^{194}Au ε decay (38.02 h) 2015Do06,1996TeZW,1971Vi15

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen and Balraj Singh	NDS 177, 1 (2021)	3-Sep-2021

Parent: ^{194}Au: E=0.0; J$^{\pi}$=1^{-}; $T_{1/2}$=38.02 h *10*; Q(ε)=2548.2 *21*; %ε+%β^{+} decay=100.0

^{194}Au-J$^{\pi}$,$T_{1/2}$: From ^{194}Au Adopted Levels.

^{194}Au-Q(ε): From 2021Wa16.

2015Do06: ^{194}Au source was from the decay of ^{194}Hg which is produced at Los Alamos Meson Physics Facility by 800-MeV proton spallation reactions on a Pb target. γ rays were detected with HPGe detectors (FWHM=1.68 keV at 1332 keV). Measured Eγ, Iγ. Deduced levels, decay branching ratios, log *ft*. Comparisons with available data. Report γ data for 221 transitions.

1996TeZW, 1997Te09: two measurements were performed. In the first one, ^{194}Au source was produced by irradiating a foil of natural platinum with 10 MeV protons from the cyclotron of the IPEN at the University of Sao Paulo, Brazil; γ rays were detected with a 50-cm^{3} Ge detector for singles measurements; measured Eγ, Iγ. In the second measurement, ^{194}Au was from decay of the ^{194}Hg in equilibrium with ^{194}Hg produced via ^{197}Au(p,4n) reaction with 40-MeV protons from the 88-Inch Cyclotron at LBNL; γ rays were detected with the High Energy Resolution Array (HERA) consisting of 20 Compton-suppressed HPGe detectors; measured Eγ, Iγ, $\gamma\gamma$-coin, $\gamma\gamma(\theta)$. Deduced levels, J, π, γ-ray multipolarities, mixing ratios. The main results of this work are given in the thesis by 1996TeZW. About 34 new weak transitions and some revised placements are given in this study and 167 transitions in total are reported in 1996TeZW.

1971Vi15,1970Ag05: ^{194}Au source was produced via ^{194}Pt(d,2n) with 13.6 MeV deuteron beams from a cyclotron bombarding platinum targets at the Institute for Nuclear Research of JINR. γ rays were detected with Ge(Li) detectors (FWHM=4.5 keV) and conversion electrons were detected with an iron-core $\pi\sqrt{2}\beta$ spectrometer (FWHM=0.03-0.04%). Measured Eγ, Iγ, E(ce), I(ce). Deduced levels, J, π, conversion coefficients, γ-ray multipolarities, ratios of transition strengths. 1971Vi15 report γ and/or ce data for 144 transitions; 1970Ag05 report only ce data for 46 transitions.

1974HeYW: ^{194}Au source was produced via ^{194}Pt(p,n). Measured Eγ, Iγ with a 55 cm^{3} coaxial Ge(Li) detector. Deduced levels.

1970Be30: ^{194}Au source was produced via ^{194}Pt(p,n) with 15 MeV protons from the Oak Ridge Isochronous Cyclotron. γ rays were detected with a 35 cm^{3} and a 15 cm^{3} Ge(Li) detectors. Measured Eγ, Iγ, $\gamma\gamma$-coin. Deduced levels, conversion coefficients using I(ce) data of 1964Be23, γ-ray multipolarities.

1964Be23,1960Ba17 (also 1962Be50): In the measurement of γ-ray intensities by 1964Be23, ^{194}Au source was produced by irradiating a platinum target with 20 MeV deuterons from the cyclotron at Birmingham University; γ-ray intensities were measured by the method of external conversion with a double focusing iron yoke spectrometer; measured Iγ. In the measurement of conversion electron intensities by 1960Ba17, ^{194}Au sources were produced via ^{194}Pt(d,2n) with deuterons from cyclotrons of Oak Ridge, Birmingham and Stockholm and synchrocyclotrons of Uppsala and Amsterdam; conversion electrons were detected with a double-focusing spectrometer; measured E(ce), I(ce). Deduced levels, J, π, conversion coefficients, γ-ray multipolarities, mixing ratios. 1964Be23 also re-measure accurately the prominent conversion lines in the entire energy spectrum in 1960B17. For data from the two papers, Eγ and I(ceK) from 1960Ba17, precise I(ceK), Iγ and conversion coefficients from 1964Be23.

Others:

1992Si02: measured $T_{1/2}$, ε/β^{+} ratio from Iγ and K x ray.

1981Ho18: measured ε/β^{+} ratio from Iγ and K x ray.

1977Vy01, 1967Cr09: measured Eγ, Iγ.

γ, ce: 1965Le17 (ce), 1962Ma18 (also 1960Ma19), 1960De17 (ce), 1960De15 (γ), 1957Al45, 1955Br12, 1956Th11, 1949St17.

β, $\beta\gamma$: 1970Ag03, 1960Ba17, 1956Th11.

$\gamma\gamma(\theta)$: 1971Kr01, 1969Ha43.

γ(ce)(θ): 1971Do12, deduced E0/E2 mixing ratio for 293γ.

$\gamma\gamma$(lin pol): 1969Ha43.

Total energy deposit of 2565 *60* calculated by RADLIST is in a good agreement with Q=2548.2 *21* (2021Wa16), indicating completeness of the decay scheme.

^{194}Au ε decay (38.02 h) 2015Do06,1996TeZW,1971Vi15 (continued)

^{194}Pt Levels

E(level)[†]	J$^{\pi}$[‡]	Comments
0.0	0$^+$	
328.474 *4*	2$^+$	
622.023 *4*	2$^+$	
811.285 *7*	4$^+$	In order to balance the transition intensity at this level, 0.075 *25* units of relative γ intensity should feed this level.
922.771 *6*	3$^+$	
1229.521 *10*	4$^+$	
1267.198 *6*	0$^+$	
1373.764 *16*	(5$^-$)	In order to balance the transition intensity at this level, 0.075 *12* units of relative γ intensity should feed this level (2015Do06).
1432.545 *6*	3$^-$	
1479.270 *6*	0$^+$	
1512.002 *6*	2$^+$	
1547.273 *8*	0$^+$	
1622.197 *8*	2$^+$	
1670.656 *6*	2$^+$	
1737.423 *14*	(3$^-$)	
1778.579 *9*	2$^+$	J$^{\pi}$: spin=1 or 2 from γγ(θ) of 1996TeZW; spin=1 is ruled out by Mult=D+Q from ce data for 855.8γ to 3$^+$; 1156.6γ M1(+E2) to 2$^+$.
1797.384 *5*	1$^-$	
1802.646? *14*	1$^+$,2$^+$	E(level): 2015Do06 cast doubt about the existence of this level for two reasons: 1. no other transition from this level reported. 2. coincidence with 328γ in 1996TeZW work suggests placement of all or part of the 1802.6γ from a new 2131 level, as proposed by 2015Do06. Also this level is not reported in any other study of decays and reactions.
1816.585 *7*	(2)$^+$	
1893.574 *19*	0$^+$	
1924.282 *8*	1$^+$	
1930.369 *8*	2$^+$	
1961.328 *6*	2$^-$	
2003.665 *13*	(2$^+$)	
2043.715 *6*	1$^+$	
2053.016 *14*	(2)$^+$	
2063.739 *9*	2$^+$	
2085.474 *11*	0$^+$	
2109.088 *11*	(2)$^+$	
2114.102 *8*	1$^+$	
2131.127 *11*	(2$^+$)	Level and J$^{\pi}$ proposed by 2015Do06.
2134.107 *15*	1$^+$,2$^+$	J$^{\pi}$: γγ(θ) (1996TeZW) forbids J=0.
2140.698 *12*	(1$^+$,2$^+$)	
2157.996 *14*	(2)$^+$	
2163.745 *10*	0$^+$	
2184.910 *12*	1$^+$,2$^+$	
2214.523 *9*	(2$^+$)	
2215.530 *6*	1$^+$	
2239.635 *8*	(2)$^-$	
2250.665? *21*	(1,2$^+$)	E(level): level suggested by 2015Do06. J$^{\pi}$: 2015Do06 analyze coincident summing and suggest that 0$^+$ for this state is unlikely. The ground-state transition suggests J=1,2$^+$.
2287.375 *10*	(1$^+$,2$^+$)	
2298.160 *8*	1$^+$	
2311.879 *9*	2$^+$	
2356.065 *14*	0$^+$	
2365.932 *21*	1$^+$	
2397.320 *14*	2$^+$	
2412.744 *13*	1$^+$	

Continued on next page (footnotes at end of table)

^{194}Au ε decay (38.02 h) 2015Do06,1996TeZW,1971Vi15 (continued)

^{194}Pt Levels (continued)

† From a least-squares fit to γ-ray energies.
‡ From Adopted Levels.

ε,β^+ radiations

E(decay)	E(level)	Iε‡	Log *ft*	I(ε+β^+)†‡	Comments
(135.5 *21*)	2412.744	0.056 *4*	7.54 *4*	0.056 *4*	εK=0.491 *11*; εL=0.370 *8*; εM+=0.138 *3*
(150.9 *21*)	2397.320	0.068 *3*	7.62 *3*	0.068 *3*	εK=0.553 *7*; εL=0.327 *5*; εM+=0.1200 *21*
(182.3 *21*)	2365.932	0.0731 *25*	7.841 *22*	0.0731 *25*	εK=0.628 *4*; εL=0.274 *3*; εM+=0.0977 *11*
(192.1 *21*)	2356.065	0.31 *5*	7.28 *8*	0.31 *5*	εK=0.645 *4*; εL=0.2625 *23*; εM+=0.0930 *10*
(236.3 *21*)	2311.879	0.427 *15*	7.397 *19*	0.427 *15*	εK=0.6931 *18*; εL=0.2279 *13*; εM+=0.0790 *5*
(250.0 *21*)	2298.160	0.693 *23*	7.252 *18*	0.693 *23*	εK=0.7033 *15*; εL=0.2206 *11*; εM+=0.0761 *5*
(260.8 *21*)	2287.375	0.218 *10*	7.803 *22*	0.218 *10*	εK=0.7103 *13*; εL=0.2157 *10*; εM+=0.0741 *4*
(297.5# *21*)	2250.665?	0.099 *4*	8.294 *20*	0.099 *4*	εK=0.7289 *9*; εL=0.2023 *7*; εM+=0.0688 *3*
(308.6 *21*)	2239.635	0.454 *16*	7.673 *17*	0.454 *16*	εK=0.7333 *9*; εL=0.1992 *6*; εM+=0.06749 *24*
(332.7 *21*)	2215.530	6.9 *4*	6.57 *3*	6.9 *4*	εK=0.7417 *7*; εL=0.1932 *5*; εM+=0.06511 *19*
(333.7 *21*)	2214.523	2.89 *11*	6.954 *18*	2.89 *11*	εK=0.7420 *7*; εL=0.1929 *5*; εM+=0.06502 *19*
(363.3 *21*)	2184.910	0.356 *12*	7.954 *16*	0.356 *12*	εK=0.7503 *6*; εL=0.1870 *4*; εM+=0.06268 *15*
(384.5 *21*)	2163.745	0.81 *8*	7.66 *5*	0.81 *8*	εK=0.7553 *5*; εL=0.1834 *4*; εM+=0.06128 *13*
(390.2# *21*)	2157.996	0.279 *11*	8.134 *18*	0.279 *11*	εK=0.7565 *5*; εL=0.1826 *4*; εM+=0.06094 *13*
(407.5 *21*)	2140.698	0.103 *4*	8.612 *18*	0.103 *4*	εK=0.7599 *4*; εL=0.1801 *3*; εM+=0.05997 *12*
(414.1 *21*)	2134.107	0.198 *9*	8.345 *21*	0.198 *9*	εK=0.7612 *4*; εL=0.1792 *3*; εM+=0.05963 *11*
(417.1 *21*)	2131.127	0.155 *6*	8.459 *18*	0.155 *6*	εK=0.7617 *4*; εL=0.1788 *3*; εM+=0.05948 *11*
(434.1 *21*)	2114.102	0.62 *8*	7.90 *6*	0.62 *8*	εK=0.7646 *4*; εL=0.17676 *25*; εM+=0.05867 *10*
(439.1 *21*)	2109.088	0.154 *6*	8.514 *18*	0.154 *6*	εK=0.7654 *4*; εL=0.17619 *24*; εM+=0.05845 *10*
(462.7 *21*)	2085.474	0.77 *3*	7.868 *18*	0.77 *3*	εK=0.7688 *3*; εL=0.17370 *21*; εM+=0.05747 *9*
(484.5 *21*)	2063.739	0.266 *11*	8.376 *19*	0.266 *11*	εK=0.7717 *3*; εL=0.17167 *19*; εM+=0.05668 *8*
(495.2 *21*)	2053.016	0.072 *6*	8.97 *4*	0.072 *6*	εK=0.7729 *3*; εL=0.17074 *18*; εM+=0.05632 *7*
(504.5 *21*)	2043.715	4.81 *16*	7.159 *15*	4.81 *16*	εK=0.7740 *3*; εL=0.1700 *2*; εM+=0.05602 *7*
(544.5 *21*)	2003.665	0.105 *4*	8.896 *17*	0.105 *4*	εK=0.7781 *2*; εL=0.1670 *2*; εM+=0.05487 *6*
(586.9 *21*)	1961.328	3.40 *11*	7.459 *15*	3.40 *11*	εK=0.7817 *2*; εL=0.1644 *2*; εM+=0.05386 *5*
(617.8 *21*)	1930.369	0.470 *16*	8.369 *16*	0.470 *16*	εK=0.7840 *2*; εL=0.1628 *1*; εM+=0.05323 *4*
(623.9 *21*)	1924.282	4.16 *14*	7.431 *15*	4.16 *14*	εK=0.7844 *2*; εL=0.1625 *1*; εM+=0.05311 *4*
(654.6 *21*)	1893.574	0.039 *8*	9.51 *9*	0.039 *8*	εK=0.7864 *2*; εL=0.1611 *1*; εM+=0.05256 *4*
(731.6 *21*)	1816.585	0.069 *9*	9.36 *6*	0.069 *9*	εK=0.7905 *1*; εL=0.15808 *8*; εM+=0.05141 *3*
(745.6 *21*)	1802.646?	0.125 *5*	9.125 *18*	0.125 *5*	εK=0.7912 *1*; εL=0.15761 *7*; εM+=0.05123 *3*
(750.8 *21*)	1797.384	11.7 *4*	7.160 *16*	11.7 *4*	εK=0.7914 *1*; εL=0.15744 *7*; εM+=0.05116 *3*
(769.6 *21*)	1778.579	0.89 *3*	8.302 *15*	0.89 *3*	εK=0.79221 *9*; εL=0.15685 *7*; εM+=0.05093 *3*
(877.5 *21*)	1670.656	2.27 *8*	8.020 *16*	2.27 *8*	εK=0.7961; εL=0.15401 *5*; εM+=0.04984 *2*
(926.0 *21*)	1622.197	0.128 *15*	9.32 *5*	0.128 *15*	εK=0.7976; εL=0.15298 *5*; εM+=0.04944 *2*
(1000.9 *21*)	1547.273	1.36 *5*	8.365 *17*	1.36 *5*	εK=0.7995; εL=0.15159 *4*; εM+=0.04891 *2*
(1036.2 *21*)	1512.002	0.499 *21*	8.833 *19*	0.499 *21*	εK=0.8003; εL=0.15101 *4*; εM+=0.04869 *2*
(1068.9 *21*)	1479.270	1.13 *4*	8.506 *16*	1.13 *4*	εK=0.8010; εL=0.15051 *4*; εM+=0.04849 *2*
(1115.7# *21*)	1432.545	<0.08	>9.7	<0.08	εK=0.8019; εL=0.14985 *3*; εM+=0.04824 *1* I(ε+β^+): intensity balance gives 0.04 *4*, consistent with expected no direct ε feeding to this level.
(1174.4# *21*)	1373.764	0.055 *8*	9.91 *7*	0.055 *8*	εK=0.8029; εL=0.14910 *3*; εM+=0.04795 *1* I(ε+β^+): intensity balance gives 0.046 *7*, but no direct ε feeding is expected (2015Do06).
(1281.0 *21*)	1267.198	0.49 *6*	9.04 *6*	0.49 *6*	εK=0.8045; εL=0.14793 *3*; εM+=0.047504 *9*
(1318.7# *21*)	1229.521	<0.005	>11.1	<0.005	εK=0.8050; εL=0.14755 *2*; εM+=0.047362 *8* I(ε+β^+): intensity balance gives −0.003 *9*, consistent with expected no direct ε feeding to this level.
(1625.4# *21*)	922.771	<0.016	>11.7[1u]	<0.016	εK=0.7930; εL=0.15599 *3*; εM+=0.05067 *2*

Continued on next page (footnotes at end of table)

^{194}Au ε decay (38.02 h) 2015Do06,1996TeZW,1971Vi15 (continued)

ϵ,β^+ radiations (continued)

E(decay)	E(level)	Iβ^+ ‡	Iε‡	Log *ft*	I($\varepsilon+\beta^+$)†‡	Comments
(1736.9# *21*)	811.285	<6.6×10^{-5}	<0.018	>10.7	<0.018	av Eβ=340.89 *93*; εK=0.8061; εL=0.14410 *2*; εM+=0.046073 *6* I($\varepsilon+\beta^+$): intensity balance gives 0.046 *15*, but no direct ε feeding is expected.
(1926.2# *21*)	622.023	0.0034 *13*	0.39 *15*	9.51 *17*	0.39 *15*	av Eβ=423.78 *92*; εK=0.8032; εL=0.14248 *2*; εM+=0.045501 *7*
(2219.7 *21*)	328.474	0.68 *3*	28.4 *12*	7.770 *18*	29.1 *12*	av Eβ=552.40 *92*; εK=0.7930 *1*; εL=0.13936 *3*; εM+=0.044440 *9* E(decay): Eβ^+=1210 *20* (1956Th11).
(2548.2 *21*)	0.0	1.2 *1*	22 *2*	8.01 *4*	23 *2*	av Eβ=696.55 *93*; εK=0.7719 *2*; εL=0.13460 *4*; εM+=0.04287 *2* E(decay): measured Eβ^+=1487 *15* (1960Ba17), 1550 *20* (1956Th11). I($\varepsilon+\beta^+$): see comments for Iγ normalization. I(ε+β^+)(g.s.)=36.2 *41* (relative to Iγ(328)=100.0 *10*) is deduced based on I(β^+)(total)/Iγ(328γ)=0.029 *2* (1992Si02, 1956Th11), calculated ε/β^+ ratios for g.s. and 328 level by LOGFT, relative I(ε+β^+)(328 level) from γ+ce intensity balance. Additional information 1.

† From I(γ+ce) intensity balance at each level.
‡ Absolute intensity per 100 decays.
# Existence of this branch is questionable.

γ(^{194}Pt)

Iγ normalization: From %I(ε+β^+)(g.s.)+%I(γ+ce)(transitions to g.s.)=100, with I(ε+β^+)(g.s.)=36.2 *41* (relative to Iγ(328)=100.0 *10*), deduced based on I(β^+)(total)/Iγ(328γ)=0.029 *2* (1992Si02, 1956Th11) where I(β^+)(total)=I(β^+)(328)+I(β^+)(g.s.) with I(β^+) to other levels negligible due to very large ε/β^+ ratios (>100) and small total I(ε+β^+), ε/β^+(328)=42.1 *5* and ε/β^+(g.s.)=18.8 *2* calculated using the LOGFT code with Q=2548.2 *21* (2021Wa16), and I(ε+β^+)(328)=46.3 *12* (relative to Iγ(328)=100.0 *10*) deduced from I(γ+ce) balance at 328 level. The ε/β^+ ratios, although calculated for allowed transitions, are found to be valid first-forbidden transitions in the present case. Others: ε/β^+(328)(exp)=44 *5*, deduced by the evaluators from I($\gamma^\pm$)(328 level)/(2×Iγ(328γ))=0.0103 *10* (estimated by 1992Si02 from a 328γ-gated γ spectrum in 1970Be30) and I(ε+β^+)(328 level)=46.2 *12*; ε/β^+(g.s.)(exp)=30 *10*, estimated by the evaluators from I(K x ray)/Iγ(328γ)=1.45 *15* and I($\gamma^\pm$)/(2×Iγ(328γ)) data in 1992Si02).1981Ho18 report a much lower value of 0.022 *1* for I(β^+)(total)/Iγ(328γ).

A$_2$ and A$_4$ coefficients are from $\gamma\gamma(\theta)$ data of 1996TeZW.

Conversion coefficients α(K)exp given under comments have been re-normalized by evaluators to theoretical α(K)(328γ, E2)=0.0488 calculated by the BrIcc code. Original values in 1964Be23 and 1970Be30 are normalized to α(K)(328γ, E2)=0.0494 and those in 1971Vi15 are normalized to α(K)(328γ, E2)=0.050. Quoted values of Iγ and Ice(K) are relative to Iγ(328)=100 and Ice(K)(328γ)=100, respectively.

2015Do06 also report the following unidentified γ rays from the ^{194}Hg source: 119.990 *7*, 143.367 *28*, 183.698 *28*, 592.819 *11*, 895.27 *4*, 1289.67 *7*, 1752.994 *25*, 1947.637 *24*, 2081.560 *20*, 2375.05 *3*, 2453.77 *4*.

E$_\gamma$[†]	I$_\gamma$[†d]	E$_i$(level)	J$^\pi_i$	E$_f$	J$^\pi_f$	Mult.[c]	α[e]	Comments
49.7[‡@] *3*	0.040 *11*	2163.745	0$^+$	2114.102	1$^+$	M1	9.12 *21*	α(L)=7.02 *16*; α(M)=1.62 *4* α(N)=0.402 *10*; α(O)=0.0722 *17*; α(P)=0.00486 *11* %Iγ=0.025 *7* I$_\gamma$: deduced from Ice(L1)=5.4 *15* and assigned mult and δ. Mult.,δ: from L1/L2=8.5 *16* (1971Vi15), δ<0.1; δ=0 required by 0$^+$ to 1$^+$ transition. Additional information 29.
59.2[‡] *4*	0.0008 *2*	1432.545	3$^-$	1373.764	(5$^-$)	(E2)	50.9 *19*	α(L)=38.2 *14*; α(M)=9.9 *4* α(N)=2.40 *9*; α(O)=0.372 *14*; α(P)=0.000406 *12* %Iγ=5.0×10^{-4} *13* E$_\gamma$: weighted average of 58.8 *3* from $\gamma\gamma$ data (1996TeZW) and 59.5 *3* from ce data (1971Vi15). Estimated branching is 1% from 1432 level. I$_\gamma$: from Ice(L1)=0.63 *13* and assigned Mult (1971Vi15). Mult.,δ: M1(+E2), δ<0.1 from L1/L2>7 (1971Vi15), but E2 required by ΔJ^π.
69.6[‡@b] *3*	0.0039 *13*	2356.065	0$^+$	2287.375	(1$^+$,2$^+$)		3.52	α(L)=2.61 *4*; α(M)=0.604 *9* α(N)=0.1494 *22*; α(O)=0.0269 *4*; α(P)=0.00181 *3* %Iγ=0.0025 *8* Level-energy difference=68.7. I$_\gamma$: deduced from Ice(L1)=0.19 *6* (1971Vi15) and calculated α(L1)=2.35 from BrIcc assuming Mult=M1. Iγ=0.041 *13* if Mult=E2.
101.46 *4*	0.0098 *6*	2215.530	1$^+$	2114.102	1$^+$	M1	6.39	α(K)=5.26 *8*; α(L)=0.875 *13*; α(M)=0.202 *3*

From ENSDF

γ(^{194}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[c]	δ[c]	α[e]	Comments
									α(N)=0.0501 *7*; α(O)=0.00901 *13*; α(P)=0.000606 *9* %Iγ=0.0062 *4* E_γ: weighted average of 101.38 *14* (1996TeZW) and 101.47 *4* (2015Do06). Other: 101.4 *3* (1971Vi15). I_γ: weighted average of 0.0081 *22* (1996TeZW) and 0.0099 *6* (2015Do06). Mult.: from α(K)exp=4.0 *15* deduced from Ice(K)=0.8 *3* (1971Vi15) and Iγ=0.0098 *6* here.
106.51 *4*	0.0146 *6*	2215.530	1$^+$	2109.088	(2)$^+$	M1		5.56	α(K)=4.58 *7*; α(L)=0.761 *11*; α(M)=0.1759 *25* α(N)=0.0435 *7*; α(O)=0.00783 *11*; α(P)=0.000527 *8* %Iγ=0.0092 *5* E_γ: weighted average of 106.5 *3* (1971Vi15), 106.48 *8* (1996TeZW), and 106.52 *4* (2015Do06). Other: 107.24 *6* (1960Ba17) is discrepant and placed from the 1924 level by 1960Ba17. I_γ: from 2015Do06. Other: 0.0137 *25* (1996TeZW). Mult.: from K/L1=8 *4*, L1/L2>3.5 (1971Vi15); α(K)exp=4.0 *10* deduced from Ice(K)=1.2 *3* (1971Vi15) and Iγ=0.0146 *6* here. Other: α(L1)exp=8.0 *8* deduced from Ice(L1)=2.4 *2* (1960Ba17 and and 1964Be23) and Iγ here gives Mult=M2, inconsistent with ce data above and ΔJ^π, which could indicate a different transition.
126.82[&h] *4*	0.0092[&] *8*	1924.282	1$^+$	1797.384	1$^-$				%Iγ=0.0058 *5*
140.514 *18*	0.0860 *19*	2356.065	0$^+$	2215.530	1$^+$	M1		2.52	α(K)=2.08 *3*; α(L)=0.344 *5*; α(M)=0.0794 *12* α(N)=0.0197 *3*; α(O)=0.00354 *5*; α(P)=0.000238 *4* %Iγ=0.0540 *19* E_γ: weighted average of 140.5 *3* (1971Vi15), 140.547 *23* (1996TeZW), and 140.494 *18* (2015Do06). I_γ: weighted average of 0.079 *5* (1996TeZW), 0.0865 *17* (2015Do06), and 0.095 *10* (1977Vy01). Mult.: L1/L2=11.3 *33*, K/L1=6 *2*, and α(K)exp=3.4 *6* deduced from Ice(K)=6.0 *10* (1971Vi15) and Iγ=0.0860 *19* here.
144.742[&h] *15*	0.0171[&] *10*	1961.328	2$^-$	1816.585	(2)$^+$				%Iγ=0.0107 *7*
151.83 *3*	0.116 *3*	2215.530	1$^+$	2063.739	2$^+$	M1		2.03	α(K)=1.667 *24*; α(L)=0.276 *4*; α(M)=0.0637 *9* α(N)=0.01577 *22*; α(O)=0.00284 *4*; α(P)=0.000191 *3* %Iγ=0.073 *3* E_γ: weighted average of 151.8 *6* (1970Be30), 151.8 *3* (1971Vi15), 151.91 *3* (1996TeZW), and 151.799 *17* (2015Do06). I_γ: weighted average of 0.108 *8* (1996TeZW) and 0.117 *2* (2015Do06) 0.092 *12* (1977Vy01). Other: 0.10 *5* (1970Be30). Mult.: from L1/L2>9 and K/L1=5.7 *12* in 1971Vi15, and α(K)exp=1.35 *13* deduced from Ice(K)=3.2 *3* (1971Vi15) and adopted Iγ=0.116 *3* here.
162.58 *4*	0.0407 *13*	2215.530	1$^+$	2053.016	(2)$^+$	M1(+E2)	<0.7	1.52 *16*	α(K)=1.20 *18*; α(L)=0.247 *20*; α(M)=0.058 *6*

$^{194}_{78}$Pt$_{116}$-6

γ(^{194}Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult. [c]	δ [c]	α [e]	Comments
									α(N)=0.0144 *15*; α(O)=0.00252 *19*; α(P)=0.000136 *22* %Iγ=0.0256 *11* E_γ: unweighted average of 162.6 *3* (1971Vi15), 162.64 *3* (1996TeZW), and 162.509 *25* (2015Do06). Other: 163.6 *3* (1974HeYW) and 163.4 *3* for a composite peak. See also 163.4γ from 1961 level. I_γ: weighted average of 0.039 *3* (1996TeZW), 0.0413 *13* (2015Do06), and 0.035 *6* (1977Vy01). Other: 0.22 *3* (1974HeYW) for a doublet. Mult.,δ: from L1/L2>5 and K/L1=6.2 *16* (1971Vi15), and α(K)=1.23 *13* deduced from Ice(K)=1.03 *10* (1971Vi15) and Iγ=0.0407 *13* here. Other α(K)exp: 1.0 *5* (1970Be30) for a composite peak.
163.951 *24*	0.205 *5*	1961.328	2^-	1797.384	1^-	M1+E2	0.50 +*7*−*8*	1.45 *5*	α(K)=1.13 *6*; α(L)=0.244 *7*; α(M)=0.0582 *20* α(N)=0.0143 *5*; α(O)=0.00249 *7*; α(P)=0.000128 *7* %Iγ=0.129 *5* E_γ: weighted average of 163.4 *3* (1970Be30), 164.0 *3* (1971Vi15), 163.6 *3* (1974HeYW), 164.01 *3* (1996TeZW), 163.926 *22* (2015Do06), and 163.94 *5* (1960Ba17). I_γ: weighted average of 0.200 *17* (1970Be30), 0.22 *3* (1974HeYW), 0.190 *8* (1996TeZW), and 0.209 *4* (2015Do06). Mult.,δ: from K/L1=7.7 *7*, L1/L2=7.1 *25*, L1/L3=16 *8* (1971Vi15); K/L=4.6 *1*, L1/L3>14 (1960Ba17); α(K)exp=1.2 *2* deduced from Ice(K)=5.0 *5* (1971Vi15) and Iγ=0.205 *5* here. Other α(K)exp: 1.0 *5* (1970Be30).
171.837 *23*	0.112 *2*	2215.530	1^+	2043.715	1^+	M1		1.428	α(K)=1.176 *17*; α(L)=0.194 *3*; α(M)=0.0448 *7* α(N)=0.01110 *16*; α(O)=0.00200 *3*; α(P)=0.0001346 *19* %Iγ=0.0704 *23* E_γ: weighted average of 171.8 *3* (1971Vi15), 171.91 *4* (1996TeZW), and 171.822 *18* (2015Do06). Other: 171.8 *6* (1970Be30, unplaced). I_γ: from 2015Do06. Others: 0.113 *10* (1996TeZW), 0.100 *10* (1977Vy01), 0.08 *4* (1970Be30). Mult.,δ: from L1/L2>8.4 and K/L1=7.3 *14* (1971Vi15) and α(K)exp=1.12 *7* deduced from Ice(K)=2.56 *14* (1971Vi15) and Iγ=0.112 *2* here.
173.3 *3*	0.008 *3*	2287.375	$(1^+,2^+)$	2114.102	1^+	[M1]		1.395	α(K)=1.149 *17*; α(L)=0.189 *3*; α(M)=0.0438 *7* α(N)=0.01084 *16*; α(O)=0.00195 *3*; α(P)=0.0001314 *20* %Iγ=0.0050 *19* E_γ: from ce data (1971Vi15). I_γ: deduced from Ice(K)=0.20 *7* (1971Vi15) and assigned Mult=M1.
189.17 *6*	0.0066 *10*	2298.160	1^+	2109.088	$(2)^+$	M1		1.091	α(K)=0.899 *13*; α(L)=0.1480 *21*; α(M)=0.0342 *5* α(N)=0.00846 *12*; α(O)=0.001523 *22*; α(P)=0.0001027 *15*

$^{194}_{78}Pt_{116}$-7

γ(^{194}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[c]	α[e]	Comments
								%Iγ=0.0041 *6* E_γ,I_γ: from 2015Do06. Other: 189.1 *3* from ce data with Iγ=0.0063 *12* deduced from Ice(K)=0.120 *24* (1971Vi15). Additional information 34. Mult.: α(K)exp=0.89 *+37−27* deduced from Ice(K)=0.120 *24* (1971Vi15) and Iγ=0.0066 *10* (2015Do06).
190.05[@] *8*	0.0055 *10*	2114.102	1^+	1924.282	1^+	M1	1.077	α(K)=0.887 *13*; α(L)=0.1461 *21*; α(M)=0.0338 *5* α(N)=0.00835 *12*; α(O)=0.001503 *22*; α(P)=0.0001014 *15* %Iγ=0.0035 *6* E_γ: weighted average of 189.8 *3* (1971Vi15) and 190.07 *8* (2015Do06). This transition was placed from 1622 level by 1971Vi15. I_γ: from 2015Do06. Mult.: α(K)exp=0.67 *+39−27* deduced from Ice(K)=0.075 *22* (1971Vi15) and Iγ=0.0055 *10* here. 0.42 *+15−18*.
197.82 *7*	0.0071 *16*	2311.879	2^+	2114.102	1^+	M1	0.963	α(K)=0.793 *12*; α(L)=0.1305 *19*; α(M)=0.0302 *5* α(N)=0.00746 *11*; α(O)=0.001343 *19*; α(P)=9.06×10^{-5} *13* %Iγ=0.0045 *10* E_γ: weighted average of 197.8 *3* (1971Vi15), 198.16 *20* (1996TeZW), and 197.79 *6* (2015Do06). I_γ: weighted average of 0.009 *5* (1996TeZW) and 0.0069 *16* (2015Do06). Mult.: α(K)exp=1.3 *+7−4* deduced from Ice(K)=0.19 *3* (1971Vi15) and Iγ=0.0071 *16* here.
202.96 *5*	0.568 *11*	1432.545	3^-	1229.521	4^+	E1	0.0676	α(K)=0.0555 *8*; α(L)=0.00930 *13*; α(M)=0.00215 *3* α(N)=0.000525 *8*; α(O)=9.08×10^{-5} *13*; α(P)=4.85×10^{-6} *7* %Iγ=0.357 *12* E_γ: unweighted average of 202.76 *20* (1970Be30), 203.0 *3* (1971Vi15), 203.01 *10* (1974HeYW), 203.085 *13* (1996TeZW), 203.004 *10* (2015Do06), and 202.91 *6* (1960Ba17). I_γ: weighted average of 0.54 *5* (1970Be30), 0.57 *6* (1971Vi15), 0.573 *15* (1996TeZW), and 0.566 *11* (2015Do06). Other: 1.2 *3* (1974HeYW) is discrepant. Mult.: α(K)exp=0.054 *7* (1970Be30), 0.062 *9* (1971Vi15), giving δ<0.03. Other: δ=−0.09 *7* from 203γ-328γ(θ), +0.5 *3* or +1.3 *7* from 203γ-607γ(θ) of 1996TeZW, only the first value consistent with α(K)exp. (203γ)(607γ)(θ): A_2=−0.17 *4*, A_4=+0.03 *7*. (203γ)[901](328γ)(θ): A_2=−0.06 *6*, A_4=+0.10 *9*. Placed from 2366 level by 1960Ba17. Ice(K)=0.65 *6*, weighted average of 0.72 *7* (1971Vi15) and 0.60 *6* (1960Ba17, 1964Be23). Additional information 8.
211.87 *3*	0.0082 *6*	2215.530	1^+	2003.665	(2^+)			%Iγ=0.0052 *4* E_γ,I_γ: from 2015Do06. Other: 212.11 *25* with Iγ=0.009 *4* (1996TeZW).
[x]216.14[@] *9*								E_γ: weighted average of 215.6 *3* (1971Vi15) and 216.15 *5* (1960Ba17). See in ce

$^{194}_{78}$Pt$_{116}$-8

γ(^{194}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[c]	δ[c]	α[e]	Comments
									data only; placed from 2357 level in 1960Ba17. K/L>5.2 (1960Ba17). Ice(K)=0.73 *7* (1960Ba17, 1964Be23), 0.18 *5* (1971Vi15).
223.911 *21*	0.0544 *10*	1961.328	2^-	1737.423	(3^-)	(M1+E2)	1.7 *+14−5*	0.36 *8*	α(K)=0.24 *7*; α(L)=0.0901 *14*; α(M)=0.0223 *4* α(N)=0.00548 *9*; α(O)=0.000904 *17*; α(P)=2.6×10^{-5} *9* %Iγ=0.0342 *11* E_γ: weighted average of 223.99 *10* (1996TeZW) and 223.907 *21* (2015Do06). Other: 224.0 *3* (1971Vi15). I_γ: from 2015Do06. Other: 0.0550 *23* (1996TeZW), 0.052 *10* (1977Vy01). Mult.,δ: α(K)exp=0.24 *7* deduced from Ice(K)=0.27 *8* (1971Vi15) and Iγ=0.0544 *10* here, gives δ(E2/M1)=1.7 *+14−5* or δ(M2/E1)=0.30 *6*, with the former consistent with ΔJ^π.
227.05[h] *11*	0.0056 *6*	2043.715	1^+	1816.585	$(2)^+$				%Iγ=0.0035 *4* E_γ: unweighted average of 227.15 *4* (2015Do06) and 226.94 *10* (1960Ba17). Placement from 1960Ba17 and 2015Do06; not seen in 1996TeZW. Also placed from 2312 level by 1960Ba17. I_γ: from 2015Do06. Ice(K)=0.30 *3*, weighted average of 0.33 *7* (1964Be23) and 0.30 *3* (1960Ba17).
[x]236.29[@] *10*									E_γ: seen in ce data only (1960Ba17, 1964Be23); placed from 2398 level in 1960Ba17. Ice(K)=0.50 *5* (1960Ba17), 0.46 *9* (1964Be23).
239.443 *17*	0.080 *3*	2163.745	0^+	1924.282	1^+	M1		0.567	α(K)=0.467 *7*; α(L)=0.0766 *11*; α(M)=0.01769 *25* α(N)=0.00438 *7*; α(O)=0.000788 *11*; α(P)=5.32×10^{-5} *8* %Iγ=0.0503 *23* E_γ: weighted average of 239.43 *4* (1996TeZW) and 239.445 *17* (2015Do06). Other: 239.5 *3* (1971Vi15). I_γ: weighted average of 0.099 *8* (1996TeZW), 0.0792 *16* (2015Do06), and 0.090 *10* (1977Vy01). Mult.: α(K)exp=0.56 *11* deduced from Ice(K)=0.92 *18* (1971Vi15) and Iγ=0.080 *3* here, gives δ(E2/M1)<0.4; $\Delta J^\pi=1^+$ requires pure M1.
243.65 *3*	0.0123 *7*	2287.375	$(1^+,2^+)$	2043.715	1^+				%Iγ=0.0077 *5* E_γ: weighted average of 243.66 *17* (1996TeZW) and 243.65 *3* (2015Do06). I_γ: weighted average of 0.015 *5* (1996TeZW) and 0.0122 *7* (2015Do06).
244.798 *22*	0.0313 *7*	1512.002	2^+	1267.198	0^+	(E2)		0.184	α(K)=0.1019 *15*; α(L)=0.0622 *9*; α(M)=0.01576 *22* α(N)=0.00386 *6*; α(O)=0.000620 *9*; α(P)=9.98×10^{-6} *14* %Iγ=0.0197 *7*

From ENSDF

γ(^{194}Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult. [c]	δ [c]	α [e]	Comments
									E_γ: weighted average of 244.8 *3* (1971Vi15), 244.92 *7* (1996TeZW), and 244.790 *18* (2015Do06). I_γ: weighted average of 0.033 *5* (1996TeZW) and 0.0313 *7* (2015Do06). Other: 0.045 *7* (1977Vy01). Mult.: α(K)exp=0.22 *6* deduced from Ice(K)=0.13 *3* (1971Vi15) and adopted Iγ=0.0313 *7* here gives δ(E2/M1)=1.4 +*8*−*4* or δ(M2/E1)=0.35 +*6*−*7*, but Mult=E2 is required by ΔJ^π.
250.102 *17*	0.0594 *7*	1797.384	1$^-$	1547.273	0$^+$	E1		0.0404	α(K)=0.0333 *5*; α(L)=0.00546 *8*; α(M)=0.001258 *18* α(N)=0.000308 *5*; α(O)=5.36×10^{-5} *8*; α(P)=2.98×10^{-6} *5* %Iγ=0.0373 *11* E_γ: weighted average of 250.098 *17* (2015Do06), 250.2 *3* (1971Vi15), and 250.12 *4* (1996TeZW). Other: 250.1 *13* (1970Be30), unplaced. I_γ: weighted average of 0.053 *5* (1996TeZW), 0.0596 *6* (2015Do06), 0.050 *6* (1977Vy01), 0.05 *3* (1970Be30). Mult.: from α(K)exp=0.025 *10*, deduced from Ice(K)=0.030 *12* (1971Vi15) Iγ=0.0594 *7* here.
253.61 *7*	0.0052 *6*	1924.282	1$^+$	1670.656	2$^+$	M1(+E2)	<1.4	0.38 *11*	α(K)=0.30 *11*; α(L)=0.062 *4*; α(M)=0.0146 *6* α(N)=0.00360 *14*; α(O)=0.00063 *5*; α(P)=3.3×10^{-5} *12* %Iγ=0.0033 *4* E_γ: from 2015Do06. Others: 253.6 *3* (1971Vi15), 253.6 *4* (1996TeZW). I_γ: from 2015Do06. Other: 0.005 *4* (1996TeZW). Mult.: from α(K)exp=0.40 +*20*−*15* deduced from Ice(K)=0.043 *13* (1971Vi15) and Iγ=0.0052 *6* here.
265.091 [&h] *27*	0.0083 [&] *4*	2043.715	1$^+$	1778.579	2$^+$				%Iγ=0.0052 *3*
285.315 [b] *14*	0.0802 *9*	2215.530	1$^+$	1930.369	2$^+$	(M1+E2)	1.5 +*3*−*2*	0.187 *18*	α(K)=0.137 *16*; α(L)=0.0382 *11*; α(M)=0.00930 *21* α(N)=0.00229 *6*; α(O)=0.000386 *12*; α(P)=1.49×10^{-5} *19* %Iγ=0.0504 *15* E_γ: weighted average of 285.32 *3* (1996TeZW), 285.312 *14* (2015Do06), and 285.34 *5* (1960Ba17). Others: 285.3 *7* (1970Be30) and 285.3 *3* (1971Vi15). Also placed from 1798 and 2398 levels by 1960Ba17. Level-energy difference=285.160. I_γ: weighted average of 0.09 *3* (1970Be30), 0.081 *4* (1996TeZW), and 0.0801 *9* (2015Do06). Mult.,δ: from α(K)exp=0.14 *5* (1970Be30), 0.09 *3* (1971Vi15) deduced from Ice(K)=0.15 *5* and Iγ=0.0802 *9*. Other δ: +0.4 *5* from $\gamma\gamma(\theta)$ of 1996TeZW. Sign of δ from $\gamma\gamma(\theta)$. (285γ)[1601γ](328γ)(θ): A_2=−0.04 *11*, A_4=+0.41 *18*. Ice(K)=0.225 *24*, weighted average of 0.24 *6* (1964Be23), 0.15

γ(^{194}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[c]	δ[c]	α[e]	Comments
									5 (1971Vi15), and 0.240 *24* (1960Ba17). Mult.,δ: α(K)exp=0.137 *15* deduced from Ice(K)=0.225 *24* and Iγ=0.0802 *9* here gives δ(E2/M1)=1.5 +*3*−*2* or δ(M2/E1)=0.35 *3*, with the former consistent with $\Delta\pi$=+.
288.13[&h] *4*	0.0253[&] *7*	2085.474	0^+	1797.384	1^-				%Iγ=0.0159 *6*
290.688 *14*	0.326 *5*	1961.328	2^-	1670.656	2^+	E1		0.0281	α(K)=0.0232 *4*; α(L)=0.00375 *6*; α(M)=0.000864 *12* α(N)=0.000212 *3*; α(O)=3.70×10^{-5} *6*; α(P)=2.12×10^{-6} *3* %Iγ=0.205 *7* E_γ: from 2015Do06. Others: 290.8 *3* (1971Vi15) and 290.690 *16* (1996TeZW). I_γ: weighted average of 0.32 *1* (1996TeZW) and 0.327 *5* (2015Do06). Other: 0.18 *6* (1977Vy01) is discrepant. Mult.: α(K)exp=0.012 *5* deduced from Ice(K)=0.08 *3* (1971Vi15) and Iγ=0.326 *5* here.
291.52[b] *7*	0.038 *5*	2215.530	1^+	1924.282	1^+	E2(+M1)	>2.0	0.130 *23*	α(K)=0.086 *21*; α(L)=0.0328 *14*; α(M)=0.0081 *3* α(N)=0.00200 *7*; α(O)=0.000329 *15*; α(P)=9.0×10^{-6} *25* %Iγ=0.024 *3* E_γ: weighted average of 291.2 *3* (1971Vi15), 291.4 *6* (1996TeZW), and 291.54 *7* (2015Do06). Level-energy difference=291.25. I_γ: weighted average of 0.035 *7* (1996TeZW) and 0.040 *5* (2015Do06). Mult.,δ: α(K)exp=0.078 *29* deduced from Ice(K)=0.061 *21* (1971Vi15) and Iγ=0.038 *5* here. Other δ=+0.8 *6* from $\gamma\gamma(\theta)$ for J(2215)=2, inconsistent with δ from ce data. (291γ)[1342γ](328γ)(θ): A_2=−0.13 *9*, A_4=+0.04 *15*.
293.549 *7*	17.33 *17*	622.023	2^+	328.474	2^+	E2+M1+E0	+15 *2*	0.1060 *16*	α(K)=0.0654 *10*; α(L)=0.0308 *5*; α(M)=0.00771 *11* α(N)=0.00189 *3*; α(O)=0.000307 *5*; α(P)=6.58×10^{-6} *10* %Iγ=10.9 *3* E_γ: weighted average of 293.548 *7* (1996TeZW), 293.548 *10* (2015Do06), and 293.58 *3* (1974HeYW). Others: 293.55 *4* (1960Ba17) 293.53 *4* (1960De15), and 293.57 *15* (1970Be30). I_γ: weighted average of 18.1 *6* (1964Be23), 17.5 *9* (1970Be30), 16.6 *9* (1974HeYW), 17.5 *3* (1996TeZW), and 17.24 *17* (2015Do06). Other: 18.9 *13* (1971Vi15). Mult.: L1:L2:L3=1.19 *8*:1.90 *12*:1.00 (1970Ag05); M1:M2:M3=1.2 *4*:1.8 *6*:1.0 (1970Ag05); α(K)exp=0.062 *7* (1956Th11), 0.034 *5* (1949St17), 0.065 *4* (1964Be23), 0.067 *4* (1970Be30), 0.071 *6* (1971Vi15); α(L)exp=0.017 *7* (1949St17), K/L=1.89 *20* (1960Ba17). δ: from $\gamma\gamma(\theta)$: average of +16 *2* (1996TeZW) and +14.3 *21* (1971Kr01). Others: +30 +*11*−*39* ($\gamma\gamma(\theta)$,1969Ha43); >4.5 from L- and M-subshell ratios (1970Ag05). q(E0/E2) mixing=−0.17 to +0.24 with penetration parameter

$\gamma(^{194}$Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [c]	δ [c]	α [e]	Comments
									(λ)=−170 to +270 from (294 ce(K))(329γ)(θ) (1971Do12). (293γ)(328γ)(θ): A_2=−0.123 *5*, A_4=+0.293 *8*; A_2=−0.127 *5*, A_4=+0.325 *10* (1971Kr01) A_2=−0.101 *14*, A_4=+0.323 *22* (1969Ha43). Ice(K)=25.2 *12*, weighted average of 24.0 *4* (1964Be23), 27.6 *10* (1971Vi15), and 24.0 *24* (1960Ba17). Additional information 2.
300.750 *7*	1.437 *14*	922.771	3+	622.023	2+	E2(+M1)	>5	0.102 *5*	α(K)=0.064 *4*; α(L)=0.0283 *5*; α(M)=0.00706 *11* α(N)=0.00173 *3*; α(O)=0.000283 *5*; α(P)=6.5×10^{-6} *5* %Iγ=0.90 *3* E_γ: weighted average of 300.750 *7* (1996TeZW) and 300.751 *10* (2015Do06). Others: 300.71 *15* (1970Be30), 300.77 *6* (1974HeYW), and 300.71 *5* (1960Ba17). I_γ: weighted average of 1.459 *23* (1996TeZW) and 1.432 *14* (2015Do06). Others: 1.35 *10* (1974HeYW), 1.18 *19* (1964Be23), and 1.44 *12* (1970Be30). Mult.,δ: from α(K)exp and L-subshell ratios. $\gamma\gamma(\theta)$ give two solutions for each correlation, a low value (−0.10 *8*, +0.2 *4*, +0.01 *12*) and a high value (+6 *4*, >6), only the latter is consistent with δ value from ce data. α(K)exp=0.061 *6* (1970Be30), 0.074 *12* (1964Be23); L1:L2:L3=1.21 *15*:1.79 *22*:1.00 (1970Ag05); K/L2=3.5 *1*, K/L3>8 (1960Ba17). (301γ)(622γ)(θ): A_2=−0.15 *7*, A_4=−0.02 *11*. (301γ)(293γ)(θ): A_2=−0.006 *21*, A_4=−0.03 *4*. (301γ)[293γ](328γ)(θ): A_2=+0.009 *20*, A_4=−0.10 *3*. Ice(K)=1.78 *4* from 1964Be23. Other: 1.80 *18* (1960Ba17). Additional information 4.
304.886 *17*	0.0290 *6*	1737.423	(3−)	1432.545	3−				%Iγ=0.0182 *6* E_γ: weighted average of 304.87 *8* (1996TeZW) and 304.887 *17* (2015Do06). I_γ: weighted average of 0.030 *3* (1996TeZW) and 0.0290 *6* (2015Do06).
308.17 [&h] *4*	0.0061 [&] *5*	1930.369	2+	1622.197	2+				%Iγ=0.0038 *3*
318.122 *10*	0.345 *3*	1797.384	1−	1479.270	0+	E1		0.0227	α(K)=0.0188 *3*; α(L)=0.00301 *5*; α(M)=0.000693 *10* α(N)=0.0001701 *24*; α(O)=2.98×10^{-5} *5*; α(P)=1.729×10^{-6} *25* %Iγ=0.217 *6* E_γ: weighted average of 318.122 *10* (2015Do06) and 318.124 *18* (1996TeZW). Others: 318.11 *20* (1970Be30), 318.2 *3* (1971Vi15), and 318.14 *8* (1974HeYW). I_γ: weighted average of 0.348 *10* (1996TeZW) and 0.345 *3* (2015Do06). Others: 0.52 *8* (1970Be30) and 0.30 *3* (1974HeYW). Mult.: from α(K)exp=0.035 *13*, deduced from Ice(K)=0.25 *9* (1971Vi15) and Iγ=0.345 *3* here.

$^{194}_{78}$Pt$_{116}$-12

γ(^{194}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[c]	α[e]	Comments
321.960[&h] *18*	0.0139[&] *5*	2215.530	1$^+$	1893.574	0$^+$			%Iγ=0.0087 *4*
328.470 *6*	100.0 *10*	328.474	2$^+$	0.0	0$^+$	E2	0.0755	α(K)=0.0488 *7*; α(L)=0.0202 *3*; α(M)=0.00504 *7* α(N)=0.001236 *18*; α(O)=0.000202 *3*; α(P)=4.97×10^{-6} *7* %Iγ=62.8 *16* E_γ: weighted average of 328.50 *3* (1974HeYW), 328.464 *6* (1996TeZW), 328.481 *10* (2015Do06), and 328.50 *3* (1960Ba17). Others: 328.47 *15* (1970Be30) and 328.5 *3* (1971Vi15). I_γ: from 2015Do06. Others: 100.0 *13* (1996TeZW), 100 *5* (1974HeYW), and 100 *5* (1964Be23). Mult.: L1:L2:L3=1.53 *18*:1.96 *20*:1.00 (1970Ag05); M1:M2:M3=1.25 *25*:1.87 *34*:1.00 (1970Ag05); α(K)exp=0.0505 *20* (1965Le17), 0.0409 *22* (1960De17), 0.056 *6* (1956Th11); α(K)exp=0.10 *2*, α(L)exp=0.057 *10*, α(M)=0.008 *4* (1949St17). Ice(K)=100 used to obtain Iγ values of transitions where only ce data are available.
339.01 *13*	0.0168 *6*	1961.328	2$^-$	1622.197	2$^+$			%Iγ=0.0106 *5* E_γ: unweighted average of 338.88 *10* (1996TeZW) and 339.137 *26* (2015Do06). I_γ: weighted average of 0.018 *5* (1996TeZW) and 0.0168 *6* (2015Do06).
345.984[&h] *20*	0.0077[&] *4*	1778.579	2$^+$	1432.545	3$^-$			%Iγ=0.0048 *3* E_γ: level-energy difference=346.034.
363.10[#b] *18*	0.0098 *22*	1737.423	(3$^-$)	1373.764	(5$^-$)			%Iγ=0.0062 *14* E_γ: poor fit, level-energy difference=363.66.
364.836 *6*	2.548 *25*	1797.384	1$^-$	1432.545	3$^-$	E2	0.0562	α(K)=0.0378 *6*; α(L)=0.01390 *20*; α(M)=0.00344 *5* α(N)=0.000844 *12*; α(O)=0.0001394 *20*; α(P)=3.90×10^{-6} *6* %Iγ=1.60 *5* E_γ: weighted average of 364.846 *10* (2015Do06) and 364.832 *6* (1996TeZW). Others: 364.97 *6* (1960Ba17), 364.77 *15* (1970Be30), 364.8 *3* (1971Vi15), and 364.87 *4* (1974HeYW). I_γ: weighted average of 2.55 *19* (1964Be23), 2.42 *14* (1970Be30), 3.02 *19* (1971Vi15), 2.52 *15* (1974HeYW), 2.56 *4* (1996TeZW), and 2.540 *25* (2015Do06). Mult.: α(K)exp=0.046 *4* (1964Be23), 0.048 *3* (1970Be30), 0.038 *3* (1971Vi15), L1:L2:L3=1.88 *27*:1.94 *27*:1.00 (1970Ag05). Ice(K)=2.38 *6*, from 1964Be23. Others: 2.38 *10* (1971Vi15) and 2.50 *25* (1960Ba17). Additional information 19.
366.365 *22*	0.0477 *15*	2163.745	0$^+$	1797.384	1$^-$			%Iγ=0.0300 *13* E_γ: weighted average of 366.42 *4* (1996TeZW) and 366.356 *16* (2015Do06). I_γ: weighted average of 0.058 *7* (1996TeZW) and 0.0475 *10* (2015Do06).
373.11 *4*	0.0104 *5*	2043.715	1$^+$	1670.656	2$^+$			%Iγ=0.0065 *4* E_γ: weighted average of 373.33 *14* (1996TeZW) and 373.102 *22* (2015Do06). I_γ: from 2015Do06. Other: 0.0111 *25* (1996TeZW).

$^{194}_{78}$Pt$_{116}$-13

γ(^{194}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[c]	δ[c]	α[e]	Comments
387.65[&h] *5*	0.0051[&] *5*	2311.879	2^+	1924.282	1^+				%Iγ=0.0032 *3*
397.84[&h] *5*	0.0055[&] *5*	2214.523	(2^+)	1816.585	$(2)^+$				%Iγ=0.0035 *3*
398.937 *8*	0.0192 *7*	2215.530	1^+	1816.585	$(2)^+$				%Iγ=0.0121 *6* E_γ,I_γ: from 2015Do06. Other: 398.95 *11* with Iγ=0.023 *7* (1996TeZW).
412.288 *17*	0.0292 *4*	1924.282	1^+	1512.002	2^+	(M1+E2)	0.9 *+8−5*	0.09 *3*	α(K)=0.072 *25*; α(L)=0.014 *3*; α(M)=0.0032 *6* α(N)=0.00079 *14*; α(O)=0.00014 *3*; α(P)=8.E−6 *3* %Iγ=0.0184 *6* E_γ: weighted average of 412.290 *17* (2015Do06) and 412.20 *11* (1996TeZW). Other: 412.3 *3* (1971Vi15). I_γ: from 2015Do06. Other: 0.025 *7* (1996TeZW). Mult.: α(K)exp=0.072 *+24−21* deduced from Ice(K)=0.044 *13* (1971Vi15) and Iγ=0.0292 *4* here, gives δ(E2/M1)=0.9 *+8−5* or δ(M2/E1)=0.49 *12*, and ΔJ^π requires M1+E2.
418.195 *23*	0.068 *7*	1229.521	4^+	811.285	4^+	(E2(+M1))	>3	0.043 *5*	α(K)=0.031 *4*; α(L)=0.0091 *5*; α(M)=0.00223 *9* α(N)=0.000548 *23*; α(O)=9.2×10^{-5} *5*; α(P)=3.3×10^{-6} *5* %Iγ=0.043 *5* E_γ: weighted average of 417.95 *15* (1996TeZW) and 418.197 *14* (2015Do06). Others: 418.06 *20* (1970Be30) and 418.1 *3* (1971Vi15) for a composite peak. I_γ: weighted average of 0.07 *3* (1996TeZW) and 0.066 *7* (2015Do06). Other: 0.140 *11* (1970Be30) and 0.130 *15* (1971Vi15) for a composite peak. Mult.,δ: α(K)exp=0.027 *11* (1971Vi15) for a composite peak. Ice(K)=0.073 *29* (1971Vi15) for a composite peak,
418.200 *25*	0.078 *6*	2215.530	1^+	1797.384	1^-	[E1]		0.01218	α(K)=0.01012 *15*; α(L)=0.001584 *23*; α(M)=0.000363 *5* α(N)=8.93×10^{-5} *13*; α(O)=1.575×10^{-5} *22*; α(P)=9.53×10^{-7} *14* %Iγ=0.049 *4* E_γ: weighted average of 418.41 *12* (1996TeZW) and 418.197 *14* (2015Do06). Others: 418.06 *20* (1970Be30) and 418.1 *3* (1971Vi15) for a composite peak. I_γ: from 2015Do06. Others: 0.07 *3* (1996TeZW); 0.130 *15* (1971Vi15) for a composite peak. Mult.,δ: α(K)exp=0.027 *11* (1971Vi15) for a composite peak gives δ(E2/M1)>3, but inconsistent with ΔJ^π which requires E1. Ice(K)=0.073 *29* (1971Vi15) for a composite peak,
421.59 *6*	0.0440 *8*	2043.715	1^+	1622.197	2^+				%Iγ=0.0277 *9* E_γ: unweighted average of 421.65 *5* (1996TeZW) and 421.538 *17* (2015Do06). I_γ: weighted average of 0.050 *4* (1996TeZW) and 0.0439 *5* (2015Do06).

From ENSDF

$^{194}_{78}Pt_{116}$-14

γ(^{194}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[c]	α[e]	Comments
431.61[&h] *6*	0.0040[&] *4*	2356.065	0^+	1924.282	1^+			%Iγ=0.0025 *3* Level-energy difference=431.78.
435.935[&h] *28*	0.0119[&] *6*	2397.320	2^+	1961.328	2^-			%Iγ=0.0075 *4*
436.90 *9*	0.0196 *6*	2215.530	1^+	1778.579	2^+			%Iγ=0.0123 *5* E_γ: unweighted average of 436.81 *8* (1996TeZW) and 436.987 *20* (2015Do06). I_γ: weighted average of 0.022 *4* (1996TeZW) and 0.0195 *6* (2015Do06).
442.225[&h] *19*	0.0125[&] *4*	2239.635	$(2)^-$	1797.384	1^-			%Iγ=0.0079 *3*
449.317 *12*	0.243 *2*	1961.328	2^-	1512.002	2^+	(E1)	0.01040	α(K)=0.00866 *13*; α(L)=0.001346 *19*; α(M)=0.000309 *5* α(N)=7.59×10^{-5} *11*; α(O)=1.340×10^{-5} *19*; α(P)=8.19×10^{-7} *12* %Iγ=0.153 *4* E_γ: weighted average of 449.13 *20* (1970Be30), 449.1 *3* (1971Vi15), 449.36 *7* (1974HeYW), 449.303 *12* (1996TeZW), and 449.335 *14* (2015Do06). I_γ: weighted average of 0.240 *5* (1996TeZW) and 0.243 *2* (2015Do06). Others: 0.268 *21* (1970Be30) and 0.30 *3* (1974HeYW); 0.44 *4* (1971Vi15) could be for a composite peak. Mult.: δ<0.1 from α(K)exp=0.081 *+19−15* (1971Vi15). Ice(K)=0.073 *7* (1971Vi15).
482.800 *8*	1.917 *19*	811.285	4^+	328.474	2^+	E2	0.0270	α(K)=0.0198 *3*; α(L)=0.00550 *8*; α(M)=0.001340 *19* α(N)=0.000329 *5*; α(O)=5.55×10^{-5} *8*; α(P)=2.08×10^{-6} *3* %Iγ=1.20 *4* E_γ: weighted average of 482.80 *4* (1974HeYW), 482.793 *8* (1996TeZW), and 482.811 *10* (2015Do06). Others: 482.65 *15* (1970Be30), 482.7 *3* (1971Vi15), and 482.88 *10* (1960Ba17). I_γ: weighted average of 1.86 *10* (1970Be30), 1.84 *10* (1974HeYW), 1.92 *3* (1996TeZW), and 1.920 *19* (2015Do06). Others: 1.86 *25* (1964Be23); 2.33 *13* (1971Vi15) is discrepant. Mult.: α(K)exp=0.0174 *20* (1971Vi15), 0.021 *3* (1964Be23), 0.0207 *13* (1970Be30); L1/L2=1.5 *3*, L1/L3=3.0 *10* (1970Ag05); K/L=4.9 *8*, L12/L3=6 (1960Ba17). (483γ)(328γ)(θ): A_2=+0.101 *17*, A_4=−0.03 *3*. Ice(K)=0.80 *2*, weighted average of 0.79 *2* (1964Be23), 0.83 *8* (1971Vi15), and 0.95 *10* (1960Ba17). Additional information 3. Placed from 1962 and 2298 levels by 1960Ba17.
490.030[&h] *22*	0.0113[&] *4*	2287.375	$(1^+,2^+)$	1797.384	1^-			%Iγ=0.0071 *3*
491.967[&h] *25*	0.0084[&] *4*	2114.102	1^+	1622.197	2^+			%Iγ=0.0053 *3* Level-energy difference=491.904.
500.737 *24*	0.0103 *5*	2298.160	1^+	1797.384	1^-			%Iγ=0.0065 *4* E_γ,I_γ: from 2015Do06. Other: 500.72 *19* with Iγ=0.012 *3* (1996TeZW).

γ(^{194}Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [c]	δ [c]	α [e]	Comments
528.773 *8*	2.84 *3*	1961.328	2⁻	1432.545	3⁻	M1+E2	−1.68 +*8*−*7*	0.0336 *10*	α(K)=0.0265 *9*; α(L)=0.00542 *12*; α(M)=0.00128 *3* α(N)=0.000317 *7*; α(O)=5.51×10^{-5} *13*; α(P)=2.89×10^{-6} *10* %Iγ=1.78 *5* E_γ: weighted average of 528.767 *8* (1996TeZW) and 528.782 *10* (2015Do06). Others: 528.8 *3* (1971Vi15), 529.06 *10* (1974HeYW), and 528.95 *10* (1960Ba17). I_γ: weighted average of 2.85 *5* (1996TeZW) and 2.83 *3* (2015Do06). Others: 3.2 *3* (1964Be23), 3.9 *3* (1971Vi15), and 3.6 *4* (1974HeYW) for a composite peak. Mult.,δ: from α(K)exp=0.0265 *6* deduced from Ice(K)=1.54 *3* and Iγ=2.84 *3* here, L2/L3>2.7, K/L2=17 *3*, K/L3>45 (1970Ag05). Other α(K)exp: 0.0233 *3* (1964Be23), 0.0200 *12* (1970Be30), and 0.020 *2* (1971Vi15), for a composite peak. Other δ: −0.45 *9*, −5.5 *23*, −1.3 *3*, −0.77 *10*, −2.4 *4* from $\gamma\gamma(\theta)$ of 1996TeZW. Sign of δ from $\gamma\gamma(\theta)$. (529γ)(202γ)(θ): A_2=−0.21 *6*, A_4=−0.04 *10*. (529γ)(1104γ)(θ): A_2=−0.309 *20*, A_4=+0.02 *3*. (529γ)[1104γ](328γ)(θ): A_2=+0.35 *3*, A_4=−0.18 *5*. Ice(K)=1.54 *3*, weighted average of 1.53 *3* (1964Be23), 1.58 *10* (1971Vi15), and 1.80 *18* (1960Ba17).
530.173 *10*	0.977 *9*	1797.384	1⁻	1267.198	0⁺	E1		0.00730	α(K)=0.00609 *9*; α(L)=0.000935 *13*; α(M)=0.000214 *3* α(N)=5.26×10^{-5} *8*; α(O)=9.33×10^{-6} *13*; α(P)=5.83×10^{-7} *9* %Iγ=0.614 *18* E_γ: weighted average of 530.164 *10* (1996TeZW) and 530.182 *10* (2015Do06). Other: 529.9 *3* (1971Vi15); 529.06 *10* (1974HeYW) is discrepant. I_γ: weighted average of 0.987 *18* (1996TeZW) and 0.975 *9* (2015Do06). Other: 3.6 *4* 1974HeYW) and 3.9 *3* (1971Vi15) for a doublet. Mult.: α(K)exp=0.006 *1*, deduced from Ice(K)=0.125 *14* (1971Vi15) and Iγ=0.977 *9* here.
531.702 [&h] *15*	0.0384 [&] *8*	2043.715	1⁺	1512.002	2⁺				%Iγ=0.0241 *8*
544.826 *17*	0.0400 *9*	2215.530	1⁺	1670.656	2⁺	(M1(+E2))	<0.7	0.055 *7*	α(K)=0.046 *6*; α(L)=0.0075 *8*; α(M)=0.00174 *17* α(N)=0.00043 *4*; α(O)=7.7×10^{-5} *8*; α(P)=5.1×10^{-6} *7* %Iγ=0.0251 *9* E_γ: weighted average of 544.78 *5* (1996TeZW) and 544.831 *17* (2015Do06). Others: 544.4 *6* (1970Be30), 544.9 *3* (1971Vi15), and 544.66 *20* (1960Ba17). I_γ: weighted average of 0.041 *15* (1970Be30), 0.051 *7* (1996TeZW), and 0.0399 *8* (2015Do06). Other: <0.30 (1971Vi15). Mult.,δ: α(K)exp=0.048 *8* deduced from Ice(K)=0.039 *6*

$\gamma(^{194}$Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult. [c]	δ [c]	α [e]	Comments
									and Iγ=0.0400 *9* here gives δ(E2/M1)<0.7 or δ(M2/E1)=0.66 *9*, with the former consistent with ΔJ^π=+. Other α(K)exp: 0.044 *18* (1970Be30). Ice(K)=0.039 *6*, unweighted average of 0.037 *6* (1964Be23), 0.029 *5* (1971Vi15), and 0.050 *5* (1960Ba17).
562.478 *14*	0.138 *6*	1373.764	(5$^-$)	811.285	4$^+$	(E1)		0.00646	α(K)=0.00539 *8*; α(L)=0.000823 *12*; α(M)=0.000188 *3* α(N)=4.63×10^{-5} *7*; α(O)=8.22×10^{-6} *12*; α(P)=5.17×10^{-7} *8* %Iγ=0.087 *5* E_γ: weighted average of 562.4 *3* (1970Be30), 562.5 *3* (1971Vi15), 562.6 *3* (1974HeYW), 562.449 *20* (1996TeZW), and 562.492 *14* (2015Do06). I_γ: unweighted average of 0.128 *10* (1970Be30), 0.15 *4* (1974HeYW), 0.147 *5* (1996TeZW), and 0.127 *1* (2015Do06). Other: ≈0.20 (1971Vi15). Mult.: α(K)exp=0.010 *4* deduced from Ice(K)=0.027 *10* (1971Vi15) and Iγ=0.138 *6* here, gives δ(M2/E1)=0.19 *+8−13* or Mult=E2. γγ(θ) data give a low value (−0.3 *3* or −0.05 *17*) and a high value (−5 *+3−∞* or >+4), the former is consistent with α(K)exp. Placement from 1997Te09. (562γ)(483γ)(θ): A_2=−0.10 *6*, A_4=−0.05 *10*. (562γ)[483γ](328γ)(θ): A_2=−0.10 *11*, A_4=−0.02 *18*.
564.444 [&h] *7*	0.0293 [&] *3*	2043.715	1$^+$	1479.270	0$^+$				%Iγ=0.0184 *6*
566.91 [&h] *4*	0.0055 [&] *3*	2114.102	1$^+$	1547.273	0$^+$				%Iγ=0.00346 *21*
589.208 *10*	0.440 *4*	1512.002	2$^+$	922.771	3$^+$	E2+M1	2.2 *+6−4*	0.0226 *23*	α(K)=0.0178 *19*; α(L)=0.00368 *25*; α(M)=0.00087 *6* α(N)=0.000215 *14*; α(O)=3.7×10^{-5} *3*; α(P)=1.93×10^{-6} *22* %Iγ=0.277 *8* E_γ: weighted average of 589.06 *15* (1970Be30), 589.24 *7* (1974HeYW), 589.199 *10* (1996TeZW), 589.222 *14* (2015Do06), and 589.39 *10* (1960Ba17). I_γ: weighted average of 0.7 *3* (1964Be23), 0.414 *24* (1970Be30), 0.41 *4* (1974HeYW), 0.457 *10* (1996TeZW), and 0.438 *4* (2015Do06). Other: 0.528 *10* (1971Vi15) is discrepant. Mult.,δ: from α(K)exp=0.010 *+10−4* (1964Be23), 0.0180 *16* (1970Be30). Other: δ=+7.8 *18* from 589γ-301γ(θ) or −0.16 *14* from 589γ-328γ(θ) (1996TeZW), only the former is somewhat consistent with α(K)exp. (589γ)(301γ)(θ): A_2=+0.13 *4*, A_4=+0.51 *6*. (589γ)[594γ](328γ)(θ): A_2=−0.01 *4*, A_4=+0.08 *7*. Ice(K)=0.159 *12*, weighted average of 0.153 *10* (1964Be23) and 0.180 *18* (1960Ba17). Additional information 13.
593.37 *3*	0.465 *4*	2215.530	1$^+$	1622.197	2$^+$	M1+E2	−0.25 *18*	0.048 *4*	α(K)=0.040 *3*; α(L)=0.0064 *4*; α(M)=0.00147 *8*

From ENSDF

$^{194}_{78}$Pt$_{116}$-17

γ(^{194}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[c]	δ[c]	α[e]	Comments
									α(N)=0.000364 *20*; α(O)=6.6×10^{-5} *4*; α(P)=4.4×10^{-6} *4* %Iγ=0.292 *9* E_γ: unweighted average of 593.4 *3* (1971Vi15), 593.319 *16* (1996TeZW), and 593.386 *14* (2015Do06). Others: 593.70 *5* (1974HeYW), 593.58 *15* (1970Be30), and 593.72 *11* (1960Ba17) for a composite peak. I_γ: weighted average of 0.470 *13* (1996TeZW) and 0.465 *4* (2015Do06). Others: 0.6 *3* (1964Be23), 1.07 *13* (1971Vi15), 0.746 *41* (1970Be30), and 0.77 *5* (1974HeYW) for a composite peak. Mult.,δ: α(K)exp=0.047 *5* deduced from Ice(K)=0.45 *5* (1971Vi15) and Iγ=0.465 *4* here, gives δ(E2/M1)<0.2 or δ(M2/E1)=0.80 *8*, with only the former consistent with δ=−0.25 *18* from $\gamma\gamma(\theta)$ of 1996TeZW. Other α(K)exp: 0.031 *4* (1970Be30) and 0.037 *+51−17* (1964Be23) for a composite peak. (593γ)[1293γ](328γ)(θ): A_2=+0.01 *10*, A_4=+0.14 *16*. Other Ice(K): 0.57 *6* (1960Ba17) and 0.47 *5* (1964Be23) for a composite peak.
594.299 *14*	0.267 *2*	922.771	3$^+$	328.474	2$^+$	E2(+M1)	>10	0.0166 *3*	α(K)=0.01270 *23*; α(L)=0.00299 *5*; α(M)=0.000718 *11* α(N)=0.000177 *3*; α(O)=3.02×10^{-5} *5*; α(P)=1.345×10^{-6} *25* %Iγ=0.168 *5* E_γ: weighted average of 594.3 *3* (1971Vi15), 594.270 *22* (1996TeZW), and 594.311 *14* (2015Do06). I_γ: weighted average of 0.276 *12* (1996TeZW) and 0.267 *2* (2015Do06). Other: 1.07 *13* for a composite peak (1971Vi15). Mult.,δ: from the Adopted Gammas. α(K)exp=0.0227 *26* from Ice(K)=0.124 *14* (1971Vi15) and Iγ=0.267 *2* here gives δ=1.3 *3*. It should be noted that 593.35γ and 594.28γ are not fully resolved in γ-ray data of 1971Vi15. The adopted value is taken from $\gamma\gamma(\theta)$ data in ^{194}Ir β^- where only the 594.28γ is present. (594γ)(328γ)(θ): A_2=−0.43 *8*, A_4=−0.22 *13*; probably contains 593γ also. δ=−0.54 *18* or −3.2 *15* (1996TeZW).
602.053 *18*	0.0141 *6*	2114.102	1$^+$	1512.002	2$^+$				%Iγ=0.0089 *5* E_γ,I_γ: from 2015Do06. Other: 602.02 *9* with Iγ=0.030 *13*.
607.496 *10*	0.476 *5*	1229.521	4$^+$	622.023	2$^+$	E2		0.01565	α(K)=0.01199 *17*; α(L)=0.00279 *4*; α(M)=0.000670 *10* α(N)=0.0001649 *23*; α(O)=2.83×10^{-5} *4*; α(P)=1.269×10^{-6} *18* %Iγ=0.299 *9* E_γ: weighted average of 607.498 *10* (1996TeZW) and 607.493 *14* (2015Do06). Others: 607.5 *3* (1970Be30), 607.5 *3* (1971Vi15), 607.54 *8* (1974HeYW), and 607.61 *8* (1960Ba17). I_γ: weighted average of 0.50 *3* (1970Be30), 0.46 *5* (1974HeYW), 0.493 *8* (1996TeZW), 0.472 *4* (2015Do06), and 0.9 *4* (1964Be23). Other: 0.685 *10* (1971Vi15) is discrepant. Mult.: α(K)exp=0.0093 *8* (1971Vi15), 0.007 *+7−3* (1964Be23), 0.0122 *10* (1970Be30). Ice(K)=0.132 *10*, weighted average of 0.125 *10* (1964Be23), 0.130 *10*

$^{194}_{78}$Pt$_{116}$-18

γ(^{194}Pt) (continued)

E_γ †	I_γ †d	E_i(level)	J^π_i	E_f	J^π_f	Mult. c	α e	Comments
								(1971Vi15), and 0.150 *15* (1960Ba17). Additional information 5.
621.250 *14*	1.33 *1*	1432.545	3^-	811.285	4^+	E1	0.00527	α(K)=0.00441 *7*; α(L)=0.000668 *10*; α(M)=0.0001527 *22* α(N)=3.76×10^{-5} *6*; α(O)=6.68×10^{-6} *10*; α(P)=4.25×10^{-7} *6* %Iγ=0.836 *24* E_γ: weighted average of 621.259 *15* (1996TeZW) and 621.242 *14* (2015Do06). Others: 621.62 *15* (1970Be30) and 621.74 *5* (1974HeYW) for a composite peak; 621.2 *3* (1971Vi15). I_γ: weighted average of 1.39 *5* (1996TeZW) and 1.33 *1* (2015Do06). Other: 3.85 *20* (1974HeYW), 3.81 *19* (1970Be30) and 4.15 *25* (1971Vi15) for a composite peak. Mult.: α(K)exp=0.0055 *6*, using Ice(K)=0.150 *15* (1971Vi15) and adopted Iγ=1.33 *1* here. $\gamma\gamma(\theta)$ data of 1996TeZW is also consistent with δ=0 (evaluators′ estimate), 1996TeZW quote δ=+0.33 *10* or +1.8 *4* from 621γ-483γ(θ), and −0.010 *25* from 621γ-328γ(θ). (621γ)(483γ)(θ): A_2=−0.144 *20*, A_4=0.00 *3*. (621γ)[483γ](328γ)(θ): A_2=−0.134 *22*, A_4=−0.02 *4*.
622.010 *10*	2.40 *2*	622.023	2^+	0.0	0^+	E2	0.01483	α(K)=0.01141 *16*; α(L)=0.00262 *4*; α(M)=0.000627 *9* α(N)=0.0001543 *22*; α(O)=2.65×10^{-5} *4*; α(P)=1.208×10^{-6} *17* %Iγ=1.51 *4* E_γ: weighted average of 621.995 *12* (1996TeZW), 622.019 *10* (2015Do06), and 622.05 *6* (1960Ba17). Others: 622.01 *11* (1960De15); 621.74 *5* (1974HeYW) and 622.1 *3* (1971Vi15) for a composite peak. I_γ: weighted average of 2.40 *5* (1996TeZW) and 2.40 *2* (2015Do06). Others: 3.85 *20* (1974HeYW), 3.85 *25* (1964Be23), and 4.15 *25* for a composite peak. Mult.: α(K)exp=0.0128 *12* deduced from Ice(K)=0.63 *6* (1971Vi15) and Iγ=2.40 *2* here; α(K)exp=0.0087 *8* (1964Be23) and 0.0088 *5* (1970Be30), K/L=4.2 *8* (1960Ba17) for a composite peak ; Other Ice(K): 0.685 *15* (1964Be23) and 0.77 *8* (1960Ba17) for a composite peak.
627.59 *3*	0.0075 *5*	2298.160	1^+	1670.656	2^+			%Iγ=0.0047 *4* E_γ: from 2015Do06. Other: 627.7 *6* (1996TeZW). I_γ: weighted average of 0.0061 *17* (1996TeZW) and 0.0076 *5* (2015Do06).
645.164 *9*	3.69 *8*	1267.198	0^+	622.023	2^+	E2	0.01367	α(K)=0.01057 *15*; α(L)=0.00237 *4*; α(M)=0.000566 *8* α(N)=0.0001393 *20*; α(O)=2.39×10^{-5} *4*; α(P)=1.119×10^{-6} *16* %Iγ=2.32 *8* E_γ: weighted average of 645.11 *15* (1970Be30), 645.2 *3* (1971Vi15), 645.18 *3* (1974HeYW), 645.152 *9* (1996TeZW), 645.174 *10* (2015Do06), and 645.32 *8* (1960Ba17). I_γ: unweighted average of 3.8 *3* (1964Be23), 3.62 *18* (1970Be30), 3.90 *19* (1971Vi15), 3.40 *20* (1974HeYW), 3.86 *7* (1996TeZW), and 3.55 *3* (2015Do06). Mult.: α(K)exp=0.0098 *10* (1971Vi15), 0.0104 *11* (1964Be23), 0.0109 *7* (1970Be30); K/L=4.7 *5*, L12/L3=7 (1960Ba17). (645γ)(622γ)(θ): A_2=+0.38 *5*, A_4=+1.16 *7*. Ice(K)=0.81 *2*, from 1964Be23. Others: 0.78 *7* (1971Vi15) and 0.90 *9* (1960Ba17). Additional information 6.

γ(^{194}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[c]	δ[c]	α[e]	Comments
668.247 *17*	0.175 *2*	2215.530	1$^+$	1547.273	0$^+$	M1		0.0366	α(K)=0.0304 *5*; α(L)=0.00484 *7*; α(M)=0.001114 *16* α(N)=0.000276 *4*; α(O)=4.96×10^{-5} *7*; α(P)=3.39×10^{-6} *5* %Iγ=0.110 *3* E_γ: weighted average of 668.16 *20* (1970Be30), 668.27 *10* (1974HeYW), 668.247 *17* (1996TeZW), 668.240 *14* (2015Do06), and 668.56 *10* (1960Ba17). I_γ: weighted average of 0.182 *11* (1970Be30), 0.180 *5* (1996TeZW), and 0.174 *2* (2015Do06). Other: 0.17 *2* (1974HeYW). Mult.: α(K)exp=0.029 *3* (1970Be30), and 0.032 *3* deduced from Ice(K)=0.0114 *10* and Iγ=0.175 *2* here, give δ<0.3, and ΔJ^π requires pure dipole. Ice(K)=0.114 *10*, weighted average of 0.11 *1* (1964Be23) and 0.120 *12* (1960Ba17).
^{x}671.8[@] *6*									E_γ: from 1960Ba17. Other: 671.16 (1970Ag05). Ice(K)=0.0200 *20* (1960Ba17), ≈0.019 (1964Be23). Reported in ce data only (1960Ba17, 1964Be23 and 1970Ag05). Probably an impurity line since Ice(K)=0.117 (1970Ag05) and 0.019 (1964Be23) disagree.
675.943 *16*	0.0707 *7*	2298.160	1$^+$	1622.197	2$^+$	M1(+E2)	<0.4	0.0340 *17*	α(K)=0.0281 *15*; α(L)=0.00452 *19*; α(M)=0.00104 *5* α(N)=0.000257 *11*; α(O)=4.63×10^{-5} *20*; α(P)=3.13×10^{-6} *17* %Iγ=0.0444 *13* E_γ: weighted average of 676.2 *6* (1970Be30), 675.9 *3* (1971Vi15), 675.75 *11* (1996TeZW), 675.947 *16* (2015Do06), and 676.1 *3* (1960Ba17). I_γ: from 2015Do06. Others: 0.4 *4* (1964Be23), 0.10 *3* (1970Be30), and 0.079 *20* (1996TeZW). Mult.,δ: α(K)exp=0.019 *7* (1970Be30), and 0.034 *6* deduced from Ice(K)=0.049 *8* and Iγ=0.0707 *7* here. Ice(K)=0.049 *8*, unweighted average of 0.037 *7* (1964Be23), 0.064 *7* (1971Vi15), and 0.046 *5* (1960Ba17). Mult.,δ: α(K)exp=0.034 *6* deduced from Ice(K)=0.049 *8* and Iγ=0.0707 *7* here, gives δ(E2/M1)<0.4 or δ(M2/E1)=0.83 *+15−13*, with the former consistent with $\Delta\pi$=+. Other α(K)exp: 0.019 *7* (1970Be30).
689.61[&h] *3*	0.0082[&] *3*	2311.879	2$^+$	1622.197	2$^+$				%Iγ=0.00515 *24* Level-energy difference=689.68.
699.257[b] *18*	0.0253 *7*	1622.197	2$^+$	922.771	3$^+$				%Iγ=0.0159 *6* E_γ: weighted average of 699.20 *15* (1996TeZW) and 699.258 *18* (2015Do06). I_γ: weighted average of 0.023 *4* (1996TeZW) and 0.0254 *7* (2015Do06).
700.675 *16*	0.0919 *9*	1512.002	2$^+$	811.285	4$^+$	E2		0.01140	α(K)=0.00892 *13*; α(L)=0.00190 *3*; α(M)=0.000452 *7*

$^{194}_{78}$Pt$_{116}$-20

γ(^{194}Pt) (continued)

E_γ †	I_γ †d	E_i(level)	J_i^π	E_f	J_f^π	Mult.c	δc	αe	Comments
									α(N)=0.0001112 *16*; α(O)=1.92×10^{-5} *3*; α(P)=9.45×10^{-7} *14* %Iγ=0.0578 *17* E_γ: weighted average of 700.66 *4* (1996TeZW) and 700.677 *16* (2015Do06). Others: 700.6 *6* (1970Be30) and 700.8 *3* (1971Vi15). I_γ: weighted average of 0.10 *5* (1970Be30), 0.096 *5* (1996TeZW), and 0.0918 *9* (2015Do06). Other: 0.773 *10* for a composite peak (1971Vi15). Mult.: from α(K)exp=0.0101 *27* deduced from Ice(K)=0.019 *5* (1971Vi15) and Iγ=0.0919 *9* here.
702.54 *4*	0.0388 *10*	2214.523	(2$^+$)	1512.002	2$^+$	(M1)		0.0322	α(K)=0.0267 *4*; α(L)=0.00425 *6*; α(M)=0.000977 *14* α(N)=0.000242 *4*; α(O)=4.36×10^{-5} *7*; α(P)=2.98×10^{-6} *5* %Iγ=0.0244 *9* E_γ: weighted average of 702.6 *3* (1971Vi15), 703.09 *20* (1996TeZW), and 702.532 *18* (2015Do06). Other: 703.54 *5* (1974HeYW), 703.43 *15* (1970Be30) for a composite peak. I_γ: from 2015Do06. Others: 0.15 *12* (1996TeZW); 0.66 *6* (1974HeYW), 0.773 *10*, 0.71 *6* (1970Be30), 1.5 *8* (1964Be23) for a composite peak. Mult.: α(K)exp=0.028 *9* deduced from Ice(K)=0.022 *7* (1971Vi15) and Iγ=0.0388 *10* here, consistent with M1, but it also gives δ(M2/E1)=0.63 *17*; α(K)exp=0.011 *+14−5* (1964Be23) for a composite peak consistent with M1 but not E1,M2.
703.525 *14*	0.654 *6*	2215.530	1$^+$	1512.002	2$^+$	M1+E2	+0.24 *6*	0.0310 *8*	α(K)=0.0256 *7*; α(L)=0.00410 *9*; α(M)=0.000945 *20* α(N)=0.000234 *5*; α(O)=4.21×10^{-5} *9*; α(P)=2.86×10^{-6} *7* %Iγ=0.411 *12* E_γ: weighted average of 703.42 *15* (1970Be30), 703.6 *3* (1971Vi15), 703.56 *4* (1996TeZW), and 703.521 *14* (2015Do06). Others: 703.54 *5* (1974HeYW) and 703.61 *10* (1960Ba17) for a composite peak. I_γ: from 2015Do06. Others: 0.61 *12* (1996TeZW), 0.71 *6* (1970Be30), 0.773 *10* (1971Vi15) and 0.66 *6* (1974HeYW); 1.5 *8* (1964Be23) for a composite peak. Mult.,δ: α(K)exp=0.0254 *8* deduced from Ice(K)=0.34 *1* and Iγ=0.654 *6* here, gives δ(E2/M1)=0.27 *+9−13* or δ(M2/E1)=0.71 *2*, with the former consistent with δ=+0.24 *6* (or +1.46 *19*) from γγ(θ) of 1996TeZW. Other α(K)exp=0.0236 *22* (1970Be30). (703γ)(1183γ)(θ): A_2=−0.48 *5*, A_4=−0.03 *9*. Ice(K)=0.34 *1*, from 1964Be23. Others: 0.34 *3* (1971Vi15) and 0.40 *4* (1960Ba17).
736.249 *14*	0.201 *12*	2215.530	1$^+$	1479.270	0$^+$	M1		0.0285	α(K)=0.0237 *4*; α(L)=0.00376 *6*; α(M)=0.000865 *13* α(N)=0.000214 *3*; α(O)=3.86×10^{-5} *6*; α(P)=2.64×10^{-6} *4* %Iγ=0.126 *8* E_γ: weighted average of 736.240 *22* (1996TeZW) and 736.253 *14* (2015Do06). Others: 735.92 *20* (1970Be30), 736.2 *3* (1971Vi15), 736.23 *15* (1974HeYW), and 736.45 *15* (1960Ba17). I_γ: unweighted average of 0.208 *16* (1970Be30), 0.233 *11*

$^{194}_{78}$Pt$_{116}$-21

γ(^{194}Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [c]	α [e]	Comments
								(1971Vi15), 0.22 *3* (1974HeYW), 0.171 *5* (1996TeZW), and 0.174 *2* (2015Do06). Mult.: α(K)exp=0.026 *3* (1971Vi15) and 0.0235 *24* (1970Be30) gives δ(E2/M1)<0.3, but this transition feeding 0^+ requires pure dipole. Additional information 32. Ice(K)=0.108 *8*, weighted average of 0.100 *6* (1964Be23), 0.125 *11* (1971Vi15), and 0.120 *12* (1960Ba17).
747.88 [&h] *4*	0.0069 [&] *4*	1670.656	2^+	922.771	3^+			%Iγ=0.0043 *3*
752.47 [&h] *7*	0.0046 [&] *5*	2184.910	1^+,2^+	1432.545	3^-			%Iγ=0.0029 *3*
[x]774.9 [@] *13*	0.08 *4*							E_γ,I_γ: from 1970Be30.
776.70 [b] *6*	0.0041 *4*	2043.715	1^+	1267.198	0^+			%Iγ=0.0026 *3* E_γ,I_γ: from Table 4 of 2015Do06. According to e-mail reply of July 8, 2015 from K. Krane, values Eγ=776.63 *8*, Iγ=0.0082 *8* are for a doublet, the other component belonging to double-escape peak of 1797.4γ. Level-energy difference=776.52.
781.974 *17*	0.0565 *7*	2214.523	(2^+)	1432.545	3^-			%Iγ=0.0355 *11* E_γ: weighted average of 781.97 *4* (1996TeZW) and 781.975 *17* (2015Do06). Other: 781.8 *20* (1970Be30). I_γ: weighted average of 0.071 *8* (1996TeZW), 0.0564 *5* (2015Do06), and 0.09 *5* (1970Be30).
786.07 [&h] *5*	0.0062 [&] *4*	2298.160	1^+	1512.002	2^+			%Iγ=0.0039 *3*
799.857 [&h] *26*	0.0090 [&] *4*	2311.879	2^+	1512.002	2^+			%Iγ=0.0057 *3*
807.119 *21*	0.025 *8*	2239.635	$(2)^-$	1432.545	3^-			%Iγ=0.016 *5* E_γ: from 2015Do06. Other: 807.1 *3* (1996TeZW). I_γ: unweighted average of 0.033 *8* (1996TeZW) and 0.0175 *5* (2015Do06).
810.533 *14*	0.283 *3*	1432.545	3^-	622.023	2^+	E1	0.00313	α(K)=0.00263 *4*; α(L)=0.000391 *6*; α(M)=8.91×10^{-5} *13* α(N)=2.19×10^{-5} *3*; α(O)=3.92×10^{-6} *6*; α(P)=2.56×10^{-7} *4* %Iγ=0.178 *5* E_γ: weighted average of 810.65 *8* (1974HeYW), 810.53 *3* (1996TeZW), and 810.530 *14* (2015Do06). Others: 810.5 *3* (1970Be30), 810.47 *20* (1971Vi15), and 810.9 *6* (1960Ba17). I_γ: weighted average of 0.285 *12* (1996TeZW) and 0.283 *3* (2015Do06). Others: 0.31 *5* (1970Be30), 0.28 *6* (1971Vi15), and 0.34 *3* (1974HeYW). Mult.: α(K)exp=0.0026 *10* (1971Vi15) and 0.0021 *7* (1970Be30) gives δ<0.1. Also placed from 2357 level by 1960Ba17. Ice(K)=0.0148 *15*, weighted average of 0.013 *4* (1964Be23), 0.015 *5* (1971Vi15), and 0.0150 *15* (1960Ba17). Additional information 9.
814.59 *6*	0.0101 *6*	1737.423	(3^-)	922.771	3^+			%Iγ=0.0063 *4* E_γ: weighted average of 814.9 *3* (1996TeZW) and 814.58 *6* (2015Do06). I_γ: weighted average of 0.0121 *22* (1996TeZW) and 0.0100 *6* (2015Do06).

$^{194}_{78}$Pt$_{116}$-22

γ(^{194}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[c]	δ[c]	α[e]	Comments
818.856 *18*	0.0543 *7*	2298.160	1$^+$	1479.270	0$^+$	M1		0.0217	α(K)=0.0180 *3*; α(L)=0.00286 *4*; α(M)=0.000657 *10* α(N)=0.0001625 *23*; α(O)=2.93×10^{-5} *5*; α(P)=2.01×10^{-6} *3* %Iγ=0.0341 *10* E_γ: weighted average of 818.87 *5* (1996TeZW) and 818.854 *18* (2015Do06). Others: 818.9 *2* (1971Vi15) and 818.7 *3* (1960Ba17). I_γ: weighted average of 0.056 *3* (1996TeZW) and 0.0542 *7* (2015Do06). Other: 0.050 *10* (1977Vy01). Mult.: α(K)exp=0.0200 *22* deduced from Ice(K)=0.0223 *24* and Iγ=0.0543 *7* here gives δ(E2/M1)<0.3 or δ(M2/E1)=0.83 *9*, with only the former consistent with this transition feeding 0$^+$, which requires pure dipole. Ice(K)=0.0223 *24*, weighted average of 0.021 *3* (1964Be23), 0.020 *4* (1971Vi15), and 0.0240 *24* (1960Ba17).
843.89[‡@h] *20*	<0.002	2356.065	0$^+$	1512.002	2$^+$			0.00779	α(K)= 0.00619; α(L)= 0.00120 %Iγ<0.0013 E_γ: seen in ce data only (1960Ba17, 1964Be23, 1971Vi15); placement by 1971Vi15. I_γ: not seen and only a limit given in 2015Do06. Other: 0.21 *4* deduced from Ice(K)=0.027 *4* (1971Vi15) and assumed Mult=E2; 0.078 *12* if Mult=M1. The possibility of its being a higher multipolarity or an E0 transition still exists, however. Ice(K)=0.013 *4* (1964Be23), 0.0160 *16* (1960Ba17), 0.027 *4* (1971Vi15).
846.96 *12*	0.0657 *6*	2114.102	1$^+$	1267.198	0$^+$	M1		0.0200	α(K)=0.01656 *24*; α(L)=0.00262 *4*; α(M)=0.000602 *9* α(N)=0.0001490 *21*; α(O)=2.69×10^{-5} *4*; α(P)=1.84×10^{-6} *3* %Iγ=0.0413 *12* E_γ: unweighted average of 846.9 *6* (1970Be30), 846.8 *2* (1971Vi15), 846.786 *10* (1996TeZW), 846.896 *14* (2015Do06), and 847.42 *20* (1960Ba17). I_γ: from 2015Do06. Other: 0.09 *3* (1970Be30), <0.10 (1971Vi15); 0.997 *20* (1996TeZW) is discrepant. Mult.: α(K)exp=0.015 *6* (1970Be30), and 0.020 *3* deduced from Ice(K)=0.027 *4* (1971Vi15) and Iγ=0.0657 *6* here give δ(E2/M1)<0.4, and ΔJ^π requires pure M1. Ice(K)=0.028 *3*, weighted average of 0.027 *3* (1964Be23), 0.027 *4* (1971Vi15), and 0.030 *3* (1960Ba17). Mult.: α(K)exp=0.0208 *23* deduced from Ice(K)=0.028 *3* and Iγ=0.0657 *6* here, gives Mult=M1 or E1+M2 with δ=0.95 *12*, but only the former consistent with this transition feeding 0$^+$.
855.823 *17*	0.105 *1*	1778.579	2$^+$	922.771	3$^+$	(M1+E2)	0.53 *+22−24*	0.0168 *17*	α(K)=0.0139 *15*; α(L)=0.00224 *20*; α(M)=0.00052 *5*

$\gamma(^{194}$Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[c]	δ[c]	α[e]	Comments
									α(N)=0.000128 *12*; α(O)=2.30×10^{-5} *21*; α(P)=1.54×10^{-6} *17* %Iγ=0.0660 *19* E_γ: weighted average of 855.806 *17* (2015Do06), 856.08 *20* (1960Ba17), 855.5 *13* (1970Be30), 855.8 *2* (1971Vi15), and 855.87 *3* (1996TeZW). I_γ: weighted average of 0.17 *6* (1970Be30), 0.106 *7* (1996TeZW), and 0.105 *1* (2015Do06). Mult.,δ: α(K)exp=0.0139 *14* deduced from Ice(K)=0.030 *3* and Iγ=0.105 *1* here gives δ(E2/M1)=0.53 *+22−24* or δ(M2/E1)=0.66 *6*; ΔJ^π requires M1+E2. Other α(K)exp: 0.009 *3* (1970Be30), >0.0065 (1971Vi15). Ice(K)=0.030 *3*, weighted average of 0.031 *3* (1964Be23), 0.024 *4* (1971Vi15), and 0.034 *4* (1960Ba17).
857.265 *24*	0.016 *4*	1479.270	0$^+$	622.023	2$^+$				%Iγ=0.010 *3* E_γ: weighted average of 857.59 *25* (1996TeZW) and 857.263 *18* (2015Do06). I_γ: unweighted average of 0.0124 *25* (1996TeZW) and 0.020 *2* (2015Do06).
859.370 *24*	0.0954 *12*	1670.656	2$^+$	811.285	4$^+$	(E2)		0.00742	α(K)=0.00594 *9*; α(L)=0.001138 *16*; α(M)=0.000268 *4* α(N)=6.60×10^{-5} *10*; α(O)=1.154×10^{-5} *17*; α(P)=6.28×10^{-7} *9* %Iγ=0.0600 *18* E_γ: weighted average of 859.3 *13* (1970Be30), 859.46 *4* (1996TeZW), 859.353 *17* (2015Do06), and 860.2 *8* (1960Ba17). I_γ: weighted average of 0.0961 *9* (2015Do06), 0.10 *4* (1970Be30), and 0.0911 *23* (1996TeZW). Mult.: α(K)exp=0.0041 *4* deduced from Ice(K)=0.0080 *8* and Iγ=0.0954 *12* here. Other α(K)exp: 0.003 *2* (1970Be30). Ice(K)=0.0080 *8* (1960Ba17). Other: ≈0.0064 (1964Be23).
^{x}886.0[@] *20*	0.02 *1*								E_γ,I_γ: from 1970Be30.
889.969 *14*	0.183 *3*	1512.002	2$^+$	622.023	2$^+$	E2+M1	+0.50 *16*	0.0155 *12*	α(K)=0.0128 *10*; α(L)=0.00205 *14*; α(M)=0.00047 *3* α(N)=0.000117 *8*; α(O)=2.10×10^{-5} *14*; α(P)=1.41×10^{-6} *11* %Iγ=0.115 *4* E_γ: weighted average of 889.976 *24* (1996TeZW) and 889.967 *14* (2015Do06). Others: 889.7 *3* (1970Be30), 889.97 *10* (1974HeYW), and 890.09 *15* (1960Ba17). I_γ: weighted average of 0.26 *7* (1970Be30), 0.25 *6* (1971Vi15), 0.19 *3* (1974HeYW), 0.200 *8* (1996TeZW), and 0.182 *2* (2015Do06). Mult.,δ: from α(K)exp=0.0128 *6* deduced from Ice(K)=0.048 *2* and Iγ=0.183 *3* here, and $\gamma\gamma(\theta)$ in 1996TeZW with δ=+0.8 *19* from 890γ-293γ(θ) or +0.4 *7* from 890γ-328γ(θ). (890γ)(293γ)(θ): A_2=+0.13 *7*, A_4=−0.09 *13*. (890γ)[293γ](328γ)(θ): A_2=+0.02 *9*, A_4=−0.01 *15*. Ice(K)=0.048 *2*, weighted average of 0.047 *2* (1964Be23) and 0.053 *5* (1960Ba17).

$^{194}_{78}$Pt$_{116}$-24

γ(^{194}Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult. [c]	δ [c]	α [e]	Comments
894.07 *18*	0.050 *10*	1816.585	(2)$^+$	922.771	3$^+$	(M1+E2)	1.1 *+8−4*	0.0116 *25*	α(K)=0.0095 *21*; α(L)=0.0016 *3*; α(M)=0.00037 *7* α(N)=9.1×10^{-5} *17*; α(O)=1.6×10^{-5} *3*; α(P)=1.04×10^{-6} *24* %Iγ=0.031 *6* E_γ: unweighted average of 894.02 *6* (1996TeZW), 893.794 *17* (2015Do06), and 894.4 *4* (1960Ba17). I_γ: unweighted average of 0.060 *5* (1996TeZW) and 0.0401 *6* (2015Do06). Mult.,δ: α(K)exp=0.0095 *21* deduced from Ice(K)=0.0097 *10* and Iγ=0.050 *10* here gives δ(E2/M1)=1.1 *+8−4* or δ(M2/E1)=0.53 *10*, with the former consistent with $\Delta\pi$=+ based on L(p,d)=1+3 from 1/2$^-$. Ice(K)=0.0097 *10*, weighted average of 0.0086 *20* (1964Be23) and 0.0100 *10* (1960Ba17).
901.077 *25*	0.0510 *20*	1229.521	4$^+$	328.474	2$^+$				%Iγ=0.0320 *15* E_γ: weighted average of 901.18 *7* (1996TeZW) and 901.071 *17* (2015Do06). I_γ: weighted average of 0.060 *5* (1996TeZW) and 0.0506 *11* (2015Do06).
925.251 *14*	0.497 *5*	1547.273	0$^+$	622.023	2$^+$	E2		0.00639	α(K)=0.00515 *8*; α(L)=0.000955 *14*; α(M)=0.000224 *4* α(N)=5.52×10^{-5} *8*; α(O)=9.69×10^{-6} *14*; α(P)=5.43×10^{-7} *8* %Iγ=0.312 *9* E_γ: weighted average of 925.265 *14* (2015Do06), 925.15 *7* (1974HeYW), and 925.240 *15* (1996TeZW). Others: 925.28 *12* (1960Ba17), 925.09 *20* (1970Be30), and 925.3 *2* (1971Vi15). I_γ: weighted average of 0.495 *5* (2015Do06), 0.75 *25* (1964Be23), 0.48 *4* (1970Be30), 0.60 *8* (1971Vi15), 0.48 *5* (1974HeYW), and 0.508 *13* (1996TeZW). Mult.: α(K)exp=0.0040 *+30−13* (1964Be23), 0.0061 *6* (1970Be30), 0.0056 *+16−12* (1971Vi15) . Ice(K)=0.062 *3*, weighted average of 0.060 *3* (1964Be23), 0.068 *7* (1971Vi15), and 0.068 *7* (1960Ba17). Additional information 14.
^{x}932.4 [@] *13*	0.06 *3*								E_γ,I_γ: from 1970Be30.
938.720 *9*	1.834 *18*	1267.198	0$^+$	328.474	2$^+$	E2		0.00621	α(K)=0.00500 *7*; α(L)=0.000924 *13*; α(M)=0.000216 *3* α(N)=5.34×10^{-5} *8*; α(O)=9.37×10^{-6} *14*; α(P)=5.28×10^{-7} *8* %Iγ=1.15 *3* E_γ: weighted average of 938.69 *15* (1970Be30), 938.71 *3* (1974HeYW), 938.706 *9* (1996TeZW), 938.737 *10* (2015Do06), and 938.87 *10* (1960Ba17). I_γ: weighted average of 2.2 *3* (1964Be23), 1.87 *10* (1970Be30), 1.88 *13* (1971Vi15), 1.76 *15* (1974HeYW), 1.90 *4* (1996TeZW), and 1.818 *18* (2015Do06). Mult.: α(K)exp=0.0044 *7* (1964Be23), 0.0052 *4* (1970Be30).

$^{194}_{78}$Pt$_{116}$-25

γ(^{194}Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult. [c]	δ [c]	α [e]	$I_{(\gamma+ce)}$ [d]	Comments
										(939γ)(328γ)(θ): A_2=+0.332 *21*, A_4=+1.21 *3*. Ice(K)=0.202 *10*, weighted average of 0.198 *10* (1964Be23) and 0.220 *22* (1960Ba17). Additional information 7.
948.323 *9*	3.65 *3*	2215.530	1^+	1267.198	0^+	M1		0.01497		α(K)=0.01243 *18*; α(L)=0.00196 *3*; α(M)=0.000450 *7* α(N)=0.0001114 *16*; α(O)=2.01×10^{-5} *3*; α(P)=1.378×10^{-6} *20* %Iγ=2.29 *7* E_γ: weighted average of 948.31 *15* (1970Be30), 948.2 *2* (1971Vi15), 948.29 *4* (1974HeYW), 948.310 *9* (1996TeZW), 948.341 *10* (2015Do06), and 948.40 *12* (1960Ba17). I_γ: weighted average of 3.7 *3* (1964Be23), 3.71 *19* (1970Be30), 3.96 *19* (1971Vi15), 3.53 *20* (1974HeYW), 3.76 *7* (1996TeZW), and 3.62 *3* (2015Do06). Mult.: α(K)exp=0.0118 *+20−18* (1971Vi15), 0.0127 *7* (1970Be30), 0.0126 *+23−19* (1964Be23), and L1/L2=11.2 *18*, L1/L3>72 (1970Ag05) give δ(E2/M1)<0.5, but this transition feeding 0^+ requires pure dipole. Ice(K)=0.964 *10*, weighted average of 0.963 *10* (1964Be23), 0.96 *9* (1971Vi15), and 1.10 *11* (1960Ba17).
^{x}958.0 [@] *20*	0.10 *5*									E_γ,I_γ: from 1970Be30.
1000.190 *15*	0.296 *22*	1622.197	2^+	622.023	2^+	M1+E2	1.38 *+13−12*	0.0081 *4*		α(K)=0.0066 *3*; α(L)=0.00111 *5*; α(M)=0.000258 *10* α(N)=6.36×10^{-5} *24*; α(O)=1.13×10^{-5} *5*; α(P)=7.2×10^{-7} *4* %Iγ=0.186 *15* E_γ: weighted average of 1000.168 *14* (2015Do06), 1000.17 *18* (1960Ba17), 1000.3 *3* (1970Be30), 1000.2 *2* (1971Vi15), 1000.19 *15* (1974HeYW), and 1000.239 *21* (1996TeZW). I_γ: unweighted average of 0.235 *2* (2015Do06), 0.34 *7* (1970Be30), 0.35 *6* (1971Vi15), 0.27 *3* (1974HeYW), and 0.286 *10* (1996TeZW). Mult.,δ: from α(K)exp=0.0081 *8* deduced from Ice(K)=0.049 *3* and Iγ=0.296 *22* here L1/L2=6.9 *19*, L1/L3>18.3. Others: δ=−1.3 *24* or +1.0 *19* from 1000γ-293γ(θ), or −0.5 *13* from 1000γ-328γ(θ) of 1996TeZW. Other α(K)exp: 0.0070 *14* (1970Be30), 0.0068 *+20−14* (1971Vi15).

γ(^{194}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[c]	δ[c]	α[e]	Comments
									(1000γ)(293γ)(θ): A_2=−0.11 *6*, A_4=+0.14 *10*. (1000γ)[293γ](328γ)(θ): A_2=−0.16 *7*, A_4=−0.09 *12*. Ice(K)=0.0495 *25*, weighted average of 0.0485 *25* (1964Be23), 0.049 *3* (1971Vi15), and 0.057 *6* (1960Ba17).
1001.481[&h] *28*	0.0193[&] *7*	1924.282	1$^+$	922.771	3$^+$				%Iγ=0.0121 *6*
1005.292[&h] *13*	0.0272[&] *4*	1816.585	(2)$^+$	811.285	4$^+$				%Iγ=0.0171 *5*
1007.582 *14*	0.0994 *13*	1930.369	2$^+$	922.771	3$^+$	(M1+E2)	1.1 *+5−3*	0.0088 *13*	α(K)=0.0072 *11*; α(L)=0.00119 *16*; α(M)=0.00027 *4* α(N)=6.8×10^{-5} *9*; α(O)=1.21×10^{-5} *16*; α(P)=7.9×10^{-7} *13* %Iγ=0.0625 *19* E_γ: weighted average of 1007.0 *6* (1970Be30), 1007.5 *2* (1971Vi15), 1007.53 *4* (1996TeZW), 1007.589 *14* (2015Do06), and 1007.5 *3* (1960Ba17). I_γ: weighted average of 0.14 *4* (1970Be30), 0.20 *6* (1971Vi15), 0.108 *7* (1996TeZW), and 0.0992 *10* (2015Do06). Mult.,δ: α(K)exp=0.0071 *10*, deduced from Ice(K)=0.0144 *20* and Iγ=0.0994 *13* here, gives δ(E2/M1)=1.1 *+5−3* or δ(M2/E1)=0.53 *+6−7*, with the former consistent with Δπ=+ based on L(p,d)=1+3 from 1/2$^-$. Other α(K)exp: 0.0040 *14* (1970Be30). Ice(K)=0.0144 *20*, weighted average of 0.012 *2* (1964Be23) and 0.0160 *16* (1960Ba17).
1030.997 *23*	0.0173 *5*	2298.160	1$^+$	1267.198	0$^+$	M1		0.01212	α(K)=0.01006 *14*; α(L)=0.001582 *23*; α(M)=0.000363 *5* α(N)=8.99×10^{-5} *13*; α(O)=1.622×10^{-5} *23*; α(P)=1.114×10^{-6} *16* %Iγ=0.0109 *4* E_γ: from 2015Do06. Others: 1031.0 *3* (1996TeZW) and 1030.9 *4* (1960Ba17). I_γ: from 2015Do06. Others: 0.017 *5* (1996TeZW), 0.030 *10* (1977Vy01). Mult.: α(K)exp=0.0135 *12* deduced from Ice(K)=0.0048 *4* and Iγ=0.0173 *5* here gives δ(E2/M1)<0.2 or δ(M2/E1)=1.05 *12*, with only the former consistent with this transition feeding 0$^+$, which requires pure dipole. Ice(K)=0.0048 *4*, weighted average of 0.0042 *7* (1964Be23) and 0.0051 *5* (1960Ba17).
1038.567 *14*	0.499 *5*	1961.328	2$^-$	922.771	3$^+$	E1		0.00198	α(K)=0.001662 *24*; α(L)=0.000244 *4*; α(M)=5.55×10^{-5} *8* α(N)=1.367×10^{-5} *20*; α(O)=2.45×10^{-6} *4*; α(P)=1.634×10^{-7} *23* %Iγ=0.314 *9* E_γ: from 2015Do06. Others: 1038.45 *20* (1970Be30), 1038.56 *8* (1974HeYW), 1038.57 *5* (1996TeZW), and 1038.80 *20* (1960Ba17).

From ENSDF

$^{194}_{78}$Pt$_{116}$-27

γ(^{194}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[c]	δ[c]	α[e]	Comments
									I_γ: from 2015Do06. Others: 0.56 *25* (1964Be23), 0.51 *7* (1970Be30), 0.53 *6* (1971Vi15), 0.52 *5* (1974HeYW), and 0.50 *7* (1996TeZW). Mult.: δ<0.07 from α(K)exp=0.0015 *2* (1970Be30), 0.0014 *+14−5* (1964Be23). Other δ: −0.19 *3* or +0.00 *15* (1996TeZW,$\gamma\gamma(\theta)$). (1039γ)(301γ)(θ): A_2=−0.02 *4*, A_4=−0.07 *7*. (1039γ)[594γ](328γ)(θ): A_2=−0.06 *4*, A_4=−0.11 *7*. Ice(K)=0.0163 *15*, weighted average of 0.0155 *10* (1964Be23) and 0.0190 *19* (1960Ba17). Additional information 25.
1048.633 *10*	1.428 *14*	1670.656	2^+	622.023	2^+	M1		0.01161	α(K)=0.00964 *14*; α(L)=0.001515 *22*; α(M)=0.000348 *5* α(N)=8.61×10^{-5} *12*; α(O)=1.553×10^{-5} *22*; α(P)=1.067×10^{-6} *15* %Iγ=0.90 *3* E_γ: weighted average of 1048.647 *10* (2015Do06), 1048.72 *16* (1960Ba17), 1048.58 *15* (1970Be30), 1048.6 *2* (1971Vi15), 1048.58 *5* (1974HeYW), and 1048.621 *10* (1996TeZW). I_γ: weighted average of 1.417 *14* (2015Do06), 1.55 *25* (1964Be23), 1.41 *8* (1970Be30), 1.5 *8* (1971Vi15), 1.41 *10* (1974HeYW), and 1.48 *3* (1996TeZW). Mult.,δ: from α(K)exp=0.0093 *+30−20* (1964Be23), 0.0103 *7* (1970Be30), 0.010 *+16−5* (1971Vi15), L1/L2=14.3 *29* and L1/L3>50 (1970Ag05). Others: δ=−0.7 *7* or −0.02 *18* from $\gamma\gamma(\theta)$ of 1996TeZW. (1049γ)(293γ)(θ): A_2=−0.04 *3*, A_4=+0.03 *4*. (1049γ)[293γ](328γ)(θ): A_2=−0.07 *3*, A_4=−0.11 *5*. Ice(K)=0.298 *6*, weighted average of 0.297 *6* (1964Be23), 0.30 *3* (1971Vi15), and 0.35 *4* (1960Ba17). Additional information 17.
1080.90 *11*	0.023 *2*	2003.665	(2^+)	922.771	3^+	(M1(+E2))	<0.4	0.0103 *5*	α(K)=0.0086 *4*; α(L)=0.00135 *6*; α(M)=0.000311 *13* α(N)=7.7×10^{-5} *3*; α(O)=1.39×10^{-5} *6*; α(P)=9.5×10^{-7} *5* %Iγ=0.0145 *13* E_γ: weighted average of 1081.8 *19* (1970Be30), 1080.63 *21* (1996TeZW), 1080.91 *10* (2015Do06), and 1081.6 *4* (1960Ba17). This transition was placed from 2312 level in 1970Be30 and 1971Vi15. I_γ: from 2015Do06. Others: 0.05 *3* (1970Be30), 0.020 *8* (1996TeZW), <0.15 (1971Vi15). Mult.: α(K)exp=0.0098 *14* deduced from Ice(K)=0.0046 *5* and Iγ=0.023 *2* here, gives δ(E2/M1)<0.4 or δ(M2/E1)=0.84 *+13−12*, with the former more likely. Other α(K)exp: 0.0039 *20* (1970Be30). Ice(K)=0.0046 *5*, weighted average of 0.0039 *7* (1964Be23) and 0.0050 *5* (1960Ba17).
1081.8[h] *19*	<0.015	2311.879	2^+	1229.521	4^+				%Iγ<0.0094

γ(^{194}Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult. [c]	α [e]	Comments
								E_γ: placement from 1970Be30 and 1971Vi15 only; this transition could be the same transition in 1996TeZW and 2015Do06 which depopulates the 2003 level. See 1081γ from 2003 level. I_γ: limit from 2015Do06. Others: 0.05 *3* (1970Be30), <0.15 (1971Vi15). α(K)exp=0.004 *3* (1970Be30).
1091.6[h] *5*		2356.065	0^+	1267.198	0^+			E_γ: from 1960Ba17 only, with Ice(K)=0.0040 *4*. Very poor-fit, with level-energy difference=1088.9.
1104.056 *10*	3.42 *3*	1432.545	3^-	328.474	2^+	E1	1.77×10^{-3}	α(K)=0.001490 *21*; α(L)=0.000218 *3*; α(M)=4.95×10^{-5} *7* α(N)=1.221×10^{-5} *17*; α(O)=2.19×10^{-6} *3*; α(P)=1.467×10^{-7} *21*; α(IPF)=1.074×10^{-6} *15* %Iγ=2.15 *6* E_γ: weighted average of 1104.04 *15* (1970Be30), 1103.9 *2* (1971Vi15), 1104.06 *5* (1974HeYW), 1104.044 *10* (1996TeZW), 1104.068 *10* (2015Do06), and 1104.12 *20* (1960Ba17). I_γ: weighted average of 3.39 *17* (1970Be30), 3.48 *13* (1971Vi15), 3.54 *7* (1996TeZW), and 3.39 *3* (2015Do06). Others: 3.91 *19* (1964Be23) and 3.27 *20* (1974HeYW). Mult.: α(K)exp=0.00185 *15* (1964Be23), 0.00213 *14* (1970Be30); L1/L2=15.4 *25*, L1/L3=16.3 *47* (1970Ag05). (1104γ)(328γ)(θ): A_2=−0.122 *17*, A_4=−0.03 *3* gives δ=−0.062 *21* or +9.92 *21*, only the former consistent with α(K)exp. Ice(K)=0.150 *5*, weighted average of 0.148 *5* (1964Be23), 0.15 *10* (1971Vi15), and 0.170 *17* (1960Ba17). Additional information 10.
1119.118 *16*	0.106 *2*	1930.369	2^+	811.285	4^+	[E2]	0.00439	α(K)=0.00358 *5*; α(L)=0.000622 *9*; α(M)=0.0001447 *21* α(N)=3.57×10^{-5} *5*; α(O)=6.31×10^{-6} *9*; α(P)=3.77×10^{-7} *6*; α(IPF)=3.78×10^{-7} *6* %Iγ=0.0666 *22* E_γ: weighted average of 1119.8 *6* (1970Be30), 1119.3 *3* (1996TeZW), 1119.117 *14* (2015Do06), and 1119.7 *4* (1960Ba17). I_γ: weighted average of 0.22 *7* (1970Be30), 0.21 *5* (1971Vi15), 0.10 *4* (1996TeZW), and 0.106 *1* (2015Do06). Mult.: α(K)exp=0.0046 *5* deduced from Ice(K)=0.0100 *10* and Iγ=0.106 *2* here, gives δ(E2/M1)=1.9 *+9−5* or δ(M2/E1)=0.46 *+4−5*, but ΔJ^π requires E2. Ice(K)=0.0100 *10*, weighted average of 0.0092 *10* (1964Be23) and 0.0110 *11* (1960Ba17).
1120.961 *17*	0.0565 *10*	2043.715	1^+	922.771	3^+			%Iγ=0.0355 *12* E_γ,I_γ: from 2015Do06. Other: 1121.3 *4* with Iγ=0.07 *5* (1996TeZW).
1140.990 *20*	0.0309 *5*	2063.739	2^+	922.771	3^+	M1	0.00939	α(K)=0.00780 *11*; α(L)=0.001222 *18*; α(M)=0.000281 *4* α(N)=6.94×10^{-5} *10*; α(O)=1.252×10^{-5} *18*; α(P)=8.62×10^{-7} *12*; α(IPF)=1.351×10^{-6} *19* %Iγ=0.0194 *6* E_γ: from 2015Do06. Others: 1140.98 *11* (1996TeZW), 1141.0 *4*

$^{194}_{78}$Pt$_{116}$-29

γ(^{194}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[c]	δ[c]	α[e]	Comments
									(1960Ba17), 1141.0 *2* (1971Vi15). I_γ: weighted average of 0.031 *3* (1996TeZW) and 0.0309 *5* (2015Do06). Others: 0.6 *3* (1964Be23), 0.04 *2* (1977Vy01). Mult.: α(K)exp=0.0123 *19*, from Ice(K)=0.0078 *12* and Iγ=0.0309 *5* here. Ice(K)=0.0078 *12*, unweighted average of 0.0075 *2* (1964Be23), 0.0058 *6* (1971Vi15), and 0.0100 *10* (1960Ba17).
1150.780 *10*	2.306 *23*	1479.270	0^+	328.474	2^+	E2		0.00416	α(K)=0.00340 *5*; α(L)=0.000585 *9*; α(M)=0.0001360 *19* α(N)=3.36×10^{-5} *5*; α(O)=5.94×10^{-6} *9*; α(P)=3.58×10^{-7} *5*; α(IPF)=1.161×10^{-6} *17* %Iγ=1.45 *4* E_γ: weighted average of 1150.78 *5* (1974HeYW), 1150.765 *11* (1996TeZW), and 1150.792 *10* (2015Do06). Others: 1150.80 *15* (1970Be30), 1150.9 *2* (1971Vi15), and 1150.91 *20* (1960Ba17). I_γ: weighted average of 2.42 *22* (1964Be23), 2.29 *13* (1970Be30), 2.3 *7* (1971Vi15), 2.26 *15* (1974HeYW), 2.34 *4* (1996TeZW), and 2.295 *23* (2015Do06). Mult.: α(K)exp=0.0035 *4* (1964Be23), 0.00369 *25* (1970Be30), 0.0038 *+23−12* (1971Vi15); L1/L2=6.8 *16*, L1/L3≈13 (1970Ag05). Other: α(total)exp=0.003 *1* for a gamma line at 1160 *20* (1956Th11). (1151γ)(328γ)(θ): A_2=+0.368 *25*, A_4=+1.20 *4*. Ice(K)=0.175 *5*, weighted average of 0.173 *5* (1964Be23), 0.174 *16* (1971Vi15), and 0.200 *20* (1960Ba17). Additional information 12.
1156.550 *14*	0.745 *7*	1778.579	2^+	622.023	2^+	M1(+E2)	<0.2	0.00898 *16*	α(K)=0.00746 *14*; α(L)=0.001169 *20*; α(M)=0.000269 *5* α(N)=6.64×10^{-5} *12*; α(O)=1.198×10^{-5} *21*; α(P)=8.24×10^{-7} *15*; α(IPF)=2.20×10^{-6} *4* %Iγ=0.468 *14* E_γ: weighted average of 1156.560 *14* (2015Do06), 1156.61 *6* (1974HeYW), and 1156.525 *19* (1996TeZW). Others: 1156.59 *20* (1960Ba17), 1156.60 *20* (1970Be30), and 1156.5 *2* (1971Vi15). I_γ: weighted average of 0.744 *7* (2015Do06), 0.87 *25* (1964Be23), 0.71 *7* (1970Be30), 0.79 *4* (1971Vi15), 0.76 *6* (1974HeYW), and 0.738 *20* (1996TeZW). Mult.,δ: α(K)exp=0.0085 *3* deduced from Ice(K)=0.130 *4* and Iγ=0.745 *7* here, and L1/L2=11.6 *17*, L1/L3>73 (1970Ag05), gives δ(E2/M1)<0.2 or δ(M2/E1)=0.87 *5*, with the former consistent with δ=+0.5 *6* or +0.20 *24* for J(1778)=2 from γγ(θ) of 1996TeZW. Others: δ<−0.1 *4* or >+5 from γγ(θ) for J(1778)=1, but this spin ruled out by Mult=D+Q from ce data for 855.8γ to 3^+. Other α(K)exp: 0.0072 *+40−22* (1964Be23), 0.0088 *9* (1970Be30), 0.0081 *+13−11* (1971Vi15). (1156γ)(293γ)(θ): A_2=+0.01 *3*, A_4=+0.01 *6*. (1156γ)[293γ](328γ)(θ): A_2=−0.03 *4*, A_4=−0.16 *7*.

$\gamma(^{194}Pt)$ (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[c]	δ[c]	α[e]	Comments
									Ice(K)=0.130 *4*, weighted average of 0.128 *4* (1964Be23), 0.13 *1* (1971Vi15), and 0.150 *15* (1960Ba17).
1175.360 *10*	3.41 *3*	1797.384	1$^-$	622.023	2$^+$	E1		1.60×10^{-3}	α(K)=0.001334 *19*; α(L)=0.000194 *3*; α(M)=4.42×10^{-5} *7* α(N)=1.089×10^{-5} *16*; α(O)=1.95×10^{-6} *3*; α(P)=1.315×10^{-7} *19*; α(IPF)=1.024×10^{-5} *15* %Iγ=2.14 *6* E_γ: weighted average of 1175.366 *10* (2015Do06), 1175.34 *5* (1974HeYW), and 1175.353 *11* (1996TeZW). Others: 1175.46 *20* (1960Ba17), 1175.37 *15* (1970Be30), and 1175.3 *2* (1971Vi15). I_γ: weighted average of 3.39 *3* (2015Do06), 3.48 *22* (1964Be23), 3.29 *18* (1970Be30), 3.4 *9* (1971Vi15), 3.36 *20* (1974HeYW), and 3.51 *7* (1996TeZW). Mult.: α(K)exp=0.00138 *12* (1964Be23), 0.00146 *10* (1970Be30), 0.0014 *4* (1971Vi15), L1/L2>14, L1/L3>21 (1970Ag05). δ=+0.02 *5*, −0.07 *19*, or −0.07 *8* from γγ(θ) of 1996TeZW consistent with mult=pure dipole. (1175γ)(622γ)(θ): A_2=−0.27 *5*, A_4=−0.11 *9*. (1175γ)(293γ)(θ): A_2=+0.014 *18*, A_4=−0.01 *3*. (1175γ)[293γ](328γ)(θ): A_2=+0.036 *19*, A_4=−0.01 *3*. Ice(K)=0.097 *3*, weighted average of 0.098 *3* (1964Be23), 0.095 *3* (1971Vi15), and 0.120 *12* (1960Ba17). Additional information 20.
1183.535 *10*	1.012 *10*	1512.002	2$^+$	328.474	2$^+$	M1+E2	+1.09 *+18−16*	0.0061 *4*	α(K)=0.0050 *4*; α(L)=0.00081 *5*; α(M)=0.000186 *11* α(N)=4.6×10^{-5} *3*; α(O)=8.3×10^{-6} *5*; α(P)=5.4×10^{-7} *4*; α(IPF)=3.68×10^{-6} *15* %Iγ=0.636 *19* E_γ: weighted average of 1183.52 *5* (1974HeYW), 1183.523 *21* (1996TeZW), and 1183.539 *10* (2015Do06). Others: 1183.63 *20* (1970Be30), 1183.4 *2* (1971Vi15), and 1183.63 *20* (1960Ba17). I_γ: weighted average of 1.30 *25* (1964Be23), 1.04 *10* (1970Be30), 1.1 *7* (1971Vi15), 1.04 *10* (1974HeYW), 1.030 *18* (1996TeZW), and 1.006 *10* (2015Do06). Mult.,δ: α(K)exp=0.00502 *20* deduced from Ice(K)=0.104 *4* and Iγ=1.012 *10* here, L1/L2=16.9 *77* (1970Ag05), and γγ(θ) of 1996TeZW with δ=+1.5 *6*. Other α(K)exp: 0.0039 *8* (1964Be23), 0.0049 *5* (1970Be30), 0.004 *+8−2* (1971Vi15). (1183γ)(328γ)(θ): A_2=−0.33 *3*, A_4=+0.22 *6*. Ice(K)=0.104 *4*, weighted average of 0.103 *4* (1964Be23), 0.102 *5* (1971Vi15), and 0.120 *12* (1960Ba17).

$^{194}_{78}Pt_{116}$-31

γ(^{194}Pt) (continued)

E_γ †	I_γ †d	E_i(level)	J^π_i	E_f	J^π_f	Mult.c	δc	αe	Comments
1186.325 *19*	0.108 *2*	2109.088	(2)$^+$	922.771	3$^+$	(E2+M1)	1.1 *+6−4*	0.0060 *10*	α(K)=0.0050 *9*; α(L)=0.00080 *13*; α(M)=0.00018 *3* α(N)=4.6×10^{-5} *7*; α(O)=8.2×10^{-6} *13*; α(P)=5.4×10^{-7} *10*; α(IPF)=3.9×10^{-6} *4* %Iγ=0.0679 *23* E_γ: weighted average of 1186.27 *4* (1996TeZW) and 1186.332 *14* (2015Do06). Others: 1186.3 *2* (1971Vi15) and 1187.1 *4* (1960Ba17). I_γ: weighted average of 0.09 *4* (1977Vy01), 0.121 *5* (1996TeZW) and 0.107 *1* (2015Do06). Mult.,δ: α(K)exp=0.0049 *7*, from Ice(K)=0.0108 *16* and Iγ=0.108 *2* here gives δ(E2/M1)=1.1 *+6−4* or δ(M2/E1)=0.55 *7*, with only the former consistent with Δπ=+ based on L(p,d)=1+3 from 1/2$^-$. Ice(K)=0.0108 *16*, weighted average of 0.011 *2* (1964Be23), 0.0079 *15* (1971Vi15), and 0.0130 *13* (1960Ba17).
1194.529 *14*	0.059 *9*	1816.585	(2)$^+$	622.023	2$^+$	(E2)		0.00388	α(K)=0.00317 *5*; α(L)=0.000540 *8*; α(M)=0.0001254 *18* α(N)=3.09×10^{-5} *5*; α(O)=5.48×10^{-6} *8*; α(P)=3.33×10^{-7} *5*; α(IPF)=3.73×10^{-6} *6* %Iγ=0.037 *6* E_γ: weighted average of 1194.526 *14* (2015Do06) and 1194.60 *7* (1996TeZW). Others: 1195.1 *4* (1960Ba17), 1194.9 *13* (1970Be30), I_γ: unweighted average of 0.050 *3* (1996TeZW) and 0.0672 *6* (2015Do06). Others: 0.31 *19* (1964Be23) and 0.13 *5* (1970Be30) could be for a composite peak. Mult.: α(K)exp=0.0008 *+16−4* (1964Be23) and 0.0020 *8* (1970Be30) could be for a composite peak. Ice(K)=0.0058 *6*, weighted average of 0.0054 *5* (1964Be23) and 0.0066 *7* (1960Ba17).
1208.372 *18*	0.0246 *7*	2131.127	(2$^+$)	922.771	3$^+$				%Iγ=0.0155 *6* E_γ,I_γ: from 2015Do06. Other: 1208.5 *4* with Iγ=0.4 *2* from ce data (1960Ba17, 1964Be23), unplaced.
1218.791 *10*	1.903 *19*	1547.273	0$^+$	328.474	2$^+$	E2		0.00373	α(K)=0.00306 *5*; α(L)=0.000517 *8*; α(M)=0.0001200 *17* α(N)=2.96×10^{-5} *5*; α(O)=5.25×10^{-6} *8*; α(P)=3.21×10^{-7} *5*; α(IPF)=5.99×10^{-6} *9* %Iγ=1.20 *4* E_γ: weighted average of 1218.802 *10* (2015Do06), 1218.76 *5* (1974HeYW), and 1218.776 *12* (1996TeZW). Others: 1219.01 *20* (1960Ba17), 1218.79 *22* (1970Be30), and 1218.9 *2* (1971Vi15). I_γ: weighted average of 1.894 *19* (2015Do06), 1.86 *10* (1970Be30), and 1.95 *4* (1996TeZW). Others: 2.17 *19* (1964Be23), 2.0 *7* (1971Vi15), and 1.76 *15* (1974HeYW).

$^{194}_{78}Pt_{116}$-32

γ(^{194}Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [c]	δ [c]	α [e]	$I_{(\gamma+ce)}$ [d]	Comments
										Mult.: α(K)exp=0.0029 *3* (1964Be23), 0.00337 *22* (1970Be30), 0.0032 *+21−10* (1971Vi15). Also placed from 2142 level by 1960Ba17. Ice(K)=0.130 *5*, weighted average of 0.128 *4* (1964Be23), 0.129 *8* (1971Vi15), and 0.160 *16* (1960Ba17). Additional information 15.
1241.93 [&h] *7*	0.0124 [&] *10*	2053.016	(2)$^+$	811.285	4$^+$					%Iγ=0.0078 *7* Level-energy difference=1241.73.
1262.27 [#] *15*	0.0402 *7*	2184.910	1$^+$,2$^+$	922.771	3$^+$					%Iγ=0.0253 *8* E_γ: unweighted average of 1262.42 *9* (1996TeZW) and 1262.124 *18* (2015Do06). I_γ: weighted average of 0.046 *5* (1996TeZW) and 0.0401 *6* (2015Do06).
1267.36 *16*		1267.198	0$^+$	0.0	0$^+$	E0			0.0038 *2*	E_γ: transition seen in ce data only (1960Ba17,1964Be23). $I_{(\gamma+ce)}$: from Ice(K)=0.067 *3* (1964Be23) and ce(K)/ce=0.8611 for E0 (BrIcc). Mult.: α(total)exp=0.004 *2* for a gamma line at 1270 *20* (1956Th11); α(K)exp>0.024 (1970Be30), >0.012 (1964Be23). Ice(K)=0.069 *4*, weighted average of 0.067 *3* (1964Be23), and 0.080 *8* (1960Ba17).
1291.765 *14*	0.127 *2*	2214.523	(2$^+$)	922.771	3$^+$	(M1(+E2))	<0.3	0.00675 *18*		α(K)=0.00559 *15*; α(L)=0.000874 *22*; α(M)=0.000201 *5* α(N)=4.96×10^{-5} *13*; α(O)=8.95×10^{-6} *23*; α(P)=6.16×10^{-7} *17*; α(IPF)=2.35×10^{-5} *5* %Iγ=0.080 *3* E_γ: from 2015Do06. Others: 1291.7 *3* (1971Vi15), 1291.89 *11* (1996TeZW), and 1291.8 *10* (1960Ba17). I_γ: weighted average of 0.2 *1* (1970Be30), 0.18 *4* (1971Vi15), 0.106 *10* (1996TeZW), and 0.127 *1* (2015Do06). Mult.,δ: α(K)exp=0.0073 *8*, from Ice(K)=0.019 *2* and Iγ=0.127 *2* here gives δ(E2/M1)<0.3 or δ(M2/E1)=1.00 *+14−12*, with the former more likely. Other α(K)exp: 0.0039 *20* (1970Be30), 0.0052 *+23−15* (1971Vi15), >0.0024 (1964Be23). Ice(K)=0.019 *2*, from 1971Vi15. Others: 0.015 *4* (1964Be23) and 0.0200 *20* (1960Ba17).
1293.708 *14*	0.221 *2*	1622.197	2$^+$	328.474	2$^+$	E2+M1+E0	−0.9 *1*	0.0192 *8*		%Iγ=0.139 *4* E_γ: weighted average of 1293.709 *14*

$^{194}_{78}Pt_{116}$-33

γ(^{194}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[c]	δ[c]	α[e]	Comments
									(2015Do06) and 1293.69 *8* (1996TeZW). Others: 1293.9 *5* (1960Ba17) and 1293.7 *3* (1971Vi15). I_γ: from 2015Do06. Others: 0.2 *1* (1970Be30), 0.28 *7* (1971Vi15), and 0.214 *23* (1996TeZW). Mult.: α(K)exp=0.012 *+5−3* (1971Vi15), 0.015 *8* (1970Be30), >0.0093 (1964Be23). δ: from Adopted Gammas. Other: <0.8 from α(K)exp above and +0.07 *14* from $\gamma\gamma(\theta)$ of 1996TeZW. (1294γ)(328γ)(θ): A_2=+0.16 *11*, A_4=−0.29 *18*. Ice(K)=0.065 *3*, weighted average of 0.059 *4* (1964Be23), 0.067 *3* (1971Vi15), and 0.073 *7* (1960Ba17). α: from α(K)exp=0.0144 *7*, from Ice(K)=0.065 *3* and Iγ=0.221 *2* given here.
1302.255 *14*	0.435 *4*	1924.282	1$^+$	622.023	2$^+$	(M1+E2)	0.56 *+22−23*	0.0059 *5*	α(K)=0.0049 *5*; α(L)=0.00077 *6*; α(M)=0.000178 *14* α(N)=4.4×10^{-5} *4*; α(O)=7.9×10^{-6} *7*; α(P)=5.4×10^{-7} *5*; α(IPF)=2.41×10^{-5} *14* %Iγ=0.273 *8* E_γ: from 2015Do06. Others: 1302.4 *6* (1970Be30), 1302.29 *8* (1974HeYW), 1302.24 *3* (1996TeZW), and 1302.55 *15* (1960Ba17). I_γ: weighted average of 0.422 *13* (1996TeZW) and 0.436 *4* (2015Do06). Others: 0.50 *25* (1964Be23), 0.45 *9* (1970Be30), and 0.43 *4* (1974HeYW). Mult.,δ: α(K)exp=0.0049 *4* deduced from Ice(K)=0.044 *3* and Iγ=0.435 *4* here, gives δ(E2/M1)=0.56 *+22−23* or δ(M2/E1)=0.68 *5*, and ΔJ^π requires M1+E2. Other δ: −1.7 *17*, 0 to −4 *+4−∞*, −0.9 *+4−∞* (1996TeZW). Other α(K)exp: 0.0042 *+53−17* (1964Be23), 0.0047 *10* (1970Be30). (1302γ)(293γ)(θ): A_2=−0.18 *5*, A_4=−0.19 *9*. (1302γ)[293γ](328γ)(θ): A_2=−0.07 *5*, A_4=−0.14 *9*. Ice(K)=0.044 *3*, weighted average of 0.043 *2* (1964Be23) and 0.051 *5* (1960Ba17).
1308.331 *14*	0.239 *2*	1930.369	2$^+$	622.023	2$^+$	(M1+E2)	1.7 *+11−5*	0.0042 *6*	α(K)=0.0034 *5*; α(L)=0.00055 *7*; α(M)=0.000128 *15* α(N)=3.1×10^{-5} *4*; α(O)=5.6×10^{-6} *7*; α(P)=3.7×10^{-7} *5*; α(IPF)=2.05×10^{-5} *16* %Iγ=0.150 *4* E_γ: from 2015Do06. Others: 1308.2 *6* (1970Be30), 1308.55 *20* (1974HeYW), 1308.32 *3* (1996TeZW), and 1308.59 *20* (1960Ba17). I_γ: from 2015Do06. Others: 0.24 *5* (1970Be30), 0.25 *5* (1971Vi15), 0.24 *3* (1974HeYW), 0.224 *8* (1996TeZW). Mult.,δ: α(K)exp=0.0034 *4*, from Ice(K)=0.0167 *19* and Iγ=0.239 *2* here, gives δ(E2/M1)=1.7 *+11−5*, or δ(M2/E1)=0.49 *5*, with the former consistent with $\Delta\pi$=+ based on L(p,d)=1+3 from 1/2$^-$.

γ(^{194}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[c]	δ[c]	α[e]	Comments
									Other α(K)exp: 0.0036 *5* (1970Be30). Ice(K)=0.0167 *19*, weighted average of 0.0152 *15* (1964Be23) and 0.0190 *19* (1960Ba17).
1316.857 *14*	0.117 *1*	2239.635	(2)$^-$	922.771	3$^+$				%Iγ=0.0735 *21* E$_\gamma$: weighted average of 1316.82 *7* (1996TeZW) and 1316.858 *14* (2015Do06). Other: 1317.3 *13* (1970Be30). I$_\gamma$: from 2015Do06. Others: 0.13 *5* (1971Vi15), 0.118 *8* (1996TeZW), 0.08 *4* (1970Be30).
1319.70[h] *4*	0.0097 *6*	2131.127	(2$^+$)	811.285	4$^+$				%Iγ=0.0061 *4* E$_\gamma$,I$_\gamma$: from 2015Do06 only. Level-energy difference=1319.84.
1339.251[b] *14*	0.360 *4*	1961.328	2$^-$	622.023	2$^+$	E1		1.34×10^{-3}	α(K)=0.001063 *15*; α(L)=0.0001539 *22*; α(M)=3.50×10^{-5} *5* α(N)=8.62×10^{-6} *12*; α(O)=1.548×10^{-6} *22*; α(P)=1.051×10^{-7} *15*; α(IPF)=7.62×10^{-5} *11* %Iγ=0.226 *7* E$_\gamma$: weighted average of 1339.26 *4* (1996TeZW) and 1339.250 *14* (2015Do06). Others: 1339.7 *6* (1970Be30), 1339.3 *3* (1971Vi15), and 1339.6 *3* (1974HeYW). Level-energy difference=1339.300. I$_\gamma$: weighted average of 0.354 *13* (1996TeZW) and 0.361 *4* (2015Do06). Others: 0.48 *24* (1970Be30), 2.51 *10* (1971Vi15), and 0.45 *10* (1974HeYW). Additional information 26. Mult.: α(K)exp=0.0020 *3* deduced from Ice(K)=0.015 *2* (1971Vi15) and Iγ=0.360 *4* here, gives δ=0.30 *+5−6*; δ=0.0 *9* from $\gamma\gamma(\theta)$ of 1996TeZW. (1339γ)(293γ)(θ): A$_2$=−0.02 *6*, A$_4$=−0.09 *9*.
1342.170 *10*	2.15 *4*	1670.656	2$^+$	328.474	2$^+$	M1+E2	−0.23 *9*	0.00612 *16*	α(K)=0.00506 *14*; α(L)=0.000790 *20*; α(M)=0.000181 *5* α(N)=4.49×10^{-5} *12*; α(O)=8.09×10^{-6} *21*; α(P)=5.57×10^{-7} *16*; α(IPF)=3.70×10^{-5} *8* %Iγ=1.35 *5* E$_\gamma$: weighted average of 1342.173 *10* (2015Do06) and 1342.164 *16* (1996TeZW). Others: 1342.44 *20* (1960Ba17), 1342.4 *3* (1970Be30), 1342.1 *3* (1971Vi15), and 1342.15 *10* (1974HeYW). I$_\gamma$: weighted average of 2.128 *21* (2015Do06), 2.55 *25* (1964Be23), 1.96 *17* (1970Be30), 2.51 *10* (1971Vi15), 2.03 *15* (1974HeYW), and 2.17 *4* (1996TeZW). Mult.,δ: from α(K)exp=0.00590 *16* deduced from Ice(K)=0.260 *5* and Iγ=2.15 *4* here, L1/L2=6.6 *12*, L1/L3=54 *24* (1970Ag05), and $\gamma\gamma(\theta)$ of 1996TeZW with δ=−0.26 *6*. Other α(K)exp: 0.0049 *6* (1964Be23), 0.0064

γ(^{194}Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [c]	δ [c]	α [e]	Comments
									6 (1970Be30), 0.0051 *3* (1971Vi15). (1342γ)(328γ)(θ): A_2=+0.41 *3*, A_4=+0.04 *5*. Ice(K)=0.260 *5*, weighted average of 0.258 *5* (1964Be23), 0.260 *5* (1971Vi15), and 0.32 *3* (1960Ba17).
1346.68 *4*	0.0251 *4*	2157.996	(2)$^+$	811.285	4$^+$				%Iγ=0.0158 *5* E_γ,I_γ: from 2015Do06. Other: 1346.7 *3* with Iγ=0.015 *7* (1996TeZW).
1388.93 *19*	0.0267 *6*	2311.879	2$^+$	922.771	3$^+$				%Iγ=0.0168 *6* E_γ: unweighted average of 1388.74 *19* (1996TeZW) and 1389.119 *18* (2015Do06). I_γ: from 2015Do06. Other: 0.026 *7* (1996TeZW).
1421.679 *14*	0.580 *5*	2043.715	1$^+$	622.023	2$^+$	M1(+E2)	<0.2	0.00542 *10*	α(K)=0.00446 *8*; α(L)=0.000694 *12*; α(M)=0.000159 *3* α(N)=3.94$\times10^{-5}$ *7*; α(O)=7.11$\times10^{-6}$ *12*; α(P)=4.91$\times10^{-7}$ *9*; α(IPF)=6.64$\times10^{-5}$ *11* %Iγ=0.364 *11* E_γ: weighted average of 1421.65 *7* (1974HeYW), 1421.667 *20* (1996TeZW), and 1421.686 *14* (2015Do06). Others: 1421.6 *3* (1970Be30), 1421.5 *3* (1971Vi15), and 1421.77 *20* (1960Ba17). I_γ: weighted average of 0.54 *5* (1970Be30), 0.54 *3* (1971Vi15), 0.60 *5* (1974HeYW), 0.598 *13* (1996TeZW), and 0.578 *5* (2015Do06). Additional information 27. Mult.,δ: α(K)exp=0.00458 *18*, from Ice(K)=0.0544 *21* and Iγ=0.580 *5* here gives δ(E2/M1)<0.2 or δ(M2/E1)=0.78 *4*, with the former consistent with δ=+0.4 *5* or −0.01 *18* from $\gamma\gamma(\theta)$ of 1996TeZW. Other α(K)exp: >0.0047 (1964Be23), 0.0049 *5* (1970Be30), 0.0049 *5* (1971Vi15). (1422γ)(293γ)(θ): A_2=+0.09 *4*, A_4=+0.02 *7*. (1422γ)[293γ](328γ)(θ): A_2=+0.06 *4*, A_4=+0.06 *7*. Ice(K)=0.0544 *21*, weighted average of 0.0535 *20* (1964Be23), 0.054 *4* (1971Vi15), and 0.066 *7* (1960Ba17).
1430.996 *14*	0.115 *1*	2053.016	(2)$^+$	622.023	2$^+$				%Iγ=0.0723 *21* E_γ: from 2015Do06. Others: 1430.95 *8* (1996TeZW); 1431.6 *4* (1974HeYW) for a composite peak. I_γ: weighted average of 0.121 *10* (1996TeZW) and 0.115 *1* (2015Do06). Other: 0.30 *5* (1974HeYW) for a composite peak.
1432.542 *14*	0.112 *2*	1432.545	3$^-$	0.0	0$^+$	[E3]		0.00566	α(K)=0.00450 *7*; α(L)=0.000870 *13*; α(M)=0.000205 *3* α(N)=5.07$\times10^{-5}$ *7*; α(O)=8.92$\times10^{-6}$ *13*; α(P)=5.10$\times10^{-7}$ *8*; α(IPF)=1.93$\times10^{-5}$ *3* %Iγ=0.0704 *23* E_γ: weighted average of 1432.50 *8* (1996TeZW) and 1432.543 *14* (2015Do06). Others: 1432.0 *6* (1970Be30), 1431.6 *4* (1974HeYW), 1432.3 *3* (1960Ba17) could be for a doublet. I_γ: weighted average of 0.116 *10* (1996TeZW) and 0.112 *2* (2015Do06). Others: 0.24 *5* (1970Be30) and 0.30 *5* (1974HeYW) could be for a doublet.

γ(^{194}Pt) (continued)

E_γ †	I_γ †d	E_i(level)	J^π_i	E_f	J^π_f	Mult.c	δc	αe	Comments
									I_γ: weighted average of 0.116 *10* (1996TeZW) and 0.112 *2* (2015Do06). Others: 0.24 *5* (1970Be30) and 0.30 *5* (1974HeYW) could be for a doublet. α(K)exp>0.0013 (1964Be23), 0.0029 *7* (1970Be30) could be for a doublet. Ice(K)=0.0153 *15*, weighted average of 0.0144 *10* (1964Be23) and 0.0180 *18* (1960Ba17). Additional information 11.
1441.703 *14*	0.255 *3*	2063.739	2$^+$	622.023	2$^+$	M1(+E2)	<0.6	0.0050 *4*	α(K)=0.0041 *3*; α(L)=0.00063 *5*; α(M)=0.000146 *10* α(N)=3.60×10^{-5} *24*; α(O)=6.5×10^{-6} *5*; α(P)=4.5×10^{-7} *4*; α(IPF)=7.2×10^{-5} *4* %Iγ=0.160 *5* E_γ: weighted average of 1441.68 *3* (1996TeZW) and 1441.705 *14* (2015Do06). Others: 1442.0 *6* (1970Be30), 1441.87 *15* (1974HeYW), and 1442.0 *3* (1960Ba17). I_γ: weighted average of 0.26 *6* (1970Be30), 0.30 *3* (1971Vi15), 0.33 *4* (1974HeYW), 0.273 *8* (1996TeZW), and 0.254 *2* (2015Do06). Mult.,δ: α(K)exp=0.0042 *4*, from Ice(K)=0.0218 *19* and Iγ=0.255 *3* here, gives δ(E2/M2)<0.6 or δ(M2/E1)=0.74 *7*, with only the former consistent with δ=0.0 *3* or +3 +∞−3 from γγ(θ) of 1996TeZW. Other α(K)exp: >0.0013 (1964Be23), 0.0039 *9* (1970Be30). (1442γ)[293γ](328γ)(θ): A_2=+0.06 *7*, A_4=+0.13 *11*. Ice(K)=0.0218 *19*, weighted average of 0.0207 *15* (1964Be23) and 0.0250 *25* (1960Ba17).
1450.098 *14*	0.511 *5*	1778.579	2$^+$	328.474	2$^+$	M1+E2	−0.27 *10*	0.00506 *15*	α(K)=0.00414 *13*; α(L)=0.000645 *19*; α(M)=0.000148 *5* α(N)=3.66×10^{-5} *11*; α(O)=6.61×10^{-6} *19*; α(P)=4.55×10^{-7} *14*; α(IPF)=7.69×10^{-5} *18* %Iγ=0.321 *9* E_γ: weighted average of 1450.104 *14* (2015Do06) and 1450.084 *21* (1996TeZW). Others: 1450.48 *20* (1960Ba17), 1450.3 *3* (1970Be30), and 1450.06 *15* (1974HeYW). I_γ: weighted average of 0.509 *5* (2015Do06), 0.51 *4* (1970Be30), 0.53 *3* (1971Vi15), 0.55 *5* (1974HeYW), and 0.520 *12* (1996TeZW). Mult.,δ: α(K)exp=0.0042 *5* deduced from Ice(K)=0.044 *5* and Iγ=0.511 *5* here gives δ(E2/M1)<0.6 or δ(M2/E1)=0.75 *9*, with only the former consistent with δ=−0.27 *10* from γγ(θ) of 1996TeZW for J(1778)=2. Other δ: −0.55 *5* from γγ(θ) for J(1778)=1, but this spin ruled out by ce data for 855.8γ. Other α(K)exp: 0.0039 *4* (1970Be30). (1450γ)(328γ)(θ): A_2=+0.41 *4*, A_4=+0.09 *7*. Ice(K)=0.044 *5*, weighted average of 0.041 *3* (1964Be23) and 0.051 *5* (1960Ba17).
1463.434 *14*	1.095 *11*	2085.474	0$^+$	622.023	2$^+$	(E2)		0.00270	α(K)=0.00218 *3*; α(L)=0.000353 *5*; α(M)=8.16×10^{-5} *12*

$^{194}_{78}$Pt$_{116}$-37

$\gamma(^{194}Pt)$ (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [c]	δ [c]	α [e]	Comments
									$\alpha(N)=2.01\times10^{-5}$ *3*; $\alpha(O)=3.59\times10^{-6}$ *5*; $\alpha(P)=2.28\times10^{-7}$ *4*;

$^{194}_{78}Pt_{116}$-38

γ(^{194}Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[c]	α[e]	$I_{(\gamma+ce)}$[d]	Comments
									α(IPF)=5.51×10^{-5} *8* %Iγ=0.688 *20* E_γ: weighted average of 1463.429 *19* (1996TeZW) and 1463.436 *14* (2015Do06). Others: 1463.1 *6* (1970Be30), 1463.7 *3* (1971Vi15), 1463.45 *10* (1974HeYW), and 1463.69 *25* (1960Ba17). I_γ: from 2015Do06. Others: 1.2 *3* (1970Be30), 1.19 *10* (1974HeYW), and 1.094 *22* (1996TeZW). Mult.: α(K)exp=0.00214 *22* deduced from Ice(K)=0.048 *5* and Iγ=1.095 *11* here gives Mult=E2 or δ(M2/E1)=0.40 *4*, but $\Delta J^\pi=2^+$ requires E2. Other α(K)exp: >0.00091 (1964Be23), 0.0012 *3* (1970Be30). Ice(K)=0.048 *5*, weighted average of 0.047 *3* (1964Be23), 0.042 *5* (1971Vi15), and 0.064 *7* (1960Ba17).
1468.904 *10*	10.82 *11*	1797.384	1$^-$	328.474	2$^+$	E1	1.23×10^{-3}		α(K)=0.000908 *13*; α(L)=0.0001310 *19*; α(M)=2.97×10^{-5} *5* α(N)=7.33×10^{-6} *11*; α(O)=1.318×10^{-6} *19*; α(P)=8.99×10^{-8} *13*; α(IPF)=0.0001568 *22* %Iγ=6.80 *20* E_γ: weighted average of 1468.914 *10* (2015Do06), 1469.36 *25* (1960Ba17), 1468.92 *15* (1970Be30), 1468.9 *3* (1971Vi15), 1468.89 *5* (1974HeYW), and 1468.882 *15* (1996TeZW). I_γ: weighted average of 10.76 *11* (2015Do06), 11.9 *6* (1964Be23), 10.6 *6* (1970Be30), 11 *3* (1971Vi15), 10.5 *6* (1974HeYW), and 10.94 *18* (1996TeZW). Mult.: α(K)exp=0.00101 *8* (1964Be23), 0.00114 *8* (1970Be30), 0.0012 *4* (1971Vi15), L1/L2=26 *7*, L1/L3=21 *6* (1970Ag05). δ(M2/E2)=−0.006 *9* from γγ(θ) of 1996TeZW consistent with mult=pure dipole. (1469γ)(328γ)(θ): A_2=−0.247 *10*, A_4=−0.054 *17*. Ice(K)=0.248 *5*, weighted average of 0.246 *5* (1964Be23), 0.265 *15* (1971Vi15), and 0.26 *3* (1960Ba17). Additional information 21.
1474.37 *7*	0.0273 *12*	2397.320	2$^+$	922.771	3$^+$				%Iγ=0.0172 *9* E_γ: weighted average of 1474.20 *13* (1996TeZW) and 1474.40 *5* (2015Do06). I_γ: weighted average of 0.035 *5* (1996TeZW) and 0.0271 *8* (2015Do06).
1479.33 *11*		1479.270	0$^+$	0.0	0$^+$	E0		0.113 *3*	E_γ: weighted average of 1479.3 *3* (1971Vi15), 1479.27 *10* (2015Do06), and 1479.75 *25* (1960Ba17). Transition seen in ce data only. Mult.: L1/L2=26 *7* (1970Ag05) consistent with E0. Others: α(K)exp>0.087 (1964Be23), >0.45 (1970Be30), >0.89 (1971Vi15). $I_{(\gamma+ce)}$: deduced from Ice(K)=2.00 *5* (1971Vi15) and ce(K)/ce=0.8617 for E0 (BrIcc). Ice(K)=1.99 *13*, unweighted average of 1.77 *3* (1964Be23), 2.00 *5* (1971Vi15), and 2.20 *22* (1960Ba17).

From ENSDF

$^{194}_{78}$Pt$_{116}$-39

γ(^{194}Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult. [c]	δ [c]	α [e]	Comments
1487.102 *16*	0.197 *2*	2109.088	(2)$^+$	622.023	2$^+$	(M1(+E2))	<0.3	0.00483 *12*	α(K)=0.00394 *10*; α(L)=0.000614 *15*; α(M)=0.000141 *4* α(N)=3.48×10^{-5} *9*; α(O)=6.29×10^{-6} *15*; α(P)=4.34×10^{-7} *11*; α(IPF)=9.39×10^{-5} *19* %Iγ=0.124 *4* E_γ: weighted average of 1486.8 *6* (1970Be30), 1486.9 *3* (1971Vi15), 1487.0 *3* (1974HeYW), 1487.16 *3* (1996TeZW), 1487.089 *14* (2015Do06), and 1487.9 *5* (1960Ba17). I_γ: weighted average of 0.22 *5* (1970Be30), 0.26 *3* (1971Vi15), 0.20 *4* (1974HeYW), 0.200 *5* (1996TeZW), and 0.196 *2* (2015Do06). Mult.,δ: α(K)exp=0.0049 *6*, from Ice(K)=0.0199 *22* and Iγ=0.197 *2* here, gives δ(E2/M1)<0.3 or δ(M2/E1)=0.95 *+15−13*, with only the former consistent with $\Delta\pi$=+. Other α(K)exp: 0.0026 *3* (1949St17), 0.0040 *11* (1970Be30), 0.0034 *7* (1971Vi15), >0.0018 (1964Be23). Ice(K)=0.0199 *22*, weighted average of 0.018 *3* (1964Be23), 0.018 *3* (1971Vi15), and 0.0220 *22* (1960Ba17).
1489.01 [b] *9*	0.0188 *11*	1816.585	(2)$^+$	328.474	2$^+$				%Iγ=0.0118 *8* E_γ: weighted average of 1488.3 *4* (1996TeZW) and 1489.02 *5* (2015Do06). Others: 1487.0 *3* (1974HeYW) and 1487.9 *5* (1960Ba17) for a doublet; 1486.8 *6* (1970Be30) is discrepant. Poor fit, level-energy difference=1488.11. I_γ: weighted average of 0.028 *7* (1996TeZW) and 0.0187 *8* (2015Do06). Others: 0.22 *5* (1970Be30) and 0.20 *4* (1974HeYW) for a doublet. α(K)exp=0.0040 *11* (1970Be30), >0.0015 (1964Be23) for a doublet. Ice(K)=0.0206 *22*, weighted average of 0.018 *3* (1964Be23) and 0.0220 *22* (1960Ba17) for a doublet.
1492.065 *14*	0.285 *3*	2114.102	1$^+$	622.023	2$^+$	M1(+E2)	<0.5	0.00466 *24*	α(K)=0.00380 *20*; α(L)=0.00059 *3*; α(M)=0.000136 *7* α(N)=3.36×10^{-5} *17*; α(O)=6.1×10^{-6} *3*; α(P)=4.17×10^{-7} *23*; α(IPF)=9.4×10^{-5} *4* %Iγ=0.179 *5* E_γ: weighted average of 1492.06 *6* (1996TeZW) and 1492.067 *14* (2015Do06). Others: 1491.8 *3* (1970Be30), 1491.97 *15* (1974HeYW), and 1492.7 *5* (1960Ba17). I_γ: weighted average of 0.42 *19* (1964Be23), 0.29 *4* (1970Be30), 0.31 *3* (1971Vi15), 0.29 *4* (1974HeYW), 0.293 *7* (1996TeZW), and 0.283 *3* (2015Do06). Mult.,δ: α(K)exp=0.0045 *7*, from Ice(K)=0.026 *4* and Iγ=0.285 *3* here gives δ(E2/M1)<0.5 or δ(M2/E1)=0.87 *+16−14*, with only the former consistent with δ=+0.4 *8* or −0.2 *3* from $\gamma\gamma(\theta)$ (1996TeZW). Other α(K)exp: 0.0026 *+29−11* (1964Be23), 0.0036 *6* (1970Be30).

γ(^{194}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[c]	α[e]	Comments
								(1492γ)(293γ)(θ): A_2=+0.15 *7*, A_4=+0.05 *11*. (1492γ)[293γ](328γ)(θ): A_2=−0.01 *8*, A_4=+0.18 *12*. Ice(K)=0.026 *4*, unweighted average of 0.022 *2* (1964Be23) and 0.029 *3* (1960Ba17).
1500.66 *13*	0.048 *6*	2311.879	2$^+$	811.285	4$^+$	(E2)	0.00259	α(K)=0.00208 *3*; α(L)=0.000336 *5*; α(M)=7.75×10^{-5} *11* α(N)=1.91×10^{-5} *3*; α(O)=3.41×10^{-6} *5*; α(P)=2.18×10^{-7} *3*; α(IPF)=6.64×10^{-5} *10* %Iγ=0.030 *4* E_γ: unweighted average of 1500.5 *3* (1971Vi15), 1500.92 *8* (1996TeZW), and 1500.573 *21* (2015Do06). I_γ: unweighted average of 0.054 *3* (1996TeZW) and 0.0421 *5* (2015Do06). Other: 0.63 *3* (1971Vi15) is discrepant, and it is most likely that it should read as 0.06 3 instead of 0.63 3. Mult.: α(K)exp=0.0041 *12* deduced from Ice(K)=0.0040 *10* (1971Vi15) and Iγ=0.048 *6* here, gives M1,E2, but ΔJ^π=2$^+$ requires E2.
1509.08[h] *3*	0.0121 *9*	2131.127	(2$^+$)	622.023	2$^+$			%Iγ=0.0076 *6* E_γ,I_γ: from 2015Do06 only.
1512.073[gb] *14*	0.068[g] *15*	1512.002	2$^+$	0.0	0$^+$	(E2)	0.00255	α(K)=0.00205 *3*; α(L)=0.000331 *5*; α(M)=7.63×10^{-5} *11* α(N)=1.88×10^{-5} *3*; α(O)=3.36×10^{-6} *5*; α(P)=2.15×10^{-7} *3*; α(IPF)=7.00×10^{-5} *10* %Iγ=0.043 *10* E_γ: from 2015Do06. Others: 1512.0 *3* (1971Vi15), 1511.9 *3* (1974HeYW), 1512.33 *11* (1996TeZW) for a composite peak. I_γ: weighted average of 0.040 *17* (1996TeZW), and 0.076 *9* (2015Do06). Others: 0.19 *5* (1970Be30), 0.18 *3* (1971Vi15), and 0.19 *3* (1974HeYW) are undivided for a doublet. Total intensity=0.171 *1* for doublet in 2015Do06 and divided by evaluators for placement from 1512 based on ^{194}Ir β^- decay (19.3 h) dataset, remaining intensity is assigned from 2134 level. Mult.: α(K)exp=0.0035 *+15−11* (1971Vi15) and 0.0029 *8* (1970Be30) for the doublet is consistent with M1,E2 for both components; E2 required by ΔJ^π. Ice(K)=0.0121 *10*, weighted average of 0.0110 *10* (1964Be23), 0.0140 *14* (1960Ba17), and 0.0125 *20* for a doublet.
1512.073[g] *14*	0.095[g] *9*	2134.107	1$^+$,2$^+$	622.023	2$^+$	M1,E2	0.0037 *11*	α(K)=0.0030 *9*; α(L)=0.00047 *14*; α(M)=0.00011 *3* α(N)=2.6×10^{-5} *8*; α(O)=4.8×10^{-6} *14*; α(P)=3.2×10^{-7} *11*; α(IPF)=8.9×10^{-5} *19* %Iγ=0.060 *6* E_γ: from 2015Do06. Others: 1512.0 *3* (1971Vi15), 1511.9 *3* (1974HeYW), 1512.33 *11* (1996TeZW) for a composite peak. I_γ: from 2015Do06. Others: 0.162 *15* (1996TeZW), 0.19 *3* (1974HeYW), 0.19 *5* (1970Be30), and 0.18 *3* (1971Vi15) for a composite peak.

$\gamma(^{194}Pt)$ (continued)

E_γ †	I_γ †d	E_i(level)	J_i^π	E_f	J_f^π	Mult.c	δc	αe	$I_{(\gamma+ce)}$ d	Comments
										Mult.: α(K)exp>0.0017 (1964Be23), 0.0029 *8* (1970Be30), 0.0035 +*15*−*11* (1971Vi15) for a doublet. See also the placement from 1512 level. Ice(K)=0.0121 *10*, weighted average of 0.0110 *10* (1964Be23), 0.0140 *14* (1960Ba17), and 0.0125 *20* for a doublet. Total intensity=0.171 *1* for doublet in 2015Do06 and divided by evaluators for placement from 1512 based on ^{194}Ir β^- decay (19.3 h) dataset, remaining intensity is assigned from 2134 level.
1518.659 *14*	0.112 *1*	2140.698	(1$^+$,2$^+$)	622.023	2$^+$	(M1(+E2))	<0.7	0.0043 *4*		α(K)=0.0035 *3*; α(L)=0.00055 *5*; α(M)=0.000126 *11* α(N)=3.1×10^{-5} *3*; α(O)=5.6×10^{-6} *5*; α(P)=3.9×10^{-7} *4*; α(IPF)=0.000104 *7* %Iγ=0.0704 *20* E_γ: weighted average of 1518.62 *5* (1996TeZW) and 1518.662 *14* (2015Do06). Others: 1518.8 *6* (1970Be30), 1518.4 *3* (1971Vi15), 1518.5 *2* (1974HeYW), and 1518.9 *6* (1960Ba17). I_γ: from 2015Do06. Others: 0.13 *4* (1970Be30), 0.11 *3* (1971Vi15), 0.11 *2* (1974HeYW), and 0.108 *7* (1996TeZW). Mult.,δ: α(K)exp=0.0037 *4*, from Ice(K)=0.0085 *9* and Iγ=0.112 *1* here, gives δ(E2/M1)<0.7 or δ(M2/E1)=0.74 *8*, with the former more likely. Other: α(K)exp: >0.0012 (1964Be23), 0.0028 *9* (1970Be30), 0.0050 +*35*−*19* (1971Vi15). Ice(K)=0.0085 *9*, weighted average of 0.0073 *10* (1964Be23), 0.0110 *20* (1971Vi15), and 0.0090 *9* (1960Ba17).
1535.781[b] *21*	0.024 *9*	2157.996	(2)$^+$	622.023	2$^+$					%Iγ=0.015 *6* E_γ: from 2015Do06. Other: 1535.5 *3* (1996TeZW). Level-energy difference=1535.966. I_γ: unweighted average of 0.016 *5* (1996TeZW) and 0.0328 *8* (2015Do06).
1541.715 *18*	0.0394 *6*	2163.745	0$^+$	622.023	2$^+$					%Iγ=0.0248 *8* E_γ,I_γ: from 2015Do06. Other: 1541.65 *13* with Iγ=0.034 *4* (1996TeZW).
1547.9 *4*		1547.273	0$^+$	0.0	0$^+$	E0			0.0041 *4*	E_γ: transition seen in ce data only (1960Ba17, 1964Be23). Iγ<0.62 (1964Be23). $I_{(\gamma+ce)}$: deduced from Ice(K)=0.072 *6* and ce(K)/ce=0.8618 for E0 (BrIcc). α(K)exp>0.0053 (1964Be23), >0.027 (1970Be30). Ice(K)=0.072 *6*, weighted average of 0.068 *5* (1964Be23) and 0.081 *8* (1960Ba17).

$^{194}_{78}Pt_{116}$-42

γ(^{194}Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [c]	δ [c]	α [e]	Comments
1562.891 *14*	0.458 *5*	2184.910	$1^+,2^+$	622.023	2^+	M1(+E2)	<0.3	0.00432 *11*	α(K)=0.00349 *9*; α(L)=0.000542 *13*; α(M)=0.000124 *3* α(N)=3.08×10^{-5} *8*; α(O)=5.55×10^{-6} *13*; α(P)=3.83×10^{-7} *10*; α(IPF)=0.000131 *3* %Iγ=0.288 *9* E_γ: weighted average of 1562.91 *4* (1996TeZW) and 1562.889 *14* (2015Do06). Others: 1562.81 *20* (1970Be30), 1562.8 *3* (1974HeYW), and 1563.4 *4* (1960Ba17). I_γ: weighted average of 0.469 *10* (1996TeZW) and 0.456 *4* (2015Do06). Others: 0.51 *4* (1970Be30), 0.55 *3* (1971Vi15), and 0.56 *7* (1974HeYW). Mult.,δ: α(K)exp=0.0039 *3*, from Ice(K)=0.037 *3* and Iγ=0.458 *5* here, gives δ(E2/M1)<0.3 or δ(M2/E1)=0.84 *7*, with only the former consistent with low values of δ=+0.1 *7*, −0.22 *25* for J(2185)=1, −0.5 *16*, +0.3 *4*, +2.0 +∞-*16*, −7 +*5*−∞ for J(2185)=2 from γγ(θ) of 1996TeZW. Other α(K)exp: 0.0034 *4* (1970Be30), >0.0028 (1964Be23). (1563γ)(293γ)(θ): A_2=+0.06 *6*, A_4=+0.09 *10*. (1563γ)[293γ](328γ)(θ): A_2=0.00 *6*, A_4=−0.02 *10*. Ice(K)=0.037 *3*, weighted average of 0.0354 *20* (1964Be23) and 0.044 *5* (1960Ba17).
1565.20 *8*	0.075 *12*	1893.574	0^+	328.474	2^+				%Iγ=0.047 *8* E_γ: unweighted average of 1565.28 *6* (1996TeZW) and 1565.126 *17* (2015Do06). I_γ: unweighted average of 0.086 *4* (1996TeZW) and 0.0632 *8* (2015Do06).
1592.489 *14*	1.69 *3*	2214.523	(2^+)	622.023	2^+	M1(+E2)	<0.3	0.00415 *10*	α(K)=0.00333 *8*; α(L)=0.000517 *12*; α(M)=0.000119 *3* α(N)=2.94×10^{-5} *7*; α(O)=5.30×10^{-6} *13*; α(P)=3.66×10^{-7} *9*; α(IPF)=0.000147 *3* %Iγ=1.06 *4* E_γ: weighted average of 1592.46 *3* (1996TeZW) and 1592.495 *14* (2015Do06). Others: 1592.4 *3* (1971Vi15); 1592.9 *1* (1974HeYW) for a composite peak. I_γ: weighted average of 1.85 *10* (1996TeZW) and 1.68 *2* (2015Do06). Others: 6.0 *6* (1971Vi15) and 2.8 *3* (1974HeYW) for a composite peak. Additional information 30. Mult.,δ: α(K)exp=0.0039 *4* deduced from Ice(K)=0.134 *12* (1971Vi15) and Iγ=1.69 *3* here, gives δ(E2/M1)<0.3 or δ(M2/E1)=0.88 +*11*−*10*, with only the former consistent with δ=−0.2 *6* or −0.4 *5* for J(2214)=1 and +0.3 *9* or 0.0 *6* for J(2214)=2 from γγ(θ) of 1996TeZW. Other α(K)exp: 0.0031 *9* (1970Be30) and >0.0033 (1964Be23) for a composite peak, consistent with M1.

$^{194}_{78}Pt_{116}$-43

γ(^{194}Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [c]	δ [c]	α [e]	Comments
									(1592γ)(293γ)(θ): A_2=+0.01 *6*, A_4=−0.02 *10*.
									(1592γ)[293γ](328γ)(θ): A_2=−0.05 *10*, A_4=−0.04 *17*.
									Other Ice(K): 0.170 *15* (1964Be23) and 0.200 *20* (1960Ba17) for a composite peak.
1593.530 *20*	1.22 *2*	2215.530	1$^+$	622.023	2$^+$	(M1+E2)	0.74 *8*	0.00356 *11*	α(K)=0.00285 *9*; α(L)=0.000445 *13*; α(M)=0.000102 *3*
									α(N)=2.53×10^{-5} *8*; α(O)=4.55×10^{-6} *14*; α(P)=3.10×10^{-7} *10*; α(IPF)=0.000131 *4*
									%Iγ=0.767 *25*
									E_γ: weighted average of 1593.63 *7* (1996TeZW) and 1593.526 *14* (2015Do06). Others: 1592.9 *3* (1970Be30), 1593.5 *3* (1971Vi15), 1592.9 *1* (1974HeYW), and 1592.9 *4* (1960Ba17).
									I_γ: weighted average of 1.19 *8* (1996TeZW) and 1.22 *2* (2015Do06). Others: 2.7 *8* (1970Be30), 6.0 *6* (1971Vi15), and 2.8 *3* (1974HeYW) for a composite peak.
									Mult.: α(K)exp=0.00285 *6* deduced from Ice(K)=0.0712 *7* (1971Vi15) and Iγ=1.22 *2* here gives δ(E2/M1)=0.74 *8* and also δ(M2/E1)=0.64 *2*; α(K)exp=0.0031 *9* (1970Be30) and >0.0033 (1964Be23) for a composite peak *+27−24* consistent with M1. See also comments for 1592γ from 2214 level.
									Other Ice(K): 0.170 *15* (1964Be23) and 0.200 *20* (1960Ba17) for a composite peak.
1595.807 *14*	3.00 *3*	1924.282	1$^+$	328.474	2$^+$	M1+E2	−0.071 *21*	0.00420	α(K)=0.00337 *5*; α(L)=0.000523 *8*; α(M)=0.0001199 *17*
									α(N)=2.97×10^{-5} *5*; α(O)=5.36×10^{-6} *8*; α(P)=3.71×10^{-7} *6*; α(IPF)=0.0001507 *22*
									%Iγ=1.89 *6*
									E_γ: weighted average of 1595.797 *19* (1996TeZW) and 1595.812 *14* (2015Do06). Others: 1595.8 *3* (1970Be30), 1595.8 *3* (1971Vi15), 1595.8 *1* (1974HeYW), and 1596.2 *4* (1960Ba17).
									I_γ: weighted average of 3.00 *7* (1996TeZW) and 3.00 *3* (2015Do06). Others: 2.9 *8* (1970Be30) and 2.8 *3* (1974HeYW); 4.7 *6* (1964Be23) and 6.0 *6* (1971Vi15) for a doublet.
									Mult.: α(K)exp=0.0025 *+9−6* (1964Be23), 0.0041 *12* (1970Be30), and 0.0040 *3* deduced from Ice(K)=0.243 *15* (1971Vi15) and Iγ=3.00 *3* here.
									δ: from $\gamma\gamma(\theta)$ of 1996TeZW, consistent with δ<0.3 from ce data above.
									(1596γ)(328γ)(θ): A_2=−0.167 *25*, A_4=+0.03 *4*.
									Ice(K)=0.250 *15*, weighted average of 0.245 *20* (1964Be23), 0.243 *15* (1971Vi15), and 0.29 *3* (1960Ba17).
									Additional information 23.
1601.891 *14*	0.384 *4*	1930.369	2$^+$	328.474	2$^+$	M1(+E2)	<−0.2	0.00414 *7*	α(K)=0.00332 *6*; α(L)=0.000515 *9*; α(M)=0.0001181 *20*
									α(N)=2.92×10^{-5} *5*; α(O)=5.27×10^{-6} *9*; α(P)=3.65×10^{-7} *7*; α(IPF)=0.0001533 *24*
									%Iγ=0.241 *7*
									E_γ: weighted average of 1601.9 *3* (1970Be30), 1601.7 *3*

γ(^{194}Pt) (continued)

E_γ †	I_γ †d	E_i(level)	J^π_i	E_f	J^π_f	Mult.c	α e	Comments
								(1971Vi15), 1602.01 *10* (1974HeYW), 1601.848 *24* (1996TeZW), 1601.904 *14* (2015Do06), and 1602.0 *5* (1960Ba17). I_γ: weighted average of 0.377 *10* (1996TeZW) and 0.385 *4* (2015Do06). Others: 0.40 *5* (1970Be30), 0.39 *7* (1971Vi15), and 0.45 *5* (1974HeYW). Mult.,δ: α(K)exp=0.0041 *3* deduced from Ice(K)=0.032 *2* and Iγ=0.384 *4* here, gives δ(E2/M1)<0.2, $\gamma\gamma(\theta)$ of 1996TeZW gives δ=−0.5 *4* or −0.55 *4*, with the former consistent with δ from ce data. Other α(K)exp: 0.0036 *5* (1970Be30). (1602γ)(328γ)(θ): A_2=+0.52 *6*, A_4=+0.04 *9*. Ice(K)=0.032 *2*, weighted average of 0.030 *2* (1964Be23), 0.032 *2* (1971Vi15), and 0.036 *4* (1960Ba17).
1617.604 *14*	0.365 *4*	2239.635	(2)$^-$	622.023	2$^+$	E1	1.18×10^{-3}	α(K)=0.000773 *11*; α(L)=0.0001110 *16*; α(M)=2.52×10^{-5} *4* α(N)=6.21×10^{-6} *9*; α(O)=1.118×10^{-6} *16*; α(P)=7.66×10^{-8} *11*; α(IPF)=0.000261 *4* %Iγ=0.229 *7* E_γ: weighted average of 1617.62 *3* (1996TeZW) and 1617.601 *14* (2015Do06). Others: 1617.6 *6* (1970Be30), 1617.73 *15* (1974HeYW), and 1617.8 *6* (1960Ba17). I_γ: weighted average of 0.34 *5* (1970Be30), 0.42 *3* (1971Vi15), 0.34 *4* (1974HeYW), 0.368 *12* (1996TeZW), and 0.364 *4* (2015Do06). Mult.: α(K)exp=0.00081 *12* (1970Be30). δ=−0.5 *18* or −2.1 *24* from $\gamma\gamma(\theta)$ (1996TeZW) consistent with ce data. (1618γ)(293γ)(θ): A_2=−0.10 *7*, A_4=−0.03 *11*. (1618γ)[293γ](328γ)(θ): A_2=−0.10 *6*, A_4=+0.42 *11*. Ice(K)=0.0065 *9*, unweighted average of 0.0056 *1* (1964Be23) and 0.0073 *7* (1960Ba17). Additional information 33.
1622.185 *14*	0.300 *3*	1622.197	2$^+$	0.0	0$^+$	E2	0.00229	α(K)=0.00181 *3*; α(L)=0.000287 *4*; α(M)=6.62×10^{-5} *10* α(N)=1.633×10^{-5} *23*; α(O)=2.92×10^{-6} *4*; α(P)=1.89×10^{-7} *3*; α(IPF)=0.0001085 *16* %Iγ=0.189 *6* E_γ: from 2015Do06. Others: 1622.2 *6* (1970Be30), 1622.23 *15* (1974HeYW), 1622.21 *10* (1996TeZW), and 1622.6 *5* (1960Ba17). I_γ: from 2015Do06. Others: 0.32 *6* (1970Be30), 0.31 *3* (1971Vi15), 0.26 *4* (1974HeYW), and 0.26 *5* (1996TeZW). Mult.: α(K)exp=0.00192 *23*, deduced from Ice(K)=0.0118 *14* and. Additional information 16. Ice(K)=0.0118 *14*, weighted average of 0.0101 *15* (1964Be23) and 0.0130 *13* (1960Ba17).
1632.847 *16*	0.428 *5*	1961.328	2$^-$	328.474	2$^+$	E1	1.17×10^{-3}	α(K)=0.000761 *11*; α(L)=0.0001092 *16*; α(M)=2.48×10^{-5} *4* α(N)=6.11×10^{-6} *9*; α(O)=1.100×10^{-6} *16*; α(P)=7.54×10^{-8} *11*; α(IPF)=0.000272 *4* %Iγ=0.269 *8* E_γ: weighted average of 1633.0 *3* (1970Be30), 1632.86 *15* (1974HeYW),

γ(^{194}Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult. [c]	α [e]	Comments
								1632.79 *3* (1996TeZW), 1632.858 *14* (2015Do06), and 1633.5 *5* (1960Ba17). I_γ: weighted average of 0.385 *25* (1971Vi15), 0.429 *13* (1996TeZW), and 0.429 *4* (2015Do06). Others: 0.37 *4* (1970Be30) and 0.47 *5* (1974HeYW). Mult.: from α(K)exp=0.00066 *15* (1970Be30) gives δ<0.11; δ=−0.23 *13* or −1.08 *29* from γγ(θ) (1996TeZW). (1633γ)(328γ)(θ): A_2=+0.40 *6*, A_4=+0.07 *11*. Ice(K)=0.0063 *10*, weighted average of 0.005 *1* (1964Be23) and 0.0070 *7* (1960Ba17).
1665.321 *18*	0.0464 *6*	2287.375	(1$^+$,2$^+$)	622.023	2$^+$			%Iγ=0.0292 *9* E_γ: weighted average of 1665.42 *13* (1996TeZW) and 1665.319 *18* (2015Do06). I_γ: from 2015Do06. Other: 0.045 *7* (1996TeZW).
1670.665 *14*	0.301 *3*	1670.656	2$^+$	0.0	0$^+$	(E2)	0.00219	α(K)=0.001714 *24*; α(L)=0.000271 *4*; α(M)=6.23×10^{-5} *9* α(N)=1.539×10^{-5} *22*; α(O)=2.75×10^{-6} *4*; α(P)=1.79×10^{-7} *3*; α(IPF)=0.0001272 *18* %Iγ=0.189 *6* E_γ: weighted average of 1670.671 *14* (2015Do06) and 1670.64 *3* (1996TeZW). Others: 1670.9 *6* (1960Ba17), 1670.8 *3* (1970Be30), 1670.5 *3* (1971Vi15), and 1670.66 *15* (1974HeYW). I_γ: weighted average of 0.301 *3* (2015Do06) and 0.293 *12* (1996TeZW). Others: 0.23 *7* (1970Be30), 0.283 *25* (1971Vi15), and 0.36 *5* (1974HeYW). Mult.: α(K)exp=0.0031 *10* (1970Be30) and 0.0030 *7* (1971Vi15) gives M1(+E2) with δ<0.9, but ΔJ=2 from decay scheme requires E2. Ice(K)=0.0166 *18*, weighted average of 0.0143 *20* (1964Be23), 0.018 *3* (1971Vi15), and 0.0180 *18* (1960Ba17). Additional information 18.
1675.188 *18*	0.139 *1*	2003.665	(2$^+$)	328.474	2$^+$	(M1)	0.00379	α(K)=0.00299 *5*; α(L)=0.000464 *7*; α(M)=0.0001064 *15* α(N)=2.63×10^{-5} *4*; α(O)=4.75×10^{-6} *7*; α(P)=3.29×10^{-7} *5*; α(IPF)=0.000196 *3* %Iγ=0.0873 *25* E_γ,I_γ: from 2015Do06. Others:1675.1 *5* (1996TeZW) with Iγ=0.10 *7* (1996TeZW); 1675.7 *3* (1974HeYW) with Iγ=0.27 *4*, 1675.9 *6* with Iγ=0.17 *5*, and 1675.9 *3* with Iγ=0.226 *25* for a composite peak. See also 1676γ placed from 2298 level. Mult.: α(K)exp=0.0048 *14* (1970Be30) for a composite peak. Ice(K)=0.0195 *25*, unweighted average of 0.0170 *10* (1964Be23) and 0.0220 *22* (1960Ba17), for a composite peak.
1676.111 *21*	0.121 *1*	2298.160	1$^+$	622.023	2$^+$	(M1)	0.00379	α(K)=0.00299 *5*; α(L)=0.000463 *7*; α(M)=0.0001062 *15* α(N)=2.63×10^{-5} *4*; α(O)=4.74×10^{-6} *7*; α(P)=3.29×10^{-7} *5*; α(IPF)=0.000196 *3* %Iγ=0.0760 *22* E_γ: from 2015Do06. Others: 1675.9 *3* (1996TeZW); 1675.9 *6* (1970Be30), 1675.7 *3* (1974HeYW), and 1675.9 *5* (1960Ba17) for a composite peak. I_γ: from 2015Do06. Others: 0.13 *7* (1996TeZW); 0.17 *5* (1970Be30), 0.226 *25* (1971Vi15), and 0.27 *4* (1974HeYW) for a composite peak.

γ(^{194}Pt) (continued)

E_γ †	I_γ †d	E_i(level)	J^π_i	E_f	J^π_f	Mult.c	δc	αe	Comments
									Mult.: α(K)exp=0.0048 *14* (1970Be30) for a composite peak. Ice(K)=0.0195 *25*, unweighted average of 0.0170 *10* (1964Be23) and 0.0220 *22* (1960Ba17), for a composite peak.
1689.845 *14*	0.212 *3*	2311.879	2$^+$	622.023	2$^+$	(M1(+E2))	<0.4	0.00362 *12*	α(K)=0.00284 *10*; α(L)=0.000441 *15*; α(M)=0.000101 *4* α(N)=2.50×10^{-5} *9*; α(O)=4.51×10^{-6} *15*; α(P)=3.12×10^{-7} *11*; α(IPF)=0.000199 *6* %Iγ=0.133 *4* E_γ: weighted average of 1689.87 *3* (1996TeZW) and 1689.839 *14* (2015Do06). Others: 1690.1 *6* (1970Be30), 1689.7 *2* (1974HeYW), and 1690.2 *4* (1960Ba17). I_γ: weighted average of 0.20 *6* (1970Be30), 0.28 *4* (1971Vi15), 0.28 *5* (1974HeYW), 0.202 *7* (1996TeZW), and 0.212 *2* (2015Do06). Mult.,δ: α(K)exp=0.0036 *5* deduced from Ice(K)=0.0158 *22* and Iγ=0.213 *3* here, give δ(E2/M1)<0.4 or δ(M2/E1)=0.95 *+17−15*, with the former consistent with Δπ=+. Other α(K)exp: 0.0034 *11* (1970Be30). Ice(K)=0.0158 *22*, unweighted average of 0.0136 *10* (1964Be23) and 0.0180 *18* (1960Ba17).
1715.235 *16*	1.175 *14*	2043.715	1$^+$	328.474	2$^+$	E2+M1	−1.10 *12*	0.00279 *10*	α(K)=0.00217 *8*; α(L)=0.000339 *12*; α(M)=7.8×10^{-5} *3* α(N)=1.92×10^{-5} *7*; α(O)=3.46×10^{-6} *12*; α(P)=2.34×10^{-7} *9*; α(IPF)=0.000179 *5* %Iγ=0.738 *22* E_γ: weighted average of 1715.16 *20* (1970Be30), 1715.23 *6* (1974HeYW), 1715.195 *21* (1996TeZW), 1715.252 *14* (2015Do06), and 1715.7 *3* (1960Ba17). I_γ: from 2015Do06. Others: 1.30 *25* (1964Be23), 1.12 *9* (1970Be30), 1.14 *10* (1974HeYW), 1.20 *4* (1996TeZW); 0.12 *4* in Table I of 1971Vi15 is most likely a typo and should be 1.2 *4*, considering other Iγ values are in agreement with those of other studies. Mult.,δ: α(K)exp=0.0026 *5* deduced from Ice(K)=0.053 *5* and Iγ=1.175 *14* here, gives δ(E2/M1)<1.3 or δ(M2/E1)=0.69 *+14−13*, with the former consistent with δ=−1.10 *12* from γγ(θ) of 1996TeZW. Other α(K)exp: 0.0019 *+8−5* (1964Be23), 0.00223 *23* (1970Be30). (1715γ)(328γ)(θ): A_2=+0.60 *4*, A_4=−0.33 *6*. Ice(K)=0.053 *5*, weighted average of 0.051 *3* (1964Be23) and 0.064 *7* (1960Ba17).
1724.40 *14*	0.0894 *9*	2053.016	(2)$^+$	328.474	2$^+$				%Iγ=0.0562 *17* E_γ: unweighted average of 1724.26 *6* (1996TeZW) and 1724.539 *17* (2015Do06). Other: 1724.1 *13* (1970Be30). I_γ: weighted average of 0.096 *7* (1996TeZW) and 0.0893 *9* (2015Do06). Other: 0.13 *7* (1970Be30).
1735.245 *14*	0.475 *5*	2063.739	2$^+$	328.474	2$^+$	M1+E2	+0.12 *6*	0.00351 *6*	α(K)=0.00273 *5*; α(L)=0.000422 *7*; α(M)=9.68×10^{-5} *16*

From ENSDF

$^{194}_{78}Pt_{116}$-47

γ(^{194}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[c]	α[e]	Comments
								α(N)=2.39×10^{-5} *4*; α(O)=4.32×10^{-6} *7*; α(P)=2.99×10^{-7} *5*; α(IPF)=0.000230 *4* %Iγ=0.299 *9* E_γ: weighted average of 1735.2 *3* (1970Be30), 1735.3 *3* (1971Vi15), 1735.31 *10* (1974HeYW), 1735.21 *3* (1996TeZW), 1735.251 *14* (2015Do06). Other: 1735.8 *3* (1960Ba17) for a doublet. I_γ: weighted average of 0.492 *17* (1996TeZW) and 0.473 *5* (2015Do06). Others: 0.47 *4* (1970Be30), 0.46 (1974HeYW); 5.2 *4* in Table 1 of 1971Vi15 is most likely a typo and should be 0.52 *4*. Mult.,δ: α(K)exp=0.00292 *21*, from Ice(K)=0.0284 *20* and Iγ=0.475 *5* here, gives δ(E2/M1)<0.3 or δ(M2/E1)=0.80 *+7−6*, with only the former consistent with δ=+0.12 *6* for J(2063)=2 from $\gamma\gamma(\theta)$ of 1996TeZW. Other δ: −0.36 *5* for J(2063)=1 from $\gamma\gamma(\theta)$ of 1996TeZW. Other α(K)exp: >0.0041 for a doublet and 0.00278 *29* (1970Be30). (1735γ)(328γ)(θ): A_2=+0.15 *5*, A_4=−0.13 *8*. Ice(K)=0.0284 *20*, weighted average of 0.0262 *15* (1964Be23), 0.031 *2* (1971Vi15), and 0.034 *4* (1960Ba17).
1735.5[h] *3*	<0.31	2356.065	0$^+$	622.023	2$^+$			%Iγ<0.20 E_γ,I_γ: placement from 1960Ba17 and 1964Be23 only. See also the 1735 transition from 2064 level. Level-energy difference=1734.0.
1743.77 *15*	0.0373 *5*	2365.932	1$^+$	622.023	2$^+$			%Iγ=0.0234 *7* E_γ: unweighted average of 1743.63 *13* (1996TeZW) and 1743.918 *18* (2015Do06). I_γ: from 2015Do06. Other: 0.041 *5* (1996TeZW), 0.052 *15* (1977Vy01).
1756.998 *14*	0.0949 *9*	2085.474	0$^+$	328.474	2$^+$	(E2)	0.00204	α(K)=0.001564 *22*; α(L)=0.000245 *4*; α(M)=5.64×10^{-5} *8* α(N)=1.391×10^{-5} *20*; α(O)=2.49×10^{-6} *4*; α(P)=1.632×10^{-7} *23*; α(IPF)=0.0001621 *23* %Iγ=0.0596 *17* E_γ: from 2015Do06. Others: 1757.2 *6* (1970Be30), 1756.98 *6* (1996TeZW), and 1757.6 *15* (1960Ba17). I_γ: weighted average of 0.10 *3* (1970Be30), 0.096 *7* (1996TeZW), and 0.0949 *9* (2015Do06). Other: 0.0566 *19* (1971Vi15) is discrepant. Mult.: α(K)exp=0.00103 *11* deduced from Ice(K)=0.0020 *2* and Iγ=0.0949 *9* here, gives Mult=E2 or δ(M2/E1)=0.26 *+4−5*, but ΔJ^π=2$^+$ requires E2. Ice(K)=0.0020 *2* (1960Ba17). Other: 0.0018 (1964Be23).
1775.795[b] *27*	0.0339 *6*	2397.320	2$^+$	622.023	2$^+$			%Iγ=0.0213 *7* E_γ,I_γ: from 2015Do06. Other: 1775.82 *21* with Iγ=0.033 *8* (1996TeZW). Level-energy difference=1775.288.
1778.532 *20*	0.061 *2*	1778.579	2$^+$	0.0	0$^+$	(E2)	0.00201	α(K)=0.001530 *22*; α(L)=0.000240 *4*; α(M)=5.50×10^{-5} *8* α(N)=1.358×10^{-5} *19*; α(O)=2.43×10^{-6} *4*; α(P)=1.596×10^{-7} *23*; α(IPF)=0.0001712 *24* %Iγ=0.0383 *16* E_γ: from 2015Do06. Others: 1778.6 *4* (1971Vi15) and 1778.52 *16* (1996TeZW). I_γ: from 2015Do06. Others: 0.082 *19* (1971Vi15) and 0.066 *10* (1996TeZW).

$\gamma(^{194}$Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [c]	δ [c]	α [e]	Comments
									Mult.: α(K)exp=0.0022 *10* deduced from Ice(K)=0.0028 *11* (1971Vi15) and Iγ=0.061 *2* here, gives M1,E2, and ΔJ^π requires E2.
1780.543 *22*	0.0474 *8*	2109.088	(2)$^+$	328.474	2$^+$				%Iγ=0.0298 *10* E_γ,I_γ: from 2015Do06. Other: 1780.57 *19* with Iγ=0.055 *10* (1996TeZW).
1785.636 *17*	0.672 *6*	2114.102	1$^+$	328.474	2$^+$	M1(+E2)	−0.04 *3*	0.00333	α(K)=0.00255 *4*; α(L)=0.000395 *6*; α(M)=9.06×10^{-5} *13* α(N)=2.24×10^{-5} *4*; α(O)=4.04×10^{-6} *6*; α(P)=2.80×10^{-7} *4*; α(IPF)=0.000263 *4* %Iγ=0.422 *12* E_γ: weighted average of 1785.63 *20* (1970Be30), 1785.7 *4* (1971Vi15), 1785.47 *7* (1974HeYW), 1785.62 *3* (1996TeZW), 1785.645 *14* (2015Do06), and 1786.3 *4* (1960Ba17). I_γ: from 2015Do06. Others: 0.64 *8* (1970Be30), 0.61 *5* (1971Vi15), 0.62 *6* (1974HeYW), and 0.689 *25* (1996TeZW). Mult.,δ: α(K)exp=0.00276 *15* deduced from Ice(K)=0.038 *2* and Iγ=0.672 *6* here, gives δ(E2/M1)<0.2 or δ(M2/E1)=0.81 *5*, with only the former consistent with δ=−0.04 *3* from $\gamma\gamma(\theta)$ of 1996TeZW. Other α(K)exp: 0.0033 *4* (1971Vi15), 0.0027 *4* (1970Be30), >0.0042 (1964Be23). (1786γ)(328γ)(θ): A_2=−0.20 *3*, A_4=−0.04 *6*. Ice(K)=0.038 *2*, weighted average of 0.036 *2* (1964Be23), 0.041 *3* (1971Vi15), and 0.044 *5* (1960Ba17).
1790.6 *1*	0.006 *1*	2412.744	1$^+$	622.023	2$^+$				%Iγ=0.0038 *6* E_γ,I_γ: from 2015Do06. Other: 1790.2 *20* unplaced (1970Be30).
1797.404 *14*	0.940 *9*	1797.384	1$^-$	0.0	0$^+$	E1		1.16×10^{-3}	α(K)=0.000649 *9*; α(L)=9.28×10^{-5} *13*; α(M)=2.11×10^{-5} *3* α(N)=5.19×10^{-6} *8*; α(O)=9.35×10^{-7} *13*; α(P)=6.44×10^{-8} *9*; α(IPF)=0.000393 *6* %Iγ=0.591 *17* E_γ: weighted average of 1797.418 *14* (2015Do06), 1798.0 *4* (1960Ba17), 1797.44 *20* (1970Be30), 1797.3 *4* (1971Vi15), 1797.31 *8* (1974HeYW), and 1797.378 *21* (1996TeZW). I_γ: weighted average of 0.935 *9* (2015Do06), 0.95 *8* (1970Be30), 0.94 *7* (1971Vi15), 1.06 *10* (1974HeYW), and 0.98 *3* (1996TeZW). Mult.: α(K)exp>0.0028 (1964Be23), 0.00107 *11* (1970Be30), 0.00078 *12* (1971Vi15). Ice(K)=0.021 *3*, unweighted average of 0.021 *1* (1964Be23), 0.015 *2* (1971Vi15), and 0.026 *3* (1960Ba17). Additional information 22.

$^{194}_{78}$Pt$_{116}$-49

^{194}Au ε decay (38.02 h) 2015Do06,1996TeZW,1971Vi15 (continued)

$\gamma(^{194}$Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [c]	δ [c]	α [e]	Comments
1802.637 [f] *14*	0.198 [f] *3*	1802.646?	1$^+$,2$^+$	0.0	0$^+$	M1,E2		0.0026 *7*	α(K)=0.0020 *5*; α(L)=0.00031 *8*; α(M)=7.1×10^{-5} *18* α(N)=1.8×10^{-5} *5*; α(O)=3.2×10^{-6} *8*; α(P)=2.1×10^{-7} *6*; α(IPF)=0.00023 *5* %Iγ=0.124 *4* E_γ: from 2015Do06 for a doublet. Others: 1802.62 *4* (1996TeZW), 1803.0 *6* (1970Be30), 1803.1 *4* (1971Vi15), and 1803.1 *8* (1960Ba17) could be also for a doublet. I_γ: from 2015Do06 for a doublet. Others: 0.21 *1* (1996TeZW), 0.25 *8* (1971Vi15), and 0.30 *9* (1970Be30) could be also for a doublet; 0.87 *25* (1964Be23) is discrepant. Mult.: α(K)exp=0.0018 *9* (1970Be30), 0.0022 *+15−8* (1971Vi15), ≈0.00062 (1964Be23) for a composite peak. Ice(K)=0.0122 *12*, weighted average of 0.0115 *12* (1971Vi15) and 0.0130 *13* (1960Ba17) for a composite peak. Other: ≈0.011 (1964Be23).
1802.637 [f] *14*	0.198 [f] *3*	2131.127	(2$^+$)	328.474	2$^+$	M1,E2		0.0026 *7*	α(K)=0.0020 *5*; α(L)=0.00031 *8*; α(M)=7.1×10^{-5} *18* α(N)=1.8×10^{-5} *5*; α(O)=3.2×10^{-6} *8*; α(P)=2.1×10^{-7} *6*; α(IPF)=0.00023 *5* %Iγ=0.124 *4* E_γ,I_γ: from 2015Do06 only. See also placement from 1802 level. Mult.: α(K)exp=0.0018 *9* (1970Be30), 0.0022 *+15−8* (1971Vi15), ≈0.00062 (1964Be23) for a doublet.
1805.729 [b] *14*	0.219 *3*	2134.107	1$^+$,2$^+$	328.474	2$^+$	M1(+E2)	<0.5	0.00313 *14*	α(K)=0.00239 *11*; α(L)=0.000369 *16*; α(M)=8.5×10^{-5} *4* α(N)=2.09×10^{-5} *10*; α(O)=3.78×10^{-6} *17*; α(P)=2.61×10^{-7} *13*; α(IPF)=0.000266 *10* %Iγ=0.138 *4* E_γ: from 2015Do06. Others: 1805.7 *6* (1970Be30), 1806.1 *4* (1971Vi15), 1805.72 *3* (1996TeZW), and 1805.9 *8* (1960Ba17). Level-energy difference=1805.624. I_γ: weighted average of 0.29 *9* (1970Be30), 0.32 *8* (1971Vi15), 0.237 *12* (1996TeZW), and 0.218 *2* (2015Do06). Mult.,δ: α(K)exp=0.0026 *3*, from Ice(K)=0.0117 *12* and Iγ=0.219 *3* here gives δ(E2/M1)<0.5 or δ(M2/E1)=0.79 *10*, with only the former consistent with δ=−0.25 *4* for J(2134)=1 or +0.27 *6* for J(2134)=2 from $\gamma\gamma(\theta)$ of 1996TeZW. Other α(K)exp: >0.0015 (1964Be23), 0.0017 *9* (1970Be30), 0.0017 *+9−5* (1971Vi15). (1806γ)(328γ)(θ): A_2=+0.03 *5*, A_4=−0.07 *8*. Ice(K)=0.0117 *12*, weighted average of 0.0113 *12* (1971Vi15) and 0.0120 *12* (1960Ba17).
1812.228 *17*	0.0503 *8*	2140.698	(1$^+$,2$^+$)	328.474	2$^+$	(M1)		0.00324	α(K)=0.00246 *4*; α(L)=0.000381 *6*; α(M)=8.73×10^{-5} *13* α(N)=2.16×10^{-5} *3*; α(O)=3.90×10^{-6} *6*; α(P)=2.70×10^{-7} *4*; α(IPF)=0.000280 *4*

γ(^{194}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[c]	δ[c]	α[e]	Comments
									%Iγ=0.0316 *10* E_γ: from 2015Do06. Others: 1812.21 *25* (1996TeZW), and 1812.8 *6* (1960Ba17). I_γ: from 2015Do06. Other: 0.055 *12* (1996TeZW). Mult.: α(K)exp=0.0042 *4*, from Ice(K)=0.0043 *4* and Iγ=0.0503 *8* here gives Mult=M1 or δ(M2/E1)=1.5 *+4−3*, with the former more likely. Ice(K)=0.0043 *4*, weighted average of 0.0041 *3* (1964Be23) and 0.0050 *5* (1960Ba17).
1816.33[h] *17*	<0.002	1816.585	(2)$^+$	0.0	0$^+$				%Iγ=6×10^{-4} *6* E_γ: from 1996TeZW. Other: 1817.0 *5* (1977Vy01). I_γ: from 2015Do06. Others: 0.014 *5* (1996TeZW), 0.06 *2* (1977Vy01).
1829.519 *14*	0.392 *4*	2157.996	(2)$^+$	328.474	2$^+$	M1(+E2)	<0.3	0.00313 *7*	α(K)=0.00237 *6*; α(L)=0.000366 *8*; α(M)=8.39×10^{-5} *18* α(N)=2.08×10^{-5} *5*; α(O)=3.75×10^{-6} *9*; α(P)=2.59×10^{-7} *6*; α(IPF)=0.000287 *6* %Iγ=0.246 *7* E_γ: weighted average of 1829.50 *3* (1996TeZW) and 1829.523 *14* (2015Do06). Others: 1829.6 *3* (1970Be30), 1829.41 *10* (1974HeYW), and 1830.1 *3* (1960Ba17). I_γ: from 2015Do06. Others: 0.48 *19* (1964Be23), 0.39 *3* (1970Be30), 0.365 *19* (1971Vi15), 0.41 *5* (1974HeYW), 0.421 *17* (1996TeZW). Mult.,δ: α(K)exp=0.0029 *3*, from Ice(K)=0.0232 *24* and Iγ=0.392 *4* here, gives δ(E2/M1)<0.3 or δ(M2/E1)=0.92 *12*, with only the former consistent with −0.41 *7* for J(2158)=1, +0.02 *12* for J(2158)=2 from γγ(θ) of 1996TeZW. Other α(K)exp: 0.0022 *+20−9* (1964Be23), 0.0028 *3* (1970Be30). (1829γ)(328γ)(θ): A_2=+0.23 *8*, A_4=−0.01 *12*. Ice(K)=0.0232 *24*, weighted average of 0.0220 *15* (1964Be23) and 0.028 *3* (1960Ba17).
1835.274 *14*	0.642 *6*	2163.745	0$^+$	328.474	2$^+$	E2		0.00193	α(K)=0.001445 *21*; α(L)=0.000225 *4*; α(M)=5.17×10^{-5} *8* α(N)=1.276×10^{-5} *18*; α(O)=2.29×10^{-6} *4*; α(P)=1.507×10^{-7} *21*; α(IPF)=0.000196 *3* %Iγ=0.403 *12* E_γ: weighted average of 1835.33 *7* (1974HeYW), 1835.244 *24* (1996TeZW), and 1835.282 *14* (2015Do06). Others: 1835.19 *20* (1970Be30) and 1835.9 *4* (1960Ba17). I_γ: from 2015Do06. Others: 0.45 *19* (1964Be23), 0.58 *4* (1970Be30), 0.66 *4* (1971Vi15), 0.64 *6* (1974HeYW), 0.679 *25* (1996TeZW). Mult.: α(K)exp=0.00154 *12* deduced from Ice(K)=0.0203 *16* and Iγ=0.642 *6* here. Other α(K)exp: 0.0021 *+20−8* (1964Be23), 0.00166 *15* (1970Be30). Ice(K)=0.0203 *16*, weighted average of 0.0196 *10* (1964Be23) and 0.0240 *24* (1960Ba17).

γ(^{194}Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [c]	δ [c]	α [e]	Comments
1856.403 *17*	0.0604 *8*	2184.910	$1^+,2^+$	328.474	2^+				%Iγ=0.0380 *12* E_γ: from 2015Do06. Others: 856.37 *7* (1996TeZW), 1856.3 *13* (1970Be30). I_γ: weighted average of 0.058 *3* (1996TeZW), 0.0606 *6* (2015Do06), 0.050 *5* (1971Vi15), and 0.07 *4* (1970Be30).
1885.95 *7*	2.64 *6*	2214.523	(2^+)	328.474	2^+	M1(+E2)	<0.3	0.00296 *7*	α(K)=0.00220 *5*; α(L)=0.000339 *8*; α(M)=7.78×10^{-5} *17* α(N)=1.92×10^{-5} *4*; α(O)=3.47×10^{-6} *8*; α(P)=2.41×10^{-7} *6*; α(IPF)=0.000323 *7* %Iγ=1.66 *6* E_γ: unweighted average of 1885.9 *4* (1971Vi15), 1885.86 *6* (1996TeZW), and 1886.078 *14* (2015Do06). Other: 1886.50 *5* (1974HeYW), 1886.8 *3* (1960Ba17), 1886.50 *15* (1970Be30) for a composite peak. I_γ: weighted average of 2.1 *4* (1996TeZW) and 2.65 *4* (2015Do06). Others: 5.7 *9* (1971Vi15), 5.3 *3* (1974HeYW), 5.84 *25* (1964Be23), and 5.4 *3* (1970Be30) for a composite peak. Additional information 31. Mult.,δ: α(K)exp=0.0029 *3* deduced from Ice(K)=0.156 *15* (1971Vi15) and Iγ=2.64 *6* here, gives δ(E2/M1)<0.3 or δ(M2/E1)=1.00 *+14−12*, with only the former consistent with δ=−0.26 *3* for J(2214)=1, +0.25 *4* for J(2214)=2 from $\gamma\gamma(\theta)$ of 1996TeZW. Other α(K)exp: 0.00207 *12* (1970Be30) and 0.00192 *+27−24* (1964Be23) for a composite peak, consistent with M1. (1886γ)(328γ)(θ): A_2=+0.04 *3*, A_4=−0.15 *6*. Other Ice(K): 0.230 *4* (1964Be23) and 0.28 *3* (1960Ba17) for for a composite peak.
1887.030 *23*	3.3 *4*	2215.530	1^+	328.474	2^+	(M1+E2)	+0.75 *24*	0.00260 *18*	α(K)=0.00192 *14*; α(L)=0.000297 *21*; α(M)=6.8×10^{-5} *5* α(N)=1.68×10^{-5} *12*; α(O)=3.04×10^{-6} *22*; α(P)=2.08×10^{-7} *16*; α(IPF)=0.000289 *18* %Iγ=2.1 *3* E_γ: weighted average of 1887.0 *4* (1971Vi15), 1886.89 *6* (1996TeZW), and 1887.037 *14* (2015Do06). Others: 1886.50 *5* (1974HeYW), 1886.8 *3* (1960Ba17), 1886.50 *15* (1970Be30) for a composite peak. I_γ: unweighted average of 3.7 *3* (1996TeZW), and 2.84 *4* (2015Do06). Others: 5.7 *9* (1971Vi15), 5.3 *3* (1974HeYW), 5.84 *25* (1964Be23), and 5.4 *3* (1970Be30) for a composite peak. Mult.: α(K)exp=0.00167 *25* deduced from Ice(K)=0.113 *12* (1971Vi15) and Iγ=3.3 *4* here; α(K)exp: 0.00207 *12* (1970Be30) and 0.00192 *+27−24* for a composite peak. See also comments for 1886γ from 2214 level.

γ(^{194}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[c]	α[e]	$I_{(\gamma+ce)}$[d]	Comments
									δ: from $\gamma\gamma(\theta)$ of 1996TeZW. Other: 1.4 *+29−6* from ce data above. (1887γ)(328γ)(θ): A_2=−0.66 *7*, A_4=−0.29 *12*. Other Ice(K): 0.230 *4* (1964Be23) and 0.28 *3* (1960Ba17) for for a composite peak.
1893.1[h] *4*		1893.574	0^+	0.0	0^+	(E0)		0.0010 *1*	E_γ,Mult.: transition seen in ce data only (1960Ba17, 1964Be23). $I_{(\gamma+ce)}$: deduced from Ice(K)=0.0175 *18* and ce(K)/ce=0.8626 for E0 (BrIcc). Ice(K)=0.0175 *18*, weighted average of 0.015 *4* (1964Be23) and 0.0180 *18* (1960Ba17).
1911.154 *14*	0.201 *2*	2239.635	$(2)^-$	328.474	2^+	E1	1.17×10^{-3}		α(K)=0.000587 *9*; α(L)=8.38×10^{-5} *12*; α(M)=1.90×10^{-5} *3* α(N)=4.69×10^{-6} *7*; α(O)=8.44×10^{-7} *12*; α(P)=5.83×10^{-8} *9*; α(IPF)=0.000476 *7* %Iγ=0.126 *4* E_γ: weighted average of 1911.1 *6* (1970Be30), 1911.30 *15* (1974HeYW), 1911.08 *4* (1996TeZW), 1911.162 *14* (2015Do06), and 1911.1 *5* (1960Ba17). I_γ: from 2015Do06. Others: 0.209 *24* (1970Be30), 0.174 *16* (1971Vi15), 0.21 *3* (1974HeYW), and 0.209 *10* (1996TeZW). Mult.: α(K)exp=0.00065 *23* (1970Be30). Ice(K)=0.0028 *9* (1964Be23).
1922.171[h] *22*	0.156 *3*	2250.665?	$(1,2^+)$	328.474	2^+				%Iγ=0.098 *3* E_γ,I_γ: from 2015Do06 only.
1924.273 *20*	3.27 *5*	1924.282	1^+	0.0	0^+	M1	0.00290		α(K)=0.00212 *3*; α(L)=0.000328 *5*; α(M)=7.51×10^{-5} *11* α(N)=1.86×10^{-5} *3*; α(O)=3.36×10^{-6} *5*; α(P)=2.33×10^{-7} *4*; α(IPF)=0.000352 *5* %Iγ=2.05 *7* E_γ: weighted average of 1924.13 *15* (1970Be30), 1924.2 *4* (1971Vi15), 1924.18 *5* (1974HeYW), 1924.225 *22* (1996TeZW), 1924.300 *14* (2015Do06), and 1924.60 *20* (1960Ba17). I_γ: weighted average of 3.26 *13* (1964Be23), 3.30 *17* (1970Be30), 3.5 *7* (1971Vi15), 3.22 *20* (1974HeYW), 3.63 *13* (1996TeZW), and 3.24 *4* (2015Do06). Mult.: α(K)exp=0.00225 *11* (1964Be23), 0.00219 *13* (1970Be30), and 0.0021 *+6−4* (1971Vi15) gives δ<0.3. Ice(K)=0.150 *3*, weighted average of 0.148 *3* (1964Be23), 0.151 *3* (1971Vi15), and 0.180 *18* (1960Ba17). Additional information 24.

$\gamma(^{194}Pt)$ (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult. [c]	δ [c]	α [e]	Comments
1930.35 [a] *9*	0.0027 [a] *7*	1930.369	2^+	0.0	0^+				%Iγ=0.0017 *5*
1958.898 *14*	0.272 *3*	2287.375	$(1^+,2^+)$	328.474	2^+	(M1(+E2))	<0.6	0.00268 *14*	α(K)=0.00193 *11*; α(L)=0.000298 *16*; α(M)=6.8×10^{-5} *4* α(N)=1.69×10^{-5} *9*; α(O)=3.05×10^{-6} *17*; α(P)=2.11×10^{-7} *13*; α(IPF)=0.000359 *18* %Iγ=0.171 *5* E_γ: weighted average of 1958.87 *3* (1996TeZW) and 1958.904 *14* (2015Do06). Others: 1958.9 *3* (1970Be30), 1958.74 *20* (1974HeYW), and 1959.7 *6* (1960Ba17). I_γ: weighted average of 0.277 *13* (1971Vi15), 0.288 *13* (1996TeZW), and 0.271 *3* (2015Do06). Others: 0.30 *13* (1964Be23), 0.27 *3* (1970Be30), and 0.26 *4* (1974HeYW). Mult.: α(K)exp=0.0018 *4* (1970Be30), 0.0016 *+20−8* (1964Be23). Ice(K)=0.0115 *12*, weighted average of 0.010 *2* (1964Be23) and 0.0120 *12* (1960Ba17). Mult.,δ: α(K)exp=0.00206 *22* deduced from Ice(K)=0.0115 *12* and Iγ=0.272 *3* here, gives δ(E2/M1)<0.6 or δ(M2/E1)=0.75 *9*, with the former more likely.
1969.680 *14*	0.750 *7*	2298.160	1^+	328.474	2^+	M1+E2	−0.35 *4*	0.00268 *5*	α(K)=0.00192 *4*; α(L)=0.000297 *5*; α(M)=6.81×10^{-5} *12* α(N)=1.68×10^{-5} *3*; α(O)=3.04×10^{-6} *5*; α(P)=2.10×10^{-7} *4*; α(IPF)=0.000368 *6* %Iγ=0.471 *14* E_γ: weighted average of 1969.65 *7* (1974HeYW), 1969.64 *3* (1996TeZW), and 1969.690 *14* (2015Do06). Others: 1969.63 *20* (1970Be30) and 1970.1 *3* (1960Ba17). I_γ: from 2015Do06. Others: 0.68 *9* (1964Be23), 0.72 *4* (1970Be30), 0.742 *25* (1971Vi15), 0.71 *7* (1974HeYW), and 0.80 *3* (1996TeZW). Mult.,δ: α(K)exp=0.00184 *13* deduced from Ice(K)=0.0283 *20* and Iγ=0.750 *7* here, gives δ(E2/M1)=0.54 *+29−33* or δ(M2/E1)=0.67 *5*, with only the former consistent with δ=−0.35 *4* from γγ(θ) of 1996TeZW. Other α(K)exp: 0.0019 *+6−5* (1964Be23), 0.00184 *18* (1970Be30), and 0.0017 *5* (1971Vi15). (1970γ)(328γ)(θ): A_2=+0.14 *5*, A_4=−0.09 *8*. Ice(K)=0.0283 *20*, weighted average of 0.0271 *20* (1964Be23), 0.026 *7* (1971Vi15), and 0.034 *4* (1960Ba17).
1983.411 *17*	0.0593 *6*	2311.879	2^+	328.474	2^+	M1+E2+E0		0.026 *4*	%Iγ=0.0373 *11* E_γ: from 2015Do06. Others: 1984.1 *6* (1970Be30), 1983.3 *4* (1971Vi15), 1983.39 *7* (1996TeZW), and 1983.9 *4* (1960Ba17). I_γ: weighted average of 0.06 *2* (1970Be30), 0.060 *5*

From ENSDF

γ(^{194}Pt) (continued)

E_{γ}[†]	I_{γ}[†d]	E_i(level)	J_i^{π}	E_f	J_f^{π}	Mult.[c]	δ[c]	α[e]	Comments
									(1971Vi15), 0.070 *7* (1996TeZW), and 0.0592 *6* (2015Do06). Other: 0.21 *11* (1964Be23). Mult.: α(K)exp=0.0198 *33* deduced from Ice(K)=0.024 *4* and Iγ=0.0593 *6* here. This large value can be explained only by the presence of a strong E0 component. Other α(K)exp: 0.0034 *11* (1970Be30). α: from 1.33(α(K)exp), where α(K)exp=0.0198 *33*. Ice(K)=0.024 *4*, unweighted average of 0.0225 *20* (1964Be23), 0.018 *3* (1971Vi15), and 0.030 *3* (1960Ba17).
2003.651[a] *19*	0.0120[a] *5*	2003.665	(2^{+})	0.0	0^{+}				%Iγ=0.0075 *4*
2027.608[&h] *20*	0.0077[&] *2*	2356.065	0^{+}	328.474	2^{+}				%Iγ=0.00484 *18*
2043.719 *15*	5.95 *4*	2043.715	1^{+}	0.0	0^{+}	M1		0.00263	α(K)=0.00183 *3*; α(L)=0.000282 *4*; α(M)=6.46$\times10^{-5}$ *9* α(N)=1.599$\times10^{-5}$ *23*; α(O)=2.89$\times10^{-6}$ *4*; α(P)=2.01$\times10^{-7}$ *3*; α(IPF)=0.000431 *6* %Iγ=3.74 *11* E_{γ}: weighted average of 2043.67 *6* (1974HeYW), 2043.68 *3* (1996TeZW), and 2043.730 *14* (2015Do06). Others: 2043.67 *15* (1970Be30) and 2044.1 *4* (1960Ba17). I_{γ}: weighted average of 6.21 *25* (1964Be23), 6.0 *3* (1970Be30), 6.3 *3* (1971Vi15), 5.92 *4* (1974HeYW), 6.3 *3* (1996TeZW), and 6.01 *8* (2015Do06). Mult.: α(K)exp=0.00189 *7*, from Ice(K)=0.231 *8* and Iγ=5.95 *4* here gives δ(E2/M1)<0.2 or δ(M2/E1)=0.76 *3*, with only the former consistent with this transition feeding 0^{+} g.s., which requires pure dipole. Other α(K)exp: 0.00181 *+25−22* (1964Be23), 0.00187 *11* (1970Be30). Additional information 28. Ice(K)=0.231 *8*, weighted average of 0.230 *5* (1964Be23) and 0.28 *3* (1960Ba17).
2063.764 *21*	0.0091 *4*	2063.739	2^{+}	0.0	0^{+}				%Iγ=0.0057 *3* E_{γ}: from 2015Do06. Others: 2063.68 *23* (1996TeZW), 2063.7 *5* (1977Vy01). I_{γ}: from 2015Do06. Others: 0.013 *4* (1996TeZW), 0.016 *4* (1977Vy01).
2068.869 *17*	0.0297 *21*	2397.320	2^{+}	328.474	2^{+}				%Iγ=0.0187 *14* E_{γ}: from 2015Do06. Other: 2068.96 *15* (1996TeZW), 2068.2 *13* (1970Be30). I_{γ}: unweighted average of 0.03 *2* (1970Be30), 0.0352 *11* (1971Vi15), 0.028 *5* (1996TeZW), and 0.0254 *3* (2015Do06).
2084.290 *17*	0.059 *4*	2412.744	1^{+}	328.474	2^{+}				%Iγ=0.037 *3* E_{γ}: weighted average of 2084.15 *12* (1996TeZW), 2084.288 *17* (2015Do06), and 2083.2 *1.3* (1970Be30). See also 2085γ from 2085 level. I_{γ}: unweighted average of 0.0578 *10* (1971Vi15), 0.056 *7* (1996TeZW), 0.0505 *5* (2015Do06), and 0.07 *4* (1970Be30).

From ENSDF

$\gamma(^{194}Pt)$ (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[c]	α[e]	$I_{(\gamma+ce)}$[d]	Comments
2085.8 *4*		2085.474	0^+	0.0	0^+	E0		0.0063 *2*	E_γ: seen in ce data (1960Ba17, 1964Be23). $I_{(\gamma+ce)}$: deduced from Ice(K)=0.111 *4* and ce(K)/ce=0.8630 for E0 (BrIcc). Mult.: α(K)exp>0.054 (1964Be23), >0.13 (1970Be30), >0.13 (1971Vi15), which are larger than any of pure Mult for this transition feeding 0^+ g.s., and can be explained only by this transition being E0. Ice(K)=0.111 *4*, weighted average of 0.110 *5* (1971Vi15), 0.110 *4* (1964Be23), and 0.130 *13* (1960Ba17).
2114.100 *14*	0.421 *4*	2114.102	1^+	0.0	0^+	M1	0.00250		α(K)=0.001684 *24*; α(L)=0.000259 *4*; α(M)=5.94×10^{-5} *9* α(N)=1.469×10^{-5} *21*; α(O)=2.65×10^{-6} *4*; α(P)=1.84×10^{-7} *3*; α(IPF)=0.000478 *7* %Iγ=0.265 *8* E_γ: weighted average of 2114.06 *4* (1996TeZW) and 2114.105 *14* (2015Do06). Others: 2114.16 *20* (1970Be30), 2113.93 *20* (1974HeYW), and 2114.0 *4* (1960Ba17). I_γ: weighted average of 0.40 *9* (1964Be23), 0.40 *3* (1970Be30), 0.440 *13* (1971Vi15), 0.46 *5* (1974HeYW), 0.447 *23* (1996TeZW), and 0.418 *4* (2015Do06). Mult.: α(K)exp=0.00204 *22*, from Ice(K)=0.0176 *19* and Iγ=0.421 *4* here, gives δ(E2/M1)<0.4 or δ(M2/E1)=0.91 *+13−11*, with only the former consistent with this transition feeding 0^+ g.s., which requires pure dipole. Ice(K)=0.0176 *19*, weighted average of 0.0160 *20* (1964Be23) and 0.0190 *19* (1960Ba17).
2131.08[h] *7*	0.0016 *2*	2131.127	(2^+)	0.0	0^+				%Iγ=0.00101 *13* E_γ,I_γ: from 2015Do06 only.
2140.71[a] *8*	0.0005[a] *2*	2140.698	$(1^+,2^+)$	0.0	0^+				%Iγ=3.1×10^{-4} *13*
2164.1 *4*		2163.745	0^+	0.0	0^+	E0		0.018 *1*	E_γ: transition seen in ce data only (1960Ba17, 1964Be23). $I_{(\gamma+ce)}$: deduced from Ice(K)=0.314 *17* and ce(K)/ce=0.8631 for E0 (BrIcc). Mult.: α(K)exp>0.16 (1964Be23), >0.36 (1970Be30), which are larger than any of pure Mult for this transition feeding 0^+ g.s., and can be explained only by this transition being E0. Ice(K)=0.314 *17*, weighted average of 0.310 *10* (1964Be23) and 0.38 *4* (1960Ba17).
^{x}2199.6[@] *13*	0.02 *1*								E_γ,I_γ: from 1970Be30.
^{x}2204.0[@] *13*	0.02 *1*								E_γ,I_γ: from 1970Be30.
2214.47[a] *5*	0.015[a] *4*	2214.523	(2^+)	0.0	0^+				%Iγ=0.009 *3*
2215.509 *16*	0.267 *5*	2215.530	1^+	0.0	0^+	M1	0.00235		α(K)=0.001500 *21*; α(L)=0.000231 *4*; α(M)=5.28×10^{-5} *8* α(N)=1.307×10^{-5} *19*; α(O)=2.36×10^{-6} *4*; α(P)=1.642×10^{-7} *23*; α(IPF)=0.000546 *8*

γ(^{194}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[c]	α[e]	Comments
								%Iγ=0.168 *6* E_γ: weighted average of 2215.39 *21* (1970Be30), 2215.5 *4* (1971Vi15), 2215.15 *15* (1974HeYW), 2215.47 *6* (1996TeZW), 2215.515 *14* (2015Do06), and 2215.6 *7* (1960Ba17). I_γ: weighted average of 0.292 *19* (1964Be23), 0.282 *22* (1970Be30), 0.289 *19* (1971Vi15), 0.32 *4* (1974HeYW), 0.285 *18* (1996TeZW), and 0.263 *4* (2015Do06). Mult.: α(K)exp=0.00179 *23* (1964Be23), 0.00185 *23* (1970Be30), 0.0018 *3* (1971Vi15).
2250.73[h] *6*	0.0012 *1*	2250.665?	(1,2$^+$)	0.0	0$^+$			%Iγ=7.5×10^{-4} *7* E_γ,I_γ: from 2015Do06 only.
2287.28[a] *5*	0.0010[a] *2*	2287.375	(1$^+$,2$^+$)	0.0	0$^+$			%Iγ=6.3×10^{-4} *13*
2298.171 *17*	0.0426 *6*	2298.160	1$^+$	0.0	0$^+$	M1	0.00224	α(K)=0.001371 *20*; α(L)=0.000211 *3*; α(M)=4.82×10^{-5} *7* 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* %Iγ=0.0268 *8* E_γ: weighted average of 2297.9 *6* (1970Be30), 2298.2 *3* (1974HeYW), 2298.41 *14* (1996TeZW), 2298.167 *17* (2015Do06), and 2298.7 *10* (1960Ba17). I_γ: weighted average of 0.0453 *25* (1971Vi15), 0.0424 *5* (2015Do06), 0.046 *8* (1970Be30), and 0.056 *8* (1996TeZW). Other: 0.720 *15* (1974HeYW) is discrepant. Mult.: α(K)exp=0.00215 *23* deduced from Ice(K)=0.00188 *20* and Iγ=0.0426 *6* here. Other α(K)exp: 0.0017 *4* (1970Be30). Ice(K)=0.00188 *20*, weighted average of 0.0016 *3* (1964Be23) and 0.00200 *20* (1960Ba17).
2311.856 *14*	0.287 *4*	2311.879	2$^+$	0.0	0$^+$	(E2)	1.56×10^{-3}	α(K)=0.000954 *14*; α(L)=0.0001444 *21*; α(M)=3.30×10^{-5} *5* α(N)=8.16×10^{-6} *12*; α(O)=1.466×10^{-6} *21*; α(P)=9.91×10^{-8} *14*; α(IPF)=0.000415 *6* %Iγ=0.180 *6* E_γ: from 2015Do06. Others: 2311.72 *21* (1970Be30), 2312.01 *15* (1974HeYW), 2311.86 *8* (1996TeZW), and 2312.7 *8* (1960Ba17). I_γ: weighted average of 0.311 *25* (1964Be23), 0.278 *16* (1970Be30), 0.289 *19* (1971Vi15), 0.308 *20* (1996TeZW), and 0.286 *4* (2015Do06). Other: 0.28 *3* (1974HeYW). Mult.: α(K)exp=0.00122 *16* deduced from Ice(K)=0.0072 *9* and Iγ=0.287 *4* here, gives δ(E2/M1)<1.7 or δ(M2/E1)=0.64 *9*; but ΔJ^π requires E2. Other α(K)exp: 0.00110 *9* (1970Be30). Ice(K)=0.0072 *9*, unweighted average of 0.0063 *3* (1964Be23) and 0.0080 *8* (1960Ba17).
2357.0 *8*		2356.065	0$^+$	0.0	0$^+$	E0		E_γ,Mult.: transition seen in ce data only (1960Ba17, 1964Be23, 1970Be30). α(K)exp>0.014 (1964Be23) and >0.023 (1970Be30), are larger than any of pure Mult for this transition feeding 0$^+$ g.s., and can be explained only by this transition being E0. Ice(K)=0.0066 *5* (1964Be23), 0.0080 *8* (1960Ba17).

$^{194}_{78}$Pt$_{116}$-57

γ(^{194}Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [c]	α [e]	Comments
2365.919 *21*	0.0785 *11*	2365.932	1$^+$	0.0	0$^+$	M1	0.00218	α(K)=0.001276 *18*; α(L)=0.000196 *3*; α(M)=4.49×10^{-5} *7* α(N)=1.110×10^{-5} *16*; α(O)=2.00×10^{-6} *3*; α(P)=1.396×10^{-7} *20*; α(IPF)=0.000645 *9* %Iγ=0.0493 *15* E_γ: weighted average of 2365.56 *20* (1974HeYW), 2366.07 *12* (1996TeZW), 2365.919 *17* (2015Do06), and 2366.1 *8* (1960Ba17). I_γ: weighted average of 0.070 *6* (1964Be23), 0.076 *11* (1970Be30), 0.083 *8* (1971Vi15), 0.057 *10* (1974HeYW), 0.086 *10* (1996TeZW), and 0.0788 *9* (2015Do06). Mult.: α(K)exp=0.0018 *2* deduced from Ice(K)=0.0029 *3* and Iγ=0.0785 *11* here, gives δ(E2/M1)<0.3 or δ(M2/E1)=1.05 *+15−13*, but the latter is ruled out by this transition feeding 0$^+$. Other α(K)exp: 0.0017 *3* (1970Be30). Ice(K)=0.0029 *3*, weighted average of 0.0027 *3* (1964Be23) and 0.0030 *3* (1960Ba17).
^{x}2371 [@] *3*	≈0.02							γ reported only in the photo-electron data of 1964Be23.
2397.25 *4*	0.0054 *3*	2397.320	2$^+$	0.0	0$^+$	[E2]	1.52×10^{-3}	α(K)=0.000893 *13*; α(L)=0.0001348 *19*; α(M)=3.08×10^{-5} *5* α(N)=7.61×10^{-6} *11*; α(O)=1.369×10^{-6} *20*; α(P)=9.28×10^{-8} *13*; α(IPF)=0.000455 *7* %Iγ=0.00339 *21* E_γ: weighted average of 2397.7 *4* (1971Vi15), 2396.3 *4* (1996TeZW), 2397.246 *23* (2015Do06), and 2398.9 *10* (1960Ba17). I_γ: weighted average of 0.0063 *13* (1971Vi15), 0.007 *3* (1996TeZW), and 0.0053 *3* (2015Do06). Mult.: α(K)exp=0.0059 *7* deduced from Ice(K)=0.00065 *7* and Iγ=0.0054 *3* here, indicates Mult=M3, which is inconsistent with adopted J^π=2$^+$ based on L(p,d)=1+3 from 1/2$^-$. Ice(K)=0.00065 *7*, weighted average of 0.00055 *10* (1964Be23) and 0.00070 *7* (1960Ba17).
2412.693 *19*	0.0236 *4*	2412.744	1$^+$	0.0	0$^+$	M1	0.00213	α(K)=0.001216 *17*; α(L)=0.000187 *3*; α(M)=4.27×10^{-5} *6* α(N)=1.057×10^{-5} *15*; α(O)=1.91×10^{-6} *3*; α(P)=1.330×10^{-7} *19*; α(IPF)=0.000676 *10* %Iγ=0.0148 *5* E_γ: from 2015Do06. Others: 2412.3 *6* (1970Be30), 2412.98 *21* (1996TeZW), and 2413.5 *10* (1960Ba17). I_γ: weighted average of 0.0258 *25* (1971Vi15) and 0.0235 *4* (2015Do06). Others: 0.028 *5* (1970Be30) and 0.028 *7* (1996TeZW). Mult.: α(K)exp=0.0023 *3* deduced from Ice(K)=0.00111 *2* and Iγ=0.0236 *4* here, gives δ(E2/M1)<0.3 or δ(M2/E1)=1.5 *+4−3*, but this transition feeding 0$^+$ g.s. requires pure dipole. Other α(K)exp: 0.0017 *4* (1970Be30). Ice(K)=0.00111 *12*, weighted average of 0.00097 *15* (1964Be23) and 0.00120 *12* (1960Ba17).
^{x}2447.4 [@] *13*	0.02 *1*							E_γ,I_γ: from 1970Be30.

From ENSDF

$\gamma(^{194}Pt)$ (continued)

† The most precise values are given by 2015Do06 and 1996TeZW. Eγ values from 1971Vi15 are deduced by authors from ce lines, with uncertainties assigned by the evaluators as 0.3 keV for Eγ<0.8 MeV, 0.2 keV for Eγ=0.8-1.2 MeV, 0.3 for Eγ=1.2-1.8 MeV, and 0.4 keV for Eγ>1.8 MeV, according to an authors′ general statement that the mean error in measuring energy is ≈0.3 keV in the low-energy region, ≈0.2 keV near 1 MeV, and ≈0.4 keV near 2 MeV. Quoted values are weighted average of all available data where applicable. See comments of individual transitions for details. In cases where Iγ values have been deduced from I(ce) data, the data have been normalized to Ice(K)(328γ)=100 and α(K)(328γ)=0.0488.

‡ From ce data of 1971Vi15.

γ from 1997Te09 and 1996TeZW only, observed in coincidence with other γ rays with HERA array of 20 intrinsic germanium detectors.

@ Not reported by 1996TeZW and 2015Do06, its existence treated as uncertain by the evaluators.

& Possible new γ ray from 2015Do06.

[a] New γ ray from coincidence summing of crossover transitions in 2015Do06.

[b] Poor fit; the uncertainty has been increased by the evaluators by a factor of 5 in the fitting procedure to reduce the reduced χ^2 from 6.3 to 1.7, as compared to the critical χ^2=1.3.

[c] From Adopted Gammas, which are mostly from ce and $\gamma\gamma(\theta)$ data as given under comments in this dataset. Values from this dataset are also given under comments where applicable, if different from adopted values.

[d] For absolute intensity per 100 decays, multiply by 0.63 *2*.

[e] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

[f] Multiply placed with undivided intensity.

[g] Multiply placed with intensity suitably divided.

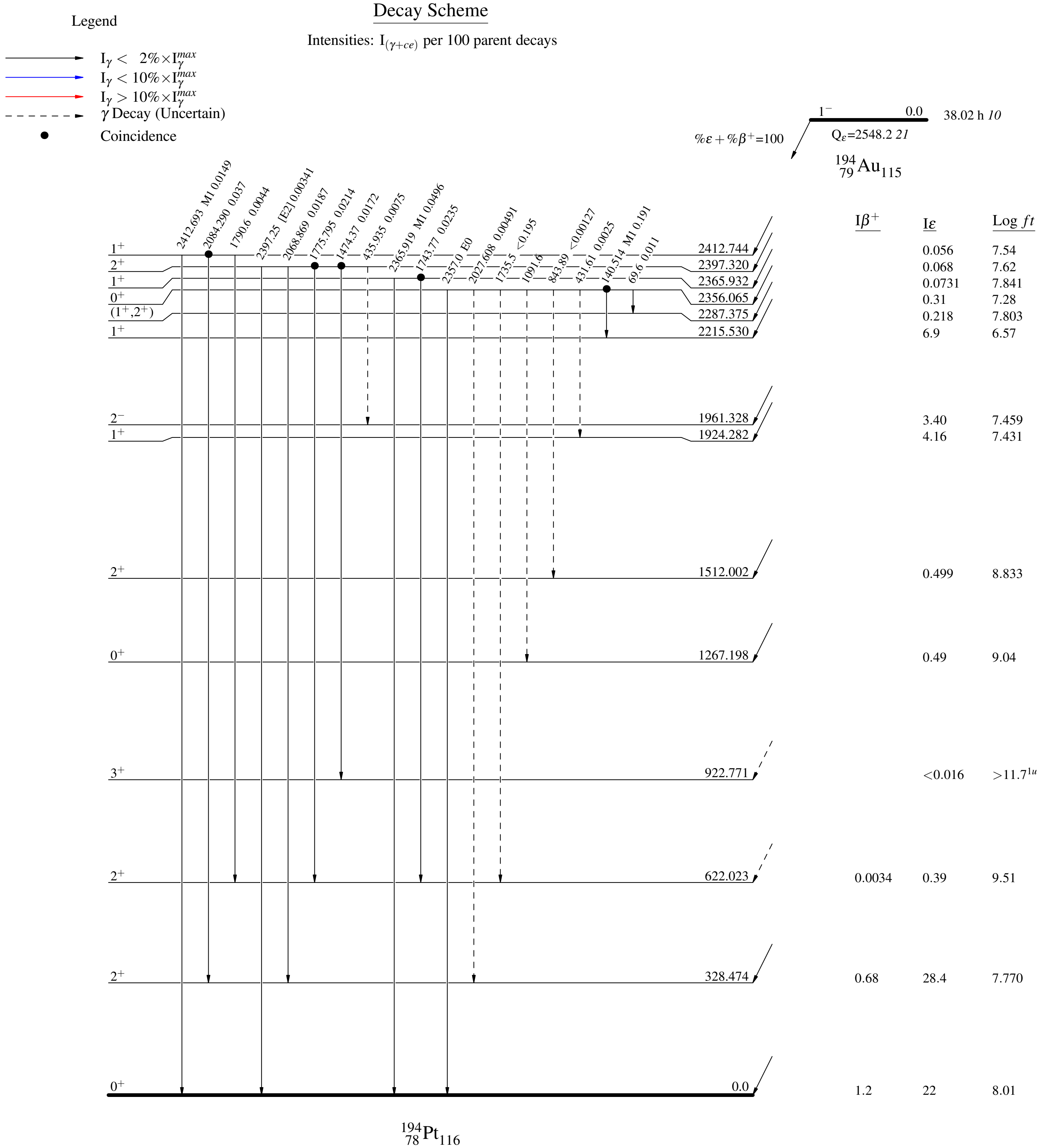
[h] Placement of transition in the level scheme is uncertain.

[x] γ ray not placed in level scheme.

^{194}Au ε decay (38.02 h) 2015Do06,1996TeZW,1971Vi15

Decay Scheme

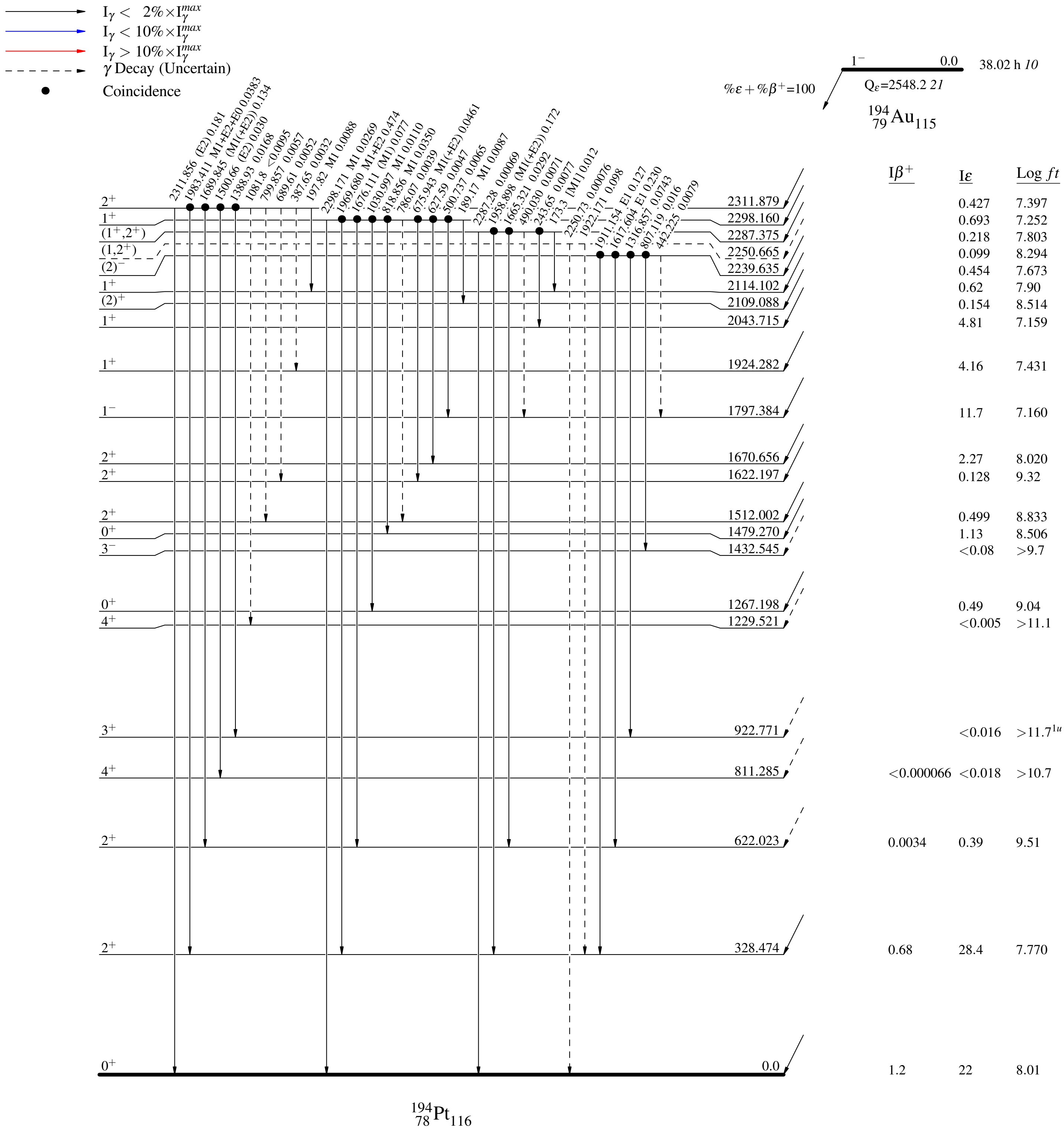
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



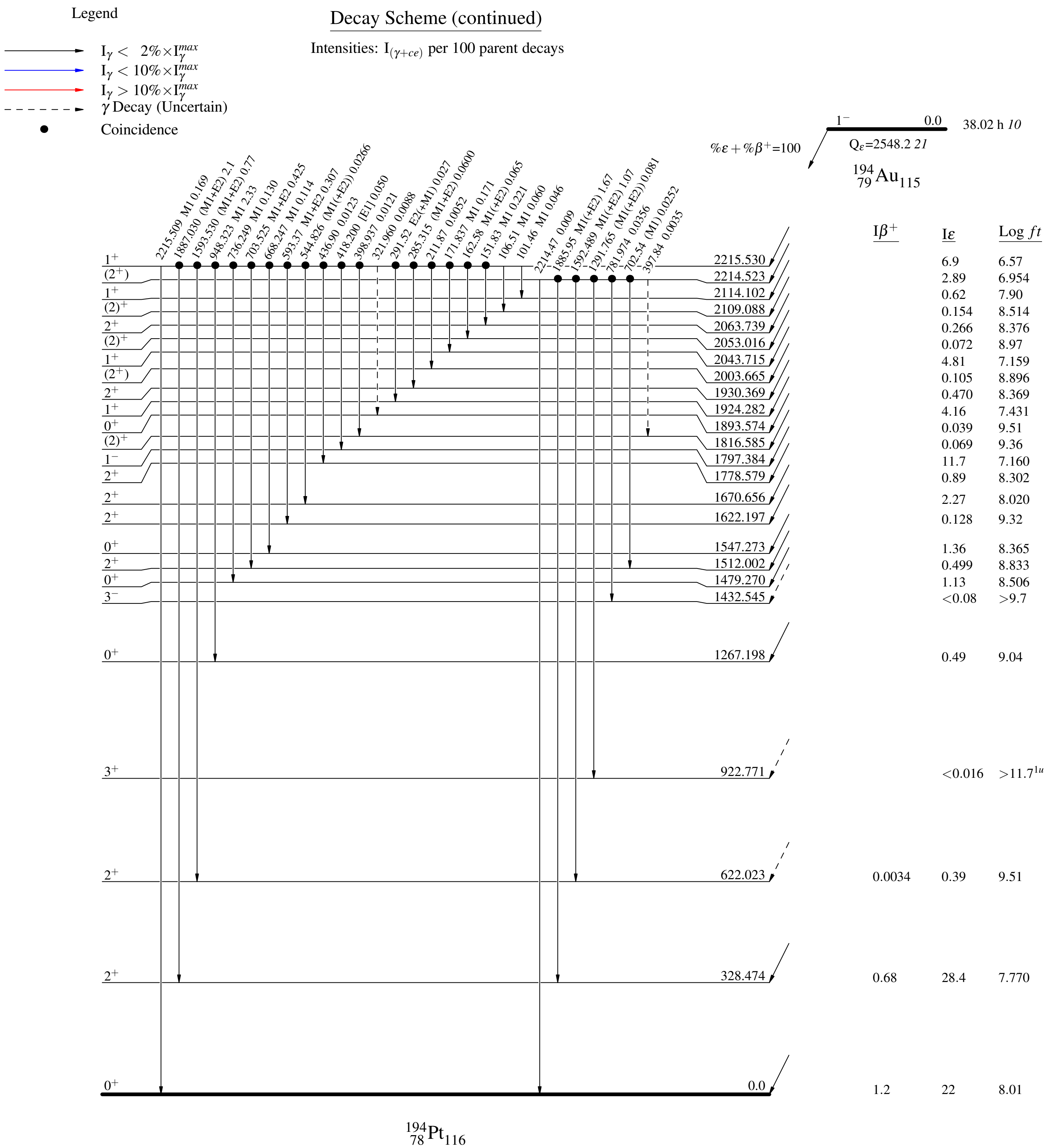
^{194}Au ε decay (38.02 h) 2015Do06,1996TeZW,1971Vi15

Decay Scheme (continued)

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



^{194}Au ε decay (38.02 h) 2015Do06,1996TeZW,1971Vi15

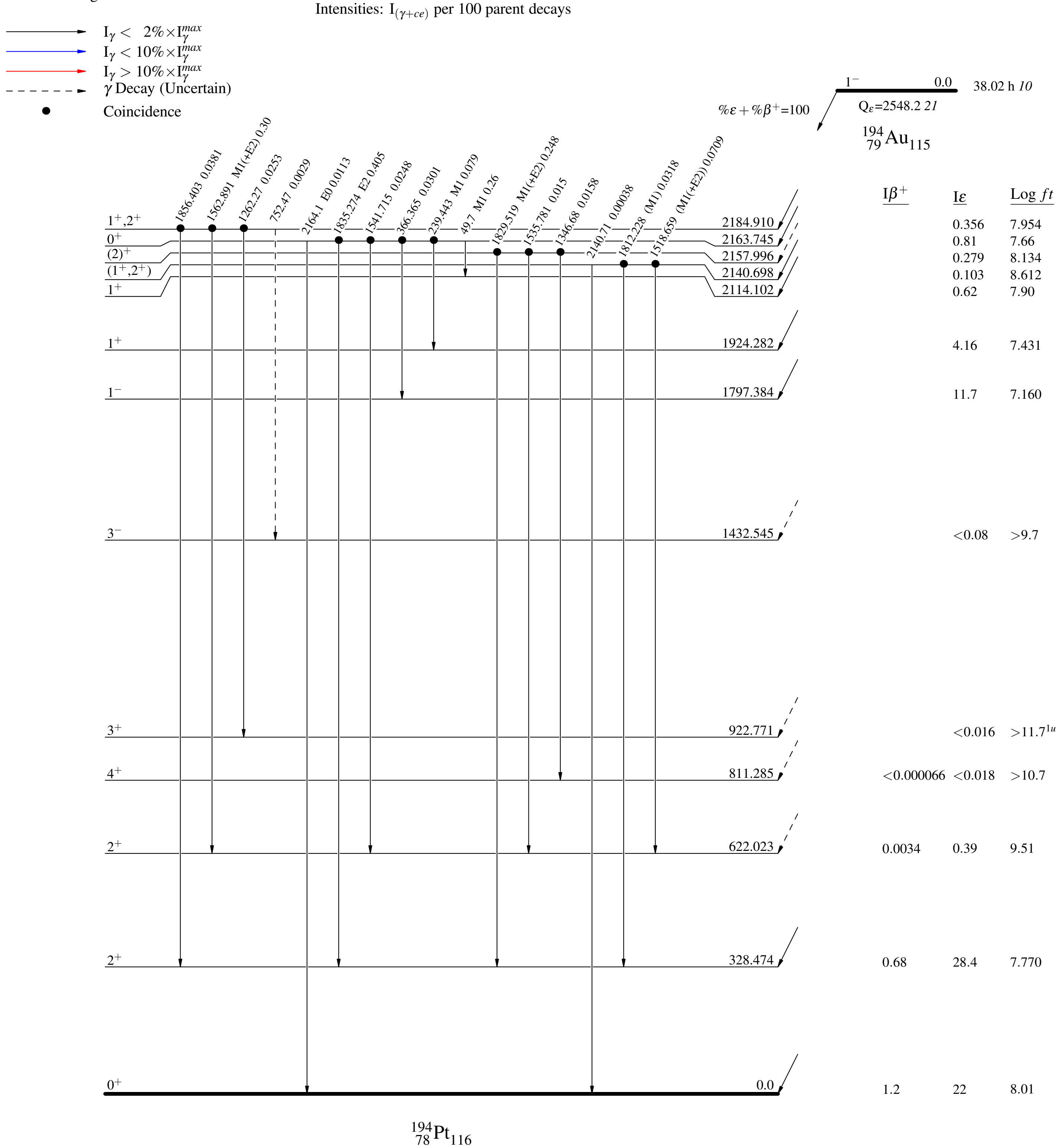


^{194}Au ε decay (38.02 h) 2015Do06,1996TeZW,1971Vi15

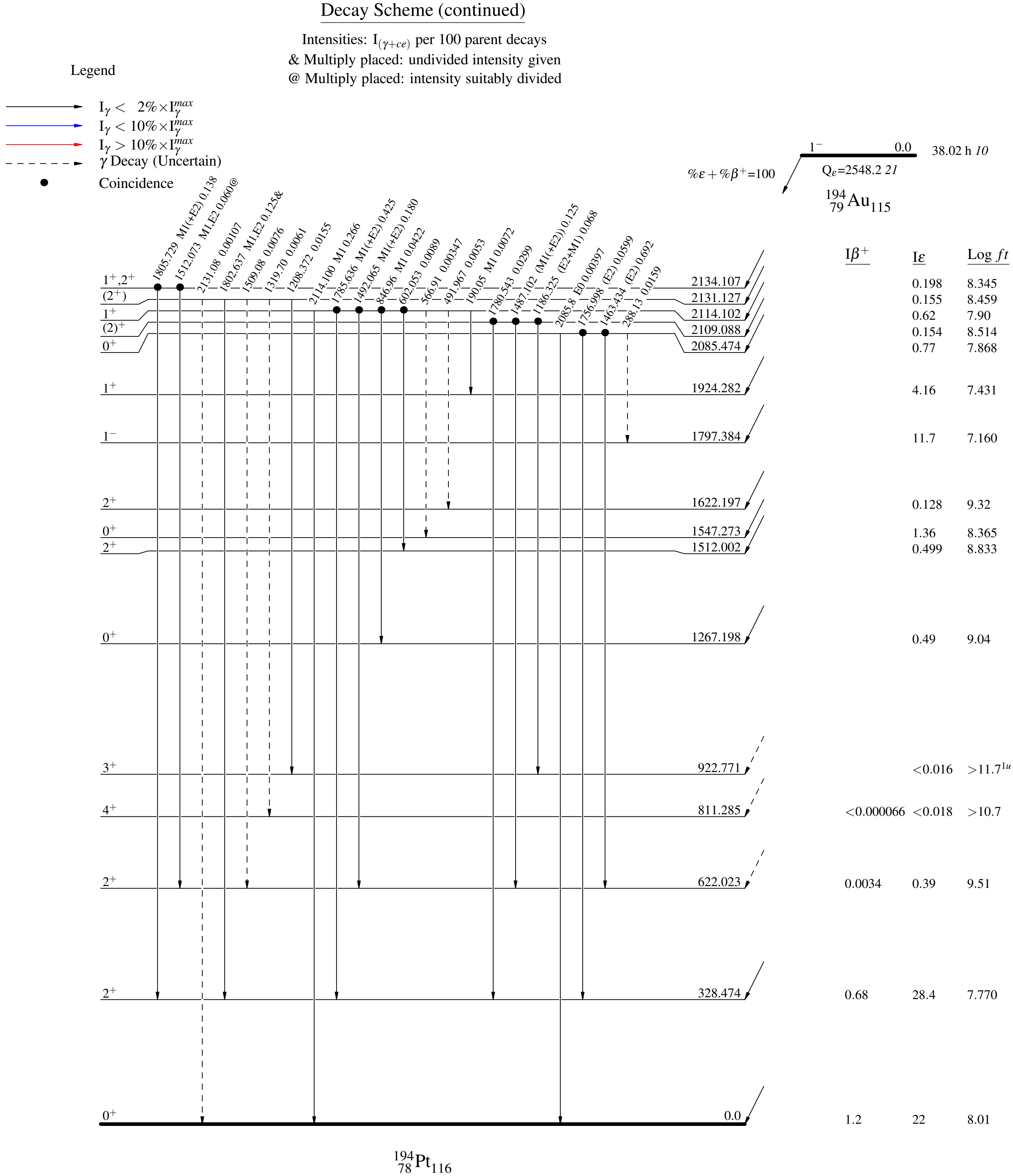
Decay Scheme (continued)

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

Legend



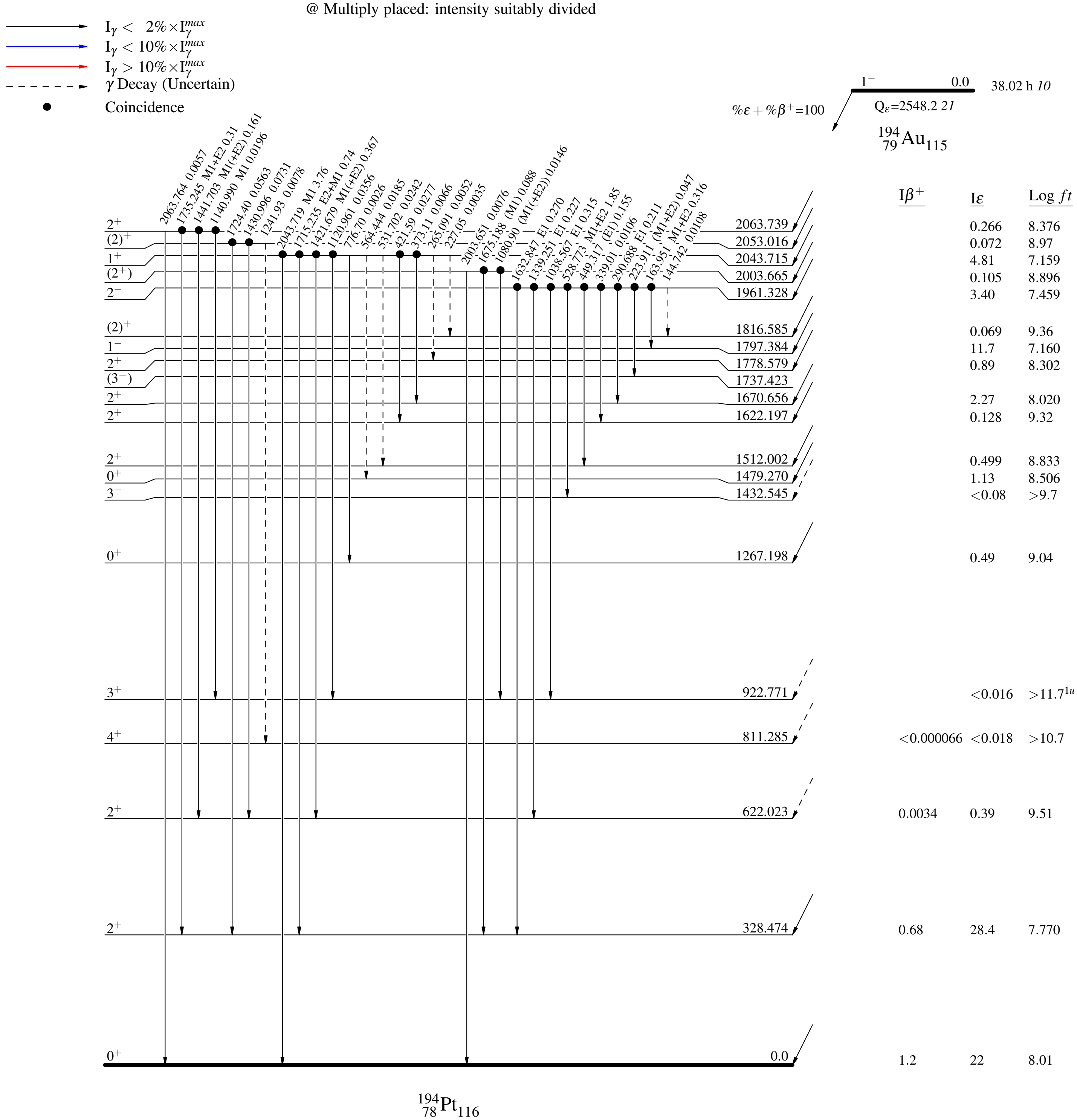
^{194}Au ε decay (38.02 h) 2015Do06,1996TeZW,1971Vi15



^{194}Au ε decay (38.02 h) 2015Do06,1996TeZW,1971Vi15

Decay Scheme (continued)

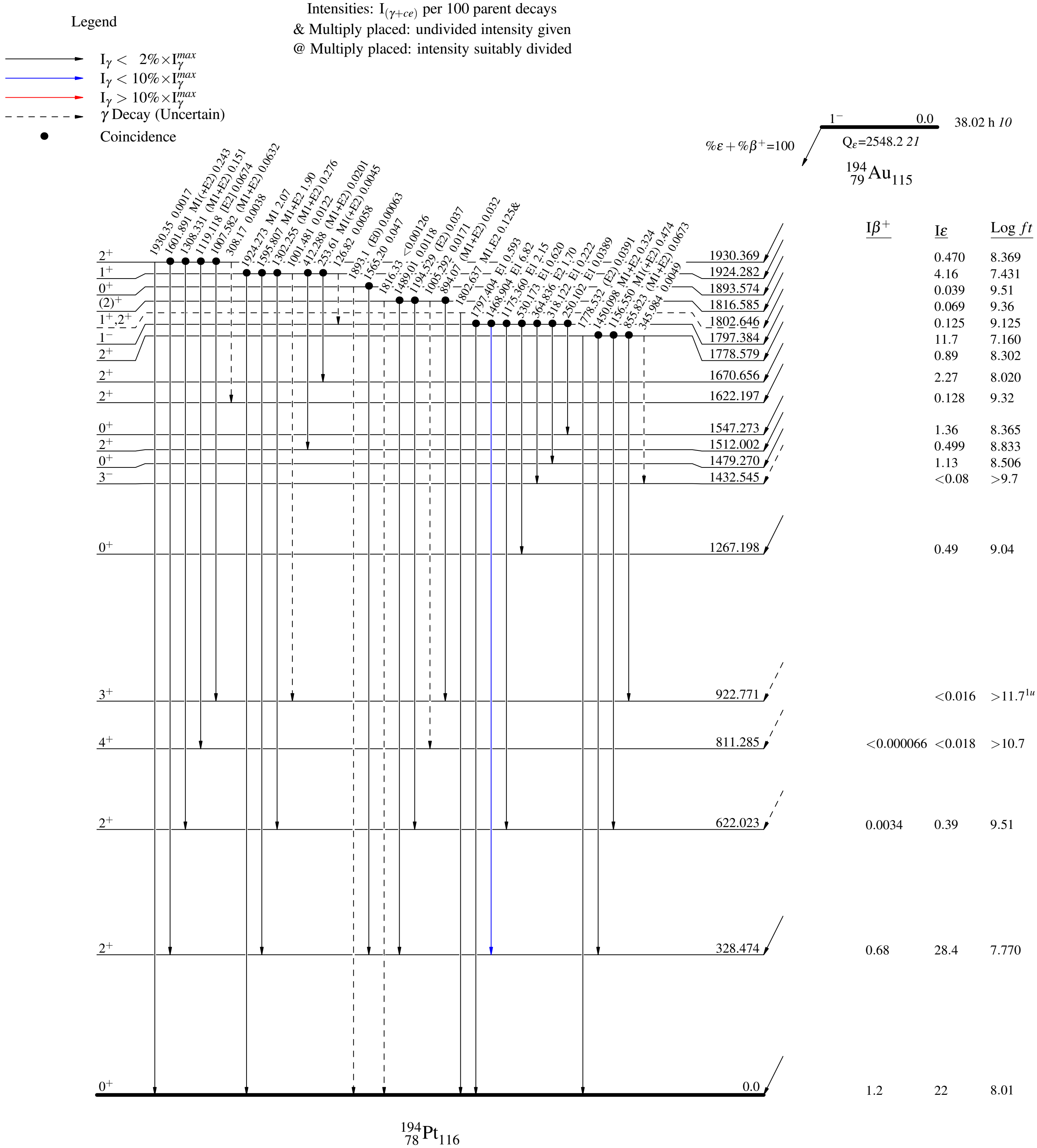
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided



^{194}Au ε decay (38.02 h) 2015Do06,1996TeZW,1971Vi15

Decay Scheme (continued)

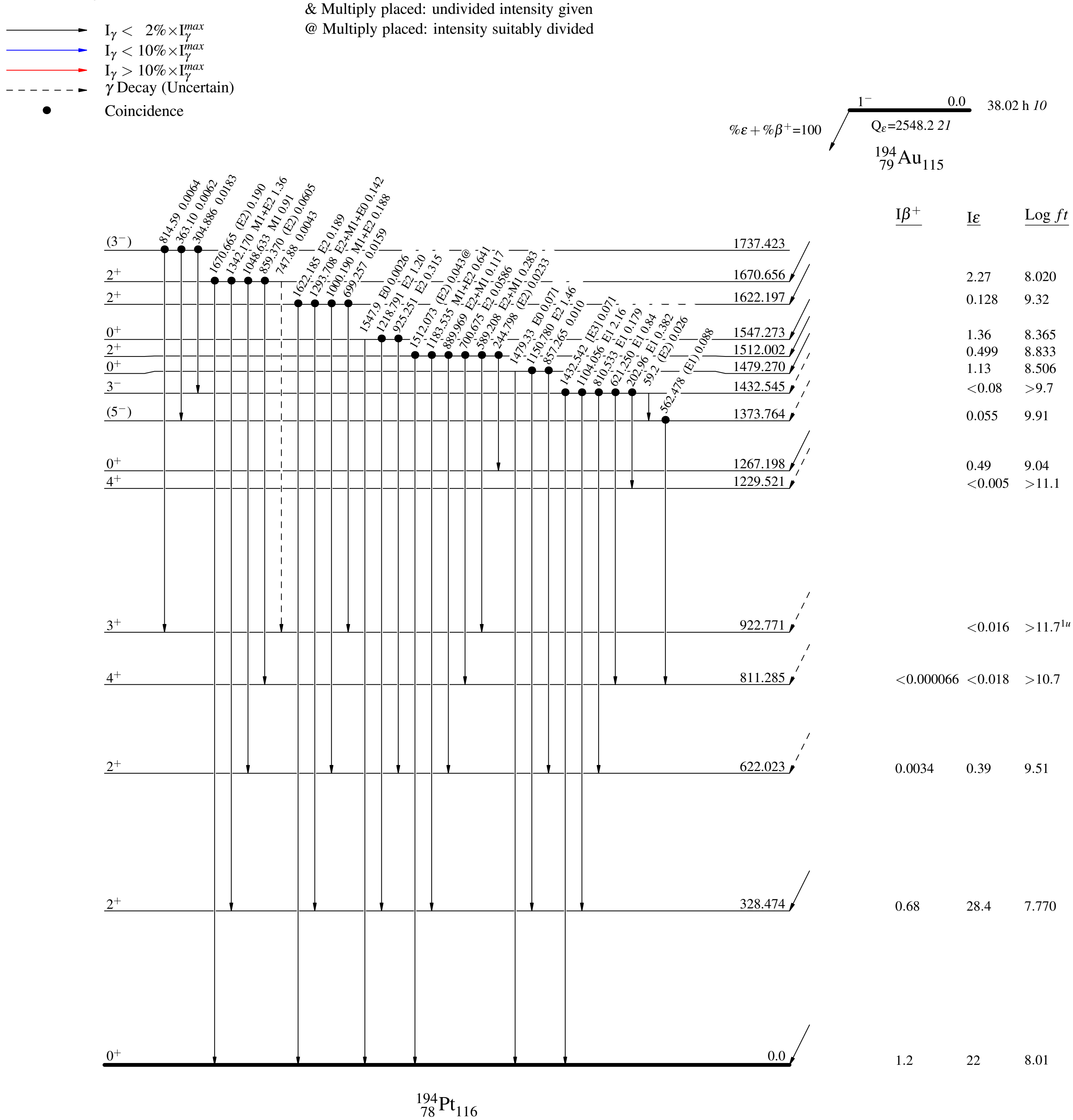
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided



^{194}Au ε decay (38.02 h) 2015Do06,1996TeZW,1971Vi15

Decay Scheme (continued)

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



^{194}Au ε decay (38.02 h) 2015Do06,1996TeZW,1971Vi15

Decay Scheme (continued)

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