Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Achterberg, O. A. Capurro, G. V. Marti	NDS 110,1473 (2009)	31-May-2008

Q(β^-)=−4255 *23*; S(n)=8.28×10^3 *3*; S(p)=1.59×10^3 *3*; Q(α)=5.00×10^3 *4* 2012Wa38
Note: Current evaluation has used the following Q record −4254 23 *8276* 28 *1591* 25 *5000* 30 2003Au03.
Q(β^+)=7294 *26* (2003Au03).

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The organization of the proposed bands and their probable configurations have been adopted from 2003Ho03. See (HI,xnγ) dataset for further details.
B(M1)/B(E2) ratios are from 2003Ho03. See comments for this ratio in the (HI,xnγ) dataset.

Cross Reference (XREF) Flags

A ^{182}Au α decay
B ^{178}Pt ε decay
C (HI,xnγ)

E(level)[†]	J$^\pi$[‡]	T$_{1/2}$	XREF	Comments
0.0		12 s *2*	AB	%ε+%β^+=100 T$_{1/2}$: from 1973HaVR. Other values: 30 s *18* (1970AcZX,1972BaWW). %ε+%β^+=100 (adopted value in 2003Au02).
54.4 *5*	(2$^+$)		AB	E(level),J$^\pi$: from ^{182}Au α decay (1995Bi01).
123 *7*			A	E(level): from α-particle energy differences in ^{182}Au decay (1995Bi01). 1993Me13 see a 127-keV γ in coincidence spectra gated by the 54.4 keV γ ray. Because of the energy uncertainty this γ-ray may deexcite the same level.
0.0+x			C	
81.8+x *3*	[5$^+$,6$^+$,7$^+$]		C	J$^\pi$: Suggested by evaluators based on (M1,E2) multipolarity of the 101-keV γ ray feeding this level, and the proposed J^π=(6$^+$) of the originating level at 140.1+y (2003Ho03).
0.0+y[@]	(7$^+$)		C	Bandhead for band A.
35.1+y[d] *4*	(5$^+$)		C	Bandhead for band D.
39.1+y *5*			C	See comment for this level in the (HI,xn) dataset.
140.1+y[b] *4*	(6$^+$)		C	Bandhead for band C.
140.50+y[l] *10*	(8$^-$)	≥4 ns	C	Bandhead for band I.
150.6+y[f] *6*	(5$^+$)		C	Bandhead for band E.
160.64+y[#] *18*	(8$^+$)		C	
206.5+y[d] *3*	(7$^+$)		C	
228.6+y[c] *3*	(7$^+$)		C	
249.4+y[p] *3*	(8$^-$)		C	Bandhead for band K.
250.69+y[m] *14*	(9$^-$)		C	
280.8+y[e] *6*	(6$^+$)		C	
340.23+y[@] *17*	(9$^+$)		C	B(M1,179.6)/B(E2,340.2)=1.29 *13* μ_N^2/(eb)^2.
345.8+y[b] *3*	(8$^+$)		C	B(M1,117.2)/B(E2,205.7)=0.33 *7* μ_N^2/(eb)^2.
359.1+y[q] *3*	(9$^-$)		C	
386.95+y[l] *16*	(10$^-$)		C	B(M1,136.2)/B(E2,246.4)=2.00 *25* μ_N^2/(eb)^2.
397.71+y[p] *25*	(10$^-$)		C	
429.9+y[f] *6*	(7$^+$)		C	B(M1,149.1)/B(E2,279.2)=0.90 *18* μ_N^2/(eb)^2.
484.8+y[d] *3*	(9$^+$)		C	

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Adopted Levels, Gammas (continued)

^{178}Ir Levels (continued)

E(level)[†]	Jπ[‡]	XREF	Comments
501.0+y[c] *3*	(9+)	C	B(M1,155.2)/B(E2,272.4)=0.17 *3* μ_N^2/(eb)^2.
537.94+y[#] *18*	(10+)	C	B(M1,197.7)/B(E2,377.3)=0.70 *5* μ_N^2/(eb)^2.
546.71+y[m] *17*	(11−)	C	B(M1,159.9)/B(E2,296.3)=1.69 *38* μ_N^2/(eb)^2.
566.1+y[r] *4*		C	
574.4+y[j] *4*	(11+)	C	Bandhead for band G. E(level): Level energies in this band are tentative, and based only on the suggested placement of the 187.5-keV transition connecting this bandhead to the (10−) level in band I (2003Ho03).
588.1+y[e] *6*	(8+)	C	B(M1,158.1)/B(E2,307.7)=1.37 *31* μ_N^2/(eb)^2.
610.8+y[g] *6*	(8+)	C	Bandhead for band F.
614.5+y[q] *3*	(11−)	C	B(M1,216.8)/B(E2,255.4)=0.29 *5* μ_N^2/(eb)^2.
675.7+y[b] *3*	(10+)	C	B(M1,175.0)/B(E2,329.8)=0.19 *4* μ_N^2/(eb)^2.
689.13+y[p] *24*	(12−)	C	B(M1,74.7)/B(E2,291.4)=0.14 *7* μ_N^2/(eb)^2.
735.06+y[l] *18*	(12−)	C	B(M1,188.8)/B(E2,347.9)=1.26 *10* μ_N^2/(eb)^2.
751.32+y[@] *19*	(11+)	C	B(M1,213.4)/B(E2,411.1)=0.59 *7* μ_N^2/(eb)^2.
755.2+y[r] *4*	(10+,11+)	C	Bandhead for band L.
758.7+y[f] *7*	(9+)	C	B(M1,170.7)/B(E2,328.7)=0.88 *30* μ_N^2/(eb)^2.
787.95+y *23*		C	
788.5+y[i] *4*	(12+)	C	
794.2+y[h] *7*	(9+)	C	
843.2+y[r] *3*		C	
860.4+y[d] *3*	(11+)	C	
884.7+y[c] *3*	(11+)	C	B(M1,209.0)/B(E2,383.7)=0.24 *6* μ_N^2/(eb)^2.
888.5+y *5*		C	
915.7+y[k] *3*		C	Bandhead for band H.
933.6+y *4*		C	
945.16+y[m] *18*	(13−)	C	B(M1,210.3)/B(E2,398.2)=0.83 *4* μ_N^2/(eb)^2.
949.0+y[e] *7*	(10+)	C	B(M1,190.4)/B(E2,360.8)=0.79 *12* μ_N^2/(eb)^2.
979.07+y[#] *20*	(12+)	C	B(M1,227.9)/B(E2,441.1)=0.47 *7* μ_N^2/(eb)^2.
990.6+y[q] *3*	(13−)	C	B(M1,301.5)/B(E2,376.0)=0.36 *4* μ_N^2/(eb)^2.
996.4+y[g] *7*	(10+)	C	B(M1,202.2)/B(E2,385.6)=1.15 *24* μ_N^2/(eb)^2.
1022.0+y[j] *4*	(13+)	C	B(M1,233.5)/B(E2,447.5)=0.93 *20* μ_N^2/(eb)^2.
1034.9+y[n] *4*	(12−)	C	Bandhead for band J.
1092.1+y[r] *3*		C	B(M1,248.8)/B(E2,337.0)=0.15 *2* μ_N^2/(eb)^2.
1110.3+y[b] *3*	(12+)	C	B(M1,225.7)/B(E2,434.6)=0.21 *3* μ_N^2/(eb)^2.
1121.4+y[p] *3*	(14−)	C	B(M1,130.9)/B(E2,432.3)=0.09 *2* μ_N^2/(eb)^2.
1160.0+y[f] *7*	(11+)	C	B(M1,211.1)/B(E2,401.3)=0.25 *11* μ_N^2/(eb)^2.
1161.0+y[a] *4*	(11+)	C	Bandhead for band B.
1164.0+y[k] *4*		C	
1176.42+y[l] *19*	(14−)	C	B(M1,231.3)/B(E2,441.4)=0.81 *5* μ_N^2/(eb)^2.
1184.9+y[s] *4*	(11−)	C	Bandhead for band M.
1210.2+y[o] *3*	(13−)	C	
1213.7+y[h] *7*	(11+)	C	B(M1,217.4)/B(E2,419.5)=0.97 *23* μ_N^2/(eb)^2.
1219.82+y[@] *20*	(13+)	C	B(M1,240.7)/B(E2,468.5)=0.40 *11* μ_N^2/(eb)^2.
1237.5+y[r] *3*		C	
1256.8+y[t] *4*		C	Bandhead for band N.
1257.39+y[&] *24*	(12+)	C	
1275.4+y[i] *4*	(14+)	C	B(M1,253.5)/B(E2,486.8)=0.53 *19* μ_N^2/(eb)^2.
1312.6+y[d] *4*	(13+)	C	

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Adopted Levels, Gammas (continued)

^{178}Ir Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	XREF	Comments
1354.6+y[c] 3	(13$^+$)	C	B(M1,244.1)/B(E2,470.0)=0.31 *12* μ_N^2/(eb)^2.
1388.0+y[e] 7	(12$^+$)	C	B(M1,228.2)/B(E2,438.9)=0.53 *13* μ_N^2/(eb)^2.
1401.4+y[n] 3	(14$^-$)	C	
1405.7+y[k] 4		C	B(M1,241.7)/B(E2,489.9)=2.6 *11* μ_N^2/(eb)^2.
1406.82+y[a] 23	(13$^+$)	C	
1425.34+y[m] 20	(15$^-$)	C	B(M1,249.0)/B(E2,480.1)=0.69 *6* μ_N^2/(eb)^2.
1446.4+y[g] 7	(12$^+$)	C	B(M1,232.9)/B(E2,450.0)=0.85 *32* μ_N^2/(eb)^2.
1467.3+y[q] 3	(15$^-$)	C	B(M1,345.9)/B(E2,476.8)=0.39 *3* μ_N^2/(eb)^2.
1473.06+y[#] 21	(14$^+$)	C	B(M1,253.2)/B(E2,494.0)=0.30 *5* μ_N^2/(eb)^2.
1487.5+y[s] 4	(13$^-$)	C	
1528.6+y[r] 3		C	
1534.73+y[&] 22	(14$^+$)	C	B(M1,127.7)/B(E2,277.5)=0.37 *7* μ_N^2/(eb)^2.
1547.8+y[j] 5	(15$^+$)	C	B(M1,272.5)/B(E2,525.8)=0.54 *14* μ_N^2/(eb)^2.
1611.5+y[o] 3	(15$^-$)	C	
1629.2+y[b] 3	(14$^+$)	C	
1634.3+y[f] 7	(13$^+$)	C	B(M1,246.3)/B(E2,474.2)=0.37 *22* μ_N^2/(eb)^2.
1665.6+y[k] 4		C	
1671.0+y[p] 3	(16$^-$)	C	
1691.06+y[l] 20	(16$^-$)	C	B(M1,265.7)/B(E2,514.7)=0.63 *7* μ_N^2/(eb)^2.
1691.9+y[h] 7	(13$^+$)	C	B(M1,245.6)/B(E2,478.1)=0.67 *34* μ_N^2/(eb)^2.
1705.9+y[t] 4		C	
1727.65+y[a] 21	(15$^+$)	C	B(M1,192.9)/B(E2,321.0)=0.51 *13* μ_N^2/(eb)^2.
1750.01+y[@] 22	(15$^+$)	C	B(M1,277.1)/B(E2,530.1)=0.34 *20* μ_N^2/(eb)^2.
1756.8+y[r] 4		C	
1824.4+y[d] 4	(15$^+$)	C	
1837.6+y[n] 3	(16$^-$)	C	B(M1,226.0)/B(E2,436.1)=0.39 *7* μ_N^2/(eb)^2.
1837.7+y[i] 5	(16$^+$)	C	B(M1,290.0)/B(E2,562.2)=0.46 *27* μ_N^2/(eb)^2.
1861.6+y[s] 4	(15$^-$)	C	
1892.8+y[e] 7	(14$^+$)	C	
1903.7+y[c] 4	(15$^+$)	C	
1913.26+y[&] 22	(16$^+$)	C	B(M1,185.7)/B(E2,378.5)=0.28 *4* μ_N^2/(eb)^2.
1921.8+y[k] 4		C	
1951.4+y[g] 7	(14$^+$)	C	B(M1,259.3)/B(E2,505.0)=0.73 *29* μ_N^2/(eb)^2.
1972.60+y[m] 21	(17$^-$)	C	B(M1,281.7)/B(E2,547.2)=0.47 *6* μ_N^2/(eb)^2.
2019.90+y[#] 25	(16$^+$)	C	B(M1,269.8)/B(E2,546.9)=0.23 *6* μ_N^2/(eb)^2.
2034.6+y[q] 3	(17$^-$)	C	B(M1,363.6)/B(E2,567.3)=0.46 *4* μ_N^2/(eb)^2.
2056.0+y[r] 4		C	
2079.9+y[o] 3	(17$^-$)	C	B(M1,242.3)/B(E2,468.5)=0.39 *14* μ_N^2/(eb)^2.
2142.8+y[j] 5	(17$^+$)	C	B(M1,305.0)/B(E2,595.1)=0.79 *48* μ_N^2/(eb)^2.
2157.29+y[a] 22	(17$^+$)	C	B(M1,244.1)/B(E2,429.6)=0.67 *15* μ_N^2/(eb)^2.
2167.9+y[f] 7	(15$^+$)	C	
2181.9+y[t] 5		C	
2182.7+y[k] 5		C	
2200.7+y[b] 5	(16$^+$)	C	
2223.1+y[h] 7	(15$^+$)	C	
2268.84+y[l] 22	(18$^-$)	C	B(M1,296.2)/B(E2,577.8)=0.60 *12* μ_N^2/(eb)^2.
2307.3+y[s] 4	(17$^-$)	C	
2310.0+y[@] 3	(17$^+$)	C	B(M1,290.1)/B(E2,559.8)=0.29 *13* μ_N^2/(eb)^2.

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Adopted Levels, Gammas (continued)

^{178}Ir Levels (continued)

E(level)†	Jπ‡	XREF	Comments
2312.7+y[p] 3	(18⁻)	C	
2337.7+y[n] 4	(18⁻)	C	
2359.8+y[d] 4	(17⁺)	C	
2370.1+y[r] 4		C	
2376.75+y[&] 23	(18⁺)	C	B(M1,219.5)/B(E2,463.5)=0.35 3 μ_N^2/(eb)^2.
2451.9+y[e] 8	(16⁺)	C	
2462.6+y[i] 6	(18⁺)	C	
2467.2+y[k] 5		C	
2475.6+y[c] 4	(17⁺)	C	
2509.9+y[g] 7	(16⁺)	C	
2580.81+y[m] 23	(19⁻)	C	B(M1,312.1)/B(E2,608.2)=0.47 9 μ_N^2/(eb)^2.
2609.7+y[o] 4	(19⁻)	C	
2612.1+y[#] 4	(18⁺)	C	B(M1,302.0)/B(E2,592.2)=0.27 16 μ_N^2/(eb)^2.
2636.1+y[r] 5		C	
2649.64+y[a] 24	(19⁺)	C	B(M1,273.0)/B(E2,492.3)=0.49 5 μ_N^2/(eb)^2.
2681.0+y[q] 4	(19⁻)	C	
2692.4+y[t] 6		C	
2745.4+y[k] 5		C	
2754.5+y[b] 6	(18⁺)	C	
2755.4+y[f] 8	(17⁺)	C	
2795.4+y[j] 6	(19⁺)	C	
2799.6+y[h] 8	(17⁺)	C	
2817.1+y[s] 4	(19⁻)	C	
2881.2+y[d] 5	(19⁺)	C	
2895.7+y[n] 5	(20⁻)	C	
2906.6+y[l] 3	(20⁻)	C	B(M1,325.9)/B(E2,637.7)=0.55 11 μ_N^2/(eb)^2.
2908.23+y[&] 24	(20⁺)	C	B(M1,258.7)/B(E2,531.5)=0.29 5 μ_N^2/(eb)^2.
2926.3+y[@] 4	(19⁺)	C	
3001.2+y[c] 5	(19⁺)	C	
3025.4+y[p] 4	(20⁻)	C	
3049.6+y[e] 8	(18⁺)	C	
3051.3+y[k] 5		C	
3107.6+y[g] 8	(18⁺)	C	
3142.3+y[i] 7	(20⁺)	C	
3197.0+y[o] 5	(21⁻)	C	
3205.87+y[a] 25	(21⁺)	C	B(M1,297.7)/B(E2,556.2)=0.46 10 μ_N^2/(eb)^2.
3229.1+y[r] 6		C	
3247.6+y[#] 5	(20⁺)	C	
3248.6+y[m] 3	(21⁻)	C	B(M1,342.1)/B(E2,667.8)=0.50 16 μ_N^2/(eb)^2.
3265.1+y[t] 7		C	
3385.8+y[s] 4	(21⁻)	C	
3392.9+y[q] 4	(21⁻)	C	
3394.4+y[h] 8	(19⁺)	C	
3453.9+y[d] 6	(21⁺)	C	
3501.0+y[&] 3	(22⁺)	C	B(M1,295.0)/B(E2,502.8)=0.34 8 μ_N^2/(eb)^2.
3501.8+y[j] 7	(21⁺)	C	
3510.0+y[n] 6	(22⁻)	C	
3560.1+y[c] 6	(21⁺)	C	

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Adopted Levels, Gammas (continued)

^{178}Ir Levels (continued)

E(level)[†]	Jπ[‡]	XREF	Comments
3587.0+y[@] 5	(21+)	C	
3603.8+y[l] 3	(22−)	C	B(M1,355.0)/B(E2,697.2)=0.54 *31* μ_N^2/(eb)^2.
3787.7+y[p] 4	(22−)	C	
3821.8+y[a] 3	(23+)	C	B(M1,321.0)/B(E2,615.9)=0.38 *10* μ_N^2/(eb)^2.
3838.9+y[o] 6	(23−)	C	
3852.8+y[r] 7		C	
3876.1+y[i] 7	(22+)	C	
3899.6+y[t] 7		C	
3929.3+y[#] 6	(22+)	C	
3975.3+y[m] 3	(23−)	C	B(M1,371.3)/B(E2,726.7)=0.77 *44* μ_N^2/(eb)^2.
4013.8+y[s] 4	(23−)	C	
4095.1+y[d] 7	(23+)	C	
4147.6+y[q] 4	(23−)	C	
4151.2+y[&] 3	(24+)	C	B(M1,329.8)/B(E2,650.1)=0.38 *13* μ_N^2/(eb)^2.
4177.9+y[n] 7	(24−)	C	
4262.4+y[j] 7	(23+)	C	
4271.8+y 6		C	
4358.4+y[l] 4	(24−)	C	
4497.1+y[a] 4	(25+)	C	B(M1,346.0)/B(E2,675.3)=0.40 *16* μ_N^2/(eb)^2.
4506.5+y[r] 7		C	
4533.7+y[o] 7	(25−)	C	
4575.9+y[p] 5	(24−)	C	
4578.2+y[t] 8		C	
4663.2+y[i] 8	(24+)	C	
4695.6+y[s] 5	(25−)	C	
4756.9+y[m] 4	(25−)	C	
4798.5+y[d] 7	(25+)	C	
4858.4+y[&] 5	(26+)	C	
4898.4+y[n] 7	(26−)	C	
5074.7+y[j] 8	(25+)	C	
5164.8+y[l] 5	(26−)	C	
5196.5+y[r] 8		C	
5232.0+y[a] 5	(27+)	C	
5279.2+y[t] 8		C	
5279.6+y[o] 7	(27−)	C	
5404.3+y[p] 6	(26−)	C	
5431.0+y[s] 6	(27−)	C	
5498.6+y[i] 8	(26+)	C	
5556.4+y[d] 8	(27+)	C	
5589.4+y[m] 5	(27−)	C	
5622.3+y[&] 6	(28+)	C	
5668.7+y[n] 8	(28−)	C	
6017.8+y[l] 6	(28−)	C	
6024.7+y[a] 6	(29+)	C	
6073.4+y[o] 8	(29−)	C	
6209.9+y[s] 7	(29−)	C	
6357.5+y[d] 8	(29+)	C	
6442.2+y[&] 6	(30+)	C	

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Adopted Levels, Gammas (continued)

^{178}Ir Levels (continued)

E(level)†	Jπ‡	XREF	E(level)†	Jπ‡	XREF	E(level)†	Jπ‡	XREF
6454.6+y[m] *6*	(29⁻)	C	7039.6+y[s] *8*	(31⁻)	C	8235.7+y[&] *10*	(34⁺)	C
6486.9+y[n] *8*	(30⁻)	C	7194.3+y[d] *9*	(31⁺)	C	8703.8+y[a] *10*	(35⁺)	C
6871.4+y[a] *6*	(31⁺)	C	7314.6+y[&] *8*	(32⁺)	C	9200.7+y[&] *11*	(36⁺)	C
6913.4+y?[o] *9*	(31⁻)	C	7766.8+y[a] *8*	(33⁺)	C			

† The level energies are from a least-squares adjustment to the adopted γ-ray energies.
‡ Spin and parity assignments are based on multipolarities of the linking gamma transitions, rotational band arguments, and assuming increasing J with increasing level energy (2003Ho03).
# Band(A): Band A0. $\pi h_{11/2}9/2^-[514]\otimes\nu 5/2^-[512]$ α=0.
@ Band(a): Band A1. $\pi h_{11/2}9/2^-[514]\otimes\nu 5/2^-[512]$ α=1.
& Band(B): Band B0. $\pi i_{13/2}1/2^+[660]\otimes\nu i_{13/2}7/2^+[633]$ α=0.
a Band(b): Band B1. $\pi i_{13/2}1/2^+[660]\otimes\nu i_{13/2}7/2^+[633]$ α=1.
b Band(C): Band C0. $\pi h_{9/2}1/2^-[541]\otimes\nu 5/2^-[512]$ α=0.
c Band(c): Band C1. $\pi h_{9/2}1/2^-[541]\otimes\nu 5/2^-[512]$ α=1.
d Band(D): Band D. $\pi h_{9/2}1/2^-[541]\otimes\nu 1/2^-[521]$ α=1. Favored doubly-decoupled band.
e Band(E): Band E0. $\pi h_{11/2}\otimes\nu 1/2^-[521]$ α=0.
f Band(e): Band E1. $\pi h_{11/2}\otimes\nu 1/2\mp[521]$ α=1.
g Band(F): Band F0. $\pi h_{11/2}\otimes\nu 7/2^-[514]$ α=0.
h Band(f): Band F1. $\pi h_{11/2}\otimes\nu 7/2^-[514]$ α=1.
i Band(G): Band G0. $\pi 5/2^+[402]\otimes\nu i_{13/2}$ α=0.
j Band(g): Band G1. $\pi 5/2^+[402]\otimes\nu i_{13/2}$ α=1.
k Band(H): Band H. Suggested configurations are either $\pi 5/2^+[402]\otimes(\nu i_{13/2})^2\otimes\nu 5/2^-[512]$ or $\pi 5/2^+[402]\otimes(\nu i_{13/2})^2\otimes\nu 1/2^-[521]$.
l Band(I): Band I0. $\pi h_{11/2}9/2^-[514]\otimes\nu i_{13/2}7/2^+[633]$ α=0.
m Band(i): Band I1. $\pi h_{11/2}9/2^-[514]\otimes\nu i_{13/2}7/2^+[633]$ α=1.
n Band(J): Band J0. $\pi i_{13/2}\otimes\nu 5/2^-[512]$ α=0.
o Band(j): Band J1. $\pi i_{13/2}\otimes\nu 5/2^-[512]$ α=1.
p Band(K): Band K0. $\pi h_{9/2}1/2^-[541]\otimes\nu i_{13/2}7/2^+[633]$ α=0.
q Band(k): Band K1. $\pi h_{9/2}1/2^-[541]\otimes\nu i_{13/2}7/2^+[633]$ α=1.
r Band(L): Band L. $\pi h_{9/2}1/2^-[541]\otimes\nu 7/2^-[514]$.
s Band(M): Band M. $\pi i_{13/2}1/2^+[660]\otimes\nu 1/2^-[521]$ α=1.
t Band(N): Band N. Unknown configuration.

Adopted Levels, Gammas (continued)

γ(^{178}Ir)

Mixing ratios and DCO values from 2003Ho03 (see (HI,xnγ) dataset for definition).

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[‡]	δ[#]	α[&]	Comments
54.4	(2$^+$)	54.4 *5*	100	0.0					E_γ: from ^{192}Au α decay (1995Bi01). 1993Me13 quote E=55.0 keV from ^{178}Pt ε decay.
81.8+x	[5$^+$,6$^+$,7$^+$]	81.8 *3*	100	0.0+x		M1(+E2)		10.81 *22*	α_T(exp)=19 *10* (2003Ho03).
140.1+y	(6$^+$)	101.0 *3*	100	39.1+y		M1(+E2)		5.2 *8*	α_T(exp)=9 *4* (2003Ho03). Theory: α_T(M1)=5.95, α_T(E2)=4.43.
140.50+y	(8$^-$)	140.5 *1*	100	0.0+y	(7$^+$)	E1(+M2)	−0.07 *7*	0.24 *22*	B(E1)(W.u.)<1.8×10^{-5}; B(M2)(W.u.)<62 DCO=0.70 *6*. Theory: α_T(E1)=0.167, α_T(M2)=15.32. 2003Ho03 calculate a hindrance factor of ≥4.0x10^4 for this transition, compared to the Weisskopf estimate. Mult.: From the isomeric character of the 140.5 keV level, intensity balance, and DCO ratio (2003Ho03).
150.6+y	(5$^+$)	111.5 *3*	100	39.1+y		M1(+E2)		3.7 *8*	α_T(exp)=7 *3* (2003Ho03). Theory: α_T(M1)=4.48, α_T(E2)=2.97.
160.64+y	(8$^+$)	160.7 *3*	100	0.0+y	(7$^+$)				DCO=0.78 *10*.
206.5+y	(7$^+$)	171.4 *2*	100	35.1+y	(5$^+$)				DCO=0.85 *9*.
228.6+y	(7$^+$)	88.4 *3*	100	140.1+y	(6$^+$)				DCO=0.55 *31*.
250.69+y	(9$^-$)	110.2 *1*	100	140.50+y	(8$^-$)				DCO=0.88 *12*.
280.8+y	(6$^+$)	130.2 *2*	100	150.6+y	(5$^+$)				
340.23+y	(9$^+$)	179.6 *1*	100	160.64+y	(8$^+$)	M1+E2	+0.26 *11*	1.12 *4*	DCO=0.82 *11*. Theory: α_T(M1)=1.16, α_T(E2)=0.50.
		340.2 *2*	42 *11*	0.0+y	(7$^+$)				DCO=0.98 *11*.
345.8+y	(8$^+$)	117.2 *2*	100	228.6+y	(7$^+$)				DCO=0.59 *27*.
		139.2 *5*		206.5+y	(7$^+$)				
		205.7 *3*	47 *19*	140.1+y	(6$^+$)				
359.1+y	(9$^-$)	109.6 *1*	100	249.4+y	(8$^-$)				DCO=0.47 *17*.
386.95+y	(10$^-$)	136.2 *1*	100	250.69+y	(9$^-$)				DCO=0.73 *7*.
		246.4 *3*	12 *5*	140.50+y	(8$^-$)				
397.71+y	(10$^-$)	38.6 *5*	100	359.1+y	(9$^-$)				
		146.8 *3*	24 *10*	250.69+y	(9$^-$)	M1(+E2)		1.5 *5*	α_T(exp)=1.0 *6* (2003Ho03). Theory: α_T(M1)=2.05, α_T(E2)=1.03.
		148.3 *2*	100	249.4+y	(8$^-$)				
429.9+y	(7$^+$)	149.1 *3*	100	280.8+y	(6$^+$)				
		279.2 *3*	39 *16*	150.6+y	(5$^+$)				
484.8+y	(9$^+$)	139.0 *3*	14 *5*	345.8+y	(8$^+$)	M1(+E2)		1.8 *6*	α_T(exp)=2.4 *9* (2003Ho03). Theory: α_T(M1)=2.39, α_T(E2)=1.27.
		278.3 *1*	100	206.5+y	(7$^+$)				DCO=1.02 *13*.
501.0+y	(9$^+$)	155.2 *2*	62 *15*	345.8+y	(8$^+$)	M1+E2	−0.20 *18*	1.71 *9*	DCO=0.44 *11*. Theory: α_T(M1)=1.75, α_T(E2)=0.842.

$^{178}_{77}Ir_{101}$-7

Adopted Levels, Gammas (continued)

γ(^{178}Ir) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[‡]	δ[#]	α[&]	Comments
501.0+y	(9$^+$)	272.4 *1*	100	228.6+y	(7$^+$)				
		294.4 *3*	15 *6*	206.5+y	(7$^+$)				
537.94+y	(10$^+$)	197.7 *1*	100	340.23+y	(9$^+$)				
		377.3 *1*	97 *27*	160.64+y	(8$^+$)				
546.71+y	(11$^-$)	159.9 *1*	100	386.95+y	(10$^-$)				DCO=0.76 *7*.
		296.3 *3*	23 *6*	250.69+y	(9$^-$)				
566.1+y		316.7 *3*	100	249.4+y	(8$^-$)				
574.4+y	(11$^+$)	187.5[b] *3*	100	386.95+y	(10$^-$)				This γ ray has been placed tentatively as connecting the band G bandhead to the (10$^-$) state in band I (2003Ho03).
588.1+y	(8$^+$)	158.1 *2*	100	429.9+y	(7$^+$)				
		307.7 *3*	35 *14*	280.8+y	(6$^+$)				
610.8+y	(8$^+$)	181.0 *3*	100	429.9+y	(7$^+$)	M1(+E2)		0.8 *4*	α_T(exp)=1.2 *4* (2003Ho03). Theory: α_T(M1)=1.13, α_T(E2)=0.487.
		329.9 *3*	39 *16*	280.8+y	(6$^+$)				
614.5+y	(11$^-$)	216.8 *2*	100	397.71+y	(10$^-$)	M1+E2	−0.16 *14*	0.68 *3*	DCO=0.46 *9*. Theory: α_T(M1)=0.686, α_T(E2)=0.263.
		255.4 *3*	26 *11*	359.1+y	(9$^-$)				
675.7+y	(10$^+$)	175.0 *3*	38 *15*	501.0+y	(9$^+$)				
		191.0 *3*	13 *5*	484.8+y	(9$^+$)				
		329.8 *2*	100	345.8+y	(8$^+$)				
689.13+y	(12$^-$)	74.7 *3*	4.0 *16*	614.5+y	(11$^-$)				
		291.4 *1*	100	397.71+y	(10$^-$)				DCO=1.05 *17*.
		302.4 *3*	0.27 *10*	386.95+y	(10$^-$)				
735.06+y	(12$^-$)	188.8 *1*	100	546.71+y	(11$^-$)	M1+E2	+0.19 *6*	0.987 *20*	DCO=0.76 *6*. Theory: α_T(M1)=1.01, α_T(E2)=0.420.
		347.9 *1*	43 *11*	386.95+y	(10$^-$)				
751.32+y	(11$^+$)	213.4 *1*	71 *18*	537.94+y	(10$^+$)				DCO=0.78 *24*.
		411.1 *1*	100	340.23+y	(9$^+$)				DCO=0.98 *27*.
755.2+y	(10$^+$,11$^+$)	189.0 *3*	100	566.1+y					
		396.1 *3*	91 *36*	359.1+y	(9$^-$)				
758.7+y	(9$^+$)	170.7 *3*	100	588.1+y	(8$^+$)				
		328.7 *3*	62 *24*	429.9+y	(7$^+$)				
787.95+y		537.3 *2*	100	250.69+y	(9$^-$)				
788.5+y	(12$^+$)	214.1 *3*	100	574.4+y	(11$^+$)				
794.2+y	(9$^+$)	183.3 *3*	100	610.8+y	(8$^+$)				
		364.3 *3*	16 *7*	429.9+y	(7$^+$)				
843.2+y		445.5 *3*	100	397.71+y	(10$^-$)				
860.4+y	(11$^+$)	184.9 *3*	3.1 *12*	675.7+y	(10$^+$)				DCO=0.71 *28*.
		359.3 *3*	5.5 *23*	501.0+y	(9$^+$)				
		375.6 *1*	100	484.8+y	(9$^+$)				DCO=1.01 *7*.
884.7+y	(11$^+$)	209.0 *2*	38 *15*	675.7+y	(10$^+$)				DCO=0.61 *13*.

Adopted Levels, Gammas (continued)

γ(^{178}Ir) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[‡]	α[&]	Comments
884.7+y	(11$^+$)	383.7 *1*	100	501.0+y	(9$^+$)			DCO=1.05 *21*.
915.7+y		127.9 *3*	43 *17*	787.95+y		M1(+E2)	2.4 *7*	α_T(exp)=2.5 *15* (2003Ho03). Theory: α_T(M1)=3.03, α_T(E2)=1.74.
		528.7 *3*	100	386.95+y	(10$^-$)			
933.6+y		574.5 *3*	100	359.1+y	(9$^-$)			
945.16+y	(13$^-$)	210.3 *1*	100	735.06+y	(12$^-$)			DCO=0.72 *14*.
		398.2 *1*	89 *23*	546.71+y	(11$^-$)			DCO=0.86 *10*.
949.0+y	(10$^+$)	190.4 *3*	100	758.7+y	(9$^+$)			
		360.8 *3*	78 *32*	588.1+y	(8$^+$)			
979.07+y	(12$^+$)	227.9 *2*	49 *13*	751.32+y	(11$^+$)			DCO=1.06 *31*.
		441.1 *2*	100	537.94+y	(10$^+$)			DCO=0.86 *14*.
990.6+y	(13$^-$)	301.5 *2*	100	689.13+y	(12$^-$)			DCO=0.40 *3*.
		376.0 *3*	51 *13*	614.5+y	(11$^-$)			
996.4+y	(10$^+$)	202.2 *3*	100	794.2+y	(9$^+$)			
		385.6 *3*	62 *25*	610.8+y	(8$^+$)			
1022.0+y	(13$^+$)	233.5 *2*	95 *24*	788.5+y	(12$^+$)			
		447.5 *2*	100	574.4+y	(11$^+$)			
1092.1+y		248.8 *3*	65 *25*	843.2+y				
		337.0 *3*	85 *35*	755.2+y	(10$^+$,11$^+$)			
		477.7 *3*	100	614.5+y	(11$^-$)			
1110.3+y	(12$^+$)	225.7 *3*	22 *9*	884.7+y	(11$^+$)			
		434.6 *2*	100	675.7+y	(10$^+$)			DCO=1.06 *26*.
1121.4+y	(14$^-$)	130.9 *3*	2.0 *9*	990.6+y	(13$^-$)			
		432.3 *1*	100	689.13+y	(12$^-$)			DCO=1.10 *6*.
1160.0+y	(11$^+$)	211.1 *3*	33 *13*	949.0+y	(10$^+$)			
		401.3 *3*	100	758.7+y	(9$^+$)			
1164.0+y		248.3 *2*	100	915.7+y				
1176.42+y	(14$^-$)	231.3 *1*	85 *21*	945.16+y	(13$^-$)			DCO=0.78 *15*.
		441.4 *1*	100	735.06+y	(12$^-$)			DCO=0.90 *24*.
1184.9+y	(11$^-$)	251.3 *3*		933.6+y				
		296.4 *3*		888.5+y				
		429.7 *3*		755.2+y	(10$^+$,11$^+$)			
		618.8 *3*		566.1+y				
1210.2+y	(13$^-$)	175.1 *3*		1034.9+y	(12$^-$)			
		663.6 *3*		546.71+y	(11$^-$)			
1213.7+y	(11$^+$)	217.4 *3*	100	996.4+y	(10$^+$)			
		419.5 *3*	91 *37*	794.2+y	(9$^+$)			
1219.82+y	(13$^+$)	240.7 *2*	36 *9*	979.07+y	(12$^+$)			DCO=1.03 *28*.
		468.5 *1*	100	751.32+y	(11$^+$)			DCO=1.03 *20*.
1237.5+y		394.3 *3*	18 *7*	843.2+y				
		548.3 *2*	100	689.13+y	(12$^-$)			
1256.8+y		642.2 *3*	100	614.5+y	(11$^-$)			
1257.39+y	(12$^+$)	96.5 *3*	100	1161.0+y	(11$^+$)			

$^{178}_{77}Ir_{101}$-9

Adopted Levels, Gammas (continued)

γ(^{178}Ir) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[‡]	α[&]	Comments
1257.39+y	(12$^+$)	372.9 *3*	21 *8*	884.7+y	(11$^+$)			
1275.4+y	(14$^+$)	253.5 *3*	46 *18*	1022.0+y	(13$^+$)			
		486.8 *2*	100	788.5+y	(12$^+$)			
1312.6+y	(13$^+$)	427.8 *3*	8.4 *37*	884.7+y	(11$^+$)			
		452.2 *2*	100	860.4+y	(11$^+$)			DCO=1.21 *10*.
1354.6+y	(13$^+$)	244.1 *3*	28 *11*	1110.3+y	(12$^+$)			
		470.0 *2*	100	884.7+y	(11$^+$)			DCO=1.08 *20*.
1388.0+y	(12$^+$)	228.2 *3*	52 *21*	1160.0+y	(11$^+$)			
		438.9 *3*	100	949.0+y	(10$^+$)			
1401.4+y	(14$^-$)	191.1 *3*		1210.2+y	(13$^-$)			
		366.7 *3*		1034.9+y	(12$^-$)			
		712.3 *3*		689.13+y	(12$^-$)			
1405.7+y		241.7 *3*	100	1164.0+y				
		489.9 *3*	53 *23*	915.7+y				
1406.82+y	(13$^+$)	149.3 *1*	100	1257.39+y	(12$^+$)			
		245.8 *3*		1161.0+y	(11$^+$)			
		522.0 *2*	41 *10*	884.7+y	(11$^+$)			
1425.34+y	(15$^-$)	249.0 *2*	60 *15*	1176.42+y	(14$^-$)			DCO=0.86 *27*.
		480.1 *2*	100	945.16+y	(13$^-$)			DCO=0.95 *21*.
1446.4+y	(12$^+$)	232.9 *3*	84 *35*	1213.7+y	(11$^+$)			
		450.0 *2*	100	996.4+y	(10$^+$)			
1467.3+y	(15$^-$)	345.9 *2*	95 *23*	1121.4+y	(14$^-$)			DCO=0.51 *9*.
		476.8 *2*	100	990.6+y	(13$^-$)			DCO=1.13 *27*.
1473.06+y	(14$^+$)	253.2 *3*	24 *9*	1219.82+y	(13$^+$)			DCO=1.26 *44*.
		494.0 *1*	100	979.07+y	(12$^+$)			
1487.5+y	(13$^-$)	302.6 *2*	100	1184.9+y	(11$^-$)			DCO=0.95 *25*.
		798.5 *3*	27 *11*	689.13+y	(12$^-$)			
1528.6+y		291.1 *3*		1237.5+y				
		436.5 *3*	100	1092.1+y				
		538.0 *3*	50 *20*	990.6+y	(13$^-$)			
1534.73+y	(14$^+$)	127.7 *1*	68 *17*	1406.82+y	(13$^+$)			
		180.0 *3*	6.8 *27*	1354.6+y	(13$^+$)	M1(+E2)	0.8 *4*	DCO=0.68 *15*. α_T(exp)=1.0 *3* (2003Ho03). Theory: α_T(M1)=1.15, α_T(E2)=0.496.
		277.5 *1*	100	1257.39+y	(12$^+$)			
		315.0 *3*	7.1 *29*	1219.82+y	(13$^+$)			
		424.6 *3*	9.0 *37*	1110.3+y	(12$^+$)	(E2)	0.0359	DCO=0.91 *36*.
1547.8+y	(15$^+$)	272.5 *3*	39 *16*	1275.4+y	(14$^+$)			
		525.8 *3*	100	1022.0+y	(13$^+$)			
1611.5+y	(15$^-$)	210.2 *3*	100	1401.4+y	(14$^-$)			
		401.4 *3*		1210.2+y	(13$^-$)			
		666.2 *3*		945.16+y	(13$^-$)			
1629.2+y	(14$^+$)	274.5[a] *3*		1354.6+y	(13$^+$)			

$^{178}_{77}Ir_{101}$-10

Adopted Levels, Gammas (continued)

γ(^{178}Ir) (continued)

E_i(level)	J_i^π	E_γ [†]	I_γ [@]	E_f	J_f^π	Mult.[‡]	α[&]	Comments
1629.2+y	(14$^+$)	519.0 *2*	100	1110.3+y	(12$^+$)			
1634.3+y	(13$^+$)	246.3 *3*		1388.0+y	(12$^+$)			
		474.2 *3*		1160.0+y	(11$^+$)			
1665.6+y		260.0 *3*		1405.7+y				
		501.5 *3*	100	1164.0+y				
1671.0+y	(16$^-$)	204.1 *3*		1467.3+y	(15$^-$)			
		549.5 *1*	100	1121.4+y	(14$^-$)			DCO=0.99 *13*.
1691.06+y	(16$^-$)	265.7 *2*	47 *12*	1425.34+y	(15$^-$)			DCO=0.88 *17*.
		514.7 *1*	100	1176.42+y	(14$^-$)			DCO=1.04 *8*.
1691.9+y	(13$^+$)	245.6 *3*	56 *23*	1446.4+y	(12$^+$)			
		478.1 *3*	100	1213.7+y	(11$^+$)			
1705.9+y		449.0 *3*		1256.8+y				
		1016.8 *3*		689.13+y	(12$^-$)			
1727.65+y	(15$^+$)	192.9 *1*	100	1534.73+y	(14$^+$)			
		254.3 *3*	16 *7*	1473.06+y	(14$^+$)			
		321.0 *2*	66 *17*	1406.82+y	(13$^+$)			
		373.2 *3*	4.1 *17*	1354.6+y	(13$^+$)			
		507.9 *1*	95 *26*	1219.82+y	(13$^+$)	(E2)	0.0229	DCO=0.86 *9*.
1750.01+y	(15$^+$)	277.1 *3*	25 *10*	1473.06+y	(14$^+$)			
		530.1 *1*	100	1219.82+y	(13$^+$)			
1756.8+y		519.2 *3*	100	1237.5+y				
		635.2 *3*	78 *31*	1121.4+y	(14$^-$)			
1824.4+y	(15$^+$)	511.8 *2*	100	1312.6+y	(13$^+$)			DCO=1.05 *10*.
1837.6+y	(16$^-$)	226.0 *3*	41 *17*	1611.5+y	(15$^-$)			
		436.1 *2*	100	1401.4+y	(14$^-$)			
1837.7+y	(16$^+$)	290.0 *3*	29 *13*	1547.8+y	(15$^+$)			
		562.2 *3*	100	1275.4+y	(14$^+$)			
1861.6+y	(15$^-$)	374.2 *2*	100	1487.5+y	(13$^-$)			DCO=1.15 *16*.
1892.8+y	(14$^+$)	258.5 *3*		1634.3+y	(13$^+$)			
		504.8 *3*		1388.0+y	(12$^+$)			
1903.7+y	(15$^+$)	274.5[a] *3*		1629.2+y	(14$^+$)			
		549.1 *3*	100	1354.6+y	(13$^+$)			
1913.26+y	(16$^+$)	163.3 *3*	7.2 *29*	1750.01+y	(15$^+$)	M1(+E2)	1.1 *4*	DCO=0.57 *24*. α_T(exp)=1.5 *3* (2003Ho03). Theory: α_T(M1)=1.52, α_T(E2)=0.701.
		185.7 *1*	33 *9*	1727.65+y	(15$^+$)			DCO=0.52 *12*.
		378.5 *1*	100	1534.73+y	(14$^+$)			DCO=1.07 *16*.
		440.3 *3*	1.8 *7*	1473.06+y	(14$^+$)			
1921.8+y		256.2 *3*	100	1665.6+y				
		516.2 *3*		1405.7+y				
1951.4+y	(14$^+$)	259.3 *3*	55 *22*	1691.9+y	(13$^+$)			
		505.0 *3*	100	1446.4+y	(12$^+$)			
1972.60+y	(17$^-$)	281.7 *2*	31 *8*	1691.06+y	(16$^-$)			DCO=0.91 *21*.

$^{178}_{77}Ir_{101}$-11

Adopted Levels, Gammas (continued)

γ(^{178}Ir) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[‡]	δ[#]	α[&]	Comments
1972.60+y	(17$^-$)	547.2 *2*	100	1425.34+y	(15$^-$)				DCO=0.98 *9*.
2019.90+y	(16$^+$)	269.8 *3*	13 *6*	1750.01+y	(15$^+$)				
		546.9 *2*	100	1473.06+y	(14$^+$)				
2034.6+y	(17$^-$)	363.6 *2*	53 *14*	1671.0+y	(16$^-$)				DCO=0.38 *17*.
		567.3 *2*	100	1467.3+y	(15$^-$)				DCO=1.12 *13*.
2056.0+y		527.3 *2*	100	1528.6+y					
		588.9 *3*	29 *11*	1467.3+y	(15$^-$)				
2079.9+y	(17$^-$)	242.3 *3*	36 *14*	1837.6+y	(16$^-$)				
		468.5 *2*	100	1611.5+y	(15$^-$)				
2142.8+y	(17$^+$)	305.0 *3*	43 *17*	1837.7+y	(16$^+$)				
		595.1 *3*	100	1547.8+y	(15$^+$)				
2157.29+y	(17$^+$)	244.1 *1*	94 *24*	1913.26+y	(16$^+$)				DCO=0.51 *8*.
		407.1 *2*	25 *10*	1750.01+y	(15$^+$)				DCO=0.82 *22*.
		429.6 *1*	100	1727.65+y	(15$^+$)				DCO=0.89 *29*.
2167.9+y	(15$^+$)	275.1 *3*		1892.8+y	(14$^+$)				
		533.5 *3*		1634.3+y	(13$^+$)				
2181.9+y		476.0 *3*	100	1705.9+y					
2182.7+y		261.0 *3*		1921.8+y					
		517.0 *3*		1665.6+y					
2200.7+y	(16$^+$)	571.5 *3*	100	1629.2+y	(14$^+$)				
2223.1+y	(15$^+$)	271.6 *3*		1951.4+y	(14$^+$)				
		531.3 *3*		1691.9+y	(13$^+$)				
2268.84+y	(18$^-$)	296.2 *2*	35 *9*	1972.60+y	(17$^-$)				
		577.8 *1*	100	1691.06+y	(16$^-$)				DCO=0.97 *14*.
2307.3+y	(17$^-$)	445.8 *3*	100	1861.6+y	(15$^-$)				DCO=0.86 *22*.
2310.0+y	(17$^+$)	290.1 *3*	19 *9*	2019.90+y	(16$^+$)				
		559.8 *3*	100	1750.01+y	(15$^+$)				DCO=0.91 *21*.
		582.5 *3*	74 *29*	1727.65+y	(15$^+$)				
2312.7+y	(18$^-$)	641.7 *2*	100	1671.0+y	(16$^-$)				DCO=1.11 *17*.
2337.7+y	(18$^-$)	258.0 *3*		2079.9+y	(17$^-$)				
		500.0 *3*	100	1837.6+y	(16$^-$)				
2359.8+y	(17$^+$)	535.4 *2*	100	1824.4+y	(15$^+$)				DCO=1.17 *15*.
2370.1+y		613.2 *3*	100	1756.8+y					
		699.3 *3*	91 *37*	1671.0+y	(16$^-$)				
2376.75+y	(18$^+$)	219.5 *1*	25 *7*	2157.29+y	(17$^+$)	M1+E2	−0.34 *14*	0.62 *4*	DCO=0.38 *6*. Theory: α_T(M1)=0.662, α_T(E2)=0.253.
		463.5 *1*	100	1913.26+y	(16$^+$)				DCO=0.96 *9*.
2451.9+y	(16$^+$)	284.3 *3*		2167.9+y	(15$^+$)				
		559.2 *3*		1892.8+y	(14$^+$)				
2462.6+y	(18$^+$)	624.9 *3*	100	1837.7+y	(16$^+$)				
2467.2+y		284.5 *3*		2182.7+y					
		545.3 *3*		1921.8+y					

$^{178}_{77}Ir_{101}$-12

Adopted Levels, Gammas (continued)

γ(^{178}Ir) (continued)

E_i(level)	J_i^π	E_γ [†]	I_γ [@]	E_f	J_f^π	Comments
2475.6+y	(17$^+$)	572.0 *3*	100	1903.7+y	(15$^+$)	
		651.2 *3*	73 *31*	1824.4+y	(15$^+$)	
2509.9+y	(16$^+$)	286.9 *3*		2223.1+y	(15$^+$)	
		558.4 *3*		1951.4+y	(14$^+$)	
2580.81+y	(19$^-$)	312.1 *3*	25 *10*	2268.84+y	(18$^-$)	DCO=1.20 *51*.
		608.2 *1*	100	1972.60+y	(17$^-$)	DCO=1.13 *20*.
2609.7+y	(19$^-$)	272.0 *3*		2337.7+y	(18$^-$)	
		529.8 *2*	100	2079.9+y	(17$^-$)	
2612.1+y	(18$^+$)	302.0 *3*	15 *7*	2310.0+y	(17$^+$)	
		592.2 *3*	100	2019.90+y	(16$^+$)	
2636.1+y		580.1 *3*	100	2056.0+y		
2649.64+y	(19$^+$)	273.0 *2*	49 *12*	2376.75+y	(18$^+$)	DCO=0.50 *9*.
		492.3 *1*	100	2157.29+y	(17$^+$)	
2681.0+y	(19$^-$)	368.3 *3*	42 *17*	2312.7+y	(18$^-$)	
		646.3 *2*	100	2034.6+y	(17$^-$)	DCO=0.91 *21*.
2692.4+y		510.5 *3*	100	2181.9+y		
2745.4+y		278.2 *3*	100	2467.2+y		
		562.8 *3*		2182.7+y		
2754.5+y	(18$^+$)	553.8 *3*	100	2200.7+y	(16$^+$)	
2755.4+y	(17$^+$)	303.7 *3*		2451.9+y	(16$^+$)	
		587.3 *3*		2167.9+y	(15$^+$)	
2795.4+y	(19$^+$)	652.6 *3*	100	2142.8+y	(17$^+$)	
2799.6+y	(17$^+$)	289.9[b] *3*		2509.9+y	(16$^+$)	
		576.5 *3*		2223.1+y	(15$^+$)	
2817.1+y	(19$^-$)	509.9 *3*	100	2307.3+y	(17$^-$)	DCO=0.90 *16*.
2881.2+y	(19$^+$)	521.4 *2*	100	2359.8+y	(17$^+$)	DCO=1.09 *12*.
2895.7+y	(20$^-$)	558.0 *3*	100	2337.7+y	(18$^-$)	
2906.6+y	(20$^-$)	325.9 *3*	26 *10*	2580.81+y	(19$^-$)	
		637.7 *2*	100	2268.84+y	(18$^-$)	DCO=1.08 *12*.
2908.23+y	(20$^+$)	258.7 *3*	17 *7*	2649.64+y	(19$^+$)	DCO=0.67 *19*.
		531.5 *1*	100	2376.75+y	(18$^+$)	DCO=0.92 *13*.
2926.3+y	(19$^+$)	314.1 *5*		2612.1+y	(18$^+$)	
		616.3 *3*	100	2310.0+y	(17$^+$)	
3001.2+y	(19$^+$)	525.6 *3*	100	2475.6+y	(17$^+$)	
3025.4+y	(20$^-$)	712.8 *3*	100	2312.7+y	(18$^-$)	DCO=0.96 *15*.
3049.6+y	(18$^+$)	597.7 *3*	100	2451.9+y	(16$^+$)	
3051.3+y		306.0 *3*	100	2745.4+y		
		584.0 *3*		2467.2+y		
		681.4[b] *3*		2370.1+y		
3107.6+y	(18$^+$)	308.1[b] *3*		2799.6+y	(17$^+$)	
		597.6 *3*		2509.9+y	(16$^+$)	

$^{178}_{77}Ir_{101}$-13

Adopted Levels, Gammas (continued)

γ(^{178}Ir) (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Comments
3142.3+y	(20$^+$)	679.7 *3*	100	2462.6+y	(18$^+$)	
3197.0+y	(21$^-$)	587.3 *3*	100	2609.7+y	(19$^-$)	
3205.87+y	(21$^+$)	297.7 *2*	33 *13*	2908.23+y	(20$^+$)	
		556.2 *1*	100	2649.64+y	(19$^+$)	DCO=1.07 *24*.
3229.1+y		593.0 *3*	100	2636.1+y		
3247.6+y	(20$^+$)	635.5 *3*	100	2612.1+y	(18$^+$)	
3248.6+y	(21$^-$)	342.1 *3*	22 *9*	2906.6+y	(20$^-$)	
		667.8 *2*	100	2580.81+y	(19$^-$)	DCO=1.08 *20*.
3265.1+y		572.7 *3*	100	2692.4+y		
3385.8+y	(21$^-$)	568.8 *3*	100	2817.1+y	(19$^-$)	DCO=1.07 *28*.
		704.6 *3*	32 *13*	2681.0+y	(19$^-$)	DCO=0.95 *33*.
3392.9+y	(21$^-$)	367.6 *3*	100	3025.4+y	(20$^-$)	
		575.7 *3*		2817.1+y	(19$^-$)	
		711.9 *3*		2681.0+y	(19$^-$)	
3394.4+y	(19$^+$)	594.8 *3*	100	2799.6+y	(17$^+$)	
3453.9+y	(21$^+$)	572.7 *3*	100	2881.2+y	(19$^+$)	DCO=0.98 *14*.
3501.0+y	(22$^+$)	295.0 *3*	17 *7*	3205.87+y	(21$^+$)	
		592.8 *1*	100	2908.23+y	(20$^+$)	
3501.8+y	(21$^+$)	706.4 *3*	100	2795.4+y	(19$^+$)	
3510.0+y	(22$^-$)	614.3 *3*	100	2895.7+y	(20$^-$)	
3560.1+y	(21$^+$)	558.9 *3*	100	3001.2+y	(19$^+$)	
3587.0+y	(21$^+$)	660.7 *3*	100	2926.3+y	(19$^+$)	
3603.8+y	(22$^-$)	355.0 *3*	22 *9*	3248.6+y	(21$^-$)	
		697.2 *2*	100	2906.6+y	(20$^-$)	DCO=1.10 *19*.
3787.7+y	(22$^-$)	762.2 *2*	100	3025.4+y	(20$^-$)	
3821.8+y	(23$^+$)	321.0 *3*	21 *9*	3501.0+y	(22$^+$)	
		615.9 *2*	100	3205.87+y	(21$^+$)	
3838.9+y	(23$^-$)	641.9 *3*	100	3197.0+y	(21$^-$)	
3852.8+y		623.7 *3*	100	3229.1+y		
3876.1+y	(22$^+$)	733.8 *3*	100	3142.3+y	(20$^+$)	
3899.6+y		634.5 *3*	100	3265.1+y		
3929.3+y	(22$^+$)	681.7 *3*	100	3247.6+y	(20$^+$)	
3975.3+y	(23$^-$)	371.3 *3*	28 *11*	3603.8+y	(22$^-$)	
		726.7 *2*	100	3248.6+y	(21$^-$)	DCO=1.10 *22*.
4013.8+y	(23$^-$)	621.0 *3*	21 *8*	3392.9+y	(21$^-$)	
		628.0 *3*	100	3385.8+y	(21$^-$)	
4095.1+y	(23$^+$)	641.2 *3*	100	3453.9+y	(21$^+$)	DCO=1.21 *44*.
4147.6+y	(23$^-$)	359.8 *3*	100	3787.7+y	(22$^-$)	
		754.8 *3*		3392.9+y	(21$^-$)	
4151.2+y	(24$^+$)	329.8 *3*	17 *7*	3821.8+y	(23$^+$)	
		650.1 *2*	100	3501.0+y	(22$^+$)	
4177.9+y	(24$^-$)	667.9 *3*	100	3510.0+y	(22$^-$)	

$^{178}_{77}Ir_{101}$-14

Adopted Levels, Gammas (continued)

γ(^{178}Ir) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Comments
4262.4+y	(23$^+$)	760.6 *3*	100	3501.8+y	(21$^+$)	
4271.8+y		684.8 *5*	100	3587.0+y	(21$^+$)	
4358.4+y	(24$^-$)	383.1 *3*	29 *12*	3975.3+y	(23$^-$)	
		754.6 *3*	100	3603.8+y	(22$^-$)	DCO=1.10 *18*.
4497.1+y	(25$^+$)	346.0 *3*	11 *5*	4151.2+y	(24$^+$)	
		675.3 *2*	100	3821.8+y	(23$^+$)	DCO=0.99 *19*.
4506.5+y		653.7 *3*	100	3852.8+y		
4533.7+y	(25$^-$)	694.8 *3*	100	3838.9+y	(23$^-$)	
4575.9+y	(24$^-$)	788.2 *3*	100	3787.7+y	(22$^-$)	
4578.2+y		678.6 *3*	100	3899.6+y		
4663.2+y	(24$^+$)	787.1 *3*	100	3876.1+y	(22$^+$)	
4695.6+y	(25$^-$)	681.8 *3*	100	4013.8+y	(23$^-$)	
4756.9+y	(25$^-$)	398.5 *3*	31 *13*	4358.4+y	(24$^-$)	
		781.7 *3*	100	3975.3+y	(23$^-$)	
4798.5+y	(25$^+$)	703.4 *3*	100	4095.1+y	(23$^+$)	
4858.4+y	(26$^+$)	707.2 *3*	100	4151.2+y	(24$^+$)	
4898.4+y	(26$^-$)	720.5 *3*	100	4177.9+y	(24$^-$)	
5074.7+y	(25$^+$)	812.3 *3*	100	4262.4+y	(23$^+$)	
5164.8+y	(26$^-$)	806.4 *3*	100	4358.4+y	(24$^-$)	
5196.5+y		690.0 *3*	100	4506.5+y		
5232.0+y	(27$^+$)	734.9 *3*	100	4497.1+y	(25$^+$)	
5279.2+y		701.0 *3*	100	4578.2+y		
5279.6+y	(27$^-$)	745.9 *3*	100	4533.7+y	(25$^-$)	
5404.3+y	(26$^-$)	828.4 *3*	100	4575.9+y	(24$^-$)	
5431.0+y	(27$^-$)	735.4 *3*	100	4695.6+y	(25$^-$)	
5498.6+y	(26$^+$)	835.4 *3*	100	4663.2+y	(24$^+$)	
5556.4+y	(27$^+$)	757.9 *3*	100	4798.5+y	(25$^+$)	
5589.4+y	(27$^-$)	832.5 *3*	100	4756.9+y	(25$^-$)	
5622.3+y	(28$^+$)	763.9 *3*	100	4858.4+y	(26$^+$)	
5668.7+y	(28$^-$)	770.3 *3*	100	4898.4+y	(26$^-$)	
6017.8+y	(28$^-$)	853.0 *3*	100	5164.8+y	(26$^-$)	
6024.7+y	(29$^+$)	792.7 *3*	100	5232.0+y	(27$^+$)	
6073.4+y	(29$^-$)	793.8 *3*	100	5279.6+y	(27$^-$)	
6209.9+y	(29$^-$)	778.9 *3*	100	5431.0+y	(27$^-$)	
6357.5+y	(29$^+$)	801.1 *3*	100	5556.4+y	(27$^+$)	
6442.2+y	(30$^+$)	819.9 *3*	100	5622.3+y	(28$^+$)	
6454.6+y	(29$^-$)	865.2 *3*	100	5589.4+y	(27$^-$)	
6486.9+y	(30$^-$)	818.2 *3*	100	5668.7+y	(28$^-$)	
6871.4+y	(31$^+$)	846.7 *3*	100	6024.7+y	(29$^+$)	
6913.4+y?	(31$^-$)	840.0[b] *5*	100	6073.4+y	(29$^-$)	
7039.6+y	(31$^-$)	829.7 *3*	100	6209.9+y	(29$^-$)	

$^{178}_{77}Ir_{101}$-15

Adopted Levels, Gammas (continued)

$\gamma(^{178}Ir)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π
7194.3+y	(31^+)	836.8 *3*	100	6357.5+y	(29^+)
7314.6+y	(32^+)	872.4 *5*	100	6442.2+y	(30^+)
7766.8+y	(33^+)	895.4 *5*	100	6871.4+y	(31^+)
8235.7+y	(34^+)	921.1 *5*	100	7314.6+y	(32^+)
8703.8+y	(35^+)	937.0 *5*	100	7766.8+y	(33^+)
9200.7+y	(36^+)	965.0 *5*	100	8235.7+y	(34^+)

† from 2003Ho03. Eγ uncertainties assigned by the evaluators based on relevant comments in 2003Ho03.
‡ from (HI,xn) dataset, based on DCO ratios, intensity balances, and/or total conversion coefficients from 2003Ho03.
# Mixing ratios from (HI,xn) (2003Ho03).
@ γ intensity branchings are based on the Iγ data from 2003Ho03.
& 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.
a Multiply placed.
b Placement of transition in the level scheme is uncertain.

$^{178}_{77}Ir_{101}$-16

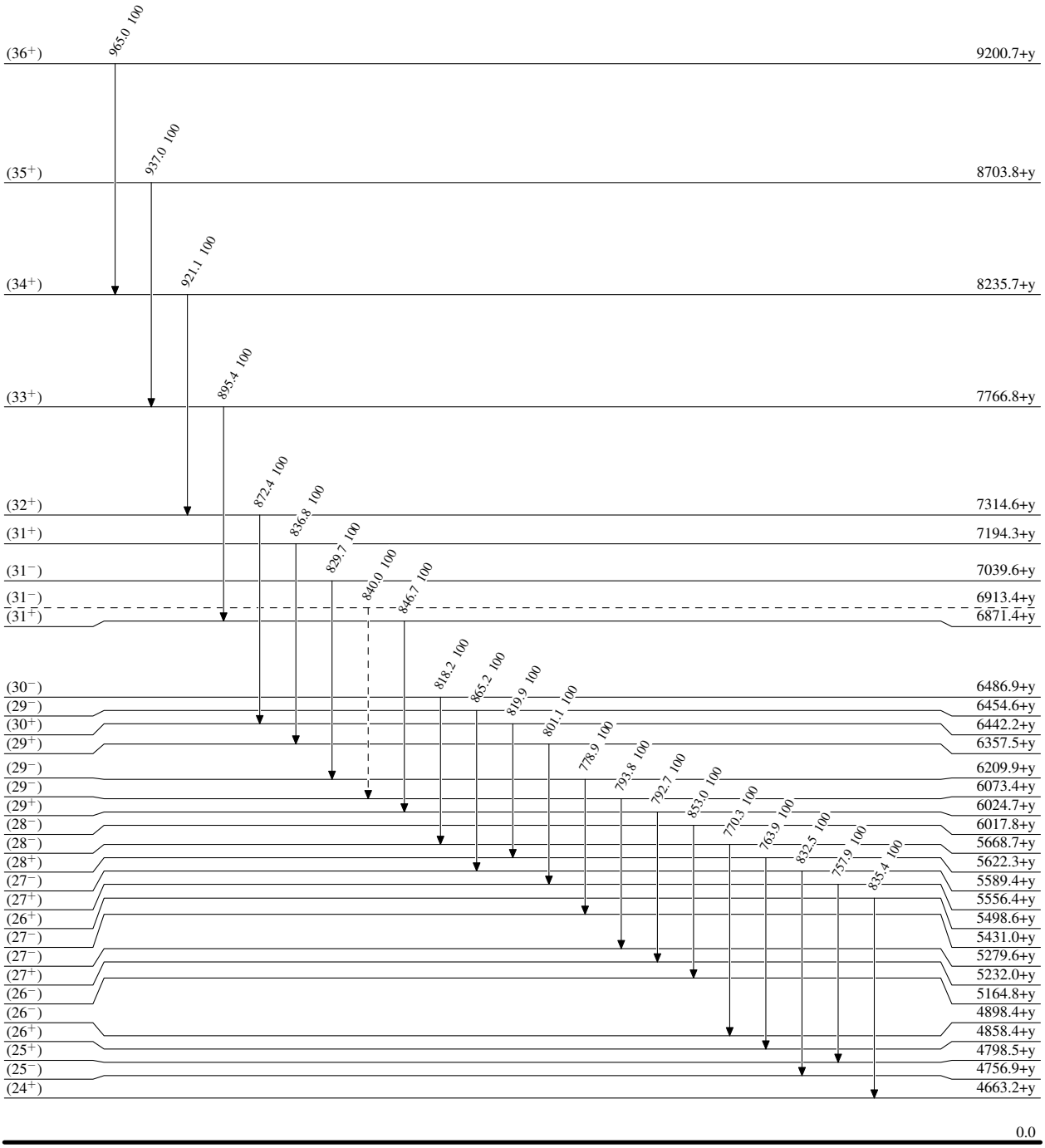
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

- - - - - - ► γ Decay (Uncertain)

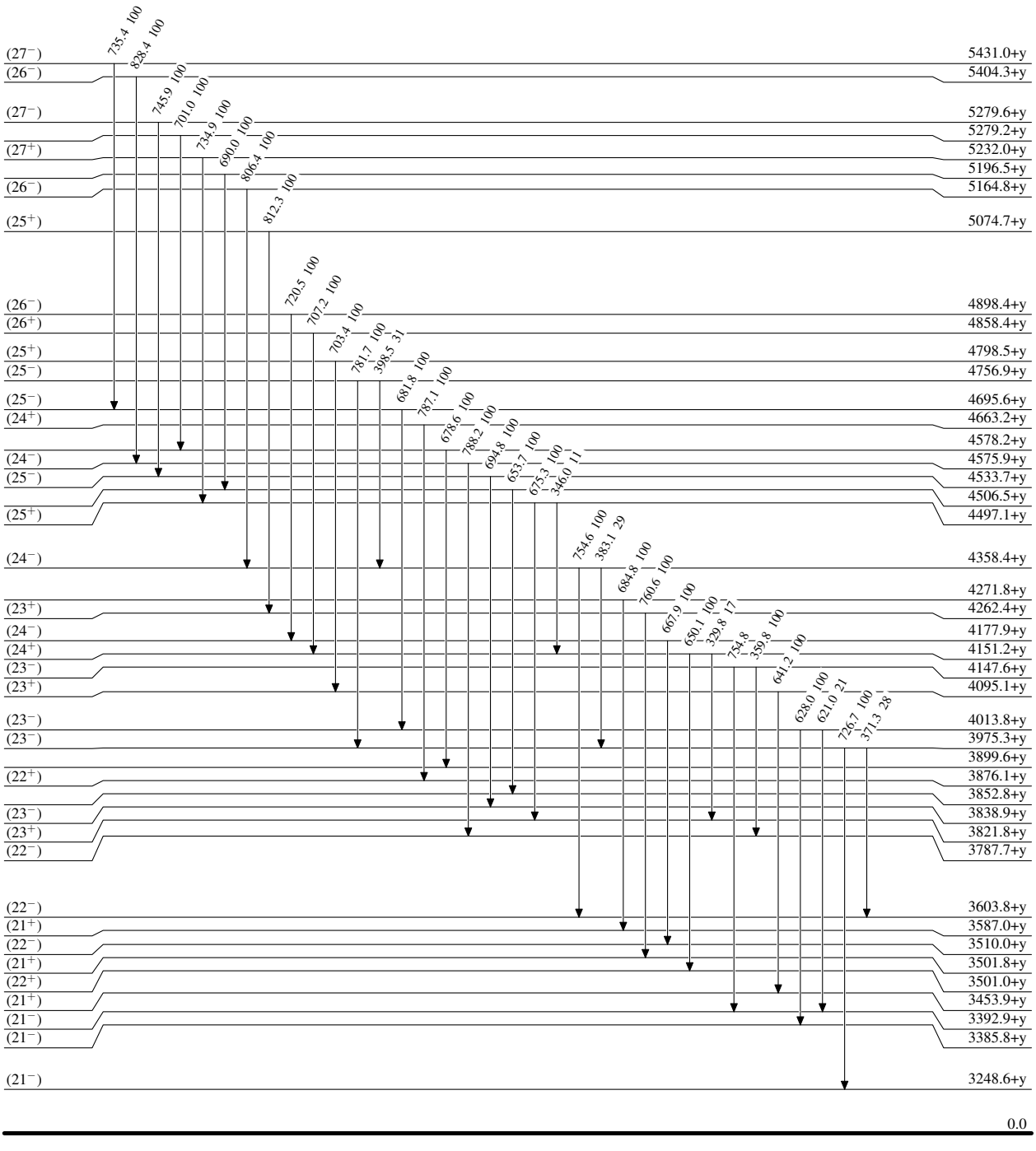


$^{178}_{77}Ir_{101}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

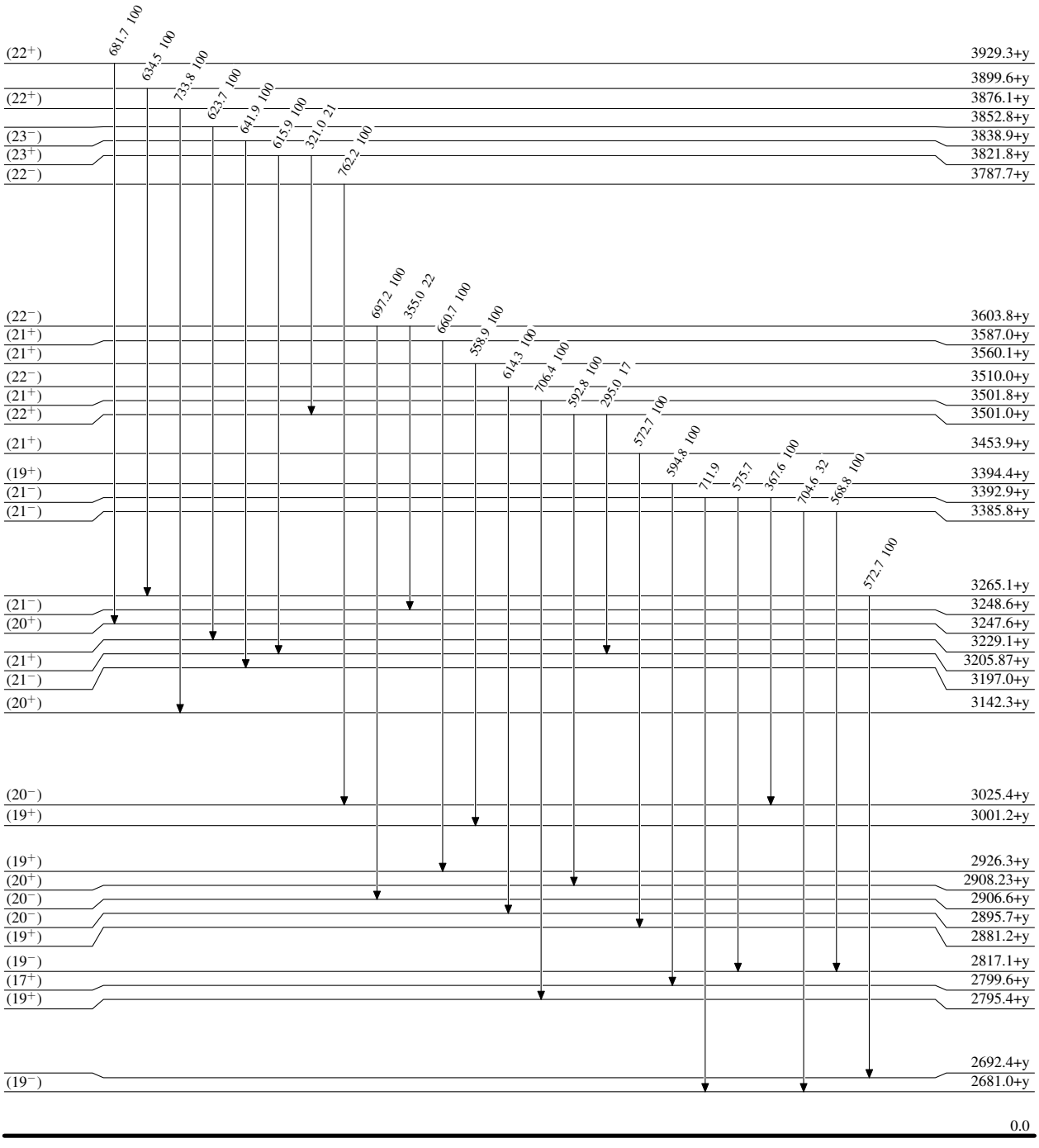


$^{178}_{77}Ir_{101}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{178}_{77}Ir_{101}$

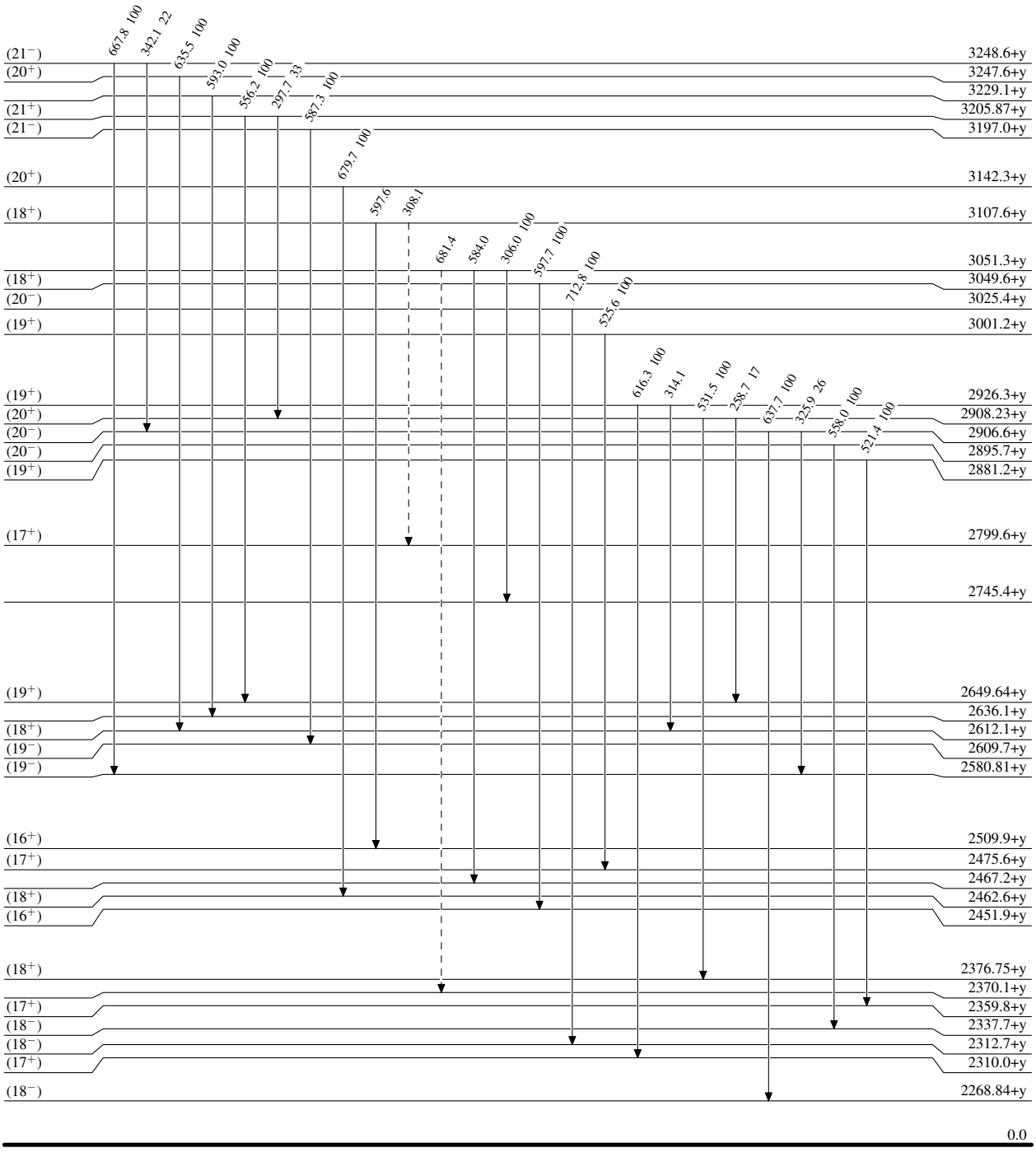
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{178}_{77}Ir_{101}$

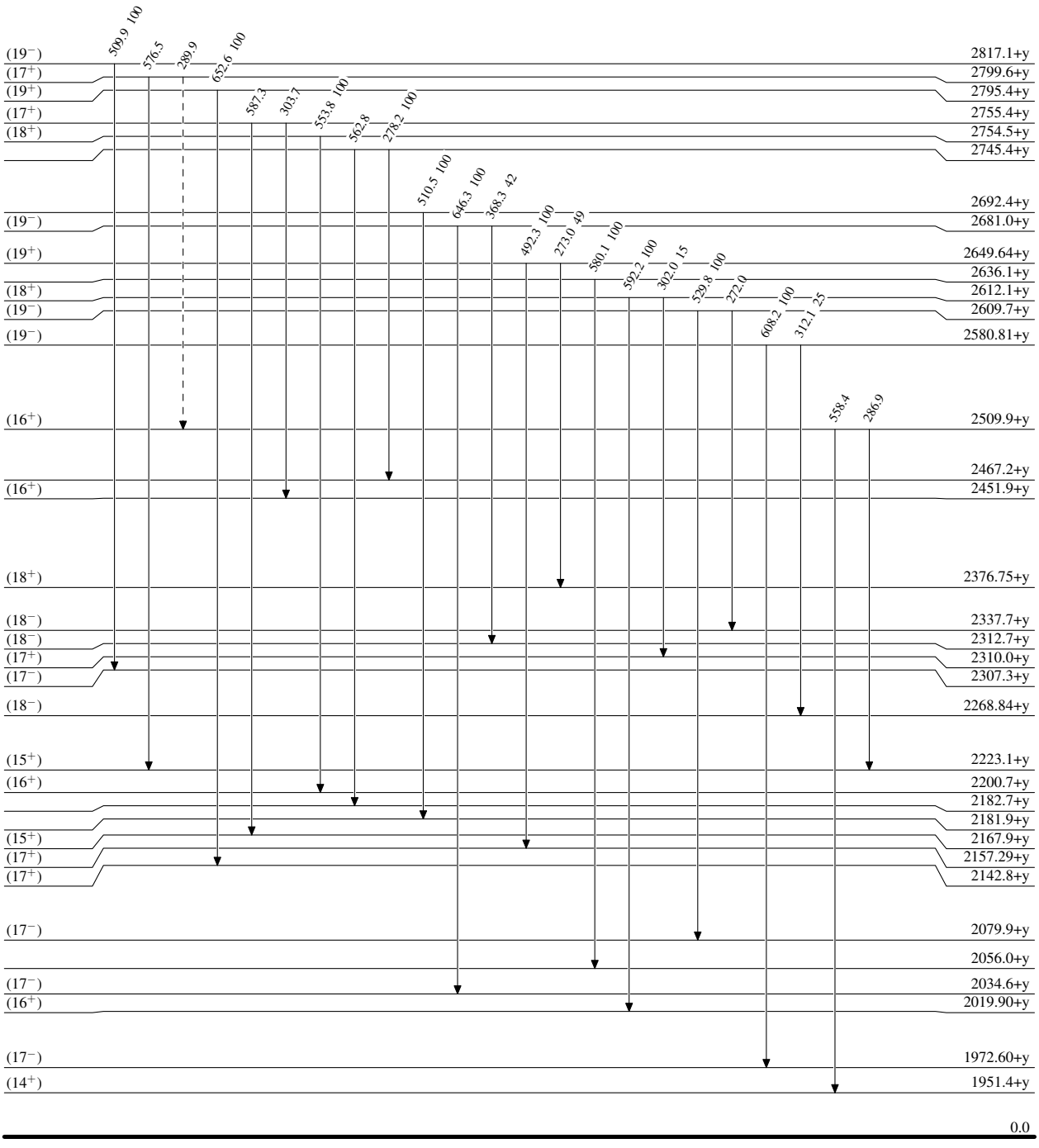
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

- - - - - - ► γ Decay (Uncertain)

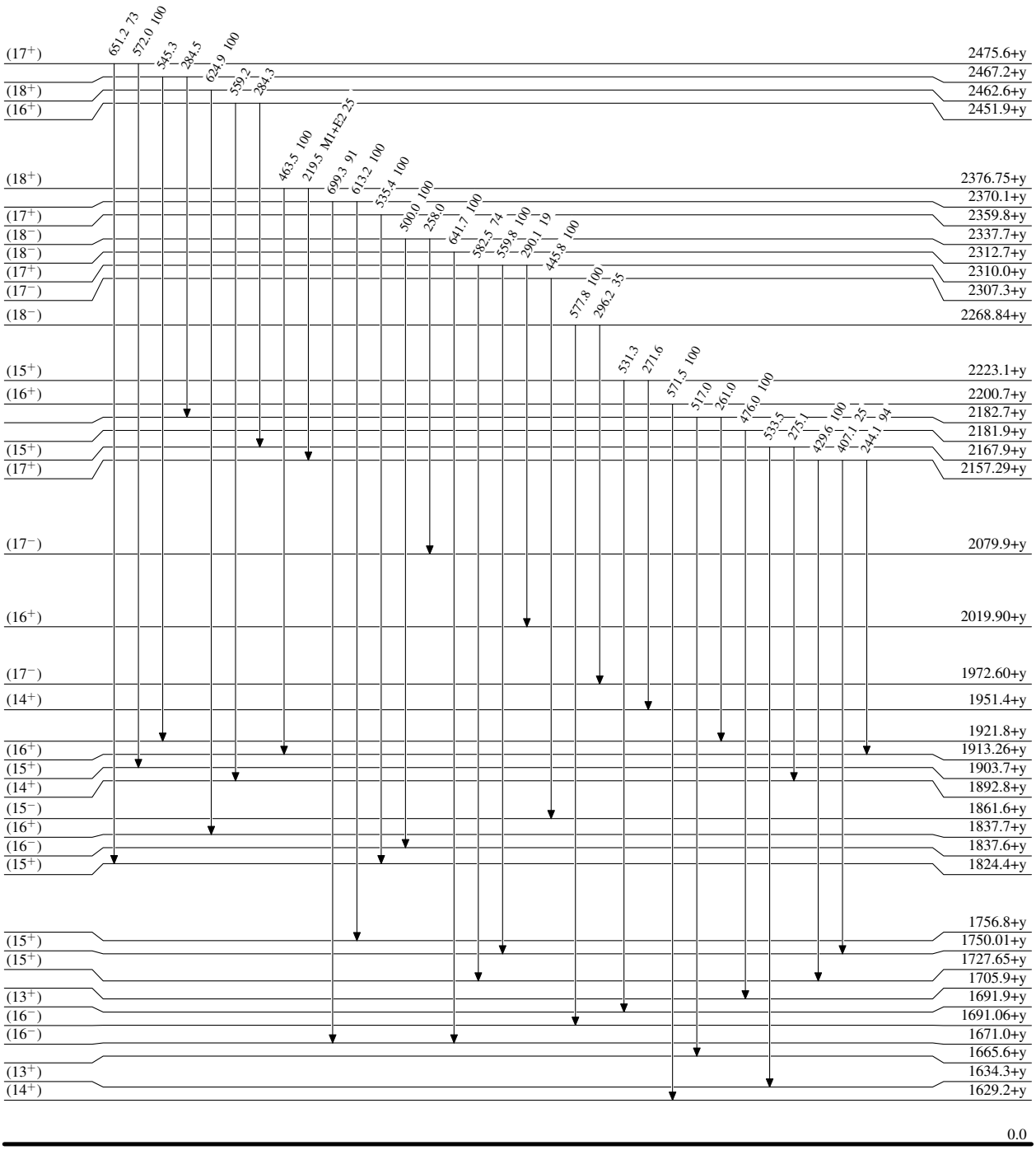


$^{178}_{77}Ir_{101}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

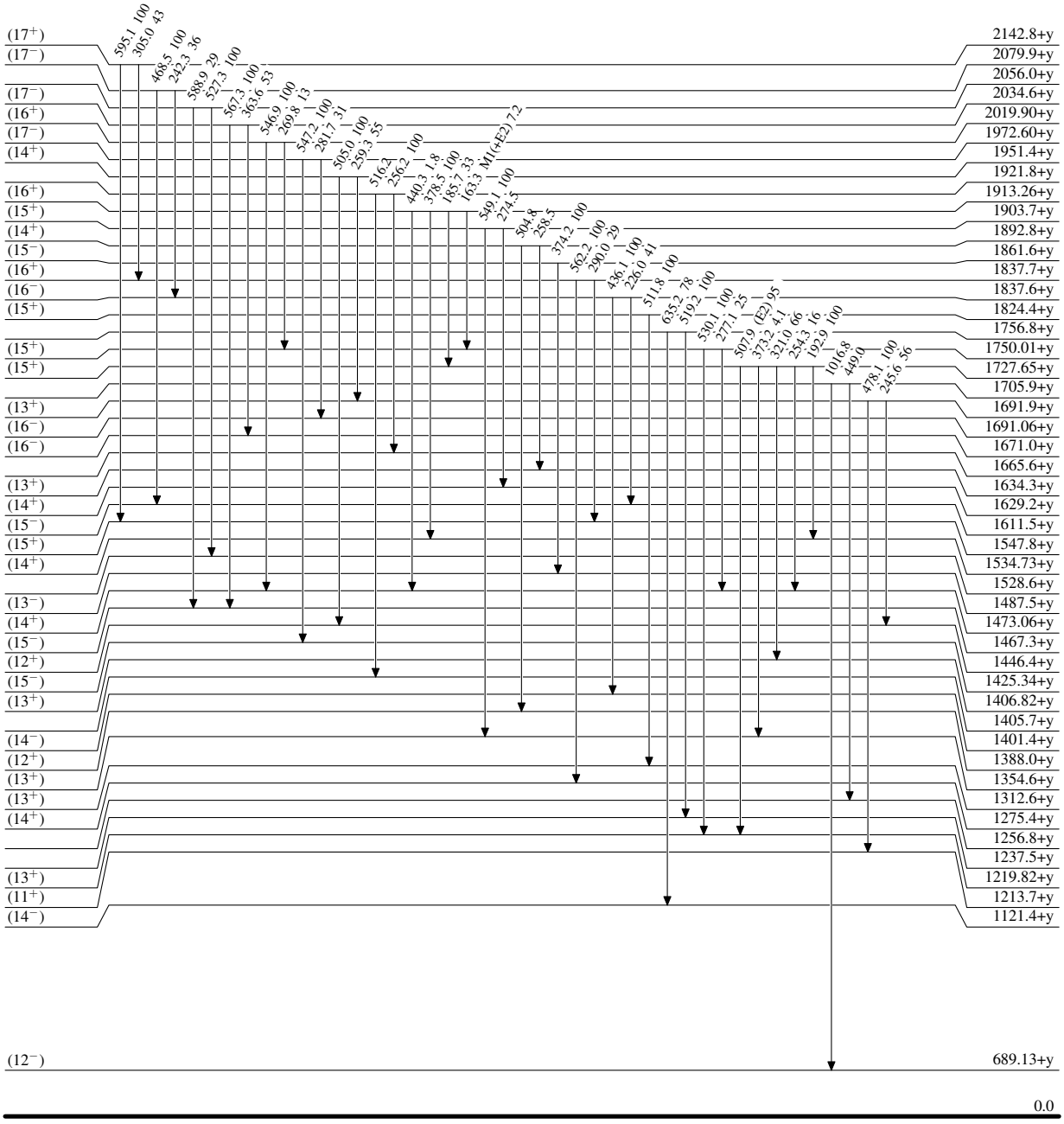


$^{178}_{77}Ir_{101}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

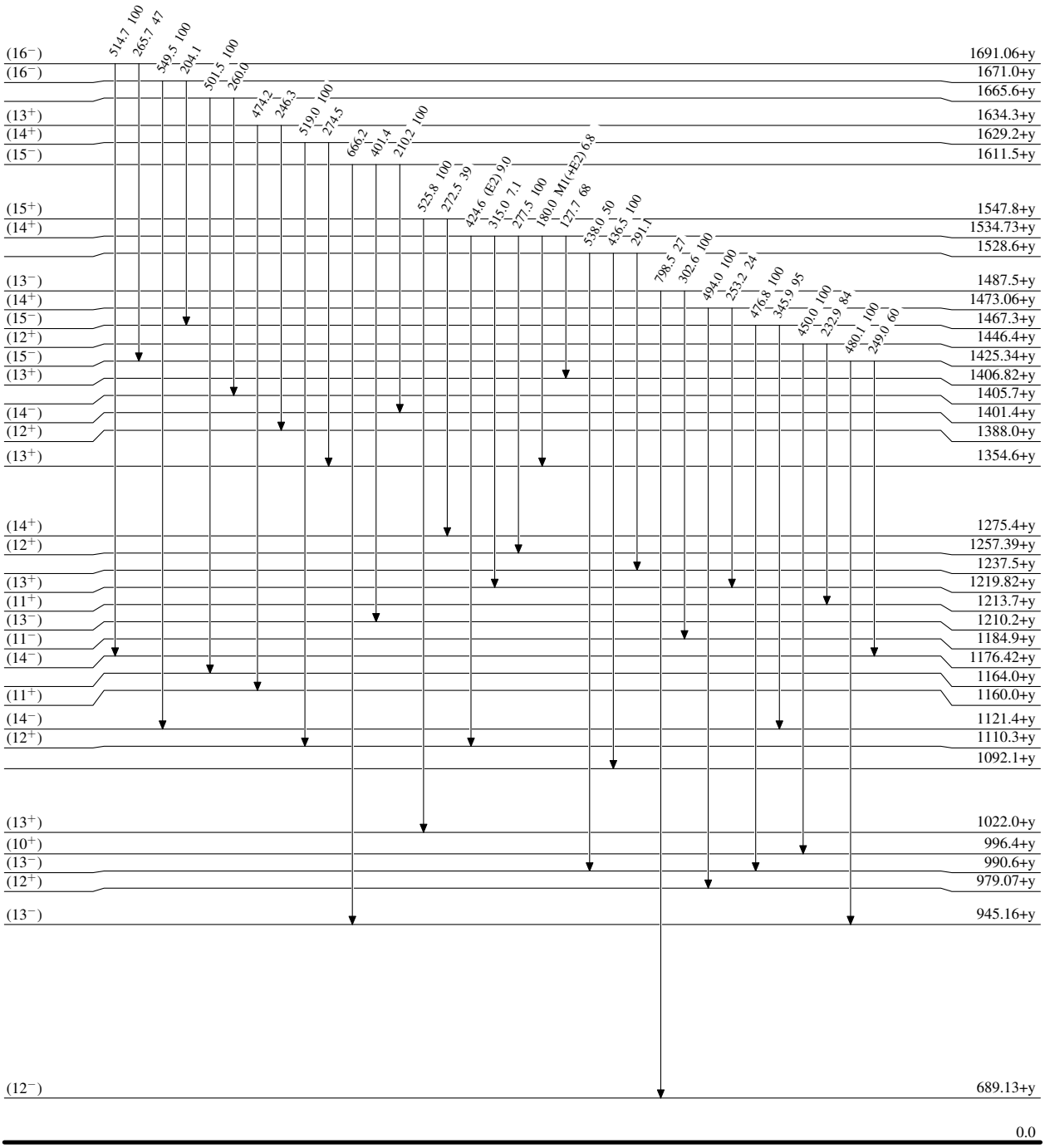


$^{178}_{77}Ir_{101}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

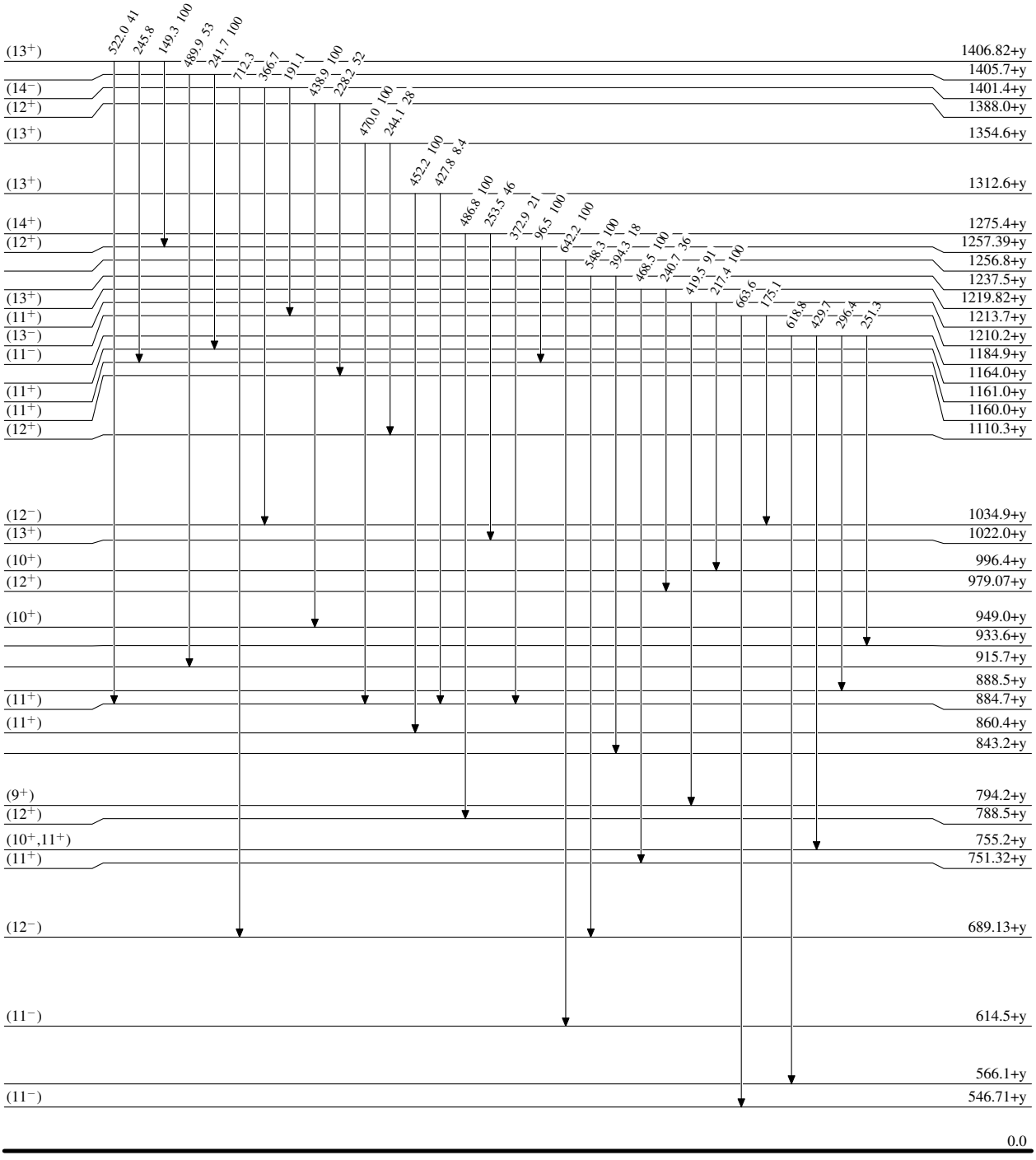


$^{178}_{77}Ir_{101}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

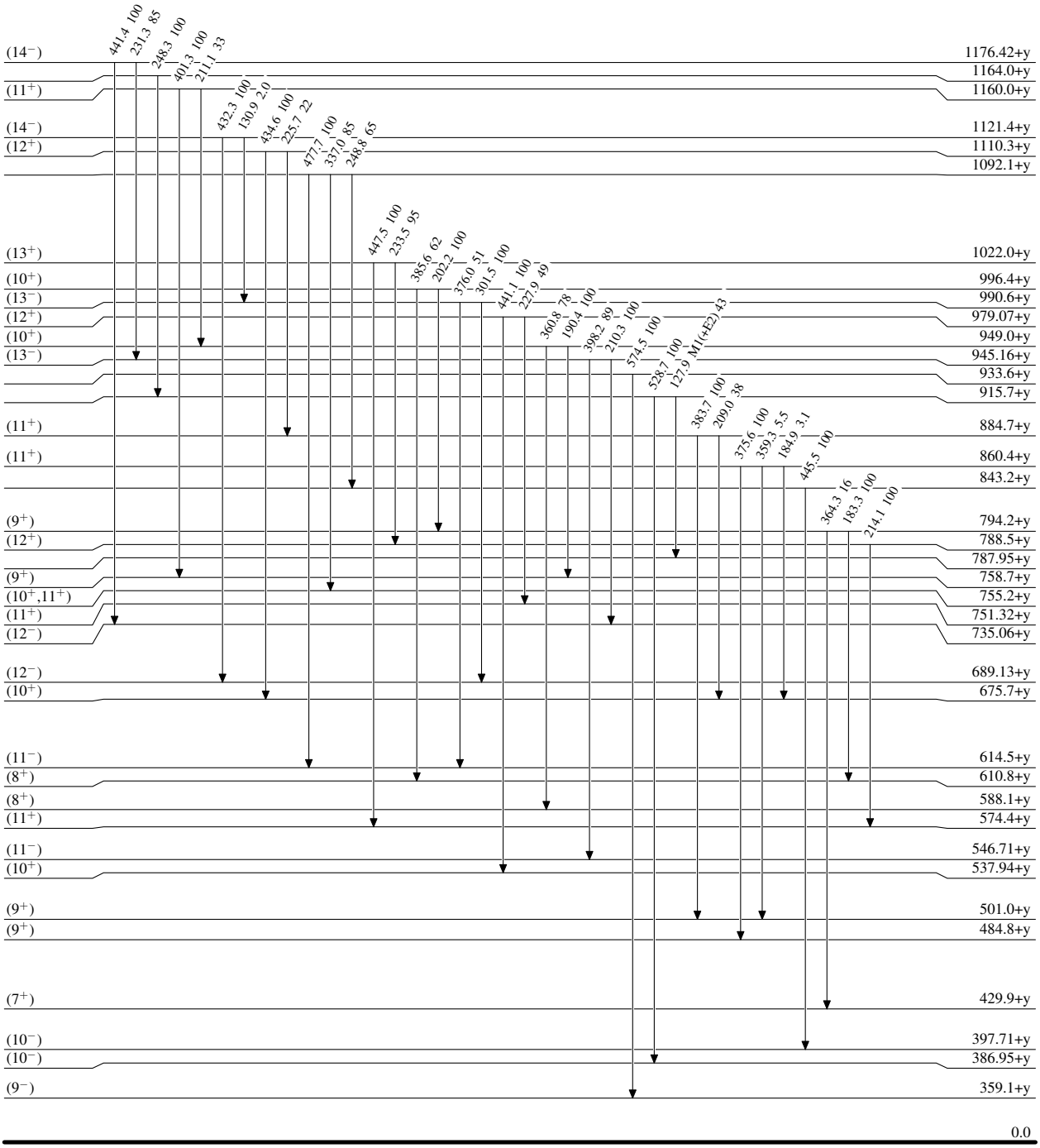


$^{178}_{77}Ir_{101}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{178}_{77}Ir_{101}$

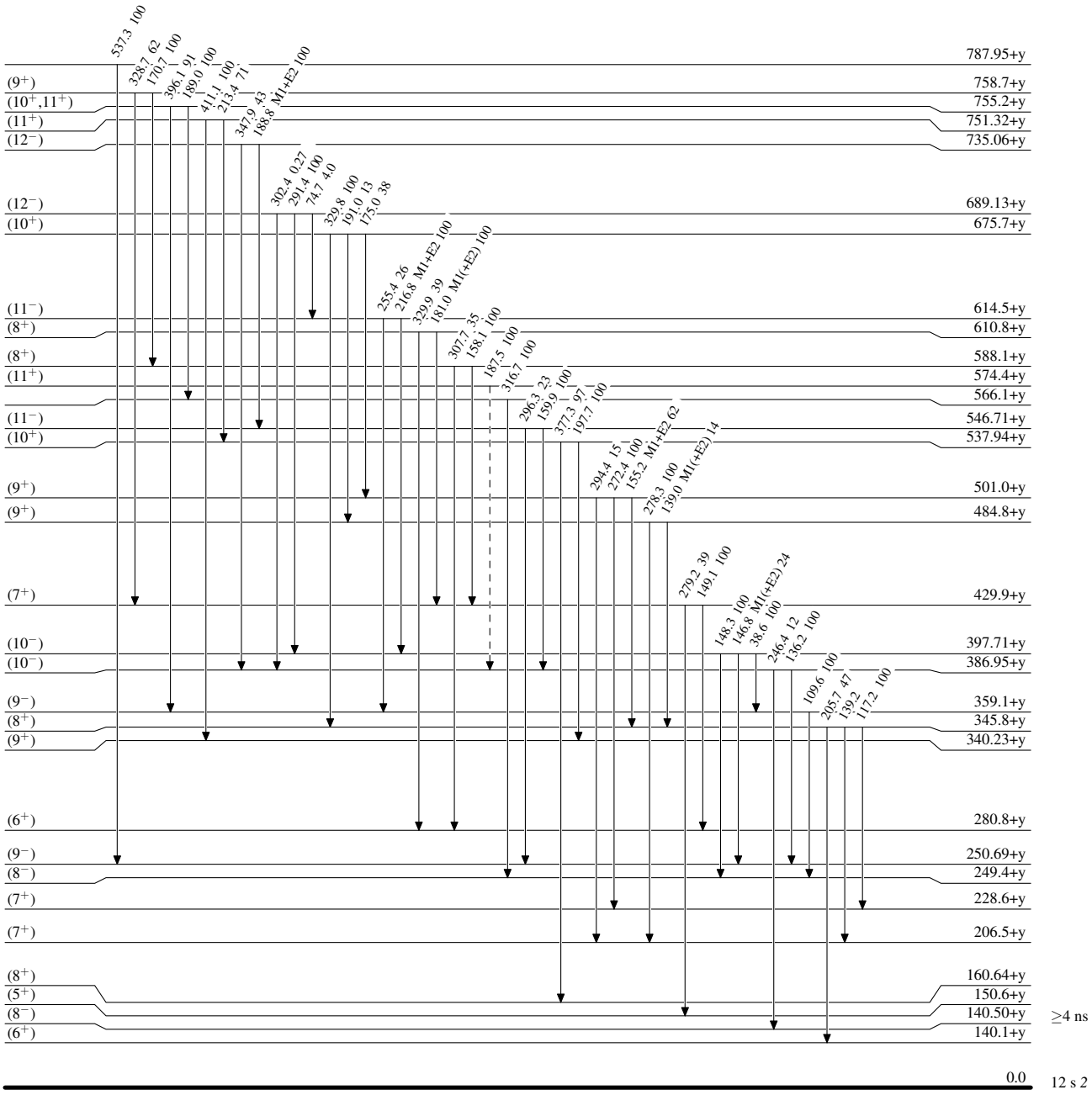
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

– – – – – – ► γ Decay (Uncertain)

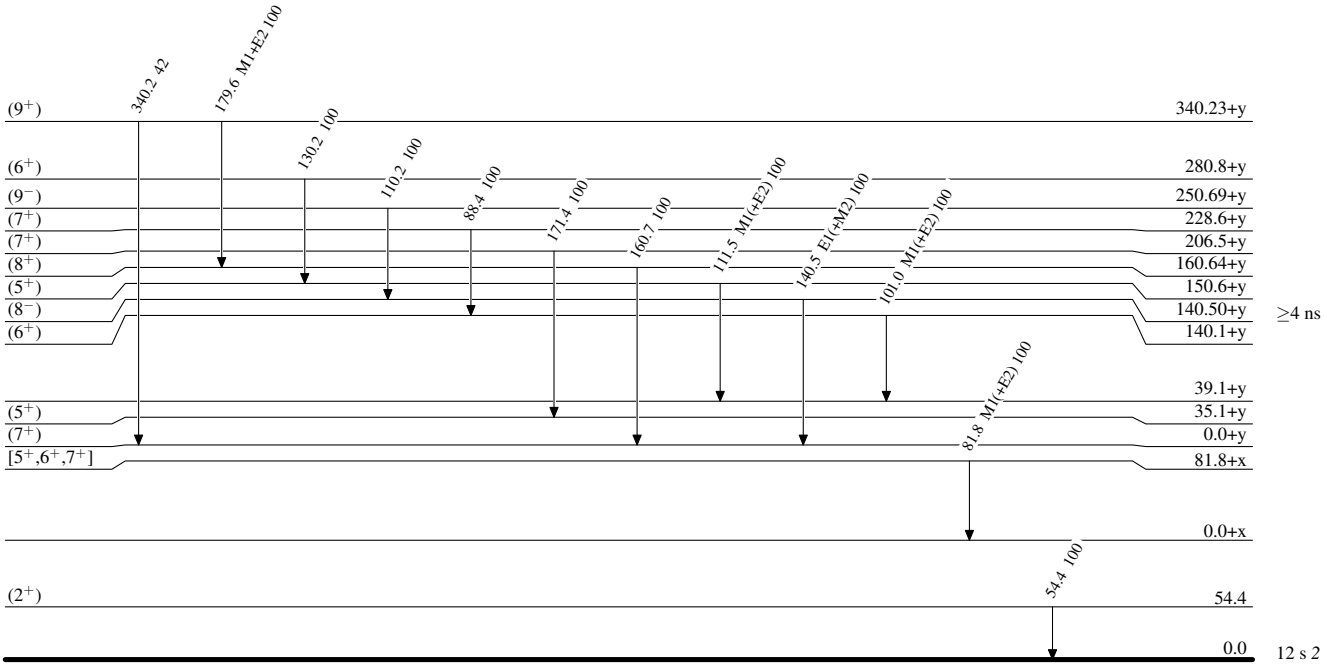


$^{178}_{77}Ir_{101}$

Adopted Levels, Gammas

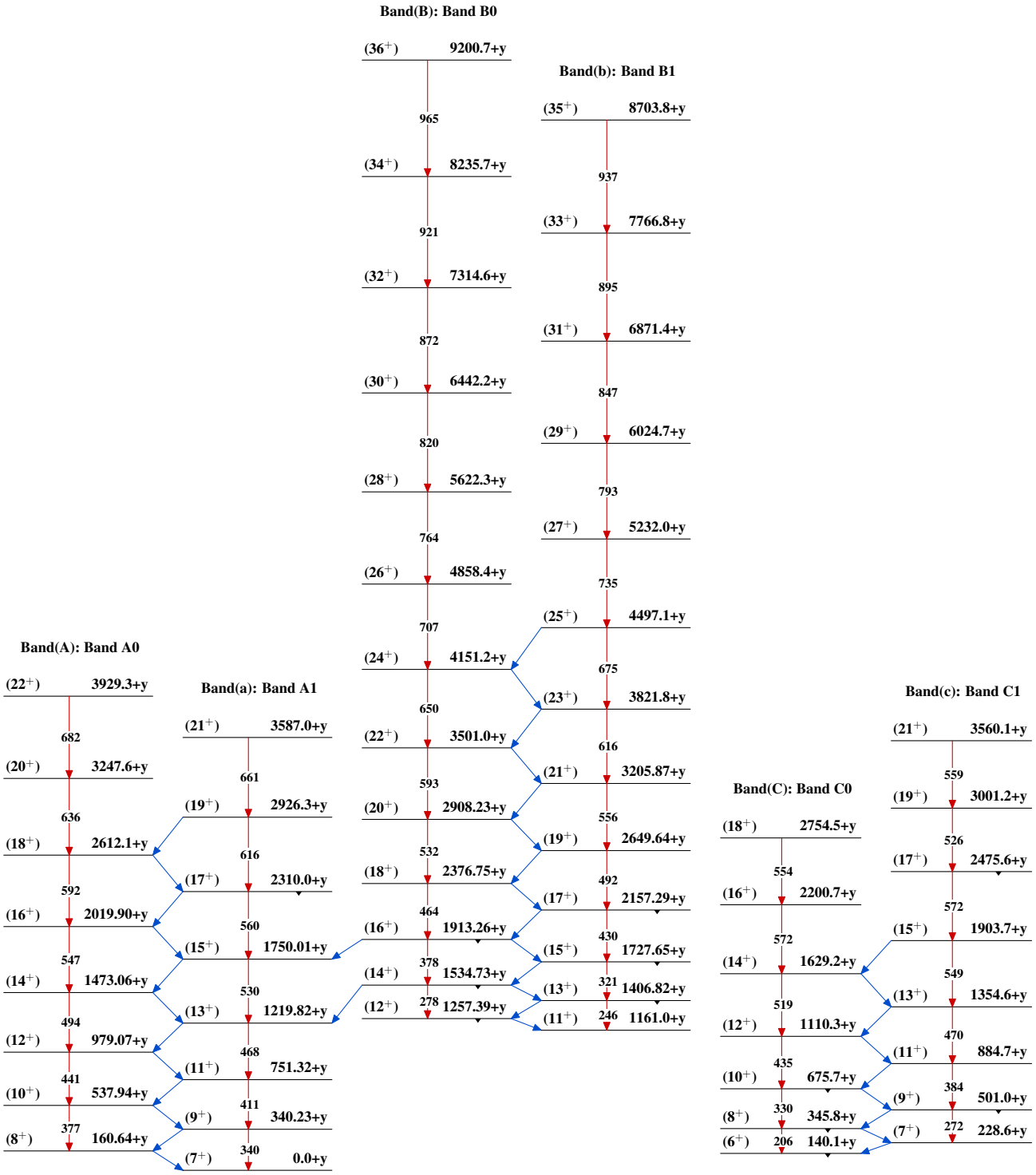
Level Scheme (continued)

Intensities: Relative photon branching from each level

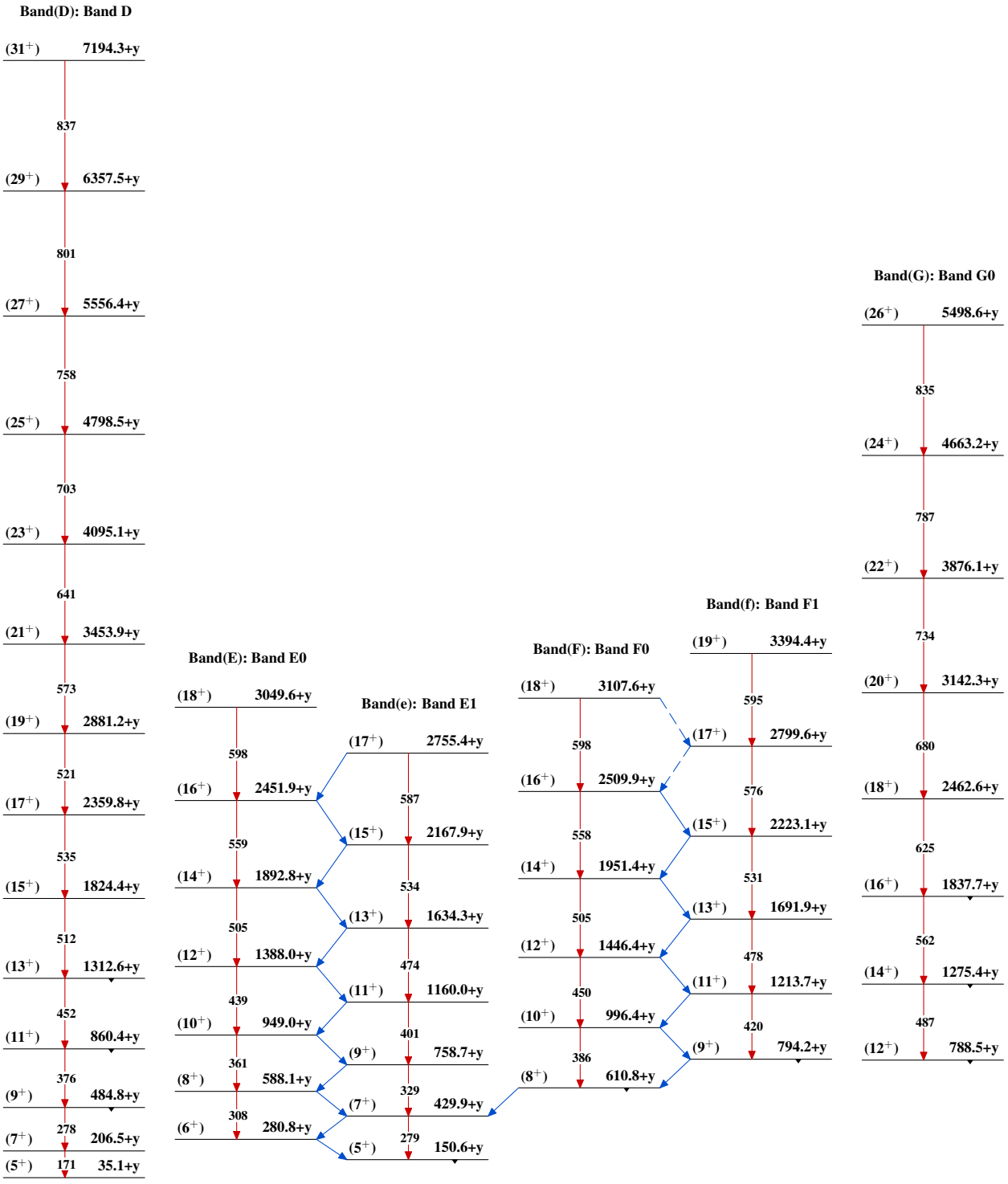


$^{178}_{77}Ir_{101}$

Adopted Levels, Gammas

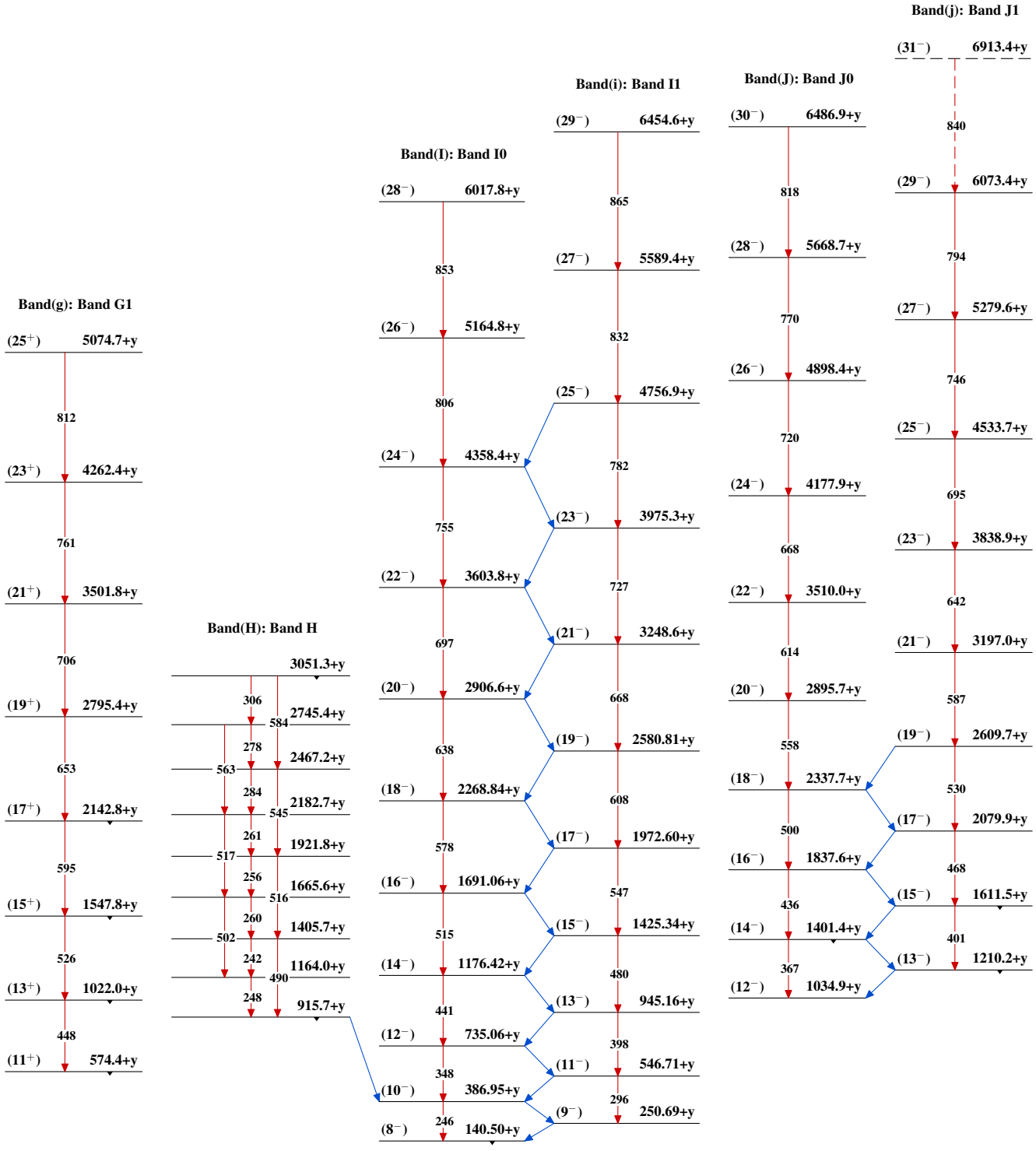


Adopted Levels, Gammas (continued)



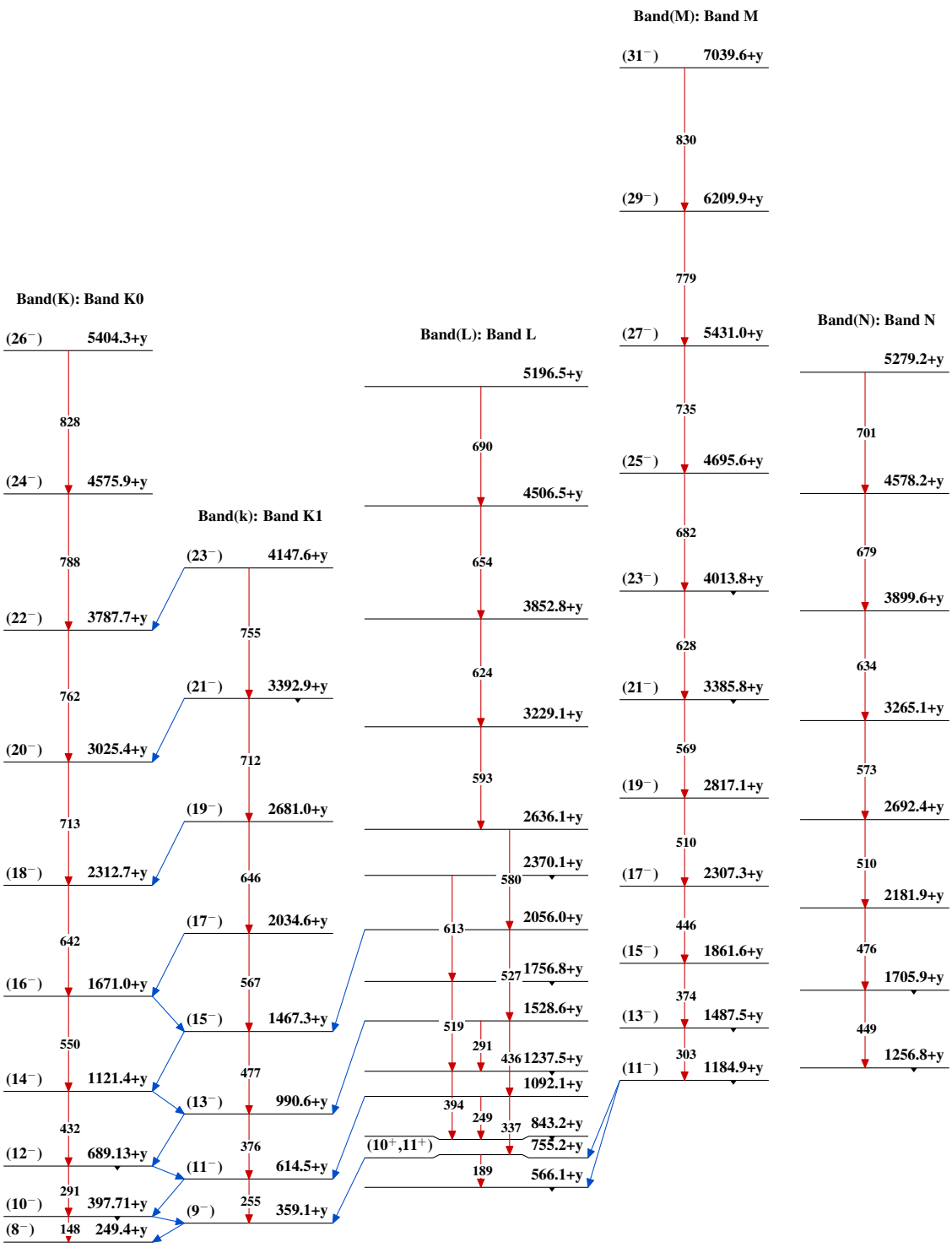
$^{178}_{77}Ir_{101}$

Adopted Levels, Gammas (continued)



$^{178}_{77}Ir_{101}$

Adopted Levels, Gammas (continued)



$^{178}_{77}Ir_{101}$