^{214}Bi β^- decay 1994Mo06,1989Si17

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Shaofei Zhu and E. A. Mccutchan	NDS 175, 1 (2021)	1-May-2021

Parent: ^{214}Bi: E=0.0; $J^\pi=1^-$; $T_{1/2}$=19.71 min *2*; Q(β^-)=3269 *11*; %β^- decay=99.9790 *13*

^{214}Bi-Q(β^-): from 2021Wa16.

2004Mo07, 2002De03, 1998Mo14: Radioactivity ^{226}Ra(α); measured Eγ, relative and absolute Iγ, X-ray spectra; Ge(Li), HPGe detectors. α-spectra with 20 keV resolution using ZnS scintillator.

2002MoZP: Radioactivity ^{226}Ra(α); measured Eγ, Iγ; Compton suppressed spectrometer, planar HPGe detector.

2000Sa32: Radioactivity ^{226}Ra(α); measured Eγ, Iγ; HPGe detector.

1994Mo06, 1993Di09, 1990Mo08, 1982Ak03: Radioactivity ^{226}Ra(α); measured Eγ, Iγ, $\gamma\gamma$; planar HPGe detector and Ge(Li) detectors.

1989Si17, 1989Ta15, 1986Ta16: Radioactivity ^{226}Ra(α); measured Eγ, Iγ, $\gamma\gamma$, $\gamma\gamma(\theta)$; Ge detectors with anti-Compton arrangement.

Others:

For ce measurements, see 1975HaZA, 1967Ma51, 1960Lu07, 1960Ma05, 1957Ni11 and 1954Ml77.

For additional Eγ, Iγ measurements, see 2003Kl15,1991Li11,1983Ol01, 1983Sc13, 1982Fa10, 1977Zo01, 1975Ha31, 1972ClZS, 1971DiZI, 1969Li10, 1969Gr33, 1969Gu15, 1969La03, 1969Li10, 1969Wa27, 1969La03, 1968Yt01, 1967Ma51, 1967Ar20, 1967Bu17, 1966Hu03, 1964Ew04, 1960Lu07, 1958Bi87, 1958Dz94, 1958Dz94, 1954Ml77, 1952Mu45, 1949Ma75.

X rays(Bi):

I(Kα1 x ray)=0.97% *7*; I(Kα2 x ray)=0.53% *3* (2004Mo07). Other: I(Kα x ray)=)=1.77% *5* (1983Sc13).

I(Kβ x ray)=0.44% *5* (2004Mo07).

α: Additional information 1.

^{214}Po Levels

The decay level scheme is mainly from $\gamma\gamma$ coincidences of 1989Si17 and 1994Mo06.

E(level)†	J^π‡	$T_{1/2}$	Comments
0.0	0^+	163.46 μs *4*	$T_{1/2}$: from the Adopted Levels.
609.318 *5*	2^+		
1015.041 *20*	(4^+)		
1274.765 *9*	3^-		
1377.681 *7*	2^+		
1415.498 *8*	0^+	99 ps *3*	$T_{1/2}$: from 1979Be12; other: 0.23 ns *19* (1959Tu44).
1543.370 *9*	2^+		
1661.282 *14*	2^+		
1712.93 *8*	(3^+)		
1729.613 *7*	2^+		
1742.99 *3*	$0^{(+)}$		
1764.520 *8*	1^+		
1847.446 *9*	2^+		
1890.306 *13*	$(2)^+$		
1994.639 *13*	1^-		
2010.831 *13*	(2^+)		
2017.315 *9*	0^+		
2088.44 *5*	$(1,2^+)$		
2118.535 *10*	1^+		
2147.86 *5*	$(1^-,2^+)$		
2192.536 *16*	$(2)^+$		
2204.103 *23*	1^+		
2208.69 *4*	$(2^-,3)$		
2266.41 *4*	2^+		
2293.362 *19*	$(1^+,2^+)$		

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^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

^{214}Po Levels (continued)

E(level)†	Jπ‡	Comments
2348.3 *7*	(1,2$^+$)	
2360.97 *17*	(1,2$^+$)	
2423.25 *6*	(1,2$^+$)	
2447.701 *19*	1$^-$	
2482.460 *17*	(1$^-$,2$^+$)	
2505.34 *9*	(1$^-$,2$^+$)	
2508.12 *4*	(0$^+$)	
2544.92 *11*		
2553.0 *5*		
2562.4 *5*		
2604.68 *6*	(2$^+$)	
2630.84 *9*	(1,2$^+$)	
2662.33 *9*	(2$^+$)	
2694.62 *5*	(1$^-$,2$^+$)	
2698.60 *7*	(1,2)$^+$	E(level): from 1989Si17. Proposed as two levels at 2698.31 and 2699.12 keV in 1993Di09 and 1994Mo06.
2719.26 *5*	1$^+$	
2728.617 *23*	(0$^+$,1,2)	
2769.91 *13*	(1,2$^+$)	
2785.97 *9*	(1,2$^+$)	
2794.1 *6*		
2802.54 *19*		
2826.82 *14*	(1,2$^+$)	
2860.93 *13*	(1,2$^+$)	
2869.63 *17*	(2$^-$,3$^-$)	
2880.36 *14*	(1$^-$,2$^+$)	
2893.60 *11*	(1,2$^+$)	
2896.98 *23*		
2919.5 *3*		
2921.89 *11*	(1,2$^+$)	
2928.55 *22*	(1,2$^+$)	
2934.54 *18*	(1,2$^+$)	
2940.67 *10*	(1$^-$,2$^+$)	
2962.8 *7*		
2967.6 *5*		
2978.93 *12*	(1,2$^+$)	
2986.22 *13*	(2$^-$,3)	
3000.00 *14*	(1$^-$,2$^+$)	
3003.4 *10*		
3005.8 *6*		
3014.11 *15*	(1,2$^+$)	
3022.3 *3*	(2$^-$,3,4$^+$)	
3030.3 *6*		
3039.3 *6*		
3053.88 *18*	(1,2$^+$)	
3068.3 *8*		
3078.7 *6*		
3081.84 *25*	(1,2$^+$)	
3093.48 *23*	(1$^-$,2$^+$)	
3139.0 *8*		
3142.6 *4*	(1,2$^+$)	
3149.2 *5*	(1,2$^+$)	
3160.4 *5*	(1,2$^+$)	
3164.4 *8*		
3173.3 *6*		

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^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

^{214}Po Levels (continued)

E(level)[†]	Jπ[‡]
3183.6 *4*	(1,2$^+$)
3262.4 *8*	

[†] From a least squares fit to Eγ's by evaluators. 1.0-keV uncertainty assumed when not reported.
[‡] From the Adopted Levels.

β^- radiations

E(decay)	E(level)	Iβ$^-$[†]	Log *ft*	Comments
(85 *11*)	3183.6	0.0016 *3*	6.57 *20*	av Eβ=22.0 *30*
(96 *11*)	3173.3	0.00014 *9*	7.8 *4*	av Eβ=24.8 *30*
(109 *11*)	3160.4	0.00086 *17*	7.16 *17*	av Eβ=28.3 *31*
(120 *11*)	3149.2	8.63×10^{-5} *4*	8.29 *13*	av Eβ=31.4 *31*
(126 *11*)	3142.6	0.0021 *4*	6.97 *15*	av Eβ=33.2 *31*
(176 *11*)	3093.48	0.0088 *17*	6.79 *13*	av Eβ=47.0 *32*
(187 *11*)	3081.84	0.0082 *20*	6.91 *14*	av Eβ=50.3 *32*
(215 *11*)	3053.88	0.037 *5*	6.44 *10*	av Eβ=58.4 *33*
(255 *11*)	3014.11	0.040 *6*	6.64 *9*	av Eβ=70.2 *33*
(266 *11*)	3003.4	0.007 *3*	7.46 *20*	av Eβ=73.4 *34*
(269 *11*)	3000.00	0.0102 *10*	7.31 *8*	av Eβ=74.4 *34*
(283 *11*)	2986.22	0.0091 *9*	7.43 *7*	av Eβ=78.6 *34*
(290 *11*)	2978.93	0.0164 *7*	7.21 *6*	av Eβ=80.8 *34*
(306 *11*)	2962.8	0.00036 *14*	8.94 *18*	av Eβ=85.7 *34*
(328 *11*)	2940.67	0.049 *5*	6.91 *7*	av Eβ=92.5 *35*
(334 *11*)	2934.54	0.00214 *21*	8.29 *7*	av Eβ=94.4 *35*
(340 *11*)	2928.55	0.00109 *9*	8.61 *6*	av Eβ=96.3 *35*
(347 *11*)	2921.89	0.0227 *13*	7.32 *6*	av Eβ=98.4 *35*
(350 *11*)	2919.5	0.0014 *9*	8.5 *3*	av Eβ=99.1 *35*
(372 *11*)	2896.98	0.0045 *5*	8.12 *7*	av Eβ=106.2 *35*
(375 *11*)	2893.60	0.033 *5*	7.27 *8*	av Eβ=107.3 *35*
(389 *11*)	2880.36	0.0113 *14*	7.78 *7*	av Eβ=111.5 *35*
(399 *11*)	2869.63	0.014 *3*	7.73 *11*	av Eβ=114.9 *36*
(408 *11*)	2860.93	0.032 *6*	7.40 *9*	av Eβ=117.7 *36*
(442 *11*)	2826.82	0.043 *13*	7.38 *14*	av Eβ=128.8 *36*
(466 *11*)	2802.54	0.0082 *14*	8.18 *9*	av Eβ=136.7 *37*
(483 *11*)	2785.97	0.048 *6*	7.46 *7*	av Eβ=142.2 *37*
(499 *11*)	2769.91	0.063 *9*	7.39 *7*	av Eβ=147.5 *37*
(540 *11*)	2728.617	0.542 *22*	6.57 *4*	av Eβ=161.4 *38*
(550 *11*)	2719.26	0.273 *12*	6.89 *4*	av Eβ=164.6 *38*
(570 *11*)	2698.60	0.103 *7*	7.37 *4*	av Eβ=171.6 *38*
(574 *11*)	2694.62	0.249 *15*	7.00 *4*	av Eβ=173.0 *38*
(607 *11*)	2662.33	0.125 *11*	7.38 *5*	av Eβ=184.1 *38*
(638 *11*)	2630.84	0.037 *8*	7.98 *10*	av Eβ=195.0 *39*
(664 *11*)	2604.68	0.20 *5*	7.30 *12*	av Eβ=204.2 *39*
(707 *11*)	2562.4	0.00018 *9*	10.44 *22*	av Eβ=219.1 *40*
(716 *11*)	2553.0	9.09×10^{-5} *4*	10.758 *23*	av Eβ=222.5 *40*
(724 *11*)	2544.92	0.033 *6*	8.21 *9*	av Eβ=225.4 *40* Iβ$^-$: since I(γ+ce)(36.8γ) is not known, the given Iβ may be considered a lower limit.
(761 *11*)	2508.12	0.130 *11*	7.69 *5*	av Eβ=238.6 *40* Iβ$^-$: may be considered as an upper limit because of unknown intensity of the 36.8γ feeding from the 2545-keV level.
(764 *11*)	2505.34	0.174 *10*	7.57 *4*	av Eβ=239.6 *40*

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^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

β^- radiations (continued)

E(decay)	E(level)	Iβ^-[†]	Log *ft*	Comments
(787 *11*)	2482.460	1.28 *4*	6.75 *3*	av Eβ=247.8 *40*
(821 *11*)	2447.701	2.78 *6*	6.478 *23*	av Eβ=260.5 *41*
(846 *11*)	2423.25	0.084 *6*	8.04 *4*	av Eβ=269.5 *41*
(908 *11*)	2360.97	0.024 *5*	8.69 *10*	av Eβ=292.5 *41*
(921 *11*)	2348.3	0.00014 *9*	10.9 *3*	av Eβ=297.2 *42*
(976 *11*)	2293.362	0.563 *16*	7.433 *22*	av Eβ=317.8 *42*
(1003 *11*)	2266.41	0.192 *12*	7.94 *4*	av Eβ=328.0 *42* Iβ^-: since the transition intensity of the 61.0γ is not known, its possible contribution is not included in Iβ calculation.
(1060 *11*)	2208.69	0.22 *3*	7.97 *7*	av Eβ=350.0 *43*
(1065 *11*)	2204.103	5.56 *5*	6.573 *17*	av Eβ=351.8 *42*
(1076 *11*)	2192.536	0.866 *12*	7.397 *17*	av Eβ=356.1 *43*
(1121 *11*)	2147.86	0.46 *3*	7.73 *4*	av Eβ=373.3 *43*
(1150 *11*)	2118.535	4.33 *4*	6.801 *16*	av Eβ=384.7 *43*
(1181 *11*)	2088.44	0.081 *9*	8.57 *5*	av Eβ=396.4 *43* Iβ^-: since I(γ+ce)(71.1γ) is not known, any contribution from the 71.1γ could not be included in calculation of Iβ to 2088.41 level.
(1252 *11*)	2017.315	2.460 *15*	7.179 *15*	av Eβ=424.2 *44* Iβ^-: since I(γ+ce)(71.1γ) from the 2088.41 level is not known, its intensity could not be subtracted in calculation of Iβ to the 2017.30 level.
(1258 *11*)	2010.831	1.433 *11*	7.422 *15*	av Eβ=426.7 *44*
(1274 *11*)	1994.639	1.192 *21*	7.522 *16*	av Eβ=433.1 *44*
(1379 *11*)	1890.306	1.589 *17*	7.521 *14*	av Eβ=474.5 *44*
(1422 *11*)	1847.446	8.16 *5*	6.859 *13*	av Eβ=491.6 *44*
(1504 *11*)	1764.520	16.90 *11*	6.634 *13*	av Eβ=524.9 *45*
(1526 *11*)	1742.99	0.138 *16*	8.74 *6*	av Eβ=533.6 *45*
(1539 *11*)	1729.613	17.55 *10*	6.654 *12*	av Eβ=539.0 *45*
(1556[‡] *11*)	1712.93	0.153 *16*	9.57[1u] *5*	av Eβ=529.3 *43*
(1608 *11*)	1661.282	0.57 *5*	8.21 *4*	av Eβ=566.8 *45*
(1726 *11*)	1543.370	3.09 *4*	7.593 *12*	av Eβ=614.9 *46*
(1854 *11*)	1415.498	0.90 *5*	8.25 *3*	av Eβ=667.6 *46*
(1891 *11*)	1377.681	7.22 *8*	7.374 *11*	av Eβ=683.3 *46*
(1994 *11*)	1274.765	0.06 *4*	9.5 *3*	av Eβ=726.1 *46*
(2254 *11*)	1015.041	0.079 *13*	9.63 *8*	av Eβ=835.0 *47*
(2660[‡] *11*)	609.318	0.55 *8*	9.06 *7*	av Eβ=1007.1 *47*
(3269 *11*)	0.0	19.2 *4*	7.872 *11*	av Eβ=1268.4 *48* E(decay): measured values: 3275 keV *15* (1960Lu07), 3260 keV *30* (1956Da06), 3180 keV *90* (1955Ri54), 3170 keV (1952Wa33, 1941Co04).

[†] For absolute intensity per 100 decays, multiply by 0.999790 *13*.

[‡] Existence of this branch is questionable.

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$

Iγ normalization: Deduced from Iγ(609)=45.45 *19* (weighted average of 45.0 *7* (1983Ol01), 44.6 *5* (1983Sc13), 46.1 *5* (1991Li11), 44.8 *6* (1998Mo14), 45.57 *18* (2004Mo07)) per 100 ^{214}Bi β^- decays with ^{226}Ra or ^{222}Rn in equilibrium.

E_γ	I_γ[@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
(36.8[†] *2*)		2544.92		2508.12	(0^+)			E_γ: from 1993Di09 and 1994Mo06, based on coincident analysis, no γ transitions observed.
(61.0[†] *8*)		2266.41	2^+	2204.103	1^+	[M1+E2]	40 *32*	α(L)=30 *23*; α(M)=8 *6*; α(N)=2.0 *16*; α(O)=0.39 *30*; α(P)=0.036 *25* E_γ: from 1993Di09 and 1994Mo06, based on coincident analysis, no γ transitions observed.
(71.1[†] *2*)		2088.44	$(1,2^+)$	2017.315	0^+			E_γ: from 1993Di09 and 1994Mo06, based on coincident analysis, no γ transitions observed.
(104.4[†] *2*)		1994.639	1^-	1890.306	$(2)^+$			E_γ: from 1993Di09 and 1994Mo06, based on coincident analysis, no γ transitions observed.
221.5[‡] *2*	0.006 *2*	1764.520	1^+	1543.370	2^+	[M1,E2]	0.7 *4*	α(K)=0.5 *4*; α(L)=0.157 *10*; α(M)=0.0391 *6*; α(N)=0.01005 *17*; α(O)=0.00202 *10* α(P)=0.00023 *5* E_γ: weighted average of 221.57 *24* (1982Ak03) and 221 *1* (1989Si17). I_γ: from 1989Si17; others: 0.012 (1982Ak03) and 0.130 *13* (2000Sa32).
230[#‡] *1*	0.0064 *21*	1994.639	1^-	1764.520	1^+	[E1]	0.0585 *10*	α(K)=0.0474 *8*; α(L)=0.00848 *15*; α(M)=0.00200 *4*; α(N)=0.000510 *9*; α(O)=0.0001036 *18* α(P)=1.230×10^{-5} *22* E_γ: from 1989Si17. I_γ: weighted average of 0.0064 *21* (1989Si17) and 0.0063 *21* (2000Sa32).
230.66[#†] *14*		2423.25	$(1,2^+)$	2192.536	$(2)^+$			E_γ: from 1993Di09 and 1994Mo06.
247.2[†] *8*		2694.62	$(1^-,2^+)$	2447.701	1^-			E_γ: from 1993Di09 and 1994Mo06.
252.79 *6*	0.027 *4*	2017.315	0^+	1764.520	1^+	[M1]	0.810 *11*	α(K)=0.658 *9*; α(L)=0.1154 *16*; α(M)=0.0272 *4*; α(N)=0.00701 *10*; α(O)=0.001466 *21* α(P)=0.0001895 *27* E_γ: weighted average of 252.56 *30* (1982Ak03), 253 *1* (1989Si17) and 252.80 *6* (1993Di09,1994Mo06). I_γ: weighted average of 0.033 *7* (1982Ak03), 0.028 *4* (1994Mo06) and 0.019 *7* (2000Sa32); other: 0.006 *2* (1989Si17).
255.16[†] *10*		2447.701	1^-	2192.536	$(2)^+$			E_γ: from 1993Di09 and 1994Mo06.
268.60 *6*	0.035 *4*	1543.370	2^+	1274.765	3^-	[E1]	0.0405 *6*	α(K)=0.0330 *5*; α(L)=0.00578 *8*; α(M)=0.001362 *19*; α(N)=0.000347 *5*; α(O)=7.08×10^{-5} *10* α(P)=8.50×10^{-6} *12* E_γ: weighted average of 268.57 *20* (1982Ak03), 269.0 *7* (1989Si17) and 268.60 *6* (1993Di09,1994Mo06).

$^{214}_{84}Po_{130}$-5

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ[@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
								I_γ: weighted average of 0.031 *8* (1982Ak03), 0.06 *2* (1989Si17), 0.035 *4* (1994Mo06) and 0.059 *28* (2000Sa32).
273.79 *5*	0.28 *3*	2482.460	$(1^-,2^+)$	2208.69	$(2^-,3)$			E_γ: weighted average of 273.5 *5* (1969Li10), 273.76 *24* (1982Ak03), 273.7 *4* (1989Si17) and 273.80 *5* (1993Di09,1994Mo06).
								I_γ: weighted average of 0.25 *5* (1982Ak03), 0.38 *6* (1989Si17), 0.27 *3* (1994Mo06) and 0.29 *10* (2000Sa32).
280.6† *4*		3000.00	$(1^-,2^+)$	2719.26	1^+			E_γ: from 1993Di09 and 1994Mo06.
280.97 *5*	0.14 *2*	2728.617	$(0^+,1,2)$	2447.701	1^-			E_γ: weighted average of 281.1 *6* (1969Li10), 281.00 *20* (1982Ak03), 280.94 *12* (1989Si17) and 280.97 *5* (1993Di09,1994Mo06).
								I_γ: weighted average of 0.13 *2* (1982Ak03), 0.17 *3* (1989Si17), 0.13 *2* (1994Mo06) and 0.17 *4* (2000Sa32).
282.0† *4*	0.021 *8*	2826.82	$(1,2^+)$	2544.92				E_γ: weighted average of 282.04 *36* (1982Ak03) and 282.0 *4* (1993Di09,1994Mo06).
								I_γ: from 1982Ak03.
[x]286.9 *6*	0.0060 *11*							E_γ: from 1969Li10.
								I_γ: from 2000Sa32.
297.81† *24*		2010.831	(2^+)	1712.93	(3^+)			E_γ: from 1993Di09 and 1994Mo06.
								$I\gamma(297.81\gamma)+I\gamma(297.80\gamma$ in ^{210}Pb)=0.058 *10* (2000Sa32) and 0.046 *11* (1993Di09).
304.00#† *4*	0.057 *5*	2508.12	(0^+)	2204.103	1^+			E_γ: weighted average of 304.05 *4* (1982Ak03) and 303.97 *3* (1993Di09,1994Mo06).
								I_γ: from 0.069 *15* (1982Ak03), 0.055 *5* (1993Di09,1994Mo06) and 0.065 *20* (2000Sa32).
304.43#‡ *12*	0.075 *25*	1847.446	2^+	1543.370	2^+	[M1,E2]	0.30 *18*	α(K)=0.23 *17*; α(L)=0.055 *14*; α(M)=0.0135 *27*; α(N)=0.0035 *7*; α(O)=0.00071 *17*
								α(P)=8.4×10^{-5} *30*
								E_γ: from 1989Si17.
								I_γ: from 2000Sa32.
314.9† *8*		3014.11	$(1,2^+)$	2698.60	$(1,2)^+$			E_γ: from 1993Di09 and 1994Mo06.
333.37 *8*	0.14 *1*	1994.639	1^-	1661.282	2^+	[E1]	0.02466 *35*	α(K)=0.02014 *28*; α(L)=0.00345 *5*; α(M)=0.000810 *11*; α(N)=0.0002069 *29*
								α(O)=4.24×10^{-5} *6*; α(P)=5.16×10^{-6} *7*
								E_γ: weighted average of 333.35 *24* (1982Ak03), 333.61 *12* (1989Si17) and 333.31 *6* (1993Di09,1994Mo06).
								I_γ: weighted average of 0.16 *3* (1982Ak03), 0.21 *4* (1989Si17), 0.14 *1* (1994Mo06) and 0.13 *3* (2000Sa32).
334.80#† *8*	0.071 *8*	2423.25	$(1,2^+)$	2088.44	$(1,2^+)$			E_γ: weighted average of 334.87 *19* (1982Ak03) and 334.78 *8* (1993Di09,1994Mo06).
								I_γ: weighted average of 0.072 *14* (1982Ak03), 0.066 *8* (1993Di09,1994Mo06) and 0.090 *17* (2000Sa32).

$^{214}_{84}Po_{130}$-6

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ [@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
334.9[#‡] *5*	0.12 *2*	2482.460	(1$^-$,2$^+$)	2147.86	(1$^-$,2$^+$)			E_γ: from 1989Si17. I_γ: from 1989Si17.
[x]338.5 *6*	0.25 *9*							E_γ: from 1969Li10. I_γ: from 2000Sa32.
348.92 *6*	0.23 *5*	1764.520	1$^+$	1415.498	0$^+$	[M1]	0.335 *5*	α(K)=0.273 *4*; α(L)=0.0475 *7*; α(M)=0.01118 *16*; α(N)=0.00288 *4*; α(O)=0.000603 *8* α(P)=7.79×10^{-5} *11* E_γ: weighted average of 348.8 *5* (1989Si17) and 348.92 *6* (1993Di09,1994Mo06). I_γ: weighted average of 0.17 *4* (1989Si17), 0.34 *5* (1994Mo06) and 0.20 *5* (2000Sa32).
351.9[‡] *5*	0.15 *2*	1729.613	2$^+$	1377.681	2$^+$	[M1+E2]	0.20 *12*	α(K)=0.16 *11*; α(L)=0.035 *11*; α(M)=0.0086 *23*; α(N)=0.0022 *6*; α(O)=4.5×10^{-4} *14* α(P)=5.4×10^{-5} *22* E_γ,I_γ: from 1989Si17.
356.05 *16*	0.015 *4*	2017.315	0$^+$	1661.282	2$^+$	[E2]	0.0769 *11*	α(K)=0.0457 *6*; α(L)=0.02335 *33*; α(M)=0.00601 *8*; α(N)=0.001542 *22*; α(O)=0.000303 *4* α(P)=3.12×10^{-5} *4* E_γ: weighted average of 356.5 *5* (1989Si17) and 356.00 *17* (1993Di09,1994Mo06). I_γ: from 1989Si17.
[x]363.50 *14*	0.017 *5*							E_γ: weighted average of 363.47 *12* (1993Di09) and 364.2 *6* (1975Ha31). I_γ: from 1993Di09. Assignment to ^{214}Bi β^- decay is not established.
[x]375.65 *24*	0.009 *3*							E_γ: weighted average of 375.59 *15* (1993Di09) and 376.6 *6* (1975Ha31). I_γ: from 2000Sa32.
386.77 *5*	0.65 *4*	1764.520	1$^+$	1377.681	2$^+$	[M1,E2]	0.16 *10*	α(K)=0.12 *8*; α(L)=0.027 *9*; α(M)=0.0065 *20*; α(N)=0.0017 *5*; α(O)=3.4×10^{-4} *11* α(P)=4.1×10^{-5} *18* E_γ: weighted average of 386.8 *8* (1969Li10), 386.72 *19* (1982Ak03), 387.0 *3* (1989Si17) and 386.77 *5* (1993Di09,1994Mo06). Other: 386.9 *10* (1967Ma51). I_γ: weighted average of 0.64 *10* (1982Ak03), 0.79 *13* (1989Si17), 0.63 *5* (1994Mo06) and 0.70 *15* (2000Sa32).
388.89 *5*	0.85 *1*	2118.535	1$^+$	1729.613	2$^+$	[M1]	0.2497 *35*	α(K)=0.2034 *28*; α(L)=0.0353 *5*; α(M)=0.00832 *12*; α(N)=0.002141 *30*; α(O)=0.000448 *6* α(P)=5.80×10^{-5} *8* E_γ: weighted average of 388.8 *8* (1969Li10), 388.98 *19* (1982Ak03), 389.1 *3* (1989Si17) and 388.88 *5* (1993Di09,1994Mo06). Other: 389.0 *10* (1967Ma51). I_γ: weighted average of 0.87 *12* (1982Ak03), 0.90 *11* (1989Si17), 0.85 *1* (1994Mo06) and 0.86 *4* (2000Sa32).
394.04[‡&] *8*	0.029 *3*	2482.460	(1$^-$,2$^+$)	2088.44	(1,2$^+$)			E_γ: weighted average of 394.00 *19* (1982Ak03), 394.0 *10* (1989Si17)

$^{214}_{84}Po_{130}$-7

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ[@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
								and 394.05 *8* (1993Di09). I_γ: weighted average of 0.033 *4* (1982Ak03), 0.019 *8* (1989Si17), 0.024 *3* (2000Sa32) and 0.032 *3* (1993Di09).
396.02 *6*	0.059 *7*	2604.68	(2^+)	2208.69	$(2^-,3)$			E_γ: weighted average of 396.3 *6* (1969Li10), 396.05 *17* (1982Ak03), 396.01 *12* (1989Si17) and 396.01 *8* (1993Di09,1994Mo06). I_γ: weighted average of 0.060 *9* (1982Ak03), 0.066 *13* (1989Si17), 0.059 *7* (1993Di09) and 0.053 *10* (2000Sa32).
405.72 *2*	0.37 *2*	1015.041	(4^+)	609.318	2^+	(E2)	0.0541 *8*	α(K)=0.0344 *5*; α(L)=0.01478 *21*; α(M)=0.00377 *5*; α(N)=0.000968 *14*; α(O)=0.0001913 *27* α(P)=2.018×10^{-5} *28* E_γ: weighted average of 405.9 *4* (1969Li10), 405.82 *17* (1982Ak03), 405.74 *3* (1989Si17) and 405.71 *2* (1993Di09,1994Mo06). Mult.: from $\gamma\gamma$(E2)(θ): A_2=+0.10 *5*, A_4=−0.05*6* (1989Ta15). I_γ: weighted average of 0.38 *5* (1982Ak03), 0.36 *2* (1989Si17), 0.37 *2* (1994Mo06) and 0.39 *3* (2000Sa32).
422.0[†] *8*		2869.63	$(2^-,3^-)$	2447.701	1^-			E_γ: from 1993Di09 and 1994Mo06.
[x]426.5 *5*	0.027 *8*							E_γ: from 1969Li10. I_γ: from 2000Sa32.
428.07 *8*	0.025 *3*	2192.536	$(2)^+$	1764.520	1^+			E_γ: weighted average of 428.0 *5* (1989Si17) and 428.07 *8* (1993Di09,1994Mo06). I_γ: weighted average of 0.023 *6* (1989Si17) and 0.025 *3* (2000Sa32); other: <0.0023 (1994Mo06).
[x]439.36 *9*	0.025 *5*							E_γ: weighted average of 439.47 *24* (1982Ak03), 439.34 *8* (1993Di09) and 440.4 *6* (1969Li10). I_γ: weighted average of 0.033 *5* (1982Ak03), 0.026 *5* (1993Di09) and 0.015 *5* (2000Sa32).
452.91[†] *9*	0.067 *8*	2447.701	1^-	1994.639	1^-	[M1+E2]	0.10 *6*	α(K)=0.08 *5*; α(L)=0.017 *7*; α(M)=0.0040 *15*; α(N)=0.0010 *4*; α(O)=2.1×10^{-4} *8*; α(P)=2.6×10^{-5} *12* E_γ: weighted average of 452.88 *20* (1982Ak03) and 452.92 *10* (1993Di09,1994Mo06). I_γ: weighted average of 0.068 *11* (1982Ak03) and 0.067 *8* (1993Di09,1994Mo06).
454.80 *3*	0.64 *3*	1729.613	2^+	1274.765	3^-	[E1]	0.01251 *18*	α(K)=0.01028 *14*; α(L)=0.001705 *24*; α(M)=0.000399 *6*; α(N)=0.0001020 *14* α(O)=2.103×10^{-5} *29*; α(P)=2.60×10^{-6} *4* E_γ: weighted average of 455.0 *3* (1969Li10), 455.26 *17* (1982Ak03), 454.77 *12* (1989Si17) and 454.79 *2* (1993Di09,1994Mo06). I_γ: weighted average of 0.69 *3* (1989Si17), 0.64 *3* (1994Mo06) and 0.59 *3* (2000Sa32).
461.06 *11*	0.095 *14*	2204.103	1^+	1742.99	$0^{(+)}$	[M1]	0.1581 *22*	α(K)=0.1289 *18*; α(L)=0.02229 *31*; α(M)=0.00525 *7*; α(N)=0.001351 *19*; α(O)=0.000283 *4* α(P)=3.66×10^{-5} *5* E_γ: weighted average of 460.97 *24* (1982Ak03), 460.9 *5* (1989Si17) and

$^{214}_{84}Po_{130}$-8

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ[@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
								461.09 *11* (1993Di09,1994Mo06). I_γ: weighted average of 0.078 *13* (1982Ak03), 0.085 *21* (1989Si17), 0.14 *2* (1994Mo06) and 0.10 *3* (2000Sa32).
469.76 *4*	0.290 *17*	1847.446	2^+	1377.681	2^+	[M1,E2]	0.09 *6*	α(K)=0.07 *5*; α(L)=0.015 *6*; α(M)=0.0036 *13*; α(N)=9.4×10^{-4} *35*; α(O)=1.9×10^{-4} *8* α(P)=2.4×10^{-5} *11* E_γ: weighted average of 470.0 *3* (1969Li10), 469.78 *16* (1982Ak03), 469.69 *12* (1989Si17) and 469.76 *4* (1993Di09,1994Mo06). I_γ: weighted average of 0.30 *5* (1982Ak03), 0.288 *17* (1989Si17), 0.27 *2* (1994Mo06) and 0.34 *3* (2000Sa32).
474.43 *5*	0.213 *20*	2204.103	1^+	1729.613	2^+	[M1+E2]	0.09 *6*	α(K)=0.07 *5*; α(L)=0.015 *6*; α(M)=0.0035 *13*; α(N)=9.1×10^{-4} *34*; α(O)=1.9×10^{-4} *7* α(P)=2.3×10^{-5} *11* E_γ: weighted average of 474.6 *3* (1969Li10), 474.46 *17* (1982Ak03), 474.38 *10* (1989Si17) and 474.44 *5* (1993Di09,1994Mo06). I_γ: weighted average of 0.23 *4* (1982Ak03), 0.26 *3* (1989Si17), 0.22 *2* (1994Mo06) and 0.190 *20* (2000Sa32).
485.93[†] *11*	0.050 *9*	2694.62	$(1^-,2^+)$	2208.69	$(2^-,3)$			E_γ: weighted average of 485.95 *24* (1982Ak03) and 485.92 *11* (1993Di09,1994Mo06). I_γ: weighted average of 0.052 *11* (1982Ak03) and 0.048 *9* (1993Di09,1994Mo06).
486.6 *3*	0.049 *20*	2147.86	$(1^-,2^+)$	1661.282	2^+			E_γ: weighted average of 486.3 *5* (1989Si17) and 486.7 *3* (1993Di09,1994Mo06). Other: 487.1 *15* (1967Ma51). I_γ: weighted average of 0.064 *21* (1989Si17) and 0.035 *20* (2000Sa32); other: <0.012 (1994Mo06).
487.7[†] *3*	0.061 *20*	2482.460	$(1^-,2^+)$	1994.639	1^-			E_γ: weighted average of 487.25 *20* (1969Li10) and 487.95 *13* (1993Di09,1994Mo06). I_γ: from 1993Di09 and 1994Mo06.
494.21 *9*	0.024 *3*	2698.60	$(1,2)^+$	2204.103	1^+			E_γ: weighted average of 494.31 *20* (1982Ak03), 494.6 *10* (1989Si17) and 494.19 *9* (1993Di09,1994Mo06). I_γ: weighted average of 0.031 *5* (1982Ak03), 0.019 *6* (1989Si17), 0.031 *4* (1994Mo06) and 0.019 *3* (2000Sa32).
496.89[†] *18*	0.015 *4*	2508.12	(0^+)	2010.831	(2^+)			E_γ: weighted average of 496.88 *24* (1982Ak03) and 496.90 *18* (1993Di09,1994Mo06). I_γ: from 1982Ak03, 1993Di09 and 1994Mo06.
501.97 *12*	0.040 *5*	2266.41	2^+	1764.520	1^+	[M1+E2]	0.08 *5*	α(K)=0.06 *4*; α(L)=0.013 *5*; α(M)=0.0030 *12*; α(N)=7.8×10^{-4} *30*; α(O)=1.6×10^{-4} *6*; α(P)=2.0×10^{-5} *9* E_γ: weighted average of 501.96 *20* (1982Ak03), 502.2 *6* (1989Si17) and 501.96 *15* (1993Di09,1994Mo06). I_γ: weighted average of 0.041 *7* (1982Ak03), 0.039 *9* (1989Si17), 0.040 *5* (1994Mo06) and 0.035 *19* (2000Sa32).
519.90[†] *5*	0.036 *4*	2728.617	$(0^+,1,2)$	2208.69	$(2^-,3)$			E_γ: weighted average of 519.93 *20* (1982Ak03) and 519.90 *5* (1993Di09,1994Mo06).

$^{214}_{84}Po_{130}$-9

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ[@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
								I_γ: weighted average of 0.035 *6* (1982Ak03), 0.036 *4* (1994Mo06) and 0.039 *11* (2000Sa32).
524.60 *7*	0.037 *4*	2728.617	(0^+,1,2)	2204.103	1^+			E_γ: weighted average of 524.61 *20* (1982Ak03), 525.0 *6* (1989Si17) and 524.59 *8* (1993Di09,1994Mo06). I_γ: weighted average of 0.038 *6* (1982Ak03), 0.034 *13* (1989Si17), 0.037 *4* (1994Mo06) and 0.039 *13* (2000Sa32).
528.30[‡] *8*	0.016 *6*	1543.370	2^+	1015.041	(4^+)			E_γ: weighted average of 528.42 *24* (1982Ak03), 528 *1* (1989Si17) and 528.29 *8* (1993Di09). I_γ: weighted average of 0.025 *5* (1982Ak03), 0.009 *4* (1989Si17) and 0.022 *11* (2000Sa32).
536.78 *4*	0.142 *19*	2266.41	2^+	1729.613	2^+	[M1+E2]	0.07 *4*	α(K)=0.053 *33*; α(L)=0.010 *4*; α(M)=0.0025 *10*; α(N)=6.4×10^{-4} *26*; α(O)=1.3×10^{-4} *6* α(P)=1.6×10^{-5} *8* E_γ: weighted average of 536.6 *8* (1969Li10), 536.83 *19* (1982Ak03), 536.94 *20* (1989Si17) and 536.77 *4* (1993Di09,1994Mo06). I_γ: weighted average of 0.14 *2* (1982Ak03), 0.154 *19* (1989Si17), 0.14 *2* (1994Mo06) and 0.12 *3* (2000Sa32).
542.81 *7*	0.161 *22*	2204.103	1^+	1661.282	2^+	[M1+E2]	0.06 *4*	α(K)=0.051 *32*; α(L)=0.010 *4*; α(M)=0.0024 *10*; α(N)=6.2×10^{-4} *25*; α(O)=1.3×10^{-4} *5* α(P)=1.6×10^{-5} *8* E_γ: weighted average of 542.97 *24* (1982Ak03), 543.4 *5* (1989Si17) and 542.78 *7* (1993Di09,1994Mo06). I_γ: weighted average of 0.14 *2* (1982Ak03), 0.183 *19* (1989Si17), 0.13 *2* (1994Mo06) and 0.27 *4* (2000Sa32).
547.21 *17*	0.075 *7*	2208.69	(2^-,3)	1661.282	2^+			E_γ: weighted average of 547.05 *17* (1982Ak03), 547.1 *3* (1989Si17), 547.61 *24* (1993Di09,1994Mo06). I_γ: weighted average of 0.08 *1* (1982Ak03), 0.070 *15* (1989Si17), 0.074 *7* (2000Sa32); other: <0.008 (1993Di09,1994Mo06).
551.9[†] *8*		3000.00	(1^-,2^+)	2447.701	1^-			E_γ: from 1993Di09 and 1994Mo06.
572.77 *7*	0.171 *13*	1847.446	2^+	1274.765	3^-	[E1]	0.00779 *11*	α(K)=0.00642 *9*; α(L)=0.001042 *15*; α(M)=0.0002433 *34*; α(N)=6.22×10^{-5} *9* α(O)=1.287×10^{-5} *18*; α(P)=1.610×10^{-6} *23* E_γ: weighted average of 572.6 *4* (1969Li10), 572.74 *19* (1982Ak03), 572.83 *15* (1989Si17) and 572.76 *7* (1993Di09,1994Mo06). I_γ: weighted average of 0.17 *2* (1982Ak03), 0.177 *13* (1989Si17), 0.16 *2* (1994Mo06) and 0.16 *4* (2000Sa32).
579.14[†] *16*		1994.639	1^-	1415.498	0^+	[E1]	0.00762 *11*	α(K)=0.00629 *9*; α(L)=0.001019 *14*; α(M)=0.0002377 *33*; α(N)=6.08×10^{-5} *9* α(O)=1.258×10^{-5} *18*; α(P)=1.574×10^{-6} *22* E_γ: from 1993Di09 and 1994Mo06.
581.9[†] *8*		2785.97	(1,2^+)	2204.103	1^+			E_γ: from 1993Di09 and 1994Mo06.
595.24 *7*	0.038 *3*	2010.831	(2^+)	1415.498	0^+			E_γ: weighted average of 595.24 *24* (1982Ak03), 596.0 *8* (1989Si17) and

$^{214}_{84}Po_{130}$-10

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ [@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
								595.23 *7* (1993Di09,1994Mo06). I_γ: weighted average of 0.035 *7* (1982Ak03), 0.038 *4* (1994Mo06) and 0.039 *6* (2000Sa32); other: 0.26 *6* (1989Si17).
598.5[†] *8*		2802.54		2204.103	1^+			E_γ: from 1993Di09 and 1994Mo06.
600.0[‡] *5*	0.017 *6*	2719.26	1^+	2118.535	1^+	[M1+E2]	0.050 *29*	α(K)=0.040 *24*; α(L)=0.0077 *33*; α(M)=0.0018 *8*; α(N)=4.7×10^{-4} *20*; α(O)=1.0×10^{-4} *4* α(P)=1.2×10^{-5} *6*
609.321 *7*	100	609.318	2^+	0.0	0^+	E2	0.02038 *29*	E_γ,I_γ: from 1989Si17. α(K)=0.01487 *21*; α(L)=0.00416 *6*; α(M)=0.001030 *14*; α(N)=0.000265 *4*; α(O)=5.33×10^{-5} *7* α(P)=6.06×10^{-6} *8* E_γ: weighted average of 609.31 *16* (1982Ak03), 609.32 *2* (1989Si17), 609.313 *7* (1993Di09,1994Mo06) and 609.329 *7* (2002MoZP). Other: 609.37 *16* (1952Mu45), 609 *3* (1967Bu17) and 609.3 *3* (1967Ma51). Mult.: from α(K)exp=0.0152 *5*; K/L=3.63 *20*; K/M≈11.5 (1960Lu07); other: α(K)exp=0.015 (1967Ma51); K/L=3.43 *10* and K/M=9.2 *10* (1960Ma05).
615.76 *6*	0.12 *2*	1890.306	$(2)^+$	1274.765	3^-			E_γ: weighted average of 615.8 *6* (1969Li10), 615.49 *36* (1982Ak03), 615.78 *6* (1989Si17) and 615.68 *13* (1993Di09,1994Mo06). I_γ: weighted average of 0.13 *5* (1982Ak03), 0.15 *6* (1989Si17), 0.12 *2* (1994Mo06) and 0.11 *3* (2000Sa32).
617.02[‡] *13*	0.059 *6*	1994.639	1^-	1377.681	2^+	[E1]	0.00672 *9*	α(K)=0.00555 *8*; α(L)=0.000894 *13*; α(M)=0.0002085 *29*; α(N)=5.34×10^{-5} *7* α(O)=1.105×10^{-5} *15*; α(P)=1.386×10^{-6} *19* E_γ: weighted average of 617.01 *13* (1993Di09), 616.99 *36* (1982Ak03) and 617.1 *3* (1989Si17). I_γ: weighted average of 0.066 *44* (1982Ak03), 0.053 *6* (1993Di09), 0.075 *26* (1989Si17), and 0.077 *11* (2000Sa32).
626.4[‡] *6*	0.009 *3*	2893.60	$(1,2^+)$	2266.41	2^+			E_γ: from 1989Si17. I_γ: from 2000Sa32; other: ≈0.005 (1989Si17).
630.81[†] *7*	0.036 *4*	2719.26	1^+	2088.44	$(1,2^+)$			E_γ: weighted average of 630.93 *17* (1982Ak03) and 630.79 *7* (1993Di09,1994Mo06). I_γ: weighted average of 0.039 *6* (1982Ak03) and 0.035 *4* (1993Di09,1994Mo06).
631.2[‡] *4*	0.039 *5*	2360.97	$(1,2^+)$	1729.613	2^+			E_γ: from 1989Si17. I_γ: weighted average of 0.036 *13* (1989Si17), 0.039 *5* (2000Sa32).
633.09 *5*	0.122 *10*	2010.831	(2^+)	1377.681	2^+			E_γ: weighted average of 633.6 *4* (1969Li10), 633.17 *17* (1982Ak03), 633.14 *10* (1989Si17) and 633.06 *5* (1993Di09,1994Mo06). I_γ: weighted average of 0.12 *2* (1982Ak03), 0.130 *13* (1989Si17), 0.11 *1* (1994Mo06) and 0.130 *10* (2000Sa32).
634.77[†] *16*	0.014 *5*	2482.460	$(1^-,2^+)$	1847.446	2^+			E_γ: weighted average of 634.84 *24* (1982Ak03) and 634.72 *21*

$^{214}_{84}Po_{130}$-11

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ [@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
								(1993Di09,1994Mo06).
								I_γ: from 1994Mo06.
639.61 *10*	0.070 *10*	2017.315	0^+	1377.681	2^+	[E2]	0.01832 *26*	α(K)=0.01352 *19*; α(L)=0.00363 *5*; α(M)=0.000896 *13*; α(N)=0.0002301 *32* α(O)=4.65×10^{-5} *7*; α(P)=5.33×10^{-6} *7* E_γ: weighted average of 639 *1* (1969Li10), 639.62 *17* (1982Ak03), 639.37 *20* (1989Si17) and 639.67 *10* (1993Di09,1994Mo06). I_γ: weighted average of 0.061 *11* (1982Ak03), 0.068 *11* (1989Si17), 0.065 *10* (1994Mo06) and 0.085 *10* (2000Sa32).
649.20 *5*	0.121 *15*	2192.536	$(2)^+$	1543.370	2^+			E_γ: weighted average of 649.4 *4* (1969Li10), 649.22 *17* (1982Ak03), 649.18 *7* (1989Si17) and 649.23 *10* (1993Di09,1994Mo06). I_γ: weighted average of 0.114 *15* (1982Ak03), 0.128 *15* (1989Si17), 0.13 *2* (1994Mo06) and 0.10 *3* (2000Sa32).
651.50[†] *16*	<0.004	2662.33	(2^+)	2010.831	(2^+)			E_γ: from 1993Di09 and 1994Mo06. I_γ: from 1994Mo06.
658.76 *21*	0.031 *6*	2423.25	$(1,2^+)$	1764.520	1^+			E_γ: weighted average of 658.61 *24* (1982Ak03), 658.8 *5* (1989Si17) and 658.86 *21* (1993Di09,1994Mo06). I_γ: weighted average of 0.037 *8* (1982Ak03), 0.019 *6* (1989Si17), 0.046 *8* (1994Mo06) and 0.030 *8* (2000Sa32).
660.87 *14*	0.104 *11*	2204.103	1^+	1543.370	2^+	[M1+E2]	0.039 *22*	α(K)=0.031 *19*; α(L)=0.0059 *26*; α(M)=0.0014 *6*; α(N)=3.6×10^{-4} *15*; α(O)=7.5×10^{-5} *33* α(P)=9.E−6 *5* E_γ: weighted average of 660.74 *24* (1982Ak03), 661.4 *6* (1989Si17) and 660.89 *14* (1993Di09,1994Mo06). I_γ: weighted average of 0.077 *13* (1982Ak03), 0.09 *4* (1989Si17), 0.11 *2* (1994Mo06) and 0.120 *10* (2000Sa32).
665.446 *9*	3.390 *19*	1274.765	3^-	609.318	2^+	E1	0.00579 *8*	α(K)=0.00479 *7*; α(L)=0.000767 *11*; α(M)=0.0001788 *25*; α(N)=4.58×10^{-5} *6* α(O)=9.48×10^{-6} *13*; α(P)=1.193×10^{-6} *17* E_γ: weighted average of 665.6 *2* (1969Li10), 665.47 *16* (1982Ak03), 665.453 *22* (1989Si17), 665.49 *9* (1993Di09,1994Mo06) and 665.444 *10* (2002MoZP). Other: 670 *4* (1967Bu17) and 665.8 *5* (1967Ma51). Mult.: from $\gamma\gamma$(E2)(θ): A_2=−0.08 *5*, A_4=+0.10 *6* (1986Ta16) and α(K)exp=0.0046 *17* deduced from I(ce)665γ/I(ce)609γ=0.010 *4* (1960Lu07). I_γ: weighted average of 3.36 *37* (1982Ak03), 3.39 *11* (1989Si17), 3.51 *20* (1994Mo06), 3.42 *8* (1998Mo14), 3.33 *10* (2000Sa32), 3.386 *21* (2002MoZP) and 3.42 *6* (2004Mo07).
677.41[†] *15*	0.012 *5*	2694.62	$(1^-,2^+)$	2017.315	0^+			E_γ: weighted average of 677.41 *21* (1982Ak03) and 677.41 *15* (1993Di09,1994Mo06). I_γ: from 1982Ak03, 1993Di09 and 1994Mo06.
683.21 *6*	0.180 *19*	2447.701	1^-	1764.520	1^+	[E1]	0.00551 *8*	α(K)=0.00456 *6*; α(L)=0.000728 *10*; α(M)=0.0001696 *24*; α(N)=4.34×10^{-5} *6*

$^{214}_{84}Po_{130}$-12

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ[@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
								α(O)=9.00×10^{-6} *13*; α(P)=1.133×10^{-6} *16* E_γ: weighted average of 683.3 *5* (1969Li10), 683.13 *17* (1982Ak03), 683.22 *6* (1989Si17) and 683.2 *9* (1993Di09,1994Mo06). I_γ: weighted average of 0.18 *3* (1982Ak03), 0.171 *19* (1989Si17), 0.18 *2* (1994Mo06) and 0.190 *20* (2000Sa32).
687.56 *21*	0.015 *4*	2698.60	(1,2)$^+$	2010.831	(2$^+$)			E_γ: weighted average of 687.51 *24* (1982Ak03), 687.7 *6* (1989Si17) and 687.58 *21* (1993Di09,1994Mo06). I_γ: weighted average of 0.016 *5* (1982Ak03), 0.013 *6* (1989Si17), 0.015 *4* (1994Mo06) and 0.014 *5* (2000Sa32).
693.1[‡&] *2*	0.012 *4*	2423.25	(1,2$^+$)	1729.613	2$^+$			E_γ: weighted average of 693.3 *8* (1969Li10), 693.00 *24* (1982Ak03) and 693.3 *5* (1989Si17). I_γ: weighted average of 0.012 *5* (1982Ak03), 0.013 *6* (1989Si17) and 0.012 *4* (2000Sa32).
697.89 *10*	0.132 *16*	1712.93	(3$^+$)	1015.041	(4$^+$)	[M1,E2]	0.034 *19*	α(K)=0.027 *16*; α(L)=0.0051 *23*; α(M)=0.0012 *5*; α(N)=3.1×10^{-4} *13*; α(O)=6.5×10^{-5} *29* α(P)=8.E−6 *4* E_γ: weighted average of 698.4 *4* (1969Li10), 697.83 *17* (1982Ak03), 697.90 *25* (1989Si17) and 697.87 *10* (1993Di09, 1994Mo06). I_γ: weighted average of 0.14 *2* (1982Ak03), 0.081 *15* (1989Si17), 0.14 *2* (1994Mo06) and 0.150 *10* (2000Sa32).
699.86[†] *18*	0.040 *9*	2694.62	(1$^-$,2$^+$)	1994.639	1$^-$			E_γ: weighted average of 699.94 *27* (1982Ak03) and 699.82 *18* (1993Di09,1994Mo06). I_γ: weighted average of 0.044 *9* (1982Ak03) and 0.035 *10* (1993Di09,1994Mo06).
703.10 *4*	1.06 *4*	2118.535	1$^+$	1415.498	0$^+$	[M1]	0.0519 *7*	α(K)=0.0424 *6*; α(L)=0.00725 *10*; α(M)=0.001703 *24*; α(N)=0.000438 *6*; α(O)=9.17×10^{-5} *13* α(P)=1.188×10^{-5} *17* E_γ: weighted average of 703.1 *2* (1969Li10), 703.06 *16* (1982Ak03), 703.11 *4* (1989Si17) and 703.09 *9* (1993Di09,1994Mo06). Other: 703.2 *8* (1967Ma51). I_γ: weighted average of 1.08 *15* (1982Ak03), 1.02 *4* (1989Si17), 1.11 *7* (1994Mo06) and 1.12 *8* (2000Sa32).
704.96 *25*	0.103 *21*	2447.701	1$^-$	1742.99	0$^{(+)}$	[E1]	0.00519 *7*	α(K)=0.00429 *6*; α(L)=0.000684 *10*; α(M)=0.0001593 *22*; α(N)=4.08×10^{-5} *6* α(O)=8.45×10^{-6} *12*; α(P)=1.066×10^{-6} *15* E_γ: weighted average of 704.9 *5* (1989Si17) and 704.97 *25* (1993Di09,1994Mo06). I_γ: weighted average of 0.094 *21* (1989Si17), 0.11 *3* (1994Mo06) and 0.113 *29* (2000Sa32).
708.95 *23*	0.027 *3*	2719.26	1$^+$	2010.831	(2$^+$)			E_γ: weighted average of 709.12 *30* (1982Ak03) and 708.7 *6* (1989Si17) and 708.89 *23* (1993Di09,1994Mo06). I_γ: weighted average of 0.031 *9* (1982Ak03), 0.030 *9* (1989Si17), 0.042 *11* (1994Mo06) and 0.025 *3* (2000Sa32).

$^{214}_{84}Po_{130}$-13

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ[@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ	α	Comments
710.27[†&] *8*		2423.25	(1,2$^+$)	1712.93	(3$^+$)				E_γ: from 1993Di09 and 1994Mo06.
710.69 *10*	0.163 *4*	2088.44	(1,2$^+$)	1377.681	2$^+$				E_γ: weighted average of 710.8 *6* (1969Li10), 710.66 *17* (1982Ak03), 710.8 *2* (1989Si17) and 710.67 *10* (1993Di09,1994Mo06). Other: 710 *4* (1967Bu17). I_γ: weighted average of 0.16 *2* (1982Ak03), 0.162 *4* (1989Si17), 0.16 *2* (1994Mo06) and 0.170 *9* (2000Sa32).
719.86 *3*	0.90 *3*	1994.639	1$^-$	1274.765	3$^-$	E2		0.01424 *20*	α(K)=0.01075 *15*; α(L)=0.00264 *4*; α(M)=0.000646 *9*; α(N)=0.0001659 *23*; α(O)=3.37×10^{-5} *5* α(P)=3.93×10^{-6} *6* E_γ: weighted average of 719.9 *2* (1969Li10), 719.87 *17* (1982Ak03), 719.86 *3* (1989Si17) and 719.91 *12* (1993Di09,1994Mo06). Other: 720.2 *8* (1967Ma51). I_γ: weighted average of 0.90 *13* (1982Ak03), 0.87 *4* (1989Si17), 0.91 *8* (1994Mo06) and 0.91 *3* (2000Sa32). Mult.: from α(K)exp=0.0099 (1967Ma51).
723.01 *12*	0.080 *9*	2266.41	2$^+$	1543.370	2$^+$	E2		0.01411 *20*	α(K)=0.01066 *15*; α(L)=0.00261 *4*; α(M)=0.000638 *9*; α(N)=0.0001639 *23*; α(O)=3.33×10^{-5} *5* α(P)=3.89×10^{-6} *5* E_γ: weighted average of 722.93 *19* (1982Ak03), 723.4 *3* (1989Si17) and 722.98 *12* (1993Di09,1994Mo06). Mult.: α(K)exp=0.010 *4* (1960Lu07). I_γ: weighted average of 0.075 *11* (1982Ak03), 0.10 *5* (1989Si17), 0.073 *9* (1994Mo06) and 0.107 *15* (2000Sa32).
[x]727 *1*	0.08 *3*								E_γ: from 1969Li10. I_γ: from 2000Sa32.
733.81 *10*	0.089 *8*	2728.617	(0$^+$,1,2)	1994.639	1$^-$				E_γ: weighted average of 734.3 *6* (1969Li10), 733.90 *17* (1982Ak03), 733.65 *10* (1989Si17) and 733.92 *10* (1993Di09,1994Mo06). I_γ: weighted average of 0.086 *12* (1982Ak03), 0.102 *13* (1989Si17), 0.085 *8* (1994Mo06) and 0.092 *17* (2000Sa32).
740.77 *13*	0.095 *5*	2118.535	1$^+$	1377.681	2$^+$	[M1,E2]		0.029 *16*	α(K)=0.024 *13*; α(L)=0.0044 *19*; α(M)=0.0010 *4*; α(N)=2.7×10^{-4} *11*; α(O)=5.6×10^{-5} *24* α(P)=7.0×10^{-6} *33* E_γ: weighted average of 740.83 *20* (1982Ak03), 741.5 *10* (1989Si17) and 740.73 *13* (1993Di09,1994Mo06). I_γ: weighted average of 0.11 *2* (1982Ak03), 0.09 *4* (1989Si17), 0.088 *13* (1994Mo06) and 0.095 *5* (2000Sa32).
752.84 *3*	0.29 *2*	2482.460	(1$^-$,2$^+$)	1729.613	2$^+$				E_γ: weighted average of 753.0 *3* (1969Li10), 752.84 *17* (1982Ak03), 752.84 *3* (1989Si17) and 752.86 *9* (1993Di09,1994Mo06). I_γ: weighted average of 0.30 *4* (1982Ak03), 0.29 *3* (1989Si17), 0.28 *2* (1994Mo06) and 0.28 *4* (2000Sa32).
768.360 *7*	10.76 *3*	1377.681	2$^+$	609.318	2$^+$	M1+E2	3.81 *13*	0.01429 *24*	α(K)=0.01105 *19*; α(L)=0.00245 *4*; α(M)=0.000595 *9*;

$^{214}_{84}Po_{130}$-14

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ [@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
								α(N)=0.0001529 *23*; α(O)=3.12×10^{-5} *5* α(P)=3.74×10^{-6} *6* E_γ: weighted average of 768.4 *2* (1969Li10), 768.36 *16* (1982Ak03), 768.361 *18* (1989Si17), 768.356 *10* (1993Di09,1994Mo06) and 768.362 *7* (2002MoZP). Other: 768.8 *5* (1967Ma51) and 770 *4* (1967Bu17). Mult.,δ: α(K)exp=0.0112 *8*; K/L=4.1 *5* (1960Lu07); others: K/L=3.95 *20* and K/M=10.5 *15* (1960Ma05); K/L=4.6 *12* (1957Ni11); α(K)exp=0.011 (1967Ma51); $\gamma\gamma$(E2)(θ): A_2=−0.29 *6*, A_4=0.36 *10* (1986Ta16). I_γ: weighted average of 11.9 *17* (1982Ak03), 10.60 *19* (1989Si17), 10.91 *8* (1994Mo06), 10.83 *22* (1998Mo14), 10.39 *31* (2000Sa32), 10.77 *3* (2002MoZP) and 10.68 *5* (2004Mo07).
769.7‡ *5*	0.064 *21*	2147.86	(1$^-$,2$^+$)	1377.681	2$^+$			E_γ: from 1989Si17. Other: 768.8 *5* (1967Ma51). I_γ: from 1989Si17.
786.35 *16*	0.70 *9*	2447.701	1$^-$	1661.282	2$^+$	[E1]	0.00422 *6*	α(K)=0.00350 *5*; α(L)=0.000552 *8*; α(M)=0.0001285 *18*; α(N)=3.29×10^{-5} *5*; α(O)=6.83×10^{-6} *10* α(P)=8.65×10^{-7} *12* E_γ: weighted average of 786.1 *4* (1969Li10), 786.1 *4* (1989Si17) and 786.43 *16* (1993Di09,1994Mo06). I_γ: weighted average of 0.68 20 (1989Si17) and 0.70 *10* (2000Sa32).
788.2 *3*	0.032 *6*	2204.103	1$^+$	1415.498	0$^+$	[M1]	0.0385 *5*	α(K)=0.0315 *4*; α(L)=0.00536 *8*; α(M)=0.001260 *18*; α(N)=0.000324 *5*; α(O)=6.79×10^{-5} *10* α(P)=8.80×10^{-6} *12* E_γ: weighted average of 787.85 *30* (1982Ak03), 789.0 *5* (1989Si17) and 788.2 *5* (1993Di09,1994Mo06). I_γ: weighted average of 0.057 *14* (1982Ak03), 0.026 *6* (1989Si17), 0.041 *8* (1994Mo06) and 0.020 *10* (2000Sa32).
[x]803.1	0.010 *3*							E_γ,I_γ: from 2000Sa32.
806.179 *10*	2.778 *14*	1415.498	0$^+$	609.318	2$^+$	E2	0.01127 *16*	α(K)=0.00867 *12*; α(L)=0.001972 *28*; α(M)=0.000480 *7*; α(N)=0.0001232 *17* α(O)=2.512×10^{-5} *35*; α(P)=2.98×10^{-6} *4* E_γ: weighted average of 806.2 *2* (1969Li10), 806.17 *17* (1982Ak03), 806.174 *18* (1989Si17), 806.18 *9* (1993Di09,1994Mo06) and 806.181 *10* (2002MoZP). Other: 806.5 *5* (1967Ma51). Mult.: from α(K)exp=0.0073 *12* (1960Lu07); other: α(K)exp=0.083 (1967Ma51); K/L=3.0 *15* (1957Ni11); $\gamma\gamma$(E2)(θ): A_2=0.22 *3*, A_4=1.27 *4* (1986Ta16). I_γ: weighted average of 2.92 *43* (1982Ak03), 2.67 *6* (1989Si17), 2.90 *22* (1994Mo06), 2.81 *24* (1998Mo14), 2.76 *11* (2000Sa32), 2.777 *14* (2002MoZP) and 2.791 *20* (2004Mo07).
814.92 *11*	0.086 *8*	2192.536	(2)$^+$	1377.681	2$^+$			E_γ: weighted average of 815 *1* (1969Li10), 814.86 *19* (1982Ak03), 815.08 *15* (1989Si17) and 814.86 *11* (1993Di09,1994Mo06). I_γ: weighted average of 0.087 *13* (1982Ak03), 0.087 *15* (1989Si17), 0.081 *8* (1994Mo06) and 0.110 *20* (2000Sa32).
821.18 *3*	0.36 *3*	2482.460	(1$^-$,2$^+$)	1661.282	2$^+$			E_γ: weighted average of 821.2 *3* (1969Li10), 821.17 *17* (1982Ak03), 821.18 *3*

$^{214}_{84}Po_{130}$-15

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ [@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
								(1989Si17) and 821.19 *10* (1993Di09,1994Mo06). Other: 821.7 *10* (1967Ma51) and 825 *5* (1967Bu17). I_γ: weighted average of 0.37 *6* (1982Ak03), 0.33 *3* (1989Si17), 0.36 *3* (1994Mo06) and 0.37 *3* (2000Sa32).
826.41 *11*	0.23 *3*	2204.103	1^+	1377.681	2^+	[M1+E2]	0.022 *12*	α(K)=0.018 *10*; α(L)=0.0033 *14*; α(M)=7.8×10^{-4} *33*; α(N)=2.0×10^{-4} *9*; α(O)=4.2×10^{-5} *18* α(P)=5.3×10^{-6} *25* E_γ: weighted average of 826 *1* (1969Li10), 826.40 *19* (1982Ak03), 826.2 *3* (1989Si17) and 826.44 *11* (1993Di09,1994Mo06). I_γ: weighted average of 0.29 *4* (1982Ak03), 0.200 *15* (1989Si17), 0.28 *3* (1994Mo06) and 0.29 *4* (2000Sa32).
832.37 *11*	0.062 *6*	1847.446	2^+	1015.041	(4^+)			E_γ: weighted average of 832.0 *6* (1969Li10), 832.35 *19* (1982Ak03), 832.35 *20* (1989Si17) and 832.39 *11* (1993Di09,1994Mo06). I_γ: weighted average of 0.064 *10* (1982Ak03), 0.049 *11* (1989Si17), 0.062 *6* (1994Mo06) and 0.080 *13* (2000Sa32).
840.4[‡] *5*	0.021 *6*	2604.68	(2^+)	1764.520	1^+			E_γ: from 1989Si17. I_γ: weighted average of 0.019 *6* (1989Si17) and 0.025 *8* (2000Sa32).
847.14[†] *11*	0.055 *7*	2694.62	$(1^-,2^+)$	1847.446	2^+			E_γ: weighted average of 847.07 *19* (1982Ak03) and 847.16 *11* (1993Di09,1994Mo06). I_γ: weighted average of 0.052 *12* (1982Ak03), 0.057 *7* (1994Mo06) and 0.053 *15* (2000Sa32).
866.0[†] *8*		2630.84	$(1,2^+)$	1764.520	1^+			E_γ: from 1993Di09 and 1994Mo06.
872.95 *19*	0.038 *9*	2147.86	$(1^-,2^+)$	1274.765	3^-			E_γ: weighted average of 872.51 *36* (1982Ak03), 873.0 *5* (1989Si17) and 873.07 *19* (1993Di09,1994Mo06). I_γ: weighted average of 0.032 *10* (1982Ak03), 0.036 *13* (1989Si17), 0.042 *9* (1994Mo06) and 0.040 *10* (2000Sa32).
878.02[†] *12*	0.024 *6*	2293.362	$(1^+,2^+)$	1415.498	0^+			E_γ: weighted average 877.91 *36* (1982Ak03) and 878.03 *12* (1993Di09,1994Mo06). I_γ: weighted average of 0.022 *7* (1982Ak03) and 0.026 *6* (1993Di09,1994Mo06).
891.8[†] *3*		2604.68	(2^+)	1712.93	(3^+)			E_γ: from 1993Di09 and 1994Mo06.
904.35 *9*	0.16 *2*	2447.701	1^-	1543.370	2^+	[E1]	0.00326 *5*	α(K)=0.00270 *4*; α(L)=0.000423 *6*; α(M)=9.83×10^{-5} *14*; α(N)=2.517×10^{-5} *35*; α(O)=5.23×10^{-6} *7* α(P)=6.66×10^{-7} *9* E_γ: weighted average of 904.1 *5* (1969Li10), 904.30 *17* (1982Ak03), 904.25 *25* (1989Si17) and 904.38 *9* (1993Di09,1994Mo06). I_γ: weighted average of 0.15 *2* (1982Ak03), 0.23 *3* (1989Si17), 0.14 *2* (1994Mo06) and 0.16 *4* (2000Sa32).
915.73 *15*	0.053 *6*	2293.362	$(1^+,2^+)$	1377.681	2^+			E_γ: weighted average of 915.68 *24* (1982Ak03), 915.8 *4* (1989Si17) and 915.74 *15* (1993Di09,1994Mo06). I_γ: weighted average of 0.070 *14* (1982Ak03), 0.049 *13* (1989Si17), 0.065 *8* (1994Mo06) and 0.043 *6* (2000Sa32).

$^{214}_{84}Po_{130}$-16

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ[@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ	α	Comments
917.7[†] *3*	0.010 *7*	2192.536	(2)$^+$	1274.765	3$^-$				E_γ: weighted average of 917.73 *36* (1982Ak03) and 917.73 *29* (1993Di09,1994Mo06). I_γ: from 1982Ak03 and 1994Mo06.
930.2 *2*	0.058 *17*	2694.62	(1$^-$,2$^+$)	1764.520	1$^+$				E_γ: weighted average of 930.5 *5* (1989Si17) and 930.15 *17* (1993Di09,1994Mo06). I_γ: weighted average of 0.043 *11* (1989Si17), 0.10 *2* (1993Di09,1994Mo06) and 0.08 *3* (2000Sa32).
934.056 *8*	6.81 *3*	1543.370	2$^+$	609.318	2$^+$	M1+E2	0.37 *24*	0.0228 *25*	α(K)=0.0187 *21*; α(L)=0.00319 *31*; α(M)=0.00075 *7*; α(N)=0.000193 *19*; α(O)=4.0×10^{-5} *4* α(P)=5.2×10^{-6} *5* E_γ: weighted average of 934.0 *2* (1969Li10), 934.052 20 (1989Si17), 934.061 *12* (1993Di09,1994Mo06) and 934.054 *8* (2002MoZP). Mult.,δ: from α(K)exp=0.0188 *9*; K/L=5.3 *7* (1960Lu07); K/L=5.4 *3* (1957Ni11); others: α(K)exp=0.0188 (1967Ma51); $\gamma\gamma$(E2)(θ): A_2=0.41 *6*, A_4=0.06 *8* (1986Ta16). I_γ: weighted average of 7.0 *9* (1982Ak03), 6.87 *13* (1989Si17), 6.81 *14* (1998Mo14), 6.88 *5* (1994Mo06), 6.70 *20* (2000Sa32), 6.83 *4* (2002MoZP) and 6.78 *3* (2004Mo07).
934.1 *2*	0.107 *21*	2208.69	(2$^-$,3)	1274.765	3$^-$				E_γ: weighted average of 934.0 *5* (1989Si17) and 934.10 *20* (1993Di09,1994Mo06). I_γ: from 1989Si17.
934.5[‡] *5*	0.021 *6*	2698.60	(1,2)$^+$	1764.520	1$^+$				E_γ,I_γ: from 1989Si17.
938.65[†] *16*	0.028 *8*	2785.97	(1,2$^+$)	1847.446	2$^+$				E_γ: weighted average of 938.64 *20* (1982Ak03) and 938.65 *16* (1993Di09,1994Mo06). I_γ: weighted average of 0.030 *8* (1982Ak03) and 0.028 *8* (1993Di09,1994Mo06).
939.6[‡] *5*	0.043 *9*	2482.460	(1$^-$,2$^+$)	1543.370	2$^+$				E_γ: from 1989Si17. I_γ: weighted average of 0.038 *13* (1989Si17) and 0.045 *9* (2000Sa32).
943.33 *12*	0.036 *6*	2604.68	(2$^+$)	1661.282	2$^+$				E_γ: weighted average of 943.31 *20* (1982Ak03), 943.3 *4* (1989Si17) and 943.34 *12* (1993Di09,1994Mo06). I_γ: weighted average of 0.034 *8* (1982Ak03), 0.036 *13* (1989Si17), 0.037 *6* (1994Mo06) and 0.050 *26* (2000Sa32).
949.8[†] *3*	0.011 *5*	2662.33	(2$^+$)	1712.93	(3$^+$)				E_γ: weighted average of 949.81 *36* (1982Ak03) and 949.83 *50* (1993Di09,1994Mo06). I_γ: weighted average of 0.009 *6* (1982Ak03) and 0.012 *5* (1993Di09,1994Mo06).
952.2[†] *8*	0.013 *5*	2694.62	(1$^-$,2$^+$)	1742.99	0$^{(+)}$				E_γ,I_γ: from 1993Di09 and 1994Mo06.
961.66 *17*	0.023 *3*	2505.34	(1$^-$,2$^+$)	1543.370	2$^+$				E_γ: weighted average of 961.84 *36* (1982Ak03), 962 *1* (1989Si17) and 961.61 *17* (1993Di09,1994Mo06). I_γ: weighted average of 0.046 *12* (1982Ak03), 0.021 *10* (1989Si17), 0.03 *2* (1994Mo06) and 0.022 *3* (2000Sa32).

$^{214}_{84}Po_{130}$-17

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ [@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
964.08 *3*	0.82 *4*	2728.617	$(0^+,1,2)$	1764.520	1^+			E_γ: weighted average of 964.1 *3* (1969Li10), 964.10 *17* (1982Ak03), 964.08 *3* (1989Si17) and 964.11 *10* (1993Di09,1994Mo06). Other: 964.8 *10* (1967Ma51). I_γ: weighted average of 0.82 *10* (1982Ak03), 0.83 *4* (1989Si17), 0.80 *5* (1994Mo06) and 0.80 *7* (2000Sa32).
965.00[‡] *10*	0.023 *7*	2508.12	(0^+)	1543.370	2^+			E_γ: from 1989Si17. Placement from 965γ and 934γ coincidence (1989Si17). Possible placement between the 2694- and 1729-keV levels from the energy fit (1994Mo06). I_γ: weighted average of 0.021 *10* (1989Si17) and 0.024 *7* (2000Sa32).
965.00[†] *10*		2694.62	$(1^-,2^+)$	1729.613	2^+			E_γ: from 1993Di09 and 1994Mo06.
976.18 *12*	0.033 *5*	2719.26	1^+	1742.99	$0^{(+)}$			E_γ: weighted average of 976.18 *19* (1982Ak03) and 976.2 *10* (1989Si17) and 976.18 *12* (1993Di09,1994Mo06). I_γ: weighted average of 0.029 *8* (1982Ak03), 0.049 *26* (1989Si17), 0.033 *5* (1994Mo06) and 0.035 *13* (2000Sa32).
[x]989.29 *17*	0.017 *6*							E_γ: weighted average of 989.04 *36* (1982Ak03) and 989.34 *17* (1993Di09). I_γ: weighted average of 0.009 *6* (1982Ak03) and 0.022 *5* (1993Di09).
991.56[†] *19*	0.021 *5*	2266.41	2^+	1274.765	3^-	[E1]	0.00276 *4*	α(K)=0.002293 *32*; α(L)=0.000356 *5*; α(M)=8.27×10^{-5} *12*; α(N)=2.119×10^{-5} *30* α(O)=4.41×10^{-6} *6*; α(P)=5.63×10^{-7} *8* E_γ: weighted average of 991.83 *36* (1982Ak03) and 991.49 *19* (1993Di09,1994Mo06). I_γ: weighted average of 0.015 *7* (1982Ak03), 0.022 *5* (1993Di09,1994Mo06) and 0.050 *22* (2000Sa32).
1011.8[†] *8*		3022.3	$(2^-,3,4^+)$	2010.831	(2^+)			E_γ: from 1993Di09 and 1994Mo06.
1013.4[‡] *10*	0.029 *8*	2860.93	$(1,2^+)$	1847.446	2^+			E_γ: from 1989Si17, not assigned to ^{214}Po in 1993Di09. I_γ: weighted average of 0.021 *13* (1989Si17) and 0.034 *11* (2000Sa32).
1021.4 *3*	0.033 *6*	2785.97	$(1,2^+)$	1764.520	1^+			E_γ: weighted average of 1020.5 *6* (1989Si17) and 1021.53 *19* (1993Di09,1994Mo06). I_γ: weighted average of 0.026 *13* (1989Si17), 0.034 *6* (1994Mo06) and 0.036 *15* (2000Sa32).
1032.39 *8*	0.14 *2*	2447.701	1^-	1415.498	0^+	[E1]	0.00257 *4*	α(K)=0.002134 *30*; α(L)=0.000331 *5*; α(M)=7.68×10^{-5} *11*; α(N)=1.966×10^{-5} *28* α(O)=4.09×10^{-6} *6*; α(P)=5.23×10^{-7} *7* E_γ: weighted average of 1032.5 *6* (1969Li10), 1032.37 *8* (1989Si17) and 1032.46 *17* (1993Di09,1994Mo06). I_γ: weighted average of 0.21 *4* (1989Si17), 0.13 *1* (1994Mo06) and 0.17 *3* (2000Sa32).
1033.31 *18*	0.045 *7*	2694.62	$(1^-,2^+)$	1661.282	2^+			E_γ: weighted average of 1033.2 *10* (1989Si17) and 1033.31 *18* (1993Di09,1994Mo06). I_γ: weighted average of 0.051 *13* (1989Si17) and 0.043 *7* (2000Sa32).
1038.0[‡] *6*	0.017 *4*	2698.60	$(1,2)^+$	1661.282	2^+			E_γ,I_γ: from 1989Si17.
1038.0[†] *2*	0.018 *3*	2802.54		1764.520	1^+			E_γ,I_γ: from 1993Di09 and 1994Mo06; other: 0.030 *10* (2000Sa32).

$^{214}_{84}Po_{130}$-18

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ [@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
1045.73 *16*	0.047 *6*	2423.25	(1,2$^+$)	1377.681	2$^+$			E_γ: weighted average of 1045.4 *6* (1989Si17) and 1045.76 *17* (1993Di09,1994Mo06). I_γ: weighted average of 0.029 *15* (1989Si17), 0.051 *6* (1994Mo06) and 0.037 *20* (2000Sa32).
1051.96 *3*	0.688 *22*	1661.282	2$^+$	609.318	2$^+$	[M1,E2]	0.012 *6*	α(K)=0.010 *5*; α(L)=0.0018 *7*; α(M)=4.2×10^{-4} *17*; α(N)=1.1×10^{-4} *4*; α(O)=2.3×10^{-5} *9* α(P)=2.9×10^{-6} *13* E_γ: weighted average of 1052.0 *3* (1969Li10), 1051.96 *3* (1989Si17) and1051.97 *15* (1993Di09, 1994Mo06). Other: 1052.4 *1.5* (1967Ma51). I_γ: weighted average of 0.68 *3* (1989Si17), 0.66 *5* (1994Mo06) and 0.72 *4* (2000Sa32).
(1058.1[‡])	0.018 *6*	2719.26	1$^+$	1661.282	2$^+$	[M1+E2]	0.012 *6*	α(K)=0.010 *5*; α(L)=0.0018 *7*; α(M)=4.2×10^{-4} *17*; α(N)=1.1×10^{-4} *4*; α(O)=2.2×10^{-5} *9* α(P)=2.8×10^{-6} *12* E_γ: from 1989Si17, not assigned to ^{214}Po in 1993Di09. I_γ: from 2000Sa32.
(1062.4[‡])	0.028 *17*	2826.82	(1,2$^+$)	1764.520	1$^+$			E_γ: from 1989Si17, assigned to ^{210}Pb in 1993Di09. I_γ: from 2000Sa32; other: <0.021 (1989Si17).
1067.4 *3*	0.056 *13*	2728.617	(0$^+$,1,2)	1661.282	2$^+$			E_γ: weighted average of 1066.9 *8* (1989Si17) and 1067.50 *27* (1993Di09,1994Mo06). I_γ: weighted average of 0.062 *26* (1989Si17), 0.055 *20* (1994Mo06) and 0.051 *24* (2000Sa32).
1069.97 *8*	0.60 *4*	2447.701	1$^-$	1377.681	2$^+$	[E1]	2.41×10^{-3} *3*	α(K)=0.002003 *28*; α(L)=0.000310 *4*; α(M)=7.19×10^{-5} *10*; α(N)=1.842×10^{-5} *26* α(O)=3.84×10^{-6} *5*; α(P)=4.91×10^{-7} *7* E_γ: weighted average of 1070.0 *3* (1969Li10), 1069.96 *8* (1989Si17) and 1070.01 *16* (1993Di09,1994Mo06). I_γ: weighted average of 0.62 *4* (1989Si17), 0.56 *4* (1994Mo06) and 0.65 *6* (2000Sa32).
(1087.4[‡])	0.033 *15*	2630.84	(1,2$^+$)	1543.370	2$^+$			E_γ: from 1989Si17; assigned to ^{210}Pb in 1993Di09. I_γ: from 2000Sa32.
1103.70 *19*	0.21 *3*	1712.93	(3$^+$)	609.318	2$^+$	[M1,E2]	0.011 *5*	α(K)=0.009 *4*; α(L)=0.0016 *6*; α(M)=3.7×10^{-4} *15*; α(N)=1.0×10^{-4} *4*; α(O)=2.0×10^{-5} *8* α(P)=2.6×10^{-6} *11* E_γ: weighted average of 1104.0 *4* (1969Li10), 1103.7 *3* (1989Si17), 1103.64 *19* (1993Di09,1994Mo06). I_γ: weighted average of 0.21 *11* (1989Si17), 0.21 *3* (1994Mo06) and 0.24 *7* (2000Sa32).
1104.68 *19*	0.168 *9*	2482.460	(1$^-$,2$^+$)	1377.681	2$^+$			E_γ: weighted average of 1104.0 *4* (1969Li10), 1104.8 *3* (1989Si17) and 1104.79 *19* (1993Di09,1994Mo06). I_γ: weighted average of 0.17 *1* (1989Si17), 0.16 *3* (1994Mo06) and 0.16 *3* (2000Sa32).

$^{214}_{84}Po_{130}$-19

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ[@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ	α	Comments
1108.8[‡]	0.015 *5*	2769.91	(1,2$^+$)	1661.282	2$^+$				E_γ: from 1989Si17, not assigned to ^{214}Po in 1993Di09. I_γ: from 2000Sa32.
1118.9[‡] *5*	0.085 *21*	2662.33	(2$^+$)	1543.370	2$^+$				E_γ,I_γ: from 1989Si17.
1120.294 *6*	32.79 *10*	1729.613	2$^+$	609.318	2$^+$	M1+E2	0.37 *20*	0.0144 *12*	α(K)=0.0118 *10*; α(L)=0.00199 *16*; α(M)=0.00047 *4*; α(N)=0.000120 *9*; α(O)=2.52×10^{-5} *20* α(P)=3.26×10^{-6} *27* E_γ: weighted average of 1120.4 *2* (1969Li10), 1120.276 *22* (1989Si17), 1120.287 *10* (1993Di09,1994Mo06) and 1120.301 *8* (2002MoZP). Other: 1120.8 *5* (1967Ma51), 1120 *3* (1967Bu17) and 1120 *2* (1969La03). Mult.,δ: from α(K)exp=0.00118 *5*; K/L=6.0 *4* (1960Lu07); K/L=5.6 *2* (1957Ni11); others: α(K)exp=0.0154 (1967Ma51); $\gamma\gamma$(E2)(θ): A_2=0.109 *6*, A_4=0.011 *11* (1986Ta16). I_γ: weighted average of 32.6 *6* (1989Si17), 33.13 *22* (1994Mo06), 33.1 *6* (1998Mo14), 32.3 *10* (2000Sa32), 32.77 *12* (2002MoZP) and 32.74 *10* (2004Mo07).
1130.38 *20*	0.081 *9*	2508.12	(0$^+$)	1377.681	2$^+$				E_γ: weighted average of 1130.8 *4* (1989Si17) and 1130.29 *19* (1993Di09,1994Mo06). I_γ: weighted average of 0.10 *2* (1989Si17), 0.078 *9* (1994Mo06) and 0.080 *11* (2000Sa32).
1133.66 *3*	0.56 *2*	1742.99	0$^{(+)}$	609.318	2$^+$	(E2)		0.00578 *8*	α(K)=0.00462 *6*; α(L)=0.000888 *12*; α(M)=0.0002120 *30*; α(N)=5.45×10^{-5} *8* α(O)=1.123×10^{-5} *16*; α(P)=1.385×10^{-6} *19* E_γ: weighted average of 1133.8 *3* (1969Li10), 1133.66 *3* (1989Si17) and 1133.73 *15* (1993Di09,1994Mo06). I_γ: weighted average of 0.55 *2* (1989Si17), 0.56 *3* (1994Mo06) and 0.57 *3* (2000Sa32). Mult.: $\gamma\gamma$(E2)(θ): A_2=0.54 *10*, A_4=1.1 *2* (1989Si17).
1155.210 *8*	3.595 *17*	1764.520	1$^+$	609.318	2$^+$	M1+E2	+0.48 *18*	0.0127 *10*	α(K)=0.0104 *9*; α(L)=0.00177 *13*; α(M)=0.000415 *31*; α(N)=0.000107 *8*; α(O)=2.23×10^{-5} *17* α(P)=2.89×10^{-6} *23* E_γ: weighted average of 1155.3 *2* (1969Li10), 1155.19 *2* (1989Si17), 1155.22 *13* (1993Di09,1994Mo06) and 1155.214 *9* (2002MoZP). Other: 1155.5 *7* (1967Ma51), 1150 *4* (1967Bu17) and 1155 *2* (1969La03). Mult.,δ: from α(K)exp=0.0104 *12* (1960Lu07); others: α(K)exp=0.0091 (1967Ma51); $\gamma\gamma$(E2)(θ): A_2=−0.54 *3*, A_4=−0.02 *6* (1986Ta16). I_γ: weighted average of 3.67 *11* (1989Si17), 3.5 *4* (1994Mo06), 3.61 *10* (1998Mo14), 3.4 *7* (2000Sa32), 3.595 *17* (2002MoZP) and 3.59 *3* (2004Mo07).
1155.6[‡] *5*	0.034 *9*	2698.60	(1,2)$^+$	1543.370	2$^+$				E_γ,I_γ: from 1989Si17.

$^{214}_{84}Po_{130}$-20

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ[@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
1156[‡] *1*	0.015 *6*	3003.4		1847.446	2^+			E_γ,I_γ: from 1989Si17.
1167.26 *18*	0.027 *4*	2544.92		1377.681	2^+			E_γ: weighted average of 1166.9 *10* (1989Si17) and 1167.27 *18* (1993Di09,1994Mo06). I_γ: weighted average of 0.026 *9* (1989Si17), 0.027 *4* (1994Mo06) and 0.028 *10* (2000Sa32).
1173.01 *10*	0.120 *11*	2447.701	1^-	1274.765	3^-	[E2]	0.00542 *8*	α(K)=0.00434 *6*; α(L)=0.000824 *12*; α(M)=0.0001965 *28*; α(N)=5.05×10^{-5} *7* α(O)=1.041×10^{-5} *15*; α(P)=1.289×10^{-6} *18* E_γ: weighted average of 1172.9 *6* (1969Li10), 1173.05 *10* (1989Si17) and 1172.90 *17* (1993Di09,1994Mo06). I_γ: weighted average of 0.13 *3* (1989Si17), 0.098 *12* (1994Mo06) and 0.132 *9* (2000Sa32).
1206.4[†] *8*		3053.88	$(1,2^+)$	1847.446	2^+			E_γ: from 1993Di09 and 1994Mo06.
1207.68 *3*	1.00 *4*	2482.460	$(1^-,2^+)$	1274.765	3^-			E_γ: weighted average of 1207.8 *3* (1969Li10), 1207.68 *3* (1989Si17) and 1207.72 *12* (1993Di09,1994Mo06). Other: 1207.8 *8* (1967Ma51) and 1208 *2* (1967Bu17). I_γ: weighted average of 1.00 *4* (1989Si17), 0.98 *6* (1994Mo06) and 1.04 *7* (2000Sa32).
1226.7[†] *3*	0.28 *11*	2604.68	(2^+)	1377.681	2^+			E_γ: from 1993Di09 and 1994Mo06. I_γ: from 1994Mo06.
1226.8[‡] *6*	0.066 *19*	2769.91	$(1,2^+)$	1543.370	2^+			E_γ: from 1989Si17. I_γ: weighted average of 0.058 *19* (1989Si17) and 0.074 *20* (2000Sa32).
1230.6 *4*	0.018 *8*	2505.34	$(1^-,2^+)$	1274.765	3^-			E_γ: weighted average of 1230.5 *10* (1989Si17) and 1230.65 *38* (1993Di09,1994Mo06). I_γ: weighted average of 0.047 *24* (1989Si17), 0.015 *6* (1994Mo06) and 0.08 *4* (2000Sa32).
1238.122 *10*	12.83 *4*	1847.446	2^+	609.318	2^+	M1	0.01201 *17*	α(K)=0.00984 *14*; α(L)=0.001653 *23*; α(M)=0.000388 *5*; α(N)=9.97×10^{-5} *14* α(O)=2.090×10^{-5} *29*; α(P)=2.71×10^{-6} *4* E_γ: weighted average of 1238.2 *2* (1969Li10), 1238.11 *3* (1989Si17), 1238.110 *12* (1993Di09,1994Mo06) and 1238.131 *10* (2002MoZP). Other: 1240 *4* (1967Bu17) and 1238 *2* (1969La03). Mult.: α(K)exp=0.0113 *11*, K/L=6.1 *+1.2−0.9* (1960Lu07); K/L=5.7 *3* (1957Ni11); others: α(K)εexp=0.0089 (1967Ma51); $\gamma\gamma$(E2)(θ): A_2=0.272 *9*, A_4=0.00 *2* (1986Ta16). I_γ: weighted average of 12.84 *13* (1989Si17), 12.87 *9* (1994Mo06), 12.97 *25* (1998Mo14), 12.7 *4* (2000Sa32), 12.83 *6* (2002De03), 12.80 *4* (2002MoZP) and 12.85 *5* (2004Mo07).
1253.14[†] *12*		2630.84	$(1,2^+)$	1377.681	2^+			E_γ: from 1993Di09 and 1994Mo06.
1279.0[‡] *7*	0.029 *5*	2940.67	$(1^-,2^+)$	1661.282	2^+			E_γ: from 1989Si17. I_γ: weighted average of 0.026 *6* (1989Si17) and 0.037 *10* (2000Sa32).
1280.976 *12*	3.158 *16*	1890.306	$(2)^+$	609.318	2^+	M1	0.01102 *15*	α(K)=0.00901 *13*; α(L)=0.001513 *21*; α(M)=0.000355 *5*; α(N)=9.13×10^{-5}

$^{214}_{84}Po_{130}$-21

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ[@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
								13 α(O)=1.913×10^{-5} *27*; α(P)=2.483×10^{-6} *35* E_γ: weighted average of 1281.1 *2* (1969Li10), 1280.96 *2* (1989Si17), 1281.05 *14* (1993Di09,1994Mo06) and 1280.981 *12* (2002MoZP). Other: 1280 *5* (1967Bu17) and 1281 *2* (1969La03). Mult.: from α(K)exp=0.0094 *9* (1960Lu07); others: α(K)exp=0.0082 (1967Ma51); $\gamma\gamma$(E2)(θ): A_2=0.30 *8*, A_4=0.08 *12* (1986Ta16). I_γ: weighted average of 3.20 *11* (1989Si17), 3.17 *17* (1994Mo06), 3.19 *11* (1998Mo14), 3.15 *11* (2000Sa32), 3.159 *16* (2002MoZP) and 3.15 *3* (2004Mo07).
1284[‡] *1*	0.026 *2*	2662.33	(2$^+$)	1377.681	2$^+$			E_γ: from 1989Si17. I_γ: weighted average of 0.026 *2* (1989Si17) and 0.020 *7* (2000Sa32).
1285.1[‡] *5*	0.035 *9*	3014.11	(1,2$^+$)	1729.613	2$^+$			E_γ: from 1989Si17, not assigned to ^{214}Po in 1993Di09. I_γ: weighted average of 0.036 *9* (1989Si17) and 0.033 *9* (2000Sa32).
1303.75 *8*	0.23 *2*	2719.26	1$^+$	1415.498	0$^+$	M1	0.01054 *15*	α(K)=0.00861 *12*; α(L)=0.001446 *20*; α(M)=0.000339 *5*; α(N)=8.72×10^{-5} *12* α(O)=1.827×10^{-5} *26*; α(P)=2.372×10^{-6} *33* E_γ: weighted average of 1303.8 *4* (1969Li10) and 1303.76 *8* (1989Si17) and 1303.73 *14* (1993Di09,1994Mo06). I_γ: weighted average of 0.26 *2* (1989Si17), 0.21 *2* (1994Mo06) and 0.20 *5* (2000Sa32). Mult.: from α(K)exp=0.015 (1967Ma51).
1316.99 *15*	0.18 *2*	2694.62	(1$^-$,2$^+$)	1377.681	2$^+$			E_γ: weighted average of 1317.1 *3* (1969Li10), 1316.96 *15* (1989Si17) and 1316.99 *15* (1993Di09,1994Mo06). I_γ: weighted average of 0.19 *2* (1989Si17), 0.16 *2* (1994Mo06) and 0.20 *3* (2000Sa32).
1317.7[†] *4*		2860.93	(1,2$^+$)	1543.370	2$^+$			E_γ: from 1993Di09 and 1994Mo06.
(1321.5[‡])	0.010 *5*	2698.60	(1,2)$^+$	1377.681	2$^+$			E_γ: from 1989Si17, assigned to ^{210}Pb in 1993Di09. I_γ: from 2000Sa32.
1329.94 *17*	0.026 *3*	2604.68	(2$^+$)	1274.765	3$^-$			E_γ: weighted average of 1330.0 *6* (1989Si17) and 1329.93 *17* (1993Di09,1994Mo06). I_γ: weighted average of 0.024 *13* (1989Si17), 0.026 *3* (1994Mo06) and 0.039 *17* (2000Sa32).
1341.49 *16*	0.047 *6*	2719.26	1$^+$	1377.681	2$^+$	[M1+E2]	0.0070 *28*	α(K)=0.0057 *23*; α(L)=1.0×10^{-3} *4*; α(M)=2.3×10^{-4} *8*; α(N)=5.9×10^{-5} *22*; α(O)=1.2×10^{-5} *5* α(P)=1.6×10^{-6} *6* E_γ: weighted average of 1341.5 *3* (1989Si17) and 1341.49 *16* (1993Di09,1994Mo06). I_γ: weighted average of 0.049 *26* (1989Si17), 0.046 *6* (1994Mo06) and 0.059 *29* (2000Sa32).
1351[‡&] *1*	0.015 *4*	2728.617	(0$^+$,1,2)	1377.681	2$^+$			E_γ: from 1989Si17. I_γ: weighted average of 0.021 *11* (1989Si17) and 0.014 *4* (2000Sa32).

$^{214}_{84}Po_{130}$-22

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ[@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ	α	Comments
1353.0[‡] *8*	0.0098 *25*	3014.11	(1,2$^+$)	1661.282	2$^+$				E_γ: from 1989Si17, assigned to ^{210}Pb in 1993Di09. I_γ: from 1989Si17.
1361.2[†] *8*		3022.3	(2$^-$,3,4$^+$)	1661.282	2$^+$				E_γ: from 1993Di09 and 1994Mo06.
1370.5	0.022 *5*	2785.97	(1,2$^+$)	1415.498	0$^+$				E_γ: from 1989Si17. I_γ: from 2000Sa32; other: <0.021 (1989Si17).
1377.669 *12*	8.77 *3*	1377.681	2$^+$	0.0	0$^+$	E2		0.00404 *6*	α(K)=0.00324 *5*; α(L)=0.000585 *8*; α(M)=0.0001385 *19*; α(N)=3.56×10^{-5} *5*; α(O)=7.37×10^{-6} *10* α(P)=9.24×10^{-7} *13* E_γ: weighted average of 1377.7 *2* (1969Li10), 1377.65 *3* (1989Si17), 1377.669 *12* (1993Di09,1994Mo06) and 1377.671 *12* (2002MoZP). Other: 1380 *4* (1967Bu17) and 1378 *2* (1969La03). Mult.: from α(K)exp=0.0026 *6* (1960Lu07); other: 0.0027 (1967Ma51). I_γ: weighted average of 8.72 *19* (1989Si17), 8.82 *12* (1994Mo06), 8.91 *18* (1998Mo14), 8.52 *25* (2000Sa32), 8.79 *3* (2002MoZP) and 8.72 *4* (2004Mo07).
1385.310 *14*	1.762 *16*	1994.639	1$^-$	609.318	2$^+$	D			E_γ: weighted average of 1385.4 *3* (1969Li10), 1385.31 *3* (1989Si17), 1385.30 *11* (1993Di09,1994Mo06) and 1385.310 *14* (2002MoZP). Other: 1380 *4* (1967Bu17) and 1385 *2* (1969La03). I_γ: weighted average of 1.68 *6* (1989Si17), 1.81 *3* (1994Mo06), 1.76 *5* (2000Sa32) and 1.755 *16* (2002MoZP). Mult.: from $\gamma\gamma$(E2)(θ): A_2=0.19 *10*, A_4=−0.21 *19* (1986Ta16).
1387.5[†] *2*		2662.33	(2$^+$)	1274.765	3$^-$				E_γ: from 1993Di09 and 1994Mo06.
1392.5[‡&] *4*	0.037 *15*	2769.91	(1,2$^+$)	1377.681	2$^+$				E_γ: from 1989Si17, assigned to ^{210}Pb in 1993Di09. I_γ: weighted average of 0.041 *19* (1989Si17) and 0.035 *15* (2000Sa32).
1401.515 *13*	2.933 *13*	2010.831	(2$^+$)	609.318	2$^+$	(M1+E2)	+1.6 *5*	0.0053 *8*	α(K)=0.0043 *7*; α(L)=0.00074 *11*; α(M)=0.000175 *25*; α(N)=4.5×10^{-5} *7*; α(O)=9.4×10^{-6} *14* α(P)=1.19×10^{-6} *19* E_γ: weighted average of 1401.6 *3* (1969Li10), 1401.50 *4* (1989Si17), 1401.52 *11* (1993Di09,1994Mo06) and 1401.516 *13* (2002MoZP). Other: 1402 *2* (1969La03). Mult.,δ: from $\gamma\gamma$(E2)(θ): A_2=−0.37 *2*, A_4=0.25 *4* (1986Ta16). I_γ: weighted average of 3.01 *9* (1989Si17), 2.91 *16* (1994Mo06), 2.96 *9* (1998Mo14), 3.0 *4* (2000Sa32), 2.934 *13* (2002MoZP) and 2.927 *20* (2004Mo07).
1407.988 *12*	5.256 *19*	2017.315	0$^+$	609.318	2$^+$	(E2)		0.00389 *5*	α(K)=0.00312 *4*; α(L)=0.000559 *8*; α(M)=0.0001323 *19*; α(N)=3.40×10^{-5} *5*; α(O)=7.04×10^{-6} *10* α(P)=8.84×10^{-7} *12*

$^{214}_{84}Po_{130}$-23

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ [@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ	α	$I_{(\gamma+ce)}$ [@]	Comments
1415.495 *10*		1415.498	0^+	0.0	0^+	E0			1.12 *3*	E_γ: weighted average of 1408.0 *2* (1969Li10), 1407.98 *4* (1989Si17), 1407.99 *11* (1993Di09,1994Mo06) and 1407.989 *12* (2002MoZP). Other: 1407 *4* (1967Bu17) and 1408 *2* (1969La03). Mult.: from $\gamma\gamma$(E2)(θ) (1986Ta16). I_γ: weighted average of 5.37 *9* (1989Si17), 5.37 *6* (1994Mo06), 5.38 *12* (1998Mo14), 5.5 *5* (2000Sa32), 5.23 *3* (2002De03), 5.250 *19* (2002MoZP) and 5.24 *4* (2004Mo07). E_γ: from level-energy difference. ce measurement: 1415.9 (1954Ml77, 1960Lu07). $I_{(\gamma+ce)}$: weighted average of 1.14 *4* from I(ce(K) 1415)/I(ce(K) 609γ)=25.0/45.0 *15*=0.651 *19* (1960Lu07) with α(K)/α(tot)(1415)=0.8536 and α(K)(609γ)=0.01489 *21*; and 1.08 *5* from I(ce(L) 1415)/I(ce(K) 609γ)=4.76 *20*/45.0 *15*=0.106 *4* (1960Lu07) with α(L)/α(tot)(1415)=0.1465 and α(K)(609γ)=0.01489 *21*. Mult.: from ce measurement 1960Lu07.
1419.70 *29*	0.011 *2*	2694.62	$(1^-,2^+)$	1274.765	3^-					E_γ: weighted average of 1419.7 *6* (1989Si17) and 1419.70 *29* (1993Di09,1994Mo06). I_γ: weighted average of 0.011 *2* (1989Si17), 0.011 *3* (1994Mo06) and 0.013 *3* (2000Sa32).
(1448.85‡ *24*)	0.04 *2*	2826.82	$(1,2^+)$	1377.681	2^+					E_γ: from 1989Si17, not assigned to ^{214}Po in 1993Di09. I_γ: from 2000Sa32; other: <0.021 (1989Si17).
1471.1‡ *6*	0.0035 *15*	3014.11	$(1,2^+)$	1543.370	2^+					E_γ: from 1989Si17, not assigned to ^{214}Po in 1993Di09. I_γ: from 2000Sa32.
1479.19 *12*	0.122 *17*	2088.44	$(1,2^+)$	609.318	2^+					E_γ: weighted average of 1479.2 *7* (1969Li10), 1479.22 *12* (1989Si17) and 1479.15 *14* (1993Di09,1994Mo06). Other: 1480 *2* (1969La03). I_γ: weighted average of 0.149 *17* (1989Si17), 0.11 *1* (1994Mo06) and 0.14 *3* (2000Sa32).
(1481.3‡)	0.0020 *7*	3142.6	$(1,2^+)$	1661.282	2^+					E_γ: from 1989Si17, assigned to ^{210}Pb in 1993Di09. I_γ: from 2000Sa32; other: <0.011 (1989Si17).
(1483.5‡)	0.028 *10*	2860.93	$(1,2^+)$	1377.681	2^+					E_γ: from 1989Si17, assigned to ^{210}Pb in 1993Di09. I_γ: from 2000Sa32; other: <0.021 (1989Si17).

$^{214}_{84}Po_{130}$-24

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ [@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ	α	Comments
1509.211 *10*	4.68 *3*	2118.535	1^+	609.318	2^+	(M1+E2)	−0.056 *22*	0.00733 *10*	α(K)=0.00591 *8*; α(L)=0.000989 *14*; α(M)=0.0002317 *33*; α(N)=5.96×10^{-5} *8* α(O)=1.249×10^{-5} *18*; α(P)=1.623×10^{-6} *23* E_γ: weighted average of 1509.3 *3* (1969Li10), 1509.19 *4* (1989Si17), 1509.228 *15* (1993Di09,1994Mo06) and 1509.198 *14* (2002MoZP). Other: 1510 *4* (1967Bu17) and 1510 *2* (1969La03). Mult.,δ: from $\gamma\gamma$(E2)(θ): A_2=−0.19 *2*, A_4=0.01 *4* (1986Ta16). I_γ: weighted average of 4.75 *13* (1989Si17), 4.76 *5* (1994Mo06), 4.75 *15* (1998Mo14), 4.63 *15* (2000Sa32), 4.61 *6* (2002De03), 4.67 *3* (2002MoZP) and 4.63 *6* (2004Mo07).
(1515.7[‡])	0.039 *10*	2893.60	(1,2^+)	1377.681	2^+				E_γ: from 1989Si17, not assigned to ^{214}Po in 1993Di09. I_γ: from 2000Sa32; other: <0.021 (1989Si17).
1532.8 *8*		3262.4		1729.613	2^+				E_γ: from 1993Di09.
1538.53 *6*	0.96 *5*	2147.86	(1^-,2^+)	609.318	2^+	D(+Q)			E_γ: weighted average of 1538.7 *3* (1969Li10), 1538.50 *6* (1989Si17) and 1538.66 *14* (1993Di09,1994Mo06). Mult.: from $\gamma\gamma$(E2)(θ): A_2=−0.21 *5*, A_4=0.01 *6* (1989Si17). I_γ: weighted average of 0.90 *13* (1989Si17), 0.95 *6* (1994Mo06) and 0.98 *5* (2000Sa32).
1543.33 *6*	0.68 *3*	1543.370	2^+	0.0	0^+	[E2]		0.00333 *5*	α(K)=0.00265 *4*; α(L)=0.000463 *6*; α(M)=0.0001093 *15*; α(N)=2.81×10^{-5} *4*; α(O)=5.83×10^{-6} *8* α(P)=7.36×10^{-7} *10* E_γ: weighted average of 1543.3 *4* (1969Li10), 1543.32 *6* (1989Si17) and 1543.38 *13* (1993Di09,1994Mo06). Other: 1541 *15* (1966Hu03), 1540 *4* (1967Bu17) and 1544 *2* (1969La03). I_γ: weighted average of 0.77 *11* (1989Si17), 0.68 *4* (1994Mo06) and 0.67 *3* (2000Sa32).
1583.203 *17*	1.557 *13*	2192.536	$(2)^+$	609.318	2^+	M1		0.00655 *9*	α(K)=0.00524 *7*; α(L)=0.000875 *12*; α(M)=0.0002051 *29*; α(N)=5.28×10^{-5} *7* α(O)=1.106×10^{-5} *15*; α(P)=1.437×10^{-6} *20* E_γ: weighted average of 1583.3 *3* (1969Li10), 1583.22 *4* (1989Si17), 1583.21 *12* (1993Di09,1994Mo06) and 1583.200 *17* (2002MoZP). Other: 1585 *4* (1967Bu17) and 1584 *2* (1969La03). Mult.: from α(K)exp=0.0062 *9* (1960Lu07); others: α(K)exp=0.0091 (1967Ma51); $\gamma\gamma$(E2)(θ): A_2=0.38 *3*, A_4=0.10 *6* (1986Ta16). I_γ: weighted average of 1.56 *6* (1989Si17), 1.58 *8* (1994Mo06), 1.64 *17* (2000Sa32) and 1.556 *13* (2002MoZP).

$^{214}_{84}Po_{130}$-25

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ [@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
1594.75 *8*	0.60 *4*	2204.103	1^+	609.318	2^+	[M1+E2]	0.0048 *16*	α(K)=0.0038 *13*; α(L)=6.5×10^{-4} *21*; α(M)=1.5×10^{-4} *5*; α(N)=3.9×10^{-5} *13*; α(O)=8.2×10^{-6} *27* α(P)=1.0×10^{-6} *4* E_γ: weighted average of 1594.8 *4* (1969Li10), 1594.73 *8* (1989Si17) and 1594.80 *12* (1993Di09,1994Mo06). Other: 1595 *2* (1969La03). I_γ: weighted average of 0.58 *4* (1989Si17), 0.61 *4* (1994Mo06) and 0.63 *10* (2000Sa32).
1594.8 *3*	0.011 *6*	2869.63	$(2^-,3^-)$	1274.765	3^-			E_γ: weighted average of 1595 *1* (1989Si17) and 1594.79 *30* (1993Di09,1994Mo06). I_γ: from 1989Si17.
1598.0[‡] *5*	0.013 *6*	3014.11	$(1,2^+)$	1415.498	0^+			E_γ,I_γ: from 1989Si17.
1599.56 *12*	0.72 *4*	2208.69	$(2^-,3)$	609.318	2^+	D+Q		E_γ: weighted average of 1599.5 *4* (1969Li10), 1599.3 *6* (1989Si17) and 1599.58 *12* (1993Di09,1994Mo06). Mult.: from $\gamma\gamma$(E2)(θ): A_2=0.27 *6*, A_4=−0.12 *6* (1989Si17). I_γ: weighted average of 0.72 *4* (1989Si17), 0.72 *4* (1994Mo06) and 0.73 *7* (2000Sa32).
1636.36 *19*	0.025 *4*	3014.11	$(1,2^+)$	1377.681	2^+			E_γ: weighted average of 1636.6 *4* (1989Si17) and 1636.25 *19* (1993Di09,1994Mo06). I_γ: weighted average of 0.041 *13* (1989Si17), 0.024 *3* (1994Mo06) and 0.06 *3* (2000Sa32).
1637[‡] *1*	0.015 *6*	3053.88	$(1,2^+)$	1415.498	0^+			E_γ: from 1989Si17. I_γ: weighted average of 0.013 *6* (1989Si17) and 0.020 *10* (2000Sa32).
1644.0[†] *8*		3022.3	$(2^-,3,4^+)$	1377.681	2^+			E_γ: from 1993Di09 and 1994Mo06.
1657.04 *18*	0.11 *1*	2266.41	2^+	609.318	2^+	[M1+E2]	0.0044 *15*	α(K)=0.0035 *12*; α(L)=5.9×10^{-4} *19*; α(M)=1.4×10^{-4} *4*; α(N)=3.6×10^{-5} *11*; α(O)=7.4×10^{-6} *24* α(P)=9.6×10^{-7} *32* E_γ: weighted average of 1657.4 *6* (1989Si17) and 1657.00 *19* (1993Di09,1994Mo06). I_γ: weighted average of 0.16 *7* (1989Si17), 0.10 *1* (1994Mo06) and 0.14 *3* (2000Sa32).
1661.274 *17*	2.301 *14*	1661.282	2^+	0.0	0^+	E2	0.00296 *4*	α(K)=0.002319 *32*; α(L)=0.000399 *6*; α(M)=9.40×10^{-5} *13*; α(N)=2.414×10^{-5} *34* α(O)=5.02×10^{-6} *7*; α(P)=6.36×10^{-7} *9* E_γ: weighted average of 1661.4 *2* (1969Li10), 1661.28 *6* (1989Si17), 1661.29 *11* (1993Di09,1994Mo06) and 1661.272 *17* (2002MoZP). Other: 1662 *4* (1967Bu17) and 1661 *2* (1969La03). I_γ: weighted average of 2.49 *9* (1989Si17), 2.33 *12* (1994Mo06), 2.38 *10* (1998Mo14), 2.37 *22* (2000Sa32), 2.299 *14* (2002MoZP) and 2.28 *3* (2004Mo07). Mult.: from α(K)exp=0.0026 (1967Ma51).
1665.86 *19*	0.019 *6*	2940.67	$(1^-,2^+)$	1274.765	3^-			E_γ: weighted average of 1667.0 *15* (1989Si17) and 1665.84 *19* (1993Di09,1994Mo06).

$^{214}_{84}Po_{130}$-26

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ [@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
								I_γ: weighted average of 0.013 *6* (1989Si17), 0.018 *3* (1994Mo06) and 0.046 *9* (2000Sa32).
1676.1[‡]	<0.005	3053.88	(1,2$^+$)	1377.681	2$^+$			E_γ,I_γ: from 1989Si17, assigned to ^{210}Pb in 1993Di09.
1684.012 *23*	0.48 *3*	2293.362	(1$^+$,2$^+$)	609.318	2$^+$	(M1+E2)	0.0043 *14*	α(K)=0.0034 *11*; α(L)=5.7×10^{-4} *18*; α(M)=1.3×10^{-4} *4*; α(N)=3.4×10^{-5} *11*; α(O)=7.2×10^{-6} *23* α(P)=9.2×10^{-7} *30* E_γ: weighted average of 1684.1 *3* (1969Li10), 1683.99 *4* (1989Si17), 1683.96 *14* (1993Di09,1994Mo06) and 1684.020 *23* (2002MoZP). Other: 1685 *6* (1967Bu17) and 1685 *2* (1969La03). I_γ: weighted average of 0.51 *4* (1989Si17), 0.49 *3* (1994Mo06) and 0.43 *4* (2000Sa32); other: 1.556 *13* (2002MoZP). Mult.: from $\gamma\gamma$(E2)(θ): A_2=−0.05 *6*, A_4=−0.03 *7* (1989Si17).
1693.4[†] *8*		2967.6		1274.765	3$^-$			E_γ: from 1993Di09 and 1994Mo06.
1711.0[&] *8*	0.004 *2*	2986.22	(2$^-$,3)	1274.765	3$^-$			E_γ: from 1993Di09 and 1994Mo06. I_γ: from 1993Di09 and 1994Mo06; others: <0.021 (1989Si17) and 0.05 *1* (2000Sa32).
1717.0 *8*	0.012 *3*	3093.48	(1$^-$,2$^+$)	1377.681	2$^+$			E_γ: from 1993Di09 and 1994Mo06. Other: 1715.9 (1989Si17). I_γ: from 2000Sa32; other: <0.005 (1989Si17).
1723.7[†] *8*		3000.00	(1$^-$,2$^+$)	1274.765	3$^-$			E_γ: from 1993Di09 and 1994Mo06.
1729.595 *15*	6.32 *7*	1729.613	2$^+$	0.0	0$^+$	E2	0.00278 *4*	α(K)=0.002157 *30*; α(L)=0.000368 *5*; α(M)=8.66×10^{-5} *12*; α(N)=2.225×10^{-5} *31* α(O)=4.63×10^{-6} *6*; α(P)=5.88×10^{-7} *8* E_γ: weighted average of 1729.8 *2* (1969Li10), 1729.60 *5* (1989Si17), 1729.595 *15* (1993Di09,1994Mo06) and 1729.592 *19* (2002MoZP). Other: 1730 *4* (1967Bu17) and 1730 *2* (1969La03). Mult.: from α(K)exp=0.0028 *4* (1960Lu07) and 0.002 (1967Ma51). I_γ: weighted average of 6.61 *13* (1989Si17), 6.60 *4* (1994Mo06), 6.27 *15* (1998Mo14), 6.33 *15* (2000Sa32), 6.25 *3* (2002MoZP) and 6.22 *3* (2004Mo07).
1739.1[†] *8*		2348.3	(1,2$^+$)	609.318	2$^+$			E_γ: from 1993Di09 and 1994Mo06.
1747.2[†] *8*		3022.3	(2$^-$,3,4$^+$)	1274.765	3$^-$			E_γ: from 1993Di09 and 1994Mo06.
1751.6 *7*	0.010 *8*	2360.97	(1,2$^+$)	609.318	2$^+$			E_γ: weighted average of 1752 *1* (1989Si17) and 1751.44 *74* (1993Di09,1994Mo06). I_γ: unweighted average of 0.017 *9* (1989Si17) and 0.002 *1* (1993Di09,1994Mo06).
1764.491 *14*	33.64 *11*	1764.520	1$^+$	0.0	0$^+$	M1	0.00512 *7*	α(K)=0.00397 *6*; α(L)=0.000661 *9*; α(M)=0.0001549 *22*; α(N)=3.98×10^{-5} *6*; α(O)=8.35×10^{-6} *12* α(P)=1.086×10^{-6} *15* E_γ: weighted average of 1764.6 *2* (1969Li10), 1764.51 *5* (1989Si17), 1764.494 *14* (1993Di09,1994Mo06) and 1764.485 *14* (2002MoZP). Other: 1764 *2* (1967Bu17) and 1764 *2* (1969La03).

$^{214}_{84}Po_{130}$-27

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ [@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
								Mult.: from α(K)exp=0.0040 *3* (1960Lu07); other: 0.0036 (1967Ma51).
								I_γ: weighted average of 34.5 *6* (1989Si17), 34.48 *25* (1994Mo06), 33.9 *7* (1998Mo14), 33.3 *10* (2000Sa32), 33.63 *9* (2002MoZP) and 33.5 *1* (2004Mo07).
[x]1782.1 *10*								I_γ: 0.035 *12* from 1969Li10 and 0.011 *3* from 2000Sa32.
1813.73 *14*	0.024 *2*	2423.25	$(1,2^+)$	609.318	2^+			E_γ: weighted average of 1813.7 *4* (1989Si17) and 1813.73 *14* (1993Di09,1994Mo06).
								I_γ: weighted average of 0.026 *11* (1989Si17), 0.024 *2* (1994Mo06) and 0.020 *10* (2000Sa32).
1819.2[†] *4*	<0.003	3093.48	$(1^-,2^+)$	1274.765	3^-			E_γ,I_γ: from 1993Di09 and 1994Mo06.
1838.36 *5*	0.77 *3*	2447.701	1^-	609.318	2^+	[E1]	1.36×10^{-3} *2*	α(K)=0.000800 *11*; α(L)=0.0001206 *17*; α(M)=2.79×10^{-5} *4*; α(N)=7.15×10^{-6} *10*
								α(O)=1.495×10^{-6} *21*; α(P)=1.933×10^{-7} *27*
								E_γ: weighted average of 1838.6 *3* (1969Li10), 1838.36 *5* (1989Si17) and 1838.33 *11* (1993Di09,1994Mo06).
								I_γ: weighted average of 0.83 *4* (1989Si17), 0.74 *3* (1994Mo06) and 0.77 *4* (2000Sa32).
1847.433 *17*	4.46 *3*	1847.446	2^+	0.0	0^+	[E2]	2.53×10^{-3} *4*	α(K)=0.001916 *27*; α(L)=0.000323 *5*; α(M)=7.59×10^{-5} *11*; α(N)=1.948×10^{-5} *27*
								α(O)=4.06×10^{-6} *6*; α(P)=5.17×10^{-7} *7*
								E_γ: weighted average of 1847.6 *3* (1969Li10), 1847.44 *5* (1989Si17), 1847.40 *11* (1993Di09,1994Mo06) and 1847.432 *17* (2002MoZP). Other: 1850 *4* (1967Bu17) and 1848 *2* (1969La03).
								I_γ: weighted average of 4.61 *15* (1989Si17), 4.57 *6* (1994Mo06), 4.51 *12* (1998Mo14), 4.35 *13* (2000Sa32), 4.42 *3* (2002MoZP) and 4.46 *3* (2004Mo07).
1873.16 *5*	0.47 *2*	2482.460	$(1^-,2^+)$	609.318	2^+			E_γ: weighted average of 1873.4 *3* (1969Li10), 1873.16 *6* (1989Si17) and 1873.10 *12* (1993Di09,1994Mo06). Other: 1873 *2* (1967Bu17).
								I_γ: weighted average of 0.49 *4* (1989Si17), 0.46 *2* (1994Mo06) and 0.51 *5* (2000Sa32).
1890.30 *14*	0.184 *23*	1890.306	$(2)^+$	0.0	0^+			E_γ: weighted average of 1890.4 *4* (1969Li10), 1890.35 *15* (1989Si17) and 1890.25 *14* (1993Di09,1994Mo06). Other: 1890 *2* (1969La03).
								I_γ: weighted average of 0.194 *23* (1989Si17), 0.17 *6* (1994Mo06) and 0.17 *3* (2000Sa32).
1896.05 *14*	0.33 *2*	2505.34	$(1^-,2^+)$	609.318	2^+			E_γ: weighted average of 1896.7 *4* (1969Li10), 1896.3 *3* (1989Si17) and 1895.92 *14* (1993Di09,1994Mo06). Other: 1896 *2* (1969La03).
								I_γ: weighted average of 0.38 *4* (1989Si17), 0.31 *2* (1994Mo06) and 0.35 *4* (2000Sa32).
1898.68 *16*	0.11 *2*	2508.12	(0^+)	609.318	2^+			E_γ: weighted average of 1898.7 *4* (1989Si17) and 1898.68 *16* (1993Di09,1994Mo06).
								I_γ: weighted average of 0.14 *5* (1989Si17), 0.11 *2* (1994Mo06) and 0.10 *3* (2000Sa32).
1935.58 *20*	0.067 *7*	2544.92		609.318	2^+			E_γ: weighted average of 1935.8 *4* (1989Si17) and 1935.52 *20*

$^{214}_{84}Po_{130}$-28

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ [@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	$I_{(\gamma+ce)}$ [@]	Comments
									(1993Di09,1994Mo06). I_γ: from 1993Di09 and 1994Mo06; others: 0.11 *5* (1989Si17) and 0.16 *4* (2000Sa32).
1943.7[†] *8*		2553.0		609.318	2^+				E_γ: from 1994Mo06.
1953.4[†] *6*		2562.4		609.318	2^+				E_γ: from 1994Mo06.
1994.6 *6*	0.015 *6*	2604.68	(2^+)	609.318	2^+				E_γ: weighted average of 1994.7 *15* (1969Li10), 1994.7 *15* (1989Si17) and 1994.6 *6* (1993Di09,1994Mo06). I_γ: weighted average of 0.013 *7* (1989Si17) and 0.020 *10* (2000Sa32).
[x]2004.5 *10*	0.005 *2*								E_γ: from 1969Li10. I_γ: from 2000Sa32; other: ≈0.003 from 1969Li10.
2010.80 *12*	0.097 *5*	2010.831	(2^+)	0.0	0^+				E_γ: weighted average of 2011.0 *6* (1969Li10), 2010.71 *15* (1989Si17) and 2010.85 *12* (1993Di09,1994Mo06). Other: 2011 *2* (1969La03). I_γ: weighted average of 0.106 *11* (1989Si17), 0.100 *5* (1994Mo06) and 0.093 *5* (2000Sa32).
2017.309 *12*		2017.315	0^+	0.0	0^+	E0		0.012 *2*	E_γ: from level-energy difference. ce measurement: 2016.7 (1954Ml77, 1960Lu07). $I_{(\gamma+ce)}$: from I(ce(K) 2017)/I(ce(K) 609γ)=0.31 *5*/45.0 *15*=0.0069 *11* (1960Lu07) with α(K)/α(tot)(2017)=0.8556 and α(K)(609γ)=0.01489 *21*; other: 1.0 (1954Ml77).
2021.52 *12*	0.047 *5*	2630.84	$(1,2^+)$	609.318	2^+				E_γ: weighted average of 2021.8 *3* (1989Si17) and 2021.47 *12* (1993Di09,1994Mo06). I_γ: weighted average of 0.041 *16* (1989Si17), 0.045 *5* (1994Mo06) and 0.057 *11* (2000Sa32).
2052.96 *12*	0.151 *10*	2662.33	(2^+)	609.318	2^+				E_γ: weighted average of 2053.2 *3* (1969Li10), 2052.94 *15* and 2052.94 *12* (1993Di09,1994Mo06). I_γ: weighted average of 0.151 *15* (1989Si17), 0.15 *1* (1994Mo06) and 0.16 *3* (2000Sa32).
2085.19 *15*	0.018 *1*	2694.62	$(1^-,2^+)$	609.318	2^+				E_γ: weighted average of 2084.2 *12* (1969Li10), 2085.0 *5* (1989Si17) and 2085.22 *15* (1993Di09,1994Mo06). I_γ: weighted average of 0.021 *6* (1989Si17) and 0.018 *1* (1994Mo06).
2089.65 *15*	0.100 *6*	2698.60	$(1,2)^+$	609.318	2^+	M1	0.00365 *5*		α(K)=0.00257 *4*; α(L)=0.000427 *6*; α(M)=9.99×10^{-5} *14*; α(N)=2.57×10^{-5} *4*; α(O)=5.39×10^{-6} *8* α(P)=7.01×10^{-7} *10* E_γ: weighted average of 2089.7 *7* (1969Li10), 2089.51 *15* (1989Si17) and 2089.79 *15* (1993Di09,1994Mo06). I_γ: weighted average of 0.121 *13* (1989Si17), 0.096 *5* (1994Mo06) and 0.12 *3* (2000Sa32). Mult.: >M2 suggested by α(K)exp=0.036 (1967Ma51). It is unlikely based on the decay pattern; however E1 or E2 ruled out .
2109.98 *12*	0.188 *10*	2719.26	1^+	609.318	2^+	[M1+E2]	0.0029 *7*		α(K)=0.0020 *5*; α(L)=3.3×10^{-4} *8*; α(M)=7.8×10^{-5} *20*;

$^{214}_{84}Po_{130}$-29

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ[@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
								α(N)=2.0×10^{-5} *5*; α(O)=4.2×10^{-6} *11* α(P)=5.4×10^{-7} *14* E_γ: weighted average of 2110.4 *3* (1969Li10), 2109.90 *12* (1989Si17) and 2109.96 *14* (1993Di09,1994Mo06). I_γ: weighted average of 0.189 *17* (1989Si17), 0.19 *1* (1994Mo06) and 0.17 *3* (2000Sa32).
2118.513 *25*	2.545 *20*	2118.535	1^+	0.0	0^+	M1	0.00356 *5*	α(K)=0.002483 *35*; α(L)=0.000412 *6*; α(M)=9.65×10^{-5} *14*; α(N)=2.481×10^{-5} *35* α(O)=5.20×10^{-6} *7*; α(P)=6.77×10^{-7} *9* E_γ: weighted average of 2118.7 *3* (1969Li10), 2118.54 *8* (1989Si17), 2118.551 *30* (1993Di09,1994Mo06) and 2118.483 *25* (2002MoZP). Other: 2119 (1960Lu07) and 2119 *2* (1969La03). Mult.: from α(K)exp=0.0033 *7* (1960Lu07); other: 0.0032 (1967Ma51). I_γ: weighted average of 2.62 *6* (1989Si17), 2.56 *3* (1994Mo06), 2.55 *8* (1998Mo14), 2.65 *25* (2000Sa32), 2.536 *20* (2002De03), 2.548 *21* (2002MoZP) and 2.537 *20* (2004Mo07).
2120.0[‡] *10*	0.015 *4*	2728.617	$(0^+,1,2)$	609.318	2^+			E_γ: from 1989Si17. Other: 2119 *2* (1969La03). I_γ: from 1989Si17.
2148.00 *12*	0.030 *3*	2147.86	$(1^-,2^+)$	0.0	0^+			E_γ: weighted average of 2147.7 *10* (1969Li10), 2147.8 *4* (1989Si17) and 2148.02 *12* (1993Di09,1994Mo06). Other: 2150 *7* (1967Bu17) and 2148 *2* (1969La03). I_γ: weighted average of 0.034 *6* (1989Si17), 0.029 *2* (1994Mo06) and 0.050 *10* (2000Sa32).
2160.4[†] *3*	0.004 *1*	2769.91	$(1,2^+)$	609.318	2^+			E_γ: from 1993Di09 and 1994Mo06. I_γ: from 1994Mo06; other: 0.026 *1* (2000Sa32).
2176.52 *19*	0.011 *4*	2785.97	$(1,2^+)$	609.318	2^+			E_γ: weighted average of 2176.8 *6* (1989Si17) and 2176.49 *19* (1993Di09,1994Mo06). I_γ: unweighted average of 0.007 *1* (1994Mo06) and 0.015 *6* (2000Sa32); other: ≈0.0085 (1989Si17).
2184.8[†] *6*		2794.1		609.318	2^+			E_γ: from 1993Di09 and 1994Mo06.
2192.58 *16*	0.086 *9*	2192.536	$(2)^+$	0.0	0^+			E_γ: weighted average of 2192.5 *5* (1969Li10), 2192.6 *2* (1989Si17) and 2192.58 *16* (1993Di09,1994Mo06). Other: 2193 *2* (1969La03). I_γ: weighted average of 0.132 *23* (1989Si17), 0.073 *6* (1994Mo06) and 0.093 *5* (2000Sa32).
2193.3[†] *6*		2802.54		609.318	2^+			E_γ: from 1993Di09 and 1994Mo06.
2204.10 *4*	10.82 *5*	2204.103	1^+	0.0	0^+	M1	0.00333 *5*	α(K)=0.002243 *31*; α(L)=0.000372 *5*; α(M)=8.70×10^{-5} *12*; α(N)=2.239×10^{-5} *31* α(O)=4.69×10^{-6} *7*; α(P)=6.11×10^{-7} *9* E_γ: weighted average of 2204.3 *3* (1969Li10), 2204.12 *7* (1989Si17), 2204.215 *40* (1993Di09,1994Mo06) and 2204.051 *23* (2002MoZP). Other: 2204 *2* (1967Bu17) and 2204 *2* (1969La03).

$^{214}_{84}Po_{130}$-30

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ[@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
								Mult.: from α(K)exp=0.0029 *3* (1960Lu07); other: 0.0026 (1967Ma51).
								I_γ: weighted average of 10.83 *19* (1989Si17), 11.02 *9* (1994Mo06), 10.89 *24* (1998Mo14), 11.1 *3* (2000Sa32), 10.75 *9* (2002MoZP) and 10.76 *5* (2004Mo07).
2251.55 *15*	0.012 *1*	2860.93	$(1,2^+)$	609.318	2^+			E_γ: weighted average of 2251.2 *4* (1989Si17) and 2251.60 *15* (1993Di09,1994Mo06).
								I_γ: weighted average of 0.015 *9* (1989Si17) and 0.012 *1* (1994Mo06).
2260.32 *20*	0.019 *1*	2869.63	$(2^-,3^-)$	609.318	2^+			E_γ: weighted average of 2259.7 *4* (1989Si17) and 2260.39 *13* (1993Di09,1994Mo06).
								I_γ: weighted average of 0.019 *9* (1989Si17), 0.019 *1* (1994Mo06) and 0.020 *3* (2000Sa32).
2266.52 *13*	0.037 *2*	2266.41	2^+	0.0	0^+	[E2]	2.00×10^{-3} *3*	α(K)=0.001327 *19*; α(L)=0.0002170 *30*; α(M)=5.07×10^{-5} *7*; α(N)=1.302×10^{-5} *18*
								α(O)=2.72×10^{-6} *4*; α(P)=3.49×10^{-7} *5*
								E_γ: weighted average of 2266.4 *6* (1969Li10), 2266.6 *3* (1989Si17) and 2266.51 *13* (1993Di09,1994Mo06).
								I_γ: weighted average of 0.038 *6* (1989Si17), 0.037 *2* (1993Di09,1994Mo06) and 0.034 *4* (2000Sa32).
2270.9 *4*	0.0029 *5*	2880.36	$(1^-,2^+)$	609.318	2^+			E_γ: from 1993Di09 and 1994Mo06.
								I_γ: from 1993Di09 and 1994Mo06; other: 0.010 *5* (2000Sa32).
2284.33 *18*	0.011 *1*	2893.60	$(1,2^+)$	609.318	2^+			E_γ: weighted average of 2284.4 *7* (1989Si17) and 2284.33 *18* (1993Di09,1994Mo06).
								I_γ: weighted average of 0.011 *1* (1989Si17), 0.011 *1* (1994Mo06) and 0.011 *3* (2000Sa32).
2287.65[†] *23*	0.010 *1*	2896.98		609.318	2^+			E_γ,I_γ: from 1993Di09 and 1994Mo06.
2293.38 *3*	0.679 *10*	2293.362	$(1^+,2^+)$	0.0	0^+			E_γ: weighted average of 2293.7 *3* (1969Li10), 2293.36 *12* (1989Si17), 2293.45 *12* (1993Di09,1994Mo06) and 2293.37 *3* (2002MoZP). Other: 2292 *4* (1967Bu17) and 2293 *2* (1969La03).
								I_γ: weighted average of 0.70 *4* (1989Si17), 0.67 *3* (1994Mo06), 0.72 *6* (2000Sa32) and 0.677 *10* (2002MoZP).
2310.2[†] *3*	0.003 *2*	2919.5		609.318	2^+			E_γ,I_γ: from 1993Di09 and 1994Mo06.
2312.45 *15*	0.020 *2*	2921.89	$(1,2^+)$	609.318	2^+			E_γ: weighted average of 2312.5 *10* (1969Li10), 2312.2 *4* (1989Si17) and 2312.48 *15* (1993Di09,1994Mo06).
								I_γ: weighted average of 0.026 *6* (1989Si17), 0.019 *2* (1994Mo06) and 0.018 *5* (2000Sa32).
2319.3[&] *3*	0.0009 *3*	2928.55	$(1,2^+)$	609.318	2^+			E_γ: from 1993Di09 and 1994Mo06.
								I_γ: from 1994Mo06; other: <0.0021 (1989Si17) and 0.005 *1* (2000Sa32).
2325.18 *25*	0.0037 *4*	2934.54	$(1,2^+)$	609.318	2^+			E_γ: weighted average of 2324.8 *10* (1989Si17) and 2325.20 *25* (1993Di09,1994Mo06).
								I_γ: weighted average of 0.0043 *21* (1989Si17), 0.0037 *4* (1994Mo06); other: 0.009 *3* (2000Sa32).
2331.38 *12*	0.051 *7*	2940.67	$(1^-,2^+)$	609.318	2^+			E_γ: weighted average of 2331.7 *4* (1969Li10), 2331.3 *3* (1989Si17) and 2331.36 *12* (1993Di09,1994Mo06).

$^{214}_{84}Po_{130}$-31

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ [@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
								I_γ: weighted average of 0.047 *6* (1989Si17), 0.048 *3* (1994Mo06) and 0.076 *7* (2000Sa32).
2348.0† *13*	0.0003 *2*	2348.3	(1,2$^+$)	0.0	0$^+$			E_γ,I_γ: from 1994Mo06.
2353.5† *7*	0.0008 *3*	2962.8		609.318	2$^+$			E_γ,I_γ: from 1993Di09 and 1994Mo06.
2358.0† *6*		2967.6		609.318	2$^+$			E_γ: from 1993Di09 and 1994Mo06.
2360.99 *19*	0.0036 *5*	2360.97	(1,2$^+$)	0.0	0$^+$			E_γ: weighted average of 2360.9 *6* (1989Si17) and 2361.00 *19* (1993Di09,1994Mo06). I_γ: weighted average of 0.0041 *13* (1989Si17), 0.0033 *3* (1994Mo06) and 0.0060 *10* (2000Sa32).
2369.56 *17*	0.006 *1*	2978.93	(1,2$^+$)	609.318	2$^+$			E_γ: weighted average of 2369.3 *6* (1989Si17) and 2369.58 *17* (1993Di09,1994Mo06). I_γ: weighted average of 0.006 *1* (1994Mo06) and 0.008 *3* (2000Sa32); other: 0.0064 (1989Si17).
2376.89 *13*	0.020 *2*	2986.22	(2$^-$,3)	609.318	2$^+$			E_γ: weighted average of 2377.2 *5* (1969Li10), 2377.0 *2* (1989Si17) and 2376.83 *13* (1993Di09,1994Mo06). I_γ: weighted average of 0.025 *4* (1989Si17), 0.019 *1* (1994Mo06) and 0.034 *7* (2000Sa32).
2390.82 *21*	0.0035 *3*	3000.00	(1$^-$,2$^+$)	609.318	2$^+$			E_γ: weighted average of 2390.9 *6* (1989Si17) and 2390.81 *21* (1993Di09,1994Mo06). I_γ: weighted average of 0.0043 *13* (1989Si17), 0.0034 *3* (1994Mo06) and 0.006 *3* (2000Sa32).
2396.5† *6*		3005.8		609.318	2$^+$			E_γ: from 1993Di09 and 1994Mo06.
2405.1 *5*	0.0009 *3*	3014.11	(1,2$^+$)	609.318	2$^+$			E_γ: from 1993Di09 and 1994Mo06. I_γ: from 1993Di09 and 1994Mo06; others: ≈0.0021 (1989Si17) and 0.0040 *10* (2000Sa32).
2413.1† *4*		3022.3	(2$^-$,3,4$^+$)	609.318	2$^+$			E_γ: from 1993Di09 and 1994Mo06.
2421.0† *6*		3030.3		609.318	2$^+$			E_γ: from 1993Di09 and 1994Mo06.
2423.32 *13*	0.011 *1*	2423.25	(1,2$^+$)	0.0	0$^+$			E_γ: weighted average of 2423.7 *6* (1969Li10), 2423.5 *3* (1989Si17) and 2423.27 *13* (1993Di09,1994Mo06). I_γ: weighted average of 0.013 *2* (1989Si17), 0.010 *1* (1994Mo06) and 0.018 *4* (2000Sa32).
2430.0† *6*		3039.3		609.318	2$^+$			E_γ: from 1993Di09 and 1994Mo06.
2444.7 *7*	0.017 *5*	3053.88	(1,2$^+$)	609.318	2$^+$			E_γ: weighted average of 2444.6 *7* (1989Si17) and 2444.9 *8* (1993Di09,1994Mo06). I_γ: weighted average of 0.017 *9* (1989Si17) and 0.017 *5* (2000Sa32).
2447.69 *3*	3.40 *2*	2447.701	1$^-$	0.0	0$^+$	E1	1.42×10^{-3} *2*	α(K)=0.000503 *7*; α(L)=7.52×10^{-5} *11*; α(M)=1.735×10^{-5} *24*; α(N)=4.45×10^{-6} *6*; α(O)=9.31×10^{-7} *13* α(P)=1.210×10^{-7} *17* E_γ: weighted average of 2448.0 *3* (1969Li10), 2447.71 *10* (1989Si17), 2447.860 *100* (1993Di09,1994Mo06) and 2447.67 *3* (2002MoZP). Other: 2448 *2* (1969La03).

$^{214}_{84}Po_{130}$-32

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ [@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ	Comments
								I_γ: weighted average of 3.37 *4* (1989Si17), 3.42 *3* (1994Mo06), 3.46 *9* (1998Mo14), 3.30 *10* (2000Sa32), 3.41 *4* (2002MoZP) and 3.40 *2* (2004Mo07). Mult.: from α(K)exp≈0.0004 (1960Lu07) and α(K)exp≈0.0003 (1967Ma51).
2459.0[†] *8*		3068.3		609.318	2^+			E_γ: from 1993Di09 and 1994Mo06.
2469.4[†] *6*		3078.7		609.318	2^+			E_γ: from 1993Di09 and 1994Mo06.
2472.9	0.0050 *17*	3081.84	$(1,2^+)$	609.318	2^+			E_γ: from 1989Si17, assigned to ^{210}Pb in 1993Di09. I_γ: from 2000Sa32; other: <0.0021 (1989Si17).
2482.8 *4*	0.0022 *4*	2482.460	$(1^-,2^+)$	0.0	0^+			E_γ: weighted average of 2482.8 *4* (1989Si17) and 2482.7 *4* (1993Di09,1994Mo06). Other: 2482 *3* (1967Bu17). I_γ: weighted average of 0.0043 *19* (1989Si17) and 0.0021 *4* (1994Mo06).
2482.8[‡] *4*	0.0045 *19*	3093.48	$(1^-,2^+)$	609.318	2^+			E_γ,I_γ: from 1989Si17.
2505.46 *13*	0.0124 *21*	2505.34	$(1^-,2^+)$	0.0	0^+			E_γ: weighted average of 2505.6 *4* (1969Li10), 2505.6 *2* (1989Si17) and 2505.39 *13* (1993Di09,1994Mo06). Other: 2505 *3* (1969La03). I_γ: weighted average of 0.0128 *21* (1989Si17), 0.012 *1* (1994Mo06) and 0.025 *7* (2000Sa32).
2529.7[†] *8*		3139.0		609.318	2^+			E_γ: from 1993Di09 and 1994Mo06.
2540.3[†] *8*		3149.2	$(1,2^+)$	609.318	2^+			E_γ: from 1993Di09 and 1994Mo06.
2550.6 *7*	0.0007 *2*	3160.4	$(1,2^+)$	609.318	2^+			E_γ: weighted average of 2551.0 *10* (1989Si17) and 2550.4 *7* (1993Di09,1994Mo06). I_γ: from 1993Di09 and 1994Mo06.
2553.0[†] *6*	≈0.0002	2553.0		0.0	0^+			E_γ,I_γ: from 1994Mo06.
2555.1[†] *8*		3164.4		609.318	2^+			E_γ: from 1993Di09 and 1994Mo06.
2562.0[†] *6*	0.0004 *2*	2562.4		0.0	0^+			E_γ,I_γ: from 1994Mo06.
2564.0[†] *6*	0.0003 *2*	3173.3		609.318	2^+			E_γ,I_γ: from 1993Di09 and 1994Mo06.
2574.2[‡]	<0.0011	3183.6	$(1,2^+)$	609.318	2^+			E_γ: from 1989Si17, assigned to ^{210}Pb in 1993Di09. I_γ: from 1989Si17.
2604.5 *5*	0.0009 *2*	2604.68	(2^+)	0.0	0^+			E_γ: weighted average of 2604.5 *10* (1989Si17) and 2604.5 *5* (1993Di09,1994Mo06). I_γ: weighted average of 0.0010 *3* (1989Si17) and 0.0008 *2* (1994Mo06).
2630.9 *3*	0.0019 *4*	2630.84	$(1,2^+)$	0.0	0^+			E_γ: weighted average of 2630.9 *5* (1989Si17) and 2630.90 *28* (1993Di09,1994Mo06). I_γ: weighted average of 0.0021 *11* (1989Si17), 0.0018 *3* (1994Mo06) and 0.0050 *17* (2000Sa32).
2662.4 *7*	0.0005 *1*	2662.33	(2^+)	0.0	0^+			E_γ: weighted average of 2662.0 *10* and 2662.6 *7* (1993Di09,1994Mo06). I_γ: weighted average of 0.0010 *3* (1989Si17), 0.0006 *2* (1994Mo06) and 0.0004 *1* (2000Sa32).
2694.66 *13*	0.066 *3*	2694.62	$(1^-,2^+)$	0.0	0^+			E_γ: weighted average of 2695.1 *4* (1969Li10), 2694.8 *2* (1989Si17) and 2694.55 *13* (1993Di09,1994Mo06). I_γ: weighted average of 0.070 *4* (1989Si17), 0.066 *3* (1994Mo06) and 0.062 *4* (2000Sa32).
2699.21 *20*	0.0061 *5*	2698.60	$(1,2)^+$	0.0	0^+			E_γ: weighted average of 2699.5 *10* (1969Li10), 2699.4 *3* (1989Si17) and 2699.12 *20* (1993Di09,1994Mo06). I_γ: weighted average of 0.0064 *19* (1989Si17) and 0.0061 *5* (1994Mo06).

$^{214}_{84}Po_{130}$-33

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ [@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
2719.32 *19*	0.0039 *4*	2719.26	1^+	0.0	0^+	[M1]	0.00256 *4*	α(K)=0.001308 *18*; α(L)=0.0002158 *30*; α(M)=5.05×10^{-5} *7*; α(N)=1.299×10^{-5} *18* α(O)=2.72×10^{-6} *4*; α(P)=3.55×10^{-7} *5* E_γ: weighted average of 2719.4 *10* (1969Li10), 2719.4 *3* (1989Si17) and 2719.28 *19* (1993Di09,1994Mo06). I_γ: weighted average of 0.0043 *11* (1989Si17) and 0.0038 *4* (1994Mo06).
2769.92 *15*	0.054 *3*	2769.91	$(1,2^+)$	0.0	0^+			E_γ: weighted average of 2770.3 *4* (1969Li10), 2770.0 *2* (1989Si17) and 2769.83 *15* (1993Di09,1994Mo06). I_γ: weighted average of 0.055 *4* (1989Si17), 0.053 *3* (1994Mo06) and 0.048 *15* (2000Sa32).
2785.93 *15*	0.012 *1*	2785.97	$(1,2^+)$	0.0	0^+			E_γ: weighted average of 2786.1 *4* (1969Li10), 2786.1 *2* (1989Si17) and 2785.81 *15* (1993Di09,1994Mo06). I_γ: weighted average of 0.013 *2* (1989Si17), 0.012 *1* (1994Mo06) and 0.030 *11* (2000Sa32).
2826.96 *19*	0.0053 *6*	2826.82	$(1,2^+)$	0.0	0^+			E_γ: weighted average of 2827.6 *10* (1969Li10), 2827.0 *3* (1989Si17) and 2826.92 *19* (1993Di09,1994Mo06). I_γ: weighted average of 0.0064 *6* (1989Si17), 0.0048 *4* (1994Mo06) and 0.011 *6* (2000Sa32).
2861.1 *4*	0.0009 *2*	2860.93	$(1,2^+)$	0.0	0^+			E_γ: weighted average of 2860.9 *8* (1989Si17) and 2861.1 *4* (1993Di09,1994Mo06). I_γ: weighted average of 0.0007 *4* (1989Si17), 0.0009 *2* (1994Mo06) and 0.0008 *5* (2000Sa32).
2880.35 *14*	0.022 *3*	2880.36	$(1^-,2^+)$	0.0	0^+			E_γ: weighted average of 2280.7 *4* (1969Li10), 2280.4 *3* (1989Si17) and 2280.29 *14* (1993Di09,1994Mo06). I_γ: weighted average of 0.019 *3* (1989Si17), 0.020 *2* (1994Mo06) and 0.030 *3* (2000Sa32).
2893.59 *14*	0.013 *1*	2893.60	$(1,2^+)$	0.0	0^+			E_γ: weighted average of 2893.7 *4* (1969Li10), 2893.6 *2* (1989Si17) and 2893.46 *14* (1993Di09,1994Mo06). I_γ: weighted average of 0.015 *3* (1989Si17), 0.012 *1* (1994Mo06) and 0.017 *3* (2000Sa32).
2921.97 *15*	0.030 *2*	2921.89	$(1,2^+)$	0.0	0^+			E_γ: weighted average of 2922.2 *4* (1969Li10), 2922.1 *2* (1989Si17) and 2921.86 *15* (1993Di09,1994Mo06). I_γ: weighted average of 0.034 *2* (1989Si17), 0.029 *1* (1994Mo06) and 0.035 *4* (2000Sa32).
2928.53 *22*	0.0024 *2*	2928.55	$(1,2^+)$	0.0	0^+			E_γ: weighted average of 2928.7 *8* (1989Si17) and 2928.52 *22* (1993Di09,1994Mo06). I_γ: weighted average of 0.0021 *13* (1989Si17), 0.0024 *2* (1994Mo06).
2934.54 *25*	0.0010 *2*	2934.54	$(1,2^+)$	0.0	0^+			E_γ: weighted average of 2934.9 *8* (1989Si17) and 2934.51 *25* (1993Di09,1994Mo06). I_γ: weighted average of 0.0012 *5* (1989Si17, 0.012 listed as a typo from Priv. Comm. from B. Singh with Y. A. Akovali, May 1995), 0.0010 *2* (1994Mo06) and 0.005 *3* (2000Sa32).
2940.0	0.008 *3*	2940.67	$(1^-,2^+)$	0.0	0^+			E_γ: from 1989Si17. I_γ: from 2000Sa32; other: <0.0004 (1989Si17).
2978.94 *15*	0.030 *1*	2978.93	$(1,2^+)$	0.0	0^+			E_γ: weighted average of 2979.0 *4* (1969Li10), 2978.8 *2* (1989Si17) and 2979.01 *15* (1993Di09,1994Mo06). I_γ: weighted average of 0.031 *2* (1989Si17), 0.030 *1* (1994Mo06) and 0.034 *7* (2000Sa32).

$^{214}_{84}Po_{130}$-34

^{214}Bi β^- decay 1994Mo06,1989Si17 (continued)

$\gamma(^{214}Po)$ (continued)

E_γ	I_γ[@]	E_i(level)	J_i^π	E_f	J_f^π	Comments
3000.0 *2*	0.019 *2*	3000.00	$(1^-,2^+)$	0.0	0^+	E_γ: weighted average of 3000.1 *4* (1969Li10), 3000.0 *2* (1989Si17) and 2999.8 *3* (1993Di09,1994Mo06). I_γ: weighted average of 0.019 *4* (1989Si17), 0.019 *1* (1994Mo06) and 0.030 *5* (2000Sa32).
3053.9 *2*	0.046 *5*	3053.88	$(1,2^+)$	0.0	0^+	E_γ: weighted average of 3054.0 *4* (1969Li10), 3053.9 *2* (1989Si17) and 3053.8 *5* (1993Di09,1994Mo06). I_γ: weighted average of 0.049 *4* (1989Si17), 0.041 *2* (1994Mo06) and 0.057 *3* (2000Sa32).
3081.79 *25*	0.013 *4*	3081.84	$(1,2^+)$	0.0	0^+	E_γ: weighted average of 3081.7 *4* (1969Li10), 3081.7 *3* (1989Si17) and 3081.89 *25* (1993Di09,1994Mo06). I_γ: unweighted average of 0.0085 *17* (1989Si17), 0.011 *1* (1994Mo06) and 0.020 *4* (2000Sa32).
3094.0 *4*	0.0013 *4*	3093.48	$(1^-,2^+)$	0.0	0^+	E_γ: weighted average of 3093.9 *8* (1989Si17) and 3094.0 *4* (1993Di09,1994Mo06). I_γ: unweighted average of 0.0021 *4* (1989Si17), 0.0008 *1* (1994Mo06) and 0.0010 *3* (2000Sa32).
[x]3136.3 *10*	0.0008 *3*					E_γ: from 1969Li10. I_γ: from 2000Sa32.
3142.6 *4*	0.0027 *3*	3142.6	$(1,2^+)$	0.0	0^+	E_γ: weighted average of 3142.5 *7* (1969Li10), 3142.6 *4* (1989Si17) and 3142.5 *4* (1993Di09,1994Mo06). I_γ: weighted average of 0.0043 *13* (1989Si17), 0.0026 *2* (1994Mo06) and 0.0060 *28* (2000Sa32).
3149.0[†] *5*	≈0.00019	3149.2	$(1,2^+)$	0.0	0^+	E_γ,I_γ: from 1993Di09 and 1994Mo06.
3160.7 *6*	0.0012 *3*	3160.4	$(1,2^+)$	0.0	0^+	E_γ: weighted average of 3161.2 *10* (1969Li10), 3160.5 *7* (1989Si17) and 3160.6 *6* (1993Di09,1994Mo06). I_γ: weighted average of 0.0021 *5* (1989Si17), 0.0010 *2* (1994Mo06) and 0.0030 *17* (2000Sa32).
3183.6 *4*	0.0030 *5*	3183.6	$(1,2^+)$	0.0	0^+	E_γ: weighted average of 3182.8 *10* (1969Li10), 3183.6 *4* (1989Si17) and 3183.6 *4* (1993Di09,1994Mo06). I_γ: weighted average of 0.0042 *11* (1989Si17), 0.0028 *2* (1994Mo06) and 0.0060 *10* (2000Sa32).
[x]3233.2 *24*	0.0005 *3*					E_γ: from 1993Di09; other: ≈3233.3 (1975Ha31). I_γ: from 2000Sa32.
[x]3269.7 *15*	0.0004 *3*					E_γ: from 1993Di09; others: ≈3269.7 (1975Ha31). I_γ: from 2000Sa32.

[†] Placed in level scheme only by 1994Mo06 based on $\gamma\gamma$ coincidence.
[‡] Placed in level scheme only by 1989Si17 based on $\gamma\gamma$ coincidence.
[#] Possible multiply-placed transitions.
[@] For absolute intensity per 100 decays, multiply by 0.4544 *19*.
[&] Placement of transition in the level scheme is uncertain.
[x] γ ray not placed in level scheme.

$^{214}_{84}Po_{130}$-35

^{214}Bi β^- decay 1994Mo06,1989Si17

Decay Scheme

Intensities: I_γ per 100 parent decays

Legend
- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$
- γ Decay (Uncertain)
- Coincidence

$^{214}_{83}Bi_{131}$: 1^-, 0.0; 19.71 min 2; Q_{β^-}=3269 11; $\%\beta^-$=99.9790

Iβ⁻	Log *ft*			
0.0016	6.57	(1,2⁺)	3262.4	1532.8
0.00014	7.8		3183.6	3183.6 0.00136
			3173.3	2574.2 ≤0.00050
			3164.4	2564.0 0.00014
0.00086	7.16	(1,2⁺)	3160.4	2555.4
0.0000863	8.29	(1,2⁺)	3149.2	3160.7 0.00055
0.0021	6.97	(1,2⁺)	3142.6	2550.6 0.00032
			3139.0	3149.0 ≤0.000086
			3093.48	2540.3
0.0088	6.79	(1⁻,2⁺)	3081.84	3142.6 0.00123
0.0082	6.91	(1,2⁺)	3078.7	1481.3 0.0009
			3068.3	2529.7
0.037	6.44	(1,2⁺)	3053.88	3094.0 0.00059
			3039.3	2482.8 0.0020
			3030.3	1819.2 ≤0.00014
		(2⁻,3,4⁺)	3022.3	1717.0 0.0055
				3081.79 0.0059
				2472.9 0.0023
				2469.4
				2459.0
				3053.9 0.0209
				2444.7 0.0077
				1676.1 ≤0.0023
				1637 0.007
				1206.4
				2430.0
				2421.0
				2413.1
				1747.2
				1644.0
				1361.2
				1011.8
1.433	7.422	(2⁺)	2010.831	
8.16	6.859	2⁺	1847.446	
17.55	6.654	2⁺	1729.613	
0.57	8.21	2⁺	1661.282	
0.90	8.25	0⁺	1415.498	99 ps 3
7.22	7.374	2⁺	1377.681	
0.06	9.5	3⁻	1274.765	
0.55	9.06	2⁺	609.318	
19.2	7.872	0⁺	0.0	163.46 μs 4

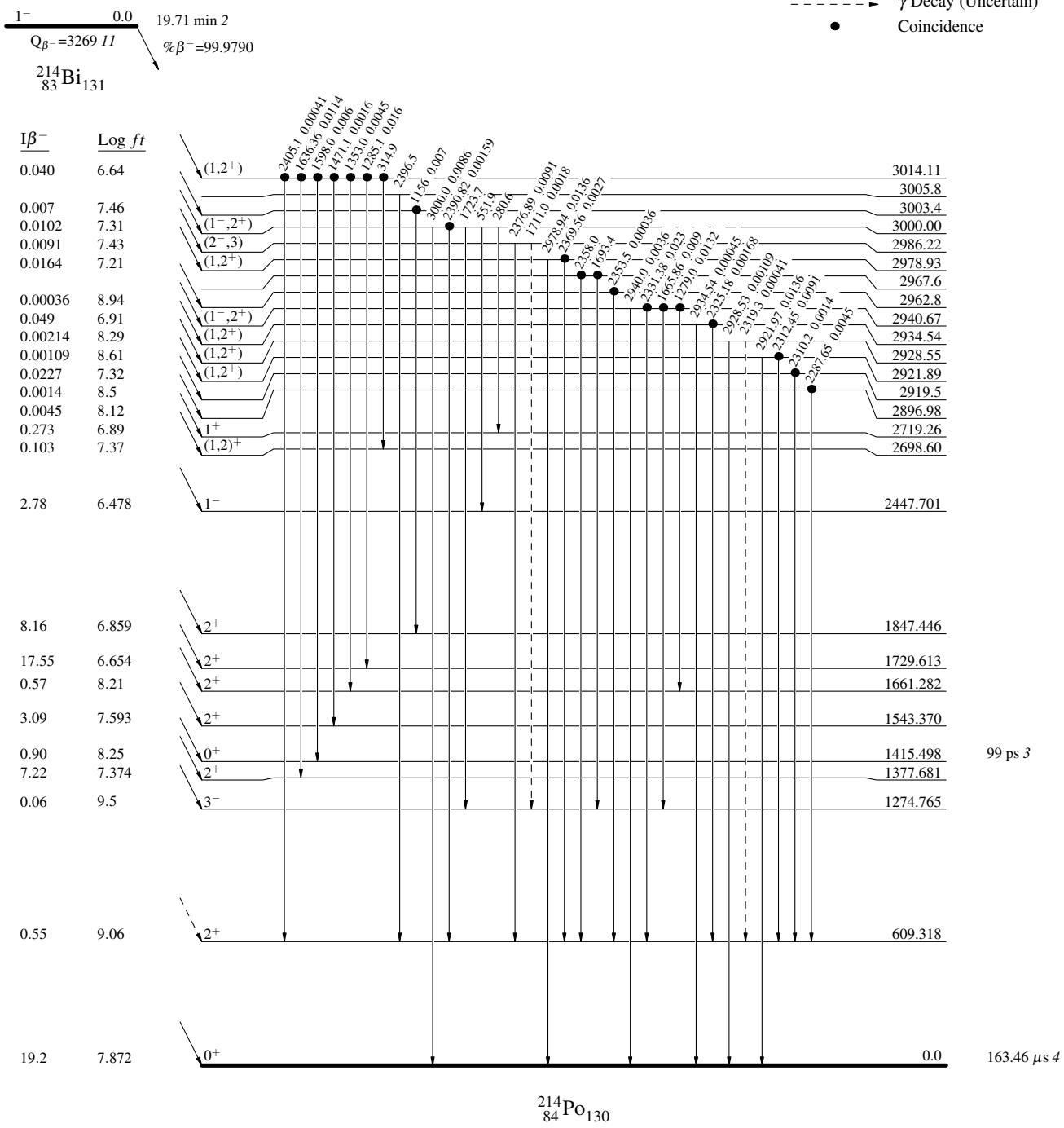
$^{214}_{84}Po_{130}$

^{214}Bi β^- decay 1994Mo06,1989Si17

Decay Scheme (continued)

Intensities: I_γ per 100 parent decays

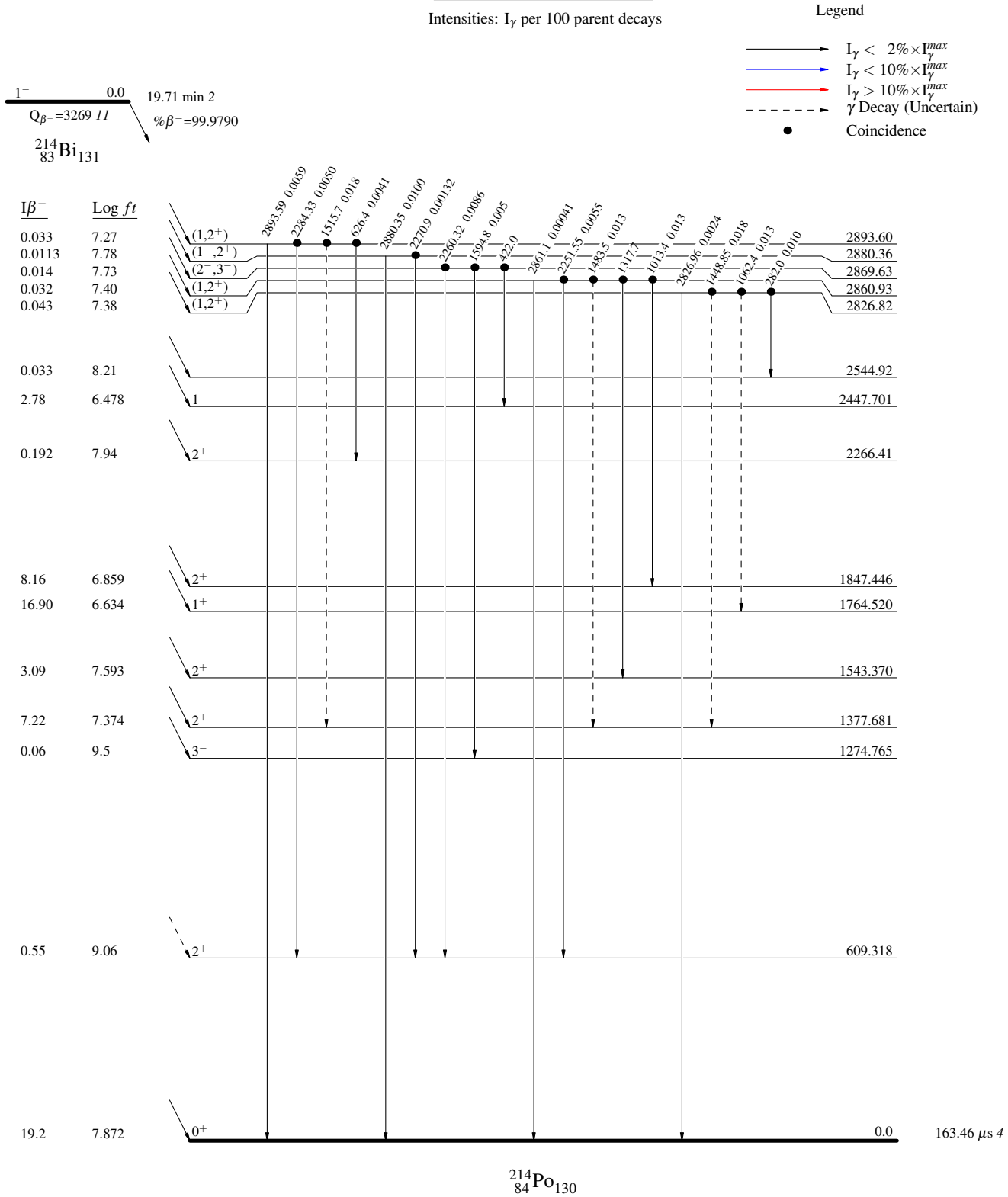
Legend
- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$
- γ Decay (Uncertain)
- Coincidence



^{214}Bi β^- decay 1994Mo06,1989Si17

Decay Scheme (continued)

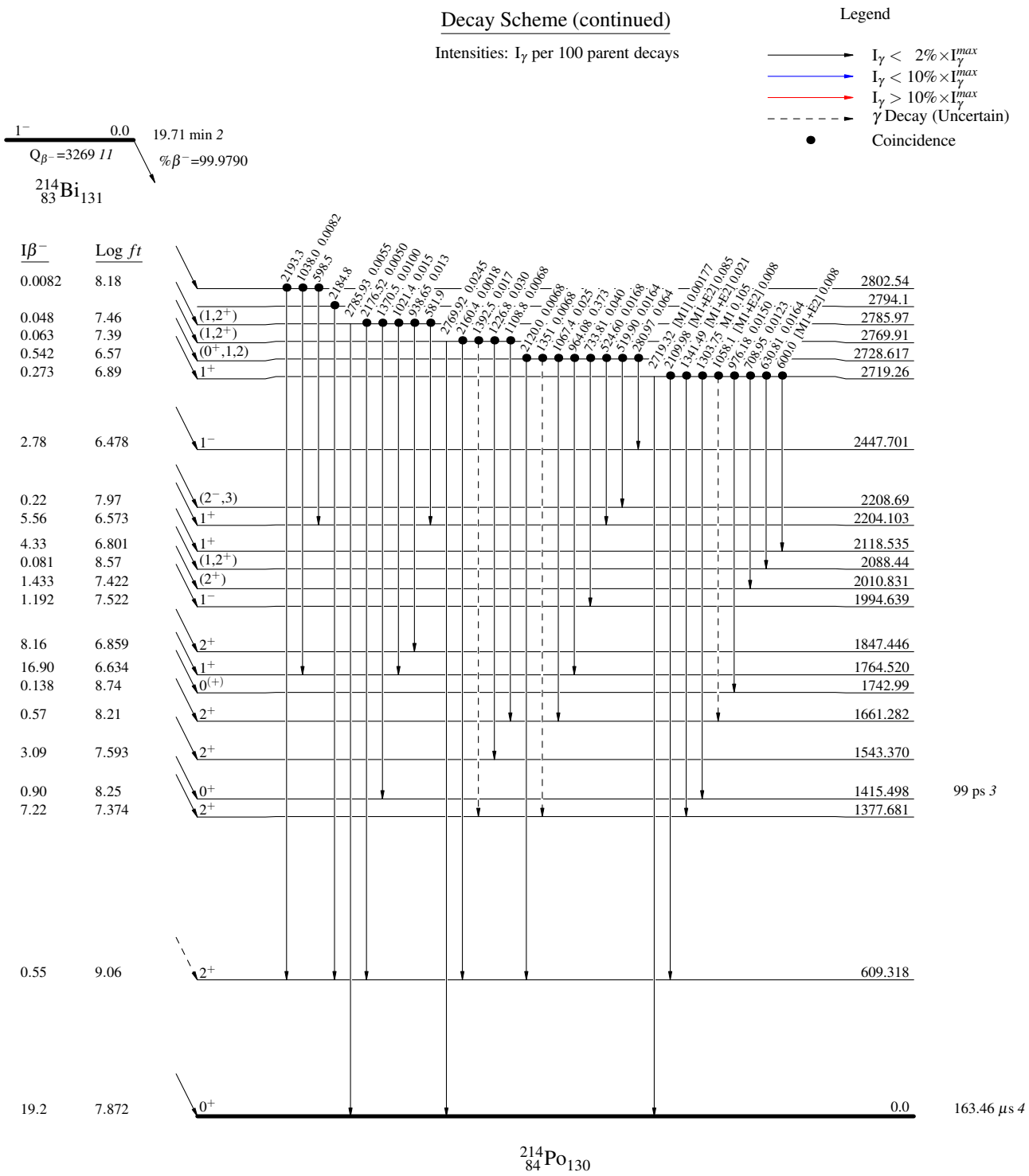
Intensities: I_γ per 100 parent decays



^{214}Bi β^- decay 1994Mo06,1989Si17

Decay Scheme (continued)

Intensities: I_γ per 100 parent decays

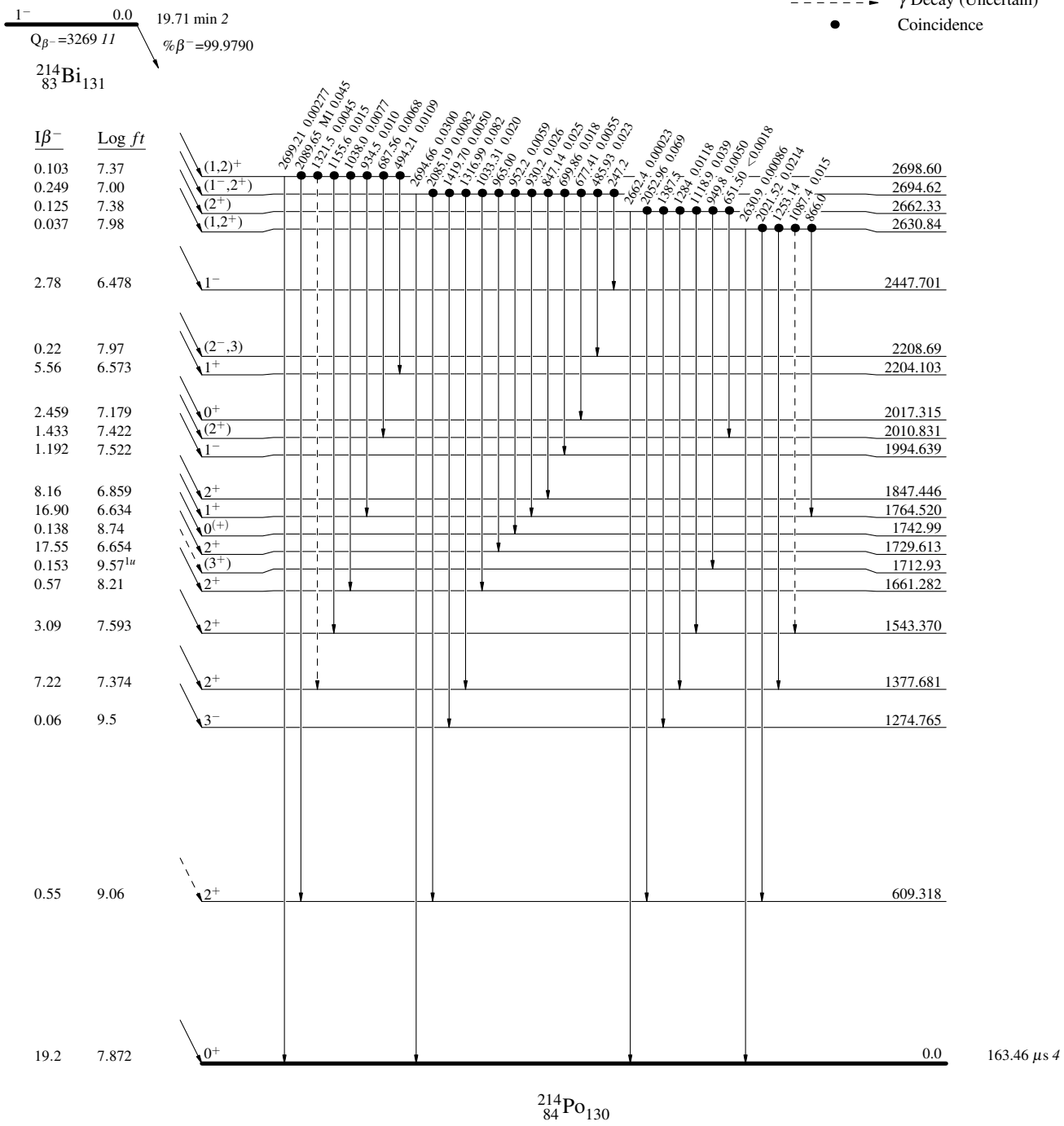


^{214}Bi β^- decay 1994Mo06,1989Si17

Decay Scheme (continued)

Intensities: I_γ per 100 parent decays

Legend
- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$
- γ Decay (Uncertain)
- Coincidence

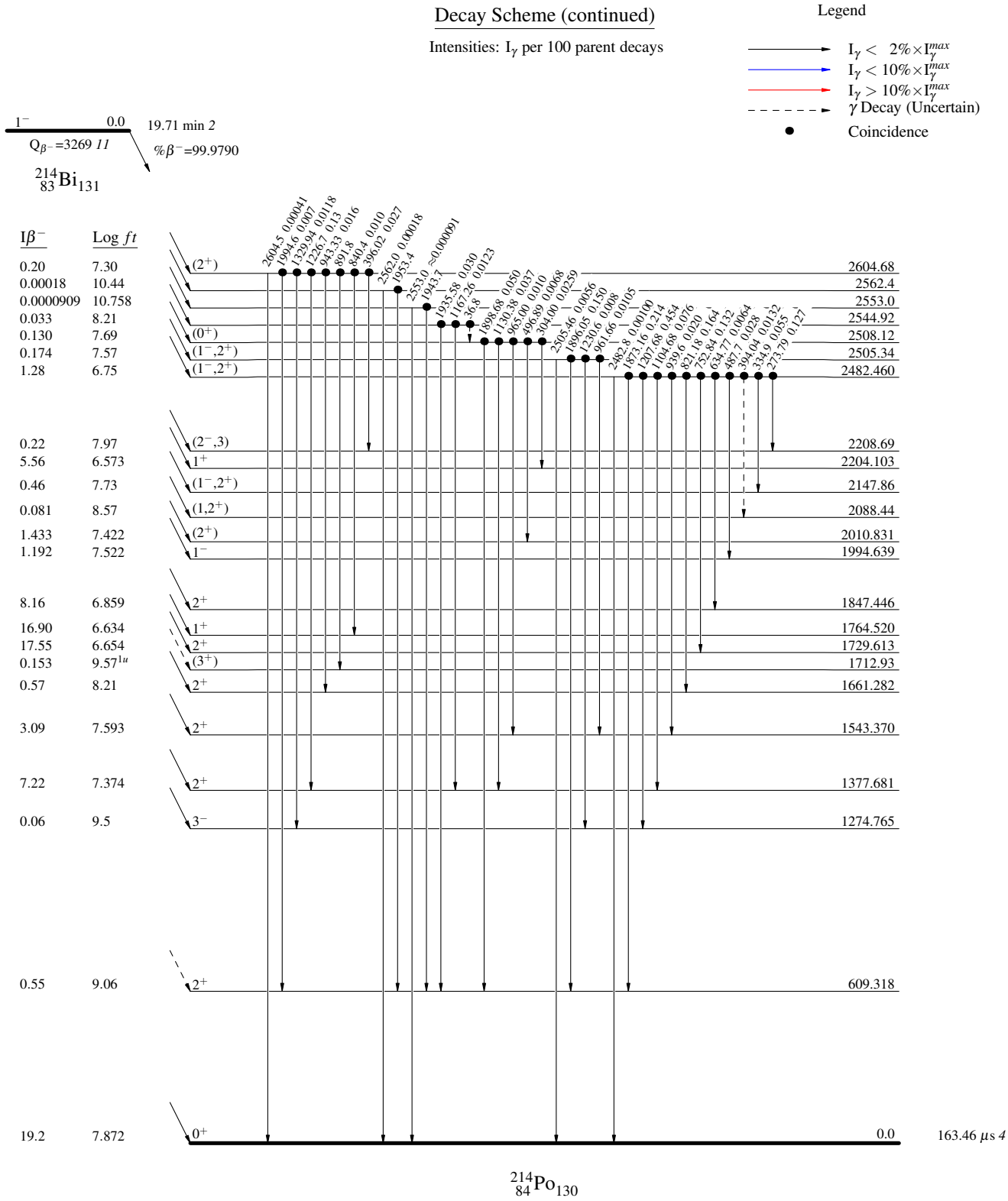


$^{214}_{84}Po_{130}$

^{214}Bi β^- decay 1994Mo06,1989Si17

Decay Scheme (continued)

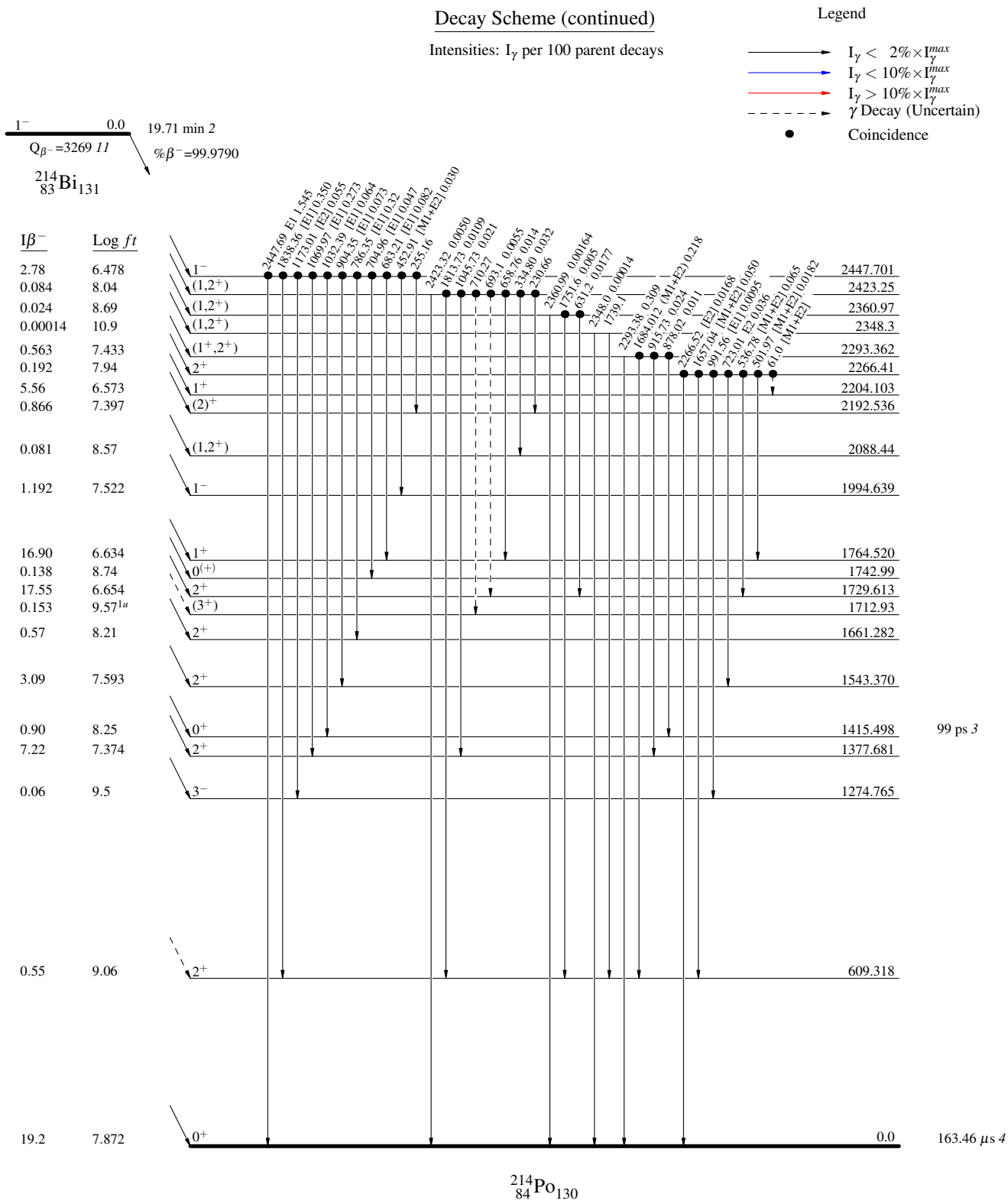
Intensities: I_γ per 100 parent decays



^{214}Bi β^- decay 1994Mo06,1989Si17

Decay Scheme (continued)

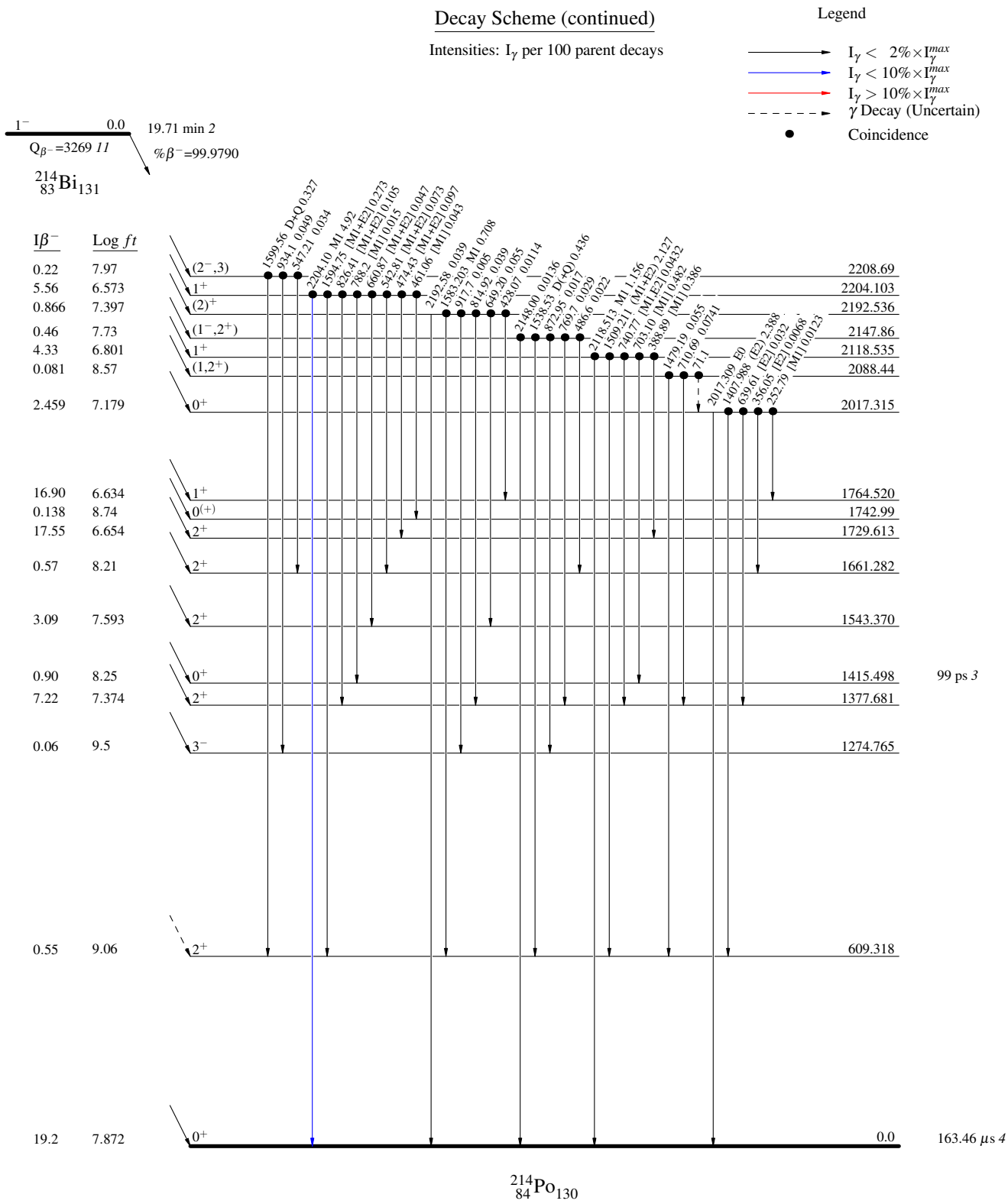
Intensities: I_γ per 100 parent decays



^{214}Bi β^- decay 1994Mo06,1989Si17

Decay Scheme (continued)

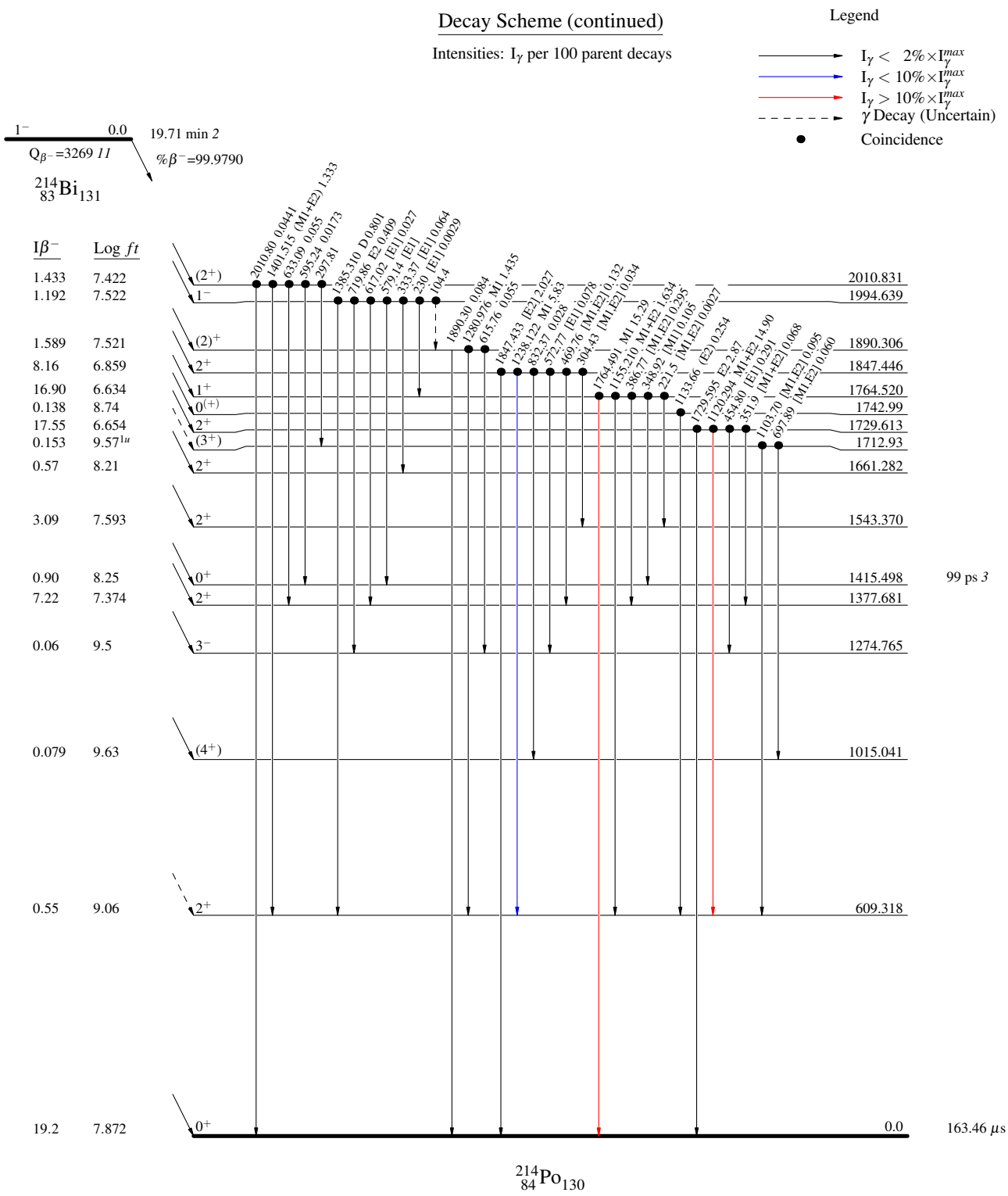
Intensities: I_γ per 100 parent decays



^{214}Bi β^- decay 1994Mo06,1989Si17

Decay Scheme (continued)

Intensities: I_γ per 100 parent decays



^{214}Bi β^- decay 1994Mo06,1989Si17

Decay Scheme (continued)

Intensities: I_γ per 100 parent decays