Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 132, 1 (2016)	4-Dec-2015

Q(β^-)=−4.70×10^3 *4*; S(n)=7.27×10^3 *4*; S(p)=5.22×10^3 *7*; Q(α)=3.30×10^3 *3* 2017Wa10
Q(ε)=3.42×10^3 *3*; S(2n)=1.735×10^4 *4*; S(2p)=8.84×10^3 *7* 2017Wa10

Additional information 1.
Additional information 2.

Data are ^{157}Tm ε decay and from heavy-ion induced reactions, which have completely independent sets of levels. The ^{157}Tm ε decay scheme is considered tentative; therefore, the spin, parity, and band assignments from this study have not been adopted here.

^{157}Er Levels

The following papers include theoretical or model calculations that may be of interest: level energy differences (1974Ka12); decoupled bands and band crossings (1976Lo02,1984Be12), backbending (1979Be36,1985Be51,1985Sh27,1986Ik02); Nilsson level energies (1984Al30); yrast feeding properties (1985Bo37); properties of continuum γ's (1979Tr08,1982El01,1982Hu03,1984Co26,1985Th05).

Cross Reference (XREF) Flags

- A ^{157}Tm ε decay
- B ^{114}Cd(^{48}Ca,5nγ)
- C ^{114}Cd(^{48}Ca,5nγ):SD
- D (HI,xnγ)

E(level)†	Jπ‡	$T_{1/2}$	XREF	Comments
0#	3/2$^-$	18.65 min *10*	A D	%ε+%β^+≈100 μ=−0.412 *3*; Q=+0.92 *2* Jπ: J measured by atomic-beam, magnetic-resonance method (1969Ek01). π from assignment of 3/2[521] Nilsson orbital, although 3/2[651] has also been suggested. $T_{1/2}$: From ^{157}Er ε decay (1984GrZL). Others: 24 m +*2*−*4* (1965Zh02), ≈25 m (1966La11), and 22 m *2* (1975AlYW). %ε+%β^+: From extrapolation of $T_{1/2}(\alpha)$ vs E_α from ^{153}Er, using slopes from adjacent nuclides, one gets a conservative limit of %α < 0.02. μ: From 1989Ra17 evaluation and 2011StZZ compilation. Q: From 1989Ra17 evaluation and 2011StZZ compilation.
10.30 *10*	−	6.8 ns *4*	A	Jπ: π from M1 γ from 110-keV negative-parity level. $T_{1/2}$: From ^{157}Tm ε decay (1983Be17) by ce-γ(t) measurements. Other: 7 ns *1* (1979Al33).
36.17 *14*	(−)	1.3 ns *1*	A	Jπ: π from M1,E2 γ from 206-keV negative-parity level. $T_{1/2}$: From ^{157}Tm ε decay (1983Be17).
110.38 *5*	1/2$^-$,3/2$^-$,5/2$^-$	130 ps *15*	A	Jπ: From M1 γ to 3/2$^-$ level. $T_{1/2}$: From ^{157}Tm ε decay (1983Be17).
155.4?[a] *3*	(9/2$^+$)	76 ms *6*	A	%IT=100 E(level): This value assumes that the observed 155.4-keV γ populates the ground state rather than the 10$^-$ or 35-keV level. Jπ: If placement of 155 γ is correct, E3 γ to 3/2$^-$ level suggests J^π=9/2$^+$. $T_{1/2}$: From (HI,xnγ) study (1971LeYU).
206.10 *12*	−		A	Jπ: π from E1 γ from 381-keV positive-parity level.
241.53 *8*	1/2$^-$,3/2$^-$,5/2$^-$		A	Jπ: From M1 γ to 3/2$^-$ level.
357.90 *6*	+		A	Jπ: From E1 γ to 110-keV, negative-parity level.
360.60 *8*	−		A	Jπ: π from M1,E2 γ to 3/2$^-$ level.

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Adopted Levels, Gammas (continued)

^{157}Er Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	$T_{1/2}$	XREF	Comments
367.63 *16*	$^-$		A	J$^{\pi}$: π from M1,E2 γ to 3/2$^-$ level.
381.01 *5*	1/2$^+$,3/2$^+$,5/2$^+$		A	J$^{\pi}$: From E1 γ to 3/2$^-$ level.
400.78 *16*			A	
455.00 *13*	1/2$^-$,3/2$^-$,5/2$^-$		A	J$^{\pi}$: From M1 γ to 3/2$^-$ level.
559.23 *7*			A	
608.10? *8*			A	
685.41 *9*	1/2$^+$,3/2$^+$,5/2$^+$		A	J$^{\pi}$: From γ to 3/2$^-$ level and E1 γ to negative parity level.
689.20 *9*	$^+$		A	J$^{\pi}$: π from E2,M1 γ to 381-keV positive-parity level.
753.06 *11*	$^+$		A	J$^{\pi}$: π from E1 γ to 367-keV, negative-parity level.
799.68 *14*	$^-$		A	J$^{\pi}$: π from M1,E2 γ to 242-keV negative-parity level.
0+x[e]	(5/2$^-$)		B D	Additional information 3.
24.8+x *9*	(7/2$^-$)		B D	
181.1+x[a] *13*	(13/2$^+$)		BCD	XREF: D(178+X).
181.9+x[e] *6*	(9/2$^-$)		B D	
446.8+x[a] *12*	(17/2$^+$)	54 ps *4*	B D	μ=0.4 *4* $T_{1/2}$: Weighted average of 49.0 ps *25* (1974Na08) and 57 ps *2* (1986Os02) ((HI,xnγ) dataset). μ: Deduced from g-factor=0.05 *5* (1974Na08).
560.0+x[e] *9*	(13/2$^-$)		B D	
786.2+x[g] *14*	(15/2$^-$)		B	
861.1+x[a] *12*	(21/2$^+$)	4.6 ps *8*	B D	$T_{1/2}$: Weighted average of 5.3 ps *5* (1974Na08) and 3.7 ps *6* (1986Os02) ((HI,xnγ) dataset).
1073.1+x[e] *11*	(17/2$^-$)		B D	
1142.8+x[d] *13*	(17/2$^+$)		B	
1208.0+x[g] *12*	(19/2$^-$)		B D	
1388.1+x[a] *12*	(25/2$^+$)	2.6 ps *+2−3*	B D	$T_{1/2}$: From 1986Os02 ((HI,xnγ) dataset).
1487.8+x[d] *13*	(21/2$^+$)		B D	
1665.8+x[e] *12*	(21/2$^-$)		B D	
1697.8+x[@] *12*	(21/2$^-$)		B D	
1740.8+x[g] *12*	(23/2$^-$)		B D	
1909.5+x[d] *13*	(25/2$^+$)		B D	
2009.9+x[a] *12*	(29/2$^+$)	1.4 ps *3*	B D	$T_{1/2}$: From 1986Os02 ((HI,xnγ) dataset).
2102.2+x[@] *12*	(25/2$^-$)		B D	
2299.9+x[e] *13*	(25/2$^-$)		B D	
2348.5+x[g] *13*	(27/2$^-$)		B D	
2387.0+x[&] *13*	(27/2$^-$)		B	
2424.1+x[d] *13*	(29/2$^+$)		B D	
2426.7+x *12*	(25/2$^-$)		B D	
2572.4+x[c] *13*	(23/2$^-$)		B D	
2580.4+x[@] *12*	(29/2$^-$)		B D	
2677.9+x[b] *13*	(25/2$^-$)		B	
2712.7+x[a] *12*	(33/2$^+$)		B D	
2792.7+x[e] *13*	(29/2$^-$)		B D	
2827.7+x[c] *13*	(27/2$^-$)		B D	
2841.0+x[&] *13*	(31/2$^-$)		B D	
2892.4+x[h] *14*	(29/2$^-$)		B	
3021.1+x[b] *13*	(29/2$^-$)		B D	
3024.8+x[d] *13*	(33/2$^+$)		B D	
3093.9+x[@] *12*	(33/2$^-$)		B D	
3122.1+x[f] *13*	(31/2$^-$)		B	

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Adopted Levels, Gammas (continued)

^{157}Er Levels (continued)

E(level)†	Jπ‡	XREF	E(level)†	Jπ‡	XREF
3246.3+x[c] 13	(31/2⁻)	B D	7157.6+x[&] 13	(55/2⁻)	B
3274.5+x 13	(31/2⁻)	B	7175.1+x[b] 16	(53/2⁻)	B
3336.9+x[e] 14	(33/2⁻)	B D	7471.7+x[f] 18	(55/2⁻)	B
3377.4+x[&] 13	(35/2⁻)	B D	7479.3+x[@] 13	(57/2⁻)	B D
3422.7+x[h] 16	(33/2⁻)	B	7522.5+x[a] 14	(57/2⁺)	B D
3477.8+x[a] 13	(37/2⁺)	B D	7799.7+x[d] 15	(57/2⁺)	B
3507.4+x[b] 13	(33/2⁻)	B D	7947.5+x[&] 13	(59/2⁻)	B
3668.0+x[@] 13	(37/2⁻)	B D	8080.7+x[b] 17	(57/2⁻)	B
3679.2+x[f] 13	(35/2⁻)	B	8271.1+x[@] 13	(61/2⁻)	B D
3703.5+x[d] 13	(37/2⁺)	B D	8289.0+x[f] 19	(59/2⁻)	B
3792.1+x[c] 13	(35/2⁻)	B D	8437.5+x[a] 14	(61/2⁺)	B D
3949.8+x[e] 16	(37/2⁻)	B D	8724.2+x[d] 16	(61/2⁺)	B
4006.5+x[&] 13	(39/2⁻)	B D	8786.1+x[&] 13	(63/2⁻)	B
4041.0+x[h] 17	(37/2⁻)	B	9145.8+x[@] 14	(65/2⁻)	B D
4099.7+x[b] 14	(37/2⁻)	B D	9394.4+x[a] 14	(65/2⁺)	B D
4280.9+x[a] 13	(41/2⁺)	B D	9648.7+x[d] 17	(65/2⁺)	B
4312.0+x[f] 13	(39/2⁻)	B	9654.1+x[&] 14	(67/2⁻)	B D
4318.9+x[@] 13	(41/2⁻)	B D	10098.4+x[@] 14	(69/2⁻)	B D
4431.5+x[c] 14	(39/2⁻)	B D	10227.8+x[a] 14	(69/2⁺)	B D
4441.0+x[d] 13	(41/2⁺)	B D	10548.8+x[&] 14	(71/2⁻)	B D
4626.0+x[e] 17	(41/2⁻)	B D	10825.2+x[i] 15	(71/2⁺)	B D
4721.9+x[&] 13	(43/2⁻)	B D	11038.4+x[@] 15	(73/2⁻)	B D
4744.7+x[h] 18	(41/2⁻)	B	11080.6+x[k] 15	(73/2⁻)	B D
4779.1+x[b] 14	(41/2⁻)	B D	11306.8+x[a] 15	(73/2⁺)	B D
5017.3+x[f] 15	(43/2⁻)	B	11339.4+x 16	(73/2⁺)	B D
5046.5+x[@] 13	(45/2⁻)	B D	11426.7+x 15		B
5090.8+x[a] 13	(45/2⁺)	B D	11461.6+x 16		B
5149.4+x[c] 14	(43/2⁻)	B D	11488.0+x[&] 15	(75/2⁻)	B D
5191.6+x[d] 14	(45/2⁺)	B D	11717.2+x[i] 16	(75/2⁺)	B D
5377.2+x[e] 18	(45/2⁻)	B D	11802.9+x[@] 15	(77/2⁻)	B D
5519.6+x[&] 13	(47/2⁻)	B D	11896.8+x[j] 16	(75/2⁺)	B D
5526.6+x[b] 15	(45/2⁻)	B D	12166.1+x[a] 15	(77/2⁺)	B D
5798.0+x[f] 16	(47/2⁻)	B	12206.2+x[k] 16	(77/2⁻)	B D
5846.8+x[@] 13	(49/2⁻)	B D	12331.6+x 16		B
5897.3+x[a] 13	(49/2⁺)	B D	12339.5+x 16		B
5927.8+x[c] 15	(47/2⁻)	B D	12467.7+x 16		B
5973.9+x[d] 13	(49/2⁺)	B D	12473.6+x[&] 15	(79/2⁻)	B D
6179.9+x[e] 19	(49/2⁻)	B D	12866.3+x 16	(79/2⁻)	B
6328.9+x[b] 15	(49/2⁻)	B D	12934.9+x[j] 17	(79/2⁺)	B D
6348.5+x[&] 13	(51/2⁻)	B D	13059.0+x[a] 16	(81/2⁺)	B D
6643.9+x[f] 17	(51/2⁻)	B	13119.3+x[@] 15	(81/2⁻)	B D
6676.0+x[@] 13	(53/2⁻)	B D	13353.5+x 17		B
6689.2+x[a] 13	(53/2⁺)	B D	13397.0+x[&] 15	(83/2⁻)	B D
6756.4+x[c] 16	(51/2⁻)	B D	13439.0+x[k] 17	(81/2⁻)	B
6829.9+x[d] 14	(53/2⁺)	B D	13915.3+x 17		B
7024.2+x[e] 20	(53/2⁻)	B	14039.6+x[@] 17	(85/2⁻)	B D

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Adopted Levels, Gammas (continued)

^{157}Er Levels (continued)

E(level)[†]	J^{π}[‡]	XREF	Comments
14047.0+x[&] *16*	(87/2$^-$)	B D	Interpreted by 2004Ev01 as terminating state with configuration= $\pi(h^4_{11/2})_{16+}\otimes\nu[(i^2_{13/2})\ (h_{9/2}$ and/or $f_{7/2})^5]_{55/2-}$.
14293.6+x[a] *16*	(85/2$^+$)	B D	
14511.8+x *17*	(85/2$^+$)	B	
14853.5+x[@] *18*	(89/2$^-$)	B D	Interpreted by 2004Ev01 as terminating state with configuration= $\pi(h^4_{11/2})_{16+}\otimes\nu[(i^2_{13/2})\ (h_{9/2}$ and/or $f_{7/2})^5]_{57/2-}$.
15064.2+x[a] *16*	(89/2$^+$)	B	
15311.0+x *17*	(89/2$^-$)	B	
15486.5+x *17*	(89/2$^-$)	B	
15585.4+x *17*	(89/2$^-$)	B	
15628.6+x *17*	(91/2$^-$)	B	
15761.8+x *17*		B	
15818.1+x[a] *17*	(93/2$^+$)	B	Interpreted by 2004Ev01 as terminating state with configuration= $\pi(h^4_{11/2})_{16+}\otimes\nu[(i^3_{13/2})\ (h_{9/2}$ and/or $f_{7/2})^4]_{61/2+}$.
15827.2+x *17*		B	
15961.9+x *17*	(91/2$^-$)	B	
16122.1+x *17*	(91/2$^-$)	B	
16185.8+x *17*	(91/2$^-$)	B	
16274.1+x *19*		B	
16348.2+x *19*		B	
16394.0+x *17*		B	
16409.8+x *19*	(93/2$^-$)	B	
16455.7+x *17*		B	
16559.9+x *19*	(93/2$^-$)	B	
16956.1+x *19*	(93/2$^-$)	B	
17231.3+x *18*		B	
17298.3+x *18*	(95/2$^+$)	B	
17453.8+x *18*		B	
17513.3+x *18*		B	
17519.1+x *18*		B	
17555.2+x *18*		B	
17654.4+x *20*		B	
17943.5+x *18*		B	
19056.9+x *20*		B	
19502.8+x *19*		B	
y	J≈(55/2)	C	J^{π}: ≈60 for the highest level (2007Pa03).
y+778.5[l] *5*	J+2	C	
y+1584.0[l] *7*	J+4	C	
y+2434.5[l] *9*	J+6	C	
y+3339.6[l] *10*	J+8	C	
y+4295.5[l] *12*	J+10	C	
y+5300.9[l] *13*	J+12	C	
y+6354.6[l] *14*	J+14	C	
y+7455.6[l] *15*	J+16	C	
y+8606.1[l] *15*	J+18	C	
y+9807.1[l] *16*	J+20	C	
y+11061.3[l] *17*	J+22	C	
y+12372.8[l] *18*	J+24	C	
y+13745.1[l] *18*	J+26	C	
y+15180.7[l] *19*	J+28	C	
y+16681.7[l] *22*	J+30	C	
y+18253.7[l] *24*	J+32	C	
z	J1	C	

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Adopted Levels, Gammas (continued)

^{157}Er Levels (continued)

E(level)[†]	Jπ[‡]	XREF	E(level)[†]	Jπ[‡]	XREF	E(level)[†]	Jπ[‡]	XREF
z+956.0[m] *10*	J1+2	C	z+5229.0[m] *23*	J1+10	C	z+10283[m] *3*	J1+18	C
z+1954.0[m] *15*	J1+4	C	z+6415.0[m] *25*	J1+12	C	z+11685[m] *4*	J1+20	C
z+2998.0[m] *18*	J1+6	C	z+7651[m] *3*	J1+14	C	z+13149[m] *4*	J1+22	C
z+4091.0[m] *20*	J1+8	C	z+8938[m] *3*	J1+16	C			

[†] From the respective studies; see discussions there. Note that the positions of the levels from the all heavy-ion induced reaction datasets studies are unknown.

[‡] Level-specific arguments are given for the levels reported in the ^{157}Tm ε decay and many of the J^π assignments in the decay data are only given as π assignments here. For the heavy-ion induced reaction studies, the J^π's are from consideration of the whole scheme and includes $\gamma\gamma(\theta)$ for most of the γ rays as well as the band structure, and no specific arguments given. While generally in agreement, when different Jπ values from the more recent ^{114}Cd(^{48}Ca,5nγ) dataset were adopted rather than from the (HI,xnγ) dataset.

[#] Band(A): 3/2[521] bandhead.

[@] Band(B): ν5/2[523]⊗$\nu i^2_{13/2}$, α=+1/2.

[&] Band(b): ν5/2[523]⊗$\nu i^2_{13/2}$, α=−1/2.

[a] Band(C): ν3/2[651] to ν3/2[651]⊗$\nu i^2_{13/2}$, α=+1/2.

[b] Band(D): ν3/2[651]⊗π([7/2[523]⊗7/2[404]), K=7, α+1/2. Strongly-coupled band.

[c] Band(d): ν3/2[651]⊗π(7/2[523]⊗7/2[404]), K=7, α=−1/2. Strongly-coupled band.

[d] Band(E): ν3/2[651]⊗γ vibration.

[e] Band(F): ν3/2[521] to ν3/2[521]⊗$\nu i^2_{13/2}$, α=+1/2. The signature α=−1/2 in table III of 2006Ev02 seems a misprint.

[f] Band(f): ν3/2[521]⊗$\nu i^2_{13/2}$, α=−1/2. The signature α=+1/2 in table III of 2006Ev02 seems a misprint.

[g] Band(G): ν3/2[521], α=−1/2. Possible signature partner of ν3/2[521]. The signature α=+1/2 in table III of 2006Ev02 seems a misprint.

[h] Band(H): Band based on (29/2$^-$), α=+1/2. Four members in this band.

[i] Band(I): Band based on 71/2$^+$, α=−1/2. Only two members in this band.

[j] Band(J): Band based on 75/2$^+$, α=−1/2. Only two members in this band.

[k] Band(K): Band based on 73/2$^-$, α=+1/2. Only three members in this band.

[l] Band(L): Highly-deformed (triaxial) SD-1 band. From ^{114}Cd(^{48}Ca,5nγ):SD dataset (2007Pa03, 2011Wa14) This structure lies above the terminating bands. Deformation parameters: ε_2=0.30-0.35, γ=20°−25°; population intensity ≈0.01% relative to the channel leading to ^{157}Er. Q_t=10.9 eb *+6−5* with Q_{sf}=11.2 eb *+27−16* (uncertainties are statistical; systematic uncertainty of 15% from stopping powers is not included).

[m] Band(M): Highly-deformed (triaxial) SD-2 band. From ^{114}Cd(^{48}Ca,5nγ):SD dataset (2007Pa03, 2011Wa14) This structure lies above the terminating bands. Deformation parameters: ε_2=0.30-0.35, γ=20°−25°; population intensity ≈0.003-0.005% relative to the channel leading to ^{157}Er. Q_t=11.1 eb *+12−9* with Q_{sf}=8.6 eb I^{34-16} (uncertainties are statistical; systematic uncertainty of 15% from stopping powers is not included).

Adopted Levels, Gammas (continued)

$\gamma(^{157}Er)$

Unplaced γ's have not been included here; see ^{157}Tm ε decay.

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.[†]	α[#]	Comments
10.30	$^-$	10.3	100	0	$3/2^-$			
36.17	($^-$)	25.5		10.30	$^-$			
		35.8		0	$3/2^-$			
110.38	$1/2^-,3/2^-,5/2^-$	74.5		36.17	($^-$)			
		100.05 *5*	28.4 *23*	10.30	$^-$	M1	2.84	α(K)=2.38 *4*; α(L)=0.358 *5*; α(M)=0.0793 *12* α(N)=0.0185 *3*; α(O)=0.00267 *4*; α(P)=0.0001471 *21* B(M1)(W.u.)=0.0113 *19*
		110.35 *10*	100 *11*	0	$3/2^-$	M1	2.15	α(K)=1.80 *3*; α(L)=0.270 *4*; α(M)=0.0598 *9* α(N)=0.01395 *20*; α(O)=0.00202 *3*; α(P)=0.0001110 *16* B(M1)(W.u.)=0.030 *6*
155.4?	($9/2^+$)	155.4 *3*	100	0	$3/2^-$	E3	5.47 *10*	α(K)=1.148 *18*; α(L)=3.28 *6*; α(M)=0.829 *15* α(N)=0.189 *4*; α(O)=0.0221 *4*; α(P)=6.81×10^{-5} *11* B(E3)(W.u.)=0.77 *7*
206.10	$^-$	169.80 *5*	64 *7*	36.17	($^-$)	M1,E2	0.54 *10*	α(K)=0.40 *14*; α(L)=0.11 *3*; α(M)=0.025 *8* α(N)=0.0058 *17*; α(O)=0.00075 *16*; α(P)=2.2×10^{-5} *11*
		196.00 *5*	100 *17*	10.30	$^-$	M1(+E2)	0.35 *8*	α(K)=0.26 *10*; α(L)=0.064 *11*; α(M)=0.015 *3* α(N)=0.0034 *7*; α(O)=0.00045 *6*; α(P)=1.5×10^{-5} *7*
241.53	$1/2^-,3/2^-,5/2^-$	131.20 *15*	59 *12*	110.38	$1/2^-,3/2^-,5/2^-$	M1(+E2)	1.20 *12*	α(K)=0.8 *3*; α(L)=0.29 *13*; α(M)=0.07 *4* α(N)=0.016 *8*; α(O)=0.0020 *8*; α(P)=4.5×10^{-5} *23*
		231.10 *5*	15 *3*	10.30	$^-$	M1(+E2)	0.21 *6*	α(K)=0.17 *6*; α(L)=0.036 *3*; α(M)=0.0083 *9* α(N)=0.00191 *18*; α(O)=0.000256 *6*; α(P)=1.0×10^{-5} *5*
		241.55 *5*	100 *10*	0	$3/2^-$	M1	0.240	α(K)=0.201 *3*; α(L)=0.0298 *5*; α(M)=0.00660 *10* α(N)=0.001538 *22*; α(O)=0.000223 *4*; α(P)=1.233×10^{-5} *18*
357.90	$^+$	116.3 *1*	19.6 *22*	241.53	$1/2^-,3/2^-,5/2^-$			
		247.50 *5*	65 *9*	110.38	$1/2^-,3/2^-,5/2^-$	E1	0.0300	α(K)=0.0253 *4*; α(L)=0.00370 *6*; α(M)=0.000816 *12* α(N)=0.000188 *3*; α(O)=2.63×10^{-5} *4*; α(P)=1.282×10^{-6} *18*
		347.65 *10*	54 *11*	10.30	$^-$			
		357.8 *2*	100 *20*	0	$3/2^-$			
360.60	$^-$	154.35 *10*	8.0 *12*	206.10	$^-$			
		360.65 *15*	100 *18*	0	$3/2^-$	M1,E2	0.061 *21*	α(K)=0.050 *20*; α(L)=0.0087 *14*; α(M)=0.0020 *3* α(N)=0.00046 *7*; α(O)=6.4×10^{-5} *12*; α(P)=2.9×10^{-6} *13*
367.63	$^-$	257.50[c] *20*	4.9 *14*	110.38	$1/2^-,3/2^-,5/2^-$	M1,E2	0.16 *5*	α(K)=0.12 *5*; α(L)=0.0251 *4*; α(M)=0.00575 *23* α(N)=0.00133 *4*; α(O)=0.000180 *8*; α(P)=7.E−6 *4*
		331.75 *10*	12.5 *14*	36.17	($^-$)	M1	0.1019	α(K)=0.0858 *12*; α(L)=0.01257 *18*; α(M)=0.00278 *4* α(N)=0.000649 *10*; α(O)=9.41×10^{-5} *14*; α(P)=5.23×10^{-6} *8*
		357.00 *15*	100 *14*	10.30	$^-$			
		367.4 *2*	62 *8*	0	$3/2^-$	M1,E2	0.058 *20*	α(K)=0.047 *19*; α(L)=0.0083 *13*; α(M)=0.0019 *3* α(N)=0.00043 *7*; α(O)=6.0×10^{-5} *12*; α(P)=2.8×10^{-6} *13*
381.01	$1/2^+,3/2^+,5/2^+$	139.35 *10*	4.3 *6*	241.53	$1/2^-,3/2^-,5/2^-$			

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Adopted Levels, Gammas (continued)

γ(^{157}Er) (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.[†]	α[#]	Comments
381.01	1/2+,3/2+,5/2+	175.40 *15*	56 *9*	206.10	−	E1	0.0733	α(K)=0.0615 *9*; α(L)=0.00922 *13*; α(M)=0.00204 *3* α(N)=0.000469 *7*; α(O)=6.46×10^{-5} *10*; α(P)=3.00×10^{-6} *5*
		270.60 *5*	14 *3*	110.38	1/2−,3/2−,5/2−	E1	0.0240	α(K)=0.0202 *3*; α(L)=0.00293 *5*; α(M)=0.000647 *9* α(N)=0.0001496 *21*; α(O)=2.10×10^{-5} *3*; α(P)=1.034×10^{-6} *15*
		370.7 *1*	100 *15*	10.30	−	E1	0.01110	α(K)=0.00939 *14*; α(L)=0.001337 *19*; α(M)=0.000295 *5* α(N)=6.82×10^{-5} *10*; α(O)=9.64×10^{-6} *14*; α(P)=4.93×10^{-7} *7*
		381.0 *1*	37 *4*	0	3/2−	E1	0.01040	α(K)=0.00880 *13*; α(L)=0.001251 *18*; α(M)=0.000276 *4* α(N)=6.38×10^{-5} *9*; α(O)=9.03×10^{-6} *13*; α(P)=4.63×10^{-7} *7*
400.78		159[c]	17	241.53	1/2−,3/2−,5/2−			
		290.40 *15*	100 *21*	110.38	1/2−,3/2−,5/2−			
455.00	1/2−,3/2−,5/2−	455.00 *15*	100	0	3/2−	M1	0.0445	α(K)=0.0375 *6*; α(L)=0.00544 *8*; α(M)=0.001203 *17* α(N)=0.000281 *4*; α(O)=4.07×10^{-5} *6*; α(P)=2.27×10^{-6} *4*
559.23		201.30 *5*	2.0 *5*	357.90	+			
		317.75 *10*	10.9 *18*	241.53	1/2−,3/2−,5/2−			
		449.05 *20*	25 *5*	110.38	1/2−,3/2−,5/2−	M1,E2	0.034 *13*	α(K)=0.028 *11*; α(L)=0.0046 *10*; α(M)=0.00104 *21* α(N)=0.00024 *5*; α(O)=3.4×10^{-5} *9*; α(P)=1.6×10^{-6} *7* Mult.: This multipolarity is not consistent with that of the 549 γ from this level.
		549.1 *3*	100 *27*	10.30	−	E1	0.00455	α(K)=0.00386 *6*; α(L)=0.000538 *8*; α(M)=0.0001182 *17* α(N)=2.74×10^{-5} *4*; α(O)=3.91×10^{-6} *6*; α(P)=2.08×10^{-7} *3* Mult.: This multipolarity is not consistent with that of the 449γ from this level.
608.10?		250.20 *5*	100	357.90	+	M1,E2	0.17 *5*	α(K)=0.13 *5*; α(L)=0.0277 *8*; α(M)=0.0063 *4* α(N)=0.00146 *7*; α(O)=0.000197 *6*; α(P)=8.E−6 *4*
685.41	1/2+,3/2+,5/2+	304.2 *2*	28 *8*	381.01	1/2+,3/2+,5/2+			
		443.7 *3*	13 *4*	241.53	1/2−,3/2−,5/2−			
		479.70 *35*	8 *2*	206.10	−			
		575.05 *10*	100 *27*	110.38	1/2−,3/2−,5/2−	E1	0.00412	α(K)=0.00350 *5*; α(L)=0.000486 *7*; α(M)=0.0001067 *15* α(N)=2.48×10^{-5} *4*; α(O)=3.54×10^{-6} *5*; α(P)=1.89×10^{-7} *3*
		685.5 *2*	92 *23*	0	3/2−			
689.20	+	234.2 *2*	27 *5*	455.00	1/2−,3/2−,5/2−			
		308.0 *2*	100 *20*	381.01	1/2+,3/2+,5/2+	E2,M1	0.09 *3*	α(K)=0.08 *3*; α(L)=0.0142 *12*; α(M)=0.00322 *19* α(N)=0.00074 *5*; α(O)=0.000102 *13*; α(P)=4.4×10^{-6} *20*
		321.6 *2*	32 *5*	367.63	−			
		447.70 *10*	20 *5*	241.53	1/2−,3/2−,5/2−			
753.06	+	385.5 *1*	100 *11*	367.63	−	E1	0.01012	α(K)=0.00856 *12*; α(L)=0.001217 *17*; α(M)=0.000268 *4* α(N)=6.20×10^{-5} *9*; α(O)=8.78×10^{-6} *13*; α(P)=4.51×10^{-7} *7*
		642.50 *25*	4.9 *11*	110.38	1/2−,3/2−,5/2−			
		742.6 *2*	14 *3*	10.30	−			
799.68	−	438.95 *10*	48 *9*	360.60	−			
		557.85 *10*	52 *9*	241.53	1/2−,3/2−,5/2−	M1,E2	0.019 *7*	α(K)=0.016 *7*; α(L)=0.0025 *7*; α(M)=0.00057 *14* α(N)=0.00013 *4*; α(O)=1.9×10^{-5} *6*; α(P)=1.0×10^{-6} *4*

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Adopted Levels, Gammas (continued)

γ(^{157}Er) (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.[†]	α[#]	Comments
799.68	−	593.8 *1*	11 *4*	206.10	−			
		689.4 *2*	100 *27*	110.38	1/2⁻,3/2⁻,5/2⁻			
		764.3 *2*	86 *27*	36.17	(−)			
181.9+x	(9/2⁻)	157.1 *6*	100 *17*	24.8+x	(7/2⁻)	(M1+E2)		
		181.9 *6*	<59	0+x	(5/2⁻)			
446.8+x	(17/2⁺)	265.7 *3*	100	181.1+x	(13/2⁺)	(E2)	0.1004	B(E2)(W.u.)=143 *11*
560.0+x	(13/2⁻)	378.1 *6*	100	181.9+x	(9/2⁻)			
861.1+x	(21/2⁺)	414.3 *3*	100	446.8+x	(17/2⁺)	(E2)	0.0271	B(E2)(W.u.)=2.0×10^2 *4*
1073.1+x	(17/2⁻)	513.1 *6*	100	560.0+x	(13/2⁻)			
1142.8+x	(17/2⁺)	695.7 *6*		446.8+x	(17/2⁺)			
		961.7 *6*		181.1+x	(13/2⁺)			
1208.0+x	(19/2⁻)	421.8 *6*		786.2+x	(15/2⁻)			
		761.3 *6*		446.8+x	(17/2⁺)			
1388.1+x	(25/2⁺)	527.1 *3*	100	861.1+x	(21/2⁺)	(E2)	0.01437	B(E2)(W.u.)=105 *+12−8*
1487.8+x	(21/2⁺)	344.8 *6*	<83	1142.8+x	(17/2⁺)			
		627.4 *6*	<83	861.1+x	(21/2⁺)			
		1040.8 *6*	100 *21*	446.8+x	(17/2⁺)			
1665.8+x	(21/2⁻)	592.5[b] *6*	100[b]	1073.1+x	(17/2⁻)	(E2)[‡]		
1697.8+x	(21/2⁻)	489.2 *6*	46 *5*	1208.0+x	(19/2⁻)	(M1+E2)		
		624.9 *6*	39 *4*	1073.1+x	(17/2⁻)			
		837.1 *6*	100 *12*	861.1+x	(21/2⁺)	(E1)		
1740.8+x	(23/2⁻)	533.5 *6*	100 *10*	1208.0+x	(19/2⁻)	(E2)[‡]		
		879.2 *6*	<83	861.1+x	(21/2⁺)	(D)[‡]		
1909.5+x	(25/2⁺)	422.1 *6*	<48	1487.8+x	(21/2⁺)	(E2)		
		521.2 *6*	<48	1388.1+x	(25/2⁺)			
		1048.1 *6*	100 *13*	861.1+x	(21/2⁺)	(E2)		
2009.9+x	(29/2⁺)	621.7 *3*	100	1388.1+x	(25/2⁺)	(E2)	0.00959	B(E2)(W.u.)=86 *19*
2102.2+x	(25/2⁻)	362.2 *6*	75 *7*	1740.8+x	(23/2⁻)	(M1+E2)		
		404.5 *6*	51 *6*	1697.8+x	(21/2⁻)	(E2)		
		436.1 *6*	28 *3*	1665.8+x	(21/2⁻)	(E2)		Mult.: from (HI,xnγ) dataset.
		714.2 *6*	100 *10*	1388.1+x	(25/2⁺)			
2299.9+x	(25/2⁻)	633.8 *6*	100	1665.8+x	(21/2⁻)			
2348.5+x	(27/2⁻)	607.1 *6*	100 *11*	1740.8+x	(23/2⁻)	(E2)[‡]		
		960.5 *6*	74 *7*	1388.1+x	(25/2⁺)			
2387.0+x	(27/2⁻)	998.7 *6*	100	1388.1+x	(25/2⁺)	(E1)		
2424.1+x	(29/2⁺)	514.5[b] *6*	100[b] *10*	1909.5+x	(25/2⁺)	(E2)		
		1036.7 *6*	74 *8*	1388.1+x	(25/2⁺)	(E2)		
2426.7+x	(25/2⁻)	761.2 *6*		1665.8+x	(21/2⁻)			
		1038.5 *6*		1388.1+x	(25/2⁺)			
2572.4+x	(23/2⁻)	1710.9 *6*	100	861.1+x	(21/2⁺)			
2580.4+x	(29/2⁻)	193.3[&] *6*	<6	2387.0+x	(27/2⁻)	(M1+E2)		
		231.4 *6*	13 *1*	2348.5+x	(27/2⁻)	(M1+E2)		

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Adopted Levels, Gammas (continued)

$\gamma(^{157}Er)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.[†]	Comments
2580.4+x	(29/2$^-$)	478.3 *3*	100 *5*	2102.2+x	(25/2$^-$)	(E2)	
		570.8 *6*	33 *3*	2009.9+x	(29/2$^+$)		
2677.9+x	(25/2$^-$)	105.3 *6*	100	2572.4+x	(23/2$^-$)		
2712.7+x	(33/2$^+$)	702.8 *3*	100	2009.9+x	(29/2$^+$)	(E2)	
2792.7+x	(29/2$^-$)	366.3 *6*		2426.7+x	(25/2$^-$)		
		492.6 *6*		2299.9+x	(25/2$^-$)		
2827.7+x	(27/2$^-$)	149.6 *6*		2677.9+x	(25/2$^-$)	(M1+E2)	
		255.0 *6*		2572.4+x	(23/2$^-$)		
		1440.1 *6*		1388.1+x	(25/2$^+$)	(E1)	
2841.0+x	(31/2$^-$)	260 *1*	<13	2580.4+x	(29/2$^-$)		
		453.9 *6*	25 *3*	2387.0+x	(27/2$^-$)	(E2)	
		830.8 *6*	100 *10*	2009.9+x	(29/2$^+$)	(D)	Mult.: from (HI,xnγ) dataset.
2892.4+x	(29/2$^-$)	592.5[b] *6*	100[b]	2299.9+x	(25/2$^-$)		
3021.1+x	(29/2$^-$)	193.3[&] *6*	100[@]	2827.7+x	(27/2$^-$)	(M1+E2)	
		343.2 *6*	12[@] *2*	2677.9+x	(25/2$^-$)		
3024.8+x	(33/2$^+$)	601.2 *6*	100 *10*	2424.1+x	(29/2$^+$)	(E2)	
		1014.6 *6*	21 *2*	2009.9+x	(29/2$^+$)	(E2)	
3093.9+x	(33/2$^-$)	252.4 *6*	7 *1*	2841.0+x	(31/2$^-$)	(M1+E2)	
		381.6 *6*	<3	2712.7+x	(33/2$^+$)		
		513.6 *3*	100 *5*	2580.4+x	(29/2$^-$)	(E2)	
3122.1+x	(31/2$^-$)	1111.8 *6*	100	2009.9+x	(29/2$^+$)	(E1)	
3246.3+x	(31/2$^-$)	225.2 *6*		3021.1+x	(29/2$^-$)	(M1+E2)	
		418.9 *6*		2827.7+x	(27/2$^-$)		
		1236.0 *6*		2009.9+x	(29/2$^+$)	(E1)	
3274.5+x	(31/2$^-$)	1264.9 *6*	100	2009.9+x	(29/2$^+$)		
3336.9+x	(33/2$^-$)	544.2 *6*	100	2792.7+x	(29/2$^-$)		
3377.4+x	(35/2$^-$)	283.5 *6*	<11	3093.9+x	(33/2$^-$)	(M1+E2)	
		352.8 *6*	<11	3024.8+x	(33/2$^+$)	(E1)	
		536.2 *6*	85 *8*	2841.0+x	(31/2$^-$)	(E2)	
		664.4 *6*	100 *11*	2712.7+x	(33/2$^+$)	(E1)	
3422.7+x	(33/2$^-$)	530.3 *6*	100	2892.4+x	(29/2$^-$)		
3477.8+x	(37/2$^+$)	764.9 *3*	100	2712.7+x	(33/2$^+$)	(E2)	
3507.4+x	(33/2$^-$)	233.2 *6*		3274.5+x	(31/2$^-$)		
		261.0 *6*		3246.3+x	(31/2$^-$)	(M1+E2)	
		486.2 *6*		3021.1+x	(29/2$^-$)		
3668.0+x	(37/2$^-$)	290.0 *6*	5.0 *5*	3377.4+x	(35/2$^-$)	(M1+E2)	
		574.3 *3*	100 *5*	3093.9+x	(33/2$^-$)	(E2)	
3679.2+x	(35/2$^-$)	556.8 *6*	<48	3122.1+x	(31/2$^-$)		
		966.9 *6*	100 *10*	2712.7+x	(33/2$^+$)	(E1)	
3703.5+x	(37/2$^+$)	678.6 *6*	100 *10*	3024.8+x	(33/2$^+$)	(E2)	
		991.3 *6*	<12	2712.7+x	(33/2$^+$)		
3792.1+x	(35/2$^-$)	284.8 *6*		3507.4+x	(33/2$^-$)	(M1+E2)	

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Adopted Levels, Gammas (continued)

$\gamma(^{157}Er)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.[†]	Comments
3792.1+x	(35/2$^-$)	545.8 *6*		3246.3+x	(31/2$^-$)		
3949.8+x	(37/2$^-$)	612.9 *6*	100	3336.9+x	(33/2$^-$)		
4006.5+x	(39/2$^-$)	303.2 *6*	<8	3703.5+x	(37/2$^+$)		
		338.4 *6*	<8	3668.0+x	(37/2$^-$)	(M1+E2)	
		528.5 *6*	17 *2*	3477.8+x	(37/2$^+$)	(D)	Mult.: from (HI,xnγ) dataset.
		629.3 *3*	100 *5*	3377.4+x	(35/2$^-$)	(E2)	
4041.0+x	(37/2$^-$)	618.3 *6*	100	3422.7+x	(33/2$^-$)		
4099.7+x	(37/2$^-$)	307.5 *6*	100[@] *5*	3792.1+x	(35/2$^-$)	(M1+E2)	
		592.2 *6*	50[@] *5*	3507.4+x	(33/2$^-$)		
4280.9+x	(41/2$^+$)	803.0 *3*	100	3477.8+x	(37/2$^+$)	(E2)	
4312.0+x	(39/2$^-$)	632.8 *6*	100 *10*	3679.2+x	(35/2$^-$)	(E2)	
		834.2 *6*	<48	3477.8+x	(37/2$^+$)		
4318.9+x	(41/2$^-$)	312.6 *6*	4.0 *4*	4006.5+x	(39/2$^-$)	(M1+E2)	
		650.9 *3*	100 *5*	3668.0+x	(37/2$^-$)	(E2)	
4431.5+x	(39/2$^-$)	331.6 *6*	100[@] *6*	4099.7+x	(37/2$^-$)	(M1+E2)	
		639.5 *6*	57[@] *6*	3792.1+x	(35/2$^-$)	(E2)	
4441.0+x	(41/2$^+$)	737.9 *6*	100	3703.5+x	(37/2$^+$)	(E2)	
4626.0+x	(41/2$^-$)	676.2 *6*	100	3949.8+x	(37/2$^-$)		
4721.9+x	(43/2$^-$)	281.4 *6*	<5	4441.0+x	(41/2$^+$)	(E1)	
		403.2 *6*	<5	4318.9+x	(41/2$^-$)		
		441.2 *6*	<5	4280.9+x	(41/2$^+$)	(E1)	
		715.4 *3*	100 *5*	4006.5+x	(39/2$^-$)	(E2)	
4744.7+x	(41/2$^-$)	703.7 *6*	100	4041.0+x	(37/2$^-$)		
4779.1+x	(41/2$^-$)	347.5 *6*	100[@] *5*	4431.5+x	(39/2$^-$)	(M1+E2)	
		679.3 *6*	44[@] *5*	4099.7+x	(37/2$^-$)		
5017.3+x	(43/2$^-$)	705.3 *6*	100	4312.0+x	(39/2$^-$)		
5046.5+x	(45/2$^-$)	325.2 *6*	<3	4721.9+x	(43/2$^-$)		
		727.5 *3*	100 *5*	4318.9+x	(41/2$^-$)	(E2)	
5090.8+x	(45/2$^+$)	809.6 *3*	100	4280.9+x	(41/2$^+$)	(E2)	
5149.4+x	(43/2$^-$)	370.1 *6*		4779.1+x	(41/2$^-$)	(M1+E2)	
		718.0 *6*		4431.5+x	(39/2$^-$)		
5191.6+x	(45/2$^+$)	750.3 *6*	100	4441.0+x	(41/2$^+$)	(E2)	
5377.2+x	(45/2$^-$)	751.2 *6*	100	4626.0+x	(41/2$^-$)		
5519.6+x	(47/2$^-$)	429.2 *6*	<6	5090.8+x	(45/2$^+$)	(E1)	
		473.7 *6*	<6	5046.5+x	(45/2$^-$)	(M1+E2)	
		797.9 *3*	100 *5*	4721.9+x	(43/2$^-$)	(E2)	
5526.6+x	(45/2$^-$)	377.3 *6*		5149.4+x	(43/2$^-$)	(M1+E2)	
		747.7 *6*		4779.1+x	(41/2$^-$)		
5798.0+x	(47/2$^-$)	780.7 *6*	100	5017.3+x	(43/2$^-$)	(E2)	
5846.8+x	(49/2$^-$)	327.7 *6*	<3	5519.6+x	(47/2$^-$)		
		800.3 *3*	100 *5*	5046.5+x	(45/2$^-$)	(E2)	
5897.3+x	(49/2$^+$)	806.2 *3*	100	5090.8+x	(45/2$^+$)	(E2)	

$^{157}_{68}Er_{89}$-10

Adopted Levels, Gammas (continued)

γ(^{157}Er) (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.[†]
5927.8+x	(47/2⁻)	401.1[&] *6*		5526.6+x	(45/2⁻)	
		778.3 *6*		5149.4+x	(43/2⁻)	(E2)
5973.9+x	(49/2⁺)	782.1 *6*	100 *10*	5191.6+x	(45/2⁺)	(E2)
		883.2 *6*	78 *8*	5090.8+x	(45/2⁺)	(E2)
6179.9+x	(49/2⁻)	802.7 *6*	100	5377.2+x	(45/2⁻)	
6328.9+x	(49/2⁻)	401.1[&] *6*		5927.8+x	(47/2⁻)	
		802.5 *6*		5526.6+x	(45/2⁻)	
6348.5+x	(51/2⁻)	450.8 *6*	<3	5897.3+x	(49/2⁺)	(E1)
		500.9 *6*	<3	5846.8+x	(49/2⁻)	
		829.2 *3*	100 *5*	5519.6+x	(47/2⁻)	(E2)
6643.9+x	(51/2⁻)	845.9 *6*	100	5798.0+x	(47/2⁻)	
6676.0+x	(53/2⁻)	327.2 *6*	<3	6348.5+x	(51/2⁻)	
		829.5 *3*	100 *5*	5846.8+x	(49/2⁻)	(E2)
6689.2+x	(53/2⁺)	791.6 *3*	100	5897.3+x	(49/2⁺)	(E2)
6756.4+x	(51/2⁻)	427.9 *6*		6328.9+x	(49/2⁻)	
		828.2 *6*		5927.8+x	(47/2⁻)	
6829.9+x	(53/2⁺)	855.8 *6*	100 *10*	5973.9+x	(49/2⁺)	(E2)
		932.7 *6*	<53	5897.3+x	(49/2⁺)	
7024.2+x	(53/2⁻)	844.3 *6*	100	6179.9+x	(49/2⁻)	
7157.6+x	(55/2⁻)	467.6 *6*	<8	6689.2+x	(53/2⁺)	(E1)
		481.5 *6*	<8	6676.0+x	(53/2⁻)	(M1+E2)
		809.1 *3*	100 *5*	6348.5+x	(51/2⁻)	(E2)
7175.1+x	(53/2⁻)	846.2 *6*	100	6328.9+x	(49/2⁻)	
7471.7+x	(55/2⁻)	827.8 *6*	100	6643.9+x	(51/2⁻)	
7479.3+x	(57/2⁻)	321.8 *6*	<5	7157.6+x	(55/2⁻)	
		803.5 *3*	100 *5*	6676.0+x	(53/2⁻)	(E2)
7522.5+x	(57/2⁺)	833.3 *3*	100	6689.2+x	(53/2⁺)	(E2)
7799.7+x	(57/2⁺)	969.8 *6*	100	6829.9+x	(53/2⁺)	(E2)
7947.5+x	(59/2⁻)	468.7 *6*	<8	7479.3+x	(57/2⁻)	
		789.7 *3*	100 *5*	7157.6+x	(55/2⁻)	(E2)
8080.7+x	(57/2⁻)	905.6 *6*	100	7175.1+x	(53/2⁻)	
8271.1+x	(61/2⁻)	323.1 *6*	<5	7947.5+x	(59/2⁻)	
		791.9 *3*	100 *5*	7479.3+x	(57/2⁻)	(E2)
8289.0+x	(59/2⁻)	817.3 *6*	100	7471.7+x	(55/2⁻)	
8437.5+x	(61/2⁺)	914.9 *3*	100	7522.5+x	(57/2⁺)	(E2)
8724.2+x	(61/2⁺)	924.5[a] *6*	100[a]	7799.7+x	(57/2⁺)	(E2)
8786.1+x	(63/2⁻)	514.5[b] *6*	<10[b]	8271.1+x	(61/2⁻)	
		838.7 *3*	100 *5*	7947.5+x	(59/2⁻)	(E2)
9145.8+x	(65/2⁻)	874.7 *3*	100	8271.1+x	(61/2⁻)	(E2)
9394.4+x	(65/2⁺)	956.9 *3*	100	8437.5+x	(61/2⁺)	(E2)
9648.7+x	(65/2⁺)	924.5[a] *6*	100[a]	8724.2+x	(61/2⁺)	(E2)
9654.1+x	(67/2⁻)	867.9 *6*	100	8786.1+x	(63/2⁻)	(E2)

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Adopted Levels, Gammas (continued)

$\gamma(^{157}Er)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.[†]	Comments
10098.4+x	(69/2$^-$)	952.9 *6*	100	9145.8+x	(65/2$^-$)	(E2)	
10227.8+x	(69/2$^+$)	833.3 *3*	100	9394.4+x	(65/2$^+$)	(E2)	
10548.8+x	(71/2$^-$)	450.3[&] *6*	<13	10098.4+x	(69/2$^-$)	(M1+E2)	
		894.7 *6*	100 *10*	9654.1+x	(67/2$^-$)	(E2)	
10825.2+x	(71/2$^+$)	597.1 *6*	100	10227.8+x	(69/2$^+$)	(M1+E2)	
11038.4+x	(73/2$^-$)	940.3 *6*	100	10098.4+x	(69/2$^-$)	(E2)	
11080.6+x	(73/2$^-$)	982.3 *6*	100	10098.4+x	(69/2$^-$)	(E2)	
11306.8+x	(73/2$^+$)	1079.1 *6*	100	10227.8+x	(69/2$^+$)	(E2)	
11339.4+x	(73/2$^+$)	1111.6 *6*	100	10227.8+x	(69/2$^+$)	(E2)	
11426.7+x		601.2 *6*	100	10825.2+x	(71/2$^+$)		
11461.6+x		1233.8 *6*	100	10227.8+x	(69/2$^+$)		
11488.0+x	(75/2$^-$)	450.3[&] *6*	<20	11038.4+x	(73/2$^-$)		
		938.9 *6*	100 *10*	10548.8+x	(71/2$^-$)	(E2)	
11717.2+x	(75/2$^+$)	892.0 *6*	100	10825.2+x	(71/2$^+$)		Mult.: (D) in (HI,xnγ) dataset.
11802.9+x	(77/2$^-$)	315.4 *6*	<48	11488.0+x	(75/2$^-$)	(M1+E2)	
		722.4 *6*	48 *5*	11080.6+x	(73/2$^-$)	(E2)	
		764.1 *6*	100 *10*	11038.4+x	(73/2$^-$)	(E2)	
11896.8+x	(75/2$^+$)	1071.6 *6*	100	10825.2+x	(71/2$^+$)	(E2)	
12166.1+x	(77/2$^+$)	739.0 *6*	<26	11426.7+x			
		859.4 *6*	100 *10*	11306.8+x	(73/2$^+$)	(E2)	
12206.2+x	(77/2$^-$)	1125.6 *6*	100	11080.6+x	(73/2$^-$)	(E2)	
12331.6+x		1293.2 *6*	100	11038.4+x	(73/2$^-$)		
12339.5+x		1032.7 *6*	100	11306.8+x	(73/2$^+$)		
12467.7+x		1387.1 *6*	100	11080.6+x	(73/2$^-$)		
12473.6+x	(79/2$^-$)	671.1 *6*	49 *5*	11802.9+x	(77/2$^-$)	(M1+E2)	
		985.7 *6*	100 *6*	11488.0+x	(75/2$^-$)	(E2)	
12866.3+x	(79/2$^-$)	1378.3 *6*	100	11488.0+x	(75/2$^-$)	(E2)	
12934.9+x	(79/2$^+$)	1038.1 *6*	100	11896.8+x	(75/2$^+$)		
13059.0+x	(81/2$^+$)	892.7 *6*	100	12166.1+x	(77/2$^+$)	(E2)	
13119.3+x	(81/2$^-$)	1316.3 *6*	100	11802.9+x	(77/2$^-$)	(E2)	
13353.5+x		1014.0 *6*	100	12339.5+x			
13397.0+x	(83/2$^-$)	277.6 *6*	<28	13119.3+x	(81/2$^-$)	(M1+E2)	
		923.7 *6*	100 *11*	12473.6+x	(79/2$^-$)	(E2)	
13439.0+x	(81/2$^-$)	1232.8 *6*	100	12206.2+x	(77/2$^-$)	(E2)	
13915.3+x		1049.0 *6*	100	12866.3+x	(79/2$^-$)		
14039.6+x	(85/2$^-$)	920.3 *6*	100	13119.3+x	(81/2$^-$)	(E2)	
14047.0+x	(87/2$^-$)	650.2 *6*	100	13397.0+x	(83/2$^-$)	(E2)	
14293.6+x	(85/2$^+$)	1234.4 *6*	100	13059.0+x	(81/2$^+$)	(E2)	
14511.8+x	(85/2$^+$)	1452.8 *6*	100	13059.0+x	(81/2$^+$)	(E2)	
14853.5+x	(89/2$^-$)	813.9 *6*	100	14039.6+x	(85/2$^-$)	(E2)	
15064.2+x	(89/2$^+$)	770.4 *6*		14293.6+x	(85/2$^+$)	(E2)	
		1017.4 *6*		14047.0+x	(87/2$^-$)	(E1)	
15311.0+x	(89/2$^-$)	1264.3 *6*	100	14047.0+x	(87/2$^-$)	(M1+E2)	

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Adopted Levels, Gammas (continued)

$\gamma(^{157}Er)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.[†]
15486.5+x	(89/2$^-$)	1439.1 *6*	100	14047.0+x	(87/2$^-$)	(M1+E2)
15585.4+x	(89/2$^-$)	1538.4 *6*	100	14047.0+x	(87/2$^-$)	(M1+E2)
15628.6+x	(91/2$^-$)	1581.6 *6*	100	14047.0+x	(87/2$^-$)	(E2)
15761.8+x		1714.8 *6*	100	14047.0+x	(87/2$^-$)	
15818.1+x	(93/2$^+$)	753.9 *6*	100	15064.2+x	(89/2$^+$)	(E2)
15827.2+x		1780.2 *6*	100	14047.0+x	(87/2$^-$)	
15961.9+x	(91/2$^-$)	1914.9 *6*	100	14047.0+x	(87/2$^-$)	(E2)
16122.1+x	(91/2$^-$)	2075.1 *6*	100	14047.0+x	(87/2$^-$)	(E2)
16185.8+x	(91/2$^-$)	2138.8 *6*	100	14047.0+x	(87/2$^-$)	(E2)
16274.1+x		1420.6 *6*	100	14853.5+x	(89/2$^-$)	
16348.2+x		1494.7 *6*	100	14853.5+x	(89/2$^-$)	
16394.0+x		907.2 *6*		15486.5+x	(89/2$^-$)	
		1083.4 *6*		15311.0+x	(89/2$^-$)	
16409.8+x	(93/2$^-$)	1556.3 *6*	100	14853.5+x	(89/2$^-$)	(E2)
16455.7+x		2408.7 *6*	100	14047.0+x	(87/2$^-$)	
16559.9+x	(93/2$^-$)	1706.4 *6*	100	14853.5+x	(89/2$^-$)	(E2)
16956.1+x	(93/2$^-$)	2102.6 *6*	100	14853.5+x	(89/2$^-$)	(E2)
17231.3+x		1045.5 *6*	100	16185.8+x	(91/2$^-$)	
17298.3+x	(95/2$^+$)	1480.2 *6*	100	15818.1+x	(93/2$^+$)	(M1+E2)
17453.8+x		1635.7 *6*	100	15818.1+x	(93/2$^+$)	
17513.3+x		1695.2 *6*	100	15818.1+x	(93/2$^+$)	
17519.1+x		1701.0 *6*	100	15818.1+x	(93/2$^+$)	
17555.2+x		1433.1 *6*	100	16122.1+x	(91/2$^-$)	
17654.4+x		2166[c] *1*	100	15486.5+x	(89/2$^-$)	
17943.5+x		2125.4 *6*	100	15818.1+x	(93/2$^+$)	
19056.9+x		1499.7[c] *6*	100	17555.2+x		
19502.8+x		2204.5 *6*	100	17298.3+x	(95/2$^+$)	
y+778.5	J+2	778.5 *5*	100	y	J≈(55/2)	
y+1584.0	J+4	805.5 *5*	100	y+778.5	J+2	
y+2434.5	J+6	850.5 *5*	100	y+1584.0	J+4	
y+3339.6	J+8	905.1 *5*	100	y+2434.5	J+6	
y+4295.5	J+10	955.9 *5*	100	y+3339.6	J+8	
y+5300.9	J+12	1005.4 *5*	100	y+4295.5	J+10	
y+6354.6	J+14	1053.7 *5*	100	y+5300.9	J+12	
y+7455.6	J+16	1101.0 *5*	100	y+6354.6	J+14	
y+8606.1	J+18	1150.5 *5*	100	y+7455.6	J+16	
y+9807.1	J+20	1201.0 *5*	100	y+8606.1	J+18	
y+11061.3	J+22	1254.2 *5*	100	y+9807.1	J+20	
y+12372.8	J+24	1311.5 *5*	100	y+11061.3	J+22	
y+13745.1	J+26	1372.2 *5*	100	y+12372.8	J+24	
y+15180.7	J+28	1435.6 *5*	100	y+13745.1	J+26	
y+16681.7	J+30	1501 *1*	100	y+15180.7	J+28	
y+18253.7	J+32	1572 *1*	100	y+16681.7	J+30	

$^{157}_{68}Er_{89}$-13

Adopted Levels, Gammas (continued)

$\gamma(^{157}Er)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π
z+956.0	J1+2	956 *1*	100	z	J1	z+7651	J1+14	1236 *1*	100	z+6415.0	J1+12
z+1954.0	J1+4	998 *1*	100	z+956.0	J1+2	z+8938	J1+16	1287 *1*	100	z+7651	J1+14
z+2998.0	J1+6	1044 *1*	100	z+1954.0	J1+4	z+10283	J1+18	1345 *1*	100	z+8938	J1+16
z+4091.0	J1+8	1093 *1*	100	z+2998.0	J1+6	z+11685	J1+20	1402 *1*	100	z+10283	J1+18
z+5229.0	J1+10	1138 *1*	100	z+4091.0	J1+8	z+13149	J1+22	1464 *1*	100	z+11685	J1+20
z+6415.0	J1+12	1186 *1*	100	z+5229.0	J1+10						

† For those from ^{157}Tm ε decay, assigned by author (1977Ag01) from conversion coefficients with some modifications by evaluator. Unless noted otherwise, for heavy ion studies from ^{114}Cd(^{48}Ca,5nγ) dataset based on angular correlation measurements and angular intensity ratio measurements for transition multipole order, together with arguments based on theory and systematics for electric or magnetic character from which E2 was assigned for Q, E1 for D, and M1+E2 for D+Q.

‡ From angular distribution studies in (HI,xnγ) dataset (1995Ga13,1989Si03,1975Be34).

Additional information 4.

@ From (HI,xnγ) dataset.

& Multiply placed.

a Multiply placed with undivided intensity.

b Multiply placed with intensity suitably divided.

c Placement of transition in the level scheme is uncertain.

$^{157}_{68}Er_{89}$-14

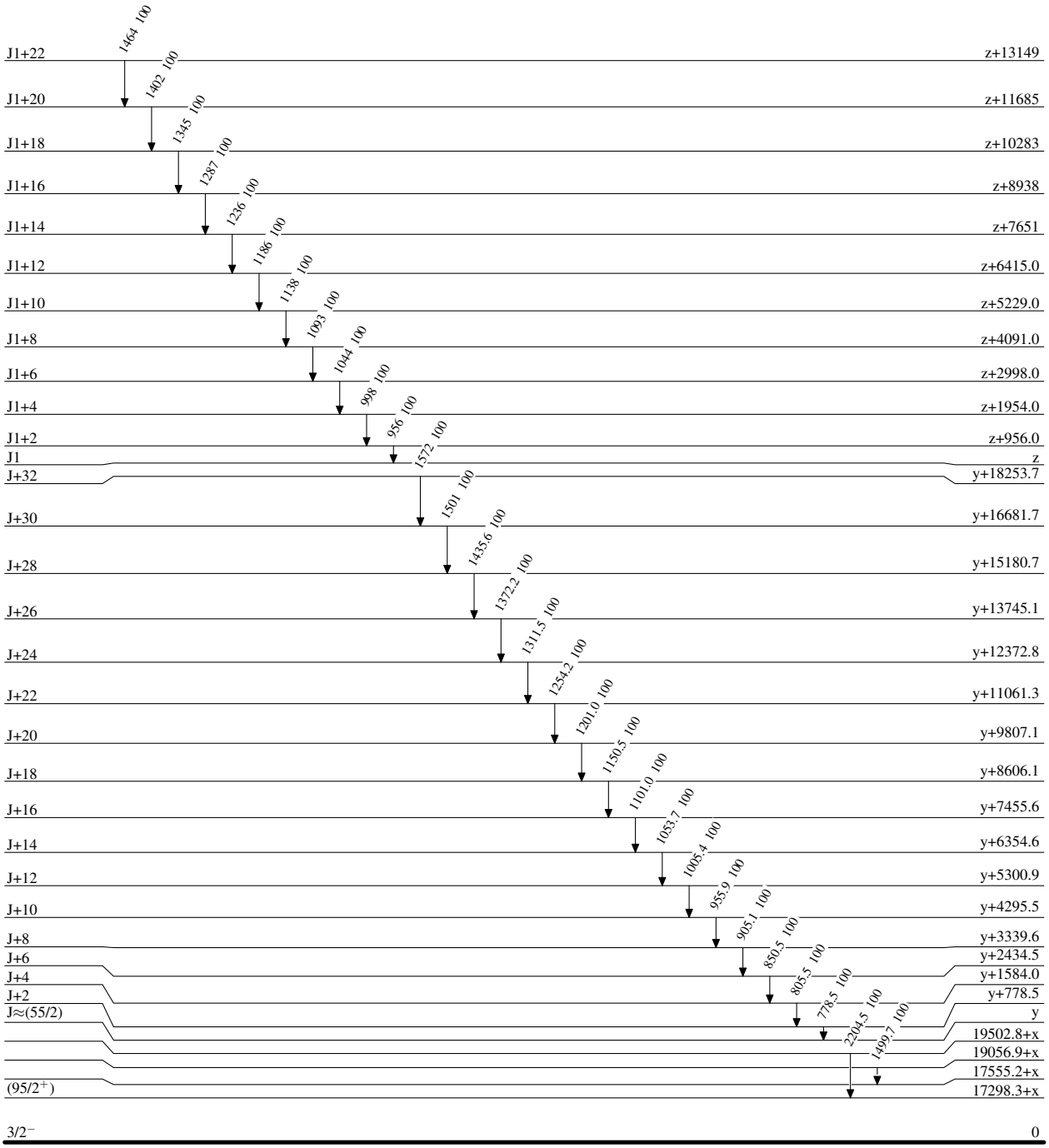
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

– – – – – – ► γ Decay (Uncertain)



$^{157}_{68}Er_{89}$

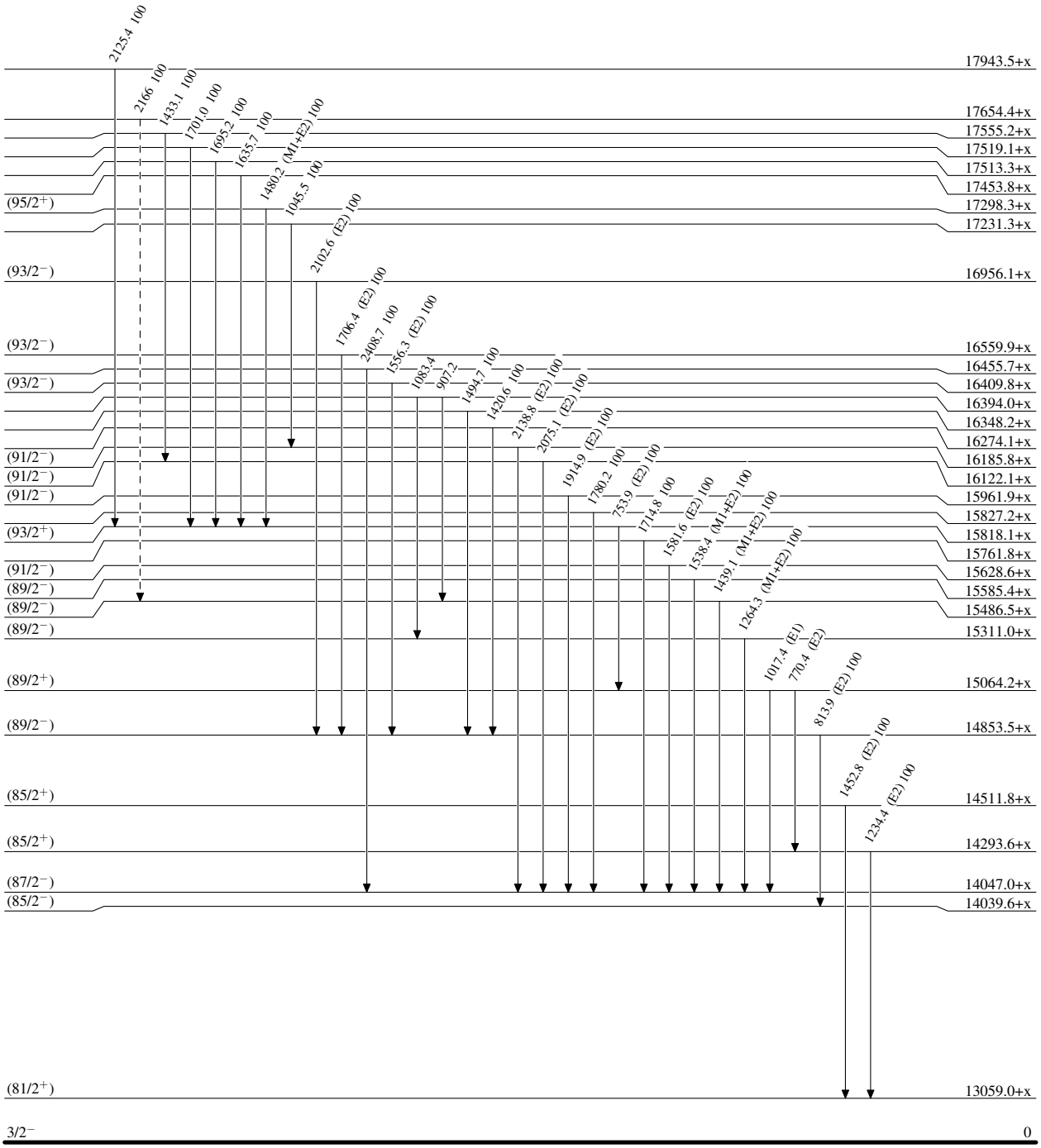
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

– – – – – – ► γ Decay (Uncertain)

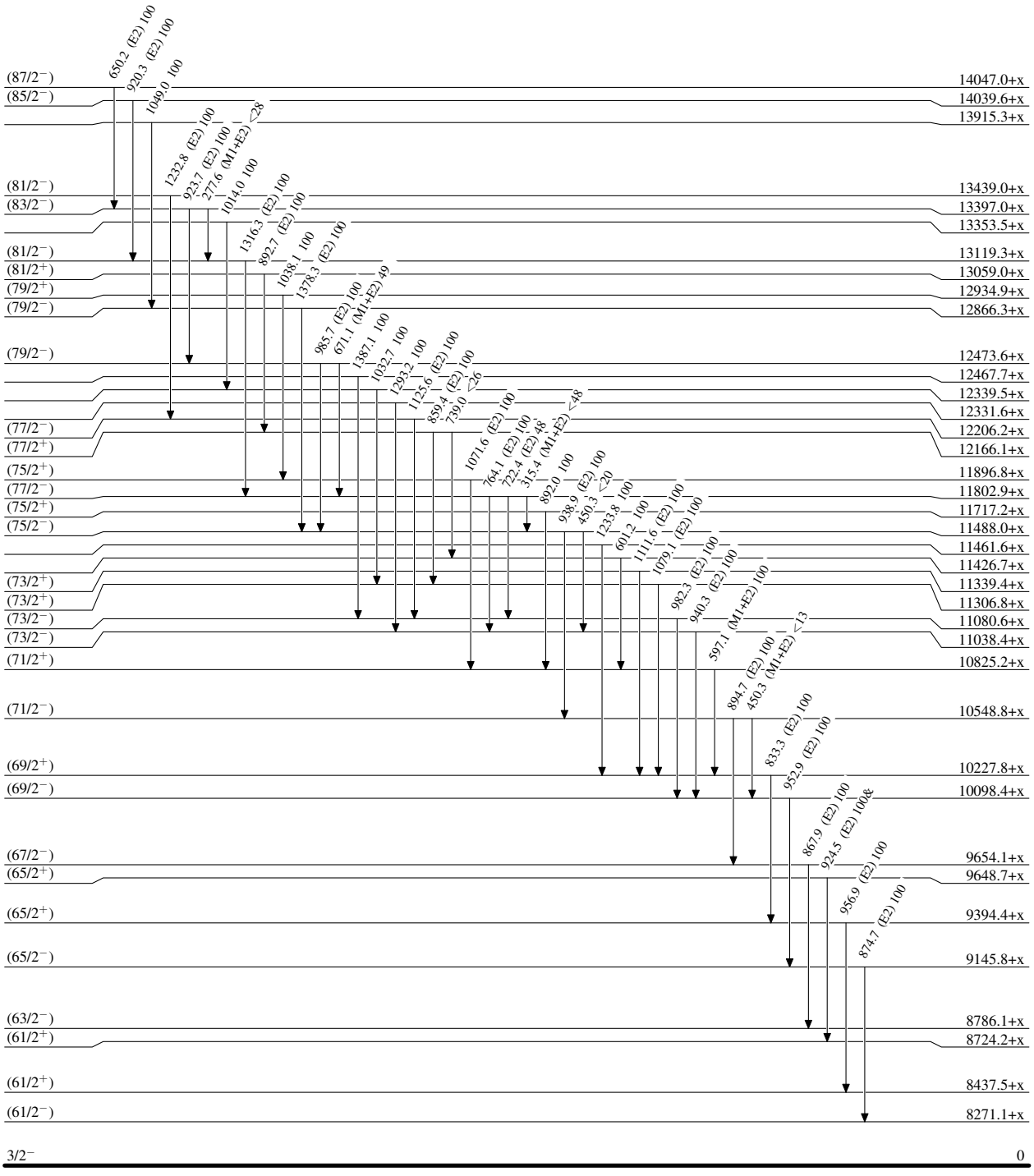


$^{157}_{68}Er_{89}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

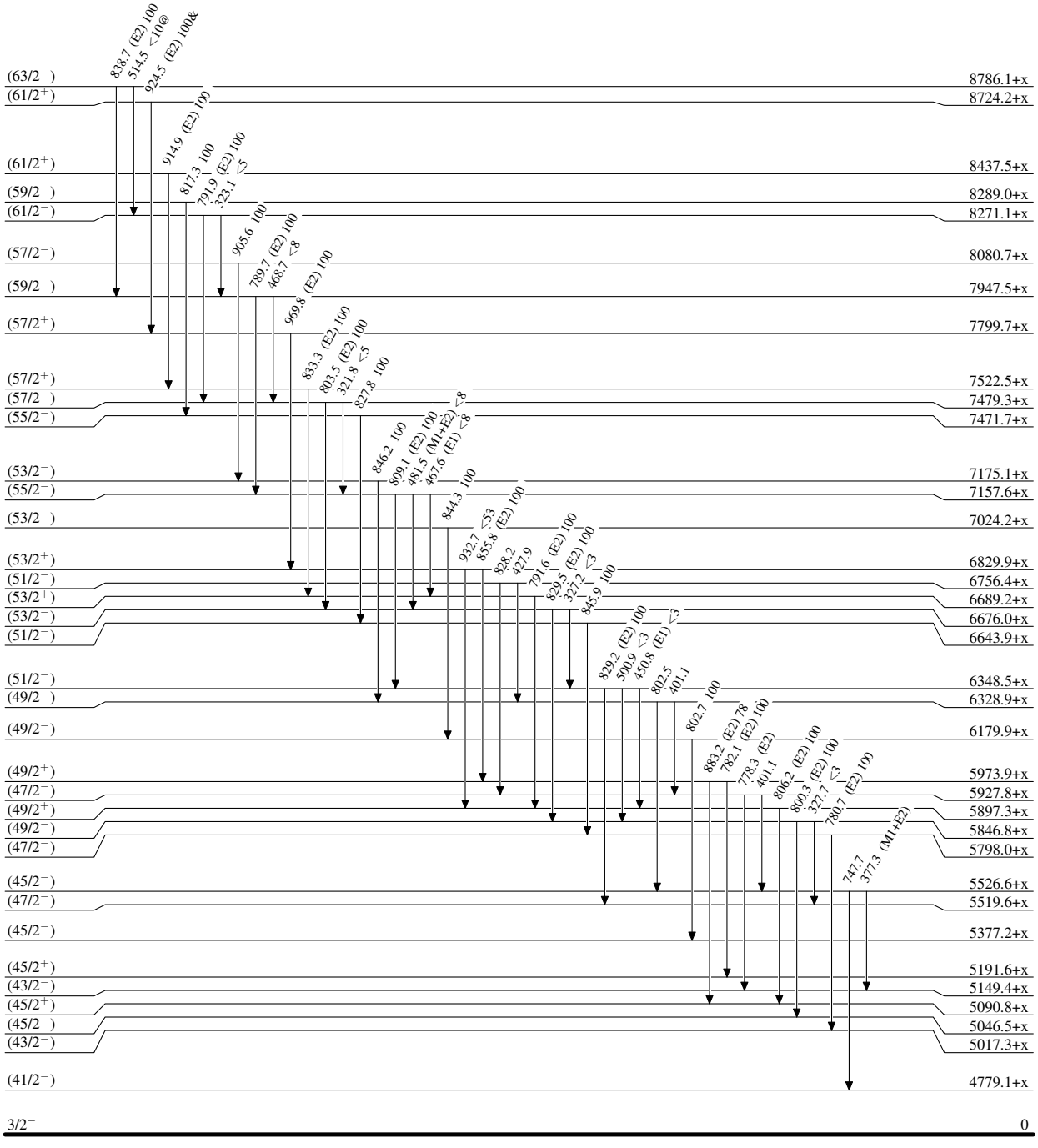


$^{157}_{68}Er_{89}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

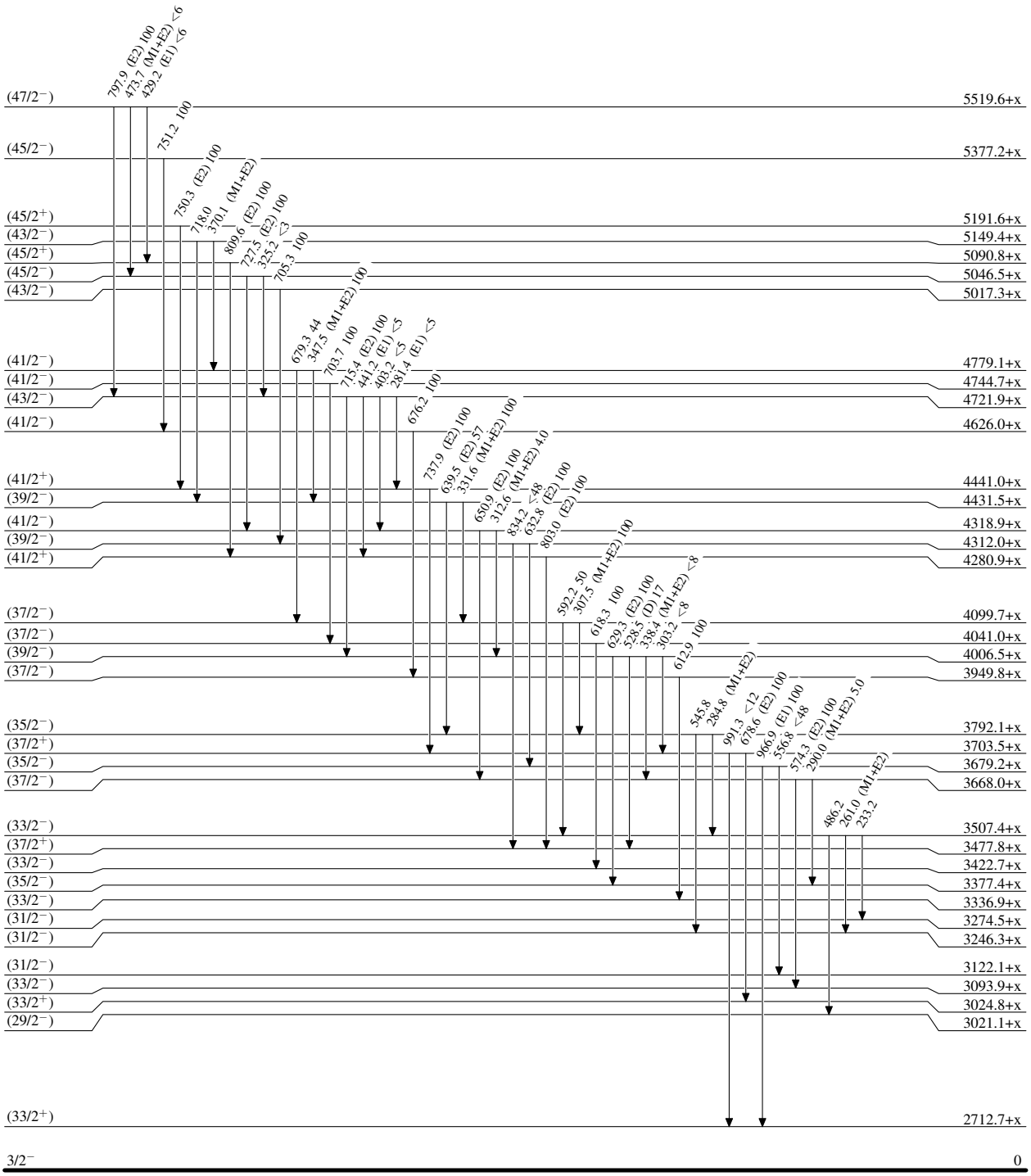


$^{157}_{68}Er_{89}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

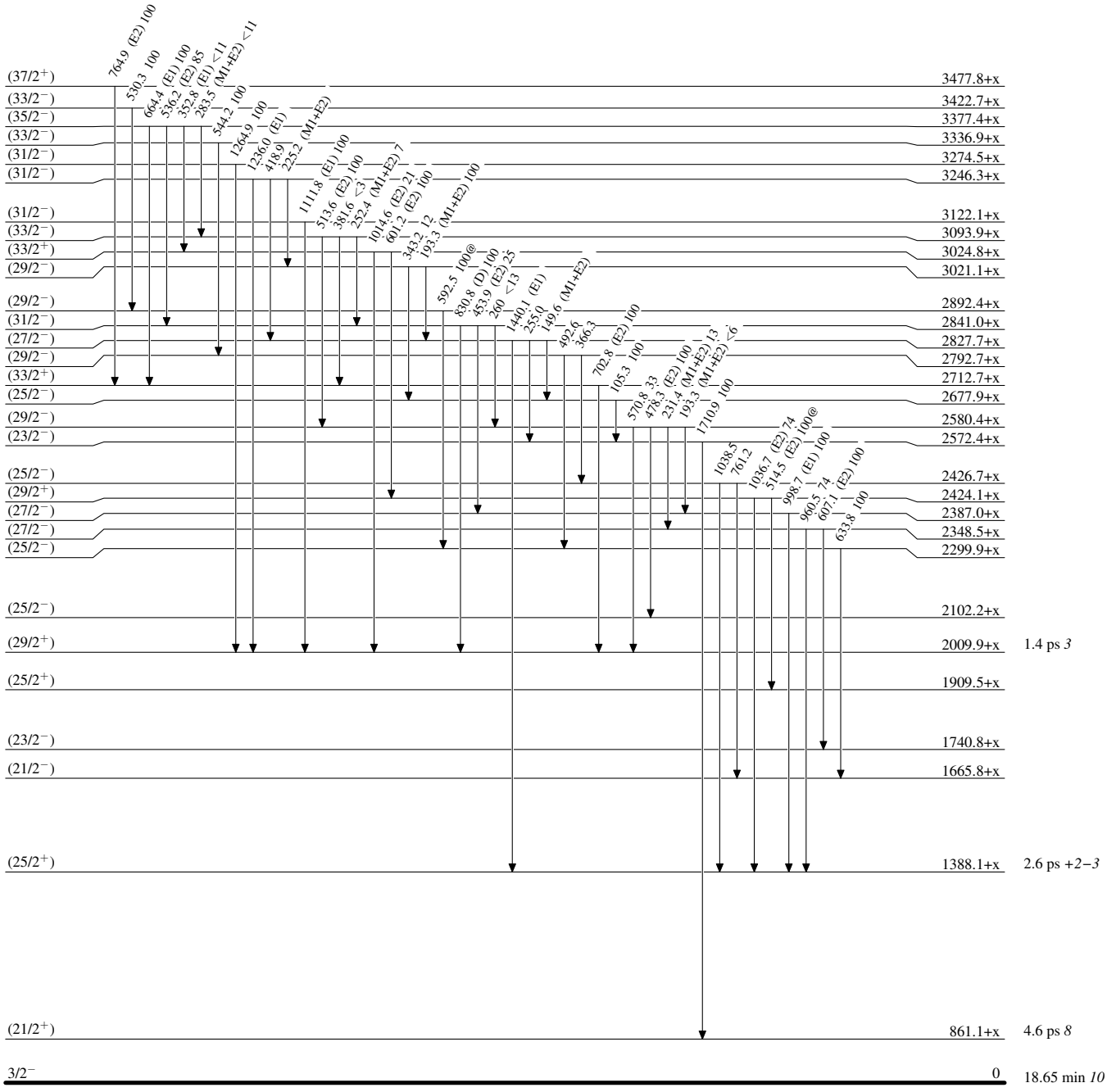


$^{157}_{68}Er_{89}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided



$^{157}_{68}Er_{89}$

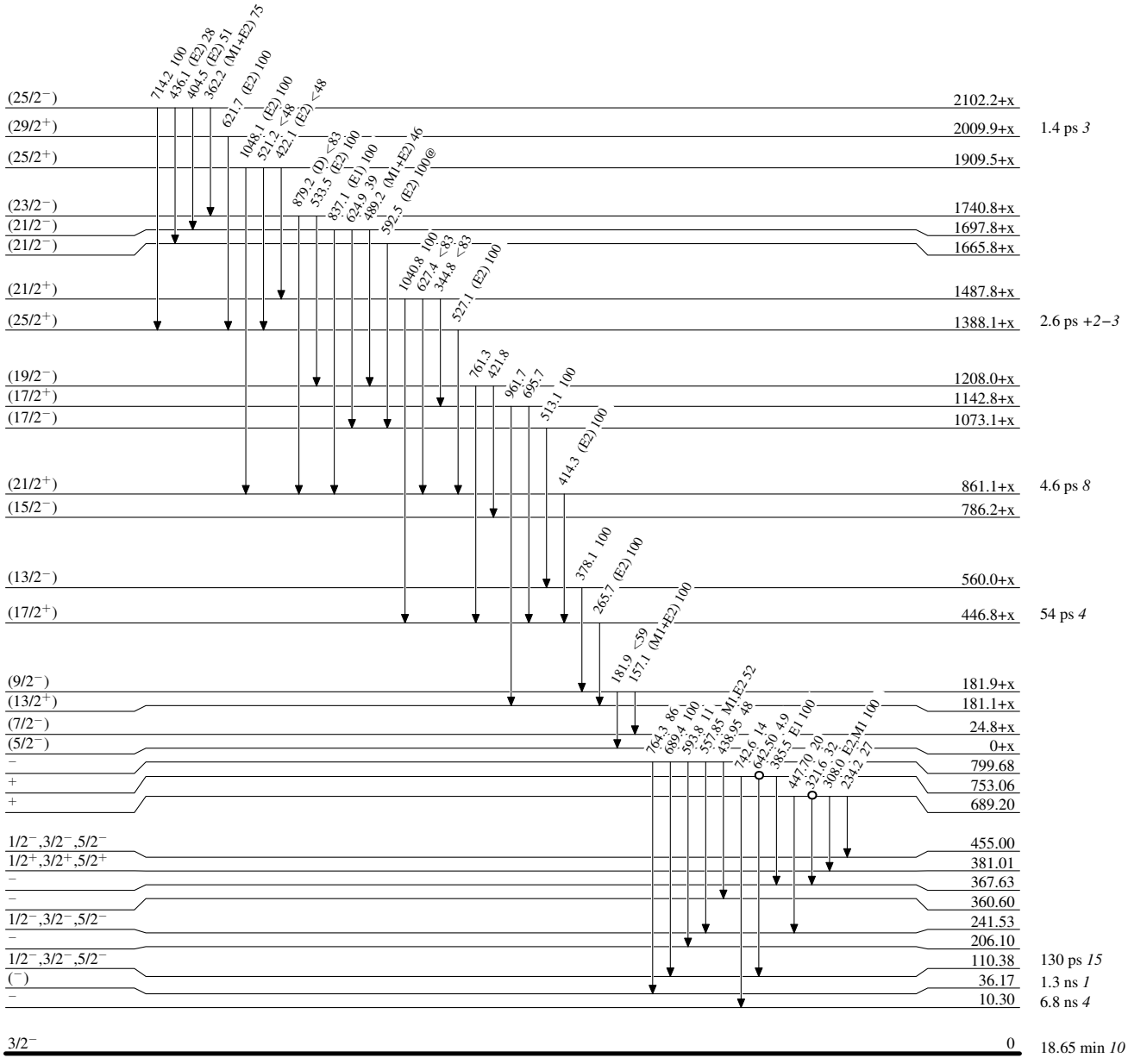
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

● Coincidence
○ Coincidence (Uncertain)



$^{157}_{68}Er_{89}$

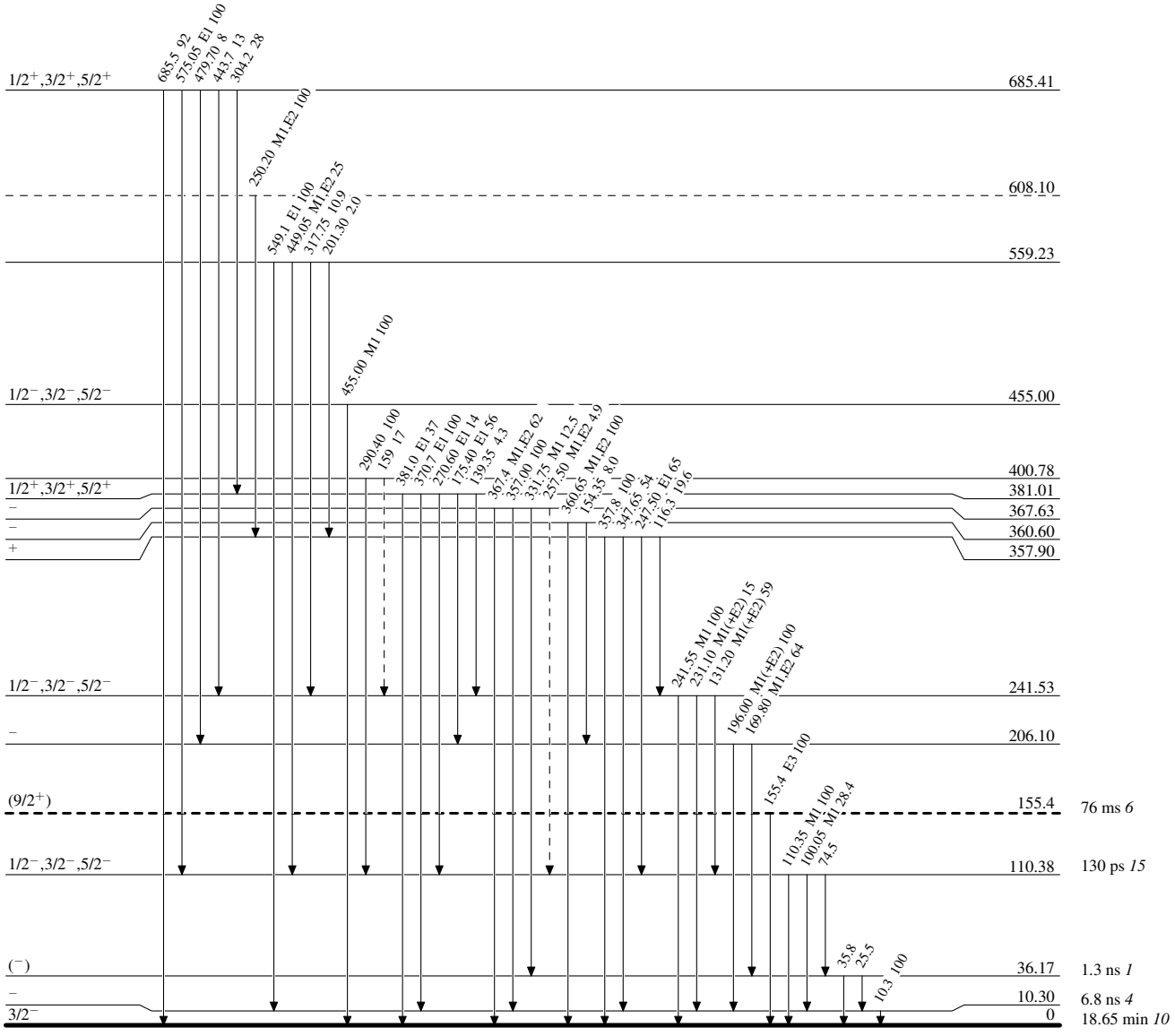
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

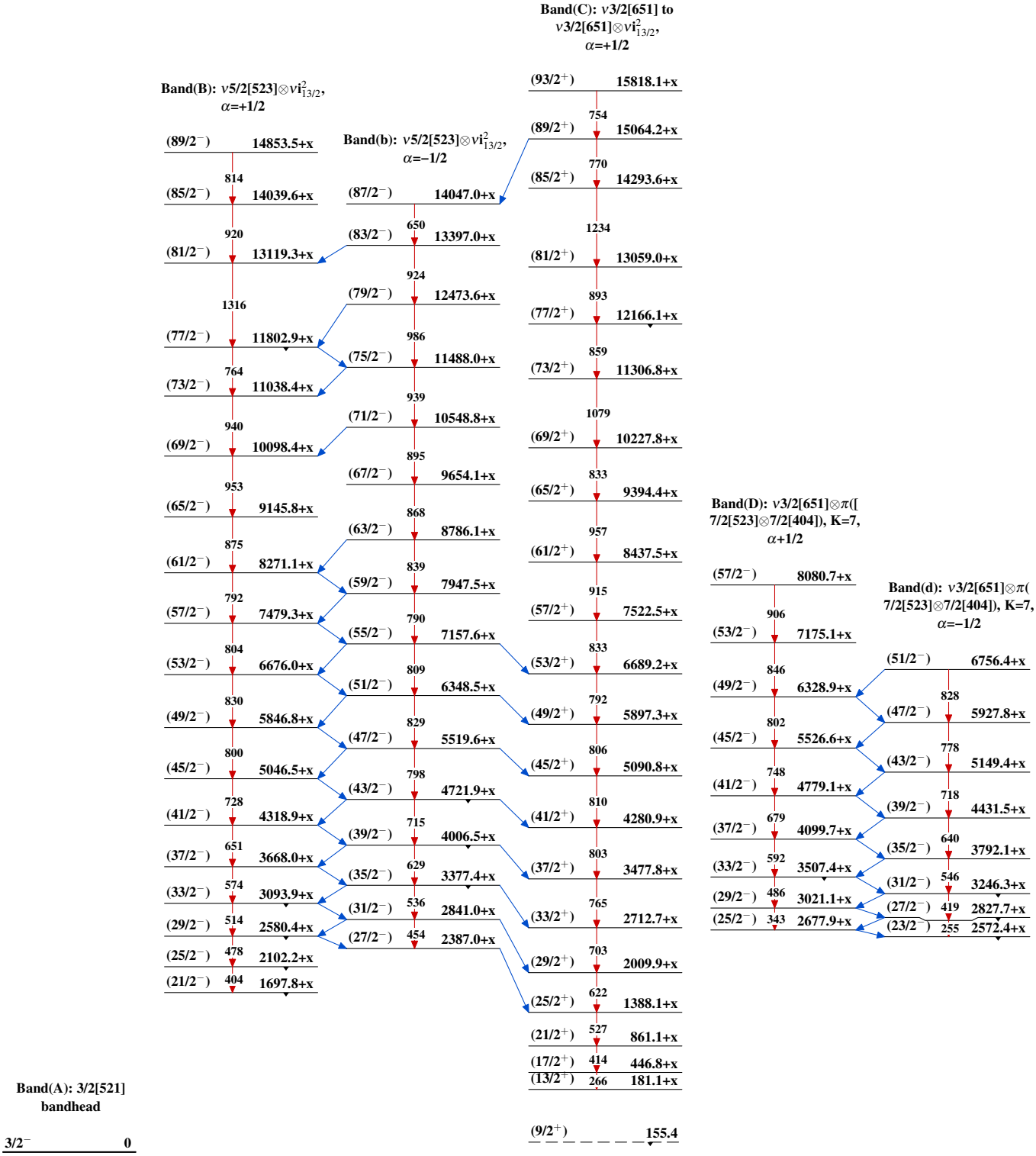
Legend

- - - - - - ► γ Decay (Uncertain)



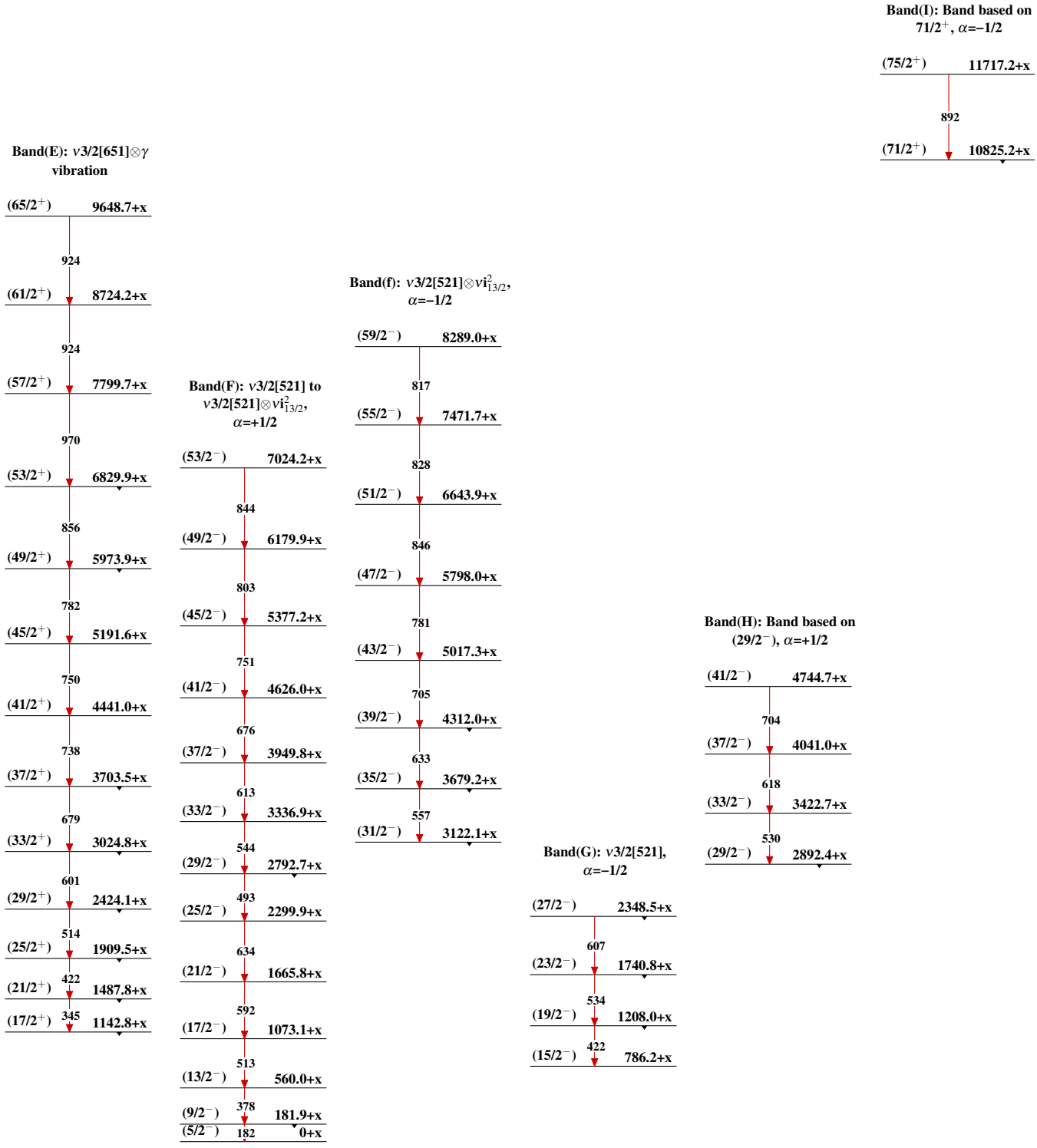
$^{157}_{68}Er_{89}$

Adopted Levels, Gammas



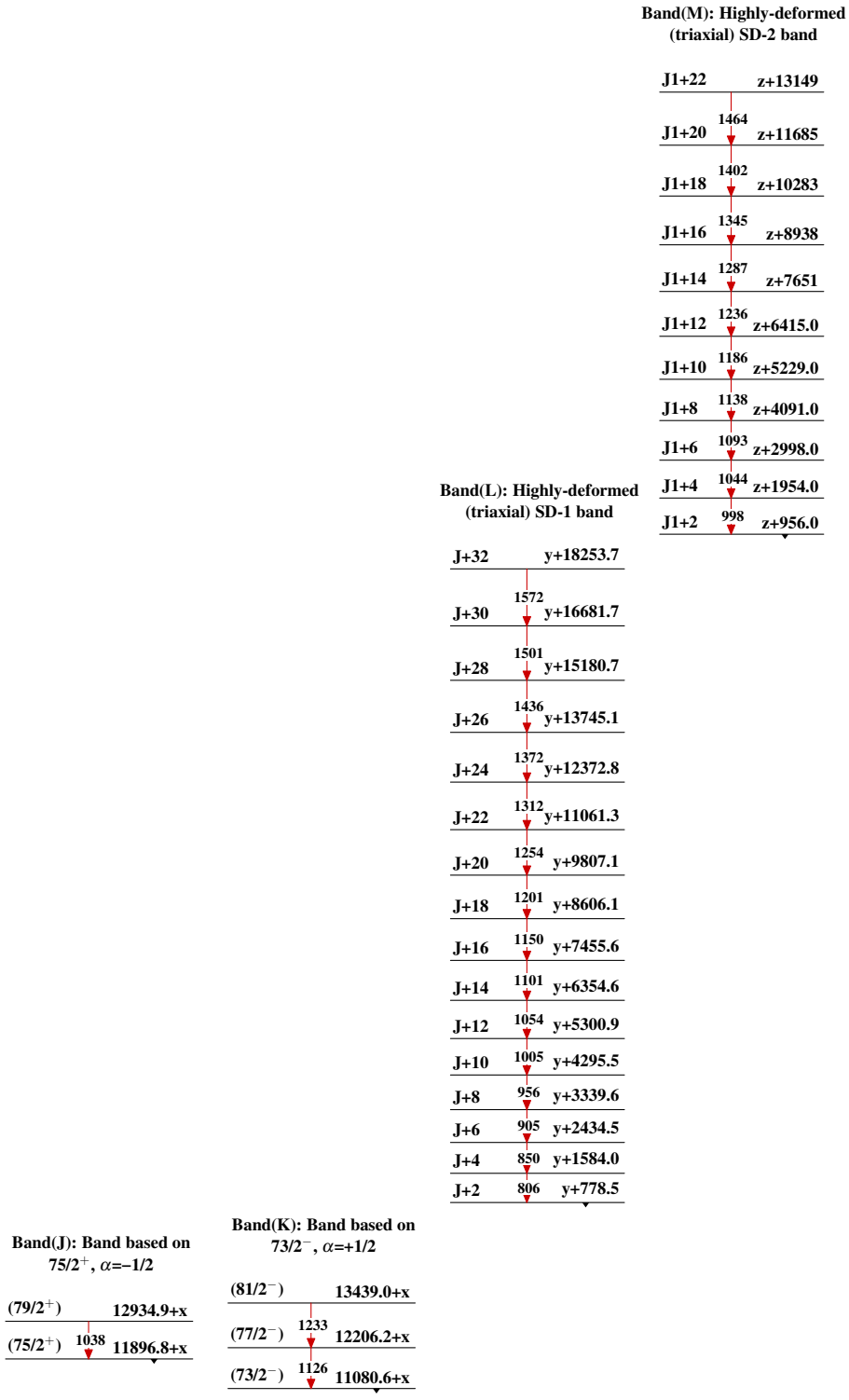
$^{157}_{68}Er_{89}$

Adopted Levels, Gammas (continued)



$^{157}_{68}Er_{89}$

Adopted Levels, Gammas (continued)



$^{157}_{68}Er_{89}$