	$\alpha(\text{K})=0.8$ 6; $\alpha(\text{L})=0.260$ 24; $\alpha(\text{M})=0.065$ 9 $\alpha(\text{N})=0.0164$ 23; $\alpha(\text{O})=0.00309$ 29; $\alpha(\text{P})=2.3\times 10^{-4}$ 7 Mult.: DCO=0.62 7 (2000Go47).
6323.4+u	(22)	231.5 ^{&}	100 ^{&}	6091.6+u	(21 ⁻)	D		$\alpha(\text{K})=0.1439$ 20; $\alpha(\text{L})=0.02436$ 34; $\alpha(\text{M})=0.00570$ 8 $\alpha(\text{N})=0.001448$ 20; $\alpha(\text{O})=0.000289$ 4; $\alpha(\text{P})=3.09\times 10^{-5}$ 4 Mult.: DCO=0.57 8 (2000Go47).
6416.3+z		416.4 ^{&}	100 ^{&}	5999.9+z		M1	0.1757 25	$\alpha(\text{K})=0.38$ 27; $\alpha(\text{L})=0.101$ 10; $\alpha(\text{M})=0.0247$ 12 $\alpha(\text{N})=0.00626$ 32; $\alpha(\text{O})=0.00120$ 11; $\alpha(\text{P})=1.0\times 10^{-4}$ 4
6514.7+w?		240.1 ^a	100 ^a	6274.6+w?		M1(+E2) ^a	0.51 28	$\alpha(\text{K})=0.1063$ 15; $\alpha(\text{L})=0.01795$ 25; $\alpha(\text{M})=0.00420$ 6 $\alpha(\text{N})=0.001066$ 15; $\alpha(\text{O})=0.0002126$ 30; $\alpha(\text{P})=2.278\times 10^{-5}$ 32 Mult.: From DCO=0.51 9 (2000Go47).
6670.5+y		466.5 ^{&}	100 ^{&}	6204.0+y		M1	0.1298 18	Mult.: DCO=0.84 12 (2000Go47).
6799.7+u	(21)	1548.8 ^{&}	100 ^{&}	5251.0+u	(19 ⁻)	(Q)		$\alpha(\text{K})=0.21$ 15; $\alpha(\text{L})=0.051$ 11; $\alpha(\text{M})=0.0123$ 21
6811.0+w?		296.3 ^a	100 ^a	6514.7+w?		M1(+E2) ^a	0.28 16	$\alpha(\text{N})=0.0031$ 5; $\alpha(\text{O})=0.00060$ 13; $\alpha(\text{P})=5.3\times 10^{-5}$ 25
6894.2+z		477.9 ^{&}	100 ^{&}	6416.3+z		M1	0.1217 17	$\alpha(\text{K})=0.0997$ 14; $\alpha(\text{L})=0.01682$ 24; $\alpha(\text{M})=0.00393$ 6 $\alpha(\text{N})=0.000999$ 14; $\alpha(\text{O})=0.0001993$ 28; $\alpha(\text{P})=2.135\times 10^{-5}$ 30 Mult.: DCO=0.46 8 (2000Go47).
7172.9+w?		361.9 ^a	100 ^a	6811.0+w?		M1(+E2) ^a	0.16 9	$\alpha(\text{K})=0.13$ 8; $\alpha(\text{L})=0.027$ 8; $\alpha(\text{M})=0.0066$ 18 $\alpha(\text{N})=0.0017$ 4; $\alpha(\text{O})=3.2\times 10^{-4}$ 10; $\alpha(\text{P})=3.0\times 10^{-5}$ 15
7188.2+y		517.7 ^{&}	100 ^{&}	6670.5+y		M1	0.0985 14	$\alpha(\text{K})=0.0807$ 11; $\alpha(\text{L})=0.01359$ 19; $\alpha(\text{M})=0.00318$ 4 $\alpha(\text{N})=0.000807$ 11; $\alpha(\text{O})=0.0001609$ 23; $\alpha(\text{P})=1.724\times 10^{-5}$ 24 Mult.: DCO=0.45 8 (2000Go47).
7301.6+u	(21)	501.9 ^{&}	100 ^{&} 15	6799.7+u	(21)	(D)		Mult.: DCO=0.79 18 (2000Go47).

Adopted Levels, Gammas (continued)

$\gamma(^{202}\text{Pb})$ (continued)

$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	α^b	Comments
7301.6+u	(21)	1361.4 ^{&}	26 ^{&} 11	5940.2+u	(20 ⁻)			
7405.9+u	(23)	1082.2 ^{&}	100 ^{&}	6323.4+u	(22)	D		Mult.: DCO=0.66 8 (2000Go47).
7417.6+z		523.4 ^{&}	100 ^{&}	6894.2+z		M1	0.0957 13	$\alpha(\text{K})=0.0784$ 11; $\alpha(\text{L})=0.01319$ 18; $\alpha(\text{M})=0.00308$ 4 $\alpha(\text{N})=0.000783$ 11; $\alpha(\text{O})=0.0001563$ 22; $\alpha(\text{P})=1.675\times 10^{-5}$ 23 Mult.: DCO=0.49 10 (2000Go47).
7554.4+u	22	253.0 ^{&}	6.7 ^{&} 16	7301.6+u	(21)			
		1463.0 ^{&}	100 ^{&} 6	6091.6+u	(21 ⁻)	D		Mult.: DCO=0.62 6 (2000Go47).
7592.4+w?		419.5 ^a	100 ^a	7172.9+w?		M1(+E2) ^a	0.11 6	$\alpha(\text{K})=0.09$ 6; $\alpha(\text{L})=0.018$ 6; $\alpha(\text{M})=0.0042$ 14 $\alpha(\text{N})=0.00107$ 35; $\alpha(\text{O})=2.1\times 10^{-4}$ 7; $\alpha(\text{P})=2.0\times 10^{-5}$ 10
7708.5+u	23	154.3 ^{&}	100 ^{&}	7554.4+u	22	D		Mult.: DCO=0.49 8 (2000Go47).
8079.6+w?		487.2 ^a	100 ^a	7592.4+w?		M1(+E2) ^a	0.07 4	$\alpha(\text{K})=0.06$ 4; $\alpha(\text{L})=0.012$ 4; $\alpha(\text{M})=0.0027$ 10 $\alpha(\text{N})=7.0\times 10^{-4}$ 25; $\alpha(\text{O})=1.4\times 10^{-4}$ 5; $\alpha(\text{P})=1.3\times 10^{-5}$ 7
8305.5+u	(24)	597.1 ^{&}	100 ^{&}	7708.5+u	23	D		Mult.: DCO=0.56 8 (2000Go47).
8361.1+u	(24)	652.8 ^{&}	100 ^{&}	7708.5+u	23	D		Mult.: DCO=0.48 8 (2000Go47).
8646.0+u	(24)	340.6 ^{&}	100 ^{&}	8305.5+u	(24)			Mult.: DCO=0.92 13 (2000Go47), consistent with $\Delta J=0$ transition.
8786.6+u	(25)	140.8 ^{&}	87 ^{&} 13	8646.0+u	(24)	D		Mult.: DCO=0.61 10 (2000Go47).
		425.7 ^{&}	77 ^{&} 10	8361.1+u	(24)	D		Mult.: DCO=0.62 9 (2000Go47).
		1380.5 ^{&}	100 ^{&} 13	7405.9+u	(23)	(Q)		Mult.: DCO=0.80 20 (2000Go47).
9205.4+u	(26)	418.8 ^{&}	100 ^{&}	8786.6+u	(25)	D		Mult.: DCO=0.59 8 (2000Go47).

[†] From ²⁰²Bi ε decay, unless otherwise stated.

[‡] From $\alpha(\text{K})_{\text{exp}}$, $\alpha(\text{L})_{\text{exp}}$ and subshell ratios in ²⁰²Pb IT decay, ²⁰²Bi ε decay and ²⁰²Hg(α ,4n γ); $\gamma(\theta)$ and $\gamma\gamma(\text{DCO})$ in ²⁰²Hg(α ,4n γ), ¹⁹⁸Pt(⁹Be,5n γ) and ¹⁹²Os(¹⁴C,4n γ).

From $\alpha(\text{K})_{\text{exp}}$, $\alpha(\text{L})_{\text{exp}}$ and subshell ratios in ²⁰²Pb IT decay and ²⁰²Bi ε decay and the briccmixing program.

@ From ²⁰²Hg(α ,4n γ).

& From ¹⁹⁸Pt(⁹Be,5n γ).

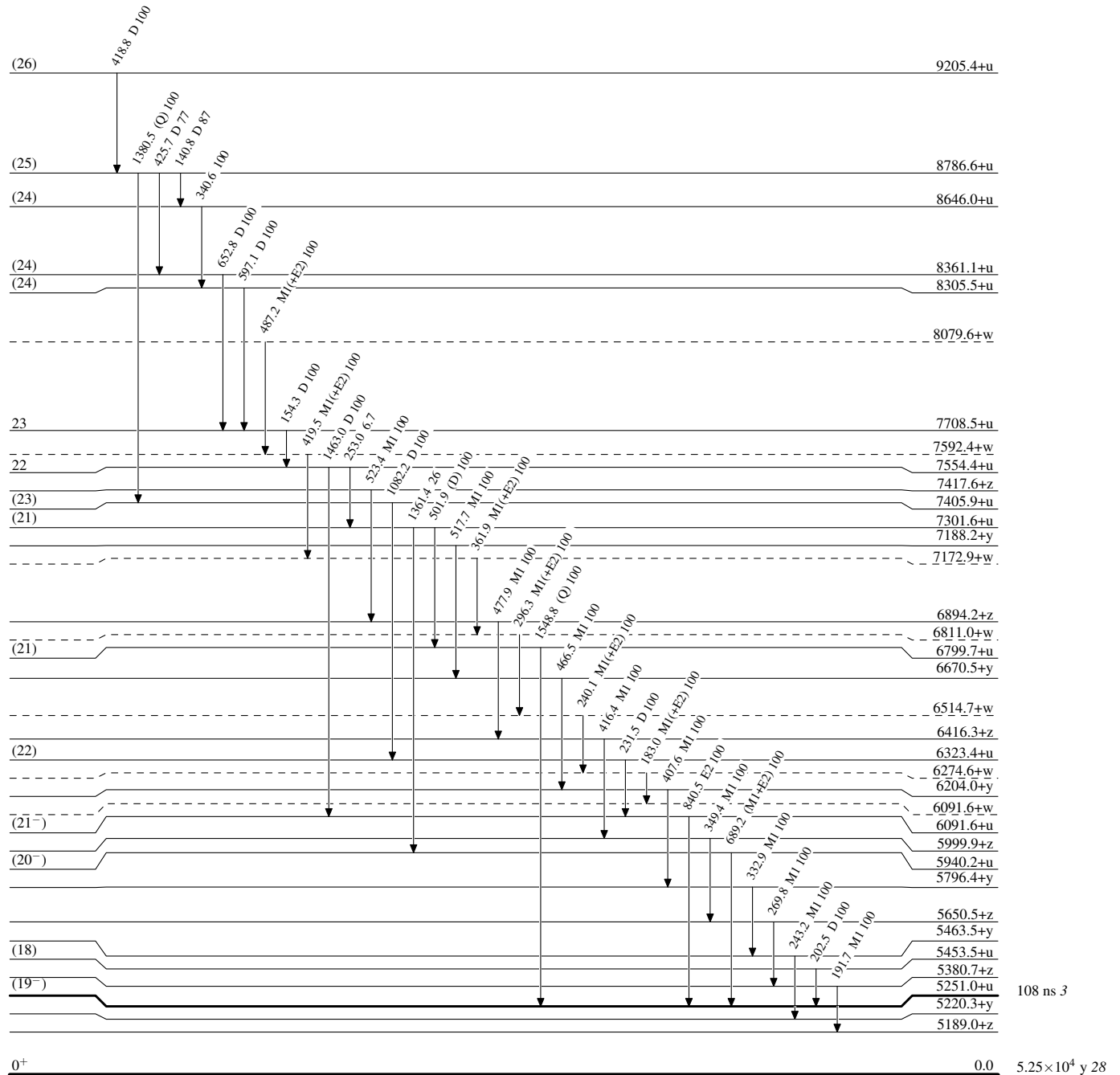
^a From ¹⁹²Os(¹⁴C,4n γ).

^b Additional information 6.

^c Placement of transition in the level scheme is uncertain.

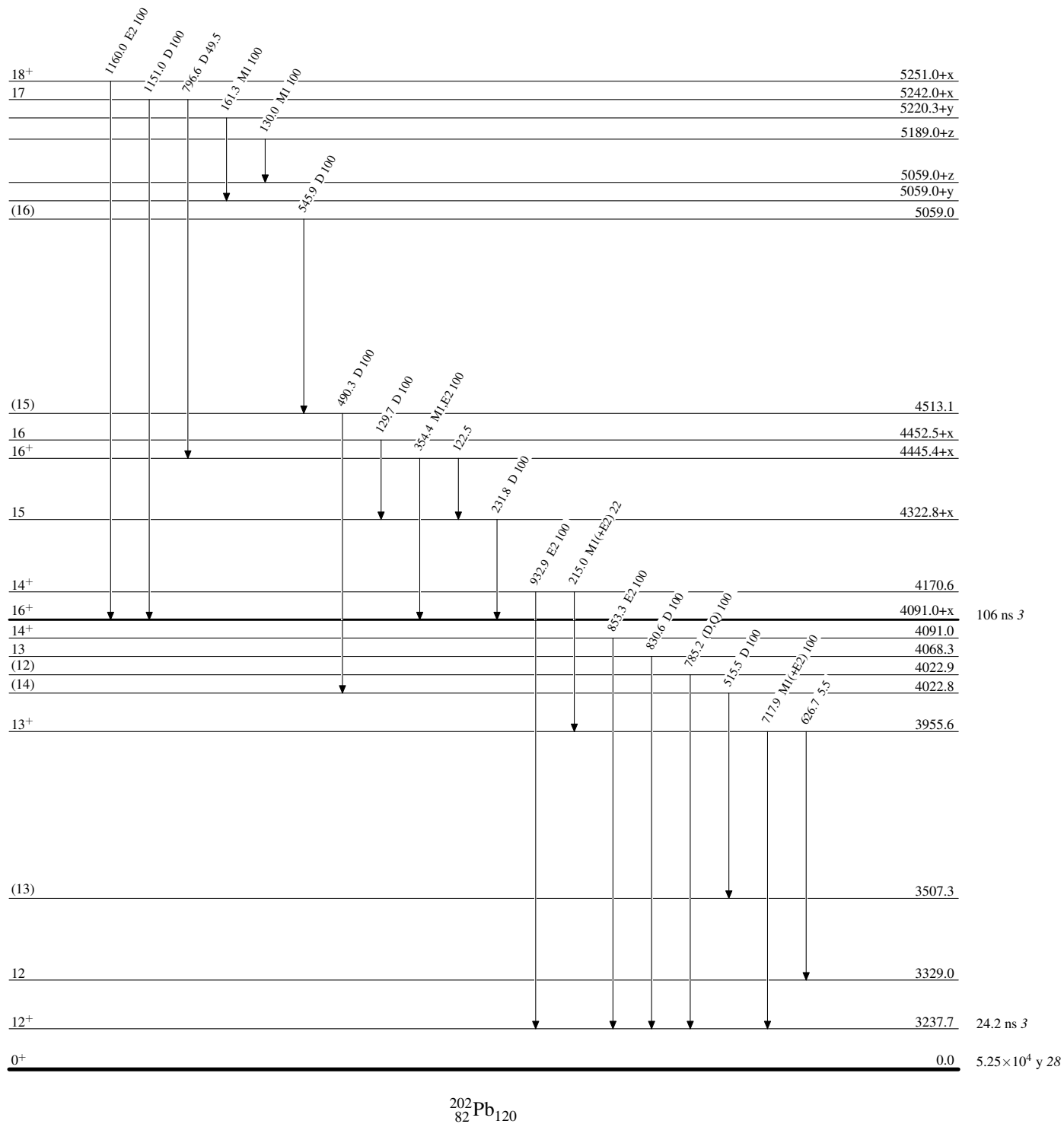
Adopted Levels, GammasLevel Scheme

Intensities: Relative photon branching from each level



Adopted Levels, GammasLevel Scheme (continued)

Intensities: Relative photon branching from each level



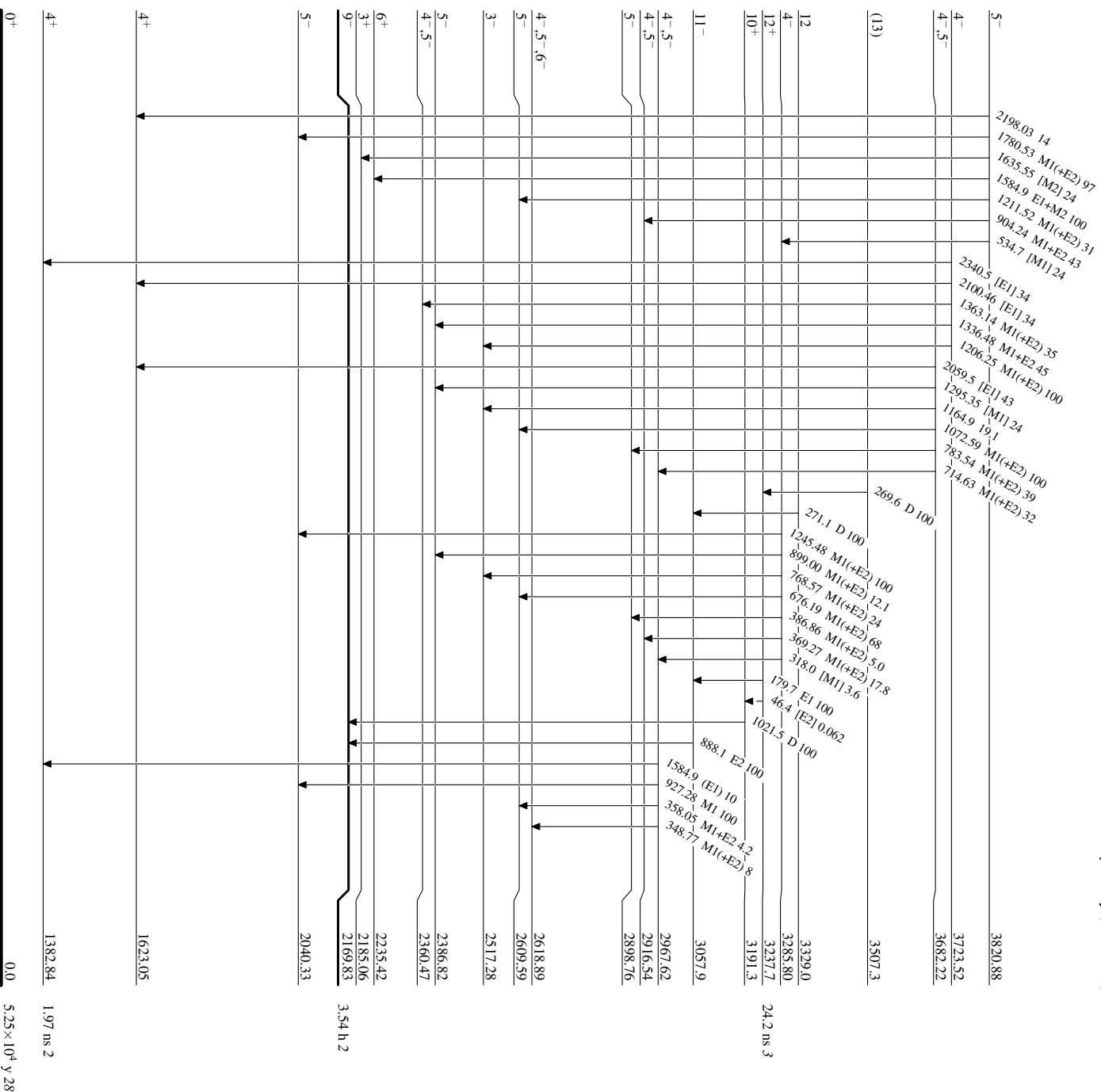
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

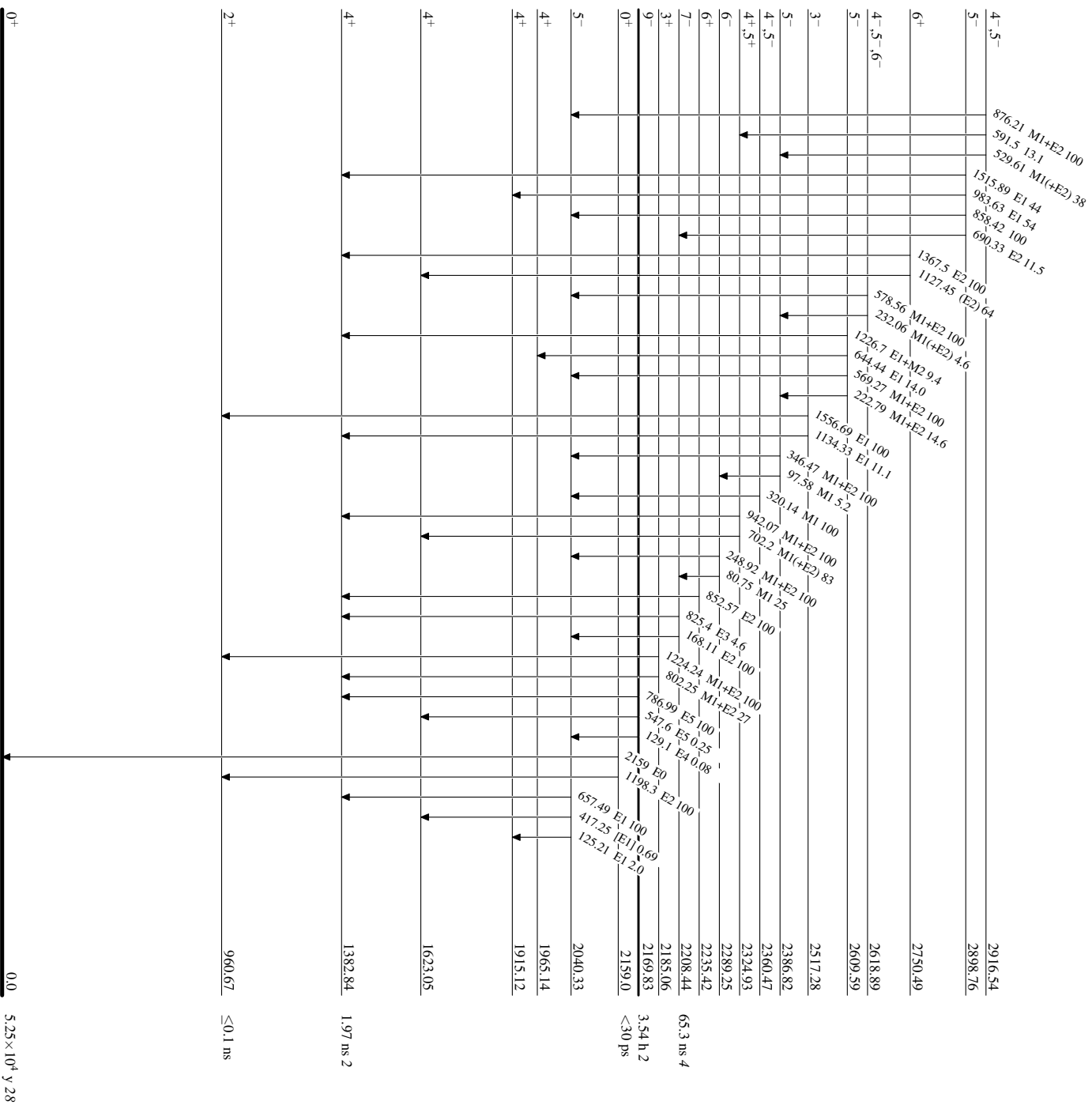
-----> γ Decay (Uncertain)



Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



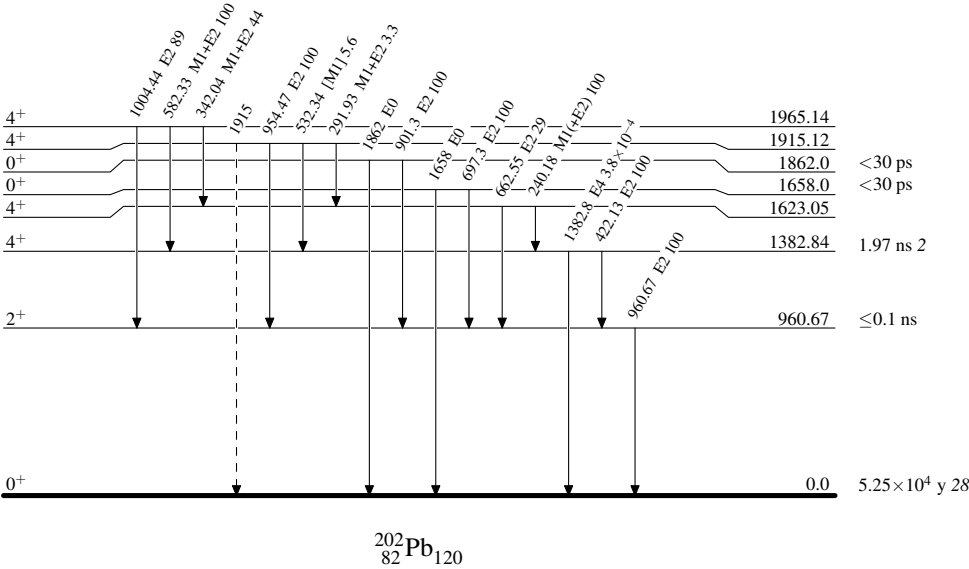
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

-----► γ Decay (Uncertain)



Adopted Levels, Gammas