^{100}Ag ε decay (2.01 min) 1983Ra10,1980Ha20,1995Ba25

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 172, 1 (2021)	31-Jan-2021

Parent: ^{100}Ag: E=0.0; J$^\pi$=(5)$^+$; $T_{1/2}$=2.01 min *10*; Q(ε)=7075 *18*; %ε+%β^+ decay=100.0

^{100}Ag-J$^\pi$,$T_{1/2}$: From ^{100}Ag Adopted Levels.

^{100}Ag-Q(ε): From 2017Wa10.

1983Ra10: ^{100}Ag source was produced in ^{92}Mo(^{12}C,p3n) with E≈80 MeV ^{12}C beam from the Manchester University Heavy-Ion Linear Accelerator and in ^{102}Pd(p,3n) with E=39 MeV proton beam from the Harwell Variable Energy Cyclotron. γ rays were detected with Ge(Li) detectors and positrons were detected with a HPGe detector. Measured Eγ, Iγ, E(ce), I(ce), $\gamma\gamma$-coin, $\gamma\gamma(\theta)$, xγ-coin, $\beta^+\gamma$-coin, $\gamma\gamma$(t). Deduced levels, J, π, parent $T_{1/2}$, decay branching ratios, log *ft*, conversion coefficients, γ-ray multipolarities.

1980Ha20: ^{100}Ag source was produced in ^{92}Mo(^{12}C,p3n) with 40 MeV proton beam from the McGill synchrocyclotron. γ rays were detected with two Ge(Li) detectors and positrons were detected with a plastic ΔE-E counter telescope. Measured Eγ, Iγ, $\gamma\gamma$-coin, $\beta^+\gamma$-coin, γ(t). Deduced levels, J, π, parent $T_{1/2}$, decay branching ratios, log *ft*. The results are in general agreement with those from 1983Ra10, but the authors had difficulty in separating γ-ray intensities between the two isomers.

1995Ba25: ^{100}Ag ions was produced in ^{50}Cr(^{58}Ni,X) with 290 MeV ^{58}Ni beam from the accelerator at GSI and separated by the GSI Online Mass Separator. γ rays were detected with a total-absorption gamma spectrometer (TAGS) consisting of a large-volume NaI crystal, a disk-shape NaI and a BGO detector; positrons were detected with a Si(Li) detector. Measured total absorption γ-ray spectrum. Deduced β-strength functions in the 0-6750 energy range. Comparisons with theoretical calculations.

Others: 1980Wi20, 1980VeZN, 1971In03, 1970Hn03, 1967Ba26, 1967Do06, 1966Bu05. In the earlier studies of ^{100}Ag decay, the $T_{1/2}$ was given as 8 min *1* (1967Ba26), 9 min (1966Bu05),7.5 min *1* (1967Do06).

Total decay energy deposit of 6343 keV *99* calculated by RADLIST code is lower than the expected value of 7075 keV *18*. The large gap (≈3.2 MeV) between the highest observed level and the Q-value could indicate that the decay scheme is incomplete. Total absorption measurement (1995Ba25) also suggest that a significant fraction of ε and β^+ feeding is missing in the decay scheme.

^{100}Pd Levels

E(level)†	J$^\pi$#	E(level)†	J$^\pi$#	E(level)†
0.0	0$^+$	2679.4 *10*	(0$^+$ to 4$^+$)	4.38×10^3‡ *12*
665.69 *10*	2$^+$	2694.50 *24*	(4)	4.63×10^3‡ *12*
1416.49 *14*	4$^+$	2821.80 *24*	(4)	4.88×10^3‡ *12*
1587.98 *12*	2$^{(+)}$	2879.92 *20*	(4$^+$)	5.13×10^3‡ *12*
1926.21 *14*	3$^{(+)}$	2920.54 *16*	(4)$^+$	5.38×10^3‡ *12*
2056.42 *16*	(4$^-$)	3079.97 *18*	(4$^+$,5$^+$,6$^+$)	5.63×10^3‡ *12*
2189.72 *16*	6$^+$	3236.2 *4*	(2$^+$,3$^+$)	5.88×10^3‡ *12*
2279.01 *16*	5$^{(+)}$	3311.75 *22*	(4,5,6)	6.13×10^3‡ *12*
2351.05 *20*	(4$^+$)	3.63×10^3‡ *12*		6.38×10^3‡ *12*
2470.36 *16*	6$^{(+)}$	3824.0 *4*	(4,5,6)	6.63×10^3‡ *12*
2532.30 *24*	(2$^+$)	3.88×10^3‡ *12*		>6.75×10^3‡
2621.7 *5*	(1$^-$ to 4$^+$)	4.13×10^3‡ *12*		

† From least-squares fit to Eγ data.

‡ Pseudo-level introduced by evaluators based on ε, β^+ feeding reported in 1995Ba25. These levels are not included in the Adopted Levels, Gammas dataset.

\# From the Adopted Levels.

^{100}Ag ε decay (2.01 min) 1983Ra10,1980Ha20,1995Ba25 (continued)

ε,β^+ radiations

β^+, $(\beta^+)(\gamma)$ data: 1983Ra10, 1980Ha20, 1980VeZN.

Q(ε) from $(\beta^+)(\gamma)$: 7170 *250* (1983Ra10), 7.0×10^3 *2* (1980Ha20), 7080 *90* (1980VeZN). From singles β^+ spectrum, 1980Ha20 obtained β^+(end-point)=5.4×10^3 *2* indicating little direct β^+ feeding to g.s.

A large fraction (≈30%) of ε,β^+ feeding proceeds to levels above 3500 as suggested by total absorption data of 1995Ba25. Precise energies and decay mode of these levels are not yet known.

E(decay)	E(level)	Iβ^+ †‡	Iε †‡	Log *ft* †	I($\varepsilon+\beta^+$) †‡	Comments
(325 *18*)	>6750		<0.04		<0.04	I($\varepsilon+\beta^+$): <0.04% to levels >6750 (1995Ba25) from total γ-absorption.
(4.5×10^2 *12*)	6630		0.11	4.6	0.11	εK=0.856 *5*; εL=0.116 *4*; εM+=0.0284 *11* I($\varepsilon+\beta^+$): 0.11% to levels from 6500-6750 (1995Ba25) from total γ-absorption.
(7.0×10^2 *12*)	6380		0.22	4.7	0.22	εK=0.8601 *17*; εL=0.1125 *13*; εM+=0.0274 *4* I($\varepsilon+\beta^+$): 0.22% to levels from 6250-6500 (1995Ba25) from total γ-absorption.
(9.5×10^2 *12*)	6130		0.61	4.5	0.61	εK=0.8621 *9*; εL=0.1109 *7*; εM+=0.02700 *18* I($\varepsilon+\beta^+$): 0.61% to levels from 6000-6250 (1995Ba25) from total γ-absorption.
(1.20×10^3 *12*)	5880		1.25	4.4	1.25	εK=0.8630 *12*; εL=0.1100 *6*; εM+=0.02674 *14* I($\varepsilon+\beta^+$): 1.25% to levels from 5750-6000 (1995Ba25) from total γ-absorption.
(1.45×10^3 *12*)	5630	0.02	2.5	4.3	2.5	av Eβ=194 *53*; εK=0.856 *12*; εL=0.1085 *18*; εM+=0.0263 *5* I($\varepsilon+\beta^+$): 2.5% to levels from 5500-5750 (1995Ba25) from total γ-absorption.
(1.70×10^3 *12*)	5380	0.14	2.8	4.4	2.9	av Eβ=302 *53*; εK=0.82 *3*; εL=0.104 *4*; εM+=0.0252 *10* I($\varepsilon+\beta^+$): 2.9% to levels from 5250-5500 (1995Ba25) from total γ-absorption.
(1.95×10^3 *12*)	5130	0.40	2.6	4.5	3.0	av Eβ=411 *54*; εK=0.75 *5*; εL=0.094 *7*; εM+=0.0229 *16* I($\varepsilon+\beta^+$): 3.0% to levels from 5000-5250 (1995Ba25) from total γ-absorption.
(2.20×10^3 *12*)	4880	0.90	2.6	4.6	3.5	av Eβ=521 *54*; εK=0.64 *6*; εL=0.081 *8*; εM+=0.0196 *18* I($\varepsilon+\beta^+$): 3.5% to levels from 4750-5000 (1995Ba25) from total γ-absorption.
(2.45×10^3 *12*)	4630	1.4	2.2	4.8	3.6	av Eβ=632 *55*; εK=0.53 *6*; εL=0.066 *8*; εM+=0.0159 *18* I($\varepsilon+\beta^+$): 3.6% to levels from 4500-4750 (1995Ba25) from total γ-absorption.
(2.70×10^3 *12*)	4380	1.7	1.5	5.1	3.2	av Eβ=745 *55*; εK=0.41 *6*; εL=0.052 *7*; εM+=0.0126 *16* I($\varepsilon+\beta^+$): 3.2% to levels from 4250-4500 (1995Ba25) from total γ-absorption.
(2.95×10^3 *12*)	4130	2.0	1.2	5.2	3.2	av Eβ=859 *56*; εK=0.32 *5*; εL=0.040 *6*; εM+=0.0098 *13* I($\varepsilon+\beta^+$): 3.2% to levels from 4000-4250 (1995Ba25) from total γ-absorption.
(3.20×10^3 *12*)	3880	2.7	1.1	5.3	3.8	av Eβ=973 *56*; εK=0.25 *4*; εL=0.031 *5*; εM+=0.0076 *10* I($\varepsilon+\beta^+$): 3.8% to levels from 3750-4000 (1995Ba25) from total γ-absorption.
(3251 *18*)	3824.0	0.6 *1*	0.2 *1*	6.1 *1*	0.8 *2*	av Eβ=999.2 *83*; εK=0.236 *5*; εL=0.0295 *6*; εM+=0.00714 *13* I($\varepsilon+\beta^+$): 3.8% to levels from 3750-4000 (1995Ba25) from total γ-absorption.
(3.45×10^3 *12*)	3630	2.5	0.72	5.6	3.2	av Eβ=1089 *57*; εK=0.195 *25*; εL=0.024 *4*; εM+=0.0059 *8* I($\varepsilon+\beta^+$): 3.2% to levels from 3500-3750 (1995Ba25) from total γ-absorption.

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^{100}Ag ε decay (2.01 min) 1983Ra10,1980Ha20,1995Ba25 (continued)

ϵ,β^+ radiations (continued)

E(decay)	E(level)	Iβ^+ †‡	Iε †‡	Log *ft* †	I($\varepsilon+\beta^+$) †‡	Comments
(3763 *18*)	3311.75	1.4 *1*	0.28 *2*	6.08 *4*	1.7 *1*	av Eβ=1236.9 *84*; εK=0.1440 *25*; εL=0.0179 *3*; εM+=0.00434 *8* I($\varepsilon+\beta^+$): 4.3% to levels from 3250-3500 (1995Ba25) from total γ-absorption.
(3839# *18*)	3236.2	0.9 *5*	0.17 *9*	6.3 *3*	1.1 *6*	av Eβ=1272.2 *85*; εK=0.1344 *23*; εL=0.0167 *3*; εM+=0.00405 *7* log *ft* is too low for ΔJ^π involved. Apparent β^+ feeding deduced from γ-ray intensity balance may be due to unobserved γ transitions to this level. I($\varepsilon+\beta^+$): 12.6% to levels from 3000-3250 (1995Ba25) from total γ-absorption.
(3995 *18*)	3079.97	4.7 *4*	0.73 *7*	5.72 *5*	5.4 *5*	av Eβ=1345.3 *85*; εK=0.1170 *19*; εL=0.01455 *24*; εM+=0.00352 *6* I($\varepsilon+\beta^+$): 12.6% to levels from 3000-3250 (1995Ba25) from total γ-absorption.
(4154 *18*)	2920.54	≈13	≈1.8	≈5.4	≈15	av Eβ=1420.2 *85*; εK=0.1020 *16*; εL=0.01268 *20*; εM+=0.00307 *5* I($\varepsilon+\beta^+$): deduced from I(γ+ce)=22.2% to levels in 2750-3000 range from total γ-absorption (1995Ba25) and γ+ce feedings to 2822 and 2880 levels. γ-intensity balance in the present level scheme gives total apparent feeding of 39.5% *15*. The large difference between the value from the total absorption and that from intensity balance could be accounted for by unobserved γ feedings from higher-lying levels within the large gap (≈3.2 MeV) between Q-value and the highest excitation energy observed in 1983Ra10 and 1980Ha20 due to Pandemonium effect. E(decay): E(β^+-endpoint)=3378 *400* from (β^+)(450γ) (1983Ra10) gives Q(ε)=7320 *400*. 1980VeZN obtain Q(ε)=7080 *90* from (β^+)(1504γ,731γ,450γ).
(4195 *18*)	2879.92	3.5 *4*	0.44 *6*	5.98 *6*	3.9 *5*	av Eβ=1439.3 *85*; εK=0.0985 *15*; εL=0.01225 *19*; εM+=0.00297 *5* I($\varepsilon+\beta^+$): 22.2% to levels from 2750-3000 (1995Ba25) from total γ-absorption.
(4253 *18*)	2821.80	3.0 *4*	0.37 *4*	6.07 *6*	3.4 *4*	av Eβ=1466.6 *85*; εK=0.0939 *15*; εL=0.01167 *18*; εM+=0.00283 *5* I($\varepsilon+\beta^+$): 22.2% to levels from 2750-3000 (1995Ba25) from total γ-absorption.
(4381 *18*)	2694.50	3.6 *6*	0.39 *7*	6.1 *1*	4.0 *7*	av Eβ=1526.7 *85*; εK=0.0846 *13*; εL=0.01052 *16*; εM+=0.00255 *4* I($\varepsilon+\beta^+$): 11.8% to levels from 2500-2750 (1995Ba25) from total γ-absorption.
(4396 *18*)	2679.4	0.36 *9*	0.039 *10*	7.1 *1*	0.40 *10*	av Eβ=1533.8 *86*; εK=0.0836 *13*; εL=0.01039 *16*; εM+=0.00252 *4* I($\varepsilon+\beta^+$): 11.8% to levels from 2500-2750 (1995Ba25) from total γ-absorption.
(4453# *18*)	2621.7	0.6 *5*	0.06 *5*	6.9 *4*	0.7 *5*	av Eβ=1561.1 *86*; εK=0.0799 *12*; εL=0.00992 *15*; εM+=0.00240 *4* I($\varepsilon+\beta^+$): 11.8% to levels from 2500-2750 (1995Ba25) from total γ-absorption.
(4543# *18*)	2532.30	3.7 *4*	0.34 *3*	6.16 *5*	4.0 *4*	av Eβ=1603.3 *86*; εK=0.0745 *11*; εL=0.00925 *13*; εM+=0.00224 *4* I($\varepsilon+\beta^+$): 11.8% to levels from 2500-2750 (1995Ba25) from total γ-absorption.

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^{100}Ag ε decay (2.01 min) 1983Ra10,1980Ha20,1995Ba25 (continued)

ϵ,β^+ radiations (continued)

E(decay)	E(level)	Iβ^+ †‡	Iε†‡	Log *ft*†	I($\varepsilon+\beta^+$)†‡	Comments
						(β^+)(1116γ) (1980VeZN). log *ft* is too low for ΔJ^π involved. Apparent β^+ feeding deduced from γ-ray intensity balance may be due to unobserved γ transitions to this level.
(4605 *18*)	2470.36	2.4 *17*	0.21 *15*	6.4 *3*	2.6 *18*	av Eβ=1632.7 *86*; εK=0.0710 *10*; εL=0.00882 *13*; εM+=0.00214 *3* I(ε+β^+): 10.9% to levels from 2250-2500 (1995Ba25) from total γ-absorption.
(4724 *18*)	2351.05	2.8 *6*	0.22 *5*	6.4 *1*	3.0 *7*	av Eβ=1689.2 *86*; εK=0.0649 *9*; εL=0.00806 *11*; εM+=0.00195 *3* I(ε+β^+): 10.9% to levels from 2250-2500 (1995Ba25) from total γ-absorption.
(4796 *18*)	2279.01	4.8 *5*	0.37 *4*	6.18 *5*	5.2 *5*	av Eβ=1723.4 *86*; εK=0.0615 *9*; εL=0.00764 *11*; εM+=0.001850 *25* I(ε+β^+): 10.9% to levels from 2250-2500 (1995Ba25) from total γ-absorption.
(4885 *18*)	2189.72	3.2 *16*	0.23 *11*	6.4 *2*	3.4 *17*	av Eβ=1765.9 *86*; εK=0.0577 *8*; εL=0.00716 *10*; εM+=0.001734 *23* I(ε+β^+): 5.3% to levels from 2000-2250 (1995Ba25) from total γ-absorption.
(5019 *18*)	2056.42	6.1 *7*	0.39 *4*	6.19 *6*	6.5 *7*	av Eβ=1829.3 *86*; εK=0.0525 *7*; εL=0.00651 *9*; εM+=0.001577 *20* I(ε+β^+): 5.3% to levels from 2000-2250 (1995Ba25) from total γ-absorption.
(5149# *18*)	1926.21	3.9 *5*	0.23 *3*	6.45 *6*	4.1 *5*	av Eβ=1891.4 *86*; εK=0.0480 *6*; εL=0.00595 *8*; εM+=0.001442 *18* I(ε+β^+): 1.8% to levels from 1750-2000 (1995Ba25) from total γ-absorption. log *ft* is too low for ΔJ^π involved. Apparent β^+ feeding deduced from γ-ray intensity balance may be due to unobserved γ transitions to this level.
(5487# *18*)	1587.98					I(ε+β^+): γ-intensity balance gives apparent (%ε+%β^+) feeding of 2.2% *6*, but ΔJ=3,4 suggests no feeding. Also total γ-absorption study (1995Ba25) gives total feeding as <2% to levels from 0-1750 excitation range, most of which is assigned to 1416.5 level (see also comment there).
(5659# *18*)	1416.49	<2	<0.08	>7.0	<2	av Eβ=2135.3 *87*; εK=0.0346 *4*; εL=0.00429 *5*; εM+=0.001038 *12* E(decay): 5700 *300* measured from (β^+)(751γ) (1983Ra10). Iβ^+,Iε: total γ absorption 1995Ba25 give total feeding <2% to levels from 0-1750 excitation range. γ-intensity balance gives apparent ε+β^+ feeding of 7% *5*, which could be accounted for by unobserved γ feedings from higher-lying levels within the large gap (≈3.2 MeV) between Q-value and the highest excitation energy observed in 1983Ra10 and 1980Ha20 due to Pandemonium effect.
(6409# *18*)	665.69					I(ε+β^+): γ-intensity balance gives I(ε+β^+)<5%, total γ-absorption study (1995Ba25) gives total feeding as <2% to levels from 0-1750 excitation range. ΔJ=3 requires that ε feeding should be zero.

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^{100}Ag ε decay (2.01 min) 1983Ra10,1980Ha20,1995Ba25 (continued)

ε,β^+ radiations (continued)

† Quoted values should be considered as approximate due to incompleteness of the observed decay scheme in 1983Ra10 and 1980Ha20. Total feeding of (ε+β^+) is deduced from I(γ+ce) intensity balance at each level where deexciting γ transitions are observed and from total absorption measurement in 1995Ba25 for the pseudo levels, unless otherwise noted.

‡ Absolute intensity per 100 decays.

Existence of this branch is questionable.

$\gamma(^{100}Pd)$

Iγ normalization: From I(γ+ce)(666γ)+I(γ+ce)(1588γ)=100, assuming no γ+ce feeding to 0^+ g.s. from other levels due to high ΔJ (≥3).

E_γ [†]	I_γ [†#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [‡]	δ [‡]	α [@]	Comments
190.5 5	0.44 4	2470.36	$6^{(+)}$	2279.01	$5^{(+)}$	[M1]		0.0647 11	
222.5 2	1.0 3	2279.01	$5^{(+)}$	2056.42	(4^-)	[E1]		0.0157	E_γ: other: 222.5 3 (1980Ha20). I_γ: weighted average of 0.8 3 (1980Ha20) and 1.2 3 (1983Ra10).
280.7 2	9.4 11	2470.36	$6^{(+)}$	2189.72	6^+	(M1)		0.0234	E_γ: weighted average of 280.7 2 (1980Ha20) and 280.6 2 (1983Ra10). I_γ: unweighted average of 10.5 5 from (1980Ha20) and 8.3 5 from (1983Ra10).
^{x}348.3	0.8								E_γ: γ reported by 1980Wi20 only. Suggested placement with 2880 level is not supported in later work by 1983Ra10.
353.0 5	0.98 14	2279.01	$5^{(+)}$	1926.21	$3^{(+)}$				E_γ: weighted average of 353.0 5 (1980Ha20) and 352.9 6 (1983Ra10). I_γ: unweighted average of 0.6 2 (1980Ha20) and 1.03 7 (1983Ra10).
450.2 1	18.3 10	2920.54	$(4)^+$	2470.36	$6^{(+)}$				E_γ: other: 450.3 2 (1980Ha20). I_γ: weighted average of 19.1 11 (1980Ha20) and 17.6 10 (1983Ra10).
(510)		1926.21	$3^{(+)}$	1416.49	4^+				This γ is expected to exist because of the (751γ)(353γ)-coin relationship. It is obscured by the annihilation radiation.
528.9 1	2.2 2	2879.92	(4^+)	2351.05	(4^+)				E_γ: other: 528.9 5 (1980Ha20). I_γ: weighted average of 2.3 2 (1980Ha20) and 2.0 2 (1983Ra10).
569.5 3	0.75 5	2920.54	$(4)^+$	2351.05	(4^+)				E_γ,I_γ: other: Eγ=568.5 3, Iγ=0.6 3 (1980Ha20).
609.6 1	2.8 4	3079.97	$(4^+,5^+,6^+)$	2470.36	$6^{(+)}$				E_γ: other: 609.7 2 (1980Ha20). I_γ: weighted average of 2.4 3 (1980Ha20) and 3.1 3 (1983Ra10).
614 [&]	0.20 16	3236.2	$(2^+,3^+)$	2621.7	$(1^-$ to $4^+)$				E_γ,I_γ: this γ is not reported in the decay of ^{100}Ag g.s. but reported in the decay of 2.24-min isomer (2.24 min). Quoted intensity is deduced by evaluators from the branching ratio in ^{100}Ag ε decay (2.24 min).
639.9 1	8.4 6	2056.42	(4^-)	1416.49	4^+				E_γ: other: 639.9 2 (1980Ha20). I_γ: weighted average of 8.5 7 (1980Ha20) and 8.3 6 (1983Ra10).
665.7 1	100	665.69	2^+	0.0	0^+	E2		0.00271	E_γ: other: 665.7 2 (1980Ha20). Mult.: α(K)exp=0.0023 2 (1983Ra10) gives mult=M1,E2.
730.9 1	7.7 6	2920.54	$(4)^+$	2189.72	6^+				E_γ: other: 730.9 2 (1980Ha20). I_γ: weighted average of 7.9 12 (1980Ha20) and 7.6 6 (1983Ra10).
750.8 1	82 4	1416.49	4^+	665.69	2^+	E2		0.00199	E_γ: other: 750.8 2 (1980Ha20). I_γ: weighted average of 84 4 (1980Ha20) and 79 5 (1983Ra10).
773.3 1	23.4 11	2189.72	6^+	1416.49	4^+	E2		0.0018 5	E_γ: other: 773.3 2 (1980Ha20). I_γ: weighted average of 23.0 11 (1980Ha20) and 24.5 18

$^{100}_{46}Pd_{54}$-6

γ(^{100}Pd) (continued)

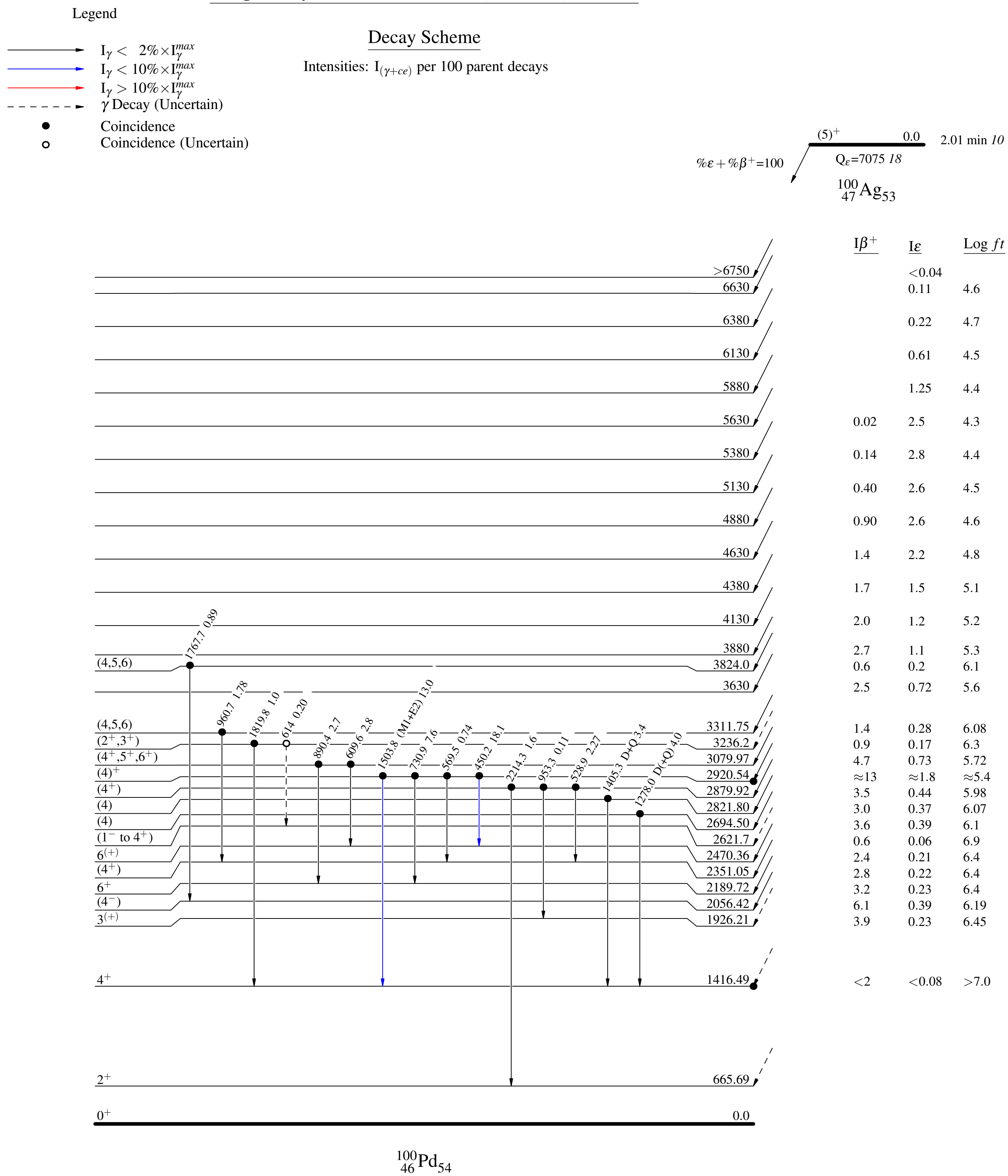
E_γ †	I_γ †#	E_i(level)	J^π_i	E_f	J^π_f	Mult.‡	δ‡	α@	Comments
									(1983Ra10). Mult.: α(K)exp=0.0016 *2* (1983Ra10) gives mult=M1,E2.
862.5 *1*	3.7 *3*	2279.01	$5^{(+)}$	1416.49	4^+	(M1+E2)	−0.14 *5*	1.56×10^{-3}	E_γ: other: 862.5 *2* (1980Ha20). I_γ: weighted average of 3.9 *5* (1980Ha20) and 3.6 *3* (1983Ra10).
890.4 *2*	2.7 *3*	3079.97	(4^+,5^+,6^+)	2189.72	6^+				E_γ: weighted average of 890.5 *2* (1980Ha20) and 890.3 *2* (1983Ra10). I_γ: weighted average of 3.6 *8* (1980Ha20) and 2.6 *2* (1983Ra10).
922.3 *1*	1.3 *5*	1587.98	$2^{(+)}$	665.69	2^+	(E2+M1)	−1.77 *+32−43*	1.24×10^{-3} *2*	E_γ: other: 922.2 *2* (1980Ha20). 1980Ha20 assigned this γ ray to ^{100}Ag ε decay (2.24 min) only.
953.3 *5*	0.11 *3*	2879.92	(4^+)	1926.21	$3^{(+)}$				E_γ: other: 955.0 *5* (1980Ha20). I_γ: weighted average of 0.2 *1* (1980Ha20) and 0.10 *3* (1983Ra10).
960.7 *1*	1.7 *1*	3311.75	(4,5,6)	2351.05	(4^+)				E_γ,I_γ: other: Eγ=960.8 *2*, Iγ=1.9 *4* (1980Ha20).
1053.9 *1*	13.6 *8*	2470.36	$6^{(+)}$	1416.49	4^+				E_γ: other: 1053.8 *2* (1980Ha20). I_γ: weighted average of 13.4 *8* (1980Ha20) and 13.9 *11* (1983Ra10). (1054γ)(751γ)(θ) data (1983Ra10) consistent with J(2470)=4,5,6 with somewhat better χ^2 fit for J=5,6.
1115.8 *2*	4.0 *4*	2532.30	(2^+)	1416.49	4^+	(E2)			E_γ: other: 1115.7 *2* (1980Ha20). I_γ: weighted average of 4.3 *4* (1980Ha20) and 3.4 *6* (1983Ra10).
1260.5 *1*	5.2 *4*	1926.21	$3^{(+)}$	665.69	2^+	(E2+M1)	−2.36 *30*		E_γ,I_γ: other: Eγ=1260.1 *5*, Iγ=5.2 *10* (1980Ha20).
1278.0 *2*	4.0 *7*	2694.50	(4)	1416.49	4^+	D(+Q)	−0.37 *+45−63*		E_γ: also from 1980Ha20. I_γ: unweighted average of 3.4 *4* (1980Ha20) and 4.7 *5* (1983Ra10).
1405.3 *2*	3.4 *4*	2821.80	(4)	1416.49	4^+	D+Q	−0.66 *+51−97*		E_γ: also from 1980Ha20. I_γ: weighted average of 3.6 *4* (1980Ha20) and 3.3 *4* (1983Ra10).
1503.8 *2*	13.2 *9*	2920.54	$(4)^+$	1416.49	4^+	(M1+E2)	−0.7 *+5−11*		E_γ: weighted average of 1503.9 *2* (1980Ha20) and 1503.7 *2* (1983Ra10). I_γ: weighted average of 13.6 *7* (1980Ha20) and 11.4 *15* (1983Ra10). (1504γ)(751γ)(θ) (1983Ra10) consistent with J(2921)=4,5,6.
^{x}1523.2 *5*	0.9 *2*								E_γ,I_γ: from 1980Ha20 only.
1587.9 *2*	0.9 *3*	1587.98	$2^{(+)}$	0.0	0^+				E_γ: other: 1587.7 *3* (1980Ha20). 1980Ha20 assigned this γ ray to ^{100}Ag ε decay (2.24 min) only.
^{x}1639.0 *2*	0.4 *2*								E_γ: other: 1639.0 *3* (1980Ha20). I_γ: unweighted average of 1.0 *2* (1980Ha20) and 0.4 *2* (1983Ra10).

γ(^{100}Pd) (continued)

E_γ †	I_γ †#	E_i(level)	J^π_i	E_f	J^π_f	Comments
1685.8 3	7.7 6	2351.05	(4^+)	665.69	2^+	E_γ: weighted average of 1686.0 3 (1980Ha20) and 1685.6 3 (1983Ra10). I_γ: weighted average of 8.1 6 (1980Ha20) and 7.1 7 (1983Ra10).
1767.7 3	0.8 2	3824.0	(4,5,6)	2056.42	(4^-)	E_γ: weighted average of 1767.9 4 (1980Ha20) and 1767.6 3 (1983Ra10). I_γ: weighted average of 1.0 3 (1980Ha20) and 0.7 2 (1983Ra10).
1819.8 4	1.0 5	3236.2	$(2^+,3^+)$	1416.49	4^+	E_γ: weighted average of 1820.8 8 (1980Ha20) and 1819.7 3 (1983Ra10). I_γ: unweighted average of 1.5 3 (1980Ha20) and 0.5 2 (1983Ra10).
1956.0 4	0.9 4	2621.7	$(1^-$ to $4^+)$	665.69	2^+	E_γ: other: 1956.0 7 (1980Ha20). I_γ: unweighted average of 1.3 3 (1980Ha20) and 0.5 2 (1983Ra10).
2013.3 10	0.4 1	2679.4	$(0^+$ to $4^+)$	665.69	2^+	E_γ: weighted average of 2013.0 10 (1980Ha20) and 2013.7 10 (1983Ra10). I_γ: weighted average of 0.3 2 (1980Ha20) and 0.4 1 (1983Ra10).
^{x}2119.0 5	2.9 4					E_γ,I_γ: from 1980Ha20 only.
2214.3 3	1.6 4	2879.92	(4^+)	665.69	2^+	E_γ: weighted average of 2214.8 5 (1980Ha20) and 2214.1 3 (1983Ra10). I_γ: unweighted average of 1.9 3 (1980Ha20) and 1.2 2 (1983Ra10).

† From 1983Ra10, unless otherwise stated.
‡ From the Adopted Gammas. Assignments from this study are given under comments, if available, based on ce data in 1983Ra10 normalized to α(K)=0.0019 for 750γ treated as E2.
# For absolute intensity per 100 decays, multiply by 0.988 3.
@ 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.
& Placement of transition in the level scheme is uncertain.
^{x} γ ray not placed in level scheme.

^{100}Ag ε decay (2.01 min) 1983Ra10,1980Ha20,1995Ba25



^{100}Ag ε decay (2.01 min) 1983Ra10,1980Ha20,1995Ba25

Decay Scheme (continued)

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