^{196}Pt(d,pnγ) 1984Sc19

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Huang Xiaolong	NDS 108, 1093 (2007)	1-Jan-2006

1984Sc19: E=25 MeV. 97.5% enriched ^{196}Pt. Measured Eγ, Iγ, Ice, pγ-, $\gamma\gamma$ and γ-ce coincidences, scin, Ge, mag spect.

^{196}Pt Levels

E(level)[†]	J$^\pi$[‡]	$T_{1/2}$	Comments
0[#]	0^+		
355.7[#] *10*	2^+		
688.7[@] *15*	2^+		
876.9[#] *15*	4^+		
1015.0[@] *18*	3^+		
1270.3[&] *15*	5^-		
1293.3[@] *18*	4^+		
1373.7[&] *15*	7^-	5.2 ns *2*	g=−0.03 *2* (1983GoZP) $T_{1/2}$: from $\gamma(\theta$,H,t) (1983GoZP). Other: 4.0 ns (1984Sc19).
1526.0[#] *15*	6^+		
1536.5[@] *18*	4^+		J$^\pi$: J$^\pi$=(4$^+$) from boson-expansion theory (1980We08).
1609.7[@] *18*	(5^+)		J$^\pi$: from boson-expansion theory (1980We08) and γ- vibrational band systematics (1983Ra24).
1679.9[&] *15*	(6^-)		J$^\pi$: from level energy systematics.
1820.7[&] *15*	9^-		
1901.8[&] *15*	(8^-)		J$^\pi$: from level energy systematics.

[†] From least-squares fit to Eγ's.
[‡] From Adopted Levels, except as indicated.
[#] Band(A): $K^\pi=0^+$ g.s. rotational band.
[@] Band(B): $K^\pi=2^+$ γ vibrational band..
[&] Band(C): semidecoupled negative-parity band.

γ(^{196}Pt)

E$_\gamma$	I$_\gamma$[#]	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	E$_\gamma$	I$_\gamma$[#]	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
103.4 *2*	≈1.5	1373.7	7^-	1270.3	5^-	521.5 *2*	2.8	1536.5	4^+	1015.0	3^+
326.35[‡]	14	1015.0	3^+	688.7	2^+	528.1 *2*	2.8	1901.8	(8^-)	1373.7	7^-
332.98[‡]	29	688.7	2^+	355.7	2^+	594.7 *2*	4.7	1609.7	(5^+)	1015.0	3^+
355.68[‡]	100	355.7	2^+	0	0^+	604.62[‡]	6.4	1293.3	4^+	688.7	2^+
393.4 *2*	33	1270.3	5^-	876.9	4^+	649.1 *2*	6.0	1526.0	6^+	876.9	4^+
409.6 *2*	2.9	1679.9	(6^-)	1270.3	5^-	[x]727.1[†] *2*	2.2				
447.0 *2*	3.4	1820.7	9^-	1373.7	7^-	[x]735.4[†] *3*	1.3				
[x]484.5[†] *5*	0.7					[x]758.5[†] *3*	1.6				
521.18[‡]	51	876.9	4^+	355.7	2^+						

[†] Seen in both pγ and $\gamma\gamma$ coin.
[‡] Rounded-off value from adopted gammas. Authors reported Eγ from 1979Ha41.
[#] Estimated uncertainty between 10% and 20%.
[x] γ ray not placed in level scheme.

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Level Scheme

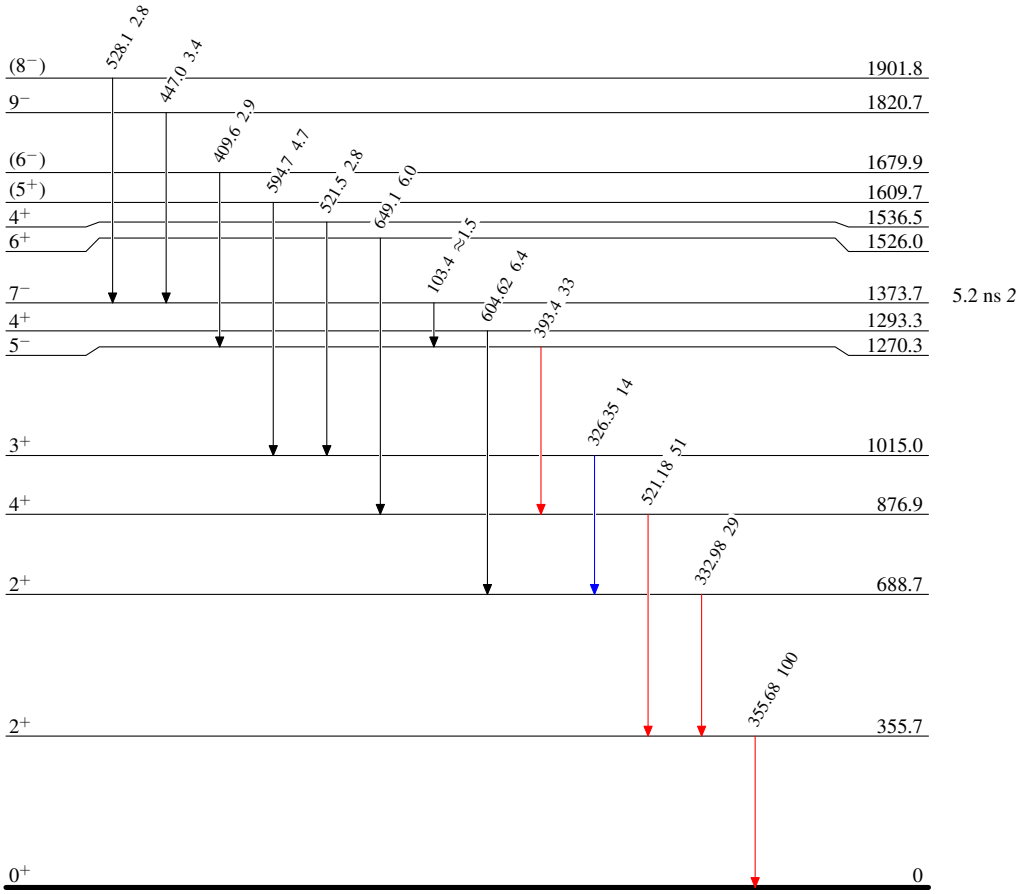
Intensities: Relative I_γ

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$



$^{196}_{78}Pt_{118}$

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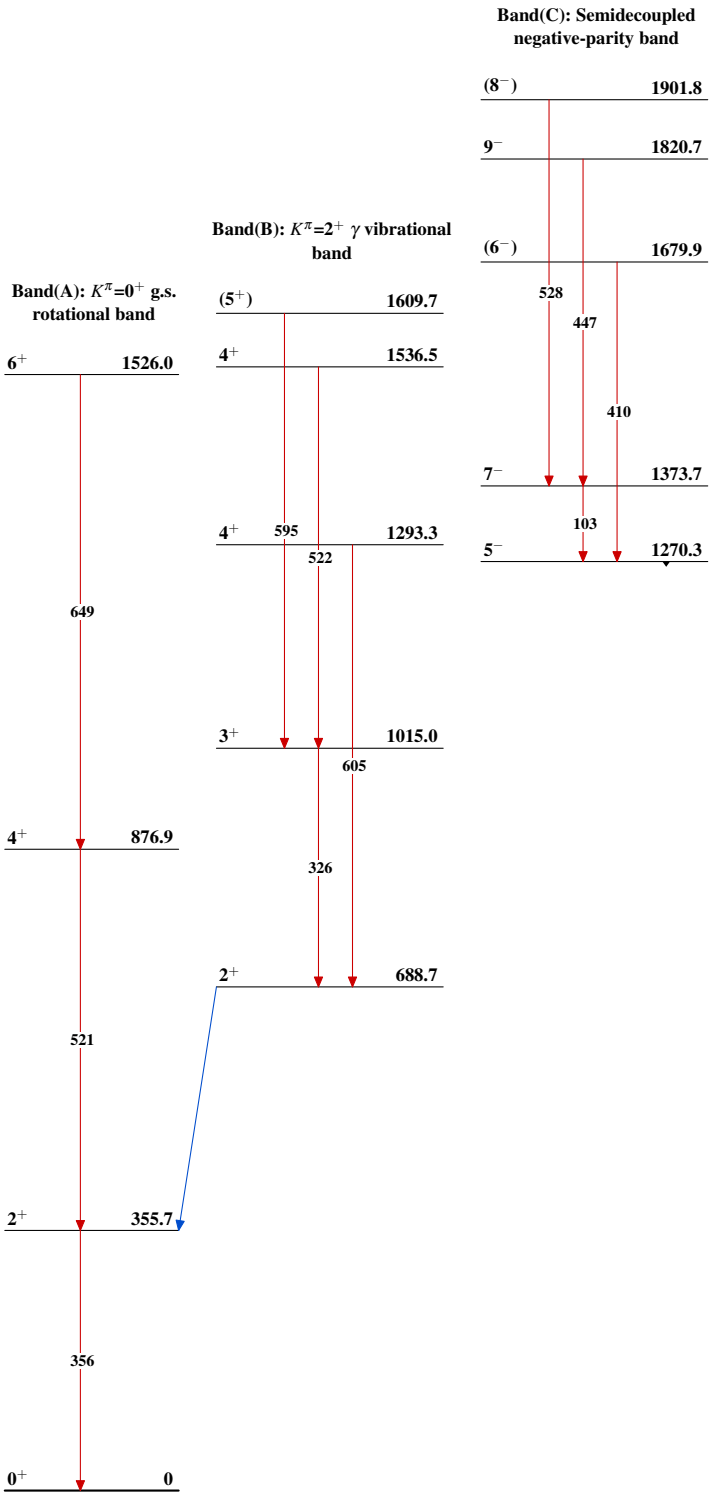

$^{196}_{78}Pt_{118}$