^{192}Os(d,nγ) 1997Dr04

History

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

E=12.0, 12.4, 14.2, 16.4 MeV. Measured Eγ, Iγ, $\gamma\gamma$, $\gamma(\theta)$, but angular distribution data not given; Compton-suppressed Ge detectors FWHM=1.8 keV at 1.4 MeV.

^{193}Ir Levels

E(level)†	J$^\pi$†	$T_{1/2}$	Comments
0.0	$3/2^+$		
73.057	$1/2^+$		
80.242	$11/2^-$	10.53 d *4*	$T_{1/2}$: From Adopted Levels.
138.939	$5/2^+$		
180.077	$3/2^+$		
299.401	$7/2^-$		
357.767	$7/2^+$		
361.863	$5/2^+$		
460.540	$3/2^+$		
469.387	$13/2^-$		
478.992	$15/2^-$		
516.421	$7/2^+$		
521.924	$9/2^+$		
557.447	$1/2^+$,$3/2^+$		J$^\pi$: Adopted $(1/2)^+$.
559.303	$3/2^+$,$5/2^+$		J$^\pi$: Adopted $5/2^+$.
563.407	$9/2^-$		
598.228	$3/2^-$		
620.988	$7/2^+$		
695.137	$5/2^+$		
712.176	$3/2^+$,$5/2^+$		J$^\pi$: Adopted $3/2^+$.
740.387	$5/2^-$		
806.901	$5/2^+$		
832.897	$11/2^-$		
838.923	$9/2^+$		
849.088			
857.025	$11/2^+$		
874.28	$3/2^+$,$5/2^+$		
892.268	$9/2^+$,$11/2^+$		J$^\pi$: Adopted $(9/2^+)$.
918.368	$7/2^-$		
930.43 *3*			
972.874	$3/2^+$,5/2,7/2		J$^\pi$: Adopted $(5/2^+)$.
1019.595	$11/2^+$		
1035.463	$13/2^+$		
1078.8			
1169.40	$11/2^+$		
1432.407			
1459.965			
1511.725			

† From combined data of ^{192}Ir(n,γ) and ^{192}Os(d,nγ) (1997Dr04).

^{192}Os(d,nγ) 1997Dr04 (continued)

$\gamma(^{193}Ir)$

E_γ [†]	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.	Comments
(73.05)	‡	73.057	1/2$^+$	0.0	3/2$^+$		
80.24		80.242	11/2$^-$	0.0	3/2$^+$	M4	Mult.: From Adopted Gammas.
107.02	4.4 *2*	180.077	3/2$^+$	73.057	1/2$^+$		
135.9	‡	695.137	5/2$^+$	559.303	3/2$^+$,5/2$^+$		
138.94	8.5[#] *4*	138.939	5/2$^+$	0.0	3/2$^+$		
142.16	‡	740.387	5/2$^-$	598.228	3/2$^-$		
154.55	‡	516.421	7/2$^+$	361.863	5/2$^+$		
154.72	‡	712.176	3/2$^+$,5/2$^+$	557.447	1/2$^+$,3/2$^+$		
164.16	‡	521.924	9/2$^+$	357.767	7/2$^+$		
177.99	2.1 *5*	918.368	7/2$^-$	740.387	5/2$^-$		
178.44	‡	1035.463	13/2$^+$	857.025	11/2$^+$		
180.07	1.3 *2*	180.077	3/2$^+$	0.0	3/2$^+$		
181.79	1.3 *3*	361.863	5/2$^+$	180.077	3/2$^+$		
201.54	‡	559.303	3/2$^+$,5/2$^+$	357.767	7/2$^+$		
218.83	<20	357.767	7/2$^+$	138.939	5/2$^+$		I_γ: Iγ(218.83+219.16)=19.9 *5*.
219.16	<20	299.401	7/2$^-$	80.242	11/2$^-$		I_γ: Iγ(218.83+219.16)=19.9 *5*.
232.51	‡	972.874	3/2$^+$,5/2,7/2	740.387	5/2$^-$		
234.61	1.0[#] *2*	695.137	5/2$^+$	460.540	3/2$^+$		
251.64	6.2 *4*	712.176	3/2$^+$,5/2$^+$	460.540	3/2$^+$		
263.22	<6.4	620.988	7/2$^+$	357.767	7/2$^+$		I_γ: Iγ(263.22+264.01)=6.4 *4*.
264.01	<6.4	563.407	9/2$^-$	299.401	7/2$^-$		I_γ: Iγ(263.22+264.01)=6.4 *4*.
269.49	2.3 *2*	832.897	11/2$^-$	563.407	9/2$^-$		
271.28	3.1[#] *3*	892.268	9/2$^+$,11/2$^+$	620.988	7/2$^+$		
276.89	12.0[#] *4*	1169.40	11/2$^+$	892.268	9/2$^+$,11/2$^+$		
280.47	2.3 *4*	460.540	3/2$^+$	180.077	3/2$^+$		
288.81		361.863	5/2$^+$	73.057	1/2$^+$		
298.83	5.6 *4*	598.228	3/2$^-$	299.401	7/2$^-$		
321.60	2.2 *3*	460.540	3/2$^+$	138.939	5/2$^+$		
322.51	3.5 *3*	838.923	9/2$^+$	516.421	7/2$^+$		
333.3	‡	695.137	5/2$^+$	361.863	5/2$^+$		
335.10	2.5 *3*	857.025	11/2$^+$	521.924	9/2$^+$		
336.34	0.8 *2*	516.421	7/2$^+$	180.077	3/2$^+$		
337.3[&]	0.8[@] *2*	695.137	5/2$^+$	357.767	7/2$^+$		
351.86	‡	972.874	3/2$^+$,5/2,7/2	620.988	7/2$^+$		
357.8	4.8 *3*	357.767	7/2$^+$	0.0	3/2$^+$		
361.86	1.5 *3*	361.863	5/2$^+$	0.0	3/2$^+$		
377.48	3.9[#] *4*	516.421	7/2$^+$	138.939	5/2$^+$		
378.53	‡	740.387	5/2$^-$	361.863	5/2$^+$		
379.23	‡	559.303	3/2$^+$,5/2$^+$	180.077	3/2$^+$		
382.99	15.6 *5*	521.924	9/2$^+$	138.939	5/2$^+$		
387.52	2.2 *3*	460.540	3/2$^+$	73.057	1/2$^+$		
388.6	<3.6	849.088		460.540	3/2$^+$		I_γ: Iγ(388.6+389.14)=3.6 *3*.
389.14	<3.6	469.387	13/2$^-$	80.242	11/2$^-$		I_γ: Iγ(388.6+389.14)=3.6 *3*.
398.78	20.8 *6*	478.992	15/2$^-$	80.242	11/2$^-$		
413.76	17[#] *3*	874.28	3/2$^+$,5/2$^+$	460.540	3/2$^+$		
418.5	‡	557.447	1/2$^+$,3/2$^+$	138.939	5/2$^+$		
420.35	13.8[#] *5*	559.303	3/2$^+$,5/2$^+$	138.939	5/2$^+$		
440.4	‡	1459.965		1019.595	11/2$^+$		
440.98	4.5 *5*	740.387	5/2$^-$	299.401	7/2$^-$		

Continued on next page (footnotes at end of table)

^{192}Os(d,nγ) 1997Dr04 (continued)

$\gamma(^{193}Ir)$ (continued)

E_γ [†]	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Comments
449.15	7.1[#] *5*	806.901	$5/2^+$	357.767	$7/2^+$	
451.44	3.1 *3*	930.43		478.992	$15/2^-$	
460.55	8.4 *5*	460.540	$3/2^+$	0.0	$3/2^+$	
477.06	11.2 *5*	838.923	$9/2^+$	361.863	$5/2^+$	
482.05	4.5 *5*	620.988	$7/2^+$	138.939	$5/2^+$	
483.16	9.5[#] *5*	563.407	$9/2^-$	80.242	$11/2^-$	
484.32	[‡]	557.447	$1/2^+,3/2^+$	73.057	$1/2^+$	
499.25	4.8 *4*	857.025	$11/2^+$	357.767	$7/2^+$	
503.17	2.7 *4*	1019.595	$11/2^+$	516.421	$7/2^+$	
525.2	2.6[#] *3*	598.228	$3/2^-$	73.057	$1/2^+$	
532.13	1.2 *4*	712.176	$3/2^+,5/2^+$	180.077	$3/2^+$	
533.5	1.4 *4*	832.897	$11/2^-$	299.401	$7/2^-$	
548.2	1.1 *3*	1169.40	$11/2^+$	620.988	$7/2^+$	
557.43	4.2 *5*	557.447	$1/2^+,3/2^+$	0.0	$3/2^+$	
559.3	3.8 *5*	559.303	$3/2^+,5/2^+$	0.0	$3/2^+$	
560.3	2.0[@] *3*	740.387	$5/2^-$	180.077	$3/2^+$	
573.21	[#]	712.176	$3/2^+,5/2^+$	138.939	$5/2^+$	
599.51	4.0 *5*	1432.407		832.897	$11/2^-$	
621.0	3.1 *4*	620.988	$7/2^+$	0.0	$3/2^+$	
637.46	2.3 *2*	1511.725		874.28	$3/2^+,5/2^+$	
647.26	2.5 *3*	1169.40	$11/2^+$	521.924	$9/2^+$	
662.64	2.1 *3*	1511.725		849.088		
667.96	4.0 *5*	806.901	$5/2^+$	138.939	$5/2^+$	
779.5 *2*	≤2.5	1078.8		299.401	$7/2^-$	Line observed in coincidence experiment only.

[†] Rounded-off value from ^{192}Ir(n,γ) experiment (1997Dr04).
[‡] Line obscured by impurities.
[#] Complex line, total intensity of line given.
[@] γ is either influenced by an impurity, or is placed incorrectly. A γ of this intensity is not seen in ^{193}Os β^- decay (evaluator).
[&] Placement of transition in the level scheme is uncertain.

^{192}Os(d,nγ) 1997Dr04

Level Scheme

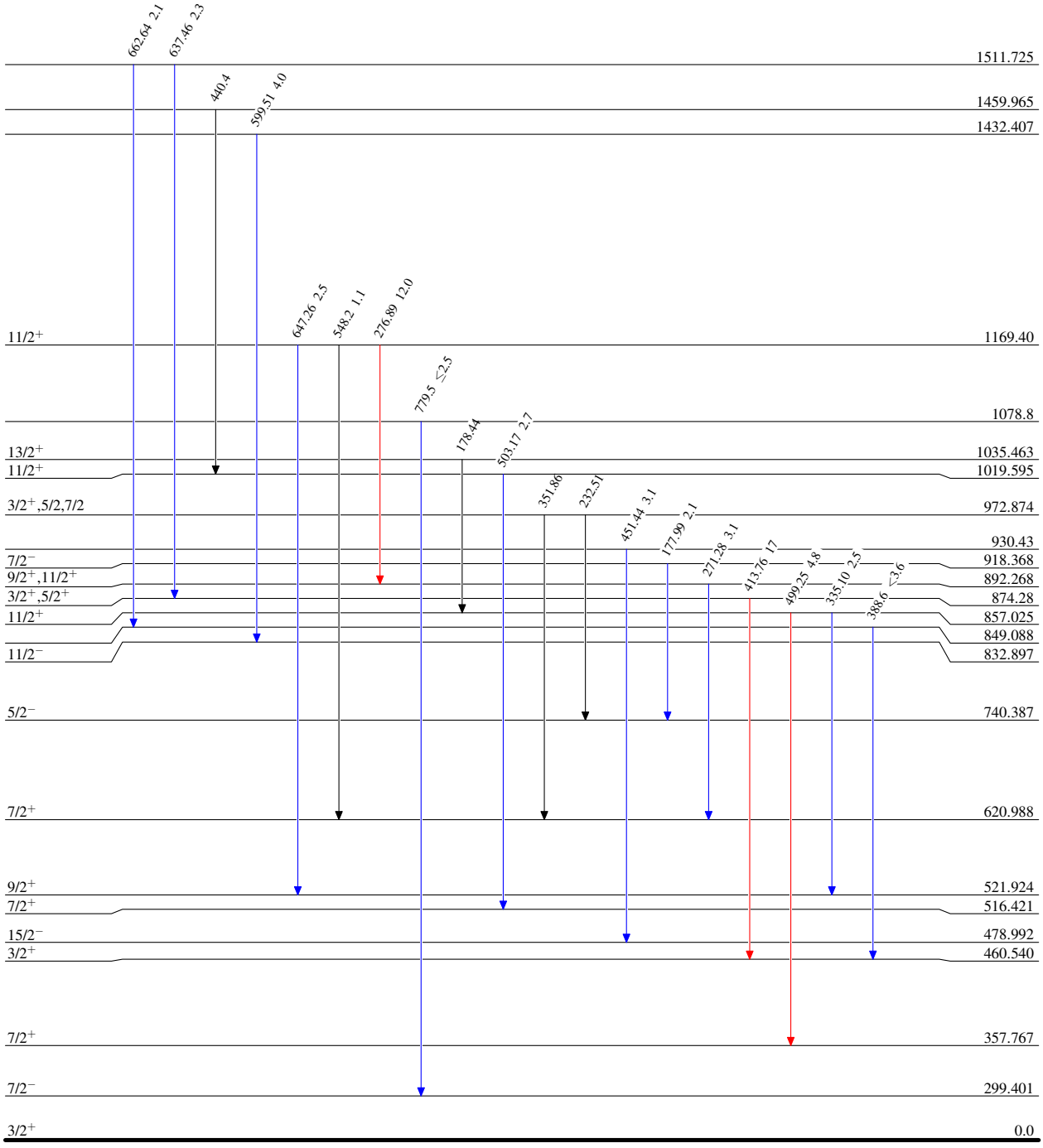
Intensities: Relative I_γ

Legend

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

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

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



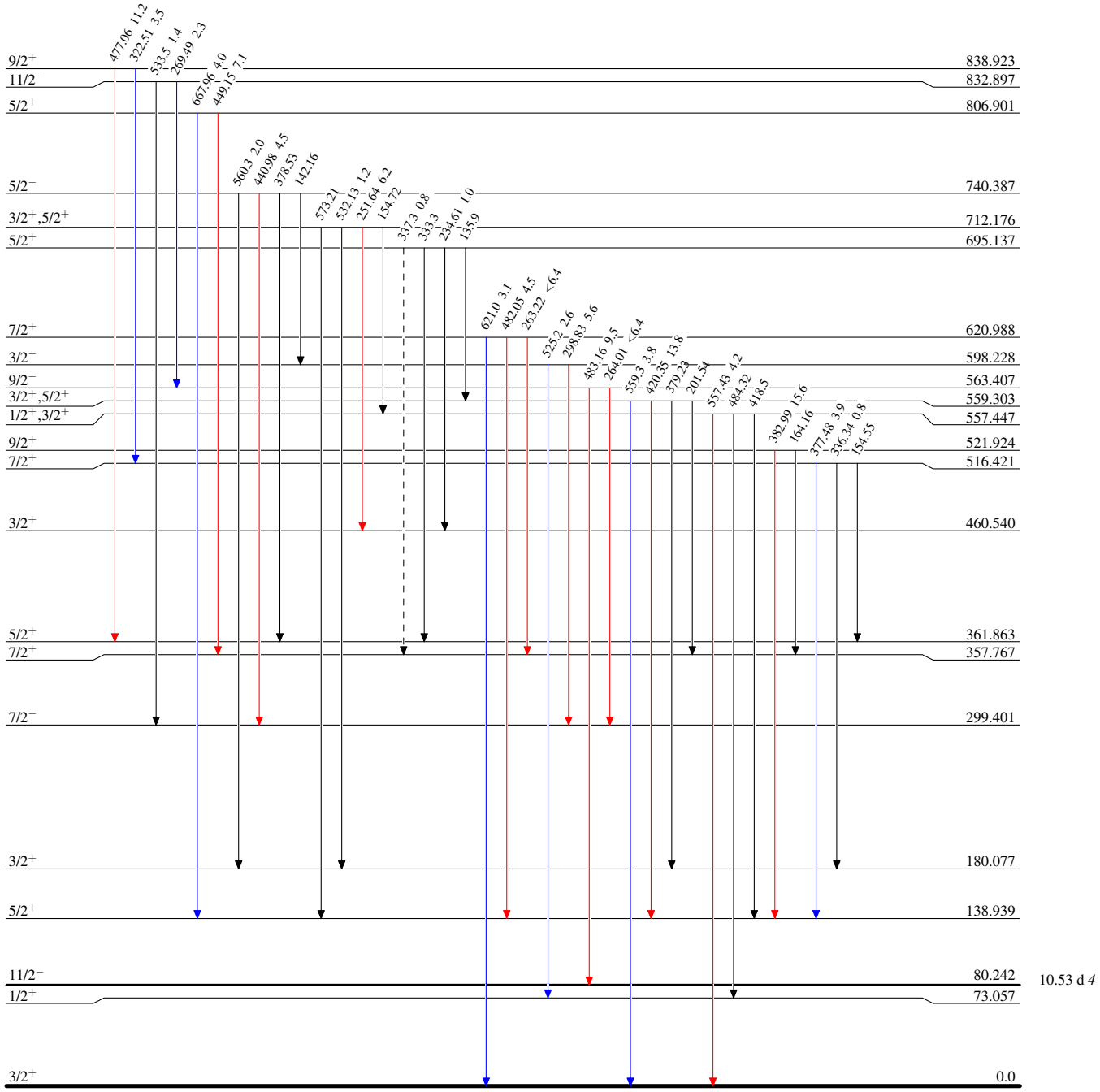
$^{193}_{77}Ir_{116}$

^{192}Os(d,nγ) 1997Dr04

Level Scheme (continued)

Intensities: Relative I_γ

Legend
- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$
- γ Decay (Uncertain)

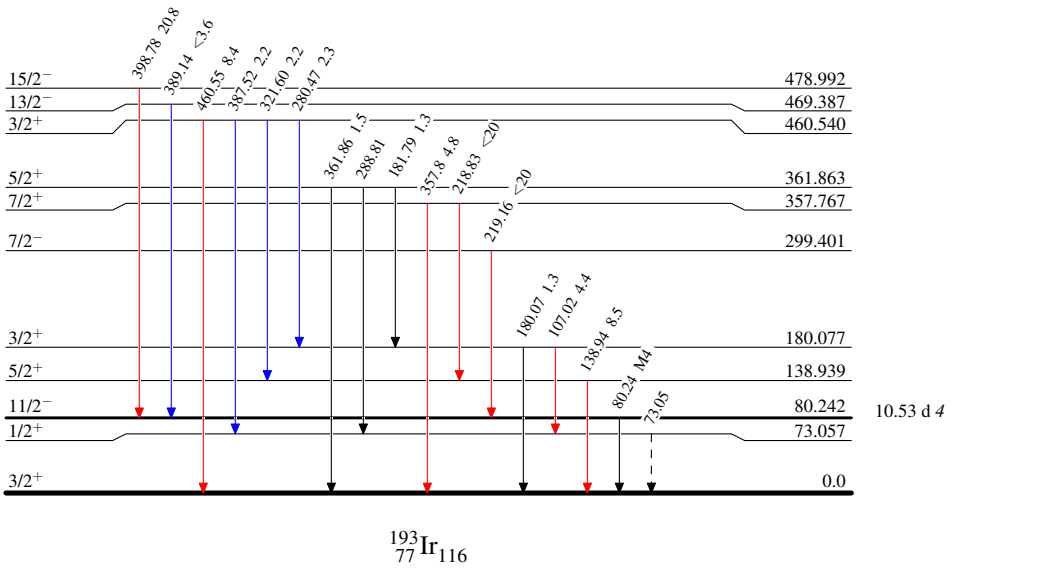


$^{193}_{77}Ir_{116}$

^{192}Os(d,nγ) 1997Dr04

Level Scheme (continued)

Intensities: Relative I_γ



$^{193}_{77}Ir_{116}$