

**(HI,xn $\gamma$ ) 2004Sh08,2004Wh01**

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Full Evaluation	S. -c. Wu	NDS 106, 619 (2005)	1-Nov-2005

**2004Sh08:**  $^{176}\text{Yb}(^{13}\text{C},4n\gamma)$ , E=65 MeV. 2.0 mg/cm<sup>2</sup> self-supporting target enriched to 96.4%; NORDBALL array consisting of 20 Compton-suppressed HPGe detectors and an inner ball of 60 BaF<sub>2</sub> scintillators. E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ ,  $\gamma(t)$ ,  $\gamma\gamma(\theta)$ , DCO measured.

**2004Wh01,2004WhZZ:**  $^{176}\text{Yb}(^{13}\text{C},4n\gamma)$ , E=63 MeV; 4.1 mg/cm<sup>2</sup> self-supporting target of  $^{176}\text{Yb}$ ; the CAESAR array of 6 Compton-suppressed co-axial Ge detectors at 48°, 97°, 145°, and 2 LEPS.  $\gamma\gamma$ ,  $\gamma\gamma$ -t and DCO ratios measured.

The level schemes presented in **2004Sh08** and **2004Wh01** are mostly consistent. For the high energy part of the 1/2[510] band, the evaluator has adopted the diagram from **2004Sh08**.

 $^{185}\text{Os}$  Levels

E(level) <sup>†</sup>	J $\pi^{\ddagger}$	T <sub>1/2</sub> <sup>#</sup>	E(level) <sup>†</sup>	J $\pi^{\ddagger}$	T <sub>1/2</sub> <sup>#</sup>	L
0.0 <sup>@</sup>	1/2 <sup>-</sup>		1442.01 <sup>17</sup>	(17/2 <sup>+</sup> )		
37.65 <sup>&amp;13</sup>	3/2 <sup>-</sup>		1461.44 <sup>d15</sup>	19/2 <sup>-</sup>		
97.44 <sup>@10</sup>	5/2 <sup>-</sup>		1519.32 <sup>i16</sup>	19/2 <sup>+</sup>		
102.35 <sup>d15</sup>	7/2 <sup>-</sup>	3.0 $\mu\text{s}$ 4	1552.12 <sup>f17</sup>	19/2 <sup>+</sup>		
127.9 <sup>a3</sup>	3/2 <sup>-</sup>		1565.59 <sup>h15</sup>	23/2 <sup>+</sup>		
198.20 <sup>&amp;11</sup>	7/2 <sup>-</sup>		1591.26 <sup>k15</sup>	19/2 <sup>+</sup>		
222.38 <sup>b19</sup>	5/2 <sup>-</sup>		1647.15 <sup>e15</sup>	21/2 <sup>+</sup>		
260.58 <sup>c14</sup>	9/2 <sup>-</sup>		1670.32 <sup>@16</sup>	21/2 <sup>-</sup>		
275.50 <sup>h15</sup>	11/2 <sup>+</sup>	0.78 $\mu\text{s}$ 5	1733.2 6	(21/2 <sup>+</sup> )		
317.83 <sup>@12</sup>	9/2 <sup>-</sup>		1744.34 <sup>g16</sup>	25/2 <sup>+</sup>		
351.61 <sup>a12</sup>	7/2 <sup>-</sup>		1745.49 <sup>j15</sup>	21/2 <sup>+</sup>		
402.28 <sup>e15</sup>	9/2 <sup>+</sup>		1755.95 <sup>a14</sup>	19/2 <sup>-</sup>		
414.17 <sup>g15</sup>	13/2 <sup>+</sup>		1769.39 <sup>c16</sup>	21/2 <sup>-</sup>		
448.65 <sup>d14</sup>	11/2 <sup>-</sup>		1844.43 <sup>l15</sup>	21/2 <sup>+</sup>		
476.50 <sup>&amp;13</sup>	11/2 <sup>-</sup>		1929.45 <sup>&amp;16</sup>	23/2 <sup>-</sup>		
505.22 <sup>b17</sup>	9/2 <sup>-</sup>		1937.03 18	(19/2 <sup>+</sup> )		
590.36 <sup>h15</sup>	15/2 <sup>+</sup>		1966.17 17	(21/2 <sup>+</sup> )		
591.19 <sup>f17</sup>	11/2 <sup>+</sup>		1981.02 18	(21/2 <sup>+</sup> )		
660.21 <sup>@13</sup>	13/2 <sup>-</sup>		1987.11 <sup>m15</sup>	23/2 <sup>-</sup>	5.5 ns	10
666.19 <sup>c13</sup>	13/2 <sup>-</sup>		1994.1 <sup>b4</sup>	21/2 <sup>-</sup>		
706.72 <sup>a13</sup>	11/2 <sup>-</sup>		2000.48 <sup>i16</sup>	23/2 <sup>+</sup>		
776.31 <sup>g15</sup>	17/2 <sup>+</sup>		2034.33 20	(21/2 <sup>+</sup> )		
781.60 <sup>e15</sup>	13/2 <sup>+</sup>		2040.2 8	(21/2 <sup>+</sup> )		
864.91 <sup>&amp;14</sup>	15/2 <sup>-</sup>		2095.11 <sup>d17</sup>	23/2 <sup>-</sup>		
902.98 <sup>b23</sup>	13/2 <sup>-</sup>		2108.06 <sup>k15</sup>	23/2 <sup>+</sup>		
907.29 <sup>d14</sup>	15/2 <sup>-</sup>		2157.0 8	(21/2 <sup>-</sup> )		
1024.58 <sup>h15</sup>	19/2 <sup>+</sup>		2164.32 <sup>f19</sup>	(23/2 <sup>+</sup> )		
1024.77 <sup>f16</sup>	15/2 <sup>+</sup>		2197.74 18	(23/2 <sup>-</sup> )		
1116.87 <sup>@14</sup>	17/2 <sup>-</sup>		2204.11 <sup>h16</sup>	27/2 <sup>+</sup>		
1173.49 <sup>c15</sup>	17/2 <sup>-</sup>		2249.28 <sup>e16</sup>	25/2 <sup>+</sup>		
1176.65 <sup>e15</sup>	17/2 <sup>+</sup>		2264.23 <sup>n16</sup>	25/2 <sup>-</sup>		
1179.57 <sup>a13</sup>	15/2 <sup>-</sup>		2280.76 <sup>j16</sup>	25/2 <sup>+</sup>		
1222.05 <sup>g15</sup>	21/2 <sup>+</sup>		2304.92 <sup>@19</sup>	25/2 <sup>-</sup>		
1322.01 <sup>j15</sup>	17/2 <sup>+</sup>		2350.67 <sup>g16</sup>	29/2 <sup>+</sup>		
1353.67 <sup>&amp;14</sup>	19/2 <sup>-</sup>		2386.74 <sup>l16</sup>	25/2 <sup>+</sup>		
1403.7 <sup>b3</sup>	17/2 <sup>-</sup>		2402.8 <sup>a4</sup>	(23/2 <sup>-</sup> )		

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**(HI,xn $\gamma$ ) 2004Sh08,2004Wh01 (continued)** $^{185}\text{Os}$  Levels (continued)

<u>E(level)<sup>†</sup></u>	<u>J<math>\pi^{\ddagger}</math></u>
2434.79 <sup>c</sup> 18	25/2 <sup>-</sup>
2511.35 18	(25/2 <sup>+</sup> )
2551.94 <sup>m</sup> 16	27/2 <sup>-</sup>
2571.34 <sup>&amp;</sup> 17	27/2 <sup>-</sup>
2575.38 <sup>i</sup> 16	27/2 <sup>+</sup>
2602.16 16	27/2 <sup>-</sup>
2654.3 <sup>b</sup> 5	(25/2 <sup>-</sup> )
2679.06 <sup>k</sup> 16	27/2 <sup>+</sup>
2789.92 <sup>d</sup> 19	27/2 <sup>-</sup>
2848.54 <sup>n</sup> 16	29/2 <sup>-</sup>
2885.42 <sup>j</sup> 16	(29/2 <sup>+</sup> )
2898.63 20	(29/2 <sup>-</sup> )
2928.65 <sup>h</sup> 17	31/2 <sup>+</sup>
2941.70 17	(27/2)
2969.04 <sup>e</sup> 17	(29/2 <sup>+</sup> )
2987.34 <sup>l</sup> 18	(29/2 <sup>+</sup> )
2989.02 <sup>@</sup> 22	29/2 <sup>-</sup>
3037.94 <sup>g</sup> 17	33/2 <sup>+</sup>
3067.1 <sup>a</sup> 5	(27/2 <sup>-</sup> )
3137.70 <sup>c</sup> 21	(29/2 <sup>-</sup> )
3139.94 <sup>m</sup> 16	31/2 <sup>-</sup>
3213.29 <sup>&amp;</sup> 19	31/2 <sup>-</sup>
3219.61 <sup>i</sup> 17	(31/2 <sup>+</sup> )
3225.29 <sup>o</sup> 19	31/2 <sup>-</sup>
3309.30 <sup>k</sup> 17	(31/2 <sup>+</sup> )
3332.7 <sup>b</sup> 6	(29/2 <sup>-</sup> )
3377.40 18	(29/2 <sup>+</sup> )
3461.03 <sup>n</sup> 18	33/2 <sup>-</sup>
3511.53 <sup>d</sup> 21	(31/2 <sup>-</sup> )
3537.09 21	(31/2 <sup>+</sup> )
3544.58 21	(33/2)
3552.40 <sup>j</sup> 18	(33/2 <sup>+</sup> )
3663.3 <sup>l</sup> 11	(33/2 <sup>+</sup> )
3694.43 <sup>@</sup> 24	33/2 <sup>-</sup>
3702.8 <sup>m</sup> 6	35/2 <sup>-</sup>
3718.78 <sup>h</sup> 18	35/2 <sup>+</sup>
3787.51 <sup>g</sup> 19	37/2 <sup>+</sup>
3807.10 <sup>e</sup> 19	(33/2 <sup>+</sup> )
3816.50 <sup>c</sup> 23	(33/2 <sup>-</sup> )
3872.19 <sup>&amp;</sup> 21	(35/2 <sup>-</sup> )
3876.93 22	(33/2)
3889.36 22	(33/2)
3893.39 <sup>o</sup> 21	
3904.51 <sup>i</sup> 18	(35/2 <sup>+</sup> )
4011.13 <sup>k</sup> 18	(35/2 <sup>+</sup> )
4101.13 <sup>n</sup> 20	(37/2 <sup>-</sup> )
4164.89 23	(35/2)
4208.99 24	
4246.89 <sup>j</sup> 21	(37/2 <sup>+</sup> )
4277.79 24	(35/2)

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**(HI,xn $\gamma$ ) 2004Sh08,2004Wh01 (continued)** $^{185}\text{Os}$  Levels (continued)

E(level) <sup>†</sup>	J <sup><math>\pi</math></sup>	T <sub>1/2</sub> <sup>#</sup>	Comments
4300.1 3	(35/2)		
4304.4 <sup>m</sup> 6	(39/2 <sup>-</sup> )		
4428.4 <sup>@</sup> 11	(37/2 <sup>-</sup> )		
4432.30 25	(37/2)		
4528.38 <sup>h</sup> 21	39/2 <sup>+</sup>		
4536.29 <sup>&amp;</sup> 24	(39/2 <sup>-</sup> )		
4553.91 <sup>g</sup> 21	41/2 <sup>+</sup>		
4581.1 3	(39/2)		
4630.4 <sup>o</sup> 11			
4647.17 <sup>i</sup> 19	(39/2 <sup>+</sup> )		
4732.2 3	(39/2)		
4792.73 <sup>n</sup> 23	(41/2 <sup>-</sup> )		
4882.5 3			
4976.4 <sup>m</sup> 7	(43/2 <sup>-</sup> )		
5007.1 3	(41/2)	18 ns 2	T <sub>1/2</sub> : from decay curve of the time difference spectra between transitions above and below the isomer (2004Sh08). K=41/2 isomer. Possible configurations with 7 quasiparticles: $\nu(1/2[510]1/2[521]7/2[503]9/2[624]11/2[615])\otimes\pi(5/2[402]7/2[404])$ ; or $\nu(1/2[510]1/2[521]3/2[512]9/2[624]11/2[615])\otimes\pi(7/2[404]9/2[514])$ ; or $\nu(1/2[521]3/2[512]7/2[503]9/2[624]11/2[615])\otimes\pi(1/2[541]9/2[514])$ .
5204.4 <sup>@</sup> 15	(41/2 <sup>-</sup> )		
5235.3 <sup>&amp;</sup> 3	(43/2 <sup>-</sup> )		
5274.40 <sup>h</sup> 23	(43/2 <sup>+</sup> )		
5285.41 <sup>g</sup> 24	45/2 <sup>+</sup>		
5426.4 15			
5432.0 3			
5542.04 <sup>n</sup> 25	(45/2 <sup>-</sup> )		
5713.3 <sup>m</sup> 7	(47/2 <sup>-</sup> )		
5785.7 3			
5962.3 3			
6017.69 <sup>h</sup> 25	(47/2 <sup>+</sup> )		
6046.2 <sup>g</sup> 3	(49/2 <sup>+</sup> )		
6203.3 4			
6285.4 4			
6338.7 <sup>n</sup> 3	(49/2 <sup>-</sup> )		
6349.8 3			
6506.4 <sup>m</sup> 7	(51/2 <sup>-</sup> )		
6580.1 4			
6586.5 4			
6803.5 4			
6835.8 <sup>h</sup> 4	(51/2 <sup>+</sup> )		
6886.1 <sup>g</sup> 3	(53/2 <sup>+</sup> )		
7006.9 4			
7033.1 11			
7098.9 4			
7358.4 <sup>m</sup> 12	(55/2 <sup>-</sup> )		

<sup>†</sup> From least-squares fit to E $\gamma$ 's by evaluator, with 0.3 keV uncertainty assumed whenever E $\gamma$ 's are from 2004Wh01 only. Some  $\gamma$ -ray energies fit poorly with deviations of more than 2 times the quoted uncertainty. It is possible that some of the uncertainties are under-estimated by 2004Sh08. These cases are noted under comments in the  $\gamma$ -table.

(HI,xn $\gamma$ ) **2004Sh08,2004Wh01** (continued)

<sup>185</sup>Os Levels (continued)

- ‡ From band structures, multipolarities from the DCO ratios by 2004Sh08 and 2004Wh01.
- # From Adopted Levels, except for 5007.1 level.
- @ Band(A):  $\nu 1/2[510]$ ,  $\alpha=+1/2$ .
- & Band(a):  $\nu 1/2[510]$ ,  $\alpha=-1/2$ .
- <sup>a</sup> Band(B):  $\nu 3/2[512]$ ,  $\alpha=-1/2$ .
- <sup>b</sup> Band(b):  $\nu 3/2[512]$ ,  $\alpha=+1/2$ .
- <sup>c</sup> Band(C):  $\nu 7/2[503]$ ,  $\alpha=+1/2$ .
- <sup>d</sup> Band(c):  $\nu 7/2[503]$ ,  $\alpha=-1/2$ .
- <sup>e</sup> Band(D):  $\nu 9/2[624]$ ,  $\alpha=+1/2$ .
- <sup>f</sup> Band(d):  $\nu 9/2[624]$ ,  $\alpha=-1/2$ .
- <sup>g</sup> Band(E):  $\nu 11/2[615]$ ,  $\alpha=+1/2$ .
- <sup>h</sup> Band(e):  $\nu 11/2[615]$ ,  $\alpha=-1/2$ .
- <sup>i</sup> Band(F):  $\nu 11/2[615] \otimes \gamma$  phonon,  $\alpha=-1/2$ . 3-quasiparticle configuration is also possible.
- <sup>j</sup> Band(G):  $\nu 11/2[615] \otimes \gamma$  phonon,  $\alpha=+1/2$ . 3-quasiparticle configuration is also possible.
- <sup>k</sup> Band(H):  $\nu 1/2[521] \nu 7/2[503] \nu 11/2[615]$ ,  $\alpha=-1/2$ .
- <sup>l</sup> Band(h):  $\nu 1/2[521] \nu 7/2[503] \nu 11/2[615]$ ,  $\alpha=+1/2$ .
- <sup>m</sup> Band(I):  $\nu 3/2[512] \otimes \pi 9/2[514] \pi 11/2[505]$ ,  $\alpha=-1/2$ .
- <sup>n</sup> Band(i):  $\nu 3/2[512] \otimes \pi 9/2[514] \pi 11/2[505]$ ,  $\alpha=+1/2$ .
- <sup>o</sup> Level in  $1/2^- [510]$  band from 2004Wh01 also observed in 2004Sh08, but not assigned by them as a band member.

$\gamma(^{185}\text{Os})$								
$E_\gamma$ †	$I_\gamma$ (2004Sh08)	$E_i$ (level)	$J_i^\pi$	$E_f$	$J_f^\pi$	Mult. ‡	$I_\gamma$ (2004WhZZ)	Comments
(22)		4300.1	(35/2)	4277.79	(35/2)			
37.4 #		37.65	3/2 <sup>-</sup>	0.0	1/2 <sup>-</sup>		7.6 10	$E_\gamma$ : 2004Sh08 quoted 38.
(41)		2197.74	(23/2 <sup>-</sup> )	2157.0	(21/2 <sup>-</sup> )			
(52)		2602.16	27/2 <sup>-</sup>	2551.94	27/2 <sup>-</sup>			
57.5 #&		317.83	9/2 <sup>-</sup>	260.58	9/2 <sup>-</sup>		1.0 10	
60.1 #		97.44	5/2 <sup>-</sup>	37.65	3/2 <sup>-</sup>		25.0 17	$E_\gamma$ : 2004Sh08 quoted 61.
90.1 10	1.4 4	127.9	3/2 <sup>-</sup>	37.65	3/2 <sup>-</sup>		1.00 12	$E_\gamma$ : 90.7 from 2004Wh01.
94.4 #		222.38	5/2 <sup>-</sup>	127.9	3/2 <sup>-</sup>		1.0 3	
97.5 1	4.9 2	97.44	5/2 <sup>-</sup>	0.0	1/2 <sup>-</sup>	Q	15 4	Mult.: DCO=1.01 6 (2004WhZZ).
101.1 1	1.9 2	198.20	7/2 <sup>-</sup>	97.44	5/2 <sup>-</sup>	D	19.9 21	$E_\gamma$ : 100.8 from 2004Wh01. $E_\gamma$ : level-energy difference=100.8. Mult.: DCO=0.51 3 (2004Sh08); DCO=0.46 3 (2004WhZZ).
103.0 10	0.2 1	2040.2	(21/2 <sup>+</sup> )	1937.03	(19/2 <sup>+</sup> )			
119.7 1	1.2 1	317.83	9/2 <sup>-</sup>	198.20	7/2 <sup>-</sup>	D	7.0 10	Mult.: DCO=0.43 2 (2004Sh08).
126.9 1	3.3 6	402.28	9/2 <sup>+</sup>	275.50	11/2 <sup>+</sup>			
127.8 10	0.7 14	127.9	3/2 <sup>-</sup>	0.0	1/2 <sup>-</sup>		4 3	
138.7 1	13.6 14	414.17	13/2 <sup>+</sup>	275.50	11/2 <sup>+</sup>	D		Mult.: DCO=0.41 1 (2004Sh08).
141.7 1	0.6 1	402.28	9/2 <sup>+</sup>	260.58	9/2 <sup>-</sup>			
142.7 1	9.2 3	1987.11	23/2 <sup>-</sup>	1844.43	21/2 <sup>+</sup>	D		Mult.: DCO=0.55 2 (2004Sh08).
151.6 10	0.8 1	1176.65	17/2 <sup>+</sup>	1024.77	15/2 <sup>+</sup>			
151.9 1	1.1 1	1176.65	17/2 <sup>+</sup>	1024.58	19/2 <sup>+</sup>			
153.4 #		351.61	7/2 <sup>-</sup>	198.20	7/2 <sup>-</sup>		1.83 23	
153.6 #		505.22	9/2 <sup>-</sup>	351.61	7/2 <sup>-</sup>		0.45 10	
157.4 10	0.7 1	2197.74	(23/2 <sup>-</sup> )	2040.2	(21/2 <sup>+</sup> )			

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**(HI,xn $\gamma$ ) 2004Sh08,2004Wh01 (continued)** $\gamma(^{185}\text{Os})$  (continued)

$E_\gamma$ <sup>†</sup>	$I_\gamma$ (2004Sh08)	$E_i$ (level)	$J_i^\pi$	$E_f$	$J_f^\pi$	Mult. <sup>‡</sup>	$I_\gamma$ (2004WhZZ)	Comments
158.2 1	13.6 14	260.58	9/2 <sup>-</sup>	102.35	7/2 <sup>-</sup>	D	120.0 10	Mult.: DCO=0.47 1 (2004Sh08), DCO=0.37 1 (2004WhZZ).
158.5 1	5.4 2	476.50	11/2 <sup>-</sup>	317.83	9/2 <sup>-</sup>	D	33.3 11	$E_\gamma$ : 158.9 from 2004Wh01. Mult.: DCO=0.38 1 (2004Sh08); DCO=0.49 2 (2004WhZZ).
159.7 1	13.0 4	3537.09	(31/2 <sup>+</sup> )	3377.40	(29/2 <sup>+</sup> )	M1+E2		DCO=0.55 1 (2004Sh08) Mult.: $\alpha_{\text{tot}}(\text{exp})=0.97$ 2 from intensity balance at the 3377 level (2004Sh08).
160.4 1	3.6 4	198.20	7/2 <sup>-</sup>	37.65	3/2 <sup>-</sup>	Q	17.0 10	$E_\gamma$ : 160.9 from 2004Wh01. Mult.: DCO=0.95 4 (2004WhZZ).
164.7 1	7.3 23	1755.95	19/2 <sup>-</sup>	1591.26	19/2 <sup>+</sup>	D		Mult.: DCO=1.1 1; $\Delta J=0$ , dipole (2004Sh08).
176.1 1	91 3	590.36	15/2 <sup>+</sup>	414.17	13/2 <sup>+</sup>	D		Mult.: DCO=0.34 1 for (176.1+177.1) $\gamma$ 's (2004Sh08).
177.1 10	1.6 2	591.19	11/2 <sup>+</sup>	414.17	13/2 <sup>+</sup>	D		Mult.: DCO=0.34 1 for (176.1+177.1) $\gamma$ 's (2004Sh08).
178.7 1	4.2 1	1744.34	25/2 <sup>+</sup>	1565.59	23/2 <sup>+</sup>			
184.9 <sup>#</sup>		222.38	5/2 <sup>-</sup>	37.65	3/2 <sup>-</sup>		1.70 21	
185.9 1	61.5 19	776.31	17/2 <sup>+</sup>	590.36	15/2 <sup>+</sup>	D		Mult.: DCO=0.30 1 (2004Sh08).
188.2 1	29.9 10	448.65	11/2 <sup>-</sup>	260.58	9/2 <sup>-</sup>	D	150 10	Mult.: DCO=0.47 1 (2004Sh08), DCO=0.39 1 (2004WhZZ).
189.1 1	7.9 3	591.19	11/2 <sup>+</sup>	402.28	9/2 <sup>+</sup>			$E_\gamma$ : initial level 590.4 quoted by 2004Sh08 is a misprint.
190.8 1	2.4 1	781.60	13/2 <sup>+</sup>	590.36	15/2 <sup>+</sup>			$E_\gamma$ : poor fit; level-energy difference=191.2.
191.0 10	4.7 2	781.60	13/2 <sup>+</sup>	591.19	11/2 <sup>+</sup>			
197.4 1	18.1 6	1222.05	21/2 <sup>+</sup>	1024.58	19/2 <sup>+</sup>	D		Mult.: DCO=0.40 1 (2004Sh08).
204.8 1	4.1 1	864.91	15/2 <sup>-</sup>	660.21	13/2 <sup>-</sup>	D	9.2 4	Mult.: DCO=0.52 1 (2004Sh08); DCO=0.38 4 (2004WhZZ).
210.2 10	19.8 8	2197.74	(23/2 <sup>-</sup> )	1987.11	23/2 <sup>-</sup>			
211.4 1	13.9 4	660.21	13/2 <sup>-</sup>	448.65	11/2 <sup>-</sup>	D	40.3 13	$E_\gamma$ : 211.7 from 2004Wh01. Mult.: DCO=0.40 1 (2004Sh08); DCO=0.37 2 (2004WhZZ).
217.5 1	17.1 5	666.19	13/2 <sup>-</sup>	448.65	11/2 <sup>-</sup>	D	56.9 19	Mult.: DCO=0.26 1 (2004Sh08); DCO=0.37 2 (2004WhZZ).
220.2 1	24.0 9	317.83	9/2 <sup>-</sup>	97.44	5/2 <sup>-</sup>	Q	220 7	Mult.: DCO=0.91 1 (2004Sh08), DCO=0.98 1 (2004WhZZ).
220.3 10	0.2 1	2157.0	(21/2 <sup>-</sup> )	1937.03	(19/2 <sup>+</sup> )	D		Mult.: DCO=0.78 2 (2004Sh08).
222.3 <sup>#</sup>		222.38	5/2 <sup>-</sup>	0.0	1/2 <sup>-</sup>		5.2 3	DCO=1.24 18 (2004WhZZ)
223.8 10	0.2 1	351.61	7/2 <sup>-</sup>	127.9	3/2 <sup>-</sup>		1.88 16	
231.2 1	66.0 20	1987.11	23/2 <sup>-</sup>	1755.95	19/2 <sup>-</sup>	Q	174 5	$E_\gamma$ : uncertainty not quoted by 2004Sh08; $\Delta E_\gamma=0.1$ keV assigned by the evaluator. Mult.: DCO=0.93 1 (2004Sh08); DCO=0.90 2 (2004WhZZ).
236.5 3	4.3 1	1755.95	19/2 <sup>-</sup>	1519.32	19/2 <sup>+</sup>			
236.7 1	2.1 1	1353.67	19/2 <sup>-</sup>	1116.87	17/2 <sup>-</sup>	D	4.9 3	$E_\gamma$ : 237.1 from 2004Wh01. Mult.: DCO=0.36 7 (2004WhZZ).
241.0 1	3.5 <sup>@</sup> 6	6203.3		5962.3				
241.1 1	9.9 3	907.29	15/2 <sup>-</sup>	666.19	13/2 <sup>-</sup>	D	30.7 11	$E_\gamma$ : 241.4 from 2004Wh01. Mult.: DCO=0.25 1 (2004Sh08); DCO=0.35 2 (2004WhZZ).

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**(HI,xn $\gamma$ ) 2004Sh08,2004Wh01 (continued)** $\gamma(^{185}\text{Os})$  (continued)

$E_\gamma$ †	$I_\gamma$ (2004Sh08)	$E_i$ (level)	$J_i^\pi$	$E_f$	$J_f^\pi$	Mult. ‡	$I_\gamma$ (2004WhZZ)	Comments
241.9 10	0.7 1	3702.8	35/2 <sup>-</sup>	3461.03	33/2 <sup>-</sup>			
243.3 1	5.5 2	1024.77	15/2 <sup>+</sup>	781.60	13/2 <sup>+</sup>			
246.8 1	2.9 1	907.29	15/2 <sup>-</sup>	660.21	13/2 <sup>-</sup>	D	8.4 4	$E_\gamma$ : 247.4 from 2004Wh01. Mult.: DCO=0.09 1 (2004Sh08); DCO=0.45 6 (2004WhZZ).
248.0 10	1.0 1	1981.02	(21/2 <sup>+</sup> )	1733.2	(21/2 <sup>+</sup> )			
248.1 1	38.5 12	1024.58	19/2 <sup>+</sup>	776.31	17/2 <sup>+</sup>	D		Mult.: DCO=0.29 1 (2004Sh08).
251.9 #		1116.87	17/2 <sup>-</sup>	864.91	15/2 <sup>-</sup>		0.50 23	
252.9 1	2.8 1	1844.43	21/2 <sup>+</sup>	1591.26	19/2 <sup>+</sup>			
254.1 1	0.9 2	351.61	7/2 <sup>-</sup>	97.44	5/2 <sup>-</sup>	D	12.3 7	Mult.: DCO=0.79 5 (2004WhZZ).
259.3 2	0.4 1	1929.45	23/2 <sup>-</sup>	1670.32	21/2 <sup>-</sup>		1.2 3	
263.4 1	5.3 2	2108.06	23/2 <sup>+</sup>	1844.43	21/2 <sup>+</sup>			
265.9 1	10.6 3	1173.49	17/2 <sup>-</sup>	907.29	15/2 <sup>-</sup>	D	25.6 9	$E_\gamma$ : 266.3 from 2004Wh01. Mult.: DCO=0.19 1 (2004Sh08); DCO=0.38 2 (2004WhZZ).
267.4 1	2.8 1	4432.30	(37/2)	4164.89	(35/2)			
268.7 1	2.4 1	1591.26	19/2 <sup>+</sup>	1322.01	17/2 <sup>+</sup>			$E_\gamma$ : poor fit; level-energy difference=269.2.
275.9 1	2.0 1	4164.89	(35/2)	3889.36	(33/2)			$E_\gamma$ : level-energy difference=275.5.
277.1 1	54.3 16	2264.23	25/2 <sup>-</sup>	1987.11	23/2 <sup>-</sup>	D		Mult.: DCO=0.37 1 (2004Sh08). 277.1 and 278.4 are unresolved.
278.4 1	26.7 9	476.50	11/2 <sup>-</sup>	198.20	7/2 <sup>-</sup>	Q	130 5	Mult.: DCO=0.87 1 (2004Sh08); DCO=0.93 2 (2004WhZZ). 277.1 and 278.4 are unresolved.
278.8 1	2.8 1	2386.74	25/2 <sup>+</sup>	2108.06	23/2 <sup>+</sup>			
281.0 1	6.9 2	4581.1	(39/2)	4300.1	(35/2)	Q		Mult.: DCO=1.2 1 (2004Sh08).
282.9 #		505.22	9/2 <sup>-</sup>	222.38	5/2 <sup>-</sup>	Q	8.4 3	Mult.: DCO=1.06 7 (2004WhZZ).
287.5 1	18.1 6	2551.94	27/2 <sup>-</sup>	2264.23	25/2 <sup>-</sup>	D		Mult.: DCO=0.33 1 (2004Sh08).
287.6 1	4.0 1	4164.89	(35/2)	3876.93	(33/2)	D		$E_\gamma$ : level-energy difference=288.0.
287.8 1	6.1 2	1461.44	19/2 <sup>-</sup>	1173.49	17/2 <sup>-</sup>	D	19.3 7	Mult.: DCO=0.58 1 (2004Sh08). $E_\gamma$ : 288.2 from 2004Wh01. Mult.: DCO=0.32 (2004Sh08); DCO=0.36 3 (2004WhZZ).
291.3 1	3.3 1	3139.94	31/2 <sup>-</sup>	2848.54	29/2 <sup>-</sup>			
292.5 1	1.1 1	2679.06	27/2 <sup>+</sup>	2386.74	25/2 <sup>+</sup>			
296.0 10	9.0 3	2898.63	(29/2 <sup>-</sup> )	2602.16	27/2 <sup>-</sup>	D		Mult.: DCO=0.30 1 (2004Sh08).
296.4 1	12.4 4	2848.54	29/2 <sup>-</sup>	2551.94	27/2 <sup>-</sup>	D		Mult.: DCO=0.37 1 (2004Sh08).
299.9 1	1.2 1	4732.2	(39/2)	4432.30	(37/2)			
300.0 1	4.1 7	402.28	9/2 <sup>+</sup>	102.35	7/2 <sup>-</sup>			
303.3 1	3.1 1	4581.1	(39/2)	4277.79	(35/2)			
307.3 #		505.22	9/2 <sup>-</sup>	198.20	7/2 <sup>-</sup>		4.5 3	
307.8 1	6.0 2	1769.39	21/2 <sup>-</sup>	1461.44	19/2 <sup>-</sup>	D	14.6 6	$E_\gamma$ : 308.1 from 2004Wh01. Mult.: DCO=0.18 1 (2004Sh08); DCO=0.28 3 (2004WhZZ).
314.5 #		351.61	7/2 <sup>-</sup>	37.65	3/2 <sup>-</sup>		1.98 24	
314.6 1	3.1 1	3213.29	31/2 <sup>-</sup>	2898.63	(29/2 <sup>-</sup> )			
314.7 1	51.3 16	590.36	15/2 <sup>+</sup>	275.50	11/2 <sup>+</sup>	Q		Mult.: DCO=1.0 1 (2004Sh08).
315.0 #		1179.57	15/2 <sup>-</sup>	864.91	15/2 <sup>-</sup>		8.5 4	DCO=0.97 10 (2004WhZZ)
319.3 1	1.8 1	3544.58	(33/2)	3225.29	31/2 <sup>-</sup>	D		Mult.: DCO=0.25 1 (2004Sh08).
321.0 1	2.2 1	3461.03	33/2 <sup>-</sup>	3139.94	31/2 <sup>-</sup>			
325.6 1	3.7 1	2095.11	23/2 <sup>-</sup>	1769.39	21/2 <sup>-</sup>	D	8.1 4	$E_\gamma$ : 326.0 from 2004Wh01.

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**(HI,xn $\gamma$ ) 2004Sh08,2004Wh01 (continued)** $\gamma(^{185}\text{Os})$  (continued)

$E_\gamma$ <sup>†</sup>	I $\gamma$ (2004Sh08)	E <sub>i</sub> (level)	J $_i^{\pi}$	E <sub>f</sub>	J $_f^{\pi}$	Mult. <sup>‡</sup>	I $\gamma$ (2004WhZZ)	Comments
326.7 1	2.1 1	3225.29	31/2 <sup>-</sup>	2898.63	(29/2 <sup>-</sup> )	D		Mult.: DCO=0.30 5 (2004WhZZ).
337.8 1	13.1 4	2602.16	27/2 <sup>-</sup>	2264.23	25/2 <sup>-</sup>			Mult.: DCO=0.27 1 (2004Sh08).
339.5 1	19.2 6	2941.70	(27/2)	2602.16	27/2 <sup>-</sup>	D		Mult.: DCO=1.0 1; $\Delta J=0$ , dipole (2004Sh08).
339.5 1	8.2 3	3876.93	(33/2)	3537.09	(31/2 <sup>+</sup> )	D		Mult.: DCO=0.8 1 (2004Sh08). E $\gamma$ : level-energy difference=339.8.
339.7 <sup>#</sup>		2434.79	25/2 <sup>-</sup>	2095.11	23/2 <sup>-</sup>	D	9.0 5	Mult.: DCO=0.42 6 (2004WhZZ).
342.4 1	41.0 13	660.21	13/2 <sup>-</sup>	317.83	9/2 <sup>-</sup>	Q	162 5	Mult.: DCO=1.0 1 (2004Sh08); DCO=1.02 1 (2004WhZZ).
343.4 1	12.5 4	1565.59	23/2 <sup>+</sup>	1222.05	21/2 <sup>+</sup>	D		Mult.: DCO=0.28 1 (2004Sh08).
346.2 1	15.2 5	448.65	11/2 <sup>-</sup>	102.35	7/2 <sup>-</sup>	Q	64.7 24	E $\gamma$ : 346.6 from 2004Wh01. Mult.: DCO=0.98 1 (2004Sh08); DCO=1.21 8 (2004WhZZ).
346.7 10	1.4 1	2511.35	(25/2 <sup>+</sup> )	2164.32	(23/2 <sup>+</sup> )			
348.3 1	5.9 2	666.19	13/2 <sup>-</sup>	317.83	9/2 <sup>-</sup>	Q	18.2 7	Mult.: DCO=1.00 5 (2004WhZZ).
352.6 1	12.2 3	3889.36	(33/2)	3537.09	(31/2 <sup>+</sup> )	D		Mult.: DCO=0.52 2 (2004Sh08). E $\gamma$ : level-energy difference=352.3.
353.7 1	47 <sup>@</sup> 3	5785.7		5432.0				
355.1 1	5.2 2	706.72	11/2 <sup>-</sup>	351.61	7/2 <sup>-</sup>	Q	21.6 11	Mult.: DCO=1.05 5 (2004WhZZ).
355.1 <sup>#</sup>		2789.92	27/2 <sup>-</sup>	2434.79	25/2 <sup>-</sup>		2.7 3	
362.1 1	91 3	776.31	17/2 <sup>+</sup>	414.17	13/2 <sup>+</sup>	Q		Mult.: DCO=1.0 1 (2004Sh08).
375.8 10	4.7 2	1552.12	19/2 <sup>+</sup>	1176.65	17/2 <sup>+</sup>			
379.4 1	2.3 1	781.60	13/2 <sup>+</sup>	402.28	9/2 <sup>+</sup>			
388.3 1	56.8 17	864.91	15/2 <sup>-</sup>	476.50	11/2 <sup>-</sup>	Q	181 6	E $\gamma$ : 388.7 from 2004Wh01. Mult.: DCO=1.1 1 (2004Sh08) ;DCO=1.08 2 (2004WhZZ).
388.4 1	3.0 1	4277.79	(35/2)	3889.36	(33/2)			
389.0 1	12.4 4	706.72	11/2 <sup>-</sup>	317.83	9/2 <sup>-</sup>	D	34.7 18	Mult.: DCO=0.82 3 (2004WhZZ).
394.5 1	4.2 2	1176.65	17/2 <sup>+</sup>	781.60	13/2 <sup>+</sup>			E $\gamma$ : poor fit; level-energy difference=395.0.
397.9 <sup>#</sup>		902.98	13/2 <sup>-</sup>	505.22	9/2 <sup>-</sup>	Q	21.8 10	Mult.: DCO=0.95 6 (2004WhZZ).
398 <sup>&amp;</sup>		4101.13	(37/2 <sup>-</sup> )	3702.8	35/2 <sup>-</sup>			
399.6 1	13.0 4	660.21	13/2 <sup>-</sup>	260.58	9/2 <sup>-</sup>	Q	43.4 14	E $\gamma$ : 400.1 from 2004Wh01. Mult.: DCO=0.96 4 (2004WhZZ).
400.2 1	2.2 1	1176.65	17/2 <sup>+</sup>	776.31	17/2 <sup>+</sup>	D		Mult.: DCO=0.92 1; $\Delta J=0$ , dipole (2004Sh08).
401.8 10	4.9 2	4277.79	(35/2)	3876.93	(33/2)	D		Mult.: DCO=0.25 1 (2004Sh08).
402.5 10	1.3 1	1755.95	19/2 <sup>-</sup>	1353.67	19/2 <sup>-</sup>		3.6 3	DCO=1.2 2 (2004WhZZ) E $\gamma$ : 402.1 from 2004Wh01.
405.0 10	5.5 2	2602.16	27/2 <sup>-</sup>	2197.74	(23/2 <sup>-</sup> )			
405.5 1	18.5 6	666.19	13/2 <sup>-</sup>	260.58	9/2 <sup>-</sup>	Q	60.7 22	E $\gamma$ : 405.8 from 2004Wh01. Mult.: DCO=1.1 1 (2004Sh08); DCO=0.98 5 (2004WhZZ).
407.6 <sup>#</sup>		505.22	9/2 <sup>-</sup>	97.44	5/2 <sup>-</sup>		2.2 3	DCO=1.00 16 (2004WhZZ)
411.3 10	4.4 1	4300.1	(35/2)	3889.36	(33/2)	D		Mult.: DCO=0.43 1 (2004Sh08).

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(HI,xn $\gamma$ ) **2004Sh08,2004Wh01 (continued)**

$\gamma(^{185}\text{Os})$  (continued)

$E_\gamma$ <sup>†</sup>	$I_\gamma$ (2004Sh08)	$E_i$ (level)	$J_i^\pi$	$E_f$	$J_f^\pi$	Mult. <sup>‡</sup>	$I_\gamma$ (2004WhZZ)	Comments
416.9 <sup>#</sup>		864.91	15/2 <sup>-</sup>	448.65	11/2 <sup>-</sup>		5.2 3	$E_\gamma$ : uncertainty not quoted by 2004Sh08; 1 keV assigned by the compilers. DCO=0.9 1 (2004WhZZ)
417.1 10	2.6 1	1442.01	(17/2 <sup>+</sup> )	1024.77	15/2 <sup>+</sup>			
417.4 1	1.6 1	1442.01	(17/2 <sup>+</sup> )	1024.58	19/2 <sup>+</sup>			
423.6 1	4.3 2	1745.49	21/2 <sup>+</sup>	1322.01	17/2 <sup>+</sup>			
424.4 10	1.5 1	4300.1	(35/2)	3876.93	(33/2)	D		Mult.: DCO=0.71 1 (2004Sh08).
424.9 1	100 <sup>@</sup> 5	5432.0		5007.1	(41/2)			
425.0 1	3.7 2	1647.15	21/2 <sup>+</sup>	1222.05	21/2 <sup>+</sup>			
426.0 1	6.4 2	5007.1	(41/2)	4581.1	(39/2)	D		Mult.: DCO=0.72 3 (2004Sh08).
426.4 <sup>#</sup>		902.98	13/2 <sup>-</sup>	476.50	11/2 <sup>-</sup>		6.3 5	DCO=0.9 1 (2004WhZZ)
426.8 2	4.1 <sup>@</sup> 18	7006.9		6580.1				
428.6 10	1.1 1	1981.02	(21/2 <sup>+</sup> )	1552.12	19/2 <sup>+</sup>			
434.0 1	3.9 2	1755.95	19/2 <sup>-</sup>	1322.01	17/2 <sup>+</sup>			
434.1 1	81.4 25	1024.58	19/2 <sup>+</sup>	590.36	15/2 <sup>+</sup>	Q		Mult.: DCO=1.1 1 (2004Sh08).
434.3 2	4.7 2	1024.77	15/2 <sup>+</sup>	591.19	11/2 <sup>+</sup>			$E_\gamma$ : poor fit; level-energy difference=433.6.
435.7 1	26.3 8	3377.40	(29/2 <sup>+</sup> )	2941.70	(27/2)	D		Mult.: DCO=0.63 1 (2004Sh08).
445.6 1	100 3	1222.05	21/2 <sup>+</sup>	776.31	17/2 <sup>+</sup>	Q		Mult.: DCO=1.1 1 (2004Sh08).
450.9 1	10.3 3	1116.87	17/2 <sup>-</sup>	666.19	13/2 <sup>-</sup>	Q	23.8 8	Mult.: DCO=0.90 2 (2004Sh08); DCO=1.18 10 (2004WhZZ).
453 <sup>&amp;</sup>		7033.1		6580.1				
453.7 1	18.0 <sup>@</sup> 26	6803.5		6349.8				
456.5 1	51.2 16	1116.87	17/2 <sup>-</sup>	660.21	13/2 <sup>-</sup>	Q	149 5	$E_\gamma$ : 456.9 from 2004Wh01. Mult.: DCO=0.90 1 (2004Sh08); DCO=0.99 2 (2004WhZZ).
458.8 1	18.1 6	907.29	15/2 <sup>-</sup>	448.65	11/2 <sup>-</sup>	Q	55.6 20	Mult.: DCO=1.0 1 (2004Sh08); DCO=1.13 5 (2004WhZZ).
459.5 1	4.23 15	2204.11	27/2 <sup>+</sup>	1744.34	25/2 <sup>+</sup>			
470.1 1	7.3 3	1647.15	21/2 <sup>+</sup>	1176.65	17/2 <sup>+</sup>			$E_\gamma$ : poor fit; level-energy difference=470.5.
473.0 1	18.2 6	1179.57	15/2 <sup>-</sup>	706.72	11/2 <sup>-</sup>	Q	55.6 18	Mult.: DCO=1.1 1 (2004Sh08); DCO=0.94 3 (2004WhZZ).
477.1 10	1.0 1	2511.35	(25/2 <sup>+</sup> )	2034.33	(21/2 <sup>+</sup> )			
479.3 10	1.2 1	3377.40	(29/2 <sup>+</sup> )	2898.63	(29/2 <sup>+</sup> )			
481.2 1	6.9 2	2000.48	23/2 <sup>+</sup>	1519.32	19/2 <sup>+</sup>			
488.8 1	59.7 18	1353.67	19/2 <sup>-</sup>	864.91	15/2 <sup>-</sup>	Q	152 5	Mult.: DCO=0.96 1 (2004Sh08); DCO=0.98 2 (2004WhZZ).
489.4 10	1.6 1	3702.8	35/2 <sup>-</sup>	3213.29	31/2 <sup>-</sup>			
494.9 10	1.7 1	1519.32	19/2 <sup>+</sup>	1024.58	19/2 <sup>+</sup>			
499.7 1	20.7 <sup>@</sup> 26	6285.4		5785.7				
500.8 <sup>#</sup>		1403.7	17/2 <sup>-</sup>	902.98	13/2 <sup>-</sup>		21.4 10	
507.4 1	20.1 6	1173.49	17/2 <sup>-</sup>	666.19	13/2 <sup>-</sup>	Q	56.2 19	Mult.: DCO=1.0 1 (2004Sh08); DCO=1.05 5 (2004WhZZ).
509.0 <sup>#</sup>		706.72	11/2 <sup>-</sup>	198.20	7/2 <sup>-</sup>		1.9 5	
511.1 10	1.8 1	2511.35	(25/2 <sup>+</sup> )	2000.48	23/2 <sup>+</sup>			
511.4 10	6.4 2	1733.2	(21/2 <sup>+</sup> )	1222.05	21/2 <sup>+</sup>			
512.4 1	19.8 <sup>@</sup> 24	7098.9		6586.5				
512.9 1	5.1 2	1179.57	15/2 <sup>-</sup>	666.19	13/2 <sup>-</sup>		12.8 6	$E_\gamma$ : 513.7 from 2004Wh01. $E_\gamma$ : poor fit; level-energy difference=513.4. DCO=0.73 14 (2004WhZZ).

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**(HI,xn $\gamma$ ) 2004Sh08,2004Wh01 (continued)** $\gamma(^{185}\text{Os})$  (continued)

$E_\gamma$ †	$I_\gamma$ (2004Sh08)	$E_i$ (level)	$J_i^\pi$	$E_f$	$J_f^\pi$	Mult. ‡	$I_\gamma$ (2004WhZZ)	Comments
513.5#		1173.49	17/2 <sup>-</sup>	660.21	13/2 <sup>-</sup>		12.0 6	DCO=1.14 12 (2004WhZZ)
516.8 1	2.8 1	2108.06	23/2 <sup>+</sup>	1591.26	19/2 <sup>+</sup>			
519.5 1	12.1 4	1179.57	15/2 <sup>-</sup>	660.21	13/2 <sup>-</sup>	D(+Q)	38.4 13	$E_\gamma$ : 519.8 from 2004Wh01. Mult.: DCO=0.61 1 (2004Sh08); DCO=0.80 3 (2004WhZZ). Mult.: DCO=0.98 1 (2004Sh08).
522.4 1	74.2 22	1744.34	25/2 <sup>+</sup>	1222.05	21/2 <sup>+</sup>	Q		
522.5 10	2.4 1	1844.43	21/2 <sup>+</sup>	1322.01	17/2 <sup>+</sup>			
523.4 1	3.1 2	1745.49	21/2 <sup>+</sup>	1222.05	21/2 <sup>+</sup>			
527.2 1	5.5 2	1552.12	19/2 <sup>+</sup>	1024.58	19/2 <sup>+</sup>			$E_\gamma$ : level-energy difference=527.5.
527.7 1	4.9 2	1552.12	19/2 <sup>+</sup>	1024.77	15/2 <sup>+</sup>			$E_\gamma$ : level-energy difference=527.4.
530.3 1	6.8 2	2511.35	(25/2 <sup>+</sup> )	1981.02	(21/2 <sup>+</sup> )			
535.4 1	7.5 3	2280.76	25/2 <sup>+</sup>	1745.49	21/2 <sup>+</sup>			
538.7#		1403.7	17/2 <sup>-</sup>	864.91	15/2 <sup>-</sup>		4.2 5	
539.0 1	3.8 1	1981.02	(21/2 <sup>+</sup> )	1442.01	(17/2 <sup>+</sup> )			
541.0 1	46.2 14	1565.59	23/2 <sup>+</sup>	1024.58	19/2 <sup>+</sup>	Q		Mult.: DCO=0.96 1 (2004Sh08).
542.5 1	4.0 2	2386.74	25/2 <sup>+</sup>	1844.43	21/2 <sup>+</sup>			
545.3 10	1.2 1	2511.35	(25/2 <sup>+</sup> )	1966.17	(21/2 <sup>+</sup> )			
553.5 1	28.3 9	1670.32	21/2 <sup>-</sup>	1116.87	17/2 <sup>-</sup>	Q	79 3	Mult.: DCO=0.94 1 (2004Sh08); DCO=0.94 3 (2004WhZZ).
554.3 1	19.0 6	1461.44	19/2 <sup>-</sup>	907.29	15/2 <sup>-</sup>	Q	52.8 19	Mult.: \$DCO=1.1 1 (2004Sh08); DCO=0.89 4 (2004WhZZ).
563.0 10	11.3 4	3702.8	35/2 <sup>-</sup>	3139.94	31/2 <sup>-</sup>	Q		Mult.: DCO=1.1 1 (2004Sh08).
564.0 1	9.9@ 9	6349.8		5785.7				
565.0 1	8.3 3	2551.94	27/2 <sup>-</sup>	1987.11	23/2 <sup>-</sup>	Q		Mult.: DCO=1.0 1 (2004Sh08).
566.8 1	4.5 2	1591.26	19/2 <sup>+</sup>	1024.58	19/2 <sup>+</sup>			
567.5 10	0.8 1	4732.2	(39/2)	4164.89	(35/2)			
568.4 1	2.7 1	3139.94	31/2 <sup>-</sup>	2571.34	27/2 <sup>-</sup>			
570.8 1	4.4 2	2679.06	27/2 <sup>+</sup>	2108.06	23/2 <sup>+</sup>			
574.9 1	11.1 4	2575.38	27/2 <sup>+</sup>	2000.48	23/2 <sup>+</sup>	Q		Mult.: DCO=1.1 1 (2004Sh08).
575.6 1	52.8 16	1929.45	23/2 <sup>-</sup>	1353.67	19/2 <sup>-</sup>	Q	143 5	Mult.: DCO=1.1 1 (2004Sh08); DCO=1.09 2 (2004WhZZ).
576.2 1	34.8 11	1755.95	19/2 <sup>-</sup>	1179.57	15/2 <sup>-</sup>	Q	107 3	Mult.: DCO=1.1 1 (2004Sh08); DCO=0.98 3 (2004WhZZ).
578.0 1	1.6 1	2928.65	31/2 <sup>+</sup>	2350.67	29/2 <sup>+</sup>			
584.5 1	13.2 4	2848.54	29/2 <sup>-</sup>	2264.23	25/2 <sup>-</sup>	Q		Mult.: DCO=1.2 1 (2004Sh08).
586.6 1	5.4 3	1176.65	17/2 <sup>+</sup>	590.36	15/2 <sup>+</sup>			$E_\gamma$ : level-energy difference=586.3.
588.2 1	12.7 4	3139.94	31/2 <sup>-</sup>	2551.94	27/2 <sup>-</sup>	Q		Mult.: DCO=1.1 1 (2004Sh08).
590.4#		1994.1	21/2 <sup>-</sup>	1403.7	17/2 <sup>-</sup>	Q	13.5 7	Mult.: DCO=1.11 15 (2004WhZZ).
592.3 1	1.5 1	2034.33	(21/2 <sup>+</sup> )	1442.01	(17/2 <sup>+</sup> )			
595.9 1	19.9 6	1769.39	21/2 <sup>-</sup>	1173.49	17/2 <sup>-</sup>	Q	65.1 22	$E_\gamma$ : 596.2 from 2004Wh01. Mult.: DCO=0.92 2 (2004Sh08); DCO=0.95 4 (2004WhZZ).
600.7 1	4.5 2	2987.34	(29/2 <sup>+</sup> )	2386.74	25/2 <sup>+</sup>			
601.6 1	8.3 3	4304.4	(39/2 <sup>-</sup> )	3702.8	35/2 <sup>-</sup>			
601.9 1	9.0 3	2249.28	25/2 <sup>+</sup>	1647.15	21/2 <sup>+</sup>			
604.5 1	8.8 3	2885.42	(29/2 <sup>+</sup> )	2280.76	25/2 <sup>+</sup>			
606.2 1	49.7 15	2350.67	29/2 <sup>+</sup>	1744.34	25/2 <sup>+</sup>	Q		Mult.: DCO=0.97 1 (2004Sh08).
612.2 1	6.6 2	2164.32	(23/2 <sup>+</sup> )	1552.12	19/2 <sup>+</sup>			
612.6 1	12.1 4	3461.03	33/2 <sup>-</sup>	2848.54	29/2 <sup>-</sup>	Q		Mult.: DCO=1.0 1 (2004Sh08).
615.0 1	5.6 2	1937.03	(19/2 <sup>+</sup> )	1322.01	17/2 <sup>+</sup>	D		Mult.: DCO=0.8 1 (2004Sh08).
615.1 1	13.8 4	2602.16	27/2 <sup>-</sup>	1987.11	23/2 <sup>-</sup>	Q		Mult.: DCO=1.1 1 (2004Sh08).

Continued on next page (footnotes at end of table)

(HI,xn $\gamma$ ) **2004Sh08,2004Wh01** (continued)

$\gamma$ (<sup>185</sup>Os) (continued)

$E_\gamma$ <sup>†</sup>	I $\gamma$ (2004Sh08)	E <sub>i</sub> (level)	J $^\pi$ <sub>i</sub>	E <sub>f</sub>	J $^\pi$ <sub>f</sub>	Mult. <sup>‡</sup>	I $\gamma$ (2004WhZZ)	Comments
617.8 1	15.3 <sup>@</sup> 20	6580.1		5962.3				
622.3 1	3.0 1	1844.43	21/2 <sup>+</sup>	1222.05	21/2 <sup>+</sup>			
622.6 1	5.9 2	1647.15	21/2 <sup>+</sup>	1024.58	19/2 <sup>+</sup>	D		Mult.: DCO=0.44 1 (2004Sh08).
622.8 3	9.2 3	2551.94	27/2 <sup>-</sup>	1929.45	23/2 <sup>-</sup>	Q		Mult.: DCO=0.90 1 (2004Sh08).
630.3 1	5.4 2	3309.30	(31/2 <sup>+</sup> )	2679.06	27/2 <sup>+</sup>			
633.5 1	2.0 1	1987.11	23/2 <sup>-</sup>	1353.67	19/2 <sup>-</sup>	Q	8.8 4	Mult.: DCO=1.0 1 for 633.5+633.8 (2004Sh08); DCO=1.00 6 (2004WhZZ).
633.8 1	20.8 7	2095.11	23/2 <sup>-</sup>	1461.44	19/2 <sup>-</sup>	Q	48.8 17	Mult.: DCO=1.0 1 for 633.5+633.8 (2004Sh08); DCO=1.7 4 (2004WhZZ).
634.6 1	21.2 7	2304.92	25/2 <sup>-</sup>	1670.32	21/2 <sup>-</sup>	Q	49.4 17	Mult.: DCO=0.93 1 (2004Sh08); DCO=1.03 3 (2004WhZZ).
635.9 1	5.9 2	2885.42	(29/2 <sup>+</sup> )	2249.28	25/2 <sup>+</sup>			
638.8 1	30.3 9	2204.11	27/2 <sup>+</sup>	1565.59	23/2 <sup>+</sup>	Q		Mult.: DCO=1.0 1 (2004Sh08).
639.2 1	20.8 6	1755.95	19/2 <sup>-</sup>	1116.87	17/2 <sup>-</sup>	D(+Q)	64.3 21	Mult.: DCO=0.78 1 (2004Sh08); DCO=0.87 3 (2004WhZZ).
640.1 1	3.8 2	4101.13	(37/2 <sup>-</sup> )	3461.03	33/2 <sup>-</sup>			
641.7 1	32.3 10	2571.34	27/2 <sup>-</sup>	1929.45	23/2 <sup>-</sup>	Q	93 3	Mult.: DCO=1.1 1 for 641.7+642.0 (2004Sh08); DCO=0.93 3 (2004WhZZ).
642.0 1	9.9 3	3213.29	31/2 <sup>-</sup>	2571.34	27/2 <sup>-</sup>	Q		Mult.: DCO=1.1 1 for 641.7+642.0 (2004Sh08).
644.3 1	9.9 3	3219.61	(31/2 <sup>+</sup> )	2575.38	27/2 <sup>+</sup>			
646.9 <sup>#</sup>		2402.8	(23/2 <sup>-</sup> )	1755.95	19/2 <sup>-</sup>		10.6 8	
653.9 1	8.3 3	3225.29	31/2 <sup>-</sup>	2571.34	27/2 <sup>-</sup>	Q	16.0 7	Mult.: DCO=1.2 1 (2004Sh08); DCO=0.98 7 (2004WhZZ).
658.9 1	3.8 1	3872.19	(35/2 <sup>-</sup> )	3213.29	31/2 <sup>-</sup>			
660.2 <sup>#</sup>		2654.3	(25/2 <sup>-</sup> )	1994.1	21/2 <sup>-</sup>		9.1 5	
660.4 10	4.6 2	1442.01	(17/2 <sup>+</sup> )	781.60	13/2 <sup>+</sup>			
664.1 1	1.1 1	4536.29	(39/2 <sup>-</sup> )	3872.19	(35/2 <sup>-</sup> )			
664.3 <sup>#</sup>		3067.1	(27/2 <sup>-</sup> )	2402.8	(23/2 <sup>-</sup> )		4.3 5	
664.4 1	1.3 1	4208.99		3544.58	(33/2)			
665.4 1	9.9 3	2434.79	25/2 <sup>-</sup>	1769.39	21/2 <sup>-</sup>	Q	25.1 10	Mult.: DCO=1.0 1 (2004Sh08); DCO=0.94 8 (2004WhZZ).
667.0 1	10.3 3	3552.40	(33/2 <sup>+</sup> )	2885.42	(29/2 <sup>+</sup> )			
667.1 10	1.6 1	2511.35	(25/2 <sup>+</sup> )	1844.43	21/2 <sup>+</sup>			
668.1 1	3.4 1	3893.39		3225.29	31/2 <sup>-</sup>		4.8 4	DCO=1.23 12 (2004WhZZ)
672.0 1	6.1 2	4976.4	(43/2 <sup>-</sup> )	4304.4	(39/2 <sup>-</sup> )			
673.5 1	1.1 1	4882.5		4208.99				
676.0 10	2.2 1	3663.3	(33/2 <sup>+</sup> )	2987.34	(29/2 <sup>+</sup> )			
676 <sup>&amp;</sup>		3889.36	(33/2)	3213.29	31/2 <sup>-</sup>			
677.5 1	2.0 1	2941.70	(27/2)	2264.23	25/2 <sup>-</sup>			
678.4 <sup>#</sup>		3332.7	(29/2 <sup>-</sup> )	2654.3	(25/2 <sup>-</sup> )		2.6 3	
678.8 1	2.2 1	3816.50	(33/2 <sup>-</sup> )	3137.70	(29/2 <sup>-</sup> )		3.4 4	E $\gamma$ : 678.5 from 2004Wh01.
681.0 1	1.2 1	3718.78	35/2 <sup>+</sup>	3037.94	33/2 <sup>+</sup>			
681.1 10	0.6 1	2885.42	(29/2 <sup>+</sup> )	2204.11	27/2 <sup>+</sup>			
683.6 1	3.5 2	2249.28	25/2 <sup>+</sup>	1565.59	23/2 <sup>+</sup>			
684.1 1	13.7 4	2989.02	29/2 <sup>-</sup>	2304.92	25/2 <sup>-</sup>	Q	27.0 10	Mult.: DCO=1.0 1 (2004Sh08); DCO=0.96 5 (2004WhZZ).
685.2 1	5.4 2	3904.51	(35/2 <sup>+</sup> )	3219.61	(31/2 <sup>+</sup> )			E $\gamma$ : level-energy difference=684.9.
687.0 1	29.7 9	3037.94	33/2 <sup>+</sup>	2350.67	29/2 <sup>+</sup>	Q		Mult.: DCO=1.0 1 (2004Sh08).
691.6 1	3.6 1	4792.73	(41/2 <sup>-</sup> )	4101.13	(37/2 <sup>-</sup> )			

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**(HI,xn $\gamma$ ) 2004Sh08,2004Wh01 (continued)** $\gamma(^{185}\text{Os})$  (continued)

$E_\gamma$ <sup>†</sup>	$I_\gamma$ (2004Sh08)	$E_i$ (level)	$J_i^\pi$	$E_f$	$J_f^\pi$	Mult. <sup>‡</sup>	$I_\gamma$ (2004WhZZ)	Comments
694.5 1	7.6 3	4246.89	(37/2 <sup>+</sup> )	3552.40	(33/2 <sup>+</sup> )			
694.8 1	8.5 3	2789.92	27/2 <sup>-</sup>	2095.11	23/2 <sup>-</sup>	Q	25.3 10	Mult.: DCO=0.92 1 (2004Sh08); DCO=1.07 8 (2004WhZZ).
699.0 1	1.3 1	5235.3	(43/2 <sup>-</sup> )	4536.29	(39/2 <sup>-</sup> )			
701.8 1	1.4 1	4011.13	(35/2 <sup>+</sup> )	3309.30	(31/2 <sup>+</sup> )			
702.9 1	4.9 2	3137.70	(29/2 <sup>-</sup> )	2434.79	25/2 <sup>-</sup>		14.2 17	DCO=1.26 15 (2004WhZZ)
703.3 <sup>#</sup>		1179.57	15/2 <sup>-</sup>	476.50	11/2 <sup>-</sup>		3.6 4	
705.4 1	3.6 1	3694.43	33/2 <sup>-</sup>	2989.02	29/2 <sup>-</sup>		6.2 4	DCO=1.19 21 (2004WhZZ)
714.9 1	10.9 4	2280.76	25/2 <sup>+</sup>	1565.59	23/2 <sup>+</sup>	D		Mult.: DCO=0.15 1 (2004Sh08).
719.7 1	4.9 2	2969.04	(29/2 <sup>+</sup> )	2249.28	25/2 <sup>+</sup>			
720.8 1	11.6 4	1745.49	21/2 <sup>+</sup>	1024.58	19/2 <sup>+</sup>	D		Mult.: DCO=0.39 1 (2004Sh08).
721.6 1	2.1 1	3511.53	(31/2 <sup>-</sup> )	2789.92	27/2 <sup>-</sup>		4.7 5	
724.5 1	21.4 7	2928.65	31/2 <sup>+</sup>	2204.11	27/2 <sup>+</sup>	Q		Mult.: DCO=0.93 1 (2004Sh08).
731.4 1	14.9 5	1322.01	17/2 <sup>+</sup>	590.36	15/2 <sup>+</sup>	D		Mult.: DCO=0.45 1 (2004Sh08).
731.5 1	4.6 2	5285.41	45/2 <sup>+</sup>	4553.91	41/2 <sup>+</sup>	Q		Mult.: DCO=0.83 2 (2004Sh08).
734.0 10	1.4 1	4428.4	(37/2 <sup>-</sup> )	3694.43	33/2 <sup>-</sup>			
736.3 1	2.3 1	2197.74	(23/2 <sup>-</sup> )	1461.44	19/2 <sup>-</sup>			
736.9 1	2.6 1	5713.3	(47/2 <sup>-</sup> )	4976.4	(43/2 <sup>-</sup> )			
737.0 10	1.7 1	4630.4		3893.39			2.4 3	$E_\gamma$ : 736.7 from 2004Wh01.
742.7 1	1.5 1	4647.17	(39/2 <sup>+</sup> )	3904.51	(35/2 <sup>+</sup> )			
742.9 1	11.9 4	1519.32	19/2 <sup>+</sup>	776.31	17/2 <sup>+</sup>	D		Mult.: DCO=0.34 1 (2004Sh08).
743.3 1	1.1 1	6017.69	(47/2 <sup>+</sup> )	5274.40	(43/2 <sup>+</sup> )			
746.0 1	3.2 1	5274.40	(43/2 <sup>+</sup> )	4528.38	39/2 <sup>+</sup>			
749.3 1	2.7 1	5542.04	(45/2 <sup>-</sup> )	4792.73	(41/2 <sup>-</sup> )			
749.4 1	16.7 5	3787.51	37/2 <sup>+</sup>	3037.94	33/2 <sup>+</sup>	Q		Mult.: DCO=1.0 1 (2004Sh08).
760.8 1	2.4 1	6046.2	(49/2 <sup>+</sup> )	5285.41	45/2 <sup>+</sup>			
762.7 1	2.7 2	1176.65	17/2 <sup>+</sup>	414.17	13/2 <sup>+</sup>			
764.8 10	2.8 11	2969.04	(29/2 <sup>+</sup> )	2204.11	27/2 <sup>+</sup>			
766.4 1	7.5 3	4553.91	41/2 <sup>+</sup>	3787.51	37/2 <sup>+</sup>	Q		Mult.: DCO=0.82 2 (2004Sh08).
767.2 10	0.9 1	2511.35	(25/2 <sup>+</sup> )	1744.34	25/2 <sup>+</sup>			
776.0 10	1.1 1	5204.4	(41/2 <sup>-</sup> )	4428.4	(37/2 <sup>-</sup> )			
778.3 1	11.4 4	2000.48	23/2 <sup>+</sup>	1222.05	21/2 <sup>+</sup>	D		Mult.: DCO=0.23 1 (2004Sh08).
790.1 1	13.4 4	3718.78	35/2 <sup>+</sup>	2928.65	31/2 <sup>+</sup>	Q		Mult.: DCO=1.0 1 (2004Sh08).
793.1 1	1.2 1	6506.4	(51/2 <sup>-</sup> )	5713.3	(47/2 <sup>-</sup> )			
796.0 10	0.4 1	5426.4		4630.4				
796.7 1	0.9 1	6338.7	(49/2 <sup>-</sup> )	5542.04	(45/2 <sup>-</sup> )			
800.8 1	20.8 <sup>@</sup> 23	6586.5		5785.7				
809.6 1	7.2 2	4528.38	39/2 <sup>+</sup>	3718.78	35/2 <sup>+</sup>	Q		Mult.: DCO=1.1 1 (2004Sh08).
814.9 1	14.2 5	1591.26	19/2 <sup>+</sup>	776.31	17/2 <sup>+</sup>	D		Mult.: DCO=0.49 1 (2004Sh08).
818.1 <sup>&amp;</sup> 2	0.4 1	6835.8	(51/2 <sup>+</sup> )	6017.69	(47/2 <sup>+</sup> )			
819.9 1	10.5 3	1844.43	21/2 <sup>+</sup>	1024.58	19/2 <sup>+</sup>	D		Mult.: DCO=0.33 1 (2004Sh08).
821.2 1	1.7 1	2386.74	25/2 <sup>+</sup>	1565.59	23/2 <sup>+</sup>			Mult.: DCO=0.15 1 (2004Sh08).
831.1 1	4.9 2	2575.38	27/2 <sup>+</sup>	1744.34	25/2 <sup>+</sup>	D		Mult.: DCO=0.21 1 (2004Sh08).
838.1 1	1.3 1	3807.10	(33/2 <sup>+</sup> )	2969.04	(29/2 <sup>+</sup> )			
839.9 1	1.0 1	6886.1	(53/2 <sup>+</sup> )	6046.2	(49/2 <sup>+</sup> )			
852.0 10	0.3 1	7358.4	(55/2 <sup>-</sup> )	6506.4	(51/2 <sup>-</sup> )			
859.5 1	0.6 1	4647.17	(39/2 <sup>+</sup> )	3787.51	37/2 <sup>+</sup>			
860.9 5	0.8 1	2789.92	27/2 <sup>-</sup>	1929.45	23/2 <sup>-</sup>			
864.4 10	0.5 1	2511.35	(25/2 <sup>+</sup> )	1647.15	21/2 <sup>+</sup>			
866.0 1	5.4 1	3377.40	(29/2 <sup>+</sup> )	2511.35	(25/2 <sup>+</sup> )	Q		Mult.: DCO=1.1 2 (2004Sh08).
866.3 1	0.5 1	3904.51	(35/2 <sup>+</sup> )	3037.94	33/2 <sup>+</sup>			
869.2 1	2.9 1	3219.61	(31/2 <sup>+</sup> )	2350.67	29/2 <sup>+</sup>	D		Mult.: DCO=0.48 1 (2004Sh08).
871.1 1	6.5 2	1647.15	21/2 <sup>+</sup>	776.31	17/2 <sup>+</sup>			
878.4 10	0.5 1	3807.10	(33/2 <sup>+</sup> )	2928.65	31/2 <sup>+</sup>			

Continued on next page (footnotes at end of table)

**(HI,xn $\gamma$ ) 2004Sh08,2004Wh01 (continued)** $\gamma(^{185}\text{Os})$  (continued)

$E_\gamma^\dagger$	$I_\gamma(2004\text{Sh08})$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$	Mult. $^\ddagger$	Comments
886.1 1	5.2 2	2108.06	23/2 <sup>+</sup>	1222.05	21/2 <sup>+</sup>	D	Mult.: DCO=0.29 1 (2004Sh08).
907.8 1	7.6 3	1322.01	17/2 <sup>+</sup>	414.17	13/2 <sup>+</sup>		
917.8 1	12.6 <sup>@</sup> 18	6349.8		5432.0			
928.9 2	0.6 1	4647.17	(39/2 <sup>+</sup> )	3718.78	35/2 <sup>+</sup>		
929.1 1	6.3 2	1519.32	19/2 <sup>+</sup>	590.36	15/2 <sup>+</sup>	Q	Mult.: DCO=0.90 1 (2004Sh08).
934.7 1	2.5 1	2679.06	27/2 <sup>+</sup>	1744.34	25/2 <sup>+</sup>		
941.7 1	2.3 1	1966.17	(21/2 <sup>+</sup> )	1024.58	19/2 <sup>+</sup>		
946.0 10	0.5 1	2511.35	(25/2 <sup>+</sup> )	1565.59	23/2 <sup>+</sup>		
955.2 1	30 <sup>@</sup> 3	5962.3		5007.1	(41/2)		
956.9 10	0.6 1	1733.2	(21/2 <sup>+</sup> )	776.31	17/2 <sup>+</sup>		
958.6 1	2.1 1	3309.30	(31/2 <sup>+</sup> )	2350.67	29/2 <sup>+</sup>		
969.3 1	3.7 2	1745.49	21/2 <sup>+</sup>	776.31	17/2 <sup>+</sup>		
973.2 1	0.8 1	4011.13	(35/2 <sup>+</sup> )	3037.94	33/2 <sup>+</sup>		
976.0 1	1.5 1	2000.48	23/2 <sup>+</sup>	1024.58	19/2 <sup>+</sup>		
976.1 3	0.4 1	3904.51	(35/2 <sup>+</sup> )	2928.65	31/2 <sup>+</sup>		
1001.1 1	3.3 1	1591.26	19/2 <sup>+</sup>	590.36	15/2 <sup>+</sup>		
1027.2 1	4.8 2	2249.28	25/2 <sup>+</sup>	1222.05	21/2 <sup>+</sup>	Q	Mult.: DCO=0.92 2 (2004Sh08).
1068.4 1	3.2 1	1844.43	21/2 <sup>+</sup>	776.31	17/2 <sup>+</sup>		
1141.5 1	1.7 1	2885.42	(29/2 <sup>+</sup> )	1744.34	25/2 <sup>+</sup>		$E_\gamma$ : poor fit; level-energy difference=1141.1.
1189.5 2	1.0 1	1966.17	(21/2 <sup>+</sup> )	776.31	17/2 <sup>+</sup>		
1201.6 2	0.5 1	3552.40	(33/2 <sup>+</sup> )	2350.67	29/2 <sup>+</sup>		
1209.1 10	0.2 1	4246.89	(37/2 <sup>+</sup> )	3037.94	33/2 <sup>+</sup>		
1224.8 1	1.1 1	2969.04	(29/2 <sup>+</sup> )	1744.34	25/2 <sup>+</sup>		
1242.6 2	0.8 1	2987.34	(29/2 <sup>+</sup> )	1744.34	25/2 <sup>+</sup>		
1289.5 10	2.0 1	2511.35	(25/2 <sup>+</sup> )	1222.05	21/2 <sup>+</sup>		
1455.8 4	0.3 1	3807.10	(33/2 <sup>+</sup> )	2350.67	29/2 <sup>+</sup>		

<sup>†</sup> Unless as noted,  $E_\gamma$ 's are from 2004Sh08. Comments are noted for  $\gamma$ 's with energy significantly different from 2004Wh01.

<sup>‡</sup> Determined by 2004Sh08 and 2004WhZZ from DCO ratios. In 2004Sh08, DCO $\approx$ 1 for stretched quadrupole  $\Delta J=2$  transitions and DCO $\approx$ 0.6 for stretched dipole  $\Delta J=1$  transitions. In only a few cases (as noted) mult=D corresponds to  $\Delta J=0$  transitions.

<sup>#</sup> From 2004Wh01.

<sup>@</sup>  $\gamma$  above the 5007, 18-ns isomer. Intensity is independently normalized to 100 for 424.9 $\gamma$  from 5432 level.

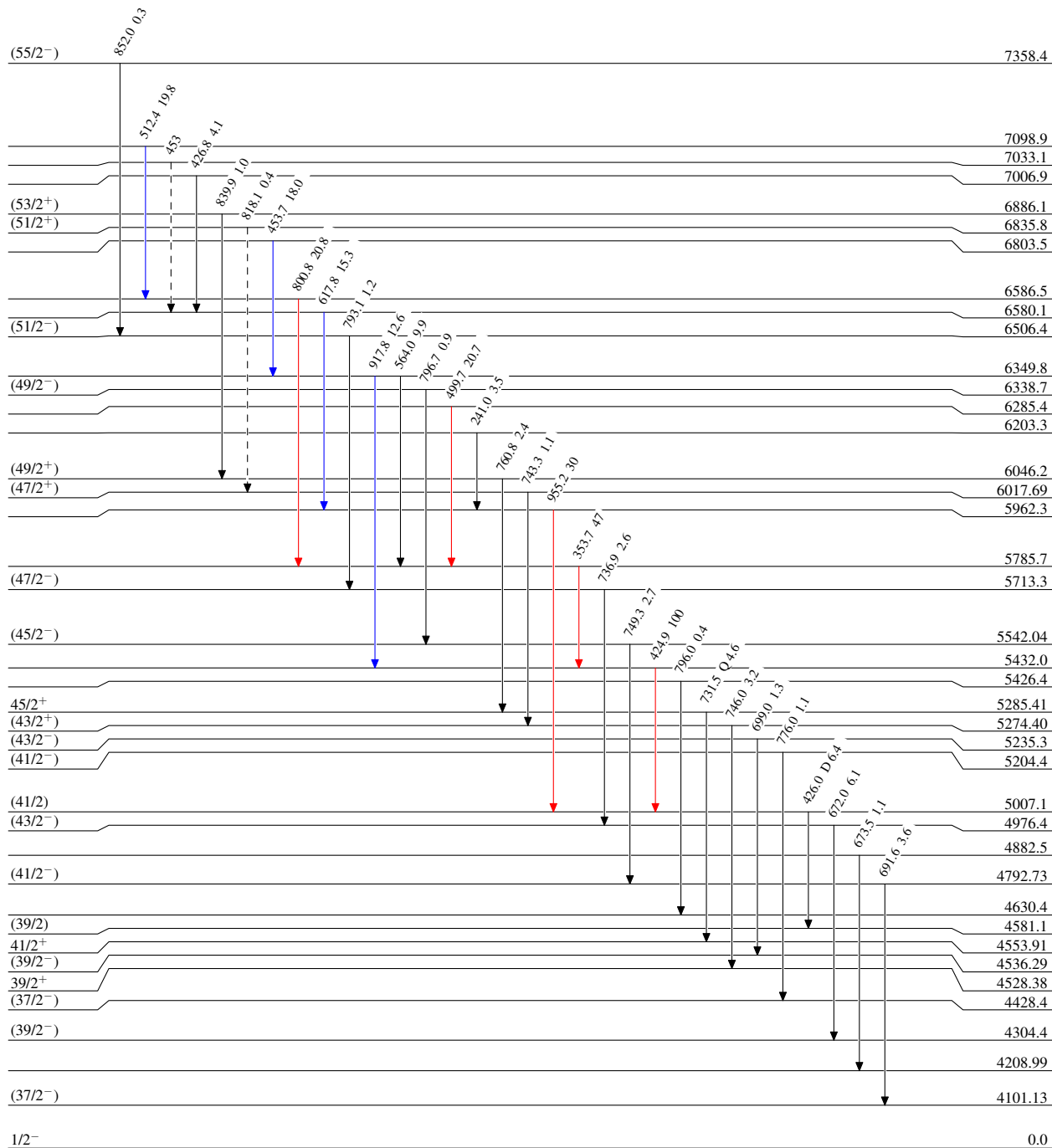
<sup>&</sup> Placement of transition in the level scheme is uncertain.

(HL,xn $\gamma$ ) 2004Sh08,2004Wh01

Legend

Level Scheme  
Intensities: Relative  $I_\gamma$

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



$^{185}_{76}\text{Os}_{109}$

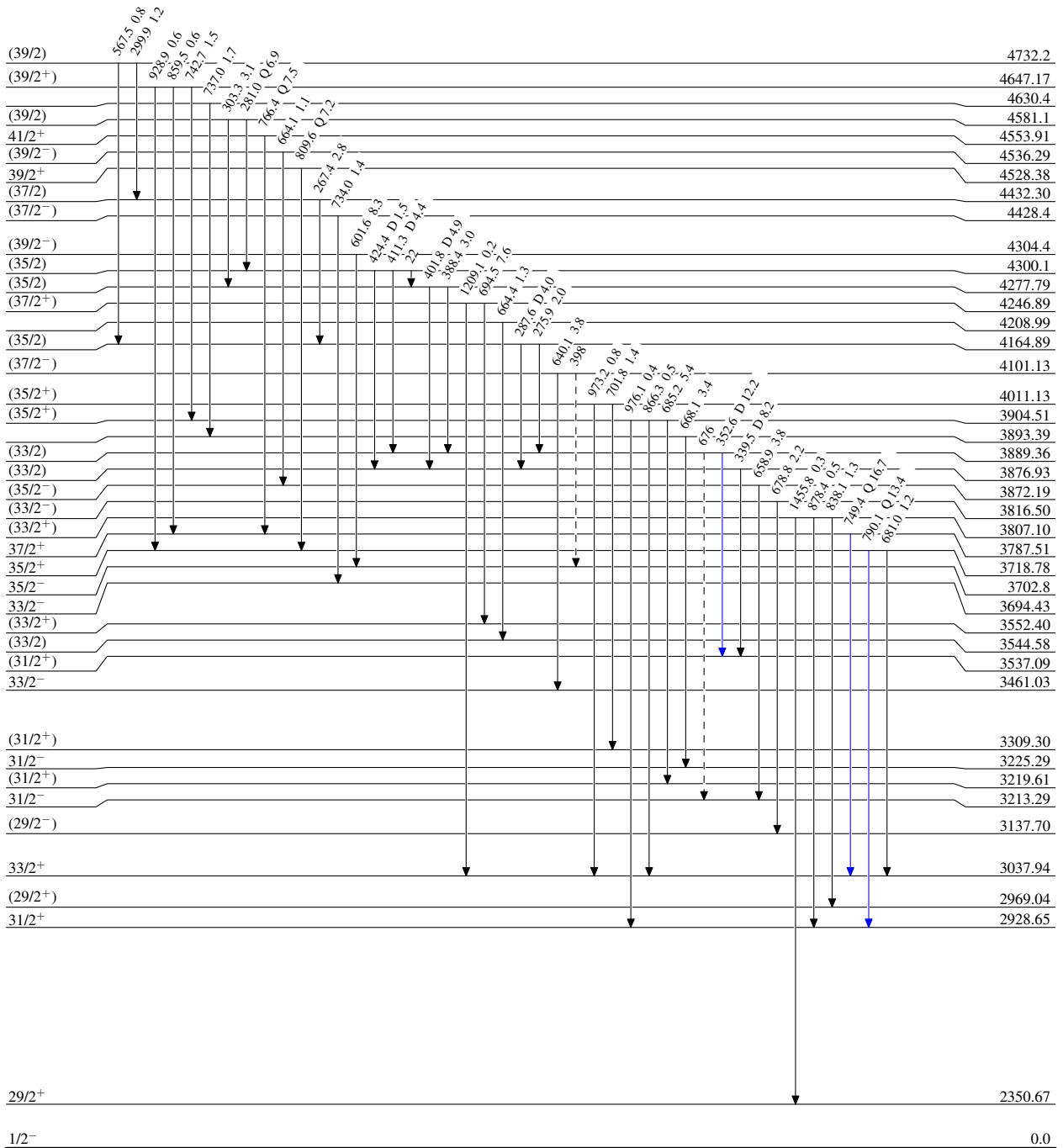
(HI,xn $\gamma$ ) 2004Sh08,2004Wh01

Legend

Level Scheme (continued)

Intensities: Relative I $\gamma$

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



<sup>185</sup><sub>76</sub>Os<sub>109</sub>

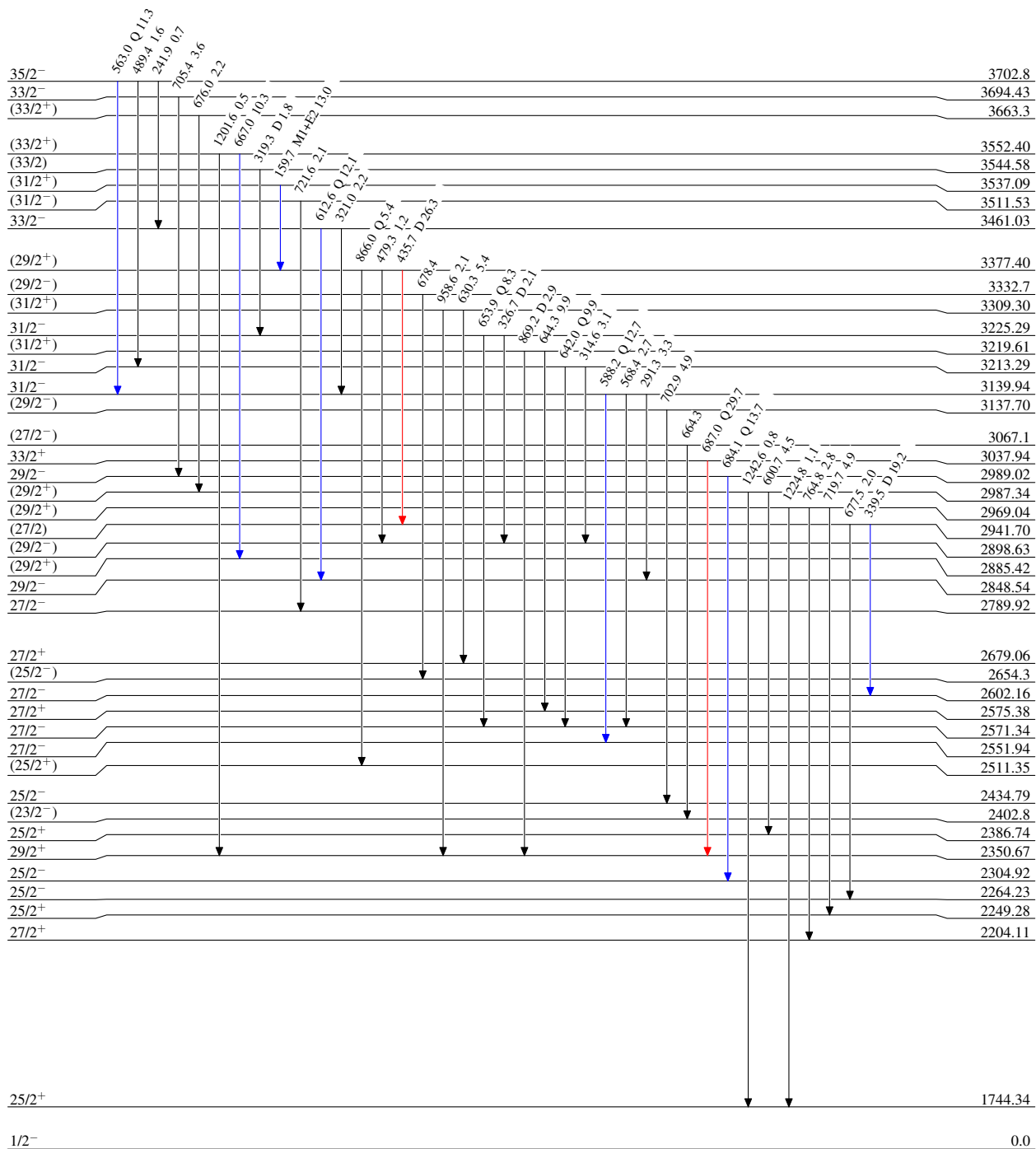
(HI,xn $\gamma$ ) 2004Sh08,2004Wh01

Level Scheme (continued)

Intensities: Relative  $I_{\gamma}$

Legend

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



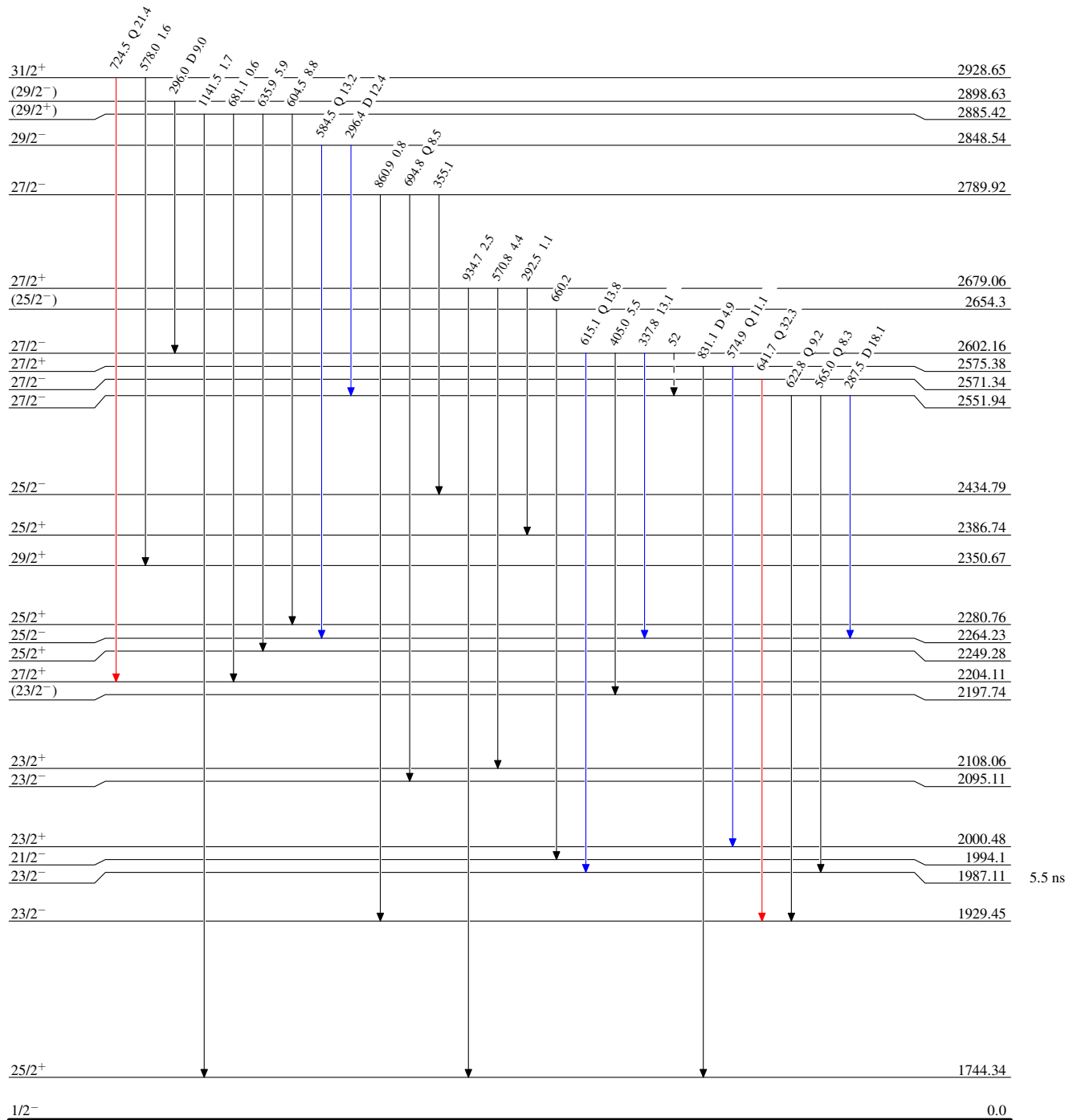
(HI,xn $\gamma$ ) 2004Sh08,2004Wh01

Legend

Level Scheme (continued)

Intensities: Relative I $\gamma$

- $\longrightarrow$  I $\gamma$  < 2%  $\times$  I $\gamma$ <sup>max</sup>
- $\longrightarrow$  I $\gamma$  < 10%  $\times$  I $\gamma$ <sup>max</sup>
- $\longrightarrow$  I $\gamma$  > 10%  $\times$  I $\gamma$ <sup>max</sup>
- - -  $\longrightarrow$   $\gamma$  Decay (Uncertain)



<sup>185</sup><sub>76</sub>Os<sub>109</sub>



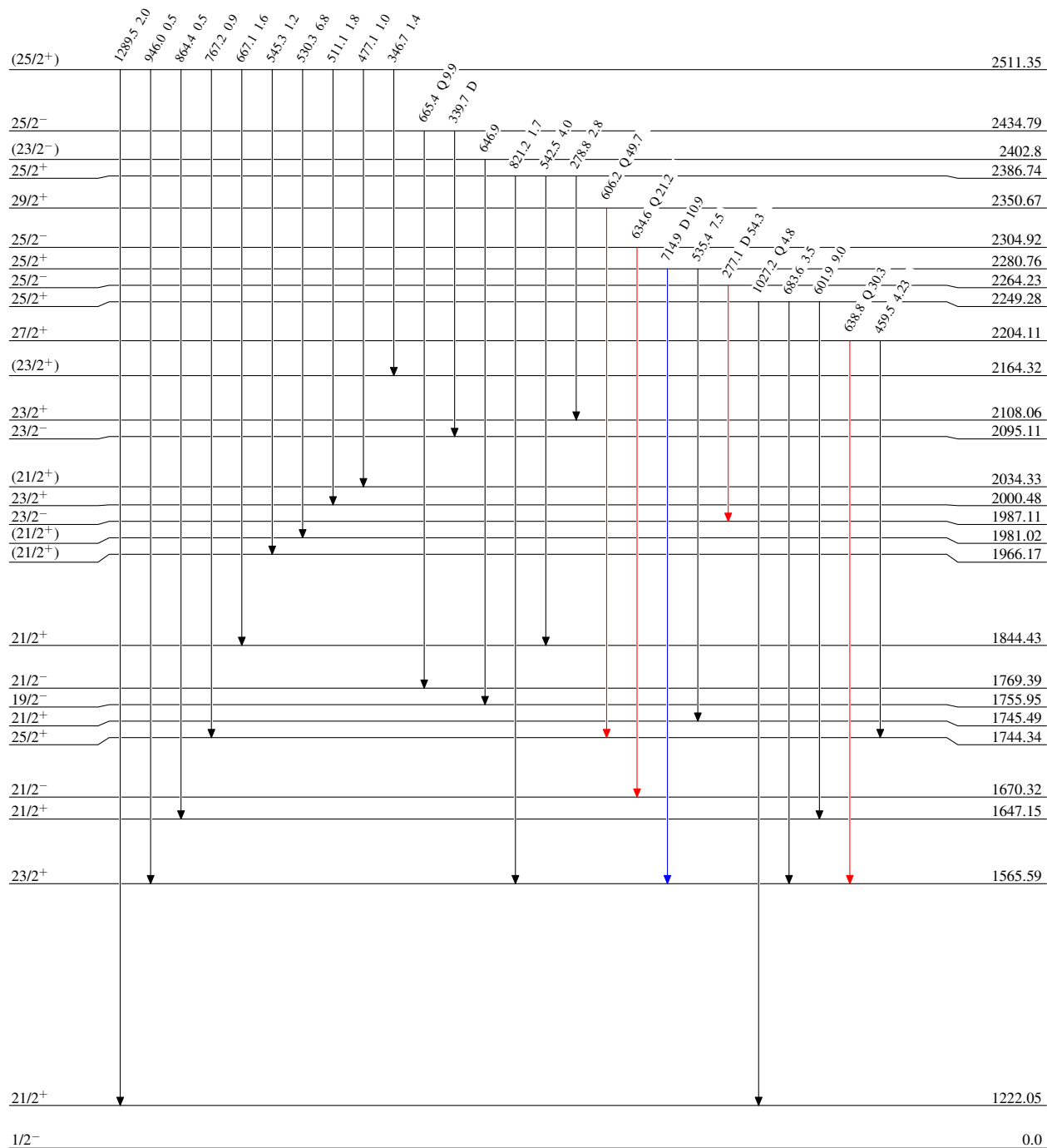
(HI,xn $\gamma$ ) 2004Sh08,2004Wh01

Level Scheme (continued)

Intensities: Relative  $I_{\gamma}$

Legend

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



$^{185}_{76}\text{Os}_{109}$

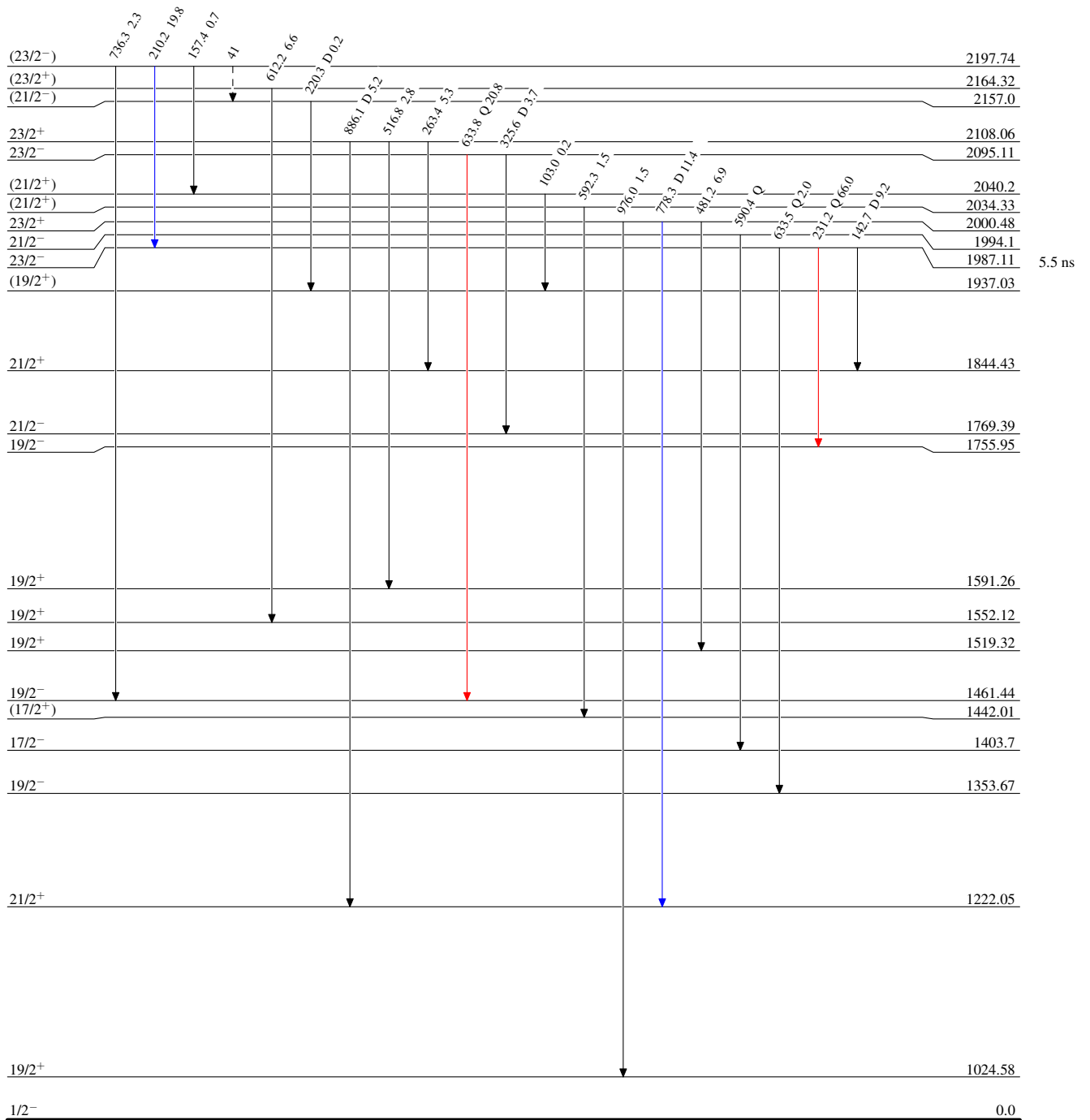
(HI,xn $\gamma$ ) 2004Sh08,2004Wh01

Legend

Level Scheme (continued)

Intensities: Relative  $I_\gamma$

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



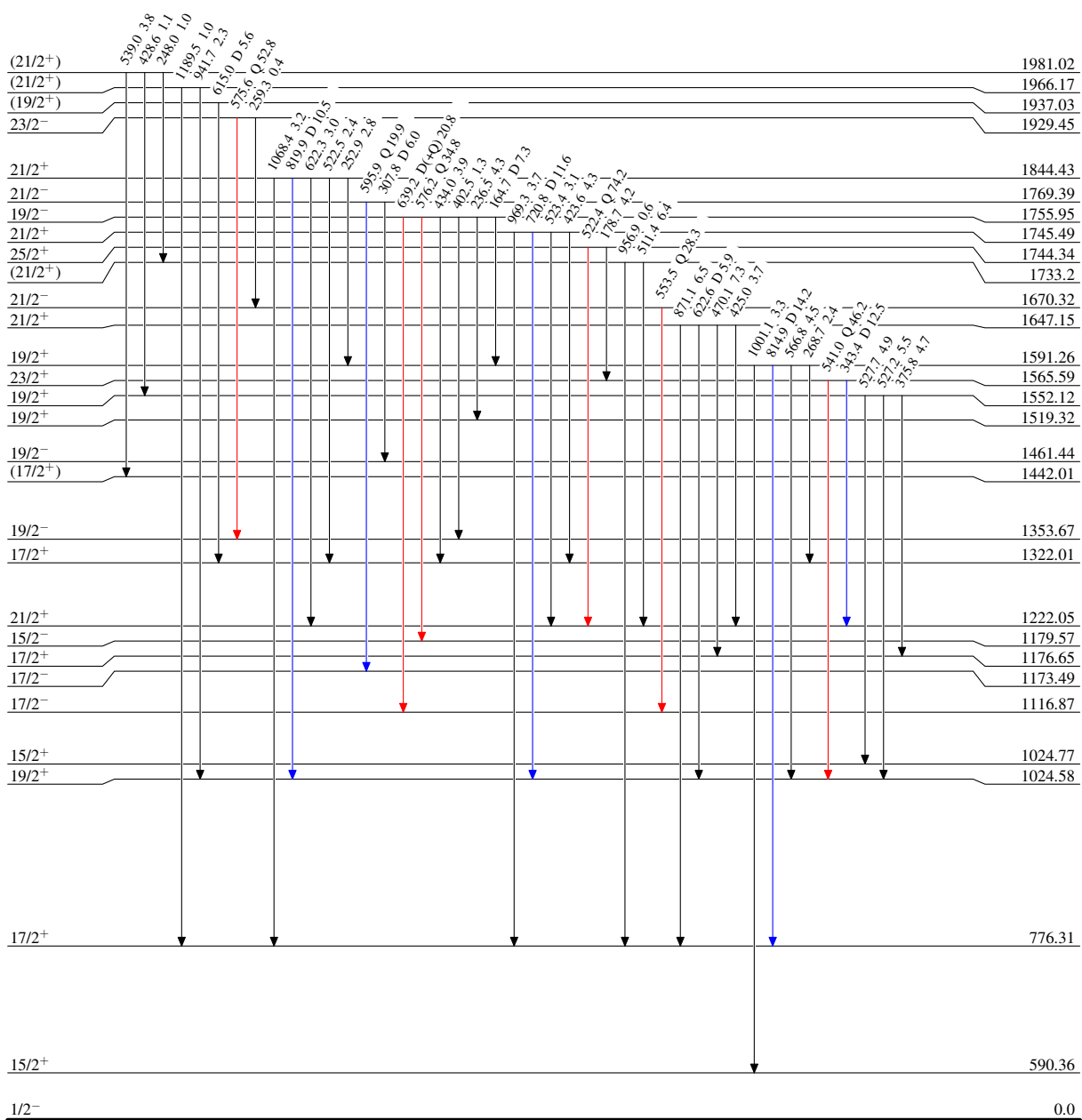
(HI,xn $\gamma$ ) 2004Sh08,2004Wh01

Level Scheme (continued)

Intensities: Relative  $I_{\gamma}$

Legend

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



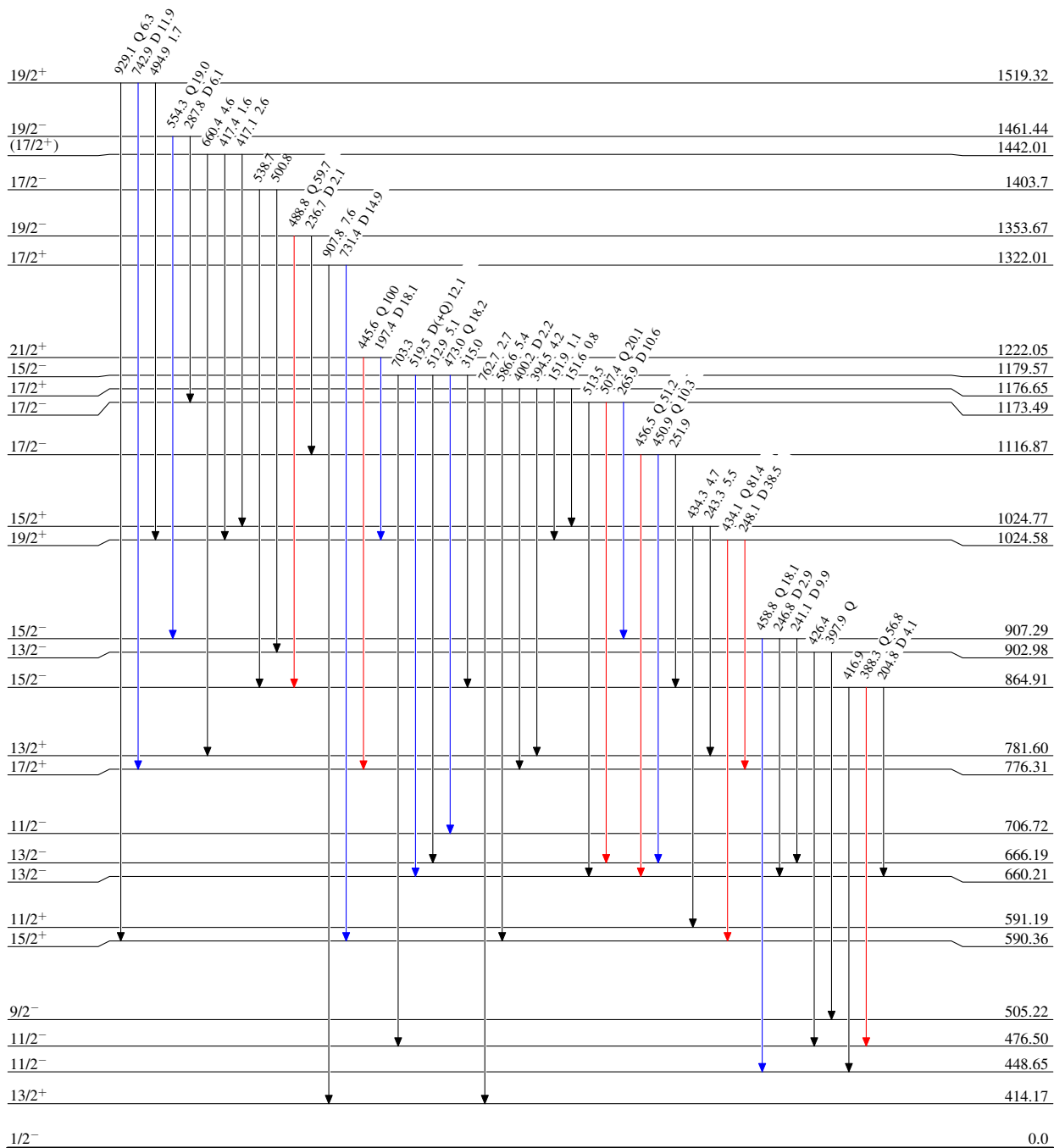
(HI,xn $\gamma$ ) 2004Sh08,2004Wh01

Level Scheme (continued)

Intensities: Relative  $I_\gamma$

Legend

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



$^{185}_{76}\text{Os}_{109}$

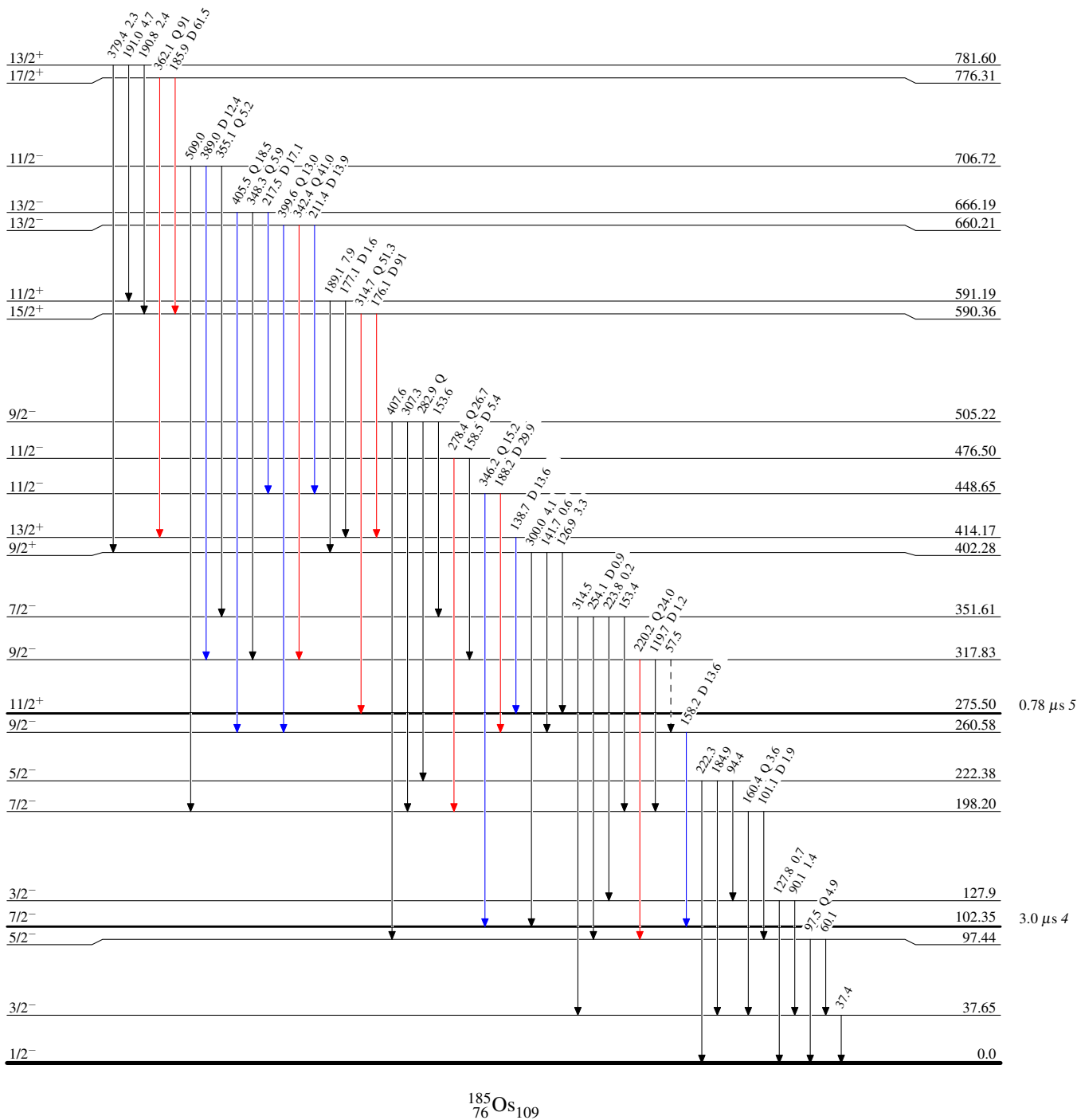
(HI,xn $\gamma$ ) 2004Sh08,2004Wh01

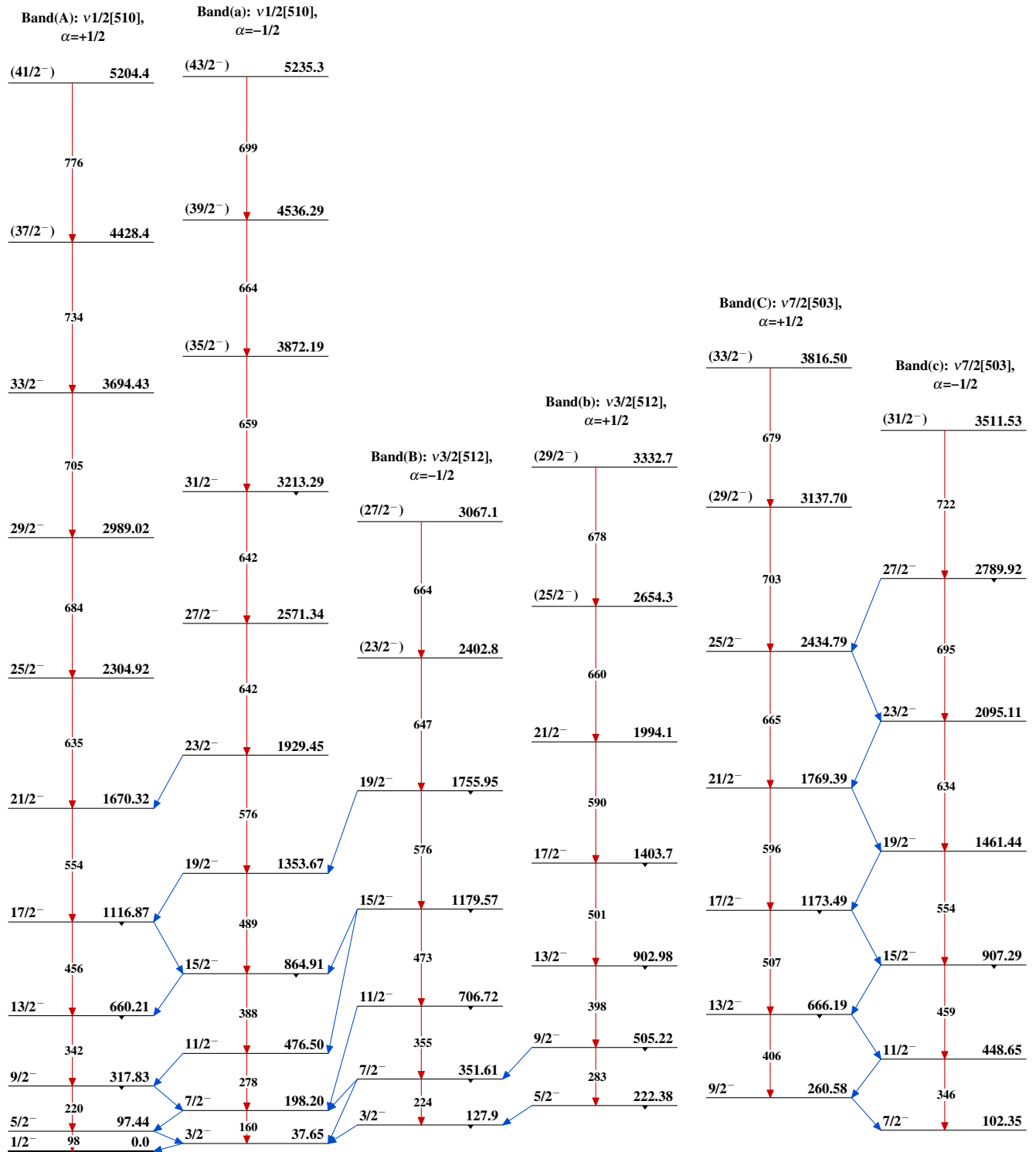
Legend

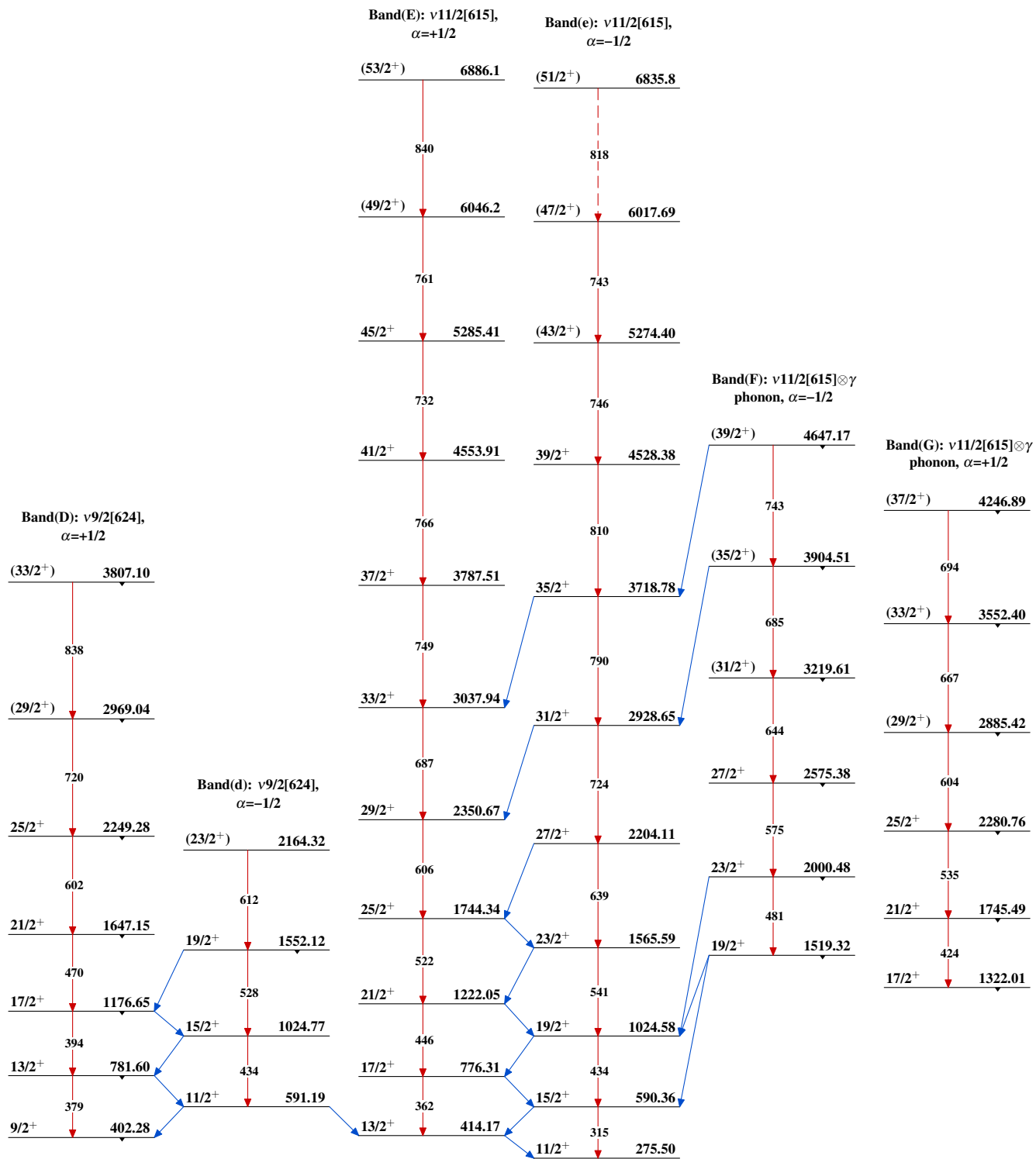
Level Scheme (continued)

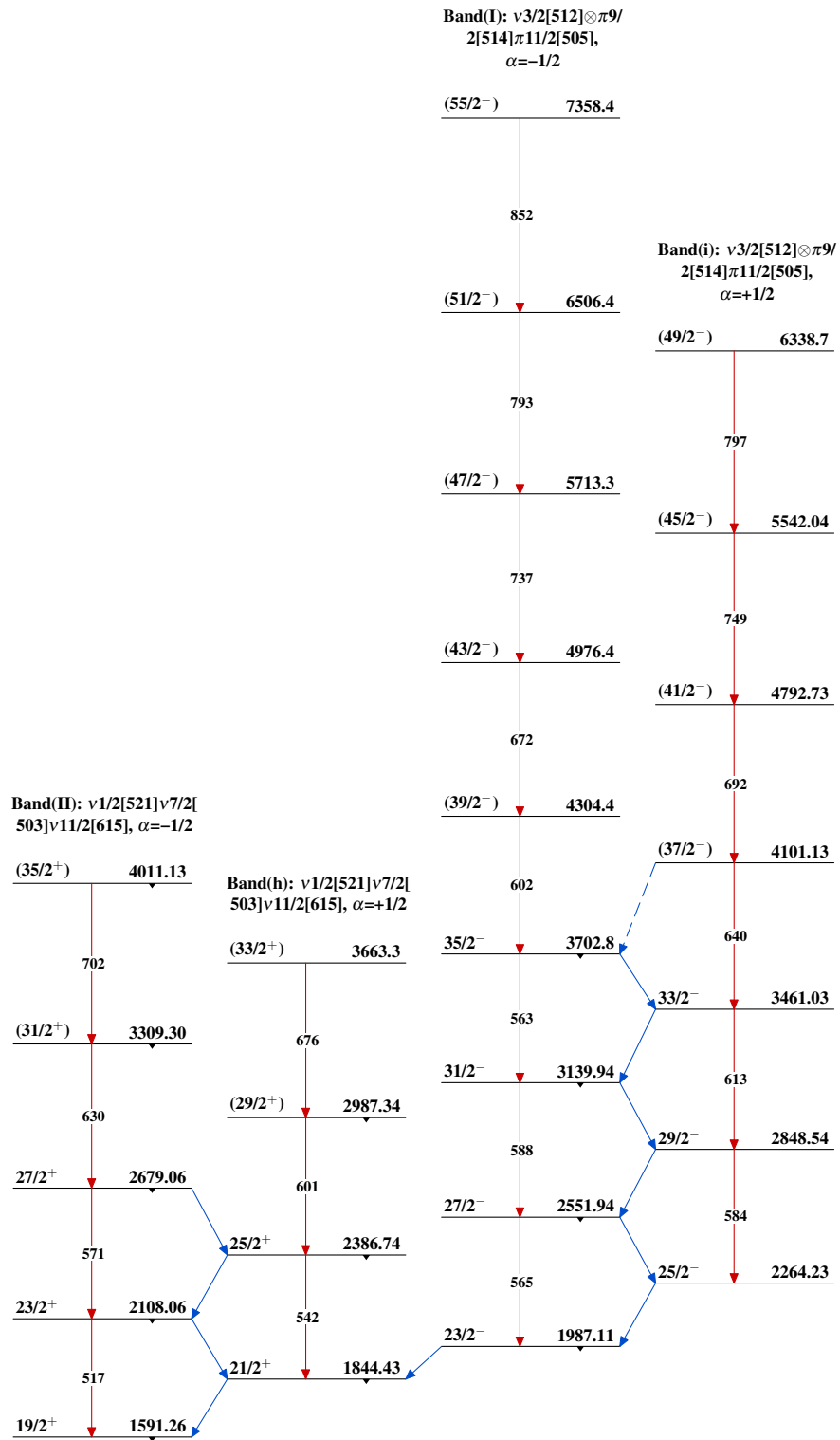
Intensities: Relative  $I_\gamma$

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



**(HI,xn $\gamma$ ) 2004Sh08,2004Wh01** $^{185}_{76}\text{Os}_{109}$

**(HI,xn $\gamma$ ) 2004Sh08,2004Wh01 (continued)** $^{185}_{76}\text{Os}_{109}$

**(HI,xn $\gamma$ ) 2004Sh08,2004Wh01 (continued)** $^{185}_{76}\text{Os}_{109}$