

Adopted Levels, Gammas

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

$Q(\beta^-) = -5.10 \times 10^3$ 3; $S(n) = 9.57 \times 10^3$ 4; $S(p) = 2.40 \times 10^3$ 3; $Q(\alpha) = 4.37 \times 10^3$ 4 [2012Wa38](#)

Note: Current evaluation has used the following Q record \$ -5097 30 9570 30 2400 30 4370 40 [2003Au03](#).

 ^{181}Ir LevelsCross Reference (XREF) Flags

A ^{181}Pt ε decay
B ^{185}Au α decay (4.25 min)
C (HI,xn γ)

E(level) [†]	J^π [‡]	$T_{1/2}$ [#]	XREF	Comments
0.0 ^c	5/2 ⁻	4.90 min 15	ABC	% ε +% β^+ =100 $T_{1/2}$: from 1978La04 . Other values: 5.0 min 3 (1972Ak03), 10 min 2 (1971Na27). J^π : populated by α -decay from ^{185}Au ($J^\pi=5/2^-$) HF=0.7. Configuration=1/2[541].
24.89 ^c 16	9/2 ⁻		A C	
111.99 10	(1/2) ⁻		A	J^π : Directly populated by ^{181}Pt ($J^\pi=1/2^-$) ε -decay, log $ft \approx 5.5$; E2 to 5/2 ⁻ . Possibly the 1/2 ⁻ member of the 1/2[541] band (1992Sa03).
213.0 ^c 3	13/2 ⁻	148 ps 8	C	J^π : E2 to 9/2 ⁻ .
243.13 11	(3/2,5/2) ⁻		AB	J^π : populated by α -decay from ^{185}Au ($J^\pi=5/2^-$); M1+E2 to 5/2 ⁻ , γ to (1/2) ⁻ . Possibly the 3/2 ⁻ member of the 1/2[541] band (1992Sa03).
289.33 [@] 13	5/2 ⁺	298 ns	A C	$T_{1/2}$: from (HI,xn γ) ($\gamma\gamma$ (t) spectrum (1993Dr02)). Other: 0.33 μ s +10-6 from 1992Ka01 . J^π : Directly fed by ^{181}Pt ($J^\pi=1/2^-$) ε -decay, log $ft \approx 7.4$; E1 to 5/2 ⁻ of 1/2[541] band. Configuration: 5/2[402].
298.93 14	(3/2) ⁺		A	J^π : E1 to 5/2 ⁻ , γ to (1/2) ⁻ .
310.20 ^d 12	7/2 ⁻		A C	J^π : M1+E2 to 9/2 ⁻ ; M1 to 5/2 ⁻ .
342.14 13	(1/2 ⁺ ,3/2 ⁺)		A	J^π : (E1) to (1/2) ⁻ .
366.30 ^a 22	9/2 ⁻	126 ns 6	C	J^π : M1 to 9/2 ⁻ of 1/2[541] band; γ to 5/2 ⁻ of 1/2[541] band. Configuration: 9/2[514].
393.13 ^{&} 19	7/2 ⁺		A C	J^π : γ to 5/2 ⁺ .
440.62 19	(3/2 ⁺ ,5/2 ⁺)		A	J^π : M1,E2 to (1/2 ⁺ ,3/2 ⁺), γ to 5/2 ⁻ .
447.58 12	(3/2) ⁻		A	J^π : M1+E2 to 5/2 ⁻ , (M1) to (1/2) ⁻ .
483.5 ^b 3	11/2 ⁻		C	J^π : D to 9/2 ⁻ .
492.19 17	(5/2 ⁻ ,7/2,9/2 ⁻)		A	J^π : γ to 5/2 ⁻ ; γ to 7/2 ⁻ ; γ to (3/2,5/2) ⁻ .
499.3 ^d 3	(11/2) ⁻		C	J^π : γ to 7/2 ⁻ and 13/2 ⁻ .
521.51 [@] 25	9/2 ⁺		C	J^π : γ 's to 5/2 ⁺ and 7/2 ⁺ .
548.9 ^c 3	17/2 ⁻	10.2 ps 8	C	$T_{1/2}$: weighted average of 10.3 ps 8 from (HI,xn γ) 1995Wa18 and 9.7 ps 21 from (HI,xn γ) 1990Ka11 . J^π : E2 to 13/2 ⁻ .
568.8 3			A	
591.19 12	(1/2,3/2,5/2) ⁻		A	J^π : M1 to (3/2,5/2) ⁻ , γ to (1/2) ⁻ .
645.93 13	(1/2 ⁻ ,3/2 ⁻ ,5/2 ⁻)		A	J^π : (M1) to (3/2,5/2) ⁻ , γ to (1/2) ⁻ .
654.6 ^a 3	13/2 ⁻		C	J^π : M1 to 11/2 ⁻ ; γ to 9/2 ⁻ .
673.3 ^{&} 3	11/2 ⁺		C	J^π : γ 's to 7/2 ⁺ and 9/2 ⁺ .
698.2 3			C	E(level): possibly the 11/2 ⁻ [505] intrinsic state.
815.6 ^d 3	15/2 ⁻		C	J^π : M1 to 13/2 ⁻ ; γ to 17/2 ⁻ .
825.76 23	(1/2,3/2) ⁻		A	J^π : M1 to (1/2) ⁻ .

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Adopted Levels, Gammas (continued)

^{181}Ir Levels (continued)				
E(level) [†]	J ^π [‡]	T _{1/2} [#]	XREF	Comments
829.60 17			A	
832.14 17			A	
838.0 ^b 3	15/2 ⁻		C	J ^π : M1 to 13/2 ⁻ ; Q to 11/2 ⁻ .
844.7 [@] 3	13/2 ⁺		C	J ^π : E2 to 9/2 ⁺ ; γ to 11/2 ⁺ .
881.3 3			C	
980.20 19			A	
1005.0 ^c 4	21/2 ⁻	2.16 ps 20	C	T _{1/2} : weighted average of 2.15 ps 21 from (HI,xnγ) 1995Wa18 and 2.4 ps 8 from (HI,xnγ) 1990Ka11. J ^π : E2 to 17/2 ⁻ .
1015.9 4	15/2 ⁽⁻⁾		C	J ^π : (M1+E2) to 13/2 ⁻ of 1/2[541] band.
1016.46? 18			A	
1035.2 ^{&} 4	15/2 ⁺		C	J ^π : M1+E2 to 13/2 ⁺ ; γ to 11/2 ⁺ .
1040.9 ^a 3	17/2 ⁻		C	J ^π : M1+E2 to 15/2 ⁻ ; E2 to 13/2 ⁻ .
1227.6 ^l 4	(15/2 ⁺)		C	J ^π : D+Q to 17/2 ⁻ of 1/2[541] band; (E1) to 13/2 ⁻ of 1/2[541] band.
1239.4 [@] 4	17/2 ⁺		C	J ^π : γ's to 13/2 ⁺ and 15/2 ⁺ .
1245.4 ^d 4	19/2 ⁻		C	J ^π : M1 to 17/2 ⁻ ; γ to 15/2 ⁻ .
1256.6 ^b 4	19/2 ⁻		C	J ^π : M1 to 17/2 ⁻ ; Q to 15/2 ⁻ .
1258.1 4			C	
1381.8 ^e 4	17/2 ⁺	14 ps 10	C	J ^π : E1 to 15/2 ⁻ and 17/2 ⁻ states of 1/2[541] band.
1458.7 ^{&} 4	19/2 ⁺		C	J ^π : γ's to 15/2 ⁺ and 17/2 ⁺ .
1486.7 ^a 4	21/2 ⁻		C	J ^π : D to 19/2 ⁻ ; E2 to 17/2 ⁻ .
1551.4 ^c 4	25/2 ⁻	0.90 ps 14	C	T _{1/2} : from (HI,xnγ) 1995Wa18. Other: 1.9 ps 6 from (HI,xnγ) 1990Ka11. J ^π : E2 to 21/2 ⁻ .
1551.75 14	1/2 ⁻ , 3/2 ⁻		A	J ^π : log ft≈5.2 from 1/2 ⁻ .
1555.2 4			A	
1576.1 3	(17/2 ⁻)		C	
1620.7 ^l 4	(19/2 ⁺)		C	J ^π : γ to (15/2); γ to 17/2 ⁻ of 1/2[541] band.
1667.76 15	1/2 ⁻ , 3/2 ⁻		A	J ^π : log ft≈5.5 from 1/2 ⁻ .
1676.9 ^e 4	21/2 ⁺	8.0 ps 6	C	T _{1/2} : weighted average of 8.2 ps 6 from (HI,xnγ) 1995Wa18 and 6.9 ps 14 from (HI,xnγ) 1990Ka11. J ^π : E2 to 17/2 ⁺ ; γ to 19/2 ⁻ and 21/2 ⁻ states of 1/2[541] band.
1680.76 16	1/2 ⁻ , 3/2 ⁻		A	J ^π : log ft≈5.7 from 1/2 ⁻ .
1686.7 [@] 4	21/2 ⁺		C	J ^π : γ's to 17/2 ⁺ and 19/2 ⁺ .
1698.91 13	1/2 ⁻ , 3/2 ⁻		A	J ^π : log ft≈5.2 from 1/2 ⁻ .
1726.7 ^b 4	23/2 ⁻		C	J ^π : D to 21/2 ⁻ ; E2 to 19/2 ⁻ .
1749.92 13	1/2 ⁻ , 3/2 ⁻		A	J ^π : log ft≈5.1 from 1/2 ⁻ .
1763.5 ^d 4	(23/2 ⁻)		C	J ^π : M1 to 21/2 ⁻ ; γ to 19/2 ⁻ .
1774.2 4			A	
1807.1 ^g 4	19/2 ⁺		C	J ^π : γ to 17/2 ⁻ of 9/2[514] band.
1838.1 ⁿ 4	21/2 ⁺		C	J ^π : γ to 21/2 ⁺ of 1/2[660] band.
1882.6 ^f 4	21/2 ⁺		C	J ^π : γ to 19/2 ⁺ ; E1 to 19/2 ⁻ of 9/2[514] band.
1907.3 ^m 5	(21/2)		C	J ^π : D+Q to 21/2 ⁻ of 1/2[541] band.
1927.6 ^{&} 5	23/2 ⁺		C	J ^π : E2 to 19/2 ⁺ ; γ to 21/2 ⁺ .
1956.3 4	(17/2 ⁺)		C	J ^π : (E1) to 15/2 ⁻ of 9/2[514] band; D+Q to 17/2 ⁻ of 9/2[514] band.
1961.5 4	19/2 ⁻		C	J ^π : E2 to 15/2 ⁻ and E2 to 17/2 ⁻ , states of 9/2[514] band.
1978.5 ^a 4	25/2 ⁻		C	J ^π : M1 to 23/2 ⁻ ; E2 to 21/2 ⁻ .
1979.4 ^j 5	21/2 ⁻		C	J ^π : γ from 23/2 ⁺ .
1990.3 ^g 4	23/2 ⁺		C	J ^π : γ to 19/2 ⁺ and 21/2 ⁺ ; E1+M2 to 21/2 ⁻ of 9/2[514] band.
2034.3 ⁱ 4	23/2 ⁺	22 ns 4	C	T _{1/2} : from 1992Ka01. Other: 29 ns from (HI,xnγ) 1993Dr02. J ^π : γ to 21/2 ⁻ of 9/2[514] band; γ to 21/2 ⁺ .
2061.8 ^e 4	25/2 ⁺	2.36 ps 21	C	T _{1/2} : from (HI,xnγ) 1995Wa18. Other: 10 ns 3 from (HI,xnγ) 1990Ka11.

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Adopted Levels, Gammas (continued)

^{181}Ir Levels (continued)				
E(level) [†]	J ^π [‡]	T _{1/2} [#]	XREF	Comments
2086.5 ^l 5	(23/2 ⁺)	0.55 ps 7	C	J ^π : γ to 21/2 ⁺ .
2124.2 ⁿ 4	25/2 ⁺		C	J ^π : γ to (19/2).
2129.8 ^f 4	25/2 ⁺		C	J ^π : γ to 21/2 ⁺ ; γ to 21/2 ⁺ of 1/2[660] band.
2156.8 ^c 5	29/2 ⁻		C	J ^π : γ to 21/2 ⁺ and 23/2 ⁺ ; γ to 23/2 ⁻ of 9/2[514] band.
2175.1 ^k 5	23/2 ⁻		C	J ^π : E2 to 25/2 ⁻ .
2177.3 [@] 5	25/2 ⁺		C	J ^π : γ to 21/2 ⁻ .
2191.7 ^h 5	25/2 ⁺		C	J ^π : E2 to 21/2 ⁺ ; γ to 23/2 ⁺ .
2239.6 ^b 4	27/2 ⁻		C	J ^π : M1+E2 to 23/2 ⁺ .
2299.1 ^g 4	27/2 ⁺		C	J ^π : E2 to 23/2 ⁻ ; γ to 25/2 ⁻ .
2311.4 11			C	J ^π : γ to 23/2 ⁺ and 25/2 ⁺ .
2336.6 ^d 4	(27/2 ⁻)	3.1 ps 4	C	J ^π : γ to (23/2 ⁻); γ to 25/2 ⁻ .
2382 ⁱ	27/2 ⁺		C	J ^π : M1+E2 to 25/2 ⁺ ; γ to 23/2 ⁺ .
2382.0 ^j 5	25/2 ⁻		C	J ^π : γ to 21/2 ⁻ and 23/2 ⁻ .
2421.3 ^m 9	(25/2)		C	
2440.9 ^{&} 5	27/2 ⁺		C	J ^π : E2 to 23/2 ⁺ ; γ to 25/2 ⁺ .
2495.0 ⁿ 4	29/2 ⁺		C	J ^π : γ to 25/2 ⁺ ; E2 to 25/2 ⁺ of 1/2[660] band.
2499.0 ^f 4	29/2 ⁺		C	J ^π : γ to 25/2 ⁺ and 27/2 ⁺ .
2512.5 ^a 5	29/2 ⁻		C	J ^π : γ to 25/2 ⁻ and 27/2 ⁻ .
2529.1 ^e 4	29/2 ⁺		C	J ^π : E2 to 25/2 ⁺ .
2556.5 5	(-)		C	
2597.2 ^h 5	29/2 ⁺	1.80 ps 21	C	J ^π : M1 to 27/2 ⁺ ; γ to 25/2 ⁺ .
2602.5 ^k 6	27/2 ⁻		C	J ^π : γ to 23/2 ⁻ and 25/2 ⁻ .
2625.6 ^l 6	(27/2 ⁺)		C	J ^π : (E2) to (23/2).
2712.8 [@] 5	29/2 ⁺		C	J ^π : γ's to 25/2 ⁺ and 27/2 ⁺ .
2721.3 ^g 4	31/2 ⁺		C	J ^π : γ to 27/2 ⁺ and 29/2 ⁺ .
2778.3 ^c 6	33/2 ⁻		C	J ^π : E2 to 29/2 ⁻ .
2796.0 ^b 5	31/2 ⁻		C	J ^π : γ to 27/2 ⁻ and 29/2 ⁻ .
2833.5 ⁱ 5	31/2 ⁺		C	J ^π : E2 to 27/2 ⁺ ; γ to 29/2 ⁺ .
2837.0 ^j 6	29/2 ⁻		C	J ^π : γ to 25/2 ⁻ and 27/2 ⁻ .
2913.0 ^d 5	(31/2 ⁻)		C	J ^π : γ to (27/2 ⁻); γ to 29/2 ⁻ .
2967.3 ^m 5	(29/2)		C	J ^π : γ to 29/2 ⁻ of 1/2[541] band.
2969.8 ^f 4	33/2 ⁺		C	J ^π : E2 to 29/2 ⁺ ; γ to 31/2 ⁺ .
2982.2 ⁿ 4	33/2 ⁺		C	J ^π : E2 to 29/2 ⁺ .
3002.4 ^{&} 6	31/2 ⁺		C	J ^π : γ's to 27/2 ⁺ and 29/2 ⁺ .
3024.9 ^e 4	33/2 ⁺		C	J ^π : E2 to 29/2 ⁺ .
3084.2 ^k 6	31/2 ⁻		C	J ^π : E2 to 27/2 ⁻ ; γ to 29/2 ⁻ .
3087.9 ^h 5	33/2 ⁺		C	J ^π : E2 to 29/2 ⁺ ; γ to 31/2 ⁺ .
3091.9 ^a 5	33/2 ⁻		C	J ^π : E2 to 29/2 ⁻ ; γ to 31/2 ⁻ .
3216.5 ^l 7	(31/2 ⁺)		C	J ^π : γ to (27/2).
3240.2 ^g 4	35/2 ⁺		C	J ^π : γ to 31/2 ⁺ and 33/2 ⁺ .
3278.3 [@] 6	33/2 ⁺		C	J ^π : γ to 29/2 ⁺ .
3340.9 ^j 6	(33/2 ⁻)		C	
3348.6 ^c 6	37/2 ⁻		C	J ^π : E2 to 33/2 ⁻ .
3357.4 ⁱ 6	35/2 ⁺		C	J ^π : γ to 31/2 ⁺ and 33/2 ⁺ .
3399.8 ^b 5	35/2 ⁻		C	J ^π : γ to 31/2 ⁻ and 33/2 ⁻ .
3499.3 ^d 6	(35/2 ⁻)		C	J ^π : γ to (31/2 ⁻).
3529.3 ^f 4	37/2 ⁺		C	J ^π : E2 to 33/2 ⁺ ; γ to 35/2 ⁺ .

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Adopted Levels, Gammas (continued) ^{181}Ir Levels (continued)

E(level) [†]	J ^π [‡]	XREF	Comments
3535.0 ⁿ 5	37/2 ⁺	C	J ^π : E2 to 33/2 ⁺ .
3567.9 ^m 6	(33/2)	C	J ^π : γ to (29/2); γ to 33/2 ⁻ of 1/2[541] band.
3568.9 ^e 5	37/2 ⁺	C	J ^π : E2 to 33/2 ⁺ .
3600.6 ^k 6	(35/2 ⁻)	C	
3614.3 ^{&} 6	35/2 ⁺	C	J ^π : γ to 31/2 ⁺ .
3640.7 ^h 6	37/2 ⁺	C	J ^π : E2 to 33/2 ⁺ ; γ to 35/2 ⁺ .
3718.1 ^a 5	37/2 ⁻	C	J ^π : (M1) to 35/2 ⁻ ; γ to 33/2 ⁻ .
3838.2 ^g 5	39/2 ⁺	C	J ^π : γ to 35/2 ⁺ and 37/2 ⁺ .
3856.9 ^l 7	(35/2 ⁺)	C	J ^π : γ to (31/2).
3859.6 12		C	
3876.9 [@] 6	37/2 ⁺	C	J ^π : γ to 33/2 ⁺ .
3877.7 ^j 6	(37/2 ⁻)	C	
3936.0 ⁱ 6	39/2 ⁺	C	J ^π : γ to 35/2 ⁺ and 37/2 ⁺ .
3949.5 ^c 7	41/2 ⁻	C	J ^π : γ to 37/2 ⁻ .
4039.6 12		C	
4045.4 ^b 6	39/2 ⁻	C	J ^π : E2 to 35/2 ⁻ ; γ to 37/2 ⁻ .
4119.8 ^d 6	(39/2 ⁻)	C	J ^π : γ to (35/2 ⁻); γ to 37/2 ⁻ .
4134.4 ⁿ 6	41/2 ⁺	C	J ^π : γ to 37/2 ⁺ .
4152.6 ^e 5	41/2 ⁺	C	J ^π : E2 to 37/2 ⁺ .
4162.9 ^f 5	41/2 ⁺	C	J ^π : E2 to 37/2 ⁺ .
4174.4 ^k 7	(39/2 ⁻)	C	
4243.8 ^h 6	41/2 ⁺	C	J ^π : γ to 37/2 ⁺ and 39/2 ⁺ .
4252.7 ^{&} 7	39/2 ⁺	C	J ^π : γ to 35/2 ⁺ .
4276.8 ^m 9	(37/2)	C	J ^π : γ to (33/2); γ to 37/2 ⁻ of 1/2[541] band.
4385.1 ^a 6	41/2 ⁻	C	J ^π : γ to 37/2 ⁻ and 39/2 ⁻ .
4443.5 ^j 7	(41/2 ⁻)	C	
4495.4 ^g 6	43/2 ⁺	C	J ^π : γ to 39/2 ⁺ .
4496.2 [@] 7	41/2 ⁺	C	J ^π : γ to 37/2 ⁺ .
4535.9 ^l 13	(39/2 ⁺)	C	J ^π : γ to (35/2).
4563.5 ⁱ 6	43/2 ⁺	C	J ^π : γ to 39/2 ⁺ and 41/2 ⁺ .
4632.3 ^c 8	45/2 ⁻	C	J ^π : E2 to 41/2 ⁻ .
4727.0 ^b 6	43/2 ⁻	C	J ^π : E2 to 39/2 ⁻ ; γ to 41/2 ⁻ .
4777.7 ⁿ 7	45/2 ⁺	C	J ^π : γ to 41/2 ⁺ .
4788.9 ^e 6	45/2 ⁺	C	J ^π : γ to 41/2 ⁺ .
4801.8 ^d 12	(43/2 ⁻)	C	J ^π : γ to (39/2 ⁻).
4840.9 ^f 11	45/2 ⁺	C	J ^π : γ to 41/2 ⁺ .
4896.9 ^h 7	45/2 ⁺	C	J ^π : E2 to 41/2 ⁺ .
4912.7 ^{&} 12	43/2 ⁺	C	J ^π : γ to 39/2 ⁺ .
5036.8 ^m 14	(41/2)	C	
5085.4 ^a 7	45/2 ⁻	C	J ^π : γ to 41/2 ⁻ and 43/2 ⁻ .
5129.0 [@] 8	(45/2 ⁺)	C	
5205.4 ^g 12	(47/2 ⁺)	C	
5243.5 ⁱ 7	47/2 ⁺	C	J ^π : γ to 43/2 ⁺ .
5254.9 ^l 16	(43/2 ⁺)	C	J ^π : γ to (39/2 ⁺).
5389.1 ^c 8	49/2 ⁻	C	J ^π : γ to 45/2 ⁻ .
5446.4 ^b 7	47/2 ⁻	C	J ^π : M1 to 45/2 ⁻ ; γ to 43/2 ⁻ .
5470.2 ^e 7	49/2 ⁺	C	J ^π : γ to 45/2 ⁺ .
5474.7 ⁿ 12	49/2 ⁺	C	J ^π : γ to 45/2 ⁺ .

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Adopted Levels, Gammas (continued) ^{181}Ir Levels (continued)

E(level) [†]	J ^π [‡]	XREF	Comments
5535.8 ^d 16	(47/2 ⁻)	C	
5564.9 ^f 15	(49/2 ⁺)	C	J ^π : γ to 45/2 ⁺ .
5596.7 ^{&} 16	(47/2 ⁺)	C	
5603.3 ^h 8	49/2 ⁺	C	J ^π : γ to 45/2 ⁺ .
5822.4 ^a 10	49/2 ⁻	C	J ^π : γ to 45/2 ⁻ .
5976.4 ⁱ 8	(51/2 ⁺)	C	
6201.2 ^e 12	53/2 ⁺	C	J ^π : γ to 49/2 ⁺ .
6202.1 ^c 13	53/2 ⁻	C	J ^π : γ to 49/2 ⁻ .
6204.4 ^b 12	(51/2 ⁻)	C	
6233.7 ⁿ 16	(53/2 ⁺)	C	
6332.9 ^f 18	(53/2 ⁺)	C	
6361.3 ^h 13	(53/2 ⁺)	C	
6607.4 ^a 14	(53/2 ⁻)	C	
6982.2 ^e 16	(57/2 ⁺)	C	
7052.1 ^c 17	(57/2 ⁻)	C	J ^π : γ to 53/2 ⁻ .

[†] From least-squares fit to Eγ's, assuming Δ(Eγ)=0.3 keV for γ rays from (HI,xnγ).

[‡] From rotational band assignments of (HI,xnγ), except where indicated. Specific arguments are added to levels.

From (HI,xnγ), except where indicated.

@ Band(A): 5/2[402], α=+1/2 A=14.9 keV, B=-22.0 eV, fit to levels J=5/2⁺ to 17/2⁺.

& Band(a): 5/2[402], α=-1/2 A=14.7 keV, B=-19.6 eV, fit to levels J=7/2⁺ to 19/2⁺.

^a Band(B): 9/2[514], α=+1/2 A=12.5 keV, B=-8.0 eV, fit to levels J=9/2⁻ to 21/2⁻.

^b Band(b): 9/2[514], α=-1/2 A=13.4 keV, B=-13.4 eV, fit to levels J=11/2⁻ to 23/2⁻.

^c Band(C): 1/2[541], α=+1/2 (1993Dr02) A=18.7 keV, B=-32 eV, a=8.0, fit to levels J=5/2⁻ to 17/2⁻.

^d Band(c): 1/2[541], α=-1/2 (1993Dr02) A=12.5 keV, B=-30 eV, a=-4.6, fit to levels J=7/2⁻ to 19/2⁻.

^e Band(D): 1/2[660], α=+1/2 (1993Dr02) A=6.5 keV, B=4.8 eV, fit to levels J=17/2⁺ to 29/2⁺.

^f Band(E): Band based on 19/2⁺, α=+1/2 A=2.62 keV, B=9.5 eV, fit to levels J=21/2⁺ to 33/2⁺.

^g Band(e): Band based on 19/2⁺, α=-1/2 A=1.15 keV, B=13.3 eV, fit to levels J=19/2⁺ to 31/2⁺.

^h Band(F): Band based on 23/2⁺, α=+1/2.

ⁱ Band(f): Band based on 23/2⁺, α=-1/2.

^j Band(G): Band based on 21/2⁻, α=+1/2.

^k Band(g): Band based on 21/2⁻, α=-1/2.

^l Band(H): 1/2[411], α=-1/2, based on 15/2⁽⁺⁾ A=11.4 keV, B=-3.0 eV, fit to levels J=(15/2⁺) to (27/2).

^m Band(I): Band based on (21/2).

ⁿ Band(J): Band based on 21/2⁺.

Adopted Levels, Gammas (continued)

E _i (level)	J ^π _i	γ(¹⁸¹ Ir)							Comments
		E _γ [†]	I _γ [†]	E _f	J ^π _f	Mult. [†]	δ	α ^{&}	
24.89	9/2 ⁻	24.9 [‡] 3	100	0.0	5/2 ⁻	[E2]			
111.99	(1/2) ⁻	112.2 [‡] 2	100	0.0	5/2 ⁻	E2 [‡]		2.95	
213.0	13/2 ⁻	187.8	100	24.89	9/2 ⁻	E2		0.433	B(E2)(W.u.)=188 10
243.13	(3/2,5/2) ⁻	131.3 [‡] 2	26 [‡] 3	111.99	(1/2) ⁻				
		243.2 [‡] 2	100 [‡] 15	0.0	5/2 ⁻	M1+E2 [‡]	0.7 [‡] 6	0.41 10	
289.33	5/2 ⁺	289.34 [#] 13	100	0.0	5/2 ⁻	E1		0.0276	
298.93	(3/2) ⁺	186.8 [‡] 3	47 [‡] 7	111.99	(1/2) ⁻				
		298.9 [‡] 2	100 [‡] 17	0.0	5/2 ⁻	E1 [‡]		0.0256	
310.20	7/2 ⁻	285.35 [#] 15	76 [@] 3	24.89	9/2 ⁻	M1+E2		0.22 11	
		310.15 [#] 15	100 [@] 5	0.0	5/2 ⁻	M1		0.265	
342.14	(1/2 ⁺ ,3/2 ⁺)	98.9 ^{‡a} 3	≈2.7 [‡]	243.13	(3/2,5/2) ⁻				
		230.2 [‡] 2	100 [‡] 15	111.99	(1/2) ⁻	(E1) [‡]		0.0483	
366.30	9/2 ⁻	341.5	100.0 12	24.89	9/2 ⁻	M1		0.205	B(M1)(W.u.)=3.55×10 ⁻⁶ 17
		366.5	2.68 24	0.0	5/2 ⁻				
393.13	7/2 ⁺	103.84 [#] 15	100	289.33	5/2 ⁺				
440.62	(3/2 ⁺ ,5/2 ⁺)	98.6 [‡] 3	57 [‡] 9	342.14	(1/2 ⁺ ,3/2 ⁺)	M1,E2 [‡]		5.8 8	
		440.5 [‡] 3	100 [‡] 16	0.0	5/2 ⁻				
447.58	(3/2) ⁻	204.6 [‡] 3	3.6 [‡] 7	243.13	(3/2,5/2) ⁻				
		335.6 [‡] 2	100 [‡] 14	111.99	(1/2) ⁻	(M1) [‡]		0.215	
		447.5 [‡] 2	46 [‡] 7	0.0	5/2 ⁻	M1+E2 [‡]	<1.1 [‡]	0.08 3	
483.5	11/2 ⁻	117.1	100	366.30	9/2 ⁻	D			
492.19	(5/2 ⁻ ,7/2,9/2 ⁻)	182.1 [‡] 3	14 [‡] 2	310.20	7/2 ⁻				
		249.1 [‡] 3	46 [‡] 7	243.13	(3/2,5/2) ⁻				
		492.0 [‡] 3	≤100 [‡]	0.0	5/2 ⁻				
499.3	(11/2 ⁻)	189 ^a	≤36	310.20	7/2 ⁻				
		286 ^a	≤36	213.0	13/2 ⁻				
		474.4	100 14	24.89	9/2 ⁻				
521.51	9/2 ⁺	128.4	100 5	393.13	7/2 ⁺				
		232.0	47 5	289.33	5/2 ⁺	E2		0.214	
548.9	17/2 ⁻	335.7	100	213.0	13/2 ⁻	E2		0.0689	B(E2)(W.u.)=200 14
568.8		128.3 [‡] 3	100 [‡] 16	440.62	(3/2 ⁺ ,5/2 ⁺)				
		226.6 [‡] 3	55 [‡] 8	342.14	(1/2 ⁺ ,3/2 ⁺)				
591.19	(1/2,3/2,5/2) ⁻	144 [‡] 1	≈8 [‡]	447.58	(3/2) ⁻				
		348.3 [‡] 2	92 [‡] 15	243.13	(3/2,5/2) ⁻	M1 [‡]		0.194	

Adopted Levels, Gammas (continued)

$\gamma(^{181}\text{Ir})$ (continued)									
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. †	δ	$\alpha^\&$	Comments
591.19	$(1/2, 3/2, 5/2)^-$	479.2 ‡ 2	100 ‡ 15	111.99	$(1/2)^-$				
		591.0 ‡ 2	92 ‡ 15	0.0	$5/2^-$	M1, E2 ‡		0.032 17	
645.93	$(1/2^-, 3/2^-, 5/2^-)$	198.6 ‡ 3	$\approx$ 25 ‡	447.58	$(3/2)^-$				
		402.7 ‡ 3	$\approx$ 50 ‡	243.13	$(3/2, 5/2)^-$	(M1) ‡		0.132	
		533.8 ‡ 2	100 ‡ 14	111.99	$(1/2)^-$				
654.6	$13/2^-$	170.8	100 3	483.5	$11/2^-$	M1		1.38	
		288.5	7 3	366.30	$9/2^-$	E2		0.108	
673.3	$11/2^+$	151.6	100 6	521.51	$9/2^+$				
		280.3	47 6	393.13	$7/2^+$	E2		0.118	
698.2		215	$\approx$ 82	483.5	$11/2^-$				
		331.9	100 7	366.30	$9/2^-$				
		266.7	10 2	548.9	$17/2^-$				
815.6	$15/2^-$	316	11 2	499.3	$(11/2^-)$	E2		0.0821	
		602.6	100 6	213.0	$13/2^-$	M1		0.0460	
825.76	$(1/2, 3/2)^-$	582.7 ‡ 3	100 ‡ 15	243.13	$(3/2, 5/2)^-$	M1+E2 ‡	$1.2^\ddagger + I2-5$	0.030 5	
		713.7 ‡ 3	53 ‡ 8	111.99	$(1/2)^-$	M1(+E2+E0) ‡		0.16 6	
829.60		519.3 ‡ 3	100 ‡ 15	310.20	$7/2^-$				
		586.4 ‡ 3	91 ‡ 13	243.13	$(3/2, 5/2)^-$				
832.14		489.8 ‡ 3	31 ‡ 5	342.14	$(1/2^+, 3/2^+)$				
		533.2 ‡ 2	100 ‡ 17	298.93	$(3/2)^+$				
		543 ‡ 1	$\approx$ 13 ‡	289.33	$5/2^+$				
838.0	$15/2^-$	183.4	100 3	654.6	$13/2^-$	M1		1.13	
		354.5	34.6 23	483.5	$11/2^-$	E2		0.0590	
844.7	$13/2^+$	171.3	100 3	673.3	$11/2^+$	(M1)		1.37	
		323.2	52 5	521.51	$9/2^+$	E2		0.0769	
881.3		183.0	$\approx$ 20	698.2					
		515.2	100 11	366.30	$9/2^-$				
980.20		539.5 ‡ 3	$\approx$ 69 ‡	440.62	$(3/2^+, 5/2^+)$				
		638.1 ‡ 3	100 ‡ 16	342.14	$(1/2^+, 3/2^+)$				
		691 ‡ a 1	100 ‡ 16	289.33	$5/2^+$				
1005.0	$21/2^-$	455.9	100	548.9	$17/2^-$	E2		0.030 2	B(E2)(W.u.)=212 18
1015.9	$15/2^{(-)}$	802.8	100	213.0	$13/2^-$	(M1+E2)		0.015 7	
1016.46?		370.7 ‡ a 3	75 ‡ 11	645.93	$(1/2^-, 3/2^-, 5/2^-)$				
		568.8 ‡ a 3	100 ‡ 15	447.58	$(3/2)^-$				
1035.2	$15/2^+$	190.3	100 4	844.7	$13/2^+$	M1+E2		0.7 3	
		362.0	79 7	673.3	$11/2^+$	E2		0.0557	
1040.9	$17/2^-$	202.9	100 4	838.0	$15/2^-$	M1+E2		0.6 3	

Adopted Levels, Gammas (continued)

$\gamma(^{181}\text{Ir})$ (continued)								
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [†]	$\alpha^\&$	Comments
1040.9	17/2 ⁻	386.4	60 8	654.6	13/2 ⁻	E2	0.0466	
1227.6	(15/2 ⁺)	678.4	82 8	548.9	17/2 ⁻	D+Q		
		1014.8	100 11	213.0	13/2 ⁻	(E1)	0.0019 8	
1239.4	17/2 ⁺	204.1	100 6	1035.2	15/2 ⁺			
		394.8	87 19	844.7	13/2 ⁺	E2	0.0439	
1245.4	19/2 ⁻	429.6	43 4	815.6	15/2 ⁻	E2	0.0352	
		696.6	100 6	548.9	17/2 ⁻	M1	0.0316	
1256.6	19/2 ⁻	215.5	100 4	1040.9	17/2 ⁻	M1	0.721	
		418.6	73 3	838.0	15/2 ⁻	E2	0.0376	
1258.1		376.8	100 11	881.3		M1	0.157	
		560.1	28 3	698.2				
1381.8	17/2 ⁺	365.8	25 3	1015.9	15/2 ⁽⁻⁾			
		566.2	86 6	815.6	15/2 ⁻	E1	0.0061 7	
		832.8	100 7	548.9	17/2 ⁻	E1	0.0028 7	
1458.7	19/2 ⁺	219.3	65 4	1239.4	17/2 ⁺			
		423.5	100 8	1035.2	15/2 ⁺			
1486.7	21/2 ⁻	230.0	92 5	1256.6	19/2 ⁻	D		
		445.8	100 5	1040.9	17/2 ⁻	E2	0.0320	
1551.4	25/2 ⁻	546.1	100	1005.0	21/2 ⁻	E2	0.0194	B(E2)(W.u.)=209 28
1551.75	1/2 ⁻ , 3/2 ⁻	722.2 [‡] 3	13.3 [‡] 19	829.60				
		905.7 [‡] 2	100 [‡] 14	645.93	(1/2 ⁻ , 3/2 ⁻ , 5/2 ⁻)	M1 [‡]	0.0162	
		960.6 [‡] 2	69 [‡] 10	591.19	(1/2, 3/2, 5/2) ⁻			
		1059.5 [‡] 3	12.6 [‡] 19	492.19	(5/2 ⁻ , 7/2, 9/2 ⁻)			
		1104.3 [‡] 3	9.5 [‡] 14	447.58	(3/2) ⁻			
1555.2		1213.1 [‡] 3	100 [‡]	342.14	(1/2 ⁺ , 3/2 ⁺)			
1576.1	(17/2 ⁻)	318.2	100 13	1258.1		(M1)	0.248	
		570.7 ^a	13 3	1005.0	21/2 ⁻			
		738.0	13 3	838.0	15/2 ⁻			
1620.7	(19/2 ⁺)	393.0	100 6	1227.6	(15/2 ⁺)	E2	0.0445	
		1071.9	38 6	548.9	17/2 ⁻			
1667.76	1/2 ⁻ , 3/2 ⁻	1021.7 [‡] 3	100 [‡] 15	645.93	(1/2 ⁻ , 3/2 ⁻ , 5/2 ⁻)			
		1076.5 [‡] 3	≤57 [‡]	591.19	(1/2, 3/2, 5/2) ⁻			
		1368.6 [‡] 3	64 [‡] 9	298.93	(3/2) ⁺			
		1555.7 ^{‡a} 3	72 [‡] 11	111.99	(1/2) ⁻			
		1668.2 [‡] 3	≤80 [‡]	0.0	5/2 ⁻			
1676.9	21/2 ⁺	295.1	100 5	1381.8	17/2 ⁺	E2	0.101	B(E2)(W.u.)=311 33
		431.5	22 1	1245.4	19/2 ⁻			
		672.1	30 2	1005.0	21/2 ⁻			

Adopted Levels, Gammas (continued)

$\gamma(^{181}\text{Ir})$ (continued)								
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [†]	δ	$\alpha^\&$
1680.76	$1/2^-, 3/2^-$	1338.7 [‡] 3	43 [‡] 7	342.14	$(1/2^+, 3/2^+)$			
		1568.8 ^{‡a} 3	46 [‡] 7	111.99	$(1/2)^-$			
		1680.7 ^{‡a} 2	100 [‡] 17	0.0	$5/2^-$			
1686.7	$21/2^+$	228.0	72 13	1458.7	$19/2^+$			
		447.3	100 7	1239.4	$17/2^+$	E2		0.0317
1698.91	$1/2^-, 3/2^-$	869.1 [‡] 3	40 [‡] 6	829.60				
		1053.0 [‡] 3	40 [‡] 6	645.93	$(1/2^-, 3/2^-, 5/2^-)$			
		1108 ^{‡a} 1	≈ 21 [‡]	591.19	$(1/2, 3/2, 5/2)^-$			
		1587.0 [‡] 2	100 [‡] 17	111.99	$(1/2)^-$	E2(+M1) [‡]	>0.4 [‡]	0.0025 7
		1698.9 ^{‡a} 2	75 [‡] 13	0.0	$5/2^-$			
1726.7	$23/2^-$	240.0	100 5	1486.7	$21/2^-$	D		
		470.1	97 14	1256.6	$19/2^-$	E2		0.0279
1749.92	$1/2^-, 3/2^-$	733.5 ^{‡a} 2	59 [‡] 9	1016.46?				
		769.7 [‡] 2	50 [‡] 9	980.20				
		917.7 [‡] 2	86 [‡] 14	832.14				
		1159 [‡] 1	≈ 41 [‡]	591.19	$(1/2, 3/2, 5/2)^-$			
		1302.0 [‡] 3	18 [‡] 3	447.58	$(3/2)^-$			
		1407.8 [‡] 2	100 [‡] 14	342.14	$(1/2^+, 3/2^+)$	E1 [‡]		0.00112
		1507 ^{‡a} 1	9.5 [‡] 14	243.13	$(3/2, 5/2)^-$			
1763.5	$(23/2^-)$	1638.1 [‡] 2	45 [‡] 9	111.99	$(1/2)^-$			
		517.9	75 9	1245.4	$19/2^-$	E2		0.0220
		759.0	100 12	1005.0	$21/2^-$	M1		0.0254
1774.2		1128.3 [‡] 3	100 [‡]	645.93	$(1/2^-, 3/2^-, 5/2^-)$			
1807.1	$19/2^+$	766.3	100	1040.9	$17/2^-$			
1838.1	$21/2^+$	161.3	100	1676.9	$21/2^+$			
1882.6	$21/2^+$	75.5	≈ 17	1807.1	$19/2^+$			
		625.9	100 7	1256.6	$19/2^-$	E1		0.00502
		902.3	100	1005.0	$21/2^-$	D+Q		
1907.3	$(21/2)$	240.9	46 6	1686.7	$21/2^+$			
1927.6	$23/2^+$	468.8	100 7	1458.7	$19/2^+$	E2		0.0281
		380.1	71 16	1576.1	$(17/2^-)$			
		915.4	100 7	1040.9	$17/2^-$	D+Q		
1956.3	$(17/2^+)$	1118.4	48 7	838.0	$15/2^-$	(E1)		0.00167
		385.2	100 13	1576.1	$(17/2^-)$	M1		0.148
		920.7	90 7	1040.9	$17/2^-$	E2		0.00621
		1123.7	63 6	838.0	$15/2^-$	E2		0.00418
1978.5	$25/2^-$	251.7	72 15	1726.7	$23/2^-$	M1		0.469

Adopted Levels, Gammas (continued)

$\gamma(^{181}\text{Ir})$ (continued)								
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [†]	$\alpha^\&$	Comments
1978.5	25/2 ⁻	491.6	100 5	1486.7	21/2 ⁻	E2	0.0250	
1979.4	21/2 ⁻	(18)		1961.5	19/2 ⁻			
		(23)		1956.3	(17/2 ⁺)			
1990.3	23/2 ⁺	107.8	100 9	1882.6	21/2 ⁺			
		183	$\approx$ 18	1807.1	19/2 ⁺	E2	0.474	
		503.6	30 9	1486.7	21/2 ⁻	E1+M2	0.11 1/	
2034.3	23/2 ⁺	54.9	100 8	1979.4	21/2 ⁻	[E1]		
		151.8	13 3	1882.6	21/2 ⁺	[M1]	1.92	
		547.6	8 2	1486.7	21/2 ⁻			
2061.8	25/2 ⁺	385.0	100	1676.9	21/2 ⁺	E2	0.0470	
2086.5	(23/2 ⁺)	465.8	100	1620.7	(19/2 ⁺)	E2	0.0286	
2124.2	25/2 ⁺	286.1	100 13	1838.1	21/2 ⁺	E2	0.110	
		447.3	36 7	1676.9	21/2 ⁺			
2129.8	25/2 ⁺	139.6	100 5	1990.3	23/2 ⁺			
		247.2	21 9	1882.6	21/2 ⁺	E2	0.174	
		402.9	24 5	1726.7	23/2 ⁻			
2156.8	29/2 ⁻	605.1	100	1551.4	25/2 ⁻	E2	0.0152	B(E2)(W.u.)=205 23
2175.1	23/2 ⁻	195.6	100	1979.4	21/2 ⁻			
2177.3	25/2 ⁺	249.6	32 4	1927.6	23/2 ⁺			
		490.7	100 8	1686.7	21/2 ⁺	E2	0.0251	
2191.7	25/2 ⁺	157.3	100	2034.3	23/2 ⁺	M1+E2	1.3 5	
2239.6	27/2 ⁻	261.1	55 6	1978.5	25/2 ⁻			
		513.0	100 4	1726.7	23/2 ⁻	E2	0.0225	
2299.1	27/2 ⁺	169.0	100 6	2129.8	25/2 ⁺			
		309	38 9	1990.3	23/2 ⁺	E2	0.088	
2311.4		760	100	1551.4	25/2 ⁻			
2336.6	(27/2 ⁻)	573.5	100 13	1763.5	(23/2 ⁻)	E2	0.0172	
		785.0	47 8	1551.4	25/2 ⁻			
2382	27/2 ⁺	190.3	100 7	2191.7	25/2 ⁺	M1+E2	0.7 3	
		347.7	27 6	2034.3	23/2 ⁺	E2	0.0623	
2382.0	25/2 ⁻	206.8	100 9	2175.1	23/2 ⁻			
		402.7	39 7	1979.4	21/2 ⁻	E2	0.0417	
2421.3	(25/2)	514 ^a	100	1907.3	(21/2)			
2440.9	27/2 ⁺	263.7	39 6	2177.3	25/2 ⁺			
		513.3	100 8	1927.6	23/2 ⁺	E2	0.0225	
2495.0	29/2 ⁺	365.5	21 4	2129.8	25/2 ⁺			
		371.0	21 3	2124.2	25/2 ⁺	E2	0.0520	
		433.0	100 8	2061.8	25/2 ⁺	E2	0.0345	
2499.0	29/2 ⁺	199.7	89 8	2299.1	27/2 ⁺			
		368.9	100 16	2129.8	25/2 ⁺	E2	0.0529	
		374.6	49 9	2124.2	25/2 ⁺			
		437.4	80 9	2061.8	25/2 ⁺			

Adopted Levels, Gammas (continued)

$\gamma(^{181}\text{Ir})$ (continued)								
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [†]	$\alpha^\&$	Comments
2512.5	29/2 ⁻	273.0	44 2	2239.6	27/2 ⁻			
		533.9	100 7	1978.5	25/2 ⁻	E2	0.0204	
2529.1	29/2 ⁺	405.0	43 3	2124.2	25/2 ⁺			
		467.3	100 7	2061.8	25/2 ⁺	E2	0.0283	B(E2)(W.u.)=92 24
2556.5	(⁻)	399.8	72 8	2156.8	29/2 ⁻			
		1005.1	100 12	1551.4	25/2 ⁻	M1+E2	0.009 4	
2597.2	29/2 ⁺	215.1	100 3	2382	27/2 ⁺	M1	0.724	
		405.5	37 3	2191.7	25/2 ⁺	E2	0.0409	
2602.5	27/2 ⁻	220.5	100 8	2382.0	25/2 ⁻			
		427.4	61 8	2175.1	23/2 ⁻	E2	0.0356	
2625.6	(27/2 ⁺)	539.1	100	2086.5	(23/2 ⁺)	E2	0.0200	
2712.8	29/2 ⁺	271.8	40 12	2440.9	27/2 ⁺			
		535.5	100 9	2177.3	25/2 ⁺	E2	0.0203	
2721.3	31/2 ⁺	222.4	46 7	2499.0	29/2 ⁺			
		422.1	100 15	2299.1	27/2 ⁺	E2	0.0368	
2778.3	33/2 ⁻	621.5	100	2156.8	29/2 ⁻	E2	0.0143	B(E2)(W.u.)=55 6
2796.0	31/2 ⁻	283.6	43 8	2512.5	29/2 ⁻			
		556.4	100 5	2239.6	27/2 ⁻	E2	0.0185	
2833.5	31/2 ⁺	236.2	100 6	2597.2	29/2 ⁺			
		451.5	79 16	2382	27/2 ⁺	E2	0.0309	
2837.0	29/2 ⁻	234.5	100 13	2602.5	27/2 ⁻			
		454.9	100 13	2382.0	25/2 ⁻	E2	0.0303	
2913.0	(31/2 ⁻)	576.6	100 17	2336.6	(27/2 ⁻)	E2	0.0170	
		756.0	≈58	2156.8	29/2 ⁻			
2967.3	(29/2)	546	≈31	2421.3	(25/2)			
		810.6	100 8	2156.8	29/2 ⁻	D		
2969.8	33/2 ⁺	248.4	100 17	2721.3	31/2 ⁺			
		470.6	73 6	2499.0	29/2 ⁺	E2	0.0278	
		475.1	64 6	2495.0	29/2 ⁺	E2	0.0272	
2982.2	33/2 ⁺	483.2	76 4	2499.0	29/2 ⁺	E2	0.0261	
		487.3	100 5	2495.0	29/2 ⁺	E2	0.0255	
3002.4	31/2 ⁺	289.9	68 20	2712.8	29/2 ⁺			
		561.6	100 17	2440.9	27/2 ⁺	E2	0.0181	
3024.9	33/2 ⁺	495.8	100 4	2529.1	29/2 ⁺	E2	0.0244	
		530.1	12 2	2495.0	29/2 ⁺			
3084.2	31/2 ⁻	247.2	40 6	2837.0	29/2 ⁻			
		481.8	100 16	2602.5	27/2 ⁻	E2	0.0262	
3087.9	33/2 ⁺	254.4	67 3	2833.5	31/2 ⁺			
		490.8	100 6	2597.2	29/2 ⁺	E2	0.0251	
3091.9	33/2 ⁻	295.8	44 3	2796.0	31/2 ⁻			
		579.4	100 6	2512.5	29/2 ⁻	E2	0.0168	
3216.5	(31/2 ⁺)	590.9	100	2625.6	(27/2 ⁺)	E2	0.0161	

Adopted Levels, Gammas (continued)

$\gamma(^{181}\text{Ir})$ (continued)							
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [†]	$\alpha^\&$
3240.2	35/2 ⁺	270.1	47 6	2969.8	33/2 ⁺		
		518.9	100 2	2721.3	31/2 ⁺	E2	0.0219
3278.3	33/2 ⁺	277 ^a	≈28	3002.4	31/2 ⁺		
		565.3	100 13	2712.8	29/2 ⁺	E2	0.0178
3340.9?	(33/2 ⁻)	256.7 ^a	38 5	3084.2	31/2 ⁻		
		503.6 ^a	100 13	2837.0	29/2 ⁻	D+Q	
3348.6	37/2 ⁻	570.3	100	2778.3	33/2 ⁻	E2	0.0175
3357.4	35/2 ⁺	269.5	56 5	3087.9	33/2 ⁺		
		523.9	100 8	2833.5	31/2 ⁺	E2	0.0214
3399.8	35/2 ⁻	307.8	51 4	3091.9	33/2 ⁻		
		603.9	100 7	2796.0	31/2 ⁻	E2	0.0153
3499.3	(35/2 ⁻)	586.4	100	2913.0	(31/2 ⁻)	E2	0.0164
3529.3	37/2 ⁺	288.9	52 5	3240.2	35/2 ⁺		
		559.6	100 9	2969.8	33/2 ⁺	E2	0.0183
3535.0	37/2 ⁺	552.8	100	2982.2	33/2 ⁺	E2	0.0188
3567.9	(33/2)	601	≈37	2967.3	(29/2)	E2	0.0155
		789.6	100 19	2778.3	33/2 ⁻		
3568.9	37/2 ⁺	544.1	100	3024.9	33/2 ⁺	E2	0.0195
3600.6?	(35/2 ⁻)	259.8 ^a	35 6	3340.9?	(33/2 ⁻)		
		516.6 ^a	100 13	3084.2	31/2 ⁻		
3614.3	35/2 ⁺	335 ^a	≤33	3278.3	33/2 ⁺		
		612.0	100 11	3002.4	31/2 ⁺	E2	0.0148
3640.7	37/2 ⁺	283.3	73 5	3357.4	35/2 ⁺		
		552.8	100 8	3087.9	33/2 ⁺	E2	0.0188
3718.1	37/2 ⁻	318.5	51 5	3399.8	35/2 ⁻	(M1)	0.247
		626.1	100 8	3091.9	33/2 ⁻	E2	0.0141
3838.2	39/2 ⁺	309.0	31 9	3529.3	37/2 ⁺		
		597.9	100 8	3240.2	35/2 ⁺	E2	0.0157
3856.9	(35/2 ⁺)	640.4	100	3216.5	(31/2 ⁺)	E2	0.0134
3859.6		511	100	3348.6	37/2 ⁻		
3876.9	37/2 ⁺	263 ^a	≤37	3614.3	35/2 ⁺		
		598.5	100 12	3278.3	33/2 ⁺	E2	0.0156
3877.7?	(37/2 ⁻)	277.3 ^a	61 10	3600.6?	(35/2 ⁻)		
		536.5 ^a	100 32	3340.9?	(33/2 ⁻)		
3936.0	39/2 ⁺	295.4	39 6	3640.7	37/2 ⁺		
		578.5	100 11	3357.4	35/2 ⁺	E2	0.0169
3949.5	41/2 ⁻	600.9	100	3348.6	37/2 ⁻	E2	0.0155
4039.6		691	100	3348.6	37/2 ⁻		
4045.4	39/2 ⁻	327.0	52 5	3718.1	37/2 ⁻		
		645.6	100 8	3399.8	35/2 ⁻	E2	0.0132
4119.8	(39/2 ⁻)	620.5	≈100	3499.3	(35/2 ⁻)	E2	0.0144

Adopted Levels, Gammas (continued)

$\gamma(^{181}\text{Ir})$ (continued)							
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [†]	$\alpha^\&$
4119.8	(39/2 ⁻)	771	60 8	3348.6	37/2 ⁻		
4134.4	41/2 ⁺	599.4	100	3535.0	37/2 ⁺	E2	0.0156
4152.6	41/2 ⁺	583.7	100 10	3568.9	37/2 ⁺	E2	0.0165
		623.3	63 10	3529.3	37/2 ⁺		
4162.9	41/2 ⁺	594.2	23 3	3568.9	37/2 ⁺		
		633.4	100 15	3529.3	37/2 ⁺	E2	0.0137
4174.4?	(39/2 ⁻)	296.6 ^a	95 21	3877.7? (37/2 ⁻)			
		573.9 ^a	100 16	3600.6? (35/2 ⁻)			
4243.8	41/2 ⁺	307.8	20 3	3936.0	39/2 ⁺		
		603.1	100 12	3640.7	37/2 ⁺	E2	0.0153
4252.7	39/2 ⁺	375 ^a	≈14	3876.9	37/2 ⁺		
		638.5	100 13	3614.3	35/2 ⁺	E2	0.0135
4276.8	(37/2)	709	100 27	3567.9 (33/2)		E2	0.0107
		928	67 13	3348.6	37/2 ⁻		
4385.1	41/2 ⁻	339.4	57 9	4045.4	39/2 ⁻		
		667.2	100 9	3718.1	37/2 ⁻	E2	0.0122
4443.5?	(41/2 ⁻)	565.8 ^a	100	3877.7? (37/2 ⁻)			
4495.4	43/2 ⁺	657.2	100	3838.2	39/2 ⁺	E2	0.0126
4496.2	41/2 ⁺	619.3	100	3876.9	37/2 ⁺	E2	0.0144
4535.9	(39/2 ⁺)	679	100	3856.9 (35/2 ⁺)		E2	0.0118
4563.5	43/2 ⁺	319.6	18 4	4243.8	41/2 ⁺	E2	0.0140
		627.6	100 12	3936.0	39/2 ⁺		
4632.3	45/2 ⁻	682.8	100	3949.5	41/2 ⁻	E2	0.0116
4727.0	43/2 ⁻	341.9	50 4	4385.1	41/2 ⁻		
		681.7	100 10	4045.4	39/2 ⁻	E2	0.0117
4777.7	45/2 ⁺	643.3	100	4134.4	41/2 ⁺	E2	0.0133
4788.9	45/2 ⁺	636.3	100	4152.6	41/2 ⁺	E2	0.0136
4801.8	(43/2 ⁻)	682	100	4119.8 (39/2 ⁻)		E2	0.0117
4840.9	45/2 ⁺	678	100	4162.9	41/2 ⁺	E2	0.0118
4896.9	45/2 ⁺	653.1	100	4243.8	41/2 ⁺	E2	0.0128
4912.7	43/2 ⁺	660	100	4252.7	39/2 ⁺	E2	0.0125
5036.8?	(41/2)	760 ^a	100	4276.8 (37/2)			
5085.4	45/2 ⁻	358.5	80 10	4727.0	43/2 ⁻		
		700	100 13	4385.1	41/2 ⁻	E2	0.0110
5129.0?	(45/2 ⁺)	632.8 ^a	100	4496.2	41/2 ⁺		
5205.4?	(47/2 ⁺)	710 ^a	100	4495.4	43/2 ⁺		
5243.5	47/2 ⁺	680.0	100	4563.5	43/2 ⁺	E2	0.0117
5254.9?	(43/2 ⁺)	719 ^a	100	4535.9 (39/2 ⁺)			
5389.1	49/2 ⁻	756.8	100	4632.3	45/2 ⁻	E2	0.0093
5446.4	47/2 ⁻	361.2	100 11	5085.4	45/2 ⁻	M1	0.176
		718	95 19	4727.0	43/2 ⁻	E2	0.0104

Adopted Levels, Gammas (continued)

$\gamma(^{181}\text{Ir})$ (continued)							
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\alpha^\&$
5470.2	49/2 ⁺	681.3	100	4788.9	45/2 ⁺	E2	0.0117
5474.7	49/2 ⁺	697	100	4777.7	45/2 ⁺	E2	0.0111
5535.8?	(47/2 ⁻)	734 ^a	100	4801.8	(43/2 ⁻)		
5564.9	(49/2 ⁺)	724	100	4840.9	45/2 ⁺		
5596.7?	(47/2 ⁺)	684 ^a	100	4912.7	43/2 ⁺		
5603.3	49/2 ⁺	706.4	100	4896.9	45/2 ⁺	E2	0.0108
5822.4	49/2 ⁻	376 ^a	≈ 74	5446.4	47/2 ⁻		
		737	100 <i>18</i>	5085.4	45/2 ⁻	E2	0.0099
5976.4?	(51/2 ⁺)	732.9 ^a	100	5243.5	47/2 ⁺		
6201.2	53/2 ⁺	731	100	5470.2	49/2 ⁺	E2	0.0100
6202.1	53/2 ⁻	813	100	5389.1	49/2 ⁻	E2	0.00802
6204.4?	(51/2 ⁻)	758 ^a	100	5446.4	47/2 ⁻		
6233.7?	(53/2 ⁺)	759 ^a	100	5474.7	49/2 ⁺		
6332.9?	(53/2 ⁺)	768 ^a	100	5564.9	(49/2 ⁺)		
6361.3?	(53/2 ⁺)	758 ^a	100	5603.3	49/2 ⁺		
6607.4?	(53/2 ⁻)	785 ^a	100	5822.4	49/2 ⁻		
6982.2?	(57/2 ⁺)	781 ^a	100	6201.2	53/2 ⁺		
7052.1?	(57/2 ⁻)	850 ^a	100	6202.1	53/2 ⁻		

[†] From (HI,xn γ), except as noted.

[‡] From ^{181}Pt ε decay.

From weighted average of values from (HI,xn γ) and ^{181}Pt ε decay. 0.3 keV uncertainties assumed for E_γ 's from (HI,xn γ).

@ From weighted average of values from (HI,xn γ) and ^{181}Pt ε decay.

& 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.

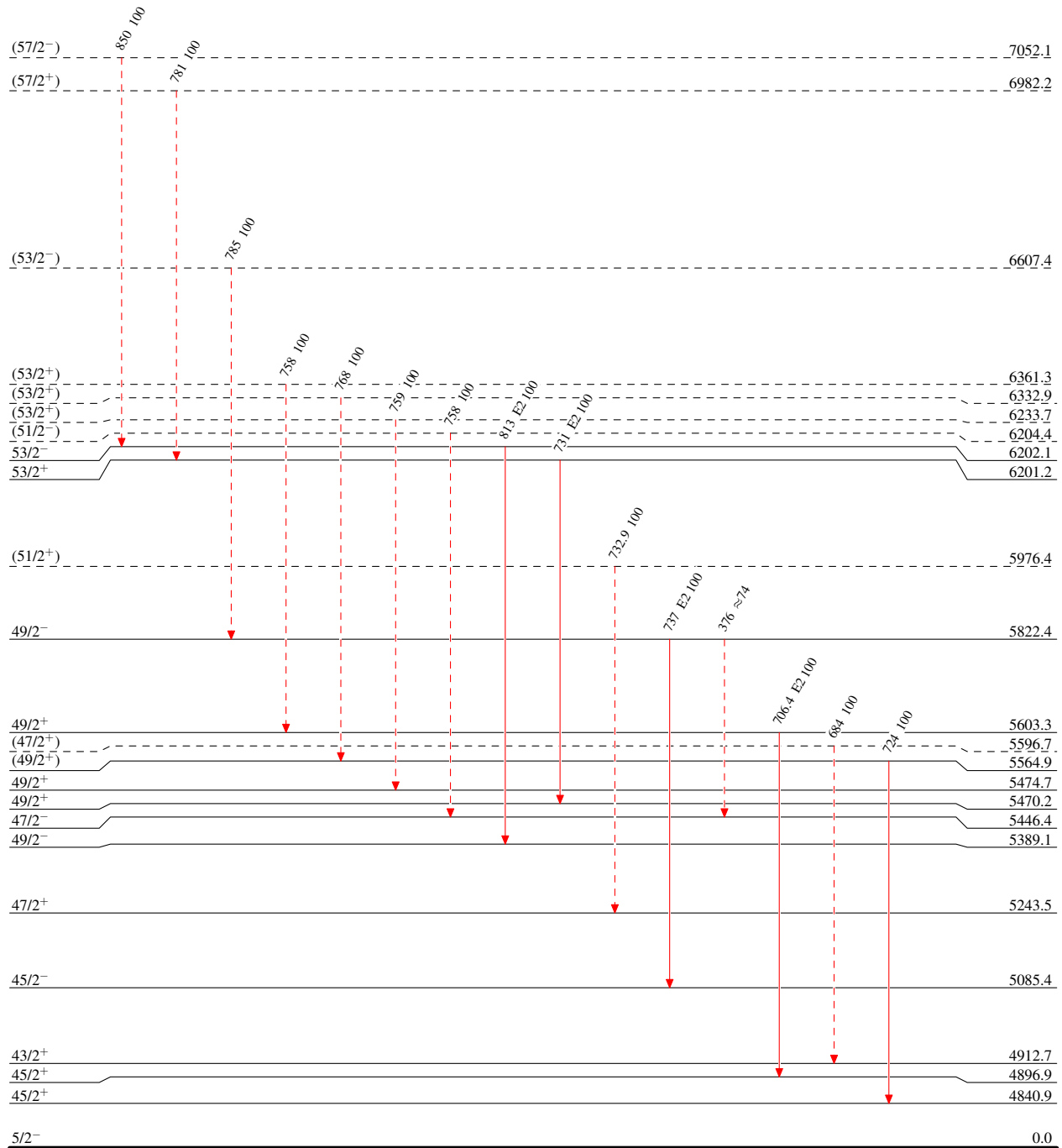
^a Placement of transition in the level scheme is uncertain.

Adopted Levels, Gammas**Level Scheme**

Intensities: Type not specified

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)



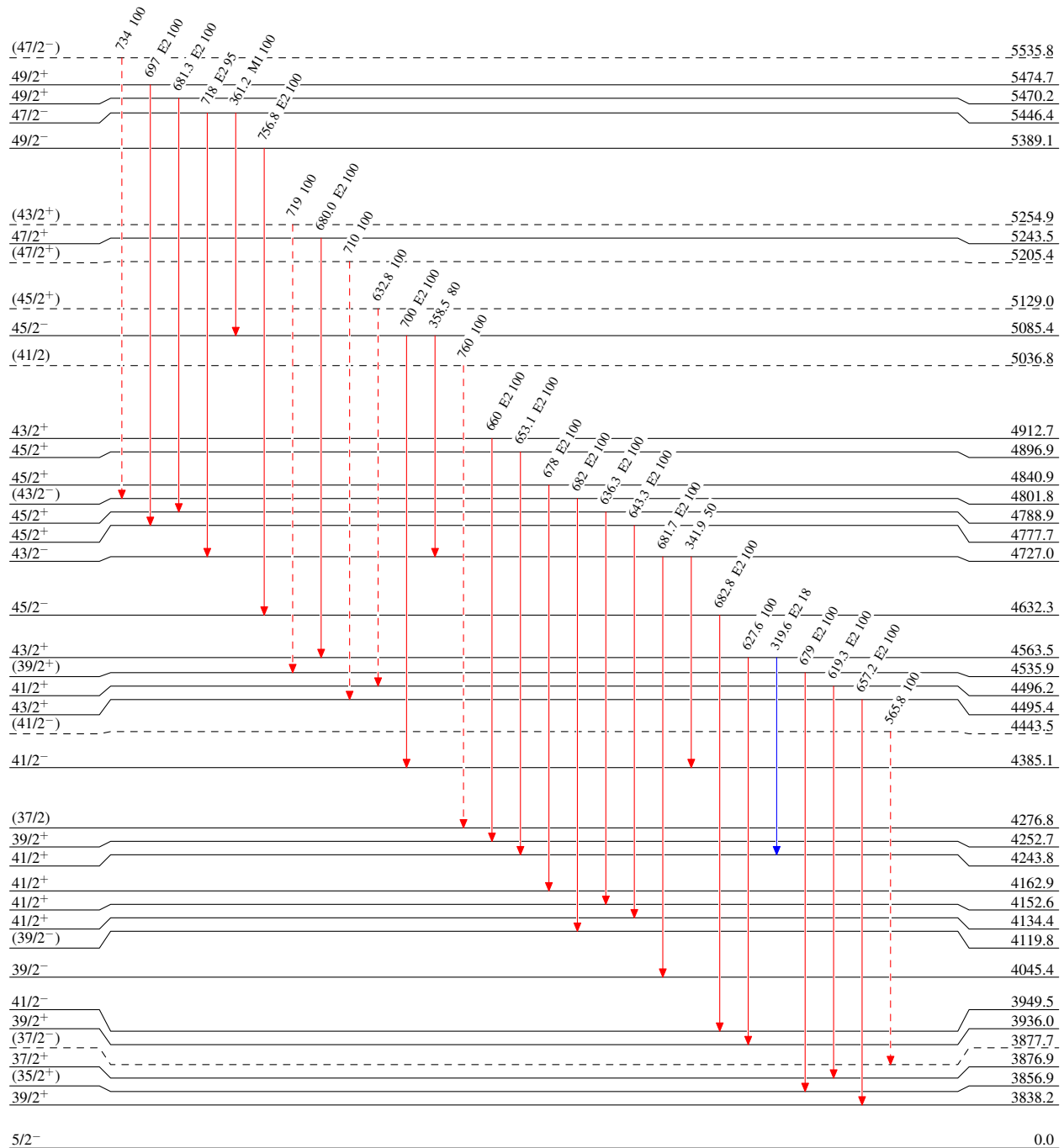
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Type not specified

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



4.90 min 15

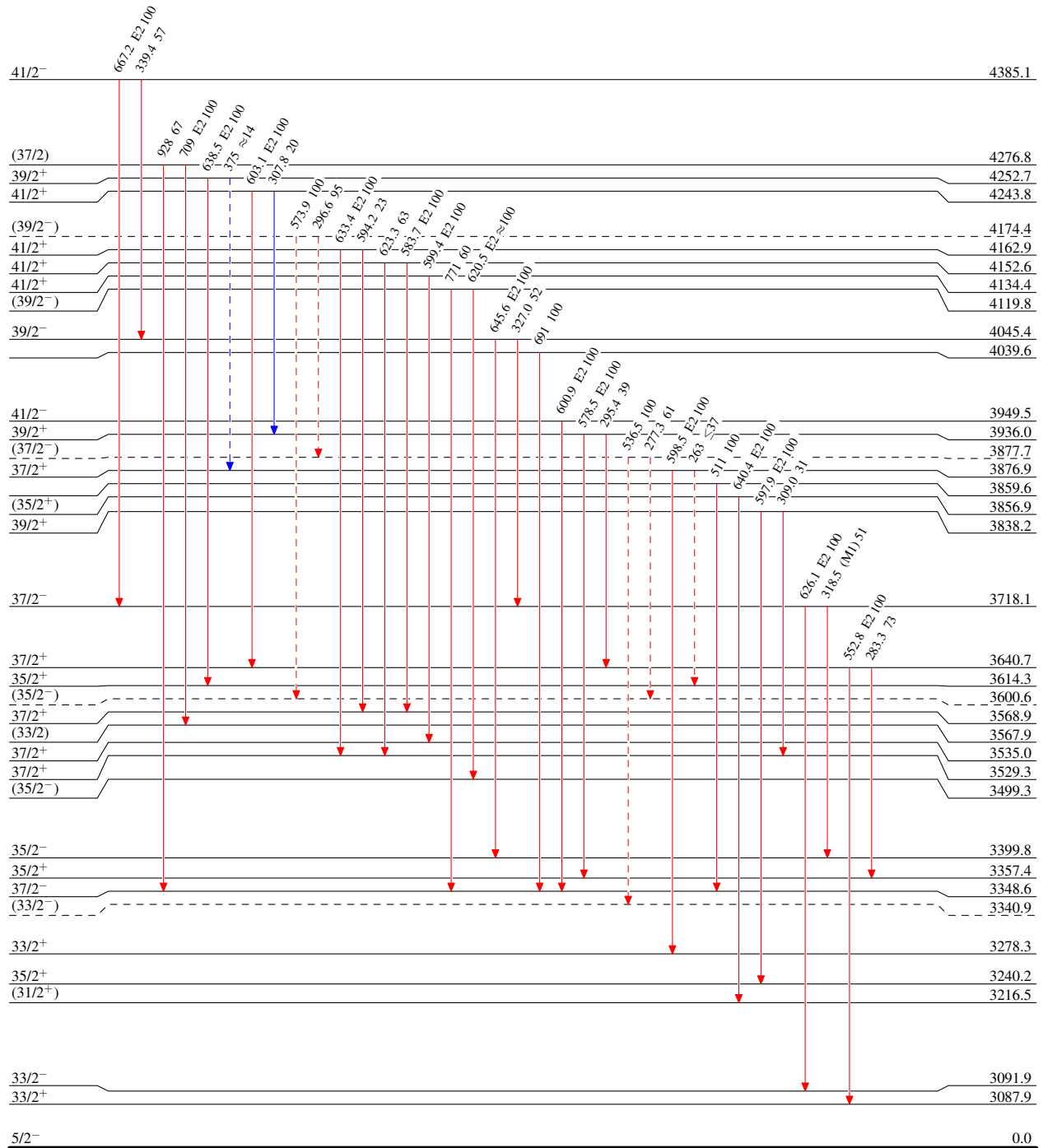
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Type not specified

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



4.90 min 15

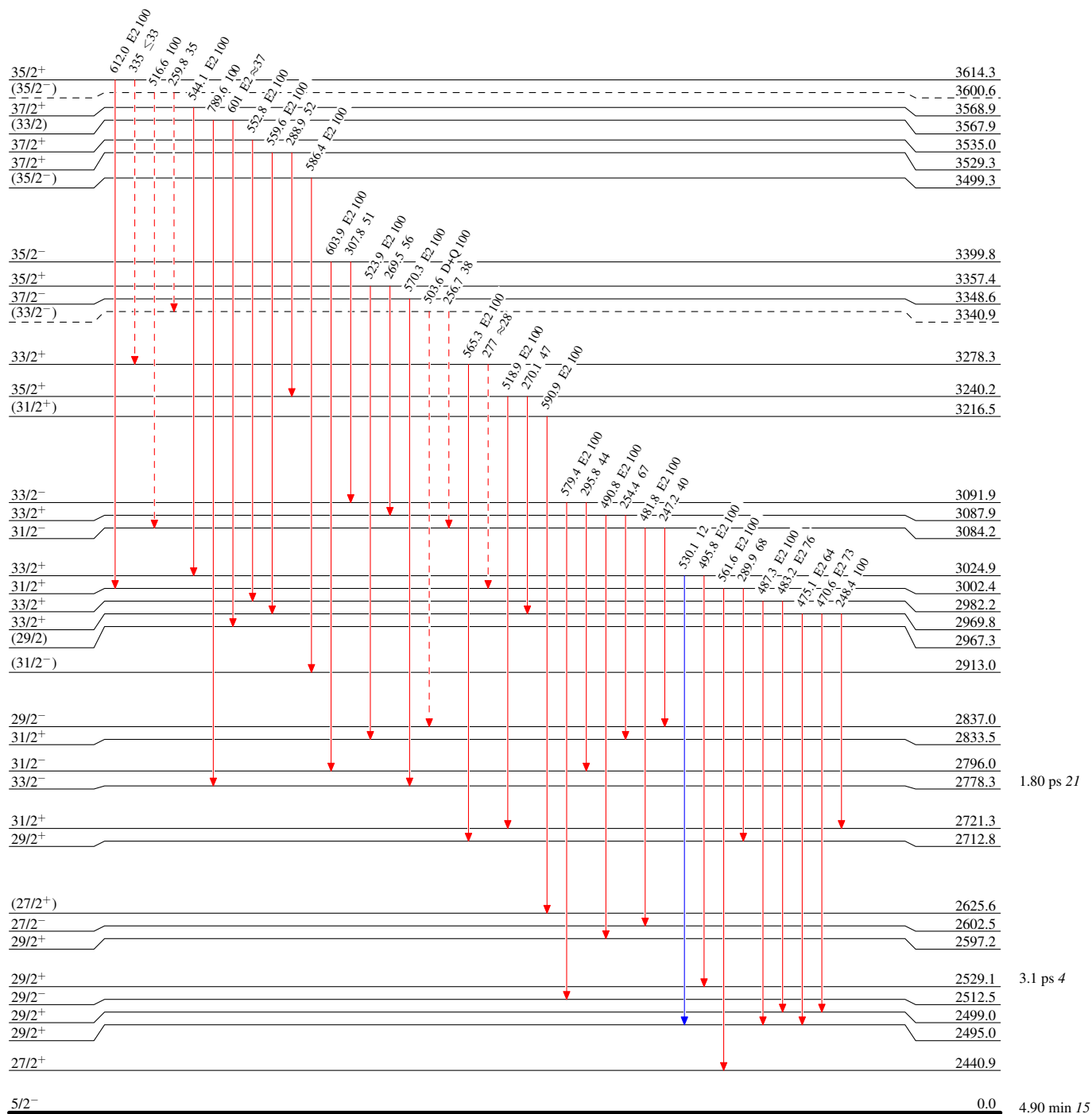
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Type not specified

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



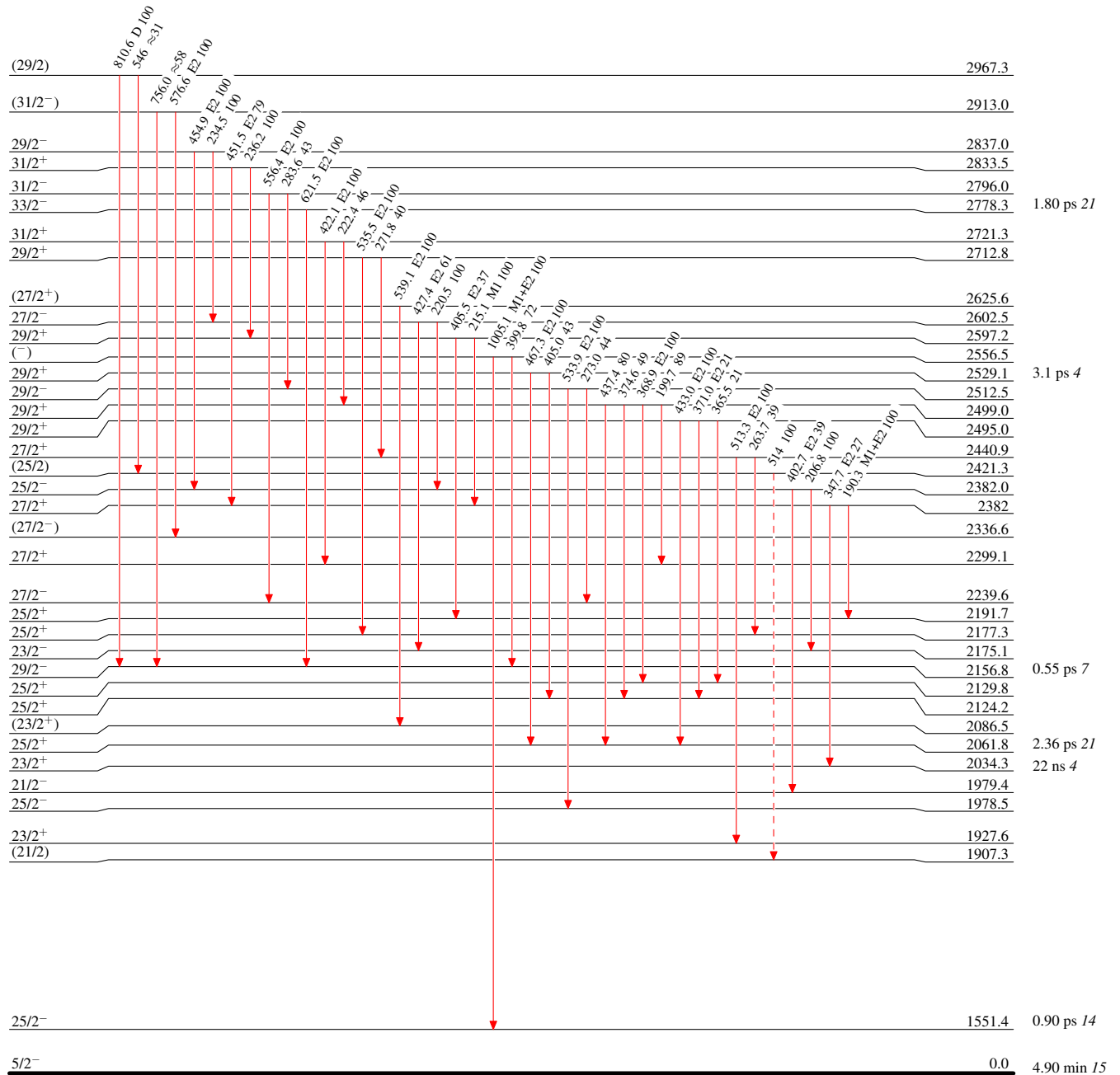
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Type not specified

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



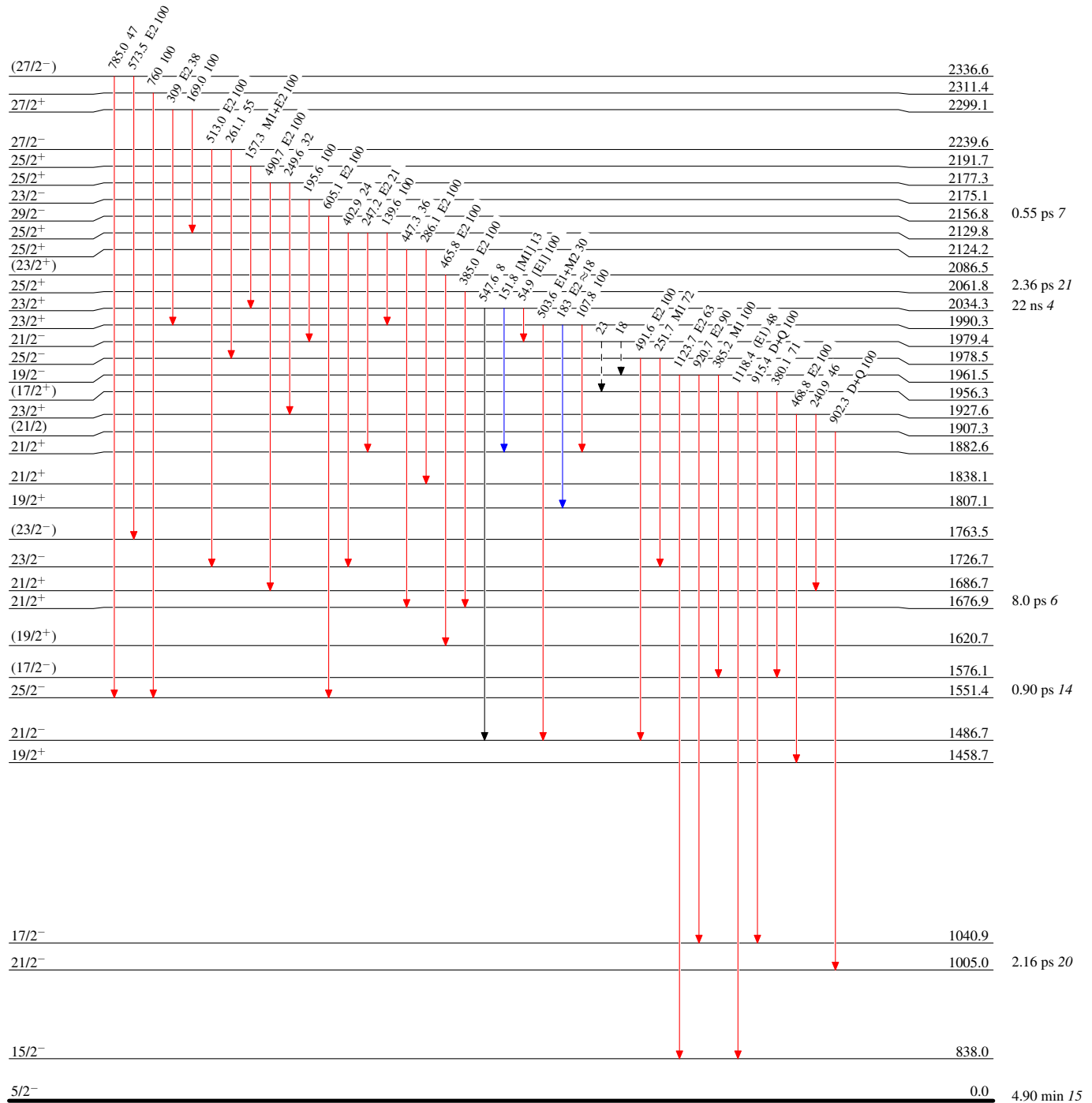
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Type not specified

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



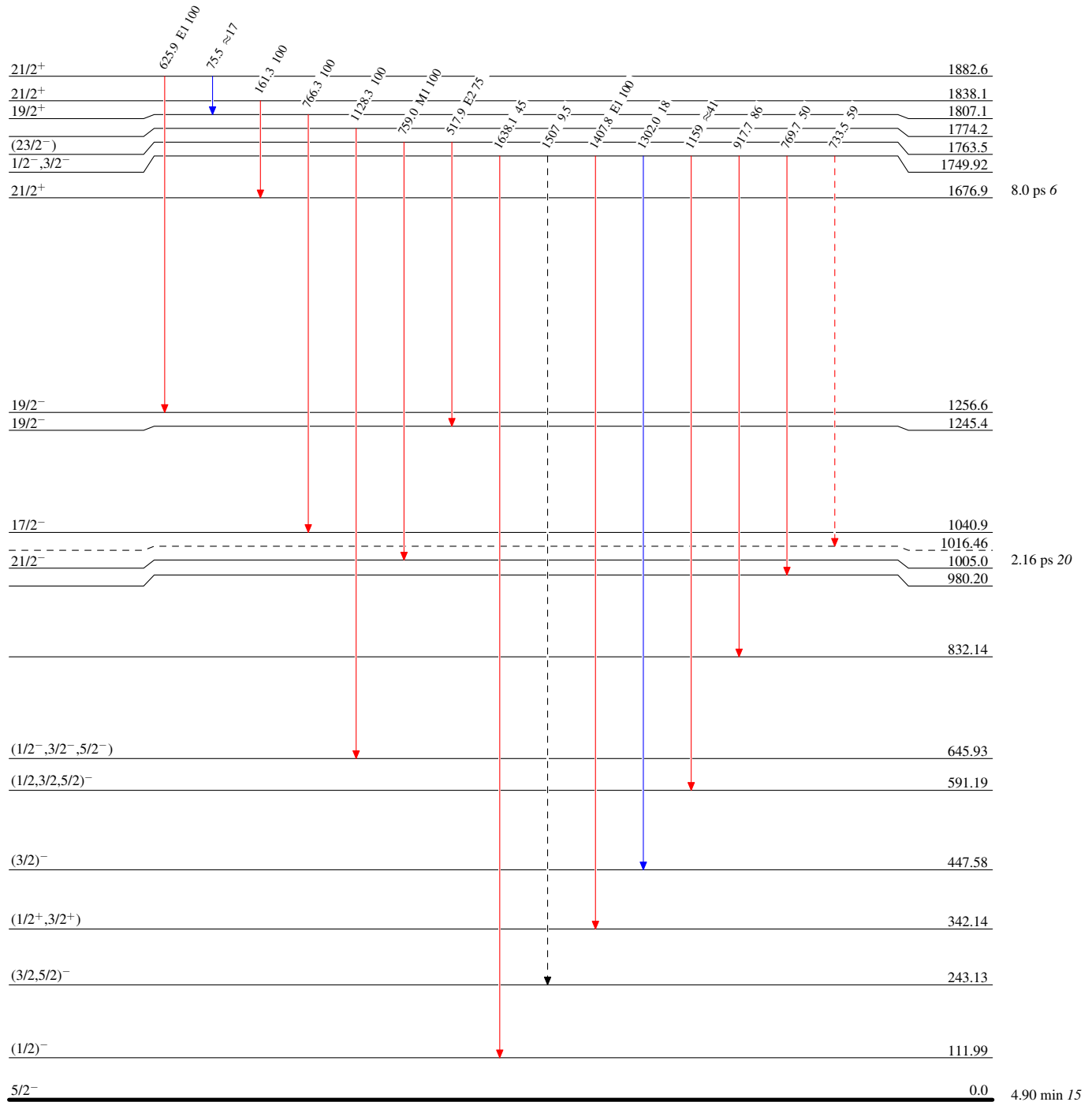
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Type not specified

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

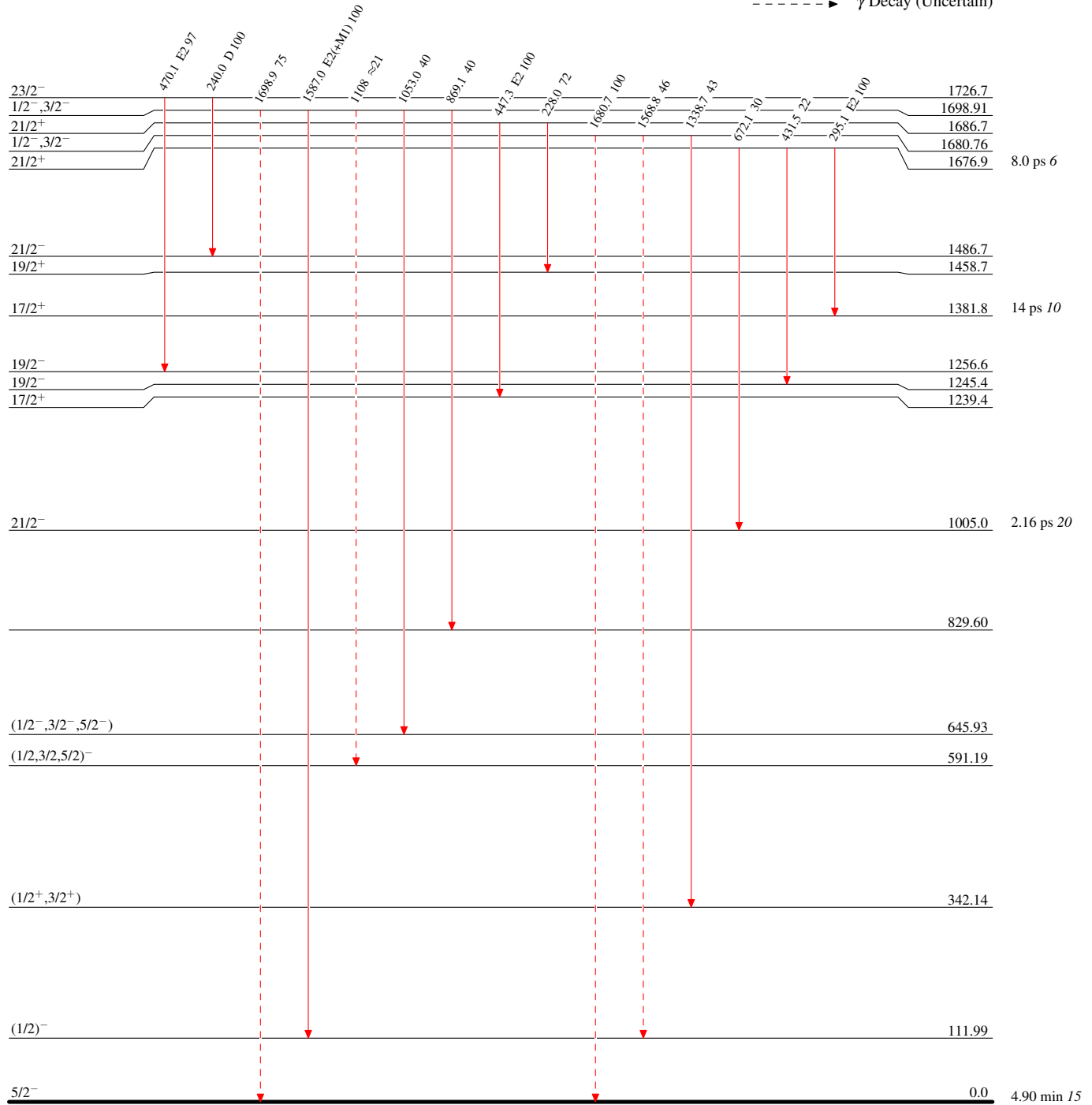


Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Type not specified

Legend

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



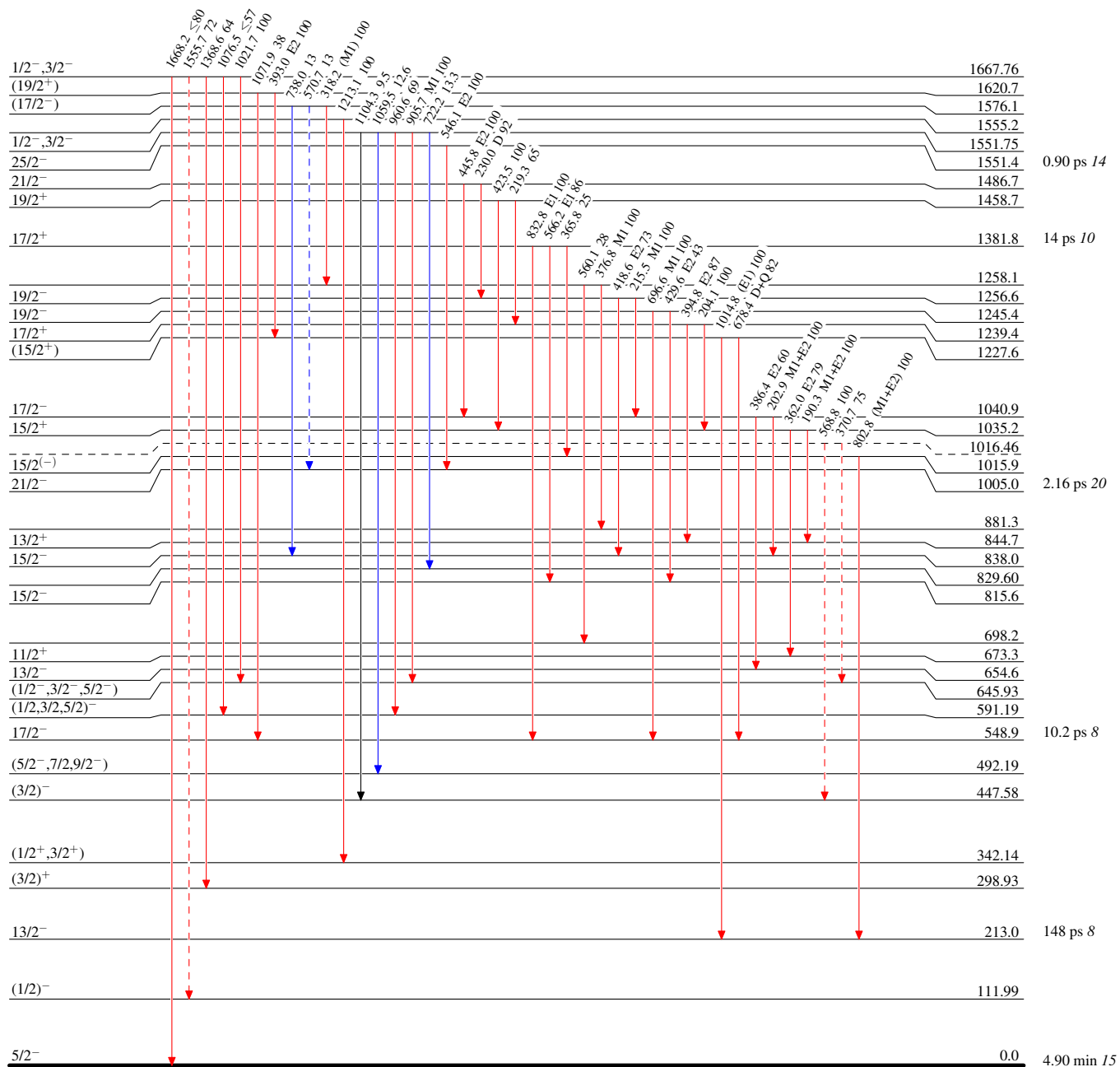
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Type not specified

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



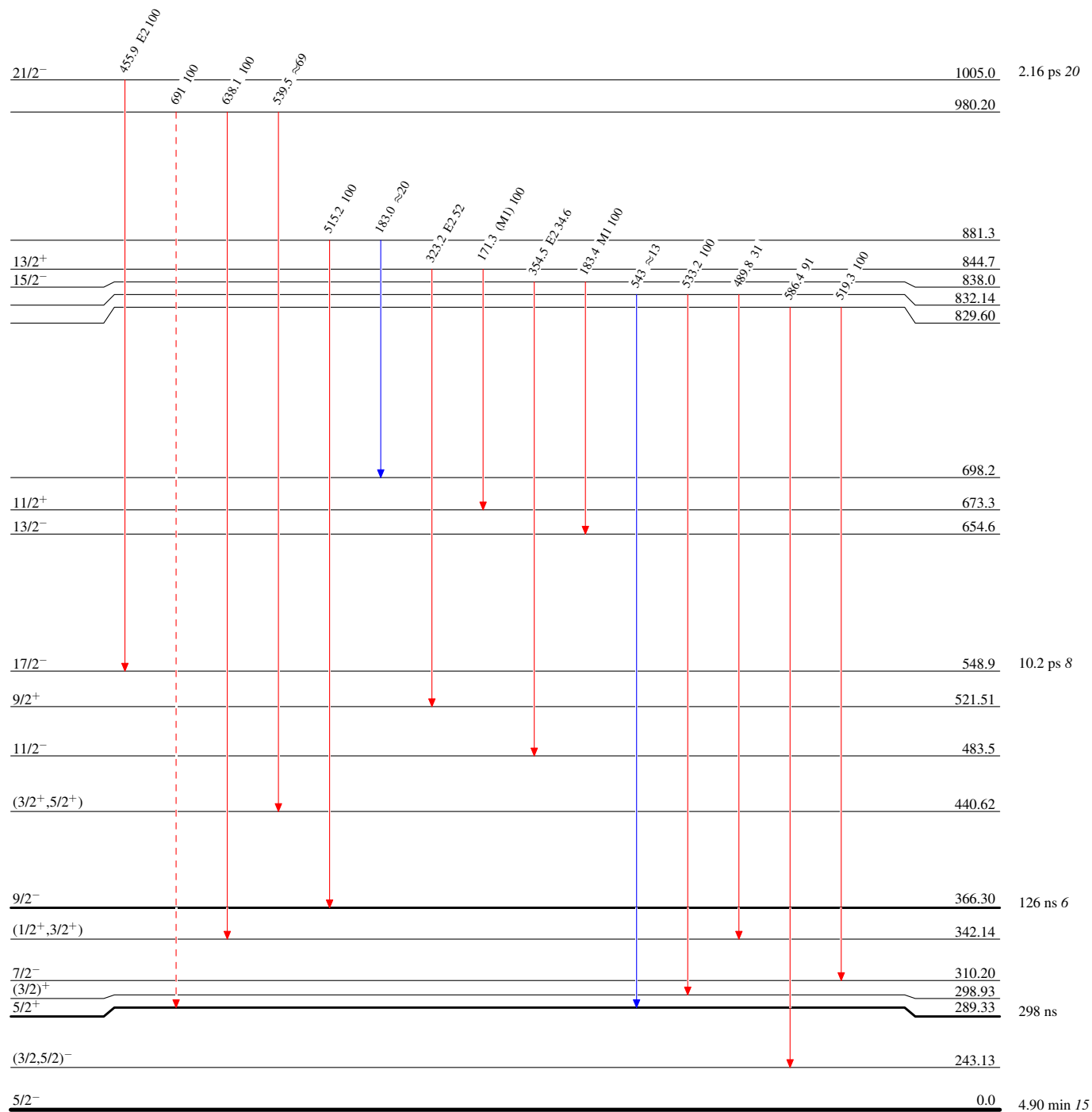
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Type not specified

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



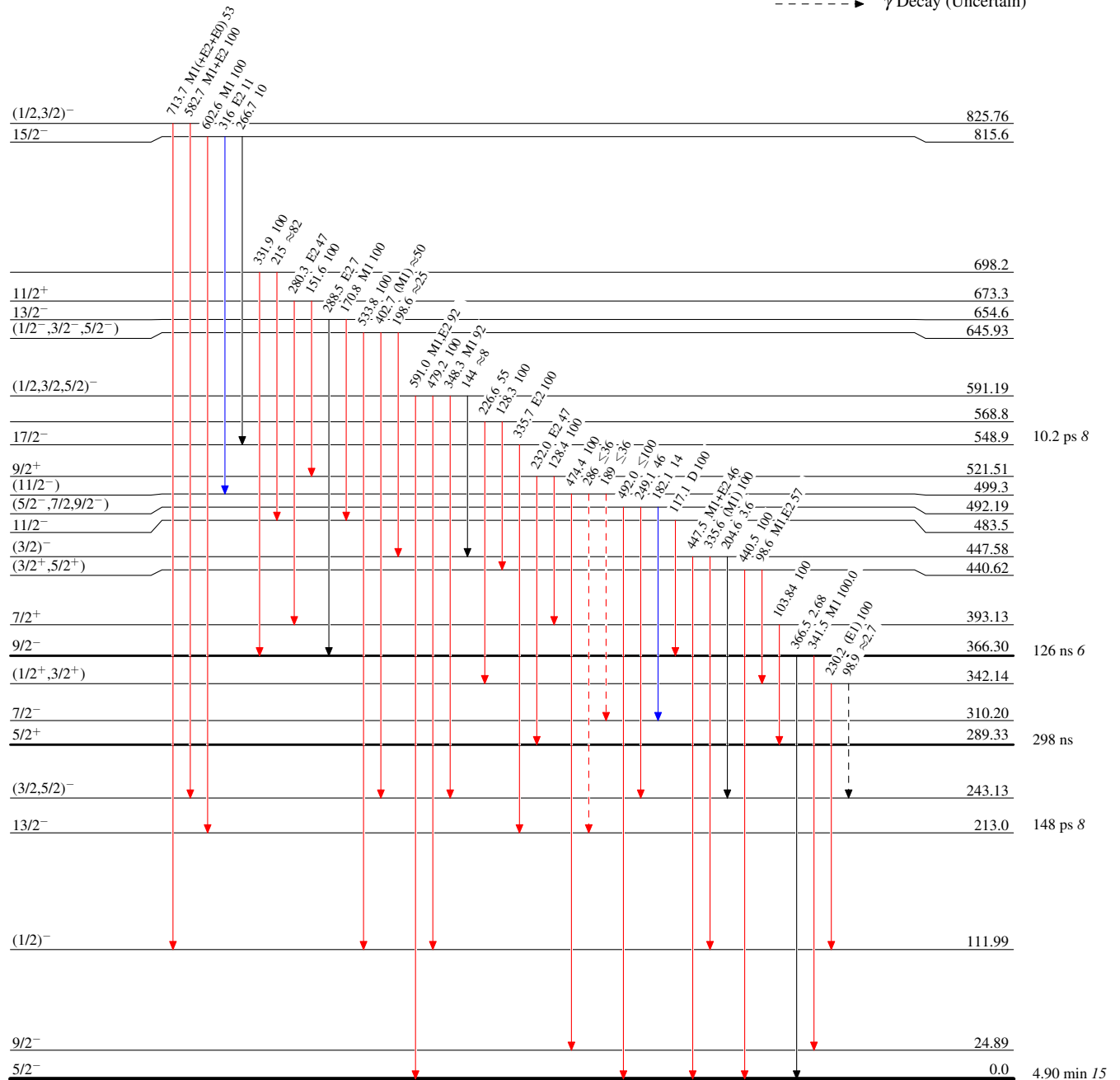
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Type not specified

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



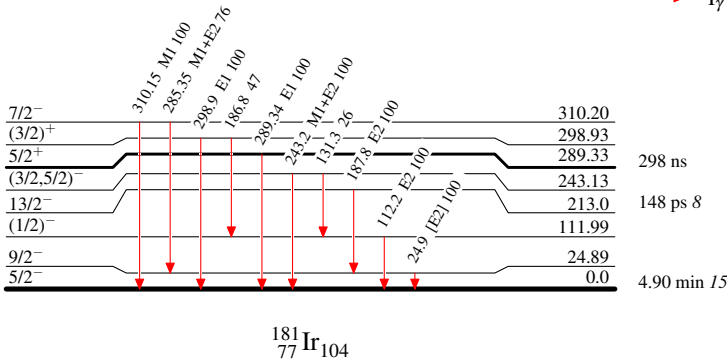
Adopted Levels, Gammas

Level Scheme (continued)

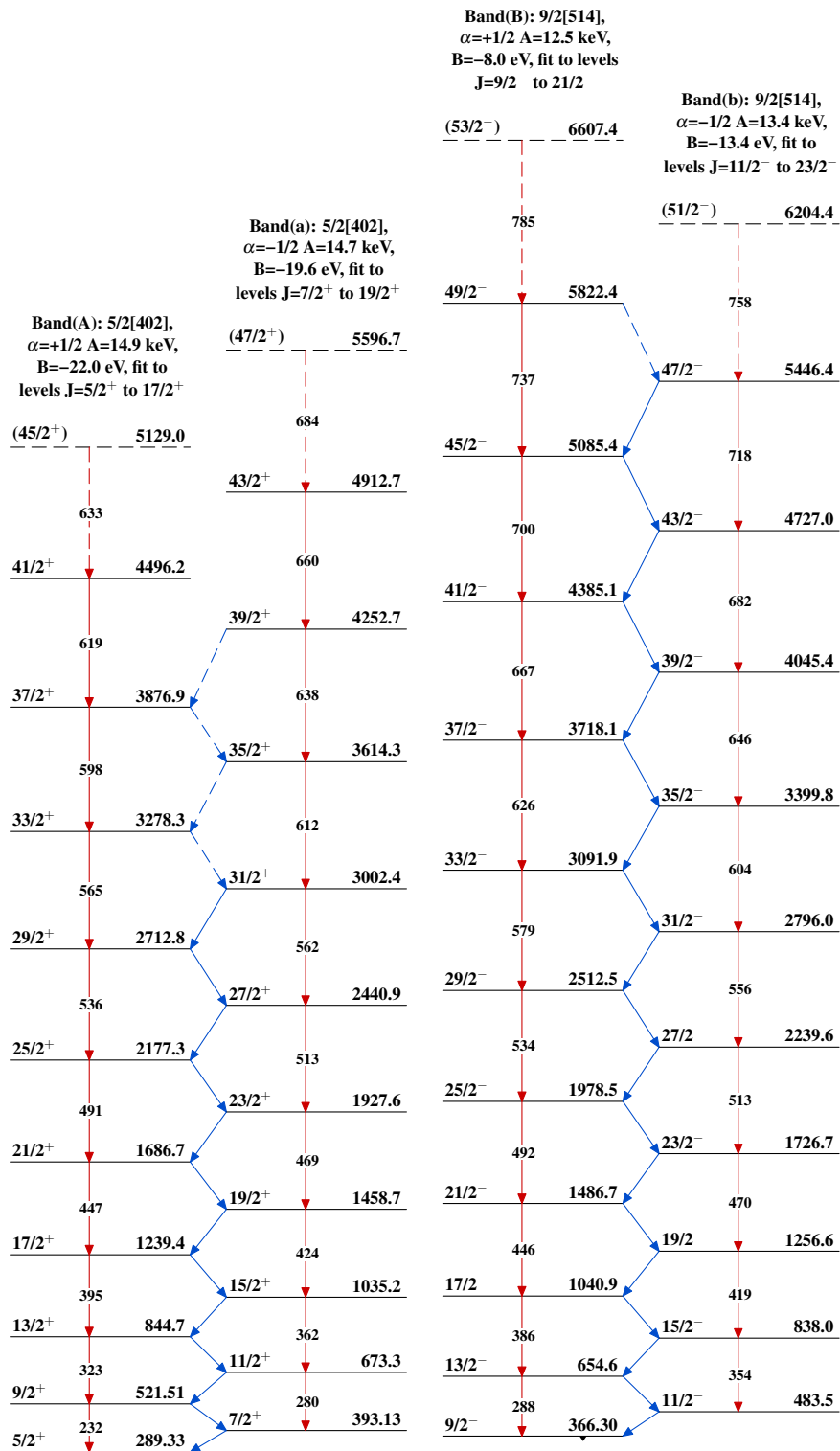
Intensities: Type not specified

Legend

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



$^{181}_{77}\text{Ir}_{104}$

Adopted Levels, Gammas

Adopted Levels, Gammas (continued)