

^{105}Ag IT decay (7.23 min) 1976Sv04,1969Ho36

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

Parent: ^{105}Ag : E=25.48 2; $J^\pi=7/2^+$; $T_{1/2}=7.23$ min 16; %IT decay=99.66 7

^{105}Ag -%IT decay: from % $\epsilon=0.34$ 7 in 1972Kr28.

1969Ho36: Facility: Princeton AVF Cyclotron; Source: mass- and chemically separated from $^{\text{nat}}\text{Cd}(p,xn)$ reaction at E(p)=35 MeV; Detectors: one proportional chamber, one NaI(Tl) and one Si(Li); Measured: x-rays, γ , $\gamma(t)$, $E\gamma$, ce; Deduced: E, $T_{1/2}$.

1976Sv04: Facility: Gustaf Werner Institute's synchro-cyclotron; Source: chemically separated ^{105}Cd from $^{107}\text{Ag}(p,3n)$ reaction at E(p)=31 MeV; Target: enriched to 98% in ^{107}Ag ; Detectors: magnet spectrometer in double and single focusing modes, NE111 plastic scintillator. FWHM=1.5 ns; Measured: X- and γ -rays, $E\gamma$, ce, Ice, x-ce(t) coinc.; Deduced: δ , $T_{1/2}$.

Others: 1981Tr07, 1978Sh08, 1972Kr28, 1953Jo20.

 ^{105}Ag Levels

E(level)	J^π^\dagger	$T_{1/2}$	Comments
0.0	$1/2^-$		
25.48 2	$7/2^+$	7.23 min 16	$T_{1/2}$: from $L_{ce}(t)$ in 1969Ho36.

† From the Adopted Levels.

								<u>$\gamma(^{105}\text{Ag})$</u>		
E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult.	α^\ddagger	$I_{(\gamma+ce)}^\dagger$	Comments		
25.48 2	25.48	$7/2^+$	0.0	$1/2^-$	E3	2.29×10^4	100	ce(L)/($\gamma+ce$)=0.801 8; ce(M)/($\gamma+ce$)=0.173 4; ce(N+)/($\gamma+ce$)=0.0266 6; ce(N)/($\gamma+ce$)=0.0266 6; ce(O)/($\gamma+ce$)= 1.62×10^{-6} 4; E_γ : weighted average of 25.53 3 (1978Sh08) and 25.47 1 (1976Sv04); Other: 25.5 in 1969Ho36. Mult.: from $\alpha(L)\text{exp}:\alpha(M)\text{exp}:\alpha(N)\text{exp}=1:(0.22 \pm 2):(0.09 \pm 2)$ in 1978Sh08; $\alpha(L1)\text{exp}:\alpha(L2)\text{exp}:\alpha(L3)\text{exp}<0.002:1:(1.47 \pm 4)$ in 1978Sh08.		

† For absolute intensity per 100 decays, multiply by 0.9966 7.

‡ 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.

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Decay Scheme

%IT=99.66 7

