

^{108}Ag IT decay (438 y)

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

Parent: ^{108}Ag : E=109.466 7; $J^\pi=6^+$; $T_{1/2}=438$ y 9; %IT decay=8.7 6

^{108}Ag -%IT decay: weighted average of values calculated from $I_\gamma(79\gamma \text{ } ^{108}\text{Ag})/I_\gamma(434\gamma \text{ } ^{108}\text{Pd})$ data of [1966Ki03](#) (0.073 8) and $\alpha(79\gamma)=0.313$, $\alpha(434\gamma)=0.0091$.

%IT= 8.7 9.

See also ^{108}Ag ε decay (438 y).

 ^{108}Ag Levels

E(level)	J^π	$T_{1/2}$	Comments
0	1^+	2.382 min 11	
79.131 3	2^-	<1 ns	$T_{1/2}$: from $\text{ce}\gamma(t)$ (1966Ki03).
109.51 3	6^+	438 y 9	$T_{1/2}$: from 2004Sc04 . 2004Sc04 has followed the decay by using a ionization chamber for about 20 years.

 $\gamma(^{108}\text{Ag})$

I_γ normalization: from $I(\gamma+\text{ce})(79\gamma)=I(\gamma+\text{ce})(30\gamma)=100$.

E_γ	$I_\gamma^{\ddagger\ddagger}$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult.	$\alpha^\#$	$I_{(\gamma+\text{ce})}^{\ddagger}$	Comments
30.38 6		109.51	6^+	79.131	2^-	M4	4.26×10^5 9	100	ce(K)/($\gamma+\text{ce}$)=0.0262 7; ce(L)/($\gamma+\text{ce}$)=0.753 11; ce(M)/($\gamma+\text{ce}$)=0.190 5; ce(N+)/($\gamma+\text{ce}$)=0.0307 9 ce(N)/($\gamma+\text{ce}$)=0.0304 9; ce(O)/($\gamma+\text{ce}$)=0.000281 8 B(M4)(W.u.)=0.0122 10 E_γ : from 1966Ki03 , s ce. Mult.: from ce(L1)/ce(L23), $\alpha(K)/(1+\alpha)$ (1966Ki03).
79.131 3	76.2 6	79.131	2^-	0	1^+	E1	0.312	100	α : for $E_\gamma=30.332$ (adopted value). ce(K)/($\gamma+\text{ce}$)=0.2062 24; ce(L)/($\gamma+\text{ce}$)=0.0256 4; ce(M)/($\gamma+\text{ce}$)=0.00483 7; ce(N+)/($\gamma+\text{ce}$)=0.000847 13 ce(N)/($\gamma+\text{ce}$)=0.000815 12; ce(O)/($\gamma+\text{ce}$)= 3.15×10^{-5} 5 B(E1)(W.u.)>0.00046 E_γ : from 1982Ma13 . Uncertainty is given at 2σ confidence level. $K\alpha$ x ray lines of Pb (energy from 1967Be73) were used for calibration. Others: 1972Sc42 , 1973Be08 , 1979Da05 . Mult.: from $\alpha(K)\text{exp}$ based on $\text{Ice}(K)/I_\gamma$ of 1966Ki03 normalized so that $\alpha(K)\text{exp}(434\gamma, ^{108}\text{Pd})=0.00789$ (E2 theory).

‡ From $I(\gamma+\text{ce})/(1+\alpha)$ and $I(\gamma+\text{ce})(79\gamma)=I(\gamma+\text{ce})(30\gamma)=100$.

‡‡ For absolute intensity per 100 decays, multiply by 0.087 6.

Continued on next page (footnotes at end of table)

 ^{108}Ag IT decay (438 y) (continued) **$\gamma(^{108}\text{Ag})$ (continued)**

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 IT decay (438 y)**Decay Scheme**

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays
%IT=8.7 6

