^{105}Ag ε decay (41.29 d) 1996Me17,1970Ka13

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	S. Lalkovski, J. Timar and Z. Elekes	NDS 161, 1 (2019)	1-Apr-2019

Parent: ^{105}Ag: E=0.0; $J^\pi=1/2^-$; $T_{1/2}$=41.29 d *7*; Q(ε)=1347 *5*; %ε+%β^+ decay=100.0

1996Me17: Facility: LNL ICT accelerator; Source: from (n,γ) reactions on 50-100 mg thick target enriched to 82.09% in ^{106}Cd. Neutron flux= 6x10^{12} n/sec in 4π from ^{2}H(^{3}H,^{4}He)n reaction; Detectors: one large Ge(Li) and one small Ge(Li) x-ray detector; Measured: γ, Eγ, Iγ; Deduced: ^{105}Pd level scheme, log *ft*, J.

1983Si08: Facility: AERE, Harawell Tandem Accelerator; Source: from ^{103}Rh(α,2n), E(α)=28 MeV; Detectors: one Ge(Li), one NaI(Tl); Measured: γ, $\gamma\gamma$, $\gamma\gamma(\theta)$, Eγ, Iγ; Deduced: δ, Mult., ^{105}Pd level scheme.

1970Ka13: Facility: Tokyio Institute of Technology cyclotron; Source: ^{105}Ag, chemically separated from ^{nat}Pd(p,2n) and ^{106}Pd(p,2n) and mounted on 10 μm Pt and 2 μm Ni foils; Detectors: β-spectrometer with σ=0.013% for 662-keV line, one proportional gas counter, and one Si(Li) detector; Measured: γ, β, Ice, Iγ, E$_\beta$, Eγ; Deduced: level scheme, δ.

1981Al19: Facility: KFZ Karlsruhe cyclotron; Soruce: chemically separated from (α,2n) on natural Rh and (d,2n) on enriched in ^{105}Pd target and beam energies E(α)=50 MeV, E(d)=15 MeV. Measurements taken 6 weeks after irradiation to eliminate contribution from ^{105m}Ag; Detectors: three large-volume plannar Ge detectors, two cooled pure NaI detectors; Measured: γ, $\gamma\gamma$, $\gamma\gamma(\theta)$, Eγ, Iγ; Deduced: level scheme, g-factors, $T_{1/2}$.

1977Ba32: Source: from ^{105}Pd(p,n) reaction with E(p)=6.7 MeV and target enriched to 94% in ^{105}Pd; Detectors: one Ge(Li), one NaI(Tl); Measured: γ, $\gamma\gamma(\theta)$, Eγ, Iγ; Deduced: δ, ^{105}Pd level scheme.

1970Sc10: Facility: ISOLDE synchro-cyclotron; Beam: E(p)=600 MeV; Target: Sn; Source: mass-separated ^{105}Cd. Measurements perfofrmed few days after irradiation; Detectors: on-line separator, one planar Ge(Li), one plastic (Pilot β) and one NaI(Tl); Measured: γ, γ(t), Eγ, Iγ; Deduced: $T_{1/2}$.

Others: 1984BeZQ, 1979Be66, 1979BeYM, 1978Ve04, 1976BaYL, 1976JaZU, 1975BeYC, 1974ArZY, 1973Se20, 1973ThZL, 1972Be67, 1972Bf01, 1971BeWF, 1971BeWG, 1971RiZH, 1970BlZT, 1969Ho36, 1969Ka02, 1969McZY, 1968An14, 1968Ri10.

^{105}Pd Levels

E(level)[†]	J^π[‡]	$T_{1/2}$	Comments
0.0	$5/2^+$		
280.5 *4*	$3/2^+$[#]		g=−0.049 *12* from IPAC in 1981Al19, assuming $T_{1/2}$=67 ps *12*.
306.3 *7*	$7/2^+$		
319.2 *5*	$5/2^+$[#]		g=+38 *8* from IPAC in 1981Al19, assuming $T_{1/2}$=38 *2* ps.
344.6 *5*	$1/2^+$	1.01 ns *5*	$T_{1/2}$: from 618γ-344γ(t) and 22X-344γ(t) in 1970Sc10; Others: 0.88 ns *5* in 1974Be71, 0.801 ns *64* in 1969Ka02.
442.3 *6*	$(7/2)^+$[#]		
489.2 *9*	$11/2^-$		
560.7 *5*	$3/2^+$		
644.6 *6*	$7/2^-$	126 ps *2*	$T_{1/2}$: 443-645γ(t) with cooled NaI detectors (1981Al19). g=−0.427 *25* from IPAC in 1981Al19. configuration: $2^+\otimes\nu h_{11/2}$.
650.8 *5*	$(3/2)^+$		
673.2 *5*	$1/2^+$[#]		
727.3 *5*	$5/2^+$		
921.2 *6*	$(1/2^+$ to $5/2^+)$		
929.1 *6*	$(5/2^+)$		
962.5 *5*	$(1/2,3/2)^+$		
1088.1 *4*	$3/2^-$		
1125.2 *7*	$(1/2^+$ to $7/2^+)$		

[†] From a least-squares fit to Eγ. ΔEγ=1 keV adopted by the evaluators.

[‡] From the Adopted Levels.

[#] Possible member of the $2^+\otimes\nu d_{5/2}$ multiplet.

^{105}Ag ε decay (41.29 d) 1996Me17,1970Ka13 (continued)

ε,β+ radiations

E(decay)	E(level)	Iε†	Log *ft*	I(ε+β+)†	Comments
(222 *5*)	1125.2	0.042 *5*	8.84 *6*	0.042 *5*	εK=0.8420 *7*; εL=0.1266 *6*; εM+=0.03144 *16*
(259 *5*)	1088.1	17.5 *17*	6.36 *5*	17.5 *17*	εK=0.8461 *5*; εL=0.1234 *4*; εM+=0.03053 *11*
(385 *5*)	962.5	1.79 *17*	7.72 *5*	1.79 *17*	εK=0.8536 *2*; εL=0.11752 *16*; εM+=0.02886 *5*
(426 *5*)	921.2	0.073 *7*	9.21 *5*	0.073 *7*	εK=0.8551 *2*; εL=0.11640 *13*; εM+=0.02854 *4*
(620 *5*)	727.3	0.036 *4*	9.99[1u] *5*	0.036 *4*	εK=0.8458 *3*; εL=0.12361 *18*; εM+=0.03064 *6*
(674 *5*)	673.2	2.9 *3*	8.02 *5*	2.9 *3*	εK=0.8598; εL=0.11270 *5*; εM+=0.02749 *2*
(696 *5*)	650.8	7.2 *7*	7.66 *5*	7.2 *7*	εK=0.8601; εL=0.11250 *5*; εM+=0.02744 *2*
(702‡ *5*)	644.6	0.053 *7*	10.30[2u] *6*	0.053 *7*	εK=0.8323 *4*; εL=0.1340 *3*; εM+=0.03370 *9*
(786 *5*)	560.7	0.14 *4*	9.83[1u] *13*	0.14 *4*	εK=0.8514 *2*; εL=0.1192 *1*; εM+=0.02938 *3*
(905 *5*)	442.3	0.27 *3*	9.32 *5*	0.27 *3*	εK=0.8618; εL=0.11113 *3*; εM+=0.027051 *8*
(1002 *5*)	344.6	67 *7*	7.01 *5*	67 *7*	εK=0.8624; εL=0.11069 *2*; εM+=0.026927 *6*
(1028‡ *5*)	319.2	0.19 *10*	10.17[1u] *23*	0.19 *10*	εK=0.8558; εL=0.11579 *6*; εM+=0.02838 *2*
(1041‡ *5*)	306.3	0.136 *14*	9.74 *5*	0.136 *14*	εK=0.8626; εL=0.11054 *2*; εM+=0.026885 *6*
(1067 *5*)	280.5	1.2 *4*	8.82 *15*	1.2 *4*	εK=0.8627; εL=0.11045 *2*; εM+=0.026859 *5*
1347 *5*	0.0	≈1	≈9.9[1u]	≈1	εK=0.8586; εL=0.11331 *4*; εM+=0.027677 *9*

† Absolute intensity per 100 decays.
‡ Existence of this branch is questionable.

^{105}Ag ε decay (41.29 d) 1996Me17,1970Ka13 (continued)

γ(^{105}Pd)

Iγ normalization: $I_{\beta+}$= 8.5×10^{-6} *14* in 1967Pi03, ε/$I_{\beta+}$=2.7×10^{3} *202* from theory and (100-$I_{\beta+\varepsilon}$)/I(γ+ce)(g.s.).

E_γ[‡]	I_γ[‡@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	δ[#]	α[†]	Comments
38.77	0.13	319.2	5/2$^+$	280.5	3/2$^+$	M1(+E2)		24 *18*	α(K)=12 *7*; α(L)=10 *10*; α(M)=1.9 *18*; α(N+..)=0.3 *3* α(N)=0.3 *3*
64.072	268	344.6	1/2$^+$	280.5	3/2$^+$	M1(+E2)	−0.025 *30*	1.354 *23*	α(K)exp=1.17 *7* (1970Ka13) α(K)=1.175 *19*; α(L)=0.147 *5*; α(M)=0.0276 *9*; α(N+..)=0.00463 *14* α(N)=0.00463 *14* δ: from γγ(θ) in 1981Al19.
90.01	0.8	650.8	(3/2)$^+$	560.7	3/2$^+$	[M1+E2]		1.3 *8*	α(K)=1.0 *6*; α(L)=0.23 *18*; α(M)=0.04 *4*; α(N+..)=0.007 *6* α(N)=0.007 *6*
112.51	0.84	673.2	1/2$^+$	560.7	3/2$^+$	[M1+E2]		0.6 *4*	α(K)=0.48 *25*; α(L)=0.09 *7*; α(M)=0.018 *13*; α(N+..)=0.0029 *20* α(N)=0.0029 *20*
155.38	9.8	644.6	7/2$^-$	489.2	11/2$^-$	E2		0.289	α(K)exp=0.235 *21* (1970Ka13) α(K)=0.238 *4*; α(L)=0.0423 *6*; α(M)=0.00808 *12*; α(N+..)=0.001290 *18* α(N)=0.001290 *18*
159.0	0.75	1088.1	3/2$^-$	929.1	(5/2$^+$)	[E1]		0.0405	α(K)=0.0354 *5*; α(L)=0.00420 *6*; α(M)=0.000783 *11*; α(N+..)=0.0001301 *19* α(N)=0.0001301 *19*
182.92	8.6	489.2	11/2$^-$	306.3	7/2$^+$	M2		0.453	α(K)exp=0.40 *5* (1970Ka13) α(K)=0.383 *6*; α(L)=0.0567 *8*; α(M)=0.01087 *16*; α(N+..)=0.00182 *3* α(N)=0.00182 *3*
202.21	0.7	644.6	7/2$^-$	442.3	(7/2)$^+$	[E1+M2]		0.17 *15*	α(K)=0.15 *13*; α(L)=0.021 *19*; α(M)=0.004 *4*; α(N+..)=0.0007 *6* α(N)=0.0007 *6*
216.1	0.33	560.7	3/2$^+$	344.6	1/2$^+$	[M1+E2]		0.068 *23*	α(K)=0.058 *18*; α(L)=0.008 *4*; α(M)=0.0016 *7*; α(N+..)=0.00026 *11* α(N)=0.00026 *11*
270.5	0.03	921.2	(1/2$^+$ to 5/2$^+$)	650.8	(3/2)$^+$				
280.54	744	280.5	3/2$^+$	0.0	5/2$^+$	M1+E2	+0.143 *7*	0.0238	α(K)=0.0207 *3*; α(L)=0.00249 *4*; α(M)=0.000469 *7*; α(N+..)=7.89×10^{-5} *12* α(N)=7.89×10^{-5} *12* Mult.: A_{22}=0.156 *8*, A_{44}=0.031 *9* (1983Si08). δ: 0.178 *14* in 1983Si08. α(K)exp=0.0209 *13* (1970Ka13).
284.8	2.3	727.3	5/2$^+$	442.3	(7/2)$^+$	M1		0.0226	α(K)exp=0.0162 *23* (1970Ka13) α(K)=0.0197 *3*; α(L)=0.00236 *4*; α(M)=0.000443 *7*;

$^{105}_{46}Pd_{59}$-3

^{105}Ag ε decay (41.29 d) 1996Me17,1970Ka13 (continued)

γ(^{105}Pd) (continued)

E_γ[‡]	I_γ[‡@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	δ[#]	α[†]	Comments
									α(N+..)=7.47×10^{-5} *11* α(N)=7.47×10^{-5} *11*
289.37	2.9	962.5	(1/2,3/2)$^+$	673.2	1/2$^+$	M1		0.0217	α(K)exp=0.0147 *17* (1970Ka13) α(K)=0.0189 *3*; α(L)=0.00226 *4*; α(M)=0.000425 *6*; α(N+..)=7.17×10^{-5} *10* α(N)=7.17×10^{-5} *10*
306.30	18.3	306.3	7/2$^+$	0.0	5/2$^+$	M1+E2	+0.055 *2*	0.0188	α(K)=0.01640 *23*; α(L)=0.00196 *3*; α(M)=0.000368 *6*; α(N+..)=6.20×10^{-5} *9* α(N)=6.20×10^{-5} *9* Mult.: A_{22}=−0.064 *17*, A_{44}=−0.081 *24* (1983Si08); Other: A_{22}=−0.200 *33*, A_{44}=0.043 *71* (1977Ba32). Mult.: α(K)exp=0.0142 *14* (1970Ka13). δ: 0.02 *4* (1983Si08), −0.39 *+13−6* from γγ(θ) in 1977Ba32.
311.74	1.9	962.5	(1/2,3/2)$^+$	650.8	(3/2)$^+$	M1		0.0179	α(K)exp=0.0096 *14* (1970Ka13) α(K)=0.01566 *22*; α(L)=0.00187 *3*; α(M)=0.000351 *5*; α(N+..)=5.92×10^{-5} *9* α(N)=5.92×10^{-5} *9*
319.24	106	319.2	5/2$^+$	0.0	5/2$^+$	M1+E2	+0.103 *8*	0.01697	α(K)exp=0.014 *9* (1970Ka13) α(K)=0.01481 *21*; α(L)=0.001769 *25*; α(M)=0.000332 *5*; α(N+..)=5.60×10^{-5} *8* α(N)=5.60×10^{-5} *8* Mult.: A_{22}=−0.157 *8*; A_{44}=0.026 *11* (1983Si08). δ: Also, −0.007 *20* (1983Si08),−0.16 *3* from γγ(θ) in 1977Ba32; +0.137 (9) from γγ(θ) in 1981Al19;
325.43	4.8	644.6	7/2$^-$	319.2	5/2$^+$	E1		0.00559 *8*	α(K)exp=0.0043 *8* (1970Ka13) α=0.00559 *8*; α(K)=0.00489 *7*; α(L)=0.000571 *8*; α(M)=0.0001067 *15*; α(N+..)=1.79×10^{-5} *3* α(N)=1.79×10^{-5} *3*
328.61	4.9	673.2	1/2$^+$	344.6	1/2$^+$	(M1)		0.01570	α(K)exp=0.0084 *9* (1970Ka13) α(K)=0.01371 *20*; α(L)=0.001632 *23*; α(M)=0.000307 *5*; α(N+..)=5.17×10^{-5} *8* α(N)=5.17×10^{-5} *8*
331.58	98.6	650.8	(3/2)$^+$	319.2	5/2$^+$	M1+E2	−0.084 *7*	0.01539	α(K)=0.01343 *19*; α(L)=0.001602 *23*; α(M)=0.000301 *5*; α(N+..)=5.07×10^{-5} *8* α(N)=5.07×10^{-5} *8* Mult.: A_{22}=−0.104 *11*, A_{44}=−0.10 *10* (1977Ba32); Also α(K)exp=0.0122 *8* (1970Ka13). δ: −0.084 *7* from γ-γ(θ) in 1983Si08, and −0.062 *9* from γ-γ(θ) in 1981Al19.
344.51[&]		650.8	(3/2)$^+$	306.3	7/2$^+$				
344.61	1000	344.6	1/2$^+$	0.0	5/2$^+$	E2		0.0188	α(K)exp=0.0163 *10* (1970Ka13) α(K)=0.01611 *23*; α(L)=0.00219 *3*; α(M)=0.000413 *6*;

$^{105}_{46}Pd_{59}$-4

^{105}Ag ε decay (41.29 d) 1996Me17,1970Ka13 (continued)

$\gamma(^{105}Pd)$ (continued)

E_γ[‡]	I_γ[‡@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	δ[#]	α[†]	Comments
									α(N+..)=6.80×10^{-5} *10* α(N)=6.80×10^{-5} *10*
353.8	0.2	673.2	1/2$^+$	319.2	5/2$^+$	[E2]		0.01725	α(K)=0.01482 *21*; α(L)=0.00200 *3*; α(M)=0.000377 *6*; α(N+..)=6.22×10^{-5} *9* α(N)=6.22×10^{-5} *9*
360.72	11.3	1088.1	3/2$^-$	727.3	5/2$^+$	E1		0.00427 *6*	α(K)exp=0.0039 *4* (1970Ka13) α=0.00427 *6*; α(K)=0.00374 *6*; α(L)=0.000436 *6*; α(M)=8.15×10^{-5} *12*; α(N+..)=1.365×10^{-5} *20* α(N)=1.365×10^{-5} *20*
370.28	17.6	650.8	(3/2)$^+$	280.5	3/2$^+$	M1+E2	0.11 *3*	0.01167	α(K)=0.01020 *15*; α(L)=0.001212 *18*; α(M)=0.000228 *4*; α(N+..)=3.84×10^{-5} *6* α(N)=3.84×10^{-5} *6* Mult.: A_{22}=−0.072 *12*, A_{44}=−0.001 *16* (1983Si08); Other: A_{22}=−0.098 *16* A_{44}=−0.030 *45* (1977Ba32); Also α(K)exp=0.0094 *8* (1970Ka13). δ: Also: 0.000 *3* (1977Ba32).
392.73	47.8	673.2	1/2$^+$	280.5	3/2$^+$	M1+E2	+0.06 *3*	0.01006 *15*	α(K)=0.00879 *13*; α(L)=0.001042 *15*; α(M)=0.000196 *3*; α(N+..)=3.30×10^{-5} *5* α(N)=3.30×10^{-5} *5* Mult.: A_{22}=0.182 *17*, A_{44}=0.020 *25* (1983Si08); Other: 0.149 *13*, −0.014 *20* (1977Ba32); Also α(K)exp=0.0083 *6* (1970Ka13). δ: 0.05 *4* in 1983Si08 from γ-$\gamma(\theta)$, −0.84 *+3−17* from $\gamma\gamma(\theta)$ in 1977Ba32; and +0.10 *7* from γ-$\gamma(\theta)$ in 1981Al19.
401.75	4.6	962.5	(1/2,3/2)$^+$	560.7	3/2$^+$	M1		0.00950 *14*	α(K)exp=0.0065 *10* (1970Ka13) α=0.00950 *14*; α(K)=0.00831 *12*; α(L)=0.000983 *14*; α(M)=0.000185 *3*; α(N+..)=3.11×10^{-5} *5* α(N)=3.11×10^{-5} *5*
408.08	1.0	727.3	5/2$^+$	319.2	5/2$^+$	M1(+E2)		0.0101 *10*	α(K)exp=0.0070 *25* (1970Ka13) α(K)=0.0087 *8*; α(L)=0.00109 *15*; α(M)=0.00021 *3*; α(N+..)=3.4×10^{-5} *5* α(N)=3.4×10^{-5} *5*
414.85	7.2	1088.1	3/2$^-$	673.2	1/2$^+$	(E1)		0.00299 *5*	α(K)exp=0.0040 *8* (1970Ka13) α=0.00299 *5*; α(K)=0.00262 *4*; α(L)=0.000305 *5*; α(M)=5.69×10^{-5} *8*; α(N+..)=9.55×10^{-6} *14* α(N)=9.55×10^{-6} *14*
421.03	2.9	727.3	5/2$^+$	306.3	7/2$^+$	M1(+E2)		0.0092 *8*	α(K)exp=0.0069 *17* (1970Ka13) α=0.0092 *8*; α(K)=0.0080 *7*; α(L)=0.00100 *13*; α(M)=0.000188 *25*; α(N+..)=3.1×10^{-5} *4* α(N)=3.1×10^{-5} *4*
437.30	6.9	1088.1	3/2$^-$	650.8	(3/2)$^+$	E1		0.00263 *4*	α(K)exp=0.0029 *6* (1970Ka13) α=0.00263 *4*; α(K)=0.00230 *4*; α(L)=0.000267 *4*; α(M)=4.99×10^{-5} *7*;

$^{105}_{46}Pd_{59}$-5

^{105}Ag ε decay (41.29 d) 1996Me17,1970Ka13 (continued)

γ(^{105}Pd) (continued)

E_γ ‡	I_γ ‡@	E_i(level)	J_i^π	E_f	J_f^π	Mult.#	δ#	α†	Comments
									α(N+..)=8.37×10^{-6} *12*
442.2	11.4	442.3	(7/2)$^+$	0.0	5/2$^+$	M1+E2	−0.23 *6*	0.00756 *11*	α(N)=8.37×10^{-6} *12* α=0.00756 *11*; α(K)=0.00661 *10*; α(L)=0.000784 *13*; α(M)=0.0001472 *23*; α(N+..)=2.48×10^{-5} α(N)=2.48×10^{-5} *4* E_γ: 422.2γ in 1996Me17 assumed by the evaluators to be a typo.
443.44	259	1088.1	3/2$^-$	644.6	7/2$^-$	E2		0.00853 *12*	α(K)exp=0.0075 *5* (1970Ka13) α=0.00853 *12*; α(K)=0.00737 *11*; α(L)=0.000954 *14*; α(M)=0.000180 *3*; α(N+..)=2.98×10^{-5} *5* α(N)=2.98×10^{-5} *5*
446.8	2.4	727.3	5/2$^+$	280.5	3/2$^+$	M1+E2	0.9 *+9−5*	0.0078 *4*	α=0.0078 *4*; α(K)=0.0068 *3*; α(L)=0.00083 *6*; α(M)=0.000157 *11*; α(N+..)=2.62×10^{-5} *17* α(N)=2.62×10^{-5} *17* Mult.: A_{22}=0.043 *32*; A_{44}=0.053 *47* (1983Si08).
486.8	0.11	929.1	(5/2$^+$)	442.3	(7/2)$^+$	[M1+E2]		0.0062 *3*	α=0.0062 *3*; α(K)=0.00540 *21*; α(L)=0.00066 *6*; α(M)=0.000125 *10*; α(N+..)=2.08×10^{-5} *15* α(N)=2.08×10^{-5} *15*
527.34	2.6	1088.1	3/2$^-$	560.7	3/2$^+$	E1		0.001673 *24*	α(K)exp=0.0015 *4* (1970Ka13) α=0.001673 *24*; α(K)=0.001466 *21*; α(L)=0.0001694 *24*; α(M)=3.17×10^{-5} *5*; α(N+..)=5.32×10^{-6} α(N)=5.32×10^{-6} *8*
560.79	13.5	560.7	3/2$^+$	0.0	5/2$^+$	M1+E2		0.00427 *7*	α(K)exp=0.0038 *4* (1970Ka13) α=0.00427 *7*; α(K)=0.00372 *6*; α(L)=0.000451 *18*; α(M)=8.5×10^{-5} *4*; α(N+..)=1.42×10^{-5} *5* α(N)=1.42×10^{-5} *5*
564.4	0.13 *4*	1125.2	(1/2$^+$ to 7/2$^+$)	560.7	3/2$^+$				
576.7	0.6	921.2	(1/2$^+$ to 5/2$^+$)	344.6	1/2$^+$				
610.0	0.2	929.1	(5/2$^+$)	319.2	5/2$^+$	[M1+E2]		0.00345 *6*	α=0.00345 *6*; α(K)=0.00301 *6*; α(L)=0.000361 *8*; α(M)=6.79×10^{-5} *16*; α(N+..)=1.139×10^{-5} *22* α(N)=1.139×10^{-5} *22*
617.90	28.6 *3*	962.5	(1/2,3/2)$^+$	344.6	1/2$^+$	M1(+E2)		0.00334 *6*	α(K)exp=0.00306 *25* (1970Ka13) α=0.00334 *6*; α(K)=0.00291 *6*; α(L)=0.000350 *7*; α(M)=6.56×10^{-5} *14*; α(N+..)=1.101×10^{-5} *19* α(N)=1.101×10^{-5} *19*
640.5	0.7	921.2	(1/2$^+$ to 5/2$^+$)	280.5	3/2$^+$				
644.63	242	644.6	7/2$^-$	0.0	5/2$^+$	E1+M2	−0.016 *4*	0.001061 *15*	α(K)exp=0.00090 *6* (1970Ka13) α=0.001061 *15*; α(K)=0.000930 *13*; α(L)=0.0001070 *15*; α(M)=2.00×10^{-5} *3*; α(N+..)=3.37×10^{-6} α(N)=3.37×10^{-6} *5* δ: −0.020 *+5−6* from γγ(θ) in 1977Ba32; Other: −0.012 *4*

$^{105}_{46}Pd_{59}$-6

^{105}Ag ε decay (41.29 d) 1996Me17,1970Ka13 (continued)

γ(^{105}Pd) (continued)

E_γ[‡]	I_γ[‡@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	δ[#]	α[†]	Comments
									from γγ(θ) in 1981Al19.
									Mult.: A_{22}=−0.170 *5*, 0.001 *1* (1977Ba32).
646.00	1.6	1088.1	3/2$^-$	442.3	(7/2)$^+$	[M2]		0.00876 *13*	α=0.00876 *13*; α(K)=0.00762 *11*; α(L)=0.000940 *14*; α(M)=0.0001774 *25*; α(N+..)=2.99×10^{-5} α(N)=2.99×10^{-5} *5*
650.78	60.0	650.8	(3/2)$^+$	0.0	5/2$^+$	M1+E2		0.00293 *7*	α(K)exp=0.00264 *18* (1970Ka13) α=0.00293 *7*; α(K)=0.00256 *7*; α(L)=0.000306 *5*; α(M)=5.74×10^{-5} *9*; α(N+..)=9.64×10^{-6} *14* α(N)=9.64×10^{-6} *14*
673.24	23.3	673.2	1/2$^+$	0.0	5/2$^+$	E2		0.00263 *4*	α(K)exp=0.00224 *19* (1970Ka13) α=0.00263 *4*; α(K)=0.00229 *4*; α(L)=0.000280 *4*; α(M)=5.26×10^{-5} *8*; α(N+..)=8.79×10^{-6} *13* α(N)=8.79×10^{-6} *13*
681.94	1.8	962.5	(1/2,3/2)$^+$	280.5	3/2$^+$	M1(+E2)		0.00261 *8*	α(K)exp=0.0034 *8* (1970Ka13) α=0.00261 *8*; α(K)=0.00228 *8*; α(L)=0.000272 *4*; α(M)=5.10×10^{-5} *8*; α(N+..)=8.57×10^{-6} *15* α(N)=8.57×10^{-6} *15*
727.28	3.5	727.3	5/2$^+$	0.0	5/2$^+$	M1(+E2)		0.00223 *9*	α(K)exp=0.0028 *9* (1970Ka13) α=0.00223 *9*; α(K)=0.00195 *8*; α(L)=0.000231 *5*; α(M)=4.34×10^{-5} *9*; α(N+..)=7.30×10^{-6} *18* α(N)=7.30×10^{-6} *18*
743.45	12.7	1088.1	3/2$^-$	344.6	1/2$^+$	E1		0.000778 *11*	α(K)exp=0.00070 *11* (1970Ka13) α=0.000778 *11*; α(K)=0.000683 *10*; α(L)=7.83×10^{-5} *11*; α(M)=1.463×10^{-5} *21*; α(N+..)=2.46×10^{-6} α(N)=2.46×10^{-6} *4*
768.9	0.24	1088.1	3/2$^-$	319.2	5/2$^+$	[E1+M2]		0.0031 *24*	α=0.0031 *24*; α(K)=0.0027 *21*; α(L)=0.0003 *3*; α(M)=6.E−5 *5*; α(N+..)=1.0×10^{-5} *8* α(N)=1.0×10^{-5} *8*
807.57	27.5 *17*	1088.1	3/2$^-$	280.5	3/2$^+$	E1(+M2)	0.03 *+4−3*	0.000659 *19*	α(K)exp=0.00061 *7* (1970Ka13) α=0.000659 *19*; α(K)=0.000579 *17*; α(L)=6.62×10^{-5} *20*; α(M)=1.24×10^{-5} *4*; α(N+..)=2.08×10^{-6} *7* α(N)=2.08×10^{-6} *7* Mult.: A_{22}=−0.108 *15*; A_{44}=−0.2 *2* (1983Si08). δ: 0.03 *+4−3* in 1983Si08, based on γγ(θ).
844.6	0.6	1125.2	(1/2$^+$ to 7/2$^+$)	280.5	3/2$^+$				
921.2	0.4	921.2	(1/2$^+$ to 5/2$^+$)	0.0	5/2$^+$				
929.1	0.33	929.1	(5/2$^+$)	0.0	5/2$^+$	[M1+E2]		0.00126 *7*	α=0.00126 *7*; α(K)=0.00110 *7*; α(L)=0.000129 *6*; α(M)=2.42×10^{-5} *11*; α(N+..)=4.07×10^{-6} *20* α(N)=4.07×10^{-6} *20*
962.45	2.7	962.5	(1/2,3/2)$^+$	0.0	5/2$^+$	M1(+E2)		0.00116 *7*	α(K)exp=0.00119 *23* (1970Ka13) α=0.00116 *7*; α(K)=0.00102 *6*; α(L)=0.000119 *6*;

$^{105}_{46}Pd_{59}$-7

^{105}Ag ε decay (41.29 d) 1996Me17,1970Ka13 (continued)

γ(^{105}Pd) (continued)

E_γ[‡]	I_γ[‡@]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[†]	Comments
								α(M)=2.23×10^{-5} *11*; α(N+..)=3.75×10^{-6} *19* α(N)=3.75×10^{-6} *19*
1088.05	86.	1088.1	3/2$^-$	0.0	5/2$^+$	E1	0.000366 *6*	α(K)exp=0.000299 *22* (1970Ka13) α=0.000366 *6*; α(K)=0.000322 *5*; α(L)=3.66×10^{-5} *6*; α(M)=6.83×10^{-6} *10*; α(N+..)=1.152×10^{-6} *17* α(N)=1.152×10^{-6} *17*
1125.2	0.27	1125.2	(1/2$^+$ to 7/2$^+$)	0.0	5/2$^+$			

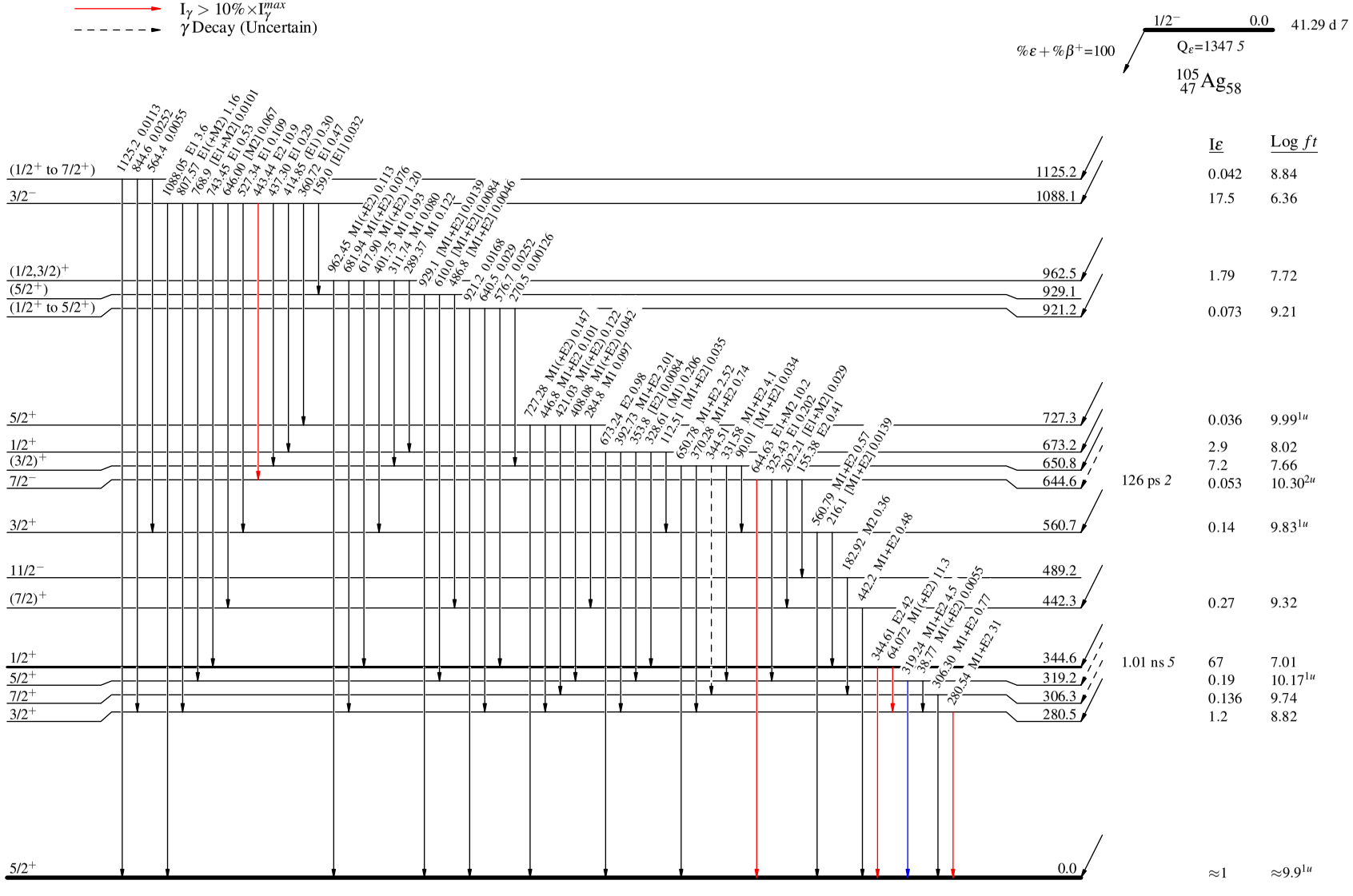
† Additional information 1.
‡ From 1996Me17.
# Unless otherwise noted from 1983Si08, based on γγ(θ) from DCO measurments.
@ For absolute intensity per 100 decays, multiply by 0.042 *4*.
& Placement of transition in the level scheme is uncertain.

$^{105}_{46}Pd_{59}$-8

^{105}Ag ε decay (41.29 d) 1996Me17,1970Ka13

Decay Scheme

Intensities: I_γ per 100 parent decays



$^{105}_{46}Pd_{59}$

$^{105}_{46}Pd_{59}$-9