

¹¹⁷Pd IT decay 1990Pe10,1991Pe10

Type	History		Literature Cutoff Date
	Author	Citation	
Full Evaluation	Jean Blachot	ENSDF	1-Mar-2009

Parent: ¹¹⁷Pd: E=203.2 3; J^π=(11/2⁻); T_{1/2}=19.1 ms 7; %IT decay=100

1990Pe10: ²³⁸U(p,F) E=28 MeV. On-line mass separator.

Measured: γ, γγ, Ge, (1990Pe10,1991Pe04,1991Pe10). All references are from the same group. ce with electron spectrometer (1991Pe10). α(K)exp relative to the 135 keV, M1 in ¹¹⁷Cd (α(K)exp=0.172).

α: [Additional information 1](#).

¹¹⁷Pd Levels

E(level)	J ^π †	T _{1/2}	Comments
0.0	(5/2 ⁺)	4.3 s 3	
34.6 3	(7/2 ⁺)		
131.8 3	(7/2 ⁺)		
203.2 3	(11/2 ⁻)	19.1 ms 7	T _{1/2} : from 1991Pe10, other: 18 ms 2 (1990Pe10), same authors.

† From Adopted Levels.

γ(¹¹⁷Pd)

E _γ †	I _γ ‡	E _i (level)	J _i ^π	E _f	J _f ^π	Mult.	δ	α	I _(γ+ce) ‡	Comments
34.6 3	10.8 12	34.6	(7/2 ⁺)	0.0	(5/2 ⁺)	M1		8.14 24		α(K)exp=7.1 9; α(L)exp=0.62 18 α(K)=7.06 21; α(L)=0.88 3; α(M)=0.167 5; α(N)=0.0279 9; α(N+..)=0.0279 9
71.5 3	0.40 20	203.2	(11/2 ⁻)	131.8	(7/2 ⁺)	M2		13.8 3		α(K)exp=7 +15-4 α(K)=11.15 24; α(L)=2.13 5; α(M)=0.418 10; α(N)=0.0693 16; α(N+..)=0.0693 16 B(M2)(W.u.)=0.00014 8
97.1 3	3.5 7	131.8	(7/2 ⁺)	34.6	(7/2 ⁺)	M1		0.412 7		α(K)exp=0.42 16 α(K)=0.358 6; α(L)=0.0442 8; α(M)=0.00832 14; α(N)=0.001398 24; α(N+..)=0.001398 24
131.8 3	2.0 7	131.8	(7/2 ⁺)	0.0	(5/2 ⁺)	E2(+M1)	>1.0	0.43 9	3 1	α(K)exp=0.38 9; ce(K)/(γ+ce)=0.25 4; ce(L)/(γ+ce)=0.046 11; ce(M)/(γ+ce)=0.0089 22; ce(N)/(γ+ce)=0.0014 4 ce(N+)/(γ+ce)=0.0014 4
168.6 3	59.2 13	203.2	(11/2 ⁻)	34.6	(7/2 ⁺)	M2		0.600		α(K)exp=0.55 7 α(K)=0.507 8; α(L)=0.0763 12; α(M)=0.01465 23; α(N)=0.00245 4; α(N+..)=0.00245 4 B(M2)(W.u.)=0.000293 17

† From 1991Pe10.

‡ Absolute intensity per 100 decays.

^{117}Pd IT decay 1990Pe10,1991Pe10Decay Scheme

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

Legend

- $I_{\gamma} < 2\% \times I_{\gamma}^{max}$
 —————→ $I_{\gamma} < 10\% \times I_{\gamma}^{max}$
 —————→ $I_{\gamma} > 10\% \times I_{\gamma}^{max}$

