^{193}Ir(p,2nγ) 1974Ya03

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 113, 1871 (2012)	15-Jun-2012

Others: 1964Sa13, 1965Sa11, 1966Sa02.

The level scheme and data are from 1974Ya03, except where noted. E(p)=14 MeV, powdered Ir metal targets enriched to 97% in ^{193}Ir; measured Eγ, Iγ, (Ge(Li), FWHM=2.4 keV at 1332 keV), $\gamma\gamma$ coin, Iγ(30°)/Iγ(90°) intensity ratios (used to differentiate between Q and D transitions).

^{192}Pt Levels

E(level)	J$^\pi$†	E(level)	J$^\pi$†	E(level)	J$^\pi$†	E(level)	J$^\pi$†
0.0‡	0$^+$	1365.33‡ *11*	6$^+$	1518.16 *15*	(7$^-$)	2018.13‡ *23*	8$^+$
316.50‡ *5*	2$^+$	1377.93 *10*	3$^-$	1576.61 *20*	(2$^+$)	2102.97 *20*	(9$^-$)
612.40# *7*	2$^+$	1383.83 *13*	(5$^-$)	1666.46 *14*		2113.08 *23*	
784.54‡ *8*	4$^+$	1406.23 *13*		1739.3 *4*	(1$^-$)		
920.82# *9*	3$^+$	1439.1 *3*	(1$^+$,2$^+$)	1746.26 *15*			
1200.99# *8*	4$^+$	1481.68 *12*		1964.48 *19*			

† Authors′ values, based on transition multipolarities (from Iγ(30°)/Iγ(90°)) and level-energy systematics for ^{190}Pt, ^{192}Pt, and ^{194}Pt. See ^{192}Pt Adopted Levels for evaluator′s assignments.

‡ Band(A): K=0 g.s. band.

Band(B): K=2 quasi-γ vibration band.

γ(^{192}Pt)

E$_\gamma$	I$_\gamma$†	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Comments
134.30 *12*	1.9 *3*	1518.16	(7$^-$)	1383.83	(5$^-$)	
152.9 *2*	0.5 *1*	1518.16	(7$^-$)	1365.33	6$^+$	
176.8 *3*	0.5 *1*	1377.93	3$^-$	1200.99	4$^+$	
182.8 *2*	0.6 *1*	1383.83	(5$^-$)	1200.99	4$^+$	
x263.9 *3*	0.4 *1*					
288.54 *10*	1.8 *2*	1666.46		1377.93	3$^-$	
295.89 *8*	32.7 *18*	612.40	2$^+$	316.50	2$^+$	
308.42 *6*	14.9 *9*	920.82	3$^+$	612.40	2$^+$	
316.49 *5*	100	316.50	2$^+$	0.0	0$^+$	K/L=1.9 *2* (1966Sa02); uncertain because of angular distribution effects.
x341.2 *5*	0.3 *1*					
x357.7 *2*	0.8 *1*					
362.43 *8*	3.4 *3*	1746.26		1383.83	(5$^-$)	
x382.8 *4*	0.4 *1*					
x388.4 *3*	0.7 *1*					
x407.23 *10*	1.5 *2*					
416.42 *10*	1.7 *2*	1200.99	4$^+$	784.54	4$^+$	
x427.0 *6*	0.1 *1*					
446.32 *11*	2.2 *2*	1964.48		1518.16	(7$^-$)	
x452.0 *7*	0.5 *2*					
x460.5 *5*	0.2 *1*					
468.04 *7*	46.7 *23*	784.54	4$^+$	316.50	2$^+$	K/L=3.3 *10* (1966Sa02); uncertain because of angular distribution effects.
485.40 *9*	4.2 *4*	1406.23		920.82	3$^+$	
x516.2 *7*	1.0 *4*					
x522.4 *2*	0.4 *1*					

Continued on next page (footnotes at end of table)

^{193}Ir(p,2nγ) 1974Ya03 (continued)

$\gamma(^{192}Pt)$ (continued)

E_γ	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Comments
560.85 *8*	4.6 *4*	1481.68		920.82	3^+	
580.80 *8*	4.8 *5*	1365.33	6^+	784.54	4^+	
584.81 *12*	0.2 *1*	2102.97	(9^-)	1518.16	(7^-)	
588.59 *8*	6.1 *6*	1200.99	4^+	612.40	2^+	
593.39 *12*	3.6 *4*	1377.93	3^-	784.54	4^+	
599.27 *15*	23.2 *25*	1383.83	(5^-)	784.54	4^+	
604.34 *20*	4.5 *7*	920.82	3^+	316.50	2^+	
612.42 *10*	5.7 *5*	612.40	2^+	0.0	0^+	
631.4 *2*	0.7 *1*	2113.08		1481.68		Placed by evaluator; see ^{190}Os(α,2nγ), ^{192}Os(α,4nγ) for analogous placement.
[x]650.2 *5*	0.3 *1*					
652.8 *2*	0.8 *2*	2018.13	8^+	1365.33	6^+	
[x]661.7 *2*	0.7 *1*					
[x]669.4 *3*	1.7 *3*					
[x]681.3 *5*	0.5 *1*					
[x]722.9 *4*	0.4 *1*					
745.5 *3*	1.3 *2*	1666.46		920.82	3^+	
[x]758.0 *5*	0.4 *1*					
765.7 *3*	0.9 *2*	1377.93	3^-	612.40	2^+	
[x]779.6 *4*	0.8 *3*					
[x]783.9 *7*	0.2 *1*					
[x]815.3 *5*	0.6 *3*					
[x]872.6 *5*	0.5 *2*					
884.5 *3*	0.4 *1*	1200.99	4^+	316.50	2^+	
[x]897.0 *5*	0.3 *1*					
[x]909.8 *4*	0.3 *1*					
[x]925.2 *4*	0.2 *1*					
[x]973.6 *5*	0.1 *1*					
[x]1028.6 *3*	0.5 *1*					
[x]1052.6 *6*	0.3 *1*					
1061.46 *15*	5.0 *4*	1377.93	3^-	316.50	2^+	
[x]1074.1 *6*	0.6 *2*					
1122.6 *3*	1.8 *3*	1439.1	$(1^+,2^+)$	316.50	2^+	
1127.0 *5*	0.5 *2*	1739.3	(1^-)	612.40	2^+	
[x]1256.2 *5*	0.5 *2*					
[x]1268.0 *7*	0.3 *2*					
[x]1282.1 *6*	0.2 *1*					
[x]1294.7 *7*	0.8 *2*					
[x]1385.2 *6*	0.5 *3*					
1422.7 *5*	0.9 *2*	1739.3	(1^-)	316.50	2^+	
[x]1449.4 *2*	1.6 *2*					
[x]1506.6 *8*	0.4 *2*					
1576.6 *2*	2.1 *3*	1576.61	(2^+)	0.0	0^+	

† For E(p)=14 MeV; arbitrary units, relative to Iγ(316.5γ)=100 (1974Ya03).

[x] γ ray not placed in level scheme.

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Level Scheme

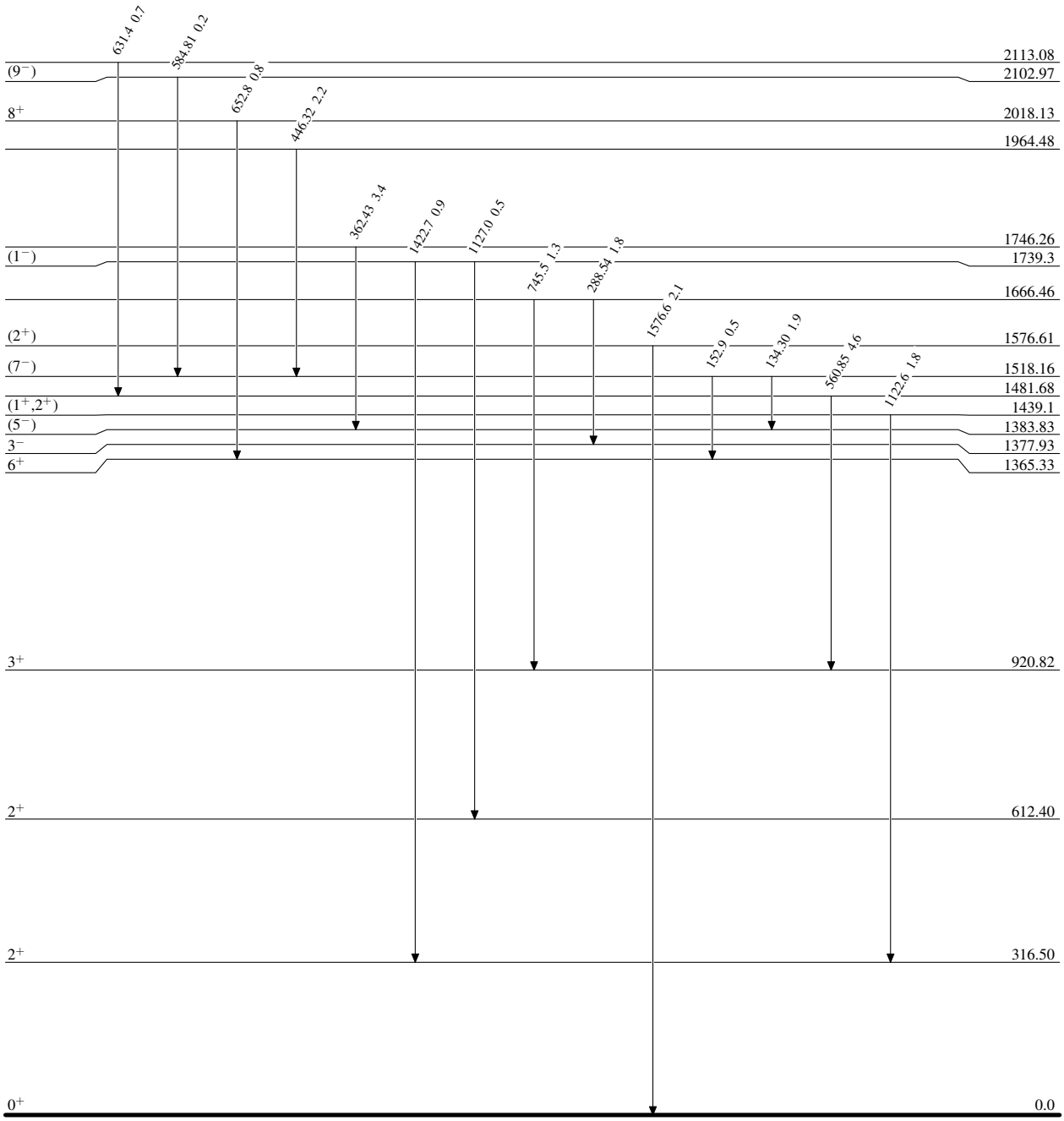
Intensities: Relative Iγ for E(p)=14 MeV

Legend

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

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

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



$^{192}_{78}Pt_{114}$

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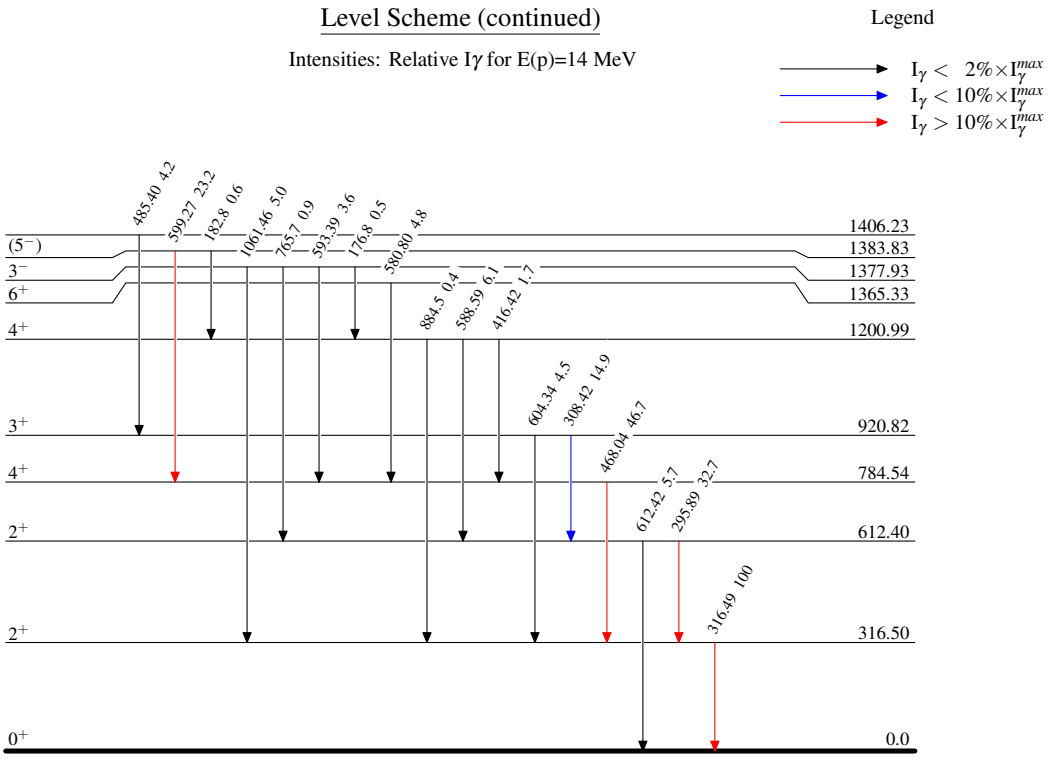
Level Scheme (continued)

Intensities: Relative Iγ for E(p)=14 MeV



$^{192}_{78}Pt_{114}$

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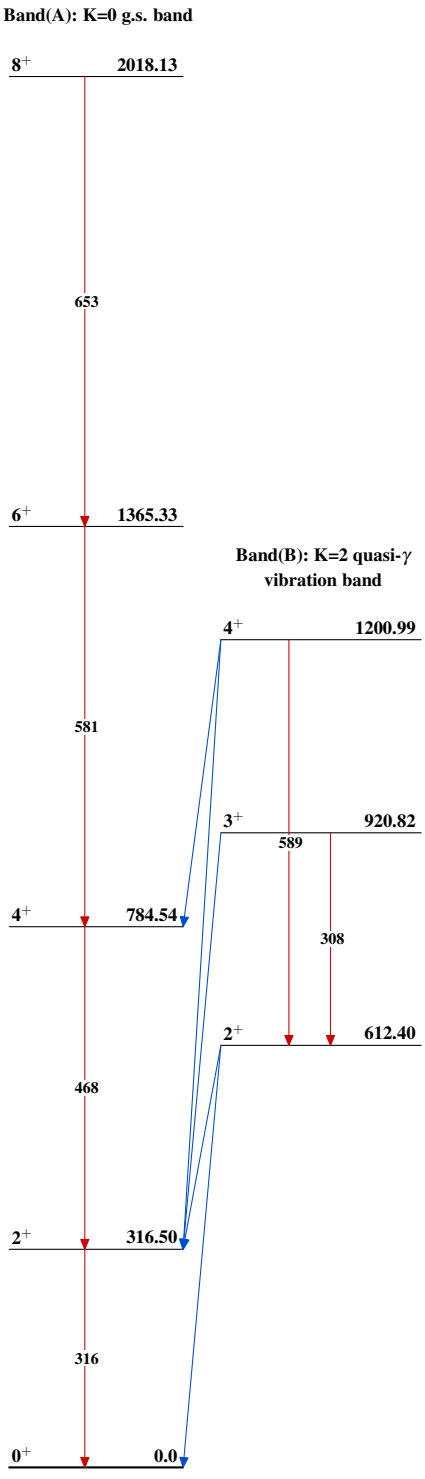

$^{192}_{78}Pt_{114}$