Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 110, 1 (2009)	20-Nov-2008

Q(β^-)=−5130 *9*; S(n)=7514 *5*; S(p)=4936 *8*; Q(α)=4180 *3* 2017Wa10
Q(ε)=2871 *5*; S(2n)=17199 *5*; S(2p)=8203 *8* 2017Wa10
Additional information 1.
Hyperfine structure measurement: 1985Ne09.
Mass measurement (Penning trap): 2000Be42.
2008Al09: structure calculations, excitation energies and transition rates.
Additional information 2.

^{151}Dy Levels

Cross Reference (XREF) Flags

- A ^{151}Ho ε decay (35.2 s)
- B ^{151}Ho ε decay (47.2 s)
- C ^{155}Er α decay (5.3 min)
- D (HI,xnγ)

E(level)[†]	J$^\pi$[‡]	$T_{1/2}$[g]	XREF	Comments
0.0	7/2$^{(-)}$	17.9 min *3*	ABCD	%α=5.6 *4* (1974To07); %ε+%β^+=94.4 *4* μ=−0.945 *7* (1989Ra17); Q=−0.30 *5* (1989Ra17) <r^2>$^{1/2}$=5.09 fm *21* (2004An14 evaluation). μ,Q: from collinear fast-beam LASER spectroscopy (priv. comm. from Neugart to 1989Ra17). See also 2005St24 compilation. J$^\pi$: spin from atomic beam magnetic resonance (1970Ro21). parity from probable shell model configuration=$\nu f_{7/2}$. $T_{1/2}$: from α(t). Weighted average of values: 19.8 min *5* (1982Bo04), 17.5 min *5* (1978MoZH), 17 min *2* (1974PeZS), 16.9 min *5* (1973Bi06), 17.7 min *5* (1965Ma51) and 18.0 min *2* (1964Ma19).
209.57?[&] *18*	(5/2$^-$)		B	J$^\pi$: (M1+E2) γ to 7/2$^{(-)}$; possible member of $f^3_{7/2}$ multiplet.
366.03?[&] *24*	(3/2$^-$)		B	J$^\pi$: (E2) γ to 7/2$^{(-)}$; possible member of $f^3_{7/2}$ multiplet.
527.40 *9*	(9/2$^-$)		A D	J$^\pi$: ΔJ=(1), M1 γ to 7/2$^{(-)}$.
775.56 *11*	(11/2$^-$)		A D	J$^\pi$: ΔJ=(2), E2 γ to 7/2$^{(-)}$.
880.1?[&] *3*	(3/2,5/2,7/2)		B	
952.3?[&] *4*	(3/2,5/2,7/2)		B	
968.62 *13*	(13/2$^+$)		A D	J$^\pi$: ΔJ=1, (E1) γ to (11/2$^-$).
985.01?[@] *22*			A	
986.45?[@] *21*	(13/2$^-$)		A	J$^\pi$: (E2) γ to (9/2$^-$).
1046.1?[&] *3*	(5/2,7/2)[a]		B	
1081.4?[&] *4*	(3/2)[a]		B	
1130.0?[&] *4*	(3/2)[a]		B	
1143.9?[&] *5*	(3/2)[a]		B	
1168.9?[&] *6*	(3/2)[a]		B	
1181.8?[&] *4*	(1/2,3/2)[a]		B	
1185.7?[&] *4*	(3/2)[a]		B	
1221.69?[@] *22*	(9/2)[a]		A	
1261.5?[&] *3*	(3/2,5/2,7/2)[a]		B	
1311.0?[&] *6*	(1/2,3/2$^+$)[a]		B	

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Adopted Levels, Gammas (continued)

^{151}Dy Levels (continued)

E(level)[†]	J^{π}[‡]	$T_{1/2}$[g]	XREF	Comments
1334.8?[@] 3			A	
1348.72 10	(13/2⁻)		A D	J^{π}: ΔJ=1 γ to (11/2⁻) and ΔJ=(2) γ to (9/2⁻).
1511.15 11	(15/2⁻)		A D	XREF: A(?). J^{π}: ΔJ=2, E2 γ to (11/2⁻).
1548.6?[@] 6	(11/2,13/2)[a]		A	
1549.73 18	(9/2,11/2⁻)		A	J^{π}: γ to 7/2$^{(-)}$.
1551.2?[&] 6	(1/2,3/2⁺)[a]		B	
1733.9? 4	(17/2⁺)		D	J^{π}: ΔJ=2, E2 γ to (13/2⁺).
1780.8?[&] 4	(3/2⁺)[a]		B	
1856.9?[@] 3			A	
1918.59 10	(17/2⁻)		D	J^{π}: ΔJ=2, E2 γ to (13/2⁻).
1922.0?[&] 4	(3/2⁺)[a]		B	
1923.9?[@] 4	(11/2)[a]		A	
1961.6?[@] 6			A	
2027.2?[&] 4	(3/2⁺)[a]		B	
2220.1?[@] 4	(9/2 to 13/2)[a]		A	
2263.03 11	(21/2⁻)		D	J^{π}: ΔJ=2, E2 γ to (17/2⁻).
2365.6?[&] 5	(1/2,3/2⁺)[a]		B	
2376.7?[&] 4	(3/2⁺)[a]		B	
2377.5?[@] 4	(9/2 to 13/2)[a]		A	
2377.9?[&] 6	(1/2,3/2⁺)[a]		B	
2402.2? 5	(21/2⁺)		D	J^{π}: ΔJ=2, E2 γ to (17/2⁺).
2407.9?[@] 4	(9/2 to 13/2)[a]		A	
2408.9?[@] 6	(9/2 to 13/2)[a]		A	
2456.9?[@] 4	(9/2 to 13/2)[a]		A	
2487.4?[@] 6	(9/2 to 13/2)[a]		A	
2554.6?[@] 3			A	
2572.8?[&] 4	(3/2⁺)[a]		B	
2574.1?[@] 3	(9/2 to 13/2)[a]		A	
2575.2?[&] 4	(3/2⁺)[a]		B	
2583.2?[@] 5			A	
2722.2?[@] 4	(9/2 to 13/2)[a]		A	
2788.1?[&] 6	(1/2,3/2⁺)[a]		B	
2789.9?[&] 4	(1/2,3/2⁺)[a]		B	
2811.6?[&] 6	(3/2⁺)[a]		B	
2827.9?[&] 4	(1/2,3/2⁺)[a]		B	
2850.7?[@] 4	(9/2 to 13/2)[a]		A	
2866.4?[@] 4			A	
2911.67 12	(25/2⁻)		D	J^{π}: ΔJ=2, E2 γ to (21/2⁻).
2915.5?[&] 6	(1/2,3/2⁺)[a]		B	
2918.6?[&] 3	(3/2⁺)[a]		B	
2938.6?[@] 5	(9/2 to 13/2)[a]		A	
2942.1?[&] 6	(1/2,3/2⁺)[a]		B	
2958.6 6	(27/2⁻)	1.3 ns 6	D	J^{π}: ΔJ=1, M1 γ to (25/2⁻). $T_{1/2}$: from centroid-shift method in γγ(t) by (1979Pi07).
3031.9?[&] 6	(1/2,3/2⁺)[a]		B	
3049.1?[@] 6	(9/2 to 13/2)[a]		A	

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Adopted Levels, Gammas (continued)

^{151}Dy Levels (continued)

E(level)[†]	J^{π}[‡]	$T_{1/2}$[g]	XREF	Comments
3077.9? *6*	(25/2$^+$)		D	J^{π}: ΔJ=2, E2 γ to (21/2$^+$).
3428.5 *6*	(29/2)		D	J^{π}: ΔJ=1 γ to (27/2$^-$).
3733.9 *6*	(31/2$^-$)		D	J^{π}: ΔJ=2, E2 γ to (27/2$^-$).
4306.4 *6*	(33/2)		D	J^{π}: ΔJ=2, (E2) γ to (29/2).
4387.3 *6*	(35/2$^-$)		D	J^{π}: ΔJ=2, E2 γ to (31/2$^-$).
4741.5 *6*	(37/2)		D	J^{π}: ΔJ=2, E2 γ to (33/2).
4903.9 *6*	(41/2)	5.9 ns *7*	D	J^{π}: ΔJ=2, E2 γ to (37/2). $T_{1/2}$: from centroid-shift method in γγ(t): weighted average of 6.0 ns *9* (1981Ha17), 5.5 ns *10* (1979Pi07) and 7 ns *2* (1979Li14).
5742.9 *6*	(43/2)		D	J^{π}: ΔJ=1, E1 γ to (41/2).
6007.2 *6*	(47/2)		D	J^{π}: ΔJ=2, E2 γ to (43/2).
6032.2 *8*	(49/2$^+$)	11.9 ns *8*	D	J^{π}: from theoretical considerations, This state is described as the maximally aligned valence nucleon state in analogy to ^{148}Dy-^{152}Dy isotopes with configuration=$[(\pi h^2_{11/2})_{10+}\otimes(\nu f_{7/2})\ (\nu h_{9/2})(\nu i_{13/2})]_{49/2+}$. $T_{1/2}$: weighted average of 12.6 ns *5* (1981Ha17) and 10.9 s *6* (1979Li14). Others: 15 ns *3* (1979Pi07), 18 ns *4* (1979Ha29), 12 ns *1* (1980Bo07).
7037.5 *8*	(51/2$^-$)[#]	1.2 ps *6*	D	J^{π}: ΔJ=1, E1 γ to (49/2$^+$).
7219.5 *8*	(53/2$^-$)[#]	13.7 ps *6*	D	J^{π}: ΔJ=1 γ to (51/2$^-$).
8177.8 *9*	(55/2$^-$)[#]	4.5 ps *15*	D	J^{π}: ΔJ=1, M1 γ to (53/2$^-$).
8302.7 *9*	(57/2$^-$)[#]	20.8 ps *12*	D	J^{π}: ΔJ=2, E2 γ to (53/2$^-$).
8680.3 *9*	(59/2$^-$)[#]	2.0 ps *3*	D	J^{π}: ΔJ=1, M1 γ to (57/2$^-$).
8891.7 *9*	(61/2$^-$)[#]	19.8 ps *20*	D	J^{π}: ΔJ=2, E2 γ to (57/2$^-$).
9813.2? *12*			D	
10029.8 *10*	(63/2)	<1.4 ps	D	J^{π}: ΔJ=(1) γ to (61/2$^-$).
10132.1? *13*			D	
10280.2? *15*			D	
10320.8? *10*		<1.4 ps	D	
10562.2? *12*		<1.4 ps	D	
10751.3? *15*			D	
11144.8? *14*			D	
11842.5? *13*			D	
x[b]	J≈(43/2)		D	J^{π}: 1993Ra07 suggest 43/2, 47/2. J=(51/2) (1988Ra19) from deexcitation out of band. An intensity plot given by 1994Tw01 (figure 11 b) suggests that 577γ is 51/2 to 47/2 transition. Additional information 3. $T_{1/2}$: estimated (1988Ra19) as<43 fs for deexcitation between top 9 transitions.
527.3+x?[b]	J+2		D	
1104.7+x[b]	J+4		D	
1732.4+x[b]	J+6		D	
2414.2+x[b]	J+8		D	
3148.2+x[b]	J+10		D	
3933.9+x[b]	J+12		D	
4771.7+x[b]	J+14		D	
5660.8+x[b]	J+16		D	
6601.4+x[b]	J+18		D	
7593.3+x[b]	J+20		D	
8636.1+x[b]	J+22		D	
9729.9+x[b]	J+24		D	
10874.0+x[b]	J+26		D	
12068.7+x[b]	J+28		D	

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Adopted Levels, Gammas (continued)

^{151}Dy Levels (continued)

E(level)[†]	J^{π}[‡]	XREF	Comments
13313.7+x[b]	J+30	D	
14608.5+x[b]	J+32	D	
15953.1+x[b]	J+34	D	
17346.9+x[b]	J+36	D	
18791.0+x[b]	J+38	D	
20283.4+x[b]	J+40	D	
21825.2+x[b]	J+42	D	
y[c]	J1	D	Additional information 4.
633.0+y[c]	J1+2	D	
1310.7+y[c]	J1+4	D	
2029.9+y[c]	J1+6	D	
2795.5+y[c]	J1+8	D	
3607.7+y[c]	J1+10	D	
4466.9+y[c]	J1+12	D	
5373.6+y[c]	J1+14	D	
6327.9+y[c]	J1+16	D	
7329.6+y[c]	J1+18	D	
8379.6+y[c]	J1+20	D	
9477.8+y[c]	J1+22	D	
10624.4+y[c]	J1+24	D	
11819.6+y[c]	J1+26	D	
13063.1+y[c]	J1+28	D	
14355.5+y[c]	J1+30	D	
15696.4+y[c]	J1+32	D	
17085.8+y[c]	J1+34	D	
18525.9+y[c]	J1+36	D	
20018.4+y[c]	J1+38	D	
z[d]	J2	D	Additional information 5.
728.5+z[d]	J2+2	D	
1493.6+z[d]	J2+4	D	
2306.6+z[d]	J2+6	D	
3167.1+z[d]	J2+8	D	
4076.7+z[d]	J2+10	D	
5035.3+z[d]	J2+12	D	
6041.8+z[d]	J2+14	D	
7098.5+z[d]	J2+16	D	
8204.5+z[d]	J2+18	D	
9360.2+z[d]	J2+20	D	
10565.0+z[d]	J2+22	D	
11819.7+z[d]	J2+24	D	
13123.3+z[d]	J2+26	D	
14475.3+z[d]	J2+28	D	
15878.7+z[d]	J2+30	D	
17328.5+z[d]	J2+32	D	
u[e]	J3	D	Additional information 6.
712.0+u[e]	J3+2	D	
1470.7+u[e]	J3+4	D	

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Adopted Levels, Gammas (continued)

^{151}Dy Levels (continued)

E(level)[†]	Jπ[‡]	XREF	Comments
2276.0+u[e]	J3+6	D	
3128.4+u[e]	J3+8	D	
4027.7+u[e]	J3+10	D	
4974.5+u[e]	J3+12	D	
5968.9+u[e]	J3+14	D	
7011.5+u[e]	J3+16	D	
8102.0+u[e]	J3+18	D	
9240.2+u[e]	J3+20	D	
10426.6+u[e]	J3+22	D	
11661.5+u[e]	J3+24	D	
12944.4+u[e]	J3+26	D	
14274.1+u[e]	J3+28	D	
15652.9+u[e]	J3+30	D	
17077.8+u[e]	J3+32	D	
v[f]	J4	D	Additional information 7.
959.3+v[f]	J4+2	D	
1967.7+v[f]	J4+4	D	
3028.0+v[f]	J4+6	D	
4139.9+v[f]	J4+8	D	
5305.8+v[f]	J4+10	D	
6521.3+v[f]	J4+12	D	
7784.5+v[f]	J4+14	D	
9097.9+v[f]	J4+16	D	
10463.6+v[f]	J4+18	D	

† From least-squares fit to Eγ′s, assuming Δ(Eγ)=0.5 keV when not stated.

‡ For high-spin (J>11/2) states, ascending spins with excitation energy are assumed to be populated in (HI,xnγ) reactions. For SD bands, all transitions are assumed to be stretched quadrupoles.

\# Parity: level is described by coupling of proton configuration=$[\pi h^3_{11/2}\otimes\pi d^{-1}_{5/2}]J^\pi$ to neutron configuration=$[\nu f_{7/2}\otimes\nu h_{11/2}\otimes\nu i_{13/2}]29/2^+$; giving negative parity.

@ Tentative level from ^{151}Ho ε decay (35.2 s).

& Tentative level from ^{151}Ho ε decay (47.2 s).

a Tentative assignments from ^{151}Ho ε decay as proposed by 1997AlZY from ce data for selected transitions, γ decay pattern and possible ε+β^+ feedings from (11/2$^-$) or (1/2$^+$) parent states in ^{151}Ho with half-lives of 35.2 s and 47.2 s, respectively.

b Band(A): SD-1 band. Band from 1988Ra19 and 1995Ni06. Q(intrinsic)=16.9 *+2−3* (1997Ni01). Percent population=1.3 (1988Ra19), 1.0 (1995Ni06). Other: 2.3 *8* (1992Mu10) in ^{122}Sn(^{34}S,5nγ) E=170 MeV. Intruder configuration=$\pi 6^4 \nu 7^1$ (1997Ni01).

c Band(B): SD-2 band. Q(intrinsic)=18.2 *4* (1997Ni01). Band intensity=0.39 *7* (1995Ni06) (relative to 1.0 for SD-1 band). It has the same high N intruder configuration as ^{152}Dy SD band. The transition energies are close to 3/4 point Eγ′s of ^{152}Dy yrast SD band. Probable 5/2[642] neutron excitation (1995Ni06). 1995Ni06 searched for its signature partner band but none was found.

d Band(C): SD-3 band. Q(intrinsic)=17.9 *6* (1997Ni01). Band intensity=0.30 *5* (1995Ni06) (relative to 1.0 for SD-1 band).

e Band(D): SD-4 band. Q(intrinsic)=17.5 *+11−7* (1997Ni01). Band intensity=0.20 *7* (1995Ni06) (relative to 1.0 for SD-1 band). It has the same high N intruder configuration as ^{152}Dy SD band. The γ-ray energies in this band are close to mid-point transition energies of the ^{152}Dy yrast SD band (1995Ni06). Search for its signature partner band proved negative (1995Ni06).

f Band(E): SD-5 band. Percent population=0.13 *4* (1995Ni06) (relative to 1.0 for SD-1 band).

g From recoil-distance method in (1985Ho17), unless otherwise stated.

Adopted Levels, Gammas (continued)

$\gamma(^{151}Dy)$

E_i(level)	J^{π}_i	E_{γ}[†]	I_{γ}[†‡]	E_f	J^{π}_f	Mult.[@]	α[d]	Comments
209.57?	(5/2$^-$)	209.6	100	0.0	7/2$^{(-)}$	(M1+E2)[c]	0.25 *5*	α(K)=0.19 *6*; α(L)=0.043 *7*; α(M)=0.0098 *18*; α(N+..)=0.0026 *5* α(N)=0.0022 *4*; α(O)=0.00030 *3*; α(P)=1.1×10^{-5} *5*
366.03?	(3/2$^-$)	156.4	10	209.57?	(5/2$^-$)			
		366.0	100	0.0	7/2$^{(-)}$	(E2)[c]	0.0357	α(K)=0.0277 *4*; α(L)=0.00623 *9*; α(M)=0.001422 *20*; α(N+..)=0.000369 *6* α(N)=0.000324 *5*; α(O)=4.35×10^{-5} *6*; α(P)=1.491×10^{-6} *21*
527.40	(9/2$^-$)	527.4 *1*	100	0.0	7/2$^{(-)}$	M1	0.0259	α(K)=0.0220 *3*; α(L)=0.00310 *5*; α(M)=0.000679 *10*; α(N+..)=0.000182 *3* α(N)=0.0001571 *22*; α(O)=2.31×10^{-5} *4*; α(P)=1.340×10^{-6} *19*
775.56	(11/2$^-$)	775.53 *15*	100	0.0	7/2$^{(-)}$	E2	0.00526	α(K)=0.00437 *7*; α(L)=0.000694 *10*; α(M)=0.0001537 *22*; α(N+..)=4.06×10^{-5} *6* α(N)=3.53×10^{-5} *5*; α(O)=5.03×10^{-6} *7*; α(P)=2.51×10^{-7} *4*
880.1?	(3/2,5/2,7/2)	514.2	45	366.03?	(3/2$^-$)			
		670.6	100	209.57?	(5/2$^-$)			
		880.2	60	0.0	7/2$^{(-)}$			
952.3?	(3/2,5/2,7/2)	742.8	47	209.57?	(5/2$^-$)			
		952.5	100	0.0	7/2$^{(-)}$			
968.62	(13/2$^+$)	193.0 *1*	100	775.56	(11/2$^-$)	(E1)	0.0534	α(K)=0.0450 *7*; α(L)=0.00655 *10*; α(M)=0.001431 *21*; α(N+..)=0.000376 *6* α(N)=0.000327 *5*; α(O)=4.60×10^{-5} *7*; α(P)=2.27×10^{-6} *4* Mult.: ΔJ=1, dipole from (HI,xnγ); (E1) from ce data in ^{151}Ho ε decay.
985.01?		209.5 *2*	100	775.56	(11/2$^-$)			
986.45?	(13/2$^-$)	459.1 *2*	100	527.40	(9/2$^-$)	(E2)[c]	0.0190	α(K)=0.01515 *22*; α(L)=0.00298 *5*; α(M)=0.000674 *10*; α(N+..)=0.0001760 *25* α(N)=0.0001541 *22*; α(O)=2.11×10^{-5} *3*; α(P)=8.41×10^{-7} *12*
1046.1?	(5/2,7/2)	836.3	12	209.57?	(5/2$^-$)			
		1045.9	100	0.0	7/2$^{(-)}$			
1081.4?	(3/2)	872.0	100	209.57?	(5/2$^-$)			
		1081.3	60	0.0	7/2$^{(-)}$			
1130.0?	(3/2)	764.0	75	366.03?	(3/2$^-$)			
		920.4	100	209.57?	(5/2$^-$)			
		1130.0	38	0.0	7/2$^{(-)}$			
1143.9?	(3/2)	263.7	100	880.1?	(3/2,5/2,7/2)			
1168.9?	(3/2)	802.9	100	366.03?	(3/2$^-$)			
1181.8?	(1/2,3/2)	972.3	100	209.57?	(5/2$^-$)			
		1181.8	25	0.0	7/2$^{(-)}$			
1185.7?	(3/2)	976.0	25	209.57?	(5/2$^-$)			
		1185.8	100	0.0	7/2$^{(-)}$			
1221.69?	(9/2)	446.2	21	775.56	(11/2$^-$)			
		694.0 *3*	100	527.40	(9/2$^-$)			

$^{151}_{66}Dy_{85}$-6

γ(^{151}Dy) (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[†‡]	E_f	J^π_f	Mult.[@]	α[d]	Comments
1221.69?	(9/2)	1222.1	39	0.0	$7/2^{(-)}$			
1261.5?	(3/2,5/2,7/2)	895.3	50	366.03?	$(3/2^-)$			
		1051.6	60	209.57?	$(5/2^-)$			
		1261.9	100	0.0	$7/2^{(-)}$			
1311.0?	$(1/2,3/2^+)$	945.0	100	366.03?	$(3/2^-)$			
1334.8?		350.8 *8*	22 *13*	985.01?				
		366.0 *3*	100 *13*	968.62	$(13/2^+)$			
		559.4 *5*	50 *13*	775.56	$(11/2^-)$			
1348.72	$(13/2^-)$	573.2 *5*	7.5 *15*	775.56	$(11/2^-)$	(D)		Seen only in (HI,xnγ).
		821.32 *5*	100 *2*	527.40	$(9/2^-)$	E2	0.00463	α(K)=0.00386 *6*; α(L)=0.000603 *9*; α(M)=0.0001333 *19*; α(N+..)=3.53×10^{-5} *5* α(N)=3.07×10^{-5} *5*; α(O)=4.37×10^{-6} *7*; α(P)=2.22×10^{-7} *4*
1511.15	$(15/2^-)$	542.5 *1*	10 *3*	968.62	$(13/2^+)$	(D)		
		735.59 *5*	100 *3*	775.56	$(11/2^-)$	E2	0.00592	α(K)=0.00491 *7*; α(L)=0.000792 *11*; α(M)=0.0001758 *25*; α(N+..)=4.64×10^{-5} *7* α(N)=4.04×10^{-5} *6*; α(O)=5.73×10^{-6} *8*; α(P)=2.81×10^{-7} *4*
1548.6?	(11/2,13/2)	562.1	100	986.45?	$(13/2^-)$			
1549.73	$(9/2,11/2^-)$	580.5 *10*	≈14[a]	968.62	$(13/2^+)$			
		775.3	14	775.56	$(11/2^-)$			
		1021.5 *5*	36 *8*	527.40	$(9/2^-)$			
		1549.7 *2*	100 *7*	0.0	$7/2^{(-)}$			
1551.2?	$(1/2,3/2^+)$	1341.6	100	209.57?	$(5/2^-)$			
1733.9?	$(17/2^+)$	765.3[e] *3*	100	968.62	$(13/2^+)$	E2	0.00542	α(K)=0.00450 *7*; α(L)=0.000717 *10*; α(M)=0.0001589 *23*; α(N+..)=4.20×10^{-5} *6* α(N)=3.65×10^{-5} *6*; α(O)=5.19×10^{-6} *8*; α(P)=2.58×10^{-7} *4*
1780.8?	$(3/2^+)$	1571.2	100	209.57?	$(5/2^-)$			
		1780.9	67	0.0	$7/2^{(-)}$			
1856.9?		871.0 *10*	≈71[a]	985.01?				
		1081.4 *3*	100 *11*	775.56	$(11/2^-)$			
1918.59	$(17/2^-)$	407.4 *1*	43.2 *13*	1511.15	$(15/2^-)$	(D)		
		569.88 *5*	100 *2*	1348.72	$(13/2^-)$	E2	0.01086	α(K)=0.00885 *13*; α(L)=0.001571 *22*; α(M)=0.000352 *5*; α(N+..)=9.24×10^{-5} *13* α(N)=8.06×10^{-5} *12*; α(O)=1.124×10^{-5} *16*; α(P)=5.01×10^{-7} *7*
1922.0?	$(3/2^+)$	969.4	100	952.3?	(3/2,5/2,7/2)			
		1712.6	25	209.57?	$(5/2^-)$			
1923.9?	(11/2)	1147.8 *7*	100	775.56	$(11/2^-)$			
		1924.2	26	0.0	$7/2^{(-)}$			
1961.6?		1185.7 *10*	≈77[a]	775.56	$(11/2^-)$			
		1434.3 *6*	100 *31*	527.40	$(9/2^-)$			
2027.2?	$(3/2^+)$	1817.7	25	209.57?	$(5/2^-)$			
		2027.2	100	0.0	$7/2^{(-)}$			
2220.1?	(9/2 to 13/2)	1692.4	100	527.40	$(9/2^-)$			

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$\gamma(^{151}Dy)$ (continued)

E_i(level)	J^π_i	E_γ [†]	I_γ [†‡]	E_f	J^π_f	Mult. [@]	α [d]	Comments
2220.1?	(9/2 to 13/2)	2220.3	15	0.0	$7/2^{(-)}$			
2263.03	$(21/2^-)$	344.44 *4*	100	1918.59	$(17/2^-)$	E2	0.0426	α(K)=0.0327 *5*; α(L)=0.00768 *11*; α(M)=0.001757 *25*; α(N+..)=0.000455 *7* α(N)=0.000400 *6*; α(O)=5.33×10^{-5} *8*; α(P)=1.747×10^{-6} *25*
2365.6?	$(1/2,3/2^+)$	1485.9	30	880.1?	(3/2,5/2,7/2)			
		1999.2	100	366.03?	$(3/2^-)$			
2376.7?	$(3/2^+)$	1115.2	100	1261.5?	(3/2,5/2,7/2)			
		2376.7	75	0.0	$7/2^{(-)}$			
2377.5?	(9/2 to 13/2)	1601.8	50	775.56	$(11/2^-)$			
		1850.3	100	527.40	$(9/2^-)$			
2377.9?	$(1/2,3/2^+)$	2168.3	100	209.57?	$(5/2^-)$			
2402.2?	$(21/2^+)$	668.3 [e] *3*	100	1733.9?	$(17/2^+)$	E2	0.00739	α(K)=0.00609 *9*; α(L)=0.001016 *15*; α(M)=0.000226 *4*; α(N+..)=5.96×10^{-5} *9* α(N)=5.19×10^{-5} *8*; α(O)=7.32×10^{-6} *11*; α(P)=3.48×10^{-7} *5*
2407.9?	(9/2 to 13/2)	1880.7	100	527.40	$(9/2^-)$			
		2407.6	9	0.0	$7/2^{(-)}$			
2408.9?	(9/2 to 13/2)	1440.3	100	968.62	$(13/2^+)$			
		2409.2 [e]	67	0.0	$7/2^{(-)}$			
2456.9?	(9/2 to 13/2)	1234.8	88	1221.69?	(9/2)			
		1470.8	88	986.45?	$(13/2^-)$			
		1681.5	100	775.56	$(11/2^-)$			
		1929.5 [e]	25	527.40	$(9/2^-)$			
		2456.8 [e]	25	0.0	$7/2^{(-)}$			
2487.4?	(9/2 to 13/2)	1500.9	100	986.45?	$(13/2^-)$			
		1960.7 [e]	13	527.40	$(9/2^-)$			
2554.6?		1779.1 *3*	100 *9*	775.56	$(11/2^-)$			
		2026.9 *5*	41 *3*	527.40	$(9/2^-)$			
2572.8?	$(3/2^+)$	1526.6	50	1046.1?	(5/2,7/2)			
		2572.9	100	0.0	$7/2^{(-)}$			
2574.1?	(9/2 to 13/2)	1352.5	100	1221.69?	(9/2)			
		1798.2	50	775.56	$(11/2^-)$			
		2046.8	100	527.40	$(9/2^-)$			
2575.2?	$(3/2^+)$	1528.9	50	1046.1?	(5/2,7/2)			
		2365.6	100	209.57?	$(5/2^-)$			
		2575.4	33	0.0	$7/2^{(-)}$			
2583.2?		1807.7 *6*	55 *18*	775.56	$(11/2^-)$			
		2055.7 *8*	100 *36*	527.40	$(9/2^-)$			
2722.2?	(9/2 to 13/2)	1753.5	100	968.62	$(13/2^+)$			
		1946.7	75	775.56	$(11/2^-)$			
		2722.4 [e]	50	0.0	$7/2^{(-)}$			
2788.1?	$(1/2,3/2^+)$	2578.5	100	209.57?	$(5/2^-)$			
2789.9?	$(1/2,3/2^+)$	2580.9	100	209.57?	$(5/2^-)$			

$\gamma(^{151}Dy)$ (continued)

E_i(level)	J^{π}_i	E_{γ}[†]	I_{γ}[†‡]	E_f	J^{π}_f	Mult.[@]	α[d]	Comments
2789.9?	(1/2,3/2$^+$)	2789.3	14	0.0	7/2$^{(-)}$			
2811.6?	(3/2$^+$)	2602.0	100	209.57?	(5/2$^-$)			
2827.9?	(1/2,3/2$^+$)	1876.0	100	952.3?	(3/2,5/2,7/2)			
		2617.9	100	209.57?	(5/2$^-$)			
2850.7?	(9/2 to 13/2)	2323.5	100	527.40	(9/2$^-$)			
		2850.4	67	0.0	7/2$^{(-)}$			
2866.4?		1881.4 *3*	100 *11*	985.01?				
		2090.4 *11*	21 *11*	775.56	(11/2$^-$)			
2911.67	(25/2$^-$)	648.64 *5*	100	2263.03	(21/2$^-$)	E2	0.00793	α(K)=0.00652 *10*; α(L)=0.001100 *16*; α(M)=0.000245 *4*; α(N+..)=6.45×10^{-5} *9* α(N)=5.63×10^{-5} *8*; α(O)=7.91×10^{-6} *11*; α(P)=3.72×10^{-7} *6*
2915.5?	(1/2,3/2$^+$)	2549.4	100	366.03?	(3/2$^-$)			
2918.6?	(3/2$^+$)	1774.5	44	1143.9?	(3/2)			
		2552.8	100	366.03?	(3/2$^-$)			
		2709.1	33	209.57?	(5/2$^-$)			
		2918.2	22	0.0	7/2$^{(-)}$			
2938.6?	(9/2 to 13/2)	2411.2	100	527.40	(9/2$^-$)			
2942.1?	(1/2,3/2$^+$)	2576.0	100	366.03?	(3/2$^-$)			
2958.6	(27/2$^-$)	46.9	100	2911.67	(25/2$^-$)	M1	3.45	B(M1)(W.u.)=0.036 *17* α(L)=2.70 *4*; α(M)=0.593 *9*; α(N+..)=0.1583 *23* α(N)=0.1371 *20*; α(O)=0.0200 *3*; α(P)=0.001137 *16* E_{γ}: this transition was observed only in ce spectra (1979Pi07). Mult.: from L/(M+n) ratio and intensity balance.
3031.9?	(1/2,3/2$^+$)	2665.8	100	366.03?	(3/2$^-$)			
3049.1?	(9/2 to 13/2)	2062.6	100	986.45?	(13/2$^-$)			
3077.9?	(25/2$^+$)	675.7[e] *3*	100	2402.2?	(21/2$^+$)	E2	0.00721	α(K)=0.00594 *9*; α(L)=0.000987 *14*; α(M)=0.000220 *3*; α(N+..)=5.79×10^{-5} *9* α(N)=5.04×10^{-5} *7*; α(O)=7.11×10^{-6} *10*; α(P)=3.39×10^{-7} *5*
3428.5	(29/2)	469.91 *12*	100	2958.6	(27/2$^-$)	D		
3733.9	(31/2$^-$)	305.3		3428.5	(29/2)			
		775.38 *15*		2958.6	(27/2$^-$)	E2	0.00526	α(K)=0.00437 *7*; α(L)=0.000694 *10*; α(M)=0.0001537 *22*; α(N+..)=4.06×10^{-5} *6* α(N)=3.54×10^{-5} *5*; α(O)=5.03×10^{-6} *7*; α(P)=2.51×10^{-7} *4*
4306.4	(33/2)	572.5 *5*	100 *14*	3733.9	(31/2$^-$)	(D)		
		877.79 *16*	43 *13*	3428.5	(29/2)	(E2)	0.00401	α(K)=0.00335 *5*; α(L)=0.000514 *8*; α(M)=0.0001134 *16*; α(N+..)=3.00×10^{-5} *5* α(N)=2.61×10^{-5} *4*; α(O)=3.74×10^{-6} *6*; α(P)=1.93×10^{-7} *3*
4387.3	(35/2$^-$)	653.37 *6*	100	3733.9	(31/2$^-$)	E2	0.00780	α(K)=0.00642 *9*; α(L)=0.001079 *16*; α(M)=0.000240 *4*; α(N+..)=6.33×10^{-5} *9* α(N)=5.52×10^{-5} *8*; α(O)=7.76×10^{-6} *11*; α(P)=3.66×10^{-7} *6*
4741.5	(37/2)	354.28 *7*	100 *2*	4387.3	(35/2$^-$)	D		
		435.16 *13*	22.9 *21*	4306.4	(33/2)	E2	0.0219	α(K)=0.01741 *25*; α(L)=0.00353 *5*; α(M)=0.000799 *12*;

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$\gamma(^{151}Dy)$ (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[†‡]	E_f	J^π_f	Mult.[@]	α[d]	Comments
								α(N+..)=0.000208 *3* α(N)=0.000183 *3*; α(O)=2.49×10^{-5} *4*; α(P)=9.60×10^{-7} *14*
4903.9	(41/2)	162.32 *5*	100	4741.5	(37/2)	E2	0.480	B(E2)(W.u.)=12.0 *15* α(K)=0.294 *5*; α(L)=0.1430 *21*; α(M)=0.0338 *5*; α(N+..)=0.00857 *12* α(N)=0.00761 *11*; α(O)=0.000945 *14*; α(P)=1.335×10^{-5} *19* Mult.: from K/L ratio (1979Pi07).
5742.9	(43/2)	839.02 *10*	100	4903.9	(41/2)	E1[b]	1.74×10^{-3}	α(K)=0.001490 *21*; α(L)=0.000199 *3*; α(M)=4.33×10^{-5} *6*; α(N+..)=1.151×10^{-5} *17* α(N)=9.97×10^{-6} *14*; α(O)=1.454×10^{-6} *21*; α(P)=8.28×10^{-8} *12*
6007.2	(47/2)	264.29 *8*	100	5742.9	(43/2)	E2	0.0956	α(K)=0.0697 *10*; α(L)=0.0201 *3*; α(M)=0.00465 *7*; α(N+..)=0.001195 *17* α(N)=0.001054 *15*; α(O)=0.0001369 *20*; α(P)=3.54×10^{-6} *5* E_γ: for ordering of the 264- and 25-keV transitions see comment on 6007-keV level in the (HI,xnγ) level table (general comment section).
6032.2	(49/2$^+$)	25.0	100	6007.2	(47/2)	D,E2	13 *10*	Additional information 8. Mult.: from $T_{1/2}$. 1979Pi07 suggest dipole character on the basis of $T_{1/2}$, but E2 cannot be ruled out. E_γ: this transition was observed only in ce spectra (1979Pi07).
7037.5	(51/2$^-$)	1005.3 *3*	100	6032.2	(49/2$^+$)	E1[b]	1.24×10^{-3}	B(E1)(W.u.)=1.9×10^{-4} *10* α(K)=0.001057 *15*; α(L)=0.0001402 *20*; α(M)=3.04×10^{-5} *5*; α(N+..)=8.10×10^{-6} *12* α(N)=7.02×10^{-6} *10*; α(O)=1.025×10^{-6} *15*; α(P)=5.90×10^{-8} *9*
7219.5	(53/2$^-$)	182.07 *9*	100	7037.5	(51/2$^-$)	D[&]	0.26 *19*	Additional information 9.
8177.8	(55/2$^-$)	958.2 *3*	100	7219.5	(53/2$^-$)	M1[b]	0.00589	B(M1)(W.u.)=0.0056 *19* α(K)=0.00500 *7*; α(L)=0.000693 *10*; α(M)=0.0001512 *22*; α(N+..)=4.04×10^{-5} *6* α(N)=3.50×10^{-5} *5*; α(O)=5.15×10^{-6} *8*; α(P)=3.02×10^{-7} *5*
8302.7	(57/2$^-$)	124.8 *3*	14 *2*	8177.8	(55/2$^-$)	D[&]	0.7 *5*	Additional information 10.
		1083.2 *3*	100 *10*	7219.5	(53/2$^-$)	E2[b]	0.00258	B(E2)(W.u.)=0.29 *2* α(K)=0.00218 *3*; α(L)=0.000318 *5*; α(M)=6.99×10^{-5} *10*; α(N+..)=1.86×10^{-5} *3* α(N)=1.611×10^{-5} *23*; α(O)=2.33×10^{-6} *4*; α(P)=1.256×10^{-7} *18* B(E2)(W.u.): If 124.8γ is M1.
8680.3	(59/2$^-$)	377.7 *3*	100	8302.7	(57/2$^-$)	M1[b]	0.0614	B(M1)(W.u.)=0.19 *3* α(K)=0.0519 *8*; α(L)=0.00742 *11*; α(M)=0.001626 *23*; α(N+..)=0.000435 *7* α(N)=0.000376 *6*; α(O)=5.52×10^{-5} *8*; α(P)=3.19×10^{-6} *5*
8891.7	(61/2$^-$)	211.5 *3*	99 *10*	8680.3	(59/2$^-$)	D[&]	0.17 *13*	Additional information 11.
		589.0 *3*	100 *10*	8302.7	(57/2$^-$)	E2[b]	0.01001	B(E2)(W.u.)=3.7 *5* α(K)=0.00818 *12*; α(L)=0.001432 *21*; α(M)=0.000320 *5*; α(N+..)=8.41×10^{-5} *12*

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Adopted Levels, Gammas (continued)

γ(^{151}Dy) (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[†‡]	E_f	J^π_f	Mult.[@]	Comments
							α(N)=7.34×10^{-5} *11*; α(O)=1.026×10^{-5} *15*; α(P)=4.64×10^{-7} *7* B(E2)(W.u.): If 211.5γ is M1.
9813.2?		1133[e] *1*		8680.3	(59/2$^-$)		
10029.8	(63/2)	1138.1 *3*	100	8891.7	(61/2$^-$)	(D)	
10132.1?		1451 *1*	100	8680.3	(59/2$^-$)		
10280.2?		148 *1*	100	10132.1?			
10320.8?		291.1 *3*	100	10029.8	(63/2)	(D)	
10562.2?		242 *1*		10320.8?			
		533[e] *1*		10029.8	(63/2)		
		749.1 *3*		9813.2?		(D)	
10751.3?		471 *1*		10280.2?			
11144.8?		864[e] *1*		10280.2?			
		1012 *1*		10132.1?			
11842.5?		697 *1*		11144.8?			
		1091 *1*		10751.3?			
		1281 *1*		10562.2?			
527.3+x?	J+2	527.3[e] *1*	0.21[#] *15*	x	J≈(43/2)		E_γ: 522.4 (1988Ra19). 1993FoZY did not find any evidence for a 522.4γ. They assigned the 577γ as the lowest energy transition in the SD cascade and assigned the 577γ as the 51/2 to 47/2 transition. An intensity plot (fig. 11b) by 1994Tw01 also shows the first transition (most likely 577γ) as 51/2 to 47/2 transition.
1104.7+x	J+4	577.4 *1*	0.62[#] *5*	527.3+x?	J+2		
1732.4+x	J+6	627.7 *1*	0.78[#] *10*	1104.7+x	J+4		
2414.2+x	J+8	681.8 *1*	0.81[#] *7*	1732.4+x	J+6		
3148.2+x	J+10	734.0 *1*	0.90[#] *10*	2414.2+x	J+8		
3933.9+x	J+12	785.7 *1*	0.91[#] *10*	3148.2+x	J+10		
4771.7+x	J+14	837.8 *1*	1.00[#] *10*	3933.9+x	J+12		
5660.8+x	J+16	889.1 *1*	0.93[#] *10*	4771.7+x	J+14		
6601.4+x	J+18	940.6 *1*	1.03[#] *10*	5660.8+x	J+16		
7593.3+x	J+20	991.9 *1*	1.07[#] *15*	6601.4+x	J+18		
8636.1+x	J+22	1042.8 *1*	1.02[#] *10*	7593.3+x	J+20		
9729.9+x	J+24	1093.8 *1*	1.00[#] *10*	8636.1+x	J+22		
10874.0+x	J+26	1144.1 *1*	0.69[#] *7*	9729.9+x	J+24		
12068.7+x	J+28	1194.7 *1*	0.59[#] *7*	10874.0+x	J+26		
13313.7+x	J+30	1245.0 *1*	0.57[#] *10*	12068.7+x	J+28		
14608.5+x	J+32	1294.8 *2*	0.48[#] *7*	13313.7+x	J+30		
15953.1+x	J+34	1344.6 *2*	0.34[#] *7*	14608.5+x	J+32		
17346.9+x	J+36	1393.8 *3*	0.38[#] *7*	15953.1+x	J+34		
18791.0+x	J+38	1444.1 *4*	0.22[#] *5*	17346.9+x	J+36		

Adopted Levels, Gammas (continued)

γ(^{151}Dy) (continued)

E_i(level)	J^π_i	E_γ†	I_γ†‡	E_f	J^π_f	E_i(level)	J^π_i	E_γ†	I_γ†‡	E_f	J^π_f
20283.4+x	J+40	1492.4 6	0.09# 5	18791.0+x	J+38	10565.0+z	J2+22	1204.8 2		9360.2+z	J2+20
21825.2+x	J+42	1541.8 6		20283.4+x	J+40	11819.7+z	J2+24	1254.7 2		10565.0+z	J2+22
633.0+y	J1+2	633.0 10		y	J1	13123.3+z	J2+26	1303.6 2		11819.7+z	J2+24
1310.7+y	J1+4	677.7 5	0.35# 8	633.0+y	J1+2	14475.3+z	J2+28	1352.0 4		13123.3+z	J2+26
2029.9+y	J1+6	719.2 1	0.67# 10	1310.7+y	J1+4	15878.7+z	J2+30	1403.4 5		14475.3+z	J2+28
2795.5+y	J1+8	765.6 1	0.95# 13	2029.9+y	J1+6	17328.5+z	J2+32	1449.8 6		15878.7+z	J2+30
3607.7+y	J1+10	812.2 1	0.92# 13	2795.5+y	J1+8	712.0+u	J3+2	712.0 4	0.41# 10	u	J3
4466.9+y	J1+12	859.2 1	0.94# 14	3607.7+y	J1+10	1470.7+u	J3+4	758.7 3	0.92# 15	712.0+u	J3+2
5373.6+y	J1+14	906.7 1	1.10# 10	4466.9+y	J1+12	2276.0+u	J3+6	805.3 2	0.96# 15	1470.7+u	J3+4
6327.9+y	J1+16	954.3 1	1.00# 8	5373.6+y	J1+14	3128.4+u	J3+8	852.4 2	1.00# 20	2276.0+u	J3+6
7329.6+y	J1+18	1001.7 2	1.00# 12	6327.9+y	J1+16	4027.7+u	J3+10	899.3 2	0.84# 20	3128.4+u	J3+8
8379.6+y	J1+20	1050.0 1	1.02# 19	7329.6+y	J1+18	4974.5+u	J3+12	946.8 4	1.00# 19	4027.7+u	J3+10
9477.8+y	J1+22	1098.2 1	0.95# 8	8379.6+y	J1+20	5968.9+u	J3+14	994.4 2	1.08# 22	4974.5+u	J3+12
10624.4+y	J1+24	1146.6 2	0.74# 7	9477.8+y	J1+22	7011.5+u	J3+16	1042.6 4	1.00# 18	5968.9+u	J3+14
11819.6+y	J1+26	1195.2 2	0.67# 7	10624.4+y	J1+24	8102.0+u	J3+18	1090.5 2	0.98# 18	7011.5+u	J3+16
13063.1+y	J1+28	1243.5 2	0.54# 7	11819.6+y	J1+26	9240.2+u	J3+20	1138.2 2	0.68# 12	8102.0+u	J3+18
14355.5+y	J1+30	1292.4 2	0.45# 8	13063.1+y	J1+28	10426.6+u	J3+22	1186.4 6	0.48# 10	9240.2+u	J3+20
15696.4+y	J1+32	1340.9 3	0.35# 8	14355.5+y	J1+30	11661.5+u	J3+24	1234.9 3	0.41# 15	10426.6+u	J3+22
17085.8+y	J1+34	1389.4 3	0.18# 6	15696.4+y	J1+32	12944.4+u	J3+26	1282.9 2	0.35# 12	11661.5+u	J3+24
18525.9+y	J1+36	1440.1 5	0.18# 6	17085.8+y	J1+34	14274.1+u	J3+28	1329.7 6	0.16# 8	12944.4+u	J3+26
20018.4+y	J1+38	1492.5 10		18525.9+y	J1+36	15652.9+u	J3+30	1378.8 8	0.17# 8	14274.1+u	J3+28
728.5+z	J2+2	728.5 1		z	J2	17077.8+u	J3+32	1424.9 10		15652.9+u	J3+30
1493.6+z	J2+4	765.1 2		728.5+z	J2+2	959.3+v	J4+2	959.3 5		v	J4
2306.6+z	J2+6	813.0 1		1493.6+z	J2+4	1967.7+v	J4+4	1008.4 5		959.3+v	J4+2
3167.1+z	J2+8	860.5 2		2306.6+z	J2+6	3028.0+v	J4+6	1060.3 4		1967.7+v	J4+4
4076.7+z	J2+10	909.6 2		3167.1+z	J2+8	4139.9+v	J4+8	1111.9 5		3028.0+v	J4+6
5035.3+z	J2+12	958.6 2		4076.7+z	J2+10	5305.8+v	J4+10	1165.9 5		4139.9+v	J4+8
6041.8+z	J2+14	1006.5 1		5035.3+z	J2+12	6521.3+v	J4+12	1215.5 5		5305.8+v	J4+10
7098.5+z	J2+16	1056.7 2		6041.8+z	J2+14	7784.5+v	J4+14	1263.2 5		6521.3+v	J4+12
8204.5+z	J2+18	1106.0 2		7098.5+z	J2+16	9097.9+v	J4+16	1313.4 8		7784.5+v	J4+14
9360.2+z	J2+20	1155.7 2		8204.5+z	J2+18	10463.6+v	J4+18	1365.7 5		9097.9+v	J4+16

† Generally from ^{151}Ho ε decay for low-spin (J<15/2) states and from (HI,xnγ) for high-spin states (J>13/2). In a few cases where a level is populated in both types of studies, the values are weighted averages of available values.

‡ Photon branching ratios for normal states. Relative γ-ray intensities within the band for SD bands.

Relative intensity within each SD band, normalized to ≈1 for the most intense transition in the band.

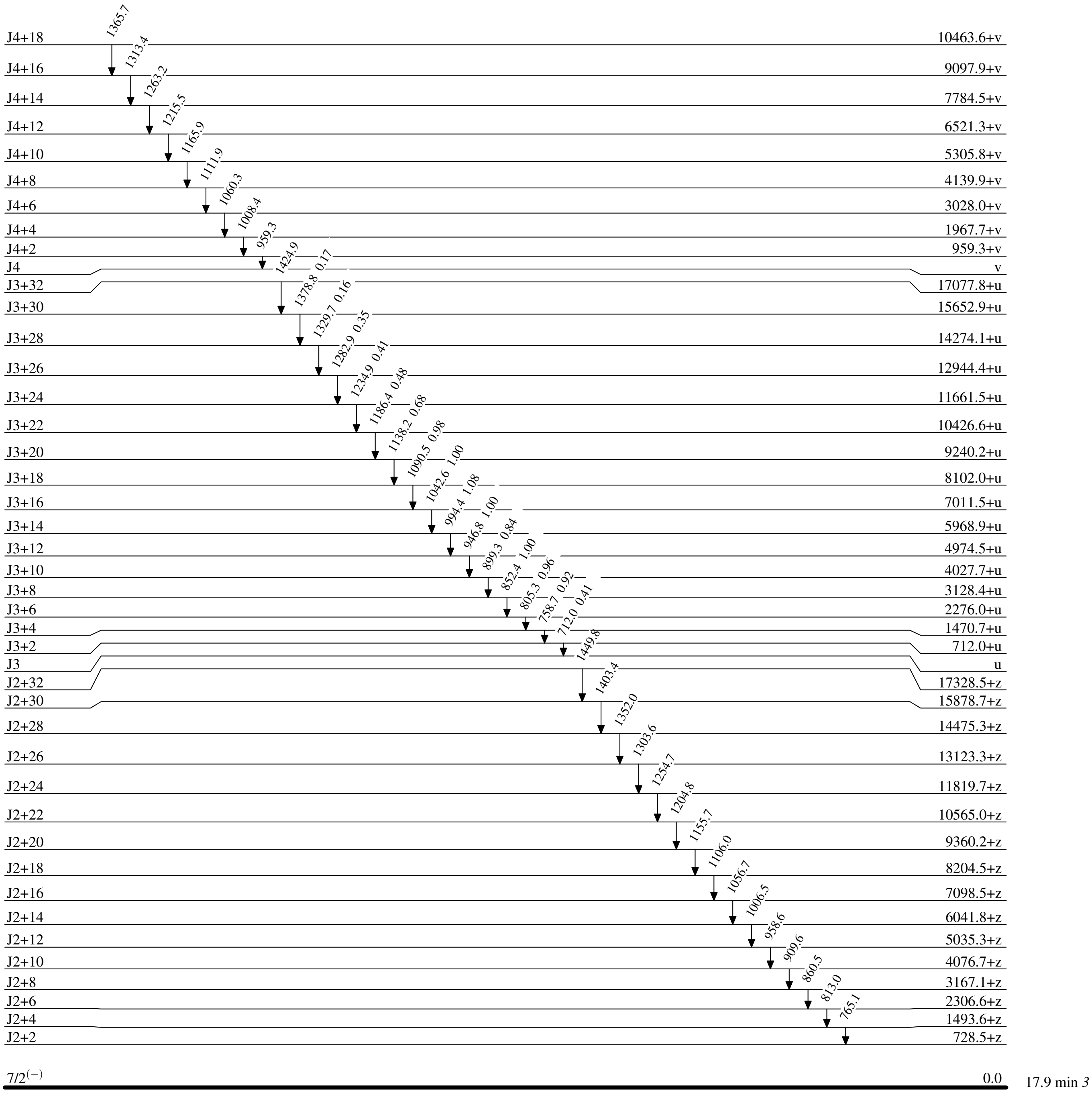
γ(^{151}Dy) (continued)

[@] Unless stated otherwise, from $\gamma(\theta)$ in (HI,xnγ), assuming electric character for quadrupole transitions on the basis of RUL for E2 and M2.
[&] Lifetimes and systematics in Dy isotopes rule out E2 and suggest mult=M1; however, E1 cannot be ruled out completely.
[a] γ line is complex in ε decay. Only part of its intensity is attributed to ^{151}Dy; therefore, branching ratio is very uncertain.
[b] Electric or magnetic character deduced from γ-ray linear polarization in (1981Ha17).
[c] From ce data in ^{151}Ho ε decay (1997AlZY).
[d] 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.
[e] Placement of transition in the level scheme is uncertain.

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level

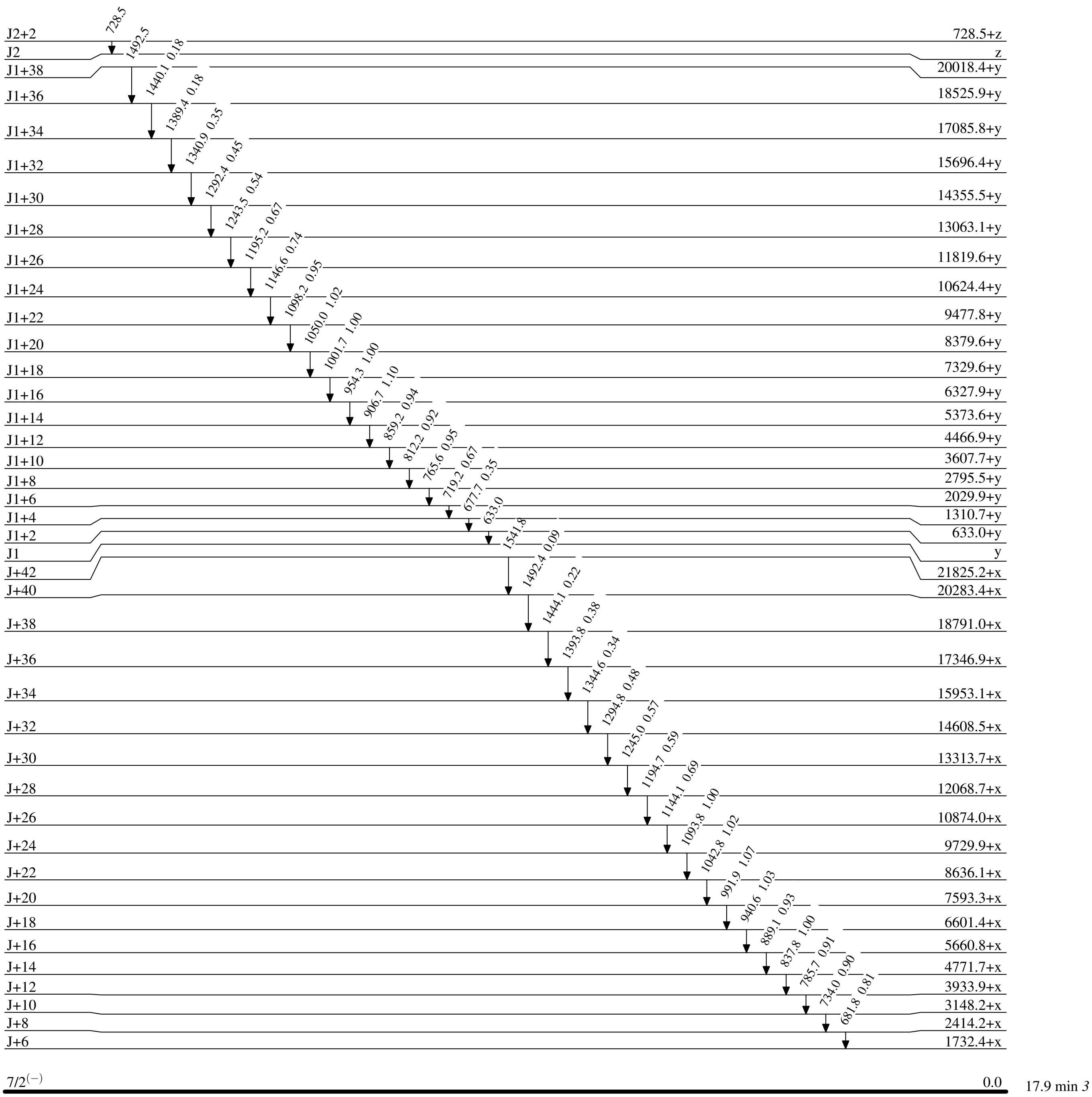


$^{151}_{66}Dy_{85}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

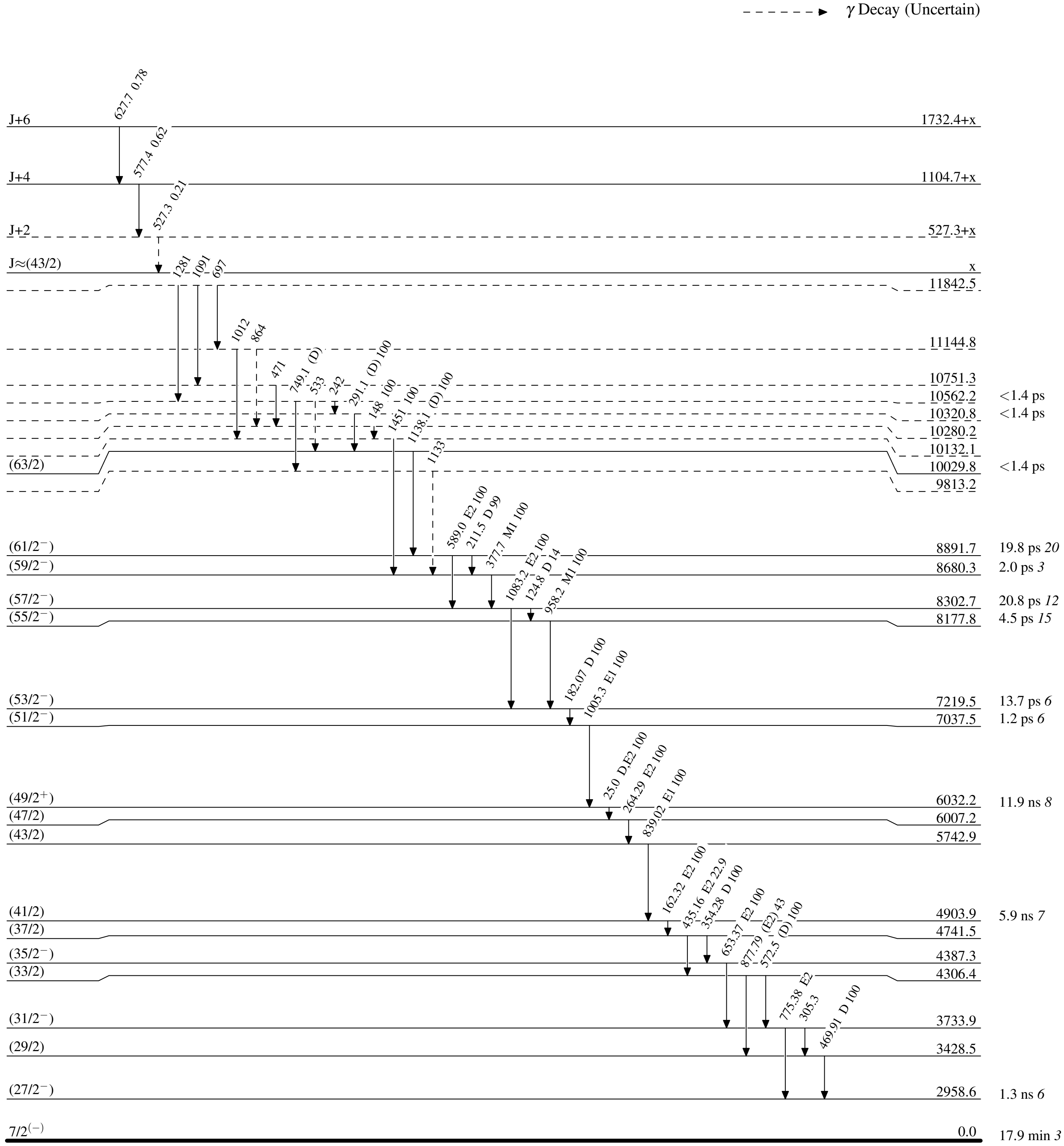


$^{151}_{66}Dy_{85}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{151}_{66}Dy_{85}$

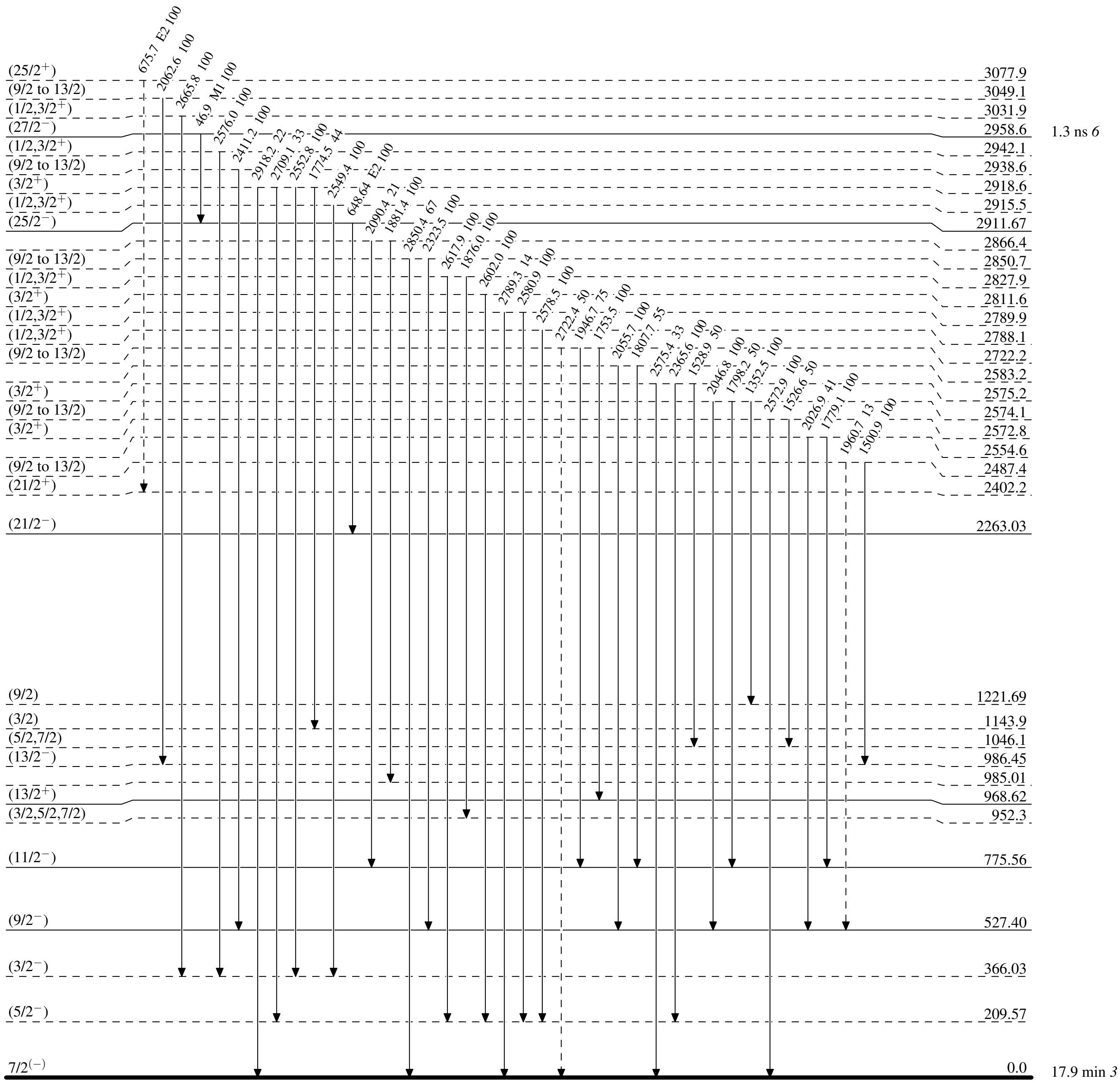
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

Legend

γ Decay (Uncertain)

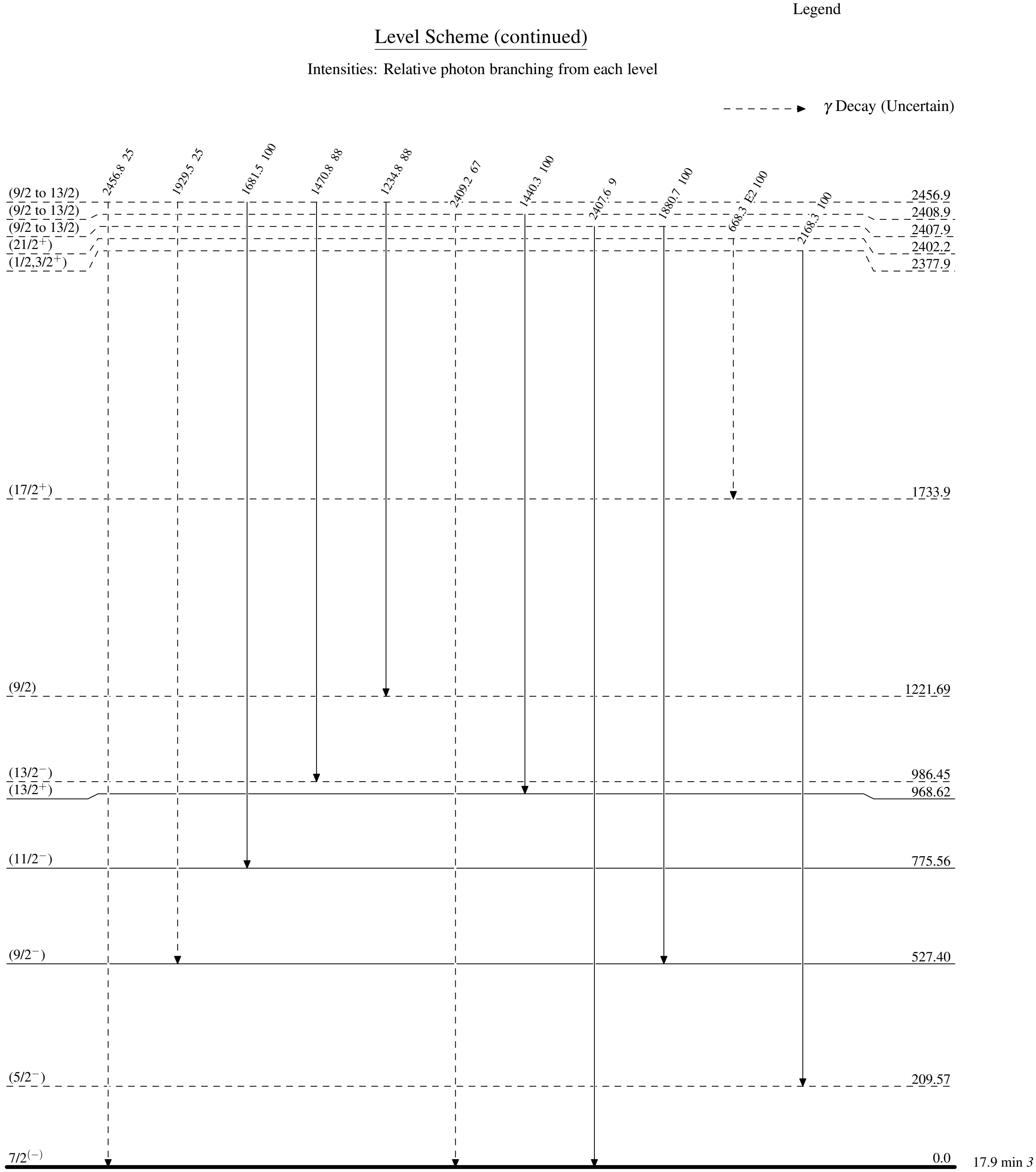


$^{151}_{66}Dy_{85}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

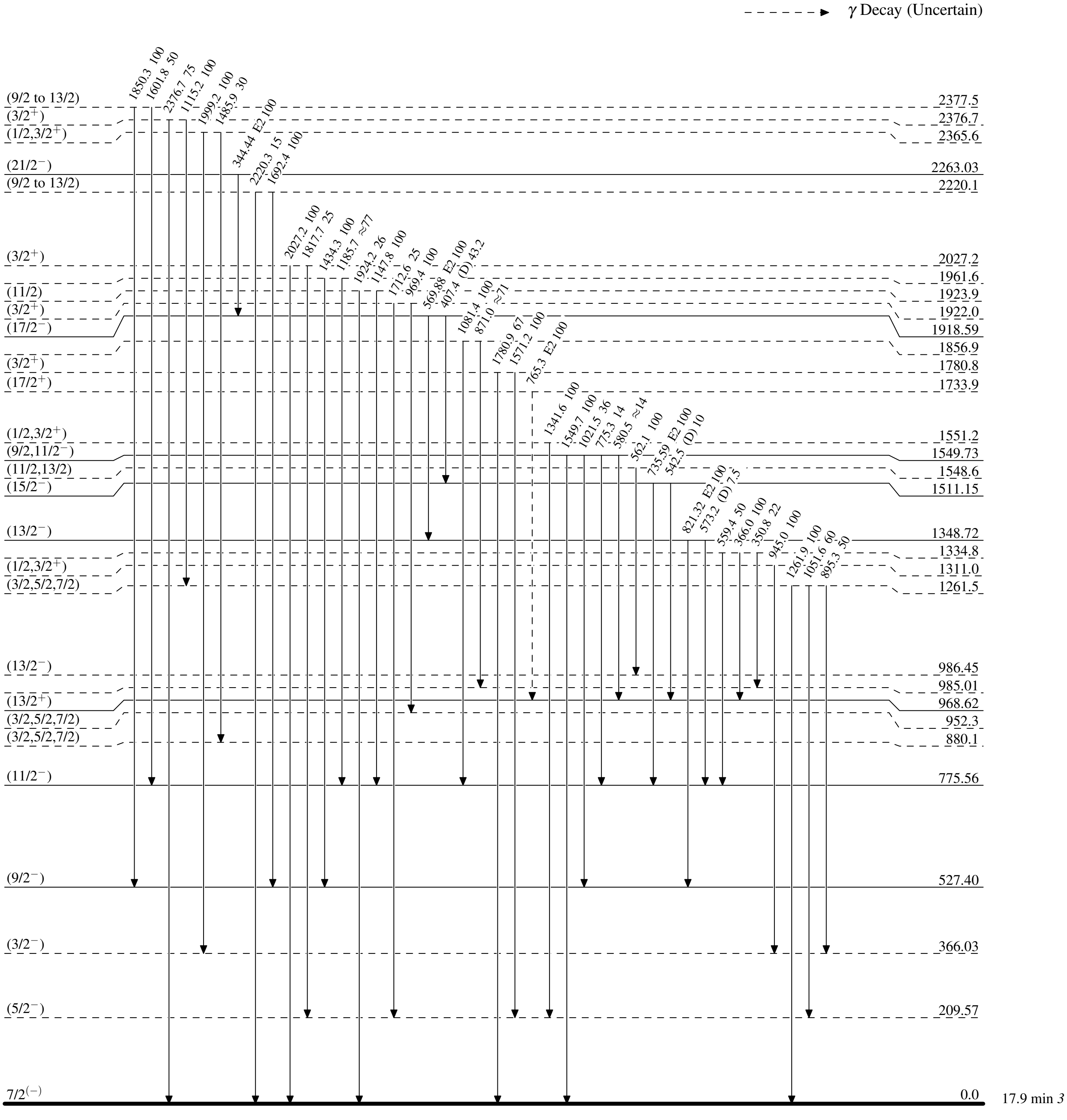


$^{151}_{66}Dy_{85}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

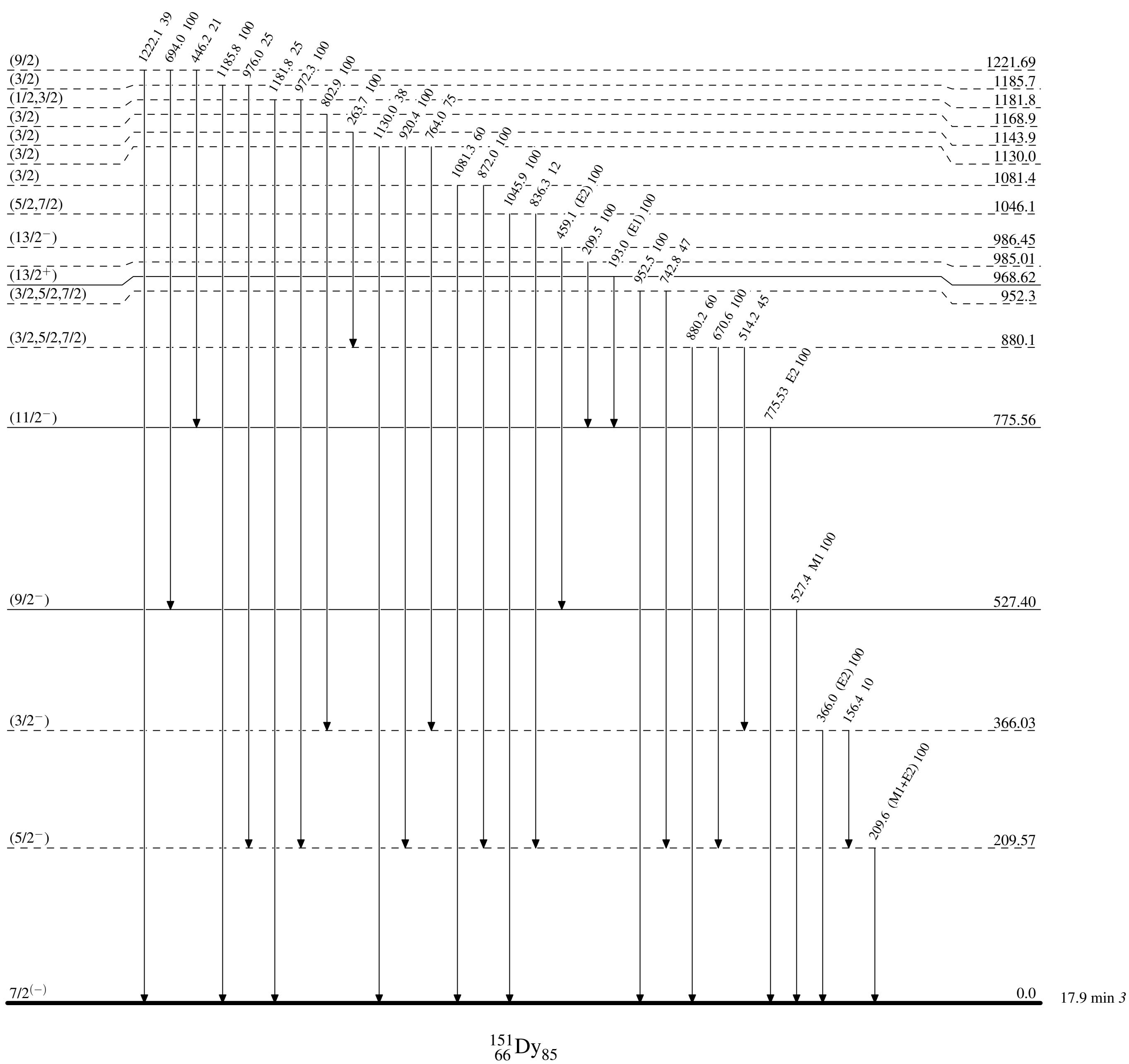


$^{151}_{66}Dy_{85}$

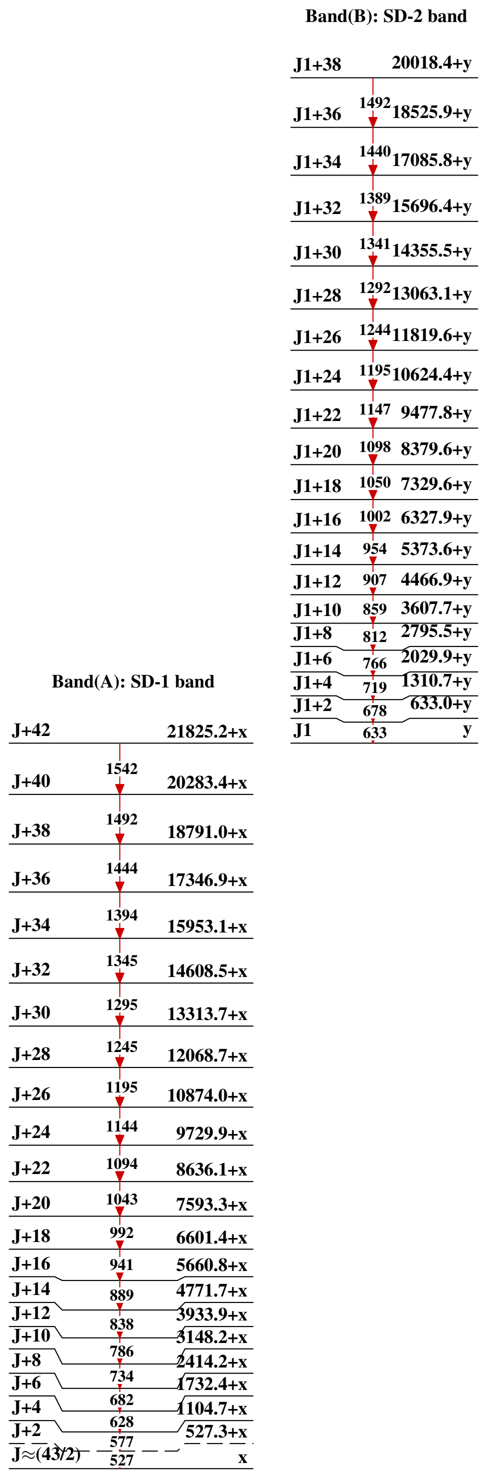
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

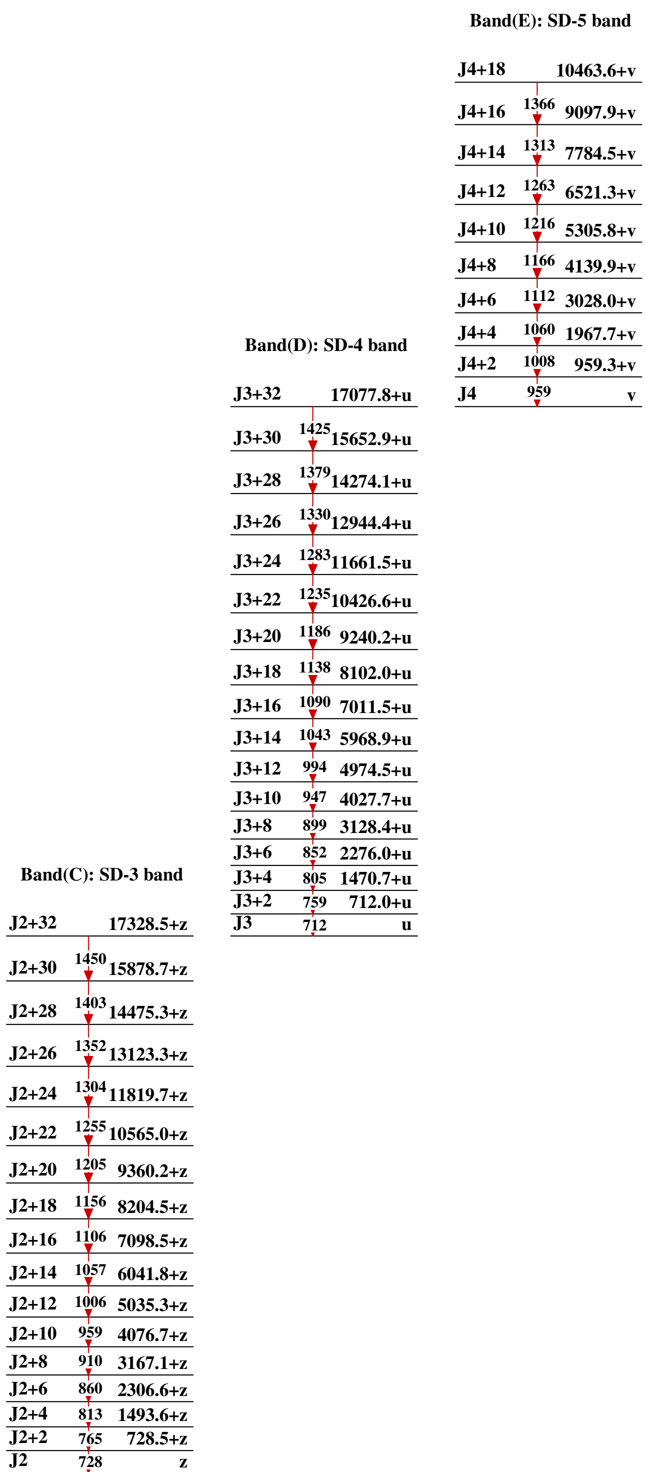


Adopted Levels, Gammas



$^{151}_{66}Dy_{85}$

Adopted Levels, Gammas (continued)



$^{151}_{66}Dy_{85}$