

^{192}Au ε decay [2008Mc04](#),[1972Fi12](#),[1966Ny01](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 113, 1871 (2012)	15-Jun-2012

Parent: ^{192}Au : E=0.0; $J^\pi=1^-$; $T_{1/2}=4.94$ h 9; $Q(\varepsilon)=3516$ 16; $\% \varepsilon + \% \beta^+$ decay=100.0

Others: [1949Wi08](#), [1953Ew01](#), [1954Gi04](#), [1957Br53](#), [1957Hu89](#), [1962Ma18](#), [1970Er09](#), [1970Pi09](#), [1975ViZK](#), [1979Ka28](#).

[2008Mc04](#): ^{192}Au from the reaction $^{186}\text{W}(^{11}\text{B},5n)$ at E=60 MeV; YRAST ball array (9 Compton-suppressed segmented HPGe detectors); recorded γ spectra using (beam on)-(beam off) cycles of 4 h; measured E_γ (40-2800 keV), I_γ , $\gamma\gamma$ -coin; IBA-1 calculations including configuration mixing.

[1972Fi12](#): sources from ^{192}Hg decay, chemistry; measured E_γ , I_γ (Ge(Li)), E(ce), Ice (Si(Li), unenumerated), cey coin, $\gamma\gamma$ coin.

[1970Pi09](#): sources from ^{192}Hg decay, chemistry; measured E_γ , I_γ (Ge(Li), FWHM=2.3 keV at 661 keV).

[1966Ny01](#): sources from Pt(p,xn), E(p)=60 MeV; measured E(ce), Ice (mag spect, resolution=0.10-0.15%), $E\beta^+$, $I\beta^+$

(double-focusing mag spect); supersedes [1965Ny01](#). See [1966Ny01](#) for additional ce peaks which probably belong to ^{192}Pt , but for which a definite nuclidic assignment was not possible.

The decay scheme is based on that proposed by [2008Mc04](#); additional data from [1966Ny01](#), [1970Pi09](#) and [1972Fi12](#) are included.

More than 95% of the γ -ray intensity has been placed.

 ^{192}Pt Levels

The following levels for ^{192}Pt proposed earlier were not confirmed by [2008Mc04](#): 1133, 1182, 1189, 1278, 1308, 1353, 1514, 1823, 1883, 2200, 2464, 2757, 2909, 3146, 3360.

E(Q),J(Q) Data from ^{192}Au and ^{192}Ir decays uniquely determine J^π to be 3^- . However, the following suggest a 2^+ level also at about the same energy: $\alpha(K)\text{exp}=0.0031$ 8 for 1378γ is more consistent with E2 than E3, and $\log ft=8.2$ for the ε branch to 1378 level is far too low for a second-forbidden transition ($\log ft>11$ expected); in addition, systematics, which show energies for third 2^+ levels smoothly increasing in ^{190}Pt , ^{194}Pt , and ^{196}Pt , predict a third 2^+ level in ^{192}Pt at 1360 40 keV.

E(level) [†]	J^π [‡]	$T_{1/2}$ [‡]	E(level) [†]	J^π [‡]
0.0	0 ⁺	stable	2149.385 23	1 ⁺
316.50645 15	2 ⁺	43.7 ps 9	2161.64 4	
612.46318 18	2 ⁺	26.5 ps 15	2171.37 4	2 ⁺
784.5759 4	4 ⁺	4.2 ps 2	2191.30 4	(2 ⁺ ,3 ⁻)
920.91852 22	3 ⁺	21.3 ps 21	2217.12 6	(2) ⁺
1195.170 18	0 ⁺		2236.82 3	(1,2) ⁺
1201.0452 5	4 ⁺		2237.52 4	(2) ⁺
1378.054 17	3 ⁻	41 ps 9	2257.26 3	(2) ⁻
1383.88 10	(5) ⁻		2296.06 4	(1,2) ⁺
1406.35 4	3 ⁺		2319.11 3	1 ⁺
1439.263 20	2 ⁺		2335.465 19	1 ⁺
1546.93 4	(0 ⁺)		2375.392 25	(1,2) ⁺
1576.368 17	2 ⁺		2399.270 24	(1,2) ⁺
1629.30 6	0 ⁺		2408.34 3	(2) ⁺
1666.63 5	(2,3,4)		2422.78 4	(1,2) ⁺
1739.432 15	(1) ⁻		2435.37 6	3 ⁺
1766.09 4	(2,3) ⁺		2453.43 8	2 ⁺
1793.503 24	(2) ⁺		2472.27 5	2 ⁺
1880.02 4	3 ⁺		2483.64 5	≤ 3
1894.479 20	(2,3) ⁻		2486.29 4	(2) ⁻
1976.25 4	(2) ⁺		2508.84 6	(2,3) ⁺
2041.81 3	(2 ⁻ ,3 ⁻)		2532.46 5	1 ⁺
2047.89 4	(2) ⁺		2549.42 7	(2) ⁺
2073.95 4	2 ⁺		2560.15 5	(1 ⁺ ,2)
2120.21 5	(2 ⁺)		2562.96 5	(2) ⁺
2129.52 3	(1) ⁻		2585.23 5	(2) ⁺
2142.96 4	(3) ⁻		2602.97 4	(2) ⁺

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¹⁹²Au ε decay **2008Mc04,1972Fi12,1966Ny01 (continued)**

¹⁹²Pt Levels (continued)

E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]
2604.76 4	(1,2) ⁻	2730.73 5	(2) ⁻	2857.07 5	(2) ⁻	3031.00 7	(≤3)
2614.29 9	(2 ⁺)	2775.21 6		2890.93 4	(2) ⁻	3127.19 4	(1 ⁻ ,2 ⁻)
2629.24 4	2 ⁺	2794.26 7	(≤2)	2947.001 5	(2) ⁻	3155.74 4	(2,3) ⁻
2635.23 6	1 ⁺	2832.89 7	(1,2) ⁺	2950.43 9	(1,2 ⁺)	3189.52 7	(2,3 ⁻)
2647.32 6	(2) ⁻	2834.60 6	(2 ⁺)	2958.75 4	(2,3) ⁻		
2658.46 9	(1,2) ⁺	2856.13 5	(2) ⁻	3027.39 5	(2,3) ⁻		

[†] From least-squares fit to E_γ.

[‡] Adopted values.

ε,β⁺ radiations

ε+β⁺ feedings to excited states are from intensity imbalance at each level; g.s. feeding was determined from absolute intensity of 316.5γ (see comment with I_γ normalization).

E(decay)	E(level)	I _ε [†]	Log ft	I(ε+β ⁺) [†]	Comments
(326 16)	3189.52	0.116 16	7.44 9	0.116 16	εK=0.740 6; εL=0.195 4; εM+=0.0657 16
(360 16)	3155.74	0.89 12	6.66 8	0.89 12	εK=0.750 5; εL=0.188 4; εM+=0.0629 13
(389 16)	3127.19	0.24 4	7.31 9	0.24 4	εK=0.756 4; εL=0.183 3; εM+=0.0610 10
(485 16)	3031.00	0.129 17	7.81 7	0.129 17	εK=0.7717 21; εL=0.1716 15; εM+=0.0567 6
(489 16)	3027.39	0.47 6	7.25 7	0.47 6	εK=0.7722 20; εL=0.1713 15; εM+=0.0565 6
(557 16)	2958.75	0.72 9	7.20 7	0.72 9	εK=0.7793 15; εL=0.1662 11; εM+=0.0545 4
(566 16)	2950.43	0.099 22	8.07 10	0.099 22	εK=0.7800 15; εL=0.1657 11; εM+=0.0543 4
(569 16)	2947.001	0.35 5	7.53 7	0.35 5	εK=0.7803 14; εL=0.1655 10; εM+=0.0543 4
(625 16)	2890.93	0.55 8	7.43 7	0.55 8	εK=0.7845 12; εL=0.1624 8; εM+=0.0531 4
(659 16)	2857.07	0.40 5	7.61 6	0.40 5	εK=0.7867 10; εL=0.1609 8; εM+=0.0525 3
(660 16)	2856.13	0.35 5	7.67 7	0.35 5	εK=0.7867 10; εL=0.1608 7; εM+=0.0525 3
(681 16)	2834.60	0.25 5	7.85 9	0.25 5	εK=0.7880 10; εL=0.1599 7; εM+=0.0521 3
(683 16)	2832.89	0.35 5	7.71 7	0.35 5	εK=0.7880 9; εL=0.1599 7; εM+=0.0521 3
(722 16)	2794.26	0.071 11	8.45 8	0.071 11	εK=0.7900 8; εL=0.1584 6; εM+=0.05154 23
(741 16)	2775.21	0.108 15	8.30 7	0.108 15	εK=0.7909 8; εL=0.1578 6; εM+=0.05129 21
(785 16)	2730.73	0.23 3	8.02 6	0.23 3	εK=0.7929 7; εL=0.1564 5; εM+=0.05075 19
(858 16)	2658.46	0.128 18	8.36 7	0.128 18	εK=0.7955 6; εL=0.1545 4; εM+=0.05002 15
(869 16)	2647.32	0.86 16	7.55 9	0.86 16	εK=0.7959 6; εL=0.1542 4; εM+=0.04992 15
(881 16)	2635.23	0.58 10	7.73 8	0.58 10	εK=0.7962 5; εL=0.1539 4; εM+=0.04981 15
(887 16)	2629.24	0.83 12	7.58 7	0.83 12	εK=0.7964 5; εL=0.1538 4; εM+=0.04976 14
(902 16)	2614.29	0.90 13	7.56 7	0.90 13	εK=0.7969 5; εL=0.1535 4; εM+=0.04963 14
(911 16)	2604.76	0.36 5	7.97 7	0.36 5	εK=0.7972 5; εL=0.1533 4; εM+=0.04956 14
(913 16)	2602.97	0.24 4	8.15 8	0.24 4	εK=0.7972 5; εL=0.1532 4; εM+=0.04954 13
(931 16)	2585.23	0.54 8	7.81 7	0.54 8	εK=0.7977 5; εL=0.1529 4; εM+=0.04940 13
(953 16)	2562.96	0.87 11	7.63 6	0.87 11	εK=0.7983 5; εL=0.1524 3; εM+=0.04924 12
(956 16)	2560.15	0.23 4	8.21 8	0.23 4	εK=0.7984 5; εL=0.1524 3; εM+=0.04922 12
(967 16)	2549.42	0.144 19	8.42 6	0.144 19	εK=0.7987 5; εL=0.1522 3; εM+=0.04914 12
(984 16)	2532.46	0.70 9	7.75 6	0.70 9	εK=0.7991 4; εL=0.1519 3; εM+=0.04902 11
(1007 16)	2508.84	0.29 4	8.16 7	0.29 4	εK=0.7997 4; εL=0.1515 3; εM+=0.04887 11
(1030 16)	2486.29	0.93 12	7.67 6	0.93 12	εK=0.8002 4; εL=0.1511 3; εM+=0.04872 10
(1032 16)	2483.64	0.18 3	8.39 8	0.18 3	εK=0.8002 4; εL=0.1511 3; εM+=0.04871 10
(1044 16)	2472.27	0.21 4	8.33 9	0.21 4	εK=0.8005 4; εL=0.1509 3; εM+=0.04864 10
(1063 16)	2453.43	0.23 4	8.31 8	0.23 4	εK=0.8009 4; εL=0.15060 25; εM+=0.04853 10
(1081 16)	2435.37	0.26 4	8.87 ^{1u} 8	0.26 4	εK=0.7763 9; εL=0.1682 6; εM+=0.05550 24
(1093 16)	2422.78	1.9 3	7.42 7	1.9 3	εK=0.8015 4; εL=0.15016 23; εM+=0.04836 9

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¹⁹²Au ϵ decay **2008Mc04,1972Fi12,1966Ny01 (continued)**

ϵ, β^+ radiations (continued)

E(decay)	E(level)	$I\beta^+$ †	$I\epsilon$ †	Log <i>ft</i>	$I(\epsilon + \beta^+)$ †	Comments
(1108 16)	2408.34		0.59 8	7.94 6	0.59 8	$\epsilon K=0.8018$ 3; $\epsilon L=0.14996$ 23; $\epsilon M+=0.04828$ 9
(1117 16)	2399.270		2.7 4	7.28 7	2.7 4	$\epsilon K=0.8019$ 3; $\epsilon L=0.14983$ 22; $\epsilon M+=0.04823$ 9
(1141 16)	2375.392		1.8 3	7.48 8	1.8 3	$\epsilon K=0.8024$ 3; $\epsilon L=0.14952$ 21; $\epsilon M+=0.04811$ 8
(1181 16)	2335.465		11.4 14	6.71 6	11.4 14	$\epsilon K=0.8030$ 3; $\epsilon L=0.14903$ 20; $\epsilon M+=0.04793$ 8
(1197 16)	2319.11		4.0 5	7.18 6	4.0 5	$\epsilon K=0.8033$ 3; $\epsilon L=0.14883$ 19; $\epsilon M+=0.04785$ 8
(1220 16)	2296.06		0.96 17	7.81 8	0.96 17	$\epsilon K=0.8037$ 3; $\epsilon L=0.14857$ 18; $\epsilon M+=0.04775$ 7
(1259 16)	2257.26		2.6 4	7.41 7	2.6 4	$\epsilon K=0.8042$ 3; $\epsilon L=0.14815$ 17; $\epsilon M+=0.04759$ 7
(1278 16)	2237.52		8.0 10	6.93 6	8.0 10	$\epsilon K=0.8045$ 3; $\epsilon L=0.14795$ 17; $\epsilon M+=0.04751$ 7
(1279 16)	2236.82		2.2 3	7.50 6	2.2 3	$\epsilon K=0.8045$ 3; $\epsilon L=0.14794$ 17; $\epsilon M+=0.04751$ 7
(1299 16)	2217.12		0.138 19	8.71 7	0.138 19	$\epsilon K=0.8048$ 2; $\epsilon L=0.14775$ 16; $\epsilon M+=0.04743$ 7
(1325 16)	2191.30		0.20 3	8.57 7	0.20 3	$\epsilon K=0.8051$ 2; $\epsilon L=0.14750$ 16; $\epsilon M+=0.04734$ 6
(1345 16)	2171.37		2.4 4	7.50 8	2.4 4	$\epsilon K=0.8053$ 2; $\epsilon L=0.14731$ 15; $\epsilon M+=0.04727$ 6
(1354 16)	2161.64		0.17 3	8.66 8	0.17 3	$\epsilon K=0.8054$ 2; $\epsilon L=0.14722$ 15; $\epsilon M+=0.04723$ 6
(1367 16)	2149.385		2.7 4	7.47 7	2.7 4	$\epsilon K=0.8055$ 2; $\epsilon L=0.14711$ 2; $\epsilon M+=0.04719$ 6
(1373 16)	2142.96		0.069 17	9.06 11	0.069 17	$\epsilon K=0.8056$ 2; $\epsilon L=0.1470$ 2; $\epsilon M+=0.04717$ 6
(1386 16)	2129.52		1.09 14	7.87 6	1.09 14	$\epsilon K=0.8057$ 2; $\epsilon L=0.1469$ 2; $\epsilon M+=0.04712$ 6
(1396 16)	2120.21		0.110 18	8.88 8	0.110 18	$\epsilon K=0.8058$ 2; $\epsilon L=0.1468$ 2; $\epsilon M+=0.04709$ 6
(1442 16)	2073.95		0.19 3	8.67 7	0.19 3	$\epsilon K=0.8062$ 2; $\epsilon L=0.1464$ 2; $\epsilon M+=0.04694$ 6
(1468 16)	2047.89		1.11 14	7.92 6	1.11 14	$\epsilon K=0.8063$ 1; $\epsilon L=0.1462$ 2; $\epsilon M+=0.04686$ 5
(1474 16)	2041.81		0.075 18	9.09 11	0.075 18	$\epsilon K=0.8064$ 1; $\epsilon L=0.1462$ 2; $\epsilon M+=0.04684$ 5
(1540 16)	1976.25	0.00031 6	0.30 4	8.53 6	0.30 4	av $E\beta=253.2$ 72; $\epsilon K=0.8067$; $\epsilon L=0.1457$ 2; $\epsilon M+=0.04664$ 5
(1622 16)	1894.479	0.00090 16	0.48 7	8.37 7	0.48 7	av $E\beta=289.6$ 71; $\epsilon K=0.8067$; $\epsilon L=0.1450$ 2; $\epsilon M+=0.04640$ 5
(1636 16)	1880.02	0.00062 18	0.30 8	8.59 12	0.30 8	av $E\beta=296.0$ 71; $\epsilon K=0.8067$; $\epsilon L=0.1449$ 2; $\epsilon M+=0.04636$ 5
(1722 16)	1793.503	0.00082 16	0.24 4	8.73 8	0.24 4	av $E\beta=334.3$ 74; $\epsilon K=0.8063$ 2; $\epsilon L=0.1442$ 2; $\epsilon M+=0.04611$ 5
(1750 16)	1766.09	0.00049 11	0.124 25	9.03 9	0.124 25	av $E\beta=346.4$ 69; $\epsilon K=0.8060$ 2; $\epsilon L=0.1440$ 2; $\epsilon M+=0.04603$ 5
(1777 16)	1739.432	0.018 3	4.0 5	7.54 6	4.0 5	av $E\beta=358.0$ 71; $\epsilon K=0.8057$ 2; $\epsilon L=0.1438$ 2; $\epsilon M+=0.04596$ 5
(1849 16)	1666.63	0.00038 6	0.060 9	9.40 7	0.060 9	av $E\beta=390.1$ 71; $\epsilon K=0.8047$ 3; $\epsilon L=0.1432$ 2; $\epsilon M+=0.04574$ 5
(1887 16)	1629.30	0.0025 5	0.34 6	8.66 8	0.34 6	av $E\beta=406.5$ 71; $\epsilon K=0.8041$ 4; $\epsilon L=0.14284$ 15; $\epsilon M+=0.04562$ 5
(1940 16)	1576.368	0.0052 11	0.55 11	8.47 9	0.56 11	av $E\beta=429.7$ 71; $\epsilon K=0.8029$ 4; $\epsilon L=0.14236$ 15; $\epsilon M+=0.04546$ 6
(1969 16)	1546.93	0.0033 6	0.32 5	8.73 7	0.32 5	av $E\beta=442.6$ 71; $\epsilon K=0.8022$ 5; $\epsilon L=0.14208$ 16; $\epsilon M+=0.04536$ 6
(2077 [‡] 16)	1439.263	0.0057 12	0.37 8	8.70 10	0.38 8	av $E\beta=489.8$ 70; $\epsilon K=0.7989$ 6; $\epsilon L=0.14099$ 18; $\epsilon M+=0.04499$ 6
(2110 16)	1406.35	0.00086 19	0.050 11	9.59 10	0.051 11	av $E\beta=504.2$ 70; $\epsilon K=0.7977$ 7; $\epsilon L=0.14064$ 18; $\epsilon M+=0.04487$ 6
(2132 16)	1383.88	0.0010 2	0.057 10	9.55 8	0.058 10	av $E\beta=514.1$ 70; $\epsilon K=0.7968$ 7; $\epsilon L=0.14039$ 19; $\epsilon M+=0.04478$ 7
(2138 [‡] 16)	1378.054	0.0081 15	0.43 8	8.67 8	0.44 8	av $E\beta=516.6$ 70; $\epsilon K=0.7966$ 7; $\epsilon L=0.14032$ 19; $\epsilon M+=0.04476$ 7 Log <i>ft</i> : value is unreasonably small for a second-forbidden transition.
(2315 16)	1201.0452	0.0042 9	0.14 3	9.24 10	0.14 3	av $E\beta=594.2$ 71; $\epsilon K=0.7879$ 10; $\epsilon L=0.13813$ 22; $\epsilon M+=0.04403$ 8
(2321 [‡] 16)	1195.170	0.014 3	0.45 10	8.73 10	0.46 10	av $E\beta=596.8$ 71; $\epsilon K=0.7876$ 10; $\epsilon L=0.13805$ 22; $\epsilon M+=0.04400$ 8
(2595 16)	920.91852	0.0093 19	0.58 12	10.10 ^{1u} 9	0.59 12	av $E\beta=720.3$ 68; $\epsilon K=0.7919$ 4; $\epsilon L=0.14561$ 17; $\epsilon M+=0.04678$ 6

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^{192}Au ε decay [2008Mc04](#),[1972Fi12](#),[1966Ny01](#) (continued) ε, β^+ radiations (continued)

<u>E(decay)</u>	<u>E(level)</u>	<u>$I\beta^+$</u> †	<u>$I\varepsilon$</u> †	<u>Log ft</u>	<u>$I(\varepsilon + \beta^+)$</u> †	<u>Comments</u>
(2731 16)	784.5759	0.011 6	0.15 7	9.35 22	0.16 8	av $E\beta=777.4$ 71; $\varepsilon K=0.7555$ 16; $\varepsilon L=0.1313$ 4; $\varepsilon M+=0.04179$ 11
(2904 16)	612.46318	0.37 7	3.5 6	8.03 8	3.9 7	av $E\beta=853.3$ 71; $\varepsilon K=0.7372$ 19; $\varepsilon L=0.1277$ 4; $\varepsilon M+=0.04064$ 12
3214 10	316.50645	1.59 23	9.7 14	7.68 7	11.3 16	av $E\beta=984.7$ 72; $\varepsilon K=0.6998$ 23; $\varepsilon L=0.1207$ 4; $\varepsilon M+=0.03839$ 13 E(decay): deduced from $E\beta+=2192$ keV 10 (1966Ny01). $I\beta^+$: smaller value (0.53) can be deduced from $I\beta/I\varepsilon(K$ peak for 316.5 γ)=0.17 3 (1966Ny01 , allowed shape assumed), $I\gamma(316.5\gamma)$ (1979Ka28), and $\alpha(K)(316.5\gamma)$ (E2 theory).
3514 20	0.0	3.6 20	14 8	7.59 25	18 10	av $E\beta=1125.9$ 72; $\varepsilon K=0.6531$ 25; $\varepsilon L=0.1123$ 5; $\varepsilon M+=0.03567$ 15 E(decay): deduced from $E\beta+=2492$ keV 20 (1966Ny01). Other value: 2498 keV 25 (1975ViZK). $I\beta^+$: smaller value (0.63) can be deduced from $I\beta/I\varepsilon(K$ peak for 316.5 γ)=0.20 2 (1966Ny01 , allowed shape assumed), $\%I\gamma(316.5\gamma)$ (1979Ka28), and $\alpha(K)(316.5\gamma)$ (E2 theory).

† Absolute intensity per 100 decays.

‡ Existence of this branch is questionable.

γ(¹⁹²Pt)

I_γ normalization: From %I(316.5γ)=0.48 6 if I(274.8γ, ¹⁹²Au)=0.42% ([1979Ka28](#)), adjusted by evaluator for adopted %I(274.8γ, ¹⁹²Hg ε decay)=0.518 (this evaluation). [1979Ka28](#) measured cross sections in pion spallation of gold, and determined the growth and decay of 316.5γ relative to 274.8γ.
 α(K)exp: from I_γ listed here and Ice in [1966Ny01](#). The I_γ and Ice scales were normalized assuming α(K)(316.5γ)=0.0535 8 (E2 theory), α(K)(468.1γ)=0.0212 3 (E2 theory) and α(K)(612.5γ)=0.01179 17 (E2 theory). This leads to normalization factors of 0.0482 22, 0.044 4 and 0.040 3, respectively; the value used was 0.042 6, the weighted average with its uncertainty expanded to include the highest precision datum.
 I_γ(ghik) From [1970Pi09](#).

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
108 ^{fh}	<0.003	1546.93	(0 ⁺)	1439.263	2 ⁺				
136.3 1	0.031 8	920.91852	3 ⁺	784.5759	4 ⁺	M1+E2 ^b	+3.5 ^b +39-16	1.53 19	α(K)=0.6 3; α(L)=0.73 6; α(M)=0.187 16; α(N+..)=0.053 5 α(N)=0.046 4; α(O)=0.0072 6; α(P)=6.E-5 3
137 ^{fh}	<0.002	1576.368	2 ⁺	1439.263	2 ⁺				
163 ^{fh}	<0.005	1739.432	(1) ⁻	1576.368	2 ⁺				
170 ^{fh}	<0.004	1576.368	2 ⁺	1406.35	3 ⁺				
176.84 8	0.21 2	1378.054	3 ⁻	1201.0452	4 ⁺	[E1]		0.0956	α(K)=0.0783 11; α(L)=0.01332 19; α(M)=0.00308 5; α(N+..)=0.000888 13 α(N)=0.000752 11; α(O)=0.0001294 19; α(P)=6.71×10 ⁻⁶ 10
^x 185.70 20	0.10 1								
186.1 1	0.026 5	2335.465	1 ⁺	2149.385	1 ⁺				
190 ^{fh}	<0.005	1629.30	0 ⁺	1439.263	2 ⁺				
192.50 9	0.03 1	1739.432	(1) ⁻	1546.93	(0 ⁺)				
198 ^{fh}	<0.002	1576.368	2 ⁺	1378.054	3 ⁻				
205 ^{fh}	<0.002	1406.35	3 ⁺	1201.0452	4 ⁺				
225.97 8	0.29 1	2375.392	(1,2) ⁺	2149.385	1 ⁺	M1		0.665	α(K)=0.548 8; α(L)=0.0900 13; α(M)=0.0208 3; α(N+..)=0.00613 9 α(N)=0.00514 8; α(O)=0.000925 13; α(P)=6.25×10 ⁻⁵ 9 Mult.: α(K)exp=1.44 24; K/L1=10 2, L1/L2>5 (1966Ny01).
235.09 10	0.033 8	2129.52	(1) ⁻	1894.479	(2,3) ⁻				
238 ^{fh}	<0.005	1439.263	2 ⁺	1201.0452	4 ⁺				
244.05 8	0.055 6	1439.263	2 ⁺	1195.170	0 ⁺				
249.83 7	0.40 2	2399.270	(1,2) ⁺	2149.385	1 ⁺	M1		0.504	other I _γ : 0.070 7 (1972Fi12). α(K)=0.416 6; α(L)=0.0681 10; α(M)=0.01572 22; α(N+..)=0.00464 7 α(N)=0.00389 6; α(O)=0.000700 10; α(P)=4.73×10 ⁻⁵ 7 Mult.: α(K)exp=0.51 11. other I _γ : 0.48 3 (1972Fi12).

¹⁹²Au ε decay [2008Mc04](#),[1972Fi12](#),[1966Ny01](#) (continued)

γ(¹⁹²Pt) (continued)

E_γ [‡]	I_γ ^{#g}	E_i (level)	J_i^π	E_f	J_f^π	Mult. [@]	δ [@]	α [†]	Comments
261.50 5	0.040 7	2335.465	1 ⁺	2073.95	2 ⁺				
^x 275.00 15	0.22 2								placement from 2890 level rejected by 2008Mc04 .
288.59 5	0.082 7	1666.63	(2,3,4)	1378.054	3 ⁻				placement from a 3146 level rejected by 2008Mc04 .
295.95650 ^b 15	38.7 4	612.46318	2 ⁺	316.50645	2 ⁺	M1+E2 ^b	+10.0 ^b 4	0.1047	$\alpha(K)=0.0651$ 10; $\alpha(L)=0.0299$ 5; $\alpha(M)=0.00749$ 11; $\alpha(N+..)=0.00214$ 3 $\alpha(N)=0.00183$ 3; $\alpha(O)=0.000299$ 5; $\alpha(P)=6.58 \times 10^{-6}$ 10 Mult.: K/L=2.4 6, L1/L2=0.7 1, (L1+L2)/L3=3.6 9 (1966Ny01); $\alpha(K)_{exp}=0.066$ 11. E_γ : 295.94 3 (2008Mc04) from Au ε decay. I_γ : weighted average of 38.5 5 (1972Fi12), 38.8 5 (2008Mc04). δ : 2.5 +6-4 from ce data in ¹⁹² Au ε decay.
308.45507 ^b 17	5.97 8	920.91852	3 ⁺	612.46318	2 ⁺	M1+E2 ^b	+7.20 ^b 3	0.0943	$\alpha(K)=0.0603$ 9; $\alpha(L)=0.0257$ 4; $\alpha(M)=0.00642$ 9; $\alpha(N+..)=0.00184$ 3 $\alpha(N)=0.001574$ 22; $\alpha(O)=0.000258$ 4; $\alpha(P)=6.15 \times 10^{-6}$ 9 Mult.: K/L=2.1 7, (L1+L2)/L3=5.1 7 (1966Ny01); $\alpha(K)_{exp}=0.055$ 9. E_γ : 308.45 2 (2008Mc04) from Au ε decay. I_γ : weighted average of 5.94 10 (1972Fi12), 6.05 15 (2008Mc04). other δ : ≥ 4.9 from $\alpha(K)_{exp}$ in ¹⁹² Au ε decay.
316.50618 ^b 17	100.0 10	316.50645	2 ⁺	0.0	0 ⁺	E2 ^b		0.0841	$\alpha(K)=0.0535$ 8; $\alpha(L)=0.0232$ 4; $\alpha(M)=0.00579$ 9; $\alpha(N+..)=0.001655$ 24 $\alpha(N)=0.001418$ 20; $\alpha(O)=0.000232$ 4; $\alpha(P)=5.42 \times 10^{-6}$ 8 K/L=2.0 3, L1/L2=0.76 8, (L1+L2)/L3=3.1 4 (1966Ny01). E_γ : 316.50 3 (2008Mc04) from Au ε decay.
333 ^{fh}	<0.001	1739.432	(1) ⁻	1406.35	3 ⁺				
335.97 9	0.035 8	2129.52	(1) ⁻	1793.503	(2) ⁺				
347.45 15	0.06 2	2604.76	(1,2) ⁻	2257.26	(2) ⁻				
355.93 10	0.012 5	2149.385	1 ⁺	1793.503	(2) ⁺				
356.77 15	0.013 4	2236.82	(1,2) ⁺	1880.02	3 ⁺				
359.23 8	0.037 6	2335.465	1 ⁺	1976.25	(2) ⁺				
361.33 5	0.35 4	1739.432	(1) ⁻	1378.054	3 ⁻				
375.26 8	0.014 3	1576.368	2 ⁺	1201.0452	4 ⁺				
381.25 8	0.031 3	1576.368	2 ⁺	1195.170	0 ⁺				
382.9 3	0.016 7	2532.46	1 ⁺	2149.385	1 ⁺				
^x 393.4 9	0.05 2								placement from 2217 level rejected by 2008Mc04 .
401.60 16	0.015 5	2296.06	(1,2) ⁺	1894.479	(2,3) ⁻				

¹⁹²Au ε decay [2008Mc04](#),[1972Fi12](#),[1966Ny01](#) (continued)

<u>γ(¹⁹²Pt) (continued)</u>									
<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
415 ^{fh}	<0.004	1793.503	(2) ⁺	1378.054	3 ⁻				
416.4688 ^b 7	0.098 9	1201.0452	4 ⁺	784.5759	4 ⁺	M1+E2 ^b	+2.9 ^b 10	0.049 10	α(K)=0.036 9; α(L)=0.0097 9; α(M)=0.00236 20; α(N+..)=0.00068 6 α(N)=0.00058 5; α(O)=9.8×10 ⁻⁵ 10; α(P)=3.8×10 ⁻⁶ 10 E _γ : 416.53 8 (2008Mc04) from Au ε decay. placements from 2658 and 2757 levels rejected by 2008Mc04 . placement from 2857 level rejected by 2008Mc04 .
^x 421.3 10	0.02 1								
^x 433.18 18	0.10 1								
440.91 7	0.032 5	2335.465	1 ⁺	1894.479	(2,3) ⁻				
443.19 10	0.023 4	2604.76	(1,2) ⁻	2161.64					other E _γ : 442.2 9 (1970Pl09). placement from 2658 level rejected by 2008Mc04 .
443.33 8	0.020 3	2236.82	(1,2) ⁺	1793.503	(2) ⁺				
451.89 12	0.015 5	2191.30	(2 ⁺ ,3 ⁻)	1739.432	(1) ⁻				placement from 2335 level rejected by 2008Mc04 .
^x 455.7 ^a	0.05 2								
468.0688 ^b 3	3.5 1	784.5759	4 ⁺	316.50645	2 ⁺	E2 ^b		0.0291	α(K)=0.0212 3; α(L)=0.00606 9; α(M)=0.001479 21; α(N+..)=0.000427 6 α(N)=0.000363 5; α(O)=6.11×10 ⁻⁵ 9; α(P)=2.22×10 ⁻⁶ 4 E _γ : 468.08 3 (2008Mc04) from Au ε decay. other I _γ : 3.01 5 from 1972Fi12 . other data: E _γ =476.95 20 (1966Ny01), 477.16 20 (1972Fi12); I _γ =1.86 19 (1972Fi12), are presumably for a different or contaminated G. α(K)exp=0.035 8 implies M1+E2 for that line. E _γ : placement from 2614 level shown in table I of 2008Mc04 is incorrect according to an e-mail reply from Dr. McCutchan on July 28, 2008.
477.69 10	0.017 4	2217.12	(2) ⁺	1739.432	(1) ⁻				
479.84 8	0.019 5	2629.24	2 ⁺	2149.385	1 ⁺				
484.53 9	0.036 5	2604.76	(1,2) ⁻	2120.21	(2) ⁺				
485.45 6	0.13 1	1406.35	3 ⁺	920.91852	3 ⁺				other E _γ : 485.07 15 (1972Fi12).
495.36 9	0.053 6	2375.392	(1,2) ⁺	1880.02	3 ⁺				placement from 2319 rejected by 2008Mc04 .
502 ^{fh}	<0.007	1880.02	3 ⁺	1378.054	3 ⁻				
^x 504.25 14	0.12 1								placement from 2676 level rejected by 2008Mc04 .
516.43 8	0.44 2	1894.479	(2,3) ⁻	1378.054	3 ⁻				
518.28 10	0.53 7	1439.263	2 ⁺	920.91852	3 ⁺				other E _γ (I _γ): 517.80 20 (0.70 10) (1972Fi12) for doubly-placed G. placement from 2257 rejected by 2008Mc04 .
519.25 9	0.12 1	2399.270	(1,2) ⁺	1880.02	3 ⁺				
^x 524.6 ^a	0.06 3								placement from 2408 level rejected by 2008Mc04 .
^x 541.7 10	0.07 3								placements from 3156 and 1895 levels rejected by 2008Mc04 .
544.19 8	0.085 8	1739.432	(1) ⁻	1195.170	0 ⁺				
547.32 8	0.035 5	3031.00	(≤3)	2483.64	≤3				
556.59 8	0.063 8	2296.06	(1,2) ⁺	1739.432	(1) ⁻				placement from 2757 rejected by 2008Mc04 .

¹⁹²Au ε decay [2008Mc04](#),[1972Fi12](#),[1966Ny01](#) (continued)

γ(¹⁹²Pt) (continued)

E_γ [‡]	I_γ ^{#g}	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [@]	δ [@]	α [†]	Comments
^x 560.5 ^a	0.07 ^d 4								placements from 2857 and a 3146 level rejected by 2008Mc04 .
565.13 10	0.022 3	1766.09	(2,3) ⁺	1201.0452	4 ⁺				
^x 569.30 20	0.40 8								placements from 1182 and 2464 levels rejected by 2008Mc04 .
571 ^{fh}	<0.003	1766.09	(2,3) ⁺	1195.170	0 ⁺				
573.05 10	0.059 5	2149.385	1 ⁺	1576.368	2 ⁺				
581.89 8	0.045 5	2375.392	(1,2) ⁺	1793.503	(2) ⁺				
582.70 3	4.62 7	1195.170	0 ⁺	612.46318	2 ⁺	E2		0.01722	$\alpha(K)=0.01310$ 19; $\alpha(L)=0.00314$ 5; $\alpha(M)=0.000756$ 11; $\alpha(N+..)=0.000219$ 3 $\alpha(N)=0.000186$ 3; $\alpha(O)=3.18\times 10^{-5}$ 5; $\alpha(P)=1.385\times 10^{-6}$ 20 Mult.: $\alpha(K)\text{exp}=0.0154$ 24. I_γ : from 1972Fi12 ; 5.2 1 from 2008Mc04 .
588.5810 ^b 7	0.70 2	1201.0452	4 ⁺	612.46318	2 ⁺	E2 ^b		0.01682	$\alpha(K)=0.01282$ 18; $\alpha(L)=0.00305$ 5; $\alpha(M)=0.000734$ 11; $\alpha(N+..)=0.000213$ 3 $\alpha(N)=0.000181$ 3; $\alpha(O)=3.09\times 10^{-5}$ 5; $\alpha(P)=1.356\times 10^{-6}$ 19 Mult.: $\alpha(K)\text{exp}=0.015$ 3. E_γ : 588.66 5 (2008Mc04) from Au ε decay. other I_γ : 0.51 3 (1972Fi12).
591.75 9	0.25 2	2486.29	(2) ⁻	1894.479	(2,3) ⁻				
593.46 4	1.52 5	1378.054	3 ⁻	784.5759	4 ⁺	E1+M2 ^b	-0.07 ^b 2	0.0064 5	$\alpha=0.0064$ 5; $\alpha(K)=0.0054$ 4; $\alpha(L)=0.00084$ 7; $\alpha(M)=0.000192$ 16; $\alpha(N+..)=5.6\times 10^{-5}$ 5 $\alpha(N)=4.7\times 10^{-5}$ 4; $\alpha(O)=8.4\times 10^{-6}$ 7; $\alpha(P)=5.3\times 10^{-7}$ 5 Mult.: $\alpha(K)\text{exp}=0.0061$ 14. other I_γ : 1.35 4 (1972Fi12).
598 ^{fh}	<0.005	1793.503	(2) ⁺	1195.170	0 ⁺				
599.3 1	0.099 10	1383.88	(5) ⁻	784.5759	4 ⁺				placement from 2857 level rejected by 2008Mc04 .
604.41105 ^b 25	1.83 3	920.91852	3 ⁺	316.50645	2 ⁺	M1+E2 ^b	-1.48 ^b 2	0.0258	$\alpha(K)=0.0207$ 4; $\alpha(L)=0.00392$ 6; $\alpha(M)=0.000921$ 14; $\alpha(N+..)=0.000269$ 4 $\alpha(N)=0.000227$ 4; $\alpha(O)=3.99\times 10^{-5}$ 6; $\alpha(P)=2.26\times 10^{-6}$ 4 Mult.: K/L1=3.7 8 (1966Ny01), $\alpha(K)\text{exp}=0.021$ 4. E_γ : 604.43 2 (2008Mc04) from Au ε decay. δ : 1.2 +4-3 from $\alpha(K)\text{exp}$; K/L1 appears to be incorrect.
612.4621 ^b 3	7.47 5	612.46318	2 ⁺	0.0	0 ⁺	E2 ^b		0.01536	$\alpha(K)=0.01179$ 17; $\alpha(L)=0.00273$ 4; $\alpha(M)=0.000655$

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¹⁹²Au ε decay [2008Mc04](#), [1972Fi12](#), [1966Ny01](#) (continued)

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
									10; α(N+..)=0.000190 3 α(N)=0.0001612 23; α(O)=2.76×10 ⁻⁵ 4; α(P)=1.247×10 ⁻⁶ 18 K/L=3.1 5 (1966Ny01). E _γ : 612.50 4 (2008Mc04) from Au ε decay. I _γ : weighted average of 7.48 6 (1972Fi12), 7.46 10 (2008Mc04).
622 ^{fh} ^x 624.3 5	<0.003 0.11 1	1406.35	3 ⁺	784.5759	4 ⁺	E2(+M1)	≥2.1	0.017 3	α(K)=0.0136 23; α(L)=0.0029 3; α(M)=0.00069 7; α(N+..)=0.000200 20 α(N)=0.000169 17; α(O)=2.9×10 ⁻⁵ 3; α(P)=1.5×10 ⁻⁶ 3 Mult.: α(K)exp=0.016 5. placement from a 2201 level rejected by 2008Mc04 . placements from 1823 and 2835 levels rejected by 2008Mc04 .
634.69 8	0.075 9	2073.95	2 ⁺	1439.263	2 ⁺				placement from 2048 level rejected by 2008Mc04 .
^x 638.1 5	0.06 2								
643.56 8	0.028 4	3127.19	(1 ⁻ ,2 ⁻)	2483.64	≤3				Mult.: α(K)exp=0.10 4.
^x 647.3 ^{&} 4									
^x 649.08 24	0.06 1								
653.02 8	0.024 4	2629.24	2 ⁺	1976.25	(2) ⁺				
654.68 9	0.065 8	1439.263	2 ⁺	784.5759	4 ⁺				
655.44 3	0.28 1	1576.368	2 ⁺	920.91852	3 ⁺	M1(+E2)	0.5 +5-6	0.033 8	α(K)=0.028 7; α(L)=0.0045 9; α(M)=0.00105 19; α(N+..)=0.00031 6 α(N)=0.00026 5; α(O)=4.6×10 ⁻⁵ 9; α(P)=3.1×10 ⁻⁶ 8 Mult.: α(K)exp=0.026 6.
661.0 ^a 3	0.049 9	2237.52	(2) ⁺	1576.368	2 ⁺				
663.73 19	0.010 3	2041.81	(2 ⁻ ,3 ⁻)	1378.054	3 ⁻				
665.73 8	0.056 8	2560.15	(1 ⁺ ,2)	1894.479	(2,3) ⁻				placement from a 1278 level rejected by 2008Mc04 .
668.91 5	0.18 2	2408.34	(2) ⁺	1739.432	(1) ⁻				
669.77 10	0.032 3	2047.89	(2) ⁺	1378.054	3 ⁻				
671.15 15	0.015 4	2832.89	(1,2) ⁺	2161.64					
673.76 11	0.019 4	3127.19	(1 ⁻ ,2 ⁻)	2453.43	2 ⁺				
^x 678.3 9	0.05 2								
680.06 13	0.010 5	2560.15	(1 ⁺ ,2)	1880.02	3 ⁺				
683.32 8	0.11 1	2422.78	(1,2) ⁺	1739.432	(1) ⁻				other I _γ : 0.33 10 (1970PI09).
688.88 10	0.019 4	2730.73	(2) ⁻	2041.81	(2 ⁻ ,3 ⁻)				
689.88 6	0.34 1	2236.82	(1,2) ⁺	1546.93	(0) ⁺				I _γ : from 1972Fi12 ; I _γ =0.33 2 from 2008Mc04 . Mult.: α(K)exp=0.047 14 for probable multiplet dominated by this transition exceeds α(K)(M1). however, level scheme implies pure mult.
690.20 8	0.067 8	2129.52	(1 ⁻)	1439.263	2 ⁺				
692.84 9	0.021 3	2486.29	(2) ⁻	1793.503	(2) ⁺				
695.8 3	0.029 8	2073.95	2 ⁺	1378.054	3 ⁻				
701.47 9	0.020 4	2958.75	(2,3) ⁻	2257.26	(2) ⁻				placement from a 1308 level rejected by 2008Mc04 .

¹⁹²Au ε decay [2008Mc04](#), [1972Fi12](#), [1966Ny01](#) (continued)

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
704.4 1 ^x 705.05 ^{&} 20	0.021 5	3127.19	(1 ⁻ ,2 ⁻)	2422.78	(1,2) ⁺				placements from 1894 and 2585 levels rejected by 2008Mc04 .
710.27 6	0.14 1	2604.76	(1,2) ⁻	1894.479	(2,3) ⁻	M1		0.0313	α(K)=0.0260 4; α(L)=0.00413 6; α(M)=0.000950 14; α(N+..)=0.000280 4 α(N)=0.000235 4; α(O)=4.24×10 ⁻⁵ 6; α(P)=2.89×10 ⁻⁶ 4 placement from 2149 level rejected by 2008Mc04 .
727.60 13	0.018 5	2857.07	(2 ⁻)	2129.52	(1 ⁻)	M1		0.0294	Mult.: α(K)exp=0.045 12. α(K)=0.0244 4; α(L)=0.00388 6; α(M)=0.000892 13; α(N+..)=0.000263 4 α(N)=0.000221 3; α(O)=3.98×10 ⁻⁵ 6; α(P)=2.72×10 ⁻⁶ 4 Mult.: α(K)exp=0.079 3.
734.67 15 736.61 8 742.15 13 745.67 10	0.026 4 0.036 5 0.015 5 0.019 4	2629.24 2142.96 2120.21 1666.63	2 ⁺ (3) ⁻ (2 ⁺) (2,3,4)	1894.479 1406.35 1378.054 920.91852	(2,3) ⁻ 3 ⁺ 3 ⁻ 3 ⁺				placement from a 2952 level rejected by 2008Mc04 . Mult.: α(K)exp=0.41 14; implies large E0 component, unless ce line is contaminated or misidentified.
746.85 6	0.48 2	2486.29	(2) ⁻	1739.432	(1) ⁻	M1		0.0275	placement from a 3146 level rejected by 2008Mc04 . α(K)=0.0228 4; α(L)=0.00362 5; α(M)=0.000834 12; α(N+..)=0.000246 4 α(N)=0.000206 3; α(O)=3.72×10 ⁻⁵ 6; α(P)=2.54×10 ⁻⁶ 4 Mult.: α(K)exp=0.022 5. other I _γ : 0.35 2 (1972Fi12) for doublet. placement from a 3146 level rejected by 2008Mc04 .
749.24 7 751.50 9 759.10 5	0.056 5 0.071 8 2.85 5	2629.24 2129.52 2335.465	2 ⁺ (1 ⁻) 1 ⁺	1880.02 1378.054 1576.368	3 ⁺ 3 ⁻ 2 ⁺	M1		0.0264	placement from a 1883 level rejected by 2008Mc04 . α(K)=0.0219 3; α(L)=0.00347 5; α(M)=0.000799 12; α(N+..)=0.000236 4 α(N)=0.000198 3; α(O)=3.56×10 ⁻⁵ 5; α(P)=2.44×10 ⁻⁶ 4 I _γ : from 1972Fi12 . other: 3.3 2 (2008Mc04). Mult.: from α(K)exp=0.023 4, K/L=5.7 6 (1966Ny01). placement from a 2909 level rejected by 2008Mc04 .
761.35 13 764.91 5	0.022 5 0.10 1	2890.93 2142.96	(2) ⁻ (3) ⁻	2129.52 1378.054	(1 ⁻) 3 ⁻	M1		0.0259	α(K)=0.0215 3; α(L)=0.00341 5; α(M)=0.000784 11; α(N+..)=0.000231 4 α(N)=0.000194 3; α(O)=3.49×10 ⁻⁵ 5; α(P)=2.39×10 ⁻⁶ 4 Mult.: α(K)exp=0.029 8.
765.6 2	0.042 5	1378.054	3 ⁻	612.46318	2 ⁺	E1+M2	0.20 +10-12	0.006 3	α=0.006 3; α(K)=0.0049 23; α(L)=0.0008 5; α(M)=0.00019 10; α(N+..)=5.E-5 3 α(N)=4.6×10 ⁻⁵ 25; α(O)=8.E-6 5; α(P)=5.E-7 3 Mult.,δ: from Adopted Gammas.

¹⁹²Au ε decay [2008Mc04](#),[1972Fi12](#),[1966Ny01](#) (continued)

γ(¹⁹²Pt) (continued)

E_γ ‡	I_γ #g	E_i (level)	J_i^π	E_f	J_f^π	Mult. @	α^\dagger	Comments
769.45 8	0.052 7	2562.96	(2) ⁺	1793.503	(2) ⁺	M1+E2+E0		other E_γ : 769.83 10 (1966Ny01). Mult.: $\alpha(K)_{\text{exp}}=0.24$ 6; much greater than $\alpha(K)(M1)$. placement from 2048 and 3146 levels rejected by 2008Mc04 . placements from 2217 and 2658 level rejected by 2008Mc04 . placements from 3156 and a 2952 level rejected by 2008Mc04 .
^x 777.6 9	0.07 3							
^x 780.4 9	0.06 3							
791.6 2	0.0099 12	1576.368	2 ⁺	784.5759	4 ⁺			
791.65 8	0.034 5	3127.19	(1 ⁻ ,2 ⁻)	2335.465	1 ⁺			placement from 2614 level rejected by 2008Mc04 .
794 ^{fh}	<0.004	1406.35	3 ⁺	612.46318	2 ⁺			
^x 795.0 6	0.05 2							placement from a 2676 level rejected by 2008Mc04 .
797.09 11	0.013 4	2958.75	(2,3) ⁻	2161.64				
798.2 3	0.058 8	2237.52	(2) ⁺	1439.263	2 ⁺			
799.05 7	0.14 1	2375.392	(1,2) ⁺	1576.368	2 ⁺	M1+E2	0.016 8	$\alpha(K)=0.013$ 7; $\alpha(L)=0.0022$ 9; $\alpha(M)=0.00051$ 19; $\alpha(N+..)=0.00015$ 6 $\alpha(N)=0.00013$ 5; $\alpha(O)=2.2\times 10^{-5}$ 9; $\alpha(P)=1.4\times 10^{-6}$ 7 Mult.: $\alpha(K)_{\text{exp}}=0.013$ 3.
809.46 7	0.023 4	2602.97	(2) ⁺	1793.503	(2) ⁺			
809.99 11	0.030 5	2549.42	(2) ⁺	1739.432	(1) ⁻			
813.2 2	0.040 6	2191.30	(2 ⁺ ,3 ⁻)	1378.054	3 ⁻			
815.79 8	0.14 2	2958.75	(2,3) ⁻	2142.96	(3) ⁻	M1	0.0220	$\alpha(K)=0.0182$ 3; $\alpha(L)=0.00288$ 4; $\alpha(M)=0.000663$ 10; $\alpha(N+..)=0.000196$ 3 $\alpha(N)=0.0001641$ 23; $\alpha(O)=2.96\times 10^{-5}$ 5; $\alpha(P)=2.02\times 10^{-6}$ 3 Mult.: $\alpha(K)_{\text{exp}}=0.016$ 4. placements from 1133 and 2891 levels rejected by 2008Mc04 . other I_γ : 0.08 1 (1972Fi12).
817.95 10	0.049 9	2257.26	(2) ⁻	1439.263	2 ⁺			
819	<0.002	1739.432	(1) ⁻	920.91852	3 ⁺			other I_γ : 0.10 5 (1970Pi09).
820.71 6	0.043 6	2560.15	(1 ⁺ ,2)	1739.432	(1) ⁻			
822.90 5	0.80 5	2399.270	(1,2) ⁺	1576.368	2 ⁺	E2	0.00811 12	$\alpha=0.00811$ 12; $\alpha(K)=0.00647$ 9; $\alpha(L)=0.001264$ 18; $\alpha(M)=0.000298$ 5; $\alpha(N+..)=8.69\times 10^{-5}$ 13 $\alpha(N)=7.35\times 10^{-5}$ 11; $\alpha(O)=1.281\times 10^{-5}$ 18; $\alpha(P)=6.84\times 10^{-7}$ 10 other I_γ : 0.66 2 (1972Fi12). Mult.: $\alpha(K)_{\text{exp}}=0.0068$ 19. placement from a 2201 level rejected by 2008Mc04 .
826.79 8	0.068 6	1439.263	2 ⁺	612.46318	2 ⁺	M1+E2+E0	0.046 11	$\alpha(K)=0.01760$ 25; $\alpha(L)=0.00279$ 4; $\alpha(M)=0.000641$ 9; $\alpha(N+..)=0.000189$ 3 $\alpha(N)=0.0001585$ 23; $\alpha(O)=2.86\times 10^{-5}$ 4; $\alpha(P)=1.96\times 10^{-6}$ 3 Mult.: $\alpha(K)_{\text{exp}}=0.035$ 8. α : based on $\alpha(K)_{\text{exp}}$. other E_γ (I_γ): 826.72 17 (0.11 1) (1972Fi12). placement from a 3360 level rejected by 2008Mc04 .
^x 830.0 ^a	0.10 4							
831.18 9	0.028 5	3127.19	(1 ⁻ ,2 ⁻)	2296.06	(1,2) ⁺			
^x 833.3 ^a	0.11 4							

¹⁹²Au ε decay [2008Mc04](#), [1972Fi12](#), [1966Ny01](#) (continued)

$\gamma(^{192}\text{Pt})$ (continued)

E_γ ‡	I_γ #g	E_i (level)	J_i^π	E_f	J_f^π	Mult. @	α^\dagger	Comments
836.88 10	0.039 6	2602.97	(2) ⁺	1766.09	(2,3) ⁺			other E_γ : 0.12 4 (1970PI09), placement from 3156 level rejected by 2008Mc04 .
841.70 10	0.015 4	2635.23	1 ⁺	1793.503	(2) ⁺			
^x 843.5 7	0.11 4							
845 ^{fh}	<0.006	1766.09	(2,3) ⁺	920.91852	3 ⁺			
849.12 9	0.045 8	2890.93	(2) ⁻	2041.81	(2 ⁻ ,3 ⁻)			
856.83 8	0.033 5	2296.06	(1,2) ⁺	1439.263	2 ⁺			
865.33 6	0.16 1	2604.76	(1,2) ⁻	1739.432	(1) ⁻	M1	0.0189	$\alpha(\text{K})=0.01568$ 22; $\alpha(\text{L})=0.00248$ 4; $\alpha(\text{M})=0.000570$ 8; $\alpha(\text{N}+..)=0.0001681$ 24 $\alpha(\text{N})=0.0001409$ 20; $\alpha(\text{O})=2.54\times 10^{-5}$ 4; $\alpha(\text{P})=1.741\times 10^{-6}$ 25 Mult.: $\alpha(\text{K})\text{exp}=0.016$ 3.
872.59 5	0.24 1	1793.503	(2) ⁺	920.91852	3 ⁺	E2	0.00719 10	$\alpha=0.00719$ 10; $\alpha(\text{K})=0.00576$ 8; $\alpha(\text{L})=0.001097$ 16; $\alpha(\text{M})=0.000258$ 4; $\alpha(\text{N}+..)=7.53\times 10^{-5}$ 11 $\alpha(\text{N})=6.36\times 10^{-5}$ 9; $\alpha(\text{O})=1.112\times 10^{-5}$ 16; $\alpha(\text{P})=6.09\times 10^{-7}$ 9 Mult.: $\alpha(\text{K})\text{exp}=0.0063$ 14. placement from an 1189 level rejected by 2008Mc04 .
878.70 4	1.41 3	1195.170	0 ⁺	316.50645	2 ⁺	E2	0.00709 10	other I_γ : 0.21 1 (1972Fi12). $\alpha=0.00709$ 10; $\alpha(\text{K})=0.00569$ 8; $\alpha(\text{L})=0.001079$ 16; $\alpha(\text{M})=0.000254$ 4; $\alpha(\text{N}+..)=7.41\times 10^{-5}$ 11 $\alpha(\text{N})=6.25\times 10^{-5}$ 9; $\alpha(\text{O})=1.094\times 10^{-5}$ 16; $\alpha(\text{P})=6.01\times 10^{-7}$ 9 Mult.: $\alpha(\text{K})\text{exp}=0.0057$ 20. I_γ : from 1972Fi12 ; 1.49 8 from 2008Mc04 .
879.28 6	0.13 2	2257.26	(2) ⁻	1378.054	3 ⁻			
879.96 8	0.055 15	2319.11	1 ⁺	1439.263	2 ⁺			
880.73 12	0.016 4	2775.21		1894.479	(2,3) ⁻			
882 ^{fh}	<0.007	1666.63	(2,3,4)	784.5759	4 ⁺			
884.5365 ^b 7	0.055 5	1201.0452	4 ⁺	316.50645	2 ⁺	E2 ^b	0.00700 10	$\alpha=0.00700$ 10; $\alpha(\text{K})=0.00561$ 8; $\alpha(\text{L})=0.001062$ 15; $\alpha(\text{M})=0.000250$ 4; $\alpha(\text{N}+..)=7.29\times 10^{-5}$ 11 $\alpha(\text{N})=6.15\times 10^{-5}$ 9; $\alpha(\text{O})=1.077\times 10^{-5}$ 15; $\alpha(\text{P})=5.93\times 10^{-7}$ 9 E_γ : 884.7 1 (2008Mc04) from Au ε decay. I_γ : deduced from $I_\gamma(416.5)$, $I_\gamma(588.6)$, and relative photon branching from 1201 level in Adopted Gammas.
889.77 9	0.14 1	2629.24	2 ⁺	1739.432	(1) ⁻			
895.19 10	0.021 4	2775.21		1880.02	3 ⁺			
896.20 6	0.45 3	2335.465	1 ⁺	1439.263	2 ⁺	M1	0.01728	$\alpha(\text{K})=0.01434$ 20; $\alpha(\text{L})=0.00226$ 4; $\alpha(\text{M})=0.000521$ 8; $\alpha(\text{N}+..)=0.0001536$ 22 $\alpha(\text{N})=0.0001288$ 18; $\alpha(\text{O})=2.32\times 10^{-5}$ 4; $\alpha(\text{P})=1.592\times 10^{-6}$ 23 other I_γ : 0.37 1 (1972Fi12). Mult.: $\alpha(\text{K})\text{exp}=0.016$ 3. placement from a 3360 level rejected by 2008Mc04 .
899.70 13	0.016 4	2794.26	(≤ 2)	1894.479	(2,3) ⁻			
901.5 2	0.043 5	3031.00	(≤ 3)	2129.52	(1) ⁻			Mult.: $\alpha(\text{K})\text{exp}=0.041$ 10; exceeds $\alpha(\text{K})(\text{M}1)$. placements from 1514 and 1823 levels rejected by 2008Mc04 .

¹⁹²Au ε decay [2008Mc04](#),[1972Fi12](#),[1966Ny01](#) (continued)

γ(¹⁹²Pt) (continued)

E_γ ‡	I_γ #g	E_i (level)	J_i^π	E_f	J_f^π	Mult. @	δ @	α †	Comments
902.52 11 905.2 2	0.0095 20 0.037 6	2950.43 2947.001	(1,2) ⁺ (2 ⁻)	2047.89 2041.81	(2) ⁺ (2 ⁻ ,3 ⁻)				$E_\gamma=906.8$, $I_\gamma=0.13$ 4 for doublet In 1970PI09 . placements from a 2952 and a 3360 level rejected by 2008Mc04 .
^x 910 ^a 917.01 9	0.05 3 0.080 10	2958.75	(2,3) ⁻	2041.81	(2 ⁻ ,3 ⁻)	M1		0.01630	$\alpha(K)=0.01353$ 19; $\alpha(L)=0.00213$ 3; $\alpha(M)=0.000491$ 7; $\alpha(N+..)=0.0001448$ 21 $\alpha(N)=0.0001214$ 17; $\alpha(O)=2.19\times 10^{-5}$ 3; $\alpha(P)=1.501\times 10^{-6}$ 21 Mult.: $\alpha(K)_{exp}=0.015$ 4. placement from a 2464 level rejected by 2008Mc04 .
934.35 7 934.41 8	0.42 4 0.90 3	2129.52 1546.93	(1 ⁻) (0 ⁺)	1195.170 612.46318	0 ⁺ 2 ⁺	[E2]		0.00627 9	$\alpha=0.00627$ 9; $\alpha(K)=0.00505$ 7; $\alpha(L)=0.000934$ 13; $\alpha(M)=0.000219$ 3; $\alpha(N+..)=6.40\times 10^{-5}$ 9 $\alpha(N)=5.40\times 10^{-5}$ 8; $\alpha(O)=9.47\times 10^{-6}$ 14; $\alpha(P)=5.33\times 10^{-7}$ 8 Mult.: $\alpha(K)_{exp}=0.0041$ 11 for 934.41γ+934.35γ doublet. I_γ : from 1972Fi12 ; 0.89 5 from 2008Mc04 .
936.14 5	0.70 3	2375.392	(1,2) ⁺	1439.263	2 ⁺	E2		0.00624 9	$\alpha=0.00624$ 9; $\alpha(K)=0.00503$ 7; $\alpha(L)=0.000930$ 13; $\alpha(M)=0.000218$ 3; $\alpha(N+..)=6.37\times 10^{-5}$ 9 $\alpha(N)=5.37\times 10^{-5}$ 8; $\alpha(O)=9.43\times 10^{-6}$ 14; $\alpha(P)=5.31\times 10^{-7}$ 8 other I_γ : 0.52 3 (1972Fi12). Mult.: $\alpha(K)_{exp}=0.0052$ 10. placement from a 2676 level rejected by 2008Mc04 . placement from 2130 level rejected by 2008Mc04 .
^x 948.9 6 955 ^{fh} 959.1 2 960.02 6	0.15 5 <0.006 0.025 4 0.36 3	1739.432 1880.02 2399.270	(1) ⁻ 3 ⁺ (1,2) ⁺	784.5759 920.91852 1439.263	4 ⁺ 3 ⁺ 2 ⁺	[E3] E2(+M1)			
961.65 10	0.11 1	2856.13	(2) ⁻	1894.479	(2,3) ⁻	M1		0.01445	$\alpha=0.0069$ 11; $\alpha(K)=0.0056$ 9; $\alpha(L)=0.00100$ 13; $\alpha(M)=0.00023$ 3; $\alpha(N+..)=6.8\times 10^{-5}$ 9 $\alpha(N)=5.7\times 10^{-5}$ 7; $\alpha(O)=1.01\times 10^{-5}$ 13; $\alpha(P)=6.0\times 10^{-7}$ 10 Mult.: $\alpha(K)_{exp}=0.0049$ 12. other I_γ : 0.27 2 (1972Fi12). $\alpha(K)=0.01200$ 17; $\alpha(L)=0.00189$ 3; $\alpha(M)=0.000434$ 6; $\alpha(N+..)=0.0001282$ 18 $\alpha(N)=0.0001075$ 15; $\alpha(O)=1.94\times 10^{-5}$ 3; $\alpha(P)=1.330\times 10^{-6}$ 19 Mult.: $\alpha(K)_{exp}=0.022$ 7. placement from a 1278 level rejected by 2008Mc04 .
963.93 5	0.82 4	1576.368	2 ⁺	612.46318	2 ⁺	M1(+E2+E0)		0.020 4	$\alpha(K)=0.008$ 4; $\alpha(L)=0.0014$ 5; $\alpha(M)=0.00032$ 12; $\alpha(N+..)=9.E-5$ 4 $\alpha(N)=8.E-5$ 3; $\alpha(O)=1.4\times 10^{-5}$ 6; $\alpha(P)=9.E-7$ 5

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
968.93 15	0.057 9	2408.34	(2) ⁺	1439.263	2 ⁺	M1	0.01418	Mult.: α(K)exp=0.015 3. other I _γ : 0.63 3 (1972Fi12). α: estimated from α(K)exp. α(K)=0.01177 17; α(L)=0.00185 3; α(M)=0.000426 6; α(N+..)=0.0001257 18 α(N)=0.0001054 15; α(O)=1.90×10 ⁻⁵ 3; α(P)=1.305×10 ⁻⁶ 19 Mult.: α(K)exp=0.010 4. other E _γ : 969.3 4 (1972Fi12), 969.7 3 (1966Ny01). other I _γ : 0.130 25 (1972Fi12), 0.08 3 (1970PI09). Mult.: α(K)exp=0.0032 10. Mult.: α(K)exp=0.0037 9; high for E1 but a little low for E2. other I _γ : 0.27 3 (1972Fi12).
^x 972.65 19 973.57 7	0.28 2 0.34 2	1894.479	(2,3) ⁻	920.91852	3 ⁺			
982.49 11 985.65 15 991.35 8	0.007 2 0.041 7 0.12 1	2958.75 3027.39 2730.73	(2,3) ⁻ (2,3) ⁻ (2) ⁻	1976.25 2041.81 1739.432	(2) ⁺ (2 ⁻ ,3 ⁻) (1) ⁻	M1	0.01338	α(K)=0.01111 16; α(L)=0.001748 25; α(M)=0.000402 6; α(N+..)=0.0001186 17 α(N)=9.94×10 ⁻⁵ 14; α(O)=1.79×10 ⁻⁵ 3; α(P)=1.231×10 ⁻⁶ 18 Mult.: α(K)exp=0.0098 24. other I _γ : 0.08 1 (1972Fi12). placement from a 1308 level rejected by 2008Mc04.
994.10 10 996.6 2	0.025 5 0.12 1	3155.74 2890.93	(2,3) ⁻ (2) ⁻	2161.64 1894.479	(2,3) ⁻	M1	0.01320	α(K)=0.01096 16; α(L)=0.001725 25; α(M)=0.000396 6; α(N+..)=0.0001170 17 α(N)=9.81×10 ⁻⁵ 14; α(O)=1.769×10 ⁻⁵ 25; α(P)=1.214×10 ⁻⁶ 17 I _γ : E _γ =997.07 20 (I _γ =0.33 2) in 1972Fi12 may be associated with 996.3γ or 997.7γ in 1966Ny01, or both. Mult.: α(K)exp=0.014 4. α(K)=0.01093 16; α(L)=0.001720 24; α(M)=0.000395 6; α(N+..)=0.0001166 17 α(N)=9.78×10 ⁻⁵ 14; α(O)=1.764×10 ⁻⁵ 25; α(P)=1.211×10 ⁻⁶ 17 I _γ : other I _γ : 0.33 2 (1972Fi12) for probable doublet. Mult.: α(K)exp=0.012 3. Mult.: α(K)exp=0.016 8; imprecise, but high for E2 (required by level scheme).
997.68 5	0.20 2	3127.19	(1 ⁻ ,2 ⁻)	2129.52	(1 ⁻)	M1	0.01317	
1001.96 8	0.029 8	2408.34	(2) ⁺	1406.35	3 ⁺			
1008.85 15	0.036 6	2585.23	(2) ⁺	1576.368	2 ⁺	E2	0.00538 8	α=0.00538 8; α(K)=0.00436 7; α(L)=0.000783 11; α(M)=0.000183 3; α(N+..)=5.35×10 ⁻⁵ 8 α(N)=4.51×10 ⁻⁵ 7; α(O)=7.94×10 ⁻⁶ 12; α(P)=4.60×10 ⁻⁷ 7 Mult.: α(K)exp=0.040 11.
1009. ^{fh} 1016.81 7	<0.008 0.047 6	1793.503 1629.30	(2) ⁺ 0 ⁺	784.5759 612.46318	4 ⁺ 2 ⁺			other I _γ : 0.070 8 (1972Fi12). Mult.: α(K)exp=0.028 8; exceeds α(K)(M1), implying E0 component. However, E2 is expected from Adopted Levels, Gammas. placement from 2423 rejected by 2008Mc04.

¹⁹²Au ε decay [2008Mc04](#),[1972Fi12](#),[1966Ny01](#) (continued)

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
1035.75 <i>10</i>	0.036 <i>5</i>	2775.21		1739.432	(1) ⁻				other E _γ (I _γ): 1036.4 <i>6</i> (0.6 <i>I</i>) (1970PI09). placement from a 1353 level rejected by 2008Mc04 .
1036.5 <i>1</i>	0.075 <i>9</i>	2237.52	(2) ⁺	1201.0452	4 ⁺				
1042.2 <i>2</i>	0.034 <i>6</i>	2237.52	(2) ⁺	1195.170	0 ⁺				α(K)=0.00955 <i>14</i> ; α(L)=0.001500 <i>21</i> ; α(M)=0.000345 <i>5</i> ; α(N+..)=0.0001017 <i>15</i> α(N)=8.53×10 ⁻⁵ <i>12</i> ; α(O)=1.538×10 ⁻⁵ <i>22</i> ; α(P)=1.057×10 ⁻⁶ <i>15</i> Mult.: α(K)exp=0.012 <i>3</i> .
1052.55 <i>9</i>	0.20 <i>2</i>	2947.001	(2 ⁻)	1894.479	(2,3) ⁻	M1		0.01150	
1054 ^{<i>fh</i>}	<0.01	1666.63	(2,3,4)	612.46318	2 ⁺				Mult.: α(K)exp=0.013 <i>3</i> for doublet. other I _γ : 0.10 <i>1</i> (1972Fi12). placements from 2238 and 2408 levels rejected by 2008Mc04 .
1054.84 <i>7</i>	0.068 <i>8</i>	2794.26	(≤2)	1739.432	(1) ⁻				
1055.3 <i>2</i>	0.035 <i>6</i>	1976.25	(2) ⁺	920.91852	3 ⁺				α=0.00194 <i>17</i> ; α(K)=0.00163 <i>14</i> ; α(L)=0.000240 <i>24</i> ; α(M)=5.5×10 ⁻⁵ <i>6</i> ; α(N+..)=1.60×10 ⁻⁵ <i>17</i> α(N)=1.35×10 ⁻⁵ <i>14</i> ; α(O)=2.41×10 ⁻⁶ <i>25</i> ; α(P)=1.61×10 ⁻⁷ <i>17</i> other I _γ : 1.60 <i>4</i> (1972Fi12). Mult.: α(K)exp=0.0019 <i>3</i> ; implies δ=0.12 +4- <i>12</i> . α(K)=0.00925 <i>13</i> ; α(L)=0.001453 <i>21</i> ; α(M)=0.000334 <i>5</i> ; α(N+..)=9.85×10 ⁻⁵ <i>14</i> α(N)=8.26×10 ⁻⁵ <i>12</i> ; α(O)=1.489×10 ⁻⁵ <i>21</i> ; α(P)=1.024×10 ⁻⁶ <i>15</i> Mult.: α(K)exp=0.012 <i>5</i> . I _γ : for probable doublet In 1970PI09 ; possibly includes the 1068.4γ from 2008MC04 .. placement from 2472 level rejected by 2008Mc04 .
1057.3 <i>2</i>	0.035 <i>6</i>	2435.37	3 ⁺	1378.054	3 ⁻				
1061.62 <i>4</i>	1.86 <i>4</i>	1378.054	3 ⁻	316.50645	2 ⁺	E1(+M2) ^{<i>b</i>}	+0.04 ^{<i>b</i>} +5-3	0.00194 <i>17</i>	
^{<i>x</i>} 1066.0 ^{<i>c</i>} <i>3</i>	0.08 <i>3</i>					(M1)		0.01114	
1068.4 <i>2</i>	0.023 <i>4</i>	2834.60	(2 ⁺)	1766.09	(2,3) ⁺				placement from 2423 rejected by 2008Mc04 . placement from 2217 rejected by 2008Mc04 .
^{<i>x</i>} 1070.1 ^{<i>a</i>}	0.12 <i>4</i>								
^{<i>x</i>} 1084.5 <i>7</i>	0.05 <i>5</i>								
^{<i>x</i>} 1087.3 ^{<i>b</i>} & <i>5</i>									
1088.35 <i>9</i>	0.075 <i>10</i>	2635.23	1 ⁺	1546.93	(0 ⁺)				Mult.: α(K)exp=0.0067 <i>20</i> for presumed doublet. α=0.0060 <i>11</i> ; α(K)=0.0049 <i>9</i> ; α(L)=0.00083 <i>13</i> ; α(M)=0.00019 <i>3</i> ; α(N+..)=5.6×10 ⁻⁵ <i>9</i> α(N)=4.7×10 ⁻⁵ <i>7</i> ; α(O)=8.4×10 ⁻⁶ <i>13</i> ; α(P)=5.3×10 ⁻⁷ <i>10</i> other I _γ : 0.060 <i>7</i> (1972Fi12), possibly for a doublet.
1089.82 <i>8</i>	0.032 <i>3</i>	1406.35	3 ⁺	316.50645	2 ⁺	M1+E2 ^{<i>b</i>}	1.8 ^{<i>b</i>} +14-6	0.0060 <i>11</i>	

γ(¹⁹²Pt) (continued)

E_γ ‡	I_γ #g	E_i (level)	J_i^π	E_f	J_f^π	Mult. @	α^\dagger	Comments
1090.54 15	0.017 4	2856.13	(2) ⁻	1766.09	(2,3) ⁺			
1093.1 1	0.078 9	2532.46	1 ⁺	1439.263	2 ⁺			
1095.42 6	0.16 1	1880.02	3 ⁺	784.5759	4 ⁺	M1+E2	0.007 3	other I_γ : 0.17 4 (1970PI09). α =0.007 3; α (K)=0.0062 25; α (L)=0.0010 4; α (M)=0.00023 8; α (N+..)=6.8×10 ⁻⁵ 24 α (N)=5.7×10 ⁻⁵ 20; α (O)=1.0×10 ⁻⁵ 4; α (P)=7.E-7 3 Mult.: α (K)exp=0.0063 19.
1097.6 2	0.023 6	2890.93	(2) ⁻	1793.503	(2) ⁺			other I_γ : 0.16 4 (1970PI09) for E_γ =1097.4 7. placement from 2375 or a 3146 level rejected by 2008Mc04.
1100.94 9	0.028 7	2296.06	(1,2) ⁺	1195.170	0 ⁺			placement from a 3360 level rejected by 2008Mc04.
1108.26 8	0.070 7	2486.29	(2) ⁻	1378.054	3 ⁻	M1	0.01010	α (K)=0.00839 12; α (L)=0.001316 19; α (M)=0.000302 5; α (N+..)=8.96×10 ⁻⁵ 13 α (N)=7.48×10 ⁻⁵ 11; α (O)=1.349×10 ⁻⁵ 19; α (P)=9.28×10 ⁻⁷ 13; α (IPF)=3.93×10 ⁻⁷ 6 Mult.: α (K)exp=0.0060 21. placement from 3156 level rejected by 2008Mc04.
1110 ^{fh}	<0.008	1894.479	(2,3) ⁻	784.5759	4 ⁺			other I_γ : 0.11 1 (1972Fi12).
1113.93 8	0.096 10	3155.74	(2,3) ⁻	2041.81	(2 ⁻ ,3 ⁻)	M1	0.00997 14	α =0.00997 14; α (K)=0.00828 12; α (L)=0.001299 19; α (M)=0.000298 5; α (N+..)=8.85×10 ⁻⁵ 13 α (N)=7.38×10 ⁻⁵ 11; α (O)=1.331×10 ⁻⁵ 19; α (P)=9.16×10 ⁻⁷ 13; α (IPF)=4.96×10 ⁻⁷ 8 Mult.: α (K)exp=0.015 3. placement from 2296 level rejected by 2008Mc04.
1116.60 6	0.39 2	2856.13	(2) ⁻	1739.432	(1) ⁻	M1	0.00991 14	α =0.00991 14; α (K)=0.00823 12; α (L)=0.001291 18; α (M)=0.000297 5; α (N+..)=8.80×10 ⁻⁵ 13 α (N)=7.34×10 ⁻⁵ 11; α (O)=1.323×10 ⁻⁵ 19; α (P)=9.10×10 ⁻⁷ 13; α (IPF)=5.52×10 ⁻⁷ 8 other I_γ : 0.23 2 (1972Fi12). Mult.: α (K)exp=0.0074 14. placement from a 2857 level rejected by 2008Mc04.
1121.00 9	0.11 1	2041.81	(2 ⁻ ,3 ⁻)	920.91852	3 ⁺			
1122.80 5	1.90 3	1439.263	2 ⁺	316.50645	2 ⁺	M1(+E2+E0)	0.0155 25	α (K)=0.00812 12; α (L)=0.001273 18; α (M)=0.000292 4; α (N+..)=8.70×10 ⁻⁵ 13 α (N)=7.23×10 ⁻⁵ 11; α (O)=1.305×10 ⁻⁵ 19; α (P)=8.98×10 ⁻⁷ 13; α (IPF)=7.03×10 ⁻⁷ 10 Mult.: α (K)exp=0.0119 19. I_γ : from 1972Fi12; 1.98 8 In 2008Mc04.
1126.97 3	2.82 9	1739.432	(1) ⁻	612.46318	2 ⁺	E1	0.001711 24	α : based on α (K)exp. α =0.001711 24; α (K)=0.001437 21; α (L)=0.000210 3; α (M)=4.77×10 ⁻⁵ 7; α (N+..)=1.653×10 ⁻⁵ 2 α (N)=1.176×10 ⁻⁵ 17; α (O)=2.11×10 ⁻⁶ 3; α (P)=1.415×10 ⁻⁷

¹⁹²Au ε decay [2008Mc04,1972Fi12,1966Ny01](#) (continued)

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>I_(γ+ce)^g</u>	<u>Comments</u>
									20; α(IPF)=2.52×10 ⁻⁶ 4 Mult.: α(K)exp=0.0018 3. other I _γ : 2.52 5 (1972Fi12).
1127.02 8	0.12 1	2047.89	(2) ⁺	920.91852	3 ⁺				
1132.93 10	0.047 8	3027.39	(2,3) ⁻	1894.479	(2,3) ⁻				Mult.: α(K)exp=0.036 10; greatly exceeds α(K)(M1). placement from an 1133 level rejected by 2008Mc04 . other E _γ (I _γ): 1132.55 23 (0.070 15) (1972Fi12). α=0.00940 14; α(K)=0.00781 11; α(L)=0.001224 18; α(M)=0.000281 4; α(N+..)=8.43×10 ⁻⁵ 12 α(N)=6.95×10 ⁻⁵ 10; α(O)=1.254×10 ⁻⁵ 18; α(P)=8.63×10 ⁻⁷ 12; α(IPF)=1.321×10 ⁻⁶ 19 other I _γ : 4.50 10 (1972Fi12).
1140.32 4	4.50 10	2335.465	1 ⁺	1195.170	0 ⁺	M1	0.00940 14		Mult.: α(K)exp=0.0093 14.
1147.65 17	0.016 4	3189.52	(2,3) ⁻	2041.81	(2 ⁻ ,3 ⁻)				
1151.51 8	0.080 9	2890.93	(2) ⁻	1739.432	(1) ⁻				
1153.02 7	0.041 8	2073.95	2 ⁺	920.91852	3 ⁺				
1153.42 16	0.015 4	2947.001	(2) ⁻	1793.503	(2) ⁺				
1154 ^{fh}	<0.004	1766.09	(2,3) ⁺	612.46318	2 ⁺				
1171.44 12	0.024 5	2549.42	(2) ⁺	1378.054	3 ⁻				
^x 1173.5 3	0.060 6								
1180.96 10	0.026 4	2947.001	(2) ⁻	1766.09	(2,3) ⁺				Mult.: α(K)exp=0.022 5; greatly exceeds α(K)(M1). other E _γ : 1180.3 3 (1966Ny01). Mult.: α(K)exp=0.10 4; possibly ce line is complex (E _γ seems a little low). placement from 2375 level rejected by 2008Mc04 . α=0.0063 24; α(K)=0.0052 20; α(L)=0.0008 3; α(M)=0.00019 7; α(N+..)=6.0×10 ⁻⁵ 20 α(N)=4.8×10 ⁻⁵ 16; α(O)=9.E-6 3; α(P)=5.7×10 ⁻⁷ 23; α(IPF)=3.5×10 ⁻⁶ 8 Mult.: α(K)exp=0.006 3. placement from an 1182 level rejected by 2008Mc04 .
1181.05 7	0.13 1	1793.503	(2) ⁺	612.46318	2 ⁺	M1,E2	0.0063 24		
1184.9 3	0.057 8	2562.96	(2) ⁺	1378.054	3 ⁻				
^x 1189.2 ^a	0.08 4								
1192 ^{fh}	<0.007	1976.25	(2) ⁺	784.5759	4 ⁺				
1192.49 15	0.018 4	2958.75	(2,3) ⁻	1766.09	(2,3) ⁺				
1195.26 13		1195.170	0 ⁺	0.0	0 ⁺	E0		0.024 4	Mult.: α(K)exp≥0.20 3 from I _γ <0.10 in 1972Fi12 . I _(γ+ce) : approximate value deduced from Ice(K) and theoretical K/L ratios for E0 transitions (1969Ha61). other E _γ (I _γ): 1198.0 7 (0.17 4) (1970PI09). placement from a 1514 level rejected by 2008Mc04 . placement not confirmed by 2008Mc04 , but γ May be highly converted. other I _γ : 0.24 2 (1972Fi12), 0.15 5 (1970PI09). Mult.: α(K)exp=0.0068 18 for doublet; unresolved from
1199.29 8	0.070 10	2120.21	(2) ⁺	920.91852	3 ⁺				
1204.8 ^{&h} 5		2399.270	(1,2) ⁺	1195.170	0 ⁺				
1207.22 10	0.012 4	2585.23	(2) ⁺	1378.054	3 ⁻				
1207.28 9	0.18 2	2408.34	(2) ⁺	1201.0452	4 ⁺				

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
1207.50 10	0.018 4	2947.001	(2 ⁻)	1739.432	(1) ⁻				1207.22γ In ce spectrum. α(K)exp favors M1, but level scheme suggests E2.
1219.4 1	0.051 8	2958.75	(2,3) ⁻	1739.432	(1) ⁻				
1222.10 7	0.045 6	2142.96	(3) ⁻	920.91852	3 ⁺				
1224.9 2	0.038 8	2602.97	(2) ⁺	1378.054	3 ⁻				placement from 2408 level rejected by 2008Mc04 . Mult.: α(K)exp=0.024 7; greatly exceeds α(K)(M1). 1966Ny01 do not report the 1224.9γ; possibly it contributes to their E=1226.4 5 ce line.
1226.8 2	0.025 4	2604.76	(1,2) ⁻	1378.054	3 ⁻				
1227.6 1	0.030 7	2422.78	(1,2) ⁺	1195.170	0 ⁺				possibly includes a contribution from the E=1227.6 1 line.
^x 1228.8& 5									placement from 2149 level rejected by 2008Mc04 .
1230.45 6	0.075 7	1546.93	(0 ⁺)	316.50645	2 ⁺				
1233.95 15	0.030 6	3027.39	(2,3) ⁻	1793.503	(2) ⁺				
^x 1238.5 ^a	0.05 3								
1240.67 8	0.11 1	2161.64		920.91852	3 ⁺				other E _γ (I _γ): 1241.8 (0.05 3) (1970PI09); poorly resolved G.
1250.47 6	0.33 2	2171.37	2 ⁺	920.91852	3 ⁺	M1(+E2)	0.6 +5-6	0.0064 11	placement from 2423 rejected by 2008Mc04 . α=0.0064 11; α(K)=0.0053 10; α(L)=0.00084 14; α(M)=0.00019 3; α(N+..)=7.1×10 ⁻⁵ 11 α(N)=4.8×10 ⁻⁵ 8; α(O)=8.6×10 ⁻⁶ 14; α(P)=5.8×10 ⁻⁷ 11; α(IPF)=1.36×10 ⁻⁵ 16 Mult.: α(K)exp=0.0054 10.
1256.7 3	0.10 2	2832.89	(1,2) ⁺	1576.368	2 ⁺				other I _γ : 0.17 1 (1972Fi12).
1257.22 6	0.14 1	2041.81	(2 ⁻ ,3 ⁻)	784.5759	4 ⁺				Mult.: α(K)exp=0.0039 14 suggests E2 assignment, inconsistent with adopted J ^π (2041 level).
1260.0 2	0.023 5	1576.368	2 ⁺	316.50645	2 ⁺	M1+E2+E0		0.00733 11	placement from 2835 level rejected by 2008Mc04 . α=0.00733 11; α(K)=0.00608 9; α(L)=0.000950 14; α(M)=0.000218 3; α(N+..)=8.13×10 ⁻⁵ 12 α(N)=5.40×10 ⁻⁵ 8; α(O)=9.73×10 ⁻⁶ 14; α(P)=6.71×10 ⁻⁷ 10; α(IPF)=1.697×10 ⁻⁵ 24 other I _γ : 0.055 10 (1972Fi12). Mult.: α(K)exp=0.24 8. α: estimated from α(K)exp.
1261.1 2	0.021 4	3155.74	(2,3) ⁻	1894.479	(2,3) ⁻				
1261.3 2	0.015 4	3027.39	(2,3) ⁻	1766.09	(2,3) ⁺				
1263.31 6	0.076 8	2047.89	(2) ⁺	784.5759	4 ⁺				other data: E _γ =1263.8 2 (1972Fi12), 1264.2 4 (1966Ny01); I _γ =0.046 9 (1972Fi12). Mult.: α(K)exp=0.0072 21 implies M1. However, E(ce)

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
1267.52 10	0.19 2	1880.02	3 ⁺	612.46318	2 ⁺	M1	0.00722 11	is high, suggesting ce line May be contaminated; if so, α(K)exp will be an overestimate. The level scheme implies E2. placement from 2453 level rejected by 2008Mc04. α=0.00722 11; α(K)=0.00599 9; α(L)=0.000936 14; α(M)=0.000215 3; α(N+..)=8.19×10 ⁻⁵ 12 α(N)=5.31×10 ⁻⁵ 8; α(O)=9.59×10 ⁻⁶ 14; α(P)=6.61×10 ⁻⁷ 10; α(IPF)=1.85×10 ⁻⁵ 3 Mult.: α(K)exp=0.0040 11. other I _γ : 0.12 1 (1972Fi12). other I _γ : 0.19 2 (1972Fi12). placement from a 1883 level rejected by 2008Mc04.
1270.33 6	0.23 2	2191.30	(2 ⁺ ,3 ⁻)	920.91852	3 ⁺			placement from a 1277 level rejected by 2008Mc04.
^x 1277.5 ^d	0.12 ^d 6							
1281.99 4	0.72 3	1894.479	(2,3) ⁻	612.46318	2 ⁺	E1	0.001410 20	α=0.001410 20; α(K)=0.001146 16; α(L)=0.0001663 24; α(M)=3.78×10 ⁻⁵ 6; α(N+..)=5.97×10 ⁻⁵ α(N)=9.32×10 ⁻⁶ 13; α(O)=1.673×10 ⁻⁶ 24; α(P)=1.132×10 ⁻⁷ 16; α(IPF)=4.86×10 ⁻⁵ 7 Mult.: α(K)exp=0.0015 3.
1287.7 2	0.15 1	3027.39	(2,3) ⁻	1739.432	(1) ⁻	M1	0.00695 10	α=0.00695 10; α(K)=0.00576 8; α(L)=0.000899 13; α(M)=0.000206 3; α(N+..)=8.38×10 ⁻⁵ 12 α(N)=5.11×10 ⁻⁵ 8; α(O)=9.21×10 ⁻⁶ 13; α(P)=6.35×10 ⁻⁷ 9; α(IPF)=2.29×10 ⁻⁵ 4 Mult.: α(K)exp=0.0056 19.
^x 1289.7 ^{&} 8								E _γ ,I _γ : see comment with 1291.6γ.
1291.60 9	0.14 1	3031.00	(≤3)	1739.432	(1) ⁻			other data: E _γ =1291.20 25, I _γ =0.15 1 (1972Fi12). however, it is unclear how this line is related to E _γ =1289.7 8 and 1292.6 5 in ce data from 1966Ny01. if it corresponds to the latter, α(K)exp(1292)=0.014 3. Mult.: α(K)exp=0060 19 for doublet.
1295.00 10	0.033 6	3189.52	(2,3) ⁻	1894.479	(2,3) ⁻			
1296.0 3	0.051 8	2217.12	(2) ⁺	920.91852	3 ⁺			
^x 1302.4 3	0.07 3							Mult.: α(K)exp=0.011 5. other E _γ (I _γ): 1308.1 7 (0.15 5) (1970PI09).
1307.8 2	0.026 4	2508.84	(2,3) ⁺	1201.0452	4 ⁺			placement from a 1308 level rejected by 2008Mc04.
1312.85 10	0.53 6	1629.30	0 ⁺	316.50645	2 ⁺	E2	0.00326 5	α=0.00326 5; α(K)=0.00266 4; α(L)=0.000442 7; α(M)=0.0001023 15; α(N+..)=4.87×10 ⁻⁵ 7 α(N)=2.52×10 ⁻⁵ 4; α(O)=4.49×10 ⁻⁶ 7; α(P)=2.79×10 ⁻⁷ 4; α(IPF)=1.87×10 ⁻⁵ 3 Mult.: α(K)exp=0.0033 7; α(K)exp consistent with some M1 admixture, but level scheme is not. other data: E _γ =1313.14 20 (1966Ny01); I _γ =0.74 2 (1972Fi12). placement from 2891 level rejected by 2008Mc04.
1316.56 7	0.57 3	2237.52	(2) ⁺	920.91852	3 ⁺	M1+E2	0.0049 17	α=0.0049 17; α(K)=0.0040 14; α(L)=0.00064 21; α(M)=0.00015 5; α(N+..)=6.8×10 ⁻⁵ 20 α(N)=3.7×10 ⁻⁵ 12; α(O)=6.6×10 ⁻⁶ 22; α(P)=4.4×10 ⁻⁷ 17;

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
								α(IPF)=2.5×10 ⁻⁵ 6 other I _γ : 0.38 4 (1972Fi12). Mult.: α(K)exp=0.0043 8.
^x 1321.5 8	0.26 10							
^x 1325.5 ^a	0.16 6							
^x 1330.0 7	0.15 5							
1336.31 4	0.90 4	2257.26	(2) ⁻	920.91852	3 ⁺	E1	0.001342 19	α=0.001342 19; α(K)=0.001067 15; α(L)=0.0001545 22; α(M)=3.51×10 ⁻⁵ 5; α(N+..)=8.49×10 ⁻⁵ α(N)=8.65×10 ⁻⁶ 13; α(O)=1.554×10 ⁻⁶ 22; α(P)=1.055×10 ⁻⁷ 15; α(IPF)=7.46×10 ⁻⁵ 11 Mult.: α(K)exp=0.0015 3.
1337.35 8	0.050 5	2532.46	1 ⁺	1195.170	0 ⁺			
1350 ^{fh}	<0.003	1666.63	(2,3,4)	316.50645	2 ⁺			
1352.60 9	0.098 9	2730.73	(2) ⁻	1378.054	3 ⁻	M1	0.00616 9	α=0.00616 9; α(K)=0.00509 8; α(L)=0.000794 12; α(M)=0.000182 3; α(N+..)=9.48×10 ⁻⁵ 14 α(N)=4.51×10 ⁻⁵ 7; α(O)=8.13×10 ⁻⁶ 12; α(P)=5.61×10 ⁻⁷ 8; α(IPF)=4.10×10 ⁻⁵ 6 Mult.: α(K)exp=0.0051 16. other E _γ (I _γ): 1352.9 3, 1353.16 20 (0.10 1) (1972Fi12); 1353.4 9 (0.13 5) (1970Pi09). placement from a 1353 level rejected by 2008Mc04 .
1358.33 10	0.027 3	2142.96	(3) ⁻	784.5759	4 ⁺			
1362.22 10	0.035 5	3155.74	(2,3) ⁻	1793.503	(2) ⁺			
1363.79 9	0.28 2	1976.25	(2) ⁺	612.46318	2 ⁺	M1	0.00604 9	α=0.00604 9; α(K)=0.00499 7; α(L)=0.000777 11; α(M)=0.0001785 25; α(N+..)=9.75×10 ⁻⁵ 14 α(N)=4.41×10 ⁻⁵ 7; α(O)=7.97×10 ⁻⁶ 12; α(P)=5.50×10 ⁻⁷ 8; α(IPF)=4.48×10 ⁻⁵ 7 Mult.: α(K)exp=0.0054 11. other E _γ : 1364.26 15 (1966Ny01). other I _γ : 0.22 1 (1972Fi12).
^x 1376.6 ^{&} 7								
1378.0 2	0.028 5	1378.054	3 ⁻	0.0	0 ⁺	(E3)	0.00613 9	α=0.00613 9; α(K)=0.00487 7; α(L)=0.000958 14; α(M)=0.000226 4; α(N+..)=7.90×10 ⁻⁵ 11 α(N)=5.59×10 ⁻⁵ 8; α(O)=9.83×10 ⁻⁶ 14; α(P)=5.54×10 ⁻⁷ 8; α(IPF)=1.266×10 ⁻⁵ 18 E _γ : 1378.20 15 (1972Fi12), 1376.6 7 (1966Ny01). Mult.: from Adopted Gammas.
^x 1383.8 8	0.22 6							
1384.00 15	0.047 7	2585.23	(2) ⁺	1201.0452	4 ⁺			
1386.75 5	0.71 3	2171.37	2 ⁺	784.5759	4 ⁺	E2	0.00295 5	α=0.00295 5; α(K)=0.00241 4; α(L)=0.000395 6; α(M)=9.12×10 ⁻⁵ 13; α(N+..)=6.11×10 ⁻⁵ 9 α(N)=2.25×10 ⁻⁵ 4; α(O)=4.00×10 ⁻⁶ 6; α(P)=2.52×10 ⁻⁷ 4;

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
								α(IPF)=3.43×10 ⁻⁵ 5 Mult.: α(K)exp=0.0031 6.
1387.78 9	0.078 9	3127.19	(1 ⁻ ,2 ⁻)	1739.432	(1) ⁻			
1389.68 9	0.044 5	3155.74	(2,3) ⁻	1766.09	(2,3) ⁺			
1393.67 14	0.034 6	2832.89	(1,2) ⁺	1439.263	2 ⁺			
1398.16 9	0.073 8	2319.11	1 ⁺	920.91852	3 ⁺	(E2)	0.00291 4	other E _γ (I _γ):≈1395.2 (0.15 6) (1970PI09). placement from 2835 level rejected by 2008Mc04. α=0.00291 4; α(K)=0.00237 4; α(L)=0.000388 6; α(M)=8.96×10 ⁻⁵ 13; α(N+..)=6.35×10 ⁻⁵ 9 α(N)=2.21×10 ⁻⁵ 3; α(O)=3.94×10 ⁻⁶ 6; α(P)=2.48×10 ⁻⁷ 4; α(IPF)=3.72×10 ⁻⁵ 6 Mult.: α(K)exp=0.0034 11; a little high for, but not inconsistent with, the pure E2 multipolarity required by the level scheme.
1406.75 5	0.054 6	2191.30	(2 ⁺ ,3 ⁻)	784.5759	4 ⁺			
^x 1409.8 ^a	0.13 6							
1414.49 5	0.51 4	2335.465	1 ⁺	920.91852	3 ⁺	E2	0.00285 4	α=0.00285 4; α(K)=0.00232 4; α(L)=0.000379 6; α(M)=8.75×10 ⁻⁵ 13; α(N+..)=6.71×10 ⁻⁵ 10 α(N)=2.16×10 ⁻⁵ 3; α(O)=3.85×10 ⁻⁶ 6; α(P)=2.43×10 ⁻⁷ 4; α(IPF)=4.14×10 ⁻⁵ 6 Mult.: α(K)exp=0.0023 5.
1416.29 ^c 8	0.19 2	3155.74	(2,3) ⁻	1739.432	(1) ⁻	M1,E2	0.0042 14	α=0.0042 14; α(K)=0.0034 12; α(L)=0.00054 17; α(M)=0.00012 4; α(N+..)=9.0×10 ⁻⁵ 23 α(N)=3.1×10 ⁻⁵ 10; α(O)=5.5×10 ⁻⁶ 17; α(P)=3.7×10 ⁻⁷ 13; α(IPF)=5.3×10 ⁻⁵ 12 Mult.: α(K)exp=0.0051 11.
1419.2 2	0.057 8	2614.29	(2 ⁺)	1195.170	0 ⁺			
1422.91 3	5.8 1	1739.432	(1) ⁻	316.50645	2 ⁺	E1	0.001264 18	α=0.001264 18; α(K)=0.000958 14; α(L)=0.0001384 20; α(M)=3.14×10 ⁻⁵ 5; α(N+..)=0.000135 α(N)=7.75×10 ⁻⁶ 11; α(O)=1.393×10 ⁻⁶ 20; α(P)=9.48×10 ⁻⁸ 14; α(IPF)=0.0001267 18 Mult.: α(K)exp=0.00101 16. other I _γ : 5.13 8 (1972Fi12).
1428.32 14	0.010 2	2834.60	(2 ⁺)	1406.35	3 ⁺			
1429.34 7	0.19 1	2041.81	(2 ⁻ ,3 ⁻)	612.46318	2 ⁺			Mult.: α(K)exp=0.0018 7; favors E2, but E1 cannot be ruled out. Level scheme implies Δπ=(yes). placement from 2629 level rejected by 2008Mc04.
1432.55 8	0.066 7	2217.12	(2) ⁺	784.5759	4 ⁺			
1435.39 6	0.44 2	2047.89	(2) ⁺	612.46318	2 ⁺	M1	0.00535 8	α=0.00535 8; α(K)=0.00439 7; α(L)=0.000683 10; α(M)=0.0001568 22; α(N+..)=0.0001188 α(N)=3.88×10 ⁻⁵ 6; α(O)=7.00×10 ⁻⁶ 10; α(P)=4.84×10 ⁻⁷ 7; α(IPF)=7.25×10 ⁻⁵ 11 Mult.: α(K)exp=0.0051 7. other I _γ : 0.37 2 (1972Fi12).

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
1439.22 12	0.092 9	1439.263	2 ⁺	0.0	0 ⁺			Mult.: α(K)exp=0.0035 12 for 1439γ+1440γ doublet.
1440.03 17	0.028 4	2635.23	1 ⁺	1195.170	0 ⁺			
^x 1441.0 ^{&} 4								
1449.68 8	0.37 3	1766.09	(2,3) ⁺	316.50645	2 ⁺	E2(+M1)	0.0040 13	α=0.0040 13; α(K)=0.0033 11; α(L)=0.00051 16; α(M)=0.00012 4; α(N+..)=0.000100 25 α(N)=2.9×10 ⁻⁵ 9; α(O)=5.2×10 ⁻⁶ 16; α(P)=3.5×10 ⁻⁷ 12; α(IPF)=6.5×10 ⁻⁵ 14 Mult.: α(K)exp=0.0025 5. other I _γ : 0.28 2 (1972Fi12).
1450.0 2	0.067 9	3189.52	(2,3) ⁻	1739.432	(1) ⁻			α=0.00513 8; α(K)=0.00420 6; α(L)=0.000653 10; α(M)=0.0001499 21; α(N+..)=0.0001280 α(N)=3.71×10 ⁻⁵ 6; α(O)=6.69×10 ⁻⁶ 10; α(P)=4.62×10 ⁻⁷ 7; α(IPF)=8.37×10 ⁻⁵ 12 Mult.: α(K)exp=0.008 4. placement from 2074 level rejected by 2008Mc04 . Mult.: α(K)exp=0.0021 14. placements from 2658 and a 2909 level rejected by 2008Mc04 .
^x 1461.61 19	0.16 8					(M1)	0.00513 8	
^x 1467.1 ^c 5	0.12 7							
^x 1469.1 8	0.15 7							
^x 1474.2 8	0.18 8							
1477.00 10	0.36 2	1793.503	(2) ⁺	316.50645	2 ⁺	M1+E2+E0	0.00501 7	α=0.00501 7; α(K)=0.00409 6; α(L)=0.000636 9; α(M)=0.0001460 21; α(N+..)=0.0001337 1 α(N)=3.61×10 ⁻⁵ 5; α(O)=6.52×10 ⁻⁶ 10; α(P)=4.50×10 ⁻⁷ 7; α(IPF)=9.06×10 ⁻⁵ 13 Mult.: α(K)exp=0.0079 15.
1479.03 5	0.24 2	2857.07	(2) ⁻	1378.054	3 ⁻			α=0.00493 7; α(K)=0.00402 6; α(L)=0.000625 9; α(M)=0.0001434 20; α(N+..)=0.0001377 2 α(N)=3.55×10 ⁻⁵ 5; α(O)=6.40×10 ⁻⁶ 9; α(P)=4.43×10 ⁻⁷ 7; α(IPF)=9.54×10 ⁻⁵ 14 Mult.: α(K)exp=0.0042 16.
1487.38 8	0.13 2	2408.34	(2) ⁺	920.91852	3 ⁺	M1	0.00493 7	
^x 1492.5 9	0.15 5							α=0.00480 7; α(K)=0.00391 6; α(L)=0.000607 9; α(M)=0.0001393 20; α(N+..)=0.0001447 2 α(N)=3.45×10 ⁻⁵ 5; α(O)=6.22×10 ⁻⁶ 9; α(P)=4.30×10 ⁻⁷ 6; α(IPF)=0.0001036 15 Mult.: α(K)exp=0.0039 8. other I _γ : 0.18 6 (1970PI09). placement from an 1823 level rejected by 2008Mc04 .
^x 1504.84 16	0.28 2					M1	0.00480 7	
1507.75 9	0.04 1	2120.21	(2) ⁺	612.46318	2 ⁺			
1511.11 20	0.028 5	2950.43	(1,2) ⁺	1439.263	2 ⁺	E2	0.00256 4	α=0.00256 4; α(K)=0.00206 3; α(L)=0.000331 5; α(M)=7.64×10 ⁻⁵ 11; α(N+..)=9.21×10 ⁻⁵ 13 α(N)=1.88×10 ⁻⁵ 3; α(O)=3.36×10 ⁻⁶ 5; α(P)=2.15×10 ⁻⁷ 3; α(IPF)=6.97×10 ⁻⁵ 10

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>I_(γ+ce)^g</u>	<u>Comments</u>
1512.75 13 1514.44 11	0.090 15 0.029 8	2890.93 2435.37	(2) ⁻ 3 ⁺	1378.054 920.91852	3 ⁻ 3 ⁺	M1+E2+E0		0.0036 11		Mult.: α(K)exp=0.020 6. placement from 2296 level rejected by 2008Mc04. α=0.0036 11; α(K)=0.0029 9; α(L)=0.00046 14; α(M)=0.00011 3; α(N+..)=0.00012 3 α(N)=2.6×10 ⁻⁵ 8; α(O)=4.7×10 ⁻⁶ 14; α(P)=3.2×10 ⁻⁷ 11; α(IPF)=9.0×10 ⁻⁵ 19 Mult.: α(K)exp=0.014 6. placement from a 1514 level rejected by 2008Mc04.
1517.05 9	0.33 3	2129.52	(1) ⁻	612.46318	2 ⁺					Mult.: α(K)exp=0.0015 5. Possibly overestimated; E(ce) is high suggesting ce line May include 1519γ. E1 and E2 assignments possible. Additional information 1. other data: E _γ =1517.8 3 (1966Ny01); I _γ =0.22 2 (1972Fi12).
1519.43 12 ^x 1521.8 7 1530.4 1 1536.91 4	0.043 7 0.27 8 0.049 6 0.83 3	2958.75 2142.96 2149.385	(2,3) ⁻ (3) ⁻ 1 ⁺	1439.263 612.46318 612.46318	2 ⁺ 2 ⁺ 2 ⁺	M1		0.00457 7		other I _γ : 0.12 5 (1970Pi09). α=0.00457 7; α(K)=0.00371 6; α(L)=0.000576 8; α(M)=0.0001321 19; α(N+..)=0.0001586 2 α(N)=3.27×10 ⁻⁵ 5; α(O)=5.90×10 ⁻⁶ 9; α(P)=4.08×10 ⁻⁷ 6; α(IPF)=0.0001196 17 Mult.: α(K)exp=0.0042 7. other I _γ : 0.73 3 (1972Fi12).
1546.96 15		1546.93	(0) ⁺	0.0	0 ⁺	(E0)			0.009 1	Mult.: α(K)exp≥0.060 10 from I _γ ≤0.12 (1972Fi12). E _γ : from 1966Ny01. I _(γ+ce) : deduced from Ice(K) and theoretical K/L ratios for E0 transitions (1969Ha61).
1549.24 8 1551.39 8 1559.0 2	0.25 3 0.020 7 1.6 1	2161.64 2472.27 2171.37	2 ⁺ 2 ⁺ 2 ⁺	612.46318 920.91852 612.46318	2 ⁺ 3 ⁺ 2 ⁺	E2(+M1)	≤1.6	0.0037 8		α=0.0037 8; α(K)=0.0030 6; α(L)=0.00047 9; α(M)=0.000107 21; α(N+..)=0.000146 23 α(N)=2.7×10 ⁻⁵ 5; α(O)=4.8×10 ⁻⁶ 10; α(P)=3.3×10 ⁻⁷ 7; α(IPF)=0.000115 17 Mult.: α(K)exp=0.0020 4. other I _γ : 1.10 3 (1972Fi12).
1563.74 19	0.40 12	1880.02	3 ⁺	316.50645	2 ⁺	M1		0.00440 7		α=0.00440 7; α(K)=0.00355 5; α(L)=0.000551 8; α(M)=0.0001265 18; α(N+..)=0.0001710 2 α(N)=3.13×10 ⁻⁵ 5; α(O)=5.65×10 ⁻⁶ 8; α(P)=3.91×10 ⁻⁷ 6; α(IPF)=0.0001336 19 Mult.: α(K)exp=0.0046 16.
1565.39 7 ^x 1566.76 19	0.45 2 0.94 15	2486.29	(2) ⁻	920.91852	3 ⁺	E2		0.00241 4		α=0.00241 4; α(K)=0.00193 3; α(L)=0.000308 5;

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
1576.38 4	4.10 10	1576.368	2 ⁺	0.0	0 ⁺	E2	0.00239 4	α(M)=7.10×10 ⁻⁵ 10; α(N+..)=0.0001092 16 α(N)=1.751×10 ⁻⁵ 25; α(O)=3.13×10 ⁻⁶ 5; α(P)=2.01×10 ⁻⁷ 3; α(IPF)=8.84×10 ⁻⁵ 13 Mult.: α(K)exp=0.0018 4. placement from a 1883 level rejected by 2008Mc04 . α=0.00239 4; α(K)=0.00191 3; α(L)=0.000304 5; α(M)=7.01×10 ⁻⁵ 10; α(N+..)=0.0001124 16 α(N)=1.730×10 ⁻⁵ 25; α(O)=3.09×10 ⁻⁶ 5; α(P)=1.99×10 ⁻⁷ 3; α(IPF)=9.18×10 ⁻⁵ 13 Mult.: α(K)exp=0.0018 4.
1577.95 5 1579.2 3	0.44 3 0.25 2	1894.479 3155.74	(2,3) ⁻ (2,3) ⁻	316.50645 1576.368	2 ⁺ 2 ⁺			Mult.: α(K)exp=0.0040 11 for doublet ce spectrum. other E _γ (I _γ): 1580.0 3 (0.90 5) for doublet (1972Fi12). α=0.00430 6; α(K)=0.00346 5; α(L)=0.000537 8; α(M)=0.0001231 18; α(N+..)=0.000179 3 α(N)=3.05×10 ⁻⁵ 5; α(O)=5.50×10 ⁻⁶ 8; α(P)=3.80×10 ⁻⁷ 6; α(IPF)=0.0001427 20 Mult.: α(K)exp=0.0053 10.
1580.64 8	0.64 3	2958.75	(2,3) ⁻	1378.054	3 ⁻	M1	0.00430 6	α=0.00425 6; α(K)=0.00342 5; α(L)=0.000531 8; α(M)=0.0001217 17; α(N+..)=0.000183 3 α(N)=3.01×10 ⁻⁵ 5; α(O)=5.43×10 ⁻⁶ 8; α(P)=3.76×10 ⁻⁷ 6; α(IPF)=0.0001467 21 Mult.: α(K)exp=0.0040 8. placement from a 2201 level rejected by 2008Mc04 . α=0.00416 6; α(K)=0.00333 5; α(L)=0.000517 8; α(M)=0.0001185 17; α(N+..)=0.000191 3 α(N)=2.93×10 ⁻⁵ 5; α(O)=5.29×10 ⁻⁶ 8; α(P)=3.66×10 ⁻⁷ 6; α(IPF)=0.0001559 22 Mult.: α(K)exp=0.0055 16.
1587.86 9	0.35 2	2508.84	(2,3) ⁺	920.91852	3 ⁺	M1	0.00425 6	α=0.00405 6; α(K)=0.00323 5; α(L)=0.000501 7; α(M)=0.0001150 16; α(N+..)=0.000201 3 α(N)=2.84×10 ⁻⁵ 4; α(O)=5.13×10 ⁻⁶ 8; α(P)=3.55×10 ⁻⁷ 5; α(IPF)=0.0001668 24 Mult.: α(K)exp=0.0034 6. other I _γ : 2.88 5 (1972Fi12).
1604.67 13	0.10 1	2217.12	(2) ⁺	612.46318	2 ⁺	M1	0.00416 6	α=0.001172 17; α(K)=0.000752 11; α(L)=0.0001079 16;
^x 1608.2 ^a 1624.35 3	0.06 3 3.3 1	2236.82	(1,2) ⁺	612.46318	2 ⁺	M1	0.00405 6	
^x 1629.5 ^{&} 4 1633.56 8	0.038 6	2834.60	(2 ⁺)	1201.0452	4 ⁺			
^x 1636.1 ^a 1639.2 2	0.12 5 0.058 8	2560.15	(1 ⁺ ,2)	920.91852	3 ⁺			
1639.43 9	0.027 4	2834.60	(2 ⁺)	1195.170	0 ⁺			
1641.91 16	0.098 10	2562.96	(2) ⁺	920.91852	3 ⁺			
1644.77 6	1.00 10	2257.26	(2) ⁻	612.46318	2 ⁺	E1	0.001172 17	

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
								α(M)=2.45×10 ⁻⁵ 4; α(N+..)=0.000288 α(N)=6.04×10 ⁻⁶ 9; α(O)=1.086×10 ⁻⁶ 16; α(P)=7.45×10 ⁻⁸ 11; α(IPF)=0.000281 4 Mult.: α(K)exp=0.00076 21. other I _γ : 0.84 3 (1972Fi12), 1.25 25 (1970Pi09).
1649.32 8 ^x 1655.1 ^a 1659.78 7	0.25 3 0.09 4 0.26 2	3027.39	(2,3) ⁻	1378.054	3 ⁻			
		1976.25	(2) ⁺	316.50645	2 ⁺	M1	0.00387 6	α=0.00387 6; α(K)=0.00306 5; α(L)=0.000475 7; α(M)=0.0001089 16; α(N+..)=0.000219 3 α(N)=2.69×10 ⁻⁵ 4; α(O)=4.86×10 ⁻⁶ 7; α(P)=3.37×10 ⁻⁷ 5; α(IPF)=0.000187 3 Mult.: α(K)exp=0.0052 11.
1664.2 1	0.088 9	2585.23	(2) ⁺	920.91852	3 ⁺	M1	0.00384 6	α=0.00384 6; α(K)=0.00304 5; α(L)=0.000472 7; α(M)=0.0001082 16; α(N+..)=0.000221 3 α(N)=2.68×10 ⁻⁵ 4; α(O)=4.83×10 ⁻⁶ 7; α(P)=3.34×10 ⁻⁷ 5; α(IPF)=0.000189 3 Mult.: α(K)exp=0.0057 14.
^x 1671.8 8 ^x 1675.1 ^a ^x 1678.3 ^a	0.16 6 0.10 5 0.11 5							placement from 2857 level rejected by 2008Mc04 .
1682.09 9 1683.34 25	0.090 10 0.22 2	2602.97	(2) ⁺	920.91852	3 ⁺			
		2296.06	(1,2) ⁺	612.46318	2 ⁺	M1	0.00375 6	α=0.00375 6; α(K)=0.00296 5; α(L)=0.000458 7; α(M)=0.0001051 15; α(N+..)=0.000231 4 α(N)=2.60×10 ⁻⁵ 4; α(O)=4.69×10 ⁻⁶ 7; α(P)=3.25×10 ⁻⁷ 5; α(IPF)=0.000200 3 Mult.: α(K)exp=0.0042 9; suggests possible E0 component. E _γ : from 1966Ny01 ; 1683.5 3 from 2008Mc04 . other I _γ : 0.22 2 (1972Fi12).
^x 1685.8 ^a 1687.61 9 ^x 1689.6 ^a 1693.29 24	0.15 8 0.022 5 0.15 8 0.19 2	2472.27	2 ⁺	784.5759	4 ⁺			
		2614.29	(2 ⁺)	920.91852	3 ⁺	M1	0.00371 6	placement from 2891 level rejected by 2008Mc04 . α=0.00371 6; α(K)=0.00292 4; α(L)=0.000452 7; α(M)=0.0001036 15; α(N+..)=0.000237 4 α(N)=2.56×10 ⁻⁵ 4; α(O)=4.62×10 ⁻⁶ 7; α(P)=3.20×10 ⁻⁷ 5; α(IPF)=0.000206 3 Mult.: α(K)exp=0.0040 6.
1706.63 3	3.3 1	2319.11	1 ⁺	612.46318	2 ⁺	M1	0.00365 6	α=0.00365 6; α(K)=0.00286 4; α(L)=0.000443 7; α(M)=0.0001015 15; α(N+..)=0.000244 4 α(N)=2.51×10 ⁻⁵ 4; α(O)=4.53×10 ⁻⁶ 7; α(P)=3.14×10 ⁻⁷ 5; α(IPF)=0.000214 3 Mult.: α(K)exp=0.0035 5.
1723.00 4	6.0 3	2335.465	1 ⁺	612.46318	2 ⁺	M1	0.00358 5	α=0.00358 5; α(K)=0.00279 4; α(L)=0.000432 6; α(M)=9.91×10 ⁻⁵ 14; α(N+..)=0.000253 4

$\gamma(^{192}\text{Pt})$ (continued)

E_γ ‡	I_γ #g	E_i (level)	J_i^π	E_f	J_f^π	Mult. @	α^\dagger	Comments
								$\alpha(\text{N})=2.45\times 10^{-5}$ 4; $\alpha(\text{O})=4.43\times 10^{-6}$ 7; $\alpha(\text{P})=3.07\times 10^{-7}$ 5; $\alpha(\text{IPF})=0.000224$ 4 other I_γ : 5.36 15 (1972Fi12). Mult.: $\alpha(\text{K})_{\text{exp}}=0.0028$ 5.
1724.95 21	0.012 3	2041.81	(2 ⁻ ,3 ⁻)	316.50645	2 ⁺			
1726.35 10	0.26 3	2647.32	(2) ⁻	920.91852	3 ⁺			
1731.4 1	1.21 5	2047.89	(2) ⁺	316.50645	2 ⁺	M1	0.00354 5	$\alpha=0.00354$ 5; $\alpha(\text{K})=0.00276$ 4; $\alpha(\text{L})=0.000427$ 6; $\alpha(\text{M})=9.79\times 10^{-5}$ 14; $\alpha(\text{N}+..)=0.000258$ 4 $\alpha(\text{N})=2.42\times 10^{-5}$ 4; $\alpha(\text{O})=4.37\times 10^{-6}$ 7; $\alpha(\text{P})=3.03\times 10^{-7}$ 5; $\alpha(\text{IPF})=0.000229$ 4 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0040$ 7.
1739.49 10	0.39 3	1739.432	(1) ⁻	0.0	0 ⁺	(E1)	0.001162 17	$\alpha=0.001162$ 17; $\alpha(\text{K})=0.000685$ 10; $\alpha(\text{L})=9.81\times 10^{-5}$ 14; $\alpha(\text{M})=2.23\times 10^{-5}$ 4; $\alpha(\text{N}+..)=0.000357$ 5 $\alpha(\text{N})=5.49\times 10^{-6}$ 8; $\alpha(\text{O})=9.88\times 10^{-7}$ 14; $\alpha(\text{P})=6.80\times 10^{-8}$ 10; $\alpha(\text{IPF})=0.000351$ 5 Mult.: $\alpha(\text{K})_{\text{exp}}=0.00099$ 27.
^x 1742.0 9	0.11 5							
1755.4 3	0.0096 15	2950.43	(1,2 ⁺)	1195.170	0 ⁺			
1757.7 4	0.025 10	2073.95	2 ⁺	316.50645	2 ⁺			Mult.: $\alpha(\text{K})_{\text{exp}}=0.025$ 12. placement from 2891 level rejected by 2008Mc04 .
1762.90 4	1.3 2	2375.392	(1,2) ⁺	612.46318	2 ⁺	E2(+M1)	0.0027 7	$\alpha=0.0027$ 7; $\alpha(\text{K})=0.0021$ 6; $\alpha(\text{L})=0.00033$ 9; $\alpha(\text{M})=7.5\times 10^{-5}$ 19; $\alpha(\text{N}+..)=0.00023$ 5 $\alpha(\text{N})=1.8\times 10^{-5}$ 5; $\alpha(\text{O})=3.3\times 10^{-6}$ 9; $\alpha(\text{P})=2.3\times 10^{-7}$ 7; $\alpha(\text{IPF})=0.00021$ 5 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0019$ 4.
^x 1769.4 9	0.15 8							
1777.8 2	0.019 4	3155.74	(2,3) ⁻	1378.054	3 ⁻			
1778.39 6	0.16 1	2562.96	(2) ⁺	784.5759	4 ⁺			Mult.: $\alpha(\text{K})_{\text{exp}}=0.026$ 6 for probable doublet, >> $\alpha(\text{K})(\text{M1})$; however, level scheme implies E2 for this placement.
^x 1781.7 9	0.17 7							
1786.79 4	1.45 12	2399.270	(1,2) ⁺	612.46318	2 ⁺	(E2)	0.00200 3	$\alpha=0.00200$ 3; $\alpha(\text{K})=0.001517$ 22; $\alpha(\text{L})=0.000237$ 4; $\alpha(\text{M})=5.45\times 10^{-5}$ 8; $\alpha(\text{N}+..)=0.000191$ 3 $\alpha(\text{N})=1.346\times 10^{-5}$ 19; $\alpha(\text{O})=2.41\times 10^{-6}$ 4; $\alpha(\text{P})=1.582\times 10^{-7}$ 23; $\alpha(\text{IPF})=0.0001747$ 25 Mult.: $\alpha(\text{K})_{\text{exp}}=0.0021$ 7.
1795.75 20	0.060 9	2408.34	(2) ⁺	612.46318	2 ⁺	M1(+E2)	0.0026 7	$\alpha=0.0026$ 7; $\alpha(\text{K})=0.0020$ 5; $\alpha(\text{L})=0.00031$ 8; $\alpha(\text{M})=7.2\times 10^{-5}$ 18; $\alpha(\text{N}+..)=0.00024$ 5 $\alpha(\text{N})=1.8\times 10^{-5}$ 5; $\alpha(\text{O})=3.2\times 10^{-6}$ 8; $\alpha(\text{P})=2.2\times 10^{-7}$ 6; $\alpha(\text{IPF})=0.00022$ 5 Mult.: $\alpha(\text{K})_{\text{exp}}=0.025$ 8.
1800.68 7	0.035 5	2585.23	(2) ⁺	784.5759	4 ⁺			
1810.39 9	0.075 8	2422.78	(1,2) ⁺	612.46318	2 ⁺			
1811.57 15	0.037 5	3189.52	(2,3) ⁻	1378.054	3 ⁻			

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
1813.00 7	0.72 3	2129.52	(1 ⁻)	316.50645	2 ⁺			Mult.: α(K)exp=0.0013 4; it is unclear whether the 1812γ contributes to the reported I(ce). E2 appears most likely, but is inconsistent with adopted level scheme. Additional information 2.
1822.90 8	0.32 2	2435.37	3 ⁺	612.46318	2 ⁺	M1	0.00320 5	α=0.00320 5; α(K)=0.00243 4; α(L)=0.000375 6; α(M)=8.60×10 ⁻⁵ 12; α(N+..)=0.000312 5 α(N)=2.13×10 ⁻⁵ 3; α(O)=3.84×10 ⁻⁶ 6; α(P)=2.66×10 ⁻⁷ 4; α(IPF)=0.000287 4 Mult.: α(K)exp=0.0033 9. placement from an 1823 level rejected by 2008Mc04 .
1832.83 4	4.7 3	2149.385	1 ⁺	316.50645	2 ⁺	M1	0.00317 5	α=0.00317 5; α(K)=0.00240 4; α(L)=0.000370 6; α(M)=8.49×10 ⁻⁵ 12; α(N+..)=0.000318 5 α(N)=2.10×10 ⁻⁵ 3; α(O)=3.79×10 ⁻⁶ 6; α(P)=2.63×10 ⁻⁷ 4; α(IPF)=0.000293 5 Mult.: α(K)exp=0.0027 4. other I _γ : 5.5 6 (1970PI09).
1840.94 10	0.11 2	2453.43	2 ⁺	612.46318	2 ⁺	M1+E2+E0	0.0025 6	α=0.0025 6; α(K)=0.0019 5; α(L)=0.00030 8; α(M)=6.8×10 ⁻⁵ 17; α(N+..)=0.00027 6 α(N)=1.7×10 ⁻⁵ 4; α(O)=3.0×10 ⁻⁶ 8; α(P)=2.0×10 ⁻⁷ 6; α(IPF)=0.00025 5 Mult.: α(K)exp=0.0069 20.
1855.0 3	0.20 2	2171.37	2 ⁺	316.50645	2 ⁺	M1+E2+E0	0.0025 6	α=0.0025 6; α(K)=0.0019 5; α(L)=0.00029 7; α(M)=6.6×10 ⁻⁵ 16; α(N+..)=0.00028 6 α(N)=1.6×10 ⁻⁵ 4; α(O)=3.0×10 ⁻⁶ 8; α(P)=2.0×10 ⁻⁷ 6; α(IPF)=0.00026 6 Mult.: α(K)exp=0.030 6. α: estimated from α(K)exp.
1859.82 9	0.084 9	2472.27	2 ⁺	612.46318	2 ⁺	M1+E2+E0	0.0025 6	α=0.0025 6; α(K)=0.0019 5; α(L)=0.00029 7; α(M)=6.6×10 ⁻⁵ 16; α(N+..)=0.00028 6 α(N)=1.6×10 ⁻⁵ 4; α(O)=2.9×10 ⁻⁶ 8; α(P)=2.0×10 ⁻⁷ 6; α(IPF)=0.00026 6 Mult.: α(K)exp=0.0050 13.
^x 1868.2 9	0.13 6							
1871.10 10	0.14 2	2483.64	≤3	612.46318	2 ⁺			
^x 1872.4 5	0.45 20					(E1,E2)		Mult.: α(K)exp=0.0010 6.
^x 1874.8 8	0.45 20							
1880 ^{fh}	<0.007	1880.02	3 ⁺	0.0	0 ⁺	[M3]		other E _γ (I _γ): 1880.2 7 (0.19 7) (1970PI09).
^x 1883.78 ^{&} 25						(E0) ^e		placement from a 1883 level rejected by 2008Mc04 .
1896.40 8	0.12 1	2508.84	(2,3) ⁺	612.46318	2 ⁺			other E _γ : ≈1894.9 (1970PI09). placement from 1895 level rejected by 2008Mc04 .
^x 1900.5 ^c 7	0.15 7					M1	0.00297 5	α=0.00297 5; α(K)=0.00219 3; α(L)=0.000338 5; α(M)=7.75×10 ⁻⁵ 11; α(N+..)=0.000360 5 α(N)=1.92×10 ⁻⁵ 3; α(O)=3.46×10 ⁻⁶ 5; α(P)=2.40×10 ⁻⁷ 4;

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
								α(IPF)=0.000337 5 Mult.: α(K)exp=0.0045 23. placement from 2217 rejected by 2008Mc04 .
1913.6 2	0.054 7	2834.60	(2 ⁺)	920.91852	3 ⁺			
^x 1915.4 ^a	0.11 5							
1919.95 8	0.17 2	2532.46	1 ⁺	612.46318	2 ⁺			other data: E _γ : 1921.1 3 (1966Ny01), 1921.3 3 (1970PI09). I _γ : 5.6 7 (1970PI09).
1921.05 6	4.7 2	2237.52	(2) ⁺	316.50645	2 ⁺	M1	0.00291 4	α=0.00291 4; α(K)=0.00213 3; α(L)=0.000329 5; α(M)=7.55×10 ⁻⁵ 11; α(N+..)=0.000372 6 α(N)=1.87×10 ⁻⁵ 3; α(O)=3.37×10 ⁻⁶ 5; α(P)=2.34×10 ⁻⁷ 4; α(IPF)=0.000350 5 Mult.: α(K)exp=0.0026 4.
^x 1934.9 ^d	0.18 ^d 9							
1936.07 8	0.031 4	2857.07	(2) ⁻	920.91852	3 ⁺			
1936.9 1	0.19 1	2549.42	(2) ⁺	612.46318	2 ⁺	M1,E2	0.0023 6	α=0.0023 6; α(K)=0.0017 4; α(L)=0.00026 6; α(M)=6.0×10 ⁻⁵ 14; α(N+..)=0.00032 7 α(N)=1.5×10 ⁻⁵ 4; α(O)=2.7×10 ⁻⁶ 7; α(P)=1.8×10 ⁻⁷ 5; α(IPF)=0.00030 6 Mult.: α(K)exp=0.0018 5.
1940.80 10	2.4 2	2257.26	(2) ⁻	316.50645	2 ⁺	E1	0.001175 17	α=0.001175 17; α(K)=0.000572 8; α(L)=8.16×10 ⁻⁵ 12; α(M)=1.85×10 ⁻⁵ 3; α(N+..)=0.000503 7 α(N)=4.57×10 ⁻⁶ 7; α(O)=8.22×10 ⁻⁷ 12; α(P)=5.68×10 ⁻⁸ 8; α(IPF)=0.000498 7 Mult.: α(K)exp=0.00066 14.
^x 1946.9 ^a	0.14 6							
1950.46 13	0.86 2	2562.96	(2) ⁺	612.46318	2 ⁺	M1	0.00283 4	α=0.00283 4; α(K)=0.00205 3; α(L)=0.000317 5; α(M)=7.26×10 ⁻⁵ 11; α(N+..)=0.000391 6 α(N)=1.80×10 ⁻⁵ 3; α(O)=3.24×10 ⁻⁶ 5; α(P)=2.25×10 ⁻⁷ 4; α(IPF)=0.000369 6 Mult.: α(K)exp=0.0026 5. placement from a 3146 level rejected by 2008Mc04 .
^x 1961.8 9	0.11 5							
1969.99 8	0.11 1	2890.93	(2) ⁻	920.91852	3 ⁺			
1972.85 15	0.57 7	2585.23	(2) ⁺	612.46318	2 ⁺	M1	0.00278 4	α=0.00278 4; α(K)=0.00200 3; α(L)=0.000308 5; α(M)=7.06×10 ⁻⁵ 10; α(N+..)=0.000405 6 α(N)=1.746×10 ⁻⁵ 25; α(O)=3.15×10 ⁻⁶ 5; α(P)=2.19×10 ⁻⁷ 3; α(IPF)=0.000384 6 Mult.: α(K)exp=0.0023 5. other I _γ : 0.72 15 (1970PI09) for possible doublet. placement from 2757 level rejected by 2008Mc04 .
1976 ^{fh}	<0.001	1976.25	(2) ⁺	0.0	0 ⁺			
1979.58 8	1.3 2	2296.06	(1,2) ⁺	316.50645	2 ⁺	M1	0.00276 4	α=0.00276 4; α(K)=0.00198 3; α(L)=0.000305 5; α(M)=7.00×10 ⁻⁵ 10; α(N+..)=0.000409 6

¹⁹²Au ε decay [2008Mc04,1972Fi12,1966Ny01](#) (continued)

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
								α(N)=1.731×10 ⁻⁵ 25; α(O)=3.13×10 ⁻⁶ 5; α(P)=2.17×10 ⁻⁷ 3; α(IPF)=0.000389 6 Mult.: α(K)exp=0.0024 6.
^x 1989.3 8	0.16 5							
1992.25 9	0.16 1	2604.76	(1,2) ⁻	612.46318	2 ⁺			
^x 1993.5 8	0.27 8							
^x 1999.3 ^a	0.25 15							
2001.75 15	0.19 2	2614.29	(2 ⁺)	612.46318	2 ⁺			Complex, with at least 2 unresolved peaks in ce spectrum; 1966Ny01 suggested second placement from 2614.6 level. α(K)exp=0.0023 7 for doublet.
2002.54 8	1.20 15	2319.11	1 ⁺	316.50645	2 ⁺			
2016.81 15	0.11 1	2629.24	2 ⁺	612.46318	2 ⁺	M1+E2+E0		Mult.: α(K)exp=0.0061 15.
2018.8 2	2.4 3	2335.465	1 ⁺	316.50645	2 ⁺	M1	0.00268 4	α=0.00268 4; α(K)=0.00189 3; α(L)=0.000291 4; α(M)=6.66×10 ⁻⁵ 10; α(N+..)=0.000434 6 α(N)=1.649×10 ⁻⁵ 23; α(O)=2.98×10 ⁻⁶ 5; α(P)=2.07×10 ⁻⁷ 3; α(IPF)=0.000415 6 Mult.: α(K)exp=0.0017 4.
^x 2024.5 ^a	0.09 5							
2026.2 2	0.029 6	2947.001	(2 ⁻)	920.91852	3 ⁺			
2034.87 7	1.2 2	2647.32	(2) ⁻	612.46318	2 ⁺	E1	0.001192 17	α=0.001192 17; α(K)=0.000530 8; α(L)=7.55×10 ⁻⁵ 11; α(M)=1.712×10 ⁻⁵ 24; α(N+..)=0.000570 α(N)=4.22×10 ⁻⁶ 6; α(O)=7.61×10 ⁻⁷ 11; α(P)=5.27×10 ⁻⁸ 8; α(IPF)=0.000565 8 Mult.: α(K)exp=0.00059 17.
2037.86 12	0.028 5	2958.75	(2,3) ⁻	920.91852	3 ⁺			
2042 ^{fh}	<0.001	2041.81	(2 ⁻ ,3 ⁻)	0.0	0 ⁺			M2,E3 multipolarity implied by placement so No significant branch is expected.
2047.8 3	0.015 4	2047.89	(2) ⁺	0.0	0 ⁺			
^x 2051.3 ^a	0.09 5							placement from a 3360 level rejected by 2008Mc04 .
^x 2055.3 ^c 7	0.07 4							Mult.: α(K)exp=0.0025 15.
2058.9 1	0.38 8	2375.392	(1,2) ⁺	316.50645	2 ⁺	M1	0.00260 4	α=0.00260 4; α(K)=0.00180 3; α(L)=0.000277 4; α(M)=6.35×10 ⁻⁵ 9; α(N+..)=0.000460 7 α(N)=1.569×10 ⁻⁵ 22; α(O)=2.83×10 ⁻⁶ 4; α(P)=1.97×10 ⁻⁷ 3; α(IPF)=0.000441 7 Mult.: α(K)exp=0.0018 5.
^x 2068.1 9	0.09 5							
2073.7 3	0.20 2	2073.95	2 ⁺	0.0	0 ⁺	E2	0.001694 24	α=0.001694 24; α(K)=0.001159 17; α(L)=0.0001778 25; α(M)=4.07×10 ⁻⁵ 6; α(N+..)=0.000316 α(N)=1.005×10 ⁻⁵ 14; α(O)=1.80×10 ⁻⁶ 3; α(P)=1.207×10 ⁻⁷ 17; α(IPF)=0.000304 5 Mult.: α(K)exp=0.00097 20.
2082.79 6	1.2 1	2399.270	(1,2) ⁺	316.50645	2 ⁺	M1	0.00255 4	α=0.00255 4; α(K)=0.001747 25; α(L)=0.000269 4; α(M)=6.16×10 ⁻⁵ 9; α(N+..)=0.000476 7

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
2091.90 7	0.18 2	2408.34	(2) ⁺	316.50645	2 ⁺	M1	0.00254 4	α(N)=1.525×10 ⁻⁵ 22; α(O)=2.75×10 ⁻⁶ 4; α(P)=1.91×10 ⁻⁷ 3; α(IPF)=0.000457 7 Mult.: α(K)exp=0.0019 4. α=0.00254 4; α(K)=0.001728 25; α(L)=0.000266 4; α(M)=6.10×10 ⁻⁵ 9; α(N+..)=0.000481 7 α(N)=1.508×10 ⁻⁵ 22; α(O)=2.72×10 ⁻⁶ 4; α(P)=1.89×10 ⁻⁷ 3; α(IPF)=0.000463 7 Mult.: α(K)exp=0.0035 9.
^x 2097.1& 9 2106.25 5	1.3 2	2422.78	(1,2) ⁺	316.50645	2 ⁺	M1	0.00251 4	α=0.00251 4; α(K)=0.001699 24; α(L)=0.000262 4; α(M)=5.99×10 ⁻⁵ 9; α(N+..)=0.000491 7 α(N)=1.483×10 ⁻⁵ 21; α(O)=2.68×10 ⁻⁶ 4; α(P)=1.86×10 ⁻⁷ 3; α(IPF)=0.000473 7 Mult.: α(K)exp=0.0019 4. other E _γ : 2106.56 19 (1966Ny01).
2106.42 9	0.13 1	3027.39	(2,3) ⁻	920.91852	3 ⁺			
^x 2117.67 ^c 25	0.07 4							Mult.: α(K)exp=0.017 10.
2118.9 2	0.084 10	2435.37	3 ⁺	316.50645	2 ⁺			
2120.1 2	0.098 10	2120.21	(2) ⁺	0.0	0 ⁺			
2129.57 10	0.45 4	2129.52	(1 ⁻)	0.0	0 ⁺	E1	0.001213 17	α=0.001213 17; α(K)=0.000492 7; α(L)=7.00×10 ⁻⁵ 10; α(M)=1.588×10 ⁻⁵ 23; α(N+..)=0.000635 α(N)=3.92×10 ⁻⁶ 6; α(O)=7.06×10 ⁻⁷ 10; α(P)=4.90×10 ⁻⁸ 7; α(IPF)=0.000630 9 Mult.: α(K)exp=0.00047 16; α(K)exp implies mult=E1, inconsistent with mult(1518γ) which deexcites the same level as this G. Additional information 3. other I _γ : 0.61 15 (1970Pi09).
^x 2134.0 6	0.19 8					(M1,E2)	0.0021 4	α=0.0021 4; α(K)=0.0014 3; α(L)=0.00021 5; α(M)=4.8×10 ⁻⁵ 10; α(N+..)=0.00043 9 α(N)=1.19×10 ⁻⁵ 25; α(O)=2.1×10 ⁻⁶ 5; α(P)=1.5×10 ⁻⁷ 4; α(IPF)=0.00041 8 Mult.: α(K)exp=0.0017 8.
2137.0 3	0.30 3	2453.43	2 ⁺	316.50645	2 ⁺	M1	0.00246 4	α=0.00246 4; α(K)=0.001640 23; α(L)=0.000252 4; α(M)=5.78×10 ⁻⁵ 8; α(N+..)=0.000511 8 α(N)=1.430×10 ⁻⁵ 20; α(O)=2.58×10 ⁻⁶ 4; α(P)=1.80×10 ⁻⁷ 3; α(IPF)=0.000494 7 Mult.: α(K)exp=0.0020 5. other I _γ : 0.45 8 (1970Pi09).
^x 2147.2 8	0.14 6							placement from a 2464 level rejected by 2008Mc04. May be the same As the E _γ =2149.4 2, I _γ =0.072 8 from 2008Mc04.
2149.4 2	0.072 8	2149.385	1 ⁺	0.0	0 ⁺	M1	0.00244 4	α=0.00244 4; α(K)=0.001616 23; α(L)=0.000249 4; α(M)=5.70×10 ⁻⁵ 8; α(N+..)=0.000519 8

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
2155.74 10	0.23 3	2472.27	2 ⁺	316.50645	2 ⁺	M1	0.00243 4	α(N)=1.410×10 ⁻⁵ 20; α(O)=2.55×10 ⁻⁶ 4; α(P)=1.770×10 ⁻⁷ 25; α(IPF)=0.000502 7 Mult.: α(K)exp=0.0035 11. other I _γ : 0.21 5 (1970PI09) for E _γ =2151.7 9.
2167.15 11	0.23 2	2483.64	≤3	316.50645	2 ⁺			α=0.00243 4; α(K)=0.001605 23; α(L)=0.000247 4; α(M)=5.66×10 ⁻⁵ 8; α(N+.)=0.000523 8
2169.6 2	0.20 3	2486.29	(2) ⁻	316.50645	2 ⁺			α(N)=1.399×10 ⁻⁵ 20; α(O)=2.53×10 ⁻⁶ 4; α(P)=1.757×10 ⁻⁷ 25; α(IPF)=0.000506 7 Mult.: α(K)exp=0.0025 6.
2171.5 3	1.2 2	2171.37	2 ⁺	0.0	0 ⁺	[E2]	0.001628 23	placement from a 2952 level rejected by 2008Mc04 . α=0.001628 23; α(K)=0.001067 15; α(L)=0.0001627 23; α(M)=3.73×10 ⁻⁵ 6; α(N+.)=0.000361
^x 2173.4& 5								α(N)=9.20×10 ⁻⁶ 13; α(O)=1.652×10 ⁻⁶ 24; α(P)=1.110×10 ⁻⁷ 16; α(IPF)=0.000350 5 Mult.: α(K)exp=0.0019 7 for 2171.5γ+2169.6γ doublet.
^x 2176.1 ^a	0.17 9							
2181.8 3	0.036 5	2794.26	(≤2)	612.46318	2 ⁺			placement from a 2201 level rejected by 2008Mc04 .
^x 2192.7& 7								
^x 2199.8& 8								
^x 2206.6 ^a	0.09 4							
2216.05 15	0.70 4	2532.46	1 ⁺	316.50645	2 ⁺	M1	0.00234 4	α=0.00234 4; α(K)=0.001499 21; α(L)=0.000230 4; α(M)=5.28×10 ⁻⁵ 8; α(N+.)=0.000562 8 α(N)=1.306×10 ⁻⁵ 19; α(O)=2.36×10 ⁻⁶ 4; α(P)=1.641×10 ⁻⁷ 23; α(IPF)=0.000546 8 Mult.: α(K)exp=0.0019 3.
2220.41 10	0.12 1	2832.89	(1,2) ⁺	612.46318	2 ⁺	M1	0.00234 4	α=0.00234 4; α(K)=0.001492 21; α(L)=0.000229 4; α(M)=5.26×10 ⁻⁵ 8; α(N+.)=0.000565 8 α(N)=1.300×10 ⁻⁵ 19; α(O)=2.35×10 ⁻⁶ 4; α(P)=1.633×10 ⁻⁷ 23; α(IPF)=0.000549 8 Mult.: α(K)exp=0.0027 7. placement from 2835 level rejected by 2008Mc04 .
2234.84 7	0.53 3	3155.74	(2,3) ⁻	920.91852	3 ⁺			other I _γ : 1.3 5 (1970PI09).
2237.3 2	8.0 5	2237.52	(2) ⁺	0.0	0 ⁺			Mult.: α(K)exp=0.00148 26 for doublet, assuming 1966Ny01 failed to resolve the 2234.8γ. this exceeds α(K)(E2). other E _γ : 2236.89 20 (1966Ny01). other I _γ : 9.6 10 (1970PI09).
2243.5 2	0.23 4	2560.15	(1 ⁺ ,2)	316.50645	2 ⁺			
2243.74 20	0.076 8	2856.13	(2) ⁻	612.46318	2 ⁺			Mult.: α(K)exp=0.00069 17 for multiplet. other I _γ : 0.80 22 for poorly resolved 2243.3γ+2246.6γ, each with I _γ =0.40 15 in 1970PI09 .
2246.55 15	0.24 4	2562.96	(2) ⁺	316.50645	2 ⁺			

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
2257 ^a	0.06	2257.26	(2) ⁻	0.0	0 ⁺			
^x 2260 ^a	0.06							
^x 2262.1 & 6								
2268.7 2	0.043 5	3189.52	(2,3) ⁻	920.91852	3 ⁺			Mult.: α(K)exp=0.0031 7 for doublet. Mult.: α(K)exp=0.0031 7 for doublet. other I _γ : 0.21 6 (1970PI09).
2268.8 3	0.057 9	2585.23	(2) ⁺	316.50645	2 ⁺			
^x 2271.9 ^a	0.08 4							
^x 2275.2 ^a	0.05 4							
2278.4 2	0.066 8	2890.93	(2) ⁻	612.46318	2 ⁺			Mult.: α(K)exp=0.0028 8; implies M1, but this is inconsistent with placement of 997γ and 2575γ from same level As this G. other I _γ : 0.15 7 (1970PI09).
^x 2284.0 8	0.13 5							
2286.43 7	0.14 2	2602.97	(2) ⁺	316.50645	2 ⁺	M1	0.00226 4	α=0.00226 4; α(K)=0.001388 20; α(L)=0.000213 3; α(M)=4.89×10 ⁻⁵ 7; α(N+..)=0.000607 9 α(N)=1.208×10 ⁻⁵ 17; α(O)=2.18×10 ⁻⁶ 3; α(P)=1.519×10 ⁻⁷ 22; α(IPF)=0.000593 9 Mult.: α(K)exp=0.0018 5.
2297.8 2	0.33 1	2614.29	(2) ⁺	316.50645	2 ⁺	M1	0.00224 4	α=0.00224 4; α(K)=0.001371 20; α(L)=0.000211 3; α(M)=4.83×10 ⁻⁵ 7; α(N+..)=0.000615 9 α(N)=1.193×10 ⁻⁵ 17; α(O)=2.16×10 ⁻⁶ 3; α(P)=1.500×10 ⁻⁷ 21; α(IPF)=0.000601 9 Mult.: α(K)exp=0.0020 6. other E _γ : 2296.5 8 (1970PI09). placement from a 2909 level rejected by 2008Mc04 .
2312.8 3	0.64 3	2629.24	2 ⁺	316.50645	2 ⁺	M1,E2	0.0019 4	α=0.0019 4; α(K)=0.00115 20; α(L)=0.00018 4; α(M)=4.0×10 ⁻⁵ 8; α(N+..)=0.00053 10 α(N)=9.9×10 ⁻⁶ 18; α(O)=1.8×10 ⁻⁶ 4; α(P)=1.23×10 ⁻⁷ 25; α(IPF)=0.00051 10 Mult.: α(K)exp=0.0014 3.
2318.67 11	0.16 2	2635.23	1 ⁺	316.50645	2 ⁺			
2319.35 25	2.1 2	2319.11	1 ⁺	0.0	0 ⁺	M1	0.00222 4	α=0.00222 4; α(K)=0.001340 19; α(L)=0.000206 3; α(M)=4.71×10 ⁻⁵ 7; α(N+..)=0.000629 9 α(N)=1.166×10 ⁻⁵ 17; α(O)=2.11×10 ⁻⁶ 3; α(P)=1.466×10 ⁻⁷ 21; α(IPF)=0.000615 9 Mult.: α(K)exp=0.0018 3; exceeds α(K)(M1). E _γ : from 1966Ny01 .
2335.5 2	2.5 3	2335.465	1 ⁺	0.0	0 ⁺	M1	0.00221 3	α=0.00221 3; α(K)=0.001317 19; α(L)=0.000202 3; α(M)=4.63×10 ⁻⁵ 7; α(N+..)=0.000639 9 α(N)=1.146×10 ⁻⁵ 16; α(O)=2.07×10 ⁻⁶ 3; α(P)=1.441×10 ⁻⁷ 21; α(IPF)=0.000625 9 Mult.: α(K)exp=0.0014 3.
2341.94 9	0.14 1	2658.46	(1,2) ⁺	316.50645	2 ⁺			
2346.4 2	0.18 2	2958.75	(2,3) ⁻	612.46318	2 ⁺			

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
^x 2359.4 ^a	0.08 5							placement from a 2676 level rejected by 2008Mc04 .
2375.71 & 25		2375.392	(1,2) ⁺	0.0	0 ⁺			observed only In ce spectrum.
^x 2378.2 ^a	0.11 6							
2399.74 & h 25		2399.270	(1,2) ⁺	0.0	0 ⁺			placement not confirmed by 2008Mc04 ; γ May be highly converted.
2408.4 2	0.18 3	2408.34	(2) ⁺	0.0	0 ⁺	(E2)	0.001520 22	α=0.001520 22; α(K)=0.000886 13; α(L)=0.0001337 19; α(M)=3.06×10 ⁻⁵ 5; α(N+..)=0.000469 α(N)=7.54×10 ⁻⁶ 11; α(O)=1.357×10 ⁻⁶ 19; α(P)=9.20×10 ⁻⁸ 13; α(IPF)=0.000460 7 Mult.: α(K)exp=0.0008 3; probably E2, but E1 and M1 cannot be ruled out. other I _γ : 0.27 7 (1970PI09). other I _γ : 0.41 9 (1970PI09). other E _γ (I _γ): 2414.2 5 (0.41 9) for doublet (1970PI09). α=0.0018 3; α(K)=0.00104 17; α(L)=0.00016 3; α(M)=3.6×10 ⁻⁵ 6; α(N+..)=0.00059 11 α(N)=9.0×10 ⁻⁶ 15; α(O)=1.6×10 ⁻⁶ 3; α(P)=1.11×10 ⁻⁷ 21; α(IPF)=0.00057 11 Mult.: α(K)exp=0.00112 23. Consistent with M1 and/or E2 for γ to 0 ⁺ .
2414.4 2	0.15 2	2730.73	(2) ⁻	316.50645	2 ⁺			
2415.1 3	0.14 1	3027.39	(2,3) ⁻	612.46318	2 ⁺			
2422.9 3	1.8 2	2422.78	(1,2) ⁺	0.0	0 ⁺	M1,E2	0.0018 3	
^x 2431.7 7	0.08 3							
^x 2440.7 7	0.16 5							
^x 2446.2 9	0.04 2							placement from a 2757 level rejected by 2008Mc04 .
^x 2453.2 4	0.12 3							placement from 2453 level rejected by 2008Mc04 .
2458.75 15	0.11 1	2775.21		316.50645	2 ⁺			placements from 2464 and 2781 levels rejected by 2008Mc04 .
^x 2464.0 9	0.09 3							
^x 2467.5 9	0.04 2							
^x 2483.6 8	0.07 3							
2486.4 3	0.088 10	2486.29	(2) ⁻	0.0	0 ⁺			other E _γ : 2487.6 8 (1970PI09).
^x 2497.8 9	0.05 2							
^x 2503.3 7	0.08 3							
^x 2508.6 7	0.10 3							
^x 2511.9 ^a	0.10 5							
2516.4 3	0.32 2	2832.89	(1,2) ⁺	316.50645	2 ⁺			Mult.: α(K)exp=0.0014 3 for doublet.
2518.0 3	0.28 5	2834.60	(2 ⁺)	316.50645	2 ⁺			Mult.: α(K)exp=0.0014 3 for doublet. other I _γ : 0.75 20 (1970PI09). α=0.00205 3; α(K)=0.001080 16; α(L)=0.0001654 24; α(M)=3.79×10 ⁻⁵ 6; α(N+..)=0.000764 1 α(N)=9.37×10 ⁻⁶ 14; α(O)=1.693×10 ⁻⁶ 24; α(P)=1.180×10 ⁻⁷ 17; α(IPF)=0.000753 11 other I _γ : 0.35 10 for broad peak (1970PI09). Mult.: α(K)exp=0.0017 4 (mult=(E2,M1)). placement from a 3146 level rejected by 2008Mc04 .
2532.8 5	0.18 3	2532.46	1 ⁺	0.0	0 ⁺	M1	0.00205 3	
2541.0 10	0.39 2	2857.07	(2 ⁻)	316.50645	2 ⁺	E1	0.001336 19	α=0.001336 19; α(K)=0.000371 6; α(L)=5.26×10 ⁻⁵ 8; α(M)=1.192×10 ⁻⁵ 17; α(N+..)=0.000900 1

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</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>
2543.1 2	0.30 8	3155.74	(2,3) ⁻	612.46318	2 ⁺	E1	0.001337 19	α(N)=2.94×10 ⁻⁶ 5; α(O)=5.30×10 ⁻⁷ 8; α(P)=3.70×10 ⁻⁸ 6; α(IPF)=0.000897 13 Mult.: α(K)exp=0.00058 13. α=0.001337 19; α(K)=0.000371 6; α(L)=5.25×10 ⁻⁵ 8; α(M)=1.190×10 ⁻⁵ 17; α(N+..)=0.000902 1 α(N)=2.94×10 ⁻⁶ 5; α(O)=5.29×10 ⁻⁷ 8; α(P)=3.69×10 ⁻⁸ 6; α(IPF)=0.000898 13 Mult.: α(K)exp=0.00048 17.
^x 2551.1 12	0.09 4							Mult.: α(K)exp=0.0015 8.
^x 2560.4 8	0.05 2							Mult.: α(K)exp=0.0015 8.
2574.8 4	0.38 6	2890.93	(2) ⁻	316.50645	2 ⁺	E1	0.001348 19	α=0.001348 19; α(K)=0.000364 5; α(L)=5.15×10 ⁻⁵ 8; α(M)=1.167×10 ⁻⁵ 17; α(N+..)=0.000921 1 α(N)=2.88×10 ⁻⁶ 4; α(O)=5.19×10 ⁻⁷ 8; α(P)=3.62×10 ⁻⁸ 5; α(IPF)=0.000917 13 Mult.: α(K)exp=0.00042 11; mult=(E1), inconsistent with placement.
2585.3 2	0.065 9	2585.23	(2) ⁺	0.0	0 ⁺			placement from a 2909 level rejected by 2008Mc04 .
^x 2592.4 11	0.08 5							
^x 2599.0 ^a	0.05 3							other I _γ : 0.15 5 (1970PI09).
2602.8 3	0.085 10	2602.97	(2) ⁺	0.0	0 ⁺			Mult.: α(K)exp=0.0006 3.
^x 2610.3 8	0.24 10							Mult.: α(K)exp=0.0006 3.
2614.3 2	0.75 10	2614.29	(2) ⁺	0.0	0 ⁺	E2	0.001468 21	α=0.001468 21; α(K)=0.000765 11; α(L)=0.0001145 16; α(M)=2.62×10 ⁻⁵ 4; α(N+..)=0.000563 α(N)=6.46×10 ⁻⁶ 9; α(O)=1.162×10 ⁻⁶ 17; α(P)=7.94×10 ⁻⁸ 12; α(IPF)=0.000555 8 Mult.: α(K)exp=0.00058 14. Mult.: α(K)exp=0.0006 3.
^x 2624.5 6	0.15 5							Mult.: α(K)exp=0.0017 4 for doublet.
2629.4 4	0.40 10	2629.24	2 ⁺	0.0	0 ⁺			Mult.: α(K)exp=0.0017 4 for doublet.
2630.4 2	0.26 4	2947.001	(2) ⁻	316.50645	2 ⁺			Mult.: α(K)exp=0.0017 4 for doublet.
2634.0 3	0.12 3	2950.43	(1,2) ⁺	316.50645	2 ⁺			
2635.1 3	0.71 12	2635.23	1 ⁺	0.0	0 ⁺	M1	0.00199 3	α=0.00199 3; α(K)=0.000980 14; α(L)=0.0001499 21; α(M)=3.43×10 ⁻⁵ 5; α(N+..)=0.000827 1 α(N)=8.49×10 ⁻⁶ 12; α(O)=1.534×10 ⁻⁶ 22; α(P)=1.070×10 ⁻⁷ 15; α(IPF)=0.000817 12 other I _γ : 1.01 15 (1970PI09).
^x 2640.7 ^a	0.065 30							Mult.: α(K)exp=0.0014 3.
^x 2646.6 11	0.075 30							placement from a 2952 level rejected by 2008Mc04 .
2658.4 3	0.077 9	2658.46	(1,2) ⁺	0.0	0 ⁺	M1,E2	0.0017 3	α=0.0017 3; α(K)=0.00085 11; α(L)=0.000129 18; α(M)=2.9×10 ⁻⁵ 5; α(N+..)=0.00071 13 α(N)=7.3×10 ⁻⁶ 11; α(O)=1.31×10 ⁻⁶ 19; α(P)=9.1×10 ⁻⁸ 14; α(IPF)=0.00070 13 Mult.: α(K)exp=0.0016 7. other I _γ : 0.17 5 (1970PI09) for broad line.

γ(¹⁹²Pt) (continued)

<u>E_γ[‡]</u>	<u>I_γ^{#g}</u>	<u>E_i(level)</u>	<u>Mult.[@]</u>	<u>α[†]</u>	<u>Comments</u>
^x 2665.7 ^d 15	0.12 ^d 5				
^x 2675.4 ^{&} 6					placement from a 2676 level rejected by 2008Mc04 .
^x 2692.4 20	0.12 5				
^x 2709.6 10	0.13 4				
^x 2718.4 5	0.54 10				
^x 2746.8 6	0.13 4				Mult.: α(K) _{exp} =0.00065 25; mult=(E1,E2). placement from a 3360 level rejected by 2008Mc04 .
^x 2758.0 20	0.055 30				placement from a 2757 level rejected by 2008Mc04 .
^x 2780.6 8	0.09 4				placement from a 2781 level rejected by 2008Mc04 .
^x 2795.0 5	0.18 6				
^x 2829.7 5	0.24 5	(E1)	0.001433 20	α=0.001433 20; α(K)=0.000314 5; α(L)=4.43×10 ⁻⁵ 7; α(M)=1.004×10 ⁻⁵ 14; α(N+..)=0.001065 1 α(N)=2.48×10 ⁻⁶ 4; α(O)=4.47×10 ⁻⁷ 7; α(P)=3.13×10 ⁻⁸ 5; α(IPF)=0.001062 15 Mult.: α(K) _{exp} =0.00033 11.	
^x 2839.5 4	0.98 20	(E1)	0.001436 21	α=0.001436 21; α(K)=0.000312 5; α(L)=4.41×10 ⁻⁵ 7; α(M)=9.98×10 ⁻⁶ 14; α(N+..)=0.001070 15 α(N)=2.46×10 ⁻⁶ 4; α(O)=4.44×10 ⁻⁷ 7; α(P)=3.11×10 ⁻⁸ 5; α(IPF)=0.001067 15 Mult.: α(K) _{exp} =0.00030 8.	placement from a 3146 level rejected by 2008Mc04 .
^x 2870.1 9	0.11 3				
^x 2872.6 9	0.11 3				
^x 2878.4 9	0.025 10				
^x 2889.0 9	0.042 15				placement from 2891 level rejected by 2008Mc04 .
^x 2903.0 10	0.055 20				
^x 2908.7 20	0.034 15				placement from a 2909 level rejected by 2008Mc04 .
^x 2926.3 20	0.030 15				
^x 2950.8 8	0.15 3				placement from a 2952 level rejected by 2008Mc04 .
^x 2964.8 20	0.052 25				
^x 2969.2 20	0.026 15				
^x 2985.0 20	0.031 15				
^x 2998.8 20	0.11 3				
^x 3012.2 20	0.06 2				
^x 3022.0 20	0.06 2				
^x 3043.7 7	0.12 3				Mult.: α(K) _{exp} =0.0008 3. placement from a 3360 level rejected by 2008Mc04 .
^x 3064 ^d 2	0.030 ^d 15				
^x 3127 2	0.049 20				
^x 3145.4 10	0.25 6	E1	0.001552 22	α=0.001552 22; α(K)=0.000267 4; α(L)=3.75×10 ⁻⁵ 6; α(M)=8.50×10 ⁻⁶ 12; α(N+..)=0.001239 18 α(N)=2.10×10 ⁻⁶ 3; α(O)=3.79×10 ⁻⁷ 6; α(P)=2.66×10 ⁻⁸ 4; α(IPF)=0.001237 18 Mult.: α(K) _{exp} =0.00015 8.	placement from a 3146 level rejected by 2008Mc04 .
^x 3158 2	0.025 15				placement from 3156 level rejected by 2008Mc04 .

$\gamma(^{192}\text{Pt})$ (continued)

† Additional information 4.

‡ From [2008Mc04](#), except As noted; data from [1966Ny01](#), [1970PI09](#) and [1972Fi12](#) are typically In good agreement but less precise.

From [2008Mc04](#), except where noted; values are relative to $I_{\gamma}=100$ for 316.5 γ .

@ From $\alpha(\text{K})_{\text{exp}}$, except where noted.

& From [1966Ny01](#) (seen in ce spectrum only).

^a Uncertainty > 1 keV because of resolution problems.

^b From Adopted Gammas.

^c From [1966Ny01](#).

^d From [1970PI09](#); peak is very broad.

^e From intense ce line (assumed to be K line) and absence of corresponding photon peak.

^f γ is not observed by [2008Mc04](#); only an intensity limit is given and γ is not included in Adopted Levels, Gammas.

^g For absolute intensity per 100 decays, multiply by 0.59 7.

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

^x γ ray not placed in level scheme.

¹⁹²Au ε decay 2008Mc04,1972Fi12,1966Ny01

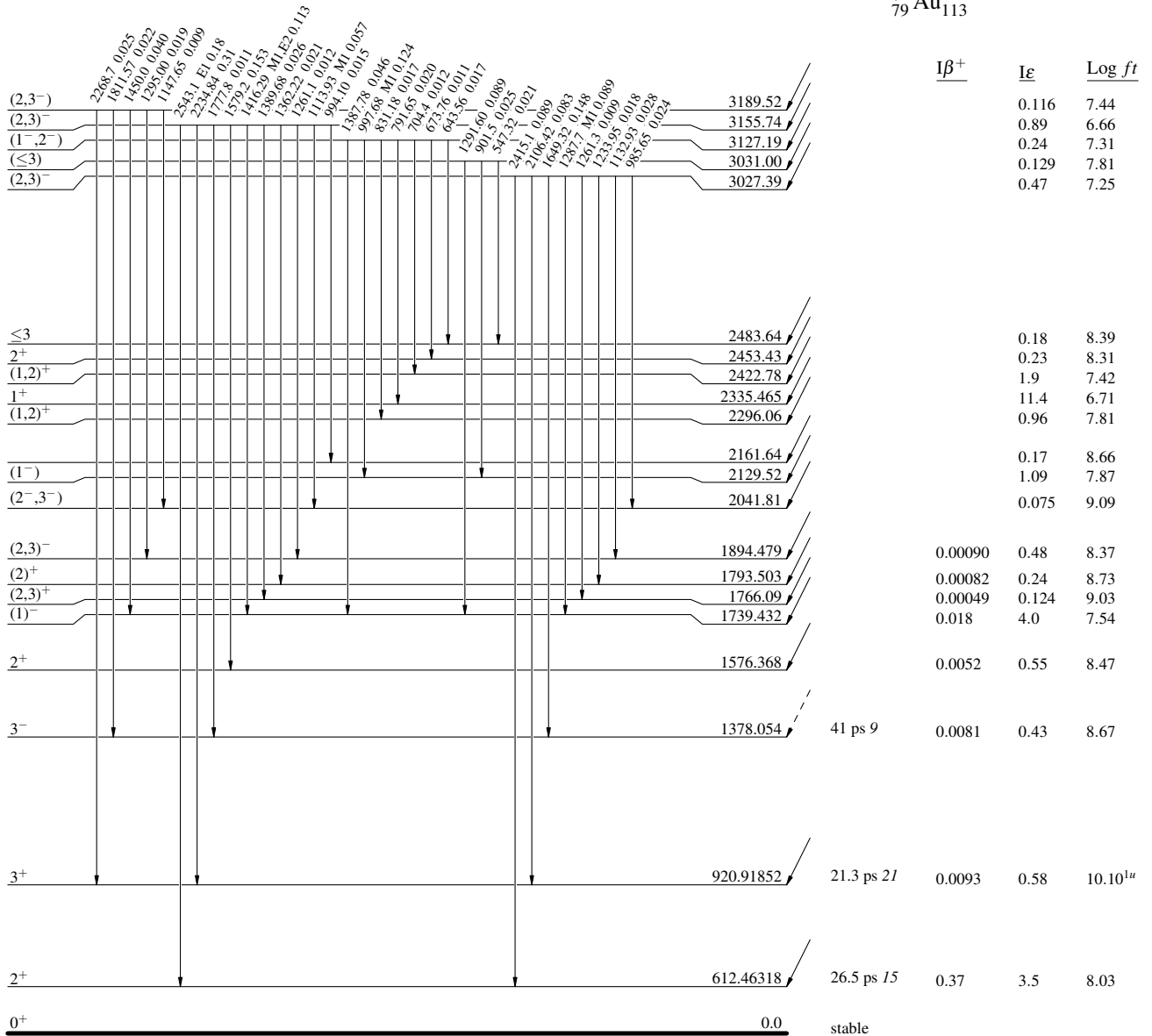
Decay Scheme

Legend

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

- I_γ < 2% × I_γ^{max}
- I_γ < 10% × I_γ^{max}
- I_γ > 10% × I_γ^{max}

$1^- \xrightarrow{0.0} 4.94 \text{ h } 9$
 $Q_\epsilon = 3516.16$
¹⁹²Au₁₁₃
 $\% \epsilon + \% \beta^+ = 100.0$



^{192}Au ϵ decay 2008Mc04,1972Fi12,1966Ny01

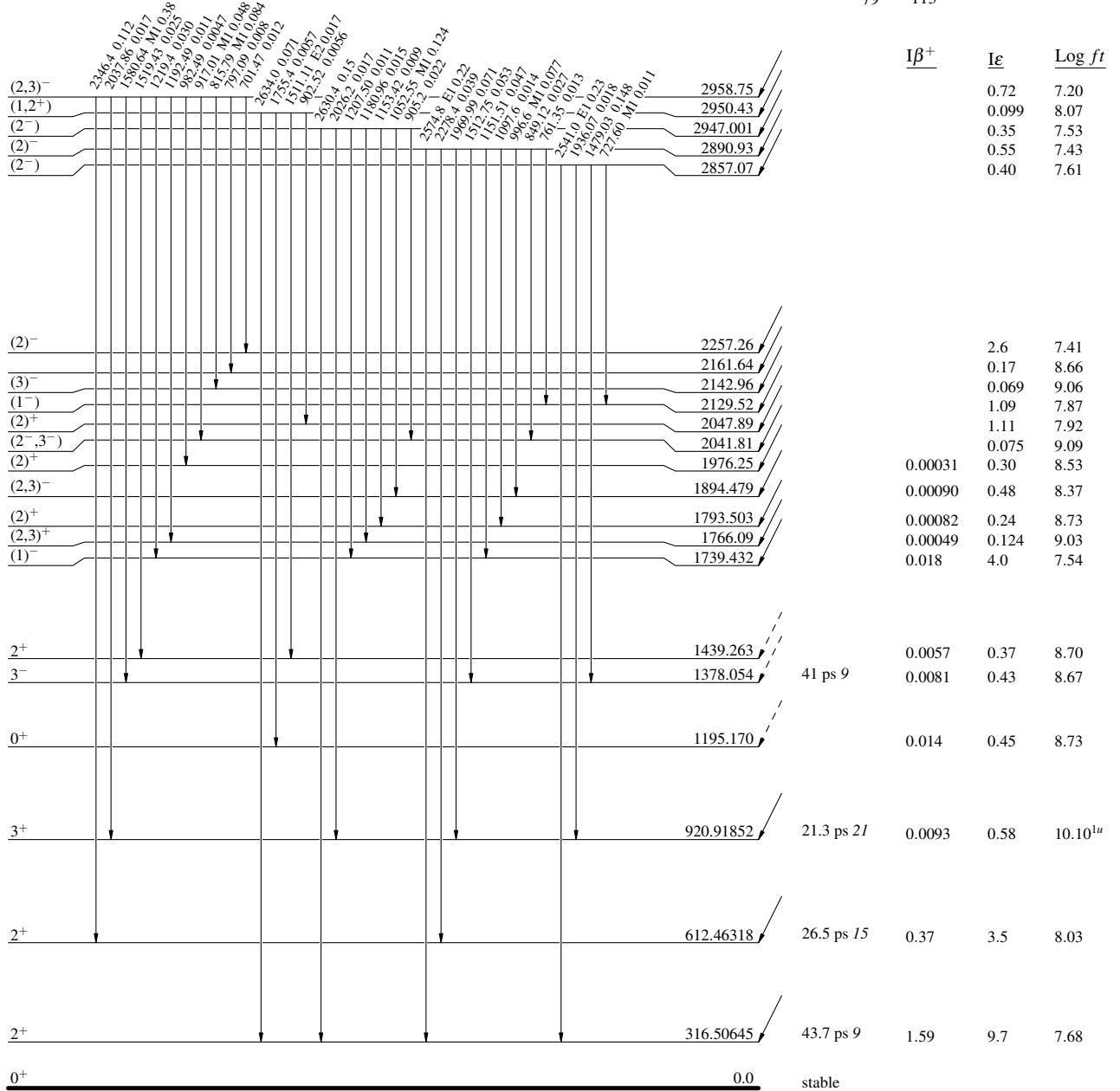
Decay Scheme (continued)

Legend

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

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

$^{192}_{79}\text{Au}_{113}$ 1^- 0.0 4.94 h 9
 $Q_{\epsilon}=3516.16$
 $\% \epsilon + \% \beta^+ = 100.0$



$^{192}_{78}\text{Pt}_{114}$

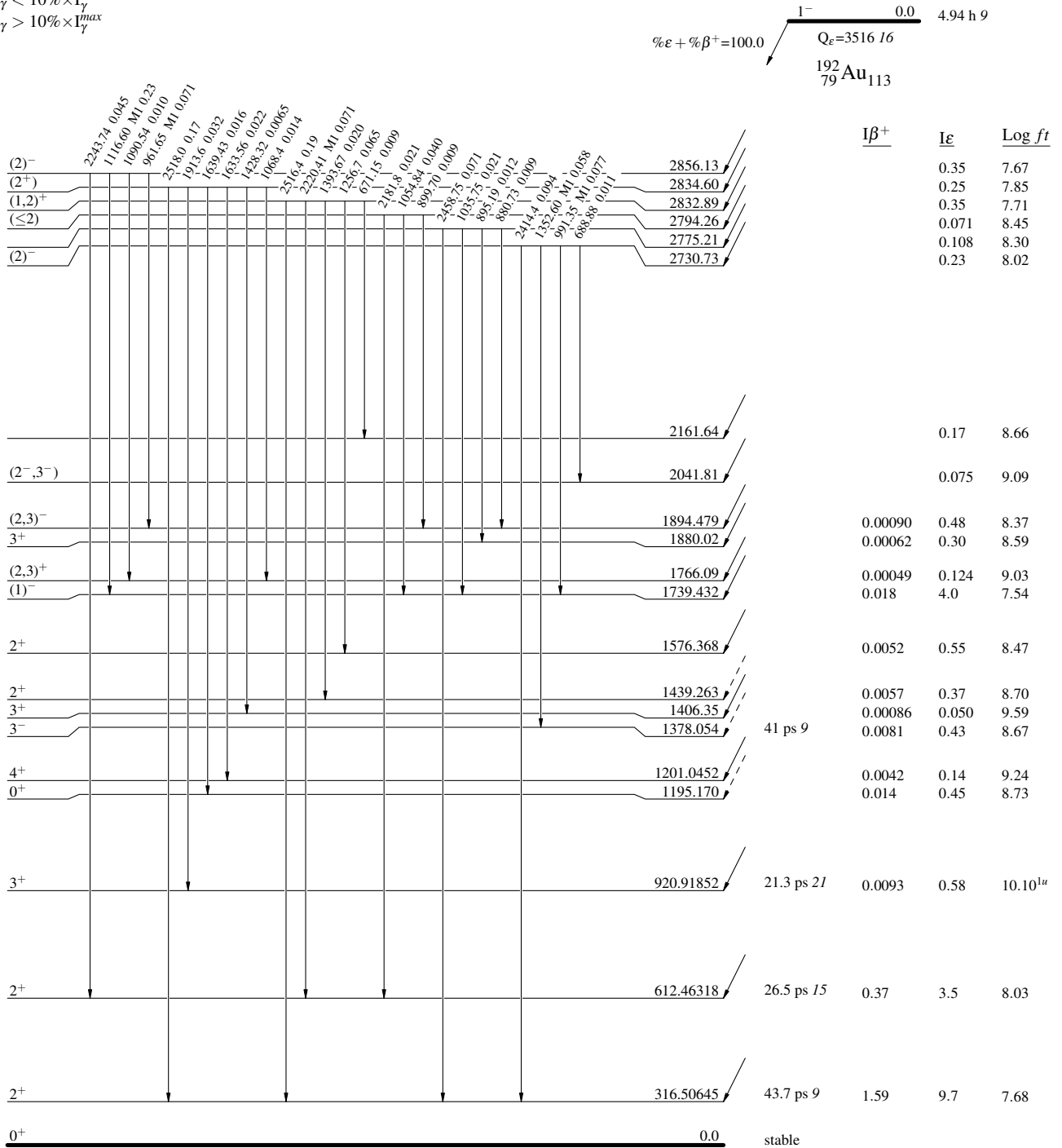
^{192}Au ϵ decay 2008Mc04,1972Fi12,1966Ny01

Decay Scheme (continued)

Legend

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

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



$^{192}_{78}\text{Pt}_{114}$

^{192}Au ϵ decay 2008Mc04,1972Fi12,1966Ny01

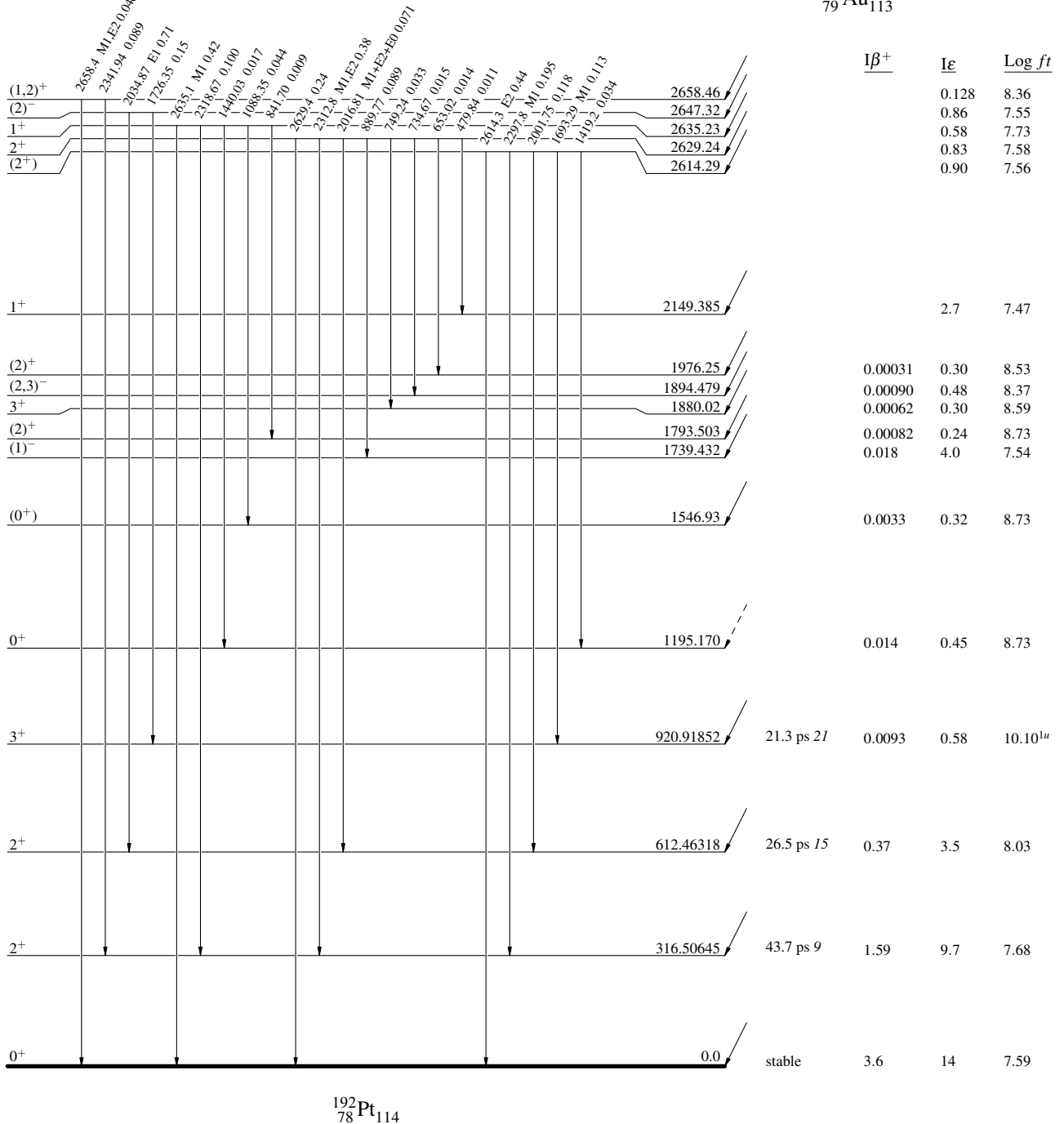
Decay Scheme (continued)

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

Legend

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

$^{192}_{79}\text{Au}_{113}$ 1^- 0.0 4.94 h 9
 $Q_{\epsilon}=3516.16$
 $\% \epsilon + \% \beta^+ = 100.0$



^{192}Au ϵ decay 2008Mc04,1972Fi12,1966Ny01

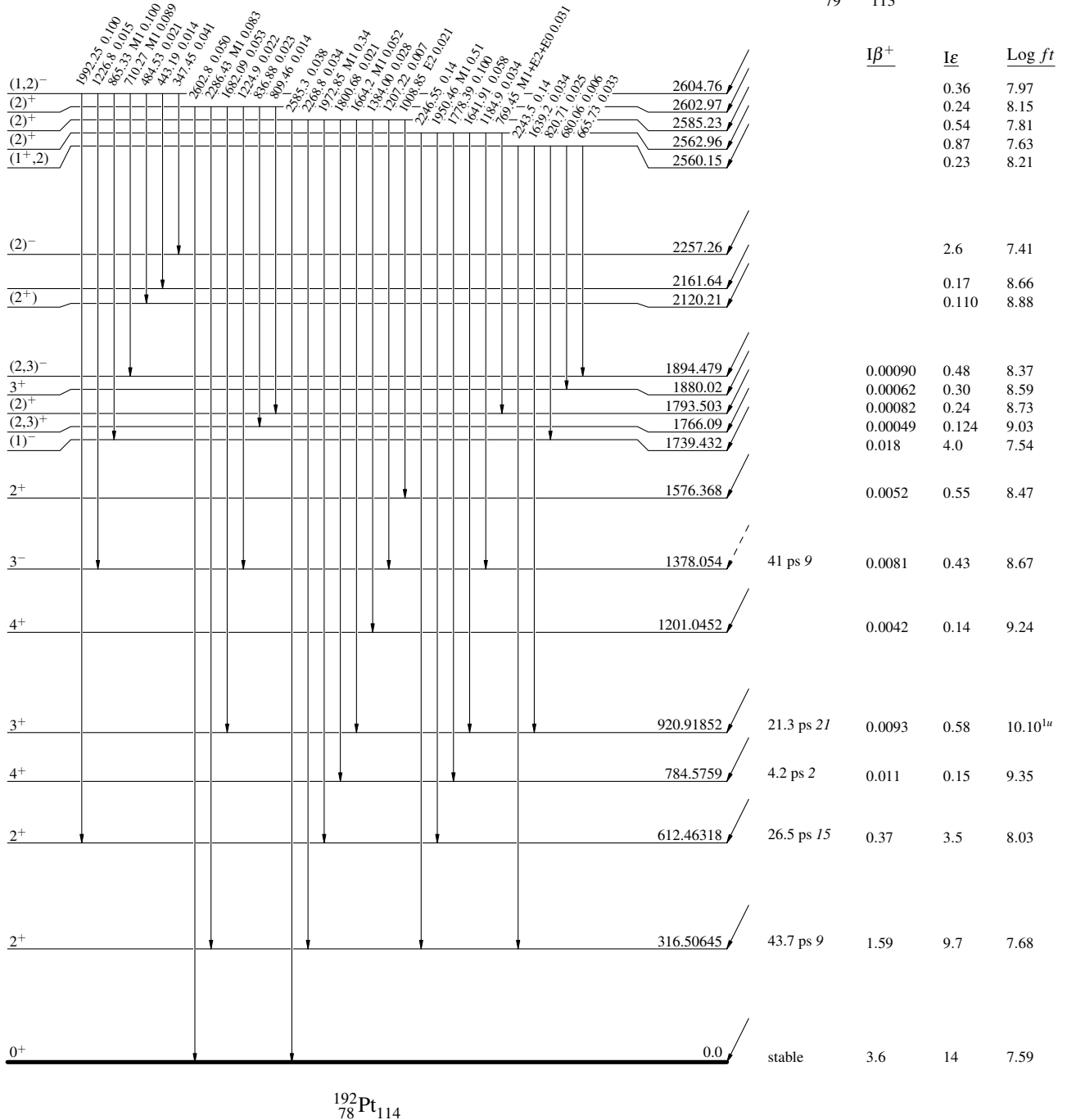
Decay Scheme (continued)

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

Legend

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

$^{192}_{79}\text{Au}_{113}$ 1^- 0.0 4.94 h 9
 $Q_{\epsilon}=3516.16$
 $\% \epsilon + \% \beta^+ = 100.0$



$^{192}_{78}\text{Pt}_{114}$

^{192}Au ϵ decay 2008Mc04,1972Fi12,1966Ny01

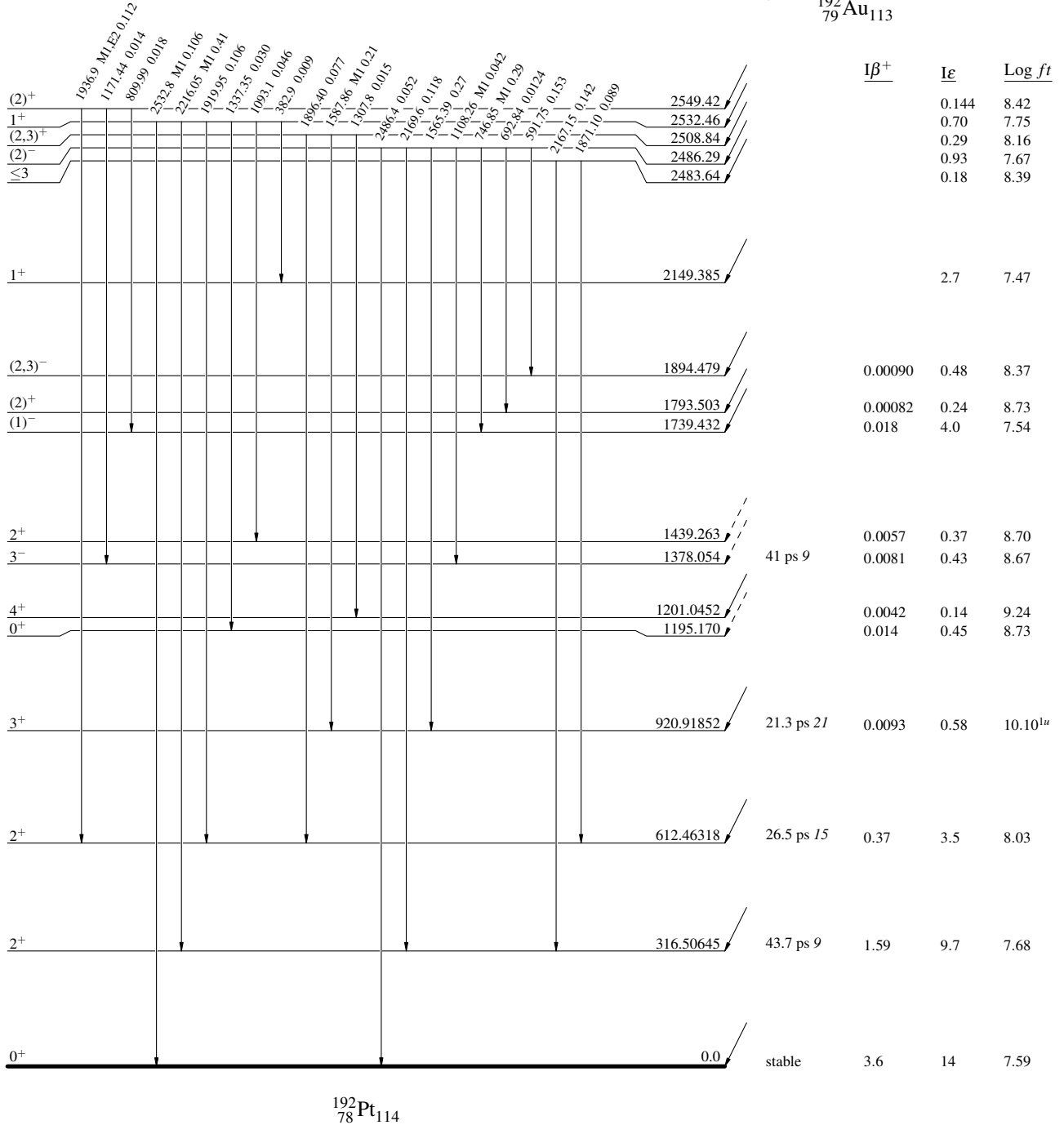
Decay Scheme (continued)

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

Legend

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

$^{192}_{79}\text{Au}_{113}$ 1^- 0.0 4.94 h 9
 $Q_{\epsilon}=3516.16$
 $\% \epsilon + \% \beta^+ = 100.0$



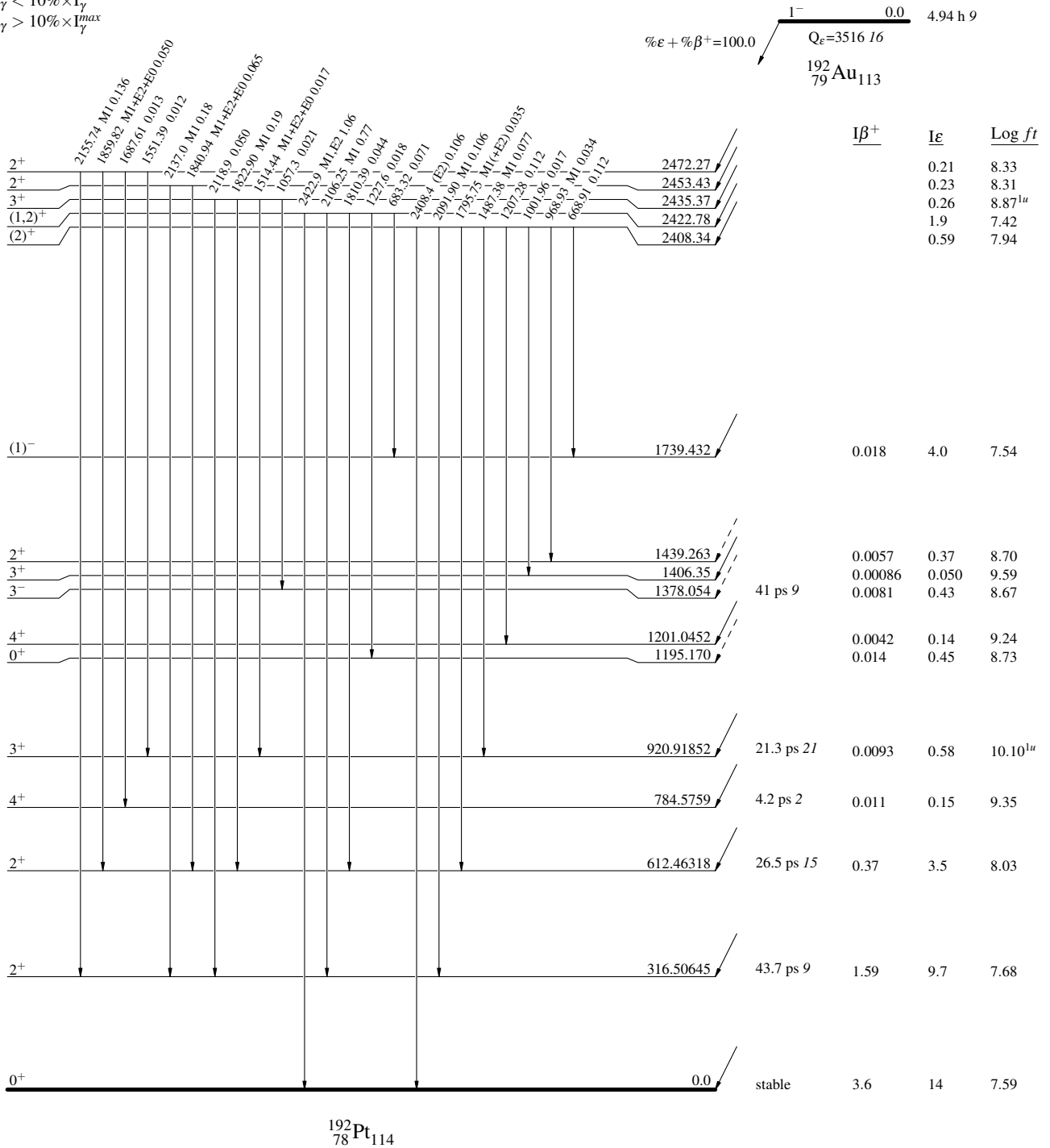
^{192}Au ϵ decay 2008Mc04,1972Fi12,1966Ny01

Decay Scheme (continued)

Legend

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

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



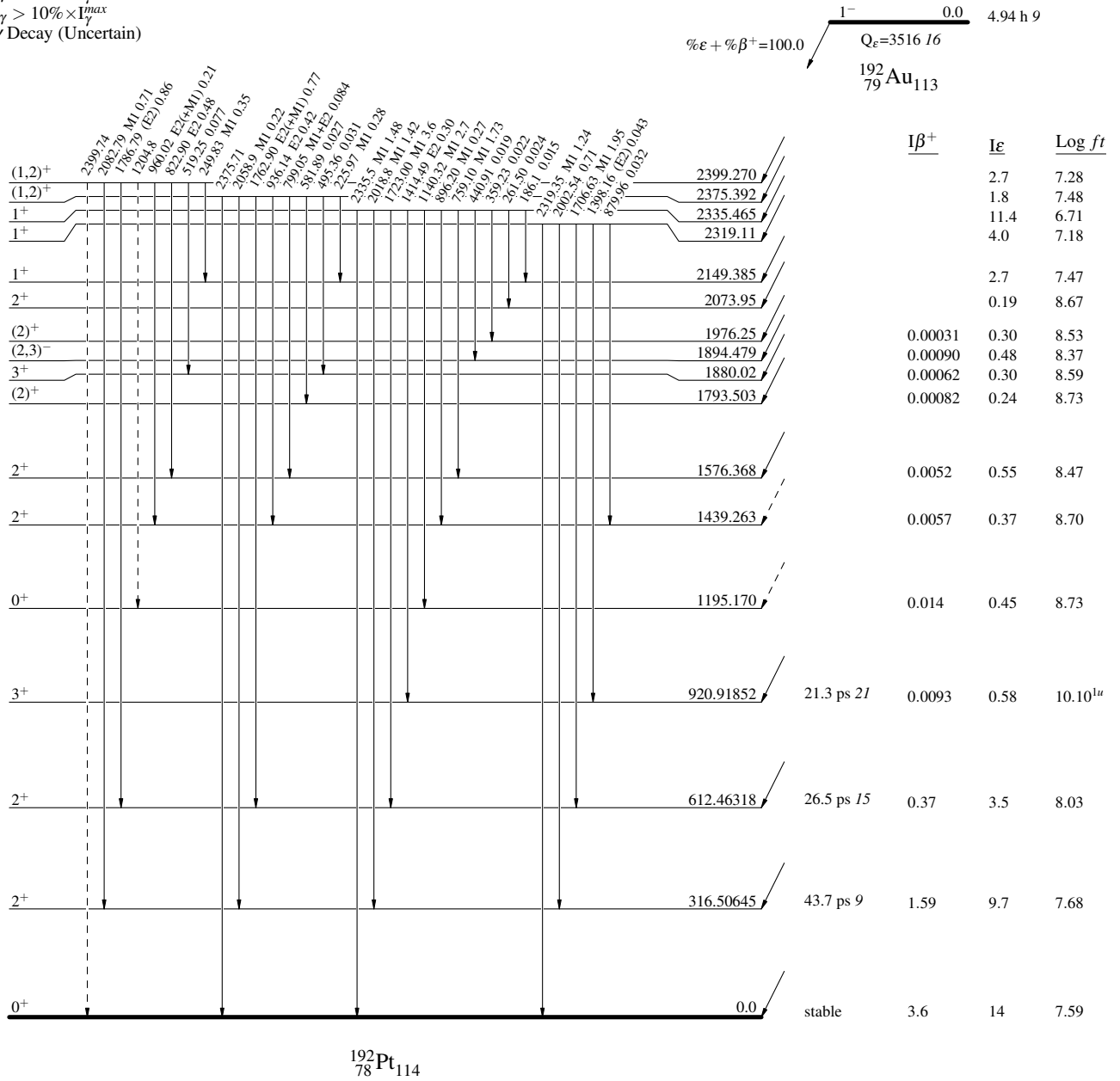
^{192}Au ϵ decay 2008Mc04,1972Fi12,1966Ny01

Decay Scheme (continued)

Legend

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

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



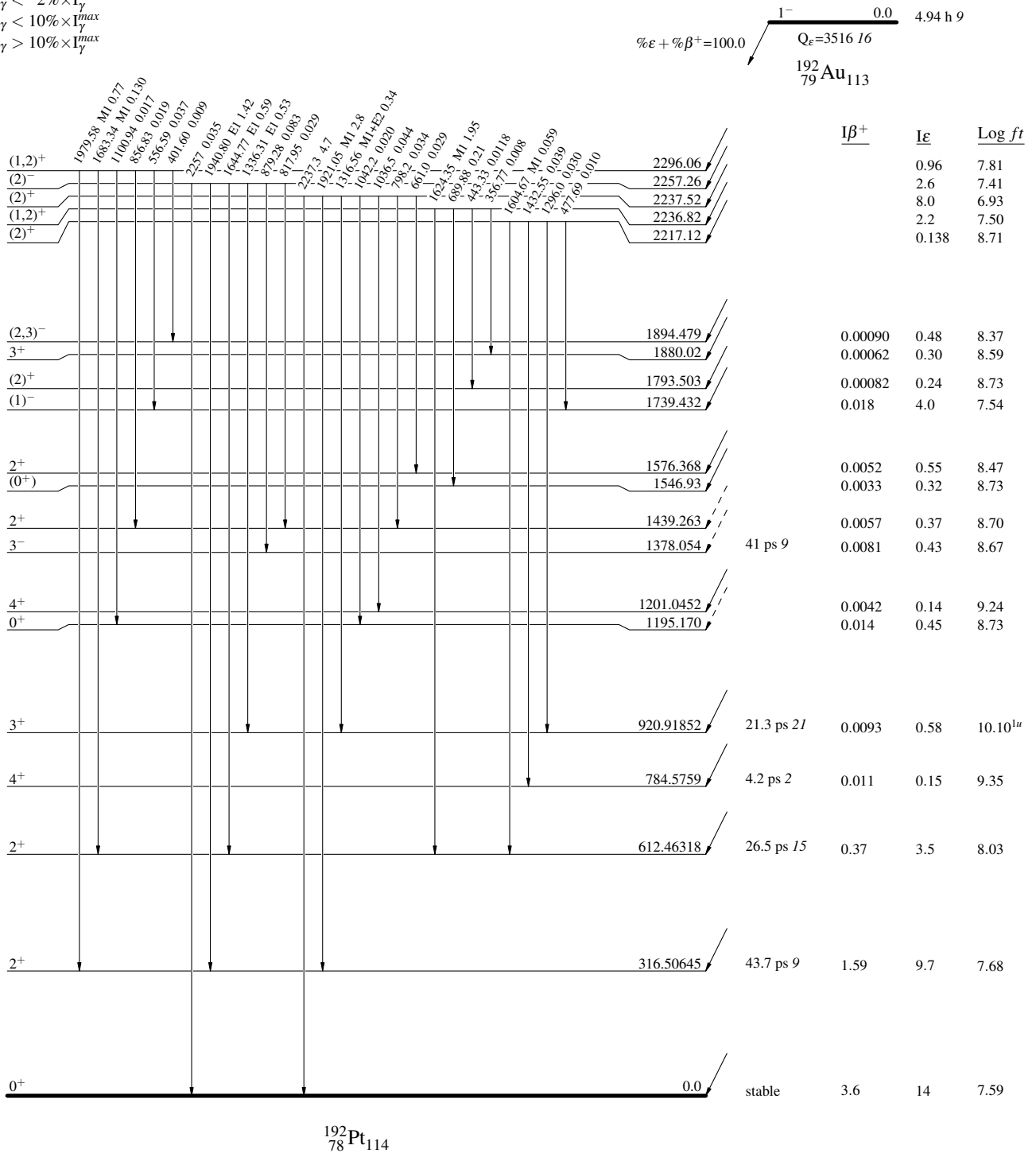
^{192}Au ϵ decay 2008Mc04,1972Fi12,1966Ny01

Decay Scheme (continued)

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

Legend

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



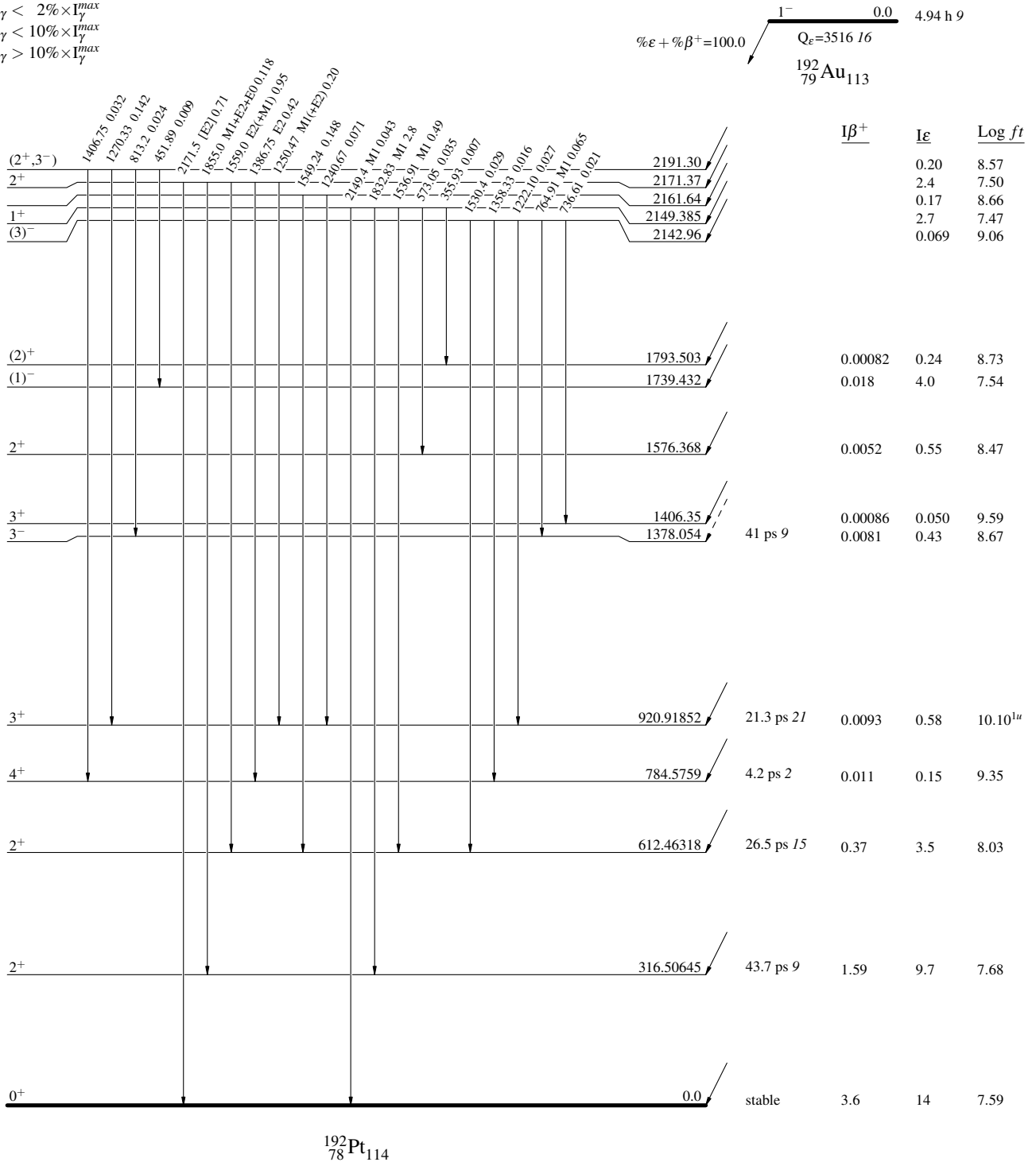
^{192}Au ϵ decay 2008Mc04,1972Fi12,1966Ny01

Decay Scheme (continued)

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

Legend

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



^{192}Au ϵ decay 2008Mc04,1972Fi12,1966Ny01

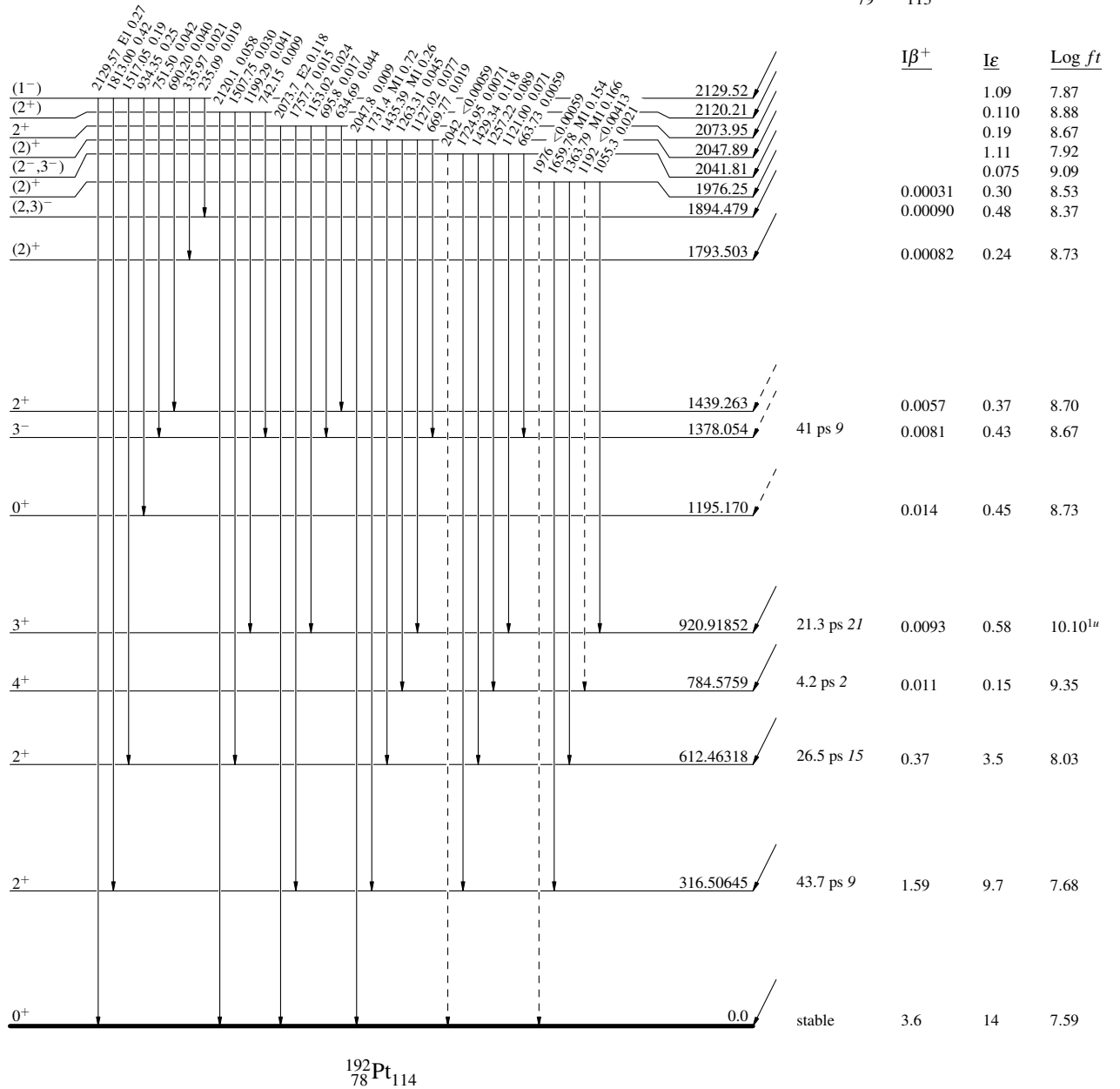
Decay Scheme (continued)

Legend

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

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

$^{192}_{79}\text{Au}_{113}$ 1^- 0.0 4.94 h 9
 $Q_\epsilon = 3516.16$
 $\% \epsilon + \% \beta^+ = 100.0$



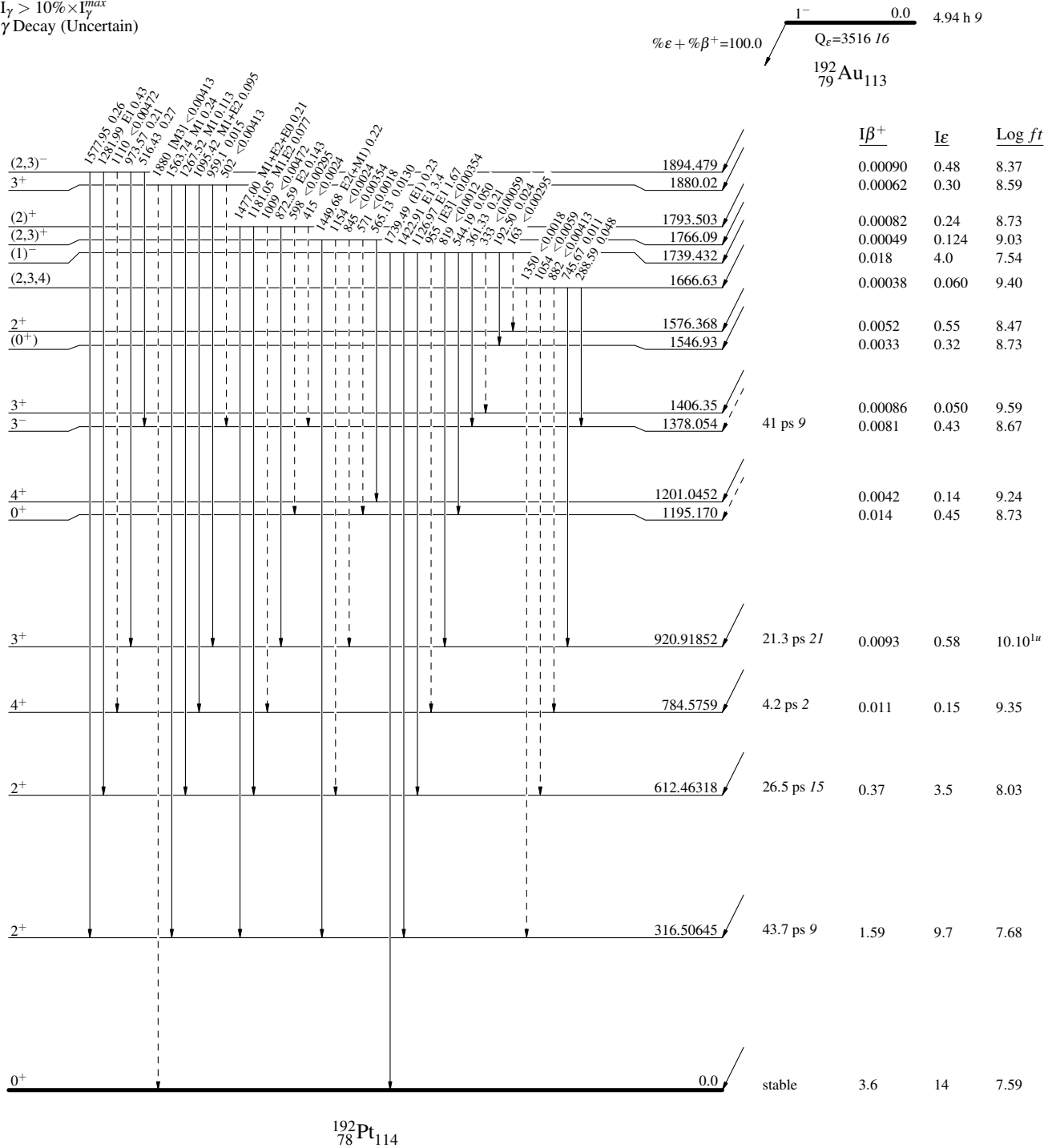
¹⁹²Au ε decay 2008Mc04,1972Fi12,1966Ny01

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



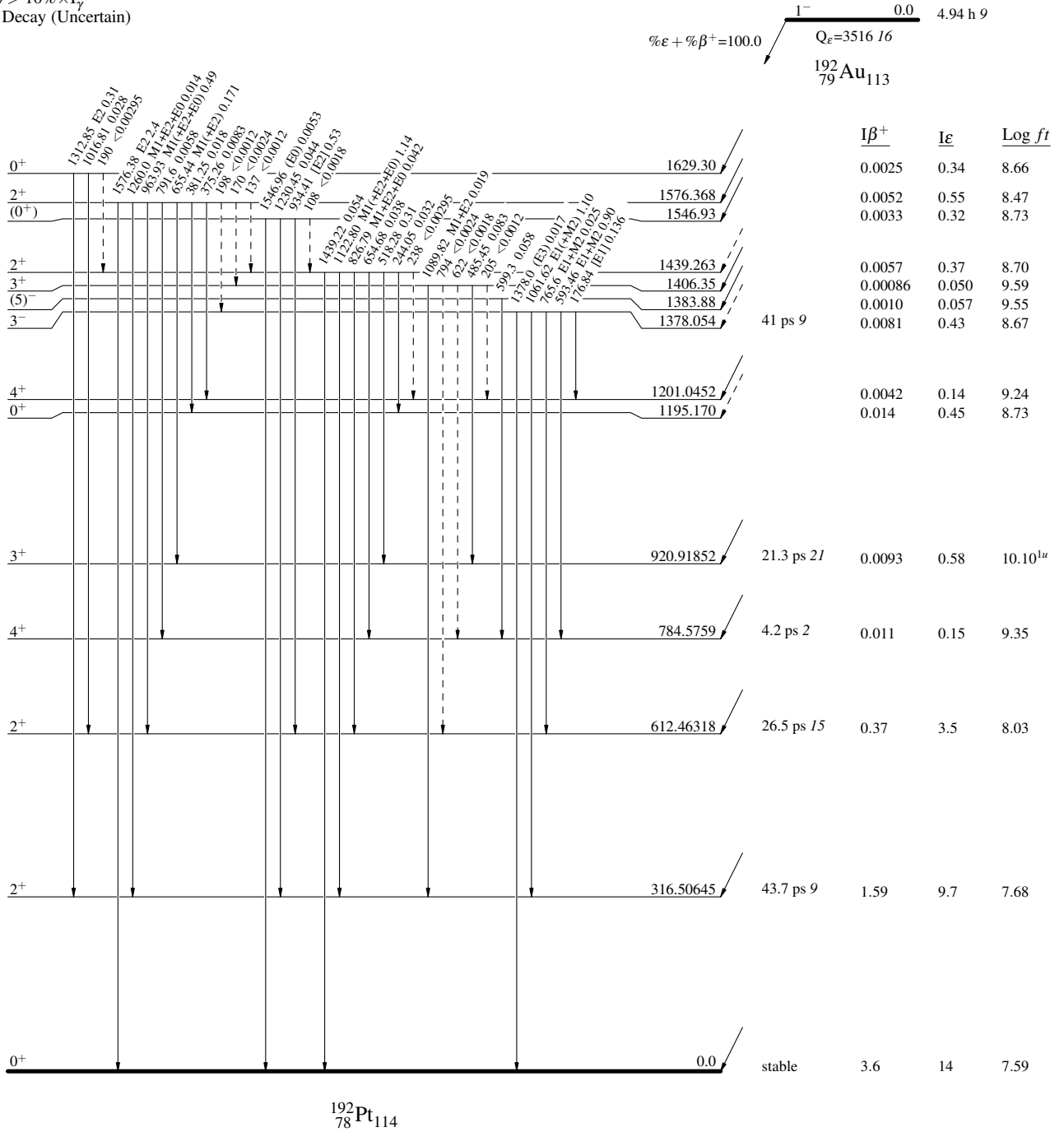
^{192}Au ϵ decay 2008Mc04,1972Fi12,1966Ny01

Decay Scheme (continued)

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



^{192}Au ϵ decay 2008Mc04,1972Fi12,1966Ny01

Decay Scheme (continued)

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

