^{184}Au ε decay 2006KrZT,1992Xu02,1974Ca13

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 111,275 (2010)	1-Oct-2009

Parent: ^{184}Au: E=0.0; $J^\pi=5^+$; $T_{1/2}$=20.6 s *9*; Q(ε)=7014 *29*; %ε+%β^+ decay=100.0
Parent: ^{184}Au: E=68.46 *4*; $J^\pi=2^+$; $T_{1/2}$=47.6 s *14*; Q(ε)=7014 *29*; %ε+%β^+ decay=70 *10*
Others: 1975Ho03, 1972Fi12, 1971Hu02.
1992Xu02,2006KrZT: mass separated sources from ^{181}Ta(^{12}C,9n), E=140 MeV; three Ge(Li) detectors (γ rays) and one Si(Li) detector In mini-orange spectrometer (ce); measured Eγ, Iγ, γγ coin, I(ce), γ-γ-t, γ-ce-t, γ-x-t, ce-x-t, γ(θ,T) (6 angles using 6 Ge detector array). See also 1992Xu06 and 1992XuZY.
1975Ho03: β strength function deduced from total-absorption γ measurement.
1974Ca13: Mass separated (ISOLDE) source of ^{184}Hg from 600 MeV proton spallation reaction on Pb; 3 Ge(Li) (FWHM 2.5-3.5 keV At 1330) and cooled Si(Li) detectors; measured Eγ, Iγ, γγ coin, Ice, γ-ce-coin, γγ(θ).
1972Fi12: chemically-purified sources from ^{184}Hg ε decay; measured Eγ, Iγ, Ice, γγ coin.

Since the 2^+ ^{184}Au(47.6 s) isomer exhibits a %IT=30 *10* branch to 20.6 s ^{184}Au(5^+ g.s.), one might expect the presence of ε decay from both parents In all the sources used. however, the composition of the source used by 1992Xu02 May Be even more complex. 1992XuZY list the ^{184}Au half-life values extracted from γ(t) (measured for approximately 60 s) for 93 individual photon lines and 19 ce lines; these data, given below In comments on the relevant transitions, range from 46.2 s *27* to 94.6 s *16*. The authors suggest the existence of two ^{184}Au isomers with $T_{1/2}\approx$53 s and≈73 s, and attribute intermediate values to transitions from low-J levels fed directly In ε decay As well As by γ cascades from higher energy states. However, No other evidence exists for a 73 s isomer and the spread of $T_{1/2}$ values does not appear to tell a consistent story if the stated uncertainties are realistic.
Because the source is of mixed parentage, the decay scheme cannot Be normalized. however, the intensity balance At levels fed In ε decay is given In comments using the same relative intensity scale As for Iγ; these were calculated assuming intensities of Iγ±1/2Iγ for transitions with uncertain placement. the greatest imbalance occurs At the (6^+) 2553 level, but ε feeding appears to occur to many other levels with a broad range of J values.

^{184}Pt Levels

E(level)[†]	J^π[‡]	$T_{1/2}$	Comments
0.0[#]	0^+		
162.98[#] *6*	2^+	360 ps *12*	$T_{1/2}$: from γγ(t) (1972Fi12).
435.92[#] *7*	4^+		I(γ+ce) imbalance At level: 15 *12*.
491.79[@] *9*	0^+		I(γ+ce) imbalance At level: 6.8 *8*.
648.68[&] *7*	2^+		I(γ+ce) imbalance At level: 7.4 *18*.
798.27[#] *8*	6^+		I(γ+ce) imbalance At level: 7 *5*.
843.92[@] *7*	2^+		I(γ+ce) imbalance At level: 5.2 *17*.
939.81[&] *8*	$(3)^+$		I(γ+ce) imbalance At level: 5.3 *14*.
1027.83[&] *8*	$(4)^+$		I(γ+ce) imbalance At level: 3.1 *15*.
1172.54[a] *9*	2^+		
1230.52[#] *10*	8^+		
1234.33[@] *8*	4^+		I(γ+ce) imbalance At level: 5.5 *11*.
1306.98[&] *9*	$(5)^+$		
1431.79 *10*	$(4,5)^+$		I(γ+ce) imbalance At level: 2.6 *6*. level included In γ band In fig. 1 of 1992Xu02 but the J=4 and 5 γ band members are assigned As the 1028 and 1307 levels, respectively, In Adopted Levels.
1453.46 *15*	(≤4)		I(γ+ce) imbalance At level: 1.20 *25*.
1462.58[&] *9*	$(6)^+$		I(γ+ce) imbalance At level: 3.5 *13*.
1469.91[a] *9*	$(3)^+$		I(γ+ce) imbalance At level: 2.3 *5*.
1597.55[a] *10*	$(4)^+$		I(γ+ce) imbalance At level: 3.2 *5*.
1611.23 *16*	$(2^+,3,4^+)$		I(γ+ce) imbalance At level: 1.36 *25*.

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^{184}Au ε decay 2006KrZT,1992Xu02,1974Ca13 (continued)

^{184}Pt Levels (continued)

E(level)[†]	Jπ[‡]	Comments
1629.33 *12*	5+,6+,7+	I(γ+ce) imbalance At level: 2.7 *8*.
1675.63 *10*	(5)−	I(γ+ce) imbalance At level: 2.0 *3*.
1682.11 *11*	(≤4)	I(γ+ce) imbalance At level: 1.0 *4*.
1692.8 *6*		I(γ+ce) imbalance At level: 1.9 *3*.
1713.79 *11*	(1,2+)	I(γ+ce) imbalance At level: 1.5 *4*.
1725.42? *23*		I(γ+ce) imbalance At level: 0.12 *11*.
1730.60[&] *11*	(7)+	I(γ+ce) imbalance At level: 0.9 *4*.
1738.38? *21*	(≤4)	
1745.12 *12*		
1784.99 *22*	(1,2+)	I(γ+ce) imbalance At level: 0.72 *17*.
1794.8 *8*	(6−)	I(γ+ce) imbalance At level: 0.34 *10*.
1799.78[@] *9*	6+	
1806.99? *21*	(≤4)	
1826.33 *9*	(2+,3,4+)	
1852.12 *10*	(2+,3,4+)	I(γ+ce) imbalance At level: 0.7 *4*.
1882.98 *14*	(4+,5,6+)	I(γ+ce) imbalance At level: 1.3 *4*.
1885.02? *21*	(≤4)	
1894.27? *22*		
1904.09? *21*	(≤4)	
1921.29? *21*	(≤4)	
1924.9 *10*		I(γ+ce) imbalance At level: 0.42 *13*.
1940.71 *16*	(4+,5,6+)	
1953.96 *12*		
1967.60 *20*	(4+)	I(γ+ce) imbalance At level: 2.4 *5*.
1981.55 *21*		
2011.19 *12*	(≤4)	I(γ+ce) imbalance At level: 1.24 *21*.
2061.77 *22*		I(γ+ce) imbalance At level: 0.38 *11*.
2072.57 *22*		I(γ+ce) imbalance At level: 0.25 *8*.
2125.59? *21*	(≤4)	
2152.43? *21*		
2158.21 *16*	(4+,5,6+)	I(γ+ce) imbalance At level: 1.0 *4*.
2169.76 *21*	(6+,7,8+)	I(γ+ce) imbalance At level: 0.67 *16*.
2201.66 *21*	(1,2+)	I(γ+ce) imbalance At level: 0.35 *8*.
2253.78 *21*		
2283.49? *21*	(≤4)	
2330.94 *8*	(6+)	I(γ+ce) imbalance At level: 3.3 *20*.
2434.6? *10*		
2452.55 *16*	(6+,7,8+)	I(γ+ce) imbalance At level: 2.1 *4*.
2454.82? *21*	(≤4)	
2460.65 *21*	(6+,7,8+)	I(γ+ce) imbalance At level: 1.6 *3*.
2531.8? *10*	(1,2+)	
2536.36 *10*	(4+,5,6+)	I(γ+ce) imbalance At level: 4.7 *5*.
2552.83 *8*	(6+)	I(γ+ce) imbalance At level: 34.7 *24*.
2585.19? *21*	(≤4)	
2611.58 *11*	(4+,5,6+)	I(γ+ce) imbalance At level: 6.8 *9*.
2631.89 *8*	(2+,3,4+)	I(γ+ce) imbalance At level: 8.2 *7*.
2637.71 *8*	(2+,3,4+)	I(γ+ce) imbalance At level: 10.3 *7*.
2652.89 *9*	(2+,3,4+)	I(γ+ce) imbalance At level: 5.5 *5*.
2692.3 *10*		I(γ+ce) imbalance At level: 0.54 *16*.
2822.38? *22*		

† From least-squares fit to Eγ, omitting the 691γ and 1614γ, neither of which fits its placement well.
‡ From Adopted Levels.

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^{184}Au ε decay 2006KrZT,1992Xu02,1974Ca13 (continued)

^{184}Pt Levels (continued)

[#] Band(A): $K^{\pi}=0^{+}$ g.s. band.
[@] Band(B): $K^{\pi}=0^{+}$ band.
[&] Band(C): $K^{\pi}=2^{+}$ γ-vibrational band.
[a] Band(D): $K^{\pi}=2^{+}$ band.

γ(^{184}Pt)

$E_γ$ [‡]	$I_γ$ [#]	E_i(level)	$J^π_i$	E_f	$J^π_f$	Mult. [@]	α [†]	Comments
x112.1[b] *2*	0.80[b] *13*							
119 *1*		1794.8	(6^-)	1675.63	$(5)^-$	(M1+E2)	3.2 *9*	α(K)=1.9 *14*; α(L)=1.0 *5*; α(M)=0.25 *12*; α(N+..)=0.07 *4* α(N)=0.06 *3*; α(O)=0.010 *4*; α(P)=0.00022 *17* Mult.: from Adopted Gammas.
133.8[d] *2*	0.87 *13*	1306.98	$(5)^+$	1172.54	2^+	[M3]	115.1 *18*	α(K)=46.7 *7*; α(L)=50.3 *8*; α(M)=14.03 *23*; α(N+..)=4.15 *7* α(N)=3.54 *6*; α(O)=0.590 *10*; α(P)=0.0224 *4* from 1974Ca13; absence of γ In 2006KrZT and implied M3 multipolarity lead evaluator to indicate placement As uncertain.
157 *1*	0.050 *15*	648.68	2^+	491.79	0^+			
163.0 *1*	100 *10*	162.98	2^+	0.0	0^+	E2	0.737	α(K)=0.281 *4*; α(L)=0.343 *5*; α(M)=0.0881 *13*; α(N+..)=0.0249 *4* α(N)=0.0215 *3*; α(O)=0.00340 *5*; α(P)=2.66×10^{-5} *4* Mult.: α(K)exp=0.24 *6* (1974Ca13). $T_{1/2}$ parent=61.6 s *9* for γ(t), 63.7 s *20* for ce(K)(t) (1992XuZY).
173 *1*	0.24 *7*	2330.94	(6^+)	2158.21	(4^+,5,6^+)			
195 *1*	0.25 *8*	843.92	2^+	648.68	2^+	M1+E2(+E0)	1.2 *4*	α: estimated from α(K)exp. Mult.,δ: α(K)exp=0.9 *3* (1992Xu02). %E0<15 (1992Xu02).
221.9 *1*	5.8 *9*	2552.83	(6^+)	2330.94	(6^+)	[M1,E2]	0.48 *23*	α(K)=0.35 *23*; α(L)=0.0936 *17*; α(M)=0.0227 *9*; α(N+..)=0.00657 *16* α(N)=0.00559 *20*; α(O)=0.00095 *3*; α(P)=4.E−5 *3* other Iγ: 4.1 *6* (1974Ca13), 7.4 *25* (1971Hu02). $T_{1/2}$ parent: 53.1 s *9* from γ(t) (1992XuZY).
x229.4[b] *3*	0.64[b] *15*							
x251.6[b] *2*	1.10[b] *20*							
273.0 *1*	90 *9*	435.92	4^+	162.98	2^+	E2	0.1310	α(K)=0.0773 *11*; α(L)=0.0405 *6*; α(M)=0.01020 *15*; α(N+..)=0.00291 *4* α(N)=0.00250 *4*; α(O)=0.000405 *6*; α(P)=7.69×10^{-6} *11* Mult.: α(K)exp=0.091 *20* (1972Fi12). other Iγ: 80 *8* (1974Ca13), 84 *11* (1971Hu02). $T_{1/2}$ parent=56.5 s *6* for γ(t), 52.3 s *6* for ce(K)(t) (1992XuZY).
279 *1*	0.37 *8*	1306.98	$(5)^+$	1027.83	$(4)^+$			
281 *1*	0.33 *10*	1453.46	(≤4)	1172.54	2^+			
291.0 *2*	0.43 *13*	939.81	$(3)^+$	648.68	2^+			α(K)exp=0.60 *14* (1974Ca13); exceeds α(K)(M1). However, Iγ=0.73 *14* and Eγ=291.9 *4* In 1974Ca13 is for 291.0γ+294.4γ doublet.
294.4 *2*	0.33 *10*	1234.33	4^+	939.81	$(3)^+$			
297.3 *2*	0.41 *12*	1469.91	$(3)^+$	1172.54	2^+			
299 *1*	0.19 *6*	2552.83	(6^+)	2253.78				placed from 1731 level In 1974Ca13.
x312.0[b] *2*	0.61[b] *10*							
x315.2[b] *3*	0.90[b] *20*							$E_γ$: line reported to contain contaminant (1974Ca13) so May not belong to ^{184}Au ε decay.
328.8 *1*	3.7 *6*	491.79	0^+	162.98	2^+	E2	0.0753	α(K)=0.0487 *7*; α(L)=0.0201 *3*; α(M)=0.00502 *7*;

$^{184}_{78}Pt_{106}$-4

γ(^{184}Pt) (continued)

Eγ‡	Iγ#	Ei(level)	J^π_i	Ef	J^π_f	Mult.@	α†	Comments
								α(N+..)=0.001438 *21* α(N)=0.001231 *18*; α(O)=0.000202 *3*; α(P)=4.96×10^{-6} *7* Mult.: α(K)exp=0.073 *21* (1974Ca13). $T_{1/2}$ parent=88 s *4* for γ(t) (1992XuZY).
329 *1*	0.66 *20*	1172.54	2$^+$	843.92	2$^+$	M1	0.238	α(K)=0.196 *4*; α(L)=0.0320 *6*; α(M)=0.00737 *12*; α(N+..)=0.00218 *4* α(N)=0.00182 *3*; α(O)=0.000329 *6*; α(P)=2.22×10^{-5} *4* Mult.: α(K)exp=0.19 *5* (1992Xu02). Other α(K)exp: 0.08 *5* (1972Fi12). %E0<12 (1992Xu02). $T_{1/2}$ parent=88 s *4* for γ(t) (1992XuZY).
349 *1*	0.35 *11*	2330.94	(6$^+$)	1981.55				
352.1 *1*	1.14 *17*	843.92	2$^+$	491.79	0$^+$	[E2]	0.0620	α(K)=0.0412 *6*; α(L)=0.01575 *23*; α(M)=0.00391 *6*; α(N+..)=0.001121 *16* α(N)=0.000959 *14*; α(O)=0.0001579 *23*; α(P)=4.23×10^{-6} *6* other Iγ: 1.10 *15* (1974Ca13). $T_{1/2}$ parent=66 s *3* for γ(t), 63.7 s *20* for ce(K)(t) (1992XuZY).
362.3 *1*	41 *4*	798.27	6$^+$	435.92	4$^+$	E2	0.0573	α(K)=0.0385 *6*; α(L)=0.01424 *20*; α(M)=0.00353 *5*; α(N+..)=0.001012 *15* α(N)=0.000866 *13*; α(O)=0.0001429 *20*; α(P)=3.96×10^{-6} *6* Mult.: α(K)exp=0.041 *7* (1974Ca13), 0.055 *16* (1972Fi12). other Iγ: 35 *4* (1974Ca13), 40 *6* (1971Hu02). $T_{1/2}$ parent=52.9 s *6* for γ(t), 53.3 s *14* for ce(K)(t), 53.5 s *14* for ce(L)(t) (1992XuZY).
367.2 *1*	1.47 *22*	1306.98	(5)$^+$	939.81	(3)$^+$	(E2)	0.0552	α(K)=0.0373 *6*; α(L)=0.01359 *19*; α(M)=0.00336 *5*; α(N+..)=0.000965 *14* α(N)=0.000825 *12*; α(O)=0.0001363 *20*; α(P)=3.84×10^{-6} *6* Mult.,δ: α(K)exp=0.042 *24* (1972Fi12); mult=E2(+M1), δ(M1,E2)≤1.7, but level scheme does not allow M1 component. other Iγ: 1.0 *5* (1974Ca13). $T_{1/2}$ parent=51.4 s *20* for γ(t) (1992XuZY).
377.0 *2*	1.0 *3*	2330.94	(6$^+$)	1953.96				$T_{1/2}$ parent: 54.7 s *24* from γ(t) (1992XuZY).
379.1 *1*	2.7 *4*	1027.83	(4)$^+$	648.68	2$^+$	E2	0.0506	α(K)=0.0345 *5*; α(L)=0.01216 *17*; α(M)=0.00301 *5*; α(N+..)=0.000863 *13* α(N)=0.000738 *11*; α(O)=0.0001221 *18*; α(P)=3.57×10^{-6} *5* Mult.,δ: α(K)exp=0.054 *21* (1974Ca13); other α(K)exp=0.07 *5* (1972Fi12). δ(M1,E2)≥1.2. other Iγ: 2.8 *6* (1974Ca13). $T_{1/2}$ parent: 57.9 s *18* from γ(t) (1992XuZY).
390 *1*	0.25 *8*	2330.94	(6$^+$)	1940.71	(4$^+$,5,6$^+$)			
390.3 *1*	2.2 *3*	1234.33	4$^+$	843.92	2$^+$	E2	0.0466	α(K)=0.0322 *5*; α(L)=0.01101 *16*; α(M)=0.00272 *4*; α(N+..)=0.000780 *11* α(N)=0.000666 *10*; α(O)=0.0001106 *16*; α(P)=3.34×10^{-6} *5* α(K)exp=0.041 *21* (1974Ca13). $T_{1/2}$ parent=60.6 s *20* from γ(t) (1992XuZY).
394 *1*	0.080 *24*	2552.83	(6$^+$)	2158.21	(4$^+$,5,6$^+$)			
404.4 *2*	0.49 *15*	1431.79	(4,5)$^+$	1027.83	(4)$^+$			$T_{1/2}$ parent=53 s *3* from γ(t) (1992XuZY).
408.1 *1*	1.21 *18*	843.92	2$^+$	435.92	4$^+$			other Iγ: 1.3 *4* (1974Ca13). $T_{1/2}$ parent=75 s *4* from γ(t) (1992XuZY).
423.8 *2*	0.68 *20*	1730.60	(7)$^+$	1306.98	(5)$^+$			

From ENSDF

γ(^{184}Pt) (continued)

E_γ[‡]	I_γ[#]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[@]	δ[&]	α[†]	$I_{(\gamma+ce)}$	Comments
425.3 *2*	0.79 *24*	1597.55	(4)$^+$	1172.54	2$^+$					
432.2 *1*	4.0 *4*	1230.52	8$^+$	798.27	6$^+$	E2		0.0357		α(K)=0.0254 *4*; α(L)=0.00783 *11*; α(M)=0.00192 *3*; α(N+..)=0.000553 *8* α(N)=0.000471 *7*; α(O)=7.88×10^{-5} *11*; α(P)=2.65×10^{-6} *4* Mult.: from Adopted Gammas. $T_{1/2}$ parent=52.0 s *9* from γ(t) (1992XuZY).
434.8 *1*	3.8 *6*	1462.58	(6)$^+$	1027.83	(4)$^+$					other Iγ: 3.6 *15* (1974Ca13).
441.3 *1*	1.11 *17*	1675.63	(5)$^-$	1234.33	4$^+$	E1		0.01082		α(K)=0.00900 *13*; α(L)=0.001402 *20*; α(M)=0.000322 *5*; α(N+..)=9.38×10^{-5} *14* α(N)=7.90×10^{-5} *11*; α(O)=1.395×10^{-5} *20*; α(P)=8.51×10^{-7} *12* other Iγ: 0.64 *9* (1974Ca13). Mult.: from Adopted Gammas. $T_{1/2}$ parent=52.5 s *22* from γ(t) (1992XuZY).
447.9 *2*	0.35 *11*	2330.94	(6$^+$)	1882.98	(4$^+$,5,6$^+$)					
^{x}458.1 *2*	0.21 *6*									
479.0 *2*	0.82 *25*	2330.94	(6$^+$)	1852.12	(2$^+$,3,4$^+$)					Eγ: 479.6 *2* In 1974Ca13. other Iγ: 0.63 *9* (1974Ca13). $T_{1/2}$ parent: 46.9 s *19* from γ(t) (1992XuZY).
485.7 *1*	11.8 *12*	648.68	2$^+$	162.98	2$^+$	E2+M1	+0.49 *7*	0.073 *3*		α(K)=0.0599 *25*; α(L)=0.0101 *3*; α(M)=0.00234 *7*; α(N+..)=0.000688 *20* α(N)=0.000578 *17*; α(O)=0.000103 *3*; α(P)=6.7×10^{-6} *3* Mult.,δ: α(K)exp=0.051 *5* (1992Xu02), 0.052 *10* (1974Ca13), 0.07 *3* (1972Fi12). %E0=0 *1*, %M1=82 *5*, %E2=18 *4* (1992Xu02). δ from 1992Xu06. Other δ=+18 +∞−13 from γγ(θ) (1974Ca13). other Iγ: 11.9 *15* (1974Ca13), 14 *5* (1971Hu02). $T_{1/2}$ parent=66.6 s *12* for γ(t), 59.9 s *20* for ce(K)(t), 79 s *9* for ce(L)(t) (1992XuZY).
488 *1*	0.34 *10*	1794.8	(6$^-$)	1306.98	(5)$^+$					
491.7 *2*	<0.1	491.79	0$^+$	0.0	0$^+$	E0			5.4 *3*	Mult.,δ: α(K)exp>11 (1974Ca13), α(K)exp>5.3 (1992Xu02). Other α(K)exp: 1972Fi12. %E0>75 (1992Xu02). $T_{1/2}$ parent=46.2 s *27* for γ(t), 58.9 s *14* for ce(K)(t), 65 s *5* for ce(L)(t) (1992XuZY).
491.9 *2*	0.70 *21*	1431.79	(4,5)$^+$	939.81	(3)$^+$					
494.9[d] *2*	0.23 *7*	1725.42?		1230.52	8$^+$					
503.9 *1*	1.9 *3*	939.81	(3)$^+$	435.92	4$^+$					
508.7 *1*	1.00 *15*	1306.98	(5)$^+$	798.27	6$^+$					
524 *1*	0.39 *12*	1172.54	2$^+$	648.68	2$^+$	E0+E2+M1		0.47 *5*		Eγ=524.6 *3*, Iγ=0.80 *15* (1974Ca13) for possibly

γ(^{184}Pt) (continued)

E_γ‡	I_γ#	E_i(level)	J^π_i	E_f	J^π_f	Mult.@	δ&	α†	Comments
									contaminated line. Mult.: from α(K)exp=0.36 *4* (1992Xu02). Other α(K)exp: 0.24 *7* (1974Ca13); possibly unreliable due to contamination. %E0=22 *2* (1992Xu02). α: based on α(K)exp=0.36 *4*. $T_{1/2}$ parent=47.5 s *10* for γ(t), 76 s *5* for ce(K)(t) (1992XuZY).
530.2 *2*	<0.02	1469.91	(3)$^+$	939.81	(3)$^+$	E0+M1+E2		>0.5	α(K)exp>0.4 (1992Xu02), >0.37 (1974Ca13). %E0>24 (1992Xu02). α: based on α(K)exp>0.4. $T_{1/2}$ parent=59 s *3* from ce(K)(t) (1992XuZY).
531.1 *2*	0.73 *22*	2330.94	(6$^+$)	1799.78	6$^+$				$T_{1/2}$ parent: 87 s *10* from γ(t) (1992XuZY).
565.4 *2*	0.60 *18*	1799.78	6$^+$	1234.33	4$^+$				
569 *1*	0.080 *24*	1799.78	6$^+$	1230.52	8$^+$				
569.6 *2*	0.68 *20*	1597.55	(4)$^+$	1027.83	(4)$^+$	E0+M1+E2		≈0.10	Mult.,δ: α(K)exp=0.078 *16* (1992Xu02). %E0=2.8 *13* (1992Xu02). α: based on α(K)exp.
576.0 *2*	0.80 *24*	1882.98	(4$^+$,5,6$^+$)	1306.98	(5)$^+$				
585 *1*	0.56 *17*	2552.83	(6$^+$)	1967.60	(4$^+$)				
586 *1*	0.79 *24*	1234.33	4$^+$	648.68	2$^+$	[E2]		0.01699	α(K)=0.01294 *19*; α(L)=0.00309 *5*; α(M)=0.000744 *11*; α(N+..)=0.000216 *4* α(N)=0.000183 *3*; α(O)=3.13×10^{-5} *5*; α(P)=1.369×10^{-6} *20* Eγ=586.4 *2*, Iγ=2.3 *3*, α(K)exp=0.025 *6* for presumed multiplet In 1974Ca13. Mult.: from decay scheme. α(K)exp is consistent with M1+E2.
586 *1*	1.07 *16*	2330.94	(6$^+$)	1745.12					
587.7 *2*	0.9 *3*	1431.79	(4,5)$^+$	843.92	2$^+$				
591.9 *2*	6.9 *10*	1027.83	(4)$^+$	435.92	4$^+$	E2+M1	≤−1.2	0.023 *7*	α(K)=0.019 *6*; α(L)=0.0038 *8*; α(M)=0.00089 *17*; α(N+..)=0.00026 *5* α(N)=0.00022 *5*; α(O)=3.8×10^{-5} *8*; α(P)=2.0×10^{-6} *7* Mult.,δ: α(K)exp=0.022 *3* (1992Xu02), 0.023 *5* (1974Ca13); other α(K)exp: 0.013 *7* (1972Fi12). Possible E0 contribution (%E0=0.3 *3*); %M1=17 *+29−17*, %E2=82 *+17−29* (1992Xu02). δ(M1,E2)=−2.3 *+11−∞* (1992Xu06). other δ: 1.5 *+10−4* (1974Ca13). other Iγ: 6.5 *8* (1974Ca13). $T_{1/2}$ parent=54.5 s *10* from γ(t) (1992XuZY).
599 *1*	0.26 *8*	2552.83	(6$^+$)	1953.96					
600.4 *2*	0.20 *6*	2330.94	(6$^+$)	1730.60	(7)$^+$				
609.4 *2*	0.60 *4*	1453.46	(≤4)	843.92	2$^+$				other Eγ: 609.7 *3*; other Iγ: 1.72 *20* (1974Ca13).
612 *1*	0.48 *14*	2552.83	(6$^+$)	1940.71	(4$^+$,5,6$^+$)				other Eγ: 611.9 *3*; other Iγ: 1.35 *15* (1974Ca13).
626.2 *2*	0.34 *10*	1469.91	(3)$^+$	843.92	2$^+$				Eγ=627.5 *3*, Iγ=0.60 *8* In 1974Ca13 suggests the presence of a contaminant In that experiment.

γ(^{184}Pt) (continued)

E_{γ}[‡]	I_{γ}[#]	E_i(level)	J^{π}_i	E_f	J^{π}_f	Mult.[@]	δ[&]	α[†]	Comments
[x]631.3[b] *4*	1.40[b] *18*								
[x]635.1[b] *4*	0.90[b] *13*								
[x]638.1 *2*	0.32 *10*								
648.7 *1*	5.9 *9*	648.68	2$^+$	0.0	0$^+$	E2		0.01350	α(K)=0.01045 *15*; α(L)=0.00233 *4*; α(M)=0.000557 *8*; α(N+..)=0.0001619 *23* α(N)=0.0001372 *20*; α(O)=2.36×10^{-5} *4*; α(P)=1.107×10^{-6} *16* other Iγ: 7 *3* (1971Hu02). Mult.: α(K)exp=0.011 *2* (1974Ca13). $T_{1/2}$ parent=66.2 s *16* from γ(t) (1992XuZY).
649 *1*	0.22 *7*	2330.94	(6$^+$)	1682.11	(≤4)				
653 *1*	0.90 *27*	2452.55	(6$^+$,7,8$^+$)	1799.78	6$^+$				other Iγ: 0.85 *10* (1974Ca13).
660.9 *2*	0.47 *14*	2460.65	(6$^+$,7,8$^+$)	1799.78	6$^+$				
664.2 *1*	4.2 *6*	1462.58	(6)$^+$	798.27	6$^+$	M1+E2	−1.01 *+14−18*	0.0249 *21*	α(K)=0.0203 *18*; α(L)=0.00354 *23*; α(M)=0.00082 *5*; α(N+..)=0.000242 *16* α(N)=0.000203 *13*; α(O)=3.62×10^{-5} *24*; α(P)=2.24×10^{-6} *20* Mult.,δ: α(K)exp=0.0126 *14* (1992Xu02), 0.009 *3* (1974Ca13). %E0=0.0 *2*, %M1=51 *8*, %E2=49 *8* (1992Xu02). δ from 1992Xu06. $T_{1/2}$ parent=54.1 s *12* from γ(t) (1992XuZY).
665 *1*	0.63 *19*	1692.8		1027.83	(4)$^+$				
669.9 *2*	0.60 *18*	2552.83	(6$^+$)	1882.98	(4$^+$,5,6$^+$)				other Iγ: 0.70 *10* (1974Ca13).
[x]672.9[b] *2*	0.70[b] *10*								
681[c] *1*	1.24[c] *19*	843.92	2$^+$	162.98	2$^+$	E2+E0+M1[a]			Mult.,δ: α(K)exp=0.30 *3* (1992Xu02); 0.29 *6* for doublet In 1974Ca13. Other α(K)exp: 0.6 *4* (1972Fi12). %E0=22 *2*, %M1=32 *+21−29*, %E2=46 *+29−21* (1992Xu02). δ(M1,E2)=−1.2 *+5−35* (1992Xu06). $T_{1/2}$ parent=79 s *5* for γ(t), 71.8 s *24* for ce(K)(t) (1992XuZY).
681[c] *1*	0.54[c] *16*	1172.54	2$^+$	491.79	0$^+$	[a]			
691.1 *1*	1.06 *16*	1629.33	5$^+$,6$^+$,7$^+$	939.81	(3)$^+$				E_{γ}: >5σ from expected value; datum excluded from least-squares fit. other Iγ: 1.10 *10* (1974Ca13).
701.8 *2*	0.40 *12*	2330.94	(6$^+$)	1629.33	5$^+$,6$^+$,7$^+$				other Iγ: 0.50 *5* (1974Ca13).
[x]727.3 *2*	0.30 *9*								
[x]736.9 *2*	0.32 *10*								
753[c] *1*	0.59[c] *18*	1597.55	(4)$^+$	843.92	2$^+$				$T_{1/2}$ parent=51.9 s *16* from γ(t) (1992XuZY).
753[c] *1*	1.47[c] *22*	1692.8		939.81	(3)$^+$				I_{γ}: 1.0 *1* for presumed multiplet In 1974Ca13.
753[c] *1*	0.40[c] *12*	2552.83	(6$^+$)	1799.78	6$^+$				
[x]759 *1*	0.36 *11*								E_{γ},I_{γ}: for doublet; divided Iγ given.

From ENSDF

γ(^{184}Pt) (continued)

E_γ ‡	I_γ #	E_i(level)	J_i^π	E_f	J_f^π	Mult. @	δ &	α †	Comments
759[d] *1*	0.28 *8*	2434.6?		1675.63	(5)$^-$				E_γ,I_γ: for doublet; divided Iγ given.
771.9 *2*	0.40 *12*	1799.78	6$^+$	1027.83	(4)$^+$				
776.8 *1*	12.1 *12*	939.81	(3)$^+$	162.98	2$^+$	E2(+M1)	>+4	0.0096 *5*	α=0.0096 *5*; α(K)=0.0076 *4*; α(L)=0.00151 *6*; α(M)=0.000357 *13*; α(N+..)=0.000104 *4* α(N)=8.8×10^{-5} *4*; α(O)=1.53×10^{-5} *6*; α(P)=8.1×10^{-7} *5* Iγ=13.2 *15* In 1974Ca13, 18 *10* (1971Hu02). Mult.: α(K)exp=0.011 *2* (1974Ca13); other: 0.010 *7* (1972Fi12). δ: +9 +∞−5 from γγ(θ) (1974Ca13). $T_{1/2}$ parent=66.2 s *14* for γ(t), 65 s *6* for ce(K)(t), 75 s *9* for ce(L)(t) (1992XuZY).
783.6 *2*	1.58 *24*	1431.79	(4,5)$^+$	648.68	2$^+$				E_γ: from 1974Ca13. other Eγ: 783 *1* In 2006KrZT. other Iγ: 1.8 *2* (1974Ca13). $T_{1/2}$ parent: 55 s *3* from γ(t) (1992XuZY).
798.4 *1*	3.2 *5*	1234.33	4$^+$	435.92	4$^+$	E0+E2+M1		0.059 *8*	α(K)exp=0.051 *10* (1974Ca13), 0.045 *6* (1992Xu02); other: 1972Fi12. %E0=3.1 *5*, %M1=44 *+15−11*, %E2=53 *+11−15* (1992Xu02). δ(M1,E2)=+1.1 *3* (1992Xu06). α: based on α(K)exp=0.045 *6*. $T_{1/2}$ parent=61.9 s *20* for γ(t), 60 s *3* for ce(K)(t), 75 s *9* for ce(L)(t) (1992XuZY).
800.6 *2*	0.54 *16*	2652.89	(2$^+$,3,4$^+$)	1852.12	(2$^+$,3,4$^+$)				
805.4 *2*	0.50 *15*	2631.89	(2$^+$,3,4$^+$)	1826.33	(2$^+$,3,4$^+$)				possibly the same transition As reported In 1974Ca13 At Eγ=806.7 *2* with Iγ=0.50 *7*.
808 *1*	0.34 *10*	2552.83	(6$^+$)	1745.12					
811 *1*	0.33 *10*	2637.71	(2$^+$,3,4$^+$)	1826.33	(2$^+$,3,4$^+$)				
811.5 *2*	0.82 *25*	2611.58	(4$^+$,5,6$^+$)	1799.78	6$^+$				
821 *1*	0.64 *19*	1469.91	(3)$^+$	648.68	2$^+$				
822 *1*	0.79 *24*	2552.83	(6$^+$)	1730.60	(7)$^+$				
823 *1*	0.31 *9*	2452.55	(6$^+$,7,8$^+$)	1629.33	5$^+$,6$^+$,7$^+$				
826.5 *1*	1.13 *17*	2652.89	(2$^+$,3,4$^+$)	1826.33	(2$^+$,3,4$^+$)				
831 *1*	0.64 *19*	2460.65	(6$^+$,7,8$^+$)	1629.33	5$^+$,6$^+$,7$^+$				
831.1 *1*	4.3 *6*	1629.33	5$^+$,6$^+$,7$^+$	798.27	6$^+$	M1		0.0209	α(K)=0.01737 *25*; α(L)=0.00275 *4*; α(M)=0.000632 *9*; α(N+..)=0.000187 *3* α(N)=0.0001564 *22*; α(O)=2.82×10^{-5} *4*; α(P)=1.93×10^{-6} *3* Mult.: α(K)exp=0.015 *4* (1974Ca13). $T_{1/2}$ parent=53.3 s *11* for γ(t), 58 s *3* for ce(K)(t) (1992XuZY).
838.3 *2*	0.32 *10*	1682.11	(≤4)	843.92	2$^+$				
843.9 *1*	9.5 *14*	843.92	2$^+$	0.0	0$^+$	E2		0.00770 *11*	α=0.00770 *11*; α(K)=0.00615 *9*; α(L)=0.001189 *17*; α(M)=0.000280 *4*; α(N+..)=8.17×10^{-5} *12* α(N)=6.90×10^{-5} *10*; α(O)=1.205×10^{-5} *17*; α(P)=6.51×10^{-7} *10* Mult.: α(K)exp=0.0060 *12* (1974Ca13).

$^{184}_{78}$Pt$_{106}$-9

γ(^{184}Pt) (continued)

Eγ[‡]	Iγ[#]	Ei(level)	J^π_i	Ef	J^π_f	Mult.[@]	α[†]	Comments
								other Iγ: 10.7 *12* (1974Ca13). $T_{1/2}$ parent=70.9 s *17* from γ(t) (1992XuZY).
854 *1*	0.40 *12*	2536.36	(4$^+$,5,6$^+$)	1682.11	(≤4)			
855 *1*	0.30 *9*	1882.98	(4$^+$,5,6$^+$)	1027.83	(4)$^+$			
[x]857.6 *2*	0.28 *8*							
860 *1*	0.20 *6*	2552.83	(6$^+$)	1692.8				
864.9 *1*	3.3 *5*	1027.83	(4)$^+$	162.98	2$^+$	(E2)	0.00733 *11*	α=0.00733 *11*; α(K)=0.00586 *9*; α(L)=0.001121 *16*; α(M)=0.000264 *4*; α(N+..)=7.69×10^{-5} *11* α(N)=6.50×10^{-5} *9*; α(O)=1.136×10^{-5} *16*; α(P)=6.20×10^{-7} *9* Mult.: α(K)exp=0.014 *7* (1974Ca13), mult=M1,E2; however, level scheme requires ΔJ=2. other Iγ: 2.5 *3* (1974Ca13). $T_{1/2}$ parent=56.5 s *16* from γ(t) (1992XuZY).
868.2 *1*	1.34 *20*	2330.94	(6$^+$)	1462.58	(6)$^+$			other Iγ: 1.3 *2* (1974Ca13).
870 *1*	0.64 *19*	1713.79	(1,2$^+$)	843.92	2$^+$			
871 *1*	8.4 *13*	1306.98	(5)$^+$	435.92	4$^+$	E2+M1	0.013 *6*	α(K)=0.011 *5*; α(L)=0.0018 *7*; α(M)=0.00041 *15*; α(N+..)=0.00012 *5* α(N)=0.00010 *4*; α(O)=1.8×10^{-5} *7*; α(P)=1.2×10^{-6} *6* Mult.: α(K)exp=0.0066 *16* (1974Ca13) implies E2(+M1); D+Q transition from Adopted Gammas. $T_{1/2}$ parent=53.4 s *10* for γ(t), 57 s *7* for ce(K)(t) (1992XuZY).
871 *1*	0.52 *16*	2552.83	(6$^+$)	1682.11	(≤4)			
[x]892.4 *2*	0.34 *10*							Eγ=892.1 *3*, Iγ=0.60 *8* In 1974Ca13.
899.3 *1*	1.04 *16*	2330.94	(6$^+$)	1431.79	(4,5)$^+$			other Iγ: 0.70 *9* (1974Ca13).
918.1 *2*	0.42 *13*	2631.89	(2$^+$,3,4$^+$)	1713.79	(1,2$^+$)			other Iγ: 0.50 *6* (1974Ca13).
923 *1*	1.44 *22*	2552.83	(6$^+$)	1629.33	5$^+$,6$^+$,7$^+$			$T_{1/2}$ parent: 57.0 s *21* from γ(t) (1992XuZY).
924 *1*	0.30 *9*	2637.71	(2$^+$,3,4$^+$)	1713.79	(1,2$^+$)			
[x]929.6 *2*	0.28 *8*							
932.3 *1*	1.21 *18*	1730.60	(7)$^+$	798.27	6$^+$	E2	0.00629 *9*	α=0.00629 *9*; α(K)=0.00507 *7*; α(L)=0.000939 *14*; α(M)=0.000220 *3*; α(N+..)=6.43×10^{-5} *9* α(N)=5.42×10^{-5} *8*; α(O)=9.52×10^{-6} *14*; α(P)=5.35×10^{-7} *8* other Iγ: 1.05 *10* (1974Ca13). Mult.: from Adopted Gammas. $T_{1/2}$ parent=52.2 s *26* from γ(t) (1992XuZY).
939 *1*	0.25 *8*	2169.76	(6$^+$,7,8$^+$)	1230.52	8$^+$			$T_{1/2}$ parent: 54.9 s *23* from γ(t) (1992XuZY).
939[c] *1*	0.60[c] *18*	2536.36	(4$^+$,5,6$^+$)	1597.55	(4)$^+$			
940 *1*	0.40 *12*	1967.60	(4$^+$)	1027.83	(4)$^+$			
941 *1*	0.25 *8*	1784.99	(1,2$^+$)	843.92	2$^+$			
[x]946.7 *2*	0.28 *8*							
949 *1*	0.59 *18*	1597.55	(4)$^+$	648.68	2$^+$			
950 *1*	0.22 *7*	2631.89	(2$^+$,3,4$^+$)	1682.11	(≤4)			
962.5 *2*	0.45 *14*	1611.23	(2$^+$,3,4$^+$)	648.68	2$^+$			other Iγ: 0.9 *1* (1974Ca13).
982.5 *2*	0.39 *12*	1826.33	(2$^+$,3,4$^+$)	843.92	2$^+$			other Iγ: 0.40 *5* (1974Ca13).
[x]990.0 *2*	0.24 *7*							

$^{184}_{78}$Pt$_{106}$-10

γ(^{184}Pt) (continued)

E_γ[‡]	I_γ[#]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[@]	δ[&]	α[†]	Comments
995.8 *2*	0.57 *17*	1431.79	(4,5)$^+$	435.92	4$^+$	M1+E2		0.009 *4*	α=0.009 *4*; α(K)=0.008 *4*; α(L)=0.0013 *5*; α(M)=0.00029 *11*; α(N+..)=9.E−5 *4* α(N)=7.E−5 *3*; α(O)=1.3×10^{-5} *5*; α(P)=8.E−7 *4* α(K)exp<0.014 (1992Xu02). other Iγ: 0.65 *8* (1974Ca13).
1001.5 *1*	2.1 *3*	1799.78	6$^+$	798.27	6$^+$	M1+E2	+1.08 *+29−25*	0.0090 *10*	α=0.0090 *10*; α(K)=0.0074 *9*; α(L)=0.00121 *12*; α(M)=0.00028 *3*; α(N+..)=8.3×10^{-5} *8* α(N)=6.9×10^{-5} *7*; α(O)=1.24×10^{-5} *13*; α(P)=8.0×10^{-7} *10* Mult.,δ: α(K)exp=0.011 *4* (1992Xu02). %E0=0.3 *4*, %M1=51 *+12−10*, %E2=49 *+10−12* (1992Xu02). δ(M1,E2) from 1992Xu06. other Iγ: 1.9 *2* (1974Ca13). T$_{1/2}$ parent=55.5 s *22* from γ(t) (1992XuZY).
1009.6 *1*	4.6 *5*	1172.54	2$^+$	162.98	2$^+$	M1		0.01278	α(K)=0.01061 *15*; α(L)=0.001669 *24*; α(M)=0.000383 *6*; α(N+..)=0.0001131 *16* α(N)=9.49×10^{-5} *14*; α(O)=1.711×10^{-5} *24*; α(P)=1.175×10^{-6} *17* Mult.: α(K)exp=0.012 *4* (1992Xu02),≤0.009 (1974Ca13). %E0<0.75 (1992Xu02). T$_{1/2}$ parent=73 s *3* from γ(t) (1992XuZY).
1014.1 *2*	0.28 *8*	2611.58	(4$^+$,5,6$^+$)	1597.55	(4)$^+$				
1024.0 *2*	0.25 *8*	2330.94	(6$^+$)	1306.98	(5)$^+$				
1026.5 *1*	2.9 *4*	1462.58	(6)$^+$	435.92	4$^+$				other Iγ: 2.6 *3* (1974Ca13). T$_{1/2}$ parent=52.4 s *16* from γ(t) (1992XuZY).
1033.9 *2*	0.87 *26*	1469.91	(3)$^+$	435.92	4$^+$				other Iγ: 0.70 *8* (1974Ca13).
1041.1[d] *2*	0.44 *13*	1885.02?	(≤4)	843.92	2$^+$				
1065 *1*	0.27 *8*	1713.79	(1,2$^+$)	648.68	2$^+$				
1071.3 *1*	4.3 *6*	1234.33	4$^+$	162.98	2$^+$	E2		0.00478 *7*	α(K)=0.00389 *6*; α(L)=0.000685 *10*; α(M)=0.0001596 *23*; α(N+..)=4.67×10^{-5} *7* α(N)=3.93×10^{-5} *6*; α(O)=6.95×10^{-6} *10*; α(P)=4.10×10^{-7} *6* Mult.: from Adopted Gammas. other Iγ: 4.7 *6* (1974Ca13). T$_{1/2}$ parent=64.8 s *21* from γ(t) (1992XuZY).
1073.7 *1*	1.35 *21*	2536.36	(4$^+$,5,6$^+$)	1462.58	(6)$^+$				other Iγ: 1.20 *20* (1974Ca13).
1085 *1*	1.12 *17*	1882.98	(4$^+$,5,6$^+$)	798.27	6$^+$				Eγ=1084.8 *3* In 1974Ca13. other Iγ: 1.00 *15* (1974Ca13). T$_{1/2}$ parent: 57 s *4* from γ(t) (1992XuZY).
1090.2 *3*	4.5 *7*	2552.83	(6$^+$)	1462.58	(6)$^+$				other Iγ: 2.7 *4* (1974Ca13). T$_{1/2}$ parent: 51.2 s *11* from γ(t) (1992XuZY).
1096.0 *2*	0.40 *12*	1894.27?		798.27	6$^+$				
1100.4 *1*	1.68 *25*	2330.94	(6$^+$)	1230.52	8$^+$				other Iγ: 1.15 *20* (1974Ca13). T$_{1/2}$ parent: 51.8 s *24* from γ(t) (1992XuZY).
1105 *1*	0.57 *17*	2536.36	(4$^+$,5,6$^+$)	1431.79	(4,5)$^+$				

γ(^{184}Pt) (continued)

E_γ [‡]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	δ [&]	α [†]	Comments
1142.5 *2*	0.43 *13*	1940.71	(4$^+$,5,6$^+$)	798.27	6$^+$				
1149 *1*	0.31 *9*	2611.58	(4$^+$,5,6$^+$)	1462.58	(6)$^+$				
1155.7 *1*	1.59 *24*	1953.96		798.27	6$^+$				other Iγ: 0.95 *15* (1974Ca13). $T_{1/2}$ parent: 54 s *3* from γ(t) (1992XuZY).
1161.6 *1*	1.33 *20*	1597.55	(4)$^+$	435.92	4$^+$	D+Q	$\le$−0.8		other Iγ: 0.8 *1* (1974Ca13). Mult.: α(K)exp$\le$0.006 (1992Xu02). δ: −1.6 +*8*−∞ (1992Xu06). $T_{1/2}$ parent=57 s *5* from γ(t) (1992XuZY).
1167.7 *1*	1.43 *21*	2637.71	(2$^+$,3,4$^+$)	1469.91	(3)$^+$				$T_{1/2}$ parent: 66 s *6* from γ(t) (1992XuZY).
1169 *1*	0.46 *14*	1967.60	(4$^+$)	798.27	6$^+$				
1172.5 *2*	1.0 *3*	1172.54	2$^+$	0.0	0$^+$				other Iγ: 0.7 *2* (1974Ca13).
1175 *1*	0.45 *14*	1611.23	(2$^+$,3,4$^+$)	435.92	4$^+$				
1178 *1*	0.55 *17*	1826.33	(2$^+$,3,4$^+$)	648.68	2$^+$				
1184 *1*	0.35 *11*	2637.71	(2$^+$,3,4$^+$)	1453.46	($\le$4)				
1203 *1*	0.21 *6*	1852.12	(2$^+$,3,4$^+$)	648.68	2$^+$				
1222 *1*	0.12 *4*	1713.79	(1,2$^+$)	491.79	0$^+$				
1222.0 *2*	0.49 *15*	2452.55	(6$^+$,7,8$^+$)	1230.52	8$^+$				
1229.4 *1*	1.00 *15*	2536.36	(4$^+$,5,6$^+$)	1306.98	(5)$^+$				I_γ: 0.80 *15* In 1974Ca13 for presumed doublet.
1230 *1*	0.28 *8*	2460.65	(6$^+$,7,8$^+$)	1230.52	8$^+$				
1239.7 *1*	1.02 *15*	1675.63	(5)$^-$	435.92	4$^+$	E1		0.001475 *21*	α=0.001475 *21*; α(K)=0.001215 *17*; α(L)=0.0001766 *25*; α(M)=4.01$\times10^{-5}$ *6*; α(N+..)=4.32$\times10^{-5}$ α(N)=9.89$\times10^{-6}$ *14*; α(O)=1.776$\times10^{-6}$ *25*; α(P)=1.199$\times10^{-7}$ *17*; α(IPF)=3.14$\times10^{-5}$ *5* other Iγ: 1.05 *15* (1974Ca13). Mult.: from Adopted Gammas. $T_{1/2}$ parent=62 s *4* from γ(t) (1992XuZY).
1245.8 *1*	4.6 *7*	2552.83	(6$^+$)	1306.98	(5)$^+$				
1246 *1*	0.51 *15*	1682.11	($\le$4)	435.92	4$^+$				$T_{1/2}$ parent=54.4 s *8* from γ(t) (1992XuZY).
1263.5 *2*	0.38 *11*	2061.77		798.27	6$^+$				
1274.3 *2*	0.25 *8*	2072.57		798.27	6$^+$				other Iγ: 0.50 *6* (1974Ca13).
1290.6 *2*	0.62 *19*	1453.46	($\le$4)	162.98	2$^+$				other Iγ: 0.90 *10* (1974Ca13).
1293.2 *2*	0.47 *14*	1784.99	(1,2$^+$)	491.79	0$^+$				other Iγ: 0.60 *7* (1974Ca13).
1303 *1*	0.40 *12*	2330.94	(6$^+$)	1027.83	(4)$^+$				
1306.8 *1*	1.44 *22*	1469.91	(3)$^+$	162.98	2$^+$				Eγ=1305.0 *3*, Iγ=1.2 *2* In 1974Ca13 for presumed doublet.
1309.2 *1*	2.0 *3*	1745.12		435.92	4$^+$				other Iγ: 2.8 *3* (1974Ca13).
1318 *1*	0.37 *11*	2552.83	(6$^+$)	1234.33	4$^+$				
1322.2 *2*	0.78 *23*	2552.83	(6$^+$)	1230.52	8$^+$				other Eγ: 1322.9 *3* In 1974Ca13. other Iγ: 0.55 *6* (1974Ca13).
^{x}1356.1 *2*	0.57 *17*								Eγ=1357.0 *3*, Iγ=0.90 *15* (1974Ca13) is probably for a 1356.1γ+1359.8γ) doublet.
1359.8 *2*	0.34 *10*	2158.21	(4$^+$,5,6$^+$)	798.27	6$^+$				
1363.8 *1*	1.01 *15*	1799.78	6$^+$	435.92	4$^+$				other Eγ: 1362.9 *3* In 1974Ca13. other Iγ: 0.95 *15* (1974Ca13).

From ENSDF

γ(^{184}Pt) (continued)

E_γ[‡]	I_γ[#]	E_i(level)	J^π_i	E_f	J^π_f	Comments
1371.5 2	0.42 13	2169.76	(6$^+$,7,8$^+$)	798.27	6$^+$	
1390.5 2	0.45 14	1826.33	(2$^+$,3,4$^+$)	435.92	4$^+$	other Iγ: 0.70 10 (1974Ca13). placed from 2331 level In 1974Ca13.
1397.4 1	2.6 4	2631.89	(2$^+$,3,4$^+$)	1234.33	4$^+$	other Iγ: 3.4 4 (1974Ca13). $T_{1/2}$ parent: 69 s 4 from γ(t) (1992XuZY).
1403.4 2	0.46 14	2637.71	(2$^+$,3,4$^+$)	1234.33	4$^+$	
1416.2 1	1.41 21	1852.12	(2$^+$,3,4$^+$)	435.92	4$^+$	$T_{1/2}$ parent: 56 s 4 from γ(t) (1992XuZY).
1418.4 2	0.50 15	2652.89	(2$^+$,3,4$^+$)	1234.33	4$^+$	
1448.3 2	0.46 14	1611.23	(2$^+$,3,4$^+$)	162.98	2$^+$	other Iγ: 0.70 10 (1974Ca13).
1455.5 2	0.35 11	2253.78		798.27	6$^+$	
1459.3 2	0.59 18	2631.89	(2$^+$,3,4$^+$)	1172.54	2$^+$	other Iγ: 1.10 20 (1974Ca13); possibly includes 1455.5γ, but Eγ=1459.4 3 (1974Ca13) argues against this.
1489 1	0.42 13	1924.9		435.92	4$^+$	
1504.7 2	0.59 18	1940.71	(4$^+$,5,6$^+$)	435.92	4$^+$	other Iγ: 0.60 8 (1974Ca13).
1509.6[d] 2	0.30 9	2536.36	(4$^+$,5,6$^+$)	1027.83	(4)$^+$	
1519.1 1	1.57 15	1682.11	(≤4)	162.98	2$^+$	$T_{1/2}$ parent=64 s 6 from γ(t) (1992XuZY).
1524.9 1	2.4 4	2552.83	(6$^+$)	1027.83	(4)$^+$	other Iγ: 2.3 3 (1974Ca13). $T_{1/2}$ parent: 55.6 s 27 from γ(t) (1992XuZY).
1532 1	1.06 16	1967.60	(4$^+$)	435.92	4$^+$	
1532.6 1	1.32 20	2330.94	(6$^+$)	798.27	6$^+$	
1545.6 2	0.52 16	1981.55		435.92	4$^+$	other Iγ: 0.55 7 (1974Ca13).
1550.8 1	1.23 18	1713.79	(1,2$^+$)	162.98	2$^+$	other Iγ: 1.9 3 (1974Ca13). $T_{1/2}$ parent=81 s 6 from γ(t) (1992XuZY).
1575.4[d] 2	0.38 11	1738.38?	(≤4)	162.98	2$^+$	
[x]1578.3 2	0.22 7					Eγ=1576.3 3, Iγ=0.60 8 In 1974Ca13 is probably for a 1575.4γ+1578.3γ doublet.
1610.9[d] 2	0.42 13	2454.82?	(≤4)	843.92	2$^+$	other Iγ: 0.50 7 (1974Ca13).
1614.2 2	0.31 9	2552.83	(6$^+$)	939.81	(3)$^+$	other Iγ: 0.60 9 (1974Ca13). E_γ: 6σ from expected value; datum excluded from least-squares fit.
1644.0[d] 2	0.38 11	1806.99?	(≤4)	162.98	2$^+$	other Iγ: 0.70 8 In 1974Ca13.
1654.3 2	0.37 11	2452.55	(6$^+$,7,8$^+$)	798.27	6$^+$	
1662 1	0.21 6	2460.65	(6$^+$,7,8$^+$)	798.27	6$^+$	
1663.2 1	1.04 16	1826.33	(2$^+$,3,4$^+$)	162.98	2$^+$	$T_{1/2}$ parent: 70 s 11 from γ(t) (1992XuZY).
1671.6 2	0.24 7	2611.58	(4$^+$,5,6$^+$)	939.81	(3)$^+$	
1689.1 2	0.43 13	1852.12	(2$^+$,3,4$^+$)	162.98	2$^+$	
1691.9 2	0.49 15	2631.89	(2$^+$,3,4$^+$)	939.81	(3)$^+$	
1697.9 1	1.31 20	2637.71	(2$^+$,3,4$^+$)	939.81	(3)$^+$	other Iγ: 1.9 3 (1974Ca13). $T_{1/2}$ parent: 76 s 9 from γ(t) (1992XuZY).
1709 1	0.15 5	2201.66	(1,2$^+$)	491.79	0$^+$	
1713.1 1	1.68 25	2652.89	(2$^+$,3,4$^+$)	939.81	(3)$^+$	Iγ=2.8 3, Eγ=1713.8 4 In 1974Ca13 is presumed to Be for 1713.1γ+1716.5γ doublet. $T_{1/2}$ parent: 79 s 5 from γ(t) (1992XuZY).
1716.5[d] 2	0.31 9	2152.43?		435.92	4$^+$	
1722.4 2	1.0 3	2158.21	(4$^+$,5,6$^+$)	435.92	4$^+$	other Iγ: 1.10 20 (1974Ca13). $T_{1/2}$ parent: 62 s 6 from γ(t) (1992XuZY).

$\gamma(^{184}Pt)$ (continued)

E_γ[‡]	I_γ[#]	E_i(level)	J_i^π	E_f	J_f^π	Comments
[x]1726.8 *2*	0.26 *8*					Eγ=1723.4 *4*, Iγ=1.1 *2* In 1974Ca13 May Be for a 1722.4γ+1726.8γ doublet.
1738.3 *2*	0.61 *18*	2536.36	(4$^+$,5,6$^+$)	798.27	6$^+$	
1741.1[d] *2*	0.25 *8*	1904.09?	(≤4)	162.98	2$^+$	
1754.6 *1*	5.3 *8*	2552.83	(6$^+$)	798.27	6$^+$	other Iγ: 6.4 *8* (1974Ca13). $T_{1/2}$ parent: 53.6 s *10* from γ(t) (1992XuZY).
1758.3[d] *2*	0.32 *10*	1921.29?	(≤4)	162.98	2$^+$	
1788.3 *2*	0.30 *9*	2631.89	(2$^+$,3,4$^+$)	843.92	2$^+$	
1794.1 *2*	0.48 *14*	2637.71	(2$^+$,3,4$^+$)	843.92	2$^+$	
1804.6 *2*	1.0 *3*	1967.60	(4$^+$)	162.98	2$^+$	other Iγ: 1.35 *20* (1974Ca13).
1808.9[d] *2*	0.25 *8*	2652.89	(2$^+$,3,4$^+$)	843.92	2$^+$	
1813.4 *1*	5.1 *8*	2611.58	(4$^+$,5,6$^+$)	798.27	6$^+$	other Iγ: 5.3 *7* (1974Ca13). $T_{1/2}$ parent: 53.9 s *13* from γ(t) (1992XuZY).
[x]1817.2 *2*	0.45 *14*					
[x]1841.5 *2*	0.30 *9*					
1848.2 *1*	1.24 *21*	2011.19	(≤4)	162.98	2$^+$	
1894 *1*	0.54 *16*	2692.3		798.27	6$^+$	
1895 *1*	0.20 *6*	2330.94	(6$^+$)	435.92	4$^+$	
1962.6[d] *2*	0.48 *14*	2125.59?	(≤4)	162.98	2$^+$	
1983.2 *2*	0.53 *16*	2631.89	(2$^+$,3,4$^+$)	648.68	2$^+$	other Iγ: 0.80 *10* (1974Ca13).
1989.0 *1*	1.27 *19*	2637.71	(2$^+$,3,4$^+$)	648.68	2$^+$	other Iγ: 1.80 *25* (1974Ca13). $T_{1/2}$ parent: 90 s *12* from γ(t) (1992XuZY).
2024.1[d] *2*	0.25 *8*	2822.38?		798.27	6$^+$	
2038.7 *2*	0.20 *6*	2201.66	(1,2$^+$)	162.98	2$^+$	
2040[d] *1*	0.16 *5*	2531.8?	(1,2$^+$)	491.79	0$^+$	
[x]2069.9 *2*	0.26 *8*					
[x]2082.1 *2*	0.20 *6*					
2117.0 *1*	2.0 *3*	2552.83	(6$^+$)	435.92	4$^+$	other Iγ: 1.80 *25* (1974Ca13). $T_{1/2}$ parent: 54.9 s *27* from γ(t) (1992XuZY).
2120.5[d] *2*	0.20 *6*	2283.49?	(≤4)	162.98	2$^+$	
2196.1 *1*	1.9 *3*	2631.89	(2$^+$,3,4$^+$)	435.92	4$^+$	other Iγ: 2.8 *4* (1974Ca13). $T_{1/2}$ parent: 71 s *4* from γ(t) (1992XuZY).
2201.7 *1*	1.47 *22*	2637.71	(2$^+$,3,4$^+$)	435.92	4$^+$	other Iγ: 1.50 *20* (1974Ca13). $T_{1/2}$ parent: 65 s *5* from γ(t) (1992XuZY).
2422.2[d] *2*	0.26 *8*	2585.19?	(≤4)	162.98	2$^+$	
2469.0 *2*	0.65 *20*	2631.89	(2$^+$,3,4$^+$)	162.98	2$^+$	other Iγ: 0.60 *7* (1974Ca13).
2474.8 *1*	2.9 *4*	2637.71	(2$^+$,3,4$^+$)	162.98	2$^+$	other Iγ: 3.9 *5* (1974Ca13). $T_{1/2}$ parent: 72.4 s *23* from γ(t) (1992XuZY).
2490.0 *1*	1.56 *23*	2652.89	(2$^+$,3,4$^+$)	162.98	2$^+$	other Iγ: 2.0 *3* (1974Ca13). $T_{1/2}$ parent: 84 s *6* from γ(t) (1992XuZY).

γ(^{184}Pt) (continued)

† Additional information 1.

‡ From 2006KrZT, except As noted. Data from 1974Ca13 are of slightly lower precision but are In excellent agreement for resolved lines. a number of multiplets from 1974Ca13 have been resolved by 2006KrZT.

From 2006KrZT, except As noted. In most cases, Iγ data from 2006KrZT and 1974Ca13 agree within stated uncertainties for resolved transitions; however, the evaluator has not averaged these data because the sources were produced by very different means and, consequently, May contain a different mix of ^{184}Au isomers. see comments on relevant transitions for data from 1974Ca13.

@ From I(γ) and I(ce(K)) normalized so that α(K)exp(273γ)=0.0773 (E2 theory) (1974Ca13) or α(K)exp(163γ)=0.281 (E2 theory) (1972Fi12), except As noted.

& From nuclear orientation (1992Xu02, 1992Xu06), except As noted. deduced from comparison of transition anisotropy with that for a pure E2 transition that deexcites the same level.

[a] α(K)exp=0.29 *6* for the 681 doublet (1974Ca13). This is consistent with an E0 admixture which is assigned to the stronger component which deexcites the 844 level (based on the decay scheme).

[b] Reported by 1974Ca13 but not by 2006KrZT.

[c] Multiply placed with intensity suitably divided.

[d] Placement of transition in the level scheme is uncertain.

[x] γ ray not placed in level scheme.

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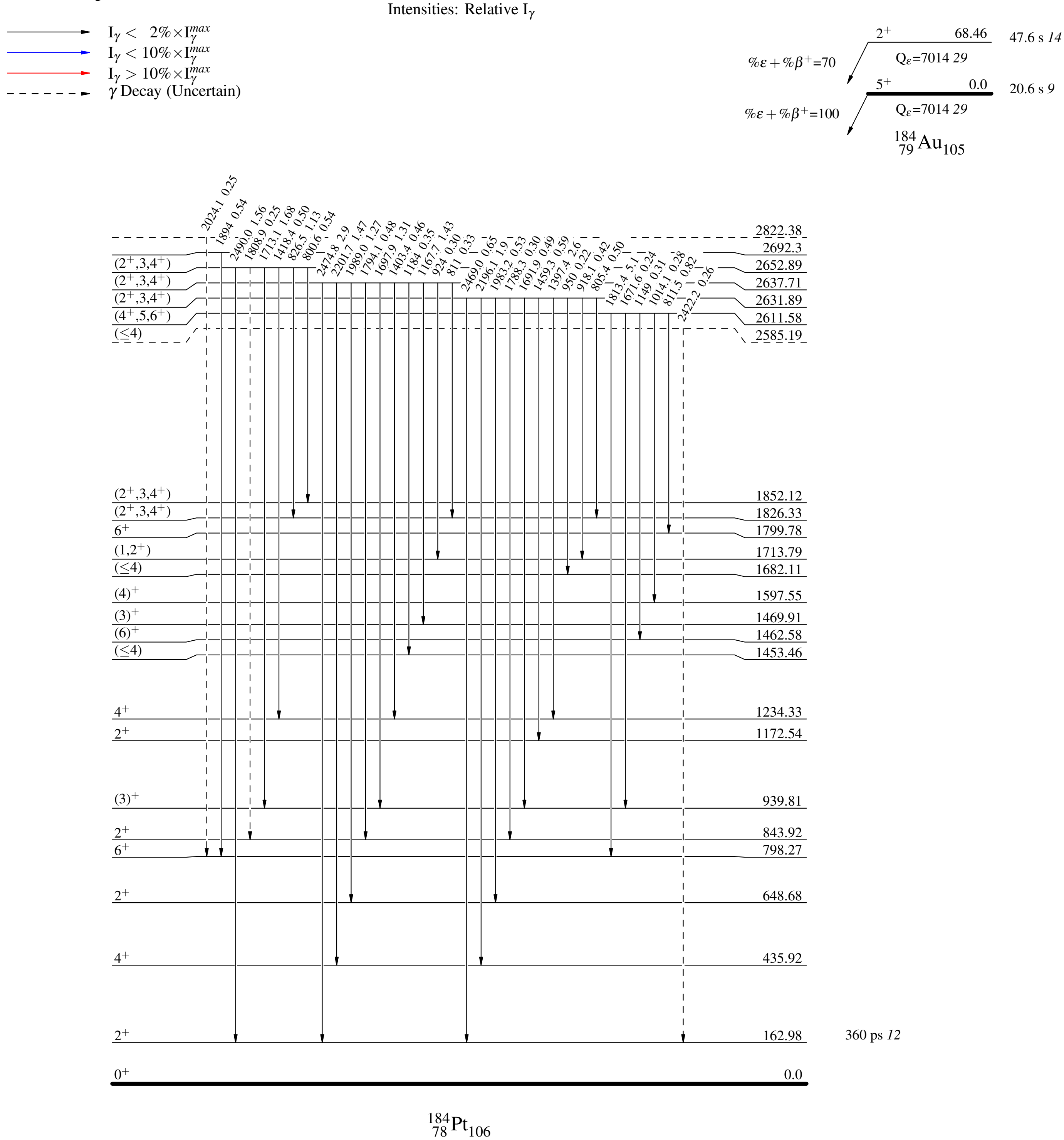
^{184}Au ε decay 2006KrZT,1992Xu02,1974Ca13

Decay Scheme

Intensities: Relative I_γ

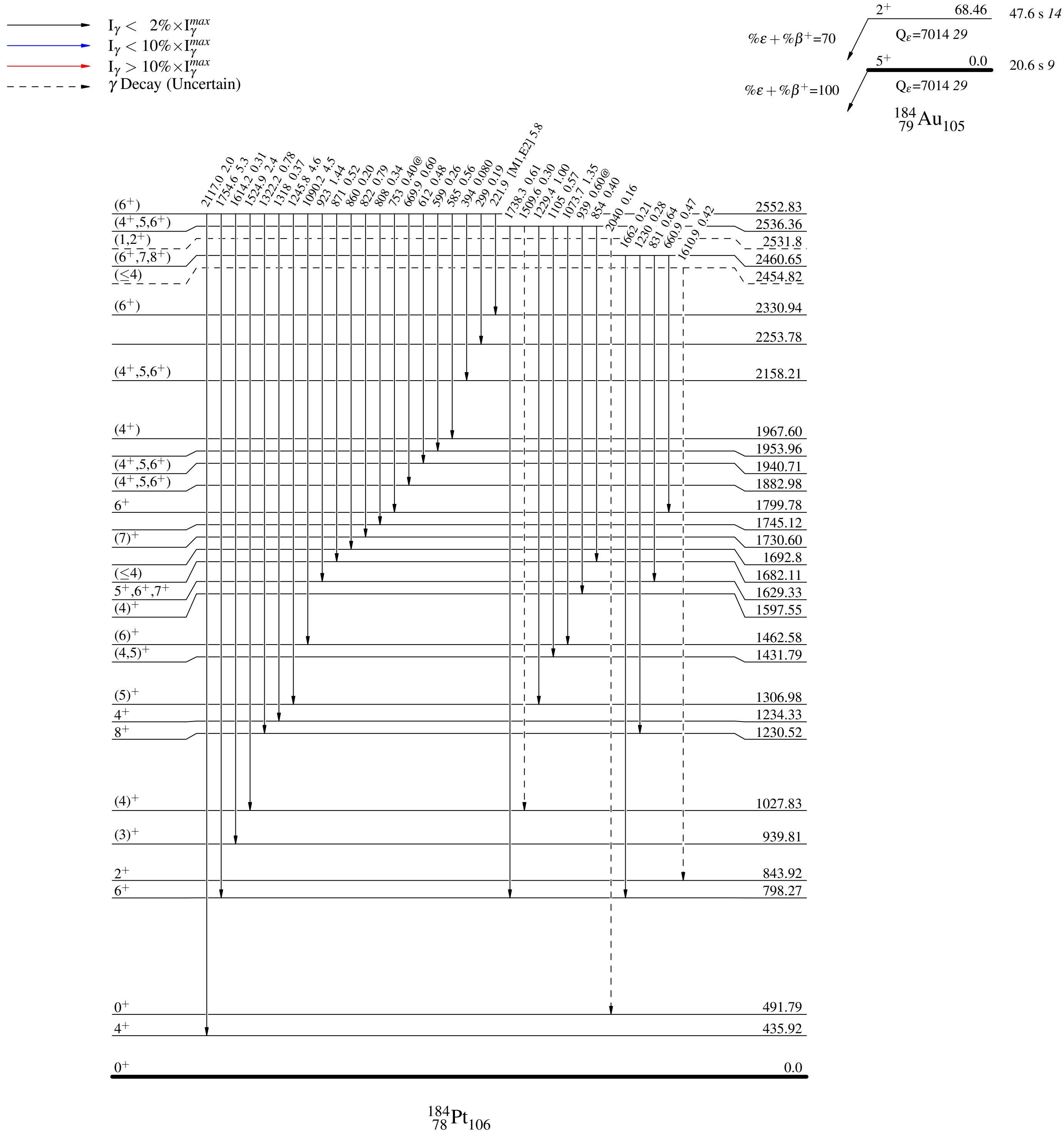


^{184}Au ε decay 2006KrZT,1992Xu02,1974Ca13

Decay Scheme (continued)

Intensities: Relative I_γ

@ Multiply placed: intensity suitably divided

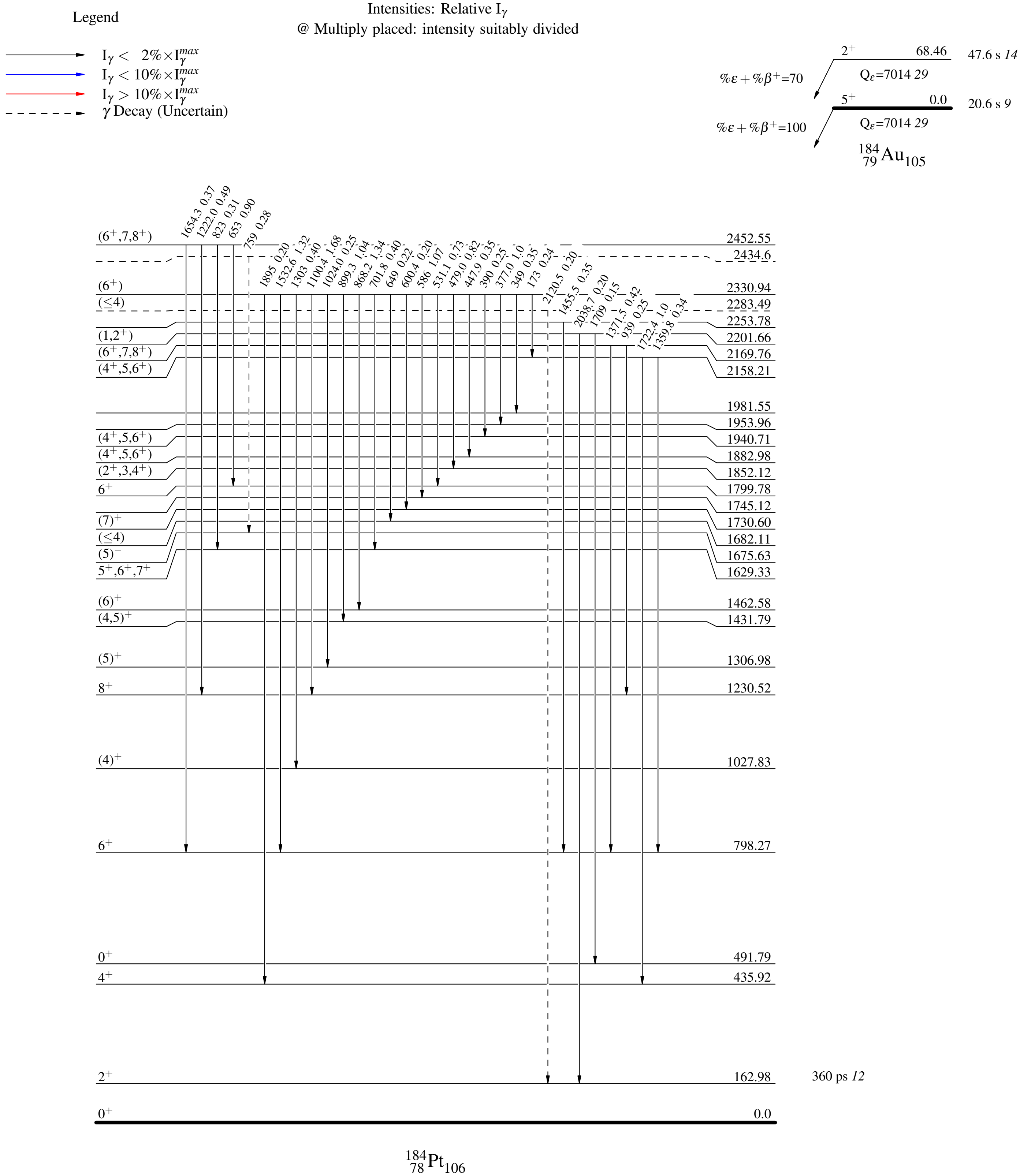


^{184}Au ε decay 2006KrZT,1992Xu02,1974Ca13

Decay Scheme (continued)

Intensities: Relative I_γ

@ Multiply placed: intensity suitably divided

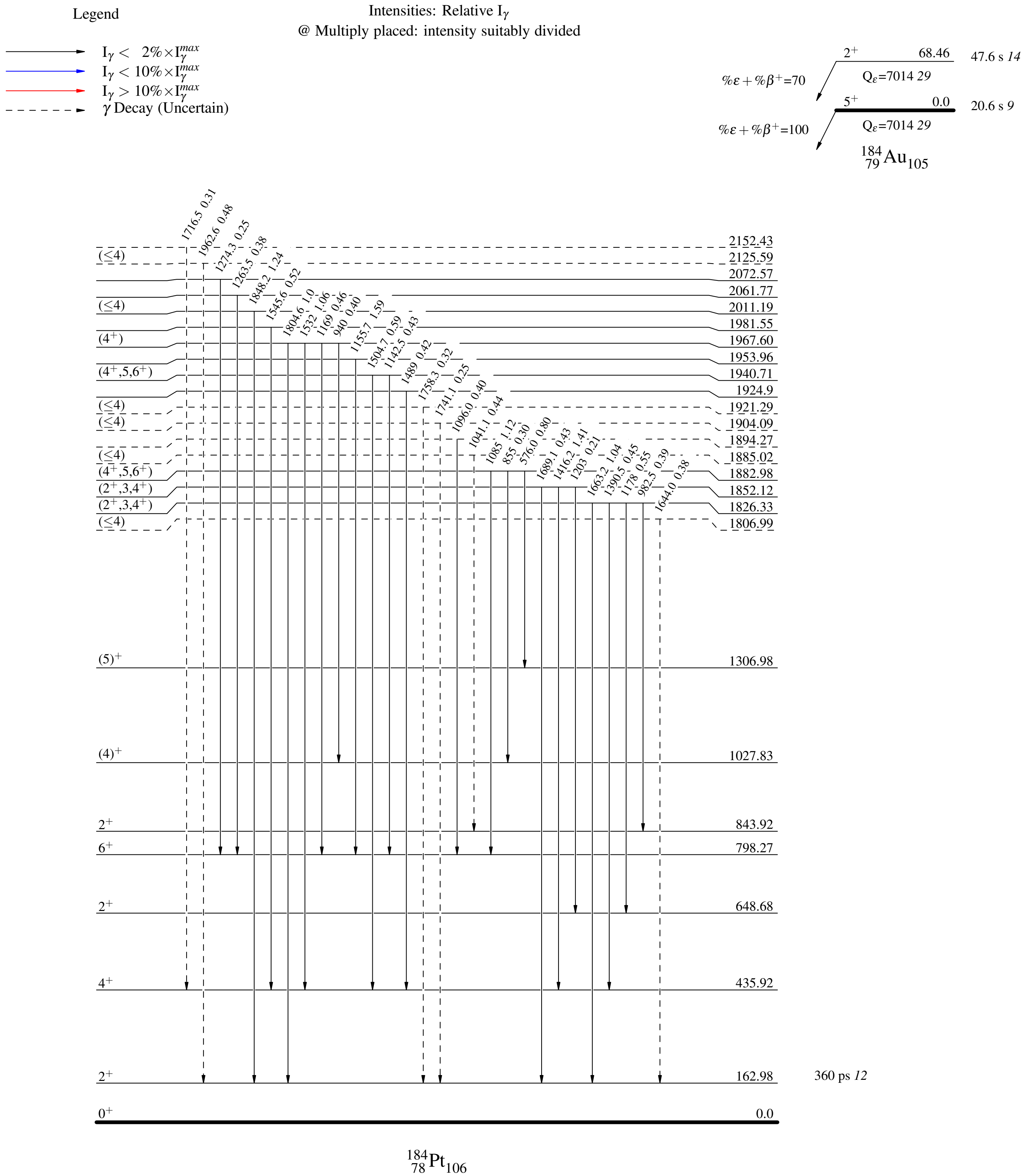


^{184}Au ε decay 2006KrZT,1992Xu02,1974Ca13

Decay Scheme (continued)

Intensities: Relative I_γ

@ Multiply placed: intensity suitably divided

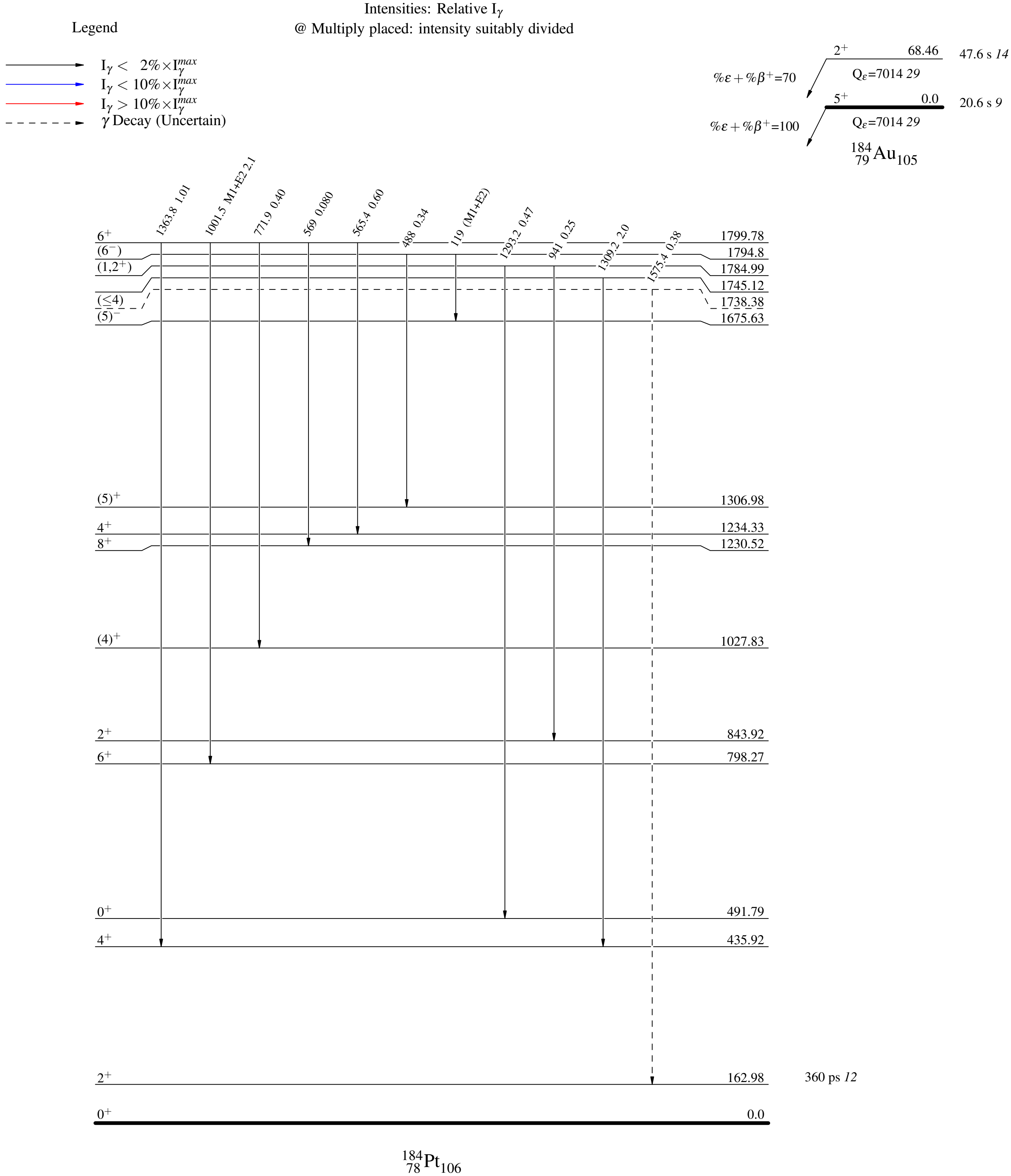


^{184}Au ε decay 2006KrZT,1992Xu02,1974Ca13

Decay Scheme (continued)

Intensities: Relative I_γ

@ Multiply placed: intensity suitably divided

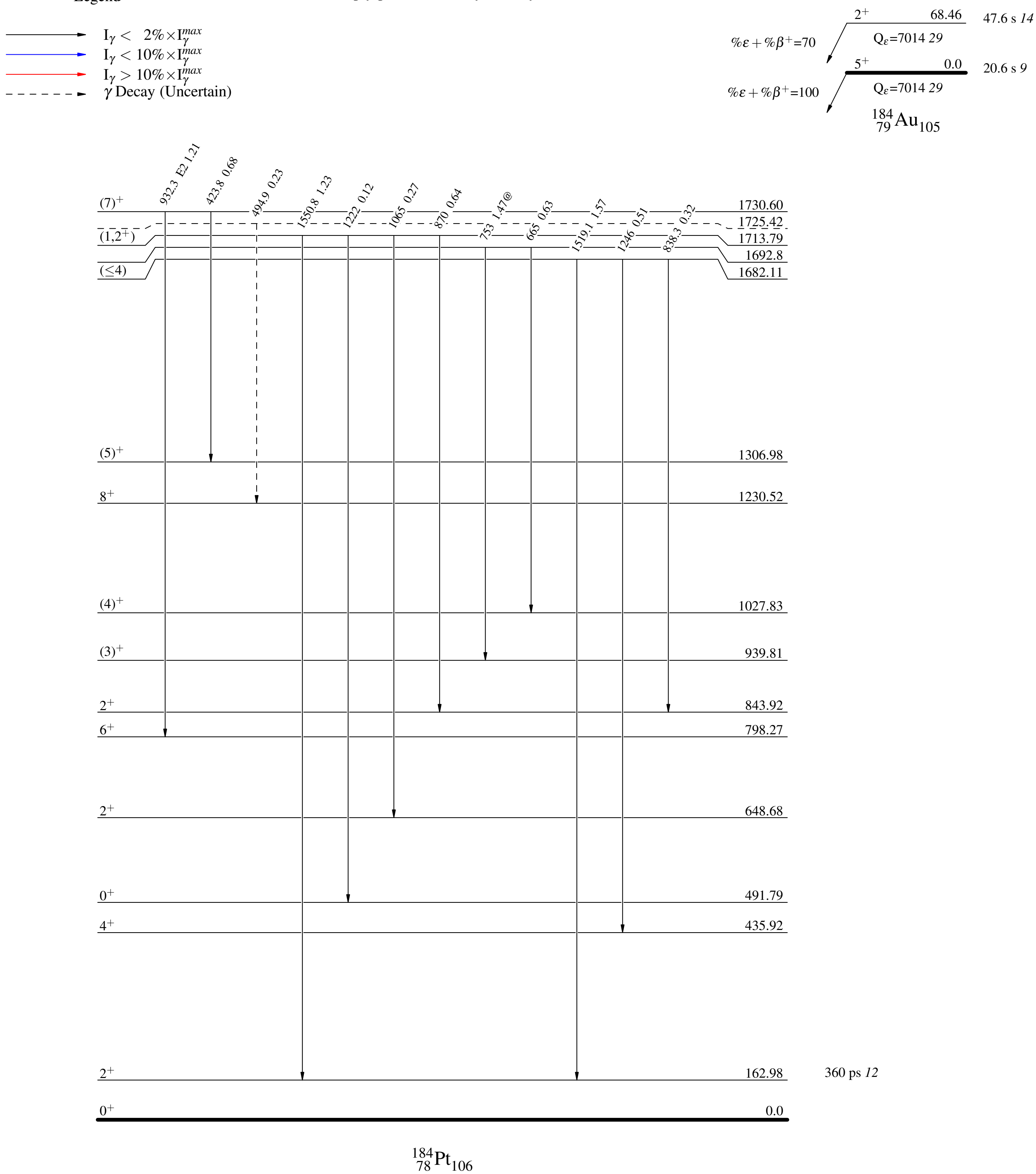


^{184}Au ε decay 2006KrZT,1992Xu02,1974Ca13

Decay Scheme (continued)

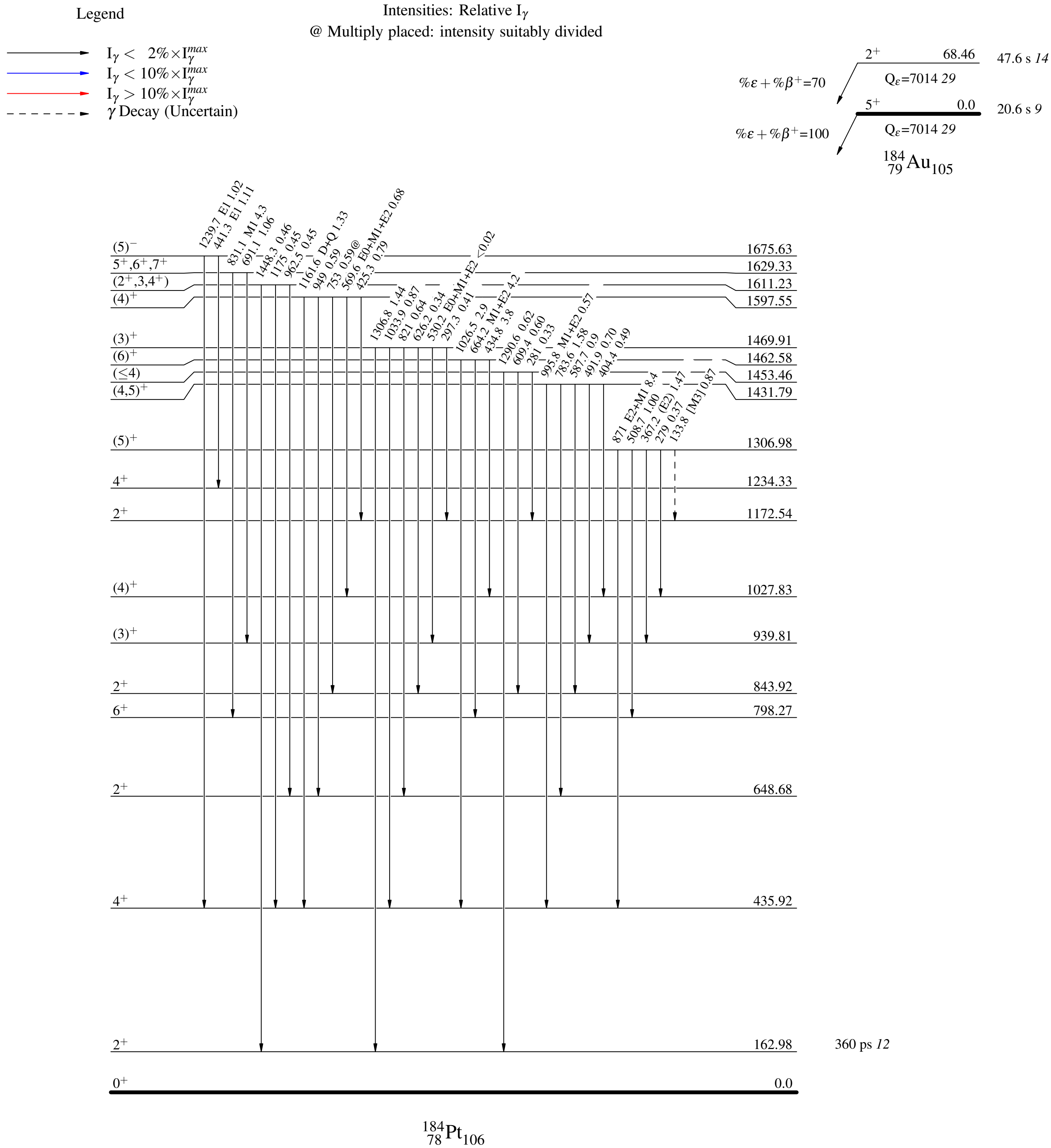
Intensities: Relative I_γ

@ Multiply placed: intensity suitably divided



^{184}Au ε decay 2006KrZT,1992Xu02,1974Ca13

Decay Scheme (continued)

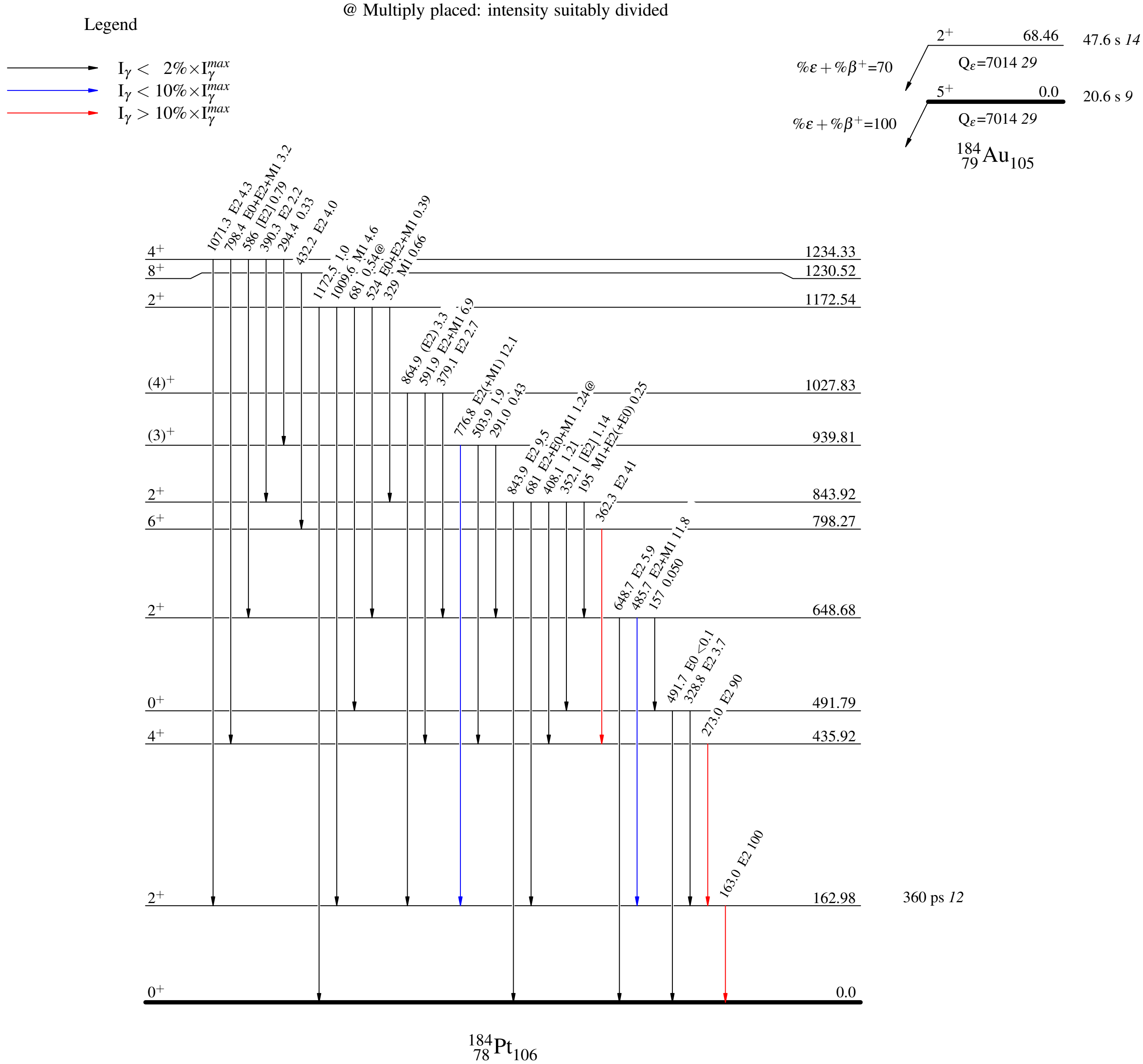


^{184}Au ε decay 2006KrZT,1992Xu02,1974Ca13

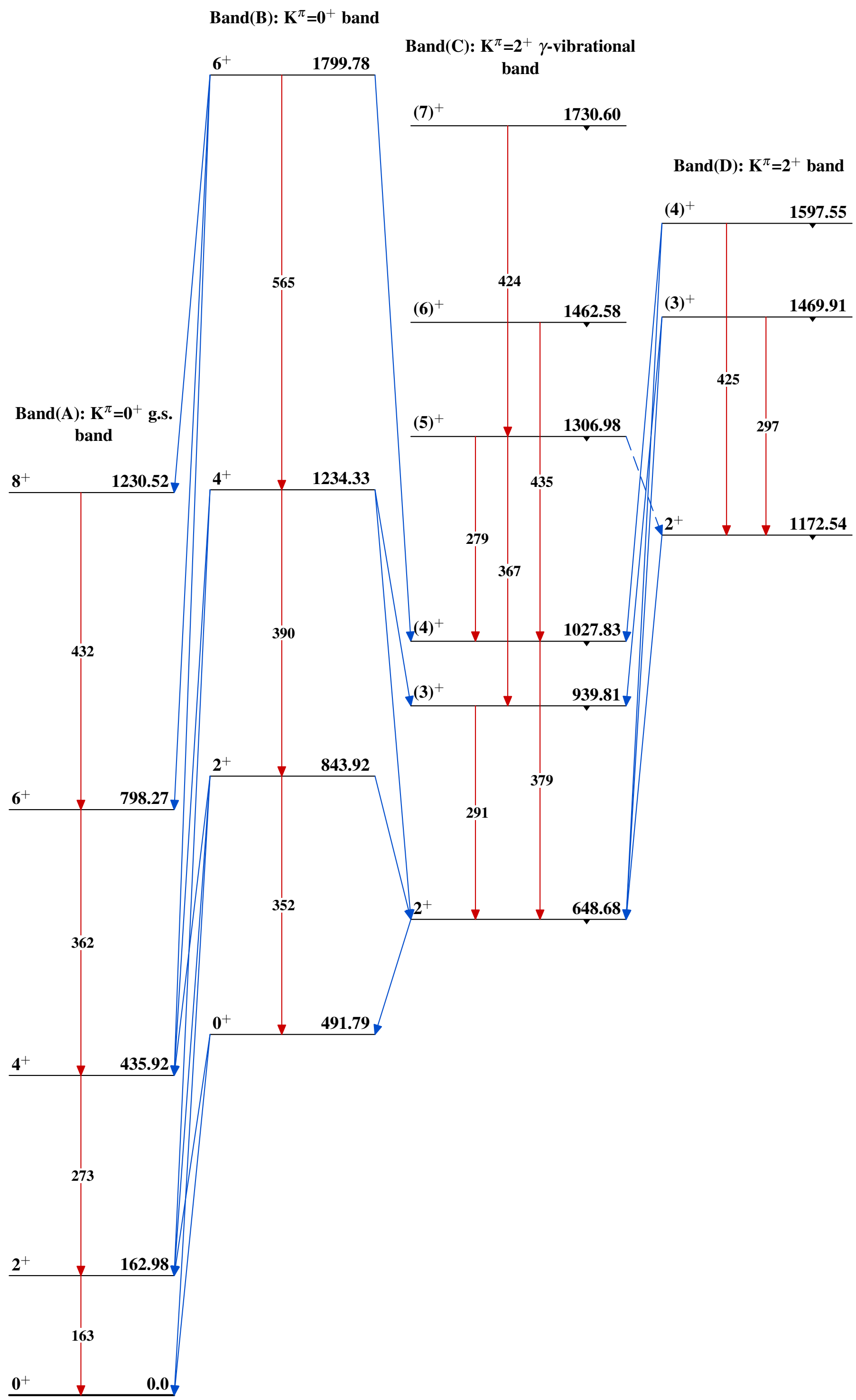
Decay Scheme (continued)

Intensities: Relative I_γ

@ Multiply placed: intensity suitably divided



^{184}Au ε decay 2006KrZT,1992Xu02,1974Ca13



$^{184}_{78}Pt_{106}$