

^{183}Au ε decay 2000Ro41,1989Ro21,1984Ma41

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 134, 149 (2016)	15-Apr-2015

Parent: ^{183}Au : $E=0.0$; $J^\pi=(5/2)^-$; $T_{1/2}=42.8$ s 10; $Q(\varepsilon)=5583$ 18; $\% \varepsilon + \% \beta^+$ decay=99.45 25

The decay scheme was derived by 1989Ro21 on the basis of $\gamma\gamma$ -coincidence data and conversion electron data. Significant unplaced transition intensity and the lack of level data above 2 MeV, suggest that the decay scheme may be incomplete.

Total energy release for this decay scheme is 6621 320 cf. QxBR=5552 23.

 ^{183}Pt Levels

E(level) [†]	J^π [‡]	$T_{1/2}$	Comments
0.0 ^e	1/2 ⁻	6.5 min 10	$T_{1/2}$: from Adopted Levels.
34.57 ^{& 9}	7/2 ⁻	43 s 5	$\% \varepsilon + \% \beta^+ = 96.9$ 8; $\% \alpha < 3 \times 10^{-4}$; $\% \text{IT} = 3.1$ 8 (1998Ro32) $T_{1/2}$: from Adopted Levels.
84.66 ^{e 7}	3/2 ⁻		
96.11 ^{e 7}	5/2 ⁻		
149.77 ^{& 10}	(9/2) ⁻		
195.76 ^{@ 11}	(9/2) ⁺	>50 ns	$T_{1/2}$: in $\gamma\gamma(t)$, the 161 γ is strongly attenuated (1984Ma41).
243.54 ^{@ 14}	(11/2) ⁺		
289.60 ^{& 12}	(11/2) ⁻		
298.82 ^{e 8}	7/2 ⁻		
314.25 ^{e 10}	9/2 ⁻		
347.62 ^{b 8}	(5/2) ⁻		
373.16 ^{a 9}	(7/2) ⁻		
375.30 ^{# 12}	(7/2) ⁺		
471.56 ^{b 10}	(7/2) ⁻		
531.50 ^{# 13}	(9/2) ⁺		
535.82 ^{a 12}	(9/2) ⁻		
556.55 ^{c 13}	3/2 ⁻		
568.70 ^{d 11}	(1/2) ⁻		
611.39 16			
613.16 15	(3/2,5/2) ⁻		
617.40 ^{c 12}	(5/2) ⁻		
636.29 15	(7/2 ⁺ ,9/2,11/2 ⁻)		
650.17 ^{d 11}	(3/2) ⁻		
678.46 13	(3/2,5/2) ⁻		
693.02 11	(3/2,5/2) ⁻		
702.37 ^{c 14}	(7/2) ⁻		
730.78 18	($\geq 5/2$) ⁺		
762.05 ^{d 11}	(5/2) ⁻		
801.85 14	(3/2,5/2,7/2) ⁻		
819.89 16	(7/2,9/2) ⁻		
824.82 16	(5/2,7/2,9/2) ⁻		
835.38 13	(3/2,5/2) ⁻		
847.35 23	(7/2,9/2,11/2) ⁻		
879.66 14	(7/2 ⁻ ,9/2 ⁻)		
919.00 16	(3/2,5/2,7/2) ⁻		
930.53 15	-		
931.94 15	(7/2,9/2) ⁻		
963.79 16	(7/2,9/2,11/2) ⁻		
978.43 17	(7/2) ⁻		
989.81 24	(⁺)		

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¹⁸³Au ε decay **2000Ro41,1989Ro21,1984Ma41** (continued)

¹⁸³Pt Levels (continued)

E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]
998.42 16	(≥7/2)	1844.3 3	-	1940.49 15	(3/2,5/2) ⁻
1024.57 17	(5/2,7/2,9/2) ⁻	1847.53 23		1948.69 19	(5/2 ⁻ ,7/2)
1035.04 15	(7/2,9/2) ⁻	1884.2 3	(3/2,5/2,7/2) ⁺	1956.63 13	(7/2) ⁻
1057.97 22		1892.3 3	(≤7/2)	1968.60 23	(3/2,5/2,7/2) ⁻
1071.28 17	(5/2,7/2) ⁻	1907.5 4	(5/2,7/2) ⁻	1970.71 15	(7/2) ⁻
1126.38 16		1912.81 19	(5/2 ⁻ ,7/2 ⁻)	1979.90 23	
1810.7 3		1914.68 19	(3/2,5/2) ⁻		
1814.4 3	(3/2,5/2,7/2) ⁻	1938.56 16	(7/2) ⁻		

[†] From least-squares fit to E_γ, including uncertainly-placed transitions (note that their exclusion would change E(level) by at most 0.2 keV).

[‡] From Adopted Levels.

Band(A): 7/2[633] band.

@ Band(B): 9/2[624] band.

& Band(C): 7/2[514] band.

^a Band(D): 7/2[503] band.

^b Band(E): 5/2[512] band.

^c Band(F): 3/2[512] band.

^d Band(G): 1/2[510] band.

^e Band(H): 1/2[521] g.s. band.

ε,β⁺ radiations

E(decay)	E(level)	Iβ ⁺ [‡]	Iε [‡]	Log ft	I(ε+β ⁺) ^{†‡}	Comments
(3603 18)	1979.90	0.080 17	0.29 6	6.69 10	0.37 8	av Eβ=1164.8 8I; εK=0.639 3; εL=0.1097 6; εM+=0.03485 17
(3612 18)	1970.71	0.61 9	2.2 3	5.81 7	2.8 4	av Eβ=1169.0 8I; εK=0.637 3; εL=0.1094 6; εM+=0.03476 17
(3614 18)	1968.60	0.77 15	2.7 5	5.72 9	3.5 7	av Eβ=1169.9 8I; εK=0.637 3; εL=0.1094 6; εM+=0.03474 17
(3626 18)	1956.63	2.1 2	7.3 9	5.29 6	9.4 11	av Eβ=1175.3 8I; εK=0.635 3; εL=0.1090 6; εM+=0.03464 17
(3634 18)	1948.69	0.38 7	1.3 2	6.04 8	1.7 3	av Eβ=1178.9 8I; εK=0.634 3; εL=0.1088 6; εM+=0.03456 17
(3643 18)	1940.49	0.83 11	2.9 4	5.70 6	3.7 5	av Eβ=1182.5 8I; εK=0.632 3; εL=0.1086 6; εM+=0.03449 17
(3644 18)	1938.56	0.72 11	2.5 4	5.77 7	3.2 5	av Eβ=1183.4 8I; εK=0.632 3; εL=0.1085 6; εM+=0.03447 17
(3668 18)	1914.68	0.76 12	2.5 4	5.76 7	3.3 5	av Eβ=1194.1 8I; εK=0.628 3; εL=0.1078 6; εM+=0.03425 17
(3670 18)	1912.81	0.23 9	0.8 3	6.28 18	1.0 4	av Eβ=1194.9 8I; εK=0.628 3; εL=0.1078 6; εM+=0.03423 17
(3676 18)	1907.5	1.1 2	3.8 7	5.59 8	4.9 9	av Eβ=1197.3 8I; εK=0.627 3; εL=0.1076 6; εM+=0.03418 17
(3691 18)	1892.3	0.14 3	0.47 8	6.50 8	0.61 11	av Eβ=1204.1 8I; εK=0.625 3; εL=0.1072 6; εM+=0.03404 17
(3699 18)	1884.2	0.64 12	2.1 4	5.86 9	2.7 5	av Eβ=1207.8 8I; εK=0.623 3; εL=0.1069 6; εM+=0.03397 17
(3735 18)	1847.53	0.16 4	0.51 11	6.48 10	0.67 15	av Eβ=1224.2 8I; εK=0.617 3; εL=0.1059 6; εM+=0.03363 17

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¹⁸³Au ϵ decay **2000Ro41,1989Ro21,1984Ma41 (continued)**

ϵ, β^+ radiations (continued)

E(decay)	E(level)	I β^+ ‡	I ϵ ‡	Log ft	I($\epsilon + \beta^+$) †‡	Comments
(3739 18)	1844.3	0.21 4	0.65 11	6.37 8	0.86 15	av E β =1225.7 81; ϵ K=0.617 3; ϵ L=0.1058 6; ϵ M+=0.03360 17
(3769 18)	1814.4	0.16 3	0.50 9	6.49 8	0.66 12	av E β =1239.1 81; ϵ K=0.612 3; ϵ L=0.1049 6; ϵ M+=0.03332 17
(3772 18)	1810.7	0.075 15	0.22 4	6.84 9	0.30 6	av E β =1240.8 81; ϵ K=0.611 3; ϵ L=0.1048 6; ϵ M+=0.03328 17
(4457 18)	1126.38	0.16 5	0.25 7	6.94 13	0.41 12	av E β =1550.2 82; ϵ K=0.497 3; ϵ L=0.0847 6; ϵ M+=0.02689 17
(4512 18)	1071.28	0.51 9	0.75 13	6.47 8	1.26 22	av E β =1575.3 82; ϵ K=0.488 3; ϵ L=0.0832 6; ϵ M+=0.02639 17
(4525 18)	1057.97	0.10 2	0.15 2	7.18 7	0.25 4	av E β =1581.4 82; ϵ K=0.486 3; ϵ L=0.0828 5; ϵ M+=0.02627 17
(4548 18)	1035.04	0.21	0.31 1	6.868 15	0.52 15	av E β =1591.8 82; ϵ K=0.482 3; ϵ L=0.0821 5; ϵ M+=0.02607 17
(4558 18)	1024.57	0.25 6	0.36 8	6.80 10	0.61 14	av E β =1596.6 82; ϵ K=0.480 3; ϵ L=0.0818 5; ϵ M+=0.02597 17
(4585 18)	998.42	0.17 2	0.23 6	6.99 11	0.40 10	av E β =1608.5 82; ϵ K=0.476 3; ϵ L=0.0811 5; ϵ M+=0.02574 16
(4593 18)	989.81	0.11 2	0.15 3	7.18 9	0.26 5	av E β =1612.4 82; ϵ K=0.475 3; ϵ L=0.0809 5; ϵ M+=0.02566 16
(4605 18)	978.43	0.20 6	0.27 8	6.93 13	0.47 14	av E β =1617.6 82; ϵ K=0.473 3; ϵ L=0.0806 5; ϵ M+=0.02556 16
(4619 18)	963.79	0.24 4	0.32 5	6.86 7	0.56 9	av E β =1624.3 82; ϵ K=0.470 3; ϵ L=0.0801 5; ϵ M+=0.02543 16
(4651 18)	931.94	0.49 6	0.65 7	6.56 5	1.14 13	av E β =1638.9 83; ϵ K=0.465 3; ϵ L=0.0793 5; ϵ M+=0.02515 16
(4652 18)	930.53	0.05 3	0.07 5	7.5 3	0.12 8	av E β =1639.4 83; ϵ K=0.465 3; ϵ L=0.0792 5; ϵ M+=0.02514 16
(4664 18)	919.00	0.23 10	0.29 13	6.91 20	0.52 23	av E β =1644.7 83; ϵ K=0.463 3; ϵ L=0.0789 5; ϵ M+=0.02504 16
(4703 18)	879.66	0.52 9	0.66 12	6.56 8	1.18 21	av E β =1662.6 83; ϵ K=0.457 3; ϵ L=0.0778 5; ϵ M+=0.02469 16
(4736 18)	847.35	0.16 2	0.20 2	7.09 5	0.36 4	av E β =1677.4 83; ϵ K=0.452 3; ϵ L=0.0770 5; ϵ M+=0.02441 16
(4748 18)	835.38	0.63 10	0.77 13	6.51 8	1.40 23	av E β =1682.9 83; ϵ K=0.450 3; ϵ L=0.0766 5; ϵ M+=0.02431 16
(4758 18)	824.82	0.32 5	0.38 6	6.81 7	0.70 11	av E β =1687.7 83; ϵ K=0.449 3; ϵ L=0.0763 5; ϵ M+=0.02422 16
(4763 18)	819.89	0.38 6	0.46 7	6.73 7	0.84 13	av E β =1689.9 83; ϵ K=0.448 3; ϵ L=0.0762 5; ϵ M+=0.02418 16
(4781 18)	801.85	0.50 6	0.59 8	6.63 6	1.09 14	av E β =1698.2 83; ϵ K=0.445 3; ϵ L=0.0757 5; ϵ M+=0.02402 16
(4821 18)	762.05	0.83 19	0.97 22	6.42 10	1.8 4	av E β =1716.4 83; ϵ K=0.439 3; ϵ L=0.0747 5; ϵ M+=0.02369 16
(4852 18)	730.78	0.61 9	0.69 10	6.57 7	1.30 19	av E β =1730.7 83; ϵ K=0.434 3; ϵ L=0.0738 5; ϵ M+=0.02342 16
(4881 18)	702.37	1.2 2	1.3 2	6.30 7	2.5 4	av E β =1743.7 83; ϵ K=0.430 3; ϵ L=0.0731 5; ϵ M+=0.02319 15
(4890 18)	693.02	1.5 4	1.6 4	6.21 12	3.1 8	av E β =1747.9 83; ϵ K=0.428 3; ϵ L=0.0728 5; ϵ M+=0.02311 15
(4905 18)	678.46	0.81 14	0.89 16	6.47 8	1.7 3	av E β =1754.6 83; ϵ K=0.426 3; ϵ L=0.0725 5; ϵ M+=0.02299 15
(4933 18)	650.17	0.73 15	0.77 16	6.54 9	1.5 3	av E β =1767.6 83; ϵ K=0.422 3; ϵ L=0.0717 5; ϵ M+=0.02275 15
(4947 18)	636.29	0.20 5	0.21 5	7.11 11	0.41 10	av E β =1773.9 83; ϵ K=0.420 3; ϵ L=0.0714 5; ϵ M+=0.02264 15
(4966 18)	617.40	1.0 4	1.0 5	6.42 20	2.0 9	av E β =1782.6 83; ϵ K=0.417 3; ϵ L=0.0709 5;

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^{183}Au ϵ decay **2000Ro41,1989Ro21,1984Ma41** (continued) ϵ, β^+ radiations (continued)

E(decay)	E(level)	$I\beta^+$ ‡	$I\epsilon$ ‡	Log ft	$I(\epsilon + \beta^+)$ †‡	Comments
(4970 18)	613.16	0.38 9	0.40 9	6.83 10	0.78 18	$\epsilon M^+ = 0.02249$ 15 av $E\beta = 1784.6$ 83; $\epsilon K = 0.416$ 3; $\epsilon L = 0.0708$ 5; $\epsilon M^+ = 0.02245$ 15
(4972 18)	611.39	0.19 3	0.20 4	7.14 8	0.39 7	av $E\beta = 1785.3$ 83; $\epsilon K = 0.416$ 3; $\epsilon L = 0.0707$ 5; $\epsilon M^+ = 0.02244$ 15
(5014 18)	568.70	0.29 9	0.28 10	6.98 15	0.58 19	av $E\beta = 1804.9$ 83; $\epsilon K = 0.410$ 3; $\epsilon L = 0.0696$ 5; $\epsilon M^+ = 0.02209$ 15
(5026 18)	556.55	0.50 15	0.50 15	6.74 13	1.0 3	av $E\beta = 1810.5$ 83; $\epsilon K = 0.408$ 3; $\epsilon L = 0.0693$ 5; $\epsilon M^+ = 0.02199$ 15
(5047 18)	535.82	0.52 8	0.52 8	6.73 7	1.04 16	av $E\beta = 1820.0$ 83; $\epsilon K = 0.405$ 3; $\epsilon L = 0.0688$ 5; $\epsilon M^+ = 0.02183$ 15
(5111 18)	471.56	2.0 4	1.8 3	6.19 8	3.8 7	av $E\beta = 1849.4$ 83; $\epsilon K = 0.396$ 3; $\epsilon L = 0.0672$ 5; $\epsilon M^+ = 0.02132$ 15
(5208 18)	375.30	2.0 11	1.7 10	6.24 25	3.7 21	av $E\beta = 1893.7$ 83; $\epsilon K = 0.382$ 3; $\epsilon L = 0.0649$ 5; $\epsilon M^+ = 0.02058$ 14
(5210 18)	373.16	1.4 4	1.3 4	6.37 13	2.7 8	av $E\beta = 1894.6$ 83; $\epsilon K = 0.382$ 3; $\epsilon L = 0.0648$ 5; $\epsilon M^+ = 0.02056$ 14
(5269 18)	314.25	0.7 5	0.6 4	6.7 3	1.3 9	av $E\beta = 1921.7$ 83; $\epsilon K = 0.3738$ 25; $\epsilon L = 0.0634$ 5; $\epsilon M^+ = 0.02012$ 14
(5284 18)	298.82	2.5 8	2.1 7	6.17 15	4.6 15	av $E\beta = 1928.9$ 83; $\epsilon K = 0.3717$ 25; $\epsilon L = 0.0631$ 5; $\epsilon M^+ = 0.02001$ 14
(5293 18)	289.60	0.71 16	0.59 14	6.72 10	1.3 3	av $E\beta = 1933.1$ 83; $\epsilon K = 0.3704$ 25; $\epsilon L = 0.0629$ 5; $\epsilon M^+ = 0.01994$ 14
(5433 18)	149.77	2.6 13	2.0 9	6.21 21	4.6 22	av $E\beta = 1997.5$ 83; $\epsilon K = 0.3519$ 24; $\epsilon L = 0.0597$ 4; $\epsilon M^+ = 0.01893$ 13
(5487 18)	96.11	5 2	3 2	5.99 22	8 4	av $E\beta = 2022.3$ 83; $\epsilon K = 0.3450$ 23; $\epsilon L = 0.0585$ 4; $\epsilon M^+ = 0.01855$ 13
(5498 18)	84.66	5 4	4 3	5.9 4	9 7	av $E\beta = 2027.5$ 83; $\epsilon K = 0.3436$ 23; $\epsilon L = 0.0583$ 4; $\epsilon M^+ = 0.01847$ 13
(5548 18)	34.57	<5.9	<4.1	>5.9	<10	av $E\beta = 2050.7$ 84; $\epsilon K = 0.3373$ 23; $\epsilon L = 0.0572$ 4; $\epsilon M^+ = 0.01813$ 13

† Calculated from intensity balance, assigning $1/2I_{\gamma\pm 1/2I_{\gamma}}$ to transitions with uncertain placements. Significant unplaced intensity casts doubt on the weaker branchings and their derived log ft values.

‡ Absolute intensity per 100 decays.

γ(¹⁸³Pt)

I_γ normalization: calculated assuming Σ (I(γ+ce) to g.s.+34.5)=95% 5, based on expectation of negligible β feeding to g.s. (ΔJ=2, Δπ=No) and <10% feeding to 34.5 level; the latter assumes comparable feeding to the 7/2⁻, 5/2⁻ and 3/2⁻ members of the 1/2[521] band in ¹⁸³Pt. 0.5I_γ±0.5I_γ was assumed for tentatively-placed transitions feeding the g.s. and 35 level. Note that the unplaced intensity is consistent with no net feeding to the lower-lying levels.

E _γ [‡]	I _γ ^{‡a}	E _i (level)	J _i ^π	E _f	J _f ^π	Mult. [#]	δ [@]	α [†]	I _(γ+ce) ^a	Comments
11.4 2	&	96.11	5/2 ⁻	84.66	3/2 ⁻	[E2]		4.3×10 ⁴ 4	≈150	ce(M)/(γ+ce)=0.78 5 ce(N)/(γ+ce)=0.189 23; ce(O)/(γ+ce)=0.029 4; ce(P)/(γ+ce)=1.91×10 ⁻⁵ 25 α(M)=3.4×10 ⁴ 4; α(N)=8.1×10 ³ 8; α(O)=1.24×10 ³ 12; α(P)=0.82 7
35.0		34.57	7/2 ⁻	0.0	1/2 ⁻	M3		1.713×10 ⁵		α(L)=1.212×10 ⁵ 17; α(M)=3.86×10 ⁴ 6 α(N)=9.87×10 ³ 14; α(O)=1555 22; α(P)=27.3 4 E _γ : from 2000Ro41 conversion electron data. Mult.: from Adopted Gammas.
46.1 2	1.20 18	195.76	(9/2) ⁺	149.77	(9/2) ⁻	[E1]		0.659 13		α(L)=0.507 10; α(M)=0.1191 22 α(N)=0.0286 6; α(O)=0.00455 9; α(P)=0.000153 3
48.0 2	2.2 3	243.54	(11/2) ⁺	195.76	(9/2) ⁺	M1(+E2)	0.27 8	19 6		α(L)=14 4; α(M)=3.5 11 α(N)=0.9 3; α(O)=0.14 4; α(P)=0.00508 21 Mult.,δ: from L1:L2:L3=240 50:180 40:130 30 (2000Ro41). α: consistent with α≈15 from I(γ+ce)=35 5 assuming intensity balance through the 243 level (for which the ΔJ=3, Δπ=yes ε feeding is presumed to be negligible) and measured I _γ =2.2 3. α(K)=0.738 11; α(L)=6.90 11; α(M)=1.79 3 α(N)=0.435 7; α(O)=0.0676 11; α(P)=0.0001343 20 %I _γ =3.5 4 assuming recommended normalization. Mult.: L12:L3=70:71, α(L3)exp=3.0 (1984Ma41); L1:L2:L3=100 30:1600 300:1500 300 so δ(M1,E2)>3 (2000Ro41).
84.6 1	51 8	84.66	3/2 ⁻	0.0	1/2 ⁻	E2		9.93		α(K)=0.738 11; α(L)=6.90 11; α(M)=1.79 3 α(N)=0.435 7; α(O)=0.0676 11; α(P)=0.0001343 20 %I _γ =3.5 4 assuming recommended normalization. Mult.: L12:L3=70:71, α(L3)exp=3.0 (1984Ma41); L1:L2:L3=100 30:1600 300:1500 300 so δ(M1,E2)>3 (2000Ro41).
^x 87.2 2	1.50 23									
96.0 1	44 7	96.11	5/2 ⁻	0.0	1/2 ⁻	E2		5.80		α(K)=0.736 11; α(L)=3.81 6; α(M)=0.984 15 α(N)=0.240 4; α(O)=0.0373 6; α(P)=9.65×10 ⁻⁵ 14 %I _γ =3.0 5 assuming recommended normalization. Mult.: α(L3)exp=2.3 (1984Ma41); K:L3=390 80:900 250 (2000Ro41). δ(E2,M1)>4.0 (2000Ro41).

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γ(¹⁸³Pt) (continued)

E_γ [‡]	I_γ ^{‡a}	E_i (level)	J_i^π	E_f	J_f^π	Mult.#	δ [@]	α [†]	Comments
98.5 2	0.61 9	471.56	(7/2) ⁻	373.16	(7/2) ⁻	[M1,E2]		6.1 9	$\alpha(K)=3$ 3; $\alpha(L)=2.2$ 13; $\alpha(M)=0.5$ 4 $\alpha(N)=0.13$ 8; $\alpha(O)=0.021$ 12; $\alpha(P)=0.0004$ 3
115.2 1	27 4	149.77	(9/2) ⁻	34.57	7/2 ⁻	M1+E2		3.6 9	$\alpha(K)=2.1$ 16; $\alpha(L)=1.1$ 6; $\alpha(M)=0.28$ 14 $\alpha(N)=0.07$ 4; $\alpha(O)=0.011$ 5; $\alpha(P)=0.00024$ 18 %I γ =1.9 3 assuming recommended normalization. Mult.: from Adopted Gammas. E2+M1, $\delta=3$ +7-1 from $\alpha(L)_{exp}=0.63$ (1984Ma41) and $\alpha(K)_{exp}=0.9$ 3 (2000Ro41); δ is inconsistent with that from (HL,xny) but $\alpha(K)_{exp}$ and $\alpha(L)_{exp}$ do establish $\Delta\pi=No$.
123.9 1	11.0 17	471.56	(7/2) ⁻	347.62	(5/2) ⁻	M1(+E2)	<0.65	3.38 24	$\alpha(K)=2.6$ 4; $\alpha(L)=0.59$ 10; $\alpha(M)=0.14$ 3 $\alpha(N)=0.035$ 7; $\alpha(O)=0.0060$ 10; $\alpha(P)=0.00030$ 5 Mult.: $\alpha(K)_{exp}=3.0$ 8 (2000Ro41).
140 1	3.8 6	289.60	(11/2) ⁻	149.77	(9/2) ⁻	(M1+E2)		1.9 7	$\alpha(K)=1.2$ 9; $\alpha(L)=0.51$ 17; $\alpha(M)=0.13$ 5 $\alpha(N)=0.031$ 12; $\alpha(O)=0.0051$ 16; $\alpha(P)=0.00014$ 11 Mult.: from Adopted Gammas.
155.9 2	7.3 11	531.50	(9/2) ⁺	375.30	(7/2) ⁺	[M1,E2]		1.4 5	$\alpha(K)=0.9$ 7; $\alpha(L)=0.34$ 8; $\alpha(M)=0.083$ 25 $\alpha(N)=0.020$ 6; $\alpha(O)=0.0034$ 8; $\alpha(P)=0.00010$ 8
161.2 1	160 24	195.76	(9/2) ⁺	34.57	7/2 ⁻	E1		0.1208	$\alpha(K)=0.0987$ 14; $\alpha(L)=0.01700$ 24; $\alpha(M)=0.00393$ 6 $\alpha(N)=0.000960$ 14; $\alpha(O)=0.0001645$ 24; $\alpha(P)=8.36\times 10^{-6}$ 12 Additional information 1. %I γ =11.0 17 assuming recommended normalization. Mult.: $\alpha(K)_{exp}=0.69$ (1984Ma41) for anomalous E1 transition, $\lambda=58$ 9. $\alpha(\text{theory})=0.1208$.
162.6 1	12.0 18	535.82	(9/2) ⁻	373.16	(7/2) ⁻				
164.7 2	3.5 5	636.29	(7/2 ⁺ ,9/2,11/2 ⁻)	471.56	(7/2) ⁻				
179.5 1	79 12	375.30	(7/2) ⁺	195.76	(9/2) ⁺	M1		1.264	$\alpha(K)=1.041$ 15; $\alpha(L)=0.1715$ 25; $\alpha(M)=0.0396$ 6 $\alpha(N)=0.00981$ 14; $\alpha(O)=0.001765$ 25; $\alpha(P)=0.0001190$ 17 Mult.: $\alpha(K)_{exp}\approx 1.4$ (1984Ma41).
^x 191.1 2	0.86 13								
202.6 1	13.0 20	298.82	7/2 ⁻	96.11	5/2 ⁻	[M1,E2]		0.6 3	$\alpha(K)=0.5$ 3; $\alpha(L)=0.129$ 7; $\alpha(M)=0.031$ 4 $\alpha(N)=0.0077$ 8; $\alpha(O)=0.00130$ 5; $\alpha(P)=5.E-5$ 4
214.1 1	100 15	298.82	7/2 ⁻	84.66	3/2 ⁻	E2		0.286	$\alpha(K)=0.1431$ 21; $\alpha(L)=0.1074$ 16; $\alpha(M)=0.0273$ 4 $\alpha(N)=0.00668$ 10; $\alpha(O)=0.001067$ 15; $\alpha(P)=1.377\times 10^{-5}$ 20 Mult.: $\alpha(K)_{exp}=0.14$ (1984Ma41).
218.1 1	58 9	314.25	9/2 ⁻	96.11	5/2 ⁻	E2		0.268	$\alpha(K)=0.1365$ 20; $\alpha(L)=0.0995$ 14; $\alpha(M)=0.0253$ 4 $\alpha(N)=0.00619$ 9; $\alpha(O)=0.000989$ 14; $\alpha(P)=1.317\times 10^{-5}$ 19 Mult.: $\alpha(K)_{exp}\approx 0.22$ (1984Ma41).
221 1	≈ 1.1 ^{&}	535.82	(9/2) ⁻	314.25	9/2 ⁻				
223 1	≈ 1.9 ^{&}	373.16	(7/2) ⁻	149.77	(9/2) ⁻	[M1,E2]		0.47 22	$\alpha(K)=0.35$ 22; $\alpha(L)=0.0921$ 23; $\alpha(M)=0.0223$ 9 $\alpha(N)=0.00549$ 20; $\alpha(O)=0.00093$ 4; $\alpha(P)=4.E-5$ 3
246.2 2	1.30 20	535.82	(9/2) ⁻	289.60	(11/2) ⁻				
251.4 1	21 3	347.62	(5/2) ⁻	96.11	5/2 ⁻	[M1,E2]		0.33 17	$\alpha(K)=0.25$ 16; $\alpha(L)=0.061$ 6; $\alpha(M)=0.0148$ 7 $\alpha(N)=0.00364$ 19; $\alpha(O)=0.00062$ 7; $\alpha(P)=2.8\times 10^{-5}$ 19

¹⁸³Au ε decay **2000Ro41,1989Ro21,1984Ma41** (continued)

<u>γ(¹⁸³Pt) (continued)</u>									
<u>E_γ[‡]</u>	<u>I_γ^{‡α}</u>	<u>E_i(level)</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult.#</u>	<u>δ[@]</u>	<u>α[†]</u>	<u>Comments</u>
255.0 1	10.5 16	289.60	(11/2) ⁻	34.57	7/2 ⁻	(E2)		0.1620	α(K)=0.0919 13; α(L)=0.0529 8; α(M)=0.01337 19 α(N)=0.00327 5; α(O)=0.000528 8; α(P)=9.05×10 ⁻⁶ 13 Mult.: from Adopted Gammas.
262.8 1	16.0 24	347.62	(5/2) ⁻	84.66	3/2 ⁻				
269.8 2	6.5 10	617.40	(5/2) ⁻	347.62	(5/2) ⁻				
^x 273.0 2	1.7 3								
^x 275.6 2	5.4 8								
277.0 1	13.0 20	373.16	(7/2) ⁻	96.11	5/2 ⁻	[M1+E2]	0.25 13	0.365 18	α(K)=0.299 17; α(L)=0.0504 12; α(M)=0.01169 22 α(N)=0.00289 6; α(O)=0.000518 13; α(P)=3.39×10 ⁻⁵ 20 α(K)=0.17 11; α(L)=0.039 7; α(M)=0.0094 12 α(N)=0.0023 3; α(O)=0.00040 8; α(P)=1.9×10 ⁻⁵ 13
288.1 1	25 4	531.50	(9/2) ⁺	243.54	(11/2) ⁺	[M1,E2]		0.23 12	
^x 289.7 2	2.3 3								
297.1 ^c 2	0.83 12	611.39		314.25	9/2 ⁻				
^x 299.2 2	1.8 3								
302.8 ^c 2	0.41 6	617.40	(5/2) ⁻	314.25	9/2 ⁻				
312.6 2	5.3 8	611.39		298.82	7/2 ⁻				
313.1 1	85 13	347.62	(5/2) ⁻	34.57	7/2 ⁻	M1+E2	0.5 3	0.23 4	α(K)=0.19 4; α(L)=0.0341 25; α(M)=0.0080 5 α(N)=0.00197 12; α(O)=0.00035 3; α(P)=2.1×10 ⁻⁵ 4 Mult.: I(ce(K))(312.6+313.1)=17.0 so α(K)exp=0.20 4 for doublet dominated by this transition.
321.5 2	8.2 12	471.56	(7/2) ⁻	149.77	(9/2) ⁻				
329.3 2	≈3.7&	702.37	(7/2) ⁻	373.16	(7/2) ⁻				
335.8 2	8.0 12	531.50	(9/2) ⁺	195.76	(9/2) ⁺				
338.5 1	50 8	373.16	(7/2) ⁻	34.57	7/2 ⁻	E2+M1	1.2 3	0.131 22	α(K)=0.101 20; α(L)=0.0228 17; α(M)=0.0055 4 α(N)=0.00134 9; α(O)=0.000232 18; α(P)=1.12×10 ⁻⁵ 23 %I _γ =3.4 6 assuming recommended normalization. Mult.: I(ce(K))=5.3 so α(K)exp=0.106 22.
354.4 2	2.9 4	702.37	(7/2) ⁻	347.62	(5/2) ⁻				
355.4 2	5.1 8	730.78	(≥5/2) ⁺	375.30	(7/2) ⁺				
362.0 2	1.60 24	930.53	-	568.70	(1/2) ⁻				
^x 366.1 2	1.10 17								
375.6 2	1.7 3	471.56	(7/2) ⁻	96.11	5/2 ⁻				
379.5 2	≈3.6&	678.46	(3/2,5/2) ⁻	298.82	7/2 ⁻				
^x 381.7 2	1.00 15								
386.3 2	0.75 11	535.82	(9/2) ⁻	149.77	(9/2) ⁻				
388.5 ^c 2	2.2 3	762.05	(5/2) ⁻	373.16	(7/2) ⁻				
^x 389.9 2	0.65 10								
392.8 2	1.40 21	636.29	(7/2 ⁺ ,9/2,11/2 ⁻)	243.54	(11/2) ⁺				
394.0 2	2.2 3	693.02	(3/2,5/2) ⁻	298.82	7/2 ⁻				
^x 401.9 2	1.9 3								
^x 424.2 2	1.60 24								
428.8 2	3.8 6	801.85	(3/2,5/2,7/2) ⁻	373.16	(7/2) ⁻				

¹⁸³Au ε decay [2000Ro41](#),[1989Ro21](#),[1984Ma41](#) (continued)

γ(¹⁸³Pt) (continued)

E_γ ‡	I_γ ‡α	E_i (level)	J_i^π	E_f	J_f^π	Mult.#	$\delta^@$	α^\dagger	Comments
^x 429.5 2 437.1 2	2.7 4 7.6 11	471.56	(7/2) ⁻	34.57	7/2 ⁻	E2+M1	1.2 6	0.066 25	$\alpha(K)=0.052$ 22; $\alpha(L)=0.0105$ 24; $\alpha(M)=0.0025$ 6 $\alpha(N)=0.00062$ 13; $\alpha(O)=0.000107$ 25; $\alpha(P)=6.E-6$ 3 Mult.: I(ce(K))=0.4 so $\alpha(K)_{exp}=0.053$ 11.
463.1 2	4.3 6	762.05	(5/2) ⁻	298.82	7/2 ⁻	M1+E2	0.9 3	0.066 12	$\alpha(K)=0.053$ 11; $\alpha(L)=0.0098$ 12; $\alpha(M)=0.0023$ 3 $\alpha(N)=0.00057$ 7; $\alpha(O)=0.000100$ 13; $\alpha(P)=5.9\times 10^{-6}$ 12 Mult.: I(ce(K))=0.24 so $\alpha(K)_{exp}=0.056$ 12.
467.3 2 471.8 2	1.30 20 6.6 10	998.42 556.55	(≥7/2) 3/2 ⁻	531.50 (9/2) ⁺ 84.66 3/2 ⁻		M1		0.0908	$\alpha(K)=0.0751$ 11; $\alpha(L)=0.01210$ 17; $\alpha(M)=0.00279$ 4 $\alpha(N)=0.000690$ 10; $\alpha(O)=0.0001243$ 18; $\alpha(P)=8.45\times 10^{-6}$ 12 Mult.: I(ce(K))=0.55 so $\alpha(K)_{exp}=0.083$ 17.
477.1 2 484.1 1	2.3 3 15.0 23	824.82 568.70	(5/2,7/2,9/2) ⁻ (1/2) ⁻	347.62 (5/2) ⁻ 84.66 3/2 ⁻		M1+E2	0.8 3	0.062 11	$\alpha(K)=0.050$ 10; $\alpha(L)=0.0090$ 12; $\alpha(M)=0.00211$ 25 $\alpha(N)=0.00052$ 6; $\alpha(O)=9.2\times 10^{-5}$ 12; $\alpha(P)=5.6\times 10^{-6}$ 12 Mult.: I(ce(K))=0.78 so $\alpha(K)_{exp}=0.052$ 11.
^x 486.0 2 505.7 2	1.7 3 2.4 4	819.89	(7/2,9/2) ⁻	314.25	9/2 ⁻	M1+E2	0.7 3	0.059 10	$\alpha(K)=0.048$ 9; $\alpha(L)=0.0083$ 11; $\alpha(M)=0.00194$ 23 $\alpha(N)=0.00048$ 6; $\alpha(O)=8.5\times 10^{-5}$ 11; $\alpha(P)=5.3\times 10^{-6}$ 10 Mult.: I(ce(K))=0.12 so $\alpha(K)_{exp}=0.050$ 11.
517.0 2	8.7 13	613.16	(3/2,5/2) ⁻	96.11	5/2 ⁻	M1+E2	0.4 +3-4	0.065 10	$\alpha(K)=0.053$ 8; $\alpha(L)=0.0088$ 10; $\alpha(M)=0.00203$ 22 $\alpha(N)=0.00050$ 6; $\alpha(O)=9.0\times 10^{-5}$ 10; $\alpha(P)=6.0\times 10^{-6}$ 10 Mult.: I(ce(K))=0.5 so $\alpha(K)_{exp}=0.057$ 12.
521.0 2	9.3 14	819.89	(7/2,9/2) ⁻	298.82	7/2 ⁻	M1+E2	0.9 3	0.049 9	$\alpha(K)=0.039$ 8; $\alpha(L)=0.0071$ 9; $\alpha(M)=0.00166$ 20 $\alpha(N)=0.00041$ 5; $\alpha(O)=7.2\times 10^{-5}$ 10; $\alpha(P)=4.4\times 10^{-6}$ 9 Mult.: I(ce(K))=0.37 so $\alpha(K)_{exp}=0.040$ 8.
^x 524.1 2 526.1 2	1.8 3 7.5 11	824.82	(5/2,7/2,9/2) ⁻	298.82	7/2 ⁻	M1+E2	≈0.4	≈0.0618	$\alpha(K)\approx 0.0509$; $\alpha(L)\approx 0.00840$; $\alpha(M)\approx 0.00194$ $\alpha(N)\approx 0.000480$; $\alpha(O)\approx 8.61\times 10^{-5}$; $\alpha(P)\approx 5.70\times 10^{-6}$ Mult.: I(ce(K))≈0.4 so $\alpha(K)_{exp}=0.053$ 11.
^x 528.5 2 533.1 ^b 2	4.3 6 ≈9.4 ^{b&}	617.40	(5/2) ⁻	84.66	3/2 ⁻	E2(+M1)		0.044 23	$\alpha(K)=0.035$ 20; $\alpha(L)=0.0064$ 24; $\alpha(M)=0.0015$ 6 $\alpha(N)=0.00037$ 13; $\alpha(O)=6.5\times 10^{-5}$ 25; $\alpha(P)=3.9\times 10^{-6}$ 23 Mult.: I(ce(K))=0.34 so $\alpha(K)_{exp}\approx 0.036$, consistent with significant E2 admixture in both members of doubly placed line.
533.1 ^b 2	≈5.0 ^{b&}	847.35	(7/2,9/2,11/2) ⁻	314.25	9/2 ⁻	E2+M1		0.044 23	$\alpha(K)=0.035$ 20; $\alpha(L)=0.0064$ 24; $\alpha(M)=0.0015$ 6 $\alpha(N)=0.00037$ 13; $\alpha(O)=6.5\times 10^{-5}$ 25; $\alpha(P)=3.9\times 10^{-6}$ 23 Mult.: see comment on 533γ from 617 level.
535.1 2	13.5 20	730.78	(≥5/2) ⁺	195.76	(9/2) ⁺	E2		0.0210	$\alpha(K)=0.01574$ 22; $\alpha(L)=0.00403$ 6; $\alpha(M)=0.000974$ 14 $\alpha(N)=0.000239$ 4; $\alpha(O)=4.07\times 10^{-5}$ 6; $\alpha(P)=1.661\times 10^{-6}$ 24 Mult.: I(ce(K))=0.2 so $\alpha(K)_{exp}=0.015$ 3.

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γ(¹⁸³Pt) (continued)

E_γ ‡	I_γ ‡ ^a	E_i (level)	J_i^π	E_f	J_f^π	Mult. #	δ @	α †	Comments
536.2 2	3.6 5	835.38	(3/2,5/2) ⁻	298.82	7/2 ⁻				
553.7 2	4.1 6	650.17	(3/2) ⁻	96.11	5/2 ⁻				
556.7 ^b 2	≈39 ^{b&c}	556.55	3/2 ⁻	0.0	1/2 ⁻	M1+E2	1.3 4	0.034 8	$\alpha(K)=0.027$ 7; $\alpha(L)=0.0052$ 8; $\alpha(M)=0.00121$ 17 $\alpha(N)=0.00030$ 5; $\alpha(O)=5.3\times 10^{-5}$ 8; $\alpha(P)=3.0\times 10^{-6}$ 8 Mult.: I(ce(K))≈1.6 so $\alpha(K)\text{exp}\approx 0.041$ 9 for doublet. δ calculated assuming other member of doublet is E1.
556.7 ^b 2	≈10 ^{b&c}	931.94	(7/2,9/2) ⁻	375.30	(7/2) ⁺	[E1]		0.00660	$\alpha(K)=0.00551$ 8; $\alpha(L)=0.000842$ 12; $\alpha(M)=0.000193$ 3 $\alpha(N)=4.74\times 10^{-5}$ 7; $\alpha(O)=8.40\times 10^{-6}$ 12; $\alpha(P)=5.28\times 10^{-7}$ 8
^x 558.4 2	5.7 9								
^x 561.3 2	1.10 17								
565.6 1	17 3	650.17	(3/2) ⁻	84.66	3/2 ⁻	E2+M1	1.3 +4-3	0.033 5	$\alpha(K)=0.026$ 5; $\alpha(L)=0.0049$ 6; $\alpha(M)=0.00116$ 12 $\alpha(N)=0.00029$ 3; $\alpha(O)=5.0\times 10^{-5}$ 6; $\alpha(P)=2.9\times 10^{-6}$ 5 Mult.: I(ce(K))=0.46 so $\alpha(K)\text{exp}=0.027$ 6. $\alpha(K)=0.023$ 4; $\alpha(L)=0.0045$ 5; $\alpha(M)=0.00107$ 11 $\alpha(N)=0.00026$ 3; $\alpha(O)=4.6\times 10^{-5}$ 6; $\alpha(P)=2.6\times 10^{-6}$ 5 Mult.: I(ce(K))=0.1 so $\alpha(K)\text{exp}=0.024$ 5.
571.3 2	4.1 6	919.00	(3/2,5/2,7/2) ⁻	347.62	(5/2) ⁻	E2+M1	1.5 +6-3	0.029 5	
581.1 2	9.0 14	879.66	(7/2 ⁻ ,9/2 ⁻)	298.82	7/2 ⁻				
582.8 ^{bc} 2	≈24 ^{b&c}	617.40	(5/2) ⁻	34.57	7/2 ⁻	E2+M1	2 1	0.024 11	$\alpha(K)=0.019$ 9; $\alpha(L)=0.0039$ 12; $\alpha(M)=0.0009$ 3 $\alpha(N)=0.00023$ 7; $\alpha(O)=4.0\times 10^{-5}$ 12; $\alpha(P)=2.1\times 10^{-6}$ 11 Mult.: I(ce(K))=0.73 so $\alpha(K)\text{exp}=0.078$ 16 (cf. $\alpha=0.024$ 11) for doubly-placed line.
582.8 ^b 2	≈7.0 ^{b&c}	930.53	-	347.62	(5/2) ⁻				
593.8 2	20 3	678.46	(3/2,5/2) ⁻	84.66	3/2 ⁻	E2		0.01648	$\alpha(K)=0.01258$ 18; $\alpha(L)=0.00298$ 5; $\alpha(M)=0.000716$ 10 $\alpha(N)=0.0001761$ 25; $\alpha(O)=3.01\times 10^{-5}$ 5; $\alpha(P)=1.331\times 10^{-6}$ 19 Mult.: I(ce(K))=0.24 so $\alpha(K)\text{exp}=0.0120$ 25.
595.1 2	2.1 3	1126.38		531.50	(9/2) ⁺				
596.9 2	24 4	693.02	(3/2,5/2) ⁻	96.11	5/2 ⁻	E2+M1	3 +2-1	0.020 4	$\alpha(K)=0.015$ 3; $\alpha(L)=0.0033$ 4; $\alpha(M)=0.00078$ 8 $\alpha(N)=0.000193$ 20; $\alpha(O)=3.3\times 10^{-5}$ 4; $\alpha(P)=1.6\times 10^{-6}$ 4 Mult.: I(ce(K))=0.38 so $\alpha(K)\text{exp}=0.016$ 3.
601.7 ^c 2	2.2 3	636.29	(7/2 ⁺ ,9/2,11/2 ⁻)	34.57	7/2 ⁻				
606.5 2	29 4	702.37	(7/2) ⁻	96.11	5/2 ⁻	E2+M1	1.5 +5-3	0.025 4	$\alpha(K)=0.020$ 3; $\alpha(L)=0.0039$ 4; $\alpha(M)=0.00091$ 9 $\alpha(N)=0.000224$ 21; $\alpha(O)=3.9\times 10^{-5}$ 4; $\alpha(P)=2.2\times 10^{-6}$ 4 Mult.: I(ce(K))=0.6 so $\alpha(K)\text{exp}=0.021$ 4.
608.3 2	7.6 11	693.02	(3/2,5/2) ⁻	84.66	3/2 ⁻				
612.5 2	5.2 8	762.05	(5/2) ⁻	149.77	(9/2) ⁻	(E2)		0.01536	$\alpha(K)=0.01178$ 17; $\alpha(L)=0.00273$ 4; $\alpha(M)=0.000655$ 10 $\alpha(N)=0.0001611$ 23; $\alpha(O)=2.76\times 10^{-5}$ 4; $\alpha(P)=1.247\times 10^{-6}$ 18 Mult.: I(ce(K))(612.5+613.2+614.5)=0.15 so $\alpha(K)\text{exp(triplet)}=0.029$ 6, consistent with all three triplet partners being E2.

¹⁸³Au ε decay **2000Ro41,1989Ro21,1984Ma41** (continued)

γ(¹⁸³Pt) (continued)

E_γ [‡]	I_γ ^{‡a}	E_i (level)	J_i^π	E_f	J_f^π	Mult.#	δ [@]	α [†]	Comments
613.2 ^c 2	7.7 12	613.16	(3/2,5/2) ⁻	0.0	1/2 ⁻	(E2)		0.01532	$\alpha(K)=0.01176$ 17; $\alpha(L)=0.00272$ 4; $\alpha(M)=0.000653$ 10 $\alpha(N)=0.0001606$ 23; $\alpha(O)=2.75 \times 10^{-5}$ 4; $\alpha(P)=1.244 \times 10^{-6}$ 18 Mult.: see comment on 612.5γ.
614.5 2	3.8 6	989.81	(⁺)	375.30	(7/2) ⁺	(E2)		0.01525	$\alpha(K)=0.01170$ 17; $\alpha(L)=0.00271$ 4; $\alpha(M)=0.000649$ 10 $\alpha(N)=0.0001596$ 23; $\alpha(O)=2.74 \times 10^{-5}$ 4; $\alpha(P)=1.239 \times 10^{-6}$ 18 Mult.: see comment on 612.5γ.
617.4 2	5.8 9	931.94	(7/2,9/2) ⁻	314.25	9/2 ⁻	M1+E2	0.8 +4-3	0.033 6	$\alpha(K)=0.027$ 6; $\alpha(L)=0.0047$ 7; $\alpha(M)=0.00109$ 15 $\alpha(N)=0.00027$ 4; $\alpha(O)=4.8 \times 10^{-5}$ 7; $\alpha(P)=3.0 \times 10^{-6}$ 6 Mult.: I(ce(K))=0.17 so $\alpha(K)\text{exp}=0.029$ 6.
623.1 2	3.4 5	998.42	(≥7/2)	375.30	(7/2) ⁺				
631 1	≈1.0	978.43	(7/2) ⁻	347.62	(5/2) ⁻				
649.9 2	5.8 9	963.79	(7/2,9/2,11/2) ⁻	314.25	9/2 ⁻	M1(+E2)	<1	0.033 7	$\alpha(K)=0.027$ 6; $\alpha(L)=0.0045$ 8; $\alpha(M)=0.00104$ 17 $\alpha(N)=0.00026$ 4; $\alpha(O)=4.6 \times 10^{-5}$ 8; $\alpha(P)=3.0 \times 10^{-6}$ 7 Mult.: I(ce(K))(649.9+651.3)=0.42 so $\alpha(K)\text{exp}=0.072$ 15; consistent with mostly M1 in both components of doublet.
651.3 2	7.3 11	1024.57	(5/2,7/2,9/2) ⁻	373.16	(7/2) ⁻	M1(+E2)	<1	0.033 7	$\alpha(K)=0.027$ 6; $\alpha(L)=0.0045$ 8; $\alpha(M)=0.00103$ 16 $\alpha(N)=0.00025$ 4; $\alpha(O)=4.6 \times 10^{-5}$ 8; $\alpha(P)=3.0 \times 10^{-6}$ 7 Mult.: see comment on 649.9γ.
664.6 2	2.2 3	963.79	(7/2,9/2,11/2) ⁻	298.82	7/2 ⁻				
666.1 2	2.2 3	762.05	(5/2) ⁻	96.11	5/2 ⁻				
^x 667.7 2	4.5 7								
677.5 2	8.1 12	762.05	(5/2) ⁻	84.66	3/2 ⁻				
678.6 ^c 2	3.0 5	678.46	(3/2,5/2) ⁻	0.0	1/2 ⁻				
684.8 2	3.6 5	1057.97		373.16	(7/2) ⁻				
693.3 ^c 2	2.1 3	693.02	(3/2,5/2) ⁻	0.0	1/2 ⁻				
696.1 2	10.0 15	1071.28	(5/2,7/2) ⁻	375.30	(7/2) ⁺	D			Mult.: I(ce(K))≈0.3, but includes an Ir contaminant line, so $\alpha(K)\text{exp}<0.03$, consistent with E1 or M1; level scheme requires E1.
^x 700.1 2	3.2 5								
^x 702.1 ^c 2	7.0 11								E_γ : placed by 1989Ro21 from the 702 level. However, that placement is inconsistent with the level's adopted assignment as the J=7/2 member of the 3/2[512] rotational band.
705.8 2	7.1 11	801.85	(3/2,5/2,7/2) ⁻	96.11	5/2 ⁻				
717.0 2	4.9 7	801.85	(3/2,5/2,7/2) ⁻	84.66	3/2 ⁻	E2		0.01085	$\alpha(K)=0.00851$ 12; $\alpha(L)=0.00179$ 3; $\alpha(M)=0.000425$ 6 $\alpha(N)=0.0001046$ 15; $\alpha(O)=1.81 \times 10^{-5}$ 3; $\alpha(P)=9.01 \times 10^{-7}$ 13 Mult.: I(ce(K))≈0.03 so $\alpha(K)\text{exp}=0.0061$ 13; a little low for E2, but an E1 assignment would be inconsistent with level scheme.

¹⁸³Au ε decay **2000Ro41,1989Ro21,1984Ma41** (continued)

γ(¹⁸³Pt) (continued)

E_γ ‡	I_γ ‡ ^a	E_i (level)	J_i^π	E_f	J_f^π	Mult.#	$\delta^@$	α^\dagger	Comments
^x 723.2 2 727.5 ^c 2	5.4 8 9.1 14	762.05	(5/2) ⁻	34.57	7/2 ⁻	M1(+E2)	<2	0.022 8	$\alpha(K)=0.018 7$; $\alpha(L)=0.0030 9$; $\alpha(M)=0.00070 20$ $\alpha(N)=0.00017 5$; $\alpha(O)=3.1\times 10^{-5} 9$; $\alpha(P)=2.0\times 10^{-6} 8$ Mult.: $I(\text{ce}(K))(727.5+729.6)=0.26$ so $\alpha(K)\text{exp}=0.029 6$ for doublet, consistent with M1 component in this, the more intense member of doublet.
729.6 2	6.0 9	879.66	(7/2 ⁻ ,9/2 ⁻)	149.77	(9/2) ⁻	(E2+M1)		0.020 10	$\alpha(K)=0.016 8$; $\alpha(L)=0.0028 11$; $\alpha(M)=0.00065 24$ $\alpha(N)=0.00016 6$; $\alpha(O)=2.8\times 10^{-5} 12$; $\alpha(P)=1.8\times 10^{-6} 10$ Mult.: see comment on 727.5γ.
736.1 2	4.3 6	1035.04	(7/2,9/2) ⁻	298.82	7/2 ⁻	M1+E2	0.7 +5-4	0.023 5	$\alpha(K)=0.019 4$; $\alpha(L)=0.0031 6$; $\alpha(M)=0.00071 13$ $\alpha(N)=0.00018 3$; $\alpha(O)=3.1\times 10^{-5} 6$; $\alpha(P)=2.1\times 10^{-6} 5$ Mult.: $I(\text{ce}(K))=0.08$ so $\alpha(K)\text{exp}=0.019 4$.
739.4 2	15.0 23	835.38	(3/2,5/2) ⁻	96.11	5/2 ⁻	M1+E2	0.7 +5-4	0.022 5	$\alpha(K)=0.018 4$; $\alpha(L)=0.0030 6$; $\alpha(M)=0.00070 13$ $\alpha(N)=0.00017 3$; $\alpha(O)=3.1\times 10^{-5} 6$; $\alpha(P)=2.0\times 10^{-6} 5$ Mult.: $I(\text{ce}(K))=0.28$ so $\alpha(K)\text{exp}=0.019 4$.
745.5 2 ^x 749.9 2	1.20 18 9.3 14	1035.04	(7/2,9/2) ⁻	289.60	(11/2) ⁻	E2		0.00986	$\alpha(K)=0.00778 11$; $\alpha(L)=0.001593 23$; $\alpha(M)=0.000378 6$ $\alpha(N)=9.30\times 10^{-5} 13$; $\alpha(O)=1.614\times 10^{-5} 23$; $\alpha(P)=8.23\times 10^{-7} 12$ Mult.: $I(\text{ce}(K))(749.9+751.0)=0.08$, $\alpha(K)\text{exp}=0.0086 18$ consistent with pure E2 and pure E1 for the respective transitions.
^x 751.0 2	5.5 8					E1		0.00362	$\alpha(K)=0.00304 5$; $\alpha(L)=0.000454 7$; $\alpha(M)=0.0001036 15$ $\alpha(N)=2.55\times 10^{-5} 4$; $\alpha(O)=4.55\times 10^{-6} 7$; $\alpha(P)=2.95\times 10^{-7} 5$ Mult.: see comment on 749.9γ.
753.0 2 754.5 ^c 2	2.3 3 2.3 3	1126.38 998.42	(≥7/2)	373.16 (7/2) ⁻ 243.54 (11/2) ⁺					
^x 756.5 2 ^x 784.6 2 ^x 798.6 2 ^x 802.8 2	2.3 3 4.3 6 2.6 4 4.3 6								
828.7 2	4.1 6	978.43	(7/2) ⁻	149.77	(9/2) ⁻	M1+E2	1.0 +8-4	0.015 4	$\alpha(K)=0.012 3$; $\alpha(L)=0.0020 4$; $\alpha(M)=0.00046 10$ $\alpha(N)=0.000115 23$; $\alpha(O)=2.0\times 10^{-5} 5$; $\alpha(P)=1.3\times 10^{-6} 4$ Mult.: $I(\text{ce}(K))=0.05$ so $\alpha(K)\text{exp}=0.012 3$.
835.6 ^c 2 845.1 ^c 2	2.7 4 4.1 6	835.38 879.66	(3/2,5/2) ⁻ (7/2 ⁻ ,9/2 ⁻)	0.0 34.57	1/2 ⁻ 7/2 ⁻	E2(+M1)	>2	0.0089 13	$\alpha(K)=0.0072 11$; $\alpha(L)=0.00133 15$; $\alpha(M)=0.00031 4$ $\alpha(N)=7.7\times 10^{-5} 9$; $\alpha(O)=1.35\times 10^{-5} 16$; $\alpha(P)=7.7\times 10^{-7} 12$ Mult.: $I(\text{ce}(K))=0.03$ so $\alpha(K)\text{exp}=0.0073 15$.
^x 852.4 2 ^x 857.5 2 ^x 876.4 2	2.7 4 2.5 4 2.8 4								

¹⁸³Au ε decay 2000Ro41,1989Ro21,1984Ma41 (continued)

<u>γ(¹⁸³Pt) (continued)</u>									
<u>E_γ[‡]</u>	<u>I_γ^{‡a}</u>	<u>E_i(level)</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult.#</u>	<u>δ[@]</u>	<u>α[†]</u>	<u>Comments</u>
884.5 ^c 2	6.5 10	919.00	(3/2,5/2,7/2) ⁻	34.57	7/2 ⁻	E2(+M1)	>2	0.0081 11	α(K)=0.0065 10; α(L)=0.00119 13; α(M)=0.00028 3 α(N)=6.9×10 ⁻⁵ 8; α(O)=1.21×10 ⁻⁵ 14; α(P)=7.0×10 ⁻⁷ 11 Mult.: I(ce(K))=0.04 so α(K)exp=0.0062 13.
897.6 ^c 2	1.10 17	931.94	(7/2,9/2) ⁻	34.57	7/2 ⁻	M1(+E2)	<2	0.013 4	α(K)=0.011 4; α(L)=0.0017 5; α(M)=0.00040 11 α(N)=0.00010 3; α(O)=1.8×10 ⁻⁵ 5; α(P)=1.2×10 ⁻⁶ 4 Mult.: I(ce(K))=0.05 so α(K)exp=0.0120 25.
899.6 ^c 2	3.4 5	1970.71	(7/2) ⁻	1071.28	(5/2,7/2) ⁻				
^x 904.1 2	4.1 6								
^x 909.6 2	5.0 8					M1		0.01664	α(K)=0.01381 20; α(L)=0.00218 3; α(M)=0.000501 7 α(N)=0.0001240 18; α(O)=2.24×10 ⁻⁵ 4; α(P)=1.533×10 ⁻⁶ 22 Mult.: I(ce(K))=0.1 so α(K)exp=0.020 4.
^x 913.7 2	1.50 23					E2+M1	1.5 +18-6	0.0092 24	α(K)=0.0076 20; α(L)=0.0013 3; α(M)=0.00030 7 α(N)=7.4×10 ⁻⁵ 16; α(O)=1.3×10 ⁻⁵ 3; α(P)=8.2×10 ⁻⁷ 23 Mult.: I(ce(K))=0.05 so α(K)exp=0.0079 17.
^x 915.6 2	4.2 6								
^x 919.3 2	2.4 4								
^x 928.9 2	6.3 9								
^x 933.7 2	4.7 7					M1		0.01515	α(K)=0.01257 18; α(L)=0.00198 3; α(M)=0.000456 7 α(N)=0.0001127 16; α(O)=2.03×10 ⁻⁵ 3; α(P)=1.394×10 ⁻⁶ 20 Mult.: I(ce(K))=0.07 so α(K)exp=0.021 4.
944.0 ^c 2	3.4 5	978.43	(7/2) ⁻	34.57	7/2 ⁻				
^x 978.7 2	3.3 5					M1		0.01359	α(K)=0.01129 16; α(L)=0.001776 25; α(M)=0.000408 6 α(N)=0.0001010 15; α(O)=1.82×10 ⁻⁵ 3; α(P)=1.251×10 ⁻⁶ 18 Mult.: I(ce(K))=0.04 so α(K)exp=0.015 3.
^x 985.2 2	2.6 4								
990.1 ^c 2	2.8 4	1024.57	(5/2,7/2,9/2) ⁻	34.57	7/2 ⁻	E2+M1	1.1 +13-5	0.0087 23	α(K)=0.0072 19; α(L)=0.0012 3; α(M)=0.00027 7 α(N)=6.8×10 ⁻⁵ 16; α(O)=1.2×10 ⁻⁵ 3; α(P)=7.8×10 ⁻⁷ 22 Mult.: I(ce(K))=0.05 so α(K)exp=0.0074 15.
^x 996.3 2	5.0 8								
1000.6 ^c 3	3.9 6	1035.04	(7/2,9/2) ⁻	34.57	7/2 ⁻				
^x 1008.0 3	3.4 5								
1010.1 3	6.8 10	1940.49	(3/2,5/2) ⁻	930.53	-				

¹⁸³Au ε decay **2000Ro41,1989Ro21,1984Ma41** (continued)

$\gamma(^{183}\text{Pt})$ (continued)											
E_γ ‡	I_γ ‡ <i>a</i>	E_i (level)	J_i^π	E_f	J_f^π	Mult. #	δ @	α^\dagger	Comments		
1036.8 3	10.0 15	1071.28	(5/2,7/2) ⁻	34.57	7/2 ⁻	E2(+M1)	>2	0.0058 7	$\alpha(\text{K})=0.0047$ 6; $\alpha(\text{L})=0.00082$ 9; $\alpha(\text{M})=0.000190$ 19 $\alpha(\text{N})=4.7\times 10^{-5}$ 5; $\alpha(\text{O})=8.3\times 10^{-6}$ 9; $\alpha(\text{P})=5.0\times 10^{-7}$ 7 Mult.: I(ce(K))=0.05 so $\alpha(\text{K})\text{exp}=0.0050$ 11.		
^x 1082.5 3	4.0 6	1126.38		34.57	7/2 ⁻						
1091.8 ^c 3	3.2 5										
^x 1093.0 3	3.0 5										
^x 1128.5 3	5.3 8									M1(+E2)	<1.2
^x 1138.0 3	3.5 5	E2									
^x 1141.6 3	3.8 6										
^x 1156.0 3	7.1 11									0.00413	$\alpha(\text{K})=0.00337$ 5; $\alpha(\text{L})=0.000579$ 9; $\alpha(\text{M})=0.0001347$ 19 $\alpha(\text{N})=3.32\times 10^{-5}$ 5; $\alpha(\text{O})=5.88\times 10^{-6}$ 9; $\alpha(\text{P})=3.55\times 10^{-7}$ 5; $\alpha(\text{IPF})=1.365\times 10^{-6}$ 23 Mult.: I(ce(K))=0.02 so $\alpha(\text{K})\text{exp}=0.0028$ 6.
^x 1195.1 3	3.5 5	M1(+E2)									
^x 1221.2 3	3.5 5										
^x 1231.7 3	3.6 5										
^x 1236.6 3	3.2 5										
^x 1246.7 3	3.2 5										
^x 1251.7 3	3.1 5									<1	0.0065 10
^x 1254.1 3	3.6 5	M1(+E2)	<2	0.0059 16	$\alpha(\text{K})=0.0049$ 13; $\alpha(\text{L})=0.00077$ 19; $\alpha(\text{M})=0.00018$ 5 $\alpha(\text{N})=4.4\times 10^{-5}$ 11; $\alpha(\text{O})=7.9\times 10^{-6}$ 20; $\alpha(\text{P})=5.3\times 10^{-7}$ 15; $\alpha(\text{IPF})=1.35\times 10^{-5}$ 23 Mult.: I(ce(K))=0.02 so $\alpha(\text{K})\text{exp}=0.0056$ 12.						
^x 1262.4 3	3.6 5	E2									
^x 1264.4 3	4.8 7										
^x 1266.5 3	3.8 6										
^x 1270.5 3	4.3 6										
^x 1275.9 3	5.9 9										
^x 1290.3 3	7.7 12									0.00336	$\alpha(\text{K})=0.00275$ 4; $\alpha(\text{L})=0.000458$ 7; $\alpha(\text{M})=0.0001062$ 15 $\alpha(\text{N})=2.62\times 10^{-5}$ 4; $\alpha(\text{O})=4.65\times 10^{-6}$ 7; $\alpha(\text{P})=2.88\times 10^{-7}$ 4; $\alpha(\text{IPF})=1.507\times 10^{-5}$ 22 Mult.: I(ce(K))=0.02 so $\alpha(\text{K})\text{exp}=0.0026$ 5.
^x 1297.4 3	5.8 9										
^x 1345.7 3	4.2 6	M1		556.55	3/2 ⁻						
1358.2 3	18 3									1914.68	(3/2,5/2) ⁻

¹⁸³Au ε decay 2000Ro41,1989Ro21,1984Ma41 (continued)

γ(¹⁸³Pt) (continued)

E_γ^{\ddagger}	$I_\gamma^{\ddagger a}$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult.#	$\delta^@$	α^\ddagger	Comments
									$\alpha(\text{IPF})=4.29 \times 10^{-5}$ 6 Mult.: $I(\text{ce(K)})=0.1$ so $\alpha(\text{K})\text{exp}=0.0056$ 12.
^x 1360.4 3	3.5 5								
1371.9 3	5.9 9	1940.49	(3/2,5/2) ⁻	568.70	(1/2) ⁻				
1384.0 3	15.0 23	1940.49	(3/2,5/2) ⁻	556.55	3/2 ⁻	E2(+M1)	>0.6	0.0040 11	$\alpha(\text{K})=0.0033$ 9; $\alpha(\text{L})=0.00053$ 13; $\alpha(\text{M})=0.00012$ 3 $\alpha(\text{N})=3.0 \times 10^{-5}$ 8; $\alpha(\text{O})=5.4 \times 10^{-6}$ 14; $\alpha(\text{P})=3.5 \times 10^{-7}$ 11; $\alpha(\text{IPF})=4.0 \times 10^{-5}$ 7 Mult.: $I(\text{ce(K)})=0.05$ so $\alpha(\text{K})\text{exp}=0.0033$ 7.
1406.9 3	12.5 19	1938.56	(7/2) ⁻	531.50	(9/2) ⁺	E1		1.28×10^{-3}	$\alpha(\text{K})=0.000977$ 14; $\alpha(\text{L})=0.0001411$ 20; $\alpha(\text{M})=3.21 \times 10^{-5}$ 5 $\alpha(\text{N})=7.90 \times 10^{-6}$ 11; $\alpha(\text{O})=1.420 \times 10^{-6}$ 20; $\alpha(\text{P})=9.67 \times 10^{-8}$ 14; $\alpha(\text{IPF})=0.0001165$ 17 Mult.: $I(\text{ce(K)})=0.015$ so $\alpha(\text{K})\text{exp}=0.00120$ 25.
^x 1412.3 3	5.3 8								
^x 1416.5 3	5.1 8								
^x 1420.4 3	4.5 7								
1425.0 3	28 4	1956.63	(7/2) ⁻	531.50	(9/2) ⁺	E1		1.26×10^{-3}	$\alpha(\text{K})=0.000956$ 14; $\alpha(\text{L})=0.0001380$ 20; $\alpha(\text{M})=3.14 \times 10^{-5}$ 5 $\alpha(\text{N})=7.73 \times 10^{-6}$ 11; $\alpha(\text{O})=1.389 \times 10^{-6}$ 20; $\alpha(\text{P})=9.46 \times 10^{-8}$ 14; $\alpha(\text{IPF})=0.0001280$ 18 Mult.: $I(\text{ce(K)})=0.04$ so $\alpha(\text{K})\text{exp}=0.0014$ 3.
1438.8 3	8.7 13	1970.71	(7/2) ⁻	531.50	(9/2) ⁺				
^x 1442.1 3	8.0 12								
1466.8 3	9.6 14	1814.4	(3/2,5/2,7/2) ⁻	347.62	(5/2) ⁻	M1(+E2)	<1.6	0.0042 9	$\alpha(\text{K})=0.0034$ 8; $\alpha(\text{L})=0.00054$ 11; $\alpha(\text{M})=0.000124$ 25 $\alpha(\text{N})=3.1 \times 10^{-5}$ 6; $\alpha(\text{O})=5.5 \times 10^{-6}$ 11; $\alpha(\text{P})=3.8 \times 10^{-7}$ 9; $\alpha(\text{IPF})=7.5 \times 10^{-5}$ 11 Mult.: $I(\text{ce(K)})=0.04$ so $\alpha(\text{K})\text{exp}=0.0042$ 9.
1484.9 3	12.0 18	1956.63	(7/2) ⁻	471.56	(7/2) ⁻	E2(+M1)	>1	0.0032 6	$\alpha(\text{K})=0.0026$ 5; $\alpha(\text{L})=0.00041$ 8; $\alpha(\text{M})=9.5 \times 10^{-5}$ 17 $\alpha(\text{N})=2.4 \times 10^{-5}$ 4; $\alpha(\text{O})=4.2 \times 10^{-6}$ 8; $\alpha(\text{P})=2.8 \times 10^{-7}$ 6; $\alpha(\text{IPF})=7.0 \times 10^{-5}$ 9 Mult.: $I(\text{ce(K)})=0.03$ so $\alpha(\text{K})\text{exp}=0.0025$ 5.
1496.7 3	12.5 19	1844.3	-	347.62	(5/2) ⁻	E2(+M1)	>1	0.0032 6	$\alpha(\text{K})=0.0026$ 5; $\alpha(\text{L})=0.00041$ 7; $\alpha(\text{M})=9.4 \times 10^{-5}$ 16 $\alpha(\text{N})=2.3 \times 10^{-5}$ 4; $\alpha(\text{O})=4.1 \times 10^{-6}$ 8; $\alpha(\text{P})=2.7 \times 10^{-7}$ 6; $\alpha(\text{IPF})=7.4 \times 10^{-5}$ 9 Mult.: $I(\text{ce(K)})=0.03$ so $\alpha(\text{K})\text{exp}=0.0024$ 5.
^x 1508.1 3	5.8 9								
1511.9 3	4.4 7	1810.7		298.82	7/2 ⁻				
^x 1527.3 3	9.4 14								
1532.2 3	71 11	1907.5	(5/2,7/2) ⁻	375.30	(7/2) ⁺	E1		1.20×10^{-3}	$\alpha(\text{K})=0.000846$ 12; $\alpha(\text{L})=0.0001218$ 17; $\alpha(\text{M})=2.77 \times 10^{-5}$ 4 $\alpha(\text{N})=6.82 \times 10^{-6}$ 10; $\alpha(\text{O})=1.226 \times 10^{-6}$ 18;

¹⁸³Au ε decay **2000Ro41,1989Ro21,1984Ma41** (continued)

γ(¹⁸³Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{‡a}</u>	<u>E_i(level)</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult.#</u>	<u>α[†]</u>	<u>Comments</u>
1536.6 3	39 6	1884.2	(3/2,5/2,7/2) ⁺	347.62	(5/2) ⁻	E1	1.20×10 ⁻³	α(P)=8.38×10 ⁻⁸ 12; α(IPF)=0.000200 3 Mult.: I(cc(K))(1532.2+1536.6)=0.08 so α(K)exp=0.00113 24; consistent with both transitions being E1.
^x 1560.6 3	6.5 10							α(K)=0.000842 12; α(L)=0.0001212 17; α(M)=2.75×10 ⁻⁵ 4 α(N)=6.79×10 ⁻⁶ 10; α(O)=1.220×10 ⁻⁶ 17; α(P)=8.34×10 ⁻⁸ 12; α(IPF)=0.000203 3 Mult.: see comment on 1532γ.
^x 1563.3 3	4.2 6							
^x 1565.5 3	4.8 7							
1592.9 3	25 4	1940.49	(3/2,5/2) ⁻	347.62	(5/2) ⁻	E2	0.00235	α(K)=0.00187 3; α(L)=0.000298 5; α(M)=6.86×10 ⁻⁵ 10 α(N)=1.694×10 ⁻⁵ 24; α(O)=3.03×10 ⁻⁶ 5; α(P)=1.95×10 ⁻⁷ 3; α(IPF)=9.77×10 ⁻⁵ 14 Mult.: I(cc(K))=0.05 so α(K)exp=0.0020 4.
1595.5 3	3.5 5	1970.71	(7/2) ⁻	375.30	(7/2) ⁺			
^x 1606.2 3	10.0 15							
1608.8 3	7.6 11	1956.63	(7/2) ⁻	347.62	(5/2) ⁻			
1615.8 3	5.6 8	1914.68	(3/2,5/2) ⁻	298.82	7/2 ⁻			
1634.3 3	7.6 11	1948.69	(5/2 ⁻ ,7/2)	314.25	9/2 ⁻			
1639.9 3	4.1 6	1938.56	(7/2) ⁻	298.82	7/2 ⁻			
1642.5 3	14.0 21	1956.63	(7/2) ⁻	314.25	9/2 ⁻			
1656.7 3	12.0 18	1970.71	(7/2) ⁻	314.25	9/2 ⁻	E2	0.00222	α(K)=0.001741 25; α(L)=0.000276 4; α(M)=6.34×10 ⁻⁵ 9 α(N)=1.565×10 ⁻⁵ 22; α(O)=2.80×10 ⁻⁶ 4; α(P)=1.82×10 ⁻⁷ 3; α(IPF)=0.0001218 17 Mult.: I(cc(K))(1656.7+1658.3)=0.04 so α(K)exp=0.0033 7, suggesting E2 multipolarity for both components of doublet.
1658.3 3	11.0 17	1956.63	(7/2) ⁻	298.82	7/2 ⁻	E2	0.00222	α(K)=0.001738 25; α(L)=0.000275 4; α(M)=6.33×10 ⁻⁵ 9 α(N)=1.562×10 ⁻⁵ 22; α(O)=2.79×10 ⁻⁶ 4; α(P)=1.81×10 ⁻⁷ 3; α(IPF)=0.0001224 18 Mult.: see comment on 1656.7γ.
^x 1660.1 3	6.0 9							
1666.7 3	1.8 3	1956.63	(7/2) ⁻	289.60	(11/2) ⁻			
^x 1675.1 3	12.0 18							
1681.2 3	4.5 7	1979.90		298.82	7/2 ⁻			
1697.9 3	8.3 12	1847.53		149.77	(9/2) ⁻			
1742.6 3	15.0 23	1938.56	(7/2) ⁻	195.76	(9/2) ⁺	E1	1.16×10 ⁻³	α(K)=0.000683 10; α(L)=9.78×10 ⁻⁵ 14; α(M)=2.22×10 ⁻⁵ 4 α(N)=5.47×10 ⁻⁶ 8; α(O)=9.85×10 ⁻⁷ 14; α(P)=6.78×10 ⁻⁸ 10; α(IPF)=0.000353 5 Mult.: I(cc(K))=0.01 so α(K)exp=0.00067 14.
1760.9 3	48 7	1956.63	(7/2) ⁻	195.76	(9/2) ⁺	E1	1.16×10 ⁻³	α(K)=0.000671 10; α(L)=9.61×10 ⁻⁵ 14; α(M)=2.18×10 ⁻⁵ 3 α(N)=5.38×10 ⁻⁶ 8; α(O)=9.68×10 ⁻⁷ 14; α(P)=6.66×10 ⁻⁸ 10; α(IPF)=0.000366 6 Mult.: I(cc(K))=0.02 so α(K)exp=0.00042 9.
1763.3 3	4.0 6	1912.81	(5/2 ⁻ ,7/2 ⁻)	149.77	(9/2) ⁻			

¹⁸³Au ε decay [2000Ro41](#),[1989Ro21](#),[1984Ma41](#) (continued)

γ(¹⁸³Pt) (continued)

E_γ ‡	I_γ ‡ ^a	E_i (level)	J_i^π	E_f	J_f^π	Mult.#	δ @	α †	Comments
^x 1774.8 3	5.7 9								
^x 1778.4 3	5.5 8								
1807.7 3	8.9 13	1892.3	(≤7/2)	84.66	3/2 ⁻				
1812.8 ^c 3	3.0 5	1847.53		34.57	7/2 ⁻				
1820.6 3	5.2 8	1970.71	(7/2) ⁻	149.77	(9/2) ⁻				
1828.1 3	5.2 8	1912.81	(5/2 ⁻ ,7/2 ⁻)	84.66	3/2 ⁻				
1830.0 3	25 4	1914.68	(3/2,5/2) ⁻	84.66	3/2 ⁻				
1842.7 3	12.0 18	1938.56	(7/2) ⁻	96.11	5/2 ⁻				
1852.6 3	16.0 24	1948.69	(5/2 ⁻ ,7/2)	96.11	5/2 ⁻				
^x 1855.6 3	5.4 8								
1861.0 3	11.0 17	1956.63	(7/2) ⁻	96.11	5/2 ⁻				
1872.5 3	46 7	1968.60	(3/2,5/2,7/2) ⁻	96.11	5/2 ⁻	E2(+M1)	>1	0.0022 3	$\alpha(K)=0.00161$ 22; $\alpha(L)=0.00025$ 4; $\alpha(M)=5.7\times 10^{-5}$ 8 $\alpha(N)=1.42\times 10^{-5}$ 20; $\alpha(O)=2.5\times 10^{-6}$ 4; $\alpha(P)=1.7\times 10^{-7}$ 3; $\alpha(IPF)=0.00024$ 3 Mult.: I(ce(K))=0.08 so $\alpha(K)_{exp}=0.0017$ 4.
1874.6 3	10.0 15	1970.71	(7/2) ⁻	96.11	5/2 ⁻				
1878.0 ^c 3	11.0 17	1912.81	(5/2 ⁻ ,7/2 ⁻)	34.57	7/2 ⁻				
^x 1883.0 3	6.0 9								
1903.9 ^c 3	5.6 8	1938.56	(7/2) ⁻	34.57	7/2 ⁻				
1914.2 ^c 3	2.7 4	1948.69	(5/2 ⁻ ,7/2)	34.57	7/2 ⁻				
1921.7 ^c 3	6.2 9	1956.63	(7/2) ⁻	34.57	7/2 ⁻				
1934.0 ^c 3	10.5 16	1968.60	(3/2,5/2,7/2) ⁻	34.57	7/2 ⁻				
1940.1 ^c 3	3.1 5	1940.49	(3/2,5/2) ⁻	0.0	1/2 ⁻				
1945.2 ^c 3	1.7 3	1979.90		34.57	7/2 ⁻				

† Additional information 2.

‡ From [1989Ro21](#), relative to I(214γ)=100. Authors indicate uncertainties in E_γ that range from 0.1 to 0.3 keV; however, several E_γ values are quoted only to the nearest keV and, in those cases, the evaluator has assigned 1 keV uncertainty.

For $E_\gamma < 220$: from [1984Ma41](#); otherwise from [1989Ro21](#). Normalized to 160γ in ¹⁸³Au. For transitions with $E > 300$ keV the electron and γ intensities are on the same scale and I(ce) data have ≈15% uncertainty.

@ From ce data, except As noted.

& From coincidence data.

^a For absolute intensity per 100 decays, multiply by 0.069 6.

^b Multiply placed with intensity suitably divided.

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

^x γ ray not placed in level scheme.

^{183}Au ϵ decay 2000Ro41,1989Ro21,1984Ma41

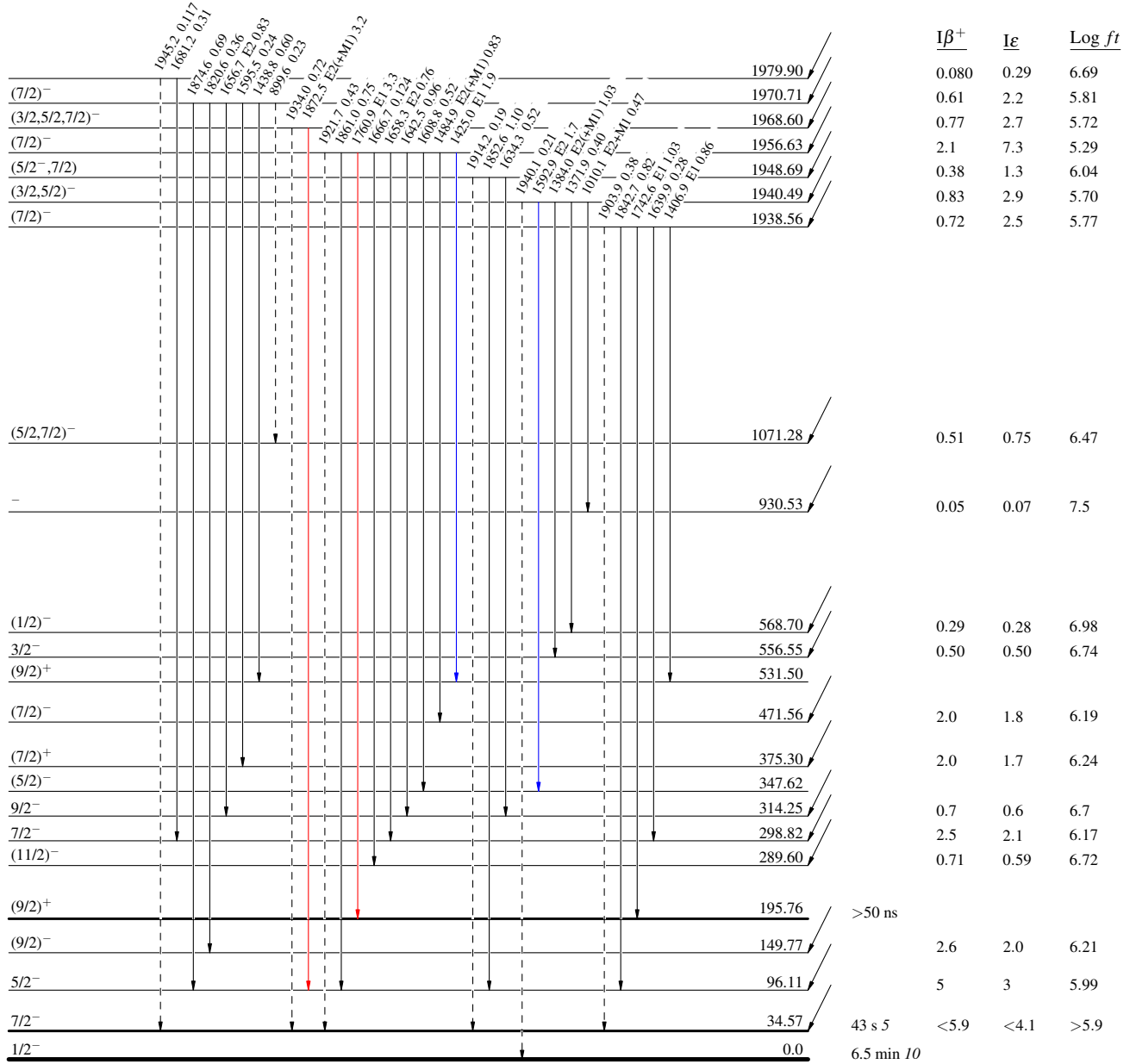
Decay Scheme

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)

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays

$^{183}_{79}\text{Au}_{104}$ (5/2)⁻ 0.0 42.8 s 10
 $Q_\epsilon = 5583.18$
 $\% \epsilon + \% \beta^+ = 99.45$



$^{183}_{78}\text{Pt}_{105}$

¹⁸³Au ε decay 2000Ro41,1989Ro21,1984Ma41

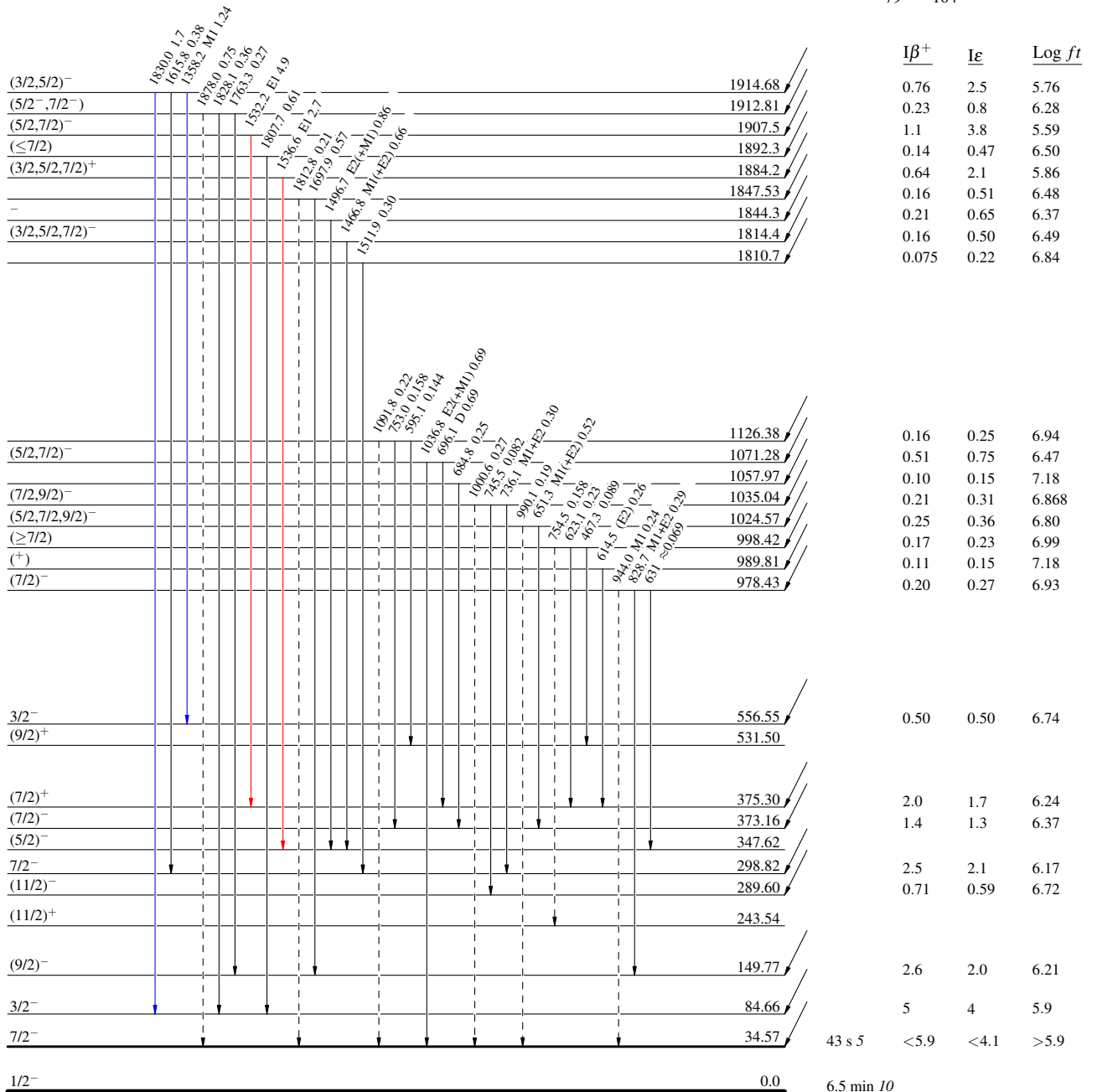
Decay Scheme (continued)

Legend

- I_γ < 2% × I_γ^{max}
- I_γ < 10% × I_γ^{max}
- I_γ > 10% × I_γ^{max}
- - - - - γ Decay (Uncertain)

Intensities: I_(γ+ce) per 100 parent decays

(5/2)⁻ 0.0 42.8 s 10
 Q_ε=5583 18
¹⁸³Au₁₀₄



¹⁸³Au ε decay 2000Ro41,1989Ro21,1984Ma41

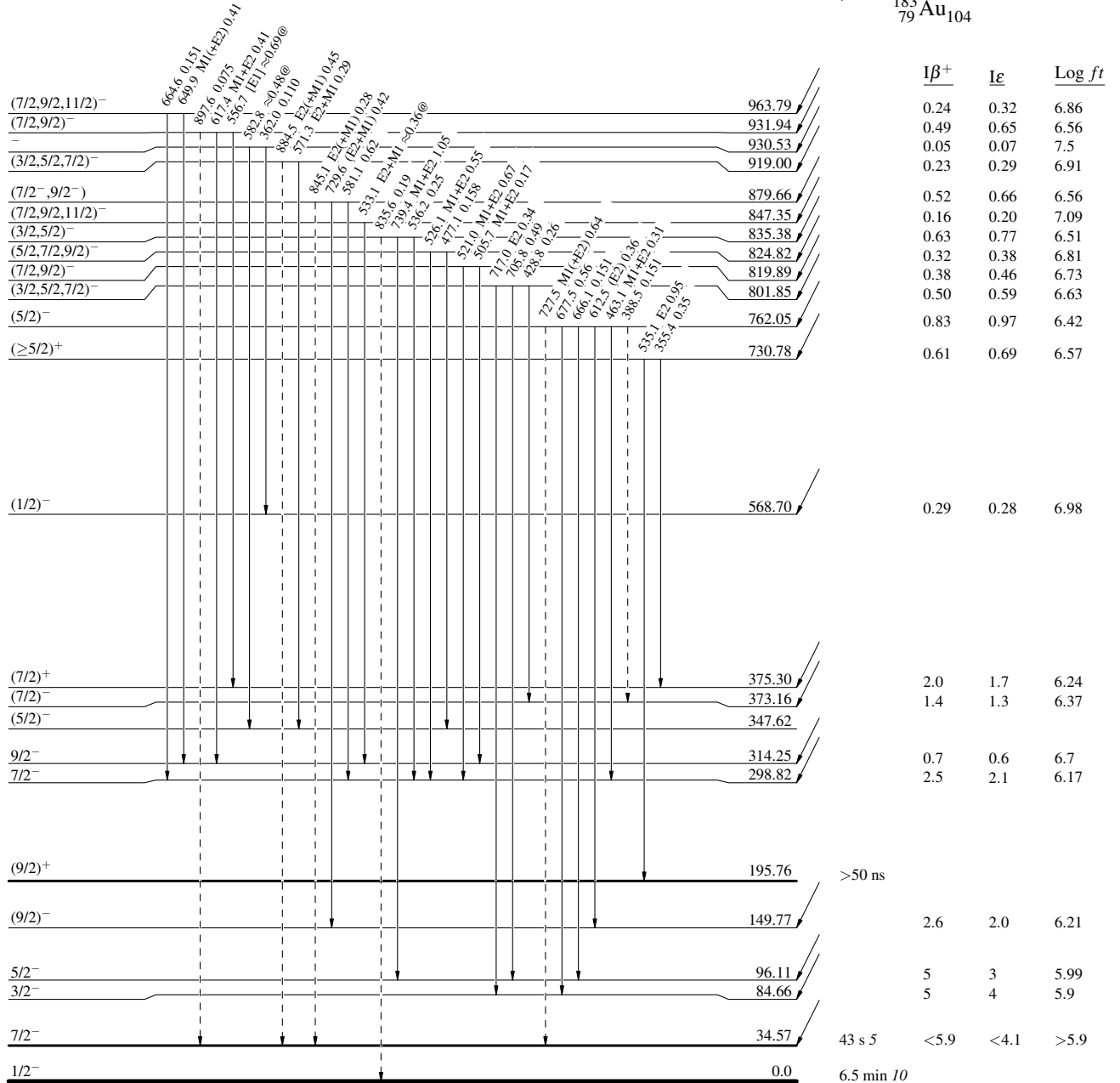
Decay Scheme (continued)

Legend

- ▶ I_γ < 2% × I_γ^{max}
- ▶ I_γ < 10% × I_γ^{max}
- ▶ I_γ > 10% × I_γ^{max}
- - -▶ γ Decay (Uncertain)

Intensities: I(γ+ε) per 100 parent decays
@ Multiply placed: intensity suitably divided

¹⁸³Au₁₀₄ (5/2)⁻ 0.0 42.8 s 10
 Q_ε=5583 18
 %ε + %β⁺ = 99.45



¹⁸³Pt₁₀₅

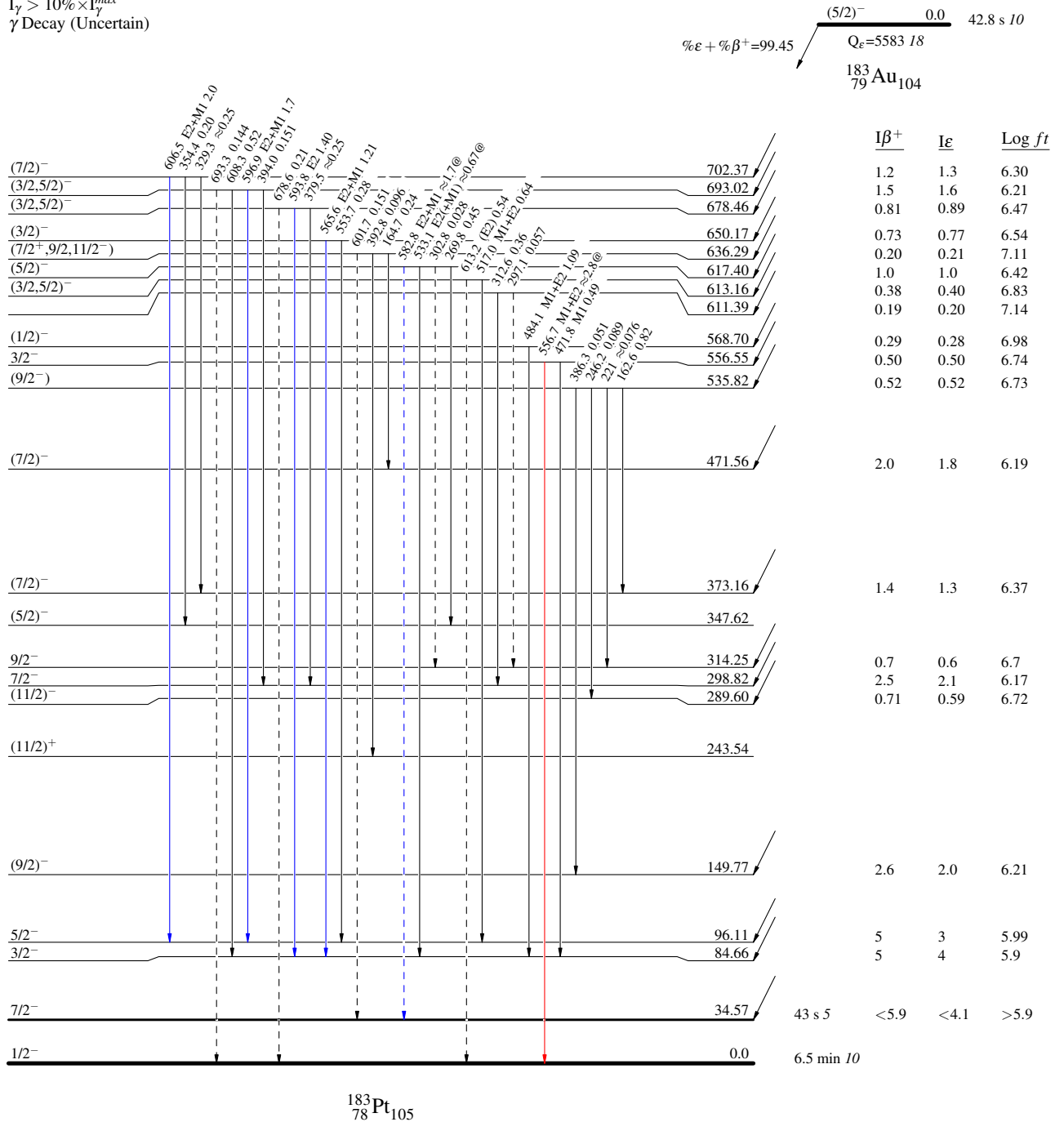
^{183}Au ϵ decay 2000Ro41,1989Ro21,1984Ma41

Decay Scheme (continued)

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays
 @ Multiply placed: intensity suitably divided

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)



^{183}Au ϵ decay 2000Ro41,1989Ro21,1984Ma41

Decay Scheme (continued)

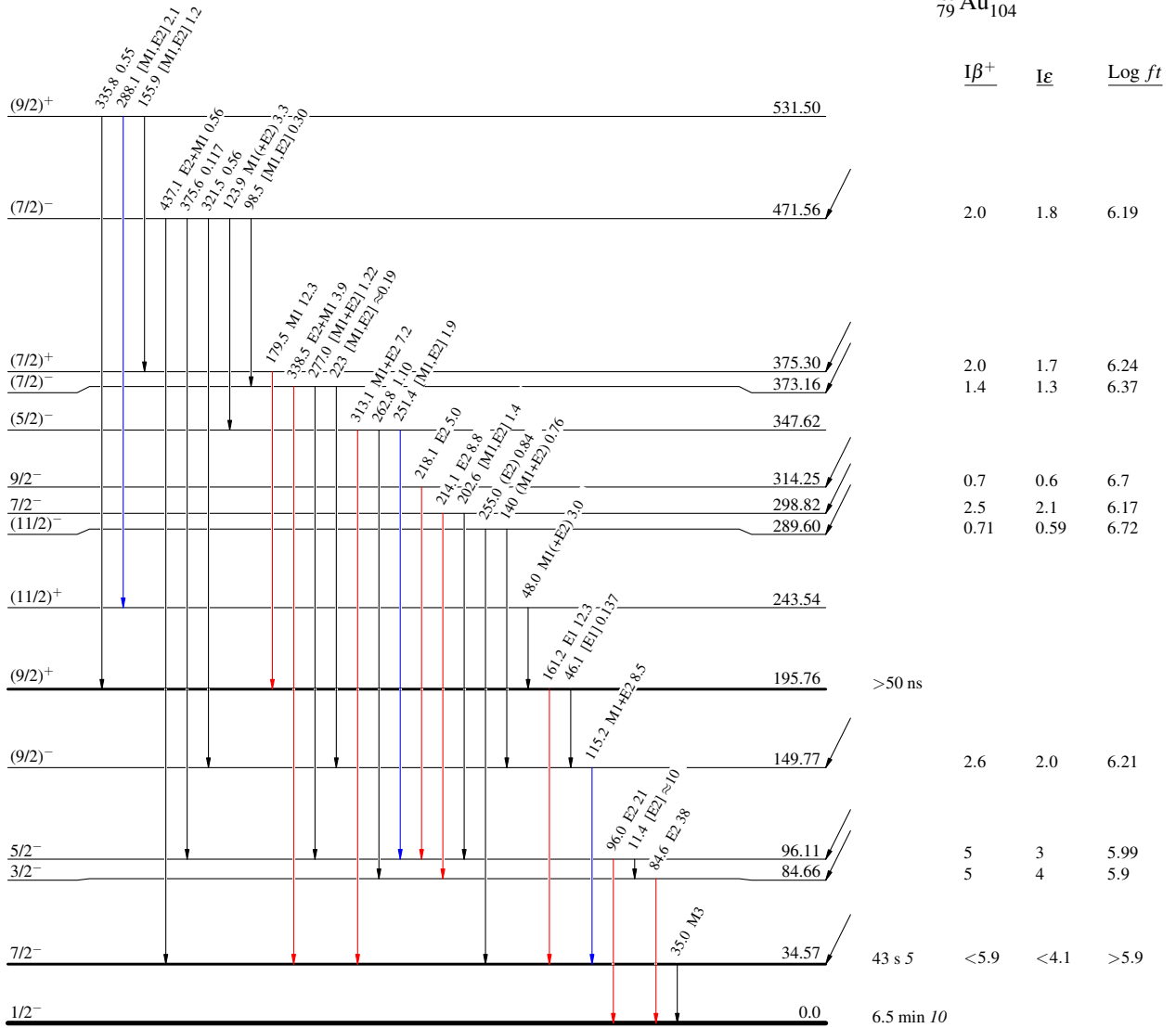
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays

@ Multiply placed: intensity suitably divided

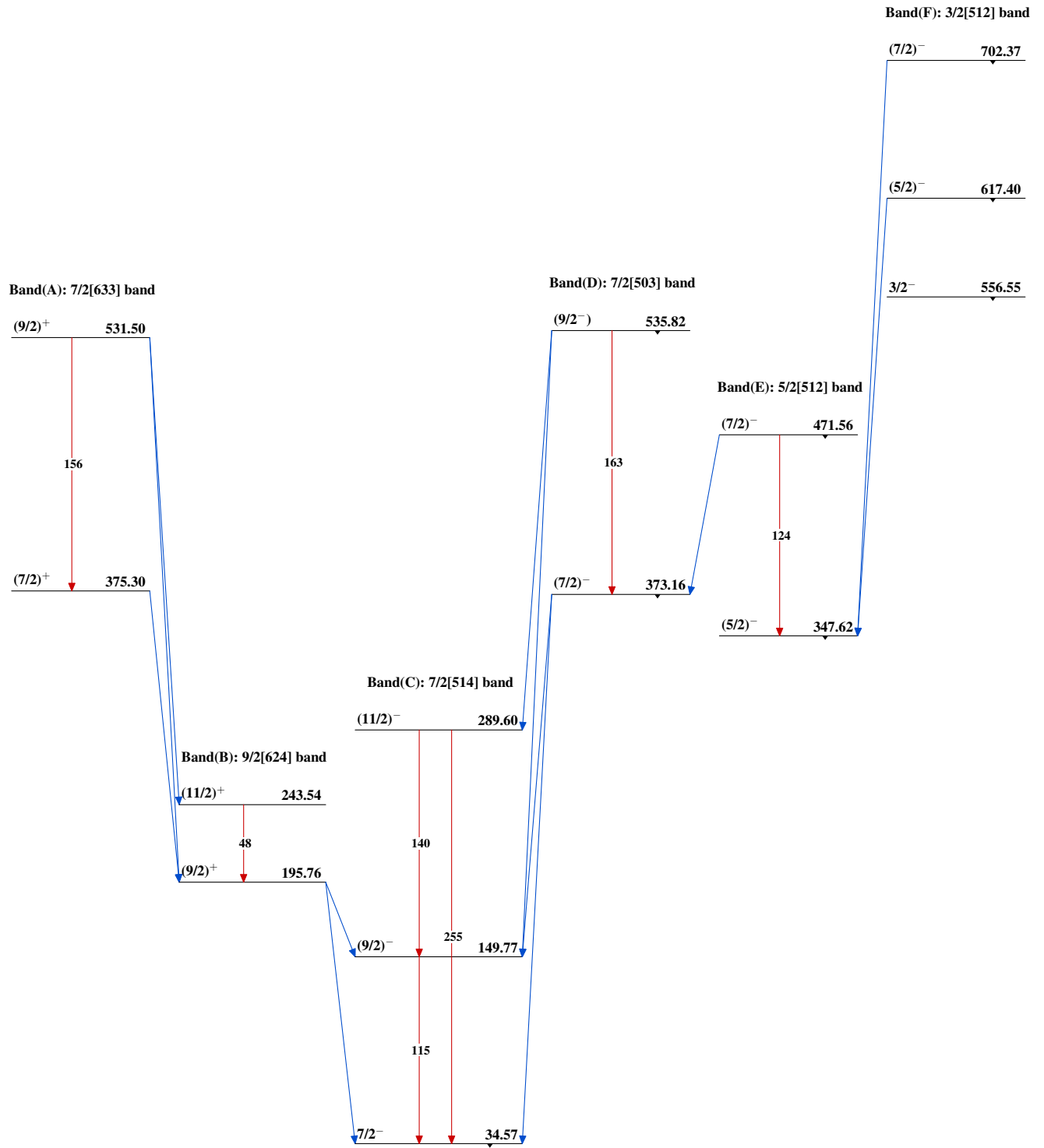
Legend

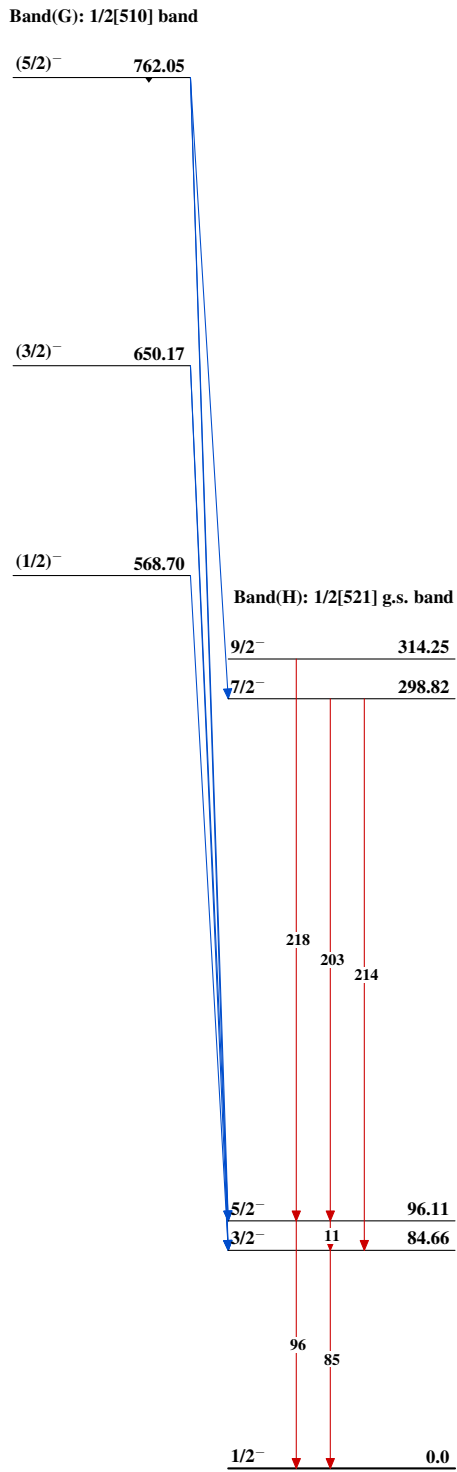
- $I_{\gamma} < 2\% \times I_{\gamma}^{max}$
- $I_{\gamma} < 10\% \times I_{\gamma}^{max}$
- $I_{\gamma} > 10\% \times I_{\gamma}^{max}$

$^{183}_{79}\text{Au}_{104}$ $(5/2)^{-}$ 0.0 42.8 s 10
 $Q_{\epsilon}=5583$ 18
 $\% \epsilon + \% \beta^{+} = 99.45$



$^{183}_{78}\text{Pt}_{105}$

^{183}Au ϵ decay 2000Ro41,1989Ro21,1984Ma41 $^{183}_{78}\text{Pt}_{105}$

^{183}Au ϵ decay 2000Ro41,1989Ro21,1984Ma41 (continued) $^{183}_{78}\text{Pt}_{105}$