

¹⁰⁸Ag ε+β⁺ decay (438 y)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	ENSDF	1-Jul-2008

Parent: ¹⁰⁸Ag: E=109.466 7; J^π=6⁺; T_{1/2}=438 y 9; Q(ε)=1922 5; %ε+%β⁺ decay=91.3 6

¹⁰⁸Ag-%ε+%β⁺ decay: weighted average of values calculated from I_γ(79γ ¹⁰⁸Ag)/I_γ(434γ ¹⁰⁸Pd) data of 1966Ki03 (0.073 8).

¹⁰⁸Pd Levels

γγ(θ), (pol γ)(θ): from (723γ)(614γ)(θ), (723γ)(434γ)(θ), (614γ)(434γ)(θ), (723γ)(614γ)(434γ)(θ), and pol(723γ), pol(614γ) data, 1973Be08 determine J^π(1771 level)=6⁺ and J^π(1048 level)=4⁺ given that J^π(434 level)=2⁺. Other: 1966Ki03.

E(level)	J ^π †
0.0	0 ⁺
433.938 5	2 ⁺
1048.25 5	4 ⁺
1771.162 11	6 ⁺

† From γγ(θ), (pol γ)(θ), except for J^π(434 level) which is the adopted value.

ε,β⁺ radiations

E(decay)	E(level)	I _ε †	Log ft	I(ε+β ⁺)†	Comments
(260 5)	1771.162	100	9.22 3	100	εK=0.8462 5; εL=0.1233 4; εM=0.03050 11 εK/ε(exp)=0.85 4 (1979Da05), 0.81 4 (1966Ki03), 0.82 3 (1991Be15). If ω(K)=0.82 3. From the adopted Q(β ⁻)value, one obtains εK/ε=0.846.

† For absolute intensity per 100 decays, multiply by 0.913 6.

γ(¹⁰⁸Pd)

I_γ normalization: from I(γ+ce)(434γ)=100.

E _γ	I _γ †#	E _i (level)	J _i ^π	E _f	J _f ^π	Mult.‡	α [@]	Comments
433.937 4	100	433.938	2 ⁺	0.0	0 ⁺	[E2]		α=0.0091. E _γ : from 1994HeZZ. Others: 433.939 4 (1978MeZZ), 433.935 4 (1975Mo34). Mult.: from decay scheme.
614.276 4	99.3 20	1048.25	4 ⁺	433.938	2 ⁺	E2	0.0034	E _γ : from 1994HeZZ. Others: 614.281 6 (1978MeZZ), 614.37 10 (1969Br03), 614.3 1 (1973Be08), 614.27 5 (1974HeYW).
722.907 10	100.4 20	1771.162	6 ⁺	1048.25	4 ⁺	E2	0.0022	E _γ : from 1994HeZZ. Others: 722.938 8 (1978MeZZ), 722.95 8 (1969Br03), 722.9 1 (1973Be08), 722.90 5 (1974HeYW).

† From 1971Ha17. Others: 1966Ki03, 1968Kr04, 1974HeYW, 1978MeZZ.

‡ From γγ(θ), (pol γ)(θ) (1973Be08) ΔJ, Δπ=2, no for the 614 and 723 transitions. From Ice of 1966Ki03 and adopted I_γ, α(K)exp values normalized to α(K)(434γ)=0.00789 (E2 theory) yield mult.=M1, E2 or M1+E2 for the 614 and 723γ's.

For absolute intensity per 100 decays, multiply by 0.905.

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

^{108}Ag ϵ decay (438 y)

Decay Scheme

Intensities: I_γ per 100 parent decays

Legend

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

