

^{105}In IT decay (48 s) 1975Ri06,1984Ve01

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}In : E=674.1 3; $J^\pi=(1/2^-)$; $T_{1/2}=48$ s 6; %IT decay=100.0

1984Ve01: Facility: Leuven CYCLONE cyclotron; Source: $^{105\text{m}}\text{In}$ from $^{14}\text{N}+\text{natMo}$ and $^{16}\text{O}+\text{natMo}$; Beam: E(^{14}N)=90 MeV, E(^{16}O)=100 MeV; Detectors: isotope separator LISOL, two Ge(Li), one LEPS, one plastic scintillator, mini orange; Measured: γ , γ - γ and β - γ coinc, E_γ , I_γ , $T_{1/2}$; Deduced: level scheme, $\alpha(\text{K})\text{exp}$.

 ^{105}In Levels

E(level) [†]	J^π [†]	$T_{1/2}$ [†]	Comments
0.0	9/2 ⁺	5.07 min 7	configuration: $\pi g_{9/2}^{-1}$.
674.1 3	(1/2 ⁻)	48 s 6	configuration: $\pi p_{1/2}$.

[†] From the Adopted Levels.

 $\gamma(^{105}\text{In})$

E_γ [†]	I_γ [‡]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult.	$\alpha^\#$	$I_{(\gamma+ce)}^\ddagger$	Comments
674.1 3	94.3 13	674.1	(1/2 ⁻)	0.0	9/2 ⁺	M4	0.0604	100	ce(K)/(γ +ce)=0.0478 7; ce(L)/(γ +ce)=0.00742 11; ce(M)/(γ +ce)=0.001475 21; ce(N+)/(γ +ce)=0.000287 4; ce(N)/(γ +ce)=0.000268 4; ce(O)/(γ +ce)= 1.83×10^{-5} 3; Mult.: $\alpha(\text{K})\text{exp}=0.067$ 9 from 1984Ve01. I_γ : deduced by evaluators from I(γ +ce) and α .

[†] From 1975Ri06.

[‡] Absolute intensity per 100 decays.

[#] 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.

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Decay Scheme

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays
%IT=100.0

