

**Adopted Levels, Gammas**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	J. Tuli	ENSDF	15-Aug-2015

Q(β<sup>-</sup>)=-9127 61; S(n)=8917 57; S(p)=1853 65; Q(α)=6355 50 2012Wa38

Identification: cross bombardments and comparison of excitation functions for <sup>168</sup>Yb-<sup>174</sup>Yb(<sup>16</sup>O,xn), <sup>169</sup>Tm(<sup>19</sup>F,xn), and <sup>162</sup>Er-<sup>166</sup>Er(<sup>20</sup>Ne,xn), producing known and new Pt activities (1966Si08).

See 1984Al36 for analysis of mass and proton-stability data for <sup>173</sup>Pt.

Other reaction: Mo(<sup>84</sup>Sr,xnyp). See 2001Sm04, 2003Sm01 for study of energy-spin entry distributions.

<sup>173</sup>Pt Levels

Cross Reference (XREF) Flags

- A <sup>177</sup>Hg α decay
- B Sn(<sup>58</sup>Ni,xny)

E(level) <sup>†</sup>	J <sup>π‡</sup>	T <sub>1/2</sub>	XREF	Comments
0.0	(5/2 <sup>-</sup> )	382 ms 2	A	%ε+%β <sup>+</sup> =16 6; %α=86 4 T <sub>1/2</sub> : from 6232α(t) (2004GoZZ), the weighted average of all data (325 ms 20 (1981De22), 360 ms 20 (1982En03), 290 ms 60 (1992ToZX), 376 ms 11 (1996Pa01), 370 ms 13 (2002Ro17), 382 ms 2, 400 ms 11, 392 ms 15, 411 ms 19 (2004GoZZ), 430 ms 40 (2009An20)) is 386 ms 3. %α: weighted average of 84 6 from ratio of intensities of α group for <sup>173</sup> Pt daughter and for <sup>177</sup> Hg parent in the same spectrum (1979Ha10) 83 14 (1996Pa01) and 82 6 (2004GoZZ) yields %α=83 4 for α which constitutes 96% 1 of total <sup>173</sup> Pt α decay (2004GoZZ). J <sup>π</sup> : α decay to (5/2 <sup>-</sup> ) <sup>169</sup> Os is probably unhindered. Based on systematics, 2003Au02 suggest J <sup>π</sup> =5/2 <sup>-</sup> .
0+x <sup>#</sup>	(13/2 <sup>+</sup> )		B	
400.30+x <sup>#</sup> 20	(17/2 <sup>+</sup> )			
972.9+x <sup>#</sup> 5	(21/2 <sup>+</sup> )		B	
1586.5+x <sup>#</sup> 6	(25/2 <sup>+</sup> )		B	
1811.8+x? 11			B	
1945.2+x? 20			B	
2185.9+x <sup>#</sup> 7	(29/2 <sup>+</sup> )		B	
2205+x? 3			B	
2790.0+x <sup>#</sup> 7	(33/2 <sup>+</sup> )		B	
3424.0+x <sup>#</sup> 8	(37/2 <sup>+</sup> )		B	
4086.1+x <sup>#</sup> 8	(41/2 <sup>+</sup> )		B	

<sup>†</sup> From Ey.

<sup>‡</sup> From Sn(<sup>58</sup>Ni,xny), except As noted. Assigned by 2006Jo04, 2005Jo18 As a probable (ν i<sub>13/2</sub>) band, analogous to structure of <sup>175</sup>Pt.

# Band(A): (ν i<sub>13/2</sub>) yrast band.

Adopted Levels, Gammas (continued) $\gamma(^{173}\text{Pt})$ 

$E_i(\text{level})$	$J_i^\pi$	$E_\gamma^\dagger$	$I_\gamma$	$E_f$	$J_f^\pi$
400.30+x	(17/2 <sup>+</sup> )	400.3 2	100	0+x	(13/2 <sup>+</sup> )
972.9+x	(21/2 <sup>+</sup> )	572.6 4	100	400.30+x	(17/2 <sup>+</sup> )
1586.5+x	(25/2 <sup>+</sup> )	613.6 3	100	972.9+x	(21/2 <sup>+</sup> )
1811.8+x?		838.8 <sup>#</sup> 10	100	972.9+x	(21/2 <sup>+</sup> )
1945.2+x?		972.3 <sup>#</sup> 20	100	972.9+x	(21/2 <sup>+</sup> )
2185.9+x	(29/2 <sup>+</sup> )	599.4 3	100	1586.5+x	(25/2 <sup>+</sup> )
2205+x?		1232 <sup>#</sup> 3	100	972.9+x	(21/2 <sup>+</sup> )
2790.0+x	(33/2 <sup>+</sup> )	604.1 3	100	2185.9+x	(29/2 <sup>+</sup> )
3424.0+x	(37/2 <sup>+</sup> )	634.0 <sup>‡</sup> 3	100	2790.0+x	(33/2 <sup>+</sup> )
4086.1+x	(41/2 <sup>+</sup> )	662.1 <sup>‡</sup> 3	100	3424.0+x	(37/2 <sup>+</sup> )

<sup>†</sup> From Sn(<sup>58</sup>Ni,xn $\gamma$ ); uncertainties unstated by authors.

<sup>‡</sup> Doublet in  $\alpha$ - $\gamma\gamma$  analysis.

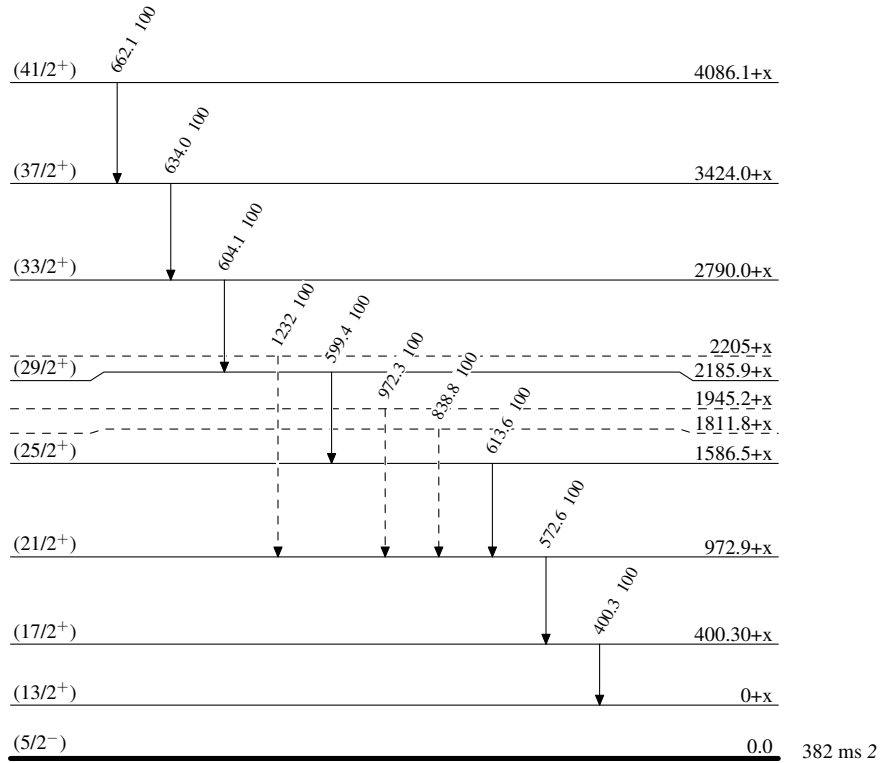
<sup>#</sup> Placement of transition in the level scheme is uncertain.

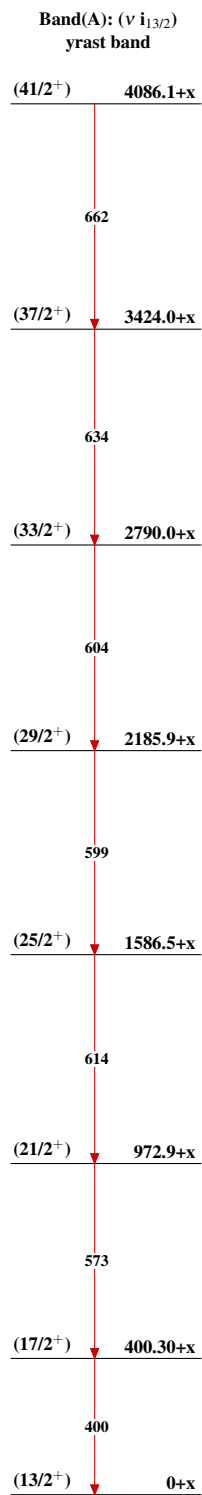
**Adopted Levels, Gammas**

Legend

Level Scheme

Intensities: Relative photon branching from each level

-----▶  $\gamma$  Decay (Uncertain) $^{173}_{78}\text{Pt}_{95}$

**Adopted Levels, Gammas** $^{173}_{78}\text{Pt}_{95}$