Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Huang Xiaolong, Zhou Chunmei	NDS 104,283 (2005)	1-Jan-2002

Q(β^-)=−5062 *10*; S(n)=7459 *16*; S(p)=4541 *14*; Q(α)=3889 *17* 2012Wa38
Note: Current evaluation has used the following Q record −5061 107459 15 *4541* 133877 16 2003Au03.

^{197}Pb Levels

Cross Reference (XREF) Flags

A	^{197}Pb IT decay (43 min)	E	^{201}Po α decay (8.9 min)	I	^{198}Hg(^{3}He,4nγ)
B	^{197}Bi ε decay (9.33 min)	F	^{176}Yb(^{26}Mg,5nγ),	J	^{186}W(^{18}O,7nγ):SD
C	^{197}Bi ε decay (5.04 min)	G	^{186}W(^{16}O,5nγ)		
D	^{201}Po α decay (15.3 min)	H	^{186}W(^{18}O,7nγ),^{186}W(^{16}O,5nγ)		

E(level)[†]	J$^\pi$[‡]	$T_{1/2}$[#]	XREF	Comments
0.0	3/2$^-$	8.1 min *17*	ABCD GHI	%ε+%β^+=100 μ=−1.075 *2*(2001StZZ) Q=−0.08 *17*(2001StZZ) J$^\pi$: HF=1.3 from 3/2$^-$ in ^{201}Po α decay (15.3 min). $T_{1/2}$: unweighted average of 10 min *2* (1979Ra04) and 6.2 min *12* (1980Hi04). μ: others: −1.0753 *22* (1989Ra17,1986An06); −1.0753 *22* (^{207}Pb standard, 1989Ra17,1986An06); compared to −1.0742 *12* for ^{199}Pb standard (1989Ra17,1986An06). Q: other: −0.08 *18* (1989Ra17,1986An06); −0.08 *18* (1989Ra17,1986An06); compared to +0.078 *86* for ^{199}Pb standard (1989Ra17,1986An06). Change of mean-square charge radius $\Delta\langle r^2\rangle$=−0.6038 (fm)^2 50 (1986An06), −0.608 (fm)^2 94 (1989MeZZ).
84.88 *7*	5/2$^-$		ABCD GH	J$^\pi$: M4 γ from 13/2$^+$, M1 γ to 3/2$^-$.
319.31[@] *11*	13/2$^+$	42.9 min *9*	ABC E GHI	%IT=19 *2*; %ε+%β^+=81 *2* μ=−1.098 *11*(2001StZZ) Q=+0.38 *2*(2001StZZ) μ: others:−1.1045 *27* (1989Ra17,1986An06); −1.1045 *27* (^{207}Pb standard, 1989Ra17,1986An06), −0.975 *40* (^{205}Pb standard, 1989Ra17), −1.084 *19* or −1.103 *14* (1991Du07). Q: others: +0.47 *34* (1989Ra17,1986An06); +0.47 *34* (1989Ra17,1986An06), +0.378 *19* or +0.51 *13* (1991Du07). Change of mean-square change radius $\Delta\langle r^2\rangle$=−0.5739 (fm)^2 47 (1986An06), −0.575 (fm)^2 4 (relative to ^{208}Pb, 1991Du07). J$^\pi$: HF≈1.5 from 13/2$^+$ in ^{201}Po α decay (8.9 min), M4 γ to 5/2$^-$. $T_{1/2}$: from unweighted average of 44.6 min *9* (1979Ra04), 42 min *2* (1957An53) and 42 min *1* (1980Hi04).
952.04 *11*	7/2$^-$		B	J$^\pi$: M1 γ to 5/2$^-$, E1 γ from 9/2$^+$.
988.95 *10*	3/2$^-$,5/2$^-$		B	J$^\pi$: E2+M1 γ to 3/2$^-$, M1 γ to 5/2$^-$.
1015.34 *22*	(5/2,7/2)$^-$		B	J$^\pi$: γ's to 3/2$^-$ and 5/2$^-$, (5/2,7/2)$^-$ based on intensity from ε decay feeding for ^{197}Bi ε decay.
1079.39 *12*	(7/2,9/2)$^-$		B	J$^\pi$: E2 γ to 5/2$^-$, (7/2,9/2)$^-$ based on intensity from ε decay feeding for ^{197}Bi ε decay.
1089.41 *8*	5/2$^-$		B	J$^\pi$: E2 γ to 5/2$^-$, M1+E2 γ to 3/2$^-$, 5/2$^-$ based on intensity from ε decay feeding for ^{197}Bi ε decay.
1147.49 *13*	11/2$^+$		B	J$^\pi$: E2 γ to 13/2$^+$, E0 component γ from 11/2$^+$, M1+E2 γ from 9/2$^+$.
1164.88 *12*	(9/2)$^-$		B	J$^\pi$: E2 γ to 5/2$^-$, no γ to 3/2$^-$.

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Adopted Levels, Gammas (continued)

^{197}Pb Levels (continued)

E(level)†	Jπ‡	$T_{1/2}$#	XREF	Comments
1166.66 *8*	$(7/2)^-$		B	Jπ: M1 γ to $5/2^-$, E2 γ to $3/2^-$, $(7/2)^-$ based on ε decay feeding intensity from ^{197}Bi ε decay seems to be most probable.
1173.77 *12*	$9/2^+$		B	Jπ: E2 γ to $13/2^+$, feeding intensity from ^{197}Bi ε decay.
1295.12 *14*	$13/2^+$,$15/2^+$		B H	Jπ: M1+E2 γ to $13/2^+$, only $11/2^+$ seems from 1624 and the E0+M1+E2 is to 1147.5.
1325.7@ *24*	$17/2^+$		GHI	Jπ: From γ(θ) and γ-mult (1985Pa22), ΔJ=2 band member.
1401.92 *24*	$15/2^+$		GHI	Jπ: E2(+M1) to $13/2^+$, E2 γ from $19/2^+$.
1430.51 *15*	$13/2^+$		B H	Jπ: E0 component γ to $13/2^+$.
1472.88 *12*	$(7/2)^-$		B	Jπ: M1 γ to $7/2^-$, E2 γ to $5/2^-$, $(7/2)^-$ based on γ intensities.
1495.05 *22*	$3/2^-$,$5/2^-$,$7/2^-$		B	Jπ: M1 γ to $5/2^-$.
1518.79 *12*			B	
1524.55 *12*	$9/2^+$		B	Jπ: E0 component γ to $9/2^+$.
1525.09 *12*	$7/2^+$		B	Jπ: E1 γ to $5/2^-$, γ to $11/2^+$.
1553.85 *18*	$(5/2,7/2)^-$		B	Jπ: E2 γ to $3/2^-$, E2 γ to $7/2^-$, $(5/2,7/2)^-$ based on intensities feeding from ^{197}Bi ε decay.
1571.18 *14*	$^-$		B	Jπ: $11/2^-$ from E1+M2 γ to $13/2^+$, $9/2^-$ from E2+M1 γ to $7/2^-$. Maybe one of 11/2 and 9/2 is correct.
1577.9 *3*	$(9/2)^-$		B	Jπ: E2 γ to $5/2^-$, no γ to $3/2^-$.
1588.02 *17*	$11/2^+$,$13/2^+$,$15/2^+$		B	Jπ: M1 γ to $13/2^+$.
1624.45 *14*	$11/2^+$		B	Jπ: E0 component γ to $11/2^+$.
1633.70 *14*	$11/2^+$,$13/2^+$		B	Jπ: M1 γ to $13/2^+$.
1648.9 *3*	$3/2^-$,$5/2^-$,$7/2^-$		B	Jπ: M1+E2 γ to $5/2^-$.
1675.9 *3*	$5/2^-$		B	Jπ: E0 component γ to $5/2^-$.
1686.6 *6*	$17/2^+$		H	Jπ: From R(DCO), 362 and 1367γ's $17/2^+$ and $13/2^+$, 319 are ΔJ=2 E2 or ΔJ=0 d. Only J(1687)=$17/2^+$ compatible.
1689.1 *3*	$3/2^+$,$5/2^+$,$7/2^+$		B	Jπ: E1 γ to $5/2^-$.
1730.0 *4*			B	
1739.91 *20*	$9/2^+$,$11/2^+$,$13/2^+$		B	Jπ: M1 γ to $11/2^+$.
1748.9 *4*			B	
1770.3 *8*	15/2		H	Jπ: ΔJ=1 d γ to $13/2^+$.
1773.56 *15*	$9/2^+$		B	Jπ: E0 component γ to $9/2^+$.
1850.1 *8*	15/2		H	
1856.55 *25*	$15/2^+$,$17/2^+$,$19/2^+$		GHI	Jπ: M1+E2 γ(θ) to $17/2^+$ and E2 γ(θ) to $15/2^+$ in (HI,xnγ).
1881.9@ *3*	$21/2^+$		GHI	Jπ: E2 γ(θ) to $17/2^+$ in (HI,xnγ), ΔJ=2 band member.
1914.10 *25*	$21/2^-$	1.15 μs *20*	GHI	μ=−0.531 *6*(2001StZZ) Jπ: M2+E3 γ to $17/2^+$, systematics with $21/2^-$ isomers excited in ^{195}Pb and ^{199}Pb at 1756-keV and 2126-keV, respectively. $T_{1/2}$: from γ(t) (1985St16). Others: ≈0.7 μs (1978Ri01), 0.47 μs *7* (1985Pa22,1984AlZA), 1.5 μs *2* (1977He06,1981He07), 1.5 μs (1978SaZE). μ: From g=−0.0506 *6* (1985St16). μ: others: −0.531 *7* (1989Ra17,1985St16).
1922.06 *13*	$(5/2,7/2,9/2)^+$		B	Jπ: E1 γ to $(7/2)^-$.
1946.07 *21*	$11/2^+$		B	Jπ: E0 component γ to $11/2^+$, M1 γ to $9/2^+$.
1985.40 *23*			B	
2024.3 *4*			B	
2059.3 *3*			B	
2064.2 *3*	$21/2^+$		GHI	Jπ: E2 γ(θ) to $17/2^+$ in (HI,xnγ).
2200.54 *21*	$13/2^+$		B	Jπ: E0 component γ to $13/2^+$.
2297.4 *8*	$19/2^+$		H	Jπ: E2 γ to $15/2^+$ and D γ to $17/2^+$.
2301.1 *3*	$(23/2)^-$		GHI	Jπ: M1 γ to $21/2^-$, systematics in ^{199}Pb and ^{195}Pb, weak-coupling model calculations (1985Pa22).
2350.9 *7*	$19/2^+$		H	
2392.7 *3*	$(25/2)^-$		GH	Jπ: M1 γ to $(23/2)^-$, weak-coupling model calculations

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Adopted Levels, Gammas (continued)

^{197}Pb Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	XREF	Comments
				(1985Pa22).
2467.2 *8*	17/2$^+$,21/2$^+$		H	Jπ: E2 γ to 17/2$^+$ and D γ from 21/2$^+$.
2473.6 *3*	(27/2)$^-$		GHI	Jπ: M1 γ to (25/2)$^-$, weak-coupling calculations (1985Pa22).
2653.6 *3*	(25/2)$^+$		GH	Jπ: E2 γ's to 21/2$^+$, weak-coupling calculations (1985Pa22).
2689.8 *7*	21/2$^+$		H	Jπ: E2 γ to 17/2$^+$ and D γ to 21/2$^+$.Feeding of 21/2$^+$,2064, suggests J(2690) can not be less than 21/2.
2691.4 *4*	(23/2)		G	Jπ: γ to 21/2$^+$, γ to 17/2$^+$, systematics analysis.
2724.4 *7*	23/2		H	Jπ: M1 γ from 25/2$^+$.
2851.2 *8*	25/2$^+$		H	Jπ: E2 γ to 21/2$^+$ and D γ to 25/2$^+$. Feeding of 25/2$^+$,2653, suggests J(2851) can not be less than 25/2.
3080.2 *3*	(29/2)$^+$		GHI	Jπ: E1 γ(θ) to (27/2)$^-$ in (HI,xnγ), E2 γ to (25/2)$^+$.
3097.5 *9*	23/2,27/2		H	Jπ: D γ to 25/2$^+$.
3168.9 *3*	(33/2)$^+$	55 ns *5*	GHI	μ=−2.51 *10* (2001StZZ,1989Ra17,1985St16) Jπ: E2 to (29/2)$^+$, weak-coupling model calculations (1985Pa22). $T_{1/2}$: from γ(t) measurement (1985Pa22,1984AlZA,1978Ri01). Others: 75 ns 25 (1986Pa16), 56 ns *8* (from B(E2)(33/2$^+$ to 29/2$^+$)=159.5 *142*, 1986Pa16). μ=−2.51 *10* (1989Ra17,1985St16) from g=−0.152 *6* in ^{198}Hg(^{3}He, 4nγ); compared to −2.508 *50* for ^{199}Pb standard (1989Ra17,1985St16), −2.442 *83* for ^{205}Pb standard (1989Ra17).
3266.2 *11*	23/2,27/2		H	Jπ: d γ to 25/2$^+$.
3283.7[f] *8*	(27/2$^-$)		H	Jπ: 23/2$^-$,27/2$^-$ from E1 γ to 25/2$^+$,2851. (27/2) from similarity to band 1 in ^{199}Pb(1994Ba43).
3313.2 *11*	(29/2$^+$)		H	Jπ: γ(θ) to (25/2)$^+$. (29/2$^+$) from syst of ^{197}Pb,^{199}Pb and ^{201}Pb and weak-coupling model.
3426.5 *11*	29/2		H	Jπ: D γ to 27/2.
3436.3[f] *9*	29/2$^-$	0.76 ps *21*	H	Jπ: M1 γ to (27/2$^-$).
3706.9[f] *9*	31/2$^-$	0.49 ps *13*	H	Jπ: M1 γ to 29/2$^-$,3436.
3756.0 *11*	33/2$^+$		GH	Jπ: E2 γ's to 29/2$^+$.
3768.4 *11*	31/2		H	Jπ: d γ's to 29/2.
4024.5 *13*	31/2		H	Jπ: E2 γ to 27/2.
4058.3 *15*			H	
4066.0 *9*	33/2$^-$	0.42 ps *11*	H	Jπ: M1 γ 31/2$^-$ and E2 γ to 29/2$^-$.
4081.8 *11*	33/2$^+$		H	Jπ: E2 γ to 29/2$^-$.
4182.0 *12*	33/2		H	Jπ: γ to 29/2.
4435.9[f] *9*	35/2$^-$	0.34 ps *11*	H	Jπ: E2 γ to 29/2 and M1 γ 31/2.
4496.9 *12*	35/2		H	Jπ: γ to 31/2 and 33/2.
4581.1 *14*	33/2		H	Jπ: d γ to 31/2.
4677.0 *13*	35/2		H	Jπ: E2 γ to 31/2.
4794.6[g] *11*	37/2$^+$		H	Jπ: E2 γ to 33/2$^+$.
4820.9[f] *9*	37/2$^-$	0.7 ps *4*	H	Jπ: E2 γ to 33/2$^-$ and M1 γ 35/2$^-$.
4907.0[g] *12*	39/2$^+$		H	Jπ: M1 γ 37/2$^+$.
4911.9 *12*	37/2		H	
5058.3[g] *12*	41/2$^+$		H	Jπ: M1 γ 39/2$^+$.
5186.1[f] *9*	39/2$^-$		H	Jπ: E2 γ to 35/2$^-$ and M1 γ 37/2$^-$.
5232.9[h] *13*	39/2$^{(+)}$		H	Jπ: d for γ 37/2.
5258.9[g] *12*	43/2$^+$		H	Jπ: M1 γ 41/2$^+$.
5395.5[h] *13*	41/2$^{(+)}$		H	Jπ: M1 γ 39/2$^{(+)}$.
5479.9[f] *9*	41/2$^-$	0.46 ps *14*	H	Jπ: E2 γ to 37/2$^-$ and M1 γ 39/2$^-$.
5525.6[g] *12*	45/2$^+$		H	Jπ: M1 γ 43/2$^+$.
5614.3[h] *13*	43/2$^{(+)}$		H	Jπ: M1 γ 41/2$^{(+)}$.
5680.8 *9*	41/2		H	

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Adopted Levels, Gammas (continued)

^{197}Pb Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	T$_{1/2}$[#]	XREF	Comments
5707.5[f] *9*	43/2$^-$	0.55 ps *21*	H	J$^{\pi}$: E2 γ to 39/2$^-$ and M1 γ to 41/2$^-$.
5862.3[g] *12*	47/2$^+$	0.118 ps *21*	H	J$^{\pi}$: M1 γ to 45/2$^+$.
5879.0[h] *13*	45/2$^{(+)}$		H	J$^{\pi}$: M1 γ to 43/2$^{(+)}$.
5952.9[f] *10*	45/2$^-$		H	J$^{\pi}$: E2 γ to 41/2$^-$ and M1 γ 43/2$^-$.
5997.4 *9*	43/2$^-$		H	J$^{\pi}$: E2 γ to 39/2$^-$ and d γ to 41/2.
6014.0[i] *11*	43/2$^-$		H	J$^{\pi}$: Magnetic-rotational band based on 43/2−(2001Go06).
6195.6[h] *13*	47/2$^{(+)}$		H	J$^{\pi}$: M1 γ to 45/2$^{(+)}$.
6202.2[i] *10*	45/2$^-$		H	J$^{\pi}$: M1 γ to 43/2$^-$.
6238.1[f] *10*	47/2$^-$	0.277 ps *14*	H	J$^{\pi}$: E2 γ to 43/2$^-$ and M1 γ to 45/2$^-$.
6263.1[j] *10*	45/2$^{(+)}$		H	J$^{\pi}$: (E1) γ to 43/2.
6266.2[g] *12*	49/2$^+$	0.090 ps *+21−14*	H	J$^{\pi}$: E2 γ to 45/2$^+$ and M1 γ to 47/2$^+$.
6408.1[i] *10*	47/2$^-$		H	J$^{\pi}$: M1 γ to 45/2$^-$.
6518.4[j] *10*	47/2$^{(+)}$		H	J$^{\pi}$: M1 γ to 45/2$^{(+)}$.
6558.9[h] *14*	49/2$^{(+)}$		H	J$^{\pi}$: M1 γ to 47/2$^{(+)}$.
6565.3[f] *10*	49/2$^-$	0.201 ps *+21−14*	H	J$^{\pi}$: E2 γ to 45/2$^-$ and M1 γ to 47/2$^-$.
6659.6[i] *10*	49/2$^-$		H	J$^{\pi}$: M1 γ to 47/2$^-$.
6712.3[g] *12*	51/2$^+$	0.111 ps *14*	H	J$^{\pi}$: E2 γ to 47/2$^+$ and M1 γ to 49/2$^+$.
6807.0[j] *11*	49/2$^{(+)}$		H	J$^{\pi}$: M1 γ to 47/2$^{(+)}$.
6904.1[f] *10*	51/2$^-$	0.118 ps *+21−14*	H	J$^{\pi}$: M1 γ to 49/2$^-$ and E2 γ to 47/2$^-$.
6912.7[h] *14*	51/2$^{(+)}$		H	J$^{\pi}$: M1 γ to 49/2$^{(+)}$.
6993.7[i] *10*	51/2$^-$		H	J$^{\pi}$: M1 γ to 49/2$^-$.
7147.7[j] *11*	51/2$^{(+)}$		H	J$^{\pi}$: M1 γ to 49/2$^{(+)}$.
7179.4[g] *12*	53/2$^+$	0.19 ps *4*	H	J$^{\pi}$: E2 γ to 49/2$^+$ and M1 γ to 51/2$^+$.
7257.4[f] *10*	53/2$^-$	0.118 ps *+14−7*	H	J$^{\pi}$: E2 γ to 49/2$^-$ and M1 γ to 51/2$^-$.
7286.5[h] *13*	53/2$^{(+)}$		H	J$^{\pi}$: M1 γ to 51/2$^{(+)}$.
7407.0[i] *10*	53/2$^-$		H	J$^{\pi}$: M1 γ to 51/2$^-$.
7551.3[j] *12*	53/2$^{(+)}$		H	J$^{\pi}$: M1 γ to 51/2$^{(+)}$.
7613.1[g] *12*	55/2$^+$		H	J$^{\pi}$: E2 γ to 51/2$^+$ and M1 γ to 53/2$^+$.
7660.2[f] *10*	55/2$^-$		H	J$^{\pi}$: E2 γ to 51/2$^-$ and M1 γ to 53/2$^-$.
7677.5[h] *13*	55/2$^{(+)}$		H	J$^{\pi}$: M1 γ to 53/2$^{(+)}$.
7859.9[i] *10*	55/2$^-$		H	J$^{\pi}$: E2 γ to 51/2$^-$ and M1 γ to 53/2$^-$.
7984.5[g] *13*	57/2$^+$		H	J$^{\pi}$: M1 γ to 55/2$^+$.
8015.9[j] *12*	55/2$^{(+)}$		H	J$^{\pi}$: E2 γ to 51/2$^{(+)}$ and M1 γ to 53/2$^{(+)}$.
8067.8[h] *14*	57/2$^{(+)}$		H	J$^{\pi}$: M1 γ to 55/2$^{(+)}$.
8120.5[f] *10*	57/2$^-$		H	J$^{\pi}$: E2 γ to 53/2$^-$ and M1 γ to 55/2$^-$.
8353.1[i] *10*	57/2$^-$		H	J$^{\pi}$: E2 γ to 53/2$^-$ and M1 γ to 55/2$^-$.
8372.1[g] *13*	59/2$^+$		H	J$^{\pi}$: M1 γ to 57/2$^+$.
8438.7[h] *16*	59/2$^{(+)}$		H	J$^{\pi}$: M1 γ to 57/2$^{(+)}$.
8520.1[j] *12*	57/2$^{(+)}$		H	J$^{\pi}$: E2 γ to 55/2$^{(+)}$ and M1 γ to 57/2$^{(+)}$.
8635.5[f] *11*	59/2$^-$		H	J$^{\pi}$: E2 γ to 55/2$^-$ and M1 γ to 57/2$^-$.
8794.7[g] *14*	61/2$^+$		H	J$^{\pi}$: M1 γ to 59/2$^+$.
8830.5[h] *17*	61/2$^{(+)}$		H	J$^{\pi}$: M1 γ to 59/2$^{(+)}$.
8878.5[i] *12*	59/2$^-$		H	J$^{\pi}$: M1 γ to 57/2$^-$.
9041.9[j] *15*	59/2$^{(+)}$		H	J$^{\pi}$: M1 γ to 57/2$^{(+)}$.
9198.0[f] *11*	61/2$^-$		H	J$^{\pi}$: E2 γ to 57/2$^-$ and M1 γ to 59/2$^-$.
9246.4[g] *15*	63/2$^+$		H	J$^{\pi}$: M1 γ to 61/2$^+$.
9441.4[i] *13*	61/2$^-$		H	J$^{\pi}$: M1 γ to 59/2$^-$.

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Adopted Levels, Gammas (continued)

^{197}Pb Levels (continued)

E(level)[†]	Jπ[‡]	XREF	Comments
9581.8[j] 17	61/2(+)	H	Jπ: M1 γ to 59/2(+).
9723.5[g] 17	65/2+	H	Jπ: M1 γ to 63/2+.
9793.9[f] 11	63/2−	H	Jπ: E2 γ to 59/2− and M1 γ to 61/2−.
10023.3[i] 15	63/2−	H	Jπ: M1 γ to 61/2−.
10405.5[f] 12	65/2−	H	Jπ: E2 γ to 61/2− and M1 γ to 63/2−.
x[a]	J≈(9/2−)	J	
56.8+x[&] 10	J+1	J	
123.0+x[a] 5	J+2	J	
199.4+x[&] 9	J+3	J	
286.7+x[a] 7	J+4	J	
383.1+x[&] 8	J+5	J	
491.3+x[a] 8	J+6	J	
607.1+x[&] 9	J+7	J	
736.3+x[a] 9	J+8	J	
871.1+x[&] 9	J+9	J	
1022.8+x[a] 9	J+10	J	
1175.4+x[&] 10	J+11	J	
1350.1+x[a] 10	J+12	J	
1519.6+x[&] 11	J+13	J	
1718.7+x[a] 11	J+14	J	
1903.5+x[&] 12	J+15	J	
2128.4+x[a] 12	J+16	J	
2326.8+x[&] 13	J+17	J	
2579.4+x[a] 13	J+18	J	
2789.4+x[&] 14	J+19	J	
3071.3+x[a] 14	J+20	J	
3290.6+x[&] 15	J+21	J	
3603.8+x[a] 15	J+22	J	
3831.0+x[&] 16	J+23	J	
4176.5+x[a] 16	J+24	J	
4409.6+x[&] 17	J+25	J	
4789.8+x[a] 17	J+26	J	
5026.5+x[&] 17	J+27	J	
5442.6+x[a] 18	J+28	J	
5681.0+x[&] 18	J+29	J	
6134.7+x[a] 19	J+30	J	
6373.2+x[&] 19	J+31	J	
6865.9+x[a] 20	J+32	J	
7103.0+x[&] 21	J+33	J	
7635.4+x[a] 22	J+34	J	
7869.8+x[&] 22	J+35	J	
8442.6+x[a] 23	J+36	J	
8672.9+x[&] 24	J+37	J	
y[b]	J1≈(17/2)	J	
200.1+y[b] 8	J1+2	J	
440.9+y[b] 12	J1+4	J	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{197}Pb Levels (continued)

E(level)[†]	Jπ[‡]	XREF	E(level)[†]	Jπ[‡]	XREF
722.2+y[b] *13*	J1+6	J	517.2+u?[d] *10*	J3+4	J
1043.4+y[b] *15*	J1+8	J	839.7+u?[d] *11*	J3+6	J
1404.8+y[b] *16*	J1+10	J	1204.2+u?[d] *13*	J3+8	J
1805.9+y[b] *17*	J1+12	J	1609.9+u?[d] *14*	J3+10	J
2246.4+y[b] *18*	J1+14	J	2055.7+u?[d] *16*	J3+12	J
2725.7+y[b] *19*	J1+16	J	2541.4+u?[d] *17*	J3+14	J
3243.8+y[b] *21*	J1+18	J	3066.5+u?[d] *18*	J3+16	J
3800.8+y[b] *22*	J1+20	J	3629.7+u?[d] *19*	J3+18	J
4395.1+y[b] *23*	J1+22	J	4230.4+u?[d] *20*	J3+20	J
5026.4+y[b] *24*	J1+24	J	4867.1+u?[d] *21*	J3+22	J
5695+y[b] *3*	J1+26	J	5537.2+u?[d] *21*	J3+24	J
6399+y[b] *3*	J1+28	J	6238.7+u?[d] *23*	J3+26	J
z[c]	J2≈(19/2)	J	6971.5+u?[d] *24*	J3+28	J
221.8+z[c] *5*	J2+2	J	v?[e]	J4≈(17/2)	J
483.6+z[c] *7*	J2+4	J	215.8+v?[e] *5*	J4+2	J
785.3+z[c] *9*	J2+6	J	475.4+v?[e] *7*	J4+4	J
1125.9+z[c] *10*	J2+8	J	778.0+v?[e] *9*	J4+6	J
1506.6+z[c] *12*	J2+10	J	1122.6+v?[e] *10*	J4+8	J
1926.0+z[c] *13*	J2+12	J	1508.9+v?[e] *12*	J4+10	J
2384.6+z[c] *14*	J2+14	J	1934.6+v?[e] *13*	J4+12	J
2882.4+z[c] *15*	J2+16	J	2401.5+v?[e] *14*	J4+14	J
3418.0+z[c] *15*	J2+18	J	2907.6+v?[e] *15*	J4+16	J
3991.4+z[c] *16*	J2+20	J	3453.7+v?[e] *16*	J4+18	J
4601.8+z[c] *17*	J2+22	J	4036.9+v?[e] *17*	J4+20	J
5249.9+z[c] *18*	J2+24	J	4656.5+v?[e] *18*	J4+22	J
5934.0+z[c] *19*	J2+26	J	5311.5+v?[e] *18*	J4+24	J
6654.5+z[c] *21*	J2+28	J	5999.0+v?[e] *20*	J4+26	J
u?[d]	J3≈(19/2)	J	6716.7+v?[e] *22*	J4+28	J
237.5+u?[d] *7*	J3+2	J			

[†] For the states connecting γ's the E(level) are from level scheme and a least-squares fit to Eγ's.
[‡] From band structure analysis(see ^{186}W(^{18}O,7nγ):SD),except as noted.
[#] From 2001Co19, except as noted.
[@] Band(A): ΔJ=2 high-spin band corresponding to ^{198}Pb g.s. band.
[&] Band(B): SD band 1 (1996Hi13,2000Bu28,2001Pr06). Configuration=$\nu j_{15/2}$5/2[752], α=−1/2 (2000Bu28). Population intensity ≈0.2% of ^{197}Pb reaction channel (2000Bu28).
[a] Band(b): SD band 2 (1996Hi13,2000Bu28,2001Pr06). Configuration=$\nu j_{15/2}$5/2[752], α=+1/2 (2000Bu28). Population intensity 0.1% of ^{197}Pb reaction channel (2001Pr06).
[b] Band(C): SD band 3 (2001Pr06), α=+1/2. Population intensity=27% *2* of SD band 1, or 0.054% of reaction channel.
[c] Band(c): SD band 4 (2001Pr06), α=−1/2. SD band 3 and SD band 4 bands are possible signature partners. Population intensity=27% *2* of SD band 1, or 0.054% of reaction channel.
[d] Band(D): SD band 5 (2001Pr06). Population intensity=9% *2* of SD band 1, or 0.018% of reaction channel. Very weak band, tentatively assigned to ^{197}Pb.
[e] Band(d): SD band 6 (2001Pr06). SD band 5 and SD band 6 bands are possible signature partners. Population intensity=9% *2* of SD band 1, or 0.018% of reaction channel. Very weak band, tentatively assigned to ^{197}Pb.
[f] Band(E): Magnetic-rotational band 1, based on 27/2−(1995Ba35,2001Go06).

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Adopted Levels, Gammas (continued)

^{197}Pb Levels (continued)

[g] Band(F): Magnetic−rotational band 2, based on 37/2+(1995Ba35,2001Go06).
[h] Band(G): Magnetic-rotational band 3, based on $39/2^{(+)}$(1995Ba35,2001Go06).
[i] Band(H): Magnetic-rotational band 4, based on 43/2−(2001Go06).
[j] Band(I): Magnetic-rotational band 5, based on $45/2^{(+)}$(2001Go06).

Adopted Levels, Gammas (continued)

$\gamma(^{197}Pb)$

All data are from $^{176}Yb(^{26}Mg,5n\gamma)$,$^{154}Sm(^{48}Ca, 5n\gamma)$, except as noted.

E_i(level)	J_i^π	E_γ	I_γ[a]	E_f	J_f^π	Mult.[&]	δ	α[c]	Comments
84.88	$5/2^-$	84.9† *1*	100†	0.0	$3/2^-$	M1†		2.92	α(L)=2.23; α(M)=0.523; α(N+..)=0.171
319.31	$13/2^+$	234.4† *1*	100†	84.88	$5/2^-$	M4†		62.2	B(M4)(W.u.)=2.9 *4* α(K)=22.7 *7*; α(L)=28.4 *9*; α(M)=8.3 *3*; α(N+..)=2.86 *9* Additional information 1.
952.04	$7/2^-$	867.2† *1*	100† *1*	84.88	$5/2^-$	M1†		0.0270	α(K)=0.0221 *7*; α(L)=0.00367 *11*
		952.1† *3*	9.6† *5*	0.0	$3/2^-$	E2†		0.00741	α(K)=0.00586 *18*; α(L)=0.00117 *4*
988.95	$3/2^-$,$5/2^-$	904.5[d]† *3*	11.2[d]† *12*	84.88	$5/2^-$	M1†		0.0242	α(K)=0.0198 *6*; α(L)=0.00329 *10*
		988.9† *1*	100† *2*	0.0	$3/2^-$	E2+M1†		0.013 *7*	α(K)=0.011 *6*; α(L)=0.0018 *8*
1015.34	$(5/2,7/2)^-$	930.5† *3*	96† *12*	84.88	$5/2^-$	†			
		1015.3† *3*	100 *12*	0.0	$3/2^-$	†			
1079.39	$(7/2,9/2)^-$	994.5† *1*	100†	84.88	$5/2^-$	E2†		0.00681	α(K)=0.00540 *17*; α(L)=0.00106 *4*
1089.41	$5/2^-$	1004.5† *1*	100† *2*	84.88	$5/2^-$	E2†		0.00668	α(K)=0.00530 *16*; α(L)=0.00103 *3*
		1089.4† *1*	34† *1*	0.0	$3/2^-$	E2+M1†		0.010 *5*	α(K)=0.008 *4*; α(L)=0.0014 *6*
1147.49	$11/2^+$	828.2† *1*	100†	319.31	$13/2^+$	E2†		0.0098	α(K)=0.00762 *23*; α(L)=0.00163 *5*
1164.88	$(9/2)^-$	1080.0† *1*	100†	84.88	$5/2^-$	E2†		0.00580	α(K)=0.00463 *14*; α(L)=0.00088 *3*
1166.66	$(7/2)^-$	1081.7† *1*	47.3† *11*	84.88	$5/2^-$	M1†		0.0153	α(K)=0.0125 *4*; α(L)=0.00207 *7*
		1166.7† *1*	100† *2*	0.0	$3/2^-$	E2†		0.00500	α(K)=0.00402 *12*; α(L)=0.00074 *2*
1173.77	$9/2^+$	854.5† *1*	100†	319.31	$13/2^+$	E2†		0.0092	α(K)=0.00719 *22*; α(L)=0.00151 *5*
1295.12	$13/2^+$,$15/2^+$	975.7† *1*	100†	319.31	$13/2^+$	E2+M1†		0.013 *7*	α(K)=0.011 *6*; α(L)=0.0019 *8*
1325.7	$17/2^+$	1006.2‡ *1*	100‡	319.31	$13/2^+$	E2‡		0.00665	α(K)=0.00528 *16*; α(L)=0.00103 *3* α(K)exp=0.00529 *60*, α(L1+L2)exp=0.00119 *20*. $\gamma(\theta)$: A_2=+0.122 *52*, A_4=−0.021 *42*.
1401.92	$15/2^+$	1082.3‡ *1*	100‡	319.31	$13/2^+$	E2(+M1)	≥2.7	0.0063 *6*	α(K)=0.0051 *5*; α(L)=0.00094 *8* Additional information 2. α(K)exp=0.00489 *70*, α(L1+L2)exp=0.00114 *30*.
1430.51	$13/2^+$	1111.2† *1*	100†	319.31	$13/2^+$	E0+M1+E2†		≥0.05	α(K)exp=0.0425 *46* α(L)exp=0.0070 *11*.
1472.88	$(7/2)^-$	520.8† *3*	20.3† *14*	952.04	$7/2^-$	M1†		0.102	α(K)=0.0830 *25*; α(L)=0.0140 *5* α(K)exp=0.0948 *53*.
		1388.0† *1*	100† *3*	84.88	$5/2^-$	E2†		0.00361	α(K)=0.00293 *9*; α(L)=0.00051 *2* α(K)exp=0.00201 *65*.
1495.05	$3/2^-$,$5/2^-$,$7/2^-$	405.4† *3*	50† *7*	1089.41	$5/2^-$	M1†		0.197	α(K)=0.161 *5*; α(L)=0.0274 *9*; α(M)=0.00640 *20*;

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$^{197}_{82}Pb_{115}$-8

Adopted Levels, Gammas (continued)

γ(^{197}Pb) (continued)

E_i(level)	J_i^π	E_γ	I_γ[a]	E_f	J_f^π	Mult.[&]	α[c]	Comments
								α(N+..)=0.00208 *7* α(K)exp=0.192 *33* α(L)exp=0.0229 *67*.
1495.05	3/2⁻,5/2⁻,7/2⁻	1410.4† *3*	100† *10*	84.88	5/2⁻	M1†	0.00782	α(K)=0.00642 *20*; α(L)=0.00105 *4* α(K)exp=0.0077 *12*.
1518.79		1433.9† *1*	100†	84.88	5/2⁻			
1524.55	9/2⁺	229.4† *3*	9.2† *11*	1295.12	13/2⁺,15/2⁺			
		350.8† *1*	45.0† *15*	1173.77	9/2⁺	E0+M1+E2†	≥0.6	α(K)exp=0.466 *37* α(L)exp=0.0932 *78*.
		572.5† *1*	100† *2*	952.04	7/2⁻	E1+M2†	0.11 *11*	α(K)=0.09 *9*; α(L)=0.018 *18* α(K)exp=0.0090 *11*.
		1205.2† *3*	12.2† *11*	319.31	13/2⁺			
1525.09	7/2⁺	377.6† *3*	16.2† *19*	1147.49	11/2⁺			
		1440.2† *1*	100† *3*	84.88	5/2⁻	E1†	0.00133	α(K)=0.00111 *4*; α(L)=0.00017 *1* α(K)exp=0.00148 *53*.
1553.85	(5/2,7/2)⁻	601.8† *3*	100† *6*	952.04	7/2⁻	E2†	0.0193	α(K)=0.0142 *5*; α(L)=0.00380 *12* α(K)exp=0.0192 *28*.
		1469.0† *3*	43.1† *62*	84.88	5/2⁻			
		1553.8† *3*	95.4† *62*	0.0	3/2⁻	E2†	0.00238	α(K)=0.00238 *8* α(K)exp=0.00167 *75*.
1571.18	⁻	424.0† *3*	6.9† *12*	1147.49	11/2⁺			
		619.4† *3*	33.5† *12*	952.04	7/2⁻	E2+M1†	0.041 *24*	α(K)=0.033 *20*; α(L)=0.006 *3* α(K)exp=0.0268 *31*.
		1251.8† *1*	100† *2*	319.31	13/2⁺	E1+M2†	0.013 *12*	α(K)=0.011 *10*; α(L)=0.0019 *17* α(K)exp=0.00280 *37*.
1577.9	(9/2)⁻	1493.0† *3*	100†	84.88	5/2⁻	E2†	0.00315	α(K)=0.00256 *8*; α(L)=0.00044 *1* α(K)exp=0.0035 *10*.
1588.02	11/2⁺,13/2⁺,15/2⁺	292.9† *1*	100†	1295.12	13/2⁺,15/2⁺	M1†	0.474	α(K)=0.387 *12*; α(L)=0.0664 *20*; α(M)=0.0156 *5*; α(N+..)=0.00504 *16* α(K)exp=0.44 *14* α(L)exp=0.0536 *68*.
1624.45	11/2⁺	329.5† *3*	20† *2*	1295.12	13/2⁺,15/2⁺			
		450.8† *3*	30† *2*	1173.77	9/2⁺			
		477.0† *3*	7.1† *17*	1147.49	11/2⁺	E0+M1+E2†	≥0.6	α(K)exp=0.57 *20*.
		1305.1† *1*	100† *2*	319.31	13/2⁺	M1+E2†	0.007 *3*	α(K)=0.0055 *23*; α(L)=0.0009 *4* α(K)exp=0.00453 *54*.
1633.70	11/2⁺,13/2⁺	468.9† *3*	10.7† *11*	1164.88	(9/2)⁻			
		486.0† *3*	17† *6*	1147.49	11/2⁺			

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$^{197}_{82}Pb_{115}$-9

Adopted Levels, Gammas (continued)

γ(^{197}Pb) (continued)

E_i(level)	J_i^π	E_γ	I_γ[a]	E_f	J_f^π	Mult.[&]	δ	α[c]	Comments
1633.70	11/2$^+$,13/2$^+$	1314.4† *1*	100† *3*	319.31	13/2$^+$	M1†		0.0093	α(K)=0.00767 *23*; α(L)=0.00126 *4* α(K)exp=0.00643 *65*.
1648.9	3/2$^-$,5/2$^-$,7/2$^-$	559.5† *3*	100†	1089.41	5/2$^-$	M1+E2†		0.05 *3*	α(K)=0.04 *3*; α(L)=0.008 *4* α(K)exp=0.0362 *82*.
1675.9	5/2$^-$	1591.0† *3*	100†	84.88	5/2$^-$	E0+M1+E2†		≥0.02	α(K)exp=0.0163 *34* α(L)exp=0.00461 *72*.
1686.6	17/2$^+$	256.0‡	18‡ *6*	1430.51	13/2$^+$				
		362.0‡	93‡ *21*	1325.7	17/2$^+$	D‡			
		391.7‡	100‡ *19*	1295.12	13/2$^+$,15/2$^+$				
		1367.3‡	43‡ *6*	319.31	13/2$^+$	E2‡			
1689.1	3/2$^+$,5/2$^+$,7/2$^+$	1604.2† *3*	100†	84.88	5/2$^-$	E1†			α(K)exp=0.00070 *30*.
1730.0		741.0† *3*	100†	988.95	3/2$^-$,5/2$^-$				
1739.91	9/2$^+$,11/2$^+$,13/2$^+$	566.2† *2*	100† *6*	1173.77	9/2$^+$				
		592.3† *3*	40.3† *60*	1147.49	11/2$^+$	M1†		0.0724	α(K)=0.0592 *18*; α(L)=0.0099 *3* α(K)exp=0.057 *11*.
1748.9		575.1† *3*	100†	1173.77	9/2$^+$				
1770.3	15/2	1451.0‡	100‡ *18*	319.31	13/2$^+$	D‡			R(DCO)=0.37 *13*.
1773.56	9/2$^+$	600.0† *3*	30.5† *29*	1173.77	9/2$^+$	E0+M1+E2†		≥0.09	α(K)exp=0.085 *14*.
		626.0† *1*	100† *4*	1147.49	11/2$^+$	M1+E2†		0.040 *23*	α(K)=0.032 *19*; α(L)=0.006 *3* α(K)exp=0.0392 *88*.
		1454.6† *3*	25.7† *38*	319.31	13/2$^+$				
1850.1	15/2	1530.8‡	100‡ *18*	319.31	13/2$^+$				R(DCO)=0.29 *12*.
1856.55	15/2$^+$,17/2$^+$,19/2$^+$	454.3‡ *1*	16.3‡ *3*	1401.92	15/2$^+$	E2		0.0375	α(K)=0.0257 *8*; α(L)=0.0089 *3*; α(M)=0.00223 *7*; α(N+..)=0.00072 *2*
		531.6‡ *1*	100‡ *3*	1325.7	17/2$^+$	E2+M1	−1.3 *+2−3*	0.052 *6*	α(K)=0.041 *6*; α(L)=0.0084 *7*
1881.9	21/2$^+$	556.9‡ *1*	100‡	1325.7	17/2$^+$	E2‡		0.0230	α(K)=0.0167 *5*; α(L)=0.00475 *15*
1914.10	21/2$^-$	32.4‡ *1*	6.5‡ *35*	1881.9	21/2$^+$	(E1)		1.96	α(L)=1.48; α(M)=0.358 B(E1)(W.u.)=1.9×10^{-7} *12*
		57.35‡ *10*	100‡ *10*	1856.55	15/2$^+$,17/2$^+$,19/2$^+$	(E1)‡		0.416	α(L)=0.317; α(M)=0.0752; α(N+..)=0.0234 B(E1)(W.u.)=5.4×10^{-7} *13*
		589.0‡ *2*	8.7‡ *55*	1325.7	17/2$^+$	M2+E3‡	1.4 *2*	0.107 *11*	B(M2)(W.u.)=0.00019 *14*; B(E3)(W.u.)=0.6 *5*

From ENSDF

$^{197}_{82}Pb_{115}$-10

Adopted Levels, Gammas (continued)

γ(^{197}Pb) (continued)

E_i(level)	J_i^π	E_γ	I_γ[a]	E_f	J_f^π	Mult.[&]	α[c]	Comments
								α(K)=0.077 *9*; α(L)=0.0227 *11* Additional information 3.
1922.06	(5/2,7/2,9/2)$^+$	755.4† *1*	100†	1166.66	(7/2)$^-$	E1†	0.00423	α(K)=0.00350 *11*; α(L)=0.00054 *2* α(K)exp=0.0032 *10*.
1946.07	11/2$^+$	650.8† *3*	21† *4*	1295.12	13/2$^+$,15/2$^+$	E0+M1+E2†	>0.11	α(K)exp=0.11 *3*.
		772.1† *3*	100† *6*	1173.77	9/2$^+$	M1†	0.0364	α(K)=0.0298 *9*; α(L)=0.00496 *15* α(K)exp=0.0391 *54*.
		1627.1† *3*	77 *6*	319.31	13/2$^+$			
1985.40		818.5† *3*	92† *17*	1166.66	(7/2)$^-$			
		1033.6† *3*	100† *13*	952.04	7/2$^-$			
2024.3		1035.3† *3*	100†	988.95	3/2$^-$,5/2$^-$			
2059.3		969.9† *3*	100†	1089.41	5/2$^-$			
2064.2	21/2$^+$	181.8‡	1.7‡ *5*	1881.9	21/2$^+$			
		376.3‡	7.6‡ *17*	1686.6	17/2$^+$	E2‡	0.0613	α(K)=0.0389 *12*; α(L)=0.0168 *5*; α(M)=0.00425 *13*; α(N+..)=0.00137 *4*
		738.9‡ *2*	100‡	1325.7	17/2$^+$	E2‡	0.0124	α(K)=0.0095 *3*; α(L)=0.00218 *7*
2200.54	13/2$^+$	904.5[d]† *3*	88[d]† *9*	1295.12	13/2$^+$,15/2$^+$	M1†	0.0242	α(K)=0.0198 *6*; α(L)=0.00329 *10* α(K)exp=0.0147 *16*.
		1053.7† *3*	55† *9*	1147.49	11/2$^+$			
		1881.5† *3*	100† *9*	319.31	13/2$^+$	E0+M1+E2†		α(K)exp=0.0058 *11*.
2297.4	19/2$^+$	895.7‡	100‡ *23*	1401.92	15/2$^+$	E2‡		R(DCO)=1.06 *20*.
		972.8‡	91‡ *19*	1325.7	17/2$^+$	D‡		R(DCO)=0.38 *7*.
2301.1	(23/2)$^-$	387.0‡ *1*	100‡	1914.10	21/2$^-$	M1	0.223	α(K)=0.183 *6*; α(L)=0.0310 *10*; α(M)=0.00726 *22*; α(N+..)=0.00235 *7*
2350.9	19/2$^+$	500.8‡	100‡ *19*	1850.1	15/2			R(DCO)=1.05 *23*.
		580.6‡	94‡ *19*	1770.3	15/2			R(DCO)=0.94 *36*.
		949.1‡	88‡ *19*	1401.92	15/2$^+$			R(DCO)=0.93 *20*.
2392.7	(25/2)$^-$	91.6‡ *1*	100‡	2301.1	(23/2)$^-$	M1	12.6	α(K)=10.3 *3*; α(L)=1.79 *6*; α(M)=0.419 *13*; α(N+..)=0.138 *5*
2467.2	17/2$^+$,21/2$^+$	780.6‡	84‡ *16*	1686.6	17/2$^+$	E2‡	0.0111	α(K)=0.0085 *3*; α(L)=0.00189 *6* R(DCO)=0.92 *25*.
		1142.6‡	100‡ *16*	1325.7	17/2$^+$	E2‡	0.00521	α(K)=0.00418 *13*; α(L)=0.00077 *2* R(DCO)=0.91 *13*.
2473.6	(27/2)$^-$	80.9‡ *1*	100‡ *5*	2392.7	(25/2)$^-$	D		
		172.5‡ *2*	38‡ *3*	2301.1	(23/2)$^-$	Q		

From ENSDF

$^{197}_{82}Pb_{115}$-11

Adopted Levels, Gammas (continued)

γ(^{197}Pb) (continued)

E_i(level)	J_i^π	E_γ	I_γ[a]	E_f	J_f^π	Mult.[&]	α[c]	Comments
2653.6	(25/2)$^+$	589.2‡ *2*	100‡ *9*	2064.2	21/2$^+$	E2‡	0.0202	α(K)=0.0148 *5*; α(L)=0.00404 *13*
		772.3‡ *3*	55‡ *9*	1881.9	21/2$^+$	E2‡	0.0113	α(K)=0.0087 *3*; α(L)=0.00194 *6*
2689.8	21/2$^+$	222.5‡	20‡ *9*	2467.2	17/2$^+$,21/2$^+$			R(DCO)=1.09 *34*.
		338.9‡	51‡ *12*	2350.9	19/2$^+$	M1	0.319	α(K)=0.261 *8*; α(L)=0.0445 *14*; α(M)=0.0104 *4*; α(N+..)=0.00337 *11* Mult.: From ^{176}Yb(^{26}Mg,5nγ),^{154}Sm(^{48}Ca,5nγ).
		392.4‡	14‡ *3*	2297.4	19/2$^+$			
		626.8‡	100‡ *9*	2064.2	21/2$^+$	D‡		R(DCO)=0.94 *14*.
		808.6‡	48‡ *6*	1881.9	21/2$^+$	D‡		R(DCO)=1.05 *13*.
		1003.2‡	48‡ *6*	1686.6	17/2$^+$	E2‡	0.00669	α(K)=0.00531 *16*; α(L)=0.00104 *4* R(DCO)=1.00 *13*.
		1365.2‡	9.1‡ *12*	1325.7	17/2$^+$	E2‡	0.00372	α(K)=0.00302 *9*; α(L)=0.00053 *2* R(DCO)=0.98 *16*.
2691.4	(23/2)	627.4‡ *4*	100‡ *11*	2064.2	21/2$^+$			
		809.2‡ *4*	56‡ *11*	1881.9	21/2$^+$			
		1366.3‡ *4*	17‡ *2*	1325.7	17/2$^+$			
2724.4	23/2	34.6‡	100‡	2689.8	21/2$^+$			
2851.2	25/2$^+$	126.9‡	100‡ *13*	2724.4	23/2	M1‡	4.94	α(K)=4.03 *12*; α(L)=0.698 *21*; α(M)=0.164 *5*; α(N+..)=0.0541 *17* R(DCO)=0.49 *7*.
		198.5‡	15‡ *5*	2653.6	(25/2)$^+$	D‡		R(DCO)=1.12 *39*.
		788.2‡	25‡ *5*	2064.2	21/2$^+$	E2‡	0.0108	α(K)=0.0084 *3*; α(L)=0.00185 *6* R(DCO)=0.95 *17*.
		970.0‡	16‡ *3*	1881.9	21/2$^+$	E2‡	0.00715	α(K)=0.00566 *17*; α(L)=0.00112 *4* R(DCO)=0.92 *16*.
3080.2	(29/2)$^+$	426.7‡ *2*	100‡	2653.6	(25/2)$^+$	E2‡	0.0440	α(K)=0.0294 *9*; α(L)=0.0109 *4*; α(M)=0.00275 *9*; α(N+..)=0.00088 *3*
		606.5‡ *1*	13.4‡ *4*	2473.6	(27/2)$^-$	D		
3097.5	23/2,27/2	246.3‡	100‡ *54*	2851.2	25/2$^+$	D‡		R(DCO)=0.63 *15*.
3168.9	(33/2)$^+$	88.7 *1*	100	3080.2	(29/2)$^+$	E2	10.8	B(E2)(W.u.)=2.33 *23* E_γ,I_γ: From ^{186}W(^{16}O,5nγ).
3266.2	23/2,27/2	168.7‡	15‡ *4*	3097.5	23/2,27/2			
		415.0‡	100‡ *41*	2851.2	25/2$^+$	D‡		R(DCO)=0.56 *16*.
3283.7	(27/2$^-$)	186.2‡ *3*	8.2‡ *23*	3097.5	23/2,27/2	E1‡	0.094	α(K)=0.0760 *23*; α(L)=0.0136 *4*; α(M)=0.00318 *10*; α(N+..)=0.00101 *3* α(K)exp=0.24 *19*. R(DCO)=1.02 *27*.
		432.5‡ *2*	100‡ *13*	2851.2	25/2$^+$	E1‡	0.0131	α(K)=0.0108 *4*; α(L)=0.00176 *6*; α(M)=0.00041 *1*; α(N+..)=0.00013

From ENSDF

$^{197}_{82}Pb_{115}$-12

Adopted Levels, Gammas (continued)

γ(^{197}Pb) (continued)

E_i(level)	J_i^π	E_γ	I_γ[a]	E_f	J_f^π	Mult.[&]	α[c]	Comments
								α(K)exp=0.03 *2*. R(DCO)=0.65 *10*.
3313.2	(29/2$^+$)	660.4‡	100‡ *23*	2653.6	(25/2)$^+$	(E2)‡	0.0157	α(K)=0.0118 *4*; α(L)=0.00293 *9* R(DCO)=1.01 *14*.
3426.5	29/2	329.0‡	100‡ *17*	3097.5	23/2,27/2	D‡		R(DCO)=0.54 *17*.
3436.3	29/2$^-$	152.6‡ *2*	100‡ *11*	3283.7	(27/2$^-$)	M1‡	2.92	α(K)=2.38 *8*; α(L)=0.412 *13*; α(M)=0.097 *3*; α(N+..)=0.0319 *10* B(M1)(W.u.)=0.75 *18* DCO=0.64 *9*. α(K)exp=2.0 *8* α(L)exp=0.56 *21*.
3706.9	31/2$^-$	270.5‡ *2*	100‡ *11*	3436.3	29/2$^-$	M1‡	0.590	α(K)=0.482 *15*; α(L)=0.0827 *25*; α(M)=0.0194 *6*; α(N+..)=0.00628 *19* B(M1)(W.u.)=0.37 *6* DCO=0.62 *8*. α(K)exp=0.42 *10*.
3756.0	33/2$^+$	442.4‡ *4* 587.8 676.4	54‡ *15* 62 *10* 100 *17*	3313.2 3168.9 3080.2	(29/2$^+$) (33/2)$^+$ (29/2)$^+$	E2‡	0.04	α(K)=0.0271 *9*; α(L)=0.0097 *3*; α(M)=0.00242 *8*; α(N+..)=0.00078 *2*
3768.4	31/2	342.0‡	100‡ *24*	3426.5	29/2	D‡		R(DCO)=0.57 *19*.
		455.2‡	36‡ *9*	3313.2	(29/2$^+$)	D‡		R(DCO)=0.54 *17*.
4024.5	31/2	758.3‡	100‡ *18*	3266.2	23/2,27/2	E2‡	0.0117	α(K)=0.0090 *3*; α(L)=0.00204 *7* R(DCO)=1.19 *33*.
4058.3		890.1‡	100‡ *16*	3168.9	(33/2)$^+$			
4066.0	33/2$^-$	359.1‡ *2*	100‡ *11*	3706.9	31/2$^-$	M1‡	0.273	α(K)=0.223 *7*; α(L)=0.0380 *12*; α(M)=0.0089 *3*; α(N+..)=0.00288 *9* B(M1)(W.u.)=0.39 *9* DCO=0.68 *9*. α(K)exp=0.14 *11*.
		629.8‡ *3*	5.1‡ *15*	3436.3	29/2$^-$	E2	0.0174	B(E2)(W.u.)=6.1 *20* α(K)=0.0130 *4*; α(L)=0.00334 *10*
4081.8	33/2$^+$	313.3‡	92‡ *27*	3768.4	31/2	D‡		R(DCO)=0.57 *25*.
		768.6‡	100‡ *15*	3313.2	(29/2$^+$)	E2‡	0.0114	α(K)=0.0088 *3*; α(L)=0.00197 *6* R(DCO)=0.95 *17*.
4182.0	33/2	413.6‡	100‡ *24*	3768.4	31/2	D‡		R(DCO)=0.46 *20*.
		755.5‡	82‡ *12*	3426.5	29/2			
4435.9	35/2$^-$	369.8‡ *2*	100‡ *12*	4066.0	33/2$^-$	M1‡	0.252	α(K)=0.206 *7*; α(L)=0.0351 *11*; α(M)=0.00821 *25*; α(N+..)=0.00266 *8* B(M1)(W.u.)=0.36 *9* DCO=0.64 *8*. α(K)exp=0.11 *11*.
		729.0‡ *5*	11‡ *3*	3706.9	31/2$^-$	E2‡	0.0127	α(K)=0.0097 *3*; α(L)=0.00226 *7*

From ENSDF

$^{197}_{82}Pb_{115}$-13

Adopted Levels, Gammas (continued)

$\gamma(^{197}Pb)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ[a]	E_f	J_f^π	Mult.[&]	α[c]	Comments
								B(E2)(W.u.)=3.3 *10* DCO=1.2 *3*.
4496.9	35/2	314.8‡	80‡ *21*	4182.0	33/2	D‡		R(DCO)=0.67 *28*.
		415.1‡	100‡ *38*	4081.8	$33/2^+$	D‡		R(DCO)=0.45 *11*.
		728.7‡	92‡ *13*	3768.4	31/2			R(DCO)=0.73 *15*.
4581.1	33/2	556.6‡	100‡ *50*	4024.5	31/2	D‡		R(DCO)=0.67 *27*.
4677.0	35/2	95.8‡		4581.1	33/2			
		652.4‡	100‡ *32*	4024.5	31/2	E2‡	0.0161	α(K)=0.0121 *4*; α(L)=0.00303 *10* R(DCO)=1.06 *26*.
4794.6	$37/2^+$	117.6‡	37‡ *10*	4677.0	35/2	D‡		R(DCO)=0.58 *28*.
		297.7‡	100‡ *24*	4496.9	35/2	D‡		R(DCO)=0.61 *22*.
		712.6‡	51‡ *15*	4081.8	$33/2^+$	E2‡	0.0134	R(DCO)=1.10 *30*.
		1626.4‡	12‡ *5*	3168.9	$(33/2)^+$			
4820.9	$37/2^-$	385.0‡ *2*	100‡ *12*	4435.9	$35/2^-$	M1‡	0.227	α(K)=0.185 *6*; α(L)=0.0315 *10*; α(M)=0.00736 *22*; α(N+..)=0.00239 *8* B(M1)(W.u.)=0.33 *9* DCO=0.66 *8*. α(K)exp=0.17 *6*.
		754.9‡ *2*	14‡ *3*	4066.0	$33/2^-$	E2‡	0.0118	α(K)=0.0091 *3*; α(L)=0.00206 *7* B(E2)(W.u.)=6.3 *18* DCO=1.3 *3*.
4907.0	$39/2^+$	112.4‡ *2*	100‡ *15*	4794.6	$37/2^+$	M1‡	7.00	α(K)=5.70 *18*; α(L)=0.99 *3*; α(M)=0.232 *7*; α(N+..)=0.0765 *23* DCO=0.63 *9*.
4911.9	37/2	415.0‡ *3*	100‡	4496.9	35/2			
5058.3	$41/2^+$	151.3‡ *2*	100‡ *15*	4907.0	$39/2^+$	M1‡	2.99	α(K)=2.44 *8*; α(L)=0.422 *13*; α(M)=0.099 *3*; α(N+..)=0.0327 *10* B(M1)(W.u.)=1.3 *7* DCO=0.56 *9*. α(K)exp=1.7 *9*.
5186.1	$39/2^-$	365.2‡ *2*	100‡ *12*	4820.9	$37/2^-$	M1‡	0.261	α(K)=0.213 *7*; α(L)=0.0363 *11*; α(M)=0.0085 *3*; α(N+..)=0.00275 *9* B(M1)(W.u.)=0.35 *9* DCO=0.64 *8*. α(K)exp=0.22 *15*.
		750.2‡ *2*	16‡ *4*	4435.9	$35/2^-$	E2‡	0.0120	α(K)=0.0092 *3*; α(L)=0.00209 *7* B(E2)(W.u.)=4.4 *20* DCO=1.1 *3*.
5232.9	$39/2^{(+)}$	321.0‡ *5*	100‡ *43*	4911.9	37/2	D‡		DCO=0.61 *8*.
5258.9	$43/2^+$	200.6‡ *2*	100‡ *13*	5058.3	$41/2^+$	M1‡	1.35	α(K)=1.10 *4*; α(L)=0.190 *6*; α(M)=0.0446 *14*; α(N+..)=0.0146 *5* B(M1)(W.u.)=1.88 *10*

From ENSDF

$^{197}_{82}Pb_{115}$-14

Adopted Levels, Gammas (continued)

γ(^{197}Pb) (continued)

E_i(level)	J_i^π	E_γ	I_γ[a]	E_f	J_f^π	Mult.[&]	α[c]	Comments
								DCO=0.57 *6*. α(K)exp=1.4 *4*.
5395.5	41/2$^{(+)}$	162.7‡ *3*	100‡ *21*	5232.9	39/2$^{(+)}$	M1‡	2.44	α(K)=1.99 *6*; α(L)=0.344 *11*; α(M)=0.0805 *25*; α(N+..)=0.0265 *8* DCO=0.58 *7*.
5479.9	41/2$^-$	293.8‡ *2*	100‡ *14*	5186.1	39/2$^-$	M1‡	0.470	α(K)=0.384 *12*; α(L)=0.0658 *20*; α(M)=0.0154 *5*; α(N+..)=0.00499 *15* B(M1)(W.u.)=0.62 *15* DCO=0.64 *8*. α(K)exp=0.31 *18*.
		659.2‡ *5*	6.3‡ *22*	4820.9	37/2$^-$	E2‡	0.0158	B(E2)(W.u.)=3.7 *16* α(K)=0.0118 *4*; α(L)=0.00295 *9*
5525.6	45/2$^+$	266.7‡ *2*	100‡ *13*	5258.9	43/2$^+$	M1‡	0.613	α(K)=0.501 *15*; α(L)=0.086 *3*; α(M)=0.0202 *6*; α(N+..)=0.00653 *20* B(M1)(W.u.)=0.870 *24* DCO=0.53 *7*. α(K)exp=0.45 *11*.
5614.3	43/2$^{(+)}$	218.8‡ *3*	100‡ *17*	5395.5	41/2$^{(+)}$	M1‡	1.06	α(K)=0.87 *3*; α(L)=0.149 *5*; α(M)=0.0350 *11*; α(N+..)=0.0114 *4* DCO=0.63 *8*.
5680.8	41/2	494.7‡ *2*	100‡ *14*	5186.1	39/2$^-$			
5707.5	43/2$^-$	227.6‡ *2*	100‡ *12*	5479.9	41/2$^-$	M1‡	0.95	α(K)=0.776 *24*; α(L)=0.134 *4*; α(M)=0.0313 *10*; α(N+..)=0.0102 *3* DCO=0.62 *9*. α(K)exp=0.75 *32*.
		521.7‡ *5*	6.1‡ *21*	5186.1	39/2$^-$	E2‡	0.0268	α(K)=0.0191 *6*; α(L)=0.00578 *18*
5862.3	47/2$^+$	336.7‡ *2*	100‡ *12*	5525.6	45/2$^+$	M1‡	0.325	α(K)=0.266 *8*; α(L)=0.0453 *14*; α(M)=0.0106 *4*; α(N+..)=0.00343 *11* B(M1)(W.u.)=1.5 *5* DCO=0.53 *7*. α(K)exp=0.30 *19*.
5879.0	45/2$^{(+)}$	264.7‡ *3*	100‡ *16*	5614.3	43/2$^{(+)}$	M1‡	0.626	α(K)=0.511 *16*; α(L)=0.088 *3*; α(M)=0.0206 *7*; α(N+..)=0.00667 *20* DCO=0.61 *8*.
5952.9	45/2$^-$	245.4‡ *2*	100‡ *15*	5707.5	43/2$^-$	M1‡	0.772	α(K)=0.630 *19*; α(L)=0.108 *4*; α(M)=0.0254 *8*; α(N+..)=0.00824 *25* DCO=0.63 *8*. α(K)exp=0.54 *27*.
		473.2‡ *8*	2.0‡ *9*	5479.9	41/2$^-$	E2‡	0.0339	α(K)=0.0235 *7*; α(L)=0.00782 *24*; α(M)=0.00195 *6*; α(N+..)=0.00063 *2* R(DCO)=0.78 *19*.
5997.4	43/2$^-$	316.5‡ *3*	100‡ *19*	5680.8	41/2	D‡		DCO=0.86 *9*.
		517.7‡ *8*	23‡ *6*	5479.9	41/2$^-$	M1	0.103	α(K)=0.084 *3*; α(L)=0.0142 *5*
		811.3‡ *5*	46‡ *11*	5186.1	39/2$^-$	E2	0.0102	α(K)=0.00793 *24*; α(L)=0.00172 *6*
6195.6	47/2$^{(+)}$	316.6‡ *3*	100‡ *19*	5879.0	45/2$^{(+)}$	M1‡	0.384	α(K)=0.314 *10*; α(L)=0.0536 *16*; α(M)=0.0126 *4*; α(N+..)=0.00406 *13* DCO=0.56 *7*.

From ENSDF

$^{197}_{82}Pb_{115}$-15

Adopted Levels, Gammas (continued)

γ(^{197}Pb) (continued)

E_i(level)	J_i^π	E_γ	I_γ[a]	E_f	J_f^π	Mult.[&]	α[c]	Comments
6202.2	45/2$^-$	188.0‡ *5*	100‡ *20*	6014.0	43/2$^-$	M1‡	1.62	α(K)=1.32 *4*; α(L)=0.228 *7*; α(M)=0.0535 *16*; α(N+..)=0.0175 *6* DCO=0.74 *11*.
		204.7‡ *5*	77‡ *20*	5997.4	43/2$^-$	M1‡	1.28	α(K)=1.04 *4*; α(L)=0.180 *6*; α(M)=0.0421 *13*; α(N+..)=0.0138 *5* DCO=0.49 *8*.
6238.1	47/2$^-$	285.2‡ *2*	100‡ *15*	5952.9	45/2$^-$	M1‡	0.510	α(K)=0.417 *13*; α(L)=0.0714 *22*; α(M)=0.0167 *5*; α(N+..)=0.00542 *17* DCO=0.63 *8*. α(K)exp=0.37 *13*.
		531.0‡ *8*	3.8‡ *18*	5707.5	43/2$^-$	E2‡	0.0257	α(K)=0.0184 *6*; α(L)=0.00548 *17* R(DCO)=0.82 *21*.
6263.1	45/2$^{(+)}$	249.5‡ *8*	20‡ *6*	6014.0	43/2$^-$	(E1)‡	0.0459	α(K)=0.0375 *12*; α(L)=0.00647 *20*; α(M)=0.00151 *5*; α(N+..)=0.00048 *2*
		265.6‡ *3*	100‡ *19*	5997.4	43/2$^-$	(E1)‡	0.0395	α(K)=0.0323 *10*; α(L)=0.00554 *17*; α(M)=0.00129 *4*; α(N+..)=0.00041 *1* DCO=0.74 *9*.
6266.2	49/2$^+$	403.9‡ *2*	100‡ *11*	5862.3	47/2$^+$	M1‡	0.199	α(K)=0.163 *5*; α(L)=0.0277 *9*; α(M)=0.00646 *20*; α(N+..)=0.00210 *7* B(M1)(W.u.)=1.74 *22* DCO=0.56 *7*. α(K)exp=0.10 *7*.
		740.7‡ *8*	2.7‡ *14*	5525.6	45/2$^+$	E2‡	0.0123	α(K)=0.0094 *3*; α(L)=0.00216 *7* R(DCO)=1.1 *5*.
6408.1	47/2$^-$	205.8‡ *3*	100‡ *20*	6202.2	45/2$^-$	M1‡	1.26	α(K)=1.03 *3*; α(L)=0.177 *6*; α(M)=0.0415 *13*; α(N+..)=0.0136 *4* DCO=0.68 *7*.
6518.4	47/2$^{(+)}$	255.3‡ *3*	100‡ *20*	6263.1	45/2$^{(+)}$	M1‡	0.692	α(K)=0.565 *17*; α(L)=0.097 *3*; α(M)=0.0227 *7*; α(N+..)=0.00738 *23* DCO=0.74 *8*.
6558.9	49/2$^{(+)}$	363.3‡ *5*	100‡ *26*	6195.6	47/2$^{(+)}$	M1‡	0.265	α(K)=0.216 *7*; α(L)=0.0368 *11*; α(M)=0.0086 *3*; α(N+..)=0.00279 *9* DCO=0.57 *7*.
6565.3	49/2$^-$	327.2‡ *2*	100‡ *15*	6238.1	47/2$^-$	M1‡	0.351	α(K)=0.287 *9*; α(L)=0.0490 *15*; α(M)=0.0115 *4*; α(N+..)=0.00371 *12* DCO=0.63 *8*. α(K)exp=0.38 *29*.
		612.4‡ *5*	7‡ *3*	5952.9	45/2$^-$	E2‡	0.0185	α(K)=0.0137 *5*; α(L)=0.00362 *11*
6659.6	49/2$^-$	251.4‡ *2*	100‡ *13*	6408.1	47/2$^-$	M1‡	0.722	α(K)=0.589 *18*; α(L)=0.101 *3*; α(M)=0.0237 *8*; α(N+..)=0.00771 *24* DCO=0.67 *7*.
		421.3‡ *5*	37‡ *10*	6238.1	47/2$^-$	M1‡	0.178	α(K)=0.146 *5*; α(L)=0.0247 *8*; α(M)=0.00577 *18*; α(N+..)=0.00187 *6* DCO=0.70 *7*.
6712.3	51/2$^+$	446.1‡ *2*	100‡ *15*	6266.2	49/2$^+$	M1‡	0.153	α(K)=0.125 *4*; α(L)=0.0212 *7*; α(M)=0.00494 *15*; α(N+..)=0.00161 *5* B(M1)(W.u.)=2.4 *12* DCO=0.54 *8*. α(K)exp=0.12 *7*.
		849.9‡ *5*	13‡ *4*	5862.3	47/2$^+$	E2‡	0.0093	α(K)=0.00726 *22*; α(L)=0.00153 *5*

From ENSDF

$^{197}_{82}Pb_{115}$-16

Adopted Levels, Gammas (continued)

$\gamma(^{197}Pb)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ[a]	E_f	J_f^π	Mult.[&]	α[c]	Comments
								B(E2)(W.u.)=27 *15* DCO=1.1 *0.5*.
6807.0	49/2$^{(+)}$	288.6‡ *3*	100‡ *17*	6518.4	47/2$^{(+)}$	M1‡	0.494	α(K)=0.403 *13*; α(L)=0.0691 *21*; α(M)=0.0162 *5*; α(N+..)=0.00525 *16* DCO=0.86 *8*.
6904.1	51/2$^-$	338.9‡ *2*	100‡ *18*	6565.3	49/2$^-$	M1‡	0.319	α(K)=0.261 *8*; α(L)=0.0445 *14*; α(M)=0.0104 *4*; α(N+..)=0.00337 *11* DCO=0.64 *9*. α(K)exp=0.19 *9*.
		666.1‡ *8*	3.8‡ *18*	6238.1	47/2$^-$	E2‡	0.0154	α(K)=0.0116 *4*; α(L)=0.00287 *9*
6912.7	51/2$^{(+)}$	353.8‡ *5*	100‡ *35*	6558.9	49/2$^{(+)}$	M1‡	0.284	α(K)=0.232 *7*; α(L)=0.0396 *12*; α(M)=0.0093 *3*; α(N+..)=0.00300 *9* DCO=0.57 *8*.
6993.7	51/2$^-$	334.1‡ *2*	100‡ *25*	6659.6	49/2$^-$	M1‡	0.332	α(K)=0.271 *9*; α(L)=0.0462 *14*; α(M)=0.0108 *4*; α(N+..)=0.00351 *11* DCO=0.65 *7*.
		428.5‡ *3*	82‡ *10*	6565.3	49/2$^-$	M1‡	0.170	α(K)=0.139 *5*; α(L)=0.0236 *7*; α(M)=0.00551 *17*; α(N+..)=0.00179 *6* DCO=0.83 *12*.
7147.7	51/2$^{(+)}$	340.7‡ *3*	100‡ *16*	6807.0	49/2$^{(+)}$	M1‡	0.315	α(K)=0.257 *8*; α(L)=0.0438 *14*; α(M)=0.0103 *3*; α(N+..)=0.00332 *10* DCO=0.63 *8*.
7179.4	53/2$^+$	467.1‡ *2*	100‡ *17*	6712.3	51/2$^+$	M1‡	0.135	α(K)=0.111 *4*; α(L)=0.0187 *6*; α(M)=0.00437 *14*; α(N+..)=0.00142 *5* B(M1)(W.u.)=1.1 *3* DCO=0.63 *11*.
		913.3‡ *8*	12‡ *5*	6266.2	49/2$^+$	E2‡	0.00805	α(K)=0.00634 *19*; α(L)=0.00129 *4* B(E2)(W.u.)=16 *5* DCO=1.3 *0.5*.
7257.4	53/2$^-$	353.3‡ *2*	100‡ *15*	6904.1	51/2$^-$	M1‡	0.285	α(K)=0.233 *7*; α(L)=0.0397 *12*; α(M)=0.0093 *3*; α(N+..)=0.00301 *9* DCO=0.63 *9*. α(K)exp=0.26 *15*.
		692.1‡ *8*	3.7‡ *17*	6565.3	49/2$^-$	E2‡	0.0142	α(K)=0.0108 *4*; α(L)=0.00259 *8*
7286.5	53/2$^{(+)}$	373.9‡ *8*	100‡ *47*	6912.7	51/2$^{(+)}$	M1‡	0.245	α(K)=0.200 *6*; α(L)=0.0341 *11*; α(M)=0.00797 *24*; α(N+..)=0.00258 *8* DCO=0.52 *11*.
7407.0	53/2$^-$	413.2‡ *2*	100‡ *20*	6993.7	51/2$^-$	M1‡	0.187	α(K)=0.153 *5*; α(L)=0.0260 *8*; α(M)=0.00608 *19*; α(N+..)=0.00197 *6* DCO=0.78 *8*.
		503.2‡ *5*	14‡ *3*	6904.1	51/2$^-$	M1‡	0.111	α(K)=0.091 *3*; α(L)=0.0153 *5*
7551.3	53/2$^{(+)}$	403.6‡ *3*	100‡ *19*	7147.7	51/2$^{(+)}$	M1‡	0.200	α(K)=0.163 *5*; α(L)=0.0277 *9*; α(M)=0.00648 *20*; α(N+..)=0.00210 *7* DCO=0.64 *9*.
7613.1	55/2$^+$	433.7‡ *2*	100‡ *14*	7179.4	53/2$^+$	M1‡	0.165	α(K)=0.135 *4*; α(L)=0.0228 *7*; α(M)=0.00533 *16*; α(N+..)=0.00173 *6* DCO=0.58 *8*.
		900.6‡ *8*	8‡ *4*	6712.3	51/2$^+$	E2‡	0.00828	α(K)=0.00651 *20*; α(L)=0.00133 *4* R(DCO)=0.85 *32*.

From ENSDF

$^{197}_{82}Pb_{115}$-17

Adopted Levels, Gammas (continued)

γ(^{197}Pb) (continued)

E_i(level)	J_i^π	E_γ	I_γ[a]	E_f	J_f^π	Mult.[&]	α[c]	Comments
7660.2	55/2$^-$	402.8‡ *2*	100‡ *14*	7257.4	53/2$^-$	M1‡	0.201	α(K)=0.164 *5*; α(L)=0.0279 *9*; α(M)=0.00651 *20*; α(N+..)=0.00211 *7* DCO=0.63 *10*.
		756.0‡ *8*	6‡ *3*	6904.1	51/2$^-$	E2‡	0.0118	α(K)=0.0091 *3*; α(L)=0.00205 *7*
7677.5	55/2$^{(+)}$	391.1‡ *5*	100‡ *33*	7286.5	53/2$^{(+)}$	M1‡	0.217	α(K)=0.178 *6*; α(L)=0.0302 *9*; α(M)=0.00705 *22*; α(N+..)=0.00229 *7* I_γ: Combined for 390.2+391.1+391.8 DCO=0.59 *9* for 390.2+391.1+391.8.
		498.1‡ *5*	86‡ *28*	7179.4	53/2$^+$	(M1)‡	0.114	α(K)=0.093 *3*; α(L)=0.0157 *5*; α(M)=0.00368 *11*; α(N+..)=0.00120 *4* DCO=0.49 *11*.
7859.9	55/2$^-$	452.9‡ *2*	100‡ *17*	7407.0	53/2$^-$	M1‡	0.147	α(K)=0.120 *4*; α(L)=0.0203 *6*; α(M)=0.00475 *15*; α(N+..)=0.00155 *5* DCO=0.81 *12*.
		866.1‡ *8*	13‡ *4*	6993.7	51/2$^-$	E2‡	0.0090	α(K)=0.00700 *21*; α(L)=0.00146 *5*
7984.5	57/2$^+$	371.4‡ *2*	100‡ *24*	7613.1	55/2$^+$	M1‡	0.249	α(K)=0.204 *7*; α(L)=0.0347 *11*; α(M)=0.00812 *25*; α(N+..)=0.00263 *8* B(M1)(W.u.)=1.4 *5* DCO=0.59 *6*.
8015.9	55/2$^{(+)}$	464.6‡ *3*	100‡ *19*	7551.3	53/2$^{(+)}$	M1‡	0.137	α(K)=0.112 *4*; α(L)=0.0190 *6*; α(M)=0.00443 *14*; α(N+..)=0.00144 *5* DCO=0.64 *9*.
		868.2‡ *8*	6.4‡ *24*	7147.7	51/2$^{(+)}$	E2‡	0.0089	α(K)=0.00697 *21*; α(L)=0.00146 *5*
8067.8	57/2$^{(+)}$	390.2‡ *5*	100‡ *33*	7677.5	55/2$^{(+)}$	M1‡	0.219	α(K)=0.179 *6*; α(L)=0.0304 *10*; α(M)=0.00710 *22*; α(N+..)=0.00230 *7* I_γ: Combined for 390.2+391.1+391.8 $ DCO=0.59 *9* for 390.2+391.1+391.8.
8120.5	57/2$^-$	460.3‡ *2*	100‡ *17*	7660.2	55/2$^-$	M1‡	0.141	α(K)=0.115 *4*; α(L)=0.0194 *6*; α(M)=0.00454 *14*; α(N+..)=0.00148 *5* DCO=0.65 *11*.
		862.8‡ *8*	8‡ *4*	7257.4	53/2$^-$	E2‡	0.0090	α(K)=0.00705 *22*; α(L)=0.00148 *5*
8353.1	57/2$^-$	493.2‡ *3*	100‡ *15*	7859.9	55/2$^-$	M1‡	0.117	α(K)=0.096 *3*; α(L)=0.0162 *5*; α(M)=0.00378 *12*; α(N+..)=0.00123 *4* DCO=0.85 *12*.
		946.1‡ *8*	19‡ *7*	7407.0	53/2$^-$	E2‡	0.00751	α(K)=0.00593 *18*; α(L)=0.00119 *4*
8372.1	59/2$^+$	387.6‡ *3*	100‡ *20*	7984.5	57/2$^+$	M1‡	0.222	α(K)=0.182 *6*; α(L)=0.0309 *10*; α(M)=0.00723 *22*; α(N+..)=0.00234 *7* DCO=0.62 *7*.
8438.7	59/2$^{(+)}$	371.0‡ *8*	100‡ *42*	8067.8	57/2$^{(+)}$	M1‡	0.250	α(K)=0.205 *7*; α(L)=0.0348 *11*; α(M)=0.00814 *25*; α(N+..)=0.00264 *8* DCO=0.65 *11*.
8520.1	57/2$^{(+)}$	504.2‡ *5*	100‡ *26*	8015.9	55/2$^{(+)}$	M1‡	0.111	α(K)=0.090 *3*; α(L)=0.0152 *5* DCO=0.67 *12*.
		968.8‡ *8*	28‡ *10*	7551.3	53/2$^{(+)}$	E2‡	0.00717	α(K)=0.00567 *17*; α(L)=0.00112 *4*
8635.5	59/2$^-$	515.1‡ *3*	100‡ *19*	8120.5	57/2$^-$	M1‡	0.105	α(K)=0.085 *3*; α(L)=0.0144 *5* DCO=0.69 *12*.
		975.1‡ *8*	28‡ *11*	7660.2	55/2$^-$	E2‡	0.00707	α(K)=0.00560 *17*; α(L)=0.00111 *4* DCO=0.93 *18*.
8794.7	61/2$^+$	422.6‡ *5*	100‡ *25*	8372.1	59/2$^+$	M1‡	0.177	α(K)=0.144 *5*; α(L)=0.0245 *8*; α(M)=0.00572 *18*; α(N+..)=0.00186 *6* DCO=0.48 *7*.

From ENSDF

$^{197}_{82}Pb_{115}$-18

Adopted Levels, Gammas (continued)

$\gamma(^{197}Pb)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ[a]	E_f	J_f^π	Mult.[&]	α[c]	$I_{(\gamma+ce)}$	Comments
8830.5	61/2(+)	391.8‡ *5*	100‡ *33*	8438.7	59/2(+)	M1‡	0.216		α(K)=0.177 *6*; α(L)=0.0300 *9*; α(M)=0.00702 *21*; α(N+..)=0.00228 *7* I_γ: Combined for 390.2+391.1+391.8 $ DCO=0.59 *9* for 390.2+391.1+391.8.
8878.5	59/2−	525.4‡ *5*	100‡ *21*	8353.1	57/2−	M1‡	0.099		α(K)=0.0811 *25*; α(L)=0.0136 *4* DCO=0.85 *13*.
9041.9	59/2(+)	521.8‡ *8*	100‡ *47*	8520.1	57/2(+)	M1‡	0.101		α(K)=0.0826 *25*; α(L)=0.0139 *5* DCO=0.57 *13*.
9198.0	61/2−	562.6‡ *5*	100‡ *21*	8635.5	59/2−	M1‡	0.0829		α(K)=0.0677 *21*; α(L)=0.0114 *4* DCO=0.68 *9*.
		1077.4‡ *8*	31‡ *13*	8120.5	57/2−	E2‡	0.00583		α(K)=0.00466 *14*; α(L)=0.00088 *3*
9246.4	63/2+	451.7‡ *5*	100‡ *31*	8794.7	61/2+	M1‡	0.148		α(K)=0.121 *4*; α(L)=0.0205 *7*; α(M)=0.00478 *15*; α(N+..)=0.00156 *5* DCO=0.66 *12*.
9441.4	61/2−	562.9‡ *5*	100‡ *33*	8878.5	59/2−	M1‡	0.0828		α(K)=0.0676 *21*; α(L)=0.0114 *4* DCO=0.74 *13*.
9581.8	61/2(+)	539.9‡ *8*	100‡ *57*	9041.9	59/2(+)	M1‡	0.092		α(K)=0.0755 *23*; α(L)=0.0127 *4* DCO=0.56 *13*.
9723.5	65/2+	477.1‡ *8*	100‡ *39*	9246.4	63/2+	M1‡	0.128		α(K)=0.105 *4*; α(L)=0.0177 *6*; α(M)=0.00413 *13*; α(N+..)=0.00135 *4* DCO=0.63 *12*.
9793.9	63/2−	596.0‡ *3*	100‡ *27*	9198.0	61/2−	M1‡	0.0712		α(K)=0.0582 *18*; α(L)=0.0098 *3*
		1158.1‡ *8*	12‡ *8*	8635.5	59/2−	E2‡	0.00507		α(K)=0.00408 *13*; α(L)=0.00075 *2*
10023.3	63/2−	581.9‡ *8*	100‡ *39*	9441.4	61/2−	M1‡	0.0758		α(K)=0.0620 *19*; α(L)=0.0104 *4*
10405.5	65/2−	611.7‡ *5*	100‡ *33*	9793.9	63/2−	M1‡	0.0666		α(K)=0.0544 *17*; α(L)=0.0091 *3*
		1207.4‡ *8*	17‡ *9*	9198.0	61/2−	E2‡	0.00469		α(K)=0.00378 *12*; α(L)=0.00069 *2*
123.0+x	J+2	123.0[@e] *5*		x	J≈(9/2−)				
199.4+x	J+3	142.6[@e] *5*		56.8+x	J+1				
286.7+x	J+4	163.7 *5*		123.0+x	J+2	Q			
383.1+x	J+5	96.4[@] *4*		286.7+x	J+4				
		183.7 *4*		199.4+x	J+3	Q		0.54 *10*	
491.3+x	J+6	108.5 *4*		383.1+x	J+5	(D)			
		204.6 *4*		286.7+x	J+4	Q		0.71 *8*	
607.1+x	J+7	115.8 *5*		491.3+x	J+6	(D)			
		223.8 *5*		383.1+x	J+5	Q		0.94 *8*	
736.3+x	J+8	129.0 *4*		607.1+x	J+7	(D)			
		245.2 *5*		491.3+x	J+6	Q		0.95 *9*	
871.1+x	J+9	134.8[@] *5*		736.3+x	J+8				

From ENSDF

$^{197}_{82}Pb_{115}$-19

Adopted Levels, Gammas (continued)

$\gamma(^{197}Pb)$ (continued)

E_i(level)	J_i^π	E_γ	E_f	J_f^π	Mult.[&]	$I_{(\gamma+ce)}$
871.1+x	J+9	264.0 *5*	607.1+x	J+7	Q	0.95 *9*
1022.8+x	J+10	151.9[#] *6*	871.1+x	J+9		*b*
		286.4 *5*	736.3+x	J+8	Q	0.89 *6*
1175.4+x	J+11	152.6[#] *6*	1022.8+x	J+10		*b*
		304.3 *5*	871.1+x	J+9	Q	0.96 *6*
1350.1+x	J+12	174.6[@] *5*	1175.4+x	J+11		
		327.3 *5*	1022.8+x	J+10	Q	1.00 *6*
1519.6+x	J+13	344.2 *5*	1175.4+x	J+11	Q	0.95 *6*
1718.7+x	J+14	368.6 *5*	1350.1+x	J+12	Q	0.57 *5*
1903.5+x	J+15	383.9 *5*	1519.6+x	J+13	Q	0.91 *7*
2128.4+x	J+16	409.7 *5*	1718.7+x	J+14	Q	0.47 *5*
2326.8+x	J+17	423.3 *5*	1903.5+x	J+15	Q	1.00 *7*
2579.4+x	J+18	451.0 *5*	2128.4+x	J+16	Q	0.24 *4*
2789.4+x	J+19	462.6 *5*	2326.8+x	J+17	Q	0.84 *6*
3071.3+x	J+20	491.9 *5*	2579.4+x	J+18	Q	0.31 *5*
3290.6+x	J+21	501.2 *5*	2789.4+x	J+19	Q	0.71 *5*
3603.8+x	J+22	532.5 *5*	3071.3+x	J+20	Q	0.25 *4*
3831.0+x	J+23	540.4 *5*	3290.6+x	J+21	Q	0.65 *4*
4176.5+x	J+24	572.7 *5*	3603.8+x	J+22	Q	0.24 *4*
4409.6+x	J+25	578.6 *5*	3831.0+x	J+23	Q	0.64 *4*
4789.8+x	J+26	613.3 *6*	4176.5+x	J+24	Q	0.33 *4*
5026.5+x	J+27	616.9 *5*	4409.6+x	J+25	Q	0.54 *4*
5442.6+x	J+28	652.8 *6*	4789.8+x	J+26	Q	0.26 *4*
5681.0+x	J+29	654.5 *6*	5026.5+x	J+27	Q	0.46 *4*
6134.7+x	J+30	692.1 *6*	5442.6+x	J+28	Q	0.12 *2*
6373.2+x	J+31	692.2[@] *6*	5681.0+x	J+29		0.35 *4*
6865.9+x	J+32	731.2[@] *7*	6134.7+x	J+30		0.09 *5*
7103.0+x	J+33	729.8[@] *7*	6373.2+x	J+31		0.24 *3*
7635.4+x	J+34	769.5[@] *8*	6865.9+x	J+32		0.06 *4*
7869.8+x	J+35	766.8[@] *8*	7103.0+x	J+33		0.14 *2*
8442.6+x	J+36	807.2[@] *8*	7635.4+x	J+34		0.15 *4*
8672.9+x	J+37	803.1[@] *10*	7869.8+x	J+35		0.10 *2*
200.1+y	J1+2	200.1 *8*	y	J1≈(17/2)		
440.9+y	J1+4	240.8 *8*	200.1+y	J1+2		
722.2+y	J1+6	281.3 *6*	440.9+y	J1+4		
1043.4+y	J1+8	321.2 *6*	722.2+y	J1+6		
1404.8+y	J1+10	361.4 *6*	1043.4+y	J1+8		
1805.9+y	J1+12	401.1 *6*	1404.8+y	J1+10		
2246.4+y	J1+14	440.5 *7*	1805.9+y	J1+12		

From ENSDF

$^{197}_{82}Pb_{115}$-20

Adopted Levels, Gammas (continued)

γ(^{197}Pb) (continued)

E_i(level)	J_i^π	E_γ	E_f	J_f^π	E_i(level)	J_i^π	E_γ	E_f	J_f^π
2725.7+y	J1+16	479.3 *6*	2246.4+y	J1+14	1609.9+u?	J3+10	405.7 *6*	1204.2+u?	J3+8
3243.8+y	J1+18	518.1 *7*	2725.7+y	J1+16	2055.7+u?	J3+12	445.8 *6*	1609.9+u?	J3+10
3800.8+y	J1+20	557.0 *8*	3243.8+y	J1+18	2541.4+u?	J3+14	485.7 *6*	2055.7+u?	J3+12
4395.1+y	J1+22	594.3 *7*	3800.8+y	J1+20	3066.5+u?	J3+16	525.1 *6*	2541.4+u?	J3+14
5026.4+y	J1+24	631.3 *7*	4395.1+y	J1+22	3629.7+u?	J3+18	563.2 *6*	3066.5+u?	J3+16
5695+y	J1+26	668.3 *8*	5026.4+y	J1+24	4230.4+u?	J3+20	600.7 *6*	3629.7+u?	J3+18
6399+y	J1+28	704.7 *13*	5695+y	J1+26	4867.1+u?	J3+22	636.7 *6*	4230.4+u?	J3+20
221.8+z	J2+2	221.8 *5*	z	J2≈(19/2)	5537.2+u?	J3+24	670.1 *6*	4867.1+u?	J3+22
483.6+z	J2+4	261.8 *5*	221.8+z	J2+2	6238.7+u?	J3+26	701.5 *7*	5537.2+u?	J3+24
785.3+z	J2+6	301.7 *5*	483.6+z	J2+4	6971.5+u?	J3+28	732.8 *9*	6238.7+u?	J3+26
1125.9+z	J2+8	340.6 *5*	785.3+z	J2+6	215.8+v?	J4+2	215.8 *5*	v?	J4≈(17/2)
1506.6+z	J2+10	380.7 *5*	1125.9+z	J2+8	475.4+v?	J4+4	259.6 *5*	215.8+v?	J4+2
1926.0+z	J2+12	419.4 *5*	1506.6+z	J2+10	778.0+v?	J4+6	302.6 *5*	475.4+v?	J4+4
2384.6+z	J2+14	458.6 *5*	1926.0+z	J2+12	1122.6+v?	J4+8	344.6 *5*	778.0+v?	J4+6
2882.4+z	J2+16	497.8 *5*	2384.6+z	J2+14	1508.9+v?	J4+10	386.3 *5*	1122.6+v?	J4+8
3418.0+z	J2+18	535.6 *5*	2882.4+z	J2+16	1934.6+v?	J4+12	425.7 *5*	1508.9+v?	J4+10
3991.4+z	J2+20	573.4 *5*	3418.0+z	J2+18	2401.5+v?	J4+14	466.9 *6*	1934.6+v?	J4+12
4601.8+z	J2+22	610.4 *5*	3991.4+z	J2+20	2907.6+v?	J4+16	506.2 *6*	2401.5+v?	J4+14
5249.9+z	J2+24	648.1 *5*	4601.8+z	J2+22	3453.7+v?	J4+18	546.1 *5*	2907.6+v?	J4+16
5934.0+z	J2+26	684.1 *6*	5249.9+z	J2+24	4036.9+v?	J4+20	583.2 *5*	3453.7+v?	J4+18
6654.5+z	J2+28	720.5 *10*	5934.0+z	J2+26	4656.5+v?	J4+22	619.6 *5*	4036.9+v?	J4+20
237.5+u?	J3+2	237.5 *7*	u?	J3≈(19/2)	5311.5+v?	J4+24	655.0 *5*	4656.5+v?	J4+22
517.2+u?	J3+4	279.7 *6*	237.5+u?	J3+2	5999.0+v?	J4+26	687.5 *7*	5311.5+v?	J4+24
839.7+u?	J3+6	322.5 *6*	517.2+u?	J3+4	6716.7+v?	J4+28	717.7 *9*	5999.0+v?	J4+26
1204.2+u?	J3+8	364.5 *6*	839.7+u?	J3+6					

† From ^{197}Bi ε decay (9.33 min).
‡ From ^{186}W(^{18}O,7nγ),^{186}W(^{16}O,5nγ).
# Contaminated line in ^{186}W(^{18}O,7nγ):SD.
@ Very weak line in ^{186}W(^{18}O,7nγ):SD.
& For SD band transitions, mult=Q (likely to be E2)is from ΔJ=2 implied from R(DCO), and mult=d is from ΔJ=1 implied by R(DCO).
[a] Relative branching from each level.
[b] Relative intensity within each SD band, values are from Figure 1 of 1996Hi13.
[c] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with "Frozen Orbitals" approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.
[d] Multiply placed with undivided intensity.
[e] Placement of transition in the level scheme is uncertain.

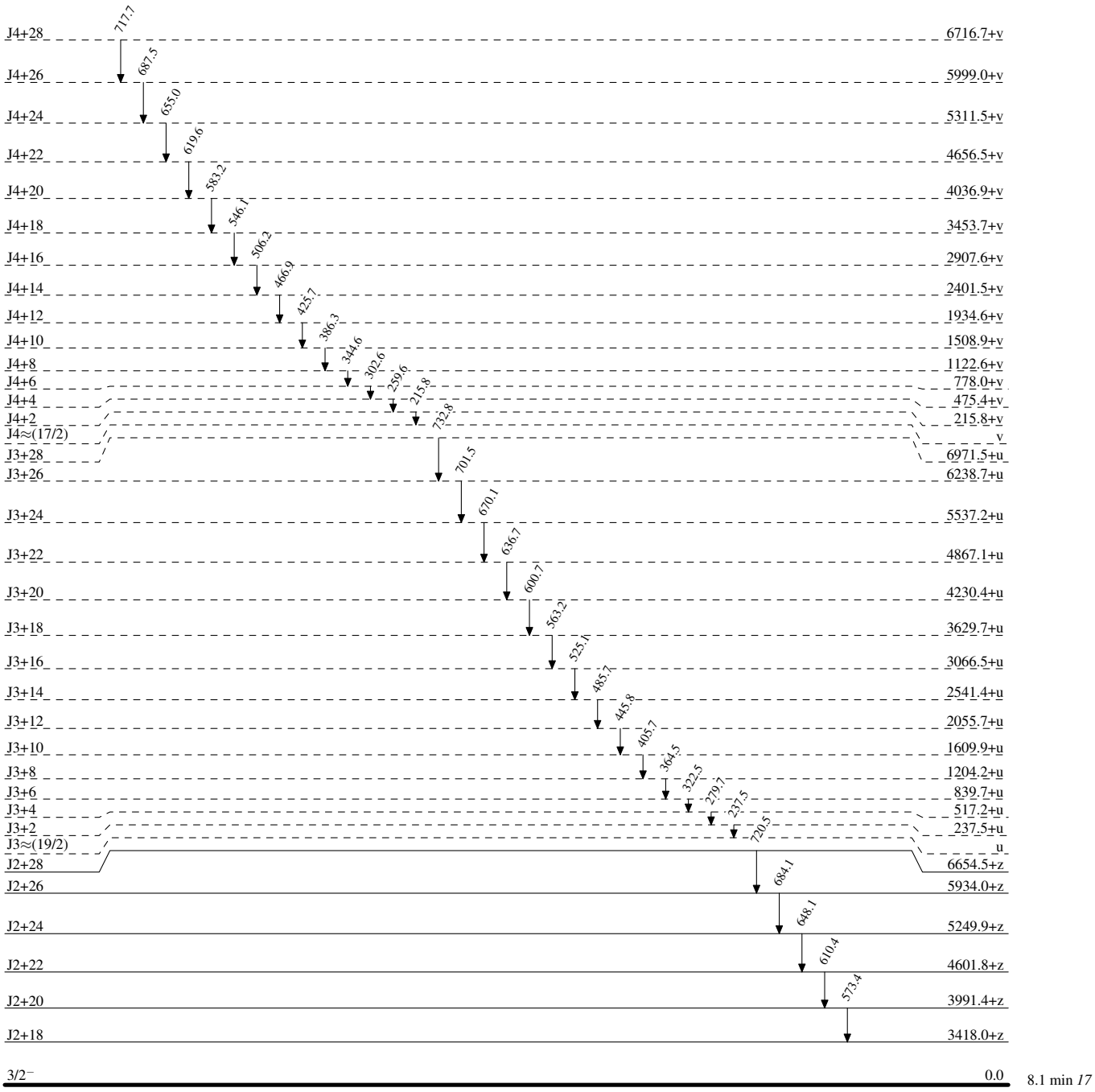
From ENSDF

$^{197}_{82}Pb_{115}$-21

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level

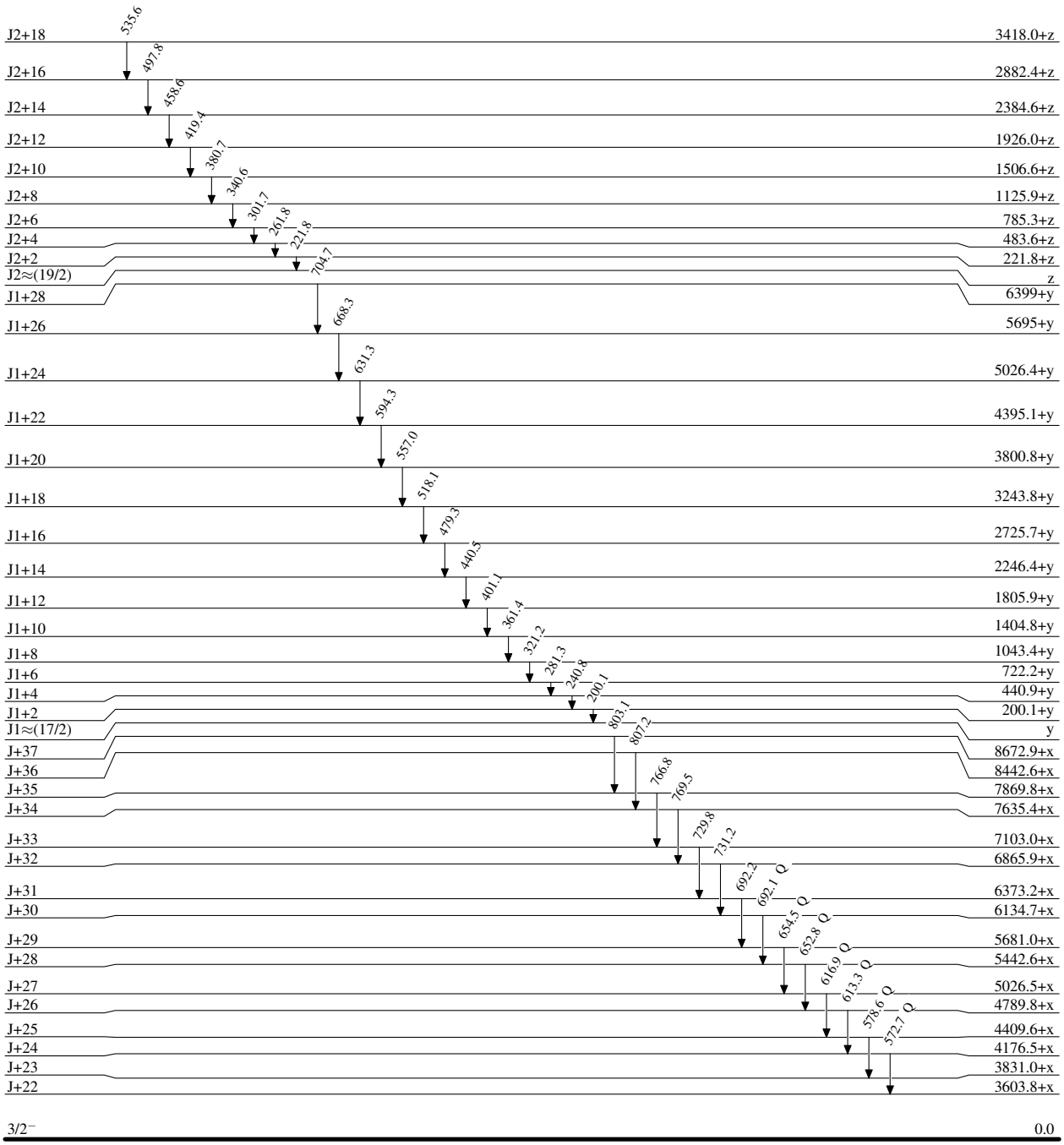


$^{197}_{82}Pb_{115}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{197}_{82}Pb_{115}$

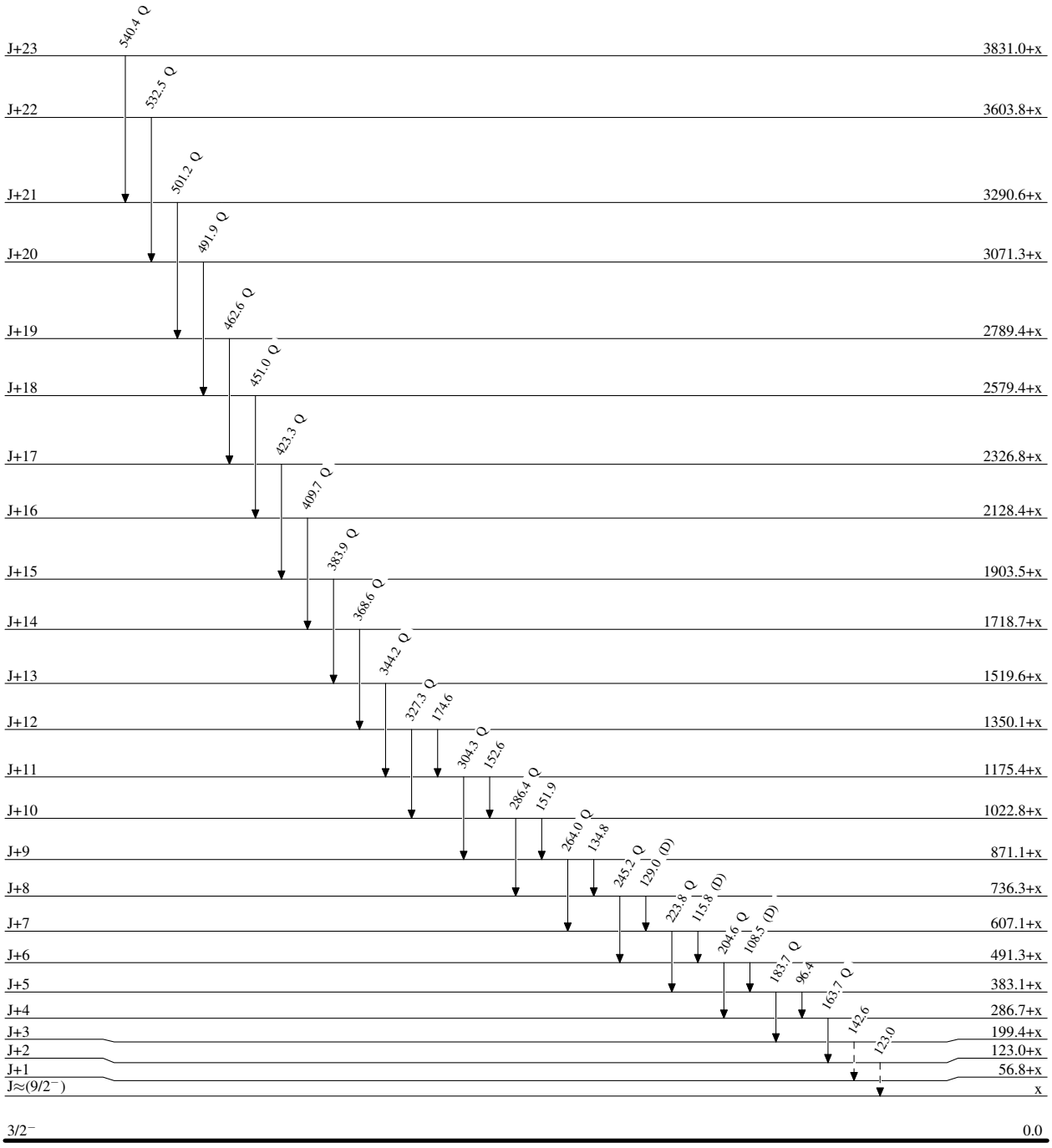
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)

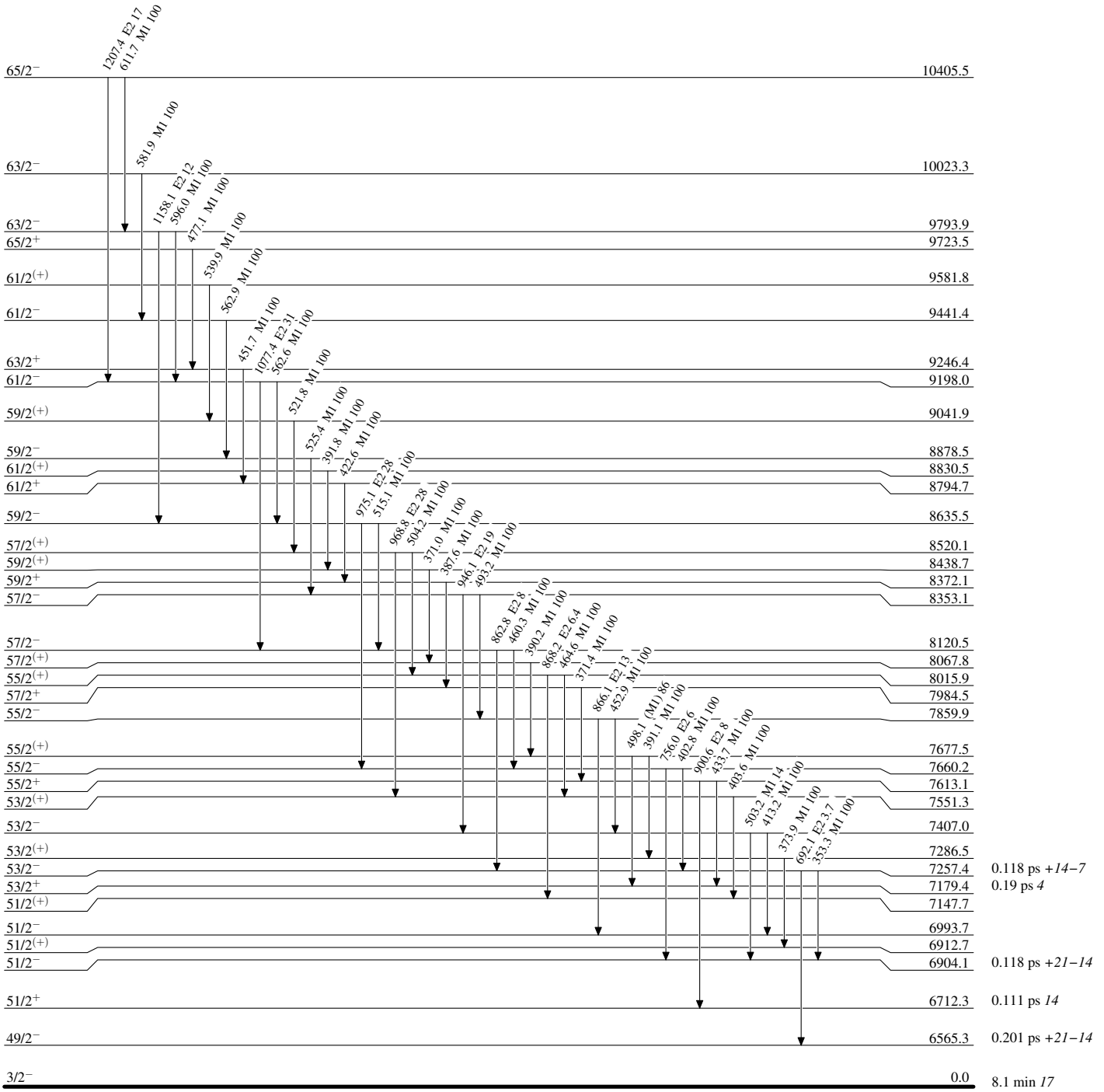


$^{197}_{82}Pb_{115}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

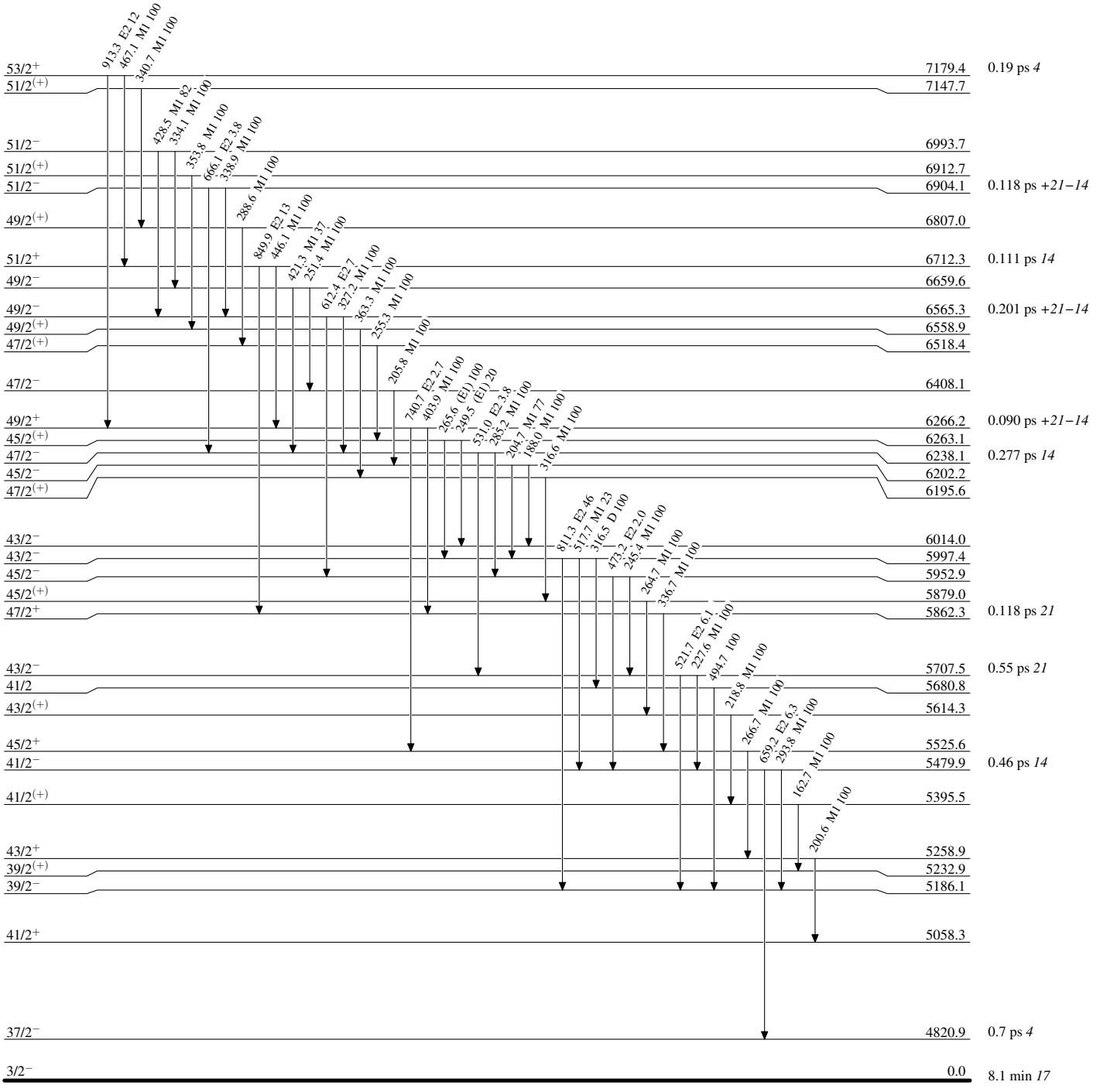


$^{197}_{82}Pb_{115}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{197}_{82}Pb_{115}$

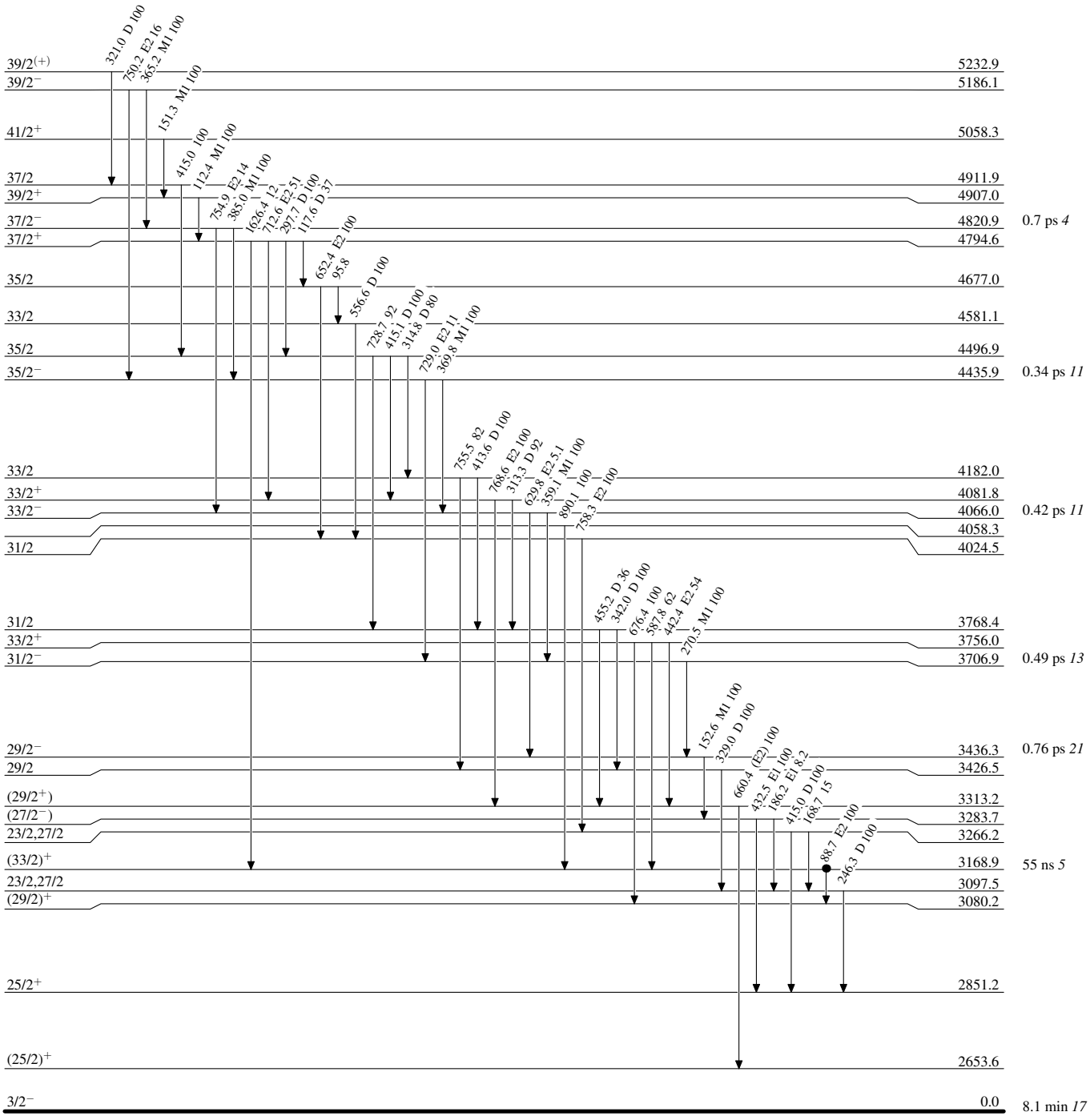
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

● Coincidence



$^{197}_{82}Pb_{115}$

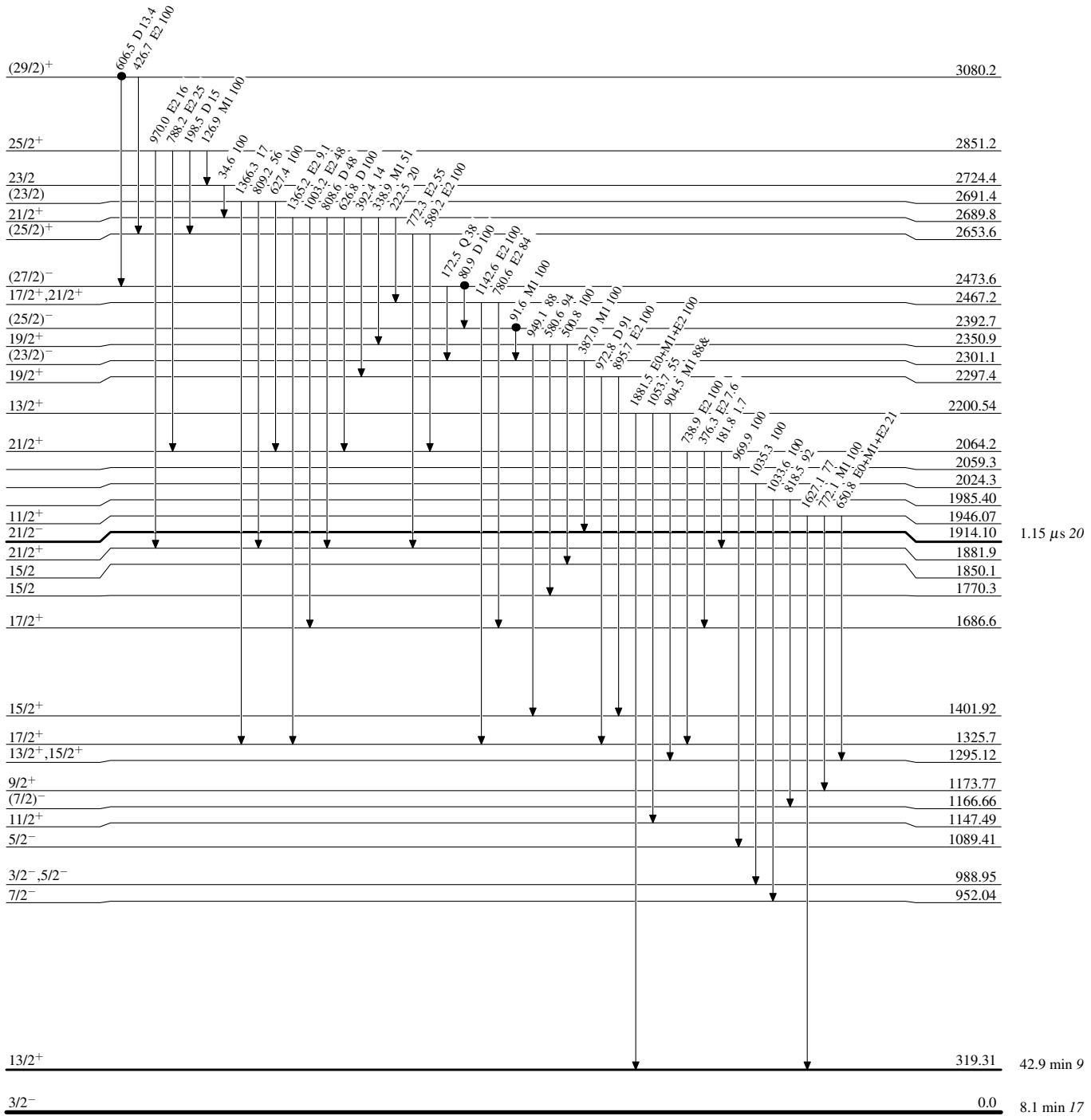
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

● Coincidence

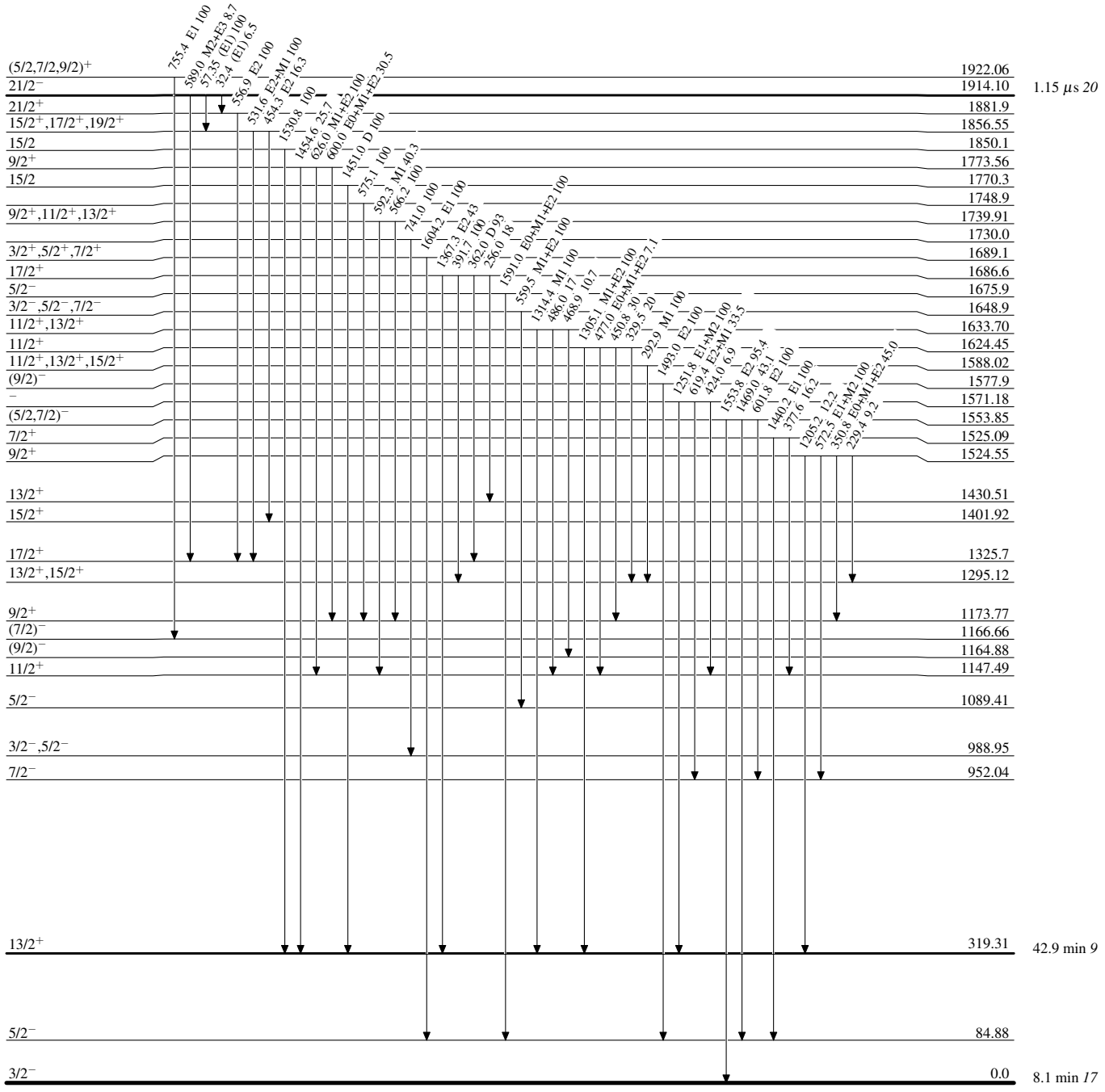


$^{197}_{82}Pb_{115}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

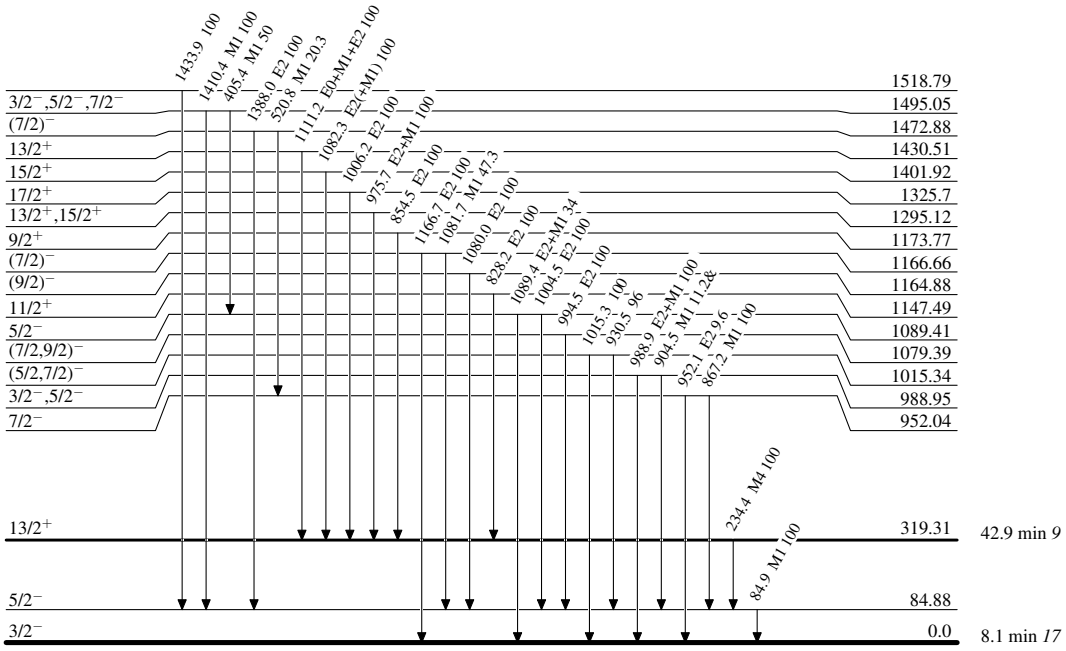


$^{197}_{82}Pb_{115}$

Adopted Levels, Gammas

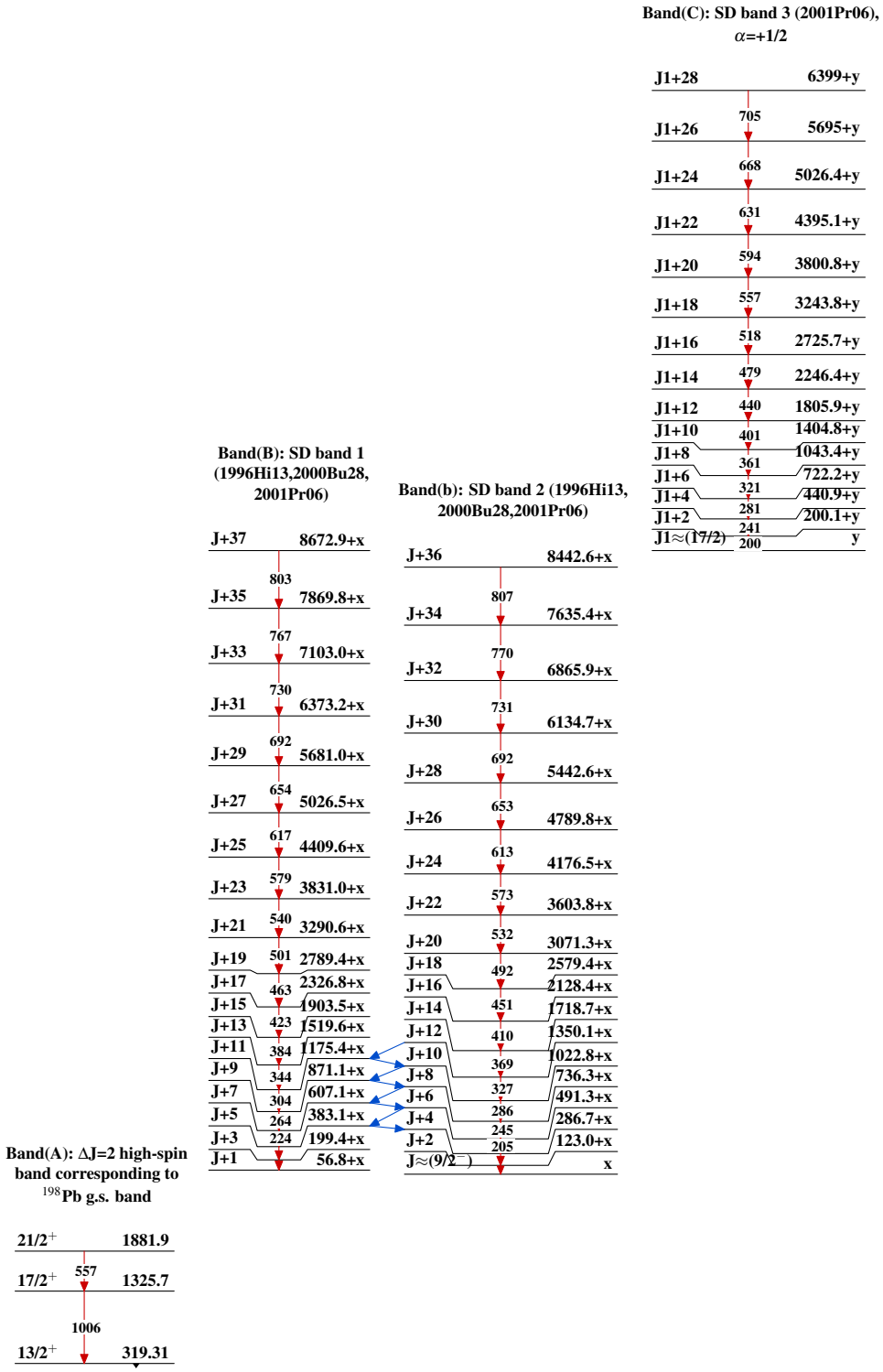
Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

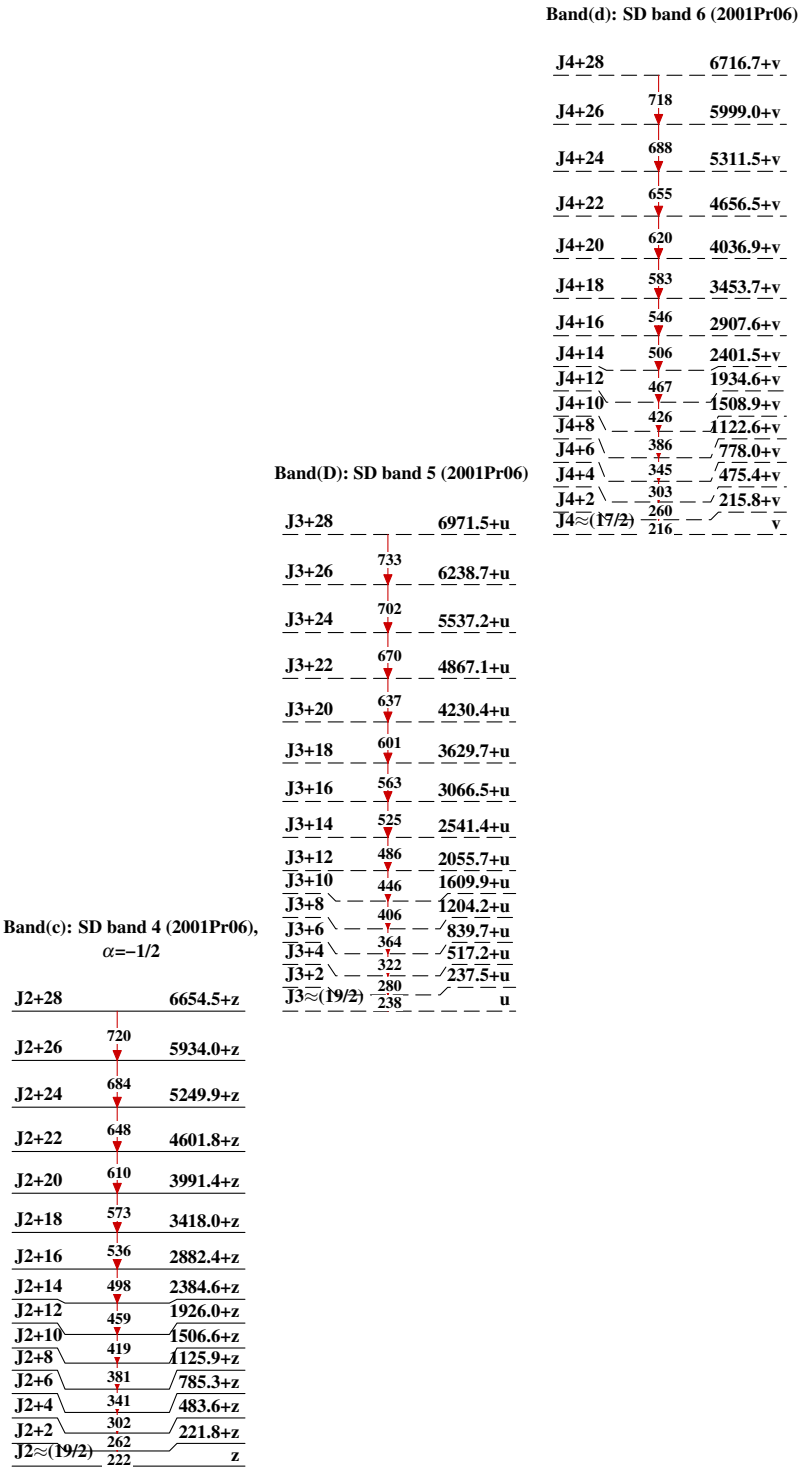


$^{197}_{82}Pb_{115}$

Adopted Levels, Gammas



Adopted Levels, Gammas (continued)



$^{197}_{82}Pb_{115}$

Adopted Levels, Gammas (continued)