Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 141, 1 (2017)	1-Feb-2017

Q(β^-)=−4.22×10^3 *3*; S(n)=9054 *5*; S(p)=6932.9 *25*; Q(α)=873.7 *24* 2017Wa10
S(2n)=16021.0 *5*; S(2p)=12450.4 *25* 2017Wa10
Additional information 1.
Additional information 2 (1990So04); and configurations (1965Be40, 1986So09, and 1990So04).

^{158}Dy Levels

Additional information 3.

Cross Reference (XREF) Flags

A	^{158}Tb β^- decay	F	^{156}Dy(t,p)	K	^{160}Dy(p,t)
B	^{158}Ho ε decay (11.3 min+28 min)	G	^{158}Dy(d,d′)	L	^{165}Ho(π^-,7nγ)
C	^{158}Ho ε decay (21.3 min)	H	Coulomb excitation	M	(HI,xnγ)
D	^{130}Te(^{36}S,α4nγ)	I	^{159}Tb(p,2nγ),(d,3nγ)		
E	^{150}Nd(^{12}C,4nγ)	J	^{159}Tb(^{6}Li,α3nγ)		

E(level)[†]	J$^\pi$	T$_{1/2}$[‡]	XREF	Comments
0.0[b]	0$^+$	stable	ABCDEFGHIJKLM	Evaluated RMS charge radius: <r^2>$^{1/2}$=5.1815 fm *3023* (2013An02) δ<r^2>(156-158)=0.215 fm^2 *12* and δ<r^2>(158-160)=0.150 fm^2 *12* (1982Cl04); others: 1970Va21 and 1978Ho09.
98.9180[b] *10*	2$^+$	1.66 ns *3*	ABCDEFGHIJKLM	μ=+0.72 *5* (2014StZZ) J$^\pi$: From E2 γ to 0$^+$ level. T$_{1/2}$: Weighted average of 1.63 ns *8* (1970Mo39) from ^{158}Ho ε decay; 1.76 ns *10* (1968Sc04) and 1.64 ns *8* (1966Fu03) from ^{158}Tb β-decay; and 1.66 ns *4* calculated from B(E2)↑=4.67 *4* (1977Ro27). Other: 1.7 ns *1* (1966Ab02) from ^{158}Ho ε decay. μ: Measured by Integral Perturbed Angular Correlation (1993Al09, and adopted by 2014StZZ compilation).
317.139[b] *4*	4$^+$	72 ps *4*	ABCDEFGHIJKLM	μ=+1.36 *8* (2014StZZ) J$^\pi$: From E2 γ to 2$^+$ level and expected band structure. T$_{1/2}$: Weighted average of 75 ps *8* microwave (1968Be29) and 71 ps *5* recoil-distance (1981Em01). μ: From g-factor=+0.340 *20* measured by Perturbed Angular Correlation (1993Al09); others (also quoted in 2014StZZ compilation): +1.33 *10* (from g-factor +0.333 *25* (1997Al04 by same authors as 1993Al09); +1.4 *2* (from g-factors +0.35 *6* (1983Se09) and +0.36 *6* (1973Ka25)).
637.712[b] *25*	6$^+$	9.1 ps *10*	BCDE G I LM	μ=+1.42 *13* (2014StZZ) J$^\pi$: From E2 γ to 4$^+$ level and expected band structure. μ: From g-factor=+0.236 *22* measured by Perturbed Angular Correlation (1997Al04); others: +1.2 *2* (from g-factor +0.21 *4* (1993Al09 by same authors as 1997Al04)).
946.32[i] *3*	2$^+$	0.85 ps *11*	B FGHI K	J$^\pi$: From E2 γ to 2$^+$ level and γ′s to 0$^+$ and 4$^+$. T$_{1/2}$: Calculated from B(E2)=0.149 *8*.
990.73[h] *12*	0$^+$		B FG I K	J$^\pi$: L=0 in ^{160}Dy(p,t), L=0 in ^{156}Dy(t,p), and E0 γ to 0$^+$ level.
1043.88[b] *7*	8$^+$	2.9 ps *6*	BCDE HI LM	μ=+2.5 *7* (2014StZZ) μ: Measured by Perturbed Angular Correlation (1997Al04); g-factors:

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Adopted Levels, Gammas (continued)

^{158}Dy Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$[‡]	XREF	Comments
				+0.31 *9* (1997Al04), +0.21 *11* (1993Al09 by same authors as 1997Al04), +0.41 *13* (1983Se09), 0.36 *6* (1973Ka25). Jπ: From E2 γ to 6+ level and expected band structure.
1044.594[i] *21*	3+		BC I	Jπ: From expected band structure and E2 γ to 4+ level.
1085.55[h] *5*	2+	0.53 ps *10*	B GHI	Jπ: From E2 γ to 0+ level. $T_{1/2}$: Calculated from B(E2)=0.053 *8*.
1163.75[i] *3*	4+		B FG I	Jπ: From E2 γ's to 2+ and 4+ levels and γ to 6+.
1269[j]	0+		F	Jπ: From L=0 in ^{156}Dy(t,p).
1280.01[h] *5*	4+		B G I	Jπ: From γ's to 2+ and 6+ levels.
1314.78[i] *3*	5+		B E I M	Jπ: From E2 γ's to 4+ and 6+ levels and expected band structure.
1362[j]	(2+)		F	Jπ: From assumed band structure.
1371.73 *5*	(1,2,3)−		B	Jπ: From E2 γ from 1− level and γ to 2+. $T_{1/2}$: Reported as ≈ 1 ns in 1980RoZM in (α,2nγ).
1397.17 *4*	3−		B FGH	B(E3)↑=0.23 *5* Jπ: From E1 γ to 2+ level and L=3 in (d,d′).
1441.75 *5*	1−		B G	Jπ: From E1 γ to 0+ level.
1476.9 *8*			C	
1486.28[i] *9*	6+		B I	Jπ: From E2 γ to 4+ level and expected band structure.
1501.14 *9*			B	
1513.54 *6*	2+,3,4+		B G	Jπ: From γ's to 2+ and 4+ levels.
1518.45 *8*	3−,4−		B F	Jπ: From E1 γ to 4+ level and γ to 3+.
1520.0[b] *4*	10+	1.41 ps *19*	CDE I LM	Jπ: From E2 γ to 8+ level and expected band structure.
1528.07 *7*	5−		B G	Jπ: From E1 γ to 4+ level and γ to 6+.
1547.32[h] *7*	6+		B G I	XREF: I(1552). Jπ: From E2 γ to 4+ level and expected band structure.
1559	0+		F	Jπ: From L=0 in ^{156}Dy(t,p).
1607.99 *9*	(2)+	>0.18 ps	B H	Jπ: From Coulomb excitation and γ's to 0+ and 2+ levels. $T_{1/2}$: Calculated from BE2 < 0.023.
1618.54 *15*	3−,4−,5−		B	Jπ: From E1 γ to 4+ level.
1634.54 *16*			B	
1671.64 *15*	2+,3,4+		B	Jπ: From γ's to 2+ and 4+ levels.
1675.84[i] *20*	7+		B I M	Jπ: From expected band structure and γ to 6+ level.
1710.31 *16*	(+)		B G K	1713 found as 0+ candidate by 2008VaZU. Jπ: (E2) γ to 2+.
1743	0+		F	Jπ: From L=0 in ^{156}Dy(t,p).
1762.5[e] *6*	(6−)		E	Jπ: ΔJ=1 γ to 5+; π=(−) from no γ to 4+.
1818.83 *10*			B G	XREF: G(1821).
1828			F	
1840.15 *14*	2+,3,4+		B G	XREF: G(1838). Jπ: From γ's to 2+ and 4+ levels.
1851.96[k] *6*	2+		B	Jπ: From M1 γ to 2+, γ to 0+, and assumed band structure.
1892.8[i] *7*	(8+)		I	Jπ: From γ's to 6+ and 8+ levels and expected band structure. Assigned to both the $K^π=0^+$ β-vibrational band and $K^π=2^+$ γ-vibrational band.
1895.16[l] *3*	4+	<0.11 ns	B	Jπ: From E2 γ to 2+; log *ft*=5.1 from 5+ ^{158}Ho ground state. $T_{1/2}$: From Xγ(t) (1973Ch28).
1920.43 *8*	3+,4+,5+		B FG	XREF: G(1924). Jπ: From M1 γ to 4+ level.
1940.75[k] *4*	3+		B	Jπ: From M1 γ to 4+ level, E2 γ to 2+, and expected band structure.
1975.75 *10*	1+,2+		B G	Jπ: From M1 γ to 2+ level and γ to 0+.
2000	0+		F	Jπ: From L=0 in ^{156}Dy(t,p).
2021.93[l] *6*	5+		BC	Jπ: From M1 γ component to 5+ level, E2 γ to 3+, and expected band structure.

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Adopted Levels, Gammas (continued)

^{158}Dy Levels (continued)

E(level)†	Jπ	$T_{1/2}$‡	XREF	Comments
2034			G	
2048			G	
2048.8[b] 7	12+	0.85 ps 16	DE HI LM	Jπ: From E2 γ to 10+ level and expected band structure.
2055.43[k] 4	4+		B	Jπ: From M1 γ's to 4+ and 5+ levels and γ to 2+.
2096.6[e] 6	(8−)		C Efg	XREF: f(2102)g(2101). Jπ: Based on DCO ratios of in-band 334γ and inter-band 1053γ in (^{12}C,4nγ) (2003Ha45; values not given).
2107.68 4	4+		B fg	XREF: f(2102)g(2101). Jπ: From M1 γ's to 2+ and 4+ levels and γγ(θ). Jπ: Assigned on the basis of γγ(θ) as 4+ by 1993Al09 with configuration ((ν,5/2[523])+(ν,3/2[521])) and ((ν,11/2[505])-(ν,3/2[521])).
2153.62[l] 11	6+		B G	Jπ: From expected band structure and E2 γ to 5+.
2208.7 7			C Ef	XREF: f(2208).
2211.10[k] 7	(5+)		B f	XREF: f(2208). Jπ: From expected band structure and γ's to 4+ levels.
2231.5[c] 7	(8−)		E	Jπ: Based on DCO ratios of inter-band 469γ and 1188γ in (^{12}C,4nγ) (2003Ha45; values not given); band π=(−) given at 2476 band level.
2260			F	
2318			F	
2351			F	
2361.7[g] 7	(8−)		C E	Jπ: (6−,7,8−) from γ's to (6−) and (8−); (8−) more likely for (^{12}C,4nγ) reaction.
2382.46 5	4+		B	Jπ: From M1 γ to 4+ level, γ to 2+, and γ to 5−.
2388.82[k] 13	(6+)		B	Jπ: From expected band structure and γ's to 4+ and 6+ levels.
2409.57 7	2−,3−,4−		B	Jπ: From E1 γ to 3+ level.
2409.70 4	4+		B	Jπ: From γ's to 2+ and 6+ levels and E2 γ to 4+.
2436.52 6	3+,4+		B	Jπ: From M1 γ to 4+ level and γ's to 2+.
2452.8[d] 9	(11−)		DE	Jπ: D γ to 10+ and π=(−) based on band configuration in (^{12}C,4nγ) (2003Ha45).
2467.8[f] 10	(9−)#		E	
2476.7[c] 7	(10−)		DE M	Jπ: Q,(E2) γ to (8−) and band structure.
2512.1[e] 12	(10−)		E	Jπ: Based on band assignment and DCO ratio measurements in (^{12}C,4nγ) (2003Ha45; values not given).
2518.69 13	4+		B	Jπ: From γ's to 2+ and 6+ levels and M1 γ to 4+.
2528.1[l] 6	(8+)		C	Jπ: From γ's to 8+ and 10+ levels, J is 8, 9, or 10. From model calculations of decay γ's, 1997Ka49 assign this level as the 8+ level of the K^{π} = 4+ band.
2538.55 11	3+,4+		B	Jπ: From M1 γ to 4+ level and γ's to 2+.
2600.7[g] 10	(10−)#		E	
2605.95 11	1−		B	Jπ: From E1 γ to 0+ level.
2612.2[b] 7	14+	0.73 ps 15	DE H LM	Jπ: From expected band structure and E2 γ to 12+ level.
2644.53 7	(+)		B	Jπ: (E2) γ to 2+.
2672.33 11	4+		B	Jπ: From γ's to 2+ and 6+ levels.
2758.8[f] 12	(11−)#		E	
2807.4[c] 9	(12−)@		DE M	
2886.9[d] 9	(13−)		DE M	Jπ: D γ to 12+ and π=(−) based on band configuration in (^{12}C,4nγ) (2003Ha45).
2940.4[g] 12	(12−)#		E	
2985.2[e] 16			E	
2989.33 9	2+		B	Jπ: From γ's to 0+ and 4+ levels.
3144.4[f] 13	(13−)#		E	

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Adopted Levels, Gammas (continued)

^{158}Dy Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$[‡]	XREF	Comments
3190.3[b] 8	16+	0.63 ps 9	DE H LM	Jπ: From expected band structure and E2 γ to 14+ level.
3217.4[c] 10	(14−)[@]		DE M	
3237.2 6	(6+)		C	Jπ: From γ's to 4+ and 8+ levels.
3368.9[g] 14	(14−)[#]		E	
3369.0[d] 10	(15−)		DE M	Jπ: D γ to 14+ and π=(−) based on band configuration in (^{12}C,4nγ) (2003Ha45).
3530.61 18	4+		B	Jπ: From M1 γ to 3+ level and γ to 6+.
3547.77 12	(3−)		B	Jπ: From γ's to 1−, and (5−) levels.
3582.33 22	2+		B	Jπ: From γ's to 0+ and 4+ levels.
3612.9[f] 15	(15−)[#]		E	
3699.9[c] 14	(16−)[@]		DE M	
3781.3[b] 8	18+	0.55 ps 8	DE H LM	Jπ: From expected band structure and E2 γ to 16+ level.
3877.0[g] 15	(16−)[#]		E	
3903.7[d] 11	(17−)		DE M	Jπ: D γ to 16+ and π=(−) based on band configuration in (^{12}C,4nγ) (2003Ha45).
4157.6[f] 16	(17−)[#]		E	
4243.3[c] 18	(18−)[@]		DE M	
4407.1[b] 9	20+	0.40 ps 8	DE LM	Jπ: From expected band structure and E2 γ to 18+ level.
4455.7[g] 17	(18−)[#]		E	
4490.9[d] 15	(19−)[&]		E M	
4768.9[f] 17	(19−)[#]		E	
4839.1[c] 20	(20−)[@]		DE M	
5085.2[b] 9	22+	0.33 ps 9	DE M	Jπ: From expected band structure and (E2) γ to 20 level.
5097.6[g] 18	(20−)[#]		E	
5127.7[d] 18	(21−)[&]		DE M	
5439.3[f] 18	(21−)[#]		E	
5483.7[c] 23	(22−)[@]		DE M	
5794.2[g] 19	(22−)[#]		E	
5811.3[d] 21	(23−)[&]		DE M	
5819.9[b] 14	(24+)[a]	0.28 ps 10	DE M	
6160.9[f] 21	(23−)[#]		E	
6178.4[c] 25	(24−)[@]		DE M	
6519.2[g] 22	(24−)[#]		E	
6542.8[d] 23	(25−)[&]		DE M	
6612.5[b] 17	(26+)[a]	0.17 ps 10	DE M	
6924[c] 3	(26−)[@]		DE M	
7322.8[d] 25	(27−)[&]		D	
7456.2[b] 20	(28+)[a]		DE M	
7720[c] 3	(28−)[@]		DE	
8150[d] 3	(29−)		D	
8354.2[b] 22	(30+)[a]		D	
8565[c] 3	(30−)[@]		DE	
9023[d] 3	(31−)		D	
9299.2[b] 25	(32+)[a]		D	
9458[c] 4	(32−)		D	
9944[d] 3	(33−)		D	

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Adopted Levels, Gammas (continued)

^{158}Dy Levels (continued)

E(level)†	Jπ	XREF	E(level)†	Jπ	XREF	E(level)†	Jπ	XREF
10294[b] 3	(34+)[a]	D	11933[d] 4	(37−)	D	13544[b] 4	(40+)[a]	D
10398[c] 4	(34−)	D	12416[b] 3	(38+)[a]	D	14135[d] 4	(41−)	D
10913[d] 4	(35−)	D	12435[c] 4	(38−)	D	14718[b] 4	(42+)[a]	D
11331[b] 3	(36+)[a]	D	13004[d] 4	(39−)	D	15330?[d]	(43−)	D
11391[c] 4	(36−)	D	13534[c] 4	(40−)	D	15940?[b]	(44+)[a]	D

† From least-squares fit to E_γ values or from reactions. for E_γ's with no given uncertainty ΔE_γ=1 was assigned in the fit by evaluator. χ^2 norm = 1.56 greater than χ^2 critical = 1.29.

‡ From ^{26}Mg(^{136}Xe,4nγ) by recoil-distance method (1981Em01), unless otherwise noted.

Based on (8−) of 2361 bandhead and the two-quasiparticle strong coupled band structure with strong inter-band M1 transitions up to high spin states and two E2 cascades (with no signature splitting). γ-ray multipolarities by DCO ratio method were measured (values not given). Measurement and theoretical interpretation are from 2003Ha45 in (^{12}C,4nγ) dataset.

@ Based on (8−) of 2231 bandhead and two-quasiparticle band structure. γ-ray multipolarities by DCO ratio method were measured (values not given). Measurement and theoretical interpretation are from 2003Ha45 in (^{12}C,4nγ) dataset.

& Based on (11−) of 2452 bandhead and two-quasiparticle band structure. γ-ray multipolarities by DCO ratio method were measured (values not given). Measurement and theoretical interpretation are from 2003Ha45 in (^{12}C,4nγ) dataset.

[a] For g.s. band up to $J^\pi=22^+$ firm J^π assignments based on measured E2 character of transitions; starting at $J^\pi=(24^+)$ tentative J^π assignments based on the assignment of transitions to the band structure. Also, for levels in the ground-state band with average J of 14, the average g-factor=+0.04 *11* as given in 2014StZZ compilation and based on data of 1983Se09. This average is for levels with $J^\pi=10^+$ to 16^+, which are beyond the backbend.

[b] Band(A): $K^\pi=0^+$ ground-state band. α=16.75, B=−0.045.

[c] Band(B): ν5/2[642]⊗ν3/2[521], α=0.

[d] Band(C): ν5/2[642]⊗ν3/2[521], α=1.

[e] Band(D): (6−) band.

[f] Band(E): ν5/2[642]⊗ν11/2[505], α=1.

[g] Band(F): ν5/2[642]⊗ν11/2[505], α=0.

[h] Band(G): $K^\pi=0^+$ β-vibrational band. α=16.43, B=−0.098. Terminology and assignment can be reconsidered in view of critique addressed by 2001Ga02 (same observation can also be applied to this band in in the particular datasets).

[i] Band(H): $K^\pi=2^+$ γ-vibrational band. α=16.85, B=−0.064, A_4=−0.0070.

[j] Band(I): $K^\pi=0^+$ band. α=15.5.

[k] Band(J): $K^\pi=2^+$ band. α=14.63, B=0.0028, A_4=−0.0061. Discussed as two phonon $\beta\gamma$-vibrational band (1992Gu07).

[l] Band(K): $K^\pi=4^+$ band. α=16.57, B=−0.078. Configuration of ((ν,5/2(523))+(ν,3/2(521))) suggested by 1964Py04 and confirmed by fast ε decay (log *ft*=5.1) from ^{158}Ho ground state which has configuration of ((π,7/2(523))+(ν,3/2(521))) which is an allowed-unhindered transition. Also discussed as two phonon $\gamma\gamma$-vibrational band (1992Gu07).

Adopted Levels, Gammas (continued)

γ(^{158}Dy)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[#]	α[†]	$I_{(\gamma+ce)}$	Comments
98.9180	2+	98.918 *1*	100	0.0	0+	E2	2.82		α(K)=1.153 *17*; α(L)=1.285 *18*; α(M)=0.308 *5*; α(N+..)=0.0774 *11* α(N)=0.0690 *10*; α(O)=0.00829 *12*; α(P)=4.78×10^{-5} *7* B(E2)(W.u.)=186 *4*
317.139	4+	218.221 *4*	100	98.9180	2+	E2	0.1771		B(E2)(W.u.)=266 *15* α(K)=0.1225 *18*; α(L)=0.0422 *6*; α(M)=0.00986 *14*; α(N+..)=0.00252 *4* α(N)=0.00223 *4*; α(O)=0.000284 *4*; α(P)=5.97×10^{-6} *9* E_γ: Values are discrepant, 218.20 *1* from ^{158}Ho ε decay (11.3 m + 28 m), 218.221 *4* from ^{158}Tb β- decay, 218.32 *2* from ^{159}Tb(p,2nγ) reaction, and 218.35 *6* from ^{165}Ho(π-,7nγ).
637.712	6+	320.53 *3*	100	317.139	4+	E2	0.0528		B(E2)(W.u.)=3.4×10^2 *4* α(K)=0.0400 *6*; α(L)=0.00989 *14*; α(M)=0.00227 *4*; α(N+..)=0.000586 *9* α(N)=0.000516 *8*; α(O)=6.83×10^{-5} *10*; α(P)=2.11×10^{-6} *3* E_γ: Values are discrepant, 320.51 *3* from ^{158}Ho ε decay (11 m + 27 m), 320.62 *4* from ^{159}Tb(p,2nγ) reaction, and 320.47 *7* from ^{165}Ho(π-,7nγ).
946.32	2+	629.2 *2*	2.5 *8*	317.139	4+	[E2]	0.00853 *12*		B(E2)(W.u.)=2.1 *8* α=0.00853 *12*; α(K)=0.00700 *10*; α(L)=0.001194 *17*; α(M)=0.000266 *4*; α(N+..)=7.01×10^{-5} *10* α(N)=6.11×10^{-5} *9*; α(O)=8.58×10^{-6} *12*; α(P)=3.98×10^{-7} *6*
		847.27 *11*	100 *10*	98.9180	2+	E2	0.00433 *6*		B(E2)(W.u.)=19 *4* α=0.00433 *6*; α(K)=0.00361 *5*; α(L)=0.000559 *8*; α(M)=0.0001235 *18*; α(N+..)=3.27×10^{-5} *5* α(N)=2.84×10^{-5} *4*; α(O)=4.06×10^{-6} *6*; α(P)=2.08×10^{-7} *3*
		946.14 *17*	53 *7*	0.0	0+	(E2)	0.00342 *5*		B(E2)(W.u.)=5.9 *12* α=0.00342 *5*; α(K)=0.00286 *4*; α(L)=0.000431 *6*; α(M)=9.50×10^{-5} *14*; α(N+..)=2.52×10^{-5} *4* α(N)=2.19×10^{-5} *3*; α(O)=3.14×10^{-6} *5*; α(P)=1.652×10^{-7} *24*
990.73	0+	891.65[@] *15*	100[@]	98.9180	2+	[E2]	0.00387 *6*		α=0.00387 *6*; α(K)=0.00324 *5*; α(L)=0.000495 *7*; α(M)=0.0001093 *16*; α(N+..)=2.89×10^{-5} *4* α(N)=2.51×10^{-5} *4*; α(O)=3.60×10^{-6} *5*; α(P)=1.87×10^{-7} *3*
		991.0 *2*		0.0	0+	E0		1.0	$I_{(\gamma+ce)}$: calculated by 1978An11 from I_{ce}(K) of 1974Al30.
1043.88	8+	406.12 *7*	100	637.712	6+	E2	0.0266		B(E2)(W.u.)=3.4×10^2 *7* α(K)=0.0209 *3*; α(L)=0.00441 *7*; α(M)=0.001001 *14*; α(N+..)=0.000261 *4* α(N)=0.000228 *4*; α(O)=3.09×10^{-5} *5*; α(P)=1.142×10^{-6} *16*
1044.594	3+	98.19 *9* 727.41 *4*	0.52 *25* 18.9 *7*	946.32 317.139	2+ 4+	E2	0.00608 *9*		α=0.00608 *9*; α(K)=0.00503 *7*; α(L)=0.000815 *12*; α(M)=0.000181 *3*; α(N+..)=4.78×10^{-5} *7* α(N)=4.16×10^{-5} *6*; α(O)=5.89×10^{-6} *9*; α(P)=2.88×10^{-7} *4*

$^{158}_{66}Dy_{92}$-6

Adopted Levels, Gammas (continued)

γ(^{158}Dy) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[#]	α[†]	Comments
1044.594	3+	945.61 *4*	100 *11*	98.9180	2+	(E2)	0.00342 *5*	α=0.00342 *5*; α(K)=0.00287 *4*; α(L)=0.000432 *6*; α(M)=9.52×10^{-5} *14*; α(N+..)=2.52×10^{-5} *4* α(N)=2.19×10^{-5} *3*; α(O)=3.15×10^{-6} *5*; α(P)=1.654×10^{-7} *24*
1085.55	2+	95.05[&] *1*	81 *9*	990.73	0+	[E2]	3.28	α(K)=1.271 *18*; α(L)=1.544 *22*; α(M)=0.370 *6*; α(N+..)=0.0930 *13* α(N)=0.0830 *12*; α(O)=0.00995 *14*; α(P)=5.25×10^{-5} *8* I_γ: From one ^{158}Ho ε decay reference and appears to be much too large by a factor of 100 since the corresponding BE2W=3.4E+5.
		768.39 *7*	97 *8*	317.139	4+	[E2]	0.00537 *8*	B(E2)(W.u.)=12 *3* α=0.00537 *8*; α(K)=0.00446 *7*; α(L)=0.000710 *10*; α(M)=0.0001573 *22*; α(N+..)=4.16×10^{-5} *6* α(N)=3.62×10^{-5} *5*; α(O)=5.14×10^{-6} *8*; α(P)=2.56×10^{-7} *4*
		986.56 *21*	100 *9*	98.9180	2+	(E2+E0)	0.017 *4*	B(E2)(W.u.)=3.5 *8* α: Calculated from α_K(exp)=0.014 *4* (1978An11) and α/α_K(E2)=1.20. ρ^2(E0) = 0.027 *12* from 1999Wo07.
		1085.53 *7*	96 *8*	0.0	0+	E2	0.00257 *4*	B(E2)(W.u.)=2.1 *5* α=0.00257 *4*; α(K)=0.00217 *3*; α(L)=0.000317 *5*; α(M)=6.96×10^{-5} *10*; α(N+..)=1.85×10^{-5} *3* α(N)=1.603×10^{-5} *23*; α(O)=2.32×10^{-6} *4*; α(P)=1.251×10^{-7} *18*
1163.75	4+	119.4 *1*	3.2 *3*	1044.594	3+			
		217.4 *10*		946.32	2+			
		526.3 *3*	1.3 *6*	637.712	6+			
		846.54 *9*	100 *14*	317.139	4+	E2	0.00433 *6*	α=0.00433 *6*; α(K)=0.00362 *5*; α(L)=0.000560 *8*; α(M)=0.0001238 *18*; α(N+..)=3.28×10^{-5} *5* α(N)=2.85×10^{-5} *4*; α(O)=4.07×10^{-6} *6*; α(P)=2.08×10^{-7} *3*
		1064.70 *15*	37.6 *14*	98.9180	2+	E2	0.00267 *4*	α=0.00267 *4*; α(K)=0.00225 *4*; α(L)=0.000331 *5*; α(M)=7.26×10^{-5} *11*; α(N+..)=1.93×10^{-5} *3* α(N)=1.674×10^{-5} *24*; α(O)=2.42×10^{-6} *4*; α(P)=1.300×10^{-7} *19* I_γ: From ^{158}Ho ε decay (11.3 m+28 m); other: 20.3 from ^{159}Tb(p,2nγ).
1280.01	4+	642.63 *16*	25 *7*	637.712	6+	E2	0.00811 *12*	α=0.00811 *12*; α(K)=0.00667 *10*; α(L)=0.001128 *16*; α(M)=0.000251 *4*; α(N+..)=6.62×10^{-5} *10* α(N)=5.77×10^{-5} *8*; α(O)=8.11×10^{-6} *12*; α(P)=3.80×10^{-7} *6*
		962.81 *7*	32 *4*	317.139	4+	(E2+E0)	0.046 *10*	α: Calculated from α_K(exp)=0.038 *10* (1978An11) and α/α_K(E2)=1.20.
		1181.0 *3*	100 *9*	98.9180	2+	E2	0.00217 *3*	α=0.00217 *3*; α(K)=0.00183 *3*; α(L)=0.000264 *4*; α(M)=5.79×10^{-5} *9*; α(N+..)=1.89×10^{-5} *3* α(N)=1.334×10^{-5} *19*; α(O)=1.93×10^{-6} *3*; α(P)=1.059×10^{-7} *15*; α(IPF)=3.55×10^{-6} *6*
1314.78	5+	150.97 *4*	5.1 *10*	1163.75	4+			
		270.22 *7*	4.4 *9*	1044.594	3+			
		676.97 *4*	23 *4*	637.712	6+	E2	0.00717 *10*	α=0.00717 *10*; α(K)=0.00592 *9*; α(L)=0.000982 *14*; α(M)=0.000218 *3*; α(N+..)=5.76×10^{-5} *8* α(N)=5.02×10^{-5} *7*; α(O)=7.08×10^{-6} *10*; α(P)=3.38×10^{-7} *5*

$^{158}_{66}Dy_{92}$-7

Adopted Levels, Gammas (continued)

γ(^{158}Dy) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[#]	α[†]	Comments
1314.78	5^+	997.58 *11*	100 *3*	317.139	4^+	E2	0.00306 *5*	α=0.00306 *5*; α(K)=0.00257 *4*; α(L)=0.000382 *6*; α(M)=8.41×10^{-5} *12*; α(N+..)=2.23×10^{-5} *4* α(N)=1.94×10^{-5} *3*; α(O)=2.79×10^{-6} *4*; α(P)=1.483×10^{-7} *21*
1371.73	$(1,2,3)^-$	327.0 *10*	<183	1044.594	3^+			
		425.36 *8*	100 *17*	946.32	2^+			
		1272.79[@] *6*	145[@] *7*	98.9180	2^+			
1397.17	3^-	1080.10 *7*	31 *3*	317.139	4^+			Mult.: Possible E2 assignment not in agreement with J^π's.
		1298.23 *5*	100 *5*	98.9180	2^+	E1	0.000847 *12*	α=0.000847 *12*; α(K)=0.000667 *10*; α(L)=8.76×10^{-5} *13*; α(M)=1.90×10^{-5} *3*; α(N+..)=7.39×10^{-5} *11* α(N)=4.38×10^{-6} *7*; α(O)=6.42×10^{-7} *9*; α(P)=3.73×10^{-8} *6*; α(IPF)=6.89×10^{-5} *10*
1441.75	1^-	1342.81 *6*	85 *9*	98.9180	2^+	E1	0.000828 *12*	α=0.000828 *12*; α(K)=0.000629 *9*; α(L)=8.25×10^{-5} *12*; α(M)=1.79×10^{-5} *3*; α(N+..)=9.88×10^{-5} *14* α(N)=4.12×10^{-6} *6*; α(O)=6.05×10^{-7} *9*; α(P)=3.52×10^{-8} *5*; α(IPF)=9.40×10^{-5} *14*
		1441.73 *6*	100 *9*	0.0	0^+	E1	0.000809 *12*	α=0.000809 *12*; α(K)=0.000557 *8*; α(L)=7.28×10^{-5} *11*; α(M)=1.577×10^{-5} *22*; α(N+..)=0.0001638 α(N)=3.64×10^{-6} *5*; α(O)=5.34×10^{-7} *8*; α(P)=3.12×10^{-8} *5*; α(IPF)=0.0001596 *23*
1476.9		838.9	100	637.712	6^+			
1486.28	6^+	846.9[&] *10*		637.712	6^+			E_γ: Only 846 γ placed from 6^+ level in (p,2nγ) where it also has three other placements and only 1169 γ placed from 6^+ level in ^{158}Ho ε decay (11.3 m+28 m) where an 846 γ is placed from another level.
		1169.14 *9*		317.139	4^+	E2	0.00222 *4*	α=0.00222 *4*; α(K)=0.00187 *3*; α(L)=0.000270 *4*; α(M)=5.91×10^{-5} *9*; α(N+..)=1.84×10^{-5} *3* α(N)=1.363×10^{-5} *19*; α(O)=1.97×10^{-6} *3*; α(P)=1.080×10^{-7} *16*; α(IPF)=2.66×10^{-6} *4*
1501.14		1402.22 *9*	100	98.9180	2^+			
1513.54	$2^+,3,4^+$	1196.40 *9*	42 *7*	317.139	4^+			
		1414.62 *7*	100 *10*	98.9180	2^+			
1518.45	$3^-,4^-$	473.9 *1*	37 *5*	1044.594	3^+			
		1201.32 *13*	100 *10*	317.139	4^+	E1	0.000917 *13*	α=0.000917 *13*; α(K)=0.000765 *11*; α(L)=0.0001007 *15*; α(M)=2.18×10^{-5} *3*; α(N+..)=2.99×10^{-5} α(N)=5.04×10^{-6} *7*; α(O)=7.38×10^{-7} *11*; α(P)=4.28×10^{-8} *6*; α(IPF)=2.41×10^{-5} *4*
1520.0	10^+	476.0 *4*	100	1043.88	8^+	E2	0.01724	B(E2)(W.u.)=3.2×10^2 *5* α(K)=0.01381 *20*; α(L)=0.00267 *4*; α(M)=0.000602 *9*; α(N+..)=0.0001574 *23* α(N)=0.0001377 *20*; α(O)=1.89×10^{-5} *3*; α(P)=7.69×10^{-7} *11* E_γ: Values are discrepant; 475.4 *3* from (p,2nγ) reaction, 476.0 *3* from (HI,xnγ), and 476.89 *21* from (π-,7nγ).
1528.07	5^-	213.6 *2*	66 *18*	1314.78	5^+			

$^{158}_{66}Dy_{92}$-8

Adopted Levels, Gammas (continued)

γ(^{158}Dy) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[#]	α[†]	Comments
1528.07	5$^-$	890.6 *4*	30 *6*	637.712	6$^+$			
		1210.87 *7*	100 *4*	317.139	4$^+$	E1	0.000909 *13*	α=0.000909 *13*; α(K)=0.000754 *11*; α(L)=9.93×10^{-5} *14*; α(M)=2.15×10^{-5} *3*; α(N+..)=3.37×10^{-5} *5* α(N)=4.97×10^{-6} *7*; α(O)=7.27×10^{-7} *11*; α(P)=4.22×10^{-8} *6*; α(IPF)=2.80×10^{-5} *4*
1547.32	6$^+$	1230.11 *7*	100	317.139	4$^+$	E2	0.00201 *3*	α=0.00201 *3*; α(K)=0.001692 *24*; α(L)=0.000242 *4*; α(M)=5.30×10^{-5} *8*; α(N+..)=2.30×10^{-5} *4* α(N)=1.223×10^{-5} *18*; α(O)=1.774×10^{-6} *25*; α(P)=9.78×10^{-8} *14*; α(IPF)=8.85×10^{-6} *13*
1607.99	(2)$^+$	1509.04 *9*	100 *11*	98.9180	2$^+$	[M1,E2]	0.0018 *4*	α=0.0018 *4*; α(K)=0.0014 *3*; α(L)=0.00020 *4*; α(M)=4.3×10^{-5} *8*; α(N+..)=9.4×10^{-5} *9* α(N)=9.9×10^{-6} *19*; α(O)=1.4×10^{-6} *3*; α(P)=8.4×10^{-8} *18*; α(IPF)=8.3×10^{-5} *7*
		1608.3 *3*	26 *8*	0.0	0$^+$	[E2]	0.001306 *19*	α=0.001306 *19*; α(K)=0.001015 *15*; α(L)=0.0001402 *20*; α(M)=3.06×10^{-5} *5*; α(N+..)=0.000120 α(N)=7.06×10^{-6} *10*; α(O)=1.031×10^{-6} *15*; α(P)=5.87×10^{-8} *9*; α(IPF)=0.0001121 *16* B(E2)(W.u.)<1.2
1618.54	3$^-$,4$^-$,5$^-$	1301.3 *2*	100	317.139	4$^+$	E1	0.000846 *12*	α=0.000846 *12*; α(K)=0.000664 *10*; α(L)=8.72×10^{-5} *13*; α(M)=1.89×10^{-5} *3*; α(N+..)=7.55×10^{-5} *11* α(N)=4.36×10^{-6} *7*; α(O)=6.39×10^{-7} *9*; α(P)=3.72×10^{-8} *6*; α(IPF)=7.05×10^{-5} *10*
1634.54		1317.4 *2*	100	317.139	4$^+$			
1671.64	2$^+$,3,4$^+$	508.2 *2*	100 *33*	1163.75	4$^+$			
		1572.40 *20*	87 *20*	98.9180	2$^+$			
1675.84	7$^+$	1038.12 *19*	100	637.712	6$^+$			
1710.31	(+)	624.4 *3*	100	1085.55	2$^+$	(E2)	0.00869 *13*	α=0.00869 *13*; α(K)=0.00713 *10*; α(L)=0.001219 *18*; α(M)=0.000272 *4*; α(N+..)=7.16×10^{-5} *10* α(N)=6.24×10^{-5} *9*; α(O)=8.76×10^{-6} *13*; α(P)=4.05×10^{-7} *6*
		1611.53 *19*	71 *13*	98.9180	2$^+$			
1762.5	(6$^-$)	447.7		1314.78	5$^+$	D		Mult.: From DCO ratio in (^{12}C,4nγ) (2003Ha45).
		1124.6		637.712	6$^+$			
1818.83		538.8 *1*	64 *9*	1280.01	4$^+$			
		1501.5 *4*	100 *16*	317.139	4$^+$			
1840.15	2$^+$,3,4$^+$	560.1 *2*	31 *13*	1280.01	4$^+$			
		893.8 *2*	78 *16*	946.32	2$^+$			
		1523.4 *5*	100 *40*	317.139	4$^+$			
1851.96	2$^+$	766.40 *7*	60 *11*	1085.55	2$^+$			
		807.13 *9*	100 *20*	1044.594	3$^+$			
		1753.47 *12*	58 *15*	98.9180	2$^+$	M1	0.001615 *23*	α=0.001615 *23*; α(K)=0.001203 *17*; α(L)=0.0001634 *23*; α(M)=3.56×10^{-5} *5*; α(N+..)=0.000213 α(N)=8.23×10^{-6} *12*; α(O)=1.214×10^{-6} *17*; α(P)=7.19×10^{-8} *10*; α(IPF)=0.000203 *3*

$^{158}_{66}Dy_{92}$-9

Adopted Levels, Gammas (continued)

γ(^{158}Dy) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[#]	α[†]	Comments
1851.96	2^+	1851.94 *19*	49 *7*	0.0	0^+			
1892.8	(8^+)	846.9 *10*		1043.88	8^+			
		1257		637.712	6^+			
1895.16	4^+	580.23 *13*	1.7 *3*	1314.78	5^+	[M1,E2]	0.015 *5*	α(K)=0.013 *5*; α(L)=0.0020 *5*; α(M)=0.00043 *10*; α(N+..)=0.00011 *3* α(N)=0.000100 *24*; α(O)=1.4×10^{-5} *4*; α(P)=8.E−7 *3*
		615.9 *7*	1.0 *3*	1280.01	4^+	[M1,E2]	0.013 *5*	α(K)=0.011 *4*; α(L)=0.0017 *5*; α(M)=0.00037 *9*; α(N+..)=9.8×10^{-5} *24* α(N)=8.5×10^{-5} *21*; α(O)=1.2×10^{-5} *4*; α(P)=6.6×10^{-7} *25*
		731.42 *5*	16.8 *4*	1163.75	4^+	E2	0.00600 *9*	α=0.00600 *9*; α(K)=0.00497 *7*; α(L)=0.000804 *12*; α(M)=0.0001784 *25*; α(N+..)=4.71×10^{-5} *7* α(N)=4.10×10^{-5} *6*; α(O)=5.81×10^{-6} *9*; α(P)=2.85×10^{-7} *4* B(E2)(W.u.)>0.039
		850.50 *4*	61.7 *17*	1044.594	3^+	E2	0.00429 *6*	α=0.00429 *6*; α(K)=0.00358 *5*; α(L)=0.000554 *8*; α(M)=0.0001224 *18*; α(N+..)=3.24×10^{-5} *5* α(N)=2.82×10^{-5} *4*; α(O)=4.03×10^{-6} *6*; α(P)=2.06×10^{-7} *3* B(E2)(W.u.)>0.068
		948.78 *5*	100 *3*	946.32	2^+	E2	0.00340 *5*	α=0.00340 *5*; α(K)=0.00285 *4*; α(L)=0.000429 *6*; α(M)=9.44×10^{-5} *14*; α(N+..)=2.50×10^{-5} *4* α(N)=2.17×10^{-5} *3*; α(O)=3.12×10^{-6} *5*; α(P)=1.643×10^{-7} *23* B(E2)(W.u.)>0.063
		1578.10 *5*	24.2 *14*	317.139	4^+	E2	0.001338 *19*	α=0.001338 *19*; α(K)=0.001052 *15*; α(L)=0.0001455 *21*; α(M)=3.17×10^{-5} *5*; α(N+..)=0.000109 α(N)=7.33×10^{-6} *11*; α(O)=1.070×10^{-6} *15*; α(P)=6.08×10^{-8} *9*; α(IPF)=0.0001006 *14* B(E2)(W.u.)>0.0012
		1796.2 *2*	2.4 *3*	98.9180	2^+	[E2]	0.001163 *17*	α=0.001163 *17*; α(K)=0.000827 *12*; α(L)=0.0001129 *16*; α(M)=2.46×10^{-5} *4*; α(N+..)=0.000198 α(N)=5.68×10^{-6} *8*; α(O)=8.31×10^{-7} *12*; α(P)=4.78×10^{-8} *7*; α(IPF)=0.000191 *3* B(E2)(W.u.)>6.3×10^{-5}
1920.43	$3^+,4^+,5^+$	301.8[@] *2*	23[@] *9*	1618.54	$3^-,4^-,5^-$			
		1603.81 *20*	100 *16*	317.139	4^+	M1	0.00187 *3*	α=0.00187 *3*; α(K)=0.001478 *21*; α(L)=0.000201 *3*; α(M)=4.39×10^{-5} *7*; α(N+..)=0.0001416 *20* α(N)=1.015×10^{-5} *15*; α(O)=1.496×10^{-6} *21*; α(P)=8.85×10^{-8} *13*; α(IPF)=0.0001298 *19*
1940.75	3^+	543.87 *19*	1.8 *6*	1397.17	3^-			
		660.75 *7*	6.1 *10*	1280.01	4^+	E2	0.00759 *11*	α=0.00759 *11*; α(K)=0.00625 *9*; α(L)=0.001047 *15*; α(M)=0.000233 *4*; α(N+..)=6.14×10^{-5} *9* α(N)=5.35×10^{-5} *8*; α(O)=7.54×10^{-6} *11*; α(P)=3.57×10^{-7} *5*
		776.91 *8*	11.2 *14*	1163.75	4^+	M1	0.00983 *14*	α=0.00983 *14*; α(K)=0.00834 *12*; α(L)=0.001164 *17*;

$^{158}_{66}Dy_{92}$-10

Adopted Levels, Gammas (continued)

γ(^{158}Dy) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[#]	α[†]	Comments
								α(M)=0.000254 *4*; α(N+..)=6.80×10^{-5} *10* α(N)=5.88×10^{-5} *9*; α(O)=8.65×10^{-6} *13*; α(P)=5.06×10^{-7} *7*
1940.75	3$^+$	896.08 *6*	31.3 *12*	1044.594	3$^+$	E2	0.00383 *6*	α=0.00383 *6*; α(K)=0.00321 *5*; α(L)=0.000490 *7*; α(M)=0.0001080 *16*; α(N+..)=2.86×10^{-5} *4* α(N)=2.49×10^{-5} *4*; α(O)=3.56×10^{-6} *5*; α(P)=1.85×10^{-7} *3*
		994.47 *6*	100 *3*	946.32	2$^+$	E2	0.00308 *5*	α=0.00308 *5*; α(K)=0.00259 *4*; α(L)=0.000385 *6*; α(M)=8.47×10^{-5} *12*; α(N+..)=2.25×10^{-5} *4* α(N)=1.95×10^{-5} *3*; α(O)=2.81×10^{-6} *4*; α(P)=1.492×10^{-7} *21*
		1623.78 *8*	72 *3*	317.139	4$^+$	E2	0.001291 *18*	α=0.001291 *18*; α(K)=0.000997 *14*; α(L)=0.0001376 *20*; α(M)=3.00×10^{-5} *5*; α(N+..)=0.000126 α(N)=6.93×10^{-6} *10*; α(O)=1.012×10^{-6} *15*; α(P)=5.76×10^{-8} *8*; α(IPF)=0.0001181 *17*
		1841.95 *19*	5.2 *12*	98.9180	2$^+$			
1975.75	1$^+$,2$^+$	533.9 *6*	8 *3*	1441.75	1$^-$			
		1876.67 *17*	100 *5*	98.9180	2$^+$	M1	0.001476 *21*	α=0.001476 *21*; α(K)=0.001029 *15*; α(L)=0.0001396 *20*; α(M)=3.04×10^{-5} *5*; α(N+..)=0.000277 α(N)=7.03×10^{-6} *10*; α(O)=1.037×10^{-6} *15*; α(P)=6.14×10^{-8} *9*; α(IPF)=0.000268 *4*
		1976.01 *17*	14 *4*	0.0	0$^+$			
2021.93	5$^+$	707.03 *16*	24 *4*	1314.78	5$^+$	M1+E2	0.009 *3*	α=0.009 *3*; α(K)=0.008 *3*; α(L)=0.0012 *3*; α(M)=0.00026 *7*; α(N+..)=6.9×10^{-5} *18* α(N)=6.0×10^{-5} *15*; α(O)=8.6×10^{-6} *24*; α(P)=4.7×10^{-7} *17*
		858.20 *7*	82 *4*	1163.75	4$^+$	E2	0.00421 *6*	α=0.00421 *6*; α(K)=0.00351 *5*; α(L)=0.000542 *8*; α(M)=0.0001197 *17*; α(N+..)=3.17×10^{-5} *5* α(N)=2.76×10^{-5} *4*; α(O)=3.94×10^{-6} *6*; α(P)=2.02×10^{-7} *3*
		977.34 *7*	100 *5*	1044.594	3$^+$	E2	0.00319 *5*	α=0.00319 *5*; α(K)=0.00268 *4*; α(L)=0.000401 *6*; α(M)=8.82×10^{-5} *13*; α(N+..)=2.34×10^{-5} *4* α(N)=2.03×10^{-5} *3*; α(O)=2.92×10^{-6} *4*; α(P)=1.546×10^{-7} *22*
2048.8	12$^+$	528.7 *6*	100	1520.0	10$^+$	E2	0.01312	B(E2)(W.u.)=3.1×10^2 *6* α(K)=0.01062 *16*; α(L)=0.00195 *3*; α(M)=0.000438 *7*; α(N+..)=0.0001147 *17* α(N)=0.0001003 *15*; α(O)=1.389×10^{-5} *20*; α(P)=5.97×10^{-7} *9* E_γ: Values are discrepant; 528.1 *3* from (p,2nγ) reaction and 529.3 *3* from (HI,xnγ).
2055.43	4$^+$	740.54 *7*	61 *8*	1314.78	5$^+$	M1+E2	0.008 *3*	α=0.008 *3*; α(K)=0.0071 *23*; α(L)=0.0010 *3*; α(M)=0.00023 *6*; α(N+..)=6.1×10^{-5} *16* α(N)=5.3×10^{-5} *14*; α(O)=7.7×10^{-6} *21*; α(P)=4.2×10^{-7} *15*
		775.6 *2*	40 *8*	1280.01	4$^+$			
		891.65[@] *15*	183[@] *10*	1163.75	4$^+$	M1+E2	0.0054 *16*	α=0.0054 *16*; α(K)=0.0046 *14*; α(L)=0.00066 *17*; α(M)=0.00014 *4*; α(N+..)=3.9×10^{-5} *10* α(N)=3.3×10^{-5} *9*; α(O)=4.9×10^{-6} *13*; α(P)=2.7×10^{-7} *9*
		1010.76 *11*	92 *9*	1044.594	3$^+$			

$^{158}_{66}Dy_{92}$-11

Adopted Levels, Gammas (continued)

γ(^{158}Dy) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[#]	α[†]	Comments
2055.43	4^+	1109.18 *7*	49 *8*	946.32	2^+			
		1417.72 *7*	60 *7*	637.712	6^+			
		1738.50 *20*	100 *13*	317.139	4^+	M1	0.001635 *23*	α=0.001635 *23*; α(K)=0.001227 *18*; α(L)=0.0001667 *24*; α(M)=3.63×10^{-5} *5*; α(N+..)=0.000205 α(N)=8.40×10^{-6} *12*; α(O)=1.238×10^{-6} *18*; α(P)=7.33×10^{-8} *11*; α(IPF)=0.000196 *3*
		1956.57 *19*	74 *8*	98.9180	2^+			Mult.: Assignment is M1, but that is inconsistent with J^π's.
2096.6	(8^-)	333.8		1762.5	(6^-)			
		1052.8		1043.88	8^+			
2107.68	4^+	792.35 *9*	1.2 *5*	1314.78	5^+	E2	0.00501 *7*	α=0.00501 *7*; α(K)=0.00417 *6*; α(L)=0.000658 *10*; α(M)=0.0001456 *21*; α(N+..)=3.85×10^{-5} *6* α(N)=3.35×10^{-5} *5*; α(O)=4.77×10^{-6} *7*; α(P)=2.40×10^{-7} *4*
		944.2 *1*	9.4 *13*	1163.75	4^+			
		1063.06 *9*	10.7 *7*	1044.594	3^+			
		1161.39 *14*	13.3 *6*	946.32	2^+	E2	0.00225 *4*	α=0.00225 *4*; α(K)=0.00189 *3*; α(L)=0.000274 *4*; α(M)=6.00×10^{-5} *9*; α(N+..)=1.81×10^{-5} *3* α(N)=1.383×10^{-5} *20*; α(O)=2.00×10^{-6} *3*; α(P)=1.094×10^{-7} *16*; α(IPF)=2.17×10^{-6} *4*
		1790.62 *5*	100 *4*	317.139	4^+	M1	0.001568 *22*	α=0.001568 *22*; α(K)=0.001146 *16*; α(L)=0.0001556 *22*; α(M)=3.39×10^{-5} *5*; α(N+..)=0.000232 α(N)=7.84×10^{-6} *11*; α(O)=1.156×10^{-6} *17*; α(P)=6.85×10^{-8} *10*; α(IPF)=0.000223 *4* Mult.: δ(E2/M1) < 0.16 (1993Al09).
		2008.91 *18*	7.5 *6*	98.9180	2^+			Mult.: Assigned M1, but J^π=4^+ assignment of 1993Al09 requires E2.
2153.62	6^+	838.47 *24*	100 *7*	1314.78	5^+	E2	0.00443 *7*	α=0.00443 *7*; α(K)=0.00369 *6*; α(L)=0.000573 *8*; α(M)=0.0001267 *18*; α(N+..)=3.35×10^{-5} *5* α(N)=2.91×10^{-5} *4*; α(O)=4.16×10^{-6} *6*; α(P)=2.12×10^{-7} *3*
		989.94 *11*	85 *5*	1163.75	4^+			
2208.7		187.0	100	2021.93	5^+			
		731.5	59	1476.9				
2211.10	(5^+)	1047.34 *7*	100 *6*	1163.75	4^+			
		1894.00 *20*	24 *5*	317.139	4^+			
2231.5	(8^-)	469		1762.5	(6^-)			
		1187.6		1043.88	8^+			
2361.7	(8^-)	152.8		2208.7				
		265.0		2096.6	(8^-)			
		599.3		1762.5	(6^-)			
2382.46	4^+	442.10 *14*	5.9 *19*	1940.75	3^+			
		462.08 *7*	23.8 *25*	1920.43	3^+,4^+,5^+	E2	0.0187	α(K)=0.01490 *21*; α(L)=0.00292 *4*; α(M)=0.000661 *10*; α(N+..)=0.0001725 *25* α(N)=0.0001510 *22*; α(O)=2.07×10^{-5} *3*; α(P)=8.27×10^{-7} *12*
		487.11 *17*	5.0 *19*	1895.16	4^+	M1	0.0318	α(K)=0.0269 *4*; α(L)=0.00381 *6*; α(M)=0.000834 *12*;

$^{158}_{66}Dy_{92}$-12

Adopted Levels, Gammas (continued)

γ(^{158}Dy) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[#]	α[†]	Comments
								α(N+..)=0.000223 *4* α(N)=0.000193 *3*; α(O)=2.83×10^{-5} *4*; α(P)=1.644×10^{-6} *23*
2382.46	4$^+$	854.4 *2*	15.5 *28*	1528.07	5$^-$			
		1337.75 *8*	23.8 *25*	1044.594	3$^+$	E2	0.001725 *25*	α=0.001725 *25*; α(K)=0.001438 *21*; α(L)=0.000203 *3*; α(M)=4.44×10^{-5} *7*; α(N+..)=3.89×10^{-5} *6* α(N)=1.025×10^{-5} *15*; α(O)=1.491×10^{-6} *21*; α(P)=8.31×10^{-8} *12*; α(IPF)=2.71×10^{-5} *4*
		1436.06 *10*	18.0 *25*	946.32	2$^+$			
		2065.37 *19*	100 *6*	317.139	4$^+$	M1+E2	0.00121 *14*	α=0.00121 *14*; α(K)=0.00073 *10*; α(L)=9.9×10^{-5} *13*; α(M)=2.2×10^{-5} *3*; α(N+..)=0.00035 *3* α(N)=5.0×10^{-6} *7*; α(O)=7.3×10^{-7} *10*; α(P)=4.3×10^{-8} *7*; α(IPF)=0.00034 *3*
		2282.6 *5*	2.5 *19*	98.9180	2$^+$			
2388.82	(6$^+$)	570.0 *1*	28 *13*	1818.83				
		1751.1 *5*	54 *30*	637.712	6$^+$			
		2071.6 *3*	100 *17*	317.139	4$^+$			
2409.57	2$^-$,3$^-$,4$^-$	301.8[@] *2*	11[@] *4*	2107.68	4$^+$			
		514.4[@] *1*	94[@] *3*	1895.16	4$^+$			
		1012.6[@] *4*	36[@] *3*	1397.17	3$^-$			
		1245.94[@] *13*	27[@] *7*	1163.75	4$^+$			
		1364.87 *12*	100 *9*	1044.594	3$^+$	E1	0.000821 *12*	α=0.000821 *12*; α(K)=0.000611 *9*; α(L)=8.01×10^{-5} *12*; α(M)=1.736×10^{-5} *25*; α(N+..)=0.0001125 α(N)=4.01×10^{-6} *6*; α(O)=5.87×10^{-7} *9*; α(P)=3.43×10^{-8} *5*; α(IPF)=0.0001078 *16*
		2092.4[@] *3*	116[@] *15*	317.139	4$^+$			
		2310.73[@] *24*	84[@] *7*	98.9180	2$^+$			
2409.70	4$^+$	514.4[@] *1*	33.6[@] *9*	1895.16	4$^+$			
		1012.6[@] *4*	12.8[@] *12*	1397.17	3$^-$			
		1094.99 *11*	15.2 *3*	1314.78	5$^+$	E2	0.00253 *4*	α=0.00253 *4*; α(K)=0.00213 *3*; α(L)=0.000311 *5*; α(M)=6.82×10^{-5} *10*; α(N+..)=1.81×10^{-5} *3* α(N)=1.573×10^{-5} *22*; α(O)=2.27×10^{-6} *4*; α(P)=1.230×10^{-7} *18*
		1245.94[@] *13*	9.8[@] *24*	1163.75	4$^+$			
		1463.39 *4*	100 *3*	946.32	2$^+$	(E2)	0.001489 *21*	α=0.001489 *21*; α(K)=0.001212 *17*; α(L)=0.0001692 *24*; α(M)=3.69×10^{-5} *6*; α(N+..)=7.11×10^{-5} α(N)=8.53×10^{-6} *12*; α(O)=1.243×10^{-6} *18*; α(P)=7.00×10^{-8} *10*; α(IPF)=6.13×10^{-5} *9*
		1772.3 *5*	5.4 *27*	637.712	6$^+$			
		2092.4[@] *3*	41[@] *5*	317.139	4$^+$			
		2310.73[@] *24*	30.1[@] *27*	98.9180	2$^+$			
2436.52	3$^+$,4$^+$	917.7 *3*	9.4 *26*	1518.45	3$^-$,4$^-$			

$^{158}_{66}Dy_{92}$-13

Adopted Levels, Gammas (continued)

γ(^{158}Dy) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[#]	α[†]	Comments
2436.52	3$^+$,4$^+$	1272.79[@] *6*	112[@] *5*	1163.75	4$^+$			
		1392.42[@] *16*	15[@] *4*	1043.88	8$^+$			Mult.: Assigned E2, but γ is a doublet.
		1489.8 *3*	8 *4*	946.32	2$^+$			
		2119.50 *16*	100 *6*	317.139	4$^+$	M1	0.001319 *19*	α=0.001319 *19*; α(K)=0.000780 *11*; α(L)=0.0001054 *15*; α(M)=2.29×10^{-5} *4*; α(N+..)=0.000410 α(N)=5.31×10^{-6} *8*; α(O)=7.83×10^{-7} *11*; α(P)=4.65×10^{-8} *7*; α(IPF)=0.000404 *6*
		2338.5 *4*	10 *3*	98.9180	2$^+$	(E2)	0.001045 *15*	α=0.001045 *15*; α(K)=0.000513 *8*; α(L)=6.86×10^{-5} *10*; α(M)=1.490×10^{-5} *21*; α(N+..)=0.000449 α(N)=3.44×10^{-6} *5*; α(O)=5.06×10^{-7} *7*; α(P)=2.96×10^{-8} *5*; α(IPF)=0.000445 *7*
2452.8	(11$^-$)	932.9		1520.0	10$^+$	D		Mult.: Pure D γ based on DCO in (^{12}C,4nγ) (2003Ha45; values not given).
2467.8	(9$^-$)	106.2		2361.7	(8$^-$)			
2476.7	(10$^-$)	245.1		2231.5	(8$^-$)			
		379.9		2096.6	(8$^-$)	Q		Mult.: Q,(E2) γ from DCO ratio in (^{12}C,4nγ) (2003Ha45).
		957.2		1520.0	10$^+$			
2512.1	(10$^-$)	415.5		2096.6	(8$^-$)			
2518.69	4$^+$	1238.3 *3*	3.4 *19*	1280.01	4$^+$			
		1432.6 *4*	10.1 *17*	1085.55	2$^+$			
		1880.77 *23*	14.5 *17*	637.712	6$^+$			
		2201.95 *19*	100 *5*	317.139	4$^+$	M1	0.001290 *18*	α=0.001290 *18*; α(K)=0.000716 *10*; α(L)=9.66×10^{-5} *14*; α(M)=2.10×10^{-5} *3*; α(N+..)=0.000456 *7* α(N)=4.86×10^{-6} *7*; α(O)=7.18×10^{-7} *10*; α(P)=4.26×10^{-8} *6*; α(IPF)=0.000450 *7*
2528.1	(8$^+$)	166.4	84	2361.7	(8$^-$)			
		1007		1520.0	10$^+$			
		1484.1	100	1043.88	8$^+$			
2538.55	3$^+$,4$^+$	1166.5 *2*	8.8 *15*	1371.73	(1,2,3)$^-$			
		1374.90 *24*	4.9 *18*	1163.75	4$^+$			
		1452.8 *5*	2.9 *18*	1085.55	2$^+$			
		1494.1 *4*	3.5 *22*	1044.594	3$^+$			
		1592.5 *8*	3.7 *15*	946.32	2$^+$			
		2221.65 *19*	100 *6*	317.139	4$^+$	M1	0.001284 *18*	α=0.001284 *18*; α(K)=0.000702 *10*; α(L)=9.47×10^{-5} *14*; α(M)=2.06×10^{-5} *3*; α(N+..)=0.000467 *7* α(N)=4.77×10^{-6} *7*; α(O)=7.03×10^{-7} *10*; α(P)=4.18×10^{-8} *6*; α(IPF)=0.000462 *7*
		2439.2 *5*	1.7 *13*	98.9180	2$^+$			
2600.7	(10$^-$)	132.9		2467.8	(9$^-$)			
		239		2361.7	(8$^-$)			
2605.95	1$^-$	630.23 *9*	20 *6*	1975.75	1$^+$,2$^+$	E1	0.00311 *5*	α=0.00311 *5*; α(K)=0.00265 *4*; α(L)=0.000360 *5*; α(M)=7.83×10^{-5} *11*; α(N+..)=2.08×10^{-5} *3* α(N)=1.80×10^{-5} *3*; α(O)=2.62×10^{-6} *4*; α(P)=1.462×10^{-7} *21*

$^{158}_{66}Dy_{92}$-14

Adopted Levels, Gammas (continued)

γ(^{158}Dy) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[#]	α[†]	Comments
2605.95	1⁻	1234.09 *22*	9.3 *14*	1371.73	(1,2,3)⁻	E2	0.00200 *3*	α=0.00200 *3*; α(K)=0.001681 *24*; α(L)=0.000240 *4*; α(M)=5.27×10^{-5} *8*; α(N+..)=2.34×10^{-5} *4* α(N)=1.214×10^{-5} *17*; α(O)=1.762×10^{-6} *25*; α(P)=9.72×10^{-8} *14*; α(IPF)=9.38×10^{-6} *14*
		2507.1 *4*	16.3 *20*	98.9180	2⁺			
		2605.85 *23*	100 *4*	0.0	0⁺	E1	0.001214 *17*	α=0.001214 *17*; α(K)=0.000215 *3*; α(L)=2.76×10^{-5} *4*; α(M)=5.97×10^{-6} *9*; α(N+..)=0.000966 *14* α(N)=1.379×10^{-6} *20*; α(O)=2.03×10^{-7} *3*; α(P)=1.205×10^{-8} *17*; α(IPF)=0.000964 *14*
2612.2	14⁺	563.4 *3*	100	2048.8	12⁺	E2	0.01118	B(E2)(W.u.)=2.7×10^2 *6* α(K)=0.00910 *13*; α(L)=0.001623 *23*; α(M)=0.000364 *6*; α(N+..)=9.54×10^{-5} *14* α(N)=8.33×10^{-5} *12*; α(O)=1.160×10^{-5} *17*; α(P)=5.14×10^{-7} *8*
2644.53	(⁺)	1272.79[@] *6*	78[@] *4*	1371.73	(1,2,3)⁻			
		1698.12 *13*	25 *5*	946.32	2⁺			
		2545.90 *23*	100 *5*	98.9180	2⁺	(E2)	0.001058 *15*	α=0.001058 *15*; α(K)=0.000441 *7*; α(L)=5.86×10^{-5} *9*; α(M)=1.273×10^{-5} *18*; α(N+..)=0.000546 *8* α(N)=2.94×10^{-6} *5*; α(O)=4.33×10^{-7} *6*; α(P)=2.54×10^{-8} *4*; α(IPF)=0.000543 *8*
2672.33	4⁺	1124.55 *19*	73 *20*	1547.32	6⁺			
		1392.42[@] *16*	77[@] *23*	1280.01	4⁺			Mult.: Assigned E2, but γ is doublet.
		2034.85 *25*	100 *20*	637.712	6⁺			
		2355.6 *4*	43 *18*	317.139	4⁺			
		2573.6 *3*	45 *14*	98.9180	2⁺			
2758.8	(11⁻)	157.9		2600.7	(10⁻)			
		291.0		2467.8	(9⁻)			
2807.4	(12⁻)	330.9		2476.7	(10⁻)			
		758.5		2048.8	12⁺			
2886.9	(13⁻)	434.2		2452.8	(11⁻)			
		837.8		2048.8	12⁺	D		Mult.: Pure D γ based on DCO in (^{12}C,4nγ) (2003Ha45; values not given).
2940.4	(12⁻)	181.4		2758.8	(11⁻)			
		340.0		2600.7	(10⁻)			
2985.2		473.1		2512.1	(10⁻)			
2989.33	2⁺	933.93 *9*	94 *22*	2055.43	4⁺			Mult.: Assigned M1+E2, but J^π's require E2.
		1708.9 *3*	91 *25*	1280.01	4⁺			
		1998.6 *5*	47 *22*	990.73	0⁺			
		2672.3 *3*	100 *19*	317.139	4⁺			
3144.4	(13⁻)	203.9		2940.4	(12⁻)			
		385.5		2758.8	(11⁻)			
3190.3	16⁺	578.1 *3*	100	2612.2	14⁺	E2	0.01049	B(E2)(W.u.)=2.7×10^2 *4* α(K)=0.00855 *12*; α(L)=0.001509 *22*; α(M)=0.000338 *5*;

$^{158}_{66}Dy_{92}$-15

Adopted Levels, Gammas (continued)

γ(^{158}Dy) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[#]	α[†]	Comments
								α(N+..)=8.87×10^{-5} *13* α(N)=7.74×10^{-5} *11*; α(O)=1.080×10^{-5} *16*; α(P)=4.84×10^{-7} *7*
3217.4	(14$^-$)	410.2		2807.4	(12$^-$)			
		605		2612.2	14$^+$			
3237.2	(6$^+$)	708		2528.1	(8$^+$)			
		2194		1043.88	8$^+$			
		2600		637.712	6$^+$			
		2920		317.139	4$^+$			
3368.9	(14$^-$)	224.4		3144.4	(13$^-$)			
		428.6		2940.4	(12$^-$)			
3369.0	(15$^-$)	481.9		2886.9	(13$^-$)			
		756.8		2612.2	14$^+$	D		Mult.: Pure D γ based on DCO in (^{12}C,4nγ) (2003Ha45; values not given).
3530.61	4$^+$	1711.4 *3*	100 *23*	1818.83				
		2367.7 *8*	29 *20*	1163.75	4$^+$			
		2486.19 *24*	80 *17*	1044.594	3$^+$	M1	0.001250 *18*	α=0.001250 *18*; α(K)=0.000546 *8*; α(L)=7.34×10^{-5} *11*; α(M)=1.596×10^{-5} *23*; α(N+..)=0.000615 α(N)=3.69×10^{-6} *6*; α(O)=5.45×10^{-7} *8*; α(P)=3.24×10^{-8} *5*; α(IPF)=0.000611 *9*
		2892.6 *6*	17 *11*	637.712	6$^+$			
3547.77	(3$^-$)	1138.0 *3*	24 *7*	2409.70	4$^+$			E_γ: γ feeds the 2409.55 level and/or the 2409.60 level.
		1913.23 *21*	20 *8*	1634.54				
		2019.2 *4*	24 *8*	1528.07	5$^-$			
		2029.73 *22*	100 *10*	1518.45	3$^-$,4$^-$	M1+E2	0.00122 *15*	α=0.00122 *15*; α(K)=0.00076 *10*; α(L)=0.000103 *14*; α(M)=2.2×10^{-5} *3*; α(N+..)=0.00033 *3* α(N)=5.2×10^{-6} *7*; α(O)=7.6×10^{-7} *11*; α(P)=4.5×10^{-8} *7*; α(IPF)=0.00033 *3*
		2105.83 *19*	28 *7*	1441.75	1$^-$			
3582.33	2$^+$	1043.8 *8*	100 *15*	2538.55	3$^+$,4$^+$	M1	0.00479 *7*	α=0.00479 *7*; α(K)=0.00407 *6*; α(L)=0.000562 *8*; α(M)=0.0001226 *18*; α(N+..)=3.28×10^{-5} *5* α(N)=2.84×10^{-5} *4*; α(O)=4.18×10^{-6} *6*; α(P)=2.45×10^{-7} *4*
		1687.1 *4*	28 *15*	1895.16	4$^+$			
		2418.5 *3*	46 *15*	1163.75	4$^+$			
		3582.8 *7*	11 *4*	0.0	0$^+$			
3612.9	(15$^-$)	244.0		3368.9	(14$^-$)			
		468.6		3144.4	(13$^-$)			
3699.9	(16$^-$)	482.5	100	3217.4	(14$^-$)			
3781.3	18$^+$	591.0 *3*	100	3190.3	16$^+$	E2	0.00993 *14*	B(E2)(W.u.)=2.8×10^2 *4* α=0.00993 *14*; α(K)=0.00811 *12*; α(L)=0.001418 *20*; α(M)=0.000317 *5*; α(N+..)=8.33×10^{-5} *12* α(N)=7.27×10^{-5} *11*; α(O)=1.016×10^{-5} *15*; α(P)=4.60×10^{-7} *7*
3877.0	(16$^-$)	264.4		3612.9	(15$^-$)			
		507.9		3368.9	(14$^-$)			
3903.7	(17$^-$)	534.7		3369.0	(15$^-$)			
		713.4		3190.3	16$^+$	D		Mult.: Pure D γ based on DCO in (^{12}C,4nγ) (2003Ha45; values not given).

$^{158}_{66}Dy_{92}$-16

Adopted Levels, Gammas (continued)

γ(^{158}Dy) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[#]	α[†]	Comments
4157.6	(17⁻)	280.8		3877.0	(16⁻)			
		544.5		3612.9	(15⁻)			
4243.3	(18⁻)	543.4	100	3699.9	(16⁻)			
4407.1	20⁺	625.8 *3*	100	3781.3	18⁺	E2	0.00864 *13*	B(E2)(W.u.)=2.9×10^2 *6* α=0.00864 *13*; α(K)=0.00709 *10*; α(L)=0.001212 *17*; α(M)=0.000270 *4*; α(N+..)=7.11×10^{-5} *10* α(N)=6.20×10^{-5} *9*; α(O)=8.70×10^{-6} *13*; α(P)=4.03×10^{-7} *6*
4455.7	(18⁻)	298.1		4157.6	(17⁻)			
		578.8		3877.0	(16⁻)			
4490.9	(19⁻)	587.2		3903.7	(17⁻)			
4768.9	(19⁻)	313.3		4455.7	(18⁻)			
		611.3		4157.6	(17⁻)			
4839.1	(20⁻)	595.8		4243.3	(18⁻)			
5085.2	22⁺	678.1 *3*	100	4407.1	20⁺	(E2)	0.00715 *10*	α=0.00715 *10*; α(K)=0.00589 *9*; α(L)=0.000978 *14*; α(M)=0.000217 *3*; α(N+..)=5.73×10^{-5} *8* α(N)=4.99×10^{-5} *7*; α(O)=7.05×10^{-6} *10*; α(P)=3.37×10^{-7} *5* B(E2)(W.u.)=2.4×10^2 *7*
5097.6	(20⁻)	328.6		4768.9	(19⁻)			
		641.8		4455.7	(18⁻)			
5127.7	(21⁻)	636.8	100	4490.9	(19⁻)			
5439.3	(21⁻)	341.4		5097.6	(20⁻)			
		670.5		4768.9	(19⁻)			
5483.7	(22⁻)	644.6	100	4839.1	(20⁻)			
5794.2	(22⁻)	354.9		5439.3	(21⁻)			
		696.7		5097.6	(20⁻)			
5811.3	(23⁻)	683.6	100	5127.7	(21⁻)			
5819.9	(24⁺)	734.7	100	5085.2	22⁺	[E2]	0.00594 *9*	α=0.00594 *9*; α(K)=0.00492 *7*; α(L)=0.000795 *12*; α(M)=0.0001763 *25*; α(N+..)=4.66×10^{-5} *7* α(N)=4.05×10^{-5} *6*; α(O)=5.75×10^{-6} *8*; α(P)=2.82×10^{-7} *4* B(E2)(W.u.)=1.9×10^2 *7*
6160.9	(23⁻)	721.6		5439.3	(21⁻)			
6178.4	(24⁻)	694.7	100	5483.7	(22⁻)			
6519.2	(24⁻)	725.0		5794.2	(22⁻)			
6542.8	(25⁻)	731.5	100	5811.3	(23⁻)			
6612.5	(26⁺)	792.6	100	5819.9	(24⁺)	[E2]	0.00501 *7*	B(E2)(W.u.)=2.1×10^2 *13* α=0.00501 *7*; α(K)=0.00417 *6*; α(L)=0.000657 *10*; α(M)=0.0001455 *21*; α(N+..)=3.85×10^{-5} *6* α(N)=3.35×10^{-5} *5*; α(O)=4.77×10^{-6} *7*; α(P)=2.39×10^{-7} *4*
6924	(26⁻)	745.7	100	6178.4	(24⁻)			
7322.8	(27⁻)	780		6542.8	(25⁻)			
7456.2	(28⁺)	843.7	100	6612.5	(26⁺)			
7720	(28⁻)	796.1		6924	(26⁻)			

$^{158}_{66}Dy_{92}$-17

Adopted Levels, Gammas (continued)

$\gamma(^{158}Dy)$ (continued)

E_i(level)	J_i^π	E_γ[‡]	E_f	J_f^π	Comments
8150	(29^-)	827	7322.8	(27^-)	
8354.2	(30^+)	898	7456.2	(28^+)	
8565	(30^-)	845	7720	(28^-)	E_γ: From 2005Pi21 in (^{36}S,α4nγ); a different 838γ was assigned at the (30^-) level of this band by 2003Ha45 in (^{12}C,4nγ).
9023	(31^-)	873	8150	(29^-)	
9299.2	(32^+)	945	8354.2	(30^+)	
9458	(32^-)	893	8565	(30^-)	
9944	(33^-)	921	9023	(31^-)	
10294	(34^+)	995	9299.2	(32^+)	
10398	(34^-)	940	9458	(32^-)	
10913	(35^-)	969	9944	(33^-)	
11331	(36^+)	1037	10294	(34^+)	
11391	(36^-)	993	10398	(34^-)	
11933	(37^-)	1020	10913	(35^-)	
12416	(38^+)	1085	11331	(36^+)	
12435	(38^-)	1044	11391	(36^-)	
13004	(39^-)	1071	11933	(37^-)	
13534	(40^-)	1099	12435	(38^-)	
13544	(40^+)	1128	12416	(38^+)	
14135	(41^-)	1131	13004	(39^-)	
14718	(42^+)	1174	13544	(40^+)	
15330?	(43^-)	1196[&]	14135	(41^-)	
15940?	(44^+)	1222[&]	14718	(42^+)	

[†] Additional information 4.
[‡] From the respective dataset for γ's observed uniquely in a single dataset. Most data are from ^{158}Ho ε decay (11.3 min+28 min) for the decays, and from ^{150}Nd(^{12}C,4nγ) and (HI,xnγ) for the high spin levels. Less precise E_γ values (with no decimal) are from ^{130}Te(^{36}S,α4nγ).
[#] From α_K(exp) for many γ's from ^{158}Ho ε decay (11 m+27 m) (1978An11,1975Ru02,1974Al30,1968Ab14); others: ^{158}Tb β- decay for α_L(exp)(98) (1965sc11), in-beam studies for K/L for 218 and 320 γ's (1963Ha39,1966Gr04), and in-beam $\gamma(\theta)$ for 11 γ's (1972Jo02,1972Th02).
[@] Multiply placed with undivided intensity.
[&] Placement of transition in the level scheme is uncertain.

$^{158}_{66}Dy_{92}$-18

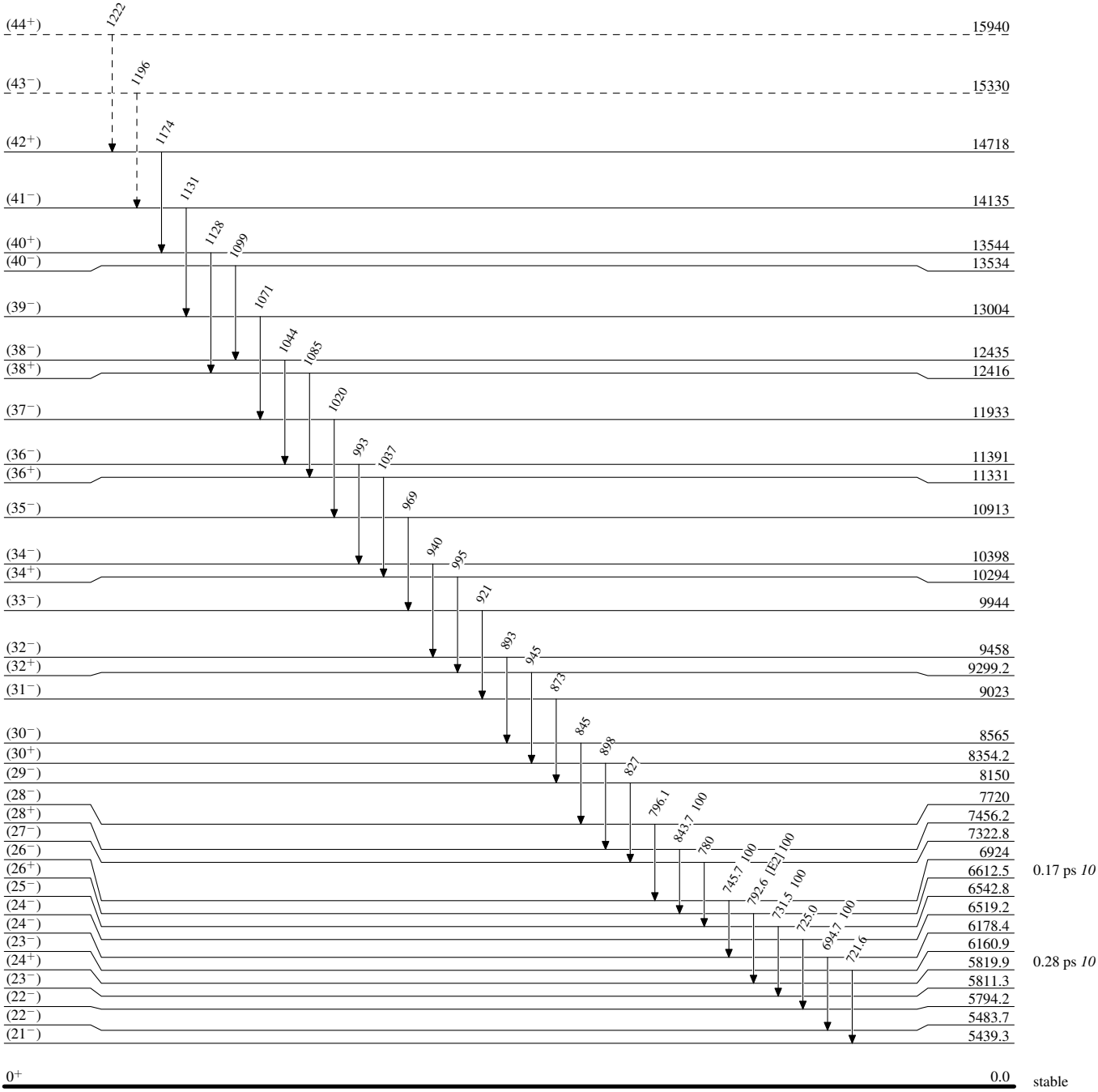
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

γ Decay (Uncertain)

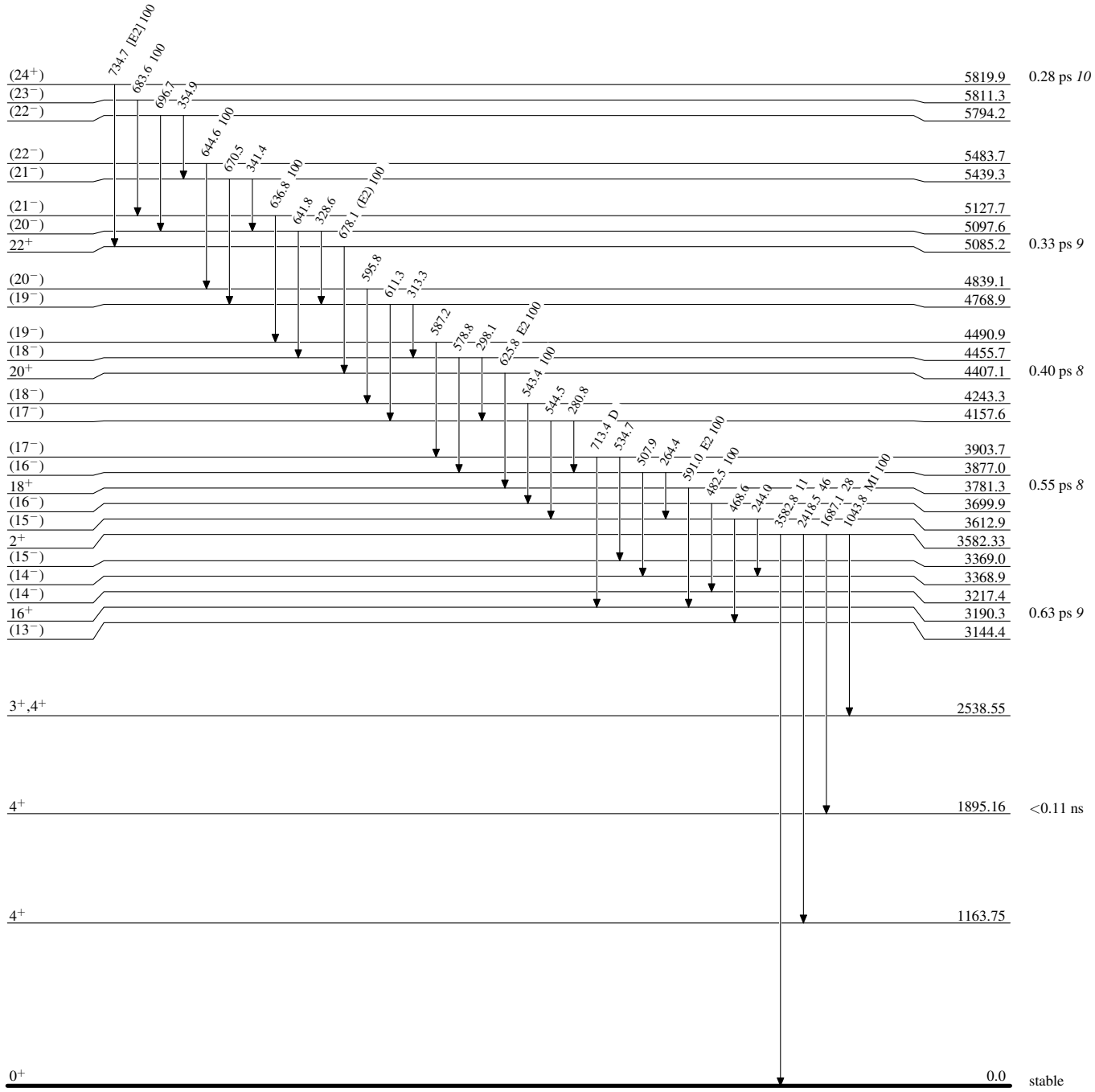


$^{158}_{66}Dy_{92}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

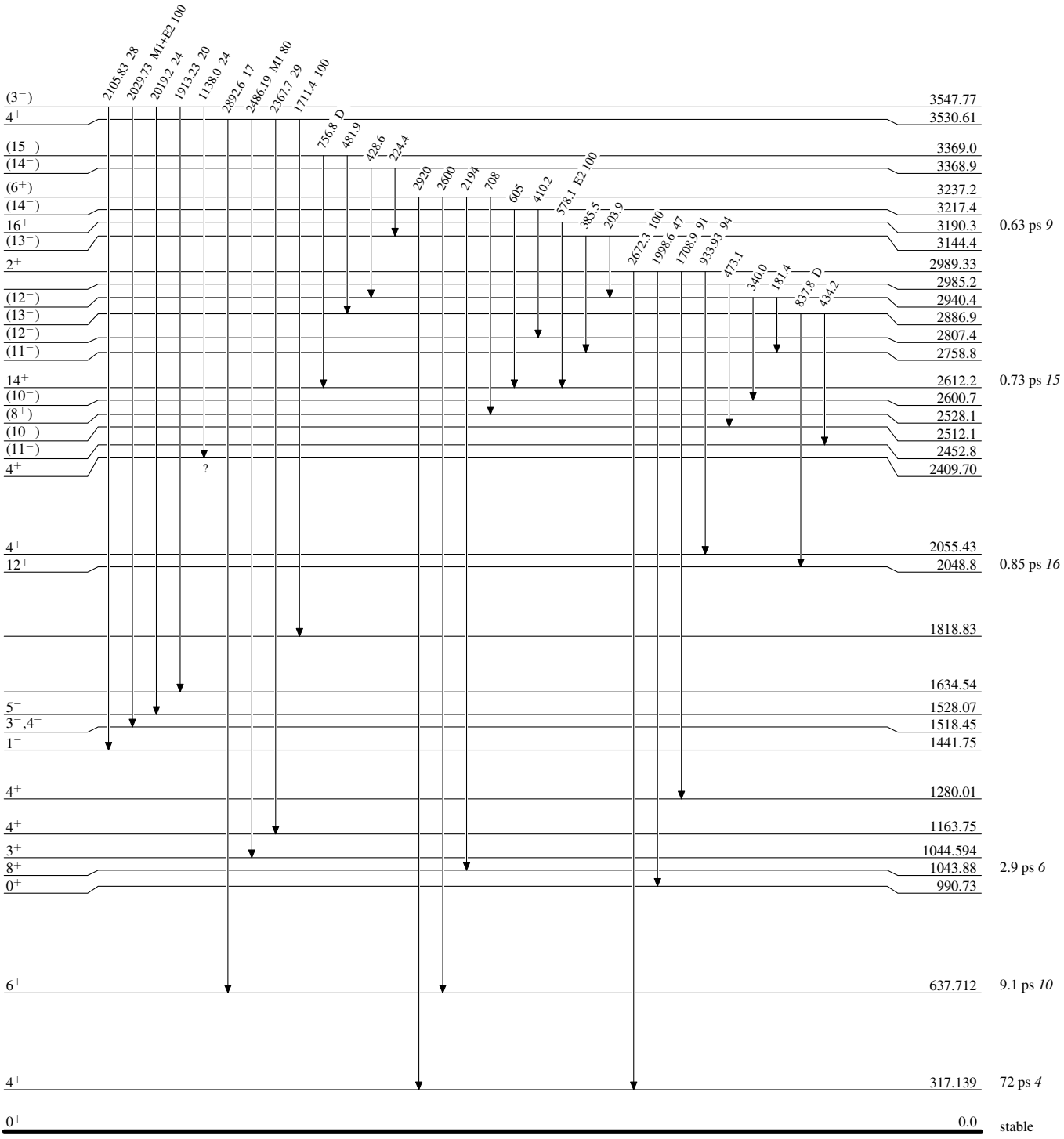


$^{158}_{66}Dy_{92}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

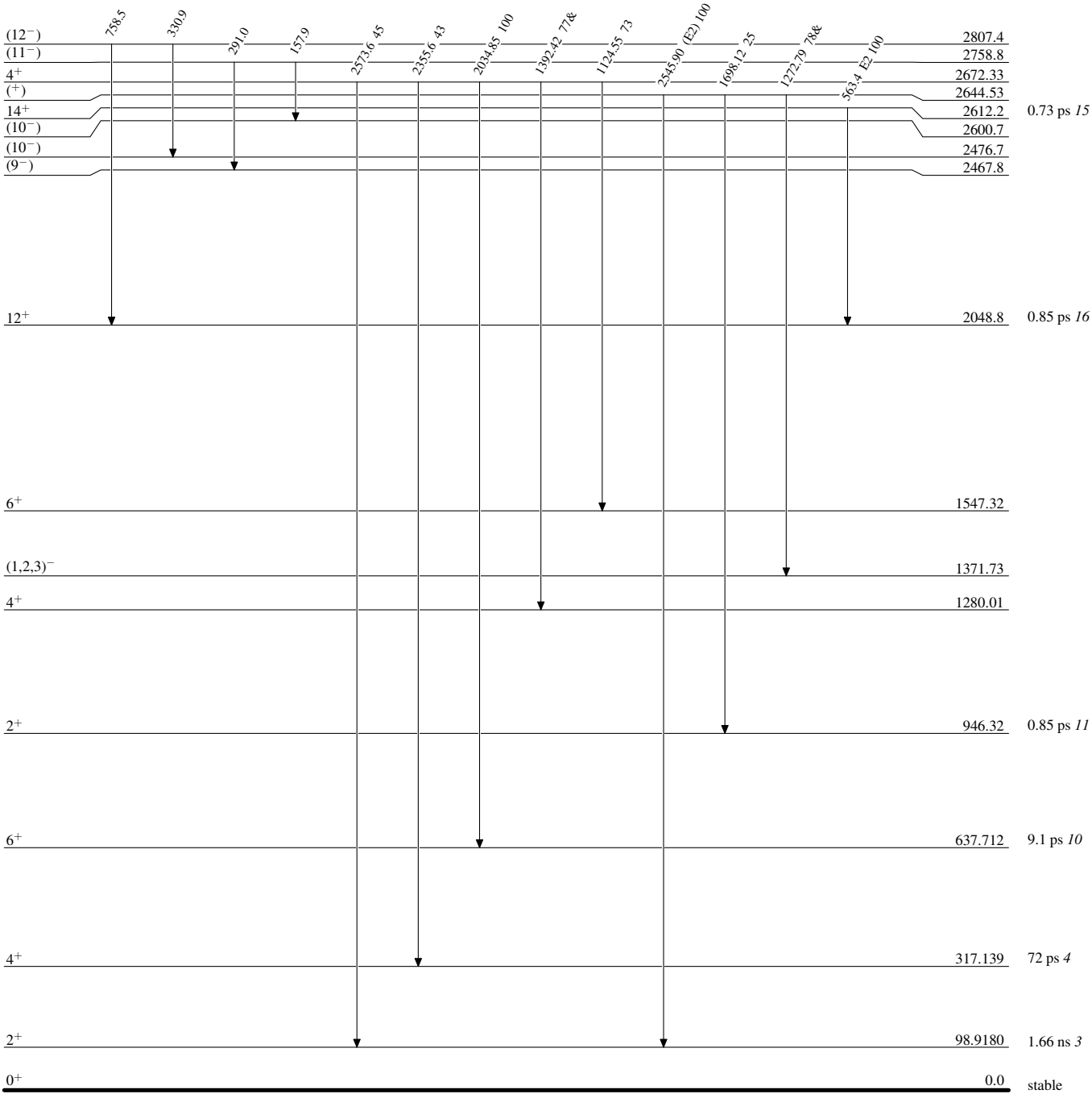


$^{158}_{66}Dy_{92}$

Adopted Levels, Gammas

Level Scheme (continued)

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

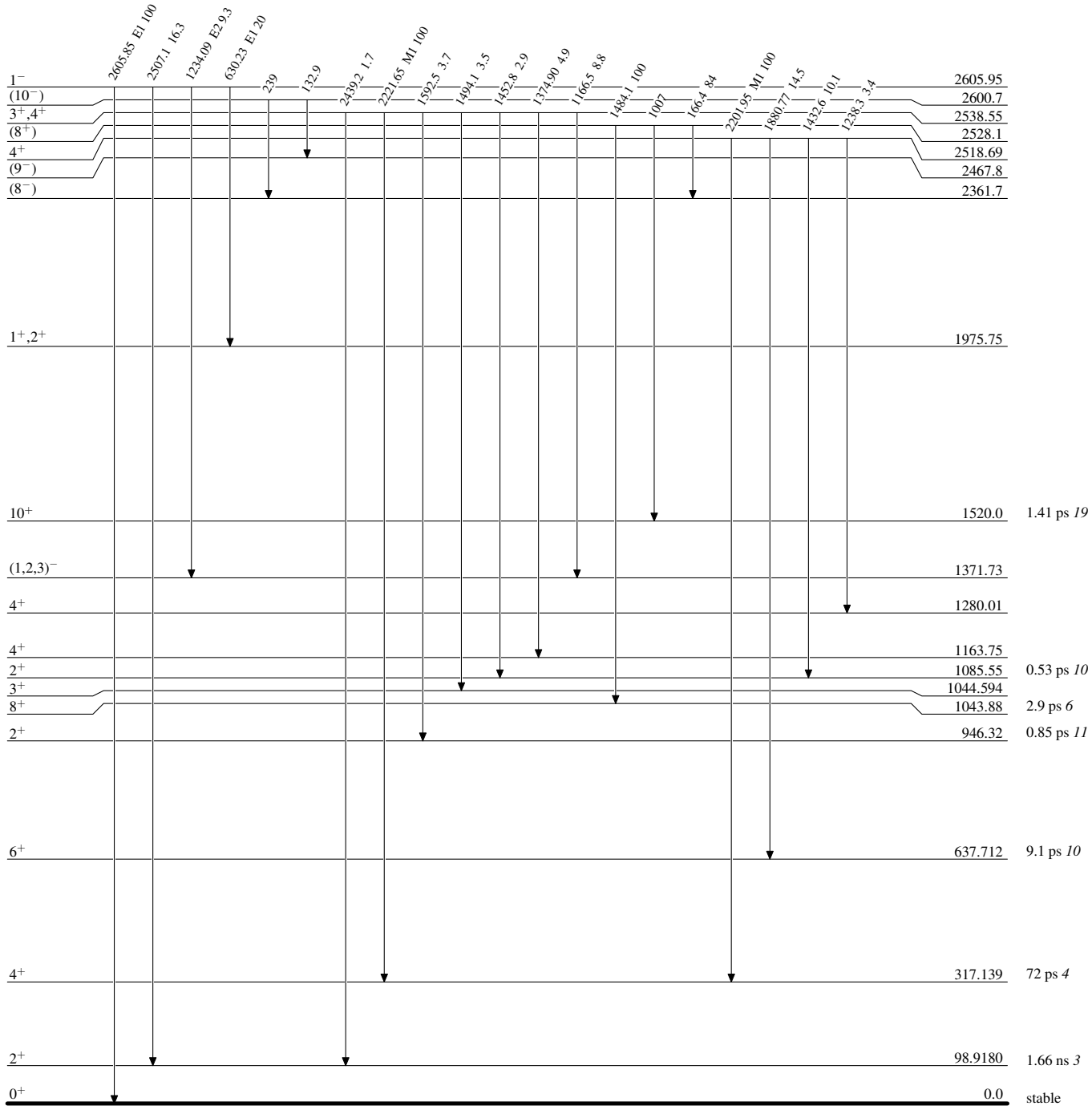


$^{158}_{66}Dy_{92}$

Adopted Levels, Gammas

Level Scheme (continued)

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

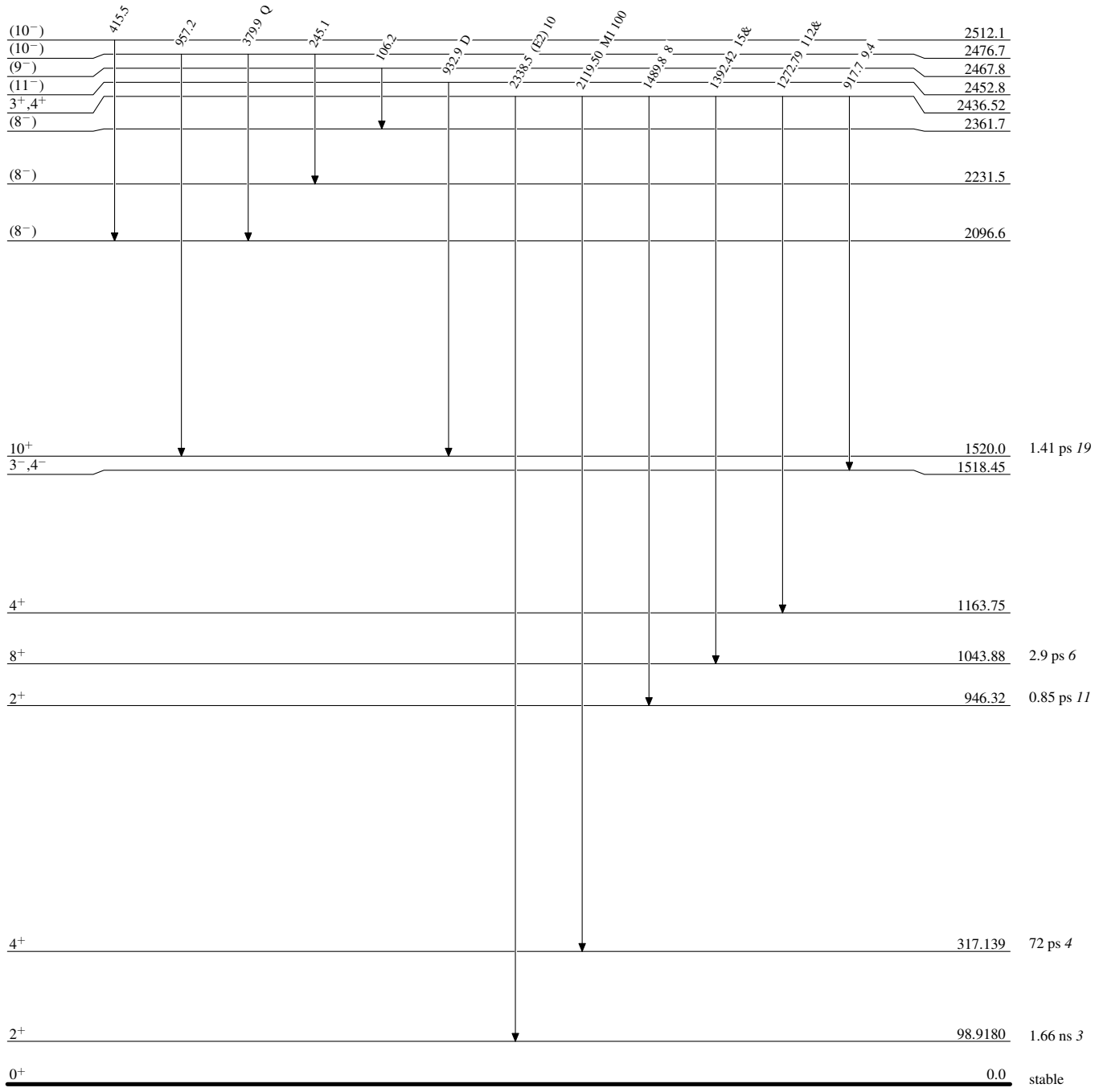


$^{158}_{66}Dy_{92}$

Adopted Levels, Gammas

Level Scheme (continued)

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

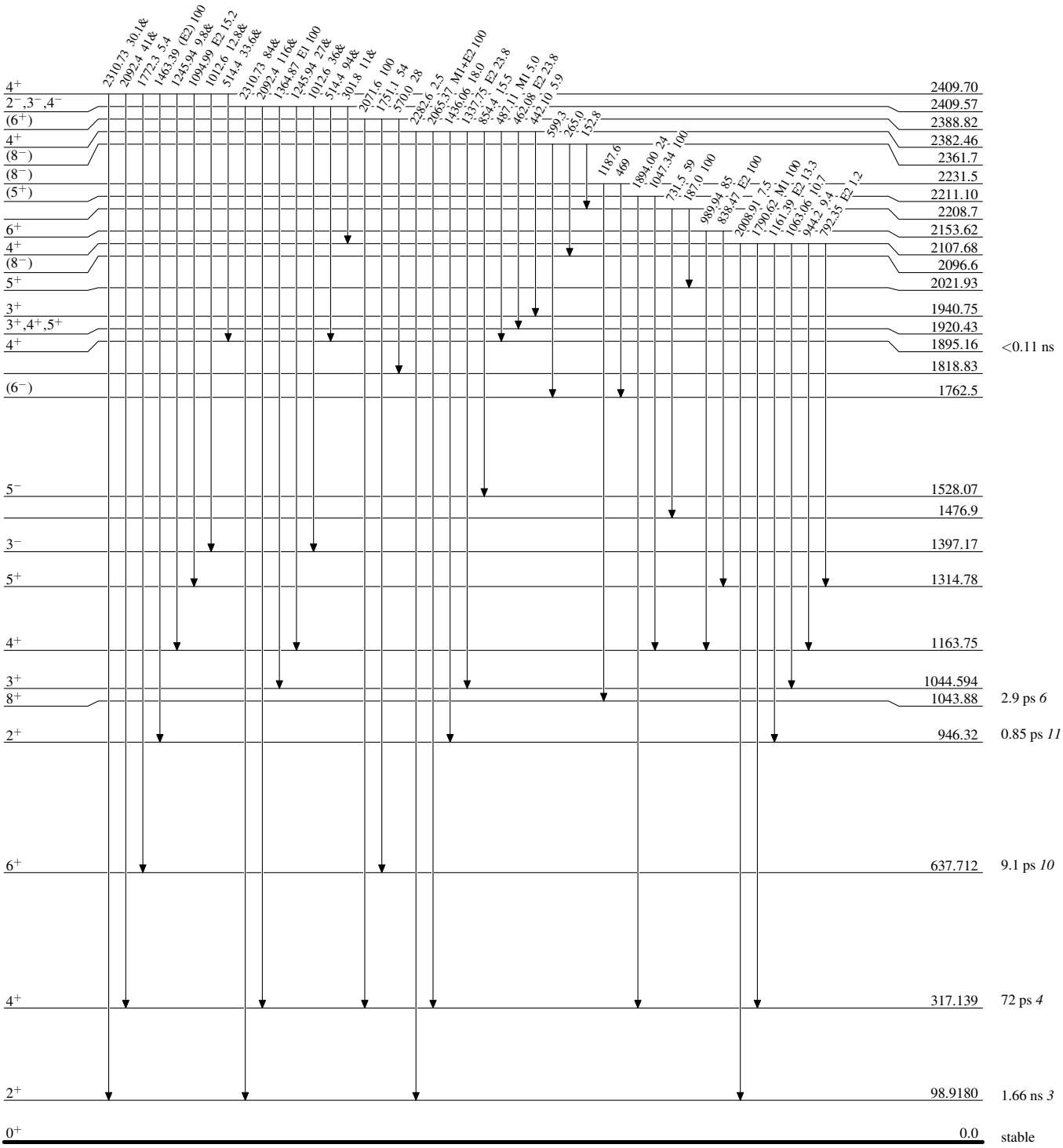


$^{158}_{66}Dy_{92}$

Adopted Levels, Gammas

Level Scheme (continued)

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

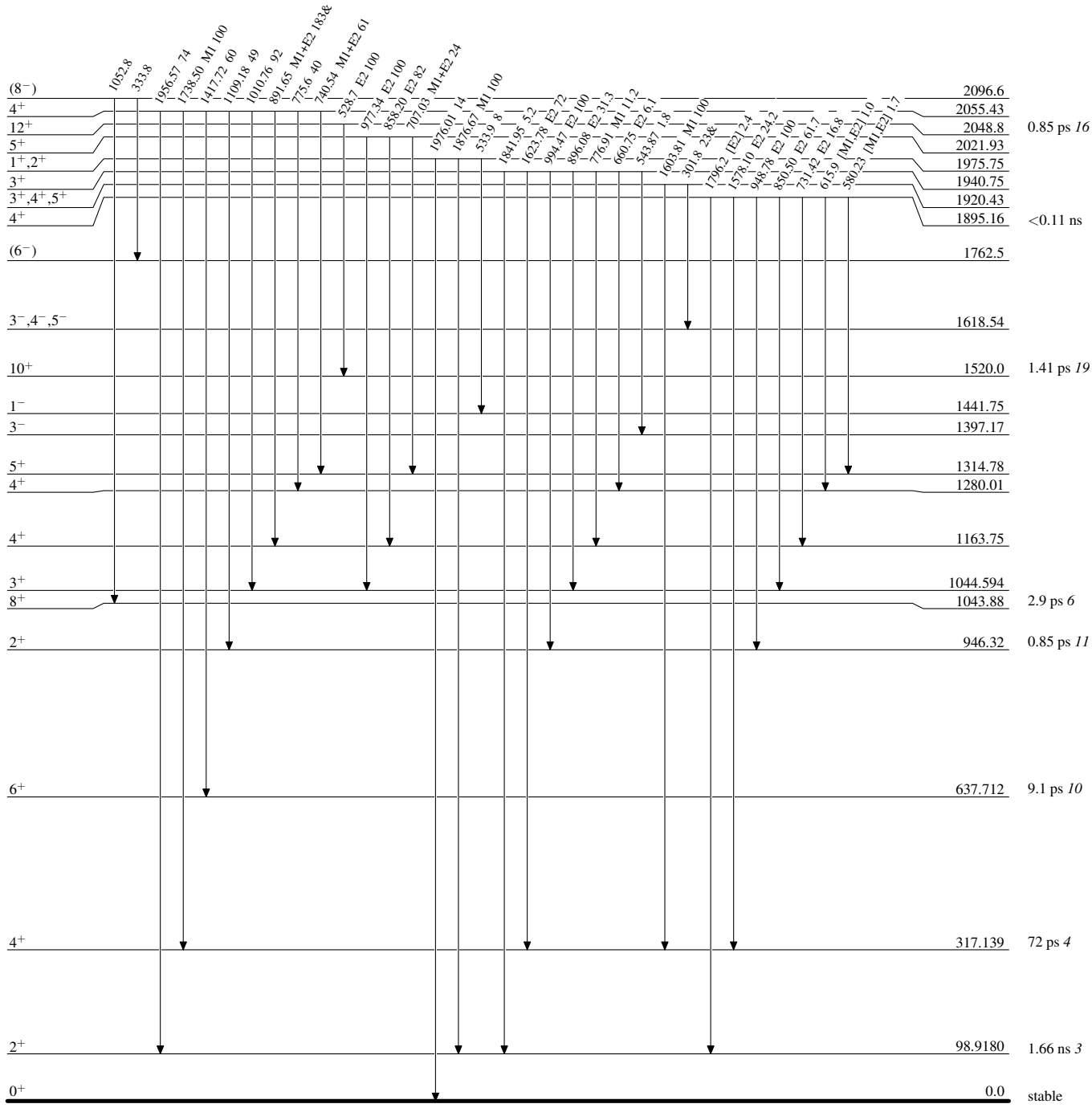


$^{158}_{66}Dy_{92}$

Adopted Levels, Gammas

Level Scheme (continued)

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



$^{158}_{66}Dy_{92}$

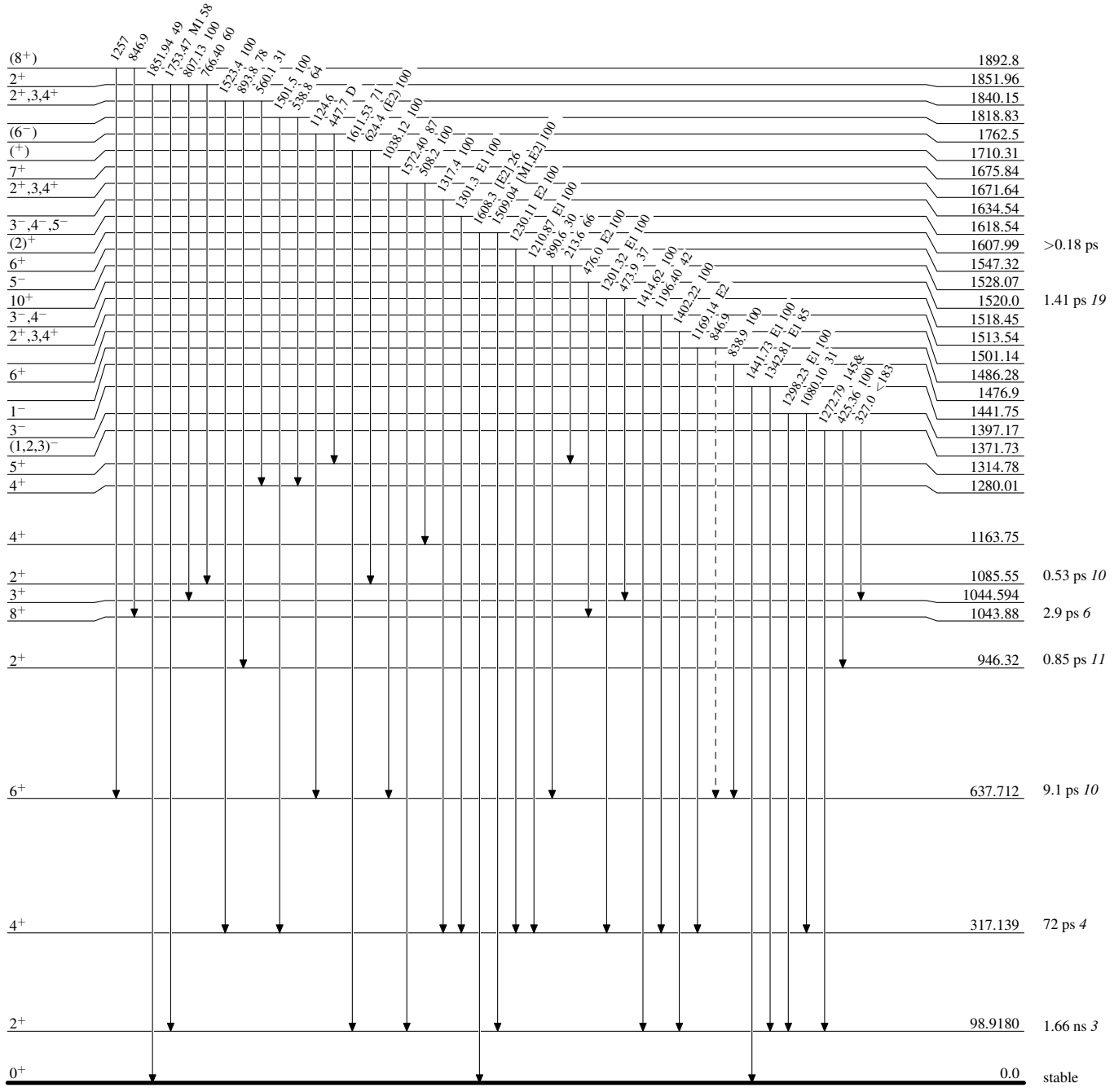
Adopted Levels, Gammas

Legend

Level Scheme (continued)

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

– – – – – – ► γ Decay (Uncertain)



$^{158}_{66}Dy_{92}$

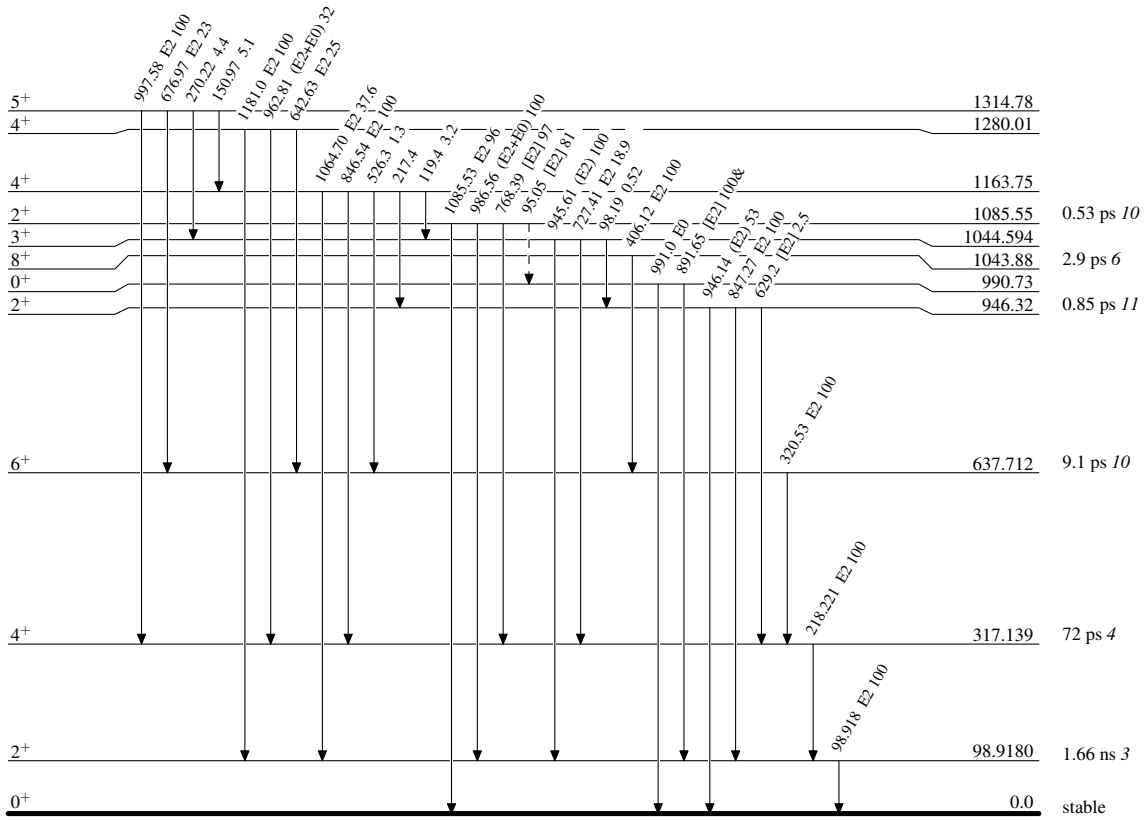
Adopted Levels, Gammas

Legend

Level Scheme (continued)

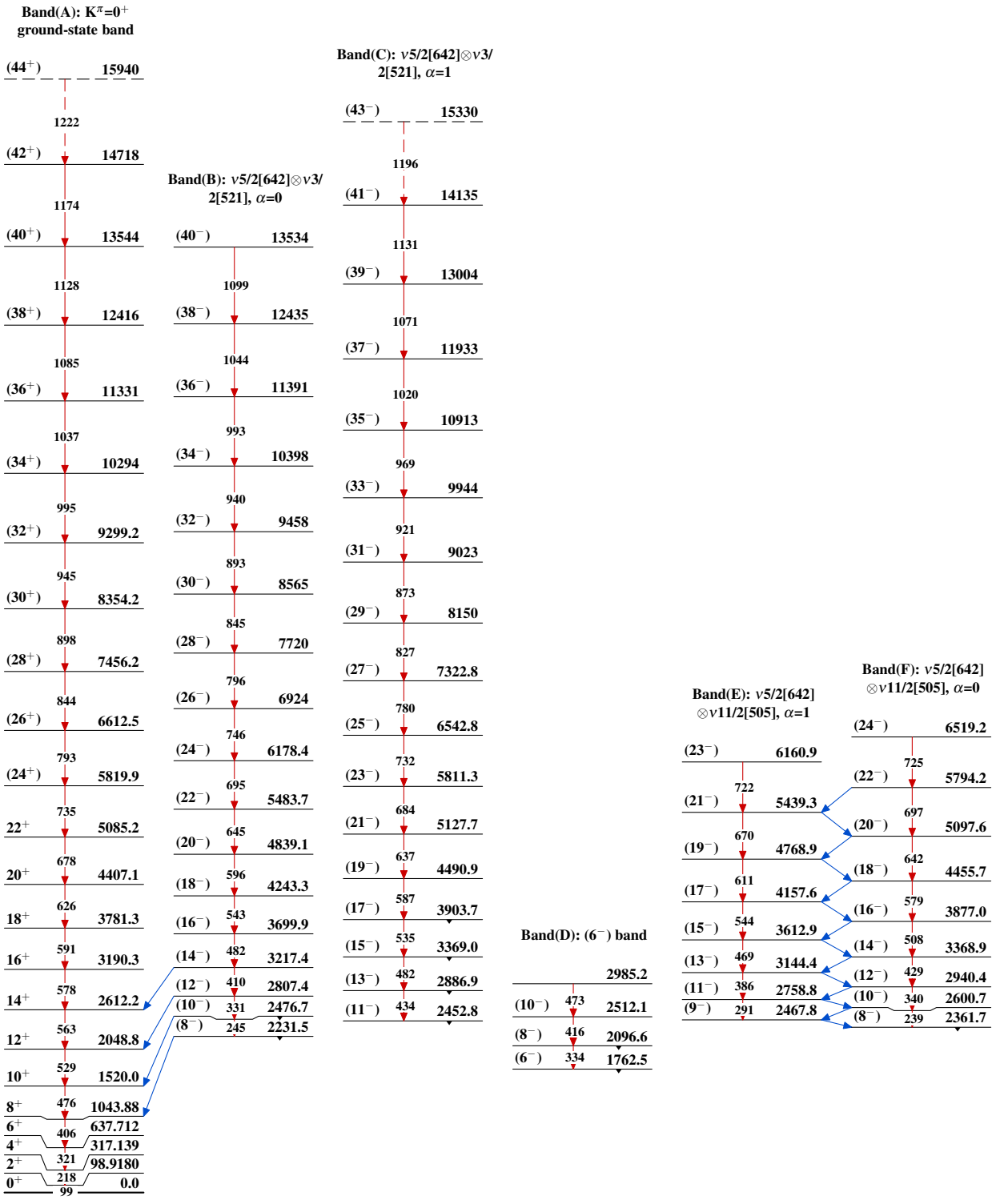
Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

– – – – – – ► γ Decay (Uncertain)

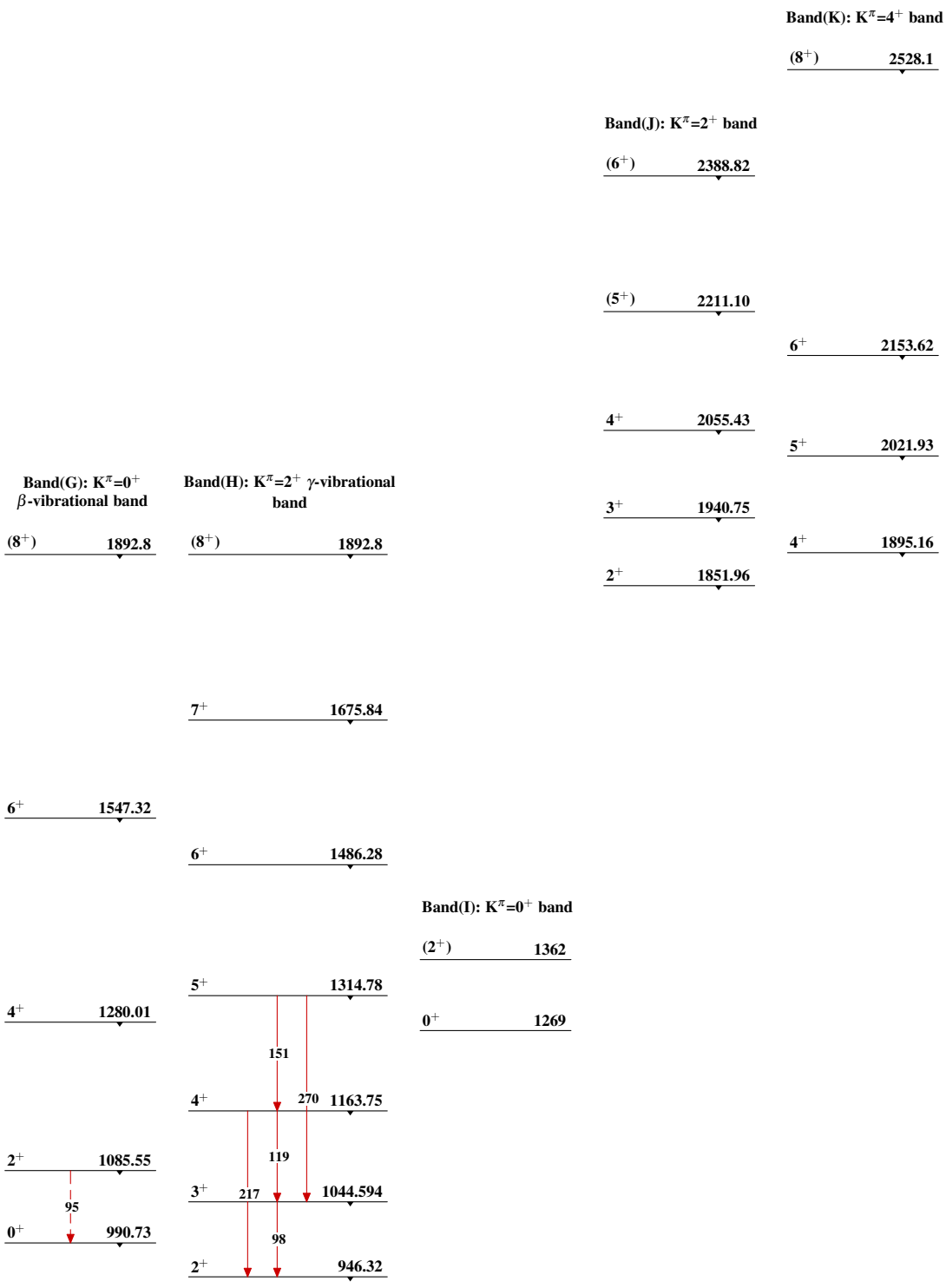


$^{158}_{66}Dy_{92}$

Adopted Levels, Gammas



Adopted Levels, Gammas (continued)



$^{158}_{66}Dy_{92}$