^{187}Os(n,γ) E=res 1979CaZU

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev, S. Juutinen, D. J. Hartley	NDS 150, 1 (2018)	1-Feb-2018

Other: 1975Ma46 (from the same group as 1979CaZU).

^{188}Os Levels

E(level)†	Jπ‡	Comments
0.0	0^+	
155.06 *9*	2^+	
478.08 *11*	4^+	
633.07 *10*	2^+	
790.15 *12*	3^+	
965.74 *12*	4^+	
1086.56 *16*	0^+	
1181.1 *3*	5^+	
1279.30 *21*	4^+	
1305.05 *14*	2^+	
1413.89 *14*	(3^-)	
1457.55 *22*	2^+	
1462.76 *20*	2^-	
1478.16 *19*	0^+	
1620.60 *18*	$(2)^+$	
1669.3 *3*	5^-	
1685.8 *4*	(3^+)	
1704.23 *25*	0^+	
1729.95 *23*	2^+	
1746.7? *10*		
1765.2 *3*	0^+	
1807.78 *17*	2^+	
1825.27 *20*	0^+	
1842.82 *22*	$(2)^+$	
1878.2 *10*		
1940.8 *4*	(2^+)	
1957.35 *24*	$(1^+,2^+)$	
1965.4 *3*	$(2)^+$	
2020.6 *4*	$(1,2)^+$	
2023.2 *4*	$(1,2)^+$	
2031.4 *10*		
2068.8 *3*	$(2)^+$	
2099.3 *6*	$(1)^+$	
2167.4 *5*	$(2)^+$	
2195.7 *10*		
2214.9 *5*	$(1)^+$	
2287.2 *5*	$(1^+,2^+)$	
2347.8? *10*	$(1)^+$	
2366.8? *10*	1,2	
2417.5? *10*	$(2^+,3^+)$	
2451.6 *10*		
2462.7? *10*	1,2	
7989.59# *15*	(1)	Additional information 1.

† From least-squares fit to Eγ′s.
‡ From Adopted Levels.
# S(n)+12.4 eV. Deduced from primary γ′s.

^{187}Os(n,γ) E=res 1979CaZU (continued)

$\gamma(^{188}Os)$

E_γ †	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Comments
155.0 *1*	436 *31*	155.06	2^+	0.0	0^+	
218.4 *5*	0.78‡ *16*	1305.05	2^+	1086.56	0^+	
312.1# *1*	8.8 *14*	790.15	3^+	478.08	4^+	
323.0 *1*	100 *7*	478.08	4^+	155.06	2^+	
332.6 *1*	5.7 *8*	965.74	4^+	633.07	2^+	
390.3@ *4*	2.6 *6*	1181.1	5^+	790.15	3^+	
390.3@ *4*	1.4 *5*	1669.3	5^-	1279.30	4^+	I_γ: combined Iγ is 4.0 *7*.
448.1 *1*	7.3 *11*	1413.89	(3^-)	965.74	4^+	
453.4 *2*	6.0‡ *5*	1086.56	0^+	633.07	2^+	
478.1 *1*	141 *10*	633.07	2^+	155.06	2^+	
487.4 *2*	17.4 *15*	965.74	4^+	478.08	4^+	
514.6 *3*	11.3‡ *16*	1305.05	2^+	790.15	3^+	
623.9 *2*	19.8 *17*	1413.89	(3^-)	790.15	3^+	
633.2 *2*	189 *14*	633.07	2^+	0.0	0^+	
635.0 *2*	146 *11*	790.15	3^+	155.06	2^+	
646.3 *2*	27.4 *22*	1279.30	4^+	633.07	2^+	
672.6 *2*	<3‡	1305.05	2^+	633.07	2^+	
672.6 *2*	9.3 *14*	1462.76	2^-	790.15	3^+	
703.4@ *3*	1.0 *3*	1181.1	5^+	478.08	4^+	
703.4@ *3*	2.6 *10*	1669.3	5^-	965.74	4^+	I_γ: combined Iγ is 3.6 *13*.
x708.4 *3*	5.8 *13*					
x777.1 *3*	5.8 *12*					
780.9 *3*	3.9 *10*	1413.89	(3^-)	633.07	2^+	
x786.8& *6*						
x789.7& *5*						I_γ: combined Iγ for 786.8γ and 789.7γ is 2.9 *8*.
810.9 *2*	18.2 *16*	965.74	4^+	155.06	2^+	
824.6 *3*	23.0 *23*	1457.55	2^+	633.07	2^+	
827.4 *6*	12.1‡ *12*	1305.05	2^+	478.08	4^+	
829.7 *3*	33 *3*	1462.76	2^-	633.07	2^+	
845.2# *2*	5.3‡ *5*	1478.16	0^+	633.07	2^+	
895.6 *3*	4.7 *9*	1685.8	(3^+)	790.15	3^+	
931.6 *2*	46 *4*	1086.56	0^+	155.06	2^+	
x934.8 *5*	9.3 *14*					
939.7 *3*	5.4 *13*	1729.95	2^+	790.15	3^+	
987.6 *2*	13.6 *24*	1620.60	$(2)^+$	633.07	2^+	
1017.8 *2*	6.8 *12*	1807.78	2^+	790.15	3^+	
1071.1 *3*	5.6‡ *5*	1704.23	0^+	633.07	2^+	
1132.3 *3*	8.7 *21*	1765.2	0^+	633.07	2^+	
1142.3 *3*	7.2 *18*	1620.60	$(2)^+$	478.08	4^+	
1149.7 *2*	39 *3*	1305.05	2^+	155.06	2^+	
x1164.6 *5*	6.4 *13*					
1174.5 *2*	12.5 *23*	1807.78	2^+	633.07	2^+	
1192.3 *2*	22 *3*	1825.27	0^+	633.07	2^+	
1209.7 *2*	16.3 *19*	1842.82	$(2)^+$	633.07	2^+	
1304.3 *4*	9.4‡ *12*	1305.05	2^+	0.0	0^+	I_γ: poorly resolved in the 12.7 eV data.
1307.7& *3*		1940.8	(2^+)	633.07	2^+	I_γ: total Iγ for 1304.3γ and 1307.7γ is 16.4 *25*.
1322.8 *3*	8.8‡ *8*	1478.16	0^+	155.06	2^+	
1332.1 *3*	20.8 *23*	1965.4	$(2)^+$	633.07	2^+	
1435.7 *3*	12.0 *18*	2068.8	$(2)^+$	633.07	2^+	
1457.5 *3*	19 *3*	1457.55	2^+	0.0	0^+	
1465.5 *4*	26 *3*	1620.60	$(2)^+$	155.06	2^+	

Continued on next page (footnotes at end of table)

^{187}Os(n,γ) E=res 1979CaZU (continued)

γ(^{188}Os) (continued)

E_γ [†]	I_γ [†]	E_i(level)	J_i^π	E_f	J_f^π
1549.3 *4*	8.6[‡] *8*	1704.23	0^+	155.06	2^+
[x]1561.9 *7*	11.6 *24*				
1574.9 *3*	12.2 *17*	1729.95	2^+	155.06	2^+
1610.1[&] *5*	15 *4*	1765.2	0^+	155.06	2^+
1670.0 *4*	7.3[‡] *7*	1825.27	0^+	155.06	2^+
1801.8 *3*	10 *3*	1957.35	$(1^+,2^+)$	155.06	2^+
1865.5 *4*	11.5 *22*	2020.6	$(1,2)^+$	155.06	2^+
1944.1 *6*	16 *3*	2099.3	$(1)^+$	155.06	2^+
1958.0 *4*	10.6 *18*	1957.35	$(1^+,2^+)$	0.0	0^+
2011.8 *5*	13.4 *25*	2167.4	$(2)^+$	155.06	2^+
2023.1 *4*	15 *4*	2023.2	$(1,2)^+$	0.0	0^+
2131.9 *5*	12 *3*	2287.2	$(1^+,2^+)$	155.06	2^+
2214.8 *5*	13.5 *25*	2214.9	$(1)^+$	0.0	0^+
5526.8 *10*	<3	7989.59	(1)	2462.7?	1,2
5537.9 *10*	18 *3*	7989.59	(1)	2451.6	
5572.0 *10*	<3	7989.59	(1)	2417.5?	$(2^+,3^+)$
5622.7 *10*	<3	7989.59	(1)	2366.8?	1,2
5641.7 *10*	<3	7989.59	(1)	2347.8?	$(1)^+$
5701.3 *10*	<4	7989.59	(1)	2287.2	$(1^+,2^+)$
5774.2 *10*	<4	7989.59	(1)	2214.9	$(1)^+$
5793.8 *10*	<4	7989.59	(1)	2195.7	
5819.9 *10*	<4	7989.59	(1)	2167.4	$(2)^+$
5890.0 *10*	<8	7989.59	(1)	2099.3	$(1)^+$
5920.2 *10*	<6	7989.59	(1)	2068.8	$(2)^+$
5958.1 *10*	9 *3*	7989.59	(1)	2031.4	
5965.4 *10*	<4	7989.59	(1)	2023.2	$(1,2)^+$
6021.7 *10*	<11	7989.59	(1)	1965.4	$(2)^+$
6031.0 *10*	<6	7989.59	(1)	1957.35	$(1^+,2^+)$
6111.3 *10*	9 *4*	7989.59	(1)	1878.2	
6145.7 *10*	<4	7989.59	(1)	1842.82	$(2)^+$
6165.7 *10*	19 *4*	7989.59	(1)	1825.27	0^+
6181.0 *10*	<6	7989.59	(1)	1807.78	2^+
6225.5 *10*	8 *3*	7989.59	(1)	1765.2	0^+
6242.8 *10*	<5	7989.59	(1)	1746.7?	
6258.7 *10*	8 *3*	7989.59	(1)	1729.95	2^+
6285.6 *10*	11 *3*	7989.59	(1)	1704.23	0^+
6368.0 *10*	20 *3*	7989.59	(1)	1620.60	$(2)^+$
6511.0 *10*	22 *5*	7989.59	(1)	1478.16	0^+
6532.9 *10*	<4	7989.59	(1)	1457.55	2^+
6685.6 *10*	22 *3*	7989.59	(1)	1305.05	2^+
6903.8 *10*	44 *7*	7989.59	(1)	1086.56	0^+
7356.9 *10*	5.0 *14*	7989.59	(1)	633.07	2^+
7834.8 *10*	51 *4*	7989.59	(1)	155.06	2^+
7989.6 *10*	<4	7989.59	(1)	0.0	0^+

[†] For the 12.73 eV resonance.
[‡] Deduced from weighted average of branching's from the 9.5 and 12.7 eV resonances (1975Ma46).
[#] Partly contributed by background activity.
[@] Unresolved doublet. 1979CaZU estimate intensities for individual components.
[&] Complex peak, only the total intensity given (1979CaZU).
[x] γ ray not placed in level scheme.

^{187}Os(n,γ) E=res 1979CaZU

Level Scheme

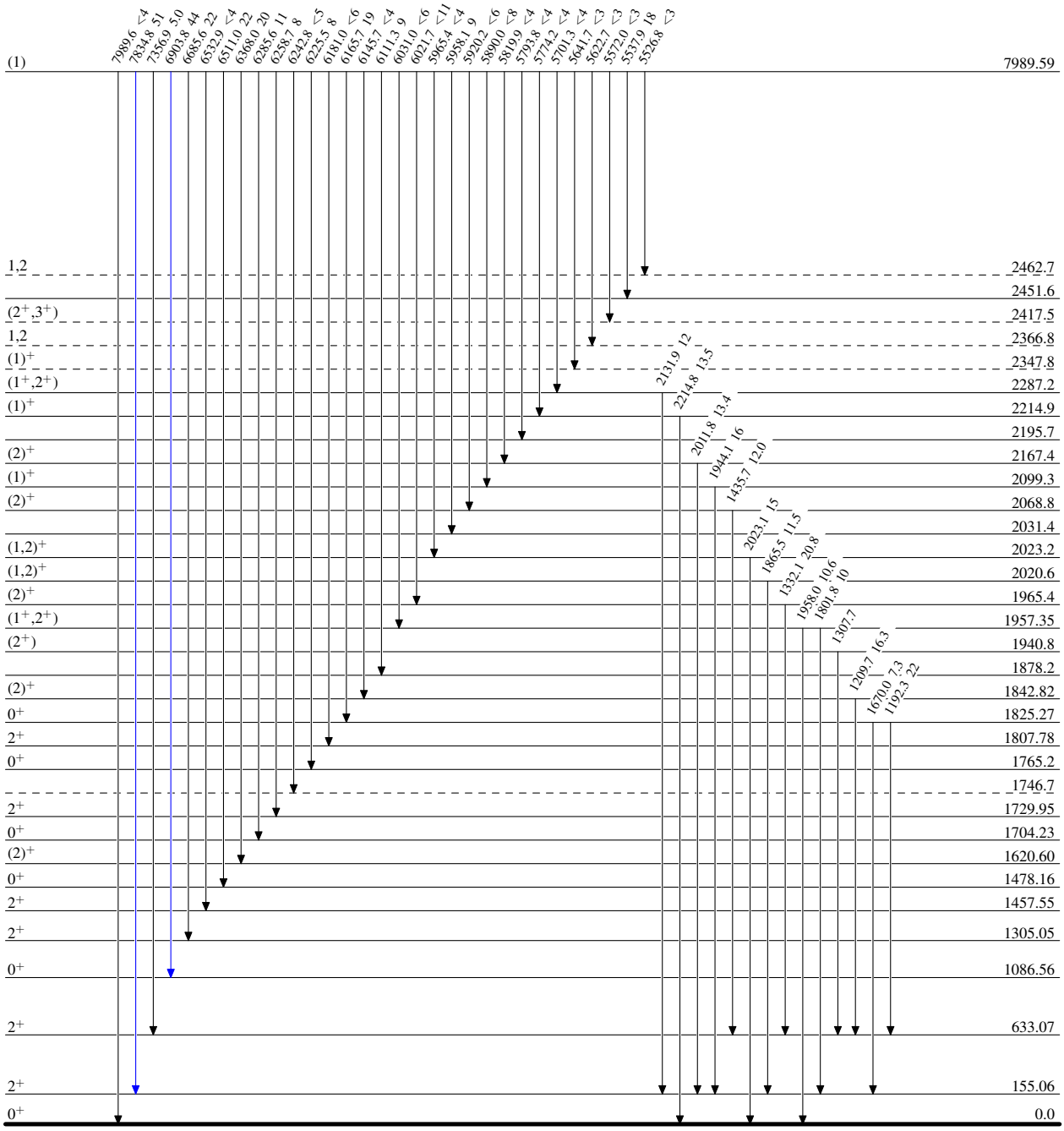
Intensities: Relative I_γ

Legend

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

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

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



$^{188}_{76}Os_{112}$

^{187}Os(n,γ) E=res 1979CaZU

Level Scheme (continued)

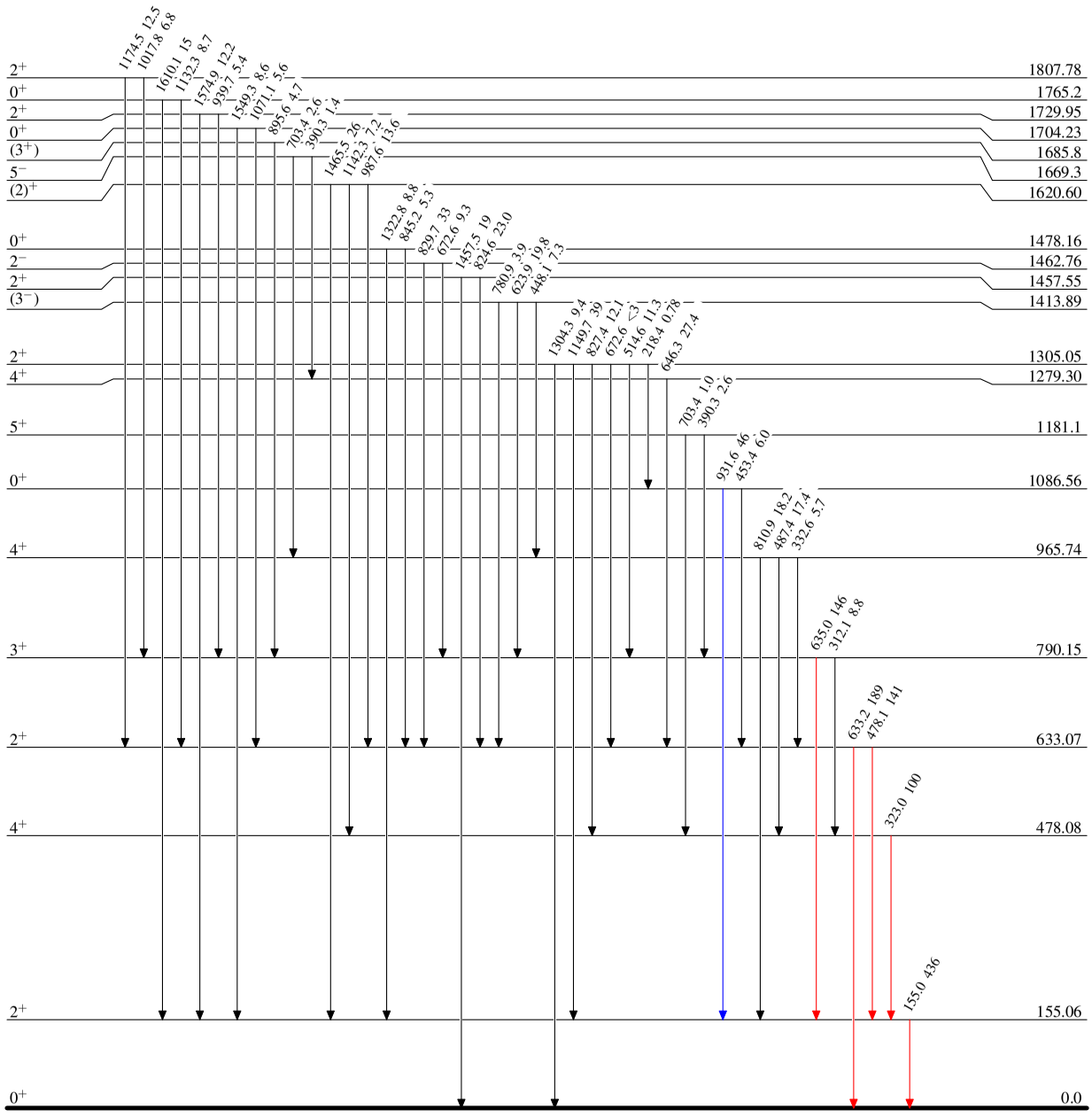
Intensities: Relative I_γ

Legend

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

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

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



$^{188}_{76}Os_{112}$