^{170}Er(^{18}O,4nγ) 2002Sh21,1998Sh36

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 111,275 (2010)	1-Oct-2009

Other: 1988Ch27 (see IT decay (23.6 ns) data set for delayed-transition data).

2002Sh21, 1998Sh36: E=85 MeV; measured Eγ, Iγ, $\gamma\gamma$, $\gamma\gamma(\theta)$(DCO), and lifetimes using an array of nine HPGe Compton-suppressed detectors and one LEP detector. 2002Sh21 also used an array of 12 HPGe Compton-suppressed detectors. All data are from 2002Sh21 unless otherwise stated.

^{184}Os Levels

E(level)[†]	J$^{\pi}$[‡]	T$_{1/2}$	Comments
0.0[&]	0$^+$		
119.70[&] *20*	2$^+$		
383.67[&] *24*	4$^+$		
773.89[&] *25*	6$^+$		
943.00[a] *20*	2$^+$		
1080.95[a] *25*	3$^+$		
1224.99[a] *25*	4$^+$		
1274.6[&] *3*	8$^+$		
1428.2[a] *3*	5$^+$		
1544.0[b] *3*	3$^-$		
1613.0[a] *3*	6$^+$		
1620.8[b] *3*	4$^-$		
1718.1[b] *3*	5$^-$		
1832.8[b] *3*	6$^-$		
1836.3 *3*	5$^-$		Configuration=(ν 1/2[510])+(ν 9/2[624]), K$^{\pi}$=5$^-$.
1871.2[&] *3*	10$^+$		
1916.3[j] *3*	6$^-$		
1958.2[b] *3*	7$^-$		
1999.9[j] *3*	7$^-$		
2046.4[e] *3*	8$^-$		
2106.3[g] *3*	8$^-$		
2136.6[j] *3*	8$^-$		
2221.6[f] *3*	9$^-$		
2266.0[h] *3*	9$^-$		
2300.6[d] *3*	9$^-$		
2366.7[@] *3*	10$^+$	23.6 ns *14*	T$_{1/2}$: from Adopted Levels. 1988Ch27 deduce g$_K$=0.21 *5* or 0.43 *5* based on their analysis of transitions feeding this state (253γ, 267γ, 496γ, 520γ); the uncertainty arises primarily from assumed value for g$_R$ and does not include statistical uncertainty. authors assume g$_R$=+0.32 *5*.
2431.2[e] *3*	10$^-$		
2456.9[g] *3*	10$^-$		
2502.4[c] *3*	10$^-$		
2547.5[&] *4*	12$^+$		
2596.1[k] *4*	10$^+$		
2609.9[#] *3*	11$^+$		
2661.2[h] *3*	11$^-$		
2672.7[f] *3*	11$^-$		
2721.3[d] *3*	11$^-$		

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^{170}Er(^{18}O,4nγ) 2002Sh21,1998Sh36 (continued)

^{184}Os Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	T$_{1/2}$	Comments
2862.9[@] *3*	12$^+$		
2901.0[g] *3*	12$^-$		
2930.3[e] *3*	12$^-$		
2957.6[c] *3*	12$^-$		
2999.2[k] *4*	12$^+$		
3130.1[#] *4*	13$^+$		
3166.7[h] *3*	13$^-$		
3209.8[f] *3*	13$^-$		
3226.1[d] *3*	13$^-$		
3228.1 *4*	(11$^-$)		
3261.3[&] *4*	14$^+$		
3359.2[@] *3*	14$^+$		
3392.0 *3*	(12$^+$)		
3423.2[g] *3*	14$^-$		
3489.4[c] *4*	14$^-$		
3496.3[k] *4*	14$^+$		
3509.8[e] *3*	(14$^-$)		
3679.9[#] *4*	15$^+$		
3728.1[i] *4*	(13$^-$)		
3760.8[h] *4*	15$^-$		
3790.9[&] *4*	16$^+$		
3791.7[i] *4*	(14$^-$)	≤3[l] ns	
3806.3[d] *3*	15$^-$		
3820.3[f] *3*	(15$^-$)		
3971.4[i] *4*	(15$^-$)		
3997.8[g] *4*	16$^-$		
4046.5[@] *4*	16$^+$		
4122.3[c] *3*	(16$^-$)		
4157.5[e] *4*	(16$^-$)		
4173.1[k] *4*	16$^+$		
4202.2[i] *4*	(16$^-$)		
4281.0[#] *4*	17$^+$		
4349.9[&] *4*	18$^+$		
4418.6[h] *4*	17$^-$		
4467.2[d] *3*	17$^-$		
4475.4 *4*	(17$^-$)		
4494.1[f] *4*	(17$^-$)		
4635.5[g] *4*	18$^-$		
4756.4 *4*	(18$^-$)	48 ns *5*	T$_{1/2}$: from $\gamma\gamma$(t) (2002Sh21). Configuration=ν(9/2[624]+11/2[615])+π(5/2[402]+11/2[505]), K$^{\pi}$=18$^-$.
4770.1 *4*			
4801.0[@] *4*	18$^+$		
4826.5[c] *4*	(18$^-$)		
4879.3[e] *4*	(18$^-$)		
4964.1[#] *4*	19$^+$		
5001.7[&] *4*	20$^+$		
5099.6 *4*			
5126.7[h] *5*	(19$^-$)		

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^{170}Er(^{18}O,4nγ) 2002Sh21,1998Sh36 (continued)

^{184}Os Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	T$_{1/2}$	Comments
5192.6[d] 4	(19$^-$)		
5199.9 4	(20$^-$)	≤3[l] ns	
5207.6 4	(19$^-$)		
5230.3 4	(20$^-$)	≤3[l] ns	
5230.4[f] 5	(19$^-$)		
5329.5[g] 5	20$^-$		
5456.0 4			
5566.1[@] 4	20$^+$		
5572.7[c] 5	(20$^-$)		
5670.1 4	(21)	≤3[l] ns	
5670.3[e] 5	(20$^-$)		
5727.2[#] 5	(21$^+$)		
5743.5[&] 5	22$^+$		
5869.7[h] 5	(21$^-$)		
6007.5[f] 5	(21$^-$)		
6051.1[g] 5	22$^-$		
6235.9 5			
6339.7 4	(22$^-$)	≤3[l] ns	Configuration=ν(1/2[521]+7/2[503]+9/2[624]+11/2[615])⊗ π(5/2[402]+11/2[505]), K$^{\pi}$=22$^-$ (?).
6377.7[c] 5	(22$^-$)		
6543.0[#] 5	(23$^+$)		
6563.7[&] 5	24$^+$		
6611.7[h] 6	(23$^-$)		
6791.0[g] 6	(24$^-$)		
6797.4 4	(23)	≤3[l] ns	Configuration=ν(3/2[512]+7/2[514]+9/2[624]+11/2[615])+ π(5/2[402]+11/2[505]), K$^{\pi}$=23$^-$ (?).
6912.6 4		≤3[l] ns	
7083.2 5			
7283.5 5		≤3[l] ns	
7396.0?[#] 5	(25$^+$)		
7407.4[h] 6	(25$^-$)		
7448.0[&] 6	26$^+$		
7591.0[g] 6	(26$^-$)		
8386.7[&] 6	(28$^+$)		E(level): level omitted from Adopted Levels; see comment on yrast band.
8475.0[g] 6	(28$^-$)		
9376.3[&] 6	(30$^+$)		E(level): level omitted from Adopted Levels; see comment on yrast band.

[†] From least-squares fit to Eγ.
[‡] From 2002Sh21 based on deduced band structure and transition multipolarities.
[#] Band(a): K$^{\pi}$=10$^+$, α=1, (ν 9/2[624])+(ν 11/2[615]) band. See comment on signature partner band,
[@] Band(A): K$^{\pi}$=10$^+$, α=0, (ν 9/2[624])+(ν 11/2[615]) band. Note that band assignment for the J=16,18,20 members of this band differs In Adopted Levels; there, they are assigned to the g.s. band As proposed In a study of the (^{13}C,5nγ) reaction (2002Wh01).
[&] Band(B): yrast sequence (1998Sh36) J=0 through 14 levels belong to K$^{\pi}$=0$^+$ g.s. band, J=16 through 26 levels are assigned to the K$^{\pi}$=10$^+$, α=0 band In Adopted Levels, and the J=28 and 30 members are omitted from Adopted Levels due to uncertainty In the level fed (J=24 or 26) by the 938.7γ.
[a] Band(C): K$^{\pi}$=2$^+$ γ band.
[b] Band(D): K$^{\pi}$=3$^-$, octupole band.

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^{170}Er(^{18}O,4nγ) 2002Sh21,1998Sh36 (continued)

^{184}Os Levels (continued)

[c] Band(E): K$^\pi$=9$^-$, α=0, (ν 7/2[514])+(ν 11/2[615]) band.
[d] Band(e): K$^\pi$=9$^-$, α=1, (ν 7/2[514])+(ν 11/2[615]) band.
[e] Band(F): K$^\pi$=8$^-$, α=0, (ν 7/2[503])+(ν 9/2[624]) band. This configuration is probably mixed with (ν 7/2[514])+(ν 9/2[624]) band.
[f] Band(f): K$^\pi$=8$^-$, α=1, (ν 7/2[503])+(ν 9/2[624]) band. This configuration is probably mixed with (ν 7/2[514])+(ν 9/2[624]) band.
[g] Band(G): K$^\pi$=8$^-$, α=0, (ν 7/2[514])+(ν 9/2[624]) band. This configuration is probably mixed with (ν 7/2[503])+(ν 9/2[624]) band.
[h] Band(g): K$^\pi$=8$^-$, α=1, (ν 7/2[514])+(ν 9/2[624]) band. This configuration is probably mixed with (ν 7/2[503])+(ν 9/2[624]) band.
[i] Band(H): K$^\pi$=13$^-$, ν (9/2[624]+11/2[615])+π(1/2[541]+5/2[402]) band.
[j] Band(I): K$^\pi$=6$^-$, (ν 1/2[521])+(ν 11/2[615]) band.
[k] Band(J): Band based on 10$^+$ 2596 level.
[l] ≤3 ns, from limit of detection in $\gamma\gamma$(t) measurement.

γ(^{184}Os)

Note that 2002Sh21 report placements for 180γ, 231γ, 421γ, 580γ, 661γ and 669γ which differ from those in ^{176}Yb(^{13}C,5nγ) (2002Wh01).

E$_\gamma$‡	I$_\gamma$‡	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.#	α@	Comments
42[a]		1958.2	7$^-$	1916.3	6$^-$			
(63)		3791.7	(14$^-$)	3728.1	(13$^-$)			
80[a]		1916.3	6$^-$	1836.3	5$^-$			
83.3 *2*	0.4 *1*	1999.9	7$^-$	1916.3	6$^-$			
88.2 *2*	1.6 *1*	2046.4	8$^-$	1958.2	7$^-$	D		DCO=0.63 *4*.
106.3 *2*	0.3 *2*	2106.3	8$^-$	1999.9	7$^-$	D		DCO=0.68 *11*.
114.4 *2*	1.2 *1*	1832.8	6$^-$	1718.1	5$^-$	D+Q		DCO=0.53 *4*.
119.7 *2*	36.7 *10*	119.70	2$^+$	0.0	0$^+$	Q		DCO=1.00 *1*.
125.5 *2*	4.3 *1*	1958.2	7$^-$	1832.8	6$^-$	D+Q		DCO=0.48 *2*.
129.4 *2*	1.8 *1*	2266.0	9$^-$	2136.6	8$^-$	D		DCO=0.66 *3*.
136.6 *2*	1.8 *1*	2136.6	8$^-$	1999.9	7$^-$	D		DCO=0.63 *6*.
144.9 *2*	7.1 *2*	2366.7	10$^+$	2221.6	9$^-$	D		DCO=0.57 *6*.
148.1 *2*	0.2 *1*	2106.3	8$^-$	1958.2	7$^-$	D+Q		DCO=0.40 *9*.
156.3 *2*	0.2 *1*	2456.9	10$^-$	2300.6	9$^-$			
158.8 *2*	<0.1	2661.2	11$^-$	2502.4	10$^-$			
159.4 *2*	0.9 *1*	2266.0	9$^-$	2106.3	8$^-$	D+Q		DCO=0.76 *8*.
163.4 *2*	0.4 *1*	1999.9	7$^-$	1836.3	5$^-$			
164.3 *2*	0.5 *1*	2300.6	9$^-$	2136.6	8$^-$			
175.0 *2*	9.8 *3*	2221.6	9$^-$	2046.4	8$^-$	D		DCO=0.55 *6*.
179.7& *2*	<0.1&	2901.0	12$^-$	2721.3	11$^-$	[M1]	1.063	
179.7& *2*	4.2& *2*	3971.4	(15$^-$)	3791.7	(14$^-$)	M1	1.063	α(exp)=1.3 *2* DCO=0.50 *5*.
190.7 *2*	3.0 *1*	2456.9	10$^-$	2266.0	9$^-$	D+Q		DCO=0.81 *6*.
194.4 *2*	1.5 *1*	2300.6	9$^-$	2106.3	8$^-$	M1+E2	0.61 *25*	α(exp)=0.65 *10* DCO=0.34 *3*.
201.8 *2*	<0.1	2502.4	10$^-$	2300.6	9$^-$			
204.3 *2*	1.8 *1*	2661.2	11$^-$	2456.9	10$^-$	D		DCO=0.58 *4*.
209.2 *2*	<0.1	3166.7	13$^-$	2957.6	12$^-$			
209.6 *2*	5.0 *2*	2431.2	10$^-$	2221.6	9$^-$	D+Q		DCO=0.33 *3*.
212.0 *2*	5.1 *2*	1832.8	6$^-$	1620.8	4$^-$			
218.8 *2*	<0.1	2721.3	11$^-$	2502.4	10$^-$			

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^{170}Er(^{18}O,4nγ) 2002Sh21,1998Sh36 (continued)

γ(^{184}Os) (continued)

E_γ[‡]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[@]	Comments
220.5 *2*	0.9 *1*	2136.6	8^-	1916.3	6^-			
228.4 *2*	1.3 *1*	2901.0	12^-	2672.7	11^-			
229.0[†] *2*		3359.2	14^+	3130.1	13^+			
230.2 *2*	1.7 *1*	2661.2	11^-	2431.2	10^-			
230.8 *2*	4.2 *2*	4202.2	(16^-)	3971.4	(15^-)	M1	0.530	α(exp)=0.46 *9* DCO=0.61 *3*.
236.3 *2*	<0.1	2957.6	12^-	2721.3	11^-			
236.4 *2*	1.6 *1*	2502.4	10^-	2266.0	9^-	D+Q		DCO=0.71 *5*.
239.6 *2*	1.0 *1*	2901.0	12^-	2661.2	11^-			
240.4 *2*	3.5 *2*	1958.2	7^-	1718.1	5^-			
241.5 *2*	2.3 *1*	2672.7	11^-	2431.2	10^-	D+Q		DCO=0.21 *3*.
243.0 *2*	10.9 *3*	2609.9	11^+	2366.7	10^+	D+Q		DCO=0.42 *1*.
252.9[†] *2*		2862.9	12^+	2609.9	11^+			Mult.,δ: δ(D,Q)=1.22 *8* from 253γ-496γ branching (1988Ch27).
256.4 *2*	0.6 *1*	3423.2	14^-	3166.7	13^-			
257.4 *2*	1.2 *1*	2930.3	12^-	2672.7	11^-			
263.9 *2*	99 *3*	383.67	4^+	119.70	2^+			
264[a]		2721.3	11^-	2456.9	10^-			
265.8 *2*	2.6 *1*	3166.7	13^-	2901.0	12^-			
267.3[†] *2*		3130.1	13^+	2862.9	12^+			Mult.,δ: δ(D,Q)=1.0 *1* from 267γ-520γ branching (1988Ch27).
273.6 *2*	0.8 *1*	2106.3	8^-	1832.8	6^-			
279.6 *2*	1.6 *1*	3209.8	13^-	2930.3	12^-			
280.9 *2*	0.3 *1*	4756.4	(18^-)	4475.4	(17^-)			
284.9 *2*	0.5 *1*	2957.6	12^-	2672.7	11^-			
289.1 *2*	1.0 *1*	4756.4	(18^-)	4467.2	17^-			
294.9 *2*	0.3 *1*	4770.1		4475.4	(17^-)			
296.4 *2*	1.4 *1*	2957.6	12^-	2661.2	11^-	D		DCO=0.42 *4*.
296.5 *2*	0.1 *1*	3806.3	15^-	3509.8	(14^-)			
299.8 *2*	0.8 *1*	3509.8	(14^-)	3209.8	13^-			
300.5 *2*	1.0 *1*	2300.6	9^-	1999.9	7^-			
302.1 *2*	0.4 *1*	4122.3	(16^-)	3820.3	(15^-)			
302.9 *2*	0.9 *1*	4770.1		4467.2	17^-			
309.6 *2*	0.4 *1*	4467.2	17^-	4157.5	(16^-)			
310.3 *2*	0.8 *1*	3820.3	(15^-)	3509.8	(14^-)			
320.2 *2*	1.6 *1*	2456.9	10^-	2136.6	8^-			
320.7[†] *2*		3679.9	15^+	3359.2	14^+			
323[a]		3489.4	14^-	3166.7	13^-			
325.1 *2*	0.7 *1*	3226.1	13^-	2901.0	12^-			
329.5 *2*	0.8 *1*	5099.6		4770.1				
336.2 *2*	1.4 *1*	3728.1	(13^-)	3392.0	(12^+)	D		DCO=0.74 *5*.
345.2 *2*	1.8 *1*	1958.2	7^-	1613.0	6^+			
347.3 *2*	0.4 *1*	1428.2	5^+	1080.95	3^+			
350.8 *2*	4.7 *2*	2456.9	10^-	2106.3	8^-	Q		DCO=0.96 *2*.
361.7 *2*	0.5 *1*	4122.3	(16^-)	3760.8	15^-			
365.8 *2*	1.1 *1*	2502.4	10^-	2136.6	8^-	Q		DCO=1.10 *8*.
366.6[†] *2*		4046.5	16^+	3679.9	15^+			
384[a]		3806.3	15^-	3423.2	14^-			
384.9 *2*	0.9 *1*	2431.2	10^-	2046.4	8^-			
388.0 *2*	<0.1	1613.0	6^+	1224.99	4^+			
390.4 *2*	100 *3*	773.89	6^+	383.67	4^+	Q		DCO=0.97 *1*.
395.1 *2*	3.9 *1*	2661.2	11^-	2266.0	9^-	Q		DCO=0.93 *2*.
403.0[†] *2*		2999.2	12^+	2596.1	10^+			
404.6 *2*	1.6 *1*	1832.8	6^-	1428.2	5^+			

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^{170}Er(^{18}O,4nγ) 2002Sh21,1998Sh36 (continued)

γ(^{184}Os) (continued)

E_γ[‡]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	Comments
406.7 *2*	1.7 *1*	2672.7	11^-	2266.0	9^-		
408.1 *2*	0.2 *1*	1836.3	5^-	1428.2	5^+		
410.1 *2*	1.5 *5*	4202.2	(16^-)	3791.7	(14^-)		
420.8 *2*	2.5 *1*	2721.3	11^-	2300.6	9^-	Q	DCO=0.92 *7*.
431.6[†] *2*		3790.9	16^+	3359.2	14^+		
439.8 *2*	1.2 *1*	2661.2	11^-	2221.6	9^-		
443.6 *1*	3.9 *2*	5199.9	(20^-)	4756.4	(18^-)	Q	DCO=1.05 *7*.
444.1 *2*	4.8 *2*	2901.0	12^-	2456.9	10^-	Q	DCO=1.12 *6*.
451.0 *2*	0.6 *1*	2672.7	11^-	2221.6	9^-		
455.2 *2*	1.7 *1*	2957.6	12^-	2502.4	10^-		
457.7 *1*	1.5 *1*	6797.4	(23)	6339.7	(22^-)	D	DCO=0.65 *4*.
469.3 *2*	0.4 *1*	4467.2	17^-	3997.8	16^-		
470.2 *1*	2.0 *1*	5670.1	(21)	5199.9	(20^-)	D+Q	DCO=0.81 *4*.
473.9 *1*	4.1 *2*	5230.3	(20^-)	4756.4	(18^-)	Q	DCO=0.98 *6*.
486.1 *2*	0.5 *1*	7283.5		6797.4	(23)		
488.1 *2*	5.0 *2*	1916.3	6^-	1428.2	5^+		
493.1 *2*	8.8 *3*	1718.1	5^-	1224.99	4^+	D+Q	DCO=0.73 *2*.
493.9 *2*	1.3 *1*	3166.7	13^-	2672.7	11^-		
495.4 *2*	2.5 *1*	2366.7	10^+	1871.2	10^+		
496.0[†] *2*		2862.9	12^+	2366.7	10^+		
496.0[†] *2*		3359.2	14^+	2862.9	12^+		
497.0[†] *2*		3496.3	14^+	2999.2	12^+		
499.2 *2*	1.5 *1*	2930.3	12^-	2431.2	10^-		
500[a]		3728.1	(13^-)	3228.1	(11^-)		
500.8 *2*	78.8 *24*	1274.6	8^+	773.89	6^+	Q	DCO=1.01 *1*.
505.0 *2*	3.0 *1*	3226.1	13^-	2721.3	11^-	Q	DCO=1.07 *5*.
505.6 *2*	5.0 *2*	3166.7	13^-	2661.2	11^-	Q	DCO=1.00 *5*.
520.0[†] *2*		4801.0	18^+	4281.0	17^+		
520.1[†] *2*		3130.1	13^+	2609.9	11^+		
522.1 *2*	5.1 *2*	3423.2	14^-	2901.0	12^-	Q	DCO=0.95 *5*.
529.8[†] *2*		3790.9	16^+	3261.3	14^+		
532.0 *2*	1.9 *1*	3489.4	14^-	2957.6	12^-	Q	DCO=0.96 *6*.
537.2 *2*	1.8 *1*	3209.8	13^-	2672.7	11^-		
539.9 *2*	7.0 *2*	1620.8	4^-	1080.95	3^+		
549.7[†] *2*		3679.9	15^+	3130.1	13^+		
550.1[†] *2*		4046.5	16^+	3496.3	14^+		
552.2 *2*	<0.1	3509.8	(14^-)	2957.6	12^-		
554.0 *2*	2.0 *1*	4756.4	(18^-)	4202.2	(16^-)	Q	DCO=1.11 *17*.
558.2[†] *2*		4349.9	18^+	3791.7	(14^-)		
567.9 *2*	1.4 *1*	4770.1		4202.2	(16^-)		
572.9 *2*	0.8 *1*	6912.6		6339.7	(22^-)		
574.5 *2*	4.3 *2*	3997.8	16^-	3423.2	14^-	Q	DCO=1.17 *6*.
579.5 *2*	1.7 *1*	3509.8	(14^-)	2930.3	12^-		
580.3 *2*	3.3 *1*	3806.3	15^-	3226.1	13^-	Q	DCO=0.90 *5*.
594.2 *2*	5.1 *2*	3760.8	15^-	3166.7	13^-	Q	DCO=1.00 *5*.
596.7 *2*	64.1 *19*	1871.2	10^+	1274.6	8^+	Q	DCO=1.02 *1*.
601.0 *2*	<0.1	1544.0	3^-	943.00	2^+		
601.2[†] *2*		4281.0	17^+	3679.9	15^+		
602.0[†] *2*		5566.1	20^+	4964.1	19^+		
610.7 *2*	2.8 *1*	3820.3	(15^-)	3209.8	13^-		
611.4 *2*	4.6 *2*	1836.3	5^-	1224.99	4^+		
633.0 *2*	3.2 *1*	4122.3	(16^-)	3489.4	14^-		
634.4 *2*	0.2 *1*	4756.4	(18^-)	4122.3	(16^-)		

Continued on next page (footnotes at end of table)

^{170}Er(^{18}O,4nγ) 2002Sh21,1998Sh36 (continued)

$\gamma(^{184}Os)$ (continued)

E_γ[‡]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	Comments
637.7 *2*	3.4 *1*	4635.5	18^-	3997.8	16^-	Q	DCO=1.02 *4*.
647.6 *2*	1.8 *1*	4157.5	(16^-)	3509.8	(14^-)		
651.8[†] *2*		5001.7	20^+	4349.9	18^+		
654.3 *2*	2.2 *1*	1428.2	5^+	773.89	6^+		
657.8 *2*	2.6 *1*	4418.6	17^-	3760.8	15^-	Q	DCO=0.90 *5*.
660.8 *2*	1.9 *1*	4467.2	17^-	3806.3	15^-	Q	DCO=1.02 *9*.
669.2 *2*	1.5 *1*	4475.4	(17^-)	3806.3	15^-	Q	DCO=0.92 *9*.
669.7 *2*	0.5 *1*	6339.7	(22^-)	5670.1	(21)	D+Q	DCO=0.70 *5*.
673.8 *2*	1.3 *1*	4494.1	(17^-)	3820.3	(15^-)		
676.4[†] *2*		2547.5	12^+	1871.2	10^+		
677.0[†] *2*		4173.1	16^+	3496.3	14^+		
683.0[†] *2*		4964.1	19^+	4281.0	17^+		
683.5 *2*	4.5 *2*	1958.2	7^-	1274.6	8^+	D+Q	DCO=0.80 *2*.
685.9 *2*	1.3 *1*	5456.0		4770.1			
687.2[†] *2*		4046.5	16^+	3359.2	14^+		
694.0 *2*	3.0 *1*	5329.5	20^-	4635.5	18^-	(Q)	DCO=0.90 *4*.
697.2 *2*	1.4 *1*	1080.95	3^+	383.67	4^+		
704.2 *2*	1.5 *1*	4826.5	(18^-)	4122.3	(16^-)		
708.1 *2*	2.3 *1*	5126.7	(19^-)	4418.6	17^-	Q	DCO=1.12 *6*.
713.7[†] *2*		3261.3	14^+	2547.5	12^+		
721.6 *2*	1.7 *1*	6051.1	22^-	5329.5	20^-	Q	DCO=1.16 *6*.
721.8 *2*	0.5 *1*	4879.3	(18^-)	4157.5	(16^-)		
725.4 *2*	<0.1	5192.6	(19^-)	4467.2	17^-		
725.5 *2*	1.9 *1*	1999.9	7^-	1274.6	8^+	D	DCO=0.77 *2*.
732.2 *2*	0.5 *1*	5207.6	(19^-)	4475.4	(17^-)		
736.3 *2*	1.0 *1*	5230.4	(19^-)	4494.1	(17^-)		
739.9 *2*	1.1 *1*	6791.0	(24^-)	6051.1	22^-		
741.8[†] *2*		5743.5	22^+	5001.7	20^+		
742.0 *2*	0.8 *1*	6611.7	(23^-)	5869.7	(21^-)		
743.0 *2*	1.0 *1*	5869.7	(21^-)	5126.7	(19^-)		
746.2 *2*	0.9 *1*	5572.7	(20^-)	4826.5	(18^-)		
754.2[†] *2*		4801.0	18^+	4046.5	16^+		
763.1[†] *2*		5727.2	(21^+)	4964.1	19^+		
765.1[†] *2*		5566.1	20^+	4801.0	18^+		
777.1 *2*	0.4 *1*	6007.5	(21^-)	5230.4	(19^-)		
779.9 *2*	0.8 *1*	6235.9		5456.0			
782.2 *2*	0.4 *1*	3392.0	(12^+)	2609.9	11^+		
785.2[†] *2*		4046.5	16^+	3261.3	14^+		
791.0 *2*	0.5 *1*	5670.3	(20^-)	4879.3	(18^-)		
795.7 *2*	0.4 *1*	7407.4	(25^-)	6611.7	(23^-)		
797.8 *2*	1.3 *1*	3728.1	(13^-)	2930.3	12^-	D+Q	DCO=0.15 *2*.
800.0 *2*	0.5 *1*	7591.0	(26^-)	6791.0	(24^-)		
805.0 *2*	0.5 *1*	6377.7	(22^-)	5572.7	(20^-)		
811.7[†] *2*		3359.2	14^+	2547.5	12^+		
815.8[†] *2*		6543.0	(23^+)	5727.2	(21^+)		
820.2[†] *2*		6563.7	24^+	5743.5	22^+		
839.0 *2*	3.9 *2*	1613.0	6^+	773.89	6^+		DCO=0.84 *1* for 839.0γ+841.5γ doublet.
841.5 *2*	8.1 *3*	1224.99	4^+	383.67	4^+		DCO=0.84 *1* for 839.0γ+841.5γ doublet.
847.3 *2*	0.9 *1*	7083.2		6235.9			
853.0[†][a] *2*		7396.0?	(25^+)	6543.0	(23^+)		
884.0 *2*	0.3 *2*	8475.0	(28^-)	7591.0	(26^-)		
884.3[†] *2*		7448.0	26^+	6563.7	24^+		

Continued on next page (footnotes at end of table)

^{170}Er(^{18}O,4nγ) 2002Sh21,1998Sh36 (continued)

γ(^{184}Os) (continued)

E_γ[‡]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	Comments
911.7[†] *2*		4173.1	16^+	3261.3	14^+		
938.7[†] *2*		8386.7	(28^+)	7448.0	26^+		
943.0 *2*	<0.1	943.00	2^+	0.0	0^+		
944.1 *2*	5.1 *2*	1718.1	5^-	773.89	6^+	D+Q	DCO=0.87 *2*.
948.8[†] *2*		3496.3	14^+	2547.5	12^+		
961.4 *2*	6.9 *3*	1080.95	3^+	119.70	2^+		DCO=1.03 *4*; implies large Q component, consistent with adopted δ.
989.6[†] *2*		9376.3	(30^+)	8386.7	(28^+)		
991.8[†] *2*		2862.9	12^+	1871.2	10^+		
1006.5 *2*	0.5 *1*	3228.1	(11^-)	2221.6	9^-		
1009.5[†] *2*		4801.0	18^+	3791.7	(14^-)		
1025.3 *2*	1.3 *1*	3392.0	(12^+)	2366.7	10^+	Q	DCO=1.09 *7*.
1044.6 *2*	7.4 *3*	1428.2	5^+	383.67	4^+	D+Q	DCO=0.75 *2*.
1059.6 *2*	0.7 *1*	1832.8	6^-	773.89	6^+		E_γ: level-energy difference=1059.0.
1062.4 *2*	4.9 *2*	1836.3	5^-	773.89	6^+	D	DCO=0.72 *2*.
1092.1 *2*	3.8 *1*	2366.7	10^+	1274.6	8^+	Q	DCO=1.00 *3*.
1105.2 *2*	3.9 *2*	1224.99	4^+	119.70	2^+	Q	DCO=1.00 *6*.
1109.3 *2*	2.3 *1*	6339.7	(22^-)	5230.3	(20^-)	Q	DCO=1.09 *5*.
1128.1[†] *2*		2999.2	12^+	1871.2	10^+		
1142.2 *2*	6.2 *2*	1916.3	6^-	773.89	6^+		DCO=1.07 *3*; interpreted As D, $\Delta J=0$ transition.
1184.2 *2*	0.5 *1*	1958.2	7^-	773.89	6^+		
1216.2[†] *2*		5566.1	20^+	4349.9	18^+		
1229.3 *2*	2.6 *1*	1613.0	6^+	383.67	4^+	Q	DCO=1.02 *4*.
1237.0 *2*	2.6 *1*	1620.8	4^-	383.67	4^+		DCO=1.22 *4*.
1321.4[†] *2*		2596.1	10^+	1274.6	8^+		
1334.3 *2*	3.3 *1*	1718.1	5^-	383.67	4^+	D	DCO=0.60 *2*.
1452.5 *2*	1.5 *1*	1836.3	5^-	383.67	4^+	D	DCO=0.69 *3*.

[†] From 1998Sh36; an uncertainty of 0.2 keV (the same as that in 2002Sh21) has been assigned by the evaluator.
[‡] From 2002Sh21, except As noted.
[#] From measured DCO (2002Sh21).
[@] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.
[&] Multiply placed with intensity suitably divided.
[a] Placement of transition in the level scheme is uncertain.

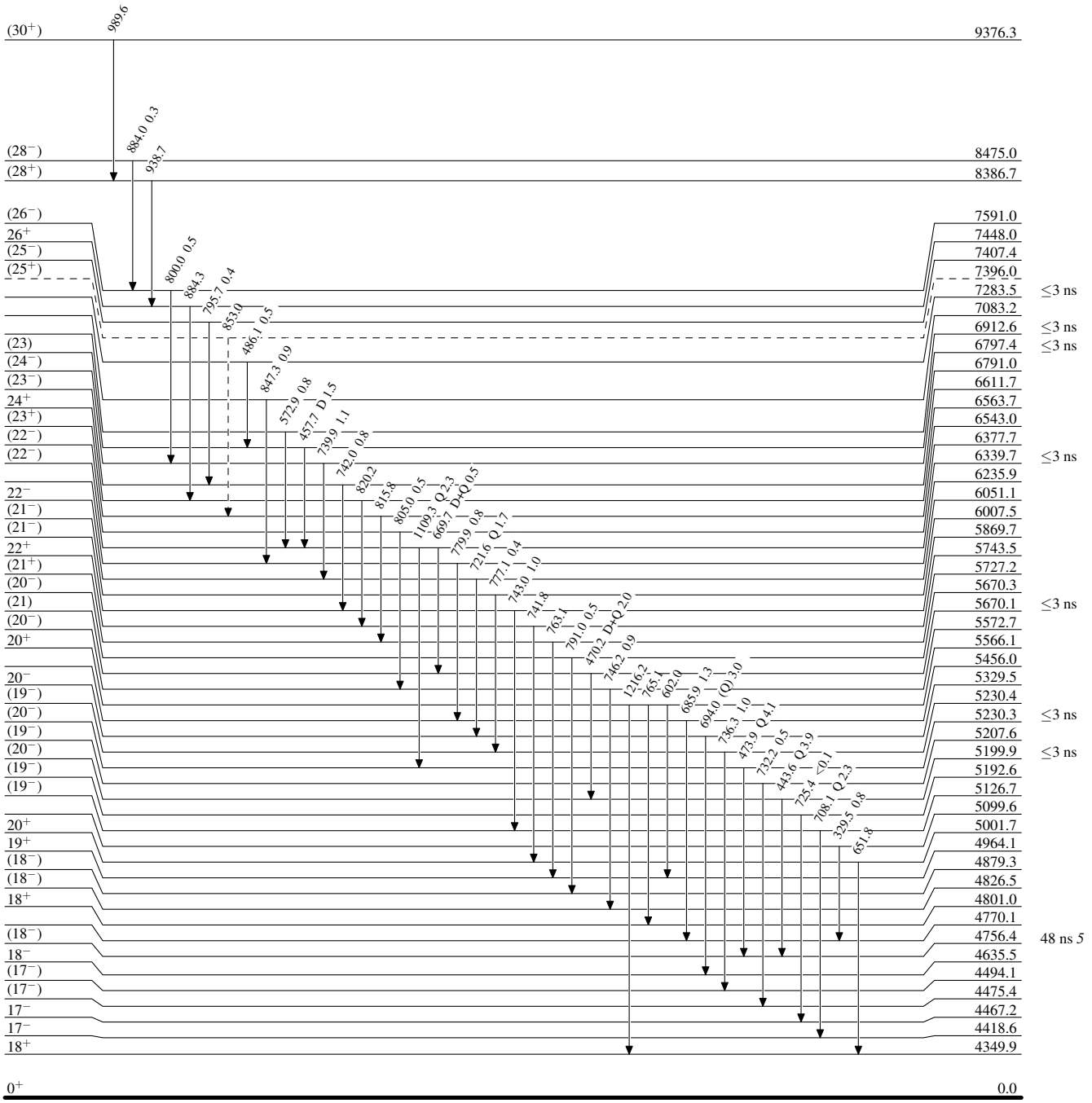
^{170}Er(^{18}O,4nγ) 2002Sh21,1998Sh36

Level Scheme

Intensities: Relative I_γ

Legend

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



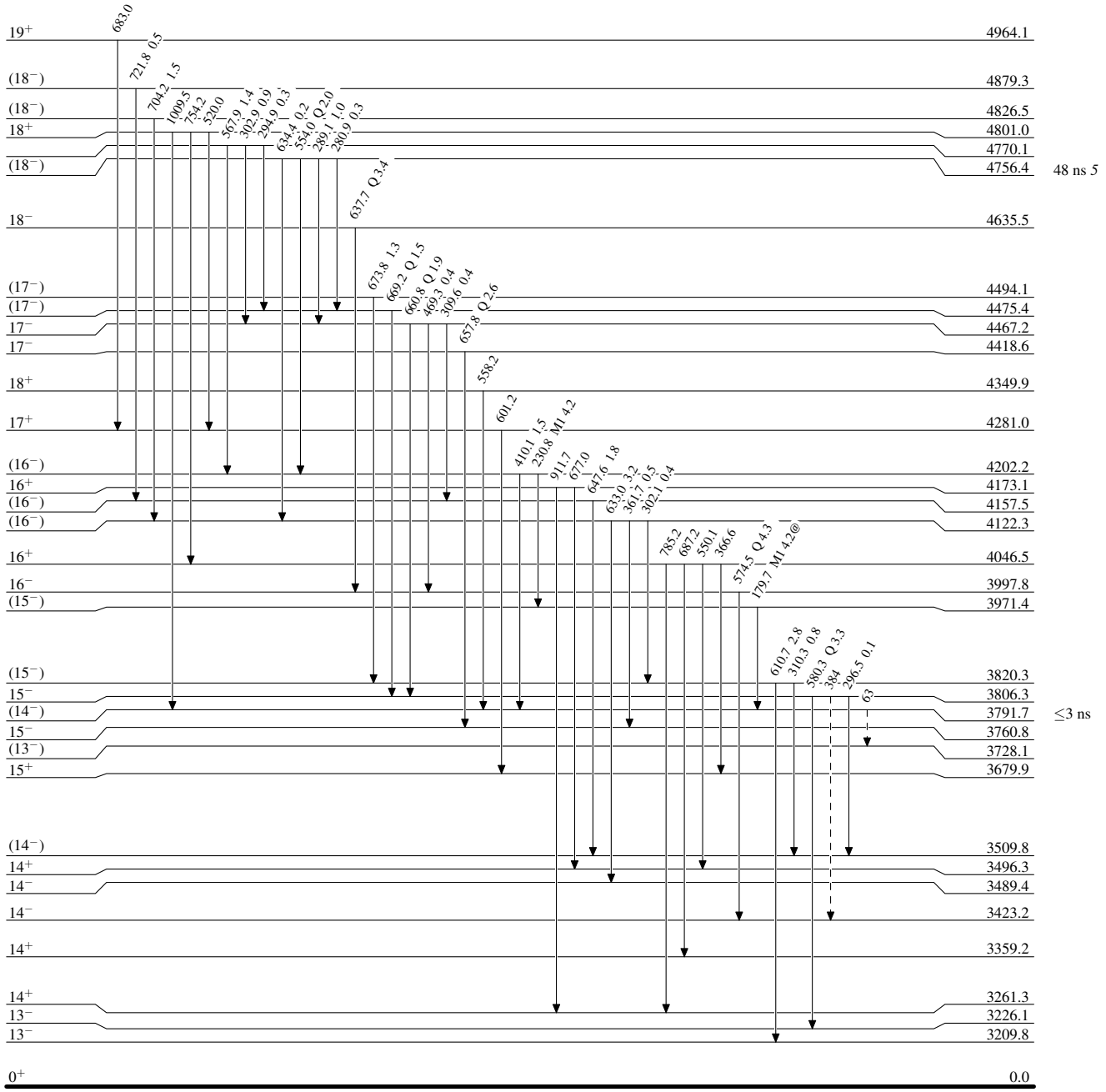
$^{184}_{76}Os_{108}$

^{170}Er(^{18}O,4nγ) 2002Sh21,1998Sh36

Level Scheme (continued)

Intensities: Relative I_γ
@ Multiply placed: intensity suitably divided

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)



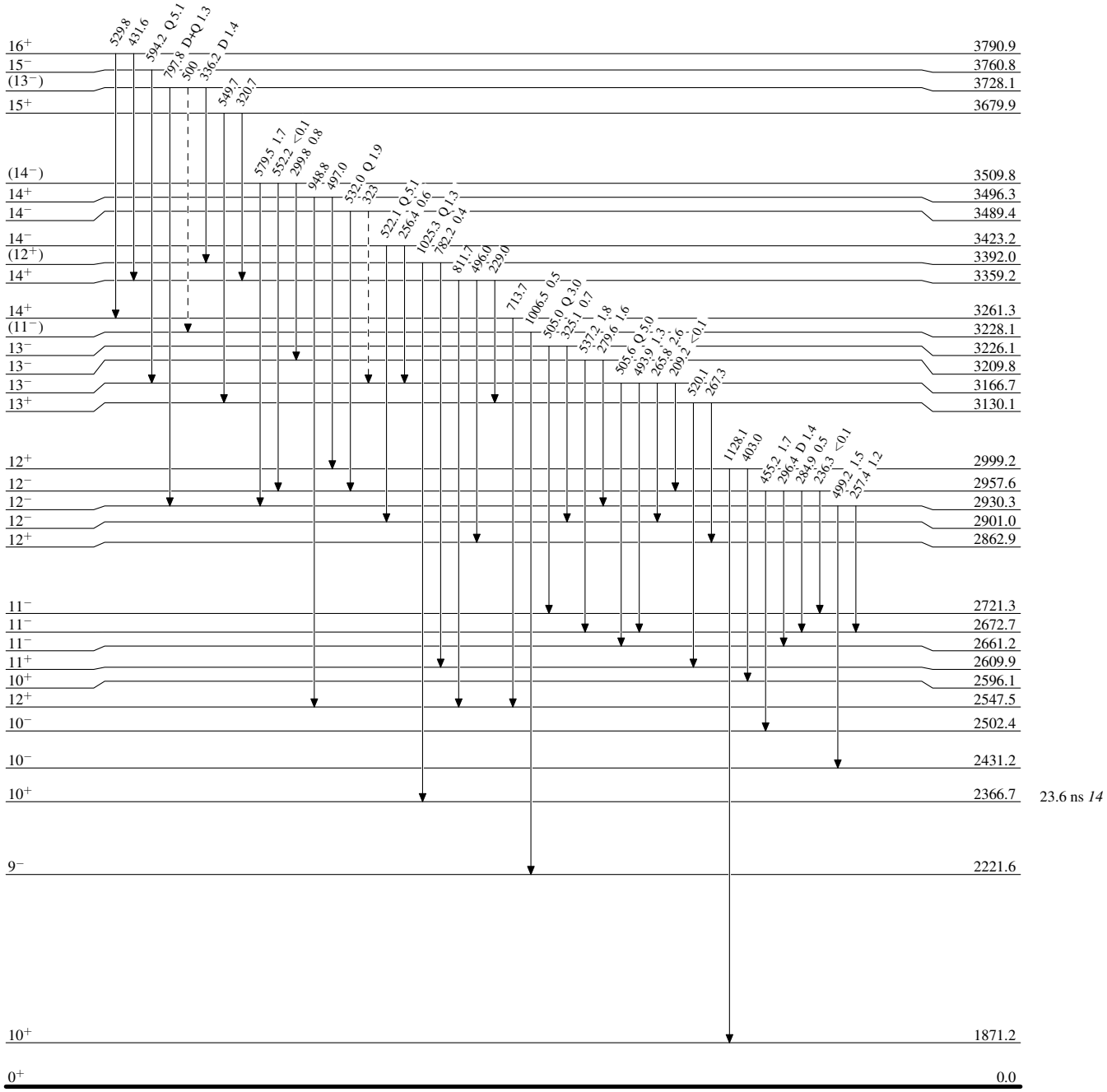
$^{184}_{76}Os_{108}$

$^{170}Er(^{18}O,4n\gamma)$ 2002Sh21,1998Sh36

Level Scheme (continued)

Intensities: Relative I_γ
@ Multiply placed: intensity suitably divided

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)

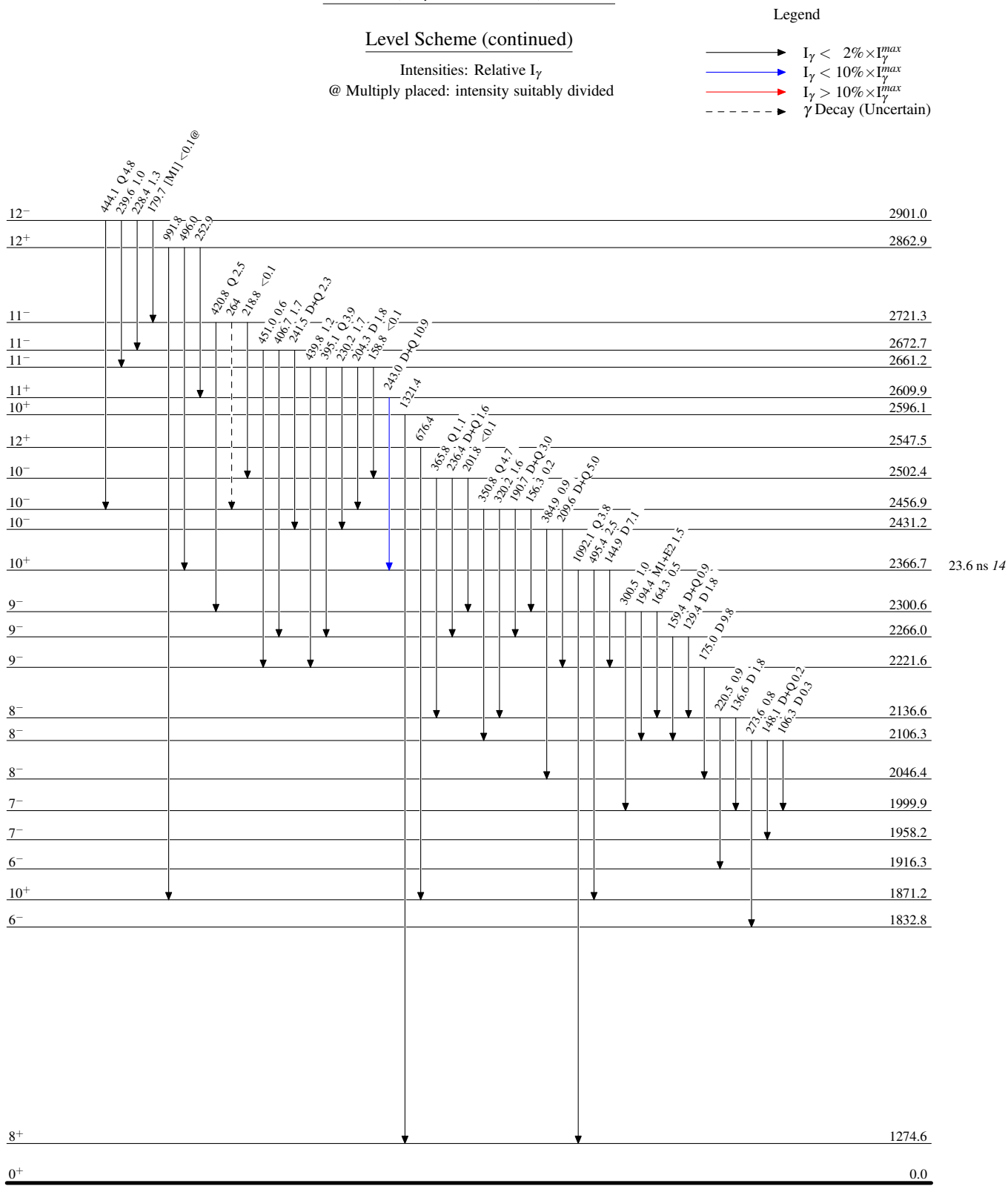


$^{184}_{76}Os_{108}$

$^{170}Er(^{18}O,4n\gamma)$ 2002Sh21,1998Sh36

Level Scheme (continued)

Intensities: Relative I_γ
@ Multiply placed: intensity suitably divided



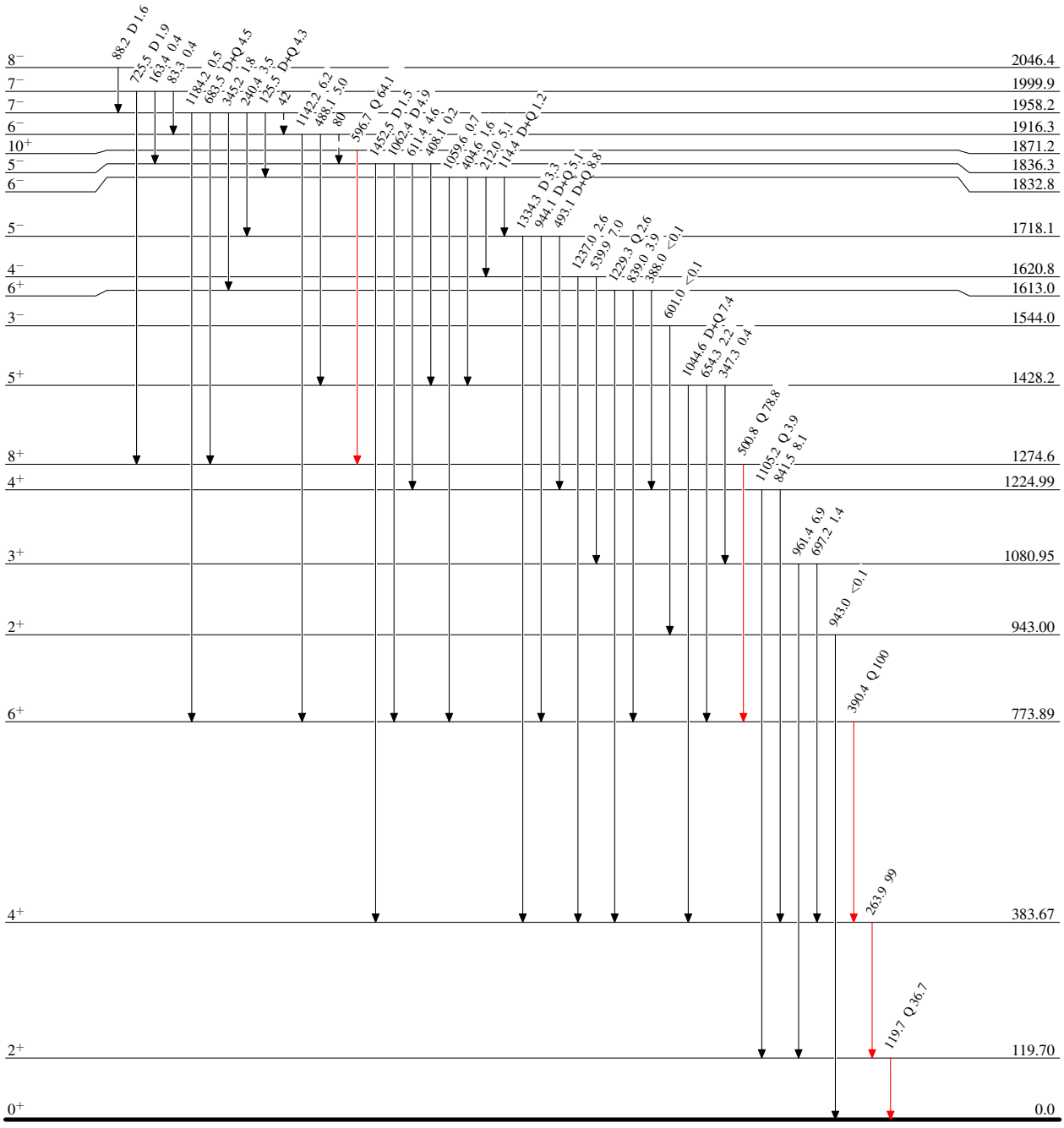
$^{184}_{76}Os_{108}$

$^{170}Er(^{18}O,4n\gamma)$ 2002Sh21,1998Sh36

Level Scheme (continued)

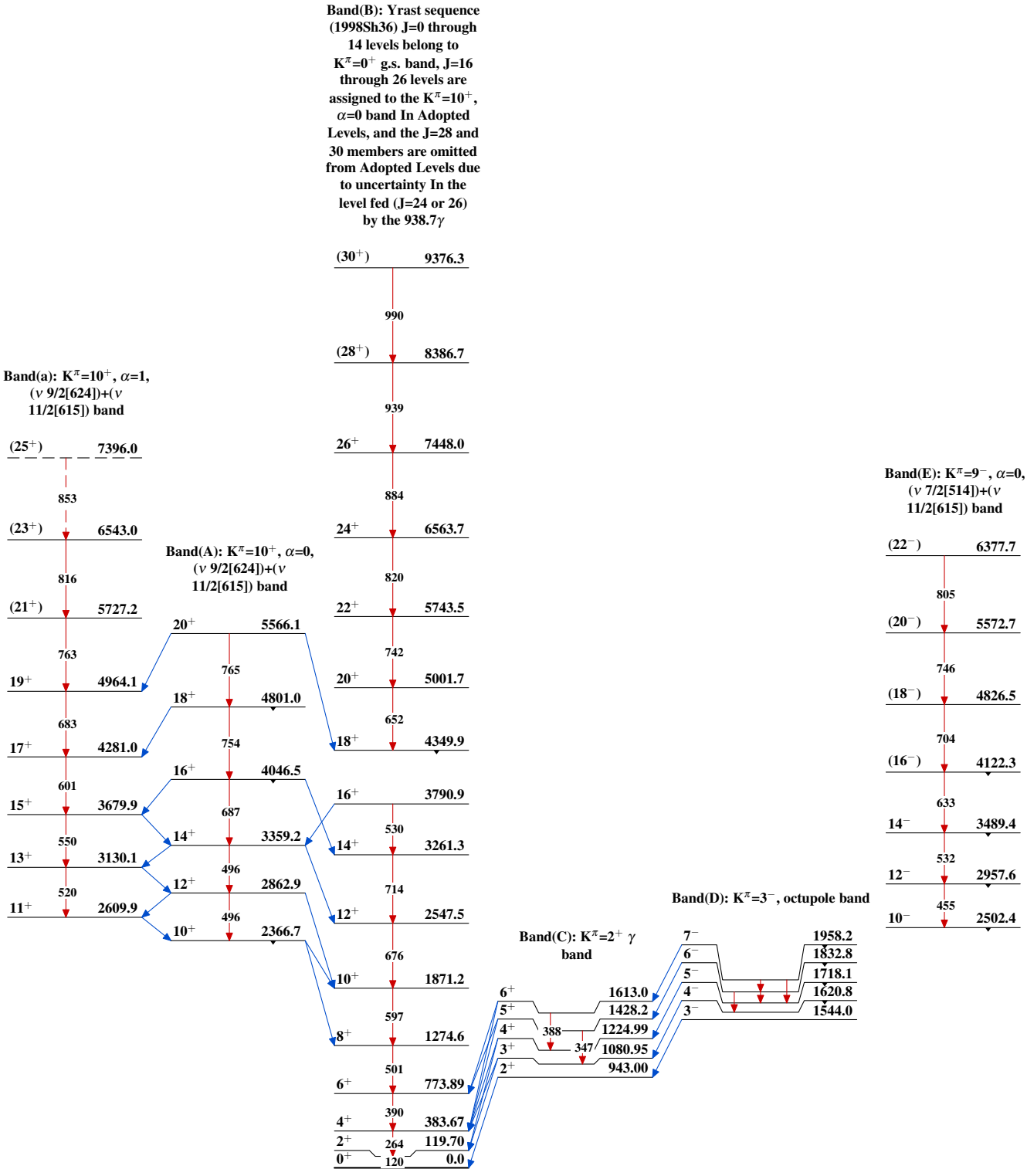
Intensities: Relative I_γ
@ Multiply placed: intensity suitably divided

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)



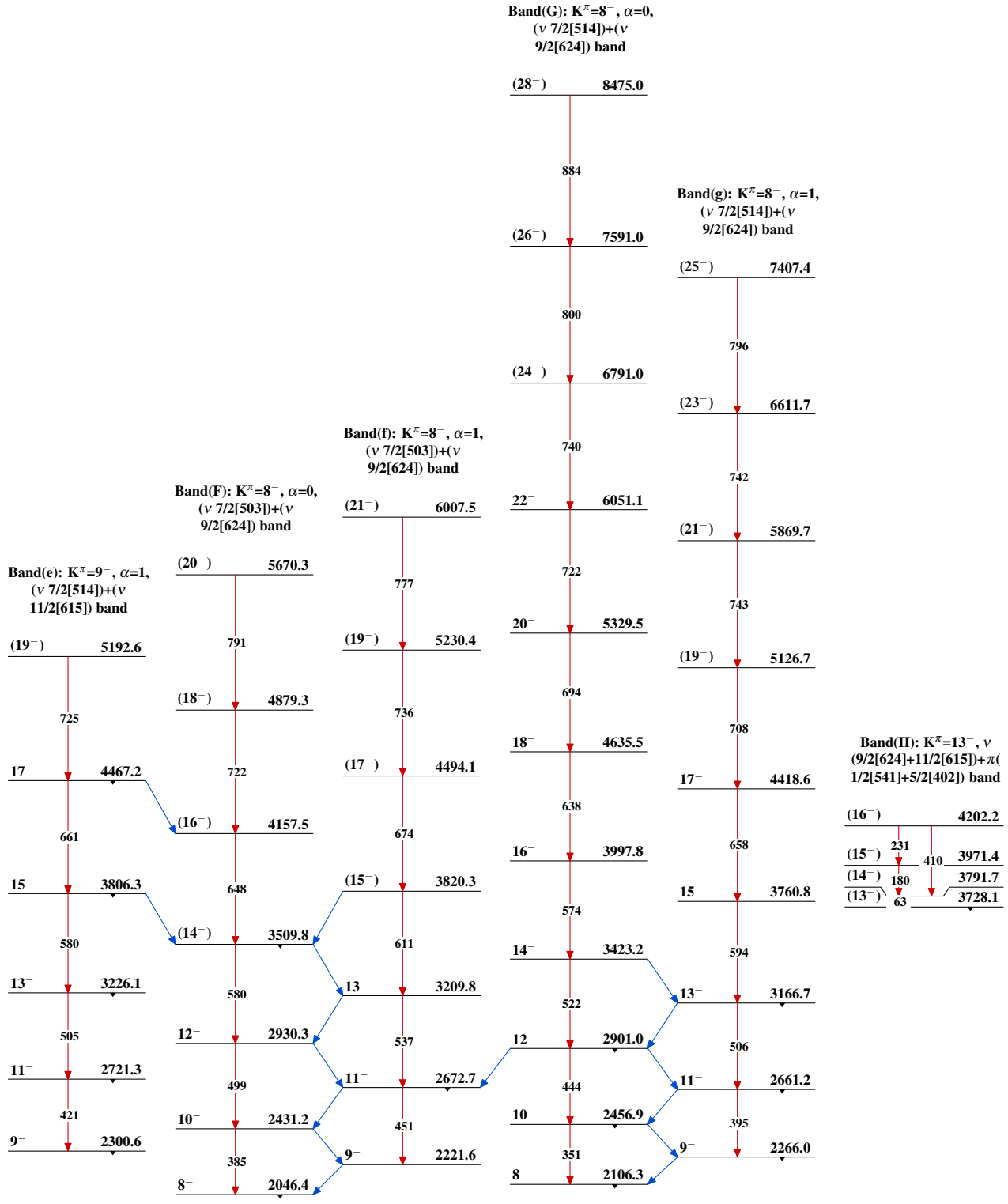
$^{184}_{76}Os_{108}$

$^{170}Er(^{18}O,4n\gamma)$ 2002Sh21,1998Sh36



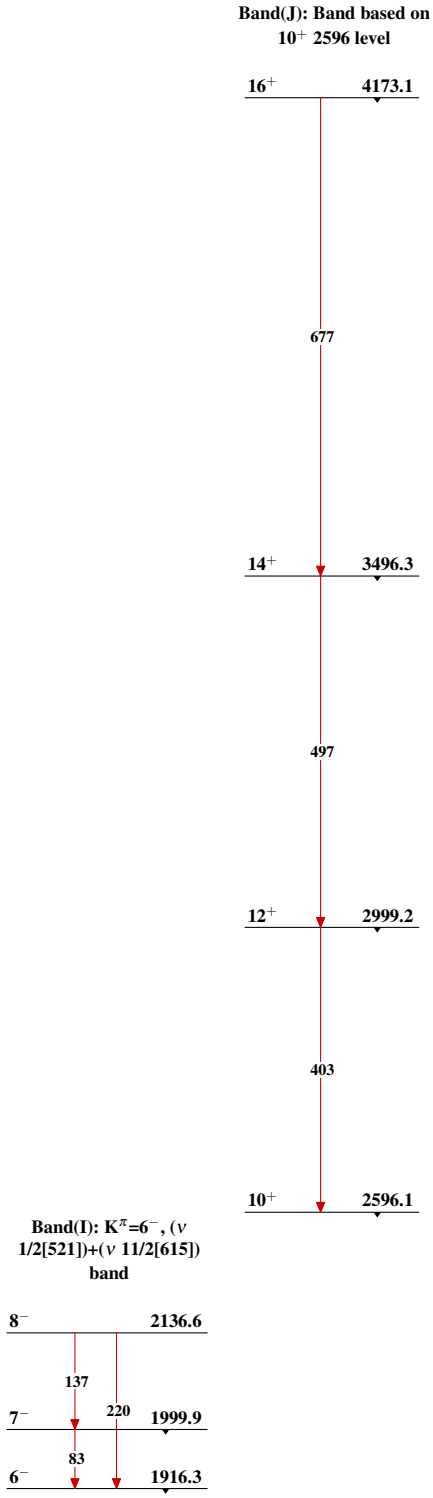
$^{184}_{76}Os_{108}$

$^{170}Er(^{18}O,4n\gamma)$ 2002Sh21,1998Sh36 (continued)



$^{184}_{76}Os_{108}$

^{170}Er(^{18}O,4nγ) 2002Sh21,1998Sh36 (continued)



$^{184}_{76}Os_{108}$