

^{119}Pd β^- decay (0.92 s) [1991Pe04](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	D. M. Symochko, E. Browne, J. K. Tuli		NDS 110,2945 (2009)	1-Dec-2008

Parent: ^{119}Pd : $E \geq 0.0$; $J^\pi = (7/2^+)$; $T_{1/2} = 0.92$ s 8; $Q(\beta^-) = 7023$ SY; % β^- decay = 100.0

^{238}U (p,f) $E = 20$ MeV, on-line mass; measured γ , $\beta\gamma$, $\gamma\gamma$, γx .

Decay scheme is that proposed by [1991Pe04](#). Authors were unable to determine the energies of the $(7/2^+)$ and $(1/2^-)$ isomers in the ^{119}Ag daughter nucleus.

 ^{119}Ag Levels

E(level)	J^π [†]	$T_{1/2}$
0.0+x	$(7/2^+)$	2.1 s 1
0.0+y	$(1/2^-)$	6.0 s 5
130+x	$(7/2^+, 9/2^+, 11/2^+)$	
256+y	$(1/2, 3/2^-)$	
326+y	$(1/2, 3/2^-)$	

[†] From Adopted Levels.

 $\gamma(^{119}\text{Ag})$

E_γ	I_γ [†]	E_i (level)	J_i^π	E_f	J_f^π	Mult.	α^\ddagger	Comments
69.9 3	12	326+y	$(1/2, 3/2^-)$	256+y	$(1/2, 3/2^-)$	M1	1.163 22	$\alpha(\text{K})_{\text{exp}} = 1.0$ 4 $\alpha(\text{K}) = 1.009$ 19; $\alpha(\text{L}) = 0.1261$ 24; $\alpha(\text{M}) = 0.0240$ 5; $\alpha(\text{N}) = 0.00415$ 8
129.9 3	100	130+x	$(7/2^+, 9/2^+, 11/2^+)$	0.0+x	$(7/2^+)$	[M1, E2]	0.39 19	$\alpha(\text{K})_{\text{exp}}$ from (K x ray) $\gamma/\gamma\gamma$. $\alpha(\text{K}) = 0.31$ 14; $\alpha(\text{L}) = 0.06$ 4; $\alpha(\text{M}) = 0.011$ 7; $\alpha(\text{N}) = 0.0018$ 12
256.6 3	63	256+y	$(1/2, 3/2^-)$	0.0+y	$(1/2^-)$			
326.1 3	52	326+y	$(1/2, 3/2^-)$	0.0+y	$(1/2^-)$			
^x 507.2 [#] 3								

[†] Relative to $I(129.9\gamma) = 100$.

[‡] 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.

[#] Placement of transition in the level scheme is uncertain.

^x γ ray not placed in level scheme.

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Decay Scheme

Intensities: Relative I_γ

Legend

