Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	N. Nica and B. Singh	NDS 181, 1 (2022)	9-Mar-2022

Q(β^-)=−6547 *12*; S(n)=11050 *50*; S(p)=1946 *9*; Q(α)=1074 *14* 2021Wa16
S(2n)=20490 *110*, S(2p)=7329 *9* (2021Wa16).
Nuclear charge radii: 2000Ga58, 1993Ba55, 1990Al36.
Penning-trap mass measurement: 2007RaZZ.
For unplaced γ's see ^{147}Dy ε decay (55.2 s) dataset.

^{147}Tb Levels

Cross Reference (XREF) Flags

A	^{147}Dy ε decay (67 s)	E	^{151}Ho α decay (47.2 s)
B	^{147}Dy ε decay (55.2 s)	F	^{120}Sn(^{31}P,4nγ)
C	^{148}Ho εp decay (9.59 s)	G	^{144}Sm(^{6}Li,3nγ)
D	^{151}Ho α decay (35.2 s)		

E(level)[†]	J$^\pi$[‡]	$T_{1/2}$	XREF	Comments
0.0	(1/2$^+$)	1.64 h *3*	ABCDE G	%ε+%β^+=100 μ=+1.71 *5* (2019StZV) J$^\pi$: (1/2) from favored α transition from 41-keV isomer in ^{151}Ho with J=(1/2) (from hyperfine structure using collinear laser spectroscopy (1988NeZZ)); π=(+) from probable $s_{1/2}$ proton state. J$^\pi$: 1981Na10 (^{144}Sm(^{6}Li,3nγ)) found that ^{147}Tb g.s., 253, 354, and 719 levels connected by M1 transitions should have monotonously increasing spins, starting with 1/2$^+$ for g.s.; in agreement with systematics and decay features for odd Tb nuclei. $T_{1/2}$: from 1997Wa04 (γ decay, see ^{147}Tb ε decay (1.64 h) for ^{147}Gd); others: 1.7 h *1* (1971Af03), 1.61 h *17* (1969Ch32). μ: measured by collinear fast beam laser spectroscopy − accelerated beam (1990Al36). rms charge radius: 4.92 fm *15* (2013An02).
50.6 *9*	(11/2$^-$)	1.83 min *6*	BCDEFG	%ε+%β^+=100 Additional information 1. E(level): from the $\alpha\gamma$ study of ^{151}Ho α decay (35.2 s) to ^{147}Tb (1987Li09, 1995Wa31). J$^\pi$: presumed to be analog to 4.2 min, 11/2$^-$ ^{149}Tb isomer (2004Si16) and 29.5 s, (11/2$^-$) ^{145}Tb isomer (1993Pe07). $T_{1/2}$: from 1973Bo13 in ^{144}Sm(^{6}Li,3nγ) dataset.
253.19 *13*	(3/2$^+$)	<1.3[#] ns	ABCDE G	J$^\pi$: M1 γ to g.s. (see comment on g.s. J$^\pi$).
353.98 *15*	(5/2$^+$)	<2[#] ns	ABCDE G	J$^\pi$: M1 γ to (3/2$^+$), 253 level (see comment on g.s. J$^\pi$).
719.20 *18*	(7/2$^+$)	<1.3[#] ns	ABC G	J$^\pi$: M1 γ to (5/2$^+$), 354 level (see comment on g.s. J$^\pi$).
1312.95 *23*	(7/2$^-$)		G	J$^\pi$: adopted in ^{144}Sm(^{6}Li,3nγ) based on (E2) γ to (11/2$^-$), 51 level,assuming stretched transition; possible (15/2$^-$) less likely from γ from (9/2$^+$), 1487 level.
1316.43 *17*	(15/2$^+$)	4.56 ns *20*	B FG	J$^\pi$: M2+E3 γ to (11/2$^-$), 51 level. $T_{1/2}$: weighted average of 3.9 ns *4* (1983St07, ^{144}Sm(^{6}Li,3nγ)), 4.7 ns *2* (1983TaZV, ^{141}Pr(^{12}C,6n)), 4.5 ns *6* (1980Kh06, ^{144}Sm(^{6}Li,3nγ)), 4.8 ns *6* (1979Br28, ^{151}Eu(α,8nγ)).
1329.48 *18*	(7/2$^+$)		A G	J$^\pi$: 3/2$^+$,7/2$^+$) from ΔJ=1, (E2) γ to (5/2$^+$), 354 level in ^{144}Sm(^{6}Li,3nγ); (3/2$^+$) less likely from γ from (9/2$^+$), 1487 level.
1404.34 *25*	(5/2$^+$)		A G	J$^\pi$: (M1) γ's to (3/2$^+$), 253 level, and to (5/2$^+$), 354 level respectively in ^{144}Sm(^{6}Li,3nγ).

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{147}Tb Levels (continued)

E(level)[†]	Jπ[‡]	XREF	Comments
1413.1 *4*	(1/2⁻,3/2⁻,5/2⁻)	A G	Jπ: (E1) γ to (3/2⁺), 253 level in ^{144}Sm(^{6}Li,3nγ).
1438.32 *24*	(9/2⁺,11/2⁺,15/2⁺)	B G	Jπ: (E1) γ to (11/2⁻), 51 level in ^{144}Sm(^{6}Li,3nγ).
1479.45 *23*		A	
1487.39 *17*	(9/2⁺)	B G	Jπ: (E1) γ to (11/2⁻), 51 level and γ to (5/2⁺), 1133 in ^{144}Sm(^{6}Li,3nγ).
1601.23 *19*	(13/2⁺)	B FG	Jπ: (E1) γ to (11/2⁻), 51 level and γ from (17/2⁺), 2088 level in ^{144}Sm(^{6}Li,3nγ).
1618.59 *25*	(3/2⁻,5/2⁻)	G	Jπ: (E1) γ to (3/2⁺), 253 level and γ to (5/2⁺), 354 level in ^{144}Sm(^{6}Li,3nγ).
1659.6 *3*	(9/2⁻,11/2⁻,13/2⁻)	G	Jπ: (M1) γ to (11/2⁻), 51 level in ^{144}Sm(^{6}Li,3nγ).
1715.7 *3*		B	
1759.10 *20*	(3/2⁺)	A G	Jπ: (M1,E2) γ to (1/2⁺), g.s., and (M1,E2) γ to (5/2⁺), 354 level.
1760.6 *3*	(9/2⁻,11/2⁻,13/2⁻)	G	Jπ: M1 γ to (11/2⁻), 51 level in ^{144}Sm(^{6}Li,3nγ).
1766.23 *20*		A	
1775.86 *25*	(⁻)	B G	Jπ: (M1,E2) γ to (11/2⁻), 51 level in ^{144}Sm(^{6}Li,3nγ).
1965.0 *4*		G	
1971.4 *4*	(3/2⁺,5/2⁺,7/2⁺)	A G	Jπ: (M1) γ to (5/2⁺), 354 level in ^{144}Sm(^{6}Li,3nγ).
1987.91 *20*	(15/2⁻)	B FG	Jπ: (11/2⁺,13/2,15/2⁻) from γ to (11/2⁻), 51 level, and γ to (15/2⁺), 1316 level; (15/2⁻) from both ^{144}Sm(^{6}Li,3nγ) and ^{147}Dy ε decay (55.2 s).
1996.67 *22*	(3/2⁺,5/2,7/2⁺)	G	Jπ: γ's to (3/2⁺), 253 level and (7/2⁺), 719 level, respectively ((5/2) in ^{144}Sm(^{6}Li,3nγ)).
1999		A	
2020.3 *3*		B	
2039		A	
2045.95 *23*	(7/2⁻,9/2,11/2⁺)	B G	Jπ: γ's to (7/2⁺), 1330 level and (11/2⁻), 51 level, respectively ((9/2) in ^{144}Sm(^{6}Li,3nγ)).
2068.1 *4*		G	Jπ: (7/2⁺) in ^{144}Sm(^{6}Li,3nγ).
2088.27 *17*	(17/2⁺)	B FG	Jπ: M1+E2 γ to (15/2⁺), 1316 level in ^{120}Sn(^{31}P,4nγ) and ^{144}Sm(^{6}Li,3nγ).
2157.6 *3*		B G	Jπ: (13/2⁻) in ^{144}Sm(^{6}Li,3nγ).
2163		A	
2179.7 *4*	(11/2⁺)	A G	Jπ: (E2) γ to (7/2⁺), 719 level.
2218.8 *4*	(5/2⁺,7/2⁺,9/2⁺)	A G	Jπ: (M1) γ to (7/2⁺), 719 level in ^{144}Sm(^{6}Li,3nγ).
2220.9 *4*	(5/2⁺,7/2⁺,9/2⁺)	G	Jπ: (M1) γ to (7/2⁺), 719 level in ^{144}Sm(^{6}Li,3nγ).
2230.5 *3*	(3/2⁺,5/2,7/2⁺)	G	Jπ: γ's to (7/2⁺), 719 level and (3/2⁺), 253 level, respectively ((5/2⁺) in ^{144}Sm(^{6}Li,3nγ)).
2235.2 *3*		B	
2243.7 *4*		G	Jπ: (5/2) in ^{144}Sm(^{6}Li,3nγ).
2320.3 *3*		B	
2341		A	
2349		A	
2374.2 *4*		A G	Jπ: (5/2) in ^{144}Sm(^{6}Li,3nγ).
2379		A	
2400.8 *3*		B	
2438		A	E(level): the last digit is illegible in 1984ScZU (^{147}Dy ε decay (67 s)).
2485.8 *3*		B	
2507.2 *4*		A G	Jπ: (9/2) in ^{144}Sm(^{6}Li,3nγ).
2525		A	
2567.6 *4*	(17/2⁻)	G	Jπ: (E1) γ to (15/2⁺), 1316 level in ^{144}Sm(^{6}Li,3nγ).
2575.72 *24*	(19/2⁻)	FG	Jπ: (E2) γ to (15/2⁻), 1988 level in ^{144}Sm(^{6}Li,3nγ).
2635.2 *4*		AB	
2672		B	
2703.9 *3*		B	
2714.7 *3*	(17/2⁺,19/2⁺)	F	Jπ: γ to (15/2⁺), 1316 level; γ from (21/2⁺), 2785 level in ^{120}Sn(^{31}P,4nγ).
2737		A	
2758		A	
2785.20 *19*	(21/2⁺)	F	Jπ: E2 γ to (17/2⁺), 2088 level in ^{120}Sn(^{31}P,4nγ).
2814.6 *3*		B	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{147}Tb Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$	XREF	Comments
2954			A	
3042.49 *21*	(23/2$^+$)	3.8 ns *6*	F	Jπ: M1,E2 γ to (21/2$^+$), 2785 level in ^{120}Sn(^{31}P,4nγ). $T_{1/2}$: from ^{120}Sn(^{31}P,4nγ) (1995Sc17).
3084			A	
3142			B	
3189.81 *21*	(25/2$^+$)		F	Jπ: M1,E2 γ to (23/2$^+$), 3042 level and E2 γ to (21/2$^+$), 2785 level in ^{120}Sn(^{31}P,4nγ).
3206.3 *4*	(23/2$^+$)		F	Jπ: M1+E2 γ to (21/2$^+$) in ^{120}Sn(^{31}P,4nγ).
3363			A	
3372			A	
3381.3 *3*	(25/2$^+$)[@]		F	
3471.21 *22*	(27/2$^+$)[@]		F	
3572.2 *3*			F	
3622			A	
3758.47 *20*			A	
3889.15 *22*	(27/2$^-$)		F	Jπ: E1 γ to (25/2$^+$), 3190 level in ^{120}Sn(^{31}P,4nγ).
3953.85 *23*			A	
3975.3 *3*			A	
3993			A	
4019.75 *23*			A	
4044.59 *25*			A	
4084.85 *23*			A	
4108			B	
4167			A	
4385			A	
4508.31 *24*	(29/2$^-$)		F	Jπ: E1 γ to (27/2$^+$), 3471 level in ^{120}Sn(^{31}P,4nγ).
4641			B	
4669.5 *3*			B	
4702.6 *3*			B	
4723.13 *23*	(29/2$^+$)		F	Jπ: M1+E2 γ to (27/2$^+$), 3471 level in ^{120}Sn(^{31}P,4nγ).
4741.2 *3*			B	
4754.5 *3*			B	
4769.8 *3*			B	
4815.6			B	
4818.7 *5*			A	
4827.54 *25*			AB	
4841.6			B	
5003.80 *24*	(31/2$^-$)		F	Jπ: M1(+E2) γ to (29/2$^-$), 4508 level in ^{120}Sn(^{31}P,4nγ).
5080.6			B	
5131.2 *4*	(29/2$^+$)		F	
5199.9 *4*			F	
5276.8 *3*			F	
5296.81 *24*	(31/2$^-$)		F	Jπ: E2 γ to (27/2$^-$), 3889 level in ^{120}Sn(^{31}P,4nγ).
5321.19 *24*	(29/2$^+$)[@]		F	
5393.9 *4*			F	
5491.7 *3*			F	
5502.2 *3*			F	
5503.8 *3*			F	
5581.7 *4*			F	
5587.0 *3*			F	
5631.16 *24*	(31/2$^+$)[&]		F	
5650.08 *23*	(31/2$^+$)[@]		F	
5665.2 *3*			F	
5665.5 *3*			F	
5700.6 *3*			F	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{147}Tb Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$	XREF	Comments
5767.1 *3*	(33/2$^+$)		F	Jπ: E1(+M2) γ from (35/2$^-$), 6550 level in ^{120}Sn(^{31}P,4nγ).
5880.11 *24*	(33/2$^+$)[&]		F	
5924.72 *25*	(35/2$^-$)		F	Jπ: E2 γ to (31/2$^-$), 5297 level in ^{120}Sn(^{31}P,4nγ).
5966.13 *24*	(33/2$^+$)[@]		F	
5980.68 *24*	(35/2$^-$)		F	Jπ: E2 γ to (31/2$^-$), 5297 level in ^{120}Sn(^{31}P,4nγ).
6018.9 *5*			F	
6107.1 *4*			F	
6124.8 *3*			F	
6201.8 *3*	(37/2$^-$)		F	Jπ: M1+E2 γ to (35/2$^-$), 5925 level in ^{120}Sn(^{31}P,4nγ).
6250.1 *4*			F	
6388.6 *4*			F	
6422.9 *3*	(39/2$^-$)		F	Jπ: E2 γ to (35/2$^-$), 5925 level in ^{120}Sn(^{31}P,4nγ).
6448.4 *4*			F	
6550.0 *3*	(35/2$^-$)		F	Jπ: (M1(+E2)) γ to (33/2$^+$), 5880 level in ^{120}Sn(^{31}P,4nγ).
6617.59 *25*	(35/2$^+$)[&]		F	
6664.75 *25*	(35/2$^+$)[@]		F	
6738.36 *25*	(37/2$^+$)[&]		F	
6755.7 *3*	(41/2)		F	Jπ: D(+Q) γ to (39/2$^-$), 6423 level in ^{120}Sn(^{31}P,4nγ).
6797.8 *4*			F	
6821.5 *3*	(35/2)		F	Jπ: D(+Q) γ to (33/2$^+$), 5880 level in ^{120}Sn(^{31}P,4nγ).
6903.94 *25*	(39/2$^+$)[&]		F	
6904.88 *25*	(37/2$^+$)[@]		F	
6960.6 *3*	(37/2)		F	Jπ: M1+E2 γ to (35/2), 6821 level in ^{120}Sn(^{31}P,4nγ).
7022.31 *25*	(37/2$^-$)		F	Jπ: M1(+E2) γ to (35/2$^-$), 5981 level in ^{120}Sn(^{31}P,4nγ).
7261.6 *3*	(41/2$^+$)[&]		F	
7271.9 *3*	(37/2$^+$)[@]		F	
7275.3 *4*			F	
7307.0 *4*			F	
7311.3 *3*			F	
7336.42 *25*	(39/2$^-$)		F	Jπ: M1+E2 γ to (37/2$^-$), 7022 level in ^{120}Sn(^{31}P,4nγ).
7506.3 *3*	(39/2$^+$)[@]		F	
7540.4 *3*	(39/2$^-$)		F	Jπ: (E1(+M2)) γ to (39/2$^+$), 6904 level in ^{120}Sn(^{31}P,4nγ).
7650.1 *4*			F	
7714.54 *25*	(41/2$^-$)		F	Jπ: M1(+E2) γ to (39/2$^-$), 7336 level in ^{120}Sn(^{31}P,4nγ).
7762.0 *3*	(43/2$^-$)	1.8 ns	F	Jπ: E2 γ to (39/2$^-$), 7540 level in ^{120}Sn(^{31}P,4nγ).
7777.0 *4*	(45/2$^-$)		F	Jπ: (E1(+M2)) γ from (47/2$^+$), 8773 level in ^{120}Sn(^{31}P,4nγ).
7806.6 *4*			F	
7843.9 *4*			F	
8119.1 *4*			F	
8222.1 *4*			F	
8237.1 *4*			F	
8240.6 *4*			F	
8276.9 *4*			F	
8433.9 *4*			F	
8449.7 *4*	(45/2$^-$)		F	Jπ: M1(+E2) γ from (47/2$^-$), 8751 level in ^{120}Sn(^{31}P,4nγ).
8506.5 *5*			F	
8538.2 *4*			F	
8616.3 *4*			F	
8751.4 *3*	(47/2$^-$)		F	Jπ: E2 γ to (43/2$^-$), 7762 level in ^{120}Sn(^{31}P,4nγ).
8773.4 *3*	(47/2$^+$)		F	Jπ: M1+E2 γ from (49/2$^+$), 9037.
8856.7 *3*	(47/2$^-$)		F	Jπ: E2 γ to (43/2$^-$), 7762 level in ^{120}Sn(^{31}P,4nγ).
8968.0 *4*			F	
9036.6 *3*	(49/2$^+$)		F	Jπ: E1 γ to (47/2$^-$), 8751 level in ^{120}Sn(^{31}P,4nγ).
9507.9 *5*			F	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{147}Tb Levels (continued)

E(level)[†]	Jπ[‡]	XREF	Comments
9731.2 *4*	(49/2$^+$)	F	Jπ: M1+E2 γ to (47/2$^+$), 8773 level in ^{120}Sn(^{31}P,4nγ).
9920.7 *4*	(51/2$^+$)	F	Jπ: (M1+E2) γ to (49/2$^+$), 9036 level in ^{120}Sn(^{31}P,4nγ).
9955.4 *4*	(53/2$^+$)	F	Jπ: E2 γ to (49/2$^+$), 9036 level in ^{120}Sn(^{31}P,4nγ).
9974.5 *5*		F	
10346.3 *6*		F	
10380.7 *4*		F	
10429.0 *4*	(53/2$^+$)	F	Jπ: M1(+E2) γ to (51/2$^+$), 9921 level in ^{120}Sn(^{31}P,4nγ).
10552.3 *4*		F	
10731.9 *4*	(55/2$^+$)	F	Jπ: (M1(+E2)) γ to (53/2$^+$), 9955 level in ^{120}Sn(^{31}P,4nγ).
10822.4 *5*		F	
10897.3 *4*	(51/2$^+$)	F	Jπ: (M1+E2) γ to (49/2$^+$), 9731 level in ^{120}Sn(^{31}P,4nγ).
11036.6 *4*	(57/2$^+$)	F	Jπ: E2 γ to (53/2$^+$), 9955 level in ^{120}Sn(^{31}P,4nγ).
11316.1 *5*		F	
11450.0 *4*		F	
11497.2 *5*		F	
11638.0 *4*	(59/2$^-$)	F	Jπ: (E1(+M2)) γ to (57/2$^+$), 11036 level in ^{120}Sn(^{31}P,4nγ).
11841.0 *5*		F	
11929.6 *4*		F	
12083.1 *4*	(59/2$^+$)[a]	F	
12372.7 *4*	(61/2$^+$)[a]	F	
12662.2 *5*	(61/2$^+$)	F	Jπ: E1 γ to (59/2$^-$), 11639 level in ^{120}Sn(^{31}P,4nγ).
12813.9 *4*	(63/2$^+$)[a]	F	
13317.2 *4*	(65/2$^+$)[a]	F	
13823.8 *5*	(67/2$^+$)[a]	F	
13908.3 *6*		F	
14344.5 *6*		F	
x[b]	J	F	Additional information 2.
826.0+x[b] *3*	J+2	F	
1710.0+x[b] *5*	J+4	F	
2651.0+x[b] *6*	J+6	F	
3649.0+x[b] *6*	J+8	F	
4704.0+x[b] *7*	J+10	F	
5815.0+x[b] *8*	J+12	F	
6982.0+x[b] *8*	J+14	F	
8206.0+x[b] *9*	J+16	F	
9487.0+x[b] *9*	J+18	F	

[†] From least-squares fit to Eγ′s assuming ΔE(Eγ)=0.3 keV when not given.

[‡] Below 5131 most of the J^π values are from the ^{120}Sn(^{31}P,4nγ) HI dataset, and ^{144}Sm(^{6}Li,3nγ) dataset (particle⊗phonon configurations, partly common with ^{147}Dy ε decays). The values adopted here are based on the adopted γ multipolarities together with the (rather implicit) assumptions that J values increase with increasing excitation energy for the ^{120}Sn(^{31}P,4nγ) dataset, and follow the identified particle⊗phonon configurations for the ^{144}Sm(^{6}Li,3nγ) dataset, respectively. Above 5131 all data are from ^{120}Sn(^{31}P,4nγ) dataset only and same assumptions were applied for J^π assignments based on measured γ multipolarities. All assignments in this level scheme (in the normal-deformation region) are tentative.

[#] From ^{144}Sm(^{6}Li,3nγ).

[@] M1+E2 or M1(+E2) γ cascade to (23/2$^+$), 3042.

[&] M1(+E2) or M1+E2 γ cascade to (29/2$^+$), 5321.

[a] M1+E2 γ cascade to (57/2$^+$), 11036.

[b] Band(A): Super-deformed band (^{120}Sn(^{31}P,4nγ)).

Adopted Levels, Gammas (continued)

γ(^{147}Tb)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#g]	α[f]	Comments
253.19	(3/2$^+$)	253.4[@]	100	0.0	(1/2$^+$)	M1[d]		0.1635	α(K)=0.1382 *20*; α(L)=0.0198 *3*; α(M)=0.00432 *6* α(N)=0.000999 *14*; α(O)=0.0001541 *22*; α(P)=1.022×10^{-5} *15*
353.98	(5/2$^+$)	100.7[@]	100	253.19	(3/2$^+$)	M1[d]		2.15	α(K)=1.82 *3*; α(L)=0.265 *4*; α(M)=0.0578 *8* α(N)=0.01336 *19*; α(O)=0.00206 *3*; α(P)=0.0001352 *19*
719.20	(7/2$^+$)	365.2[@]	100	353.98	(5/2$^+$)	M1[d]		0.0618	α(K)=0.0523 *8*; α(L)=0.00741 *11*; α(M)=0.001616 *23* α(N)=0.000374 *6*; α(O)=5.77×10^{-5} *8*; α(P)=3.84×10^{-6} *6*
		466.0[@]		253.19	(3/2$^+$)				
1312.95	(7/2$^-$)	1262.4[@]	100	50.6	(11/2$^-$)	(E2)[e]		0.00182	α(K)=0.001531 *22*; α(L)=0.000216 *3*; α(M)=4.69×10^{-5} *7* α(N)=1.082×10^{-5} *16*; α(O)=1.655×10^{-6} *24*; α(P)=1.059×10^{-7} *15*; α(IPF)=1.356×10^{-5} *19*
1316.43	(15/2$^+$)	1265.5[&]	100	50.6	(11/2$^-$)	M2+E3[d]	2.2[d] *5*	0.0041 *3*	B(M2)(W.u.)=0.013 *+7–4*; B(E3)(W.u.)=33.0 *+24–37* α(K)=0.00346 *23*; α(L)=0.00054 *3*; α(M)=0.000118 *7* α(N)=2.72×10^{-5} *15*; α(O)=4.13×10^{-6} *24*; α(P)=2.53×10^{-7} *18*; α(IPF)=4.23×10^{-6} *6*
1329.48	(7/2$^+$)	610.4[@]		719.20	(7/2$^+$)				
		975.5[@]		353.98	(5/2$^+$)	(E2)[e]		0.00305	α(K)=0.00257 *4*; α(L)=0.000378 *6*; α(M)=8.28×10^{-5} *12* α(N)=1.91×10^{-5} *3*; α(O)=2.89×10^{-6} *4*; α(P)=1.771×10^{-7} *25*
		1076.2[@]		253.19	(3/2$^+$)				
1404.34	(5/2$^+$)	1050.4[@]		353.98	(5/2$^+$)	(M1)[e]		0.00438	α(K)=0.00373 *6*; α(L)=0.000510 *8*; α(M)=0.0001106 *16* α(N)=2.56×10^{-5} *4*; α(O)=3.96×10^{-6} *6*; α(P)=2.69×10^{-7} *4*
		1151.1[@]		253.19	(3/2$^+$)	(M1)[e]		0.00352	α(K)=0.00300 *5*; α(L)=0.000409 *6*; α(M)=8.87×10^{-5} *13* α(N)=2.05×10^{-5} *3*; α(O)=3.18×10^{-6} *5*; α(P)=2.16×10^{-7} *3*; α(IPF)=1.89×10^{-6} *3*
1413.1	(1/2$^-$,3/2$^-$,5/2$^-$)	1159.9[@]	100	253.19	(3/2$^+$)	(E1)[e]		9.18×10^{-4}	α(K)=0.000778 *11*; α(L)=0.0001018 *15*; α(M)=2.19×10^{-5} *3* α(N)=5.06×10^{-6} *7*; α(O)=7.80×10^{-7} *11*; α(P)=5.21×10^{-8} *8*; α(IPF)=1.072×10^{-5} *15*
1438.32	(9/2$^+$,11/2$^+$,15/2$^+$)	1387.8[@]		50.6	(11/2$^-$)	(E1)[e]		7.86×10^{-4}	α(K)=0.000567 *8*; α(L)=7.37×10^{-5} *11*; α(M)=1.590×10^{-5} *23* α(N)=3.67×10^{-6} *6*; α(O)=5.66×10^{-7} *8*; α(P)=3.81×10^{-8} *6*; α(IPF)=0.0001243 *18*

$^{147}_{65}Tb_{82}$-6

Adopted Levels, Gammas (continued)

γ(^{147}Tb) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	α[f]	Comments
1479.45		1225.9[@]	8	253.19	(3/2$^+$)			
		1479.8[a]	100	0.0	(1/2$^+$)			
1487.39	(9/2$^+$)	157.9[@]		1329.48	(7/2$^+$)			
		174.5[@]		1312.95	(7/2$^-$)			
		768.0[@]		719.20	(7/2$^+$)			
		1133.4[@]		353.98	(5/2$^+$)			
		1436.9[@]	100	50.6	(11/2$^-$)	(E1)[e]	7.81×10^{-4}	α(K)=0.000535 *8*; α(L)=6.94×10^{-5} *10*; α(M)=1.496×10^{-5} *21* α(N)=3.45×10^{-6} *5*; α(O)=5.33×10^{-7} *8*; α(P)=3.59×10^{-8} *5*; α(IPF)=0.0001579 *22*
1601.23	(13/2$^+$)	163.0[@]		1438.32	(9/2$^+$,11/2$^+$,15/2$^+$)			
		284.8[@]		1316.43	(15/2$^+$)			
		1550.6[@]		50.6	(11/2$^-$)	(E1)[e]	7.87×10^{-4}	α(K)=0.000470 *7*; α(L)=6.09×10^{-5} *9*; α(M)=1.312×10^{-5} *19* α(N)=3.03×10^{-6} *5*; α(O)=4.67×10^{-7} *7*; α(P)=3.16×10^{-8} *5*; α(IPF)=0.000240 *4*
1618.59	(3/2$^-$,5/2$^-$)	1264.5[@]		353.98	(5/2$^+$)			
		1365.5[@]		253.19	(3/2$^+$)	(E1)[e]	7.90×10^{-4}	α(K)=0.000583 *9*; α(L)=7.59×10^{-5} *11*; α(M)=1.636×10^{-5} *23* α(N)=3.77×10^{-6} *6*; α(O)=5.82×10^{-7} *9*; α(P)=3.92×10^{-8} *6*; α(IPF)=0.0001096 *16*
1659.6	(9/2$^-$,11/2$^-$,13/2$^-$)	1609.0[@]	100	50.6	(11/2$^-$)	(M1)[e]	1.74×10^{-3}	α(K)=0.001372 *20*; α(L)=0.000185 *3*; α(M)=4.01×10^{-5} *6* α(N)=9.27×10^{-6} *13*; α(O)=1.437×10^{-6} *21*; α(P)=9.81×10^{-8} *14*; α(IPF)=0.0001306 *19*
1715.7		1665.1[b]	100	50.6	(11/2$^-$)			
1759.10	(3/2$^+$)	1405.0[@]	92[a]	353.98	(5/2$^+$)	(M1,E2)[e]	0.0019 *4*	α(K)=0.0016 *4*; α(L)=0.00021 *4*; α(M)=4.6×10^{-5} *9* α(N)=1.07×10^{-5} *21*; α(O)=1.7×10^{-6} *4*; α(P)=1.10×10^{-7} *25*; α(IPF)=4.8×10^{-5} *4*
		1505.9[@]	32[a]	253.19	(3/2$^+$)	(M1)[e]	0.00196	α(K)=0.001598 *23*; α(L)=0.000216 *3*; α(M)=4.68×10^{-5} *7* α(N)=1.083×10^{-5} *16*; α(O)=1.678×10^{-6} *24*; α(P)=1.145×10^{-7} *16*; α(IPF)=8.68×10^{-5} *13*
		1759.2[@]	100[a]	0.0	(1/2$^+$)	(M1,E2)[e]	0.00132 *19*	α(K)=0.00097 *16*; α(L)=0.000130 *20*; α(M)=2.8×10^{-5} *5* α(N)=6.5×10^{-6} *10*; α(O)=1.01×10^{-6} *16*; α(P)=6.8×10^{-8} *12*; α(IPF)=0.000190 *15*

$^{147}_{65}Tb_{82}$-7

Adopted Levels, Gammas (continued)

γ(^{147}Tb) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#g]	α[f]	Comments
1760.6	(9/2⁻,11/2⁻,13/2⁻)	1710.0[@]	100	50.6	(11/2⁻)	(M1)[e]		1.58×10⁻³	α(K)=0.001193 *17*; α(L)=0.0001606 *23*; α(M)=3.48×10⁻⁵ *5* α(N)=8.04×10⁻⁶ *12*; α(O)=1.247×10⁻⁶ *18*; α(P)=8.52×10⁻⁸ *12*; α(IPF)=0.000179 *3*
1766.23		1412.2[a]	26	353.98	(5/2⁺)				
		1512.8[a]	7	253.19	(3/2⁺)				
		1766.5[a]	100	0.0	(1/2⁺)				
1775.86	(⁻)	1724.7[b]	100	50.6	(11/2⁻)	(M1,E2)[e]		0.00136 *21*	α(K)=0.00101 *17*; α(L)=0.000136 *22*; α(M)=3.0×10⁻⁵ *5* α(N)=6.8×10⁻⁶ *11*; α(O)=1.05×10⁻⁶ *17*; α(P)=7.1×10⁻⁸ *13*; α(IPF)=0.000173 *13*
1965.0		1611.0[@]	100	353.98	(5/2⁺)				
1971.4	(3/2⁺,5/2⁺,7/2⁺)	1617.4[@]	100	353.98	(5/2⁺)	(M1)[e]		1.72×10⁻³	α(K)=0.001356 *19*; α(L)=0.000183 *3*; α(M)=3.96×10⁻⁵ *6* α(N)=9.16×10⁻⁶ *13*; α(O)=1.420×10⁻⁶ *20*; α(P)=9.70×10⁻⁸ *14*; α(IPF)=0.0001344 *19*
1987.91	(15/2⁻)	671.5[@]		1316.43	(15/2⁺)				
		1937.2[@]	100	50.6	(11/2⁻)				
1996.67	(3/2⁺,5/2,7/2⁺)	1277.4[@]		719.20	(7/2⁺)				
		1642.7[@]		353.98	(5/2⁺)				
		1743.5[@]		253.19	(3/2⁺)				
2020.3		1969.7[b]	100	50.6	(11/2⁻)				
2045.95	(7/2⁻,9/2,11/2⁺)	716.5[@]		1329.48	(7/2⁺)				
		1995.3[@]		50.6	(11/2⁻)				
2068.1		1714.1[@]	100	353.98	(5/2⁺)				
2088.27	(17/2⁺)	100.0[&]		1987.91	(15/2⁻)				
		487.1[&]		1601.23	(13/2⁺)				
		771.8[&] *1*	100	1316.43	(15/2⁺)	M1+E2	+0.10 *5*	0.00921 *14*	α(K)=0.00783 *12*; α(L)=0.001082 *16*; α(M)=0.000235 *4* α(N)=5.44×10⁻⁵ *8*; α(O)=8.41×10⁻⁶ *13*; α(P)=5.67×10⁻⁷ *9*
		2038.0[&]		50.6	(11/2⁻)				
2157.6		2107.0[@]	100	50.6	(11/2⁻)				
2179.7	(11/2⁺)	1460.5[@]	100	719.20	(7/2⁺)	(E2)		1.42×10⁻³	α(K)=0.001157 *17*; α(L)=0.0001597 *23*; α(M)=3.47×10⁻⁵ *5* α(N)=8.00×10⁻⁶ *12*; α(O)=1.228×10⁻⁶ *18*; α(P)=8.00×10⁻⁸ *12*; α(IPF)=6.09×10⁻⁵ *9*

$^{147}_{65}Tb_{82}$-8

Adopted Levels, Gammas (continued)

γ(^{147}Tb) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#g]	α[f]	Comments
2218.8	(5/2$^+$,7/2$^+$,9/2$^+$)	1499.6[@]	100	719.20	(7/2$^+$)	(M1)		0.00198	α(K)=0.001614 *23*; α(L)=0.000218 *3*; α(M)=4.73×10^{-5} *7* α(N)=1.093×10^{-5} *16*; α(O)=1.695×10^{-6} *24*; α(P)=1.156×10^{-7} *17*; α(IPF)=8.43×10^{-5} *12*
2220.9	(5/2$^+$,7/2$^+$,9/2$^+$)	1501.7[@]	100	719.20	(7/2$^+$)	(M1)		0.00197	α(K)=0.001609 *23*; α(L)=0.000217 *3*; α(M)=4.71×10^{-5} *7* α(N)=1.090×10^{-5} *16*; α(O)=1.689×10^{-6} *24*; α(P)=1.152×10^{-7} *17*; α(IPF)=8.51×10^{-5} *12*
2230.5	(3/2$^+$,5/2,7/2$^+$)	1511.4[@]		719.20	(7/2$^+$)				
		1977.2[@]		253.19	(3/2$^+$)				
2235.2		2184.6[b]	100	50.6	(11/2$^-$)				
2243.7		1990.5[@]		253.19	(3/2$^+$)				
2320.3		2269.7[b]	100	50.6	(11/2$^-$)				
2374.2		1655.0[@]		719.20	(7/2$^+$)				
2400.8		2350.2[b]	100	50.6	(11/2$^-$)				
2485.8		2435.2[b]	100	50.6	(11/2$^-$)				
2507.2		1788.0[@]	100	719.20	(7/2$^+$)				
2567.6	(17/2$^-$)	1251.2[@]	100	1316.43	(15/2$^+$)	(E1)[e]		8.40×10^{-4}	α(K)=0.000680 *10*; α(L)=8.87×10^{-5} *13*; α(M)=1.91×10^{-5} *3* α(N)=4.41×10^{-6} *7*; α(O)=6.80×10^{-7} *10*; α(P)=4.56×10^{-8} *7*; α(IPF)=4.70×10^{-5} *7*
2575.72	(19/2$^-$)	487.5[@]		2088.27	(17/2$^+$)				
		588.1[@]	100	1987.91	(15/2$^-$)	(E2)[e]		0.00962	α(K)=0.00789 *11*; α(L)=0.001353 *19*; α(M)=0.000300 *5* α(N)=6.89×10^{-5} *10*; α(O)=1.019×10^{-5} *15*; α(P)=5.35×10^{-7} *8*
2635.2		2382.0[a]	100	253.19	(3/2$^+$)				
2703.9		2653.3[b]	100	50.6	(11/2$^-$)				
2714.7	(17/2$^+$,19/2$^+$)	1398.2[&]	100	1316.43	(15/2$^+$)				
2785.20	(21/2$^+$)	70.5[&]		2714.7	(17/2$^+$,19/2$^+$)				
		209.8[&]		2575.72	(19/2$^-$)				
		696.9[&] *1*	100	2088.27	(17/2$^+$)	E2		0.00640	α(K)=0.00531 *8*; α(L)=0.000856 *12*; α(M)=0.000189 *3* α(N)=4.34×10^{-5} *6*; α(O)=6.49×10^{-6} *9*; α(P)=3.63×10^{-7} *5*
2814.6		2764.0[b]	100	50.6	(11/2$^-$)				
3042.49	(23/2$^+$)	257.4[&] *1*	100	2785.20	(21/2$^+$)	M1,E2		0.13 *3*	α(K)=0.103 *30*; α(L)=0.0199 *10*; α(M)=0.0045 *4*

$^{147}_{65}Tb_{82}$-9

Adopted Levels, Gammas (continued)

γ(^{147}Tb) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#g]	α[f]	Comments
									α(N)=0.00102 *7*; α(O)=0.0001488 *24*; α(P)=7.1×10^{-6} *27*
3189.81	(25/2$^+$)	147.4[&] *1*	29	3042.49	(23/2$^+$)	M1(+E2)	+0.05 *5*	0.729	α(K)=0.615 *9*; α(L)=0.0895 *16*; α(M)=0.0196 *4* α(N)=0.00452 *8*; α(O)=0.000696 *12*; α(P)=4.57×10^{-5} *7*
		404.5[&] *1*	100	2785.20	(21/2$^+$)	E2		0.0259	α(K)=0.0205 *3*; α(L)=0.00420 *6*; α(M)=0.000946 *14* α(N)=0.000216 *3*; α(O)=3.11×10^{-5} *5*; α(P)=1.338×10^{-6} *19*
3206.3	(23/2$^+$)	421.1[&]	100	2785.20	(21/2$^+$)	M1+E2		0.0329 *98*	α(K)=0.0273 *89*; α(L)=0.0044 *7*; α(M)=0.00097 *14* α(N)=0.00022 *4*; α(O)=3.3×10^{-5} *7*; α(P)=1.93×10^{-6} *72*
3381.3	(25/2$^+$)	191.3[&]		3189.81	(25/2$^+$)	M1+E2		0.31 *5*	α(K)=0.24 *6*; α(L)=0.055 *12*; α(M)=0.0125 *32* α(N)=0.0028 *7*; α(O)=0.00041 *8*; α(P)=1.61×10^{-5} *60*
		339.0[&]		3042.49	(23/2$^+$)	M1+E2		0.059 *16*	α(K)=0.048 *16*; α(L)=0.0083 *8*; α(M)=0.00185 *13* α(N)=0.00042 *4*; α(O)=6.3×10^{-5} *8*; α(P)=3.4×10^{-6} *13*
3471.21	(27/2$^+$)	90.0[&]		3381.3	(25/2$^+$)	M1		2.97	α(K)=2.51 *4*; α(L)=0.366 *6*; α(M)=0.0799 *12* α(N)=0.0185 *3*; α(O)=0.00284 *4*; α(P)=0.000187 *3*
		281.4[&] *1*	100	3189.81	(25/2$^+$)	M1(+E2)	−0.05 *5*	0.1232	α(K)=0.1042 *15*; α(L)=0.01490 *21*; α(M)=0.00325 *5* α(N)=0.000751 *11*; α(O)=0.0001159 *17*; α(P)=7.69×10^{-6} *12*
		428.7[&]		3042.49	(23/2$^+$)				
3572.2		382.2[&]	100	3189.81	(25/2$^+$)				
3758.47		3404.4[a]	8	353.98	(5/2$^+$)				
		3505.3[a]	27	253.19	(3/2$^+$)				
		3758.4[a]	100	0.0	(1/2$^+$)				
3889.15	(27/2$^-$)	699.3[&] *1*	100	3189.81	(25/2$^+$)	E1		0.00240	α(K)=0.00205 *3*; α(L)=0.000274 *4*; α(M)=5.92×10^{-5} *9* α(N)=1.365×10^{-5} *20*; α(O)=2.09×10^{-6} *3*; α(P)=1.358×10^{-7} *19*
3953.85		3700.9[a]	28	253.19	(3/2$^+$)				
		3953.5[a]	100	0.0	(1/2$^+$)				
3975.3		3975.2[a]	100	0.0	(1/2$^+$)				
4019.75		3767.1[a]	100	253.19	(3/2$^+$)				
		4019.1[a]	88	0.0	(1/2$^+$)				
4044.59		3690.7[a]	100	353.98	(5/2$^+$)				
		3791.2[a]	71	253.19	(3/2$^+$)				
4084.85		3831.8[a]	22	253.19	(3/2$^+$)				
		4084.6[a]	100	0.0	(1/2$^+$)				
4508.31	(29/2$^-$)	1037.0[&] *1*	100	3471.21	(27/2$^+$)	E1		1.11×10^{-3}	α(K)=0.000954 *14*; α(L)=0.0001253 *18*; α(M)=2.70×10^{-5} *4* α(N)=6.24×10^{-6} *9*; α(O)=9.60×10^{-7} *14*; α(P)=6.38×10^{-8} *9*
4669.5		4618.8[b]	100	50.6	(11/2$^-$)				
4702.6		4651.9[b]	100	50.6	(11/2$^-$)				
4723.13	(29/2$^+$)	833.9[&]		3889.15	(27/2$^-$)				
		1150.8[&]		3572.2					

$^{147}_{65}Tb_{82}$-10

Adopted Levels, Gammas (continued)

γ(^{147}Tb) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#g]	α[f]	Comments
4723.13	(29/2$^+$)	1251.9[&] *1*	100	3471.21	(27/2$^+$)	M1(+E2)	0.00 *5*	0.00290	α(K)=0.00246 *4*; α(L)=0.000334 *5*; α(M)=7.25×10^{-5} *11* α(N)=1.677×10^{-5} *24*; α(O)=2.60×10^{-6} *4*; α(P)=1.767×10^{-7} *25*; α(IPF)=1.359×10^{-5} *20*
4741.2		4690.5[b]	100	50.6	(11/2$^-$)				
4754.5		4703.8[b]	100	50.6	(11/2$^-$)				
4769.8		4719.1[b]	100	50.6	(11/2$^-$)				
4818.7		2639.0[a]	100	2179.7	(11/2$^+$)				
4827.54		3051.1[b]	48	1775.86	(−)				
		4777.4[b]	100	50.6	(11/2$^-$)				
5003.80	(31/2$^-$)	495.4[&] *1*	100	4508.31	(29/2$^-$)	M1(+E2)	+0.05 *5*	0.0280	α(K)=0.0238 *4*; α(L)=0.00334 *5*; α(M)=0.000726 *11* α(N)=0.0001680 *24*; α(O)=2.60×10^{-5} *4*; α(P)=1.74×10^{-6} *3*
		1114.9[&]		3889.15	(27/2$^-$)				
5131.2	(29/2$^+$)	1941.4	100	3189.81	(25/2$^+$)				
5199.9		2010.0	100	3189.81	(25/2$^+$)				
5276.8		2087.1	100	3189.81	(25/2$^+$)				
5296.81	(31/2$^-$)	1407.6 *1*	100	3889.15	(27/2$^-$)	E2		1.51×10^{-3}	α(K)=0.001241 *18*; α(L)=0.0001721 *24*; α(M)=3.74×10^{-5} *6* α(N)=8.63×10^{-6} *12*; α(O)=1.323×10^{-6} *19*; α(P)=8.58×10^{-8} *12*; α(IPF)=4.51×10^{-5} *7*
5321.19	(29/2$^+$)	1850.0 *2*	100	3471.21	(27/2$^+$)	M1+E2	−0.90 *15*	0.00127 *4*	α(K)=0.00088 *3*; α(L)=0.000119 *4*; α(M)=2.57×10^{-5} *8* α(N)=5.95×10^{-6} *17*; α(O)=9.2×10^{-7} *3*; α(P)=6.23×10^{-8} *20*; α(IPF)=0.000236 *5*
		2131.6		3189.81	(25/2$^+$)				
5393.9		1922.7	100	3471.21	(27/2$^+$)				
5491.7		2020.6	100	3471.21	(27/2$^+$)				
5502.2		2031.2	100	3471.21	(27/2$^+$)				
5503.8		2314.1	100	3189.81	(25/2$^+$)				
5581.7		2110.6	100	3471.21	(27/2$^+$)				
5587.0		2115.9	100	3471.21	(27/2$^+$)				
5631.16	(31/2$^+$)	129.1		5502.2					
		310.0 *1*	100	5321.19	(29/2$^+$)	M1(+E2)	+0.05 *5*	0.0951	α(K)=0.0805 *12*; α(L)=0.01147 *17*; α(M)=0.00250 *4* α(N)=0.000579 *9*; α(O)=8.93×10^{-5} *13*; α(P)=5.93×10^{-6} *9*
		354.4		5276.8					
		2160.2 *5*		3471.21	(27/2$^+$)				
5650.08	(31/2$^+$)	63.3		5587.0					
		146.4		5503.8					
		147.8		5502.2					
		158.5		5491.7					
		328.9 *1*	100	5321.19	(29/2$^+$)	M1(+E2)	+0.10 *10*	0.0811 *15*	α(K)=0.0686 *14*; α(L)=0.00978 *15*; α(M)=0.00213 *3* α(N)=0.000493 *7*; α(O)=7.61×10^{-5} *12*; α(P)=5.04×10^{-6} *11*
		373.5		5276.8					

$^{147}_{65}Tb_{82}$-11

Adopted Levels, Gammas (continued)

γ(^{147}Tb) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#g]	α[f]	Comments
5650.08	(31/2$^+$)	926.7 *2*	63	4723.13	(29/2$^+$)	M1+E2	+0.12 *5*	0.00589	α(K)=0.00501 *8*; α(L)=0.000688 *11*; α(M)=0.0001494 *23* α(N)=3.45×10^{-5} *6*; α(O)=5.35×10^{-6} *8*; α(P)=3.62×10^{-7} *6*
		2179.0		3471.21	(27/2$^+$)				
5665.2		534.0	100	5131.2	(29/2$^+$)				
5665.5		163.3		5502.2					
		271.6		5393.9					
		465.6		5199.9					
5700.6		696.8		5003.80	(31/2$^-$)				
		977.6		4723.13	(29/2$^+$)				
5767.1	(33/2$^+$)	763.2		5003.80	(31/2$^-$)				
		1044.0		4723.13	(29/2$^+$)				
5880.11	(33/2$^+$)	249.0 *1*	100	5631.16	(31/2$^+$)	M1(+E2)	+0.05 *5*	0.1713 *25*	α(K)=0.1448 *21*; α(L)=0.0208 *3*; α(M)=0.00453 *7* α(N)=0.001048 *15*; α(O)=0.0001617 *23*; α(P)=1.070×10^{-5} *16*
		876.1		5003.80	(31/2$^-$)				
5924.72	(35/2$^-$)	157.7		5767.1	(33/2$^+$)				
		224.2		5700.6					
		259.6		5665.2					
		628.0[&]		5296.81	(31/2$^-$)	E2		0.00820	α(K)=0.00675 *10*; α(L)=0.001129 *16*; α(M)=0.000250 *4* α(N)=5.74×10^{-5} *8*; α(O)=8.53×10^{-6} *12*; α(P)=4.59×10^{-7} *7*
		920.8		5003.80	(31/2$^-$)				
5966.13	(33/2$^+$)	316.1 *1*	100	5650.08	(31/2$^+$)	M1+E2	+0.20 *5*	0.0890 *15*	α(K)=0.0751 *13*; α(L)=0.01085 *16*; α(M)=0.00237 *4* α(N)=0.000547 *8*; α(O)=8.42×10^{-5} *13*; α(P)=5.52×10^{-6} *10*
5980.68	(35/2$^-$)	683.8 *1*	100	5296.81	(31/2$^-$)	E2		0.00669	α(K)=0.00554 *8*; α(L)=0.000900 *13*; α(M)=0.000199 *3* α(N)=4.56×10^{-5} *7*; α(O)=6.82×10^{-6} *10*; α(P)=3.79×10^{-7} *6* δ(M3/E2)=0.00 *1* in ^{120}Sn(^{31}P,4nγ).
6018.9		625.0	100	5393.9					
6107.1		441.9	100	5665.2					
6124.8		1120.8	100	5003.80	(31/2$^-$)				
6201.8	(37/2$^-$)	277.1 *1*	100	5924.72	(35/2$^-$)	M1+E2	−0.25 *5*	0.1256 *21*	α(K)=0.1058 *19*; α(L)=0.01554 *22*; α(M)=0.00340 *5* α(N)=0.000785 *11*; α(O)=0.0001205 *17*; α(P)=7.77×10^{-6} *15*
		501.2		5700.6					
6250.1		668.6	100	5581.7					
6388.6		738.5	100	5650.08	(31/2$^+$)				
6422.9	(39/2$^-$)	221.1[&]		6201.8	(37/2$^-$)	M1+E2		0.20 *4*	α(K)=0.158 *42*; α(L)=0.033 *5*; α(M)=0.0075 *12* α(N)=0.0017 *3*; α(O)=0.000246 *23*; α(P)=1.08×10^{-5} *41*
		498.2 *1*	100	5924.72	(35/2$^-$)	E2		0.01468	α(K)=0.01188 *17*; α(L)=0.00219 *3*; α(M)=0.000489 *7* α(N)=0.0001118 *16*; α(O)=1.636×10^{-5} *23*; α(P)=7.94×10^{-7} *12* δ(M3/E2)=0.00 *+15−5* in ^{120}Sn(^{31}P,4nγ).
6448.4		467.7	100	5980.68	(35/2$^-$)				

$^{147}_{65}Tb_{82}$-12

Adopted Levels, Gammas (continued)

γ(^{147}Tb) (continued)

E_i(level)	J_i^π	E_γ †	I_γ ‡	E_f	J_f^π	Mult.#	δ#g	α f	Comments
6550.0	(35/2⁻)	669.8 *3*	91 *11*	5880.11	(33/2⁺)	(E1(+M2))	0.00 *+10−15*	0.0026 *4*	α(K)=0.0022 *3*; α(L)=0.00030 *5*; α(M)=6.5×10^{-5} *10* α(N)=1.49×10^{-5} *23*; α(O)=2.3×10^{-6} *4*; α(P)=1.48×10^{-7} *23*
		782.8 *2*	100 *6*	5767.1	(33/2⁺)	E1(+M2)	0.00 *+20−2*	0.00191 *85*	α(K)=0.00163 *71*; α(L)=2.2×10^{-4} *11*; α(M)=4.7×10^{-5} *24* α(N)=1.08×10^{-5} *56*; α(O)=1.66×10^{-6} *86*; α(P)=1.09×10^{-7} *56*
6617.59	(35/2⁺)	367.6		6250.1					
		737.5 *1*	100	5880.11	(33/2⁺)	M1+E2	−0.10 *5*	0.01030 *16*	α(K)=0.00875 *14*; α(L)=0.001212 *18*; α(M)=0.000263 *4* α(N)=6.09×10^{-5} *9*; α(O)=9.42×10^{-6} *14*; α(P)=6.34×10^{-7} *10*
6664.75	(35/2⁺)	276.1		6388.6					
		698.6 *1*	100	5966.13	(33/2⁺)	M1+E2	+0.55 *13*	0.0106 *5*	α(K)=0.0089 *5*; α(L)=0.00127 *5*; α(M)=0.000276 *11* α(N)=6.38×10^{-5} *25*; α(O)=9.8×10^{-6} *4*; α(P)=6.4×10^{-7} *4*
		1014.6		5650.08	(31/2⁺)				
6738.36	(37/2⁺)	120.8 *1*	100.0 *23*	6617.59	(35/2⁺)	M1+E2	−0.25 *10*	1.282 *19*	α(K)=1.057 *25*; α(L)=0.176 *17*; α(M)=0.039 *4* α(N)=0.0090 *9*; α(O)=0.00135 *11*; α(P)=7.8×10^{-5} *3*
		613.5		6124.8					
		757.3 *2*	76 *5*	5980.68	(35/2⁻)	E1(+M2)	0.00 *10*	0.00204 *25*	α(K)=0.00174 *21*; α(L)=0.00023 *4*; α(M)=5.0×10^{-5} *7* α(N)=1.16×10^{-5} *16*; α(O)=1.77×10^{-6} *25*; α(P)=1.16×10^{-7} *16*
6755.7	(41/2)	332.8 *1*	100	6422.9	(39/2⁻)	D(+Q)	0.00 *10*		
6797.8		831.7	100	5966.13	(33/2⁺)				
6821.5	(35/2)	941.5 *2*	100	5880.11	(33/2⁺)	D(+Q)	+0.05 *5*		
6903.94	(39/2⁺)	165.5 *1*	100	6738.36	(37/2⁺)	M1(+E2)	−0.05 *5*	0.527	α(K)=0.445 *7*; α(L)=0.0645 *10*; α(M)=0.01410 *23* α(N)=0.00326 *6*; α(O)=0.000502 *8*; α(P)=3.30×10^{-5} *5*
6904.88	(37/2⁺)	240.1 *1*	100	6664.75	(35/2⁺)	M1(+E2)	+0.04 *4*	0.189	α(K)=0.1598 *23*; α(L)=0.0230 *4*; α(M)=0.00501 *7* α(N)=0.001158 *17*; α(O)=0.000179 *3*; α(P)=1.182×10^{-5} *17*
		924.2		5980.68	(35/2⁻)				
		938.8		5966.13	(33/2⁺)				
6960.6	(37/2)	139.2 *2*	100	6821.5	(35/2)	M1+E2	−0.20 *10*	0.854 *13*	α(K)=0.713 *16*; α(L)=0.111 *7*; α(M)=0.0244 *17* α(N)=0.0056 *4*; α(O)=0.00085 *5*; α(P)=5.26×10^{-5} *16*
		835.8		6124.8					
7022.31	(37/2⁻)	224.6		6797.8					
		915.1		6107.1					
		1041.7 *2*	100	5980.68	(35/2⁻)	M1(+E2)	−0.05 *5*	0.00446	α(K)=0.00380 *6*; α(L)=0.000520 *8*; α(M)=0.0001128 *16* α(N)=2.61×10^{-5} *4*; α(O)=4.04×10^{-6} *6*; α(P)=2.74×10^{-7} *4*
		1097.3		5924.72	(35/2⁻)	D+Q			Mult.: ΔJ=1 in ^{120}Sn(^{31}P,4nγ) (1994Me03) for a 1099γ.

$^{147}_{65}Tb_{82}$-13

Adopted Levels, Gammas (continued)

γ(^{147}Tb) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#g]	α[f]	Comments
7261.6	(41/2$^+$)	357.7 *1*	100	6903.94	(39/2$^+$)	M1(+E2)	−0.05 *5*	0.0652	α(K)=0.0552 *8*; α(L)=0.00783 *11*; α(M)=0.001706 *24* α(N)=0.000395 *6*; α(O)=6.09×10^{-5} *9*; α(P)=4.05×10^{-6} *6*
7271.9	(37/2$^+$)	607.2 *3*	100	6664.75	(35/2$^+$)	M1+E2	+0.20 *5*	0.0165 *3*	α(K)=0.01398 *25*; α(L)=0.00196 *4*; α(M)=0.000425 *7* α(N)=9.84×10^{-5} *16*; α(O)=1.519×10^{-5} *25*; α(P)=1.016×10^{-6} *18*
		1306.2		5966.13	(33/2$^+$)				
7275.3		1294.6	100	5980.68	(35/2$^-$)				
7307.0		346.5	100	6960.6	(37/2)				
7311.3		406.5	100	6904.88	(37/2$^+$)				
7336.42	(39/2$^-$)	61.2		7275.3					
		314.1 *1*	100.0 *14*	7022.31	(37/2$^-$)	M1+E2	+0.27 *3*	0.0894 *14*	α(K)=0.0753 *12*; α(L)=0.01100 *16*; α(M)=0.00241 *4* α(N)=0.000556 *8*; α(O)=8.53×10^{-5} *13*; α(P)=5.52×10^{-6} *9*
		375.8 *1*	46.3 *11*	6960.6	(37/2)	D(+Q)	0.00 *5*		
		431.5		6904.88	(37/2$^+$)				
		786.3		6550.0	(35/2$^-$)				
7506.3	(39/2$^+$)	234.4 *1*	100	7271.9	(37/2$^+$)	M1+E2	+0.08 *4*	0.202	α(K)=0.1702 *25*; α(L)=0.0245 *4*; α(M)=0.00536 *8* α(N)=0.001239 *18*; α(O)=0.000191 *3*; α(P)=1.259×10^{-5} *19*
		601.4		6904.88	(37/2$^+$)				
		1083.6		6422.9	(39/2$^-$)				
7540.4	(39/2$^-$)	269.0		7271.9	(37/2$^+$)				
		636.3 *1*	100	6903.94	(39/2$^+$)	(E1(+M2))	0.00 *+5−15*	0.00292 *11*	α(K)=0.00249 *9*; α(L)=0.000335 *14*; α(M)=7.2×10^{-5} *3* α(N)=1.67×10^{-5} *8*; α(O)=2.55×10^{-6} *11*; α(P)=1.65×10^{-7} *7*
		1118.0		6422.9	(39/2$^-$)				
7650.1		339.1	100	7311.3					
7714.54	(41/2$^-$)	208.2 *1*	47.8 *5*	7506.3	(39/2$^+$)	E1(+M2)	0.00 *+5−2*	0.042 *4*	α(K)=0.036 *3*; α(L)=0.0051 *6*; α(M)=0.00111 *14* α(N)=0.00025 *3*; α(O)=3.8×10^{-5} *5*; α(P)=2.2×10^{-6} *3*
		378.1 *1*	100.0 *12*	7336.42	(39/2$^-$)	M1(+E2)	+0.05 *5*	0.0564 *9*	α(K)=0.0477 *7*; α(L)=0.00676 *10*; α(M)=0.001473 *21* α(N)=0.000341 *5*; α(O)=5.26×10^{-5} *8*; α(P)=3.50×10^{-6} *6*
		403.2		7311.3					
		407.6		7307.0					
		809.4		6904.88	(37/2$^+$)				
		811.0 *2*	11.8 *8*	6903.94	(39/2$^+$)	(E1(+M2))	0.00 *+10−5*	0.00178 *20*	α(K)=0.00152 *17*; α(L)=0.00020 *3*; α(M)=4.4×10^{-5} *6* α(N)=1.01×10^{-5} *13*; α(O)=1.55×10^{-6} *20*; α(P)=1.01×10^{-7} *13*
7762.0	(43/2$^-$)	47.9		7714.54	(41/2$^-$)				
		112.1		7650.1					
		221.2 *2*	100	7540.4	(39/2$^-$)	E2		0.1642	B(E2)(W.u.)<11.1 α(K)=0.1159 *17*; α(L)=0.0374 *6*; α(M)=0.00866 *13* α(N)=0.00196 *3*; α(O)=0.000267 *4*; α(P)=6.78×10^{-6} *10* δ: δ(M3/E2)=0.00 *+5−2* in ^{120}Sn(^{31}P,4nγ).

$^{147}_{65}Tb_{82}$-14

Adopted Levels, Gammas (continued)

γ(^{147}Tb) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#g]	α[f]	Comments
7777.0	(45/2⁻)	(14.8)	100	7762.0	(43/2⁻)				
7806.6		545.0	100	7261.6	(41/2⁺)				
7843.9		1088.2	100	6755.7	(41/2)				
8119.1		468.9	100	7650.1					
8222.1		960.6	100	7261.6	(41/2⁺)				
8237.1		522.6	100	7714.54	(41/2⁻)				
8240.6		526.0	100	7714.54	(41/2⁻)				
8276.9		433.0 *3*	100	7843.9		D(+Q)	−0.07 *7*		
8433.9		156.9		8276.9					
		193.2		8240.6					
		196.7		8237.1					
		212.0		8222.1					
8449.7	(45/2⁻)	330.6		8119.1					
		687.6		7762.0	(43/2⁻)	Q			Mult.: ΔJ=2 in ^{120}Sn(^{31}P,4nγ) (1994Me03).
8506.5		229.6	100	8276.9					
8538.2		301.2		8237.1					
		776.2		7762.0	(43/2⁻)				
8616.3		901.8	100	7714.54	(41/2⁻)				
8751.4	(47/2⁻)	213.1		8538.2					
		301.6 *2*	14.4	8449.7	(45/2⁻)	M1(+E2)	+0.05 *5*	0.1023	α(K)=0.0866 *13*; α(L)=0.01235 *18*; α(M)=0.00269 *4* α(N)=0.000623 *9*; α(O)=9.61×10^{-5} *14*; α(P)=6.38×10^{-6} *10*
		989.4 *1*	100.0 *18*	7762.0	(43/2⁻)	E2		0.00296	α(K)=0.00249 *4*; α(L)=0.000366 *6*; α(M)=8.01×10^{-5} *12* α(N)=1.85×10^{-5} *3*; α(O)=2.80×10^{-6} *4*; α(P)=1.720×10^{-7} *24*
8773.4	(47/2⁺)	323.7		8449.7	(45/2⁻)				
		996.4 *1*	100 *23*	7777.0	(45/2⁻)	(E1(+M2))	−0.04 *6*	0.00122 *10*	α(K)=0.00104 *8*; α(L)=0.000137 *12*; α(M)=3.0×10^{-5} *3* α(N)=6.8×10^{-6} *6*; α(O)=1.05×10^{-6} *10*; α(P)=7.0×10^{-8} *7*
		1011.2		7762.0	(43/2⁻)				
8856.7	(47/2⁻)	318.5		8538.2					
		1094.8 *1*	100	7762.0	(43/2⁻)	E2		0.00240	α(K)=0.00203 *3*; α(L)=0.000292 *4*; α(M)=6.38×10^{-5} *9* α(N)=1.471×10^{-5} *21*; α(O)=2.24×10^{-6} *4*; α(P)=1.402×10^{-7} *20* δ(M3/E2)=0.00 *+30−5* in ^{120}Sn(^{31}P,4nγ).
8968.0		461.6		8506.5					
		534.1		8433.9					
9036.6	(49/2⁺)	180.0 *2*	23.3	8856.7	(47/2⁻)	E1(+M2)	0.00 *5*	0.062 *7*	α(K)=0.052 *5*; α(L)=0.0076 *10*; α(M)=0.00165 *23* α(N)=0.00038 *6*; α(O)=5.6×10^{-5} *8*; α(P)=3.1×10^{-6} *5*
		263.1 *1*	20.7 *4*	8773.4	(47/2⁺)	M1+E2	+0.17 *2*	0.1462	α(K)=0.1233 *18*; α(L)=0.0179 *3*; α(M)=0.00391 *6* α(N)=0.000904 *13*; α(O)=0.0001391 *20*; α(P)=9.09×10^{-6} *14*
		285.2 *1*	100.0 *8*	8751.4	(47/2⁻)	E1		0.0188	α(K)=0.01595 *23*; α(L)=0.00224 *4*; α(M)=0.000486 *7* α(N)=0.0001114 *16*; α(O)=1.676×10^{-5} *24*; α(P)=1.005×10^{-6} *14*
9507.9		891.6	100	8616.3					

$^{147}_{65}Tb_{82}$-15

Adopted Levels, Gammas (continued)

γ(^{147}Tb) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[#g]	α[f]	Comments
9731.2	(49/2$^+$)	957.8 *1*	100	8773.4	(47/2$^+$)	M1+E2	+0.29 *9*	0.00529 *14*	α(K)=0.00450 *12*; α(L)=0.000619 *15*; α(M)=0.000134 *4* α(N)=3.11×10^{-5} *8*; α(O)=4.81×10^{-6} *12*; α(P)=3.24×10^{-7} *9*
9920.7	(51/2$^+$)	884.1 *1*	100	9036.6	(49/2$^+$)	(M1+E2)	+1.00 *10*	0.00520 *17*	α(K)=0.00440 *15*; α(L)=0.000626 *18*; α(M)=0.000136 *4* α(N)=3.15×10^{-5} *9*; α(O)=4.83×10^{-6} *15*; α(P)=3.13×10^{-7} *11*
9955.4	(53/2$^+$)	224.4		9731.2	(49/2$^+$)				
		918.8 *1*	100	9036.6	(49/2$^+$)	E2		0.00346	α(K)=0.00291 *4*; α(L)=0.000434 *6*; α(M)=9.51×10^{-5} *14* α(N)=2.19×10^{-5} *3*; α(O)=3.32×10^{-6} *5*; α(P)=2.00×10^{-7} *3*
9974.5		1223.1	100	8751.4	(47/2$^-$)				
10346.3		838.3	100	9507.9					
10380.7		425.3	100	9955.4	(53/2$^+$)				
10429.0	(53/2$^+$)	508.3 *2*	100	9920.7	(51/2$^+$)	M1(+E2)	+0.02 *12*	0.0263 *5*	α(K)=0.0223 *4*; α(L)=0.00312 *5*; α(M)=0.000680 *11* α(N)=0.0001573 *25*; α(O)=2.43×10^{-5} *4*; α(P)=1.63×10^{-6} *3*
		1392.5		9036.6	(49/2$^+$)				
10552.3		631.6	100	9920.7	(51/2$^+$)				
10731.9	(55/2$^+$)	776.4 *2*	100	9955.4	(53/2$^+$)	(M1(+E2))	−0.15 *20*	0.0090 *4*	α(K)=0.0077 *4*; α(L)=0.00106 *4*; α(M)=0.000231 *9* α(N)=5.33×10^{-5} *20*; α(O)=8.2×10^{-6} *4*; α(P)=5.6×10^{-7} *3*
10822.4		867.0	100	9955.4	(53/2$^+$)				
10897.3	(51/2$^+$)	1166.1 *2*	100	9731.2	(49/2$^+$)	(M1+E2)	+0.28 *3*	0.00332	α(K)=0.00283 *5*; α(L)=0.000386 *6*; α(M)=8.38×10^{-5} *13* α(N)=1.94×10^{-5} *3*; α(O)=3.00×10^{-6} *5*; α(P)=2.03×10^{-7} *4*; α(IPF)=2.83×10^{-6} *5*
11036.6	(57/2$^+$)	304.6 *2*	10.0 *11*	10731.9	(55/2$^+$)	D(+Q)	0.00 *10*		
		1081.3 *1*	100.0 *19*	9955.4	(53/2$^+$)	E2		0.00246	α(K)=0.00208 *3*; α(L)=0.000301 *5*; α(M)=6.56×10^{-5} *10* α(N)=1.511×10^{-5} *22*; α(O)=2.30×10^{-6} *4*; α(P)=1.437×10^{-7} *21*
11316.1		763.7	100	10552.3					
11450.0		552.6		10897.3	(51/2$^+$)				
		718.1		10731.9	(55/2$^+$)				
		1069.3		10380.7					
11497.2		181.0	100	11316.1					
11638.0	(59/2$^-$)	601.4 *2*	100	11036.6	(57/2$^+$)	(E1(+M2))	−0.10 *10*	0.0038 *14*	α(K)=0.0032 *12*; α(L)=4.4×10^{-4} *18*; α(M)=9.6×10^{-5} *40* α(N)=2.20×10^{-5} *92*; α(O)=3.4×10^{-6} *15*; α(P)=2.17×10^{-7} *92*
11841.0		391.0	100	11450.0					
11929.6		893.1	100	11036.6	(57/2$^+$)				
12083.1	(59/2$^+$)	153.6		11929.6					
		585.8		11497.2					
		1046.4 *2*	100	11036.6	(57/2$^+$)	M1+E2	+1.1 *4*	0.0034 *4*	α(K)=0.0029 *4*; α(L)=0.00041 *5*; α(M)=8.9×10^{-5} *9* α(N)=2.06×10^{-5} *22*; α(O)=3.2×10^{-6} *4*; α(P)=2.1×10^{-7} *3*
12372.7	(61/2$^+$)	289.6 *1*	100 *3*	12083.1	(59/2$^+$)	M1+E2	−0.17 *7*	0.1129 *20*	α(K)=0.0953 *18*; α(L)=0.01377 *20*; α(M)=0.00301 *5* α(N)=0.000695 *10*; α(O)=0.0001070 *16*; α(P)=7.02×10^{-6} *15*

$^{147}_{65}Tb_{82}$-16

Adopted Levels, Gammas (continued)

γ(^{147}Tb) (continued)

E_i(level)	J_i^π	E_γ [†]	I_γ [‡]	E_f	J_f^π	Mult.[#]	δ[#g]	α[f]	Comments
12662.2	(61/2$^+$)	1024.2[&]	100	11638.0	(59/2$^-$)	E1		1.14×10^{-3}	α(K)=0.000976 *14*; α(L)=0.0001283 *18*; α(M)=2.77×10^{-5} *4* α(N)=6.38×10^{-6} *9*; α(O)=9.82×10^{-7} *14*; α(P)=6.53×10^{-8} *10*
12813.9	(63/2$^+$)	441.2 *1*	100	12372.7	(61/2$^+$)	M1+E2	−0.34 *8*	0.0360 *10*	α(K)=0.0304 *9*; α(L)=0.00437 *9*; α(M)=0.000954 *19* α(N)=0.000221 *5*; α(O)=3.39×10^{-5} *8*; α(P)=2.21×10^{-6} *7*
13317.2	(65/2$^+$)	503.4 *1*	100	12813.9	(63/2$^+$)	M1+E2	−0.80 *55*	0.022 *5*	α(K)=0.018 *4*; α(L)=0.0028 *4*; α(M)=0.00061 *8* α(N)=0.000141 *18*; α(O)=2.1×10^{-5} *3*; α(P)=1.3×10^{-6} *3*
		944.5		12372.7	(61/2$^+$)				
13823.8	(67/2$^+$)	506.6 *2*	100	13317.2	(65/2$^+$)	M1+E2	−0.85 *45*	0.021 *4*	α(K)=0.018 *4*; α(L)=0.0027 *3*; α(M)=0.00059 *7* α(N)=0.000137 *15*; α(O)=2.1×10^{-5} *3*; α(P)=1.27×10^{-6} *25*
13908.3		1246.1	100	12662.2	(61/2$^+$)				
14344.5		520.6	100	13823.8	(67/2$^+$)				
826.0+x	J+2	826[c]		x	J				
1710.0+x	J+4	884[c]		826.0+x	J+2				
2651.0+x	J+6	941[c]		1710.0+x	J+4				
3649.0+x	J+8	998[c]		2651.0+x	J+6				
4704.0+x	J+10	1055[c]		3649.0+x	J+8				
5815.0+x	J+12	1111[c]		4704.0+x	J+10				
6982.0+x	J+14	1167[c]		5815.0+x	J+12				
8206.0+x	J+16	1224[c]		6982.0+x	J+14				
9487.0+x	J+18	1281[c]		8206.0+x	J+16				

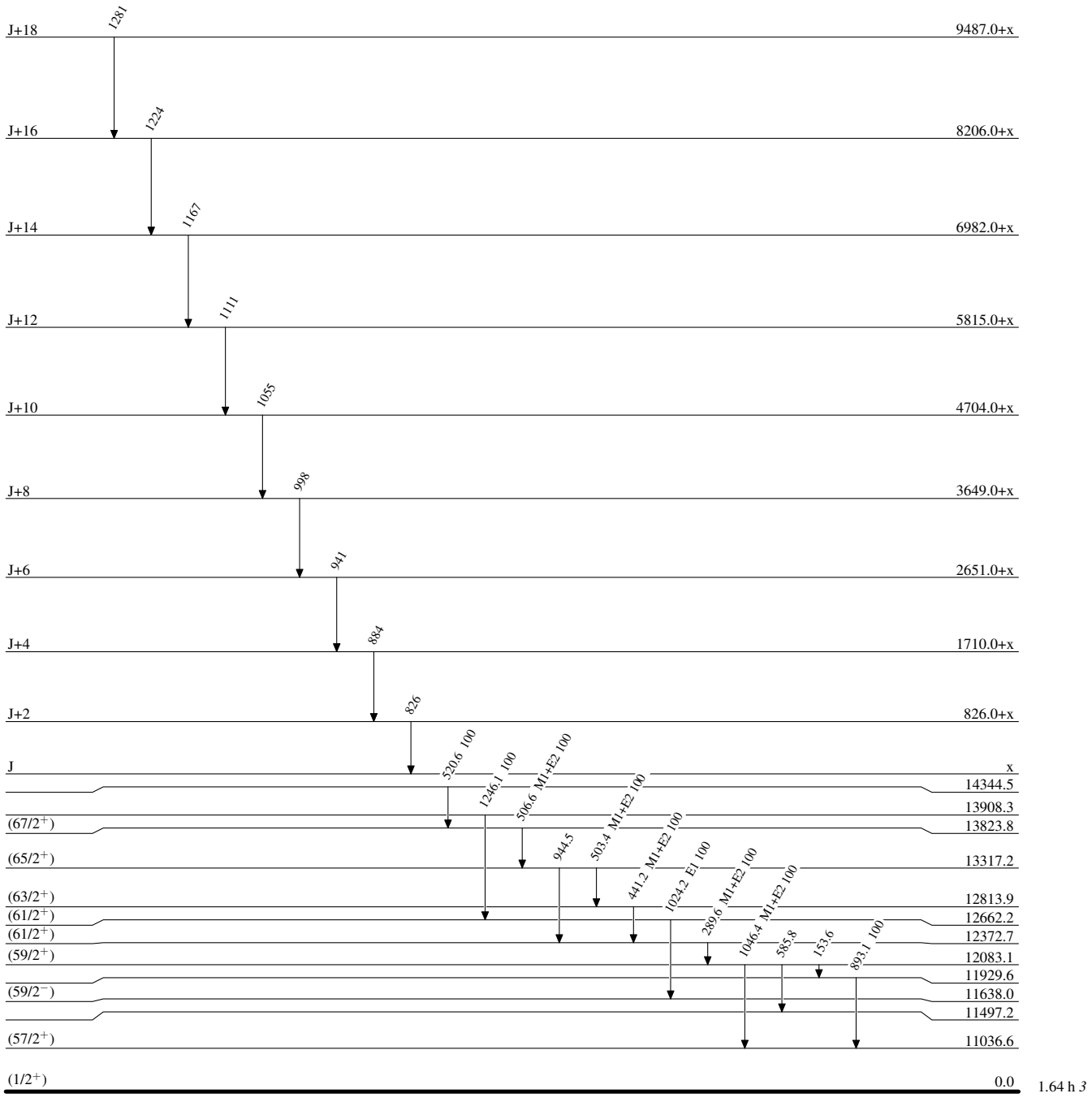
[†] As indicated below 5131 and above from ^{120}Sn(^{31}P,4nγ).
[‡] From ^{120}Sn(^{31}P,4nγ) unless mentioned otherwise.
[#] From ^{120}Sn(^{31}P,4nγ) based on ce and DCO data, except where noted.
[@] From ^{144}Sm(^{6}Li,3nγ).
[&] From ^{120}Sn(^{31}P,4nγ).
[a] From ^{147}Dy ε decay (67 s).
[b] From ^{147}Dy ε decay (55.2 s).
[c] γ's of super-deformed band from ^{120}Sn(^{31}P,4nγ) (1996Ni10).
[d] Based α(K)exp and γ(θ) in ^{144}Sm(^{6}Li,3nγ).
[e] From ^{144}Sm(^{6}Li,3nγ) (1995Co12).
[f] Additional information 3.
[g] Additional information 4.

$^{147}_{65}Tb_{82}$-17

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level

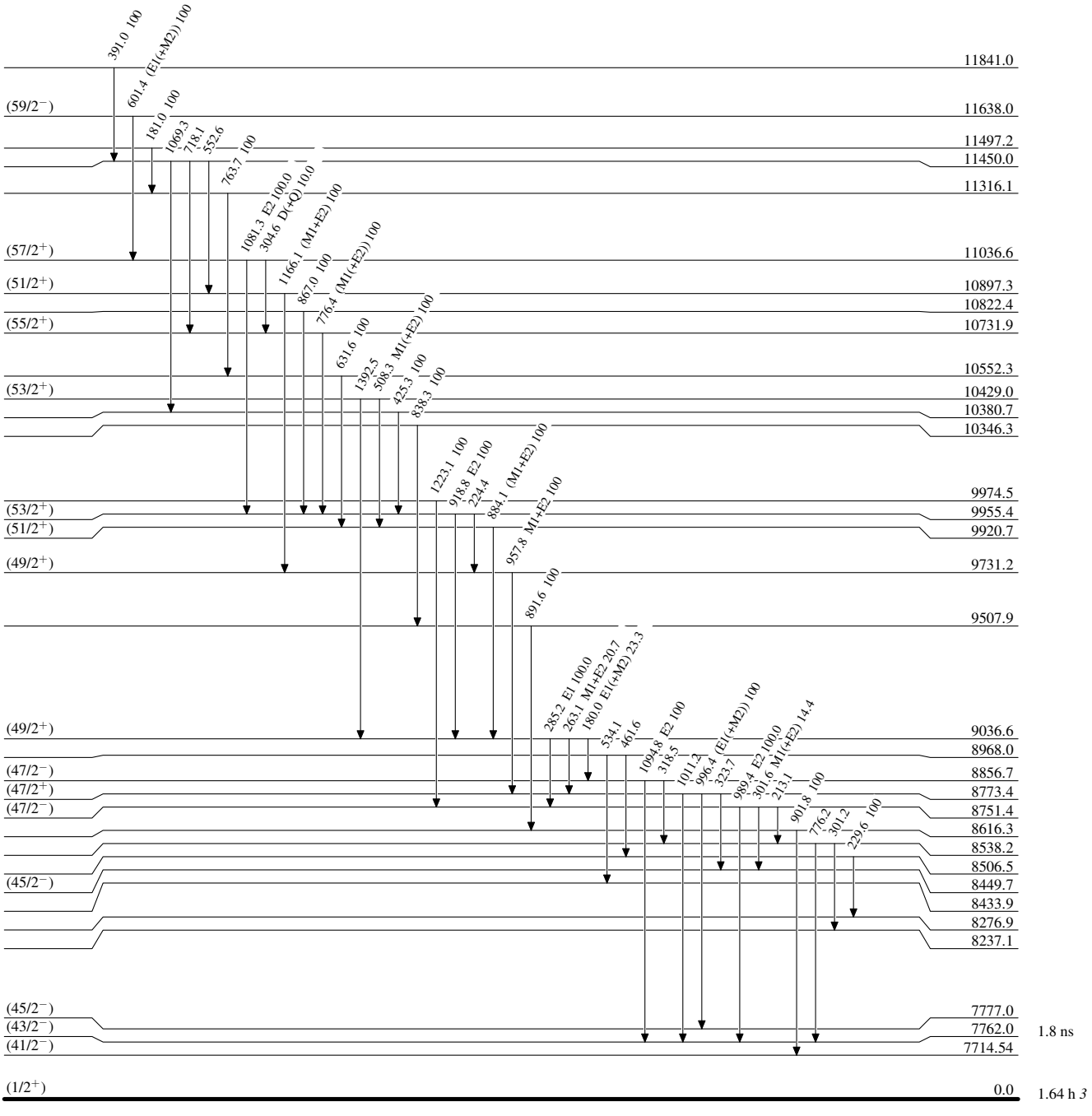


$^{147}_{65}Tb_{82}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{147}_{65}Tb_{82}$

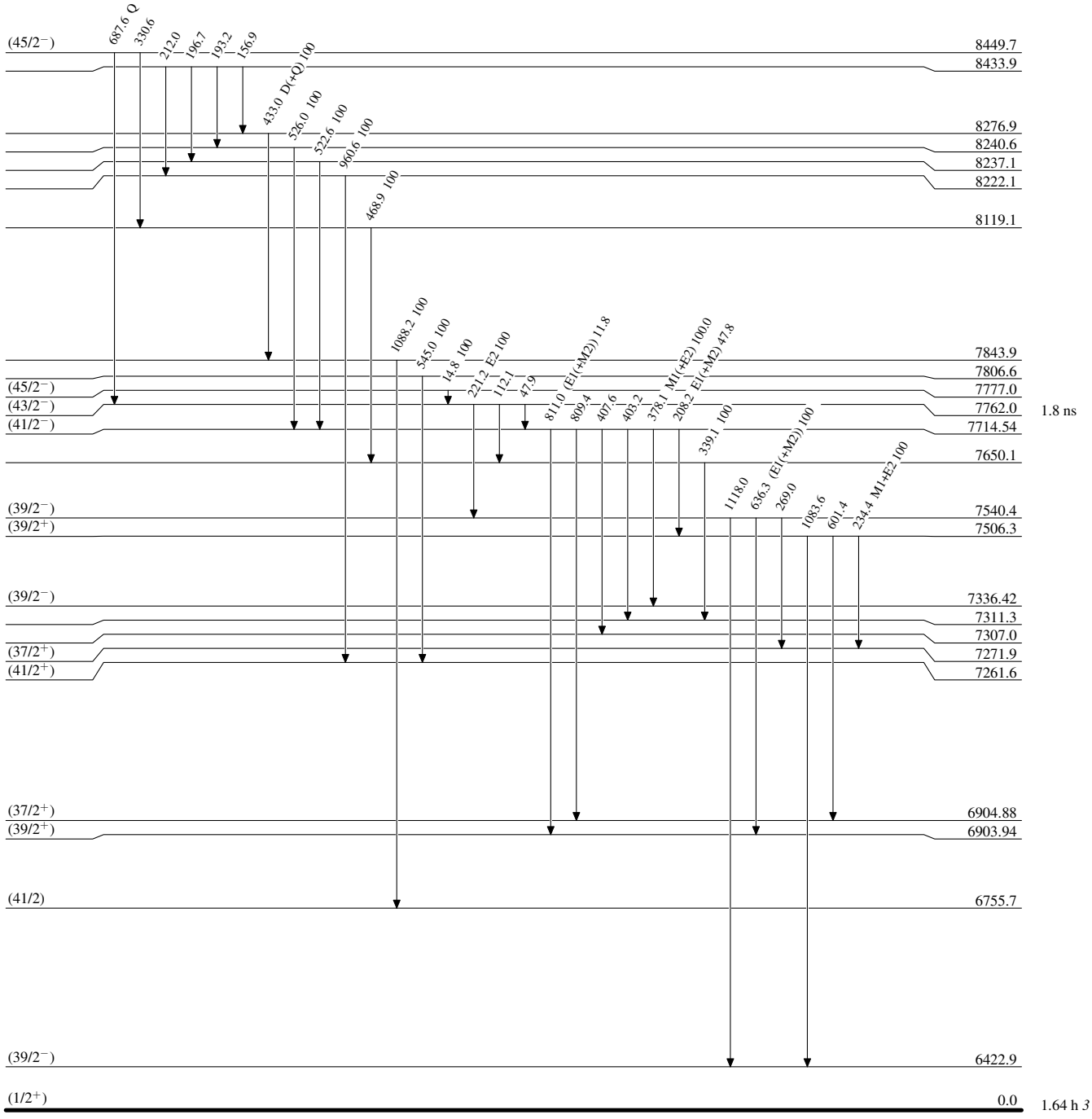
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

- - - - - - ► γ Decay (Uncertain)

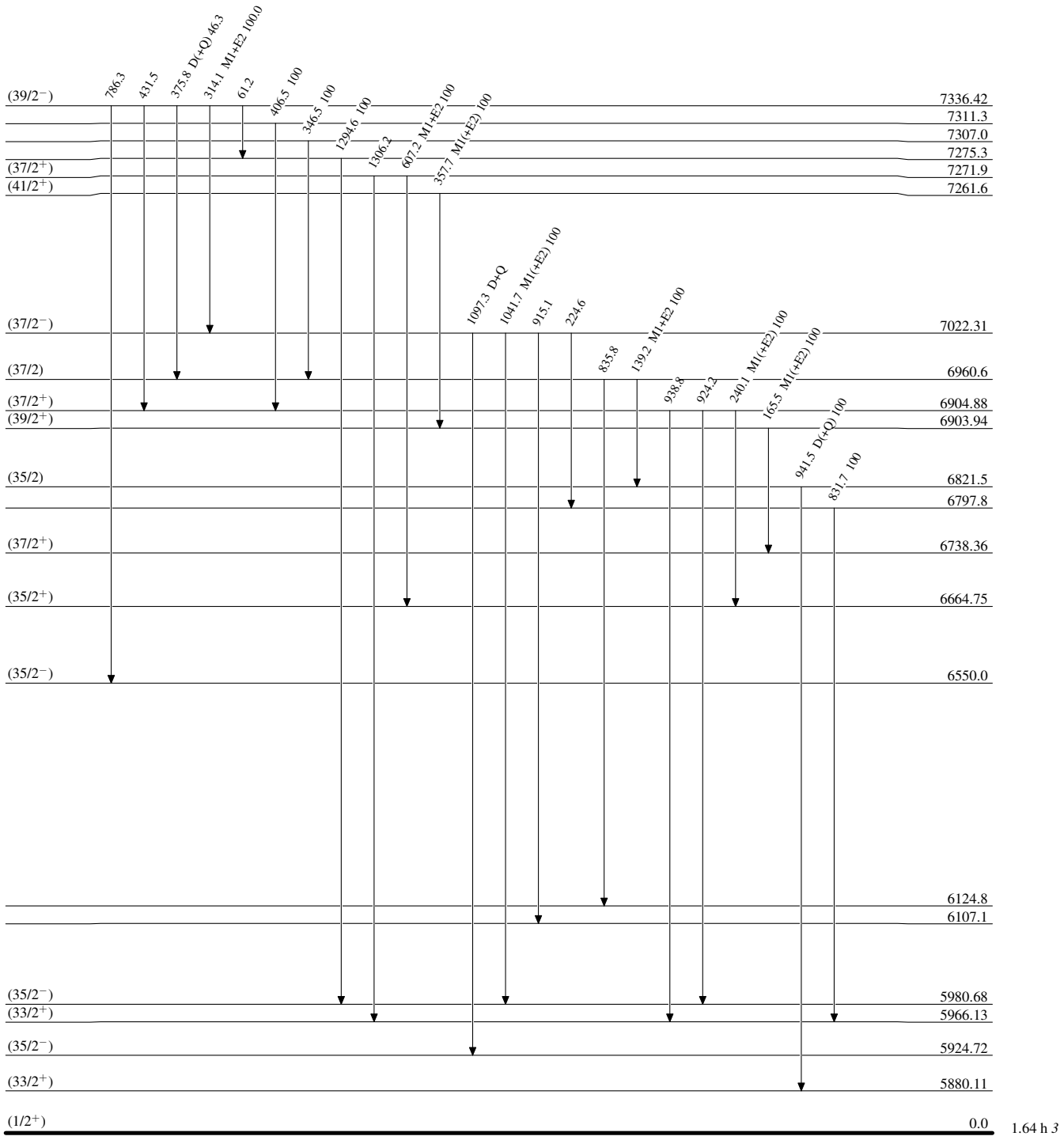


$^{147}_{65}Tb_{82}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

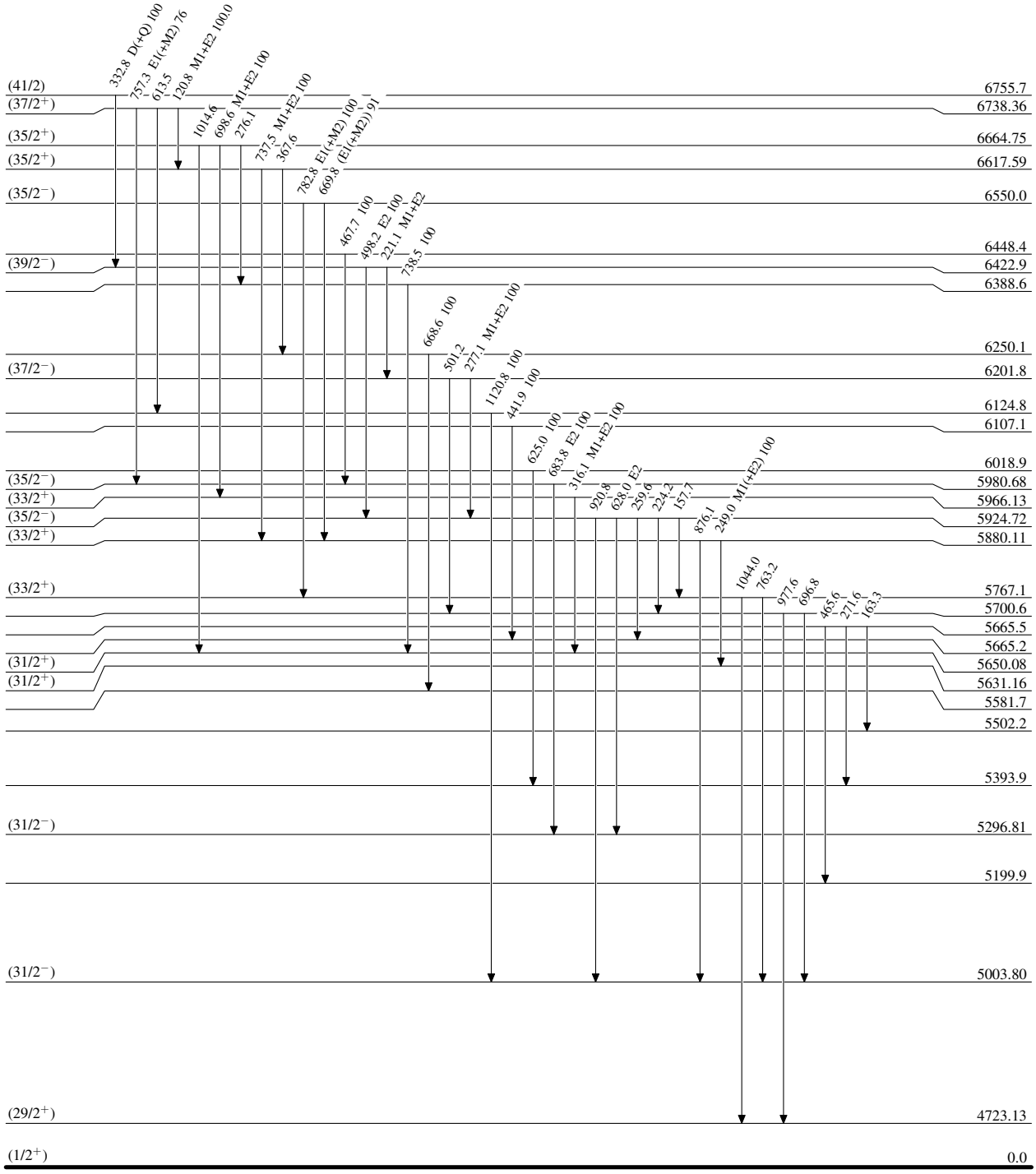


$^{147}_{65}Tb_{82}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

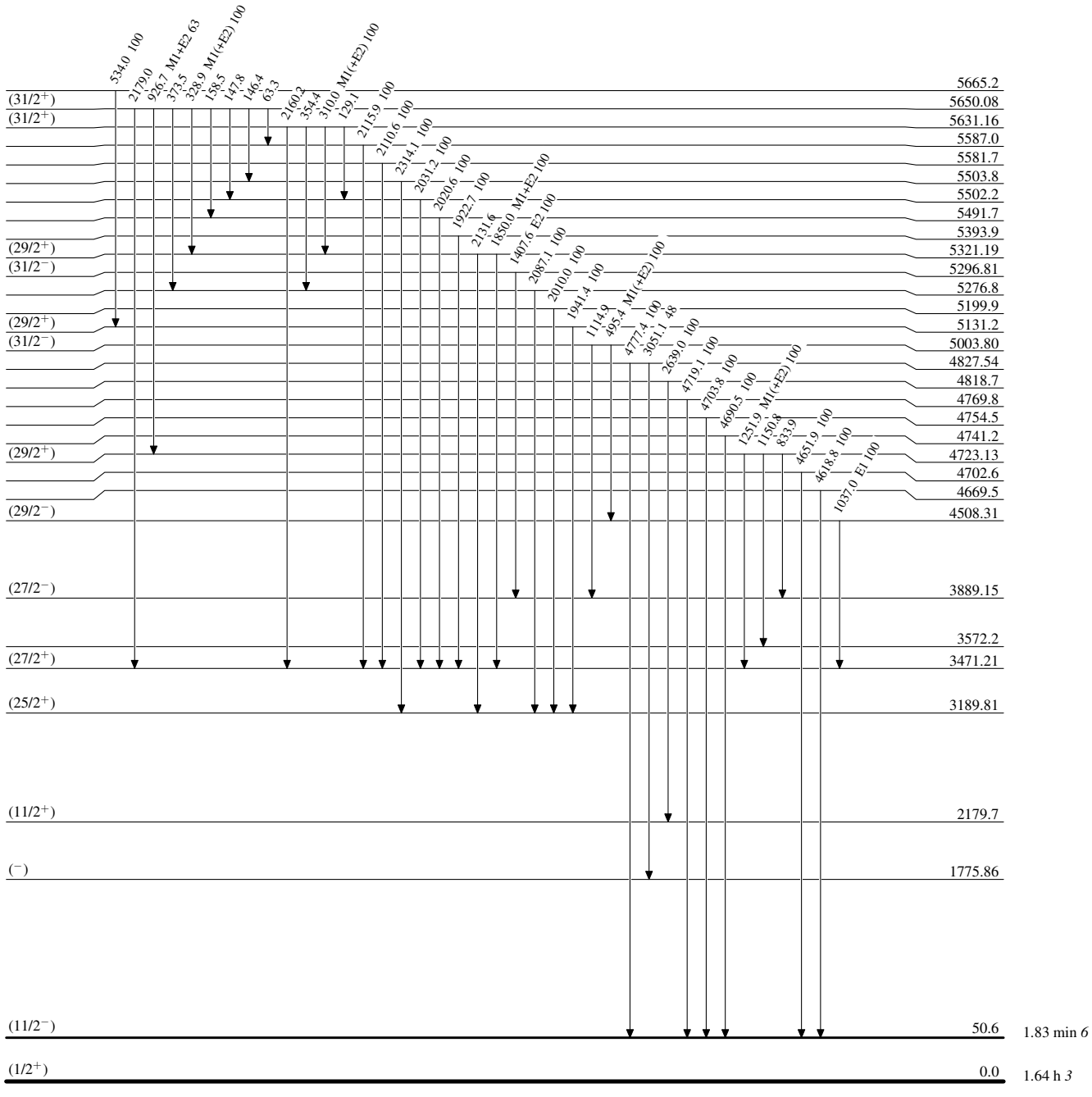


$^{147}_{65}Tb_{82}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

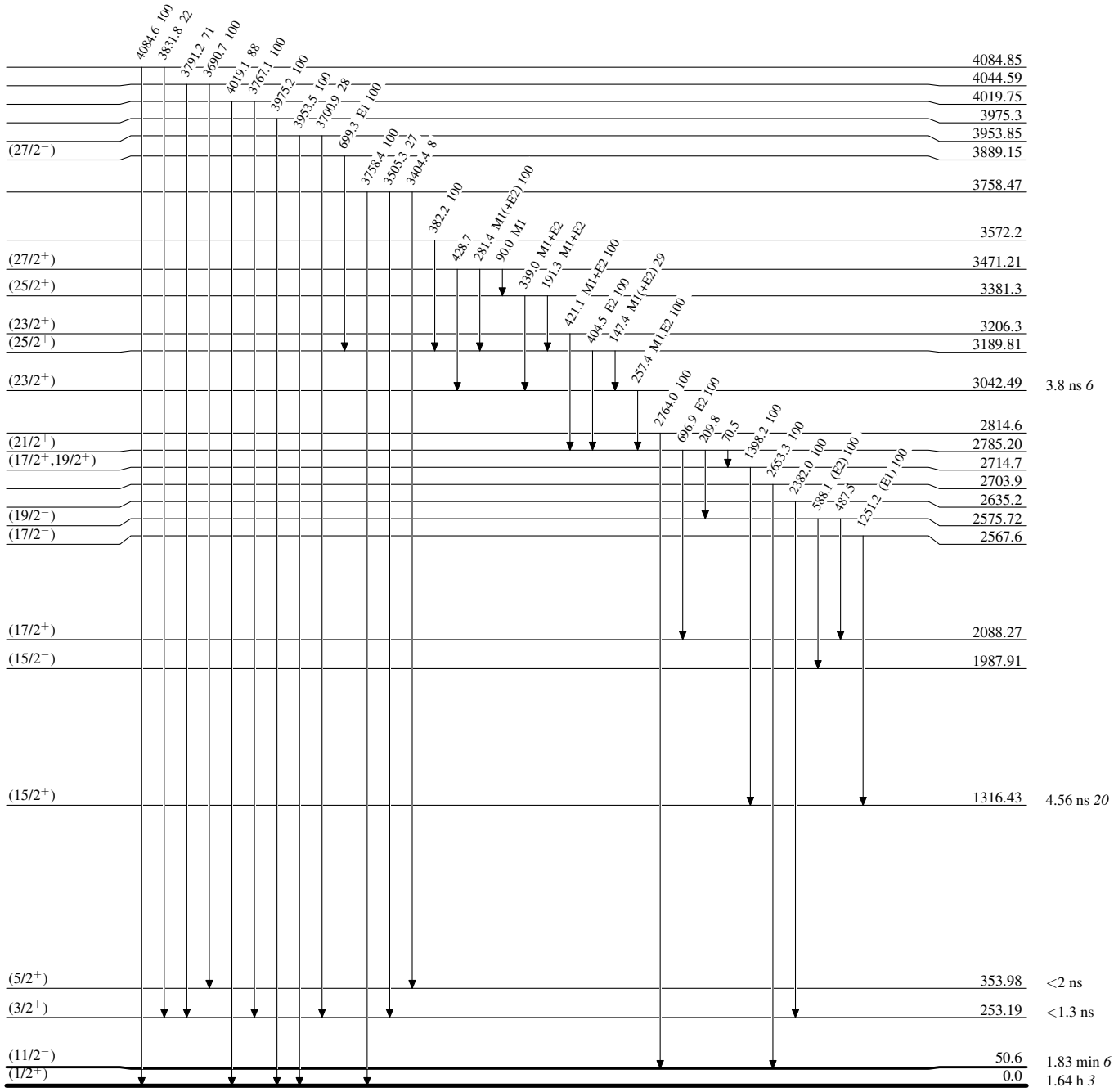


$^{147}_{65}Tb_{82}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

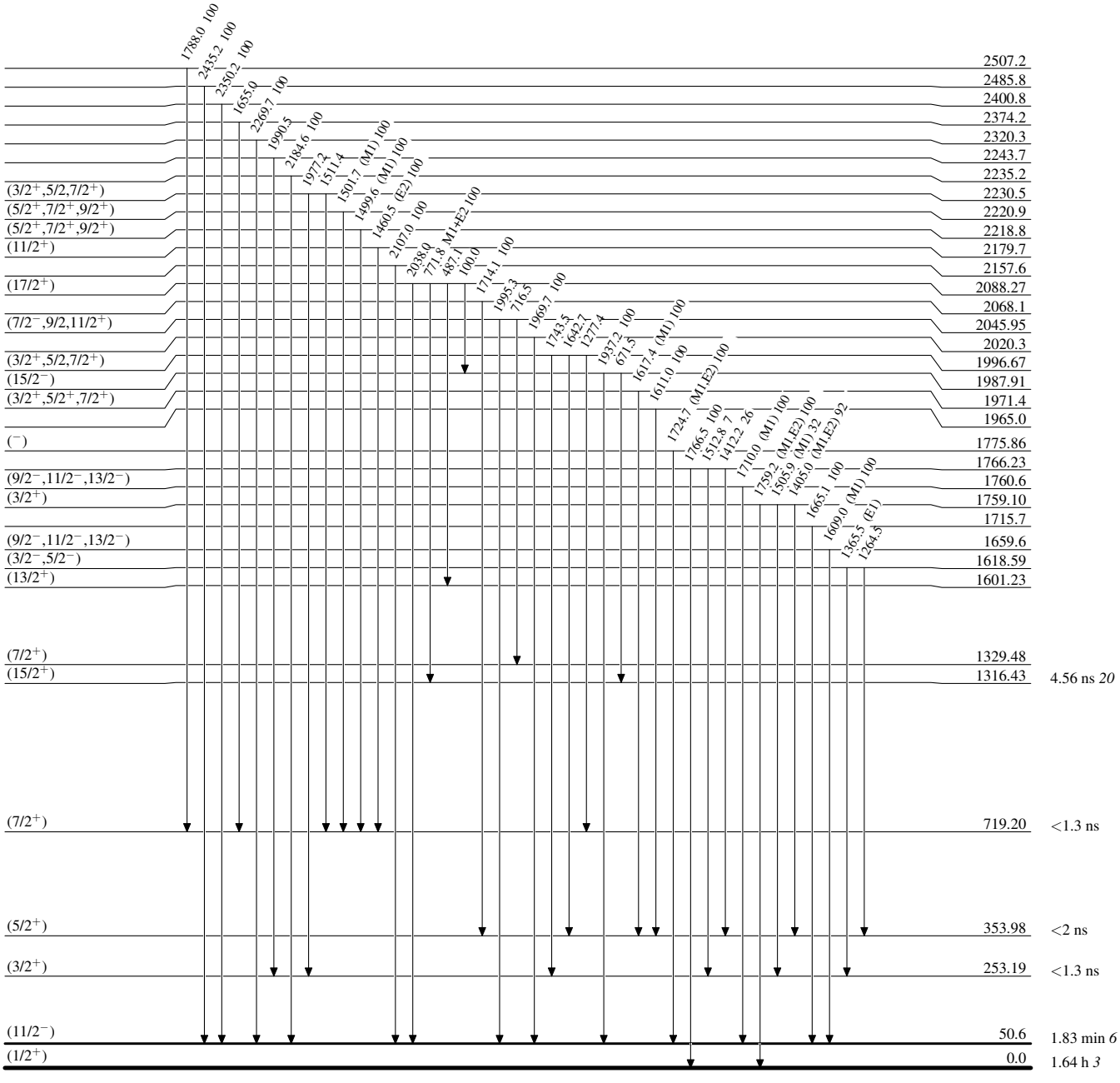


$^{147}_{65}Tb_{82}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

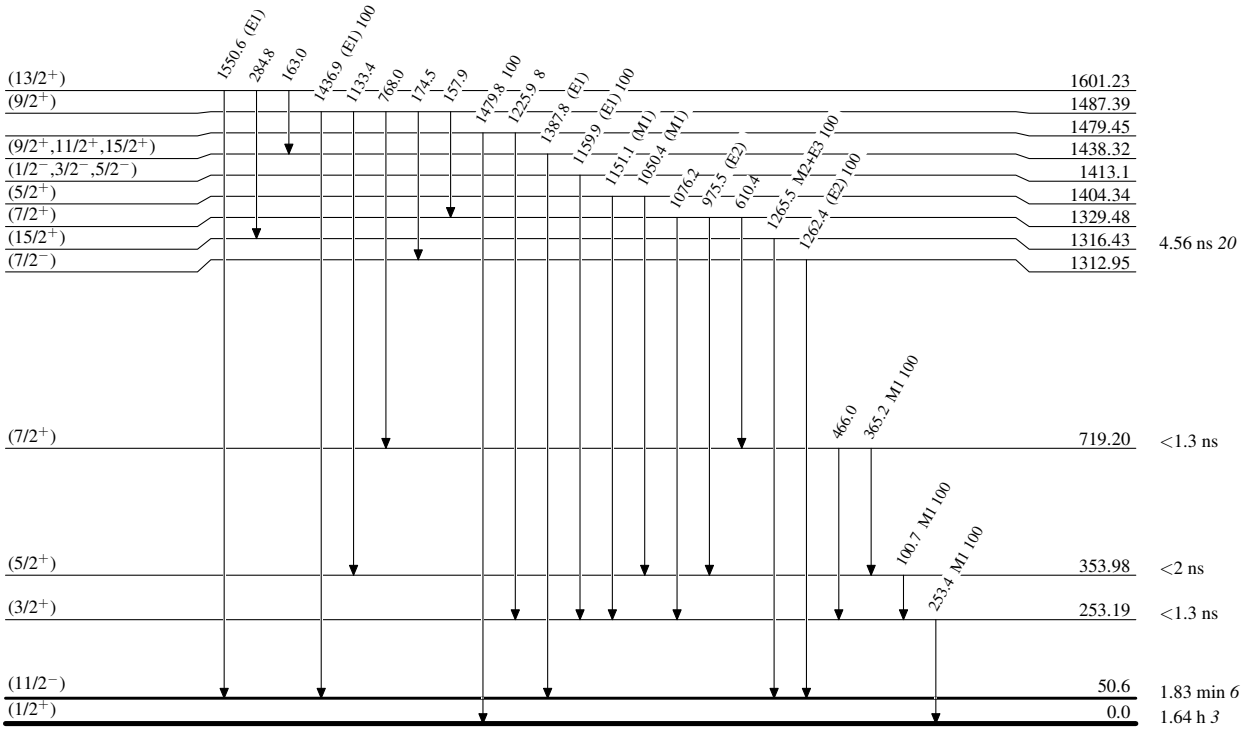


$^{147}_{65}Tb_{82}$

Adopted Levels, Gammas

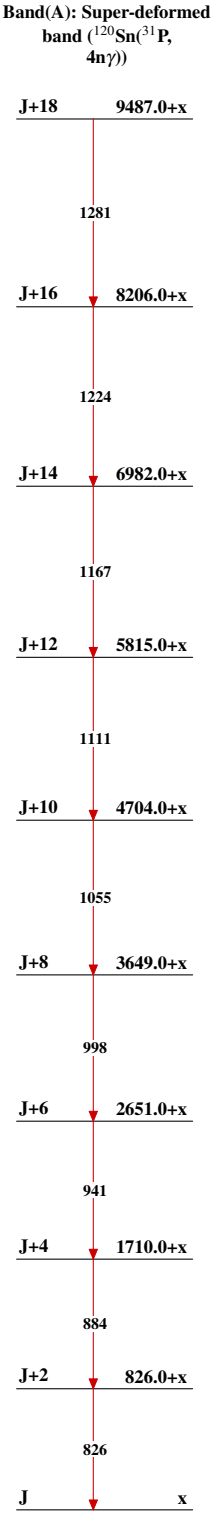
Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{147}_{65}Tb_{82}$

Adopted Levels, Gammas



$^{147}_{65}Tb_{82}$