^{176}Yb(^{13}C,5nγ) 2002Wh01

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

E=80 MeV; CAESAR array (6 Compton-suppressed Ge detectors, 2 unsuppressed planar LEPS detectors); measured Eγ, Iγ, $\gamma\gamma$ coin, $\gamma\gamma(\theta)$(DCO), lifetimes.

^{184}Os Levels

E(level)[†]	J$^{\pi}$[#]	T$_{1/2}$[‡]
0.0[a]	0$^+$	
119.54[a] 18	2$^+$	
383.31[a] 22	4$^+$	
773.67[a] 23	6$^+$	
943.75[c] 18	2$^+$	
1042[bn]	0$^+$	
1080.86[c] 23	3$^+$	
1204.76[b] 24	2$^+$	
1224.78[c] 22	4$^+$	
1274.40[a] 25	8$^+$	
1427.84[c] 23	5$^+$	
1502.69[b] 25	4$^+$	
1544.20[d] 20	3$^-$	
1612.91[c] 24	6$^+$	
1620.41[d] 24	4$^-$	
1717.83[d] 23	5$^-$	
1832.40[d] 24	6$^-$	
1835.95 24	5$^-$	
1839.74[f] 25	(6$^-$)	
1870.8[a] 3	10$^+$	
1878.9[b] 3	6$^+$	
1916.02[j] 25	6$^-$	
1958.14[d] 24	7$^-$	
1999.74[j] 25	7$^-$	
2046.4[e] 3	8$^-$	<1.4 ns
2106.1[h] 3	8$^-$	
2136.4[j] 3	8$^-$	
2148.0[f] 4	(8$^-$)	
2221.4[e] 3	9$^-$	
2266.1[i] 3	9$^-$	
2366.5[&] 3	10$^+$	23.6 ns 14
2431.0[e] 3	10$^-$	
2456.9[h] 3	10$^-$	
2547.2[a] 3	12$^+$	
2596.4[k] 3	(10$^+$)	
2609.4[@] 3	11$^+$	
2625.1[f] 4	(10$^-$)	
2661.2[i] 3	11$^-$	
2672.5[e] 3	11$^-$	
2693.8[l] 3	10$^+$	
2862.4[&] 3	12$^+$	

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^{176}Yb(^{13}C,5nγ) 2002Wh01 (continued)

^{184}Os Levels (continued)

E(level)[†]	J$^{\pi}$[#]	T$_{1/2}$[‡]	Comments
2900.9[h] 3	12$^-$		
2903.5[m] 4	12$^{(-)}$		
2930.0[e] 3	12$^-$		
2998.9[k] 3	12$^+$		
3083.1[m] 4	13$^{(-)}$		
3088.5[l] 3	12$^+$		
3126.4 4	(13)		
3129.9[@] 3	13$^+$		
3166.4[i] 3	13$^-$		
3199.1[f] 5	(12$^-$)		
3209.7[e] 3	13$^-$		
3260.8[a] 4	14$^+$		
3359.0[&] 3	14$^+$		
3423.1[h] 4	14$^-$		
3496.2[k] 3	14$^+$		
3549.6[l] 3	14$^+$		
3679.4[@] 3	15$^+$		
3746.5 4	(15$^-$)		
3760.5[i] 4	15$^-$		
3777.4 4	(15)		not adopted. In (^{18}O,4nγ), more extensive band structure is established and the 647.5γ is placed higher In the intraband cascade than suggested In this (^{13}C,5nγ) study.
3790.5[&] 4	16$^+$		
3857.2[e] 4	15$^-$		level not adopted; the 648γ deexciting it In 2002Wh01 is placed In (^{18}O,4nγ) As the J=16 to 14 transition instead of the J=15 to 13 transition of the band.
3860.0[f] 5	(14$^-$)		
3997.6[h] 4	16$^-$		
4046.0[a] 3	16$^+$		
4091.5[l] 3	16$^+$		
4167.2 5	(16$^-$)		
4172.4 4	(16$^+$)		
4280.8[@] 4	17$^+$		
4348.8[&] 4	18$^+$		
4407.2 5	(17$^-$)		
4415.5 5	(17$^-$)		
4418.0[i] 5	17$^-$		
4596.6[f] 5	(16$^-$)		
4635.3[h] 5	18$^-$		
4728.3[l] 4	(18$^+$)		
4800.1[a] 4	18$^+$		
4911.3 5	(18)		
4963.7[@] 4	19$^+$		
5000.4[&] 4	20$^+$		
5105.9 5	(19)		
5126.1[i] 5	(19$^-$)		
5329.1[h] 5	20$^-$		
5374.3[f] 6	(18$^-$)		
5459.5[l] 5	(20$^+$)		
5565.1 4	20$^+$	<1.4 ns	Possible configuration: K$^{\pi}$=20$^+$, ν(11/2[615]+9/2[624])+π(11/2[505]+9/2[514]). from level scheme in figure 2 of 2002Wh01, an additional unidentified γ deexcites this level,

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^{176}Yb(^{13}C,5nγ) 2002Wh01 (continued)

^{184}Os Levels (continued)

E(level)[†]	J$^{\pi}$[#]	T$_{1/2}$[‡]	Comments
			presumably the 1216γ and/or 602γ known from Adopted Levels, Gammas.
5569.7[a] *4*	(20$^+$)		
5726.2[@] *5*	(21$^+$)		
5742.0[&] *5*	22$^+$		
5742.9 *5*	21$^+$	1.04 ns *21*	Possible configuration: K$^{\pi}$=21$^+$, ν(11/2[615]+9/2[624]+7/2[503]+7/2[514])+π(5/2[402]+3/2[402]).
5868.5[i] *5*	(21$^-$)		
6050.6[h] *6*	(22$^-$)		
6186.1 *5*	22$^+$	0.35 ns *14*	
6215.4[f] *6*	(20$^-$)		
6276.9[l] *5*	(22$^+$)		
6542.4[@] *5*	(23$^+$)		
6562.1[&] *5*	24$^+$		
6598.2 *5*	23$^+$	0.42 ns *14*	
6686.7 *5*	23$^+$		
6693.7 *5*	24$^+$		
6789.9[h] *6*	(24$^-$)		
6888.0 *5*	24$^{(+)}$		
7003.8 *5*	24$^+$		
7086.9 *5*	(24$^+$)		
7310.7 *5*	25$^+$	0.90 ns *21*	
7446.4[&] *6*	(26$^+$)		
7500.3 *6*	(26$^+$)		
7591.5[g] *5*	26$^+$		
7785.9 *5*	26$^{(+)}$		
7815.4[g] *5*	(27$^+$)		
8042.6 *5*	27$^+$		
8152.1[g] *5*	(28$^+$)		
8243.8 *5*	(26)		
8579.6[g] *6*	(29$^+$)		
8589.5 *6*	(29$^+$)		
8648.7 *6*	(29)		
8784.3 *6*	(29$^+$)		
9374.5 *6*	(31$^+$)		
9538.8 *6*	(31)		
9545.1 *6*	(31$^+$)		
9866.5 *6*	(32)		
10670.8 *7*	(34)		

[†] From least-squares fit to Eγ.
[‡] From gated time spectra.
[#] Authors' values based on deduced band structure and transition multipolarities.
[@] Band(a): K$^{\pi}$=10$^+$, α=1, (ν 11/2[615])+(ν 9/2[624]) band.
[&] Band(A): K$^{\pi}$=10$^+$, α=0, (ν 11/2[615])+(ν 9/2[624]) band.
[a] Band(B): K$^{\pi}$=0$^+$ g.s. band. First band crossing at 16$^+$, the second at 18$^+$.
[b] Band(C): K$^{\pi}$=0$^+$ β band.
[c] Band(D): K$^{\pi}$=2$^+$ γ band.
[d] Band(E): Octupole band. Possible dominant configuration=(π 5/2[402])$\otimes$(π 1/2[541]).
[e] Band(F): K$^{\pi}$=8$^-$ (ν 9/2[624])+(ν 7/2[503]) band.

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^{176}Yb(^{13}C,5nγ) 2002Wh01 (continued)

^{184}Os Levels (continued)

[f] Band(G): Band based on (6$^-$) 1840. Possible configuration=(ν 9/2[624])+(ν 3/2[512]).
[g] Band(H): possible K$^\pi$=26$^+$ six-quasiparticle band. Possible configuration=ν(11/2[615]+9/2[624]+7/2[503]+5/2[512])+π(11/2[505]+9/2[514]).
[h] Band(I): K$^\pi$=8$^-$, α=0, (ν 9/2[624])+(ν 7/2[514] band.
[i] Band(i): K$^\pi$=8$^-$, α=1, (ν 9/2[624])+(ν 7/2[514] band.
[j] Band(J): K$^\pi$=6$^-$, (ν 11/2[615])+(ν 1/2[521]) band.
[k] Band(K): Band based on (10$^+$) 2596 level. Low-K $i^2_{13/2}$ s-band.
[l] Band(L): Band based on 10$^+$ 2694 level. Mixture of low-K $i^2_{13/2}$ s-band built on β and γ vibrations.
[m] Band(M): possible K$^\pi$=12$^-$ band. Possible configuration: (ν 9/2[624]+ν 7/2[503]+ν 7/2[514]+ν 1/2[510]).
[n] from Adopted Levels.

γ(^{184}Os)

E$_\gamma$[†]	I$_\gamma$	E$_i$(level)	J$^\pi_i$	E$_f$	J$^\pi_f$	Mult.[‡]	α[#]	Comments
80.5[@] *10*	1.0 *5*	1916.02	6$^-$	1835.95	5$^-$			
83.7 *2*	1.1 *2*	1999.74	7$^-$	1916.02	6$^-$	M1,E2	9.25 *19*	
88.3 *2*	1.1 *1*	2046.4	8$^-$	1958.14	7$^-$	M1	8.03 *13*	α(exp)=13 *3* DCO=0.6 *1*.
106.4 *2*	1.0 *2*	2106.1	8$^-$	1999.74	7$^-$			
111.5[@] *10*	0.2 *1*	3790.5	16$^+$	3679.4	15$^+$			
114.6 *2*	1.7 *1*	1832.40	6$^-$	1717.83	5$^-$			
118.5[@] *10*	0.8 *4*	1958.14	7$^-$	1839.74	(6$^-$)			
119.8 *2*	76.4 *25*	119.54	2$^+$	0.0	0$^+$	Q		DCO=0.97 *1*.
125.6 *2*	3.4 *2*	1958.14	7$^-$	1832.40	6$^-$	D(+Q)		DCO=0.43 *5*.
129.6 *2*	3.7 *2*	2266.1	9$^-$	2136.4	8$^-$	D		DCO=0.64 *4*.
136.7 *2*	2.3 *2*	2136.4	8$^-$	1999.74	7$^-$	M1	2.30	α(exp)=2.5 *3* Mult.: DCO=1.6 *1* (not Q gated). M1 from α(exp).
145.0 *2*	4.7 *2*	2366.5	10$^+$	2221.4	9$^-$	E1	0.1506	α(exp)=0.36 *8* Mult.: DCO=0.79 *3* (not Q gated). E1 from α(exp).
160.0 *2*	0.9 *2*	2266.1	9$^-$	2106.1	8$^-$			
163.9 *2*	1.0 *2*	1999.74	7$^-$	1835.95	5$^-$			
175.1 *2*	8.4 *3*	2221.4	9$^-$	2046.4	8$^-$	D+Q		DCO=0.40 *6*.
177.8 *2*	17.3 *5*	5742.9	21$^+$	5565.1	20$^+$	M1	1.095	α(exp)=1.19 *8* DCO=1.04 *4*.
179.6 *2*	2.0 *1*	3083.1	13$^{(-)}$	2903.5	12$^{(-)}$	D		DCO=1.0 *1* (not Q gated).
183.3 *2*	1.0 *2*	3679.4	15$^+$	3496.2	14$^+$			
190.7 *2*	5.0 *2*	2456.9	10$^-$	2266.1	9$^-$	D		DCO=0.71 *8*.
194.5[@]	0.4 *2*	6888.0	24$^{(+)}$	6693.7	24$^+$			
194.6 *2*	0.4 *1*	5105.9	(19)	4911.3	(18)			E$_\gamma$: initial level and final level energies are reversed in table 1 of 2002Wh01.
204.3 *2*	2.9 *2*	2661.2	11$^-$	2456.9	10$^-$			DCO=0.7 *1*.
209.6 *2*	7.4 *3*	2431.0	10$^-$	2221.4	9$^-$	D		DCO=0.50 *3*.
212.0 *2*	4.4 *2*	1832.40	6$^-$	1620.41	4$^-$	Q		DCO=1.5 *1* (not Q gated).
219.5 *2*	2.3 *2*	1839.74	(6$^-$)	1620.41	4$^-$			
220.3 *2*	1.9 *2*	2136.4	8$^-$	1916.02	6$^-$			Mult.: α(K)exp=1.6 *4* for 219.5γ+220.3γ doublet.
223.9 *2*	1.5 *2*	7815.4	(27$^+$)	7591.5	26$^+$			
228.5 *2*	2.1 *1*	2900.9	12$^-$	2672.5	11$^-$			
229.2 *2*	1.5 *2*	3359.0	14$^+$	3129.9	13$^+$			DCO=0.88 *25* (not Q gated).
230.2 *2*	1.7 *1*	2661.2	11$^-$	2431.0	10$^-$			E$_\gamma$: initial level, quoted as 2897 in table 1 of 2002Wh01, is a misprint.

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^{176}Yb(^{13}C,5nγ) 2002Wh01 (continued)

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

E_γ[†]	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡]	Comments
231.0 *2*	2.2 *2*	2903.5	$12^{(-)}$	2672.5	11^-	D	DCO=0.91 *8* (not Q gated).
236.4 *2*	1.3 *1*	3166.4	13^-	2930.0	12^-		
239.7 *2*	1.8 *1*	2900.9	12^-	2661.2	11^-		
240.3 *2*	1.5 *1*	1958.14	7^-	1717.83	5^-		
241.5 *2*	4.8 *2*	2672.5	11^-	2431.0	10^-	D	DCO=1.01 *7* (not Q gated).
243.1 *2*	9.9 *3*	2609.4	11^+	2366.5	10^+	D+Q	DCO=0.27 *3*.
252.9 *2*	7.2 *2*	2862.4	12^+	2609.4	11^+	D+Q	DCO=0.35 *5*.
256.7 *2*	3.3 *1*	8042.6	27^+	7785.9	$26^{(+)}$	D	DCO=0.67 *8*.
257.4 *2*	1.9 *1*	2930.0	12^-	2672.5	11^-	D	DCO=1.0 *2* (not Q gated).
264.0 *2*	161 *5*	383.31	4^+	119.54	2^+	Q	DCO=1.03 *1*.
266.4 *2*	1.6 *2*	2266.1	9^-	1999.74	7^-		E_γ: initial level, quoted as 2269 in table 1 of 2002Wh01, is a misprint.
267.5 *2*	7.5 *3*	3129.9	13^+	2862.4	12^+	D+Q	DCO=0.25 *4*.
279.9 *2*	2.4 *2*	3209.7	13^-	2930.0	12^-	D	DCO=1.00 *15* (not Q gated).
280.7 *2*	5.7 *2*	7591.5	26^+	7310.7	25^+	D	DCO=0.65 *6*.
289.8 *2*	2.1 *2*	6888.0	$24^{(+)}$	6598.2	23^+	D(+Q)	DCO=0.5 *1*.
297.6 *2*	<0.1	1502.69	4^+	1204.76	2^+		
307.0 *2*	7.0 *2*	7310.7	25^+	7003.8	24^+	D+Q	DCO=0.47 *4*. E_γ: final level, quoted as 4997 in table 1 of 2002Wh01, is a misprint.
308.3 *2*	5.7 *3*	2148.0	(8^-)	1839.74	(6^-)		
320.5 *2*	2.3 *2*	2456.9	10^-	2136.4	8^-		
320.5 *2*	3.2 *1*	3679.4	15^+	3359.0	14^+		
336.7 *2*	2.0 *5*	8152.1	(28^+)	7815.4	(27^+)		
345.2 *2*	1.1 *1*	1958.14	7^-	1612.91	6^+		
346.6 *2*	0.2 *1*	1427.84	5^+	1080.86	3^+		
350.8 *2*	5.8 *3*	2456.9	10^-	2106.1	8^-	Q	DCO=0.92 *15*.
366.5 *2*	2.1 *1*	3496.2	14^+	3129.9	13^+		
375.8 *2*	<0.1	1878.9	6^+	1502.69	4^+		
384.6 *2*	1.2 *1*	2431.0	10^-	2046.4	8^-		
388.3 *2*	3.6 *4*	1612.91	6^+	1224.78	4^+		
390.4 *2*	161 *5*	773.67	6^+	383.31	4^+	Q	DCO=1.02 *2*.
394.8 *2*	5.6 *2*	3088.5	12^+	2693.8	10^+	Q	DCO=0.9 *1*.
395.0 *2*	4.6 *2*	2661.2	11^-	2266.1	9^-		
402.5 *2*	0.8 *2*	2998.9	12^+	2596.4	(10^+)		
404.4 *2*	1.5 *1*	1832.40	6^-	1427.84	5^+		
405.7 *2*	6.7 *2*	7003.8	24^+	6598.2	23^+	D+Q	DCO=0.77 *8*.
406.4 *2*	2.4 *2*	2672.5	11^-	2266.1	9^-		
411.8 *2*	3.1 *2*	1839.74	(6^-)	1427.84	5^+		
412.1 *2*	11.2 *4*	6598.2	23^+	6186.1	22^+	D+Q	DCO=0.75 *6*.
420.7 *2*	2.0 *1*	4167.2	(16^-)	3746.5	(15^-)		
422.7 *2*	2.6 *2*	7310.7	25^+	6888.0	$24^{(+)}$		
427.5 *2*	3.4 *2*	8579.6	(29^+)	8152.1	(28^+)		E_γ: final level, quoted as 7584 in table 1 of 2002Wh01, is misprinted.
431.6 *2*	5.8 *2*	3790.5	16^+	3359.0	14^+	Q	DCO=1.10 *14*.
439.9 *2*	1.4 *1*	2661.2	11^-	2221.4	9^-		
443.2 *2*	21.9 *7*	6186.1	22^+	5742.9	21^+	D+Q	DCO=0.77 *5*.
444.0 *2*	8.5 *3*	2900.9	12^-	2456.9	10^-	Q	DCO=1.02 *12*.
451.0 *2*	1.1 *2*	2672.5	11^-	2221.4	9^-		
451.3 *2*	1.2 *1*	4800.1	18^+	4348.8	18^+		
461.3 *2*	7.2 *3*	3549.6	14^+	3088.5	12^+		DCO=0.82 *7*.
475.2 *2*	6.7 *2*	7785.9	$26^{(+)}$	7310.7	25^+	D	DCO=0.72 *6*.
477.1 *2*	2.2 *2*	2625.1	(10^-)	2148.0	(8^-)		
488.2 *2*	5.9 *3*	1916.02	6^-	1427.84	5^+		DCO=1.0 *1*. Not consistent with mult=E1 required by level scheme.

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^{176}Yb(^{13}C,5nγ) 2002Wh01 (continued)

γ(^{184}Os) (continued)

E_γ †	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.‡	Comments
488.7 *2*	2.7 *3*	7086.9	(24^+)	6598.2	23^+		
490.5 *2*	2.2 *4*	4280.8	17^+	3790.5	16^+		
492.0 *2*	2.0 *3*	9866.5	(32)	9374.5	(31^+)		
493.2 *2*	8.9 *4*	1717.83	5^-	1224.78	4^+	D	DCO=0.5 *1*.
495.8 *2*	1.9 *1*	2366.5	10^+	1870.8	10^+		
495.8 *2*	1.6 *3*	2862.4	12^+	2366.5	10^+		
496.5@	2.0 *10*	3359.0	14^+	2862.4	12^+		
496.6 *2*	1.1 *2*	4046.0	16^+	3549.6	14^+		
496.6 *2*	1.3 *2*	8648.7	(29)	8152.1	(28^+)		
497.2 *2*	2.6 *2*	3496.2	14^+	2998.9	12^+		
499.0 *2*	3.0 *2*	2930.0	12^-	2431.0	10^-		
500.7 *2*	2.4 *2*	6686.7	23^+	6186.1	22^+		
500.8 *2*	124 *4*	1274.40	8^+	773.67	6^+	Q	DCO=1.01 *2*.
505.3 *2*	10.0 *4*	3166.4	13^-	2661.2	11^-	Q	DCO=1.0 *2*.
507.6 *2*	5.3 *2*	6693.7	24^+	6186.1	22^+	Q	DCO=1.1 *2*.
519.7 *2*	3.1 *1*	4800.1	18^+	4280.8	17^+		
520.8 *2*	3.5 *2*	3129.9	13^+	2609.4	11^+		
522.2 *2*	7.2 *3*	3423.1	14^-	2900.9	12^-	Q	DCO=1.00 *12*.
529.7 *2*	18.1 *6*	3790.5	16^+	3260.8	14^+	Q	DCO=0.99 *5*.
537.1 *2*	2.2 *2*	3209.7	13^-	2672.5	11^-		
539.8 *2*	6.8 *4*	1620.41	4^-	1080.86	3^+	D	DCO=0.56 *7*.
541.5 *2*	3.8 *2*	3088.5	12^+	2547.2	12^+		
542.0 *2*	3.8 *2*	4091.5	16^+	3549.6	14^+		
546.9 *2*	1.7 *2*	8589.5	(29^+)	8042.6	27^+		
549.4 *2*	6.7 *3*	3679.4	15^+	3129.9	13^+	Q	DCO=1.15 *19*.
558.2 *2*	17.7 *6*	4348.8	18^+	3790.5	16^+	Q	DCO=1.04 *5*.
560.6 *2*	8.0 *3*	8152.1	(28^+)	7591.5	26^+	Q	DCO=0.71 *7* (not E2 gated). E_γ: initial level, quoted as 8114 in table 1 of 2002Wh01, is misprinted.
574.0 *2*	2.4 *2*	3199.1	(12^-)	2625.1	(10^-)		
574.5 *2*	6.3 *3*	3997.6	16^-	3423.1	14^-	Q	DCO=1.01 *12*.
579.2 *2*	2.3 *2*	3126.4	(13)	2547.2	12^+		
580.1 *2*	4.3 *2*	3746.5	(15^-)	3166.4	13^-	Q	DCO=1.1 *2*.
587.9 *2*	1.7 *2*	7591.5	26^+	7003.8	24^+		
594.1 *2*	6.6 *3*	3760.5	15^-	3166.4	13^-		
595.0 *2*	3.8 *2*	4091.5	16^+	3496.2	14^+		
596.6 *2*	103 *3*	1870.8	10^+	1274.40	8^+	Q	DCO=0.97 *2*.
600.2 *2*		1544.20	3^-	943.75	2^+		
601.5 *2*	10.7 *4*	4280.8	17^+	3679.4	15^+	Q	DCO=1.2 *1*.
611.1 *2*	5.0 *4*	1835.95	5^-	1224.78	4^+		DCO=1.1 *2* (not Q gated).
616.9 *2*	3.8 *2*	7310.7	25^+	6693.7	24^+		
624.0 *2*	2.5 *3*	7310.7	25^+	6686.7	23^+		
633.8 *2*	1.6 *2*	3496.2	14^+	2862.4	12^+		
636.8 *2*	3.0 *2*	4728.3	(18^+)	4091.5	16^+		
637.6 *2*	4.6 *2*	4635.3	18^-	3997.6	16^-	Q	DCO=1.1 *2*.
647.5 *2*	1.7 *2*	3777.4	(15)	3129.9	13^+		
647.5 *2*	2.0 *2*	3857.2	15^-	3209.7	13^-		
651.6 *2*	12.0 *4*	5000.4	20^+	4348.8	18^+	Q	E_γ: initial level, quoted as 4966 in table 1 of 2002Wh01, is misprinted. DCO=1.11 *9*.
654.2 *2*	2.9 *2*	1427.84	5^+	773.67	6^+		
657.5 *2*	3.3 *2*	4418.0	17^-	3760.5	15^-		
660.7 *2*	2.2 *2*	4407.2	(17^-)	3746.5	(15^-)		
660.9 *2*	2.0 *1*	3860.0	(14^-)	3199.1	(12^-)		
669.0 *2*	2.1 *2*	4415.5	(17^-)	3746.5	(15^-)		

Continued on next page (footnotes at end of table)

^{176}Yb(^{13}C,5nγ) 2002Wh01 (continued)

γ(^{184}Os) (continued)

E_γ †	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.‡	Comments
676.3 *2*	85 *3*	2547.2	12^+	1870.8	10^+	Q	DCO=0.99 *3*.
682.9 *2*	4.2 *2*	4963.7	19^+	4280.8	17^+	Q	DCO=1.0 *1*.
683.8 *2*	3.7 *2*	1958.14	7^-	1274.40	8^+		
687.0 *2*	7.0 *3*	4046.0	16^+	3359.0	14^+	Q	DCO=1.06 *13*.
693.8 *2*	4.4 *2*	5329.1	20^-	4635.3	18^-	(Q)	DCO=1.2 *2*.
708.1 *2*	2.6 *2*	5126.1	(19^-)	4418.0	17^-		
708.3 *2*	6.8 *3*	4800.1	18^+	4091.5	16^+	Q	DCO=1.09 *9*.
712.1 *2*	2.9 *3*	7310.7	25^+	6598.2	23^+		
713.6 *2*	50.7 *16*	3260.8	14^+	2547.2	12^+	Q	DCO=1.01 *3*.
721.5 *2*	2.6 *2*	6050.6	(22^-)	5329.1	20^-		
725.3 *2*	5.0 *5*	1999.74	7^-	1274.40	8^+	D	DCO=0.5 *1*.
731.2 *2*	2.9 *2*	5459.5	(20^+)	4728.3	(18^+)		
732.0 *2*	1.5 *2*	8042.6	27^+	7310.7	25^+		
736.6 *2*	1.7 *1*	4596.6	(16^-)	3860.0	(14^-)		
738.9 *2*	2.5 *2*	4911.3	(18)	4172.4	(16^+)	Q	DCO=1.0 *2*.
739.3 *2*	2.1 *1*	6789.9	(24^-)	6050.6	(22^-)		
741.6 *2*	8.3 *3*	5742.0	22^+	5000.4	20^+	Q	DCO=1.07 *7*.
741.7 *2*	2.0 *2*	8784.3	(29^+)	8042.6	27^+		
742.4 *2*	2.3 *2*	5868.5	(21^-)	5126.1	(19^-)		
754.1 *2*	20.8 *7*	4800.1	18^+	4046.0	16^+	Q	DCO=1.05 *6*.
760.8 *2*	1.2 *2*	9545.1	(31^+)	8784.3	(29^+)		
762.5 *2*	2.5 *2*	5726.2	(21^+)	4963.7	19^+		
765.0 *2*	26.4 *8*	5565.1	20^+	4800.1	18^+	Q	DCO=1.01 *5*.
769.6 *2*	2.0 *2*	5569.7	(20^+)	4800.1	18^+		
777.7 *2*	0.7 *1*	5374.3	(18^-)	4596.6	(16^-)		
785.1 *2*	19.5 *7*	4046.0	16^+	3260.8	14^+	Q	DCO=0.92 *5*.
794.9 *2*	4.0 *3*	9374.5	(31^+)	8579.6	(29^+)		
804.3 *2*	1.0 *10*	10670.8	(34)	9866.5	(32)		
811.7 *2*	19.7 *7*	3359.0	14^+	2547.2	12^+	Q	DCO=1.12 *6*.
816.2 *2*	2.1 *2*	6542.4	(23^+)	5726.2	(21^+)		
817.4 *2*	1 *2*	6276.9	(22^+)	5459.5	(20^+)		
817.8 *2*	2.7 *2*	7003.8	24^+	6186.1	22^+		
820.1 *2*	3.4 *3*	6562.1	24^+	5742.0	22^+		DCO=1.2 *3*.
823.2 *2*	0.8 *1*	2693.8	10^+	1870.8	10^+		
839.0 *2*	5.5 *3*	1612.91	6^+	773.67	6^+		DCO=0.80 *10*; interpreted by authors As ΔJ=0 transition.
841.1 *2*	0.7 *1*	6215.4	(20^-)	5374.3	(18^-)		
841.6 *2*	11.1 *5*	1224.78	4^+	383.31	4^+	D	DCO=0.57 *5*.
855.4 *2*	5.6 *2*	6598.2	23^+	5742.9	21^+		
884.3 *2*	1.5 *2*	7446.4	(26^+)	6562.1	24^+		
890.1 *2*	1.0 *2*	9538.8	(31)	8648.7	(29)		
911.6 *2*	3.3 *2*	4172.4	(16^+)	3260.8	14^+		DCO=1.5 *2*.
933.1 *2*	2.0 *2*	8243.8	(26)	7310.7	25^+	D	DCO=0.7 *1*.
938.2 *2*	0.4 *1*	7500.3	(26^+)	6562.1	24^+		
943.5 *2*		943.75	2^+	0.0	0^+		
943.8 *2*	0.4 *2*	6686.7	23^+	5742.9	21^+		
943.9 *2*	5.7 *3*	1717.83	5^-	773.67	6^+	D	DCO=0.62 *6*.
948.7 *2*	5.5 *2*	3496.2	14^+	2547.2	12^+		DCO=1.10 *15*; Q inconsistent with level scheme.
961.2 *2*	6.9 *6*	1080.86	3^+	119.54	2^+		DCO=1.21 *12* (not Q gated).
991.6 *2*	0.9 *1*	2862.4	12^+	1870.8	10^+		
1002.5 *2*	0.8 *1*	3549.6	14^+	2547.2	12^+		
1009.5 *2*	2.1 *2*	4800.1	18^+	3790.5	16^+		
1044.6 *2*	11.5 *5*	1427.84	5^+	383.31	4^+		DCO=0.92 *6*.
1062.4 *2*	7.3 *4*	1835.95	5^-	773.67	6^+	D	DCO=0.60 *6*.
1066.0 *2*	4.4 *2*	1839.74	(6^-)	773.67	6^+	D	DCO=0.64 *11*.
1084.9 *2*	0.8 *4*	1204.76	2^+	119.54	2^+		
1092.1 *2*	1.7 *1*	2366.5	10^+	1274.40	8^+	Q	DCO=3.1 *5* (not Q gated).

Continued on next page (footnotes at end of table)

^{176}Yb(^{13}C,5nγ) 2002Wh01 (continued)

γ(^{184}Os) (continued)

E_γ [†]	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡]	Comments
1105.5 *2*	5.0 *4*	1224.78	4^+	119.54	2^+	Q	DCO=2.0 *3* (not Q gated).
1105.6 *2*	1.6 *3*	1878.9	6^+	773.67	6^+		
1119.3 *2*	1.2 *3*	1502.69	4^+	383.31	4^+		
1128.0 *2*	4.5 *2*	2998.9	12^+	1870.8	10^+	Q	DCO=1.05 *13*.
1142.2 *2*	8.5 *4*	1916.02	6^-	773.67	6^+		DCO=1.05 *8*. assigned by authors As D, ΔJ=0 transition.
1184.6 *2*	0.3 *1*	1958.14	7^-	773.67	6^+		E_γ: from e-mail reply from C. Wheldon to XUNDL compilers on Feb. 25, 2002; supersedes Eγ=1184.9 given in Table 1 of 2002Wh01.
1217.5 *2*	1.1 *2*	3088.5	12^+	1870.8	10^+		
1225.5[@] *10*	2.5 *13*	1999.74	7^-	773.67	6^+		
1229.6 *2*	3.8 *3*	1612.91	6^+	383.31	4^+	Q	DCO=1.1 *2*.
1237.0 *2*	3.0 *2*	1620.41	4^-	383.31	4^+	D	DCO=0.7 *1*.
1322.0 *2*	2.3 *2*	2596.4	(10^+)	1274.40	8^+		
1334.6 *2*	3.6 *2*	1717.83	5^-	383.31	4^+	D	DCO=0.48 *6*.
1419.3 *2*	2.6 *2*	2693.8	10^+	1274.40	8^+	(Q)	DCO=1.1 *2*.
1424.9 *2*	0.8 *4*	1544.20	3^-	119.54	2^+		
1452.7 *2*	3.1 *3*	1835.95	5^-	383.31	4^+		

[†] From 2002Wh01, but adjusted upwards by 0.5 keV as per e-mail from Carl Wheldon, March 6, 2003, pointing out that all energies quoted in the paper (2002Wh01) are low by 0.5 keV.

[‡] From α(exp) deduced from intensity balance, except As noted.

[#] 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.

[@] Placement of transition in the level scheme is uncertain.

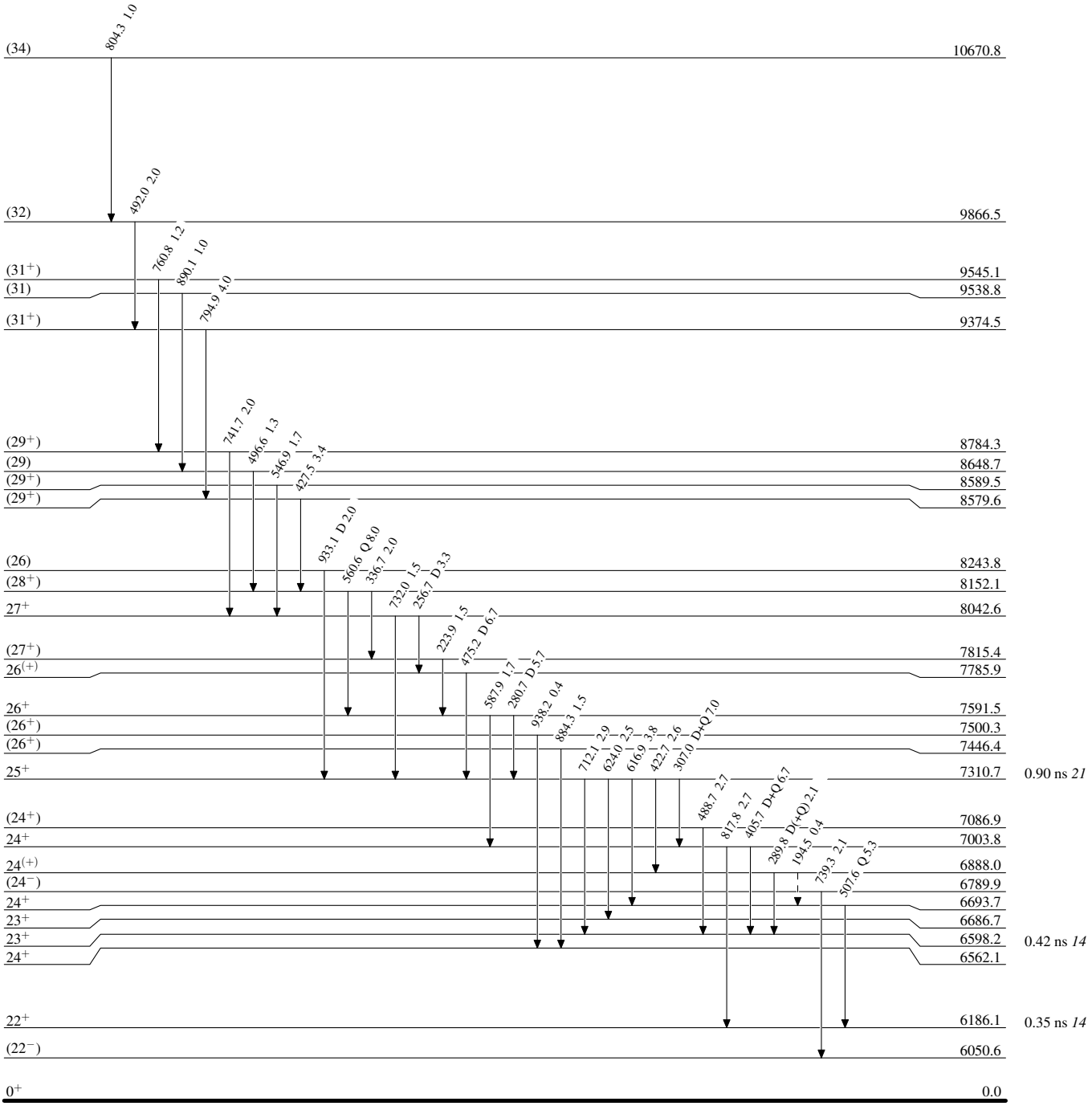
^{176}Yb(^{13}C,5nγ) 2002Wh01

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)

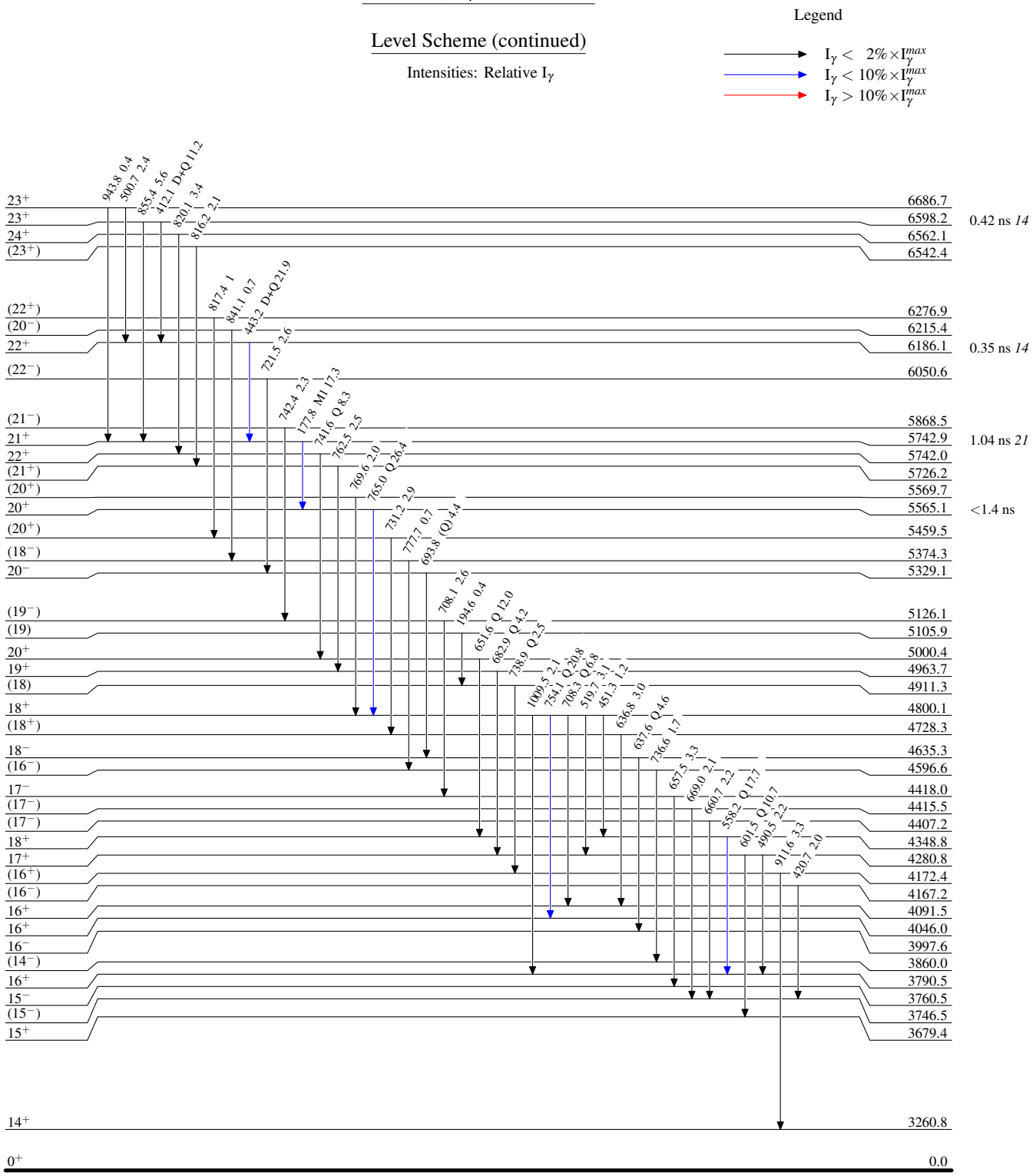


$^{184}_{76}Os_{108}$

$^{176}Yb(^{13}C,5n\gamma)$ **2002Wh01**

Level Scheme (continued)

Intensities: Relative I_γ



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

$^{176}Yb(^{13}C,5n\gamma)$ 2002Wh01

Level Scheme (continued)

Intensities: Relative I_γ

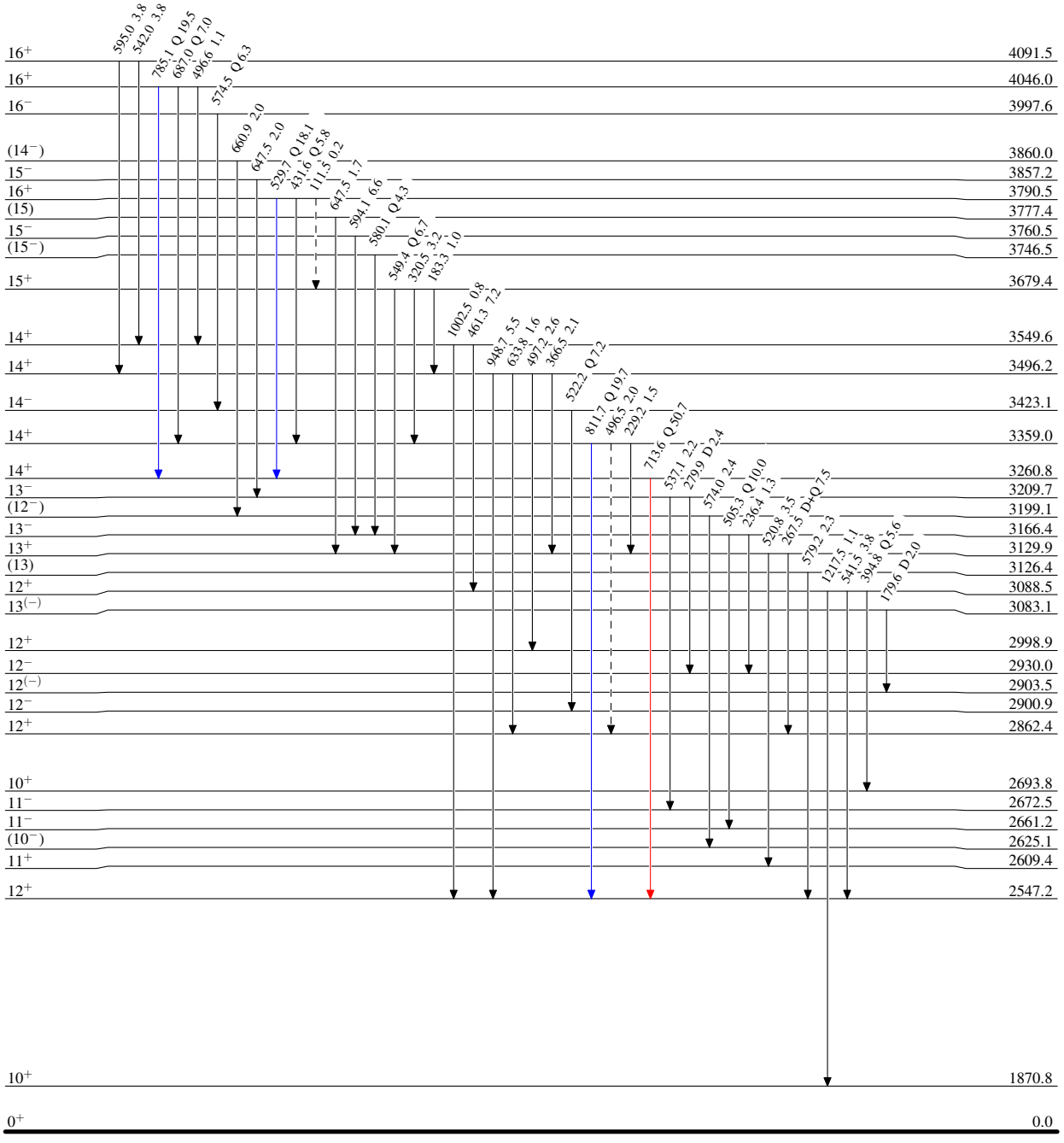
Legend

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

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

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

γ Decay (Uncertain)



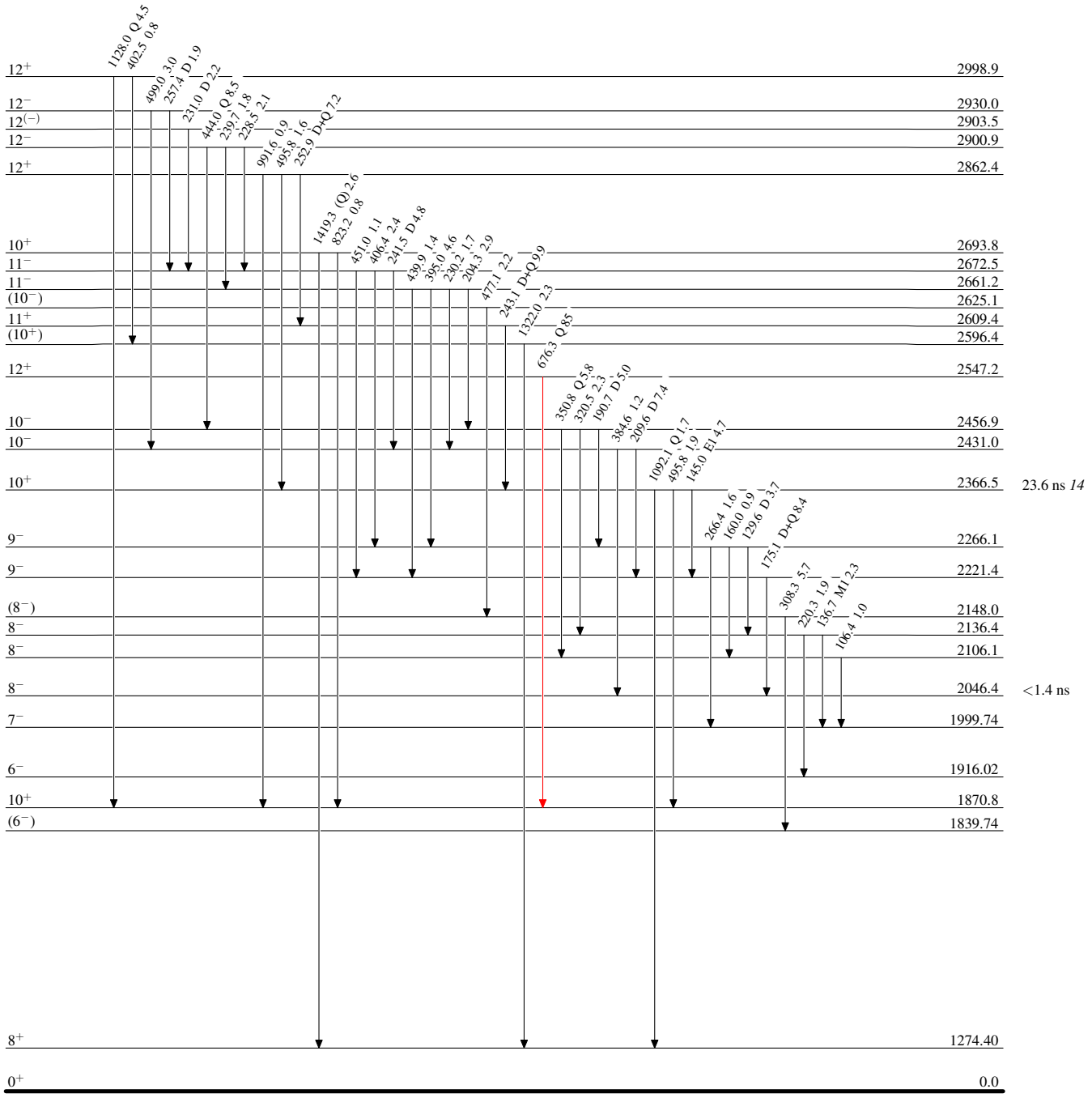
$^{184}_{76}Os_{108}$

$^{176}Yb(^{13}C,5n\gamma)$ **2002Wh01**

Level Scheme (continued)

Intensities: Relative I_γ

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$



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

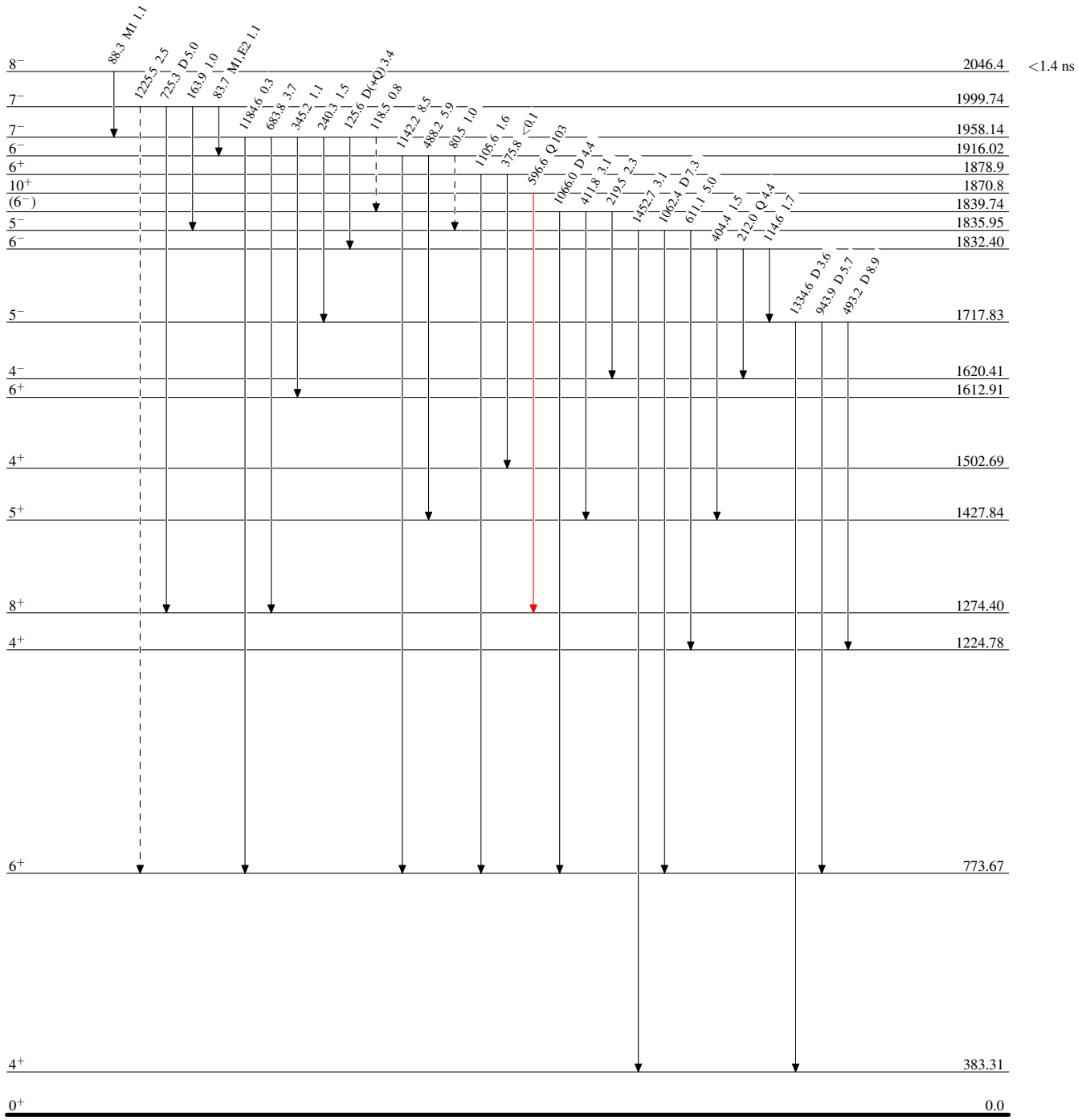
^{176}Yb(^{13}C,5nγ) 2002Wh01

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)

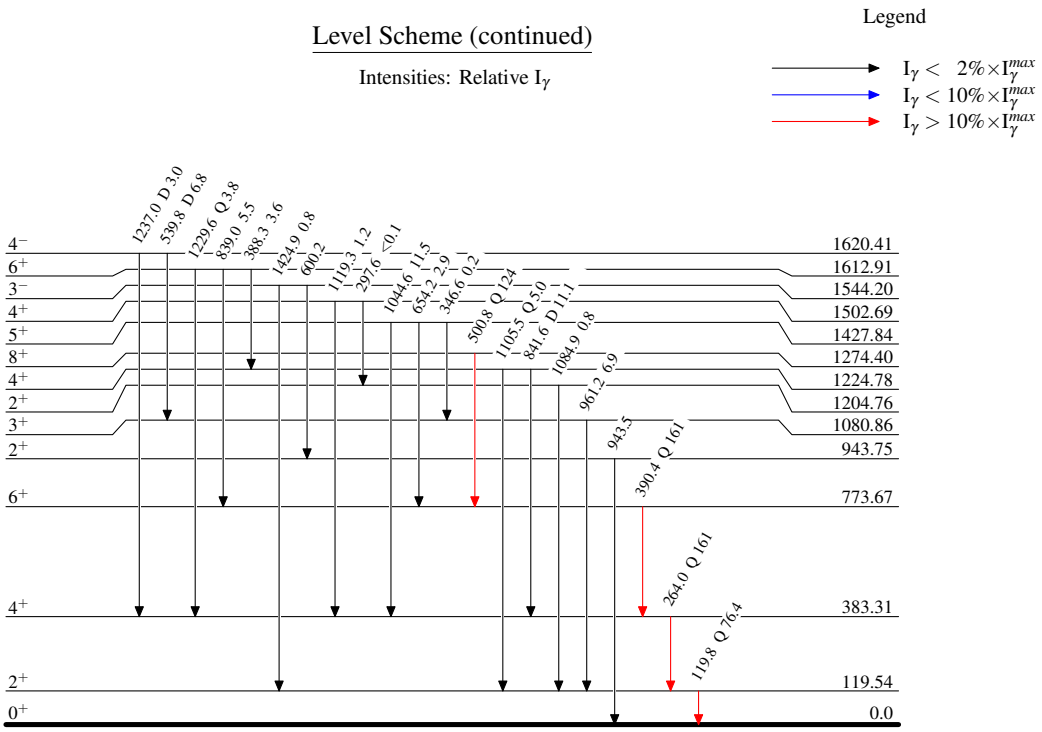


$^{184}_{76}Os_{108}$

^{176}Yb(^{13}C,5nγ) 2002Wh01

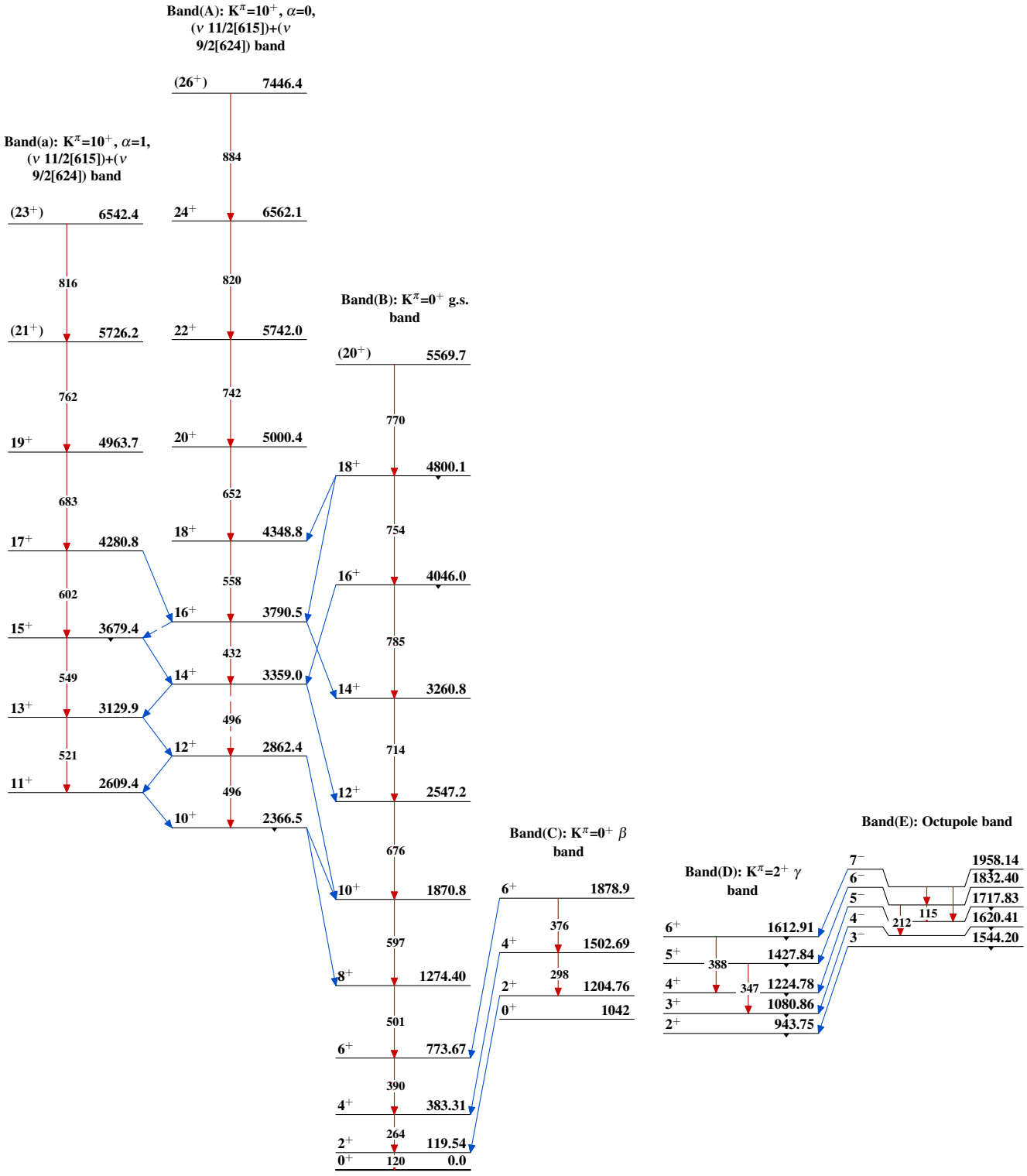
Level Scheme (continued)

Intensities: Relative I_γ



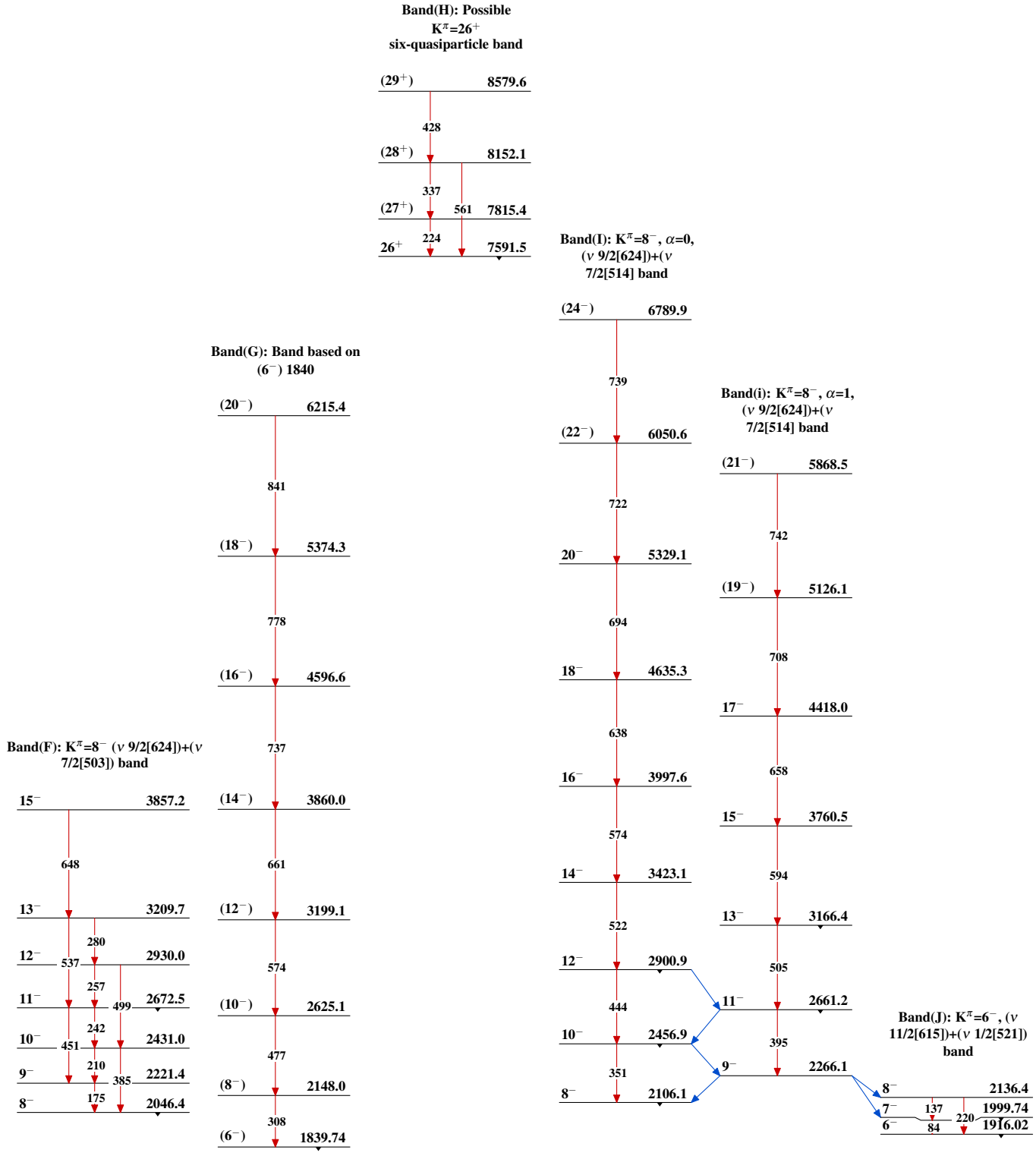
$^{184}_{76}Os_{108}$

$^{176}Yb(^{13}C,5n\gamma)$ 2002Wh01

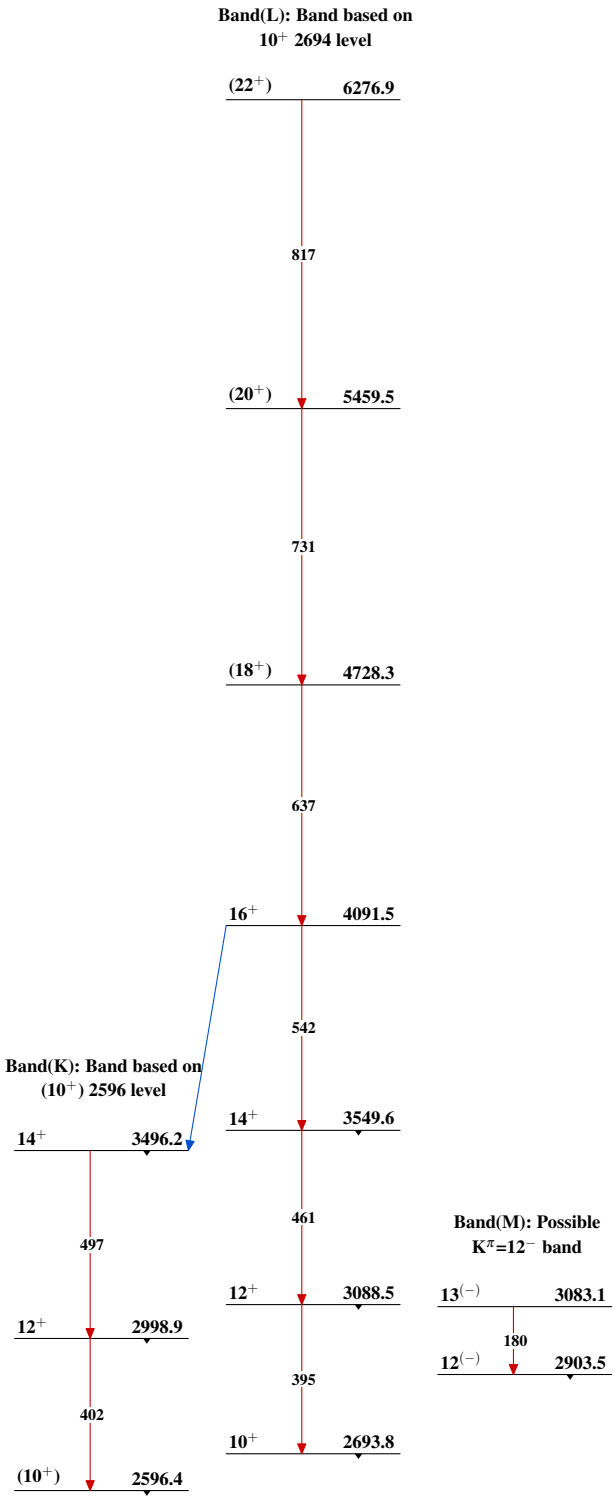


$^{184}_{76}Os_{108}$

$^{176}Yb(^{13}C,5n\gamma)$ 2002Wh01 (continued)



^{176}Yb(^{13}C,5nγ) 2002Wh01 (continued)



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