

^{109}Pd IT decay (4.703 min)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	S. Kumar(a), J. Chen(b) and F. G. Kondev		NDS 137, 1 (2016)	31-May-2016

Parent: ^{109}Pd : $E=188.9$ I; $J^\pi=11/2^-$; $T_{1/2}=4.703$ min 9; %IT decay=100.0

1990Ab06: ^{109}Pd sample was produced by (n, γ) reaction using thermal neutrons. γ rays were detected with a 85 cm³ coaxial HPGe detector (FWHM=1.8 keV at $E_\gamma=1333$ keV). Measured $\gamma(t)$. Deduced half-life of the isomeric state. See also [1992An19](#) (same group).

1992KaZM: ^{109}Pd sample was produced from thermal neutron capture. Measured $\gamma(t)$ using Ge detectors. Deduced half-life.

OtherS: [1969Sc12](#), [1968Be22](#), [1967Na18](#), [1964We09](#), [1959St28](#), [1958Sc03](#), [1957St87](#), [1951Ka46](#).

 ^{109}Pd Levels

E(level)	J^π [†]	$T_{1/2}$ [†]
0	$5/2^+$	13.59 h 12
188.9 I	$11/2^-$	4.703 min 9

[†] From Adopted Levels.

 $\gamma(^{109}\text{Pd})$

E_γ	I_γ [‡]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult.	α [†]	Comments
188.9 I	56.0 3	188.9	$11/2^-$	0	$5/2^+$	E3	0.785	$\alpha(\text{K})=0.572$ 8; $\alpha(\text{L})=0.1737$ 25; $\alpha(\text{M})=0.0341$ 5 $\alpha(\text{N})=0.00530$ 8 E_γ : weighted average of 188.9 I (1969Sc12) and 189.1 3 (1967Na18). Other: 188 5 (1957St87). I_γ : deduced from $I(\gamma+ce)=100$ and $\alpha=0.785$. Mult.: $\alpha(\text{K})_{\text{exp}}=0.52$ 4 (1964We09), 0.60 I (1957St87).

[†] Additional information 1.

[‡] Absolute intensity per 100 decays.

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Decay Scheme

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

