Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. J. Martin	NDS 114, 1497 (2013)	31-Aug-2013

Q(β^-)=−6.0×10^2 *4*; S(n)=7.16×10^3 *4*; S(p)=3.82×10^3 *4*; Q(α)=3.16×10^3 *4* 2017Wa10
Q(ε)=3.99×10^3 *4*; S(2n)=1.575×10^4 *4*; S(2p)=1.050×10^4 *4* 2017Wa10
Additional information 1.
Systematics: level configurations from β decay: 1990So04.

^{152}Tb Levels

Cross Reference (XREF) Flags

A (HI,xnγ)
B ^{152}Tb IT decay
C ^{152}Dy ε decay

E(level)†	J$^\pi$‡	T$_{1/2}$&	XREF	Comments
0.0	2$^-$	17.5 h *1*	BC	%ε+%β^+=100; %α<7×10^{-7} μ=−0.58 *2* (1990Al36,2005St24); Q=+0.34 *13* (1990Al36,2005St24) μ: Resonance ionization spectroscopy. Q: From $\gamma(\theta$,H,T) in 17.5-h ^{152}Tb ε decay. J$^\pi$: atomic beam (1976Fu06), γ from 1$^+$ is E1. T$_{1/2}$: weighted average of 17.37 h *23* (1960To10), 17.5 h *1* (1967Gr12). %α: from 1967Go32. No α's seen in the range 2780 to 4120. Other: %α<1×10^{-5} (1959To29). <r^2>$^{1/2}$=4.97 fm 15 (2004An14).
235.39 *9*	3$^-$		B	J$^\pi$: γ to 2$^-$ is M1, γ from 5$^-$.
256.93 *13*	1$^+$	0.39 ns *8*	C	J$^\pi$: log *ft*=3.9 from ^{152}Dy 0$^+$. T$_{1/2}$: from ^{152}Dy ε decay (1975AlZE).
277.19 *10*	3$^-$		B	J$^\pi$: γ to 2$^-$ is M1, γ from 5$^-$.
283.29 *5*	4$^-$#		B	
342.15 *16*	5$^-$#	0.96 μs	B	T$_{1/2}$: from ^{152}Tb IT decay.
501.74[a] *19*	8$^+$#	4.2 min *1*	AB	%IT=78.9 *6*; %ε+%β^+=21.1 *6* %IT: 78.9% *6* from Σ[I(γ+ce)(to ^{152}Tb g.s.) + I(γ+ce)(to ^{152}Gd g.s.)]=100. %ε: From 100−%IT. Configuration=(π h$_{11/2}$)(ν f$_{7/2}$)$^{+3}_{5/2}$. %α<1×10^{-6} (1971Bo12). Other: 1959Ol22. T$_{1/2}$: From IT decay (1971Bo12).
600.3[a]	9$^+$	<2 ns	A	J$^\pi$: ΔJ=1, M1(+E2) γ to 8$^+$ level; D(+Q) γ from 10$^+$ level.
806.1[b]	10$^+$	<2 ns	A	Configuration=(π,h$_{11/2}$)(ν,h$_{9/2}$). J$^\pi$: ΔJ=2, E2 γ to 8$^+$ level; ΔJ=1, D(+Q) γ to 9$^+$ level.
1212.4[c]	(9$^-$)	<2 ns	A	Configuration=(π,h$_{11/2}$)(ν,i$_{13/2}$). J$^\pi$: ΔJ=1, D γ to 8$^+$ level; ΔJ=0, D+Q γ to 9$^+$ level; possible band structure.
1230.1[a]	11$^+$	<2 ns	A	J$^\pi$: stretched E2 γ to 9$^+$ level; rotational band member.
1237.7[c]	11$^{(-)}$	4.2 ns *2*	A	T$_{1/2}$: From (HI,xnγ). J$^\pi$: ΔJ=1 to 10$^+$. No γ to 8$^+$ or 9$^+$. Analogy with ^{150}Tb and ^{154}Tb suggests π=− (1983Ba70).
1349.2[b]	12$^+$	<2 ns	A	J$^\pi$: stretched E2 γ to 10$^+$ level; rotational band member.
1370.2[c]	12$^{(-)}$	<2 ns	A	J$^\pi$: ΔJ=1, D γ to 11$^{(-)}$ level; no γ to J<11; rotational band member.
1712.1[c]	13$^{(-)}$	<2 ns	A	J$^\pi$: stretched E2 γ to 11$^{(-)}$ level; rotational band member.
1887.7[b]	14$^+$	<2 ns	A	J$^\pi$: stretched E2 γ to 12$^+$ level; rotational band member.
1887.8[a]	(13$^+$)	<2 ns	A	J$^\pi$: γ to 11$^+$ level, possible rotational band member.

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Adopted Levels, Gammas (continued)

^{152}Tb Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	T$_{1/2}$[&]	XREF	Comments
1920.3[c]	14$^{(-)}$	<2 ns	A	J$^{\pi}$: stretched E2 γ to 12$^{(-)}$ level; ΔJ=1, D(+Q) γ to 13$^{(-)}$ level.
2269.3[c]	15$^{(-)}$	<2 ns	A	J$^{\pi}$: stretched E2 γ to 13$^{(-)}$ level; rotational band member.
2499.4[c]	16$^{(-)}$	<2 ns	A	J$^{\pi}$: stretched E2 γ to 14$^{(-)}$ level; ΔJ=1, D(+Q) γ to 15$^{(-)}$ level.
2660.6	(16^{-})		A	J$^{\pi}$: stretched E2 γ to 14$^{(-)}$; γ to 15$^{(-)}$ level.
2688.6[b]	16^{+}		A	J$^{\pi}$: stretched E2 γ to 14^{+} level; rotational band member.
2852	(17^{-})		A	
2889.4[c]	17$^{(-)}$	<2 ns	A	J$^{\pi}$: stretched E2 γ to 15$^{(-)}$ level; rotational band member.
3126.7[c]	18$^{(-)}$	<2 ns	A	J$^{\pi}$: stretched E2 γ to 16$^{(-)}$ level; γ to 17$^{(-)}$ level.
3218.3	(18^{+})	<2 ns	A	
3250.5	(19^{-})		A	
3596.2[c]	19$^{(-)}$	<2 ns	A	J$^{\pi}$: stretched E2 γ to 17$^{(-)}$ level; rotational band member.
3720	(20^{-})		A	
3845.3[c]	20$^{(-)}$	<2 ns	A	J$^{\pi}$: stretched E2 γ to 18$^{(-)}$ level; rotational band member.
4002	(21)		A	
4234	(21^{-})		A	
4350.2[c]	21$^{(-)}$	<2 ns	A	J$^{\pi}$: stretched E2 γ to 19$^{(-)}$ level; rotational band member.
4354	(22)		A	
4361	(21^{-})		A	
4454	(24)		A	
4502	(22^{-})		A	
4694	(23)		A	
5103	(23^{-})		A	
5182	(23^{-})		A	
5249	(24)		A	
5257	(24^{-})		A	
5966	(25^{-})		A	
5969	(26^{-})		A	
5985[@]	(26)		A	
6011	(25^{-})		A	
6093	(26)		A	
6371	(27^{-})		A	
6696	(28)		A	
6873	(28^{+})		A	
6916	(29^{-})		A	
7284	(29^{-})		A	
7617	(30^{+})		A	
7728	(31^{-})		A	
8290	(31)		A	
8371	(32^{+})		A	
8502	(31)		A	
8565	(33^{-})		A	
8961	(33)		A	
9147	(34^{+})		A	
9389	(35^{-})		A	
9792	(36^{+})		A	
9804	(35)		A	
9923	(37^{-})		A	
10283	(36^{+})		A	
10614	(38^{+})		A	
10996	(39^{-})		A	
11654	(40^{+})		A	
12054	(41^{-})		A	
12761	(42^{+})		A	
13278	(43^{-})		A	
13929	(44^{+})		A	

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Adopted Levels, Gammas (continued)

^{152}Tb Levels (continued)

E(level)†	Jπ‡	XREF	E(level)†	Jπ‡	XREF	E(level)†	Jπ‡	XREF
x[d]	J	A	14029.7+y[e] 17	J1+24	A	9797.9+u[g] 12	J3+20	A
962.8+x[d] 3	J+2	A	15527.7+y[e] 19	J1+26	A	11038.0+u[g] 13	J3+22	A
1978.0+x[d] 5	J+4	A	17061.7+y[e] 22	J1+28	A	12328.9+u[g] 13	J3+24	A
3046.1+x[d] 6	J+6	A	z[f]	J2	A	13670.7+u[g] 14	J3+26	A
4166.7+x[d] 6	J+8	A	980.9+z[f] 3	J2+2	A	15063.4+u[g] 15	J3+28	A
5341.2+x[d] 7	J+10	A	2011.3+z[f] 5	J2+4	A	16507.0+u[g] 15	J3+30	A
6569.0+x[d] 8	J+12	A	3093.5+z[f] 6	J2+6	A	18003.3+u[g] 18	J3+32	A
7849.0+x[d] 8	J+14	A	4227.6+z[f] 6	J2+8	A	v[h]	J4	A
9179.8+x[d] 9	J+16	A	5412.3+z[f] 7	J2+10	A	801.0+v[h] 3	J4+2	A
10562.5+x[d] 9	J+18	A	6655.1+z[f] 8	J2+12	A	1644.6+v[h] 5	J4+4	A
11991.6+x[d] 11	J+20	A	7949.0+z[f] 8	J2+14	A	2532.1+v[h] 6	J4+6	A
13473.6+x[d] 15	J+22	A	9294.0+z[f] 9	J2+16	A	3464.0+v[h] 6	J4+8	A
y[e]	J1	A	10691.3+z[f] 9	J2+18	A	4441.7+v[h] 7	J4+10	A
927.5+y[e] 5	J1+2	A	12130.4+z[f] 14	J2+20	A	5464.8+v[h] 8	J4+12	A
1894.0+y[e] 7	J1+4	A	u[g]	J3	A	6535.1+v[h] 8	J4+14	A
2901.0+y[e] 9	J1+6	A	779.5+u[g] 3	J3+2	A	7653.5+v[h] 9	J4+16	A
3948.2+y[e] 10	J1+8	A	1600.9+u[g] 5	J3+4	A	8820.3+v[h] 9	J4+18	A
5037.5+y[e] 10	J1+10	A	2466.3+u[g] 7	J3+6	A	10035.7+v[h] 10	J4+20	A
6170.0+y[e] 10	J1+12	A	3375.0+u[g] 8	J3+8	A	11301.4+v[h] 10	J4+22	A
7350.5+y[e] 11	J1+14	A	4328.6+u[g] 9	J3+10	A	12617.8+v[h] 11	J4+24	A
8580.5+y[e] 11	J1+16	A	5327.9+u[g] 10	J3+12	A	13984.3+v[h] 11	J4+26	A
9861.4+y[e] 12	J1+18	A	6373.1+u[g] 10	J3+14	A	15403.8+v[h] 12	J4+28	A
11194.1+y[e] 12	J1+20	A	7466.2+u[g] 10	J3+16	A	16874.5+v[h] 16	J4+30	A
12585.2+y[e] 13	J1+22	A	8607.3+u[g] 12	J3+18	A			

† For levels with E≤501.74 keV from least squares fit to Eγ; for levels with E>501.74 keV calculated from Eγ.

‡ Assignments for levels above the 501.74-keV isomer are from (HI,xnγ) and are based on γ multipolarities from γ(θ), γγ, and Iγ data, and deduced band structures. Specific arguments are given where data are available.

The E3, (M1), E2 cascade to the 2^- g.s. establishes the sequence: 8^+ 501.74-keV level, 5- 342.15-keV level, 4- 283.29-keV level. π=+ for 501.74-keV level from log *ft*=4.68 to 7^+ 2384.19-keV level in ^{152}Gd.

@ γ's depopulating this level have not been observed suggesting an half-life which destroys prompt coincidences.

& From (HI,xnγ), except where noted otherwise.

[a] Band(A): Rotational Band − A on configuration=$(\pi,h_{11/2})(\nu,f_{7/2})$.

[b] Band(B): Rotational Band − B on configuration=$(\pi,h_{11/2})(\nu,h_{9/2})$.

[c] Band(C): Rotational Band − C on configuration=$(\pi,h_{11/2})(\nu,i_{13/2})$.

[d] Band(D): SD-1 (yrast) band.

[e] Band(E): SD-2 band.

[f] Band(F): SD-3 band.

[g] Band(G): SD-4 band.

[h] Band(H): SD-5 band.

Adopted Levels, Gammas (continued)

γ(^{152}Tb)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.	δ	α[#]	$I_{(\gamma+ce)}$	Comments
235.39	3⁻	235.4 *1*		0.0	2⁻	M1		0.200		
256.93	1⁺	256.93 *13*		0.0	2⁻	E1		0.0245 *4*		B(E1)(W.u.)=3.5×10^{-5} *8*
277.19	3⁻	277.2 *1*		0.0	2⁻	M1		0.128		
283.29	4⁻	(6.1)		277.19	3⁻				11.4 *8*	E_γ,$I_{(\gamma+ce)}$: This transition is not observed but is required by coincidence data. Iγ(1+α) is from an intensity balance and is relative to Iγ(283γ)=100.
		48.0 *2*	1.97 *15*	235.39	3⁻	M1		2.93		
		283.29 *5*	100	0.0	2⁻	E2		0.0744		
342.15	5⁻	58.9 *2*	100 *6*	283.29	4⁻	M1		10.1		B(M1)(W.u.)=9.4×10^{-6}
		65.0 *3*	2.7 *2*	277.19	3⁻	[E2]		13.7 *4*		B(E2)(W.u.)=0.0239
		106.6 *3*	3.7 *2*	235.39	3⁻	[E2]		2.06 *4*		B(E2)(W.u.)=0.00276
501.74	8⁺	159.59 *10*		342.15	5⁻	E3		4.01		B(E3)(W.u.)=0.000207 *8*
600.3	9⁺	98.55		501.74	8⁺	M1(+E2)	−0.05 *10*			
806.1	10⁺	205.74	100	600.3	9⁺	M1(+E2)	+0.01 *5*			
		304.33	13	501.74	8⁺	E2				
1212.4	(9⁻)	612.1	41	600.3	9⁺	D+Q				
		710.7	100	501.74	8⁺	D				
1230.1	11⁺	629.8		600.3	9⁺	E2				
1237.7	11⁽⁻⁾	(25.3)	1.7 *5*	1212.4	(9⁻)	[M1]		19.4	34 *10*	B(M1)(W.u.)=0.0042 *13* E_γ,I_γ,$I_{(\gamma+ce)}$: The transition is not observed but is required by coincidence data. I(γ+ce) is deduced from an intensity balance and Iγ is from I(γ+ce) and α. These values are relative to Iγ(431γ)=100.
		431.66	100	806.1	10⁺	[E1+M2]	+0.15 *5*			B(E1)(W.u.)=5.2×10^{-7} *5*; B(M2)(W.u.)=0.29 *+23−17* Mult.: γ(θ) gives mult=D+Q.
1349.2	12⁺	543.1		806.1	10⁺	E2				
1370.2	12⁽⁻⁾	132.44		1237.7	11⁽⁻⁾	D(+Q)	+0.05 *3*			
1712.1	13⁽⁻⁾	474.37		1237.7	11⁽⁻⁾	E2				
1887.7	14⁺	538.5	100	1349.2	12⁺	E2				
1887.8	(13⁺)	657.7		1230.1	11⁺					
1920.3	14⁽⁻⁾	208.11	72	1712.1	13⁽⁻⁾	D(+Q)	+0.01 *5*			
		550.1	100	1370.2	12⁽⁻⁾	E2				
2269.3	15⁽⁻⁾	557.3	100	1712.1	13⁽⁻⁾	E2				
2499.4	16⁽⁻⁾	229.93	58	2269.3	15⁽⁻⁾	D(+Q)	+0.06 *6*			
		579.3	100	1920.3	14⁽⁻⁾	E2				
2660.6	(16⁻)	391.5	100	2269.3	15⁽⁻⁾					
		740.1	85	1920.3	14⁽⁻⁾	E2				
2688.6	16⁺	800.9		1887.7	14⁺	E2				
2852	(17⁻)	191		2660.6	(16⁻)					
		352		2499.4	16⁽⁻⁾					
2889.4	17⁽⁻⁾	620.0		2269.3	15⁽⁻⁾	E2				
3126.7	18⁽⁻⁾	237.1	43	2889.4	17⁽⁻⁾					

$^{152}_{65}Tb_{87}$-4

$^{152}_{65}Tb_{87}$-5

$\gamma(^{152}Tb)$ (continued)

E_i(level)	J^π_i	E_γ†	I_γ‡	E_f	J^π_f	Mult.
3126.7	$18^{(-)}$	627.4	100	2499.4	$16^{(-)}$	E2
3218.3	(18^+)	328.8		2889.4	$17^{(-)}$	D
3250.5	(19^-)	32		3218.3	(18^+)	
		123.78		3126.7	$18^{(-)}$	D
		399		2852	(17^-)	
3596.2	$19^{(-)}$	706.7		2889.4	$17^{(-)}$	E2
3720	(20^-)	469		3250.5	(19^-)	
		593		3126.7	$18^{(-)}$	
3845.3	$20^{(-)}$	718.6		3126.7	$18^{(-)}$	E2
4002	(21)	282		3720	(20^-)	
4234	(21^-)	983		3250.5	(19^-)	
4350.2	$21^{(-)}$	754.0	100	3596.2	$19^{(-)}$	E2
4354	(22)	352		4002	(21)	
4361	(21^-)	765		3596.2	$19^{(-)}$	
4454	(24)	452		4002	(21)	
4502	(22^-)	782		3720	(20^-)	
4694	(23)	240		4454	(24)	
5103	(23^-)	742		4361	(21^-)	
		869		4234	(21^-)	
5182	(23^-)	821		4361	(21^-)	
5249	(24)	555		4694	(23)	
		895		4354	(22)	
5257	(24^-)	755		4502	(22^-)	
		804		4454	(24)	
5966	(25^-)	785		5182	(23^-)	
		863		5103	(23^-)	
5969	(26^-)	712		5257	(24^-)	
6011	(25^-)	829		5182	(23^-)	
		908		5103	(23^-)	
6093	(26)	844		5249	(24)	
6371	(27^-)	361		6011	(25^-)	
		405		5966	(25^-)	
6696	(28)	603		6093	(26)	
		711		5985	(26)	
6873	(28^+)	502		6371	(27^-)	
		904		5969	(26^-)	
6916	(29^-)	220		6696	(28)	
7284	(29^-)	913		6371	(27^-)	
7617	(30^+)	333		7284	(29^-)	
		744		6873	(28^+)	
7728	(31^-)	444		7284	(29^-)	
		813		6916	(29^-)	
8290	(31)	1006		7284	(29^-)	

E_i(level)	J^π_i	E_γ†	E_f	J^π_f
8371	(32^+)	754	7617	(30^+)
8502	(31)	1218	7284	(29^-)
8565	(33^-)	837	7728	(31^-)
8961	(33)	671	8290	(31)
9147	(34^+)	776	8371	(32^+)
9389	(35^-)	824	8565	(33^-)
9792	(36^+)	645	9147	(34^+)
9804	(35)	843	8961	(33)
9923	(37^-)	534	9389	(35^-)
10283	(36^+)	1136	9147	(34^+)
10614	(38^+)	330	10283	(36^+)
		691	9923	(37^-)
		822	9792	(36^+)
10996	(39^-)	1073	9923	(37^-)
11654	(40^+)	1040	10614	(38^+)
12054	(41^-)	1058	10996	(39^-)
12761	(42^+)	1107	11654	(40^+)
13278	(43^-)	1224	12054	(41^-)
13929	(44^+)	1168	12761	(42^+)
962.8+x	J+2	962.8 *3*	x	J
1978.0+x	J+4	1015.2 *3*	962.8+x	J+2
3046.1+x	J+6	1068.1 *3*	1978.0+x	J+4
4166.7+x	J+8	1120.6 *3*	3046.1+x	J+6
5341.2+x	J+10	1174.5 *3*	4166.7+x	J+8
6569.0+x	J+12	1227.8 *3*	5341.2+x	J+10
7849.0+x	J+14	1280.0 *3*	6569.0+x	J+12
9179.8+x	J+16	1330.8 *3*	7849.0+x	J+14
10562.5+x	J+18	1382.7 *3*	9179.8+x	J+16
11991.6+x	J+20	1429.0 *6*	10562.5+x	J+18
13473.6+x	J+22	1482.0 *10*	11991.6+x	J+20
927.5+y	J1+2	927.5 *5*	y	J1
1894.0+y	J1+4	966.5 *5*	927.5+y	J1+2
2901.0+y	J1+6	1007.0 *5*	1894.0+y	J1+4
3948.2+y	J1+8	1047.2 *3*	2901.0+y	J1+6
5037.5+y	J1+10	1089.3 *3*	3948.2+y	J1+8
6170.0+y	J1+12	1132.5 *3*	5037.5+y	J1+10
7350.5+y	J1+14	1180.5 *3*	6170.0+y	J1+12
8580.5+y	J1+16	1230.0 *3*	7350.5+y	J1+14
9861.4+y	J1+18	1280.9 *3*	8580.5+y	J1+16
11194.1+y	J1+20	1332.7 *3*	9861.4+y	J1+18
12585.2+y	J1+22	1391.0 *5*	11194.1+y	J1+20
14029.7+y	J1+24	1444.5 *10*	12585.2+y	J1+22
15527.7+y	J1+26	1498.0 *10*	14029.7+y	J1+24

Adopted Levels, Gammas (continued)

$\gamma(^{152}Tb)$ (continued)

E_i(level)	J_i^π	E_γ †	E_f	J_f^π	E_i(level)	J_i^π	E_γ †	E_f	J_f^π
17061.7+y	J1+28	1534.0 *10*	15527.7+y	J1+26	11038.0+u	J3+22	1240.1 *4*	9797.9+u	J3+20
980.9+z	J2+2	980.9 *3*	z	J2	12328.9+u	J3+24	1290.9 *3*	11038.0+u	J3+22
2011.3+z	J2+4	1030.4 *3*	980.9+z	J2+2	13670.7+u	J3+26	1341.7 *4*	12328.9+u	J3+24
3093.5+z	J2+6	1082.2 *3*	2011.3+z	J2+4	15063.4+u	J3+28	1392.7 *4*	13670.7+u	J3+26
4227.6+z	J2+8	1134.1 *3*	3093.5+z	J2+6	16507.0+u	J3+30	1443.6 *5*	15063.4+u	J3+28
5412.3+z	J2+10	1184.7 *3*	4227.6+z	J2+8	18003.3+u	J3+32	1496.3 *10*	16507.0+u	J3+30
6655.1+z	J2+12	1242.8 *3*	5412.3+z	J2+10	801.0+v	J4+2	801.0 *3*	v	J4
7949.0+z	J2+14	1293.9 *3*	6655.1+z	J2+12	1644.6+v	J4+4	843.6 *3*	801.0+v	J4+2
9294.0+z	J2+16	1345.0 *3*	7949.0+z	J2+14	2532.1+v	J4+6	887.5 *3*	1644.6+v	J4+4
10691.3+z	J2+18	1397.3 *3*	9294.0+z	J2+16	3464.0+v	J4+8	931.9 *3*	2532.1+v	J4+6
12130.4+z	J2+20	1439.0 *10*	10691.3+z	J2+18	4441.7+v	J4+10	977.7 *3*	3464.0+v	J4+8
779.5+u	J3+2	779.5 *3*	u	J3	5464.8+v	J4+12	1023.1 *3*	4441.7+v	J4+10
1600.9+u	J3+4	821.4 *3*	779.5+u	J3+2	6535.1+v	J4+14	1070.3 *3*	5464.8+v	J4+12
2466.3+u	J3+6	865.4 *5*	1600.9+u	J3+4	7653.5+v	J4+16	1118.4 *3*	6535.1+v	J4+14
3375.0+u	J3+8	908.7 *3*	2466.3+u	J3+6	8820.3+v	J4+18	1166.8 *3*	7653.5+v	J4+16
4328.6+u	J3+10	953.6 *4*	3375.0+u	J3+8	10035.7+v	J4+20	1215.4 *3*	8820.3+v	J4+18
5327.9+u	J3+12	999.3 *4*	4328.6+u	J3+10	11301.4+v	J4+22	1265.7 *3*	10035.7+v	J4+20
6373.1+u	J3+14	1045.2 *3*	5327.9+u	J3+12	12617.8+v	J4+24	1316.4 *3*	11301.4+v	J4+22
7466.2+u	J3+16	1093.1 *3*	6373.1+u	J3+14	13984.3+v	J4+26	1366.4 *3*	12617.8+v	J4+24
8607.3+u	J3+18	1141.1 *5*	7466.2+u	J3+16	15403.8+v	J4+28	1419.5 *4*	13984.3+v	J4+26
9797.9+u	J3+20	1190.6 *4*	8607.3+u	J3+18	16874.5+v	J4+30	1470.7 *10*	15403.8+v	J4+28

† Eγ for the 257γ is from ε decay. Eγ for other levels below 502 are from IT decay, and for higher levels are from (HI,xnγ).

‡ Relative branching from each level. Data for the 257γ are from ^{152}Dy ε decay. Data for the other levels below 502 are from IT decay, and for the higher levels are from (HI,xnγ).

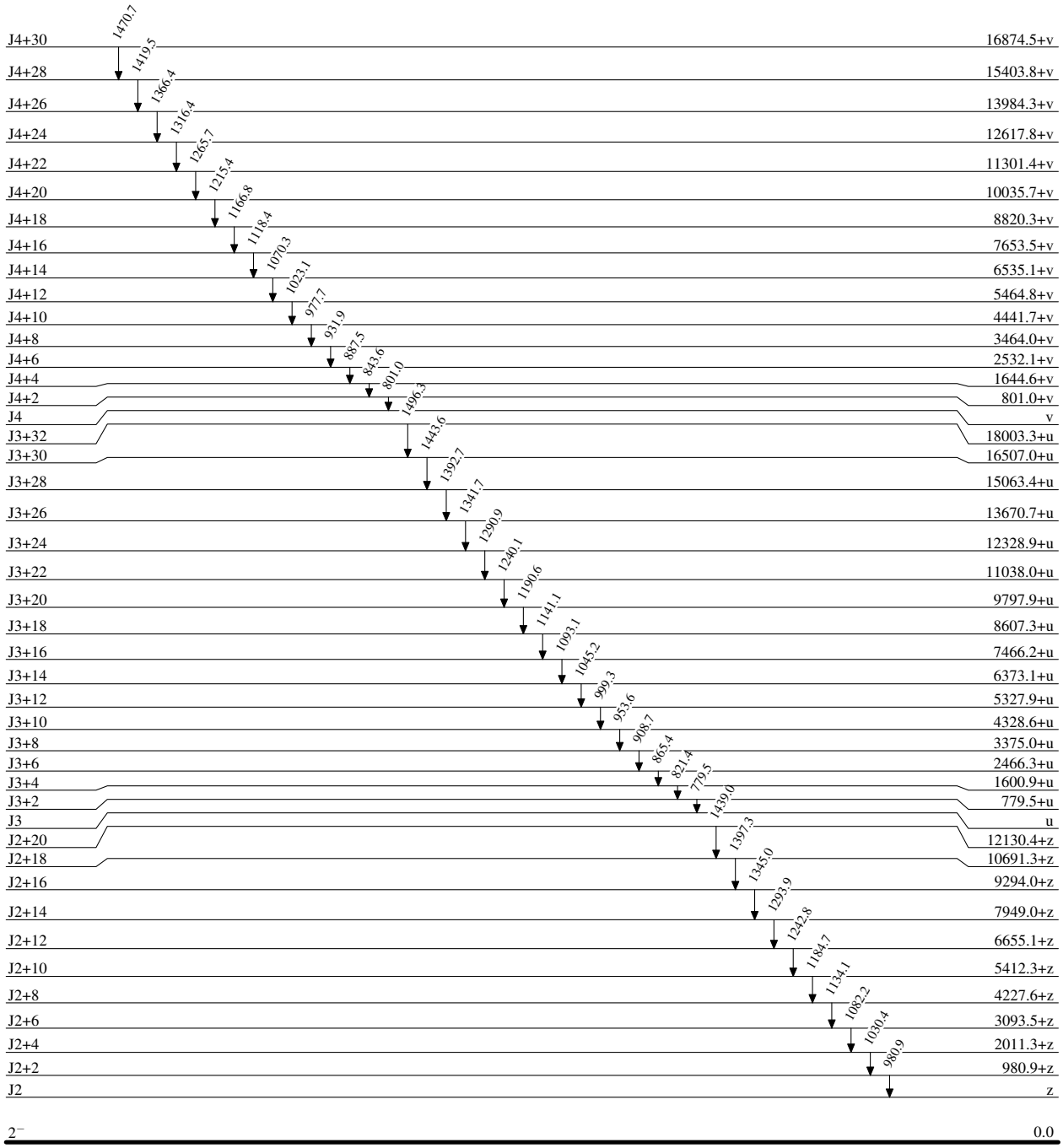
Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

$^{152}_{65}Tb_{87}$-6

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level

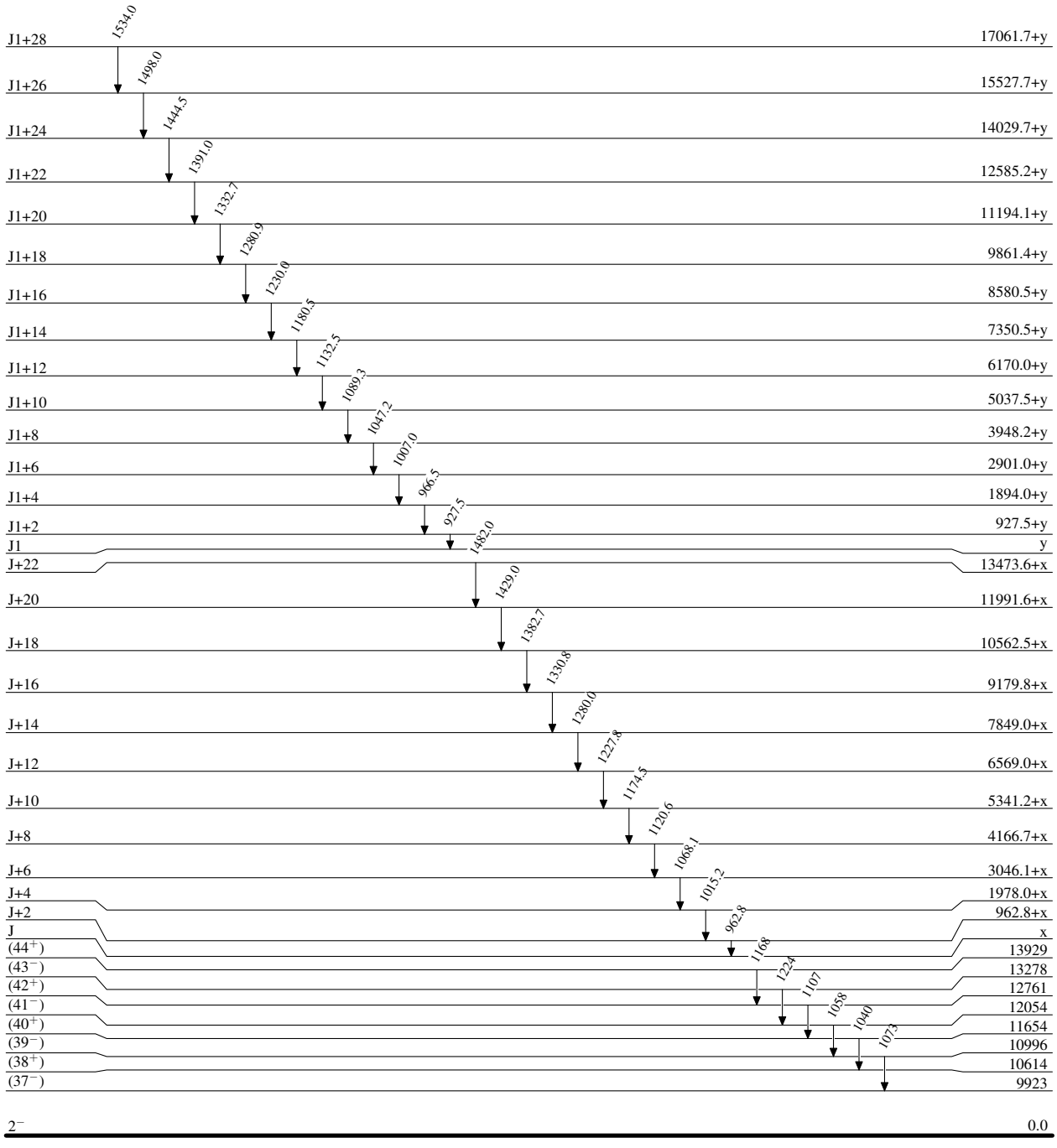


$^{152}_{65}Tb_{87}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

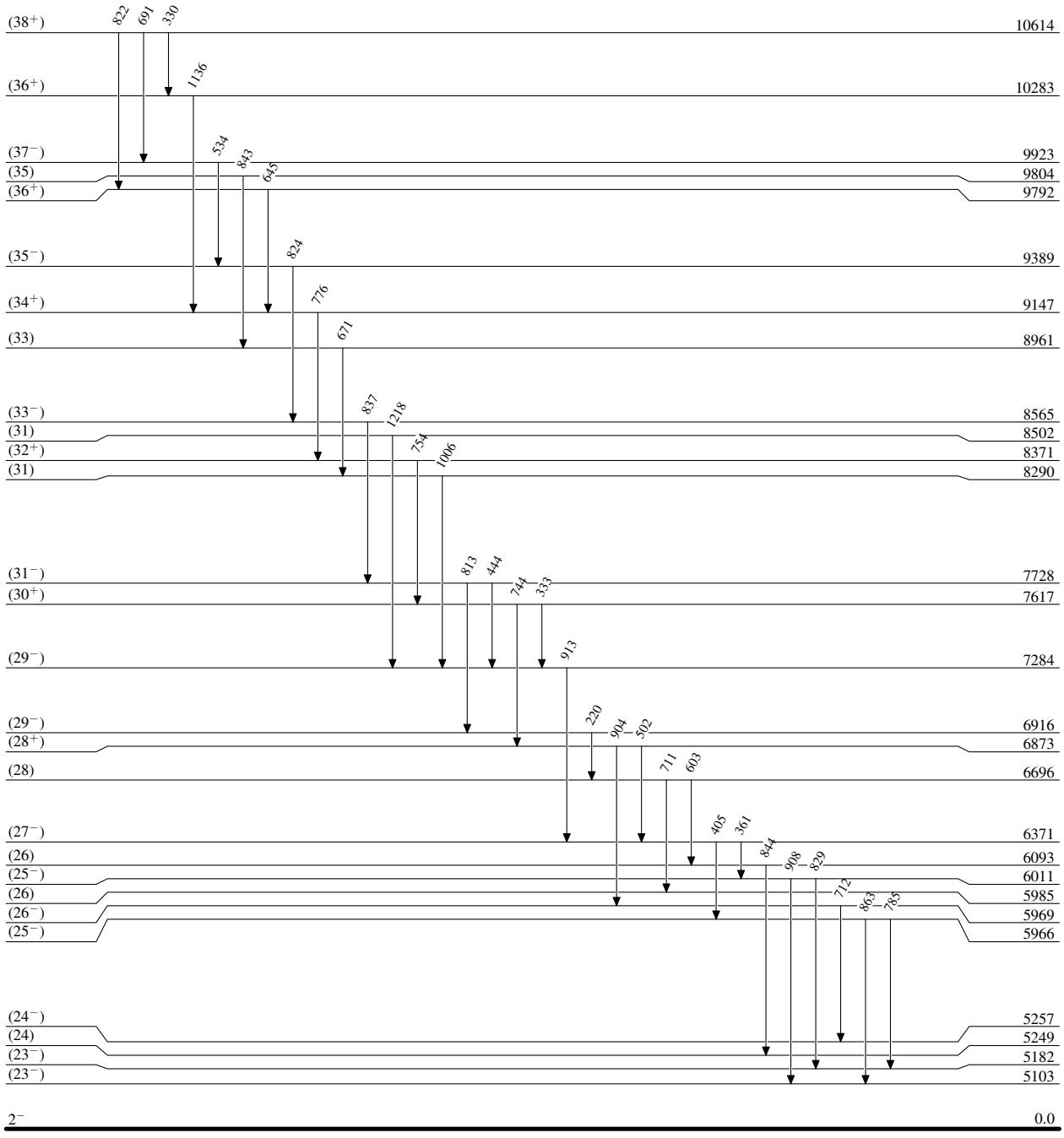


$^{152}_{65}Tb_{87}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

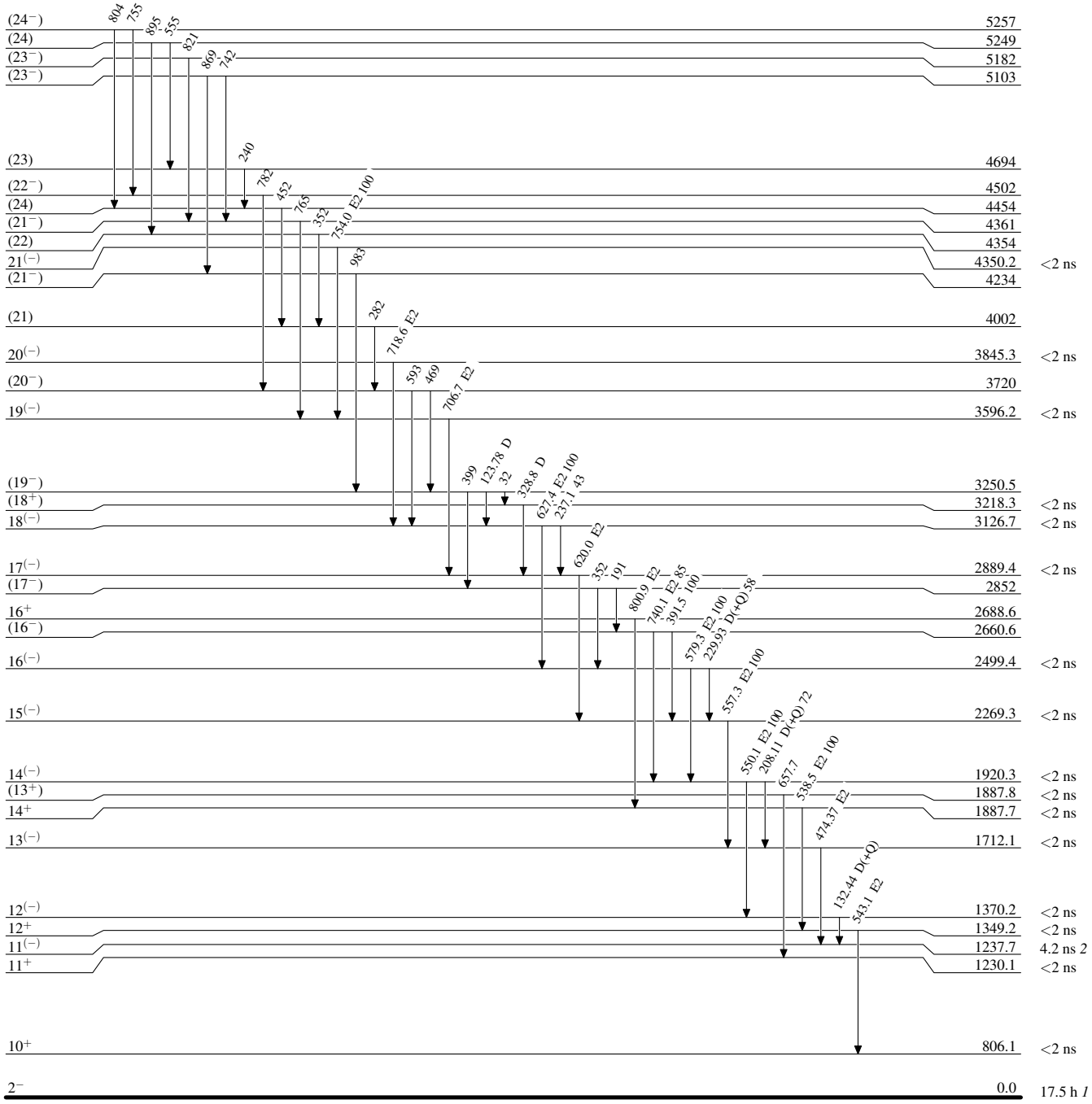


$^{152}_{65}Tb_{87}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



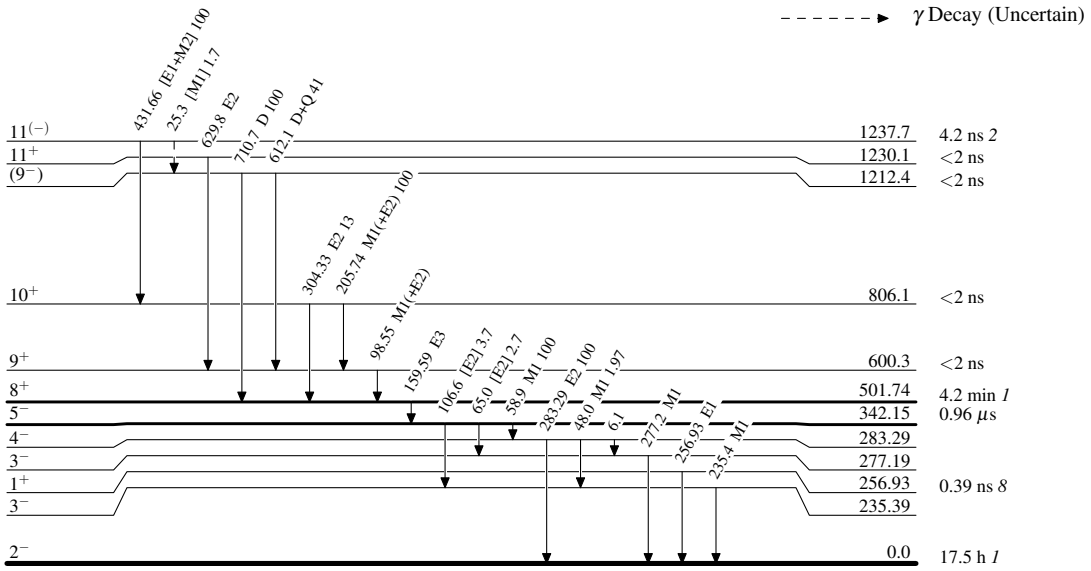
$^{152}_{65}Tb_{87}$

Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level



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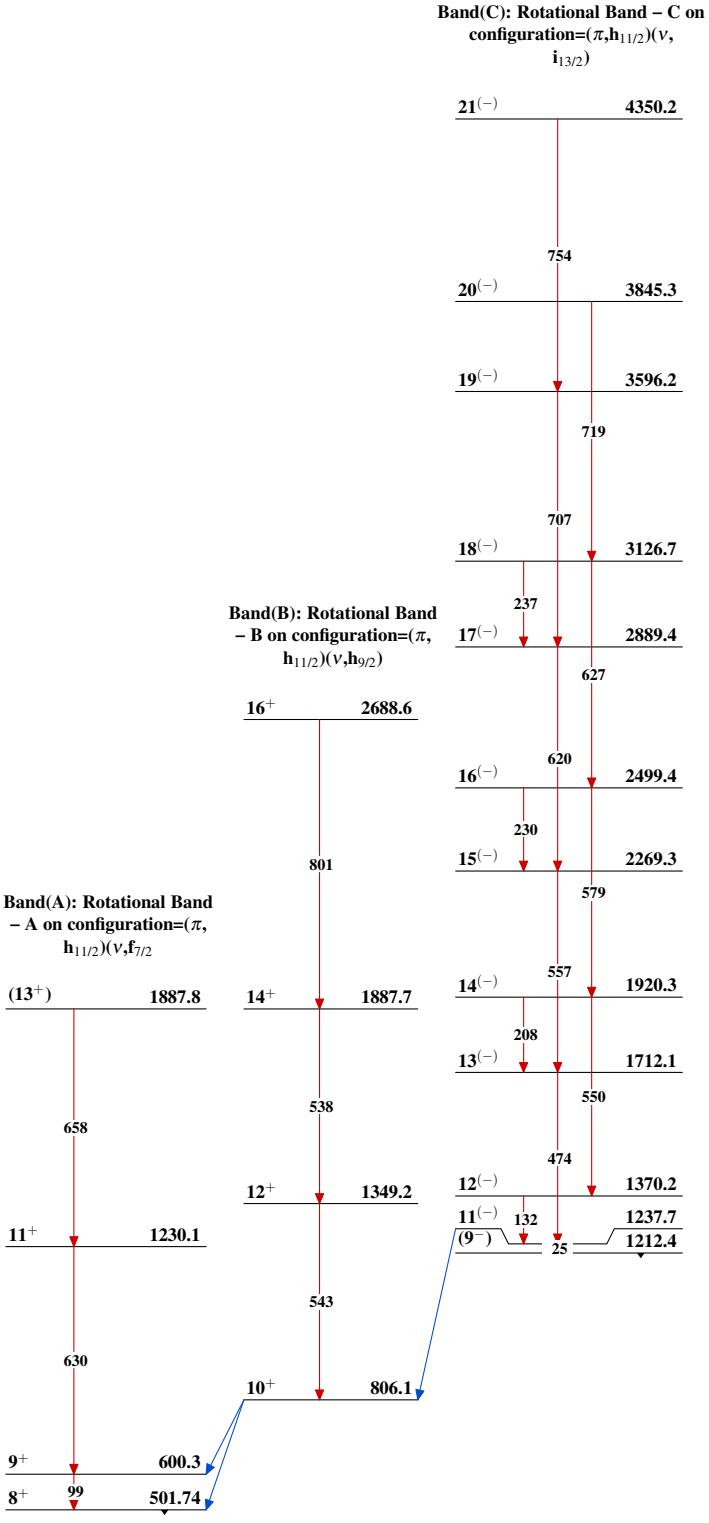
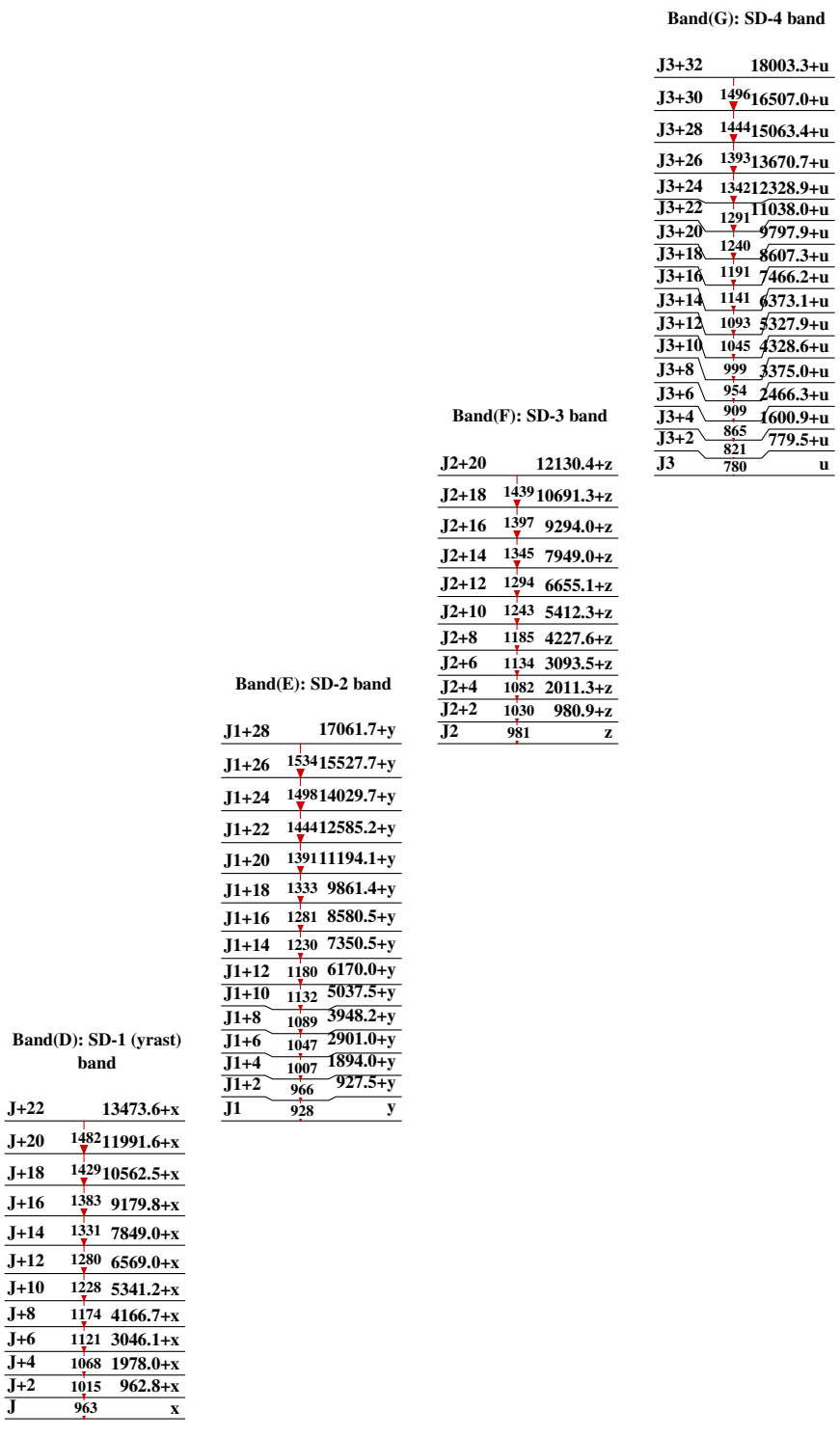
Adopted Levels, Gammas

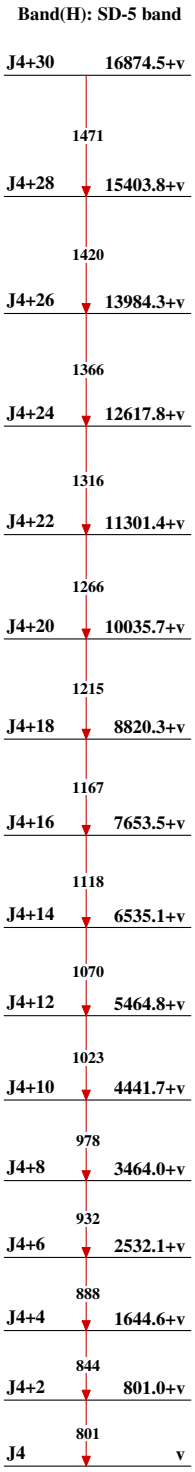


$^{152}_{65}Tb_{87}$

Adopted Levels, Gammas (continued)



Adopted Levels, Gammas (continued)



$^{152}_{65}Tb_{87}$