

^{105}Pd IT decay (35.5 μs) [1965Mc03,1958Du80,1956Ve03](#)

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}Pd : E=489.2 15; $J^\pi=11/2^-$; $T_{1/2}=35.5 \mu\text{s}$ 5; %IT decay=100.0

[1965Mc03](#): Facility: Univ.Pittsburg cyclotron; Beam: E(d)=15 MeV, pulsed; Detectors: one NaI(Tl); Measured: $E\gamma$, $\gamma(t)$; Deduced: $T_{1/2}$.

[1956Ve03](#), [1958Du80](#): Facility: Univ. Illinois betatron; Beam: bremsstrahlung from E(β)=22 MeV; Detectors: one NaI, shielded with Pb; Measured: $\gamma(t)$, $E\gamma$, $I\gamma(t)$; Deduced: $T_{1/2}$.

 ^{105}Pd Levels

E(level) [†]	J^π [‡]	$T_{1/2}$ [‡]
0.0	5/2 ⁺	
306.3 10	7/2 ⁺	71 ps 8
489.2 15	11/2 ⁻	35.5 μs 5

[†] From a least-squares fit to $E\gamma$. $\Delta E\gamma=1$ assumed by the evaluators.

[‡] From the Adopted Levels.

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

$I\gamma$ normalization: from $I(\gamma+ce)(\text{to g.s.})=100\%$.

E_γ [‡]	I_γ [#]	$E_i(\text{level})$	J^π_i	E_f	J^π_f	Mult. [‡]	δ [‡]	α [†]	$I_{(\gamma+ce)}$ [#]	Comments
182.92	68.8 3	489.2	11/2 ⁻	306.3	7/2 ⁺	M2		0.453	100	$\alpha(K)=0.383$ 6; $\alpha(L)=0.0567$ 8; $\alpha(M)=0.01087$ 16; $\alpha(N+..)=0.00182$ 3
306.30	98.15 3	306.3	7/2 ⁺	0.0	5/2 ⁺	M1+E2	+0.055 2	0.0188	100	$\alpha(N)=0.00182$ 3 $\alpha(K)=0.01640$ 23; $\alpha(L)=0.00196$ 3; $\alpha(M)=0.000368$ 6; $\alpha(N+..)=6.20\times 10^{-5}$ 9 $\alpha(N)=6.20\times 10^{-5}$ 9

[†] [Additional information 1.](#)

[‡] From the Adopted Levels.

[#] Absolute intensity per 100 decays.

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