(HI,xnγ) 1993Dr02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. -c. Wu	NDS 106, 367 (2005)	31-Aug-2005

1993Dr02: ^{169}Tm(^{16}O,4nγ), E=77-105 MeV. Measured Eγ, Iγ, γγ(t), γ(θ), γ(t), ce(t) CAESAR array consisting of 6 BGO-shielded HPGe detectors situated at 48°, 97° and 145° relative to the beam direction; superconducting solenoidal electron spectrometer. See also, 1991Dr02.

1995Wa18: ^{154}Sm(^{31}P,4nγ) E=140 MeV. Measured lifetimes by recoil-distance method (RDM).

Others:

1992Ka01: ^{169}Tm(^{16}O,4nγ), E=76-84 MeV.

1990Ka11: ^{150}Nd(^{35}Cl,4nγ), E=155-157 MeV.

1990Kr06: ^{172}Yb(^{14}N,5nγ), E=65-80 MeV.

All data are from 1993Dr02, unless otherwise stated.

^{181}Ir Levels

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	Comments
0.0[c]	5/2−		
25.1[c] *3*	9/2−		
213.1[c] *4*	13/2−	148 ps *8*	$T_{1/2}$: weighted average of 146 ps *12* from 1995Wa18 and 149 ps *10* from recoil distance method (1990Ka11).
289.5[@] *3*	5/2+	298 ns	$T_{1/2}$: from γγ(t) spectrum (1993Dr02). Other: 0.33 μs *+10−6* from γγ-t coincidence (1992Ka01).
310.3[d] *3*	7/2−		
366.4[a] *3*	9/2−	126 ns *6*	$T_{1/2}$: from γγ-t coincidence (1992Ka01). Others: 134 ns from γγ(t) spectrum (1993Dr02); 190 ns *60* from 1990Kr06.
393.2[&] *4*	7/2+		
483.7[b] *4*	11/2−		
499.5[d] *4*	(11/2−)		
521.6[@] *4*	9/2+		
549.1[c] *4*	17/2−	10.2 ps *8*	$T_{1/2}$: weighted average of 10.3 ps *8* from 1995Wa18 and 9.7 ps *21* from recoil distance method (1990Ka11).
654.7[a] *4*	13/2−		
673.4[&] *5*	11/2+		
698.3 *4*			E(level): possibly the 11/2−[505] intrinsic state.
815.8[d] *4*	15/2−		
838.1[b] *4*	15/2−		
844.8[@] *5*	13/2+		
881.4 *4*			
1005.1[c] *4*	21/2−	2.16 ps *20*	$T_{1/2}$: weighted average of 2.15 ps *21* from 1995Wa18 and 2.4 ps *8* from recoil distance method (1990Ka11).
1016.0 *4*	15/2(−)		
1035.3[&] *5*	15/2+		
1041.0[a] *4*	17/2−		
1227.8[l] *4*	(15/2+)		Jπ: 15/2(+) in the level scheme, and (15/2) in the γ-transition table of 1993Dr02.
1239.5[@] *5*	17/2+		
1245.6[d] *4*	19/2−		
1256.7[b] *4*	19/2−		
1258.2 *4*			
1381.9[e] *4*	17/2+	14 ps *10*	$T_{1/2}$: from recoil distance method (1990Ka11).
1458.8[&] *5*	19/2+		
1486.9[a] *4*	21/2−		

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(HI,xnγ) 1993Dr02 (continued)

^{181}Ir Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	Comments
1551.6[c] 5	25/2⁻	0.90 ps *14*	$T_{1/2}$: from 1995Wa18. Other: 1.9 ps *6* from recoil distance method (1990Ka11).
1576.2 *4*	(17/2⁻)		Jπ: From the level scheme of 1993Dr02, no J^π given in the γ-transition table.
1620.9[l] 5	(19/2⁺)		Jπ: 19/2$^{(+)}$ in level scheme of 1993Dr02.
1677.0[e] 4	21/2⁺	8.0 ps *6*	$T_{1/2}$: weighted average of 8.2 ps *6* from 1995Wa18 and 6.9 ps *14* from recoil distance method (1990Ka11).
1686.7[@] 5	21/2⁺		
1726.9[b] 4	23/2⁻		
1763.6[d] 4	(23/2⁻)		
1807.3[g] 4	19/2⁺		
1838.3[n] 5	21/2⁺		
1882.7[f] 4	21/2⁺		
1907.4[m] 5	(21/2)		Jπ: no J^π in the level scheme of 1993Dr02.
1927.7[&] 6	23/2⁺		
1956.4 *4*	(17/2⁺)		
1961.7 *4*	19/2⁻		
1978.6[a] 5	25/2⁻		
1979.6[j] 6	21/2⁻		
1990.4[g] 4	23/2⁺		
2034.5[i] 5	23/2⁺	22 ns *4*	$T_{1/2}$: from γγ-t coincidence (1992Ka01). Other: 29 ns from γγ(t) spectrum (1993Dr02).
2062.0[e] 4	25/2⁺	2.36 ps *21*	$T_{1/2}$: from 1995Wa18. Other: 10 ns *3* from recoil distance method (1990Ka11).
2086.7[l] 6	(23/2⁺)		Jπ: 23/2$^{(+)}$ in level scheme of 1993Dr02.
2124.3[n] 4	25/2⁺		
2130.0[f] 4	25/2⁺		
2156.9[c] 5	29/2⁻	0.55 ps *7*	
2175.3[k] 6	23/2⁻		
2177.3[@] 6	25/2⁺		
2191.8[h] 5	25/2⁺		
2239.7[b] 5	27/2⁻		
2299.3[g] 5	27/2⁺		
2311.6 *11*			
2336.7[d] 5	(27/2⁻)		
2382.1[i] 5	27/2⁺		
2382.2[j] 6	25/2⁻		
2421.4[m] 9	(25/2)		
2441.0[&] 6	27/2⁺		
2495.1[n] 4	29/2⁺		
2499.1[f] 4	29/2⁺		
2512.6[a] 5	29/2⁻		
2529.3[e] 5	29/2⁺	3.1 ps *4*	
2556.7 *5*	(⁻)		Jπ: negative parity suggested by M1+E2 γ to 25/2⁻.
2597.3[h] 5	29/2⁺		
2602.6[k] 6	27/2⁻		
2625.8[l] 6	(27/2⁺)		Jπ: 27/2$^{(+)}$ in the level scheme of 1993Dr02.
2712.9[@] 6	29/2⁺		
2721.5[g] 5	31/2⁺		
2778.4[c] 6	33/2⁻	1.80 ps *21*	
2796.1[b] 5	31/2⁻		
2833.6[i] 6	31/2⁺		
2837.2[j] 6	29/2⁻		

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(HI,xnγ) 1993Dr02 (continued)

^{181}Ir Levels (continued)

E(level)[†]	Jπ[‡]	Comments
2913.1[d] 5	(31/2⁻)	
2967.5[m] 6	(29/2)	
2970.0[f] 5	33/2⁺	
2982.4[n] 5	33/2⁺	
3002.5[&] 6	31/2⁺	
3025.1[e] 5	33/2⁺	
3084.3[k] 7	31/2⁻	
3088.0[h] 6	33/2⁺	
3092.0[a] 5	33/2⁻	
3216.7[l] 7	(31/2⁺)	Jπ: 31/2(+) in the level scheme of 1993Dr02.
3240.4[g] 5	35/2⁺	
3278.4[@] 7	33/2⁺	
3341.0?[j] 7	33/2⁻	Jπ: (33/2⁻) in the level scheme of 1993Dr02.
3348.8[c] 6	37/2⁻	
3357.5[i] 6	35/2⁺	
3399.9[b] 6	35/2⁻	
3499.5[d] 6	(35/2⁻)	
3529.5[f] 5	37/2⁺	
3535.2[n] 6	37/2⁺	
3568.1[m] 6	(33/2)	
3569.0[e] 5	37/2⁺	
3600.7?[k] 7	(35/2⁻)	
3614.4[&] 7	35/2⁺	
3640.8[h] 6	37/2⁺	
3718.3[a] 6	37/2⁻	
3838.4[g] 5	39/2⁺	
3857.1[l] 8	(35/2⁺)	Jπ: 35/2(+) in the level scheme of 1993Dr02.
3859.8 12		
3877.0[@] 7	37/2⁺	
3877.8?[j] 7	(37/2⁻)	
3936.1[i] 6	39/2⁺	
3949.7[c] 7	41/2⁻	
4039.8 12		
4045.5[b] 6	39/2⁻	
4120.0[d] 7	(39/2⁻)	
4134.6[n] 6	41/2⁺	
4152.7[e] 5	41/2⁺	
4163.0[f] 5	41/2⁺	
4174.5?[k] 7	(39/2⁻)	
4243.9[h] 6	41/2⁺	
4252.8[&] 7	39/2⁺	
4276.9[m] 9	(37/2)	
4385.2[a] 6	41/2⁻	
4443.6?[j] 8	(41/2⁻)	
4495.6[g] 6	43/2⁺	
4496.3[@] 8	41/2⁺	
4536.1[l] 13	(39/2⁺)	Jπ: 39/2(+) in the level scheme of 1993Dr02.
4563.6[i] 7	43/2⁺	

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(HI,xnγ) 1993Dr02 (continued)

^{181}Ir Levels (continued)

E(level)†	Jπ‡	Comments
4632.5[c] 8	45/2⁻	
4727.1[b] 6	43/2⁻	
4777.9[n] 7	45/2⁺	
4789.0[e] 6	45/2⁺	
4802.0[d] 12	(43/2⁻)	
4841.0[f] 12	45/2⁺	
4897.0[h] 7	45/2⁺	
4912.8[&] 13	43/2⁺	
5036.9?[m] 14	(41/2)	
5085.5[a] 7	45/2⁻	
5129.1?[@] 8	(45/2⁺)	
5205.6?[g] 12	(47/2⁺)	
5243.6[i] 7	47/2⁺	
5255.1?[l] 16	(43/2⁺)	Jπ: 43/2(+) in the level scheme of 1993Dr02.
5389.3[c] 8	49/2⁻	
5446.6[b] 7	47/2⁻	
5470.3[e] 7	49/2⁺	
5474.9[n] 12	49/2⁺	
5536.0?[d] 16	(47/2⁻)	
5565.0[f] 15	(49/2⁺)	
5596.8?[&] 16	(47/2⁺)	
5603.4[h] 8	49/2⁺	
5822.5[a] 10	49/2⁻	
5976.5?[i] 8	(51/2⁺)	
6201.3[e] 12	53/2⁺	
6202.3[c] 13	53/2⁻	
6204.6?[b] 13	(51/2⁻)	
6233.9?[n] 16	(53/2⁺)	
6333.0?[f] 18	(53/2⁺)	
6361.4?[h] 13	(53/2⁺)	
6607.5?[a] 14	(53/2⁻)	
6982.3?[e] 16	(57/2⁺)	
7052.3?[c] 17	(57/2⁻)	

† From least-squares fit to Eγ′s, assuming Δ(Eγ)=0.3 keV for most γ rays.
‡ From γγ-coin and band structures.
# From recoil distance method (1995Wa18), unless otherwise stated.
@ Band(A): 5/2[402], α=+1/2.
& Band(a): 5/2[402], α=−1/2.
[a] Band(B): 9/2[514], α=+1/2.
[b] Band(b): 9/2[514], α=−1/2.
[c] Band(C): 1/2[541], α=+1/2.
[d] Band(c): 1/2[541], α=−1/2.
[e] Band(D): 1/2[660], α=+1/2.
[f] Band(E): Band based on 19/2⁺, α=+1/2.
[g] Band(e): Band based on 19/2⁺, α=−1/2.

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(HI,xnγ) 1993Dr02 (continued)

^{181}Ir Levels (continued)

[h] Band(F): Band based on $23/2^+$, $\alpha=+1/2$.
[i] Band(f): Band based on $23/2^+$, $\alpha=-1/2$.
[j] Band(G): Band based on $21/2^-$, $\alpha=+1/2$.
[k] Band(g): Band based on $21/2^-$, $\alpha=-1/2$.
[l] Band(H): 1/2[411], $\alpha=-1/2$, based on $15/2^{(+)}$.
[m] Band(I): Band based on (21/2).
[n] Band(J): Band based on $21/2^+$.

γ(^{181}Ir)

Experimental A_2 and conversion coefficients given in parentheses are uncertain due to low intensity, contamination or difficult background correction.

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[b]	Comments
(18)		1979.6	$21/2^-$	1961.7	$19/2^-$			
(23)		1979.6	$21/2^-$	1956.4	$(17/2^+)$			
54.9	120 *10*	2034.5	$23/2^+$	1979.6	$21/2^-$	[E1]		Mult.: From intensity balance.
57		366.4	$9/2^-$	310.3	$7/2^-$	[M1,E2]		E_γ: from level scheme of 1992Ka01; not observed in 1993Dr02.
75.5	≈20	1882.7	$21/2^+$	1807.3	$19/2^+$			
103.8	54 *5*	393.2	$7/2^+$	289.5	$5/2^+$			A_2=+0.09 *6*. I_γ: 34 *7* from 1992Ka01.
107.8	89 *8*	1990.4	$23/2^+$	1882.7	$21/2^+$			A_2=−0.19 *5*.
117.1	197 *10*	483.7	$11/2^-$	366.4	$9/2^-$	D[&]		A_2=+0.07 *3*. I_γ: 97 *22* from 1992Ka01; 230 *60* from 1990Kr06.
128.4	79 *4*	521.6	$9/2^+$	393.2	$7/2^+$			A_2=+0.02 *5*. I_γ: 62 *8* from 1992Ka01.
139.6	103 *5*	2130.0	$25/2^+$	1990.4	$23/2^+$			A_2=−0.41 *4*. I_γ: 18 *5* from 1992Ka01.
151.6	81 *5*	673.4	$11/2^+$	521.6	$9/2^+$			A_2=−0.14 *9* for 151.6γ + 151.8γ. I_γ: 64 *8* from 1992Ka01.
151.8	15 *3*	2034.5	$23/2^+$	1882.7	$21/2^+$	[M1]	1.92	α(K)=1.58 *5*; α(L)=0.259 *8*; α(M)=0.0598 *18*; α(N+..)=0.0186 *6* Mult.: From delayed intensity balance. A_2=−0.14 *9* for 151.6γ + 151.8γ.
157.3	85 *3*	2191.8	$25/2^+$	2034.5	$23/2^+$	M1+E2	1.3 *5*	α(K)=0.9 *6*; α(L)=0.30 *7*; α(M)=0.075 *21*; α(N+..)=0.023 *7* α(L)exp=0.26 *5* A_2=+0.06 *6*. I_γ: 51 *5* from 1992Ka01.
161.3	13 *2*	1838.3	$21/2^+$	1677.0	$21/2^+$			
169.0	144 *8*	2299.3	$27/2^+$	2130.0	$25/2^+$			α(K)exp=0.131 *9* for 169.0γ + 170.8γ + 171.3γ. A_2=−0.37 *7*.
170.8	379 *12*	654.7	$13/2^-$	483.7	$11/2^-$	(M1)	1.38	α(K)=1.14 *4*; α(L)=0.185 *6*; α(M)=0.0428 *13*; α(N+..)=0.0133 *4* α(K)exp=0.131 *9* for 169.0γ + 170.8γ + 171.3γ. A_2=+0.01 *3* for 170.8γ + 171.3γ. I_γ: 275 *20* from 1992Ka01; 370 *90* from 1990Kr06.
171.3	117 *4*	844.8	$13/2^+$	673.4	$11/2^+$	(M1)	1.37	α(K)=1.13 *4*; α(L)=0.184 *6*; α(M)=0.0425 *13*; α(N+..)=0.0132 *4* α(K)exp=0.131 *9* for 169.0γ + 170.8γ + 171.3γ. A_2=+0.01 *3* for 170.8γ + 171.3γ. I_γ: 85 *8* from 1992Ka01.
183.0	≈11	881.4		698.3				

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(HI,xnγ) 1993Dr02 (continued)

γ(^{181}Ir) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[b]	Comments
183	≈16	1990.4	23/2$^+$	1807.3	19/2$^+$	E2[a]	0.474	α(K)=0.215 *7*; α(L)=0.195 *6*; α(M)=0.0494 *15*; α(N+..)=0.0149 *5*
183.4	356 *11*	838.1	15/2$^-$	654.7	13/2$^-$	M1	1.13	α(K)=0.94 *3*; α(L)=0.152 *5*; α(M)=0.0350 *11*; α(N+..)=0.0108 *4* α(L)exp=0.144 *12* A_2=+0.07 *5*. I_γ: 227 *17* from 1992Ka01; 350 *90* from 1990Kr06.
187.8	971 *11*	213.1	13/2$^-$	25.1	9/2$^-$	E2	0.433	α(K)=0.201 *6*; α(L)=0.174 *6*; α(M)=0.0442 *14*; α(N+..)=0.0134 *4* α(L)exp=0.184 *14*; α(M)exp=0.053 *4* A_2=+0.38 *2*. I_γ: 1000 *20* from 1992Ka01; 990 *50* from 1990Kr06.
189[c]	≤5	499.5	(11/2$^-$)	310.3	7/2$^-$			
190.3	98 *4*	1035.3	15/2$^+$	844.8	13/2$^+$	M1+E2	0.7 *3*	α(K)=0.5 *4*; α(L)=0.151 *14*; α(M)=0.037 *6*; α(N+..)=0.0112 *15* α(K)exp=0.49 *18* for 190.3γ doublet. A_2=+0.22 *8* for 190.3γ doublet. I_γ: 74 *8* from 1992Ka01.
190.3	101 *7*	2382.1	27/2$^+$	2191.8	25/2$^+$	M1+E2	0.7 *3*	α(K)=0.5 *4*; α(L)=0.151 *14*; α(M)=0.037 *6*; α(N+..)=0.0112 *15* α(K)exp=0.49 *18* for 190.3γ doublet. A_2=+0.22 *8*. A_2 and α(K)exp are for 190.3γ + 190.3γ. I_γ: 46 *5* from 1992Ka01.
195.6	47 *4*	2175.3	23/2$^-$	1979.6	21/2$^-$			A_2=+0.3 *1*.
199.7	80 *7*	2499.1	29/2$^+$	2299.3	27/2$^+$			A_2=−0.28 *9*.
202.9	320 *18*	1041.0	17/2$^-$	838.1	15/2$^-$	M1+E2	0.6 *3*	α(K)=0.4 *3*; α(L)=0.120 *6*; α(M)=0.029 *3*; α(N+..)=0.0089 *8* α(K)exp=0.71 *4*; α(L)exp=0.09 *1* A_2=+0.15 *5*. I_γ: 183 *15* from 1992Ka01; 290 *30* from 1990Kr06. Mult.: M1 from 1990Kr06.
204.1	89 *5*	1239.5	17/2$^+$	1035.3	15/2$^+$			I_γ: 58 *8* from 1992Ka01.
206.8	44 *4*	2382.2	25/2$^-$	2175.3	23/2$^-$			
215	≈50	698.3		483.7	11/2$^-$			
215.1	110 *4*	2597.3	29/2$^+$	2382.1	27/2$^+$	(M1)	0.724	α(K)=0.598 *18*; α(L)=0.097 *3*; α(M)=0.0224 *7*; α(N+..)=0.00690 *21* α(K)exp=0.58 *4*; α(L)exp=0.065 *5*; α(M)exp=0.026 *4* for 215.1γ + 215.5γ. A_2=+0.16 *5*. I_γ: 53 *5* from 1992Ka01.
215.5	256 *12*	1256.7	19/2$^-$	1041.0	17/2$^-$	M1	0.721	α(K)=0.595 *18*; α(L)=0.097 *3*; α(M)=0.0223 *7*; α(N+..)=0.00687 *21* α(K)exp=0.58 *4*; α(L)exp=0.065 *5*; α(M)exp=0.026 *4* for 215.1γ + 215.5γ. I_γ: 145 *15* from 1992Ka01; 180 *50* from 1990Kr06.
219.3	68 *5*	1458.8	19/2$^+$	1239.5	17/2$^+$			A_2=+0.18 *19*. I_γ: 42 *6* from 1992Ka01.
220.5	36 *3*	2602.6	27/2$^-$	2382.2	25/2$^-$			
222.4	49 *7*	2721.5	31/2$^+$	2499.1	29/2$^+$			A_2=−0.5 *2*.
228.0	75 *5*	1686.7	21/2$^+$	1458.8	19/2$^+$			I_γ: 26 *5* from 1992Ka01.
230.0	175 *10*	1486.9	21/2$^-$	1256.7	19/2$^-$	D[&]		A_2=+0.12 *3*. I_γ: 74 *7* from 1992Ka01; 140 *20* from 1990Kr06.
232.0	37 *4*	521.6	9/2$^+$	289.5	5/2$^+$	E2[a]	0.214	α(K)=0.117 *4*; α(L)=0.0726 *22*; α(M)=0.0182 *6*; α(N+..)=0.00549 *17* I_γ: 15 *4* from 1992Ka01.
234.5	23 *3*	2837.2	29/2$^-$	2602.6	27/2$^-$			

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(HI,xnγ) 1993Dr02 (continued)

γ(^{181}Ir) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[b]	Comments
236.2	68 *4*	2833.6	31/2$^+$	2597.3	29/2$^+$			A_2=+0.39 *17*. I_γ: 22 *4* from 1992Ka01.
240.0	179 *10*	1726.9	23/2$^-$	1486.9	21/2$^-$	D[&]		A_2=+0.13 *3* for 240.0γ + 240.9γ. I_γ: 57 *6* from 1992Ka01; 90 *50* from 1990Kr06.
240.9	53 *10*	1927.7	23/2$^+$	1686.7	21/2$^+$			A_2=+0.13 *3* for 240.0γ + 240.9γ. I_γ: 19 *4* from 1992Ka01.
247.2	22 *9*	2130.0	25/2$^+$	1882.7	21/2$^+$	E2[a]	0.174	α(K)=0.100 *3*; α(L)=0.0563 *17*; α(M)=0.0141 *5*; α(N+..)=0.00425 *13*
247.2	20 *3*	3084.3	31/2$^-$	2837.2	29/2$^-$			
248.4	64 *11*	2970.0	33/2$^+$	2721.5	31/2$^+$			
249.6	30 *4*	2177.3	25/2$^+$	1927.7	23/2$^+$			I_γ: 12 *3* from 1992Ka01.
251.7	169 *6*	1978.6	25/2$^-$	1726.9	23/2$^-$	M1	0.469	α(K)=0.388 *12*; α(L)=0.0629 *19*; α(M)=0.0145 *5*; α(N+..)=0.00444 *14* α(L)exp=0.047 *12* A_2=+0.10 *4*. I_γ: 30 *5* from 1992Ka01.
254.4	51 *2*	3088.0	33/2$^+$	2833.6	31/2$^+$			A_2=+0.38 *5*. I_γ: 23 *6* from 1992Ka01.
256.7[c]	15 *2*	3341.0?	33/2$^-$	3084.3	31/2$^-$			
259.8[c]	19 *3*	3600.7?	(35/2$^-$)	3341.0?	33/2$^-$			
261.1	132 *6*	2239.7	27/2$^-$	1978.6	25/2$^-$			A_2=+0.18 *5*. I_γ: 28 *5* from 1992Ka01.
263[c]	≤15	3877.0	37/2$^+$	3614.4	35/2$^+$			
263.7	36 *5*	2441.0	27/2$^+$	2177.3	25/2$^+$			I_γ: 13 *3* from 1992Ka01.
266.7	11 *2*	815.8	15/2$^-$	549.1	17/2$^-$			I_γ: 20 *10* from 1992Ka01.
269.5	35 *3*	3357.5	35/2$^+$	3088.0	33/2$^+$			
270.1	66 *9*	3240.4	35/2$^+$	2970.0	33/2$^+$			
271.8	34 *6*	2712.9	29/2$^+$	2441.0	27/2$^+$			I_γ: 07 *2* from 1992Ka01.
273.0	94 *5*	2512.6	29/2$^-$	2239.7	27/2$^-$			I_γ: 20 *4* from 1992Ka01.
277[c]	≈11	3278.4	33/2$^+$	3002.5	31/2$^+$			
277.3[c]	19 *3*	3877.8?	(37/2$^-$)	3600.7?	(35/2$^-$)			
280.3	34 *5*	673.4	11/2$^+$	393.2	7/2$^+$	E2[a]	0.118	α(K)=0.0719 *22*; α(L)=0.0345 *11*; α(M)=0.0086 *3*; α(N+..)=0.00259 *8* I_γ: 34 *4* from 1992Ka01.
283.3	43 *3*	3640.8	37/2$^+$	3357.5	35/2$^+$			A_2=+0.02 *4* for 283.3γ + 283.6γ.
283.6	77 *4*	2796.1	31/2$^-$	2512.6	29/2$^-$			A_2=+0.02 *4* for 283.3γ + 283.6γ. I_γ: 30 *4* from 1992Ka01.
285.3	29 *1*	310.3	7/2$^-$	25.1	9/2$^-$	M1+E2	0.22 *11*	α(K)=0.17 *11*; α(L)=0.038 *7*; α(M)=0.0091 *11*; α(N+..)=0.0028 *4* α(K)exp=0.18 *3* from delayed spectra. I_γ: 33 *4* from 1992Ka01.
286[c]	≤5	499.5	(11/2$^-$)	213.1	13/2$^-$			I_γ: 25 *10* from 1992Ka01.
286.1	45 *6*	2124.3	25/2$^+$	1838.3	21/2$^+$	E2[a]	0.110	α(K)=0.0682 *21*; α(L)=0.0319 *10*; α(M)=0.00793 *24*; α(N+..)=0.00239 *8* A_2=(+0.33 *4*).
288.5	22 *4*	654.7	13/2$^-$	366.4	9/2$^-$	E2[a]	0.108	α(K)=0.0668 *20*; α(L)=0.0309 *10*; α(M)=0.00768 *23*; α(N+..)=0.00231 *7* I_γ: 32 *5* from 1992Ka01.
288.9	70 *7*	3529.5	37/2$^+$	3240.4	35/2$^+$			
289.5	93 *8*	289.5	5/2$^+$	0.0	5/2$^-$	E1	0.0276	α(K)=0.0229 *7*; α(L)=0.00365 *11*; α(M)=0.00084 *3*; α(N+..)=0.00025 *1* α(K)exp≤3 from delayed spectra. I_γ: 402 *11* from 1992Ka01.
289.9	48 *14*	3002.5	31/2$^+$	2712.9	29/2$^+$			
295.1	273 *20*	1677.0	21/2$^+$	1381.9	17/2$^+$	E2	0.101	α(K)=0.0630 *19*; α(L)=0.0284 *9*; α(M)=0.00704

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(HI,xnγ) 1993Dr02 (continued)

γ(^{181}Ir) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[b]	Comments
								22; α(N+..)=0.00212 *7* α(K)exp=0.074 *7* I_γ: 230 *23* from 1992Ka01; 190 *20* from 1990Kr06.
295.4	21 *3*	3936.1	39/2$^+$	3640.8	37/2$^+$			A_2=+0.35 *14* for 295.4γ + 295.5γ + 296.6γ.
295.8	77 *6*	3092.0	33/2$^-$	2796.1	31/2$^-$			A_2=+0.35 *14* for 295.4γ + 295.5γ + 296.6γ. I_γ: 11 *3* from 1992Ka01.
296.6[c]	18 *4*	4174.5?	(39/2$^-$)	3877.8?	(37/2$^-$)			A_2=+0.35 *14* for 295.4γ + 295.5γ + 296.6γ.
307.8	71 *5*	3399.9	35/2$^-$	3092.0	33/2$^-$			
307.8	14 *2*	4243.9	41/2$^+$	3936.1	39/2$^+$			
309	54 *13*	2299.3	27/2$^+$	1990.4	23/2$^+$	E2[a]	0.088	α(K)=0.0561 *17*; α(L)=0.0239 *8*; α(M)=0.00591 *18*; α(N+..)=0.00178 *6*
309.0	54 *16*	3838.4	39/2$^+$	3529.5	37/2$^+$			
310.2	38 *2*	310.3	7/2$^-$	0.0	5/2$^-$	M1	0.265	α(K)=0.219 *7*; α(L)=0.0355 *11*; α(M)=0.00813 *25*; α(N+..)=0.00249 *8* α(K)exp=0.15 *5* from delayed spectra. I_γ: 38 *5* from 1992Ka01.
316	12 *2*	815.8	15/2$^-$	499.5	(11/2$^-$)	E2[a]	0.0821	α(K)=0.0530 *16*; α(L)=0.0220 *7*; α(M)=0.00544 *17*; α(N+..)=0.00164 *5*
318.2	67 *9*	1576.2	(17/2$^-$)	1258.2		(M1)	0.248	α(K)=0.205 *7*; α(L)=0.0331 *10*; α(M)=0.00758 *23*; α(N+..)=0.00233 *7* α(K)exp=0.133 *14* for 318.2γ + 318.5γ. I_γ: 72 *7* from 1992Ka01.
318.5	44 *4*	3718.3	37/2$^-$	3399.9	35/2$^-$	(M1)	0.247	α(K)=0.204 *7*; α(L)=0.0330 *10*; α(M)=0.00756 *23*; α(N+..)=0.00232 *7* α(K)exp=0.133 *14* for 318.2γ + 318.5γ.
319.6	10 *2*	4563.6	43/2$^+$	4243.9	41/2$^+$			
323.2	58 *6*	844.8	13/2$^+$	521.6	9/2$^+$	E2	0.0769	α(K)=0.0501 *15*; α(L)=0.0202 *6*; α(M)=0.00500 *15*; α(N+..)=0.00151 *5* α(K)exp=0.05 *1* A_2=+0.28 *7*. I_γ: 51 *7* from 1992Ka01.
327.0	33 *3*	4045.5	39/2$^-$	3718.3	37/2$^-$			
331.9	61 *4*	698.3		366.4	9/2$^-$			I_γ: 40 *4* from 1992Ka01.
335[c]	≤15	3614.4	35/2$^+$	3278.4	33/2$^+$			
335.7	1000	549.1	17/2$^-$	213.1	13/2$^-$	E2	0.0689	α(K)=0.0456 *14*; α(L)=0.0176 *6*; α(M)=0.00435 *13*; α(N+..)=0.00131 *4* α(K)exp=0.049 *2*; α(L)exp=0.0200 *10*; α(M)exp=0.0053 *5* A_2=+0.40 *4*. I_γ: 999 *15* from 1992Ka01; 990 *100* from 1990Kr06.
339.4	33 *5*	4385.2	41/2$^-$	4045.5	39/2$^-$			
341.5	618 *10*	366.4	9/2$^-$	25.1	9/2$^-$	M1	0.205	α(K)=0.169 *5*; α(L)=0.0273 *9*; α(M)=0.00625 *19*; α(N+..)=0.00192 *6* α(K)exp=0.198 *10*; α(L)exp=0.0272 *26*; α(M)exp=0.0093 *12* from delayed spectra. A_2=+0.15 *3*. I_γ: 709 *12* from 1992Ka01; 1000 *100* from 1990Kr06.
341.9	24 *2*	4727.1	43/2$^-$	4385.2	41/2$^-$			
347.7	27 *6*	2382.1	27/2$^+$	2034.5	23/2$^+$	E2[a]	0.0623	α(K)=0.0418 *13*; α(L)=0.0155 *5*; α(M)=0.00383 *12*; α(N+..)=0.00116 *4* A_2=−0.20 *7* for 402.7γ +402.9γ.
354.5	119 *6*	838.1	15/2$^-$	483.7	11/2$^-$	E2[a]	0.0590	α(K)=0.0399 *12*; α(L)=0.0145 *5*; α(M)=0.00357 *11*; α(N+..)=0.00108 *4* A_2=+0.40 *7*. I_γ: 87 *8* from 1992Ka01; 210 *50* from 1990Kr06.

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(HI,xnγ) 1993Dr02 (continued)

γ(^{181}Ir) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[b]	Comments
358.5	32 *4*	5085.5	45/2$^-$	4727.1	43/2$^-$			
361.2	37 *4*	5446.6	47/2$^-$	5085.5	45/2$^-$	M1	0.176	α(K)=0.146 *5*; α(L)=0.0234 *7*; α(M)=0.00537 *17*; α(N+..)=0.00165 *5* α(K)exp=0.09 *2* A_2=+0.22 *4* for 361.2γ + 362.0γ.
362.0	74 *8*	1035.3	15/2$^+$	673.4	11/2$^+$	E2[a]	0.0557	α(K)=0.0379 *12*; α(L)=0.0135 *4*; α(M)=0.00331 *10*; α(N+..)=0.00100 *3* A_2=+0.22 *4* for 361.2γ + 362.0γ. I_γ: 64 *8* from 1992Ka01.
365.5	28 *5*	2495.1	29/2$^+$	2130.0	25/2$^+$			
365.8	30 *4*	1381.9	17/2$^+$	1016.0	15/2$^{(-)}$			I_γ: 23 *6* from 1992Ka01.
366.5	14 *3*	366.4	9/2$^-$	0.0	5/2$^-$			I_γ: 20 *2* from 1992Ka01.
368.9	90 *14*	2499.1	29/2$^+$	2130.0	25/2$^+$	E2[a]	0.0529	α(K)=0.0362 *11*; α(L)=0.0126 *4*; α(M)=0.00310 *10*; α(N+..)=0.00094 *3* A_2=+0.30 *6*.
371.0	27 *4*	2495.1	29/2$^+$	2124.3	25/2$^+$	E2[a]	0.0520	α(K)=0.0357 *11*; α(L)=0.0124 *4*; α(M)=0.00304 *10*; α(N+..)=0.00092 *3*
374.6	44 *8*	2499.1	29/2$^+$	2124.3	25/2$^+$			
375[c]	≈8	4252.8	39/2$^+$	3877.0	37/2$^+$			
376[c]	≈25	5822.5	49/2$^-$	5446.6	47/2$^-$			
376.8	65 *7*	1258.2		881.4		M1	0.157	α(K)=0.130 *4*; α(L)=0.0209 *7*; α(M)=0.00479 *15*; α(N+..)=0.00147 *5* α(K)exp=0.14 *3* from delayed spectra. A_2=+0.2 *1*. I_γ: 46 *6* from 1992Ka01.
380.1	29 *3*	1956.4	(17/2$^+$)	1576.2	(17/2$^-$)			A_2=−0.30 *18*. I_γ: 15 *5* from 1992Ka01.
385.0	259 *18*	2062.0	25/2$^+$	1677.0	21/2$^+$	E2[a]	0.0470	α(K)=0.0327 *10*; α(L)=0.0109 *4*; α(M)=0.00267 *8*; α(N+..)=0.00081 *3* α(K)exp=0.037 *2*; α(L)exp=0.0099 *13*; α(M)exp=0.0045 *12* for 385.0γ + 386.4γ. A_2=+0.38 *20* for 385.0γ + 385.2γ + 386.4γ. I_γ: 195 *20* from 1992Ka01.
385.2	72 *9*	1961.7	19/2$^-$	1576.2	(17/2$^-$)	M1	0.148	α(K)=0.123 *4*; α(L)=0.0197 *6*; α(M)=0.00452 *14*; α(N+..)=0.00139 *5* α(K)exp=0.09 *3* from delayed spectra. A_2=+0.38 *20* for 385.0γ + 385.2γ + 386.4γ.
386.4	182 *11*	1041.0	17/2$^-$	654.7	13/2$^-$	E2[a]	0.0466	α(K)=0.0324 *10*; α(L)=0.0108 *4*; α(M)=0.00263 *8*; α(N+..)=0.00080 *2* α(K)exp=0.037 *2*; α(L)exp=0.0099 *13*; α(M)exp=0.0045 *12* for 385.0γ + 386.4γ. A_2=+0.38 *20* for 385.0γ + 385.2γ + 386.4γ. I_γ: 142 *11* from 1992Ka01; 110 *30* from 1990Kr06.
393.0	32 *2*	1620.9	(19/2$^+$)	1227.8	(15/2$^+$)	E2[a]	0.0445	α(K)=0.0311 *10*; α(L)=0.0101 *3*; α(M)=0.00248 *8*; α(N+..)=0.00075 *2*
394.8	77 *17*	1239.5	17/2$^+$	844.8	13/2$^+$	E2[a]	0.0439	α(K)=0.0308 *10*; α(L)=0.0100 *3*; α(M)=0.00244 *8*; α(N+..)=0.00074 *2* I_γ: 78 *9* from 1992Ka01.
399.8	18 *2*	2556.7	(−)	2156.9	29/2$^-$			
402.7	17 *3*	2382.2	25/2$^-$	1979.6	21/2$^-$	E2[a]	0.0417	α(K)=0.0294 *9*; α(L)=0.0093 *3*; α(M)=0.00228 *7*; α(N+..)=0.00069 *2* A_2=+0.20 *7*.
402.9	25 *5*	2130.0	25/2$^+$	1726.9	23/2$^-$			A_2=−0.20 *7* for 402.7γ + 402.9γ.
405.0	41 *3*	2529.3	29/2$^+$	2124.3	25/2$^+$			A_2=+0.31 *5* for 405.0γ + 405.5γ.
405.5	42 *4*	2597.3	29/2$^+$	2191.8	25/2$^+$	E2[a]	0.0409	α(K)=0.0289 *9*; α(L)=0.0091 *3*; α(M)=0.00223 *7*;

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(HI,xnγ) 1993Dr02 (continued)

γ(^{181}Ir) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[b]	Comments
								α(N+..)=0.00067 *2* A_2=+0.31 *5* for 405.0γ + 405.5γ. I_γ: 16 *4* from 1992Ka01.
418.6	182 *11*	1256.7	19/2$^-$	838.1	15/2$^-$	E2[a]	0.0376	α(K)=0.0268 *8*; α(L)=0.00821 *25*; α(M)=0.00200 *6*; α(N+..)=0.00061 *2* I_γ: 109 *8* from 1992Ka01; 140 *40* from 1990Kr06.
422.1	106 *16*	2721.5	31/2$^+$	2299.3	27/2$^+$	E2[a]	0.0368	α(K)=0.0263 *8*; α(L)=0.00799 *24*; α(M)=0.00195 *6*; α(N+..)=0.00059 *2* A_2=+0.37 *9* for 422.1γ + 423.5γ. I_γ: 36 *5* from 1992Ka01.
423.5	105 *12*	1458.8	19/2$^+$	1035.3	15/2$^+$	E2[a]	0.0365	α(K)=0.0261 *8*; α(L)=0.00790 *24*; α(M)=0.00193 *6*; α(N+..)=0.00058 *2* A_2=+0.37 *9* for 422.1γ + 423.5γ. I_γ: 62 *7* from 1992Ka01.
427.4	22 *3*	2602.6	27/2$^-$	2175.3	23/2$^-$	E2[a]	0.0356	α(K)=0.0255 *8*; α(L)=0.00767 *23*; α(M)=0.00187 *6*; α(N+..)=0.00057 *2*
429.6	28 *4*	1245.6	19/2$^-$	815.8	15/2$^-$	E2[a]	0.0352	α(K)=0.0252 *8*; α(L)=0.00754 *23*; α(M)=0.00184 *6*; α(N+..)=0.00056 *2* A_2=+0.5 *2*. I_γ: ≤52 from 1992Ka01.
431.5	60 *4*	1677.0	21/2$^+$	1245.6	19/2$^-$			I_γ: ≤52 from 1992Ka01.
433.0	131 *10*	2495.1	29/2$^+$	2062.0	25/2$^+$	E2	0.0345	α(K)=0.0248 *8*; α(L)=0.00735 *22*; α(M)=0.00179 *6*; α(N+..)=0.00054 *2* α(K)exp=0.026 *4* A_2=+0.33 *8*. I_γ: 76 *15* from 1992Ka01.
437.4	72 *8*	2499.1	29/2$^+$	2062.0	25/2$^+$			A_2=+0.4 *2*.
445.8	185 *11*	1486.9	21/2$^-$	1041.0	17/2$^-$	E2	0.0320	α(K)=0.0232 *7*; α(L)=0.00669 *20*; α(M)=0.00162 *5*; α(N+..)=0.00049 *2* α(K)exp=0.031 *5* A_2=+0.33 *9*. I_γ: 86 *10* from 1992Ka01; 50 *30* from 1990Kr06.
447.3	95 *8*	1686.7	21/2$^+$	1239.5	17/2$^+$	E2[a]	0.0317	α(K)=0.0230 *7*; α(L)=0.00661 *20*; α(M)=0.00161 *5*; α(N+..)=0.00049 *2* A_2=+0.33 *13* for 447.3γ + 447.3γ. I_γ: 53 *6* from 1992Ka01.
447.3	16 *3*	2124.3	25/2$^+$	1677.0	21/2$^+$			A_2=+0.33 *13* for 447.3γ + 447.3γ.
451.5	49 *5*	2833.6	31/2$^+$	2382.1	27/2$^+$	E2	0.0309	α(K)=0.0225 *7*; α(L)=0.00642 *20*; α(M)=0.00156 *5*; α(N+..)=0.00047 *2* α(K)exp=0.017 *8* A_2=+0.25 *9*. I_γ: 26 *4* from 1992Ka01.
454.9	23 *3*	2837.2	29/2$^-$	2382.2	25/2$^-$	E2[a]	0.0303	α(K)=0.0221 *7*; α(L)=0.00627 *19*; α(M)=0.00152 *5*; α(N+..)=0.00046 *1*
455.9	750 *18*	1005.1	21/2$^-$	549.1	17/2$^-$	E2	0.0302	α(K)=0.0220 *7*; α(L)=0.00622 *19*; α(M)=0.00151 *5*; α(N+..)=0.00046 *1* α(K)exp=0.021 *1*; α(L)exp=0.0069 *4*; α(M)exp=0.0015 *4* A_2=+0.43 *6*. I_γ: 593 *15* from 1992Ka01; 500 *50* from 1990Kr06.
465.8	40 *6*	2086.7	(23/2$^+$)	1620.9	(19/2$^+$)	E2[a]	0.0286	α(K)=0.0209 *7*; α(L)=0.00581 *18*; α(M)=0.00141 *5*; α(N+..)=0.00043 *1*
466.9[@c]		1016.0	15/2$^{(-)}$	549.1	17/2$^-$			I_γ: 72 *15* from 1992Ka01.
467.3	95 *7*	2529.3	29/2$^+$	2062.0	25/2$^+$	E2	0.0283	α(K)=0.0208 *7*; α(L)=0.00575 *18*; α(M)=0.00139 *5*; α(N+..)=0.00042 *1*

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(HI,xnγ) 1993Dr02 (continued)

γ(^{181}Ir) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[b]	Comments
								α(K)exp=0.024 *5* A_2=+0.45 *10*.
468.8	115 *9*	1927.7	23/2$^+$	1458.8	19/2$^+$	E2[a]	0.0281	α(K)=0.0206 *7*; α(L)=0.00570 *17*; α(M)=0.00138 *5*; α(N+..)=0.00042 *1* α(K)exp=0.026 *4* for 468.8γ + 470.1γ. A_2=+0.34 *8* for 468.8γ + 470.1γ + 470.6γ. I_γ: 41 *7* from 1992Ka01.
470.1	149 *13*	1726.9	23/2$^-$	1256.7	19/2$^-$	E2[a]	0.0279	α(K)=0.0205 *7*; α(L)=0.00565 *17*; α(M)=0.00137 *5*; α(N+..)=0.00041 *1* α(K)exp=0.026 *4* for 468.8γ + 470.1γ. A_2=+0.34 *8* for 468.8γ + 470.1γ + 470.6γ. I_γ: 70 *6* from 1992Ka01; 160 *50* from 1990Kr06.
470.6	47 *4*	2970.0	33/2$^+$	2499.1	29/2$^+$	E2[a]	0.0278	α(K)=0.0204 *7*; α(L)=0.00563 *17*; α(M)=0.00136 *4*; α(N+..)=0.00041 *1* A_2=+0.34 *8* for 468.8γ + 470.1γ + 470.6γ.
474.4	14 *2*	499.5	(11/2$^-$)	25.1	9/2$^-$			I_γ: 40 *20* from 1992Ka01.
475.1	41 *4*	2970.0	33/2$^+$	2495.1	29/2$^+$	E2	0.0272	α(K)=0.0200 *6*; α(L)=0.00546 *17*; α(M)=0.00132 *4*; α(N+..)=0.00040 *1* α(K)exp=0.022 *8*
481.8	50 *8*	3084.3	31/2$^-$	2602.6	27/2$^-$	E2	0.0262	α(K)=0.0194 *6*; α(L)=0.00523 *16*; α(M)=0.00126 *4*; α(N+..)=0.00038 *1* α(K)exp=0.020 *8*
483.2	58 *3*	2982.4	33/2$^+$	2499.1	29/2$^+$	E2	0.0261	α(K)=0.0192 *6*; α(L)=0.00518 *16*; α(M)=0.00125 *4*; α(N+..)=0.00038 *1* α(K)exp=0.024 *5*
487.3	76 *4*	2982.4	33/2$^+$	2495.1	29/2$^+$	E2	0.0255	α(K)=0.0189 *6*; α(L)=0.00505 *16*; α(M)=0.00122 *4*; α(N+..)=0.00037 *1* α(K)exp=0.016 *5* A_2=+0.50 *10*.
490.7	91 *9*	2177.3	25/2$^+$	1686.7	21/2$^+$	E2[a]	0.0251	α(K)=0.0186 *6*; α(L)=0.00494 *15*; α(M)=0.00119 *4*; α(N+..)=0.00036 *1* α(K)exp=0.022 *4* for 490.7γ + 490.8γ + 491.6γ. A_2=+0.32 *10* for 490.7γ + 490.8γ + 491.6γ. I_γ: 39 *6* from 1992Ka01.
490.8	76 *5*	3088.0	33/2$^+$	2597.3	29/2$^+$	E2[a]	0.0251	α(K)=0.0186 *6*; α(L)=0.00494 *15*; α(M)=0.00119 *4*; α(N+..)=0.00036 *1* α(K)exp=0.022 *4* for 490.7γ + 490.8γ + 491.6γ. A_2=+0.32 *10* for 490.7γ + 490.8γ + 491.6γ. I_γ: 30 *7* from 1992Ka01.
491.6	195 *12*	1978.6	25/2$^-$	1486.9	21/2$^-$	E2[a]	0.0250	α(K)=0.0185 *6*; α(L)=0.00491 *15*; α(M)=0.00119 *4*; α(N+..)=0.00036 *1* α(K)exp=0.022 *4* for 490.7γ + 490.8γ + 491.6γ. A_2=+0.32 *10* for 490.7γ + 490.8γ + 491.6γ. I_γ: 53 *5* from 1992Ka01.
495.8	91 *4*	3025.1	33/2$^+$	2529.3	29/2$^+$	E2	0.0244	α(K)=0.0181 *6*; α(L)=0.00478 *15*; α(M)=0.00115 *4*; α(N+..)=0.00035 *1* α(K)exp=0.016 *4* A_2=+0.25 *7*.
503.6	27 *8*	1990.4	23/2$^+$	1486.9	21/2$^-$	E1+M2	0.11 *11*	α(K)=0.09 *9*; α(L)=0.017 *17* α(K)exp=0.04 *1*
503.6[c]	40 *5*	3341.0?	33/2$^-$	2837.2	29/2$^-$	D+Q		α(K)exp=0.04 *1* suggests E1+M2 or M1+E2.
511	36 *4*	3859.8		3348.8	37/2$^-$			
513.0	232 *9*	2239.7	27/2$^-$	1726.9	23/2$^-$	E2[a]	0.0225	α(K)=0.0168 *5*; α(L)=0.00431 *13* α(K)exp=0.017 *2* for 513.0γ + 513.3γ. I_γ: 73 *20* from 1992Ka01.
513.3	81 *7*	2441.0	27/2$^+$	1927.7	23/2$^+$	E2[a]	0.0225	α(K)=0.0168 *5*; α(L)=0.00430 *13*

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(HI,xnγ) 1993Dr02 (continued)

γ(^{181}Ir) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[b]	Comments
								α(K)exp=0.017 *2* for 513.0γ + 513.3γ. I_γ: 41 *10* from 1992Ka01.
514[c]	≈30	2421.4	(25/2)	1907.4	(21/2)			
515.2	56 *6*	881.4		366.4	9/2$^-$			α(K)exp=0.027 *4* for 515.2γ + 516.6γ suggests M1,E2.
516.6[c]	54 *7*	3600.7?	(35/2$^-$)	3084.3	31/2$^-$			α(K)exp=0.027 *4* for 515.2γ + 516.6γ suggests M1+E2.
517.9	33 *5*	1763.6	(23/2$^-$)	1245.6	19/2$^-$	E2[a]	0.0220	α(K)=0.0164 *5*; α(L)=0.00419 *13* I_γ: 71 *15* from 1992Ka01.
518.9	141 *3*	3240.4	35/2$^+$	2721.5	31/2$^+$	E2[a]	0.0219	α(K)=0.0164 *5*; α(L)=0.00417 *13* A_2=+0.39 *4*.
523.9	62 *5*	3357.5	35/2$^+$	2833.6	31/2$^+$	E2[a]	0.0214	α(K)=0.0160 *5*; α(L)=0.00405 *13* A_2=+0.36 *10*.
530.1	11 *2*	3025.1	33/2$^+$	2495.1	29/2$^+$			A_2=(+0.4 *2*).
533.9	211 *17*	2512.6	29/2$^-$	1978.6	25/2$^-$	E2[a]	0.0204	α(K)=0.0154 *5*; α(L)=0.00383 *12* A_2=+0.5 *1* for 533.9γ + 535.5γ. I_γ: 46 *6* from 1992Ka01.
535.5	63 *6*	2712.9	29/2$^+$	2177.3	25/2$^+$	E2[a]	0.0203	α(K)=0.0153 *5*; α(L)=0.00379 *12* A_2=+0.5 *1* for 533.9γ + 535.5γ. I_γ: 24 *6* from 1992Ka01.
536.5[c]	31 *10*	3877.8?	(37/2$^-$)	3341.0?	33/2$^-$			
539.1	43 *4*	2625.8	(27/2$^+$)	2086.7	(23/2$^+$)	E2[a]	0.0200	α(K)=0.0150 *5*; α(L)=0.00372 *12* α(K)exp=0.025 *7*
544.1	80 *12*	3569.0	37/2$^+$	3025.1	33/2$^+$	E2	0.0195	α(K)=0.0147 *5*; α(L)=0.00362 *11* α(K)exp=0.0168 *25*
546	≈15	2967.5	(29/2)	2421.4	(25/2)			
546.1	521 *20*	1551.6	25/2$^-$	1005.1	21/2$^-$	E2	0.0194	α(K)=0.0146 *5*; α(L)=0.00358 *11* α(K)exp=0.0131 *12*; α(L)exp=0.0036 *4* A_2=+0.39 *6*. I_γ: 382 *15* from 1992Ka01; 200 *30* from 1990Kr06.
547.6	9 *2*	2034.5	23/2$^+$	1486.9	21/2$^-$			
552.8	56 *5*	3535.2	37/2$^+$	2982.4	33/2$^+$	E2[a]	0.0188	α(K)=0.0142 *5*; α(L)=0.00345 *11* α(K)exp=0.0179 *24* for 552.8γ doublet. A_2=+0.41 *5* for 552.8γ doublet.
552.8	59 *5*	3640.8	37/2$^+$	3088.0	33/2$^+$	E2[a]	0.0188	α(K)=0.0142 *5*; α(L)=0.00345 *11* α(K)exp=0.0179 *24* for 552.8γ doublet. A_2=+0.41 *5* for 552.8γ doublet.
556.4	187 *10*	2796.1	31/2$^-$	2239.7	27/2$^-$	E2[a]	0.0185	α(K)=0.0140 *5*; α(L)=0.00339 *11* A_2=+0.5 *1*. I_γ: 36 *6* from 1992Ka01.
559.6	135 *12*	3529.5	37/2$^+$	2970.0	33/2$^+$	E2[a]	0.0183	α(K)=0.0138 *5*; α(L)=0.00333 *10* α(K)exp=0.0202 *24* for 559.6γ +561.6γ. A_2=+0.40 *5*.
560.1	18 *2*	1258.2		698.3				
561.6	71 *12*	3002.5	31/2$^+$	2441.0	27/2$^+$	E2[a]	0.0181	α(K)=0.0137 *5*; α(L)=0.00330 *10* α(K)exp=0.0202 *24* for 559.6γ +561.6γ.
565.3	40 *5*	3278.4	33/2$^+$	2712.9	29/2$^+$	E2[a]	0.0178	α(K)=0.0135 *4*; α(L)=0.00324 *10*
565.8[c]	≈25	4443.6?	(41/2$^-$)	3877.8?	(37/2$^-$)			
566.2	100 *8*	1381.9	17/2$^+$	815.8	15/2$^-$	E1	0.00617	α=0.00617; α(K)=0.00514 *16*; α(L)=0.00078 *2* α(K)exp=0.041 *13* A_2=−0.15 *13*. I_γ: 90 *10* from 1992Ka01.
570.3	147 *5*	3348.8	37/2$^-$	2778.4	33/2$^-$	E2	0.0175	α(K)=0.0133 *4*; α(L)=0.00315 *10* α(K)exp=0.0109 *14*

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(HI,xnγ) 1993Dr02 (continued)

γ(^{181}Ir) (continued)

E_γ [†]	I_γ [‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[b]	Comments
								A_2=+0.34 *7*. I_γ: 63 *12* from 1992Ka01.
570.7[c]	9 *2*	1576.2	(17/2$^-$)	1005.1	21/2$^-$			
573.5	38 *5*	2336.7	(27/2$^-$)	1763.6	(23/2$^-$)	E2[a]	0.0172	α(K)=0.0131 *4*; α(L)=0.00310 *10* A_2=+0.42 *5* for 573.5γ + 573.9γ.
573.9[c]	19 *3*	4174.5?	(39/2$^-$)	3600.7?	(35/2$^-$)			A_2=+0.42 *5* for 573.5γ + 573.9γ.
576.6	24 *4*	2913.1	(31/2$^-$)	2336.7	(27/2$^-$)	E2[a]	0.0170	α(K)=0.0130 *4*; α(L)=0.00306 *10*
578.5	54 *6*	3936.1	39/2$^+$	3357.5	35/2$^+$	E2[a]	0.0169	α(K)=0.0129 *4*; α(L)=0.00303 *9* α(K)exp=0.0160 *17* for 578.5γ + 579.4γ. A_2=+0.43 *7* for 578.5γ + 579.4γ.
579.4	173 *10*	3092.0	33/2$^-$	2512.6	29/2$^-$	E2[a]	0.0168	α(K)=0.0128 *4*; α(L)=0.00301 *9* α(K)exp=0.0160 *17* for 578.5γ + 579.4γ. A_2=+0.43 *7* for 578.5γ + 579.4γ. I_γ: 30 *6* from 1992Ka01.
583.7	40 *4*	4152.7	41/2$^+$	3569.0	37/2$^+$	E2	0.0165	α(K)=0.0126 *4*; α(L)=0.00295 *9* α(K)exp=0.017 *7* A_2=+0.30 *19*.
586.4	18 *3*	3499.5	(35/2$^-$)	2913.1	(31/2$^-$)	E2[a]	0.0164	α(K)=0.0125 *4*; α(L)=0.00291 *9*
590.9	16 *6*	3216.7	(31/2$^+$)	2625.8	(27/2$^+$)	E2[a]	0.0161	α(K)=0.0123 *4*; α(L)=0.00285 *9*
594.2	14 *2*	4163.0	41/2$^+$	3569.0	37/2$^+$			
[x]597.8[@]								I_γ: 106 *20* from 1992Ka01.
597.9	174 *14*	3838.4	39/2$^+$	3240.4	35/2$^+$	E2[a]	0.0157	α(K)=0.0120 *4*; α(L)=0.00276 *9*
598.5	41 *5*	3877.0	37/2$^+$	3278.4	33/2$^+$	E2[a]	0.0156	α(K)=0.0120 *4*; α(L)=0.00275 *9*
599.4	≈50	4134.6	41/2$^+$	3535.2	37/2$^+$	E2[a]	0.0156	α(K)=0.0119 *4*; α(L)=0.00274 *9*
600.9	122 *10*	3949.7	41/2$^-$	3348.8	37/2$^-$	E2[a]	0.0155	α(K)=0.0119 *4*; α(L)=0.00272 *9* I_γ: 60 *15* from 1992Ka01.
601	≈10	3568.1	(33/2)	2967.5	(29/2)	E2[a]	0.0155	α(K)=0.0119 *4*; α(L)=0.00272 *9*
602.6	112 *10*	815.8	15/2$^-$	213.1	13/2$^-$	M1	0.0460	α(K)=0.0380 *12*; α(L)=0.00602 *18* α(K)exp=0.036 *3*; α(L)exp=0.0060 *11*. Conversion electron line corrected for 603.1 keV E2 component. A_2=−0.31 *8*. I_γ: 146 *12* from 1992Ka01.
603.1	69 *8*	4243.9	41/2$^+$	3640.8	37/2$^+$	E2[a]	0.0153	α(K)=0.0118 *4*; α(L)=0.00269 *8*
603.9	139 *10*	3399.9	35/2$^-$	2796.1	31/2$^-$	E2[a]	0.0153	α(K)=0.0117 *4*; α(L)=0.00268 *8* I_γ: 40 *10* from 1992Ka01.
605.1	358 *10*	2156.9	29/2$^-$	1551.6	25/2$^-$	E2	0.0152	α(K)=0.0117 *4*; α(L)=0.00267 *8* α(K)exp=0.0128 *9*; α(L)exp=0.0037 *4* A_2=(+0.16 *4*). E_γ: 603.4 from 1990Kr06. I_γ: 257 *15* from 1992Ka01; 100 *20* from 1990Kr06.
612.0	46 *5*	3614.4	35/2$^+$	3002.5	31/2$^+$	E2[a]	0.0148	α(K)=0.0114 *4*; α(L)=0.00258 *8*
619.3	38 *5*	4496.3	41/2$^+$	3877.0	37/2$^+$	E2[a]	0.0144	α(K)=0.0111 *4*; α(L)=0.00250 *8*
620.5	≈25	4120.0	(39/2$^-$)	3499.5	(35/2$^-$)	E2[a]	0.0144	α(K)=0.0111 *4*; α(L)=0.00249 *8*
621.5	193 *10*	2778.4	33/2$^-$	2156.9	29/2$^-$	E2	0.0143	α(K)=0.0110 *4*; α(L)=0.00247 *8* α(K)exp=0.0121 *10*; α(L)exp=0.0021 *7* A_2=+0.37 *8*. E_γ: 619.8 from 1990Kr06. I_γ: 103 *5* from 1992Ka01; 50 *20* from 1990Kr06.
623.3	25 *4*	4152.7	41/2$^+$	3529.5	37/2$^+$			
625.9	115 *12*	1882.7	21/2$^+$	1256.7	19/2$^-$	E1	0.00502	α=0.00502; α(K)=0.00419 *13*; α(L)=0.00063 *2* α(K)exp=0.0055 *11*. Conversion electron line corrected for 626.1 keV E2 component. A_2=(−0.25 *8*). I_γ: 92 *8* from 1992Ka01; 140 *50* from 1990Kr06.

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(HI,xnγ) 1993Dr02 (continued)

γ(^{181}Ir) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[b]	Comments
626.1	87 *7*	3718.3	37/2$^-$	3092.0	33/2$^-$	E2[a]	0.0141	α(K)=0.0109 *4*; α(L)=0.00242 *8*
627.6	57 *7*	4563.6	43/2$^+$	3936.1	39/2$^+$	E2[a]	0.0140	α(K)=0.0108 *4*; α(L)=0.00241 *8*
632.8[c]	11 *1*	5129.1?	(45/2$^+$)	4496.3	41/2$^+$			α(K)exp=0.017 *5* for 632.8γ + 633.4γ. A_2=+0.5 *2* for 632.8γ + 633.4γ.
633.4	61 *9*	4163.0	41/2$^+$	3529.5	37/2$^+$	E2[a]	0.0137	α(K)=0.0106 *4*; α(L)=0.00235 *7* α(K)exp=0.017 *5* for 632.8γ + 633.4γ. A_2=+0.5 *2* for 632.8γ + 633.4γ.
636.3	30 *5*	4789.0	45/2$^+$	4152.7	41/2$^+$	E2[a]	0.0136	α(K)=0.0105 *4*; α(L)=0.00232 *7*
638.5	56 *7*	4252.8	39/2$^+$	3614.4	35/2$^+$	E2[a]	0.0135	α(K)=0.0104 *4*; α(L)=0.00230 *7*
640.4	13 *3*	3857.1	(35/2$^+$)	3216.7	(31/2$^+$)	E2[a]	0.0134	α(K)=0.0104 *4*; α(L)=0.00228 *7*
643.3	18 *3*	4777.9	45/2$^+$	4134.6	41/2$^+$	E2[a]	0.0133	α(K)=0.0103 *3*; α(L)=0.00225 *7*
645.6	64 *5*	4045.5	39/2$^-$	3399.9	35/2$^-$	E2	0.0132	α(K)=0.0102 *3*; α(L)=0.00223 *7* α(K)exp=0.014 *4*
653.1	38 *5*	4897.0	45/2$^+$	4243.9	41/2$^+$	E2	0.0128	α(K)=0.0099 *3*; α(L)=0.00216 *7* α(K)exp=0.010 *5*
657.2	60 *10*	4495.6	43/2$^+$	3838.4	39/2$^+$	E2[a]	0.0126	α(K)=0.0098 *3*; α(L)=0.00212 *7*
660	≈18	4912.8	43/2$^+$	4252.8	39/2$^+$	E2[a]	0.0125	α(K)=0.0097 *3*; α(L)=0.00210 *7*
667.2	58 *5*	4385.2	41/2$^-$	3718.3	37/2$^-$	E2[a]	0.0122	α(K)=0.0095 *3*; α(L)=0.00204 *7*
672.1	80 *6*	1677.0	21/2$^+$	1005.1	21/2$^-$			A_2=+0.29 *8*. I_γ: 80 *15* from 1992Ka01.
678	≈50	4841.0	45/2$^+$	4163.0	41/2$^+$	E2[a]	0.0118	α(K)=0.0092 *3*; α(L)=0.00195 *6*
678.4	31 *3*	1227.8	(15/2$^+$)	549.1	17/2$^-$	D+Q		Mult.: E1+M2 or M1 from α(K)exp=0.0340 36; α(L)exp=0.0041 14.
679	9 *2*	4536.1	(39/2$^+$)	3857.1	(35/2$^+$)	E2[a]	0.0118	α(K)=0.0092 *3*; α(L)=0.00195 *6*
680.0	37 *5*	5243.6	47/2$^+$	4563.6	43/2$^+$	E2[a]	0.0117	α(K)=0.0091 *3*; α(L)=0.00194 *6*
681.3	11 *2*	5470.3	49/2$^+$	4789.0	45/2$^+$	E2[a]	0.0117	α(K)=0.0091 *3*; α(L)=0.00193 *6* A_2=+0.47 *12* for 681.3γ + 681.7γ + 682γ + 682.8γ.
681.7	48 *5*	4727.1	43/2$^-$	4045.5	39/2$^-$	E2[a]	0.0117	α(K)=0.0091 *3*; α(L)=0.00193 *6* α(K)exp=0.0102 *19* for 681.7γ +682.8γ. A_2=+0.47 *12* for 681.3γ + 681.7γ + 682γ + 682.8γ.
682	≈10	4802.0	(43/2$^-$)	4120.0	(39/2$^-$)	E2[a]	0.0117	α(K)=0.0091 *3*; α(L)=0.00192 *6* A_2=+0.47 *12* for 681.3γ + 681.7γ + 682γ + 682.8γ.
682.8	74 *8*	4632.5	45/2$^-$	3949.7	41/2$^-$	E2[a]	0.0116	α(K)=0.0091 *3*; α(L)=0.00192 *6* α(K)exp=0.0102 *19* for 681.7γ +682.8γ. A_2=+0.47 *12* for 681.3γ + 681.7γ + 682γ + 682.8γ.
684[c]	≈12	5596.8?	(47/2$^+$)	4912.8	43/2$^+$			
691	≈10	4039.8		3348.8	37/2$^-$			
696.6	65 *4*	1245.6	19/2$^-$	549.1	17/2$^-$	M1	0.0316	α(K)=0.0261 *8*; α(L)=0.00413 *13* α(K)exp=0.022 *3* E_γ: 695.4 from 1990Kr06. I_γ: 110 *20* from 1992Ka01; 100 *40* from 1990Kr06.
697	13 *3*	5474.9	49/2$^+$	4777.9	45/2$^+$	E2[a]	0.0111	α(K)=0.0087 *3*; α(L)=0.00182 *6*
700	40 *5*	5085.5	45/2$^-$	4385.2	41/2$^-$	E2[a]	0.0110	α(K)=0.0086 *3*; α(L)=0.00180 *6*
706.4 *3*	20 *4*	5603.4	49/2$^+$	4897.0	45/2$^+$	E2[a]	0.0108	α(K)=0.0085 *3*; α(L)=0.00175 *6* E_γ: 704.4 from 1992Ka01. I_γ: 20 *5* from 1992Ka01.
709	15 *4*	4276.9	(37/2)	3568.1	(33/2)	E2[a]	0.0107	α(K)=0.0084 *3*; α(L)=0.00174 *6*
710[c]	≈30	5205.6?	(47/2$^+$)	4495.6	43/2$^+$			
718	35 *7*	5446.6	47/2$^-$	4727.1	43/2$^-$	E2[a]	0.0104	α(K)=0.00819 *25*; α(L)=0.00168 *5*
719[c]	≈7	5255.1?	(43/2$^+$)	4536.1	(39/2$^+$)			
724	≈20	5565.0	(49/2$^+$)	4841.0	45/2$^+$			
731	≈6	6201.3	53/2$^+$	5470.3	49/2$^+$	E2[a]	0.0100	α(K)=0.00790 *24*; α(L)=0.00161 *5*

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(HI,xnγ) 1993Dr02 (continued)

γ(^{181}Ir) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[b]	Comments
732.9[c]	26 *7*	5976.5?	(51/2$^+$)	5243.6	47/2$^+$			
734[c]	≈6	5536.0?	(47/2$^-$)	4802.0	(43/2$^-$)			
737	34 *6*	5822.5	49/2$^-$	5085.5	45/2$^-$	E2[a]	0.0099	α(K)=0.00777 *24*; α(L)=0.00157 *5*
738.0	9 *2*	1576.2	(17/2$^-$)	838.1	15/2$^-$			
756.0	≈14	2913.1	(31/2$^-$)	2156.9	29/2$^-$			
756.8	47 *2*	5389.3	49/2$^-$	4632.5	45/2$^-$	E2[a]	0.0093	α=0.0093; α(K)=0.00736 *22*; α(L)=0.00147 *5*
758[c]	≈16	6204.6?	(51/2$^-$)	5446.6	47/2$^-$			
758[c]	≈5	6361.4?	(53/2$^+$)	5603.4	49/2$^+$			
759.0	43 *6*	1763.6	(23/2$^-$)	1005.1	21/2$^-$	M1	0.0254	α(K)=0.0210 *7*; α(L)=0.00331 *10* α(K)exp=0.016 *3*; α(L)exp=0.0038 *15* I_γ: 98 *20* from 1992Ka01.
759[c]	≈10	6233.9?	(53/2$^+$)	5474.9	49/2$^+$			
760	≈20	2311.6		1551.6	25/2$^-$			
760[c]	≈9	5036.9?	(41/2)	4276.9	(37/2)			
766.3	69 *9*	1807.3	19/2$^+$	1041.0	17/2$^-$			A_2=−0.34 *8*.
768[c]	≈10	6333.0?	(53/2$^+$)	5565.0	(49/2$^+$)			
771	15 *2*	4120.0	(39/2$^-$)	3348.8	37/2$^-$			
781[c]	≈4	6982.3?	(57/2$^+$)	6201.3	53/2$^+$			
785.0	18 *3*	2336.7	(27/2$^-$)	1551.6	25/2$^-$			
785[c]	≤10	6607.5?	(53/2$^-$)	5822.5	49/2$^-$			
789.6	27 *5*	3568.1	(33/2)	2778.4	33/2$^-$			
802.8	36 *3*	1016.0	15/2$^{(-)}$	213.1	13/2$^-$	(M1+E2)	0.015 *7*	α(K)=0.012 *6*; α(L)=0.0021 *8* α(K)exp=(0.016 *2*)$α(L)exp=(0.0042 *2*). Gamma-ray intensity corrected for contaminant. A_2=−0.90 *8*. I_γ: 59 *12* from 1992Ka01.
[x]810.2[@]								I_γ: 78 *14* from 1992Ka01.
810.6	48 *4*	2967.5	(29/2)	2156.9	29/2$^-$	D		α(K)exp=0.0038 *9* Mult.: E1 or E2 from α(K)exp; ΔJ=0 suggests E1. A_2=+0.22 *11*.
813	17 *2*	6202.3	53/2$^-$	5389.3	49/2$^-$	E2[a]	0.00802	α=0.00802; α(K)=0.00638 *20*; α(L)=0.00123 *4*
832.8	113 *10*	1381.9	17/2$^+$	549.1	17/2$^-$	E1	0.00287	α=0.00287; α(K)=0.00240 *8*; α(L)=0.00035 *1* α(K)exp=0.0024 *4* A_2=(+0.13 *8*). I_γ: 110 *15* from 1992Ka01.
850[c]	14 *4*	7052.3?	(57/2$^-$)	6202.3	53/2$^-$			
902.3	28 *3*	1907.4	(21/2)	1005.1	21/2$^-$	D+Q		Mult.: E1+M2 or M1+E2 from α(K)exp=0.0060 15.
915.4	36 *3*	1956.4	(17/2$^+$)	1041.0	17/2$^-$	D+Q		Mult.: M1+E2 or E1+M2 from α(K)exp=0.0064 20. A_2=+0.31 *8*. I_γ: 35 *6* from 1992Ka01.
920.7	65 *5*	1961.7	19/2$^-$	1041.0	17/2$^-$	E2	0.00621	α=0.00621; α(K)=0.00500 *15*; α(L)=0.00091 *3* α(K)exp=0.0068 *11* A_2=+0.14 *8*. I_γ: 57 *7* from 1992Ka01.
928	10 *2*	4276.9	(37/2)	3348.8	37/2$^-$			
1005.1	25 *3*	2556.7	(−)	1551.6	25/2$^-$	M1+E2	0.009 *4*	α(K)=0.007 *3*; α(L)=0.0012 *5*

Continued on next page (footnotes at end of table)

(HI,xnγ) 1993Dr02 (continued)

γ(^{181}Ir) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[b]	Comments
								α(K)exp=0.0065 *10* A_2=+0.33 *10*.
1014.8	38 *4*	1227.8	(15/2$^+$)	213.1	13/2$^-$	(E1)	0.00198	α=0.00198; α(K)=0.00166 *5*; α(L)=0.00024 *1* α(K)exp≤0.004. Gamma-ray intensity corrected for contaminant.
1071.9	12 *2*	1620.9	(19/2$^+$)	549.1	17/2$^-$			A_2=+0.53 *26*.
1118.4	18 *3*	1956.4	(17/2$^+$)	838.1	15/2$^-$	(E1)	0.00167	α=0.00167; α(K)=0.00140 *5*; α(L)=0.00020 *1* Mult.: α(K)exp≈0.002 gives E1, E2; ΔJ^π requires E1. I_γ: 15 *4* from 1992Ka01.
1123.7	45 *4*	1961.7	19/2$^-$	838.1	15/2$^-$	E2	0.00418	α=0.00418; α(K)=0.00341 *11*; α(L)=0.00058 *2* α(K)exp=0.0040 *9* A_2=+0.19 *9*. I_γ: 29 *6* from 1992Ka01.

† From 1993Dr02, except as noted. Eγ′s from 1992Ka01 and 1990Kr06 agree well with those from 1993Dr02 and are given in comments only when they differ substantially.

‡ From 1993Dr02, relative to Iγ(335.7)=1000. Intensities from 1992Ka01, relative to Iγ(187.8)=1000, with Iγ(335.7)=999 *15* and intensities from 1990Kr06, relative to Iγ(341.3)=1000, Iγ(335.7)=990 *100* are given in comments.

From conversion-coefficient measurements and γ(θ) in 1993Dr02, except as noted.

@ From 1992Ka01 only, not in adopted gammas.

& From γγ(θ) in 1990Kr06.

a Stretched quadrupole transition connecting ΔJ=2 states in the rotational band.

b 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.

c Placement of transition in the level scheme is uncertain.

x γ ray not placed in level scheme.

(HI,xnγ) 1993Dr02

Level Scheme

Intensities: Relative I_γ

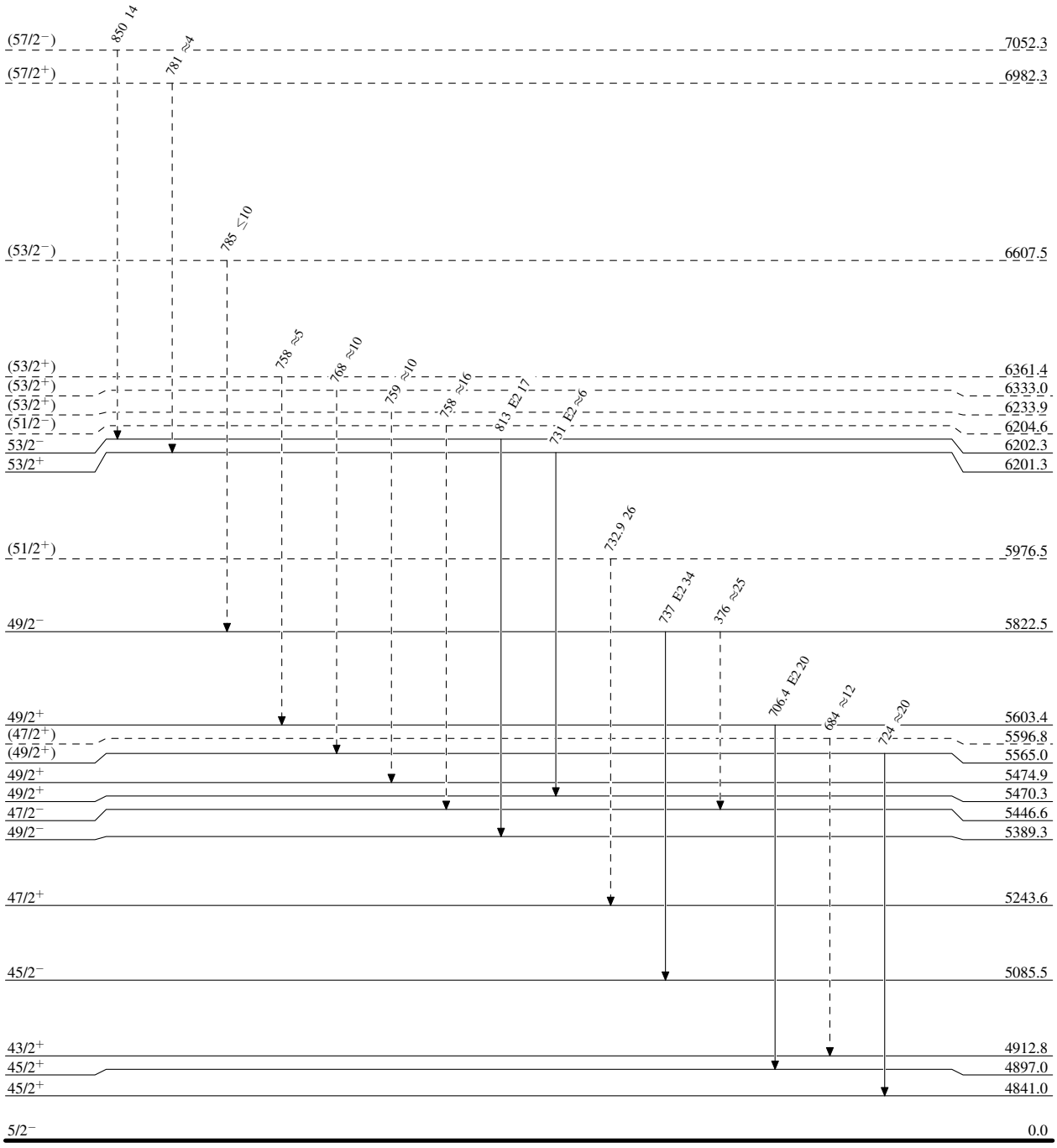
Legend

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

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

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

γ Decay (Uncertain)



$^{181}_{77}Ir_{104}$

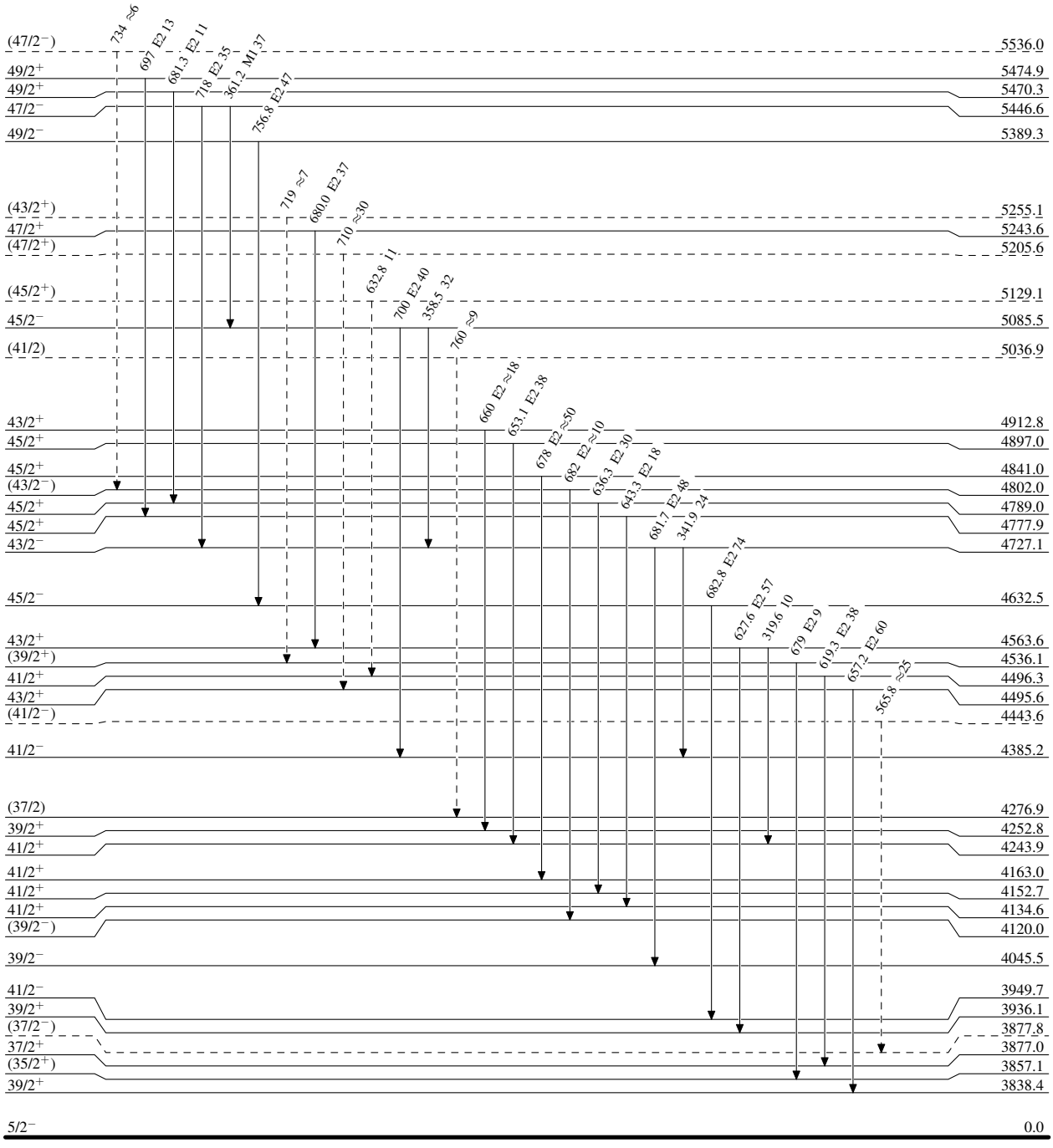
(HI,xnγ) 1993Dr02

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)



$^{181}_{77}Ir_{104}$

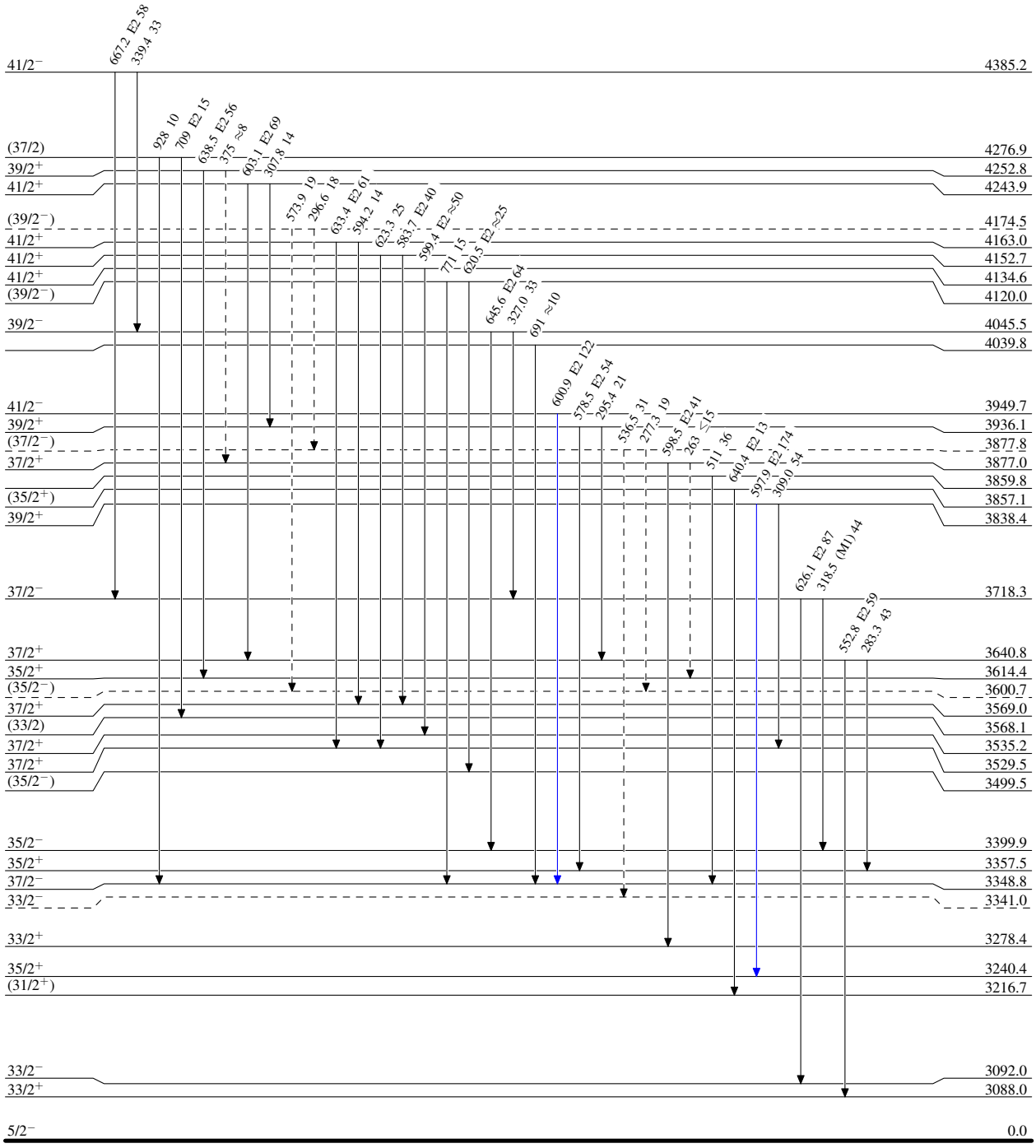
(HI,xnγ) 1993Dr02

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)

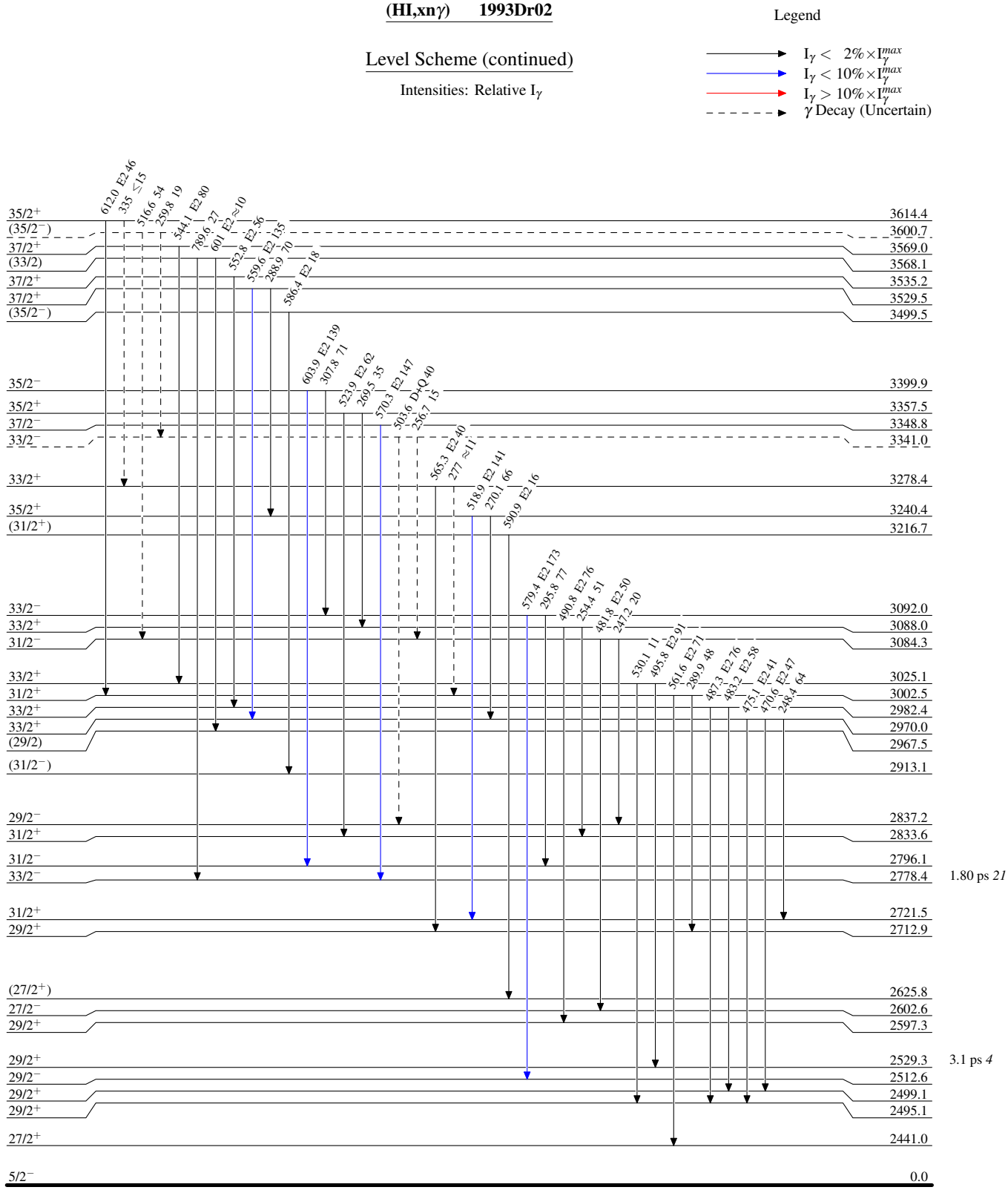


$^{181}_{77}Ir_{104}$

(HI,xnγ) 1993Dr02

Level Scheme (continued)

Intensities: Relative I_γ



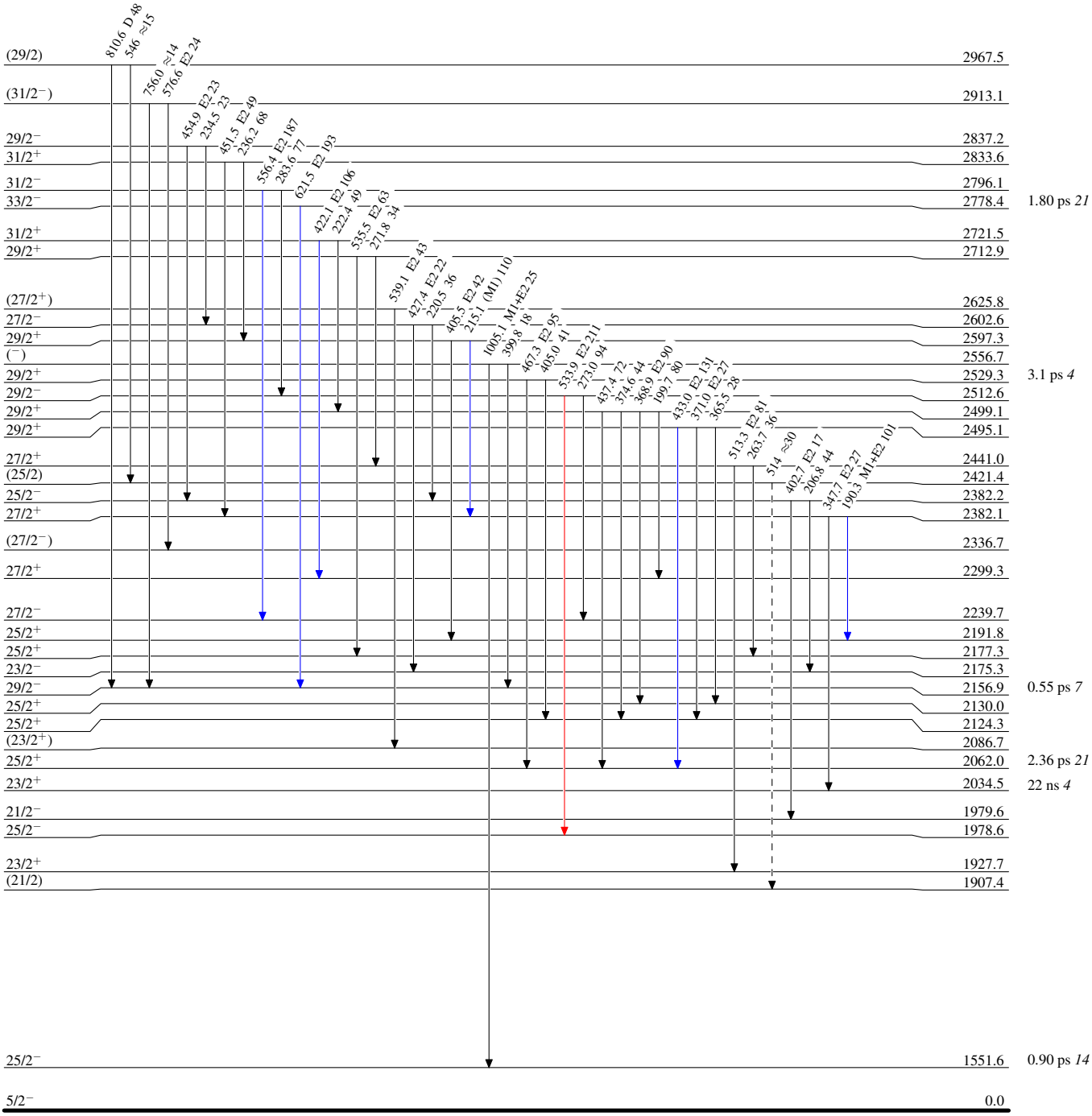
$^{181}_{77}Ir_{104}$

(HI,xnγ) 1993Dr02

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)



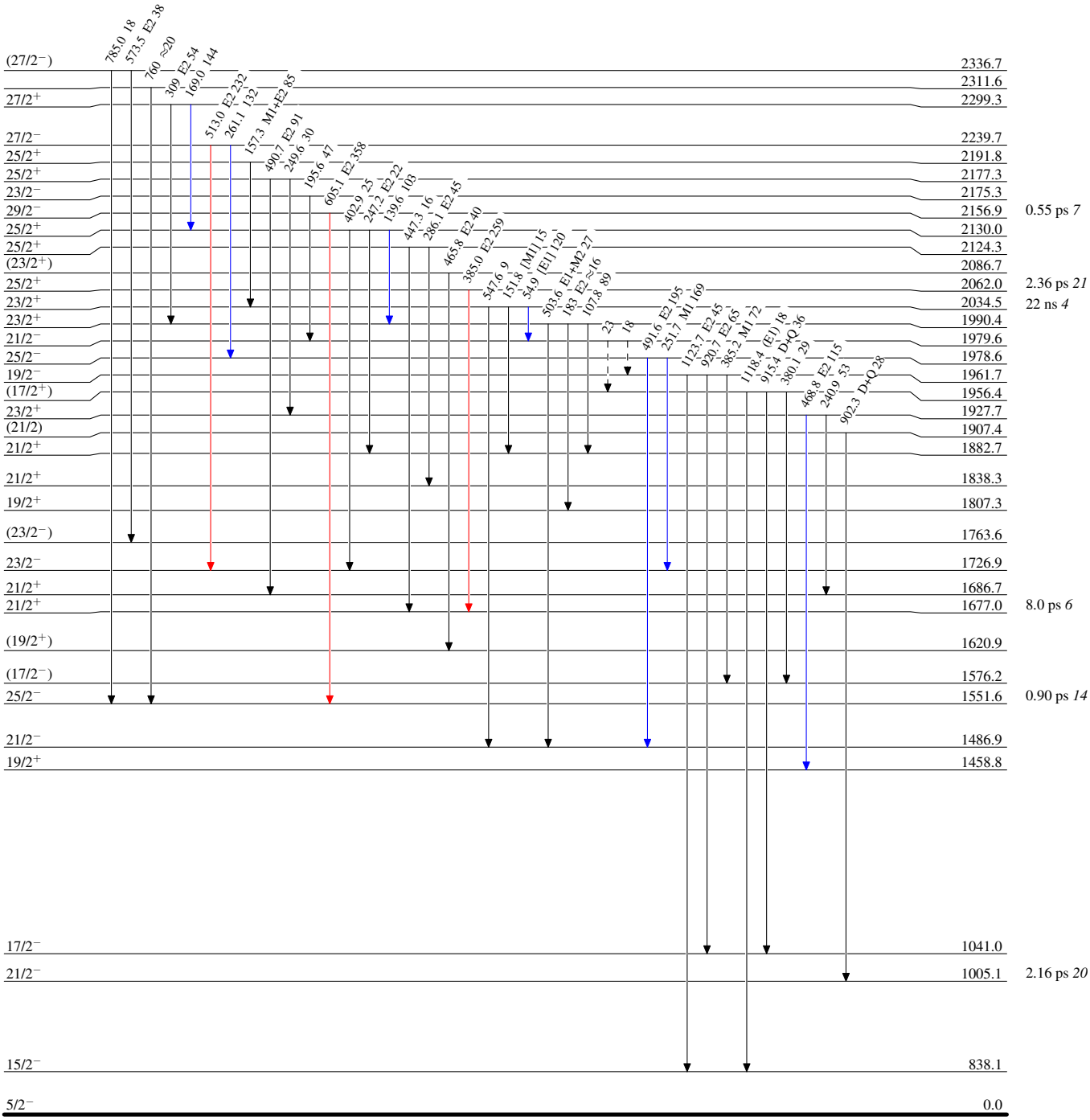
$^{181}_{77}Ir_{104}$

(HI,xnγ) 1993Dr02

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)



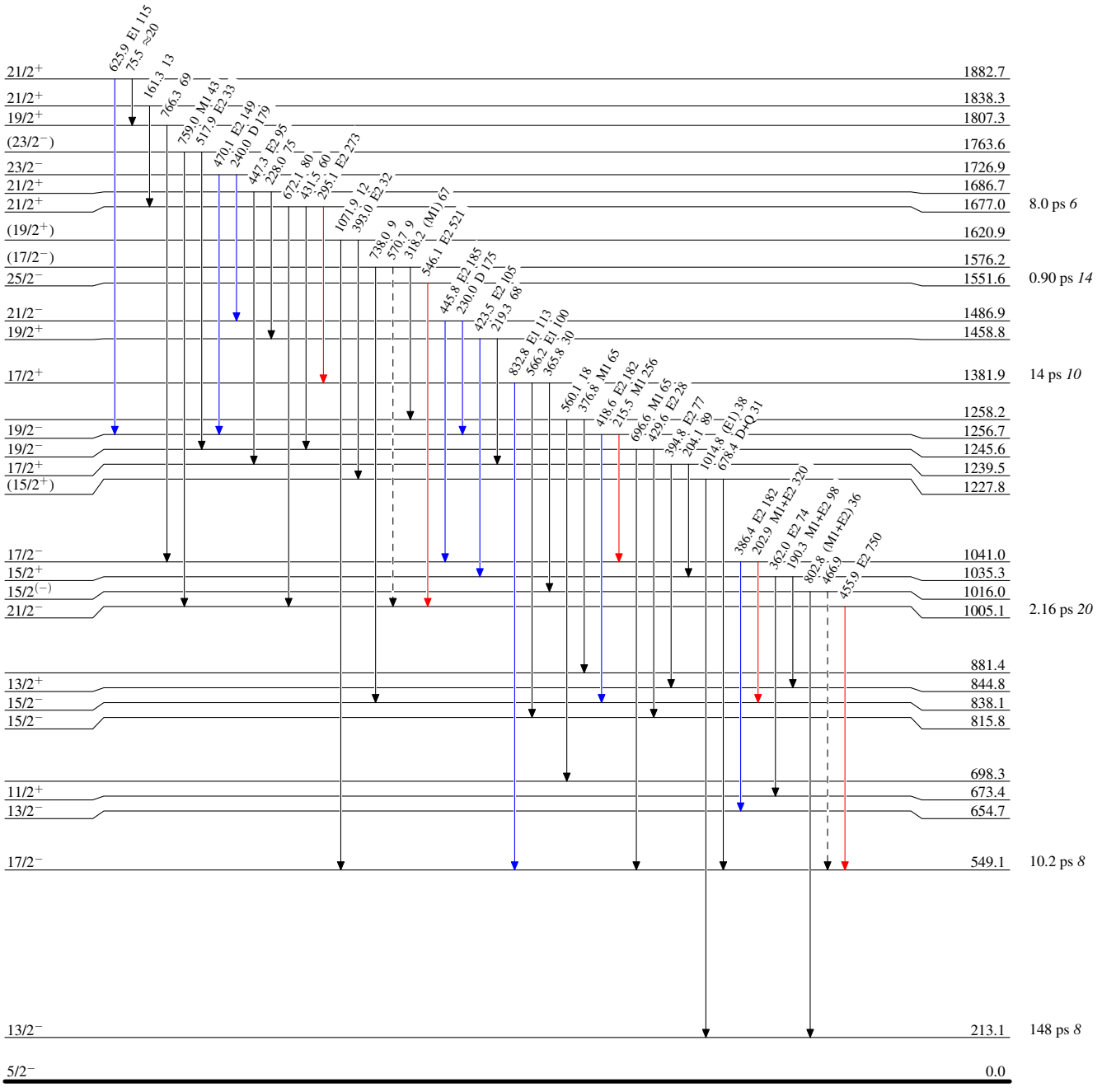
$^{181}_{77}Ir_{104}$

(HI,xnγ) 1993Dr02

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)



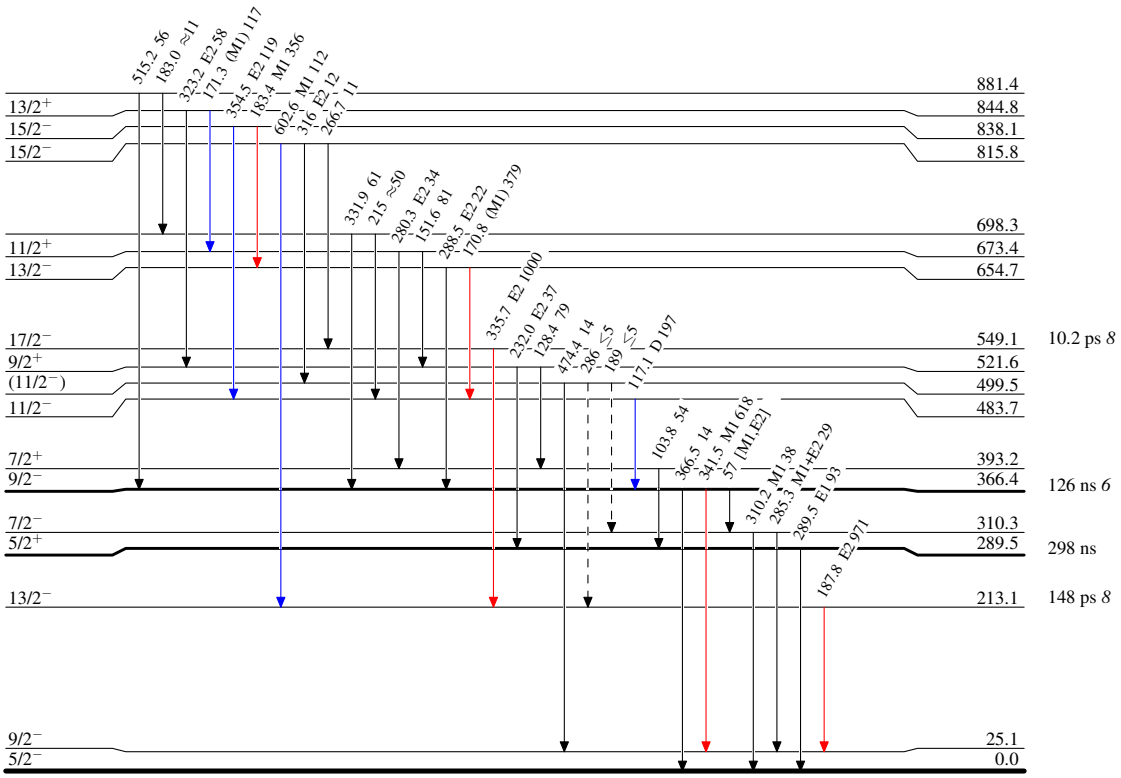
$^{181}_{77}Ir_{104}$

(HI,xnγ) 1993Dr02

Level Scheme (continued)

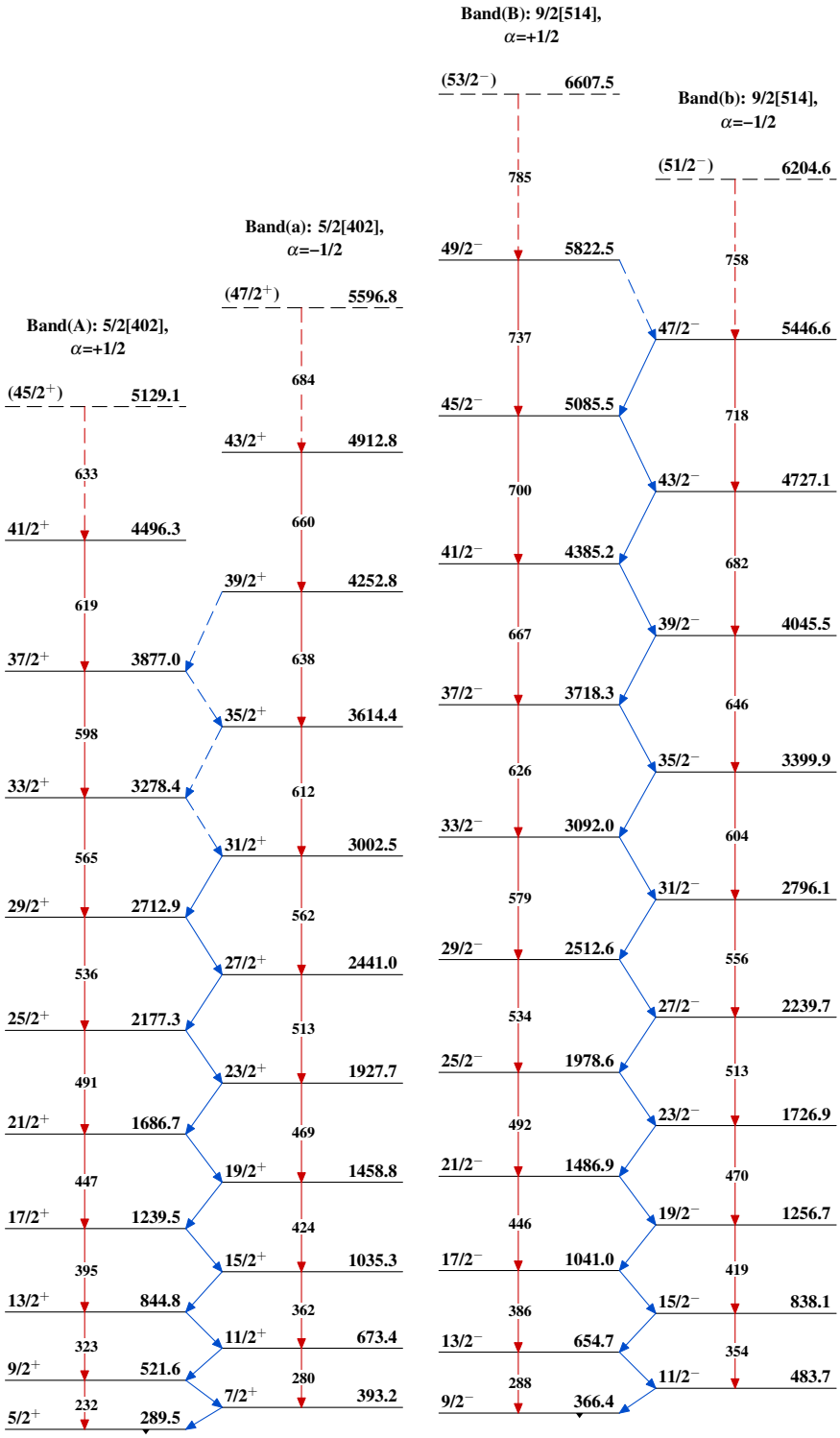
Intensities: Relative I_γ

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)



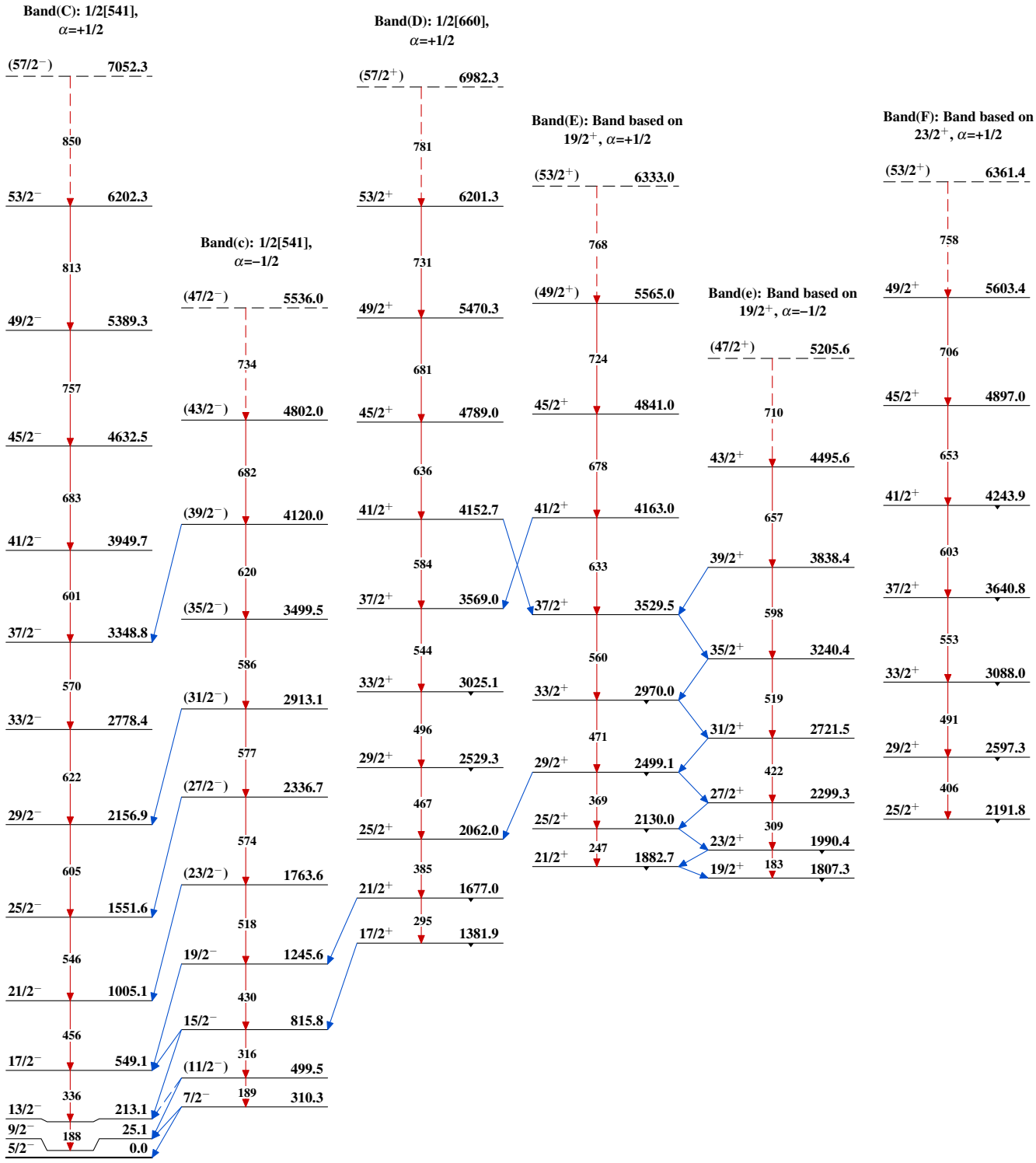
$^{181}_{77}Ir_{104}$

(HI,xnγ) 1993Dr02



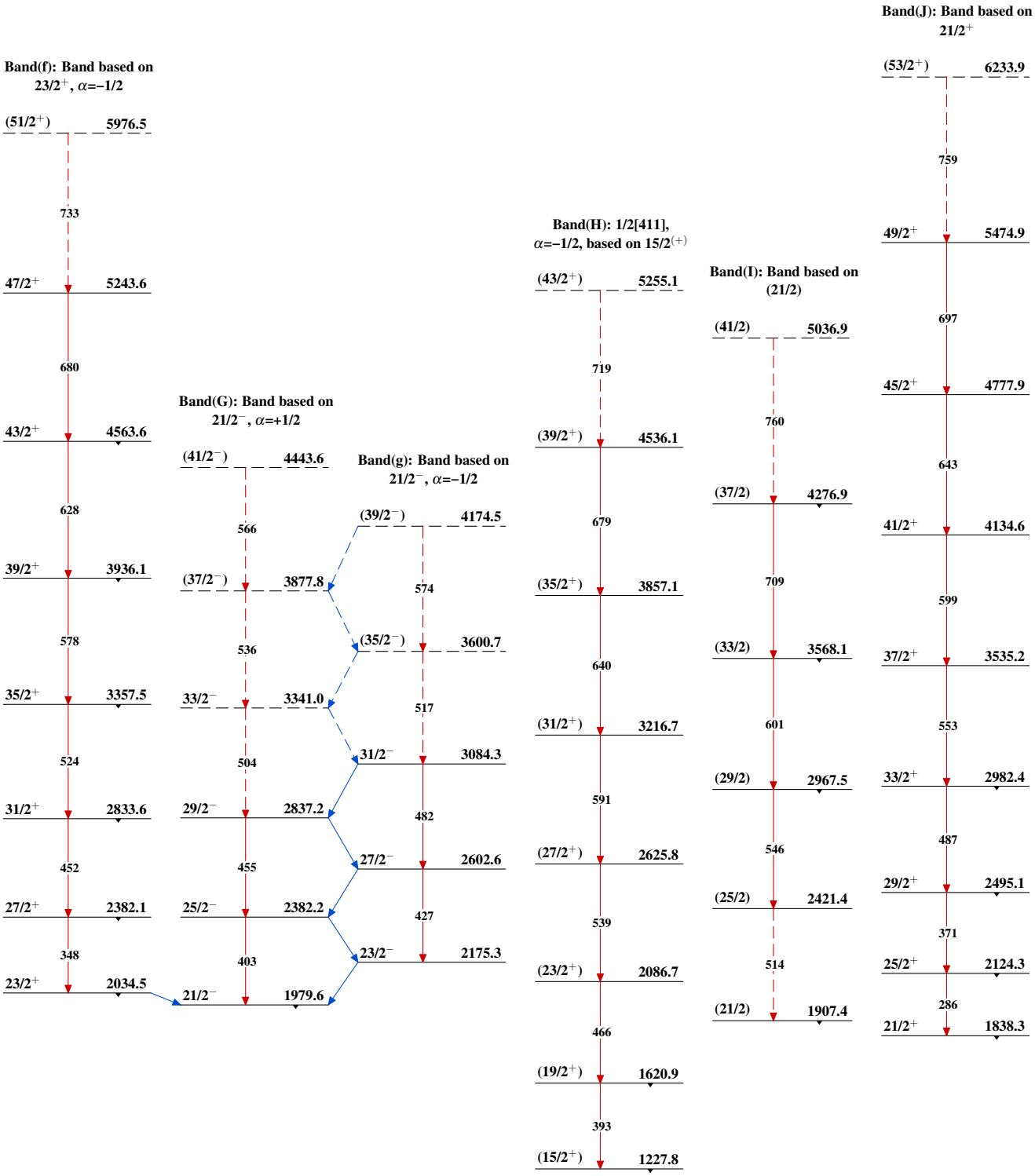
$^{181}_{77}Ir_{104}$

(HI,xnγ) 1993Dr02 (continued)



$^{181}_{77}Ir_{104}$

(HI,xnγ) 1993Dr02 (continued)



$^{181}_{77}Ir_{104}$