

¹⁹³Pt IT decay (4.33 d) 1968Sv01

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia		NDS 143, 1 (2017)	31-Mar-2017

Parent: ¹⁹³Pt: E=149.78 3; J^π=13/2⁺; T_{1/2}=4.33 d 3; %IT decay=100.0

1968Sv01: sources from Pt(p,xn), E(p)=35 MeV, chem; measured E(ce), Ice (mag spect).

Others: 1953Sw20, 1954Co29, 1954Gi04, 1955Br41, 1957Ew34, 1960Ma28, 1961Kr02, 1989ViZT.

¹⁹³Pt Levels

E(level)	J ^π †	T _{1/2} ‡	Comments
0.0	1/2 ⁻	50 y 6	
1.642 2	3/2 ⁻	9.7 ns 3	
14.276 8	5/2 ⁻	2.52 ns 5	
149.78 3	13/2 ⁺	4.33 d 3	%IT=100 T _{1/2} : from 1949Wi08; however, they saw also a 170γ and an 1.5 MeV γ, obviously from some impurity. Other values: 4.5 d 2 (1953Sw20), 3.35 d 10 (1954Co29), 3.5 d 4 (1955Br41), 4.4 d 2 (1957Ew34).

† From Adopted Levels.

‡ From Adopted Levels, unless otherwise noted.

γ(¹⁹³Pt)

I(γ+ce) normalization: From Ti(135.50γ)=100%.

E _γ †	E _i (level)	J _i ^π	E _f	J _f ^π	Mult.	δ	α [@]	I _(γ+ce) ‡&	Comments
1.642 [#] 2	1.642	3/2 ⁻	0.0	1/2 ⁻	M1 [#]		3116	100	ce(N)/(γ+ce)=0.84; ce(O)/(γ+ce)=0.16 α: From Bricc. Note 1.642γ is within 1 keV to the N1-shell binding energy of 0.723 keV. Others: 12000 (1991Ba63), 4010 (1978Ro21).
12.634 [#] 8	14.276	5/2 ⁻	1.642	3/2 ⁻	M1+E2 [#]	0.015 [#] +3-4	142 8	100	ce(L)/(γ+ce)=0.10 3; ce(M)/(γ+ce)=0.69 4 ce(N)/(γ+ce)=0.171 10; ce(O)/(γ+ce)=0.0305 18; ce(P)/(γ+ce)=0.00197 11 α(L)=14 5; α(M)=99 3 α(N)=24.4 6; α(O)=4.35 10; α(P)=0.281 4
135.50 3	149.78	13/2 ⁺	14.276	5/2 ⁻	M4		872	100	ce(K)/(γ+ce)=0.155 3; ce(L)/(γ+ce)=0.600 8; ce(M)/(γ+ce)=0.188 4 ce(N)/(γ+ce)=0.0480 10; ce(O)/(γ+ce)=0.00765 16; ce(P)/(γ+ce)=0.000186 4 α(K)=135.3 19; α(L)=524 8; α(M)=164.0 23 α(N)=41.9 6; α(O)=6.68 10; α(P)=0.1623 23

Continued on next page (footnotes at end of table)

^{193}Pt IT decay (4.33 d) 1968Sv01 (continued) $\gamma(^{193}\text{Pt})$ (continued)

E_γ [†]	E_i (level)	Comments
		E_γ : from 1968Sv01. Mult.: $\alpha(\text{K})_{\text{exp}}=135$ 11 (measured $I(x \text{ ray})/I_\gamma$ (1976Sa22)); $\text{K}/\text{L}=0.198$ 15, $\text{L}_1/\text{L}_2=4.6$ 4, $\text{L}_1/\text{L}_3=0.46$ 3 (1968Sv01); theory: $\alpha(\text{K})(\text{M}_4)=^{137}$; $\text{K}/\text{L}=0.26$, $\text{L}_1/\text{L}_2=4.40$, $\text{L}_1/\text{L}_3=0.466$. Others: $\text{K}:\text{L}_1:\text{L}_2:\text{L}_3=58:48:15:100$ (1962Ha24); $\text{K}:\text{L}_1:\text{L}_3:(\text{M}+\text{N})=10:14:29:15$ (1957Ew34). Competing crossover transition not seen (1957Ew34).

[†] Deduced from $E(\text{ce})$ measurements. Calibration: KL_1L_1 and KL_2L_3 Auger lines in Pt, $E(\text{ce}(\text{K}))$ 316 γ in ^{192}Pt ($E(\text{ce}(\text{K}))=238.087$ 10), ThC a line ($E(\text{ce})=24.509$) and ThB f line ($E(\text{ce})=148.108$).

[‡] From intensity balance in level scheme.

From ^{193}Au ε decay (17.65 h).

@ [Additional information 1](#).

& Absolute intensity per 100 decays.

 ^{193}Pt IT decay (4.33 d) 1968Sv01Decay Scheme

%IT=100.0

