Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 176, 1 (2021)	1-May-2021

Q(β^-)=−3290 *15*; S(n)=8576.5 *14*; S(p)=7428.8 *11*; Q(α)=438.0 *10* 2021Wa16
S(2n)=15407.9 *23*, S(2p)=13560.4 *10* (2021Wa16).

^{160}Dy Levels

Cross Reference (XREF) Flags

A	^{160}Tb β^- decay	F	^{160}Gd(^{37}Cl,xnγ)	K	^{161}Dy(^{3}He,α)
B	^{160}Ho ε decay (25.6 min+5.02 h)	G	^{160}Dy(γ,γ')	L	^{162}Dy(p,t)
C	^{158}Gd(α,2nγ),^{160}Gd(α,4nγ),	H	^{160}Dy(p,p′)	M	Coulomb excitation
D	^{158}Gd(^{7}Li,p4nγ)	I	^{160}Dy(d,d′)		
E	^{158}Dy(t,p)	J	^{161}Dy(d,tγ)		

E(level)[†]	J$^\pi$[‡]	$T_{1/2}$	XREF	Comments
0.0[#]	0$^+$	stable	ABCDEFGHIJ LM	Possible α decay: $T_{1/2}\geq 8.5\times10^{15}$ y (2011Be18). From optical isotope-shift measurements, 1990Wa25 report the values (in fm^2) for the nuclear parameter, $\lambda(\approx\Delta\langle r^2\rangle)$: $\lambda(^{160}Dy\text{-}^{158}Dy)$=0.127 *7*; $\lambda(^{162}Dy\text{-}^{160}Dy)$=0.129 *8*; and $\lambda(^{161}Dy\text{-}^{160}Dy)$=0.0345 *21*. In a recent compilation of such data, 1987Au06 give the following values, respectively, for these quantities: 0.132 *12*; 0.134 *12*; and 0.036 *4*. From combined x-ray and optical-shift information, 1974Bo60 give (in fm^2) $\lambda(^{160}Dy\text{-}^{158}Dy)$=0.126 *11* and $\lambda(^{162}Dy\text{-}^{160}Dy)$=0.134 *11*. In an evaluation of nuclear rms charge radii, 2013An02 report $\langle r^2\rangle^{1/2}$=5.20 fm *31*.
86.7877[#] *3*	2$^+$	2.02 ns *1*	ABCDEFGHIJKLM	μ=+0.728 *18*; Q=1.8 *4* μ: weighted average of the values +0.74 *2* (1973Ka25) and +0.70 *3* (1984Si07) from 2014StZZ compilation (both measured by time-dependent perturbed angular correlation (TDPAC)). Q: from 2016St14 compilation (TDPAC). J$^\pi$: E2 transition to g.s. $T_{1/2}$: from ^{160}Tb β^- decay. This is essentially the same as that given by 2001Ra27. Other: 2.26 ns *16*, from B(E2) in Coul. ex.
283.8219[#] *11*	4$^+$	104 ps *4*	ABCDEF HIJKLM	μ=+1.41 *8* μ: Computed by the evaluator from g=+0.353 *19*, a weighted average of: g=+0.350 *20*, from 1996Al02, as discussed in the ^{160}Tb β^- Decay data set; and +0.359 *30*, from 1997Al04 (α,2nγ) (both references by integral perturbed angular correlation (IPAC)). 2014StZZ list μ=+1.40 *8* (1996Al02) and +1.60 *12* (1997Al04). J$^\pi$: E2 transition to 2$^+$ state. Member of g.s. rotational band. $T_{1/2}$: weighted average of: 103 ps *5*, from ^{160}Tb β^- decay; and 110 ps *11*, from B(E2)(2+→4$^+$), in Coul. ex.
581.066[#] *17*	6$^+$	18.6 ps *10*	ABCDEF HIJKLM	μ=+2.11 *10* J$^\pi$: E2 transition to 4$^+$ level. Member of g.s. rotational band. μ: Computed from g=+0.352 *17*, 1999Br43 (Coul. ex., TF). Other: +1.13 *12*, from g=+0.188 *20* (1997Al04, IPAC in (α,2nγ)) (after correction of their reported value, +0.242 *20*, for the different $T_{1/2}$ value used here). 2014StZZ list μ=+2.11 *10* (1999Br43) and +1.45 *12* (1997Al04, without correction). $T_{1/2}$: from B(E2)(4+→6$^+$) in Coul. ex.
681.3? *7*	(0$^+$)		B	E(level): level reported in 2009Ad04 (ε decay) from the observation of a K-shell electron line corresponding to transition energy of 681.3 keV.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{160}Dy Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	T$_{1/2}$	XREF	Comments
703.0?	(0$^+$)		B	E(level): from 2010BoZZ (ε decay) based on their observance of 703.0 transition, presumably E0; by their assignment of 1594.5 transition (previously unplaced) at existing 2297.5, 2$^+$ level; and by postulating 616.2 transition from this level to the 86.8, 2$^+$ level (with existing 616.18 γ from 2701.0, 1$^-$ level, this would be a doublet with).
966.1687[@] *13*	2$^+$	1.31 ps *9*	ABCDEFGHIJ LM	μ=+0.80 *5* J$^{\pi}$: E2 transition to g.s. μ: From g=0.401 *27* from 1999Br43 (Coul. ex., TF). μ=+0.65 *5*, from g=+0.324 *25*, computed by the evaluator from g=+0.317 *13* as reported by 1995Al22 (IPAC, after correction for the different T$_{1/2}$ value adopted here). See "^{160}Dy Levels from ^{160}Tb β^- Decay" for a discussion. 2014StZZ also report +0.80 *5* (1999Br43), together with +0.63 *2* (1995Al22) and +0.34 *9* (1969Si01, 1975Kh03) for μ. T$_{1/2}$: from B(E2) and adopted branching.
966.83[#] *5*	8$^+$	3.8 ps *3*	BCD F K M	μ=+2.48 *18* J$^{\pi}$: E2 transition to 6$^+$ level. Coulomb-excited; member of g.s. band. μ: From g=+0.310 *22*, 1999Br43, (Coul. ex., TF), computed by the evaluator from their reported value, g=0.343 *22*, after correction for the different T$_{1/2}$ value used here. Other μ values (also listed by 2014StZZ): 2.4 *8*, from g=+0.301 *95* (1997Al04, IPAC from (α,2nγ)); +2.7 *2* (1999Br43). T$_{1/2}$: from Doppler-broadened line shape and B(E2)(6+$\rightarrow$8$^+$), both in Coul. ex.
1049.1018[&] *17*	3$^+$		ABC J M	J$^{\pi}$: E2+M1 transitions to 2$^+$ and 4$^+$ levels.
1155.841[@] *8*	4$^+$		ABCDEF HIJ M	J$^{\pi}$: E2 and E2+M1 transitions to the 2$^+$ and 4$^+$ members, respectively, of the g.s. band. Energy considerations suggest this is a member of the γ-vibrational band.
1264.7472[a] *16*	2$^-$	$\leq$10 ps	ABC J	J$^{\pi}$: E1 transitions to 2$^+$ and 3$^+$ levels, but not to 4$^+$. $\gamma\gamma(\theta)$ results consistent with J=2. T$_{1/2}$: from 1972Ab09, β^- decay.
1279.942[e] *23*	0$^+$		B L	XREF: L(1275). J$^{\pi}$: E0 transition to g.s.
1285.604[d] *12*	1$^-$		ABC JK M	J$^{\pi}$: E1 transition to g.s. Head of K^{π}=1$^-$ band.
1286.713[b] *13*	3$^-$	0.22 ps *6*	ABC E HIJ M	B(E3)$\uparrow$=0.171 *10* J$^{\pi}$: E1 transitions to 2$^+$ and 4$^+$ levels. T$_{1/2}$: from Doppler-broadened line shape in Coul. ex. (1981Mc06). B(E3)$\uparrow$: from Coul. ex.
1288.665[&] *11*	5$^+$		ABCD	J$^{\pi}$: E2 transitions to the 4$^+$ and 6$^+$ members of the g.s. band and the 3$^+$ member of the γ-vibrational band. Energy considerations and this decay pattern suggest this is the 5$^+$ member of the γ-vibrational band.
1349.758[e] *17*	2$^+$	1.20 ps *11*	B E G I LM	B(E2)$\uparrow$=0.0184 *15* XREF: L(1339). T$_{1/2}$: from B(E2) in Coul. ex. J$^{\pi}$: E2 transition to g.s.
1358.670[c] *4*	2$^-$	2.70 ns *14*	ABC H JK	J$^{\pi}$: E1 γ to 2$^+$ and 3$^+$ levels indicate J^{π}=2$^-$,3$^-$. E1 γ from 1$^+$ rules out 3$^-$. T$_{1/2}$: from β^- decay (1972Ab09). Note that the B(E1)(W.u.) values from this T$_{1/2}$ value are considerably smaller than one might expect from the decay of a state with this proposed J^{π} and configuration assignment.
1386.458[a] *12*	4$^-$		ABCD J	XREF: J(1381). J$^{\pi}$: E1 components in transitions to 3$^+$ and 4$^+$ levels. Energy agrees well with expected position of 4$^-$ member of K^{π}=2$^-$ octupole band.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{160}Dy Levels (continued)

E(level)†	Jπ‡	$T_{1/2}$	XREF	Comments
1398.964[d] *12*	3^-		ABC E JK M	B(E3)↑=0.064 Jπ: E1 γ's to 2^+ and 4^+ levels. B(E3)↑: from Coul. ex.
1408.47[b] *4*	5^-		BCD IJ M	Jπ: E1 to 4^+ indicates $J^\pi=3^-,4^-,5^-$. γ to 6^+ rules out 3^- and 4^-.
1427.89[#] *7*	10^+	1.56 ps *7*	CD F M	μ=+3.1 *3* Jπ: decays only via E2 to 8^+ member of the g.s. band. Coulomb excited. Member of g.s. band. $T_{1/2}$: Doppler-broadened line shape in Coulomb excitation (1977Ke06). Other: 1.20 ps *12*, from B(E2). μ: From g=+0.306 *31*, 1999Br43 (Coul. ex., by TF); same μ value is also listed by 2014StZZ compilation.
1438.554[@] *23*	6^+		BCD M	Jπ: E2 γ's to 4^+ members of the g.s. and γ-vibrational bands and an E2+M1 γ to the 6^+ member of the g.s. band. Energy consistent with expected position of the 6^+ member of the γ-vibrational band. Population in Coul. ex. indicates collective character.
1456.752[f] *20*	0^+		B E	Jπ: L=0 in (t,p).
1489.500[n] *22*	1^-	6.8 fs *8*	B G	Jπ: E1 transition to 0^+. $T_{1/2}$: from (γ,γ').
1518.419[f] *14*	2^+		B E	XREF: E(1513). Jπ: γ's to 0^+ and 4^+ levels.
1522.33[e] *3*	4^+		B	Jπ: γ's to 2^+ and 6^+ levels.
1535.150[c] *12*	4^-		ABC JK	Jπ: E1 γ's to 3^+ and 5^+ levels.
1556.59 *10*	$1^+,2^+$		A	Jπ: transitions to g.s. and first 2^+ level require J=1 or $J^\pi=2^+$. log *ft*=11.66 from 3^- rules out 1^-.
1586.744[d] *21*	5^-		B I	XREF: I(1578). Jπ: E1 to 4^+, γ from 3^-, levels and member of octupole-vibrational band.
1594.42[a] *7*	6^-		BCD	Jπ: E1 to 5^+, γ from 8^-, levels.
1603.78 *5*	4^+		B	Jπ: E1 γ from 5^-, γ to 2^+, levels.
1606.84 *6*	6^+		B	Jπ: E2 γ to 4^+ and (E2) γ to 8^+.
1607.86[f] *6*	4^+		B K	Jπ: E2 γ to 4^+, γ's to 2^+ and 5^+ members of the γ band. Value based on comparison of shape of the angular distribution in (^{3}He,α) with that of transitions to known levels. Band assignment is that proposed in (^{3}He,α) and ^{160}Ho ε decay.
1613.98[b] *4*	7^-		BCDe	XREF: C(1614.2)e(1617). Jπ: E1 transition to the 6^+ member of the g.s. band. Energy consistent with the expected 7^- member of the $K^\pi=2^-$ band.
1617.27[&] *4*	7^+		BCDe	XREF: e(1617). Jπ: E2+M1 transitions to 6^+ and 8^+ levels.
1643.27[n] *4*	3^-		B I M	B(E3)↑=0.065 *10* Jπ: Coulomb excited via an E3 transition (1981Mc06). Possibly the 3^- member of a $K^\pi=0^-$ (octupole) band. B(E3)↑: from Coul ex.
1650.874 *24*	$4^-,5^-$		B e i K	XREF: e(1657)i(1656). Jπ: E1 γ's to 4^+ and 5^+ levels. See, also, the J^π comment for the 1651.95 level.
1651.95 *22*	$4^+,5,6^+$		B e i K	XREF: e(1657)i(1656). Jπ: γ's to 4^+ and 6^+ levels. Possible excitation in (d,d') may indicate natural parity. 1981Ji01 assign this level as the $J^\pi=5^-$ member of the $K^\pi=1^-$ octupole band, while 1987Gr37 assign this state as the bandhead of a $K^\pi=5^-$ band with configuration=(ν 5/2[642] + ν 5/2[523]).
1653.66 *4*			B e i	XREF: e(1657)i(1656).

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{160}Dy Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	$T_{1/2}$	XREF	Comments
1654.99 *3*	$2^+,3^+,4^+$		B e i	XREF: e(1657)i(1656). J$^{\pi}$: E1 γ to 3^-.
1676.1 *10*			C	
1694.360[g] *11*	4^+	180 ps *35*	BCD	J$^{\pi}$: E2 transitions to 2^+ and 5^+ levels establish π=+ and J=3 or 4. The allowed-unhindered (au) ε transition (log *ft*=4.69, see 1996Re22) from the ^{160}Ho g.s. ($J^{\pi}=5^+$) uniquely establishes the assigned two-quasineutron configuration (and, hence, $J^{\pi}=4^+$) for this state. $T_{1/2}$: from ^{160}Ho ε decay.
1708.14[j] *4*	0^+		B E	J$^{\pi}$: L=0 in (t,p).
1720.36[f] *20*	6^+		BC K	XREF: C(1726.9)K(1723). J$^{\pi}$: L=6 in (^{3}He,α). The strength of this peak, together with the relative cross sections to other ^{160}Dy levels, suggests that this is the 6^+ member of the S band.
1756.918 *21*	2^+		B E	J$^{\pi}$: E1 γ's to 1^- and 3^- levels.
1784.688[h] *22*	4^-		B K	XREF: K(1785). J$^{\pi}$: E1 to 4^+ level indicates π=−. (d,t) population pattern for the proposed band members is consistent with the indicated $K^{\pi}=4^-$ configuration.
1787.79[c] *7*	6^-		BCD	XREF: C(?). E(level): this level was proposed to deexcite via 252.2 and 498.6 γ's by 1987Ri08, (α,2nγ). No 192.6 and 233 γ's were reported by 1987Ri08. γ data are from ^{160}Ho ε decay. J$^{\pi}$: E1 transition from 5^+ level indicates π=−. E2 γ to 4^- and expected band structure.
1800.35[@] *6*	8^+		BCD	XREF: B(1801.16)C(1801.6). J$^{\pi}$: E2 transitions to the 6^+ members of the g.s. and γ-vibrational bands and E2(+M1) transition to the 8^+ member of the g.s. band. Level energy is that expected for the 8^+ member of the γ band.
1802.224[g] *12*	5^+		BCD	J$^{\pi}$: M1 component in transitions to 4^+ and from 6^+ levels requires $J^{\pi}=5^+$. Level energy suggests that it is the 5^+ member of the $K^{\pi}=4^+$ band.
1804.669[i] *14*	1^+		B	J$^{\pi}$: M1 transition to the g.s. Head of a $K^{\pi}=1^+$ band.
1860.18[h] *6*	5^-		BC JK	XREF: C(1861.6). J$^{\pi}$: E1 transitions to 4^+ and 6^+ levels.
1869.513[i] *21*	2^+		B E I	XREF: E(1875)I(1875). J$^{\pi}$: E2 transitions to 0^+ and 4^+ levels.
1882.31[a] *7*	8^-		BCD	XREF: B(1882.62).
1898.23[d] *16*	7^-		D	
1900.87[b] *8*	9^-		BCD	J$^{\pi}$: (E1) transition to 8^+ member of the g.s. band. Level energy consistent with that expected for the 9^- member of the $K^{\pi}=2^-$ band.
1903.204[i] *20*	3^+		B I	J$^{\pi}$: E1 transition from 2^-, E2 transitions to 2^+ and 4^+ levels.
1929.176[g] *19*	6^+		BCD	J$^{\pi}$: E2 transition to 4^+ state indicates π=+. Level-energy considerations, together with the occurrence of transitions to the 4^+ and 5^+ members of the 4^+ band at 1694, indicate that this is the 6^+ member of this band.
1932			E	
1950.17[#] *9*	12^+	0.89 ps *4*	CD F M	μ=+3.6 *7* XREF: C(1951.5)F(1952). J$^{\pi}$: decays only via an E2 transition to the 10^+ member of the g.s. band. Coulomb excited. Member of the g.s. band. $T_{1/2}$: from Doppler-broadened line shape in Coulomb excitation

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{160}Dy Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	XREF	Comments
			(1977Ke06). Other: 0.54 ps *24*, from B(E2).
			μ: From g=+0.302 *60*, 1999Br43 (Coul. ex., by TF); same value is also listed by 2014StZZ complilation.
1952.31[o] *3*	0$^+$	B	J$^{\pi}$: E0 transition to g.s.
1954.4[h] *5*	(6)$^-$	BC JK	XREF: C(1958)J(1958)K(1948). J$^{\pi}$: π=−, from L=5 in (^{3}He,α). Transition to the 5$^+$ member of the γ band. From considerations of rotational-band structure, this level is assigned as the 6$^-$ member of the indicated K^{π}=4$^-$ band.
1978.2[f] *10*	(8)$^+$	C K	XREF: K(1974). J$^{\pi}$: E2 transition to 6$^+$ member of g.s. band indicates π=+. The strength of this L=6 transition and the relative cross sections of the (^{3}He,α) transitions to other ^{160}Dy levels suggest that this is the 8$^+$ member of the S band.
2009.531 *19*	1$^-$,2$^-$	B	J$^{\pi}$: E1 γ to 2$^+$ indicates J^{π}=1$^-$,2$^-$,3$^-$. γ to g.s. rules out 3$^-$.
2012.85[o] *21*	2$^+$	B	J$^{\pi}$: γ's to 0$^+$ and 4$^+$ levels.
2021.64[&] *8*	9$^+$	BCD	XREF: C(2022.7)D(2020.6). J$^{\pi}$: E2 transitions to 7$^+$ member of the γ band and 8$^+$ member of the g.s. band. These decay modes and the level energy are consistent with the assignment of this level as the 9$^+$ member of the γ band.
2043.7?[h]	(7$^-$)	C	J$^{\pi}$: from (α,2nγ), (1987Ri08) based on the interpretation of an otherwise unplaced γ as a crossover transition to the 5$^-$ member of this band.
2046		E	
2049.50 *6*	2$^+$,3	B	J$^{\pi}$: γ's to 2$^+$ and 4$^+$ levels suggest J^{π}=2$^+$,3,4$^+$. γ from 2$^-$ makes J=4 less likely.
2068.08 *3*	1$^-$	B	J$^{\pi}$: E1 transition to g.s.
2074.09[g] *11*	7$^+$	BCD K	J$^{\pi}$: γ's to 5$^+$ and 8$^-$ levels and expected band structure. 1981Ji01, in (^{3}He,α), report L=5 transfer to this level and interpret it as the bandhead of a K^{π}=3$^-$ band.
2077.36 *3*	3$^-$	B	J$^{\pi}$: γ's to 1$^-$ and 5$^-$ levels. Possible K^{π}=3$^-$ bandhead.
2084.809 *21*	1$^+$,2$^+$	B	J$^{\pi}$: M1,E2 transition to 0$^+$.
2088.85 *3*	1$^-$,2$^-$,3$^-$	B	J$^{\pi}$: E1 γ to 2$^+$.
2090.88 *4*	2$^-$,3$^-$	B	J$^{\pi}$: E1 γ to 2$^+$, γ's to 2$^+$ and 3$^+$ levels.
2096.889[k] *14*	4$^+$	B J	J$^{\pi}$: γ's to 2$^+$ and 6$^+$ levels.
2112.42[c] *13*	8$^-$	BCD	XREF: C(2113.3). J$^{\pi}$: from γ's to 6$^-$ and 9$^+$ levels and expected band structure.
2113.69 *10*		B	
2126.37 *4*	3$^-$	B I K	XREF: I(2129). J$^{\pi}$: E2 γ from 1$^-$, γ's to 2$^+$ and 4$^+$ levels.
2130.579 *23*	3$^-$	B	J$^{\pi}$: E1 γ to 2$^+$, γ to 4$^+$.
2138.20 *3*	2$^+$	B i	XREF: i(2143). J$^{\pi}$: E2 γ to 0$^+$.
2140.15 *3*	(3)	B i	XREF: i(2143). J$^{\pi}$: γ's to 2$^+$ and 4$^+$ levels. Level fed by γ's from 2$^-$ and 5$^-$ levels. Mult(1091.1γ)=(E1) and mult(1856.38γ)=(E2,M1), proposed by 2002Ad34 in ε decay give opposite parities for this state.
2141.67 *15*	2$^+$,3,4$^+$	B i	XREF: i(2143). J$^{\pi}$: γ's to 2$^+$ and 4$^+$ levels.
2143.73 *7*	4$^-$	B	J$^{\pi}$: E1 γ to 5$^+$ and γ to 3$^+$ levels.
2144.56? *5*		B	
2149.84 *13*	1,2	B	J$^{\pi}$: γ's to 0$^+$ and 2$^+$ levels.
2155.33 *20*		B	
2165.41 *10*		B J	XREF: J(2163).
2175.3 *10*		C	
2187.00 *6*	4$^+$,5$^+$,6$^+$	B i k	XREF: i(2190)k(2188). J$^{\pi}$: E2 γ to 6$^+$ indicates positive parity. γ's to 4$^+$ and 6$^+$ levels.
2191.03 *7*		B i k	XREF: i(2190)k(2188).
2194.43[k] *3*	5$^+$	B	J$^{\pi}$: γ to 3$^+$, E1 γ from 6$^-$.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{160}Dy Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	$T_{1/2}$	XREF	Comments
2200.82 *4*	2^+,3,4^+		B	J$^{\pi}$: γ's to 2^+ and 4^+.
2208.36[i] *7*	4^+		B	J$^{\pi}$: E2 γ to 2^+. Fed by γ from 6^+.
2208.79 *6*	$(2)^-$		B	J$^{\pi}$: γ to 2^+ is sole mode of decay. Level is fed via an E1 from a positive-parity state, indicating π=−.
2214			E	
2221.48[@] *8*	10^+		CD	XREF: C(2223.1).
2230.52 *8*	2^+		B	J$^{\pi}$: γ's to 0^+ and 4^+ levels.
2241.95[a] *8*	10^-		CD	XREF: C(2243.2).
2244.93 *4*	2^+,3,4^+		B	J$^{\pi}$: γ's to 2^+ and 4^+.
2255.67 *6*	1^+,2^+		B	J$^{\pi}$: E2,M1 γ to 2^+ gives π=+. γ's to 0^+ and 2^+.
2263.99[d] *11*	9^-		D	
2264.23[b] *10*	11^-		CD F	XREF: C(2264.9)F(2265). J$^{\pi}$: γ's to 9^- and 10^+ levels; and level-spacing considerations.
2265.0[f] *10*	(10^+)		C	J$^{\pi}$: γ to 8^+ and possible γ to 10^+ members, respectively, of the g.s. band. Together with rotational-band considerations, this suggests that this level is the 10^+ member of the indicated band.
2266.98 *4*	3^-		B	J$^{\pi}$: E1 transitions to 2^+ and 4^+ levels.
2271.246 *23*	2^-		B	J$^{\pi}$: E1 transitions to 2^+ levels indicate J^{π}=1^-,2^-,3^-. Absence of transitions to 3^+ and 1^+ suggests J^{π} is probably not 1^- or 3^-.
2279.06 *10*			B	
2287.8[l] *6*	8^-		C K	XREF: K(2279). J$^{\pi}$: E1 transition to 7^+ and γ's to 8^+ levels indicate π=− and J=7 or 8. Strong L=5 transition in (^{3}He,α) consistent with assigned configuration, indicating J=8.
2297.48 *4*	2^+		B E J	XREF: E(2296)J(2294). J$^{\pi}$: E2 γ to 2^+, γ to 0^+. Excitation in (t,p) indicates natural parity.
2309.90 *11*	2^+,3,4^+		B	J$^{\pi}$: γ's to 2^+ and 4^+. γ to 2^- rules out 4^-.
2321			J	
2323.08 *3*	1^+,2^+		B	J$^{\pi}$: E2 γ to 3^+, γ to 0^+.
2325.24 *9*	1^+,2^+		B	J$^{\pi}$: E2,M1 γ to 0^+.
2327.70 *4*	2^+		B	J$^{\pi}$: γ's to 0^+ and 4^+ levels. E2 γ to 2^+.
2347			J	
2354.625 *17*	2^+		B	J$^{\pi}$: E1 γ to 2^- level indicates π=+. γ's to 0^+ and 4^+.
2359			I	
2367.46 *3*	2^+,3^+,4^+		B J	J$^{\pi}$: E2 γ to 2^+ indicates π=+. γ's to 2^+ and 4^+ levels.
2372.305 *24*	6^-		B K	J$^{\pi}$: E1 γ from 5^+ indicates J^{π}=4^-,5^-,6^-. γ to 7^+ rules out 4^-,5^-.
2374.50 *5*			B	
2380			J	
2383.69 *3*	6^-		B	J$^{\pi}$: E1 γ from 5^+ indicates J^{π}=4^-,5^-,6^-. γ to 7^+ rules out 4^-,5^-.
2386.88 *3*	2^+,3^+		B	J$^{\pi}$: E1 γ to 2^- indicates J^{π}=1^+,2^+,3^+. γ's to 3^- levels rule out 1^+.
2393.54 *6*	2,3^-		B	J$^{\pi}$: γ's to 1^- and 4^+ levels.
2396.92 *21*	1,2		B	J$^{\pi}$: γ's to 0^+ and 2^+ levels.
2405			J	
2444			K	
2450.25 *5*	1^-		B	J$^{\pi}$: M1 γ from 2^-, E1 γ to 0^+.
2469.51 *3*	3^-		B	J$^{\pi}$: E1 γ to 4^+ indicates π=−. γ's to 2^+ and 4^+.
2474.97 *10*	2^+,3,4^+		B	J$^{\pi}$: γ's to 2^+ and 4^+ levels.
2485.64[&] *10*	11^+		CD	XREF: C(2486.9). J$^{\pi}$: E2 transition to 9^+ member of the γ band and E2+M1 to 10^+ member of the g.s. band. Together with rotational-band spacings, these support the assignment of this level as the 11^+ member of the γ-vibrational band.
2503.80 *9*	1^+,2^+		B	J$^{\pi}$: M1 γ to 2^+ and γ to (0^+).
2513.36[#] *12*	14^+	0.62 ps *+7−14*	CD F M	XREF: D(2513.0)F(2516).

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{160}Dy Levels (continued)

E(level)[†]	Jπ[‡]	XREF	Comments
			Jπ: E2 transition to 12^+ member of the g.s. band. Population in Coulomb excitation indicates that this is the 14^+ member of the g.s. band. $T_{1/2}$: from Doppler-broadened line shape following Coulomb excitation (1977Ke06).
2514.57 *16*		K	
2520.17[c] *15*	10^-	CD	XREF: C(2521.5).
2523.8 *7*	3^+	J	The large (d,t) strength to the 2524 level indicates the presence of the ν 1/2[400] Nilsson orbital. Hence this level contains a significant component of the two-quasineutron state having configuration=(ν 5/2[642] + ν 1/2[400]). Jπ: gammas to the 2^+ and 4^+ members of the g.s. band. The indicated configuration has $K^\pi=3^+$. Hence this level should have $J^\pi=3^+$.
2553.5 *3*		B	
2556.72 *5*	$3^-,4^-,5^-$	B	Jπ: E1 γ to 4^+ level.
2560.02 *9*	$2^+,3,4^+$	B	Jπ: γ's to 2^+ and 4^+ levels.
2572.4 *3*	$3^+,4^+,5^+$	B	Jπ: M1 γ to 4^+.
2574.37 *20*	$1^-,2^-,3^-$	B	Jπ: M1,E2 γ to 1^- level.
2577 *15*	3^+ to 9^+	K	Jπ: L=6 pickup from an i13/2-related initial state (the ν 5/2[642] Nilsson orbital) in (^{3}He,α).
2593.64[f] *14*	12^+	D	
2602.67 *4*	$1^-,2^-$	B	Jπ: E2 γ to 3^- level indicates π=−. γ's to 0^+ and 3^- levels.
2605.77 *8*	$2^+,3^+,4^+$	B	Jπ: E2,M1 γ to 4^+ level indicates π=+. γ's to 2^+ and 4^+ levels.
2610.01 *10*	2^+	B	Jπ: E2 γ to 3^+ level indicates π=+. γ's to 0^+ and 4^+ levels.
2630.24 *5*	$(1,2)^+$	B	Jπ: E1 γ's to 1^- and (2^-) levels.
2630.705 *11*	1^-	B	Jπ: E1 γ's to 0^+ and 2^+ levels.
2634.73 *11*		B	
2645.88 *22*	3^-	B	Jπ: E1 γ's to 2^+ and 4^+ levels.
2647.30 *24*	$(3)^-$	B	Jπ: E1 γ to 2^+ indicates π=−. γ's to 2^+ and 4^+ levels suggest J=3.
2661.511 *13*	2^-	B	Jπ: E1 γ's to 1^+ and 3^+ levels.
2665.78 *5*	$2^+,3^+,4^+$	B	Jπ: γ with Δπ=no to 4^+ indicates π=+. γ's to 2^+ and 4^+.
2666.30[a] *11*	12^-	CD	XREF: C(2668.0).
2674.716 *20*	1^-	B	Jπ: E1 transition to g.s. ($J^\pi=0^+$).
2681.822[i] *23*	5^+	B	Jπ: E1 transitions to 5^- and 6^- levels indicate π=+. γ's to 4^- and 6^- indicate J=5.
2696.30[d] *16*	11^-	D	
2696.41 *3*	$2^-,3^-$	B	Jπ: E2 transitions to 2^- and 3^- levels indicate π=−. γ's to 2^+ and 3^+ levels indicate $J^\pi=2^-,3^-$.
2697.31[b] *11*	13^-	CD F	XREF: C(2698.3)F(2698). Jπ: in-band transition to 11^- of 2^- octupole-vibrational band.
2697.821 *18*	2^+	B	Jπ: γ's to 0^+ and 4^+ levels indicate J=2. E2 γ to 2^+ gives π=+.
2701.044[m] *15*	1^-	B	Jπ: E1 γ to 0^+.
2704.215 *21*	$2^-,3^-$	B	Jπ: E1 to 2^+ indicates $J^\pi=1^-,2^-,3^-$. γ to 3^+ rules out 1^-. 2002Ad34 report $J^\pi=2^-$.
2707.77[@] *9*	12^+	D	
2717.225 *21*	2^+	B	Jπ: γ's to 0^+ and 4^+ levels.
2719.02 *5*	2^-	B	Jπ: E1 γ to 2^+ indicates $J^\pi=1^-,2^-,3^-$. γ's to 1^+ and 3^+ rule out 3^- and 1^-.
2720.57[m] *4*	3^-	B	Jπ: E1 γ's to 3^+ and 4^+ levels indicate $J^\pi=3^-,4^-$. γ to 2^+ rules out 4^-.
2727.21 *10*	(4)	B	L: γ to 6^+ level and possible γ to 2^+.
2729.824 *24*	2^-	B	Jπ: E1 transition to 2^+ level indicates $J^\pi=1^-,2^-,3^-$. γ's to 1^+ and 4^- rule out 3^- and 1^-.
2734.718 *25*	1^-	B	Jπ: E1 transition to 0^+ level.
2755.04 *20*		B	
2756.3 *3*		B	
2757.13 *9*		B	
2760.46 *7*	$1^+,2^+$	B	Jπ: E2,M1 1410.7 γ to 2^+ indicates π=+. γ's to 0^+ and 2^+ levels.
2763.05 *5*		B	
2767.70 *5*	1^-	B	Jπ: E1 transition to 2^+ level indicates π=−. γ's to 0^+ and 2^+ levels.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{160}Dy Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$	XREF	Comments
2772.10 *20*			B	
2777.62 *4*	$2^+,3^+,4^+$		B	Jπ: E2,M1 to 4^+ indicates π=+. γ's to 2^+ and 4^+ levels.
2822.23 *20*	1^+	3.1 fs *4*	B G	Jπ: excited in (γ,γ′) via an M1 transition from the g.s. $T_{1/2}$: from (γ,γ′).
2833.85 *17*	2,3,4		B	Jπ: γ's to 2^+ and 4^+ levels.
2851.73 *3*	1^-		B	Jπ: E1 γ to 2^+ indicates π=−. γ's to 0^+ and 2^+ levels.
2853.69 *12*			B	
2858.17 *11*			B	
2861.162 *25*	1^+		B G	XREF: G(2864). Jπ: M1+E2 transition to 2^+ level indicates π=+. Excited in (γ,γ′) via a dipole transition.
2877.094 *21*	1^-		B G	Jπ: E1 transition to g.s. Excited in (γ,γ′) via a dipole transition.
2879.46 *10*	2		B	Jπ: γ's to 0^+ and 4^+ levels.
2885.58 *4*			B	
2896.28 *4*	2^+		B	Jπ: E2,M1 γ to g.s. indicates π=+. γ's to 0^+ and 4^+ levels.
2904.36 *8*	2,3,4		B	Jπ: γ's to 2^+ and 4^+ levels.
2931.76 *5*			B	
2941.96 *8*	4,5,6		B	Jπ: γ to 4^+ level.
2958.55 *5*			B	
2969.03 *17*	1,2		B	Jπ: γ's to 0^+ and 2^- levels.
2969.90 *6*			B	
2977.55 *6*			B	
2984.84[c] *18*	12^-		D	
2988.76[&] *12*	13^+		D	
2994.69 *8*	2,3,4		B	Jπ: γ's to 2^+ and 4^+ levels.
3004.33 *10*	1,2		B	Jπ: γ's to 0^+ and 2^+ levels.
3007.46[f] *13*	14^+		D	
3024.52 *17*	1,2		B	Jπ: γ's to 0^+ and 2^+ levels.
3033.7 *3*			B	
3060.44 *14*			B	
3061.82 *5*	1^+		B G	Jπ: E1 to 2^- indicates π=+. Excitation in (γ,γ′) then indicates $J^\pi=1^+$ as does mult=(M1) for the 3061 γ. 1775 γ to 3^- may disfavor 1^+. 2002Ad34, ε decay, suggest $J^\pi=(1,2^+)$.
3081.4 *4*			B	Jπ: 2002Ad34, ε decay, suggest $J^\pi=(4,5,6)$.
3089.49[#] *12*	16^+		CD F	XREF: C(3091.9)F(3093).
3098.82[i] *9*	6^+		B	Jπ: E2 γ's to 7^+, 8^+ levels require π=+. γ's to 4^+ and 8^+ levels indicate J=6. In their table 1, 2002Ad34 show $J^\pi=7^-$ for this level, but elsewhere $J^\pi=6^+$ is shown. 7^- is probably a misprint.
3111.1 *11*			C	E(level): from energy sum based on placement of 596.5 γ. 1987Ri08 give E(level)=3113 and do not show it in their level scheme.
3148.50[a] *15*	14^-		CD	XREF: C(3149.6).
3188.20[d] *19*	13^-		D	
3192.87[b] *13*	15^-		D F	XREF: F(3195).
3220.16[@] *12*	14^+		D	
3452.1?			C	
3452.7 *10*			C	
3508.22[&] *13*	15^+		D	
3510.64[c] *21*	14^-		D	
3526.56[f] *15*	16^+		D	
3669.65[#] *14*	18^+		CD F	XREF: C(3672.4)F(3674). Jπ: E2 transition to 16^+ member of the g.s. band. This, and energy-spacing considerations, indicates that this is the 18^+ member of the g.s. band.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{160}Dy Levels (continued)

E(level)†	Jπ‡	XREF	Comments
3681.31[a] 18	16−	D	
3730.6[d] 3	15−	D	
3744.53[b] 13	17−	D F	XREF: F(3747).
3767.63[@] 14	16+	D	
4044.15[&] 14	17+	D	
4078.3[c] 3	16−	D	
4160.82[f] 16	18+	D	
4257.01[a] 21	18−	D	
4278.39[#] 15	20+	D F	XREF: F(4283).
4317.0[d] 4	17−	D	
4348.04[b] 17	19−	D F	XREF: F(4350).
4349.95[@] 15	18+	D	
4618.29[&] 15	19+	D	
4872.61[a] 23	20−	D	
4875.09[f] 16	20+	D	
4935.60[#] 18	22+	D F	XREF: F(4940).
4936.8[d] 4	19−	D	
4975.00[@] 18	20+	D	
5001.54[b] 20	21−	D	
5241.09[&] 17	21+	D	
5528.2[a] 3	22−	D	
5602.1[@] 11	22+	D	
5647.30[#] 21	24+	D F	XREF: F(5652).
5705.2[b] 3	23−	D	
5916.5[&] 3	23+	D	
6219.8[a] 4	24−	D	
6412.5[#] 3	26+	D F	XREF: F(6419).
6458.0[b] 4	25−	D	
6642.7[&] 4	25+	D	
6966.3[a] 5	26−	D	
7230.3[#] 4	28+	D F	XREF: F(7237).

† Listed values were calculated from a least-squares fit of the γ-ray energies. Where no uncertainties are given for the Eγ values, a value of 1 keV was assumed in this calculation. In these situations, no value is given for the uncertainty in the corresponding level energy. Normalized χ^2=2.7 > critical χ^2=1.1.

‡ For those levels populated only in the heavy ion-induced reactions, the listed values are based on the usual considerations of expected rotational-band structure as employed in these studies. In these cases, specific arguments for the J^π values are not listed.

Band(A): Ground-state band. A=14.58 keV, B=−19.5 eV (from 0^+, 2^+, and 4^+ levels). For J≤16, α=−0.0015 *16*, where (g)/(g(g.s.))=1+αJ^2 (1989Ra17).

@ Band(B): γ-vibrational band, signature=0 branch. A=14.00 keV, B=−22.7 eV, and A_4=−1.93 eV (from 2^+ through 5^+ levels).

& Band(b): γ-vibrational band, signature=1 branch. See the comment for the signature=0 branch.

a Band(C): K$^\pi$=2$^-$ octupole-vibrational band, signature=0 branch. The energy spacings within this band are affected by strong Coriolis mixing, which makes the listing of rotational-band parameters of little use. The dominant two-quasiparticle component in this band has (π 7/2[523] − π 3/2[411]) for the configuration assignment.

b Band(c): 2^- octupole-vibrational band, signature=1 branch. See the comment for the signature=0 branch.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{160}Dy Levels (continued)

[c] Band(D): $K^\pi=1^-$ octupole-vibrational band, signature=0 branch. The energy spacings within this band are affected by strong Coriolis mixing, which makes the listing of rotational-band parameters of little use. The two-quasiparticle state with configuration=(ν 5/2[642] − ν 3/2[521]) is the major component in the makeup of this band.

[d] Band(d): $K^\pi=1^-$ octupole-vibrational band, signature=1 branch. See the comment for the signature=0 branch.

[e] Band(E): First excited $K^\pi=0^+$ band. A=11.4 keV, B=+35 eV (from 0^+, 2^+, and 4^+ levels).

[f] Band(F): S, or 'Super', band, second excited $K^\pi=0^+$ band. The energy spacings within this band are somewhat irregular, making the quoting of band parameters for the band problematic. See 2003AdZY for a discussion of the energy spacings within this band.

[g] Band(G): $K^\pi=4^+$ band. Configuration=(ν 5/2[523] + ν 3/2[521]) A=10.96 keV, B=−9.4 eV (from 4^+, 5^+, and 6^+ levels).

[h] Band(H): $K^\pi=4^-$ band. Configuration=(ν 5/2[642] + ν 3/2[521]) A=7.30 keV, B=+13.7 eV (from 4^-, 5^-, and 6^- levels).

[i] Band(I): $K^\pi=1^+$ band. Configuration=(ν 5/2[523] − ν 3/2[521]) from the energies of the 1^+ through the 4^+ members of this band, one computes A=5.64 keV, B=+0.633 keV and A_2=−3.39 keV. These parameters seem unreasonable and, also, lead to poor estimates of the energies of the remaining band members. This may suggest that some of the band members are misassigned or that this band is strongly mixed with other bands.

[j] Band(J): bandhead of the third excited $K^\pi=0^+$ band.

[k] Band(K): Second $K^\pi=4^+$ band. Possible Configuration=(π 5/2[413] + π 3/2[411]) A=9.75 keV.

[l] Band(L): $K^\pi=8^-$ bandhead. Possible Configuration=(ν 5/2[642] + ν 11/2[505]).

[m] Band(M): proposed (1987Gr37) two-phonon quadrupole (β)-octupole state.

[n] Band(N): Possible $K^\pi=0^-$ (octupole?) band. A=15.4 keV (from 1^- and 3^- levels). The dominant two-quasiparticle component most likely has configuration=(ν 5/2[642] − ν 5/2[523]).

[o] Band(O): Fourth excited $K^\pi=0^+$ band. A=10.09 keV (from 0^+ and 2^+ levels).

Adopted Levels, Gammas (continued)

$\gamma(^{160}Dy)$

For E0 transitions the following quantities (relative to a E2 transition decaying the same level as the E0) are listed in the table (according to 2005Ki02 evaluation): q^2_K(E0/E2)=I(ce(K))(E0)/I(ce(K))(E2); X(E0/E2)=B(E0)/B(E2).

E_i(level)	J^π_i	E_γ †	I_γ †	E_f	J^π_f	Mult. †	δ #b	α a	$I_{(\gamma+ce)}$	Comments
86.7877	2^+	86.7877‡ *3*	100	0.0	0^+	E2		4.63		α(K)=1.565 *22*; α(L)=2.35 *4*; α(M)=0.565 *8* α(N)=0.1266 *18*; α(O)=0.01511 *22*; α(P)=6.50×10^{-5} *9* B(E2)(W.u.)=195.8 *25*
283.8219	4^+	197.0341‡ *10*	100	86.7877	2^+	E2		0.248		α(K)=0.1659 *24*; α(L)=0.0638 *9*; α(M)=0.01495 *21* α(N)=0.00338 *5*; α(O)=0.000426 *6*; α(P)=7.89×10^{-6} *11* B(E2)(W.u.)=285 *11*
581.066	6^+	297.24 *8*	100	283.8219	4^+	E2		0.0664		B(E2)(W.u.)=238 *+14−12* α(K)=0.0496 *7*; α(L)=0.01297 *19*; α(M)=0.00299 *5* α(N)=0.000679 *10*; α(O)=8.92×10^{-5} *13*; α(P)=2.58×10^{-6} *4*
681.3?	(0^+)	594.5e	100	86.7877	2^+	[E2]		0.00979		E_γ: from Coul. ex. α(K)=0.00800 *12*; α(L)=0.001395 *20*; α(M)=0.000312 *5* α(N)=7.15×10^{-5} *10*; α(O)=1.000×10^{-5} *14*; α(P)=4.54×10^{-7} *7*
		681.3e		0.0	0^+	(E0)			9.0	I_γ: estimate from 2009Ad04 (ε decay). E_γ,Mult.: K-shell conversion electrons observed by 2009Ad04 (ε decay), with no observed γ ray that could produce the K-shell conversion electrons. $I_{(\gamma+ce)}$: calculated by evaluator based on measured I(ce(K)) and ratio of electronic factors Ω_K(E0)\Ω(E0)=0.875. X(E0/E2) > 0.3 (2009Ad04, ε decay); the E2 transition is 1193.2γ.
703.0?	(0^+)	616.2e		86.7877	2^+	[E2]		0.00897		α(K)=0.00735 *11*; α(L)=0.001264 *18*; α(M)=0.000282 *4* α(N)=6.47×10^{-5} *9*; α(O)=9.07×10^{-6} *13*; α(P)=4.18×10^{-7} *6* γ transition postulated by 2010BoZZ (ε decay, unobserved member of doublet).
		703.0e		0.0	0^+	(E0)				Mult.: from K-shell electron peak corroborated with no intensities at the corresponding Eγ (2010BoZZ, ε decay).
966.1687	2^+	682.31‡ *4*	1.98‡ *3*	283.8219	4^+	E2		0.00704		B(E2)(W.u.)=0.602 *+46−40* α(K)=0.00581 *9*; α(L)=0.000962 *14*; α(M)=0.000214 *3* α(N)=4.91×10^{-5} *7*; α(O)=6.94×10^{-6} *10*; α(P)=3.32×10^{-7} *5* δ: 1989Ma39 report δ(M3/E2)=+0.004 *17* for this transition. From RUL, one expects δ(M3/E2)<0.001.
		879.378‡ *2*	100.0‡ *2*	86.7877	2^+	E2+M1	−16.6‡ *5*	0.00400		B(M1)(W.u.)=4.80×10^{-5} *+48−41*; B(E2)(W.u.)=8.5 *6* α(K)=0.00335 *5*; α(L)=0.000513 *8*; α(M)=0.0001132 *16*

$^{160}_{66}Dy_{94}$-11

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
									α(N)=2.61×10^{-5} *4*; α(O)=3.73×10^{-6} *6*; α(P)=1.93×10^{-7} *3*
									δ: from ^{160}Ho ε decay, δ=−13 *+3−5*.
966.1687	2$^+$	966.166[‡] *2*	83.4[‡] *4*	0.0	0$^+$	E2		0.00327	B(E2)(W.u.)=4.46 *+33−29* α(K)=0.00274 *4*; α(L)=0.000411 *6*; α(M)=9.05×10^{-5} *13* α(N)=2.09×10^{-5} *3*; α(O)=3.00×10^{-6} *5*; α(P)=1.583×10^{-7} *23*
966.83	8$^+$	385.68 *10*	100	581.066	6$^+$	E2		0.0307	B(E2)(W.u.)=328 *+28−25* α(K)=0.0240 *4*; α(L)=0.00523 *8*; α(M)=0.001190 *17* α(N)=0.000271 *4*; α(O)=3.66×10^{-5} *6*; α(P)=1.303×10^{-6} *19* E_γ: from Coul. ex. (1974Sa03). Mult.: from (α,2nγ).
1049.1018	3$^+$	82.96 *5*	<0.018	966.1687	2$^+$	M1+E2	0.65[@]	4.52	α(K)=2.94 *5*; α(L)=1.222 *18*; α(M)=0.286 *4* α(N)=0.0646 *10*; α(O)=0.00819 *12*; α(P)=0.0001728 *25* I_γ: from Iγ(82.9γ)/Iγ(962γ) in ^{160}Ho ε decay, and Iγ(962γ).
		765.28[‡] *4*	21.81[‡] *12*	283.8219	4$^+$	E2+M1	−13.8[‡] *9*	0.00544	α(K)=0.00452 *7*; α(L)=0.000720 *10*; α(M)=0.0001595 *23* α(N)=3.67×10^{-5} *6*; α(O)=5.21×10^{-6} *8*; α(P)=2.60×10^{-7} *4* δ: from ^{160}Ho ε decay, δ=−13 *+4−10*.
		962.311[‡] *3*	100.0[‡] *9*	86.7877	2$^+$	E2+M1	−13.8[‡] *3*	0.00331	α(K)=0.00278 *4*; α(L)=0.000416 *6*; α(M)=9.17×10^{-5} *13* α(N)=2.11×10^{-5} *3*; α(O)=3.04×10^{-6} *5*; α(P)=1.603×10^{-7} *23* δ: from ^{160}Ho ε decay, δ=−12.8 *+23−36*.
1155.841	4$^+$	106.86[&] *2*	0.028 *14*	1049.1018	3$^+$	(M1)		1.98	α(K)=1.667 *24*; α(L)=0.245 *4*; α(M)=0.0538 *8* α(N)=0.01245 *18*; α(O)=0.00182 *3*; α(P)=0.0001039 *15*
		189.66 *3*	0.54 *7*	966.1687	2$^+$	E2		0.282	α(K)=0.186 *3*; α(L)=0.0745 *11*; α(M)=0.01751 *25* α(N)=0.00395 *6*; α(O)=0.000497 *7*; α(P)=8.75×10^{-6} *13*
		574.73[d] *5*	1.1[d] *3*	581.066	6$^+$	E2		0.01064	α(K)=0.00867 *13*; α(L)=0.001534 *22*; α(M)=0.000343 *5* α(N)=7.87×10^{-5} *11*; α(O)=1.098×10^{-5} *16*; α(P)=4.91×10^{-7} *7*
		872.02 *2*	100 *3*	283.8219	4$^+$	E2+M1	+5.0[@] *+20−11*	0.00419 *10*	α(K)=0.00351 *9*; α(L)=0.000536 *11*; α(M)=0.0001181 *25* α(N)=2.72×10^{-5} *6*; α(O)=3.90×10^{-6} *9*; α(P)=2.03×10^{-7} *6* δ: from 1989Ma39, ^{160}Tb β^- decay, δ=−0.95 *+8−11*. These authors state that this value may be wrong, since the transition is very weak and is probably affected by the near-lying strong 879 γ.

$^{160}_{66}Dy_{94}$-12

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	$I_{(\gamma+ce)}$	Comments
1155.841	4+	1069.04[d] *3*	45.6[d] *11*	86.7877	2+	E2		0.00265		α(K)=0.00223 *4*; α(L)=0.000328 *5*; α(M)=7.20×10^{-5} *10* α(N)=1.659×10^{-5} *24*; α(O)=2.39×10^{-6} *4*; α(P)=1.290×10^{-7} *18* Mult.,δ: see comment on δ for this transition in the ^{160}Ho ε Decay (25.6 m+5.02 h) data set.
1264.7472	2−	215.6452[‡] *11*	15.38[‡] *6*	1049.1018	3+	E1		0.0399		α(K)=0.0337 *5*; α(L)=0.00486 *7*; α(M)=0.001063 *15* α(N)=0.000243 *4*; α(O)=3.44×10^{-5} *5*; α(P)=1.721×10^{-6} *24* Mult.,δ: see comment on δ for this transition in the ^{160}Tb β$^-$ decay data set.
		298.5783[‡] *17*	100.0[‡] *7*	966.1687	2+	E1		0.01740		α(K)=0.01475 *21*; α(L)=0.00208 *3*; α(M)=0.000455 *7* α(N)=0.0001044 *15*; α(O)=1.489×10^{-5} *21*; α(P)=7.77×10^{-7} *11* δ: 1989Ma39 report δ(M2/E1)=+0.0188 *24* for this transition. This leads to B(M2)(W.u.)≥6.6, which exceeds RUL of 1. From ^{160}Ho ε decay, 1998Kr21 report δ(M2/E1)=−0.04 *+30−24*.
		1177.954[‡] *3*	56.9[‡] *2*	86.7877	2+	E1+M2	−0.0207 *23*	9.44×10^{-4}		α(K)=0.000795 *12*; α(L)=0.0001048 *15*; α(M)=2.27×10^{-5} *4* α(N)=5.24×10^{-6} *8*; α(O)=7.67×10^{-7} *11*; α(P)=4.45×10^{-8} *7*; α(IPF)=1.557×10^{-5} *22*
1279.942	0+	1193.17 *3*	100 *4*	86.7877	2+	(E2)		0.00213		α(K)=0.00180 *3*; α(L)=0.000258 *4*; α(M)=5.66×10^{-5} *8* α(N)=1.305×10^{-5} *19*; α(O)=1.89×10^{-6} *3*; α(P)=1.038×10^{-7} *15*; α(IPF)=4.64×10^{-6} *7*
		1280.0 *3*		0.0	0+	E0			0.44 *8*	X(E0/E2): 0.27 *10* (2005Ki02 evaluation), 0.3 (2009Ad04, ε decay); q^2_K(E0/E2): 2.2 *8* (2005Ki02 evaluation), 2.1 *6* (2009Ad04, ε decay); the E2 transition is 1193.2γ.
1285.604	1−	1198.84[d] *4*	80[d] *3*	86.7877	2+	E1		9.20×10^{-4}		α(K)=0.000768 *11*; α(L)=0.0001011 *15*; α(M)=2.19×10^{-5} *3* α(N)=5.06×10^{-6} *7*; α(O)=7.40×10^{-7} *11*; α(P)=4.29×10^{-8} *6*; α(IPF)=2.31×10^{-5} *4*
		1285.60 *2*	100 *2*	0.0	0+	E1		8.55×10^{-4}		α(K)=0.000678 *10*; α(L)=8.91×10^{-5} *13*; α(M)=1.93×10^{-5} *3*

$^{160}_{66}Dy_{94}$-13

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
									α(N)=4.46×10^{-6} *7*; α(O)=6.53×10^{-7} *10*; α(P)=3.80×10^{-8} *6*; α(IPF)=6.25×10^{-5} *9*
1286.713	3$^-$	130.87 *2*	0.031 *9*	1155.841	4$^+$	[E1]		0.1502	B(E1)(W.u.)=1.00×10^{-4} *+49−34* α(K)=0.1260 *18*; α(L)=0.0189 *3*; α(M)=0.00414 *6* α(N)=0.000944 *14*; α(O)=0.0001306 *19*; α(P)=6.04×10^{-6} *9* I$_\gamma$: from Iγ(130γ)/Iγ(1002γ) in ε decay and Iγ(130γ).
		237.65 *9*	0.25[‡] *9*	1049.1018	3$^+$	E1		0.0311	B(E1)(W.u.)=1.3×10^{-4} *+8−5* α(K)=0.0263 *4*; α(L)=0.00376 *6*; α(M)=0.000822 *12* α(N)=0.000188 *3*; α(O)=2.67×10^{-5} *4*; α(P)=1.353×10^{-6} *19*
		320.50[d] *7*	0.31[d] *18*	966.1687	2$^+$	(E1)		0.01460	B(E1)(W.u.)=7×10^{-5} *+5−3* α(K)=0.01238 *18*; α(L)=0.001743 *25*; α(M)=0.000380 *6* α(N)=8.73×10^{-5} *13*; α(O)=1.248×10^{-5} *18*; α(P)=6.56×10^{-7} *10* I$_\gamma$: from Iγ(320γ)/Iγ(1002γ) in ^{160}Ho ε decay and Iγ(320γ).
		1002.90[‡] *5*	43.6[‡] *3*	283.8219	4$^+$	E1+M2	−0.013[‡] *9*	1.24×10^{-3}	α(K)=0.001063 *16*; α(L)=0.0001411 *21*; α(M)=3.06×10^{-5} *5* α(N)=7.06×10^{-6} *11*; α(O)=1.032×10^{-6} *15*; α(P)=5.93×10^{-8} *9* B(E1)(W.u.)=0.00031 *+12−7*; B(M2)(W.u.)=0.24 *+52−18*
		1199.89 *4*	100.0 *5*	86.7877	2$^+$	E1+M2	−0.008[‡] *3*	9.19×10^{-4}	α(K)=0.000767 *11*; α(L)=0.0001010 *15*; α(M)=2.19×10^{-5} *3* α(N)=5.05×10^{-6} *7*; α(O)=7.40×10^{-7} *11*; α(P)=4.29×10^{-8} *6*; α(IPF)=2.35×10^{-5} *4* B(E1)(W.u.)=0.00042 *+16−9*; B(M2)(W.u.)=0.09 *+9−5*
1288.665	5$^+$	239.57 *8*	2.38 *10*	1049.1018	3$^+$	E2		0.1308	α(K)=0.0930 *13*; α(L)=0.0293 *5*; α(M)=0.00680 *10* α(N)=0.001541 *22*; α(O)=0.000198 *3*; α(P)=4.63×10^{-6} *7*
		707.60 *2*	24.3 *5*	581.066	6$^+$	E2,M1		0.0094 *30*	α(K)=0.0079 *26*; α(L)=0.00117 *30*; α(M)=0.00026 *7* α(N)=5.9×10^{-5} *15*; α(O)=8.6×10^{-6} *23*; α(P)=4.7×10^{-7} *17*
		1004.86[d] *2*	100[d] *3*	283.8219	4$^+$	E2+M1	−13[@] *+3−7*	0.00303	α(K)=0.00254 *4*; α(L)=0.000378 *6*; α(M)=8.30×10^{-5} *12* α(N)=1.91×10^{-5} *3*; α(O)=2.76×10^{-6} *4*; α(P)=1.468×10^{-7} *22* δ: from ^{160}Ho ε decay, 1994SlZZ report δ=+7.1 *+8−10*.
1349.758	2$^+$	69.82 *5*	2.2 *11*	1279.942	0$^+$	[E2]		10.85	α(K)=2.31 *4*; α(L)=6.57 *10*; α(M)=1.579 *23*

$^{160}_{66}Dy_{94}$-14

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
									α(N)=0.353 *5*; α(O)=0.0418 *6*; α(P)=0.0001044 *15* B(E2)(W.u.)=4.2×10^4 *+19−18* BE2W=4.2E+4 *+19−18* exceeds recommended upper limit of 1000. I_γ: from Iγ(69.8γ)/Iγ(1066γ) in ^{160}Ho ε decay and Iγ(1066γ).
1349.758	2$^+$	1066.0 *1*	72 *5*	283.8219	4$^+$	E2		0.00267	B(E2)(W.u.)=1.64 *+21−18* α(K)=0.00225 *4*; α(L)=0.000330 *5*; α(M)=7.24×10^{-5} *11* α(N)=1.669×10^{-5} *24*; α(O)=2.41×10^{-6} *4*; α(P)=1.297×10^{-7} *19* I_γ: from Coul. ex.
		1262.83[d] *6*	100[d] *7*	86.7877	2$^+$	E0+E2+M1	−1.5 *+7−20*		α(exp)=0.017 *6* B(M1)(W.u.)=0.0010 *+10−7*; B(E2)(W.u.)=0.68 *+22−31* α(K)=0.0019 *3*; α(L)=0.00027 *4*; α(M)=5.9×10^{-5} *9* α(N)=1.35×10^{-5} *20*; α(O)=2.0×10^{-6} *3*; α(P)=1.12×10^{-7} *19*; α(IPF)=1.41×10^{-5} *7* α: calculated by evaluator in ε decay dataset. I_γ: from Coul. ex. δ: from Coul. ex. Listed value is δ(E2/M1). From ^{160}Ho ε decay, 1994SlZZ report δ(E2/M1)=−1.0 +∞−4. X(E0/E2)=0.29 *6* (2008VaZU, ε decay).
		1349.76 *10*	93 *6*	0.0	0$^+$	E2		1.70×10^{-3}	B(E2)(W.u.)=0.65 *+8−7* α(K)=0.001414 *20*; α(L)=0.000199 *3*; α(M)=4.36×10^{-5} *7* α(N)=1.006×10^{-5} *14*; α(O)=1.463×10^{-6} *21*; α(P)=8.17×10^{-8} *12*; α(IPF)=2.98×10^{-5} *5* I_γ: average of 86 *9* (ε decay) and 97 *7* (Coul. ex.). B(E2)(W.u.): from measured B(E2)↑.
1358.670	2$^-$	71.96 *6*	0.24 *12*	1286.713	3$^-$	(M1)		6.18	α(K)=5.20 *8*; α(L)=0.770 *11*; α(M)=0.1692 *24* α(N)=0.0391 *6*; α(O)=0.00572 *9*; α(P)=0.000325 *5* B(M1)(W.u.)=3.9×10^{-5} *+20−17* I_γ: from Iγ(71γ)/Iγ(93.9γ) in ^{160}Ho ε decay and Iγ(93.9γ).
		73.00 *6*	<0.20	1285.604	1$^-$	(E2)		9.08	α(K)=2.17 *3*; α(L)=5.31 *8*; α(M)=1.277 *19* α(N)=0.286 *5*; α(O)=0.0339 *5*; α(P)=9.51×10^{-5} *14* B(E2)(W.u.)<3.01 I_γ: from Iγ(73γ)/Iγ(93.9γ) in ^{160}Ho ε decay and Iγ(93.9γ).
		93.919[‡] *6*	0.760[‡] *24*	1264.7472	2$^-$	E2		3.43	α(K)=1.307 *19*; α(L)=1.632 *23*; α(M)=0.391 *6*

$^{160}_{66}Dy_{94}$-15

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
									α(N)=0.0877 *13*; α(O)=0.01051 *15*; α(P)=5.40×10^{-5} *8* B(E2)(W.u.)=3.10 *19*
1358.670	2$^-$	309.561[‡] *15*	11.59[‡] *5*	1049.1018	3$^+$	E1+M2	−0.013[‡] *7*	0.01598 *25*	B(E1)(W.u.)=2.44×10^{-7} *13*; B(M2)(W.u.)=0.0020 *+28−14* α(K)=0.01354 *21*; α(L)=0.00191 *3*; α(M)=0.000418 *7* α(N)=9.58×10^{-5} *16*; α(O)=1.369×10^{-5} *22*; α(P)=7.17×10^{-7} *12*
		392.514[‡] *26*	17.95[‡] *12*	966.1687	2$^+$	E1+M2	+0.018[‡] *6*	0.00902 *14*	B(E1)(W.u.)=1.85×10^{-7} *10*; B(M2)(W.u.)=0.0018 *+14−10* α(K)=0.00766 *12*; α(L)=0.001067 *17*; α(M)=0.000233 *4* α(N)=5.35×10^{-5} *9*; α(O)=7.69×10^{-6} *12*; α(P)=4.13×10^{-7} *7*
		1074.85 *4*	0.006 *2*	283.8219	4$^+$	M2		0.01097	B(M2)(W.u.)=1.19×10^{-5} *39* α(K)=0.00923 *13*; α(L)=0.001363 *19*; α(M)=0.000300 *5* α(N)=6.95×10^{-5} *10*; α(O)=1.019×10^{-5} *15*; α(P)=5.86×10^{-7} *9*
		1271.873[‡] *5*	100.0[‡] *3*	86.7877	2$^+$	E1+M2	+0.0166[‡] *25*	8.65×10^{-4}	α(K)=0.000693 *10*; α(L)=9.11×10^{-5} *13*; α(M)=1.97×10^{-5} *3* α(N)=4.56×10^{-6} *7*; α(O)=6.67×10^{-7} *10*; α(P)=3.88×10^{-8} *6*; α(IPF)=5.58×10^{-5} *8* B(E1)(W.u.)=3.04×10^{-8} *16*; B(M2)(W.u.)=2.4×10^{-5} *+8−7*
1386.458	4$^-$	99.8 *3*	7.7 *6*	1286.713	3$^-$	(E2)		2.73 *5*	α(K)=1.128 *18*; α(L)=1.234 *25*; α(M)=0.295 *6* α(N)=0.0663 *13*; α(O)=0.00796 *16*; α(P)=4.67×10^{-5} *8*
		121.7 *1*	0.8 *3*	1264.7472	2$^-$	(E2)		1.322	α(K)=0.670 *10*; α(L)=0.502 *8*; α(M)=0.1197 *18* α(N)=0.0269 *4*; α(O)=0.00327 *5*; α(P)=2.85×10^{-5} *4*
		230.628[‡] *13*	15.1 *22*	1155.841	4$^+$	(E1)		0.0335	α(K)=0.0284 *4*; α(L)=0.00407 *6*; α(M)=0.000890 *13* α(N)=0.000204 *3*; α(O)=2.88×10^{-5} *4*; α(P)=1.457×10^{-6} *21*
		337.36 *2*	58 *3*	1049.1018	3$^+$	E1+M2	+0.028[‡] *13*	0.0131 *4*	α(K)=0.0111 *3*; α(L)=0.00157 *5*; α(M)=0.000343 *11* α(N)=7.87×10^{-5} *24*; α(O)=1.13×10^{-5} *4*; α(P)=5.96×10^{-7} *19*
		1102.60 *4*	100 *4*	283.8219	4$^+$	E1+M2	+0.0049[‡] *12*	1.04×10^{-3}	α(K)=0.000892 *13*; α(L)=0.0001179 *17*;

$^{160}_{66}Dy_{94}$-16

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
									α(M)=2.56×10^{-5} *4* α(N)=5.90×10^{-6} *9*; α(O)=8.63×10^{-7} *12*; α(P)=4.99×10^{-8} *7*; α(IPF)=1.86×10^{-6} *3*
1386.458	4$^-$	1299.3[‡] *3*	0.94[‡] *9*	86.7877	2$^+$				
1398.964	3$^-$	243.15 *10*	0.31 *3*	1155.841	4$^+$	E1		0.0293	α(K)=0.0248 *4*; α(L)=0.00354 *5*; α(M)=0.000774 *11* α(N)=0.0001773 *25*; α(O)=2.51×10^{-5} *4*; α(P)=1.279×10^{-6} *18*
		349.86 *3*	0.50 *3*	1049.1018	3$^+$	[E1]		0.01179	α(K)=0.01000 *14*; α(L)=0.001402 *20*; α(M)=0.000306 *5* α(N)=7.02×10^{-5} *10*; α(O)=1.006×10^{-5} *14*; α(P)=5.34×10^{-7} *8*
		432.80 *4*	0.8[‡] *3*	966.1687	2$^+$				
		1115.16 *3*	57 *1*	283.8219	4$^+$	E1(+M2)	+0.001 *3*	1.02×10^{-3}	α(K)=0.000874 *13*; α(L)=0.0001154 *17*; α(M)=2.50×10^{-5} *4* α(N)=5.78×10^{-6} *8*; α(O)=8.45×10^{-7} *12*; α(P)=4.89×10^{-8} *7*; α(IPF)=2.87×10^{-6} *4* δ: from Coul. ex.
		1312.16 *2*	100 *2*	86.7877	2$^+$	E1+M2	−0.015 *3*	8.42×10^{-4}	α(K)=0.000656 *10*; α(L)=8.61×10^{-5} *12*; α(M)=1.87×10^{-5} *3* α(N)=4.31×10^{-6} *6*; α(O)=6.31×10^{-7} *9*; α(P)=3.67×10^{-8} *6*; α(IPF)=7.63×10^{-5} *11* δ: from Coul. ex. From ^{160}Ho ε decay, δ=+0.07 *5*.
1408.47	5$^-$	827.4 *3*	27 *2*	581.066	6$^+$				
		1124.68[d] *4*	100[d] *19*	283.8219	4$^+$	E1		1.01×10^{-3}	α(K)=0.000861 *12*; α(L)=0.0001136 *16*; α(M)=2.46×10^{-5} *4* α(N)=5.69×10^{-6} *8*; α(O)=8.32×10^{-7} *12*; α(P)=4.81×10^{-8} *7*; α(IPF)=3.91×10^{-6} *6*
1427.89	10$^+$	461.88 *13*	100	966.83	8$^+$	E2		0.0187	B(E2)(W.u.)=329 *15* α(K)=0.01492 *21*; α(L)=0.00293 *5*; α(M)=0.000661 *10* α(N)=0.0001512 *22*; α(O)=2.07×10^{-5} *3*; α(P)=8.28×10^{-7} *12* E_γ: from Coul. ex. Mult.: from (α,2nγ).
1438.554	6$^+$	282.84 *9*	7.3 *7*	1155.841	4$^+$	E2		0.0773	α(K)=0.0573 *8*; α(L)=0.01557 *22*; α(M)=0.00360 *5* α(N)=0.000816 *12*; α(O)=0.0001067 *15*; α(P)=2.95×10^{-6} *5*
		857.6 *2*	100 *26*	581.066	6$^+$	E2+M1	+5[@] +6−2	0.00435 *23*	α(K)=0.00364 *20*; α(L)=0.000557 *24*; α(M)=0.000123 *6* α(N)=2.83×10^{-5} *12*; α(O)=4.06×10^{-6} *19*; α(P)=2.10×10^{-7} *13*

$^{160}_{66}Dy_{94}$-17

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	$I_{(\gamma+ce)}$	Comments
1438.554	6+	1154.68 *9*	34 *4*	283.8219	4+	E2		0.00227		α(K)=0.00192 *3*; α(L)=0.000277 *4*; α(M)=6.08×10^{-5} *9* α(N)=1.401×10^{-5} *20*; α(O)=2.03×10^{-6} *3*; α(P)=1.107×10^{-7} *16*; α(IPF)=1.80×10^{-6} *3*
1456.752	0+	490.62[d] *4*	4[d] *1*	966.1687	2+	[E2]		0.01592		α(K)=0.01279 *18*; α(L)=0.00243 *4*; α(M)=0.000548 *8* α(N)=0.0001255 *18*; α(O)=1.728×10^{-5} *25*; α(P)=7.15×10^{-7} *10*
		1369.90[d] *4*	100[d] *8*	86.7877	2+	E2		1.66×10^{-3}		α(K)=0.001374 *20*; α(L)=0.000193 *3*; α(M)=4.23×10^{-5} *6* α(N)=9.76×10^{-6} *14*; α(O)=1.420×10^{-6} *20*; α(P)=7.94×10^{-8} *12*; α(IPF)=3.46×10^{-5} *5*
		1456.7[e]		0.0	0+	[E0]				presumably conversion electrons from this transition were observed by 2008VaZU (ε decay) who also reports X(E0/E2) < 0.0022.
1489.500	1−	224.4[d] *3*	0.08[d] *4*	1264.7472	2−	E2,M1		0.20 *5*		α(K)=0.161 *48*; α(L)=0.034 *4*; α(M)=0.0077 *11* α(N)=0.00177 *23*; α(O)=0.000240 *16*; α(P)=9.2×10^{-6} *37*
		1402.7 *2*	100 *10*	86.7877	2+	E1		8.14×10^{-4}		B(E1)(W.u.)=0.0078 *+11−9* α(K)=0.000583 *9*; α(L)=7.64×10^{-5} *11*; α(M)=1.655×10^{-5} *24* α(N)=3.82×10^{-6} *6*; α(O)=5.60×10^{-7} *8*; α(P)=3.27×10^{-8} *5*; α(IPF)=0.0001329 *19*
		1489.51 *3*	56 *2*	0.0	0+	E1		8.07×10^{-4}		B(E1)(W.u.)=0.0037 *+6−4* α(K)=0.000527 *8*; α(L)=6.88×10^{-5} *10*; α(M)=1.490×10^{-5} *21* α(N)=3.44×10^{-6} *5*; α(O)=5.05×10^{-7} *7*; α(P)=2.95×10^{-8} *5*; α(IPF)=0.000193 *3* Additional information 1.
1518.419	2+	119.43 *7*	0.8 *3*	1398.964	3−	(E1)		0.192		α(K)=0.1608 *23*; α(L)=0.0244 *4*; α(M)=0.00534 *8* α(N)=0.001216 *18*; α(O)=0.0001673 *24*; α(P)=7.61×10^{-6} *11*
		231.7 *1*	3.1 *6*	1286.713	3−	E1		0.0332		α(K)=0.0280 *4*; α(L)=0.00402 *6*; α(M)=0.000879 *13* α(N)=0.000201 *3*; α(O)=2.85×10^{-5} *4*; α(P)=1.441×10^{-6} *21*
		232.84 *13*	2.8 *5*	1285.604	1−	E1		0.0327		α(K)=0.0277 *4*; α(L)=0.00397 *6*; α(M)=0.000867 *13* α(N)=0.000199 *3*; α(O)=2.81×10^{-5} *4*; α(P)=1.423×10^{-6} *20*
		552.36 *8*	3.2 *5*	966.1687	2+	[M1,E2]		0.0174 *57*		α(K)=0.0145 *50*; α(L)=0.0022 *6*; α(M)=0.00049 *11* α(N)=0.00011 *3*; α(O)=1.64×10^{-5} *42*; α(P)=8.6×10^{-7} *33*
		1234.60 *3*	64.2 *15*	283.8219	4+	E2		0.00200		α(K)=0.001680 *24*; α(L)=0.000240 *4*; α(M)=5.26×10^{-5} *8*

$^{160}_{66}Dy_{94}$-18

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
									α(N)=1.213×10^{-5} *17*; α(O)=1.760×10^{-6} *25*; α(P)=9.71×10^{-8} *14*; α(IPF)=9.44×10^{-6} *14*
1518.419	2$^+$	1431.66[d] *3*	100[d] *12*	86.7877	2$^+$	E2+M1	+2.9[@] *+21−10*	0.00162 *9*	α(K)=0.00133 *8*; α(L)=0.000186 *10*; α(M)=4.06×10^{-5} *22* α(N)=9.4×10^{-6} *5*; α(O)=1.37×10^{-6} *8*; α(P)=7.8×10^{-8} *5*; α(IPF)=5.26×10^{-5} *12*
		1518.41[d] *3*	19[d] *4*	0.0	0$^+$	E2		1.41×10^{-3}	α(K)=0.001131 *16*; α(L)=0.0001571 *22*; α(M)=3.43×10^{-5} *5* α(N)=7.92×10^{-6} *11*; α(O)=1.155×10^{-6} *17*; α(P)=6.53×10^{-8} *10*; α(IPF)=7.93×10^{-5} *12*
1522.33	4$^+$	556.23 *4*	15 *4*	966.1687	2$^+$	[E2]		0.01154	α(K)=0.00938 *14*; α(L)=0.001683 *24*; α(M)=0.000377 *6* α(N)=8.64×10^{-5} *13*; α(O)=1.203×10^{-5} *17*; α(P)=5.30×10^{-7} *8*
		941.3 *1*	29 *12*	581.066	6$^+$	E2		0.00345	α(K)=0.00290 *4*; α(L)=0.000437 *7*; α(M)=9.62×10^{-5} *14* α(N)=2.21×10^{-5} *4*; α(O)=3.18×10^{-6} *5*; α(P)=1.669×10^{-7} *24*
		1238.6 *2*	82 *12*	283.8219	4$^+$				
		1435.6 *1*	100 *24*	86.7877	2$^+$				
1535.150	4$^-$	136.16 *4*	0.54 *25*	1398.964	3$^-$	[M1,E2]		0.94 *6*	α(K)=0.66 *18*; α(L)=0.214 *92*; α(M)=0.050 *23* α(N)=0.0113 *51*; α(O)=0.00146 *55*; α(P)=3.7×10^{-5} *16* I$_\gamma$: from ^{160}Ho ε decay.
		148.71 *4*	13 *3*	1386.458	4$^-$	E2		0.650	α(K)=0.380 *6*; α(L)=0.208 *3*; α(M)=0.0493 *7* α(N)=0.01110 *16*; α(O)=0.001369 *20*; α(P)=1.688×10^{-5} *24* I$_\gamma$: from ^{160}Ho ε decay.
		176.49 *3*	8.2 *25*	1358.670	2$^-$	E2		0.360	α(K)=0.230 *4*; α(L)=0.1005 *14*; α(M)=0.0237 *4* α(N)=0.00534 *8*; α(O)=0.000667 *10*; α(P)=1.065×10^{-5} *15* I$_\gamma$: from ^{160}Ho ε decay. Mult.: from (α,2nγ).
		246.489[‡] *16*	19.6[‡] *9*	1288.665	5$^+$	E1		0.0283	α(K)=0.0239 *4*; α(L)=0.00342 *5*; α(M)=0.000747 *11* α(N)=0.0001711 *24*; α(O)=2.43×10^{-5} *4*; α(P)=1.237×10^{-6} *18*
		248.41 *3*	3 *2*	1286.713	3$^-$	E2		0.1164	α(K)=0.0836 *12*; α(L)=0.0254 *4*; α(M)=0.00591 *9* α(N)=0.001338 *19*; α(O)=0.0001727 *25*; α(P)=4.19×10^{-6} *6* I$_\gamma$: from ^{160}Ho ε decay.

$^{160}_{66}Dy_{94}$-19

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
1535.150	4⁻	379.41[‡] *8*	13.4[‡] *6*	1155.841	4⁺				
		486.06[‡] *5*	79.8[‡] *14*	1049.1018	3⁺	E1+M2	+0.04[‡] *3*	0.0056 *4*	α(K)=0.0048 *3*; α(L)=0.00066 *5*; α(M)=0.000144 *10* α(N)=3.32×10^{-5} *24*; α(O)=4.8×10^{-6} *4*; α(P)=2.63×10^{-7} *19*
		1251.28 *4*	100 *7*	283.8219	4⁺	E1(+M2)	−0.01[‡] *3*	8.78×10^{-4} *16*	α(K)=0.000712 *13*; α(L)=9.36×10^{-5} *18*; α(M)=2.03×10^{-5} *4* α(N)=4.68×10^{-6} *9*; α(O)=6.86×10^{-7} *14*; α(P)=3.99×10^{-8} *8*; α(IPF)=4.61×10^{-5} *7*
1556.59	1⁺,2⁺	1468.6 *8*	88 *25*	86.7877	2⁺	(E2)		1.48×10^{-3}	α(K)=0.001204 *17*; α(L)=0.0001680 *24*; α(M)=3.67×10^{-5} *6* α(N)=8.47×10^{-6} *12*; α(O)=1.234×10^{-6} *18*; α(P)=6.96×10^{-8} *10*; α(IPF)=6.29×10^{-5} *10*
		1556.6 *1*	100 *13*	0.0	0⁺				
1586.744	5⁻	298.15[d] *7*	100[d] *20*	1288.665	5⁺	(E1)		0.01747	α(K)=0.01480 *21*; α(L)=0.00209 *3*; α(M)=0.000457 *7* α(N)=0.0001048 *15*; α(O)=1.495×10^{-5} *21*; α(P)=7.80×10^{-7} *11*
		431.15[d] *25*	6[d] *2*	1155.841	4⁺	[E1]		0.00719	α(K)=0.00611 *9*; α(L)=0.000846 *12*; α(M)=0.000184 *3* α(N)=4.24×10^{-5} *6*; α(O)=6.11×10^{-6} *9*; α(P)=3.31×10^{-7} *5*
		1302.84[d] *3*	40[d] *10*	283.8219	4⁺	E1		8.45×10^{-4}	α(K)=0.000663 *10*; α(L)=8.70×10^{-5} *13*; α(M)=1.89×10^{-5} *3* α(N)=4.35×10^{-6} *6*; α(O)=6.38×10^{-7} *9*; α(P)=3.71×10^{-8} *6*; α(IPF)=7.13×10^{-5} *10*
1594.42	6⁻	207.9 *2*	8.0 *12*	1386.458	4⁻	E2		0.208	α(K)=0.1414 *21*; α(L)=0.0513 *8*; α(M)=0.01200 *18* α(N)=0.00271 *4*; α(O)=0.000344 *5*; α(P)=6.81×10^{-6} *10* I_γ: from Iγ(207.9γ)/Iγ(1013γ) in (α,2nγ) and Iγ(1013γ). γ not reported in ^{160}Ho ε decay. Mult.: from (α,2nγ).
		306.2 *4*	77 *34*	1288.665	5⁺	E1+M2	−0.20 *10*	0.033 *19*	α(K)=0.027 *16*; α(L)=0.0044 *28*; α(M)=9.8×10^{-4} *64* α(N)=2.3×10^{-4} *15*; α(O)=3.2×10^{-5} *22*; α(P)=1.7×10^{-6} *12* Mult.,δ: from (α,2nγ). Mult=E1 is reported in ^{160}Ho ε decay.
		1013.22 *15*	100 *30*	581.066	6⁺	E1(+M2)	−0.2 *7*	0.0017 *48*	α(K)=0.0014 *40*; α(L)=1.9×10^{-4} *60*; α(M)=4.E−5 *14* α(N)=1.0×10^{-5} *31*; α(O)=1.4×10^{-6} *45*; α(P)=8.E−8 *26* Mult.,δ: from (α,2nγ).

$^{160}_{66}Dy_{94}$-20

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
1603.78	4+	315.33[d] *21*	11[d] *7*	1288.665	5+	[M1,E2]		0.077 *22*	α(K)=0.063 *21*; α(L)=0.0112 *8*; α(M)=0.00252 *12* α(N)=0.00058 *4*; α(O)=8.1×10^{-5} *9*; α(P)=3.7×10^{-6} *15*
		448.05[d] *9*	67[d] *33*	1155.841	4+	E2		0.0203	α(K)=0.01614 *23*; α(L)=0.00322 *5*; α(M)=0.000728 *11* α(N)=0.0001664 *24*; α(O)=2.27×10^{-5} *4*; α(P)=8.93×10^{-7} *13*
		554.59 *7*	78 *9*	1049.1018	3+	E2,M1		0.0172 *56*	α(K)=0.0144 *50*; α(L)=0.0022 *6*; α(M)=0.00049 *11* α(N)=0.00011 *3*; α(O)=1.62×10^{-5} *41*; α(P)=8.6×10^{-7} *33*
		637.8 *4*	100 *33*	966.1687	2+				
		1319.95[d] *25*	67[d] *33*	283.8219	4+	E2		1.77×10^{-3}	α(K)=0.001476 *21*; α(L)=0.000209 *3*; α(M)=4.57×10^{-5} *7* α(N)=1.054×10^{-5} *15*; α(O)=1.532×10^{-6} *22*; α(P)=8.53×10^{-8} *12*; α(IPF)=2.33×10^{-5} *4*
1606.84	6+	640.1 *1*	6 *3*	966.83	8+	(E2)		0.00819	α(K)=0.00673 *10*; α(L)=0.001140 *16*; α(M)=0.000254 *4* α(N)=5.83×10^{-5} *9*; α(O)=8.20×10^{-6} *12*; α(P)=3.83×10^{-7} *6*
		1025.76 *7*	44 *4*	581.066	6+				
		1322.86 *23*	100 *12*	283.8219	4+	E2		1.76×10^{-3}	α(K)=0.001469 *21*; α(L)=0.000208 *3*; α(M)=4.55×10^{-5} *7* α(N)=1.049×10^{-5} *15*; α(O)=1.525×10^{-6} *22*; α(P)=8.49×10^{-8} *12*; α(IPF)=2.39×10^{-5} *4*
1607.86	4+	85.5 *1*	<20	1522.33	4+	(E2)		4.90	α(K)=1.616 *23*; α(L)=2.53 *4*; α(M)=0.606 *10* α(N)=0.1358 *21*; α(O)=0.01620 *25*; α(P)=6.72×10^{-5} *10*
		319.19 *9*	31 *15*	1288.665	5+	(E2)		0.0535	α(K)=0.0405 *6*; α(L)=0.01004 *14*; α(M)=0.00230 *4* α(N)=0.000524 *8*; α(O)=6.93×10^{-5} *10*; α(P)=2.13×10^{-6} *3*
		452.0 *3*	33 *12*	1155.841	4+	E2		0.0198	α(K)=0.01577 *23*; α(L)=0.00313 *5*; α(M)=0.000708 *10* α(N)=0.0001618 *23*; α(O)=2.21×10^{-5} *4*; α(P)=8.74×10^{-7} *13*
		558.8 *2*	65 *9*	1049.1018	3+	[M1,E2]		0.0169 *55*	α(K)=0.0141 *49*; α(L)=0.0022 *5*; α(M)=0.00048 *11* α(N)=0.00011 *3*; α(O)=1.59×10^{-5} *41*; α(P)=8.4×10^{-7} *32*
		641.7 *1*	100 *5*	966.1687	2+	(E2)		0.00814	α(K)=0.00669 *10*; α(L)=0.001132 *16*; α(M)=0.000252 *4* α(N)=5.79×10^{-5} *9*; α(O)=8.14×10^{-6} *12*; α(P)=3.81×10^{-7} *6*
1613.98	7−	647.3 *2*	9 *5*	966.83	8+				From ^{160}Ho ε decay.
		1032.84[d] *7*	100[d] *27*	581.066	6+	E1+M2	>0.0	0.0067 *55*	α(K)=0.0056 *47*; α(L)=8.3×10^{-4} *70*; α(M)=1.8×10^{-4} *16* α(N)=4.2×10^{-5} *36*; α(O)=6.2×10^{-6} *52*; α(P)=3.5×10^{-7} *30* Mult.,δ: from (α,2nγ).
1617.27	7+	328.6 *1*	47 *9*	1288.665	5+	E2		0.0490	α(K)=0.0373 *6*; α(L)=0.00905 *13*; α(M)=0.00208 *3* α(N)=0.000472 *7*; α(O)=6.27×10^{-5} *9*; α(P)=1.98×10^{-6} *3* Mult.: from (α,xnγ).
		650.5 *1*	13 *2*	966.83	8+	E2+M1	5 *8*	0.0082 *71*	α(K)=0.0067 *63*; α(L)=0.00112 *70*; α(M)=2.5×10^{-4} *15* α(N)=5.7×10^{-5} *35*; α(O)=8.1×10^{-6} *55*; α(P)=3.9×10^{-7} *41* Mult.,δ: from (α,2nγ).
		1036.22 *5*	100 *9*	581.066	6+	E2+M1	7.2 *10*	0.00287 *5*	α(K)=0.00241 *4*; α(L)=0.000355 *6*; α(M)=7.81×10^{-5} *12* α(N)=1.80×10^{-5} *3*; α(O)=2.60×10^{-6} *4*; α(P)=1.394×10^{-7} *21* Mult.,δ: from (α,2nγ).
1643.27	3−	486	100	1155.841	4+				E_γ: from Coul. ex. γ not reported in ^{160}Ho ε decay.

$^{160}_{66}Dy_{94}$-21

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult. †	δ #b	α a	$I_{(\gamma+ce)}$	Comments
										I_γ: value relative to Iγ=100 for the 486 γ. This scale is different from that of the two highest-energy γ′s.
1643.27	3⁻	593	16	1049.1018	3⁺					E_γ: from Coul. ex. γ not reported in ^{160}Ho ε decay.
										I_γ: value relative to Iγ=100 for the 486 γ. This scale is different from that of the two highest-energy γ′s.
		676	48	966.1687	2⁺					E_γ: from Coul. ex. γ not reported in ^{160}Ho ε decay.
										I_γ: value relative to Iγ=100 for the 486 γ. This scale is different from that of the two highest-energy γ′s.
		1359.5 *2*	96 *14*	283.8219	4⁺	E1		8.23×10^{-4}		α(K)=0.000616 *9*; α(L)=8.07×10^{-5} *12*; α(M)=1.748×10^{-5} *25* α(N)=4.04×10^{-6} *6*; α(O)=5.92×10^{-7} *9*; α(P)=3.45×10^{-8} *5*; α(IPF)=0.0001044 *15*
		1556.48 *6*	100 *5*	86.7877	2⁺	E1		8.12×10^{-4}		α(K)=0.000489 *7*; α(L)=6.38×10^{-5} *9*; α(M)=1.382×10^{-5} *20* α(N)=3.19×10^{-6} *5*; α(O)=4.68×10^{-7} *7*; α(P)=2.74×10^{-8} *4*; α(IPF)=0.000242 *4*
1650.874	4⁻,5⁻	362.20 *12*	10 *1*	1288.665	5⁺	E1		0.01085		α(K)=0.00920 *13*; α(L)=0.001287 *18*; α(M)=0.000281 *4* α(N)=6.45×10^{-5} *9*; α(O)=9.25×10^{-6} *13*; α(P)=4.92×10^{-7} *7*
		495.03 *3*	100 *5*	1155.841	4⁺	E1		0.00525		α(K)=0.00447 *7*; α(L)=0.000614 *9*; α(M)=0.0001337 *19* α(N)=3.08×10^{-5} *5*; α(O)=4.44×10^{-6} *7*; α(P)=2.44×10^{-7} *4*
1651.95	4⁺,5,6⁺	1070.8 *3*	46 *6*	581.066	6⁺					
		1368.2 *3*	100 *20*	283.8219	4⁺					
1653.66		1369.90 d *4*	100 d	283.8219	4⁺					
1654.99	2⁺,3⁺,4⁺	368.26 *4*	23.0 *17*	1286.713	3⁻	E1		0.01042		α(K)=0.00885 *13*; α(L)=0.001236 *18*; α(M)=0.000270 *4* α(N)=6.19×10^{-5} *9*; α(O)=8.88×10^{-6} *13*; α(P)=4.74×10^{-7} *7*
		606.0 *3*	5 *3*	1049.1018	3⁺					
		1371.31 d *7*	100 d *17*	283.8219	4⁺	E2		1.65×10^{-3}		α(K)=0.001371 *20*; α(L)=0.000193 *3*; α(M)=4.22×10^{-5} *6* α(N)=9.74×10^{-6} *14*; α(O)=1.417×10^{-6} *20*; α(P)=7.92×10^{-8} *11*; α(IPF)=3.50×10^{-5} *5*
		1568.3 *4*	5.8 *13*	86.7877	2⁺					
1676.1		1095.0	100	581.066	6⁺					

$^{160}_{66}Dy_{94}$-22

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	$I_{(\gamma+ce)}$	Comments
1694.360	4+	308.2 *3*	0.02 *1*	1386.458	4−	E1		0.01609		B(E1)(W.u.)=5.2×10^{-9} *+32−24* α(K)=0.01363 *20*; α(L)=0.00192 *3*; α(M)=0.000420 *6* α(N)=9.64×10^{-5} *14*; α(O)=1.376×10^{-5} *20*; α(P)=7.20×10^{-7} *11*
		405.70 *2*	1.24 *3*	1288.665	5+	E2		0.0266		B(E2)(W.u.)=0.041 *+10−7* α(K)=0.0210 *3*; α(L)=0.00442 *7*; α(M)=0.001005 *14* α(N)=0.000229 *4*; α(O)=3.10×10^{-5} *5*; α(P)=1.145×10^{-6} *16*
		538.54 *2*	13.8 *3*	1155.841	4+	E2+M1	+11.8[@] *+44−20*	0.01261 *19*		B(M1)(W.u.)=4.6×10^{-7} *+24−22*; B(E2)(W.u.)=0.111 *+26−18* α(K)=0.01023 *15*; α(L)=0.00186 *3*; α(M)=0.000416 *6* α(N)=9.53×10^{-5} *14*; α(O)=1.324×10^{-5} *19*; α(P)=5.77×10^{-7} *9*
		645.24 *3*	49.9 *13*	1049.1018	3+	E2+M1	−4.38[@] *22*	0.00841 *13*		α(K)=0.00693 *11*; α(L)=0.001152 *17*; α(M)=0.000256 *4* α(N)=5.89×10^{-5} *9*; α(O)=8.31×10^{-6} *12*; α(P)=3.98×10^{-7} *6*
		728.17 *2*	100 *2*	966.1687	2+	E2		0.00606		B(M1)(W.u.)=6.8×10^{-6} *+18−12*; B(E2)(W.u.)=0.155 *+38−26* B(E2)(W.u.)=0.179 *+43−29* α(K)=0.00502 *7*; α(L)=0.000813 *12*; α(M)=0.000180 *3* α(N)=4.15×10^{-5} *6*; α(O)=5.88×10^{-6} *9*; α(P)=2.88×10^{-7} *4*
		1410.5 *3*	0.495 *24*	283.8219	4+	E2,M1		0.0020 *4*		α(K)=0.0016 *4*; α(L)=0.00023 *5*; α(M)=5.0×10^{-5} *10* α(N)=1.15×10^{-5} *23*; α(O)=1.7×10^{-6} *4*; α(P)=9.7×10^{-8} *23*; α(IPF)=4.9×10^{-5} *4*
		1607.6 *3*	0.036 *12*	86.7877	2+	[E2]				B(E2)(W.u.)=1.2×10^{-6} *5*
1708.14	0+	1621.36 *5*	100 *3*	86.7877	2+	E2		1.29×10^{-3}		α(K)=0.001000 *14*; α(L)=0.0001380 *20*; α(M)=3.01×10^{-5} *5* α(N)=6.95×10^{-6} *10*; α(O)=1.015×10^{-6} *15*; α(P)=5.78×10^{-8} *8*; α(IPF)=0.0001172 *17*
		1708.2		0.0	0+	(E0)			0.30 *1*	X(E0/E2)=0.6 (2009Ad04, ε decay); q^2_K(E0/E2)=2.8 *9* (2009Ad04, ε decay); the E2 transition is 1621.4γ.
1720.36	6+	564.48 *25*	100	1155.841	4+	[E2]		0.01112		α(K)=0.00905 *13*; α(L)=0.001614 *23*; α(M)=0.000362 *5*

$^{160}_{66}Dy_{94}$-23

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
									α(N)=8.28×10^{-5} *12*; α(O)=1.154×10^{-5} *17*; α(P)=5.12×10^{-7} *8*
1756.918	2$^+$	234.81[d&] *6*	3[d] *1*	1522.33	4$^+$	(E2)		0.1395	α(K)=0.0986 *14*; α(L)=0.0316 *5*; α(M)=0.00737 *11* α(N)=0.001667 *24*; α(O)=0.000214 *3*; α(P)=4.89×10^{-6} *7*
		267.45 *10*	2.2 *3*	1489.500	1$^-$	E1		0.0230	α(K)=0.0194 *3*; α(L)=0.00276 *4*; α(M)=0.000604 *9* α(N)=0.0001384 *20*; α(O)=1.97×10^{-5} *3*; α(P)=1.013×10^{-6} *15*
		357.92 *11*	3.6 *7*	1398.964	3$^-$	E1		0.01116	α(K)=0.00947 *14*; α(L)=0.001325 *19*; α(M)=0.000289 *4* α(N)=6.64×10^{-5} *10*; α(O)=9.52×10^{-6} *14*; α(P)=5.06×10^{-7} *7*
		470.0 *2*	12 *1*	1286.713	3$^-$	E1		0.00590	α(K)=0.00502 *7*; α(L)=0.000692 *10*; α(M)=0.0001507 *22* α(N)=3.47×10^{-5} *5*; α(O)=5.00×10^{-6} *7*; α(P)=2.73×10^{-7} *4*
		471.0[d] *3*	7.1[d] *10*	1285.604	1$^-$	E1		0.00587	α(K)=0.00500 *7*; α(L)=0.000689 *10*; α(M)=0.0001500 *22* α(N)=3.45×10^{-5} *5*; α(O)=4.98×10^{-6} *7*; α(P)=2.72×10^{-7} *4*
		1473.06 *3*	100 *2*	283.8219	4$^+$	E2		1.47×10^{-3}	α(K)=0.001197 *17*; α(L)=0.0001670 *24*; α(M)=3.65×10^{-5} *6* α(N)=8.41×10^{-6} *12*; α(O)=1.226×10^{-6} *18*; α(P)=6.92×10^{-8} *10*; α(IPF)=6.43×10^{-5} *9*
		1670.14 *13*	47 *7*	86.7877	2$^+$	E2		1.25×10^{-3}	α(K)=0.000947 *14*; α(L)=0.0001302 *19*; α(M)=2.84×10^{-5} *4* α(N)=6.55×10^{-6} *10*; α(O)=9.57×10^{-7} *14*; α(P)=5.47×10^{-8} *8*; α(IPF)=0.0001368 *20*
1784.688	4$^-$	90.33 *2*	100 *2*	1694.360	4$^+$	E1		0.405	α(K)=0.337 *5*; α(L)=0.0531 *8*; α(M)=0.01165 *17* α(N)=0.00264 *4*; α(O)=0.000358 *5*; α(P)=1.532×10^{-5} *22*
		628.95 *17*	6 *2*	1155.841	4$^+$				
		735.69 *25*	11 *3*	1049.1018	3$^+$				
		1500.7 *4*	3.7 *12*	283.8219	4$^+$				
1787.79	6$^-$	137.0 *2*	40 *20*	1650.874	4$^-$,5$^-$	[M1,E2]		0.92 *6*	α(K)=0.65 *18*; α(L)=0.209 *89*; α(M)=0.049 *23* α(N)=0.0110 *49*; α(O)=0.00142 *53*; α(P)=3.6×10^{-5} *16*
		193.4 *2*	40 *20*	1594.42	6$^-$	[M1,E2]		0.32 *6*	α(K)=0.245 *70*; α(L)=0.057 *12*; α(M)=0.013 *3* α(N)=0.0030 *7*; α(O)=0.00040 *6*; α(P)=1.39×10^{-5} *56*
		201.2 *2*	60 *20*	1586.744	5$^-$	[M1,E2]		0.28 *6*	α(K)=0.219 *63*; α(L)=0.050 *9*; α(M)=0.0114 *24* α(N)=0.0026 *6*; α(O)=0.00035 *5*; α(P)=1.25×10^{-5} *51*
		252.8 *3*	40 *20*	1535.150	4$^-$	E2		0.1101	α(K)=0.0794 *12*; α(L)=0.0238 *4*; α(M)=0.00552 *9* α(N)=0.001250 *19*; α(O)=0.0001616 *24*; α(P)=4.00×10^{-6} *6* Mult.: from (α,xnγ).
		499.3 *3*	100 *40*	1288.665	5$^+$				
		1206.7 *1*	40 *20*	581.066	6$^+$				
1800.35	8$^+$	362.0 *1*	25 *4*	1438.554	6$^+$	E2		0.0369	α(K)=0.0285 *4*; α(L)=0.00647 *9*; α(M)=0.001477 *21* α(N)=0.000337 *5*; α(O)=4.51×10^{-5} *7*; α(P)=1.535×10^{-6} *22* Mult.: from (α,2nγ).
		834.0 *1*	100 *4*	966.83	8$^+$	E2(+M1)	>1.5	0.0051 *6*	α(K)=0.0042 *5*; α(L)=0.00064 *7*; α(M)=0.000141 *14* α(N)=3.3×10^{-5} *3*; α(O)=4.7×10^{-6} *5*; α(P)=2.5×10^{-7} *4* Mult.,δ: from (α,2nγ).

$^{160}_{66}Dy_{94}$-24

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult. †	δ #b	α a	$I_{(\gamma+ce)}$	Comments
1800.35	8^+	1219.6 *2*	32 *4*	581.066	6^+	E2		0.00204		α(K)=0.001721 *24*; α(L)=0.000247 *4*; α(M)=5.40×10^{-5} *8* α(N)=1.245×10^{-5} *18*; α(O)=1.81×10^{-6} *3*; α(P)=9.94×10^{-8} *14*; α(IPF)=7.53×10^{-6} *11* Mult.: from (α,2nγ).
1802.224	5^+	107.87 *2*	6.63 *11*	1694.360	4^+	M1+E2	0.40	1.94		α(K)=1.526 *22*; α(L)=0.325 *5*; α(M)=0.0737 *11* α(N)=0.01685 *24*; α(O)=0.00230 *4*; α(P)=9.25×10^{-5} *13*
		279.76 c *15*	0.20 c *3*	1522.33	4^+	E2		0.0800		α(K)=0.0591 *9*; α(L)=0.01622 *23*; α(M)=0.00375 *6* α(N)=0.000850 *12*; α(O)=0.0001110 *16*; α(P)=3.04×10^{-6} *5*
		363.66 *3*	4.20 *12*	1438.554	6^+	E2,M1		0.052 *16*		α(K)=0.043 *15*; α(L)=0.0073 *10*; α(M)=0.00163 *18* α(N)=0.00037 *5*; α(O)=5.3×10^{-5} *9*; α(P)=2.5×10^{-6} *10*
		513.51 *4*	44 *2*	1288.665	5^+	E2		0.01414		α(K)=0.01141 *16*; α(L)=0.00212 *3*; α(M)=0.000478 *7* α(N)=0.0001093 *16*; α(O)=1.511×10^{-5} *22*; α(P)=6.40×10^{-7} *9*
		646.40 *8*	96 *13*	1155.841	4^+	E2		0.00800		α(K)=0.00658 *10*; α(L)=0.001110 *16*; α(M)=0.000247 *4* α(N)=5.68×10^{-5} *8*; α(O)=7.99×10^{-6} *12*; α(P)=3.75×10^{-7} *6*
		753.11 *2*	100 *2*	1049.1018	3^+	E2		0.00562		α(K)=0.00466 *7*; α(L)=0.000747 *11*; α(M)=0.0001655 *24* α(N)=3.80×10^{-5} *6*; α(O)=5.40×10^{-6} *8*; α(P)=2.67×10^{-7} *4*
		1221.21 *5*	1.5 *2*	581.066	6^+	E2,M1		0.0027 *7*		α(K)=0.0023 *6*; α(L)=0.00032 *7*; α(M)=6.9×10^{-5} *15* α(N)=1.6×10^{-5} *4*; α(O)=2.3×10^{-6} *6*; α(P)=1.34×10^{-7} *35*; α(IPF)=8.3×10^{-6} *7*
		1518.41 d *3*	2.4 d *2*	283.8219	4^+	(E2)		1.41×10^{-3}		α(K)=0.001131 *16*; α(L)=0.0001571 *22*; α(M)=3.43×10^{-5} *5* α(N)=7.92×10^{-6} *11*; α(O)=1.155×10^{-6} *17*; α(P)=6.53×10^{-8} *10*; α(IPF)=7.93×10^{-5} *12*
1804.669	1^+	315.33 d *21*	0.4 d *3*	1489.500	1^-	[E1]		0.01520		α(K)=0.01288 *19*; α(L)=0.00182 *3*; α(M)=0.000396 *6* α(N)=9.10×10^{-5} *13*; α(O)=1.300×10^{-5} *19*; α(P)=6.82×10^{-7} *10*
		445.99 d *6*	11.3 d *5*	1358.670	2^-	E1		0.00665		α(K)=0.00565 *8*; α(L)=0.000782 *11*; α(M)=0.0001703 *24* α(N)=3.92×10^{-5} *6*; α(O)=5.64×10^{-6} *8*; α(P)=3.07×10^{-7} *5*
		519.12 *3*	41.8 *10*	1285.604	1^-	E1		0.00473		α(K)=0.00402 *6*; α(L)=0.000551 *8*; α(M)=0.0001200 *17*

$^{160}_{66}Dy_{94}$-25

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
									α(N)=2.76×10^{-5} *4*; α(O)=3.99×10^{-6} *6*; α(P)=2.20×10^{-7} *3*
1804.669	1$^+$	539.92 *15*	26 *4*	1264.7472	2$^-$	E1		0.00433	α(K)=0.00369 *6*; α(L)=0.000505 *7*; α(M)=0.0001099 *16* α(N)=2.53×10^{-5} *4*; α(O)=3.66×10^{-6} *6*; α(P)=2.02×10^{-7} *3*
		838.57 *4*	7.8 *5*	966.1687	2$^+$	E2,M1		0.0063 *19*	α(K)=0.0053 *17*; α(L)=7.7×10^{-4} *20*; α(M)=0.00017 *5* α(N)=3.89×10^{-5} *98*; α(O)=5.7×10^{-6} *15*; α(P)=3.2×10^{-7} *11*
		1717.92 *3*	100 *3*	86.7877	2$^+$	M1+E2	−2.1[@] +*9*−*13*	0.00130 *11*	α(K)=0.00097 *9*; α(L)=0.000132 *11*; α(M)=2.88×10^{-5} *24* α(N)=6.6×10^{-6} *6*; α(O)=9.7×10^{-7} *9*; α(P)=5.6×10^{-8} *6*; α(IPF)=0.000162 *7*
		1804.68 *4*	46.6 *13*	0.0	0$^+$	M1		1.55×10^{-3}	α(K)=0.001126 *16*; α(L)=0.0001528 *22*; α(M)=3.33×10^{-5} *5* α(N)=7.70×10^{-6} *11*; α(O)=1.135×10^{-6} *16*; α(P)=6.72×10^{-8} *10*; α(IPF)=0.000230 *4*
1860.18	5$^-$	256.40 *14*	22 *5*	1603.78	4$^+$	E1		0.0256	α(K)=0.0216 *3*; α(L)=0.00308 *5*; α(M)=0.000674 *10* α(N)=0.0001544 *22*; α(O)=2.19×10^{-5} *3*; α(P)=1.123×10^{-6} *16*
		324.98[d] *20*	14[d] *6*	1535.150	4$^-$	[M1,E2]		0.071 *21*	α(K)=0.058 *20*; α(L)=0.0102 *9*; α(M)=0.00229 *14* α(N)=0.00053 *4*; α(O)=7.4×10^{-5} *9*; α(P)=3.4×10^{-6} *14*
		1279.2 *1*	43 *7*	581.066	6$^+$	E1(+M2)		0.00092 *7*	α(K)=0.00074 *6*; α(L)=9.8×10^{-5} *8*; α(M)=2.12×10^{-5} *17* α(N)=4.9×10^{-6} *4*; α(O)=7.2×10^{-7} *6*; α(P)=4.2×10^{-8} *4*; α(IPF)=5.88×10^{-5} *10* Mult.: from (α,2nγ).
		1576.30 *8*	100 *5*	283.8219	4$^+$	E1		8.15×10^{-4}	α(K)=0.000479 *7*; α(L)=6.25×10^{-5} *9*; α(M)=1.352×10^{-5} *19* α(N)=3.12×10^{-6} *5*; α(O)=4.58×10^{-7} *7*; α(P)=2.69×10^{-8} *4*; α(IPF)=0.000257 *4* I_γ: from ^{160}Ho ε decay. From (α,2nγ), Iγ(1576γ)/Iγ(1279γ)=0.56.
1869.513	2$^+$	379.8 *3*	6.4 *18*	1489.500	1$^-$				
		471.0[d] *3*	6[d] *3*	1398.964	3$^-$	[E1]		0.00587	α(K)=0.00500 *7*; α(L)=0.000689 *10*; α(M)=0.0001500 *22* α(N)=3.45×10^{-5} *5*; α(O)=4.98×10^{-6} *7*; α(P)=2.72×10^{-7} *4*
		510.8 *1*	12 *3*	1358.670	2$^-$				

$^{160}_{66}Dy_{94}$-26

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
1869.513	2+	582.70 *16*	24 *4*	1286.713	3−	E1		0.00367	α(K)=0.00313 *5*; α(L)=0.000426 *6*; α(M)=9.28×10^{-5} *13* α(N)=2.14×10^{-5} *3*; α(O)=3.10×10^{-6} *5*; α(P)=1.720×10^{-7} *24*
		584.04[d] *17*	5.8[d] *23*	1285.604	1−				
		605.0 *3*	4.0 *8*	1264.7472	2−				
		820.39 *8*	5.6 *5*	1049.1018	3+				
		1585.63[d] *17*	8.8[d] *18*	283.8219	4+	E2		1.33×10^{-3}	α(K)=0.001043 *15*; α(L)=0.0001442 *21*; α(M)=3.14×10^{-5} *5* α(N)=7.26×10^{-6} *11*; α(O)=1.060×10^{-6} *15*; α(P)=6.02×10^{-8} *9*; α(IPF)=0.0001035 *15*
		1782.73 *4*	100 *4*	86.7877	2+	E2		1.17×10^{-3}	α(K)=0.000839 *12*; α(L)=0.0001146 *16*; α(M)=2.50×10^{-5} *4* α(N)=5.76×10^{-6} *8*; α(O)=8.43×10^{-7} *12*; α(P)=4.84×10^{-8} *7*; α(IPF)=0.000185 *3*
		1869.55 *6*	41.5 *18*	0.0	0+	E2		1.13×10^{-3}	α(K)=0.000769 *11*; α(L)=0.0001046 *15*; α(M)=2.28×10^{-5} *4* α(N)=5.26×10^{-6} *8*; α(O)=7.70×10^{-7} *11*; α(P)=4.44×10^{-8} *7*; α(IPF)=0.000224 *4*
1882.31	8−	265.3 *2*	<19	1617.27	7+	E1(+M2)	1.5 *15*	0.50 *48*	α(K)=0.40 *38*; α(L)=0.076 *73*; α(M)=0.017 *17* α(N)=0.0040 *39*; α(O)=5.7×10^{-4} *56*; α(P)=3.1×10^{-5} *30* E_γ: from ^{160}Ho ε decay. From an in-beam study, 2002Ju08 report Eγ=268.5. I_γ,Mult.: from (α,2nγ).
		287.8 *1*	100 *4*	1594.42	6−	E2		0.0733	α(K)=0.0545 *8*; α(L)=0.01460 *21*; α(M)=0.00337 *5* α(N)=0.000765 *11*; α(O)=0.0001002 *14*; α(P)=2.81×10^{-6} *4* Mult.: from (α,2nγ).
		915.6 *1*	73 *4*	966.83	8+	E1(+M2)	−1 *4*	0.0091 *71*	α(K)=0.0077 *60*; α(L)=0.00115 *91*; α(M)=2.5×10^{-4} *20* α(N)=5.8×10^{-5} *47*; α(O)=8.6×10^{-6} *68*; α(P)=4.9×10^{-7} *39* Mult.,δ: from (α,2nγ).
1898.23	7−	1316.7 *2*	100	581.066	6+				
1900.87	9−	286.9 *2*	<19	1613.98	7−				E_γ,I_γ: from 2002Ju08 (^{7}Li,p4nγ).
		934.1 *1*	100 *4*	966.83	8+	(E1+M2)	0.8 *8*	0.0071 *57*	α(K)=0.0060 *48*; α(L)=8.8×10^{-4} *72*; α(M)=1.9×10^{-4} *16* α(N)=4.5×10^{-5} *37*; α(O)=6.6×10^{-6} *54*; α(P)=3.8×10^{-7} *31* E_γ,Mult.: from 2002Ju08 (^{7}Li,p4nγ).
1903.204	3+	504.15[d] *20*	6.2[d] *18*	1398.964	3−	(E1)		0.00504	α(K)=0.00429 *6*; α(L)=0.000589 *9*; α(M)=0.0001283 *18* α(N)=2.95×10^{-5} *5*; α(O)=4.26×10^{-6} *6*; α(P)=2.34×10^{-7} *4*
		516.86 *11*	15.9 *17*	1386.458	4−				

$^{160}_{66}Dy_{94}$-27

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.†	δ#b	α[a]	$I_{(\gamma+ce)}$	Comments
1903.204	3+	544.59 *8*	35.6 *21*	1358.670	2−	E1		0.00425		α(K)=0.00362 *5*; α(L)=0.000495 *7*; α(M)=0.0001078 *15* α(N)=2.48×10^{-5} *4*; α(O)=3.59×10^{-6} *5*; α(P)=1.98×10^{-7} *3*
		1619.36 *8*	66 *4*	283.8219	4+	E2		1.30×10^{-3}		α(K)=0.001003 *14*; α(L)=0.0001383 *20*; α(M)=3.02×10^{-5} *5* α(N)=6.96×10^{-6} *10*; α(O)=1.017×10^{-6} *15*; α(P)=5.79×10^{-8} *9*; α(IPF)=0.0001164 *17*
		1816.39 *3*	100 *3*	86.7877	2+	E2		1.15×10^{-3}		α(K)=0.000810 *12*; α(L)=0.0001105 *16*; α(M)=2.41×10^{-5} *4* α(N)=5.56×10^{-6} *8*; α(O)=8.14×10^{-7} *12*; α(P)=4.68×10^{-8} *7*; α(IPF)=0.000200 *3*
1929.176	6+	126.94 *2*	24.2 *9*	1802.224	5+	M1+E2	0.37	1.203		α(K)=0.970 *14*; α(L)=0.182 *3*; α(M)=0.0409 *6* α(N)=0.00937 *14*; α(O)=0.001306 *19*; α(P)=5.90×10^{-5} *9*
		234.81[d] *6*	10[d] *4*	1694.360	4+	(E2)		0.1395		α(K)=0.0986 *14*; α(L)=0.0316 *5*; α(M)=0.00737 *11* α(N)=0.001667 *24*; α(O)=0.000214 *3*; α(P)=4.89×10^{-6} *7*
		311.90 *6*	10.1 *8*	1617.27	7+	E2,(M1)		0.080 *23*		α(K)=0.065 *22*; α(L)=0.0116 *8*; α(M)=0.00261 *11* α(N)=0.00060 *3*; α(O)=8.4×10^{-5} *9*; α(P)=3.8×10^{-6} *16*
		315.33[d] *21*	0.6[d] *6*	1613.98	7−	[E1]		0.01520		α(K)=0.01288 *19*; α(L)=0.00182 *3*; α(M)=0.000396 *6* α(N)=9.10×10^{-5} *13*; α(O)=1.300×10^{-5} *19*; α(P)=6.82×10^{-7} *10*
		334.77 *19*	5.2 *16*	1594.42	6−	[E1]		0.01312		α(K)=0.01113 *16*; α(L)=0.001563 *22*; α(M)=0.000341 *5* α(N)=7.83×10^{-5} *11*; α(O)=1.121×10^{-5} *16*; α(P)=5.92×10^{-7} *9*
		490.62[d] *4*	56[d] *11*	1438.554	6+	E2,M1		0.0236 *77*		α(K)=0.0196 *68*; α(L)=0.0031 *7*; α(M)=0.00068 *14* α(N)=0.00016 *4*; α(O)=2.3×10^{-5} *6*; α(P)=1.16×10^{-6} *45*
		640.61 *6*	100 *22*	1288.665	5+	(E2)		0.00817		α(K)=0.00671 *10*; α(L)=0.001137 *16*; α(M)=0.000254 *4* α(N)=5.82×10^{-5} *9*; α(O)=8.18×10^{-6} *12*; α(P)=3.83×10^{-7} *6*
		773.37 *8*	63.9 *27*	1155.841	4+	E2		0.00529		α(K)=0.00440 *7*; α(L)=0.000699 *10*; α(M)=0.0001548 *22* α(N)=3.56×10^{-5} *5*; α(O)=5.06×10^{-6} *7*; α(P)=2.52×10^{-7} *4* I_γ: from ^{160}Ho ε decay. In (α,2nγ), Iγ(773γ)/Iγ(640γ)>2.

$^{160}_{66}Dy_{94}$-28

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult. †	α [a]	$I_{(\gamma+ce)}$	Comments
1929.176	6^+	1348.09 [d] *10*	17 [d] *4*	581.066	6^+				
1950.17	12^+	522.6 [&] *1*	100	1427.89	10^+	E2	0.01352		B(E2)(W.u.)=313 *14* α(K)=0.01093 *16*; α(L)=0.00202 *3*; α(M)=0.000453 *7* α(N)=0.0001038 *15*; α(O)=1.436×10^{-5} *21*; α(P)=6.14×10^{-7} *9* Mult.: from (α,2nγ).
1952.31	0^+	244.1		1708.14	0^+	(E0)		0.44 *2*	q^2_K(E0/E2): 4.8 *19* (2009Ad04, ε decay); the E2 transition is 1865.6γ.
		495.6		1456.752	0^+	(E0)		0.74 *4*	q^2_K(E0/E2): 8 *3* (2009Ad04, ε decay); the E2 transition is 1865.6γ.
		666.7 [d] *3*	5 [d] *3*	1285.604	1^-				
		672.3		1279.942	0^+	(E0)		0.61 *3*	q^2_K(E0/E2): 6.3 *24* (for I(ce(K)) mean value of 0.002 (2009Ad04) and 0.0043 (2006Bo37)); the E2 transition is 1865.6γ.
		986.15 [d] *11*	33 [d] *8*	966.1687	2^+				
		1271.0		681.3?	(0^+)	(E0)		0.44 *2*	q^2_K(E0/E2): 4.8 *19* (2009Ad04, ε decay); the E2 transition is 1865.6γ.
		1865.56 *4*	100 *5*	86.7877	2^+	E2	1.13×10^{-3}		α(K)=0.000772 *11*; α(L)=0.0001050 *15*; α(M)=2.29×10^{-5} *4* α(N)=5.28×10^{-6} *8*; α(O)=7.73×10^{-7} *11*; α(P)=4.46×10^{-8} *7*; α(IPF)=0.000222 *4*
		1952.6 *4*		0.0	0^+	E0		0.28 *4*	X(E0/E2): 0.6 *3* (2005Ki02 evaluation), 0.9 (2009Ad04, ε decay); q^2_K(E0/E2): 2.1 *8* (2005Ki02 evaluation), 3.0 *13* (2009Ad04, ε decay); the E2 transition is 1865.6γ.
1954.4	$(6)^-$	665.7 *5*	100	1288.665	5^+				
1978.2	$(8)^+$	1011.1 [e]		966.83	8^+				
		1397.1		581.066	6^+	E2	1.60×10^{-3}		α(K)=0.001323 *19*; α(L)=0.000186 *3*; α(M)=4.06×10^{-5} *6* α(N)=9.37×10^{-6} *14*; α(O)=1.364×10^{-6} *20*; α(P)=7.65×10^{-8} *11*; α(IPF)=4.18×10^{-5} *6*
2009.531	$1^-,2^-$	355.74 *10*	1.6 *8*	1653.66					
		1922.71 *4*	100 *3*	86.7877	2^+	E1	9.17×10^{-4}		α(K)=0.000345 *5*; α(L)=4.48×10^{-5} *7*; α(M)=9.69×10^{-6} *14* α(N)=2.24×10^{-6} *4*; α(O)=3.29×10^{-7} *5*; α(P)=1.94×10^{-8} *3*; α(IPF)=0.000514 *8*
		2009.6 [d] *3*	1.5 [d] *5*	0.0	0^+				
2012.85	2^+	1729.3 *5*	74 *13*	283.8219	4^+				
		1926.0 *3*	100 *19*	86.7877	2^+				
		2013.3 *5*	21 *9*	0.0	0^+				
2021.64	9^+	120.8 *2*	5 *5*	1900.87	9^-	[E1]	0.186		α(K)=0.1560 *23*; α(L)=0.0236 *4*; α(M)=0.00518 *8* α(N)=0.001178 *18*; α(O)=0.0001622 *24*; α(P)=7.39×10^{-6} *11* I_γ: from Iγ(120.8γ)/Iγ(404.7γ) in ε decay and Iγ(404.7γ).
		139.3 *2*	14 *10*	1882.31	8^-	[E1]	0.1271		α(K)=0.1067 *16*; α(L)=0.01593 *24*; α(M)=0.00349 *5* α(N)=0.000795 *12*; α(O)=0.0001103 *16*; α(P)=5.16×10^{-6} *8* I_γ: from Iγ(139.3γ)/Iγ(404.7γ) in ε decay and Iγ(404.7γ).

$^{160}_{66}Dy_{94}$-29

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
2021.64	9$^+$	220.8 *2*	19 *10*	1800.35	8$^+$	[M1,E2]		0.21 *5*	α(K)=0.168 *50*; α(L)=0.036 *5*; α(M)=0.0082 *13* α(N)=0.0019 *3*; α(O)=0.000254 *19*; α(P)=9.7×10^{-6} *39* I$_\gamma$: from Iγ(220.8γ)/Iγ(404.7γ) in ε decay and Iγ(404.7γ).
		404.7 *4*	48 *3*	1617.27	7$^+$	E2		0.0268	α(K)=0.0211 *3*; α(L)=0.00446 *7*; α(M)=0.001013 *15* α(N)=0.000231 *4*; α(O)=3.13×10^{-5} *5*; α(P)=1.153×10^{-6} *17* I$_\gamma$: from the in-beam study of 2002Ju08. Mult.: from (α,2nγ).
		1055.2[&] *1*	100 *7*	966.83	8$^+$	E2+M1	7.0 *12*	0.00276 *5*	α(K)=0.00233 *4*; α(L)=0.000341 *6*; α(M)=7.50×10^{-5} *12* α(N)=1.73×10^{-5} *3*; α(O)=2.50×10^{-6} *4*; α(P)=1.345×10^{-7} *21* I$_\gamma$: from the in-beam study of 2002Ju08. From ^{160}Ho ε decay, Iγ(1055γ)/Iγ(404γ)=0.2. Mult.,δ: from (α,2nγ).
2049.50	2$^+$,3	1000.2 *4*	58 *19*	1049.1018	3$^+$				
		1765.6 *3*	100 *50*	283.8219	4$^+$				
		1962.7 *5*	33 *14*	86.7877	2$^+$				
2068.08	1$^-$	549.63 *9*	1.7 *5*	1518.419	2$^+$				
		669.1[ce] *2*	1.7[c] *7*	1398.964	3$^-$				
		803.48 *22*	2.1 *4*	1264.7472	2$^-$				
		1981.28 *15*	62 *7*	86.7877	2$^+$				
		2068.07 *4*	100 *3*	0.0	0$^+$	E1		9.76×10^{-4}	α(K)=0.000307 *5*; α(L)=3.98×10^{-5} *6*; α(M)=8.61×10^{-6} *12* α(N)=1.99×10^{-6} *3*; α(O)=2.92×10^{-7} *4*; α(P)=1.727×10^{-8} *25*; α(IPF)=0.000618 *9*
2074.09	7$^+$	145.0 *2*	50 *25*	1929.176	6$^+$	[M1,E2]		0.77 *7*	α(K)=0.55 *15*; α(L)=0.167 *65*; α(M)=0.039 *17* α(N)=0.0088 *36*; α(O)=0.00114 *39*; α(P)=3.1×10^{-5} *13*
		191.5 *2*	75 *25*	1882.31	8$^-$	[E1]		0.0545	α(K)=0.0460 *7*; α(L)=0.00669 *10*; α(M)=0.001462 *21* α(N)=0.000334 *5*; α(O)=4.70×10^{-5} *7*; α(P)=2.31×10^{-6} *4*
		272.0 *2*	55 *33*	1802.224	5$^+$	[E2]		0.0874	α(K)=0.0641 *9*; α(L)=0.0180 *3*; α(M)=0.00417 *6* α(N)=0.000945 *14*; α(O)=0.0001231 *18*; α(P)=3.28×10^{-6} *5*
		635.6 *2*	100 *50*	1438.554	6$^+$				
2077.36	3$^-$	320.50[d] *7*	7[d] *3*	1756.918	2$^+$	(E1)		0.01460	α(K)=0.01238 *18*; α(L)=0.001743 *25*; α(M)=0.000380 *6* α(N)=8.73×10^{-5} *13*; α(O)=1.248×10^{-5} *18*; α(P)=6.56×10^{-7} *10*
		382.8 *2*	41 *11*	1694.360	4$^+$				
		490.62[d] *4*	67[d] *33*	1586.744	5$^-$	[E2]		0.01592	α(K)=0.01279 *18*; α(L)=0.00243 *4*; α(M)=0.000548 *8* α(N)=0.0001255 *18*; α(O)=1.728×10^{-5} *25*; α(P)=7.15×10^{-7} *10*
		541.9[d] *3*	20[d] *7*	1535.150	4$^-$	[E2,M1]		0.0183 *60*	α(K)=0.0152 *53*; α(L)=0.0024 *6*; α(M)=0.00052 *12* α(N)=0.00012 *3*; α(O)=1.7×10^{-5} *5*; α(P)=9.1×10^{-7} *35*
		669.1[ce] *2*	31[c] *13*	1408.47	5$^-$				

$^{160}_{66}Dy_{94}$-30

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
2077.36	3⁻	678.30[d] *16*	7[d] *3*	1398.964	3⁻				
		718.70 *9*	54 *13*	1358.670	2⁻				
		790.7 *3*	33 *13*	1286.713	3⁻				
		791.8 *3*	20 *7*	1285.604	1⁻				
		812.6 *2*	20 *13*	1264.7472	2⁻				
		921.50[d] *16*	100[d] *20*	1155.841	4⁺				
		1028.26[d] *5*	53[d] *20*	1049.1018	3⁺				
		1111.11[d] *18*	93[d] *27*	966.1687	2⁺				
2084.809	1⁺,2⁺	431.15[de] *25*	1.5[d] *7*	1653.66					
		595.32[d] *10*	3.6[d] *14*	1489.500	1⁻				
		1998.04 *4*	65 *3*	86.7877	2⁺	M1,E2		0.00123 *15*	α(K)=0.00079 *11*; α(L)=0.000106 *15*; α(M)=2.3×10^{-5} *4* α(N)=5.4×10^{-6} *8*; α(O)=7.9×10^{-7} *11*; α(P)=4.6×10^{-8} *7*; α(IPF)=0.00031 *3*
		2084.79 *4*	100 *4*	0.0	0⁺	M1,E2		0.00120 *14*	α(K)=0.00072 *9*; α(L)=9.7×10^{-5} *13*; α(M)=2.1×10^{-5} *3* α(N)=4.9×10^{-6} *7*; α(O)=7.2×10^{-7} *10*; α(P)=4.2×10^{-8} *6*; α(IPF)=0.00035 *3*
2088.85	1⁻,2⁻,3⁻	2002.01 *4*	100	86.7877	2⁺	E1		9.49×10^{-4}	α(K)=0.000324 *5*; α(L)=4.19×10^{-5} *6*; α(M)=9.07×10^{-6} *13* α(N)=2.10×10^{-6} *3*; α(O)=3.08×10^{-7} *5*; α(P)=1.82×10^{-8} *3*; α(IPF)=0.000571 *8*
2090.88	2⁻,3⁻	1041.94 *20*	21 *3*	1049.1018	3⁺				
		1124.68[d] *4*	100[d] *11*	966.1687	2⁺				
		2004.1 *3*	71 *9*	86.7877	2⁺				
2096.889	4⁺	340.4 *3*	0.47 *18*	1756.918	2⁺	[E2]		0.0441	α(K)=0.0338 *5*; α(L)=0.00800 *12*; α(M)=0.00183 *3* α(N)=0.000417 *6*; α(O)=5.55×10^{-5} *8*; α(P)=1.80×10^{-6} *3*
		402.44 *14*	1.1 *2*	1694.360	4⁺	[M1,E2]		0.040 *13*	α(K)=0.033 *12*; α(L)=0.0054 *9*; α(M)=0.00120 *18* α(N)=0.00028 *5*; α(O)=3.9×10^{-5} *8*; α(P)=1.93×10^{-6} *77*
		445.99[d] *6*	3.8[d] *3*	1650.874	4⁻,5⁻	[E1]		0.00665	α(K)=0.00565 *8*; α(L)=0.000782 *11*; α(M)=0.0001703 *24* α(N)=3.92×10^{-5} *6*; α(O)=5.64×10^{-6} *8*; α(P)=3.07×10^{-7} *5*
		658.7 *3*	1.2 *2*	1438.554	6⁺				
		688.37[d] *9*	0.16[d] *8*	1408.47	5⁻				
		698.1 *4*	0.9 *5*	1398.964	3⁻				
		710.5 *3*	1.3 *5*	1386.458	4⁻				
		808.22 *4*	4.56 *23*	1288.665	5⁺				

$^{160}_{66}Dy_{94}$-31

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
2096.889	4+	810.10 *12*	0.97 *19*	1286.713	3−				
		941.1 *1*	30 *3*	1155.841	4+	E2+M1	+9[@] *+13−3*	0.00349 *7*	α(K)=0.00292 *6*; α(L)=0.000440 *8*; α(M)=9.70×10^{-5} *17* α(N)=2.23×10^{-5} *4*; α(O)=3.21×10^{-6} *6*; α(P)=1.69×10^{-7} *4*
		1047.76 *3*	72 *1*	1049.1018	3+	E2+M1	−2.81[@] *+24−26*	0.00299 *6*	α(K)=0.00252 *5*; α(L)=0.000367 *7*; α(M)=8.05×10^{-5} *15* α(N)=1.86×10^{-5} *4*; α(O)=2.69×10^{-6} *5*; α(P)=1.47×10^{-7} *3*
		1130.71 *2*	100 *3*	966.1687	2+	E2		0.00237	α(K)=0.00200 *3*; α(L)=0.000290 *4*; α(M)=6.36×10^{-5} *9* α(N)=1.466×10^{-5} *21*; α(O)=2.12×10^{-6} *3*; α(P)=1.154×10^{-7} *17*; α(IPF)=8.56×10^{-7} *12*
		1813.1 *2*	0.8 *3*	283.8219	4+				
		2009.6[d] *3*	0.47[d] *16*	86.7877	2+				
2112.42	8−	90.8 *2*	100 *30*	2021.64	9+				
		324.98[d] *20*	40[d] *20*	1787.79	6−				
		495.4	50 *20*	1617.27	7+				
		498.4 *3*	60 *30*	1613.98	7−				
2113.69		329.0 *1*	100 *17*	1784.688	4−				
		1532.6 *3*	12 *4*	581.066	6+				
2126.37	3−	776.8[d] *4*	6[d] *3*	1349.758	2+				
		840.62 *24*	22 *5*	1285.604	1−				
		970.9 *3*	40 *4*	1155.841	4+				
		1077.25 *6*	100 *11*	1049.1018	3+				
		1160.2 *3*	92 *14*	966.1687	2+				
		1842.9 *2*	13 *2*	283.8219	4+				
		2039.7 *2*	10 *2*	86.7877	2+				
2130.579	3−	477.2 *3*	7 *3*	1653.66					
		479.5 *3*	7 *3*	1650.874	4−,5−	[E2]		0.01691	α(K)=0.01356 *20*; α(L)=0.00261 *4*; α(M)=0.000589 *9* α(N)=0.0001346 *19*; α(O)=1.85×10^{-5} *3*; α(P)=7.56×10^{-7} *11*
		487.0 *3*	13 *4*	1643.27	3−	[M1,E2]		0.0240 *78*	α(K)=0.0200 *70*; α(L)=0.0032 *7*; α(M)=0.00070 *14* α(N)=0.00016 *4*; α(O)=2.3×10^{-5} *6*; α(P)=1.19×10^{-6} *46*
		595.32[d] *10*	13[d] *4*	1535.150	4−	[M1,E2]		0.0144 *47*	α(K)=0.0121 *41*; α(L)=0.0018 *5*; α(M)=0.00040 *10* α(N)=9.3×10^{-5} *22*; α(O)=1.34×10^{-5} *35*; α(P)=7.2×10^{-7} *27*
		641.1 *1*	28 *7*	1489.500	1−	(E2)		0.00816	α(K)=0.00670 *10*; α(L)=0.001135 *16*; α(M)=0.000253 *4* α(N)=5.81×10^{-5} *9*; α(O)=8.16×10^{-6} *12*; α(P)=3.82×10^{-7} *6*
		772.02 *20*	22 *4*	1358.670	2−				

$^{160}_{66}Dy_{94}$-32

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	α[a]	Comments
2130.579	3⁻	843.95 *7*	56 *7*	1286.713	3⁻	(E2)	0.00436	α(K)=0.00364 *5*; α(L)=0.000564 *8*; α(M)=0.0001247 *18* α(N)=2.87×10^{-5} *4*; α(O)=4.10×10^{-6} *6*; α(P)=2.10×10^{-7} *3*
		865.82 *6*	32.8 *29*	1264.7472	2⁻			
		1081.50 *13*	22 *6*	1049.1018	3⁺	E1	1.08×10^{-3}	α(K)=0.000924 *13*; α(L)=0.0001222 *18*; α(M)=2.65×10^{-5} *4* α(N)=6.11×10^{-6} *9*; α(O)=8.94×10^{-7} *13*; α(P)=5.16×10^{-8} *8*
		1164.35 *4*	100 *4*	966.1687	2⁺	E1	9.56×10^{-4}	α(K)=0.000809 *12*; α(L)=0.0001066 *15*; α(M)=2.31×10^{-5} *4* α(N)=5.33×10^{-6} *8*; α(O)=7.81×10^{-7} *11*; α(P)=4.52×10^{-8} *7*; α(IPF)=1.154×10^{-5} *17*
		1846.9[d] *2*	6[d] *3*	283.8219	4⁺			
		2043.87[d] *5*	46[d] *7*	86.7877	2⁺	E1	9.66×10^{-4}	α(K)=0.000313 *5*; α(L)=4.06×10^{-5} *6*; α(M)=8.77×10^{-6} *13* α(N)=2.03×10^{-6} *3*; α(O)=2.98×10^{-7} *5*; α(P)=1.759×10^{-8} *25*; α(IPF)=0.000601 *9*
2138.20	2⁺	443.91 *16*	11 *3*	1694.360	4⁺	[E2]	0.0208	α(K)=0.01653 *24*; α(L)=0.00332 *5*; α(M)=0.000750 *11* α(N)=0.0001713 *24*; α(O)=2.34×10^{-5} *4*; α(P)=9.14×10^{-7} *13*
		484.62 *9*	6 *2*	1653.66				
		851.3 *2*	11 *5*	1286.713	3⁻			
		982.33[d] *17*	4[d] *2*	1155.841	4⁺			
		1171.97[d] *6*	33[d] *8*	966.1687	2⁺			
		2051.42 *5*	100 *3*	86.7877	2⁺	E2,M1	0.00121 *15*	α(K)=0.00074 *10*; α(L)=0.000101 *13*; α(M)=2.2×10^{-5} *3* α(N)=5.1×10^{-6} *7*; α(O)=7.4×10^{-7} *10*; α(P)=4.4×10^{-8} *7*; α(IPF)=0.00034 *3*
		2138.2 *2*	24 *12*	0.0	0⁺	E2	1.06×10^{-3}	α(K)=0.000602 *9*; α(L)=8.10×10^{-5} *12*; α(M)=1.762×10^{-5} *25* α(N)=4.07×10^{-6} *6*; α(O)=5.97×10^{-7} *9*; α(P)=3.47×10^{-8} *5*; α(IPF)=0.000350 *5*
2140.15	(3)	984.65[d] *20*	8[d] *4*	1155.841	4⁺			
		1091.1 *3*	72 *10*	1049.1018	3⁺			
		1173.95[d] *5*	100[d] *20*	966.1687	2⁺			
		1856.38 *5*	46 *4*	283.8219	4⁺			
2141.67	2⁺,3,4⁺	1857.9 *2*	65 *11*	283.8219	4⁺			
		2054.8 *2*	100 *17*	86.7877	2⁺			
2143.73	4⁻	449.5 *3*	13 *4*	1694.360	4⁺			
		855.0 *2*	46 *14*	1288.665	5⁺	E1	1.68×10^{-3}	α(K)=0.001436 *21*; α(L)=0.000192 *3*; α(M)=4.17×10^{-5} *6* α(N)=9.61×10^{-6} *14*; α(O)=1.401×10^{-6} *20*; α(P)=7.99×10^{-8} *12*
		987.91[d] *11*	100[d] *14*	1155.841	4⁺			
		1094.6 *1*	46 *11*	1049.1018	3⁺			
2144.56?		2057.76[e] *5*	100	86.7877	2⁺			
2149.84	1,2	2063.1 *4*	100 *45*	86.7877	2⁺			
		2149.82 *13*	33 *9*	0.0	0⁺			
2155.33		1871.5 *2*	100	283.8219	4⁺			
2165.41		1116.3 *1*	100	1049.1018	3⁺			
2175.3		1208.5	100	966.83	8⁺			

$^{160}_{66}Dy_{94}$-33

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	α[a]	Comments
2187.00	4$^+$,5$^+$,6$^+$	580.2 *1*	9.5 *18*	1606.84	6$^+$			
		748.4 *1*	50 *14*	1438.554	6$^+$			
		1606.0 *3*	100 *18*	581.066	6$^+$	E2	1.31×10^{-3}	α(K)=0.001018 *15*; α(L)=0.0001406 *20*; α(M)=3.07×10^{-5} *5* α(N)=7.08×10^{-6} *10*; α(O)=1.034×10^{-6} *15*; α(P)=5.88×10^{-8} *9*; α(IPF)=0.0001112 *16*
		1903.17 *9*	24 *2*	283.8219	4$^+$			
2191.03		1907.20 *7*	100	283.8219	4$^+$			
2194.43	5$^+$	406.7 *3*	19 *4*	1787.79	6$^-$	E1	0.00824	α(K)=0.00700 *10*; α(L)=0.000972 *14*; α(M)=0.000212 *3* α(N)=4.87×10^{-5} *7*; α(O)=7.01×10^{-6} *10*; α(P)=3.77×10^{-7} *6*
		755.6 *3*	4 *1*	1438.554	6$^+$			
		905.76 *16*	78 *6*	1288.665	5$^+$	(E2)	0.00375	α(K)=0.00314 *5*; α(L)=0.000477 *7*; α(M)=0.0001053 *15* α(N)=2.42×10^{-5} *4*; α(O)=3.47×10^{-6} *5*; α(P)=1.81×10^{-7} *3*
		1038.59 *4*	100 *7*	1155.841	4$^+$	E2	0.00281	α(K)=0.00237 *4*; α(L)=0.000349 *5*; α(M)=7.68×10^{-5} *11* α(N)=1.769×10^{-5} *25*; α(O)=2.55×10^{-6} *4*; α(P)=1.367×10^{-7} *20*
		1145.33 *4*	81 *3*	1049.1018	3$^+$	E2	0.00231	α(K)=0.00195 *3*; α(L)=0.000282 *4*; α(M)=6.18×10^{-5} *9* α(N)=1.426×10^{-5} *20*; α(O)=2.06×10^{-6} *3*; α(P)=1.125×10^{-7} *16*; α(IPF)=1.368×10^{-6} *20*
		1910.58 *6*	11.8 *13*	283.8219	4$^+$			
2200.82	2$^+$,3,4$^+$	1916.95 *13*	100 *12*	283.8219	4$^+$			
		2114.02 *4*	97 *13*	86.7877	2$^+$			
2208.36	4$^+$	1052.63 *8*	45 *5*	1155.841	4$^+$			
		1159.1 *3*	90 *17*	1049.1018	3$^+$	E2	0.00225	α(K)=0.00190 *3*; α(L)=0.000275 *4*; α(M)=6.02×10^{-5} *9* α(N)=1.389×10^{-5} *20*; α(O)=2.01×10^{-6} *3*; α(P)=1.099×10^{-7} *16*; α(IPF)=2.04×10^{-6} *4*
		1241.9 *3*	100 *10*	966.1687	2$^+$	E2	0.00197	α(K)=0.001661 *24*; α(L)=0.000237 *4*; α(M)=5.20×10^{-5} *8* α(N)=1.198×10^{-5} *17*; α(O)=1.739×10^{-6} *25*; α(P)=9.60×10^{-8} *14*; α(IPF)=1.043×10^{-5} *16*
2208.79	(2)$^-$	2122.0 *1*	100	86.7877	2$^+$			
2221.48	10$^+$	421.6[&] *1*	90 *10*	1800.35	8$^+$	E2	0.0239	α(K)=0.0189 *3*; α(L)=0.00391 *6*; α(M)=0.000886 *13* α(N)=0.000202 *3*; α(O)=2.75×10^{-5} *4*; α(P)=1.039×10^{-6} *15* Mult.: from (α,2nγ).
		793.8 *1*	100 *10*	1427.89	10$^+$	E2+M1	0.0072 *22*	α(K)=0.0060 *19*; α(L)=8.8×10^{-4} *23*; α(M)=0.00019 *5* α(N)=4.5×10^{-5} *12*; α(O)=6.5×10^{-6} *18*; α(P)=3.6×10^{-7} *12*
		1251.1[&] *2*	<50	966.83	8$^+$			E_γ: see the comment on this γ in the (^{7}Li,p4nγ) data set.
2230.52	2$^+$	1946.3 *3*	14 *3*	283.8219	4$^+$			
		2143.8 *2*	42 *9*	86.7877	2$^+$			
		2230.52 *8*	100 *9*	0.0	0$^+$			
2241.95	10$^-$	220	9 *4*	2021.64	9$^+$	[E1]	0.0379	α(K)=0.0320 *5*; α(L)=0.00461 *7*; α(M)=0.001008 *15* α(N)=0.000231 *4*; α(O)=3.26×10^{-5} *5*; α(P)=1.638×10^{-6} *23* E_γ: from 1987Ri08, (α,2nγ). See the comments on the 181 γ for the proposed γ deexcitation of the even-spin members of the K^π=2$^-$ to the γ-vibrational band.

$^{160}_{66}Dy_{94}$-34

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
									I_γ: computed from I(γ+ce)(220γ)/I(γ+ce)(360.0γ) from (α,2nγ) and Iγ(359.8γ). Note that if there is a significant M2 admixture in this γ, α will be somewhat larger and the deduced Iγ will be smaller. α: computed assuming mult=E1.
2241.95	10^-	341.2 *2*	<11	1900.87	9^-				
		359.8 *1*	100 *5*	1882.31	8^-				
		813.9 *1*	14 *2*	1427.89	10^+				
2244.93	2^+,3,4^+	1960.9 *3*	68 *14*	283.8219	4^+				
		2158.28 *15*	100 *18*	86.7877	2^+				
2255.67	1^+,2^+	737.5 *5*	13 *4*	1518.419	2^+				
		2168.87 *6*	100 *17*	86.7877	2^+	E2,M1		0.00118 *13*	α(K)=0.00066 *8*; α(L)=8.9×10^{-5} *11*; α(M)=1.95×10^{-5} *24* α(N)=4.5×10^{-6} *6*; α(O)=6.6×10^{-7} *9*; α(P)=3.9×10^{-8} *6*; α(IPF)=0.00040 *4*
		2255.2 *5*	10 *5*	0.0	0^+				
2263.99	9^-	365.3 *2*	<71	1898.23	7^-				
		1297.1[&] *2*	100 *14*	966.83	8^+				
2264.23	11^-	363.4 *1*	17 *2*	1900.87	9^-				E_γ,I_γ: from 2002Ju08, (^{7}Li,p4nγ).
		836.3 *1*	100 *5*	1427.89	10^+				
2265.0	(10^+)	836.3[e] *1*	50 *8*	1427.89	10^+				I_γ: computed from the I(γ+ce) value of 1987Ri08, (α,2nγ).
		1298.2	100 *15*	966.83	8^+				I_γ: computed from the I(γ+ce) value of 1987Ri08 in (α,2nγ).
2266.98	3^-	1983.15 *4*	100 *3*	283.8219	4^+	E1		9.41×10^{-4}	α(K)=0.000329 *5*; α(L)=4.26×10^{-5} *6*; α(M)=9.21×10^{-6} *13* α(N)=2.13×10^{-6} *3*; α(O)=3.13×10^{-7} *5*; α(P)=1.85×10^{-8} *3*; α(IPF)=0.000558 *8*
		2180.2 *2*	91 *6*	86.7877	2^+	E1		1.02×10^{-3}	α(K)=0.000283 *4*; α(L)=3.66×10^{-5} *6*; α(M)=7.91×10^{-6} *11* α(N)=1.83×10^{-6} *3*; α(O)=2.69×10^{-7} *4*; α(P)=1.589×10^{-8} *23*; α(IPF)=0.000695 *10*
2271.246	2^-	781.86 *10*	7.9 *6*	1489.500	1^-				
		912.58[d] *22*	2.7[d] *9*	1358.670	2^-				
		921.50[d] *16*	3.6[d] *12*	1349.758	2^+				
		984.65[d] *20*	0.9[d] *3*	1286.713	3^-				
		1006.4 *3*	3 *1*	1264.7472	2^-				
		1305.18[d] *5*	15[d] *3*	966.1687	2^+	E1		8.44×10^{-4}	α(K)=0.000661 *10*; α(L)=8.67×10^{-5} *13*; α(M)=1.88×10^{-5} *3* α(N)=4.34×10^{-6} *6*; α(O)=6.36×10^{-7} *9*; α(P)=3.70×10^{-8} *6*; α(IPF)=7.25×10^{-5} *11*

$^{160}_{66}Dy_{94}$-35

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
2271.246	2−	2184.43 *4*	100 *3*	86.7877	2+	E1(+M2)	−0.09 *10*	0.00103 *4*	α(K)=0.00029 *4*; α(L)=3.8×10^{-5} *5*; α(M)=8.2×10^{-6} *11* α(N)=1.9×10^{-6} *3*; α(O)=2.8×10^{-7} *4*; α(P)=1.65×10^{-8} *22*; α(IPF)=0.000694 *16* δ: from ^{160}Ho ε decay.
2279.06		1995.22 *10*	100	283.8219	4+				
2287.8	8−	486.0	27 *4*	1802.224	5+				I_γ: the listed value is the undivided intensity from the in-beam studies. It is not possible at present to provide an accurate split of this intensity between the two proposed placements (see the comment on the 486 γ in the "in-beam" data set.).
		670.2	100 *15*	1617.27	7+	E1		0.00274	α(K)=0.00233 *4*; α(L)=0.000316 *5*; α(M)=6.86×10^{-5} *10* α(N)=1.581×10^{-5} *23*; α(O)=2.30×10^{-6} *4*; α(P)=1.289×10^{-7} *18*
		1321	60 *9*	966.83	8+				
2297.48	2+	171.1 *2*	4.8 *7*	2126.37	3−	[E1]		0.0734	α(K)=0.0619 *9*; α(L)=0.00907 *13*; α(M)=0.00198 *3* α(N)=0.000453 *7*; α(O)=6.34×10^{-5} *9*; α(P)=3.07×10^{-6} *5*
		212.8 *1*	2.0 *5*	2084.809	1+,2+	[M1,E2]		0.24 *5*	α(K)=0.187 *55*; α(L)=0.041 *6*; α(M)=0.0093 *17* α(N)=0.0021 *4*; α(O)=0.00029 *3*; α(P)=1.07×10^{-5} *43*
		394.5 *4*	7 *4*	1903.204	3+	[M1,E2]		0.042 *13*	α(K)=0.034 *12*; α(L)=0.0057 *9*; α(M)=0.00128 *18* α(N)=0.00029 *5*; α(O)=4.2×10^{-5} *8*; α(P)=2.04×10^{-6} *81*
		1010.8 *2*	5.9 *12*	1286.713	3−				
		1032.84[d] *7*	4[d] *1*	1264.7472	2−				
		1248.26 *5*	20 *2*	1049.1018	3+				
		1331.21 *14*	100 *12*	966.1687	2+	E2		1.74×10^{-3}	α(K)=0.001452 *21*; α(L)=0.000205 *3*; α(M)=4.49×10^{-5} *7* α(N)=1.036×10^{-5} *15*; α(O)=1.506×10^{-6} *21*; α(P)=8.39×10^{-8} *12*; α(IPF)=2.56×10^{-5} *4*
		2210.8 *2*	7 *1*	86.7877	2+				
		2297.6 *4*	4.3 *15*	0.0	0+				
2309.90	2+,3,4+	791.5 *2*	100 *25*	1518.419	2+				
		951.3 *3*	19 *2*	1358.670	2−				
		1260.82 *20*	40 *8*	1049.1018	3+				
		2026.0 *2*	13 *2*	283.8219	4+				
		2223.1 *3*	22 *3*	86.7877	2+				
2323.08	1+,2+	370.7 *3*	4 *2*	1952.31	0+	[M1,E2]		0.049 *15*	α(K)=0.041 *14*; α(L)=0.0069 *10*; α(M)=0.00154 *18* α(N)=0.00035 *5*; α(O)=5.0×10^{-5} *9*; α(P)=2.40×10^{-6} *96*

$^{160}_{66}Dy_{94}$-36

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.†	α[a]	Comments
2323.08	1+,2+	1058.25 *4*	59 *3*	1264.7472	2−			
		1274.25 *12*	100 *6*	1049.1018	3+	E2	0.00188	α(K)=0.001580 *23*; α(L)=0.000225 *4*; α(M)=4.92×10^{-5} *7* α(N)=1.135×10^{-5} *16*; α(O)=1.648×10^{-6} *23*; α(P)=9.13×10^{-8} *13*; α(IPF)=1.520×10^{-5} *22*
		1357.01 *5*	86 *6*	966.1687	2+	(E2)	1.68×10^{-3}	α(K)=0.001399 *20*; α(L)=0.000197 *3*; α(M)=4.31×10^{-5} *6* α(N)=9.95×10^{-6} *14*; α(O)=1.448×10^{-6} *21*; α(P)=8.09×10^{-8} *12*; α(IPF)=3.15×10^{-5} *5*
		2236.21 *8*	70 *10*	86.7877	2+	E2	1.05×10^{-3}	α(K)=0.000555 *8*; α(L)=7.45×10^{-5} *11*; α(M)=1.619×10^{-5} *23* α(N)=3.74×10^{-6} *6*; α(O)=5.49×10^{-7} *8*; α(P)=3.20×10^{-8} *5*; α(IPF)=0.000397 *6*
2325.24	1+,2+	2325.22 *9*	100	0.0	0+	E2,M1	0.00115 *11*	α(K)=0.00058 *6*; α(L)=7.7×10^{-5} *9*; α(M)=1.68×10^{-5} *18* α(N)=3.9×10^{-6} *5*; α(O)=5.7×10^{-7} *7*; α(P)=3.4×10^{-8} *4*; α(IPF)=0.00048 *5*
2327.70	2+	1361.7 *5*	32 *19*	966.1687	2+			
		2043.87[d] *5*	44[d] *13*	283.8219	4+			
		2240.89 *7*	100 *9*	86.7877	2+	E2	1.05×10^{-3}	α(K)=0.000553 *8*; α(L)=7.42×10^{-5} *11*; α(M)=1.613×10^{-5} *23* α(N)=3.73×10^{-6} *6*; α(O)=5.47×10^{-7} *8*; α(P)=3.19×10^{-8} *5*; α(IPF)=0.000399 *6*
		2327.4 *4*	25 *8*	0.0	0+			
2354.625	2+	955.62 *6*	20 *4*	1398.964	3−			
		995.9 *3*	11 *4*	1358.670	2−			
		1004.86[d] *2*	13[d] *6*	1349.758	2+			
		1067.9 *1*	44 *5*	1286.713	3−			
		1069.04[d] *3*	25[d] *6*	1285.604	1−			
		1089.63 *15*	100 *8*	1264.7472	2−	E1	1.07×10^{-3}	α(K)=0.000911 *13*; α(L)=0.0001205 *17*; α(M)=2.61×10^{-5} *4* α(N)=6.03×10^{-6} *9*; α(O)=8.82×10^{-7} *13*; α(P)=5.09×10^{-8} *8*
		1198.84[d] *4*	38[d] *13*	1155.841	4+			
		1388.0[d] *4*	6[d] *3*	966.1687	2+			
		2267.73 *8*	31.8 *15*	86.7877	2+	E0+M1+E2		α(exp)=0.0028 *12* α: calculated by evaluator in ε decay.
		2354.54 *7*	29 *3*	0.0	0+	E2	1.05×10^{-3}	α(K)=0.000506 *7*; α(L)=6.77×10^{-5} *10*; α(M)=1.471×10^{-5} *21* α(N)=3.40×10^{-6} *5*; α(O)=4.99×10^{-7} *7*; α(P)=2.92×10^{-8} *4*; α(IPF)=0.000453 *7* Mult.: 2002Ad34 report mult=M1,E2. Placement requires E2.
2367.46	2+,3+,4+	122.53[d] *2*	8[d] *2*	2244.93	2+,3,4+	(M1)	1.340	α(K)=1.128 *16*; α(L)=0.1656 *24*; α(M)=0.0364 *5*

$^{160}_{66}Dy_{94}$-37

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	α[a]	Comments
								α(N)=0.00841 *12*; α(O)=0.001231 *18*; α(P)=7.03×10^{-5} *10*
2367.46	2$^+$,3$^+$,4$^+$	270.65 *5*	3.7 *3*	2096.889	4$^+$			
		673.09 *7*	30 *3*	1694.360	4$^+$			
		1211.71 *6*	32 *2*	1155.841	4$^+$			
		1318.21[d] *5*	56[d] *11*	1049.1018	3$^+$	E2	1.77×10^{-3}	α(K)=0.001479 *21*; α(L)=0.000209 *3*; α(M)=4.58×10^{-5} *7* α(N)=1.057×10^{-5} *15*; α(O)=1.536×10^{-6} *22*; α(P)=8.55×10^{-8} *12*; α(IPF)=2.30×10^{-5} *4*
		1401.2 *1*	100 *33*	966.1687	2$^+$	E2	1.59×10^{-3}	α(K)=0.001316 *19*; α(L)=0.000185 *3*; α(M)=4.04×10^{-5} *6* α(N)=9.32×10^{-6} *13*; α(O)=1.356×10^{-6} *19*; α(P)=7.61×10^{-8} *11*; α(IPF)=4.29×10^{-5} *6*
2372.305	6$^-$	570.21 *13*	19 *2*	1802.224	5$^+$			
		755.1 *3*	5 *3*	1617.27	7$^+$			
		758.31[d] *3*	15[d] *5*	1613.98	7$^-$			
		933.8 *1*	20 *5*	1438.554	6$^+$			
		963.9 *1*	100 *25*	1408.47	5$^-$			
		986.15[d] *11*	5[d] *3*	1386.458	4$^-$			
		1083.70 *5*	90 *13*	1288.665	5$^+$	E1	1.08×10^{-3}	α(K)=0.000921 *13*; α(L)=0.0001217 *17*; α(M)=2.64×10^{-5} *4* α(N)=6.09×10^{-6} *9*; α(O)=8.91×10^{-7} *13*; α(P)=5.14×10^{-8} *8*
2374.50		975.40[d] *9*	33[d] *16*	1398.964	3$^-$			
		2090.71 *5*	100 *8*	283.8219	4$^+$			
2383.69	6$^-$	454.7 *3*	3 *2*	1929.176	6$^+$			
		766.4 *1*	9 *2*	1617.27	7$^+$			
		776.8[d] *4*	1.3[d] *6*	1606.84	6$^+$			
		975.40[d] *9*	6.2[d] *12*	1408.47	5$^-$			
		1095.01[d] *3*	100[d] *19*	1288.665	5$^+$	(E1)	1.06×10^{-3}	α(K)=0.000903 *13*; α(L)=0.0001194 *17*; α(M)=2.59×10^{-5} *4* α(N)=5.97×10^{-6} *9*; α(O)=8.74×10^{-7} *13*; α(P)=5.05×10^{-8} *7*
2386.88	2$^+$,3$^+$	987.91[d] *11*	8[d] *3*	1398.964	3$^-$			
		1028.26[d] *5*	10[d] *5*	1358.670	2$^-$			
		1100.14 *8*	24 *5*	1286.713	3$^-$			
		1122.10 *4*	100 *3*	1264.7472	2$^-$	E1	1.01×10^{-3}	α(K)=0.000864 *12*; α(L)=0.0001141 *16*; α(M)=2.47×10^{-5} *4* α(N)=5.71×10^{-6} *8*; α(O)=8.35×10^{-7} *12*; α(P)=4.83×10^{-8} *7*; α(IPF)=3.60×10^{-6} *5*
		2299.8 *4*	4.3 *12*	86.7877	2$^+$			
2393.54	2,3$^-$	994.76 *13*	100 *13*	1398.964	3$^-$			
		1106.5 *3*	38 *13*	1286.713	3$^-$			
		1107.6 *3*	40 *13*	1285.604	1$^-$			
		1128.7 *1*	20 *5*	1264.7472	2$^-$			
		1344.4 *1*	25 *13*	1049.1018	3$^+$			
		2109.80 *13*	16 *5*	283.8219	4$^+$			
		2307.0 *3*	13 *3*	86.7877	2$^+$			

$^{160}_{66}Dy_{94}$-38

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
2396.92	1,2	2310.1 *5*	100 *25*	86.7877	2^+				
		2396.90 *22*	92 *21*	0.0	0^+				
2450.25	1^-	580.83 *20*	11 *4*	1869.513	2^+				
		2363.1[d] *4*	50[d] *13*	86.7877	2^+				
		2450.25 *6*	100 *25*	0.0	0^+	E1		1.14×10^{-3}	α(K)=0.000236 *4*; α(L)=3.04×10^{-5} *5*; α(M)=6.57×10^{-6} *10* α(N)=1.518×10^{-6} *22*; α(O)=2.23×10^{-7} *4*; α(P)=1.325×10^{-8} *19*; α(IPF)=0.000870 *13*
2469.51	3^-	372.47[&] *4*	100 *2*	2096.889	4^+	E1		0.01014	α(K)=0.00861 *12*; α(L)=0.001202 *17*; α(M)=0.000262 *4* α(N)=6.02×10^{-5} *9*; α(O)=8.64×10^{-6} *13*; α(P)=4.62×10^{-7} *7*
		600.2 *1*	15 *6*	1869.513	2^+				
		665.3[d] *5*	30[d] *9*	1804.669	1^+	[M2]		0.0409	α(K)=0.0340 *5*; α(L)=0.00535 *8*; α(M)=0.001187 *17* α(N)=0.000275 *4*; α(O)=4.01×10^{-5} *6*; α(P)=2.26×10^{-6} *4*
		814.57 *5*	87 *3*	1654.99	$2^+,3^+,4^+$				
		816.04 *7*	62 *3*	1653.66					
		934.4[d] *3*	12[d] *6*	1535.150	4^-				
		1111.11[d] *18*	39[d] *12*	1358.670	2^-				
2474.97	$2^+,3,4^+$	2191.17 *10*	100 *12*	283.8219	4^+				
		2387.90 *25*	49 *11*	86.7877	2^+				
2485.64	11^+	464.3 *1*	100 *5*	2021.64	9^+	E2		0.0184	α(K)=0.01472 *21*; α(L)=0.00288 *4*; α(M)=0.000651 *10* α(N)=0.0001487 *21*; α(O)=2.04×10^{-5} *3*; α(P)=8.18×10^{-7} *12* Mult.: from 1987Ri08, (α,2nγ).
		534.7[&] *2*	<14	1950.17	12^+				
		1058.1 *2*	51 *3*	1427.89	10^+	E2+M1	>0.0	0.00367 *97*	α(K)=0.00311 *83*; α(L)=0.00044 *11*; α(M)=9.6×10^{-5} *23* α(N)=2.2×10^{-5} *6*; α(O)=3.2×10^{-6} *8*; α(P)=1.85×10^{-7} *53* Mult.: from 1987Ri08, (α,2nγ).
2503.80	$1^+,2^+$	634.2 *1*	52 *34*	1869.513	2^+				
		2417.2 *2*	100 *9*	86.7877	2^+	M1		1.25×10^{-3}	α(K)=0.000581 *9*; α(L)=7.82×10^{-5} *11*; α(M)=1.701×10^{-5} *24* α(N)=3.94×10^{-6} *6*; α(O)=5.80×10^{-7} *9*; α(P)=3.45×10^{-8} *5*; α(IPF)=0.000572 *8*
2513.36	14^+	563.5 *3*	100	1950.17	12^+	E2		0.01117	α(K)=0.00909 *13*; α(L)=0.001622 *23*; α(M)=0.000363 *6* α(N)=8.33×10^{-5} *12*; α(O)=1.160×10^{-5} *17*;

$^{160}_{66}Dy_{94}$-39

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	α[a]	Comments
								α(P)=5.14×10^{-7} *8* B(E2)(W.u.)=3.1×10^{2} *+8−3* E_γ,Mult.: from (α,2nγ).
2520.17	10$^-$	278.2 *2* 408.1 *2*	<100 <100	2241.95 2112.42	10$^-$ 8$^-$	E2	0.0262	α(K)=0.0206 *3*; α(L)=0.00434 *7*; α(M)=0.000985 *14* α(N)=0.000225 *4*; α(O)=3.05×10^{-5} *5*; α(P)=1.128×10^{-6} *16* Mult.: from 1987Ri08 (α,2nγ).
2523.8	3$^+$	2240 2437		283.8219 86.7877	4$^+$ 2$^+$			
2553.5		1504.4[d] *3*	100[d]	1049.1018	3$^+$			
2556.72	3$^-$,4$^-$,5$^-$	416.56 *6* 459.9 *1* 862.30 *12*	33.4 *23* 100 *14* 54 *6*	2140.15 2096.889 1694.360	(3) 4$^+$ 4$^+$	E1	0.00620	α(K)=0.00527 *8*; α(L)=0.000728 *11*; α(M)=0.0001585 *23* α(N)=3.65×10^{-5} *6*; α(O)=5.26×10^{-6} *8*; α(P)=2.86×10^{-7} *4*
2560.02	2$^+$,3,4$^+$	2276.17 *10* 2473.3[d] *2*	100 *4* 61[d] *15*	283.8219 86.7877	4$^+$ 2$^+$			
2572.4	3$^+$,4$^+$,5$^+$	2288.6 *3*	100	283.8219	4$^+$	M1	1.27×10^{-3}	α(K)=0.000656 *10*; α(L)=8.85×10^{-5} *13*; α(M)=1.93×10^{-5} *3* α(N)=4.45×10^{-6} *7*; α(O)=6.57×10^{-7} *10*; α(P)=3.90×10^{-8} *6*; α(IPF)=0.000500 *7*
2574.37	1$^-$,2$^-$,3$^-$	506.29 *19*	100	2068.08	1$^-$	M1,E2	0.0217 *71*	α(K)=0.0181 *63*; α(L)=0.0028 *7*; α(M)=0.00063 *13* α(N)=0.00014 *3*; α(O)=2.1×10^{-5} *5*; α(P)=1.08×10^{-6} *42*
2593.64	12$^+$	645.6[&] *2* 1164.1[&] *2*	<100 100 *20*	1950.17 1427.89	12$^+$ 10$^+$			E_γ: see the comment on this γ in the (^{7}Li,4pγ) data set.
2602.67	1$^-$,2$^-$	699.9[d] *4* 797.82 *18* 1316.04[d] *8* 1337.8[d] *2* 1636.41 *9* 2515.86 *5* 2602.65 *6*	10[d] *5* 21 *4* 48[d] *24* 95[d] *24* 42 *2* 100 *10* 36 *3*	1903.204 1804.669 1286.713 1264.7472 966.1687 86.7877 0.0	3$^+$ 1$^+$ 3$^-$ 2$^-$ 2$^+$ 2$^+$ 0$^+$	E2	1.72×10^{-3}	α(K)=0.001438 *21*; α(L)=0.000203 *3*; α(M)=4.44×10^{-5} *7* α(N)=1.025×10^{-5} *15*; α(O)=1.490×10^{-6} *21*; α(P)=8.31×10^{-8} *12*; α(IPF)=2.71×10^{-5} *4*
2605.77	2$^+$,3$^+$,4$^+$	1639.1 *5* 2321.94 *8*	20 *10* 100 *10*	966.1687 283.8219	2$^+$ 4$^+$	E2,M1	0.00115 *11*	α(K)=0.00058 *6*; α(L)=7.8×10^{-5} *9*; α(M)=1.69×10^{-5} *18* α(N)=3.9×10^{-6} *5*; α(O)=5.7×10^{-7} *7*; α(P)=3.4×10^{-8} *4*; α(IPF)=0.00048 *5*
2610.01	2$^+$	2518.7[d] *9* 740.7 *3* 805.15[de] *12* 915.5[d] *4*	30[d] *10* 55 *12* 46[d] *19* 37[d] *19*	86.7877 1869.513 1804.669 1694.360	2$^+$ 2$^+$ 1$^+$ 4$^+$			

$^{160}_{66}Dy_{94}$-40

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	α[a]	Comments
2610.01	2+	1454.2[d] *3*	56[d] *19*	1155.841	4+			
		1560.94 *15*	100 *5*	1049.1018	3+	E2	1.36×10^{-3}	α(K)=0.001074 *15*; α(L)=0.0001487 *21*; α(M)=3.24×10^{-5} *5*; α(N)=7.49×10^{-6} *11*; α(O)=1.093×10^{-6} *16*; α(P)=6.20×10^{-8} *9*; α(IPF)=9.43×10^{-5} *14*
		1644.0 *4*	23 *5*	966.1687	2+			
		2523.0 *2*	45 *7*	86.7877	2+			
		2610.0[d] *3*	46[d] *19*	0.0	0+			
2630.24	(1,2)+	421.50 *8*	100 *9*	2208.79	(2)−	E1	0.00758	α(K)=0.00644 *9*; α(L)=0.000893 *13*; α(M)=0.000195 *3*; α(N)=4.47×10^{-5} *7*; α(O)=6.44×10^{-6} *9*; α(P)=3.48×10^{-7} *5*
		1140.71 *5*	67 *18*	1489.500	1−	E1	9.86×10^{-4}	α(K)=0.000839 *12*; α(L)=0.0001107 *16*; α(M)=2.40×10^{-5} *4*; α(N)=5.54×10^{-6} *8*; α(O)=8.10×10^{-7} *12*; α(P)=4.69×10^{-8} *7*; α(IPF)=6.29×10^{-6} *9*
2630.705	1−	333.16 *10*	2.52 *25*	2297.48	2+	E1	0.01328	α(K)=0.01126 *16*; α(L)=0.001582 *23*; α(M)=0.000345 *5*; α(N)=7.93×10^{-5} *12*; α(O)=1.134×10^{-5} *16*; α(P)=5.99×10^{-7} *9*
		359.46 *15*	0.95 *13*	2271.246	2−	M1,E2	0.054 *17*	α(K)=0.044 *15*; α(L)=0.0075 *10*; α(M)=0.00168 *18*; α(N)=0.00039 *5*; α(O)=5.5×10^{-5} *9*; α(P)=2.6×10^{-6} *11*
		492.50 *4*	11.2 *7*	2138.20	2+	E1	0.00531	α(K)=0.00452 *7*; α(L)=0.000621 *9*; α(M)=0.0001353 *19*; α(N)=3.11×10^{-5} *5*; α(O)=4.50×10^{-6} *7*; α(P)=2.46×10^{-7} *4*
		504.15[d] *20*	0.8[d] *3*	2126.37	3−	[E2]	0.01483	α(K)=0.01195 *17*; α(L)=0.00224 *4*; α(M)=0.000505 *7*; α(N)=0.0001155 *17*; α(O)=1.595×10^{-5} *23*; α(P)=6.69×10^{-7} *10*
		541.9[d] *3*	3.7[d] *3*	2088.85	1−,2−,3−	E2,M1	0.0183 *60*	α(K)=0.0152 *53*; α(L)=0.0024 *6*; α(M)=0.00052 *12*; α(N)=0.00012 *3*; α(O)=1.7×10^{-5} *5*; α(P)=9.1×10^{-7} *35*
		545.94 *4*	24.7 *15*	2084.809	1+,2+	E1	0.00423	α(K)=0.00360 *5*; α(L)=0.000493 *7*; α(M)=0.0001072 *15*; α(N)=2.47×10^{-5} *4*; α(O)=3.57×10^{-6} *5*; α(P)=1.97×10^{-7} *3*
		562.59 *15*	1.52 *18*	2068.08	1−	[M1,E2]	0.0166 *54*	α(K)=0.0139 *48*; α(L)=0.0021 *5*; α(M)=0.00047 *11*; α(N)=0.000108 *25*; α(O)=1.56×10^{-5} *40*; α(P)=8.3×10^{-7} *31*
		621.24 *5*	11.3 *2*	2009.531	1−,2−	E2	0.00880	α(K)=0.00721 *10*; α(L)=0.001236 *18*; α(M)=0.000276 *4*; α(N)=6.33×10^{-5} *9*; α(O)=8.88×10^{-6} *13*; α(P)=4.10×10^{-7} *6*
		678.30[d] *16*	0.7[d] *4*	1952.31	0+			
		761.23 *6*	28.0 *23*	1869.513	2+	E1	0.00211	α(K)=0.00180 *3*; α(L)=0.000242 *4*; α(M)=5.27×10^{-5} *8*; α(N)=1.214×10^{-5} *17*; α(O)=1.766×10^{-6} *25*; α(P)=1.000×10^{-7} *14*
		826.11[&] *2*	99 *3*	1804.669	1+	E1	0.00180	α(K)=0.001535 *22*; α(L)=0.000205 *3*; α(M)=4.46×10^{-5} *7*; α(N)=1.029×10^{-5} *15*; α(O)=1.499×10^{-6} *21*; α(P)=8.53×10^{-8} *12*
		873.88 *7*	42.3 *25*	1756.918	2+	E1	1.61×10^{-3}	α(K)=0.001377 *20*; α(L)=0.000184 *3*; α(M)=3.99×10^{-5} *6*; α(N)=9.20×10^{-6} *13*; α(O)=1.342×10^{-6} *19*; α(P)=7.66×10^{-8} *11*
		922.5 *4*	1.7 *5*	1708.14	0+			
		1112.33 *10*	18.3 *17*	1518.419	2+	E1	1.03×10^{-3}	α(K)=0.000878 *13*; α(L)=0.0001160 *17*; α(M)=2.51×10^{-5} *4*

$^{160}_{66}Dy_{94}$-41

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
									α(N)=5.80×10^{-6} *9*; α(O)=8.49×10^{-7} *12*; α(P)=4.91×10^{-8} *7*; α(IPF)=2.61×10^{-6} *4*
2630.705	1$^-$	1141.3 *1*	1.5 *3*	1489.500	1$^-$	E2		0.00232	α(K)=0.00196 *3*; α(L)=0.000284 *4*; α(M)=6.23×10^{-5} *9* α(N)=1.437×10^{-5} *21*; α(O)=2.08×10^{-6} *3*; α(P)=1.133×10^{-7} *16*; α(IPF)=1.208×10^{-6} *18*
		1173.95[d] *5*	27[d] *5*	1456.752	0$^+$	(E1)		9.45×10^{-4}	α(K)=0.000797 *12*; α(L)=0.0001050 *15*; α(M)=2.28×10^{-5} *4* α(N)=5.25×10^{-6} *8*; α(O)=7.69×10^{-7} *11*; α(P)=4.46×10^{-8} *7*; α(IPF)=1.432×10^{-5} *21*
		1271.89[d&] *2*	48[d] *8*	1358.670	2$^-$				
		1280.93 *3*	14.3 *5*	1349.758	2$^+$	(E1)		8.57×10^{-4}	α(K)=0.000683 *10*; α(L)=8.97×10^{-5} *13*; α(M)=1.94×10^{-5} *3* α(N)=4.49×10^{-6} *7*; α(O)=6.57×10^{-7} *10*; α(P)=3.82×10^{-8} *6*; α(IPF)=6.02×10^{-5} *9*
		1345.08[d] *4*	22[d] *2*	1285.604	1$^-$	E2		1.71×10^{-3}	α(K)=0.001423 *20*; α(L)=0.000201 *3*; α(M)=4.39×10^{-5} *7* α(N)=1.013×10^{-5} *15*; α(O)=1.474×10^{-6} *21*; α(P)=8.22×10^{-8} *12*; α(IPF)=2.87×10^{-5} *4*
		1350.8 *1*	2.8 *5*	1279.942	0$^+$				
		1366.06 *5*	10.2 *8*	1264.7472	2$^-$				
		1664.55 *3*	32.0 *13*	966.1687	2$^+$	E1		8.33×10^{-4}	α(K)=0.000437 *7*; α(L)=5.70×10^{-5} *8*; α(M)=1.233×10^{-5} *18* α(N)=2.85×10^{-6} *4*; α(O)=4.18×10^{-7} *6*; α(P)=2.45×10^{-8} *4*; α(IPF)=0.000323 *5*
		2543.95 *5*	100 *5*	86.7877	2$^+$	E1(+M2)	+0.03 *9*	1.19×10^{-3} *2*	α(K)=0.000223 *13*; α(L)=2.88×10^{-5} *18*; α(M)=6.2×10^{-6} *4* α(N)=1.44×10^{-6} *9*; α(O)=2.12×10^{-7} *13*; α(P)=1.26×10^{-8} *8*; α(IPF)=0.000926 *15*
		2630.6[d] *3*	25[d] *5*	0.0	0$^+$	E1		1.23×10^{-3}	α(K)=0.000211 *3*; α(L)=2.72×10^{-5} *4*; α(M)=5.88×10^{-6} *9* α(N)=1.359×10^{-6} *19*; α(O)=2.00×10^{-7} *3*; α(P)=1.188×10^{-8} *17*; α(IPF)=0.000980 *14*
2634.73		504.15[d] *20*	19[d] *8*	2130.579	3$^-$				
		1276.0[d] *3*	19[d] *8*	1358.670	2$^-$				
		1585.63[d] *17*	100[d] *15*	1049.1018	3$^+$				
		1668.3[d] *3*	62[d] *12*	966.1687	2$^+$				
		2548.2 *3*	27 *3*	86.7877	2$^+$				
2645.88	3$^-$	2362.0 *3*	40 *13*	283.8219	4$^+$	E1		1.11×10^{-3}	α(K)=0.000250 *4*; α(L)=3.22×10^{-5} *5*; α(M)=6.96×10^{-6} *10* α(N)=1.608×10^{-6} *23*; α(O)=2.37×10^{-7} *4*; α(P)=1.402×10^{-8} *20*; α(IPF)=0.000815 *12*
		2559.1 *3*	100 *13*	86.7877	2$^+$	E1		1.19×10^{-3}	α(K)=0.000221 *3*; α(L)=2.84×10^{-5} *4*; α(M)=6.14×10^{-6} *9* α(N)=1.418×10^{-6} *20*; α(O)=2.09×10^{-7} *3*; α(P)=1.239×10^{-8} *18*; α(IPF)=0.000936 *14*
2647.30	(3)$^-$	2363.1[d] *4*	14[d] *7*	283.8219	4$^+$				
		2560.7 *3*	100 *13*	86.7877	2$^+$	E1		1.19×10^{-3}	α(K)=0.000220 *3*; α(L)=2.84×10^{-5} *4*; α(M)=6.13×10^{-6} *9*

$^{160}_{66}Dy_{94}$-42

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	α[a]	Comments
								α(N)=1.417×10^{-6} *20*; α(O)=2.09×10^{-7} *3*; α(P)=1.238×10^{-8} *18*; α(IPF)=0.000937 *14*
2661.511	2$^-$	211.20[d] *16*	0.5[d] *3*	2450.25	1$^-$	M1	0.292	α(K)=0.246 *4*; α(L)=0.0358 *5*; α(M)=0.00786 *12* α(N)=0.00182 *3*; α(O)=0.000266 *4*; α(P)=1.528×10^{-5} *22*
		390.33 *6*	6.3 *6*	2271.246	2$^-$	M1,E2	0.043 *14*	α(K)=0.035 *13*; α(L)=0.0059 *9*; α(M)=0.00132 *18* α(N)=0.00030 *5*; α(O)=4.3×10^{-5} *8*; α(P)=2.09×10^{-6} *84*
		521.50 *7*	6.2 *9*	2140.15	(3)			
		572.63 *4*	15 *1*	2088.85	1$^-$,2$^-$,3$^-$	E2,M1	0.0159 *52*	α(K)=0.0133 *46*; α(L)=0.0020 *5*; α(M)=0.00045 *11* α(N)=0.000103 *24*; α(O)=1.49×10^{-5} *38*; α(P)=7.9×10^{-7} *30*
		576.58 *13*	19 *2*	2084.809	1$^+$,2$^+$	E1	0.00376	α(K)=0.00320 *5*; α(L)=0.000436 *7*; α(M)=9.50×10^{-5} *14* α(N)=2.19×10^{-5} *3*; α(O)=3.17×10^{-6} *5*; α(P)=1.758×10^{-7} *25*
		584.04[d] *17*	4[d] *2*	2077.36	3$^-$	[M1,E2]	0.0151 *49*	α(K)=0.0127 *44*; α(L)=0.0019 *5*; α(M)=0.00043 *10* α(N)=9.8×10^{-5} *23*; α(O)=1.41×10^{-5} *37*; α(P)=7.5×10^{-7} *28*
		593.48 *15*	2.2 *5*	2068.08	1$^-$	[M1,E2]	0.0145 *47*	α(K)=0.0122 *42*; α(L)=0.0018 *5*; α(M)=0.00041 *10* α(N)=9.4×10^{-5} *23*; α(O)=1.36×10^{-5} *35*; α(P)=7.2×10^{-7} *27*
		651.9 *1*	2.5 *4*	2009.531	1$^-$,2$^-$			
		758.31[d] *3*	100[d] *6*	1903.204	3$^+$	E1	0.00213	α(K)=0.00182 *3*; α(L)=0.000244 *4*; α(M)=5.31×10^{-5} *8* α(N)=1.223×10^{-5} *18*; α(O)=1.780×10^{-6} *25*; α(P)=1.008×10^{-7} *15*
		792.0 *2*	12 *2*	1869.513	2$^+$			
		856.8 *2*	78 *21*	1804.669	1$^+$	E1	1.67×10^{-3}	α(K)=0.001430 *20*; α(L)=0.000191 *3*; α(M)=4.15×10^{-5} *6* α(N)=9.57×10^{-6} *14*; α(O)=1.395×10^{-6} *20*; α(P)=7.95×10^{-8} *12*
		904.6 *1*	35 *3*	1756.918	2$^+$	E1	1.51×10^{-3}	α(K)=0.001289 *18*; α(L)=0.0001718 *24*; α(M)=3.73×10^{-5} *6* α(N)=8.60×10^{-6} *12*; α(O)=1.255×10^{-6} *18*; α(P)=7.18×10^{-8} *10*
		1018.26 *5*	14.9 *6*	1643.27	3$^-$			
		1126.6 *3*	2.2 *5*	1535.150	4$^-$			
		1143.04 *9*	4.0 *5*	1518.419	2$^+$			
		1171.97[d] *6*	40[d] *3*	1489.500	1$^-$	E2,M1	0.0029 *8*	α(K)=0.0025 *7*; α(L)=0.00035 *8*; α(M)=7.6×10^{-5} *17* α(N)=1.7×10^{-5} *4*; α(O)=2.6×10^{-6} *6*; α(P)=1.47×10^{-7} *40*; α(IPF)=3.09×10^{-6} *23*
		1262.83[d&] *6*	33[d] *12*	1398.964	3$^-$			
		1302.84[d] *3*	37[d] *8*	1358.670	2$^-$			
		1374.7 *2*	28 *3*	1286.713	3$^-$	E2	1.65×10^{-3}	α(K)=0.001365 *20*; α(L)=0.000192 *3*; α(M)=4.20×10^{-5} *6* α(N)=9.69×10^{-6} *14*; α(O)=1.410×10^{-6} *20*; α(P)=7.89×10^{-8} *11*; α(IPF)=3.59×10^{-5} *5*
		1375.9[d] *2*	49[d] *4*	1285.604	1$^-$	E2	1.64×10^{-3}	α(K)=0.001363 *19*; α(L)=0.000192 *3*; α(M)=4.19×10^{-5} *6* α(N)=9.67×10^{-6} *14*; α(O)=1.407×10^{-6} *20*; α(P)=7.87×10^{-8} *11*; α(IPF)=3.62×10^{-5} *5*
		1396.71 *4*	43.6 *16*	1264.7472	2$^-$	E2,M1	0.0020 *5*	α(K)=0.0017 *4*; α(L)=0.00023 *5*; α(M)=5.1×10^{-5} *11* α(N)=1.17×10^{-5} *24*; α(O)=1.7×10^{-6} *4*; α(P)=9.9×10^{-8} *23*; α(IPF)=4.5×10^{-5} *4*

$^{160}_{66}Dy_{94}$-43

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
2661.511	2⁻	1612.35[d] *3*	43[d] *3*	1049.1018	3⁺	(E1)		8.22×10^{-4}	α(K)=0.000461 *7*; α(L)=6.01×10^{-5} *9*; α(M)=1.301×10^{-5} *19* α(N)=3.00×10^{-6} *5*; α(O)=4.41×10^{-7} *7*; α(P)=2.59×10^{-8} *4*; α(IPF)=0.000284 *4*
		1695.30 *6*	21.5 *8*	966.1687	2⁺	E1		8.40×10^{-4}	α(K)=0.000424 *6*; α(L)=5.52×10^{-5} *8*; α(M)=1.195×10^{-5} *17* α(N)=2.76×10^{-6} *4*; α(O)=4.05×10^{-7} *6*; α(P)=2.38×10^{-8} *4*; α(IPF)=0.000346 *5*
		2574.68 *5*	56.3 *25*	86.7877	2⁺	E1		1.20×10^{-3}	α(K)=0.000218 *3*; α(L)=2.81×10^{-5} *4*; α(M)=6.08×10^{-6} *9* α(N)=1.405×10^{-6} *20*; α(O)=2.07×10^{-7} *3*; α(P)=1.228×10^{-8} *18*; α(IPF)=0.000945 *14*
2665.78	2⁺,3⁺,4⁺	1062.0 *3*	27 *10*	1603.78	4⁺				
		1510.2 *3*	23 *10*	1155.841	4⁺				
		1616.7[c] *2*	25[c] *2*	1049.1018	3⁺				
		1699.55 *6*	26 *2*	966.1687	2⁺				
		2382.02 *9*	100 *7*	283.8219	4⁺	E2,M1		0.00115 *11*	α(K)=0.00055 *6*; α(L)=7.4×10^{-5} *8*; α(M)=1.60×10^{-5} *16* α(N)=3.7×10^{-6} *4*; α(O)=5.4×10^{-7} *6*; α(P)=3.2×10^{-8} *4*; α(IPF)=0.00051 *5*
		2578.9 *3*	7.7 *17*	86.7877	2⁺				
2666.30	12⁻	181	236 *15*	2485.64	11⁺	[E1]		0.0633	α(K)=0.0533 *8*; α(L)=0.00779 *11*; α(M)=0.001702 *24* α(N)=0.000389 *6*; α(O)=5.46×10^{-5} *8*; α(P)=2.67×10^{-6} *4* E_γ: from 1987Ri08, (α,2nγ). These authors report a sequence of γ′s from the even-spin members of the $K^\pi=2^-$ band to ΔJ=−1 members of the γ-vibrational band. 2002Ju08 (^{7}Li,p4nγ) do not mention such a category of transitions in their level-scheme table (Table 1). Iγ computed from I(γ+ce)(181γ)/I(γ+ce)(424.5γ) from (α,2nγ) and Iγ(424.4γ). Note that if there is a significant M2 admixture in this γ, α will be somewhat larger and the deduced Iγ will be smaller. α: computed assuming mult=E1.
		424.4 *1*	100 *4*	2241.95	10⁻	E2		0.0235	α(K)=0.0186 *3*; α(L)=0.00382 *6*; α(M)=0.000867 *13* α(N)=0.000198 *3*; α(O)=2.69×10^{-5} *4*; α(P)=1.022×10^{-6} *15* Mult.: from (α,2nγ).
		715.6 *2*	<11	1950.17	12⁺				
2674.716	1⁻	224.4[d] *3*	0.029[d] *15*	2450.25	1⁻	E2,M1		0.20 *5*	α(K)=0.161 *48*; α(L)=0.034 *4*; α(M)=0.0077 *11* α(N)=0.00177 *23*; α(O)=0.000240 *16*; α(P)=9.2×10^{-6} *37*

$^{160}_{66}Dy_{94}$-44

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.†	δ#b	α[a]	Comments
2674.716	1⁻	665.3[d] *5*	3.7[d] *4*	2009.531	1⁻,2⁻	M1,E2		0.0110 *35*	α(K)=0.0092 *31*; α(L)=0.00137 *35*; α(M)=0.00030 *8* α(N)=7.0×10⁻⁵ *18*; α(O)=1.01×10⁻⁵ *27*; α(P)=5.5×10⁻⁷ *20*
		722.41 *7*	2.27 *30*	1952.31	0⁺				
		805.15[d] *12*	0.8[d] *3*	1869.513	2⁺				
		870.0 *1*	2.2 *8*	1804.669	1⁺				
		917.80 *9*	1.52 *16*	1756.918	2⁺				
		966.5 *1*	2.7 *7*	1708.14	0⁺				
		1156.32 *9*	11.5 *10*	1518.419	2⁺	E1		9.66×10⁻⁴	α(K)=0.000819 *12*; α(L)=0.0001080 *16*; α(M)=2.34×10⁻⁵ *4* α(N)=5.40×10⁻⁶ *8*; α(O)=7.91×10⁻⁷ *11*; α(P)=4.58×10⁻⁸ *7*; α(IPF)=9.51×10⁻⁶ *14*
		1185.20 *15*	17.3 *10*	1489.500	1⁻				
		1218.05 *5*	6.7 *4*	1456.752	0⁺	E1		9.02×10⁻⁴	α(K)=0.000746 *11*; α(L)=9.82×10⁻⁵ *14*; α(M)=2.13×10⁻⁵ *3* α(N)=4.91×10⁻⁶ *7*; α(O)=7.19×10⁻⁷ *10*; α(P)=4.18×10⁻⁸ *6*; α(IPF)=3.11×10⁻⁵ *5*
		1276.0[d] *3*	0.4[d] *1*	1398.964	3⁻				
		1316.04[d] *8*	5.5[d] *14*	1358.670	2⁻	E2		1.78×10⁻³	α(K)=0.001484 *21*; α(L)=0.000210 *3*; α(M)=4.60×10⁻⁵ *7* α(N)=1.061×10⁻⁵ *15*; α(O)=1.542×10⁻⁶ *22*; α(P)=8.58×10⁻⁸ *12*; α(IPF)=2.25×10⁻⁵ *4*
		1324.94 *23*	15.8 *21*	1349.758	2⁺				
		1388.0[d] *4*	0.7[d] *3*	1286.713	3⁻				
		1389.02 *5*	12.9 *8*	1285.604	1⁻	E2,M1		0.0020 *5*	α(K)=0.0017 *4*; α(L)=0.00024 *5*; α(M)=5.1×10⁻⁵ *11* α(N)=1.19×10⁻⁵ *24*; α(O)=1.7×10⁻⁶ *4*; α(P)=1.01×10⁻⁷ *24*; α(IPF)=4.3×10⁻⁵ *4*
		1394.9[d] *2*	0.5[d] *3*	1279.942	0⁺				
		1409.9 *3*	4.7 *7*	1264.7472	2⁻	E2,M1		0.0020 *4*	α(K)=0.0016 *4*; α(L)=0.00023 *5*; α(M)=5.0×10⁻⁵ *10* α(N)=1.15×10⁻⁵ *23*; α(O)=1.7×10⁻⁶ *4*; α(P)=9.7×10⁻⁸ *23*; α(IPF)=4.9×10⁻⁵ *4*
		2587.93 *5*	13.3 *7*	86.7877	2⁺	E1(+M2)	+0.09 *32*	0.00121 *7*	α(K)=2.2×10⁻⁴ *12*; α(L)=2.9×10⁻⁵ *17*; α(M)=6.2×10⁻⁶ *36* α(N)=1.44×10⁻⁶ *83*; α(O)=2.1×10⁻⁷ *13*; α(P)=1.26×10⁻⁸ *72*; α(IPF)=0.00095 *8*
		2674.71[d] *5*	100[d] *5*	0.0	0⁺	E1		1.25×10⁻³	α(K)=0.000206 *3*; α(L)=2.65×10⁻⁵ *4*; α(M)=5.73×10⁻⁶ *8* α(N)=1.324×10⁻⁶ *19*; α(O)=1.95×10⁻⁷ *3*; α(P)=1.158×10⁻⁸ *17*; α(IPF)=0.001007 *14*
2681.822	5⁺	298.15[d] *7*	100[d] *18*	2383.69	6⁻	E1		0.01747	α(K)=0.01480 *21*; α(L)=0.00209 *3*; α(M)=0.000457 *7*

$^{160}_{66}Dy_{94}$-45

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	α[a]	Comments
								α(N)=0.0001048 *15*; α(O)=1.495×10^{-5} *21*; α(P)=7.80×10^{-7} *11*
2681.822	5$^+$	309.54[d] *2*	53[d] *12*	2372.305	6$^-$	E1	0.01591	α(K)=0.01349 *19*; α(L)=0.00190 *3*; α(M)=0.000415 *6* α(N)=9.53×10^{-5} *14*; α(O)=1.361×10^{-5} *19*; α(P)=7.13×10^{-7} *10*
		1030.95 *4*	28.2 *11*	1650.874	4$^-$,5$^-$	(E1)	1.18×10^{-3}	α(K)=0.001009 *15*; α(L)=0.0001337 *19*; α(M)=2.90×10^{-5} *4* α(N)=6.69×10^{-6} *10*; α(O)=9.78×10^{-7} *14*; α(P)=5.63×10^{-8} *8*
		1087.48 *15*	6.5 *12*	1594.42	6$^-$			
		1095.01[d] *3*	12[d] *3*	1586.744	5$^-$			
		1295.42 *20*	3.5 *12*	1386.458	4$^-$			
		1393.0 *4*	1.9 *4*	1288.665	5$^+$			
2696.30	11$^-$	432.4 *2*	<100	2263.99	9$^-$			
		1268.3 *2*	<100	1427.89	10$^+$			
2696.41	2$^-$,3$^-$	425.2 *2*	4 *1*	2271.246	2$^-$	[M1,E2]	0.034 *11*	α(K)=0.0283 *99*; α(L)=0.0046 *9*; α(M)=0.00103 *17* α(N)=0.00024 *4*; α(O)=3.4×10^{-5} *7*; α(P)=1.68×10^{-6} *67*
		611.53 *8*	18.4 *16*	2084.809	1$^+$,2$^+$	(E1)	0.00332	α(K)=0.00283 *4*; α(L)=0.000384 *6*; α(M)=8.35×10^{-5} *12* α(N)=1.92×10^{-5} *3*; α(O)=2.79×10^{-6} *4*; α(P)=1.555×10^{-7} *22*
		1297.66[d] *18*	10[d] *5*	1398.964	3$^-$	E2	0.00182	α(K)=0.001525 *22*; α(L)=0.000216 *3*; α(M)=4.73×10^{-5} *7* α(N)=1.092×10^{-5} *16*; α(O)=1.587×10^{-6} *23*; α(P)=8.81×10^{-8} *13*; α(IPF)=1.91×10^{-5} *3*
		1337.8[d] *2*	80[d] *20*	1358.670	2$^-$	E2	1.72×10^{-3}	α(K)=0.001438 *21*; α(L)=0.000203 *3*; α(M)=4.44×10^{-5} *7* α(N)=1.025×10^{-5} *15*; α(O)=1.490×10^{-6} *21*; α(P)=8.31×10^{-8} *12*; α(IPF)=2.71×10^{-5} *4*
		1409.7 *1*	20 *5*	1286.713	3$^-$	E2,M1	0.0020 *4*	α(K)=0.0016 *4*; α(L)=0.00023 *5*; α(M)=5.0×10^{-5} *10* α(N)=1.15×10^{-5} *23*; α(O)=1.7×10^{-6} *4*; α(P)=9.7×10^{-8} *23*; α(IPF)=4.9×10^{-5} *4*
		1431.66[d] *3*	100[d] *20*	1264.7472	2$^-$			
		1647.2 *2*	6.7 *7*	1049.1018	3$^+$			
		2610.0[d] *3*	10[d] *5*	86.7877	2$^+$			
2697.31	13$^-$	433.0[&] *1*	47 *2*	2264.23	11$^-$			
		747.3 *1*	100 *4*	1950.17	12$^+$			
2697.821	2$^+$	426.5 *2*	4.6 *11*	2271.246	2$^-$			
		488.7 *3*	6.0 *23*	2208.79	(2)$^-$			
		559.5 *3*	8.4 *9*	2138.20	2$^+$	[M1,E2]	0.0168 *55*	α(K)=0.0141 *49*; α(L)=0.0022 *5*; α(M)=0.00048 *11* α(N)=0.00011 *3*; α(O)=1.58×10^{-5} *40*; α(P)=8.4×10^{-7} *32*
		567.36 *10*	14.5 *29*	2130.579	3$^-$			
		607.00 *9*	19.9 *20*	2090.88	2$^-$,3$^-$			
		629.7 *1*	9 *3*	2068.08	1$^-$			
		688.37[d] *9*	32[d] *1*	2009.531	1$^-$,2$^-$			
		745.73 *9*	16.7 *29*	1952.31	0$^+$			
		828.13[d] *15*	16[d] *3*	1869.513	2$^+$			
		940.9 *1*	57 *11*	1756.918	2$^+$	E2	0.00346	α(K)=0.00290 *4*; α(L)=0.000437 *7*; α(M)=9.63×10^{-5} *14* α(N)=2.22×10^{-5} *4*; α(O)=3.18×10^{-6} *5*; α(P)=1.671×10^{-7} *24*

$^{160}_{66}Dy_{94}$-46

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.†	α[a]	Comments
2697.821	2+	989.75 *5*	89 *3*	1708.14	0+			
		1208.28 *12*	37 *2*	1489.500	1−			
		1339.2 *2*	61 *6*	1358.670	2−			
		1348.09[d] *10*	10[d] *2*	1349.758	2+			
		1412.0 *3*	20 *8*	1285.604	1−			
		1417.5[d] *3*	18[d] *5*	1279.942	0+			
		1433.28[&] *6*	100 *7*	1264.7472	2−			
		1731.62 *4*	57 *2*	966.1687	2+	E2	1.20×10^{-3}	α(K)=0.000885 *13*; α(L)=0.0001213 *17*; α(M)=2.64×10^{-5} *4* α(N)=6.10×10^{-6} *9*; α(O)=8.92×10^{-7} *13*; α(P)=5.11×10^{-8} *8*; α(IPF)=0.0001628 *23*
		2414.2 *2*	7.1 *10*	283.8219	4+			
		2611.0 *3*	23 *6*	86.7877	2+			
		2697.78 *5*	33.1 *18*	0.0	0+			
2701.044	1−	574.73[d] *5*	4.1[d] *10*	2126.37	3−	E2	0.01064	α(K)=0.00867 *13*; α(L)=0.001534 *22*; α(M)=0.000343 *5* α(N)=7.87×10^{-5} *11*; α(O)=1.098×10^{-5} *16*; α(P)=4.91×10^{-7} *7*
		616.18 *10*	2.1 *3*	2084.809	1+,2+			
		623.69 *24*	1.2 *4*	2077.36	3−			
		632.9[c] *6*	0.8[c] *6*	2068.08	1−			
		691.49 *2*	12.0 *3*	2009.531	1−,2−	M1,E2	0.0100 *32*	α(K)=0.0084 *28*; α(L)=0.00124 *32*; α(M)=0.00027 *7* α(N)=6.3×10^{-5} *16*; α(O)=9.1×10^{-6} *25*; α(P)=5.0×10^{-7} *18*
		748.8 *1*	9.2 *6*	1952.31	0+			
		831.53 *4*	3.67 *26*	1869.513	2+			
		944.3 *4*	1.4 *4*	1756.918	2+			
		992.71 *11*	3.8 *5*	1708.14	0+			
		1182.68 *3*	33.7 *8*	1518.419	2+	E1	9.36×10^{-4}	α(K)=0.000786 *11*; α(L)=0.0001036 *15*; α(M)=2.25×10^{-5} *4* α(N)=5.18×10^{-6} *8*; α(O)=7.59×10^{-7} *11*; α(P)=4.40×10^{-8} *7*; α(IPF)=1.715×10^{-5} *24*
		1244.22 *4*	21.6 *8*	1456.752	0+	E1	8.82×10^{-4}	α(K)=0.000719 *10*; α(L)=9.45×10^{-5} *14*; α(M)=2.05×10^{-5} *3* α(N)=4.73×10^{-6} *7*; α(O)=6.92×10^{-7} *10*; α(P)=4.02×10^{-8} *6*; α(IPF)=4.28×10^{-5} *6*
		1341.5 *4*	4.1 *12*	1358.670	2−	E2,M1	0.0022 *5*	α(K)=0.0018 *4*; α(L)=0.00025 *6*; α(M)=5.6×10^{-5} *12* α(N)=1.3×10^{-5} *3*; α(O)=1.9×10^{-6} *4*; α(P)=1.1×10^{-7} *3*; α(IPF)=3.01×10^{-5} *23*
		1351.24 *10*	11.2 *8*	1349.758	2+	(E1)	8.25×10^{-4}	α(K)=0.000622 *9*; α(L)=8.16×10^{-5} *12*; α(M)=1.767×10^{-5} *25* α(N)=4.08×10^{-6} *6*; α(O)=5.98×10^{-7} *9*; α(P)=3.49×10^{-8} *5*; α(IPF)=9.92×10^{-5} *14*
		1415.46 *4*	19.8 *6*	1285.604	1−	E2,M1	0.0020 *4*	α(K)=0.0016 *4*; α(L)=0.00023 *5*; α(M)=4.9×10^{-5} *10* α(N)=1.14×10^{-5} *23*; α(O)=1.7×10^{-6} *4*; α(P)=9.7×10^{-8} *22*; α(IPF)=5.1×10^{-5} *4*
		1421.13 *6*	10.8 *6*	1279.942	0+	E1	8.11×10^{-4}	α(K)=0.000570 *8*; α(L)=7.47×10^{-5} *11*; α(M)=1.617×10^{-5} *23* α(N)=3.73×10^{-6} *6*; α(O)=5.47×10^{-7} *8*; α(P)=3.20×10^{-8} *5*; α(IPF)=0.0001455 *21*

$^{160}_{66}Dy_{94}$-47

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
2701.044	1⁻	1436.2 *1*	14.4 *8*	1264.7472	2⁻	E2,M1		0.0019 *4*	α(K)=0.0016 *4*; α(L)=0.00022 *5*; α(M)=4.8×10⁻⁵ *10* α(N)=1.10×10⁻⁵ *22*; α(O)=1.6×10⁻⁶ *4*; α(P)=9.4×10⁻⁸ *21*; α(IPF)=5.7×10⁻⁵ *5*
		1735.0 *5*	0.37 *16*	966.1687	2⁺				
		2614.25 *5*	100 *4*	86.7877	2⁺	E1(+M2)	−0.03 *+12−13*	1.22×10⁻³ *2*	α(K)=0.000214 *21*; α(L)=2.8×10⁻⁵ *3*; α(M)=6.0×10⁻⁶ *7* α(N)=1.38×10⁻⁶ *15*; α(O)=2.03×10⁻⁷ *22*; α(P)=1.20×10⁻⁸ *13*; α(IPF)=0.000969 *20*
		2701.04 *5*	3.51 *16*	0.0	0⁺				
2704.215	2⁻,3⁻	433.00 *7*	20.5 *13*	2271.246	2⁻	M1,E2		0.033 *11*	α(K)=0.0270 *94*; α(L)=0.0044 *8*; α(M)=0.00097 *17* α(N)=0.00022 *4*; α(O)=3.2×10⁻⁵ *7*; α(P)=1.60×10⁻⁶ *63*
		577.79 *13*	22 *3*	2126.37	3⁻	[M1,E2]		0.0155 *51*	α(K)=0.0130 *45*; α(L)=0.0020 *5*; α(M)=0.00044 *10* α(N)=0.000101 *24*; α(O)=1.45×10⁻⁵ *38*; α(P)=7.7×10⁻⁷ *29*
		613.28 *6*	25.1 *17*	2090.88	2⁻,3⁻				
		619.4 *2*	8 *3*	2084.809	1⁺,2⁺				
		636.3 *3*	15 *5*	2068.08	1⁻				
		654.71 *5*	15.3 *21*	2049.50	2⁺,3				
		800.9 *1*	5.8 *20*	1903.204	3⁺				
		1214.45 *23*	8.2 *18*	1489.500	1⁻				
		1305.18[d] *5*	30[d] *10*	1398.964	3⁻				
		1345.08[de] *4*	20[d] *5*	1358.670	2⁻				
		1417.5[d] *3*	19[d] *4*	1286.713	3⁻				
		1439.50[d] *4*	100[d] *2*	1264.7472	2⁻	E2,M1		0.0019 *4*	α(K)=0.0016 *4*; α(L)=0.00022 *5*; α(M)=4.7×10⁻⁵ *10* α(N)=1.10×10⁻⁵ *22*; α(O)=1.6×10⁻⁶ *4*; α(P)=9.3×10⁻⁸ *21*; α(IPF)=5.8×10⁻⁵ *5*
		1655.15 *4*	69 *3*	1049.1018	3⁺				
		1737.9 *2*	3.5 *5*	966.1687	2⁺				
		2617.56 *16*	55 *5*	86.7877	2⁺	E1		1.22×10⁻³	α(K)=0.000213 *3*; α(L)=2.74×10⁻⁵ *4*; α(M)=5.93×10⁻⁶ *9* α(N)=1.369×10⁻⁶ *20*; α(O)=2.02×10⁻⁷ *3*; α(P)=1.197×10⁻⁸ *17*; α(IPF)=0.000972 *14*
2707.77	12⁺	486.1 *1*	83 *17*	2221.48	10⁺				
		757.5 *1*	100 *17*	1950.17	12⁺				
		1280.2 *2*	100 *17*	1427.89	10⁺				
2717.225	2⁺	632.9[c] *6*	4[c] *3*	2084.809	1⁺,2⁺				

$^{160}_{66}Dy_{94}$-48

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	α[a]	Comments
2717.225	2+	847.7 *2*	6 *2*	1869.513	2+			
		912.58[d] *22*	9[d] *3*	1804.669	1+			
		1318.21[d] *5*	44[d] *11*	1398.964	3−			
		1431.66[d] *3*	100[d] *22*	1285.604	1−			
		1437.5 *3*	14 *4*	1279.942	0+			
		1452.37 *7*	26.0 *21*	1264.7472	2−			
		1668.3[d] *3*	18[d] *4*	1049.1018	3+			
		1750.8 *2*	8.6 *7*	966.1687	2+			
		2433.33 *6*	56 *4*	283.8219	4+	(E2)	1.05×10^{-3}	α(K)=0.000477 *7*; α(L)=6.37×10^{-5} *9*; α(M)=1.384×10^{-5} *20* α(N)=3.20×10^{-6} *5*; α(O)=4.70×10^{-7} *7*; α(P)=2.75×10^{-8} *4*; α(IPF)=0.000490 *7*
		2630.6[d] *3*	44[d] *11*	86.7877	2+			
		2717.20 *5*	28.4 *12*	0.0	0+			
2719.02	2−	448.05[d&] *9*	1.6[d] *4*	2271.246	2−	(E2)	0.0203	α(K)=0.01614 *23*; α(L)=0.00322 *5*; α(M)=0.000728 *11* α(N)=0.0001664 *24*; α(O)=2.27×10^{-5} *4*; α(P)=8.93×10^{-7} *13*
		914.15 *24*	36 *7*	1804.669	1+			
		962.0 *1*	11 *2*	1756.918	2+			
		1075.3 *4*	1.0 *5*	1643.27	3−			
		1229.52 *25*	1.4 *1*	1489.500	1−			
		1319.95[d] *25*	4[d] *1*	1398.964	3−			
		1360.2 *2*	9 *2*	1358.670	2−	E2	1.68×10^{-3}	α(K)=0.001393 *20*; α(L)=0.000196 *3*; α(M)=4.29×10^{-5} *6* α(N)=9.90×10^{-6} *14*; α(O)=1.441×10^{-6} *21*; α(P)=8.05×10^{-8} *12*; α(IPF)=3.23×10^{-5} *5*
		1454.2[d] *3*	2[d] *1*	1264.7472	2−			
		1669.8 *1*	3.3 *7*	1049.1018	3+			
		2632.15 *15*	100 *9*	86.7877	2+	E1	1.23×10^{-3}	α(K)=0.000211 *3*; α(L)=2.72×10^{-5} *4*; α(M)=5.88×10^{-6} *9* α(N)=1.358×10^{-6} *19*; α(O)=2.00×10^{-7} *3*; α(P)=1.187×10^{-8} *17*; α(IPF)=0.000981 *14*
2720.57	3−	453.7 *3*	10 *6*	2266.98	3−	[M1,E2]	0.0289 *93*	α(K)=0.0239 *84*; α(L)=0.0038 *8*; α(M)=0.00085 *16* α(N)=0.00020 *4*; α(O)=2.8×10^{-5} *7*; α(P)=1.42×10^{-6} *56*
		935.91 *6*	100 *6*	1784.688	4−	E2,M1	0.0049 *14*	α(K)=0.0041 *12*; α(L)=0.00059 *15*; α(M)=0.00013 *4* α(N)=3.0×10^{-5} *8*; α(O)=4.3×10^{-6} *12*; α(P)=2.44×10^{-7} *76*
		1202.15 *12*	42 *6*	1518.419	2+			
		1321.5 *3*	40 *6*	1398.964	3−	E2	1.76×10^{-3}	α(K)=0.001472 *21*; α(L)=0.000208 *3*; α(M)=4.56×10^{-5} *7* α(N)=1.051×10^{-5} *15*; α(O)=1.528×10^{-6} *22*; α(P)=8.51×10^{-8} *12*; α(IPF)=2.36×10^{-5} *4*
		1671.9[d] *5*	29[d] *13*	1049.1018	3+	(E1)	8.34×10^{-4}	α(K)=0.000434 *6*; α(L)=5.65×10^{-5} *8*; α(M)=1.224×10^{-5} *18* α(N)=2.83×10^{-6} *4*; α(O)=4.15×10^{-7} *6*; α(P)=2.44×10^{-8} *4*; α(IPF)=0.000328 *5*
		1754.32 *6*	24.0 *15*	966.1687	2+			

$^{160}_{66}Dy_{94}$-49

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.†	α[a]	Comments
2720.57	3⁻	2436.80 *8*	48 *6*	283.8219	4⁺	E1	1.14×10^{-3}	α(K)=0.000238 *4*; α(L)=3.07×10^{-5} *5*; α(M)=6.63×10^{-6} *10* α(N)=1.531×10^{-6} *22*; α(O)=2.25×10^{-7} *4*; α(P)=1.336×10^{-8} *19*; α(IPF)=0.000862 *12*
2727.21	(4)	1760.9[e] *4*	13 *4*	966.1687	2⁺			
		2146.6 *6*	15 *5*	581.066	6⁺			
		2443.35 *10*	100 *12*	283.8219	4⁺			
2729.824	2⁻	279.76[c] *15*	5.5[c] *9*	2450.25	1⁻	(E2)	0.0800	α(K)=0.0591 *9*; α(L)=0.01622 *23*; α(M)=0.00375 *6* α(N)=0.000850 *12*; α(O)=0.0001110 *16*; α(P)=3.04×10^{-6} *5*
		458.5 *1*	4 *1*	2271.246	2⁻	[M1,E2]	0.0281 *91*	α(K)=0.0233 *81*; α(L)=0.0037 *8*; α(M)=0.00083 *15* α(N)=0.00019 *4*; α(O)=2.7×10^{-5} *6*; α(P)=1.38×10^{-6} *54*
		860.3 *3*	6.3 *27*	1869.513	2⁺			
		924.9[d] *3*	9[d] *3*	1804.669	1⁺			
		1240.36 *20*	82 *6*	1489.500	1⁻	E2	0.00198	α(K)=0.001665 *24*; α(L)=0.000238 *4*; α(M)=5.21×10^{-5} *8* α(N)=1.201×10^{-5} *17*; α(O)=1.743×10^{-6} *25*; α(P)=9.62×10^{-8} *14*; α(IPF)=1.022×10^{-5} *15*
		1330.4 *5*	27 *16*	1398.964	3⁻	E2	1.74×10^{-3}	α(K)=0.001453 *21*; α(L)=0.000205 *3*; α(M)=4.49×10^{-5} *7* α(N)=1.037×10^{-5} *15*; α(O)=1.507×10^{-6} *22*; α(P)=8.40×10^{-8} *12*; α(IPF)=2.55×10^{-5} *4*
		1343.5 *3*	30 *9*	1386.458	4⁻			
		1371.31[d] *7*	30[d] *7*	1358.670	2⁻			
		1379.8 *3*	12 *4*	1349.758	2⁺			
		1443.1 *1*	22 *6*	1286.713	3⁻	E2,M1	0.0019 *4*	α(K)=0.0016 *4*; α(L)=0.00022 *5*; α(M)=4.7×10^{-5} *10* α(N)=1.09×10^{-5} *22*; α(O)=1.6×10^{-6} *4*; α(P)=9.3×10^{-8} *21*; α(IPF)=6.0×10^{-5} *5*
		1444.1 *1*	75 *15*	1285.604	1⁻	E2,M1	0.0019 *4*	α(K)=0.0016 *4*; α(L)=0.00022 *5*; α(M)=4.7×10^{-5} *10* α(N)=1.09×10^{-5} *22*; α(O)=1.6×10^{-6} *4*; α(P)=9.2×10^{-8} *21*; α(IPF)=6.0×10^{-5} *5*
		1465.05 *3*	89 *2*	1264.7472	2⁻	E2	1.49×10^{-3}	α(K)=0.001209 *17*; α(L)=0.0001688 *24*; α(M)=3.69×10^{-5} *6* α(N)=8.51×10^{-6} *12*; α(O)=1.240×10^{-6} *18*; α(P)=6.99×10^{-8} *10*; α(IPF)=6.18×10^{-5} *9*
		2643.06 *10*	100 *6*	86.7877	2⁺	E1	1.23×10^{-3}	α(K)=0.000210 *3*; α(L)=2.70×10^{-5} *4*; α(M)=5.84×10^{-6} *9* α(N)=1.349×10^{-6} *19*; α(O)=1.99×10^{-7} *3*; α(P)=1.180×10^{-8} *17*; α(IPF)=0.000987 *14*
2734.718	1⁻	666.7[d] *3*	3.3[d] *8*	2068.08	1⁻			
		1216.37 *7*	17.8 *11*	1518.419	2⁺	E1	9.04×10^{-4}	α(K)=0.000748 *11*; α(L)=9.85×10^{-5} *14*; α(M)=2.13×10^{-5} *3* α(N)=4.93×10^{-6} *7*; α(O)=7.21×10^{-7} *10*; α(P)=4.19×10^{-8} *6*; α(IPF)=3.04×10^{-5} *5*
		1245.8 *6*	1.9 *8*	1489.500	1⁻			
		1278.1 *2*	12.9 *9*	1456.752	0⁺			
		1336.1 *4*	2.6 *11*	1398.964	3⁻			
		1375.9[d] *2*	15[d] *4*	1358.670	2⁻			

$^{160}_{66}Dy_{94}$-50

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	δ[#b]	α[a]	Comments
2734.718	1−	1449.06 *4*	15.1 *6*	1285.604	1−	E2		1.51×10^{-3}	α(K)=0.001235 *18*; α(L)=0.0001726 *25*; α(M)=3.77×10^{-5} *6* α(N)=8.70×10^{-6} *13*; α(O)=1.267×10^{-6} *18*; α(P)=7.14×10^{-8} *10*; α(IPF)=5.69×10^{-5} *8*
		1470.0 *2*	3.3 *11*	1264.7472	2−				
		1768.2 *4*	0.59 *19*	966.1687	2+				
		2647.91[d] *5*	100[d] *8*	86.7877	2+	E1(+M2)	−0.15 *+20−19*	0.00124 *4*	α(K)=2.27×10^{-4} *67*; α(L)=2.94×10^{-5} *93*; α(M)=6.4×10^{-6} *21* α(N)=1.47×10^{-6} *47*; α(O)=2.17×10^{-7} *70*; α(P)=1.29×10^{-8} *41*; α(IPF)=0.00098 *5*
		2734.72 *5*	34.1 *11*	0.0	0+	E1		1.27×10^{-3}	α(K)=0.000199 *3*; α(L)=2.56×10^{-5} *4*; α(M)=5.54×10^{-6} *8* α(N)=1.280×10^{-6} *18*; α(O)=1.88×10^{-7} *3*; α(P)=1.120×10^{-8} *16*; α(IPF)=0.001043 *15*
2755.04		2471.2 *2*	100	283.8219	4+				
2756.3		2669.5 *3*	100	86.7877	2+				
2757.13		626.57 *10*	100 *15*	2130.579	3−				
		1707.6 *4*	20 *8*	1049.1018	3+				
		2473.3[d] *2*	59[d] *20*	283.8219	4+				
2760.46	1+,2+	1401.8 *1*	40 *10*	1358.670	2−				
		1410.7 *1*	100 *20*	1349.758	2+	E2,M1		0.0020 *4*	α(K)=0.0016 *4*; α(L)=0.00023 *5*; α(M)=5.0×10^{-5} *10* α(N)=1.15×10^{-5} *23*; α(O)=1.7×10^{-6} *4*; α(P)=9.7×10^{-8} *23*; α(IPF)=4.9×10^{-5} *4*
		1480.4[d] *2*	40[d] *10*	1279.942	0+				
2763.05		2479.14 *6*	100	283.8219	4+	E2		1.05×10^{-3}	α(K)=0.000462 *7*; α(L)=6.16×10^{-5} *9*; α(M)=1.337×10^{-5} *19* α(N)=3.09×10^{-6} *5*; α(O)=4.54×10^{-7} *7*; α(P)=2.66×10^{-8} *4*; α(IPF)=0.000512 *8*
2767.70	1−	699.9[d] *4*	16[d] *6*	2068.08	1−				
		1368.7 *3*	60 *20*	1398.964	3−				
		1409.0 *3*	100 *20*	1358.670	2−	E2,M1		0.0020 *5*	α(K)=0.0016 *4*; α(L)=0.00023 *5*; α(M)=5.0×10^{-5} *10* α(N)=1.15×10^{-5} *23*; α(O)=1.7×10^{-6} *4*; α(P)=9.8×10^{-8} *23*; α(IPF)=4.9×10^{-5} *4*
		2680.88 *5*	94 *4*	86.7877	2+	E1		1.25×10^{-3}	α(K)=0.000205 *3*; α(L)=2.64×10^{-5} *4*; α(M)=5.71×10^{-6} *8* α(N)=1.320×10^{-6} *19*; α(O)=1.94×10^{-7} *3*; α(P)=1.154×10^{-8} *17*; α(IPF)=0.001010 *15*
		2767.8 *2*	12.2 *24*	0.0	0+				
2772.10		2488.26 *20*	100	283.8219	4+				

$^{160}_{66}Dy_{94}$-51

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	α[a]	Comments
2777.62	2+,3+,4+	1020.63 *13*	29 *5*	1756.918	2+			
		1134.2 *5*	7.6 *32*	1643.27	3−			
		1259.10 *7*	44 *3*	1518.419	2+			
		1427.82 *9*	100 *6*	1349.758	2+			
		2493.87 *6*	84 *4*	283.8219	4+	E2,M1	0.00115 *10*	α(K)=0.00050 *5*; α(L)=6.7×10^{-5} *6*; α(M)=1.45×10^{-5} *14* α(N)=3.4×10^{-6} *3*; α(O)=5.0×10^{-7} *5*; α(P)=2.9×10^{-8} *3*; α(IPF)=0.00057 *5*
2822.23	1+	2735.4	59 *5*	86.7877	2+	[M1]	1.26×10^{-3}	α(K)=0.000442 *7*; α(L)=5.92×10^{-5} *9*; α(M)=1.288×10^{-5} *18* α(N)=2.98×10^{-6} *5*; α(O)=4.40×10^{-7} *7*; α(P)=2.62×10^{-8} *4*; α(IPF)=0.000746 *11* B(M1)(W.u.)=0.129 *+20−16* E_γ: from level-energy difference. 2002Ad34, ε decay, report a strong 2734.72 γ but place all of it from a 2734.7 level. This γ might obscure a γ of the expected intensity from this 2822 level or a small portion of it may in fact correspond to the 2822→86 transition. I_γ: from (γ,γ′).
		2822.2 *2*	100	0.0	0+	M1	1.27×10^{-3}	B(M1)(W.u.)=0.198 *+31−23* α(K)=0.000412 *6*; α(L)=5.53×10^{-5} *8*; α(M)=1.201×10^{-5} *17* α(N)=2.78×10^{-6} *4*; α(O)=4.10×10^{-7} *6*; α(P)=2.44×10^{-8} *4*; α(IPF)=0.000792 *11* E_γ: from 2002Ad34, ε decay. Mult.: from (γ,γ′).
2833.85	2,3,4	2550.1 *3*	96 *41*	283.8219	4+			
		2747.0 *2*	100 *8*	86.7877	2+			
2851.73	1−	154.04[&] *4*	7 *1*	2697.821	2+	E1	0.0971	α(K)=0.0817 *12*; α(L)=0.01208 *17*; α(M)=0.00264 *4* α(N)=0.000603 *9*; α(O)=8.41×10^{-5} *12*; α(P)=4.00×10^{-6} *6*
		642.9 *1*	3 *1*	2208.79	(2)−	(E2)	0.00810	α(K)=0.00666 *10*; α(L)=0.001126 *16*; α(M)=0.000251 *4* α(N)=5.76×10^{-5} *8*; α(O)=8.10×10^{-6} *12*; α(P)=3.79×10^{-7} *6*
		784.0 *5*	5 *2*	2068.08	1−			
		982.33[d] *17*	2[d] *1*	1869.513	2+			
		1333.5 *4*	24 *9*	1518.419	2+			
		1362.5 *4*	7 *3*	1489.500	1−			
		1394.9[d] *2*	12[d] *6*	1456.752	0+			
		1493.3 *3*	9.4 *10*	1358.670	2−			
		1565.9 *1*	21 *7*	1285.604	1−	E2	1.35×10^{-3}	α(K)=0.001067 *15*; α(L)=0.0001478 *21*; α(M)=3.22×10^{-5} *5* α(N)=7.44×10^{-6} *11*; α(O)=1.086×10^{-6} *16*; α(P)=6.17×10^{-8} *9*; α(IPF)=9.61×10^{-5} *14*
		1586.90 *17*	53 *6*	1264.7472	2−	E2	1.33×10^{-3}	α(K)=0.001041 *15*; α(L)=0.0001439 *21*; α(M)=3.14×10^{-5} *5* α(N)=7.25×10^{-6} *11*; α(O)=1.058×10^{-6} *15*; α(P)=6.02×10^{-8} *9*; α(IPF)=0.0001039 *15*
		2764.81 *5*	100 *8*	86.7877	2+	E1	1.29×10^{-3}	α(K)=0.000196 *3*; α(L)=2.52×10^{-5} *4*; α(M)=5.45×10^{-6} *8*

$^{160}_{66}Dy_{94}$-52

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.†	α[a]	Comments
								α(N)=1.259×10^{-6} *18*; α(O)=1.85×10^{-7} *3*; α(P)=1.102×10^{-8} *16*; α(IPF)=0.001060 *15*
2851.73	1$^-$	2851.55 *8*	30.0 *19*	0.0	0$^+$	(E1)	1.32×10^{-3}	α(K)=0.000187 *3*; α(L)=2.41×10^{-5} *4*; α(M)=5.20×10^{-6} *8* α(N)=1.201×10^{-6} *17*; α(O)=1.768×10^{-7} *25*; α(P)=1.052×10^{-8} *15*; α(IPF)=0.001105 *16*
2853.69		2272.8 *5*	10 *2*	581.066	6$^+$			
		2569.83 *12*	100 *7*	283.8219	4$^+$			
2858.17		298.15[d] *7*	100[d] *25*	2560.02	2$^+$,3,4$^+$	E1	0.01747	α(K)=0.01480 *21*; α(L)=0.00209 *3*; α(M)=0.000457 *7* α(N)=0.0001048 *15*; α(O)=1.495×10^{-5} *21*; α(P)=7.80×10^{-7} *11*
		1891.5 *5*	7 *3*	966.1687	2$^+$			
		2771.6 *5*	4 *2*	86.7877	2$^+$			
2861.162	1$^+$	163.35 *2*	100 *5*	2697.821	2$^+$	M1+E2	0.53 *7*	α(K)=0.40 *11*; α(L)=0.106 *33*; α(M)=0.0245 *84* α(N)=0.0056 *19*; α(O)=7.3×10^{-4} *19*; α(P)=2.22×10^{-5} *91*
		410.9 *1*	10 *5*	2450.25	1$^-$			
		1502.6 *3*	84 *10*	1358.670	2$^-$			
		1511.6 *3*	31 *16*	1349.758	2$^+$			
		1581.2 *3*	26 *6*	1279.942	0$^+$			
		1811.6 *2*	16 *4*	1049.1018	3$^+$			
		2774.3 *2*	20 *5*	86.7877	2$^+$			I_γ: from 2002Ad34. From (γ,γ′), Iγ(2774γ)/Iγ(2861γ)=0.52 *5*.
		2861.03 *9*	44 *3*	0.0	0$^+$	(M1)	1.28×10^{-3}	α(K)=0.000400 *6*; α(L)=5.36×10^{-5} *8*; α(M)=1.165×10^{-5} *17* α(N)=2.70×10^{-6} *4*; α(O)=3.98×10^{-7} *6*; α(P)=2.37×10^{-8} *4*; α(IPF)=0.000812 *12*
2877.094	1$^-$	924.9[d] *3*	20[d] *10*	1952.31	0$^+$			
		1518.41[d] *3*	25[d] *10*	1358.670	2$^-$			
		1526.9 *4*	10 *5*	1349.758	2$^+$			
		1612.35[d] *3*	100[d] *30*	1264.7472	2$^-$			
		2790.4 *2*	12.5 *15*	86.7877	2$^+$			
		2876.98 *10*	8.5 *10*	0.0	0$^+$	E1	1.33×10^{-3}	α(K)=0.000185 *3*; α(L)=2.37×10^{-5} *4*; α(M)=5.13×10^{-6} *8* α(N)=1.185×10^{-6} *17*; α(O)=1.744×10^{-7} *25*; α(P)=1.038×10^{-8} *15*; α(IPF)=0.001118 *16* Mult.: from ^{160}Ho ε decay.
2879.46	2	375.57 *18*	37 *10*	2503.80	1$^+$,2$^+$			
		1423.0 *6*	49 *25*	1456.752	0$^+$			
		1480.4[d] *2*	1.0×10^2[d] *4*	1398.964	3$^-$			
		1599.5 *3*	41 *11*	1279.942	0$^+$			
		1723.9 *4*	63 *10*	1155.841	4$^+$			
		1830.6 *4*	62 *25*	1049.1018	3$^+$			
		2595.6 *2*	100 *10*	283.8219	4$^+$			
		2793.1 *5*	10 *2*	86.7877	2$^+$			
2885.58		122.53[d] *2*	15[d] *5*	2763.05		(M1)	1.340	
		211.20[d] *16*	4[d] *4*	2674.716	1$^-$	M1	0.292	

$^{160}_{66}Dy_{94}$-53

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.†	α[a]	Comments
2885.58		1836.49 *6*	59 *20*	1049.1018	3^+			
		1919.38 *15*	100 *5*	966.1687	2^+	(E1)	9.15×10^{-4}	α(K)=0.000346 *5*; α(L)=4.49×10^{-5} *7*; α(M)=9.72×10^{-6} *14* α(N)=2.25×10^{-6} *4*; α(O)=3.30×10^{-7} *5*; α(P)=1.95×10^{-8} *3*; α(IPF)=0.000512 *8*
2896.28	2^+	828.13[d] *15*	42[d] *9*	2068.08	1^-			
		1407.1 *2*	40 *5*	1489.500	1^-			
		1439.50[d] *4*	100[d] *12*	1456.752	0^+			
		1546.51 *15*	19 *2*	1349.758	2^+			
		1616.7[c] *2*	17[c] *1*	1279.942	0^+			
		1846.9[d] *2*	12[d] *5*	1049.1018	3^+			
		1930.0 *2*	60 *7*	966.1687	2^+			
		2612.5 *3*	5 *3*	283.8219	4^+			
		2809.2 *2*	7.9 *14*	86.7877	2^+			
		2896.7 *2*	16 *1*	0.0	0^+	E2	0.00120 *9*	α(K)=0.000370 *20*; α(L)=4.9×10^{-5} *3*; α(M)=1.07×10^{-5} *7* α(N)=2.47×10^{-6} *16*; α(O)=3.65×10^{-7} *23*; α(P)=2.16×10^{-8} *15*; α(IPF)=0.00077 *7*
2904.36	2,3,4	1937.7 *5*	32 *10*	966.1687	2^+			
		2620.4 *4*	35 *9*	283.8219	4^+			
		2817.56 *8*	100 *10*	86.7877	2^+			
2931.76		2647.91[d] *5*	100[d]	283.8219	4^+			
2941.96	4,5,6	2658.11 *8*	100	283.8219	4^+			
2958.55		1572.1 *3*	18 *2*	1386.458	4^-			
		1671.9[d] *5*	17[d] *7*	1286.713	3^-			
		1693.75 *25*	33 *10*	1264.7472	2^-	E2	1.23×10^{-3}	α(K)=0.000922 *13*; α(L)=0.0001266 *18*; α(M)=2.76×10^{-5} *4* α(N)=6.37×10^{-6} *9*; α(O)=9.31×10^{-7} *13*; α(P)=5.33×10^{-8} *8*; α(IPF)=0.0001467 *21*
		2674.71[d] *5*	100[d] *10*	283.8219	4^+			
2969.03	1,2	1683.28[c] *25*	100[c] *50*	1285.604	1^-			
		1704.3 *4*	64 *28*	1264.7472	2^-			
		2882.5 *3*	12 *3*	86.7877	2^+			
		2968.5 *7*	11 *5*	0.0	0^+			
2969.90		1583.3 *6*	4×10^1 *3*	1386.458	4^-			
		1683.28[c] *25*	24[c] *12*	1286.713	3^-			
		1813.9 *1*	9×10^1 *5*	1155.841	4^+			
		2686.14 *8*	100 *5*	283.8219	4^+			
2977.55		1928.4 *7*	8×10^1 *4*	1049.1018	3^+			
		2693.70 *6*	100 *15*	283.8219	4^+			
2984.84	12^-	318.2 *2*	<100	2666.30	12^-			
		465.0 *2*	<100	2520.17	10^-			
2988.76	13^+	475 *1*	<23	2513.36	14^+			
		503.3 *1*	100 *5*	2485.64	11^+			

$^{160}_{66}Dy_{94}$-54

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	α[a]	Comments
2988.76	13^+	1038.8 *2*	50 *5*	1950.17	12^+			
2994.69	2,3,4	1476.25 *8*	100 *11*	1518.419	2^+			
		2711.0 *2*	23 *1*	283.8219	4^+			
		2907.7 *3*	3.9 *7*	86.7877	2^+			
3004.33	1,2	2917.5 *1*	86 *29*	86.7877	2^+			
		3004.6 *4*	100 *29*	0.0	0^+			
3007.46	14^+	414.3 *2*	<38	2593.64	12^+			
		493.7[&] *1*	100 *8*	2513.36	14^+			
		1056.5[&] *2*	100 *8*	1950.17	12^+			
3024.52	1,2	2937.9 *3*	55 *6*	86.7877	2^+			
		3024.4 *2*	100 *8*	0.0	0^+			
3033.7		2749.9 *3*	100	283.8219	4^+			
3060.44		946.75 *9*	100	2113.69				
3061.82	1^+	327.3 *3*	22 *15*	2734.718	1^-	[E1]	0.01387	α(K)=0.01176 *17*; α(L)=0.001654 *24*; α(M)=0.000361 *6* α(N)=8.29×10^{-5} *12*; α(O)=1.185×10^{-5} *17*; α(P)=6.24×10^{-7} *9*
		400.25 *6*	100 *7*	2661.511	2^-	E1	0.00855	α(K)=0.00726 *11*; α(L)=0.001010 *15*; α(M)=0.000220 *3* α(N)=5.06×10^{-5} *7*; α(O)=7.28×10^{-6} *11*; α(P)=3.91×10^{-7} *6*
		431.15[d] *25*	15[d] *7*	2630.705	1^-			
		984.65[de] *20*	15[d] *7*	2077.36	3^-			
		1049.6 *5*	81 *15*	2012.85	2^+			
		1775.14 *9*	36 *5*	1286.713	3^-			
		1797.6 *4*	19 *9*	1264.7472	2^-			
		2975.2 *2*	14 *1*	86.7877	2^+	(M1)	1.30×10^{-3}	α(K)=0.000368 *6*; α(L)=4.92×10^{-5} *7*; α(M)=1.069×10^{-5} *15* α(N)=2.47×10^{-6} *4*; α(O)=3.65×10^{-7} *6*; α(P)=2.17×10^{-8} *3*; α(IPF)=0.000871 *13* Mult.: from (γ,γ′).
		3061.3 *7*	1.6 *7*	0.0	0^+	(M1)	1.32×10^{-3}	α(K)=0.000345 *5*; α(L)=4.62×10^{-5} *7*; α(M)=1.004×10^{-5} *14* α(N)=2.32×10^{-6} *4*; α(O)=3.43×10^{-7} *5*; α(P)=2.04×10^{-8} *3*; α(IPF)=0.000914 *13* Mult.: from (γ,γ′).
3081.4		2797.6 *4*	100	283.8219	4^+			
3089.49	16^+	576.5[&] *1*	100	2513.36	14^+	E2	0.01056	α(K)=0.00861 *12*; α(L)=0.001521 *22*; α(M)=0.000340 *5* α(N)=7.80×10^{-5} *11*; α(O)=1.088×10^{-5} *16*; α(P)=4.87×10^{-7} *7* E_γ: from (^{7}Li,p4nγ). Mult.: from (α,2nγ).
3098.82	6^+	890.6 *1*	15 *6*	2208.36	4^+			
		1297.66[d&] *18*	15[d] *6*	1800.35	8^+	E2	0.00182	α(K)=0.001525 *22*; α(L)=0.000216 *3*; α(M)=4.73×10^{-5} *7* α(N)=1.092×10^{-5} *16*; α(O)=1.587×10^{-6} *23*; α(P)=8.81×10^{-8} *13*; α(IPF)=1.91×10^{-5} *3*
		1378.4 *3*	24 *9*	1720.36	6^+			
		1481.9 *2*	100 *9*	1617.27	7^+	E2	1.46×10^{-3}	α(K)=0.001184 *17*; α(L)=0.0001650 *24*; α(M)=3.60×10^{-5} *5*

$^{160}_{66}Dy_{94}$-55

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	α[a]	Comments
								α(N)=8.31×10^{-6} *12*; α(O)=1.212×10^{-6} *17*; α(P)=6.84×10^{-8} *10*; α(IPF)=6.72×10^{-5} *10*
3098.82	6$^+$	1504.4[d] *3*	12[d] *6*	1594.42	6$^-$			
		2132.1 *3*	15 *3*	966.83	8$^+$			
		2518.7[d] *9*	21[d] *6*	581.066	6$^+$			
3111.1		596.5	100	2513.36	14$^+$			
3148.50	14$^-$	482.2 *1*	100	2666.30	12$^-$			Mult.,δ: (D+Q), δ<30 from (α,2nγ). The proposed placement in the level scheme required mult=E2, which is inconsistent with the reported δ value.
3188.20	13$^-$	491.9 *1*	100	2696.30	11$^-$			
3192.87	15$^-$	495.4 *1*	100 *5*	2697.31	13$^-$			
		678.3 *1*	38 *2*	2513.36	14$^+$			
3220.16	14$^+$	512.2 *1*	100 *14*	2707.77	12$^+$			
		706.6 *2*	<71	2513.36	14$^+$			
		1270.6[&] *2*	<71	1950.17	12$^+$			
3452.1?		340.6[e]	100	3111.1				identified by 1987Ri08 as connecting levels at 3454 and 3113. (This latter level has been revised to 3111.5 in this evaluation.) The placement of this γ and, hence, the existence of the 3452 level are uncertain.
3452.7		363.2	100	3089.49	16$^+$			
3508.22	15$^+$	519.7 *1*	100 *4*	2988.76	13$^+$			
		994.6 *2*	<22	2513.36	14$^+$			
3510.64	14$^-$	525.8 *1*	100	2984.84	12$^-$			
3526.56	16$^+$	437.4 *2*	<50	3089.49	16$^+$			
		517.2[&] *2*	<50	3007.46	14$^+$			E_γ: see the comment on this γ in the (^{7}Li,p4nγ) data set.
		1014.5[&] *2*	100 *10*	2513.36	14$^+$			E_γ: see the comment on this γ in the (^{7}Li,p4nγ) data set.
3669.65	18$^+$	580.5[&] *1*	100	3089.49	16$^+$	E2	0.01038	α(K)=0.00847 *12*; α(L)=0.001491 *21*; α(M)=0.000334 *5* α(N)=7.65×10^{-5} *11*; α(O)=1.068×10^{-5} *15*; α(P)=4.79×10^{-7} *7* E_γ: from (^{7}Li,p4nγ).
3681.31	16$^-$	532.8 *1*	100	3148.50	14$^-$			
3730.6	15$^-$	542.4 *2*	100	3188.20	13$^-$			
3744.53	17$^-$	551.5 *1*	100 *7*	3192.87	15$^-$			
		655.2 *1*	17 *3*	3089.49	16$^+$			
3767.63	16$^+$	547.1 *2*	<100	3220.16	14$^+$			
		679.0[&] *2*	<100	3089.49	16$^+$			
		1253.7 *2*	<100	2513.36	14$^+$			
4044.15	17$^+$	536.1 *1*	100 *9*	3508.22	15$^+$			
		953.8[&] *2*	<45	3089.49	16$^+$			
4078.3	16$^-$	567.7 *2*	100	3510.64	14$^-$			
4160.82	18$^+$	490.6 *2*	<100	3669.65	18$^+$			
		634.0 *2*	<100	3526.56	16$^+$			
		1071.7 *2*	<100	3089.49	16$^+$			
4257.01	18$^-$	575.7 *1*	100	3681.31	16$^-$			

$^{160}_{66}Dy_{94}$-56

Adopted Levels, Gammas (continued)

γ(^{160}Dy) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π
4278.39	20^+	608.6 *1*	100	3669.65	18^+	4975.00	20^+	1306.2& *2*	100	3669.65	18^+
4317.0	17^-	586.4 *2*	100	3730.6	15^-	5001.54	21^-	653.5 *1*	100	4348.04	19^-
4348.04	19^-	603.5 *1*	100	3744.53	17^-	5241.09	21^+	623.0 *1*	100 *17*	4618.29	19^+
4349.95	18^+	582.3 *1*	100 *11*	3767.63	16^+			961.9& *2*	<83	4278.39	20^+
		680.6 *2*	<56	3669.65	18^+	5528.2	22^-	655.6 *2*	100	4872.61	20^-
		1259.2& *2*	<56	3089.49	16^+	5602.1	22^+	727 *1*	100	4875.09	20^+
4618.29	19^+	574.1 *1*	100 *8*	4044.15	17^+	5647.30	24^+	711.7 *1*	100	4935.60	22^+
		949.6& *2*	<42	3669.65	18^+	5705.2	23^-	703.7 *2*	100	5001.54	21^-
4872.61	20^-	615.6 *1*	100	4257.01	18^-	5916.5	23^+	675.4 *2*	100	5241.09	21^+
4875.09	20^+	596.7 *1*	100 *14*	4278.39	20^+	6219.8	24^-	691.6 *2*	100	5528.2	22^-
		713.8 *2*	<71	4160.82	18^+	6412.5	26^+	765.2 *2*	100	5647.30	24^+
		1205.9 *2*	<71	3669.65	18^+	6458.0	25^-	752.8 *2*	100	5705.2	23^-
4935.60	22^+	657.2 *1*	100	4278.39	20^+	6642.7	25^+	726.2 *2*	100	5916.5	23^+
4936.8	19^-	619.8 *2*	100	4317.0	17^-	6966.3	26^-	746.5 *2*	100	6219.8	24^-
4975.00	20^+	624.0& *2*	100	4349.95	18^+	7230.3	28^+	817.8 *2*	100	6412.5	26^+
		696.8 *2*	100	4278.39	20^+						

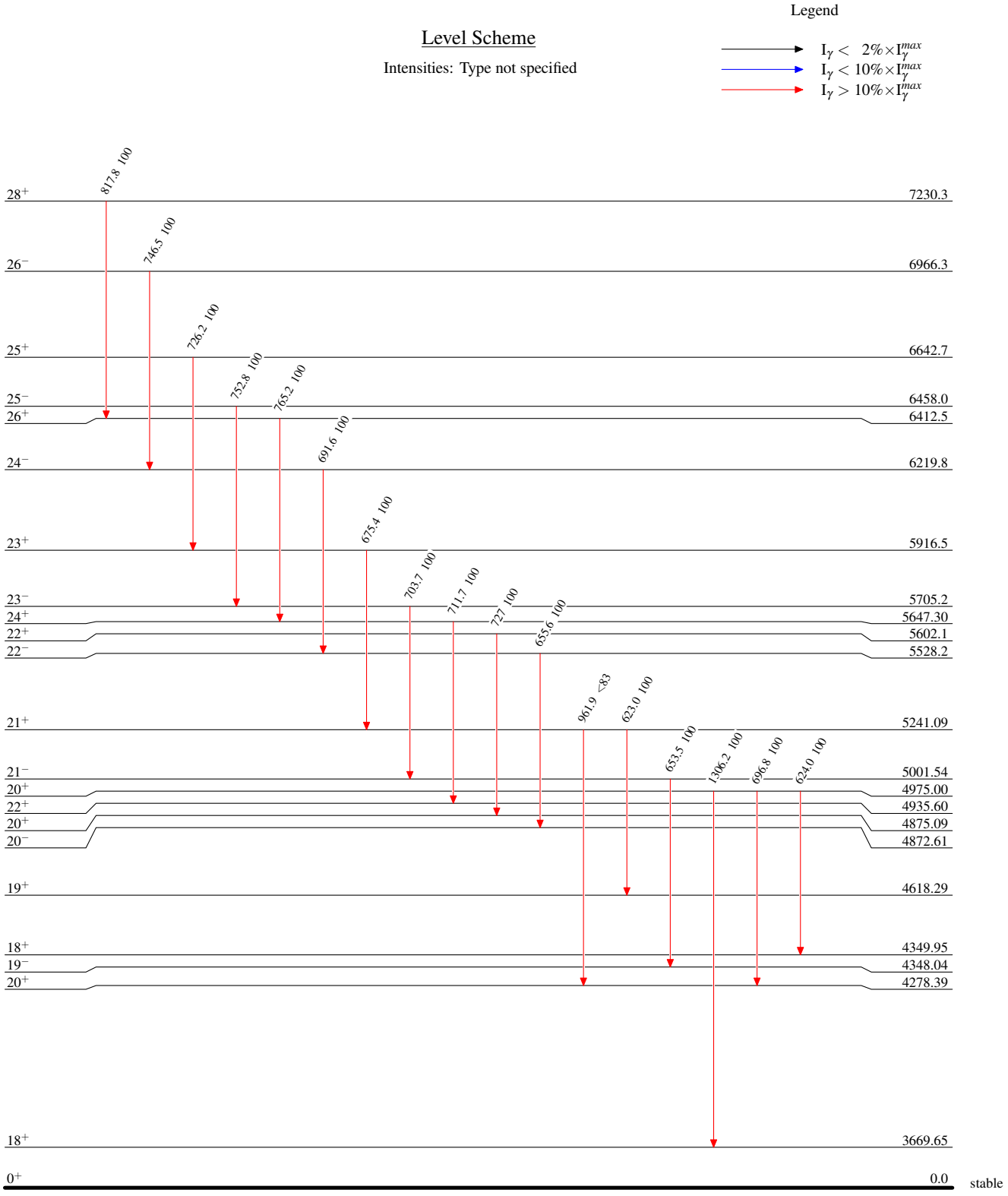
† From ^{160}Ho ε decay, except where noted otherwise. If only one data set presents data on these properties, it is to be assumed that this information is derived from that source.
‡ From ^{160}Tb β^- decay.
# Values are generally from the ^{160}Tb β^- decay or the ^{160}Ho ε decay. If only one data set presents data on these values, it is to be assumed that this information is derived from that source.
@ From ^{160}Ho ε decay.
& Eγ differs by 3σ or more than value calculated from ΔE(lev).
a Additional information 2.
b Additional information 3.
c Multiply placed with undivided intensity.
d Multiply placed with intensity suitably divided.
e Placement of transition in the level scheme is uncertain.

$^{160}_{66}Dy_{94}$-57

Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified

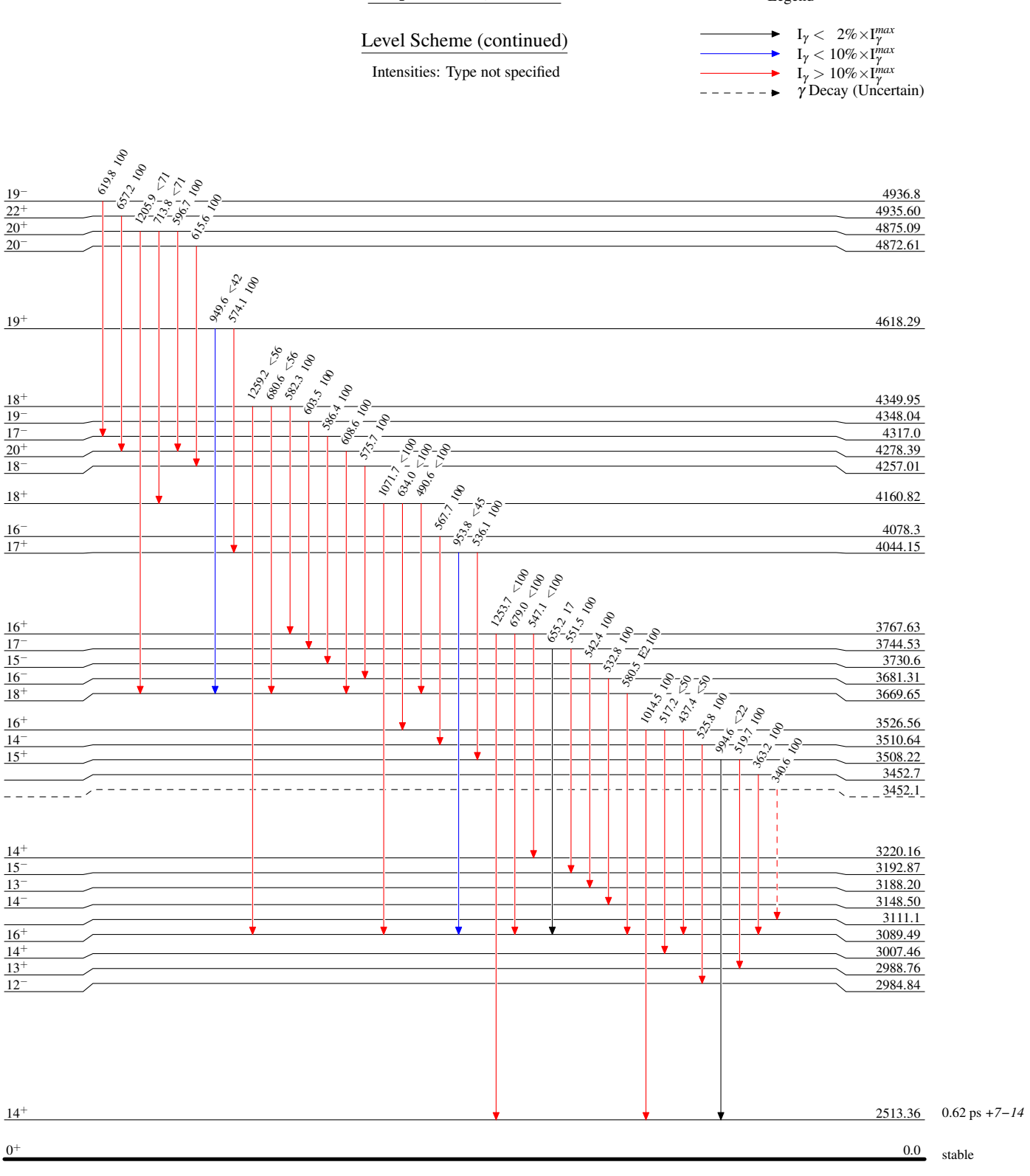


$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

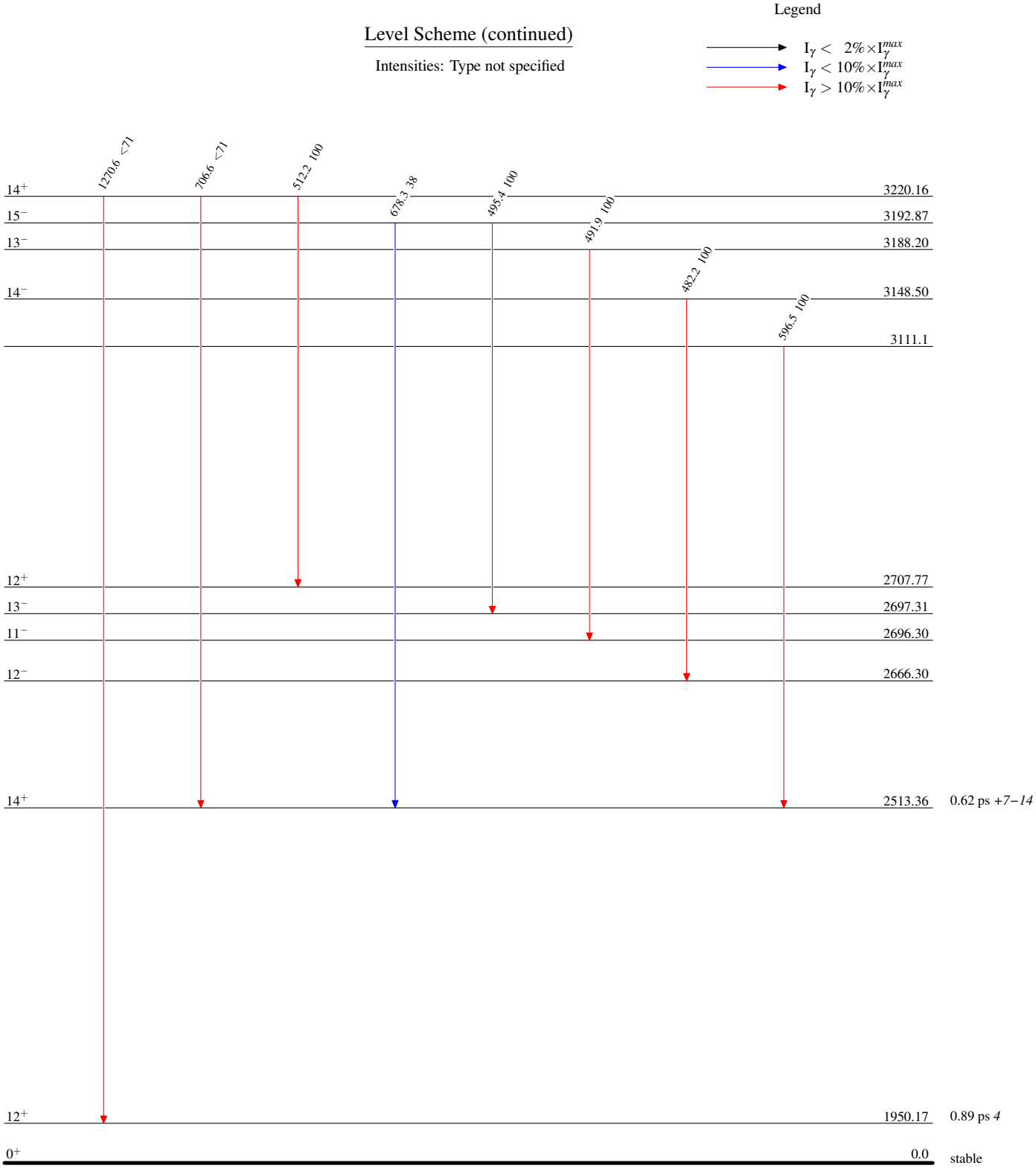


$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

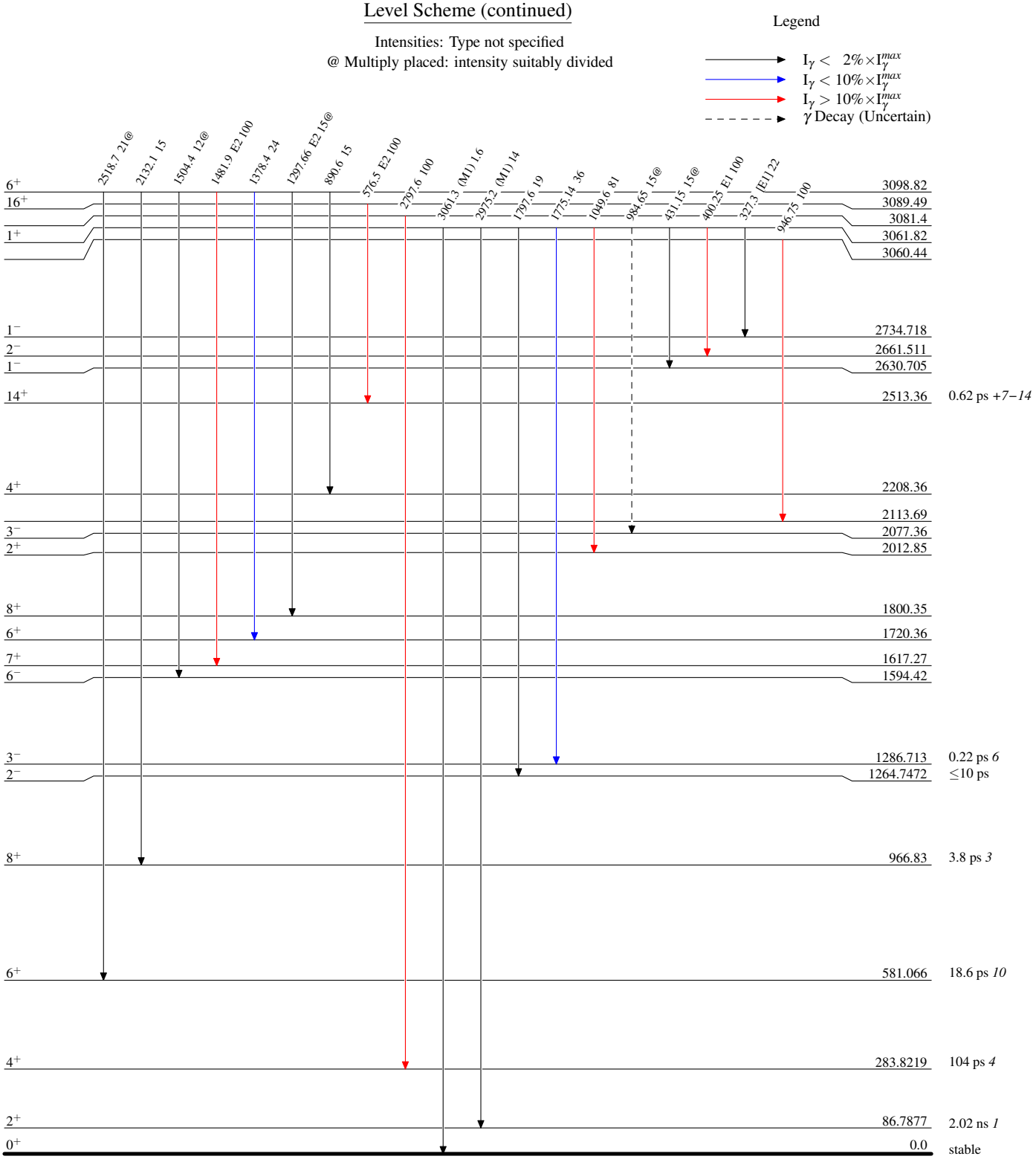


$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
@ Multiply placed: intensity suitably divided



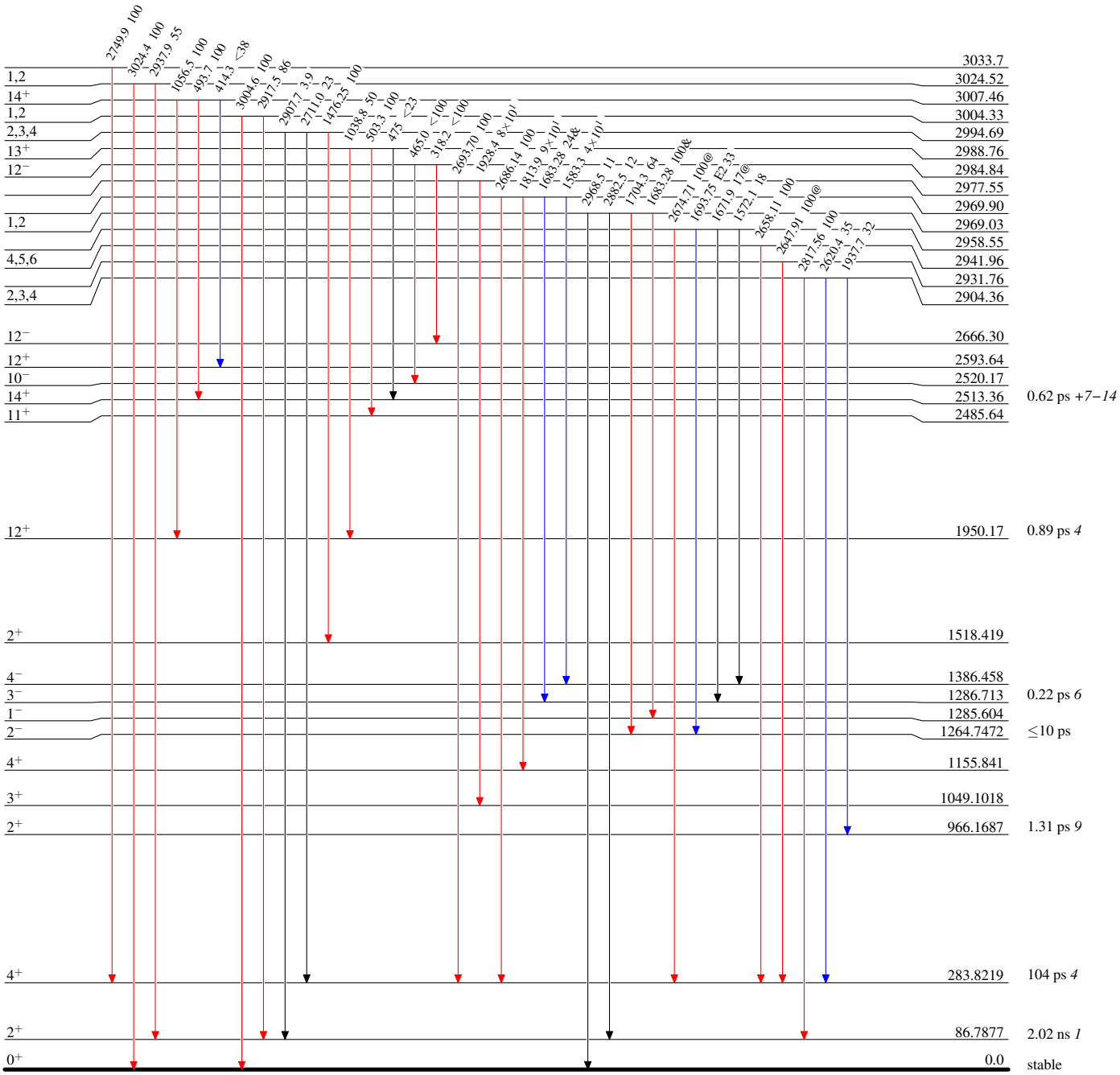
$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$



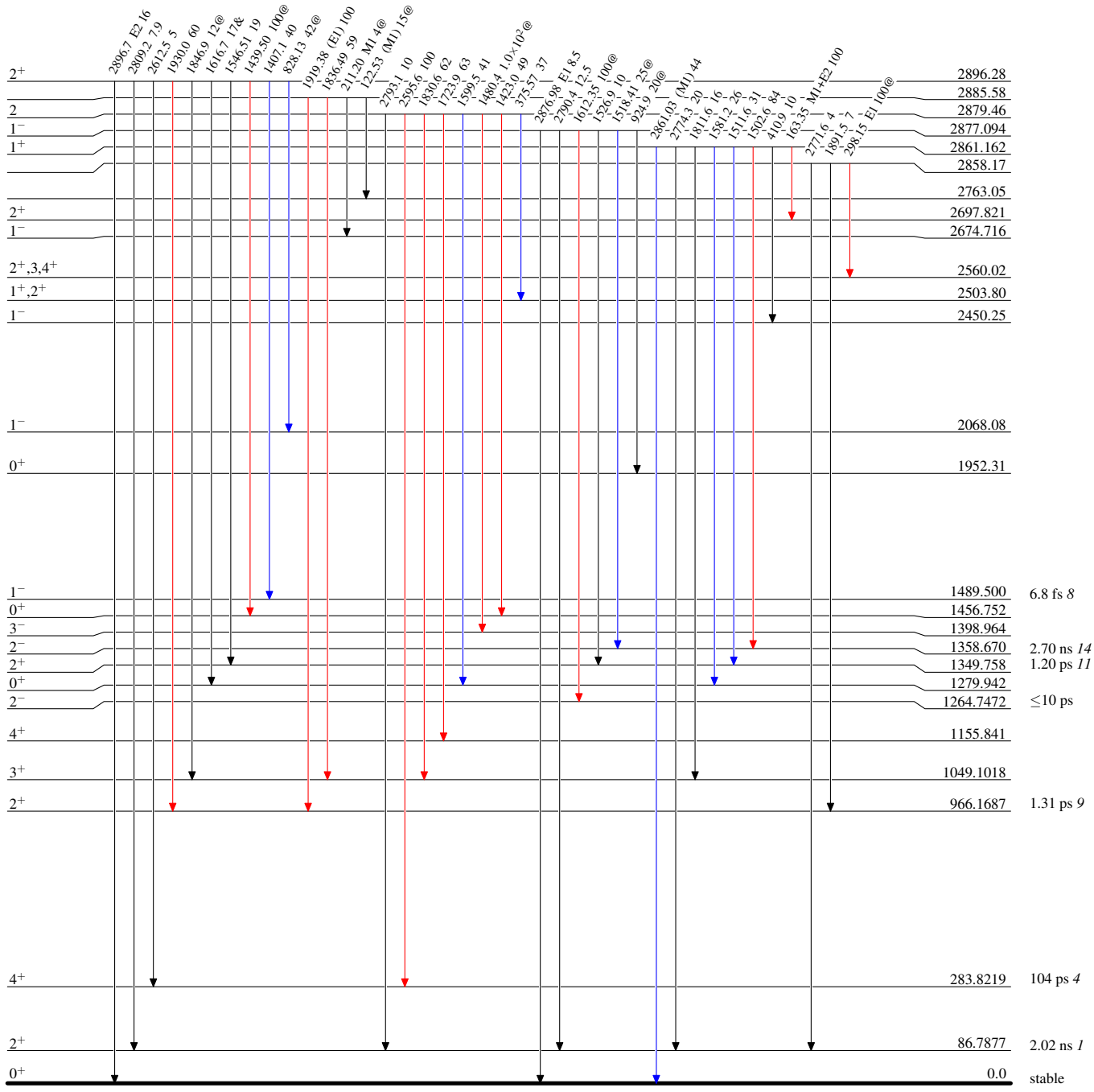
$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$



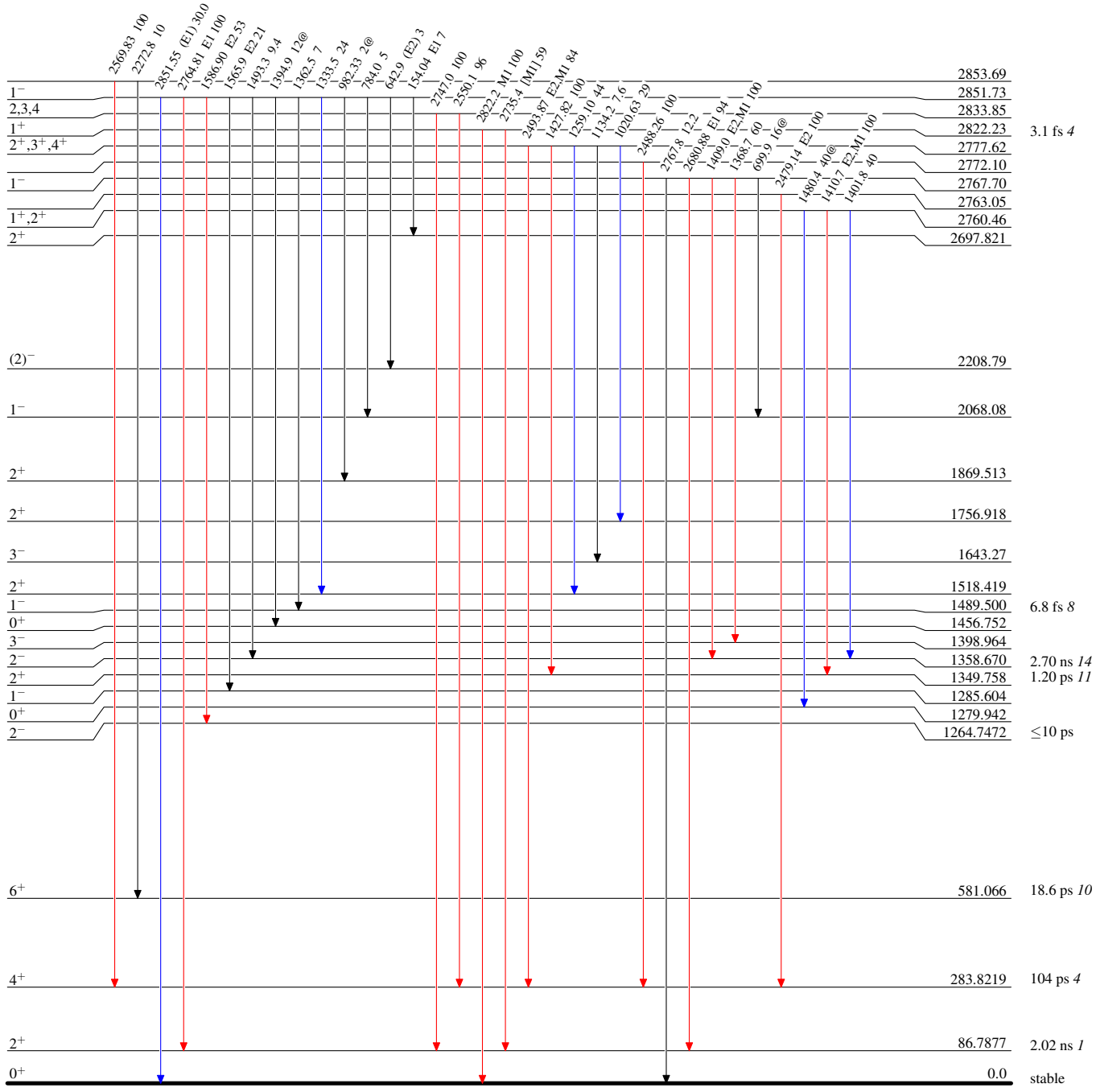
$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$



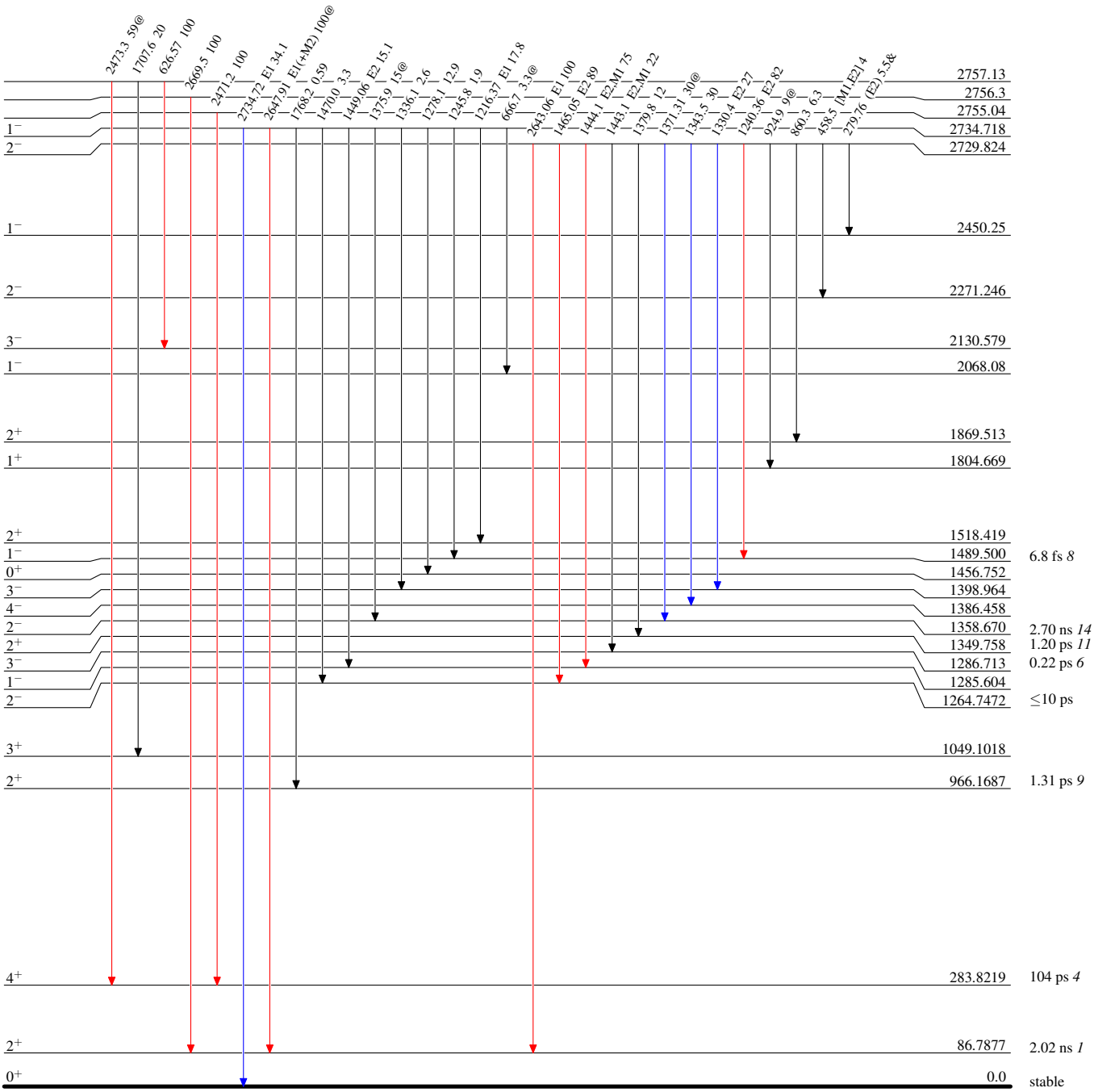
$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$

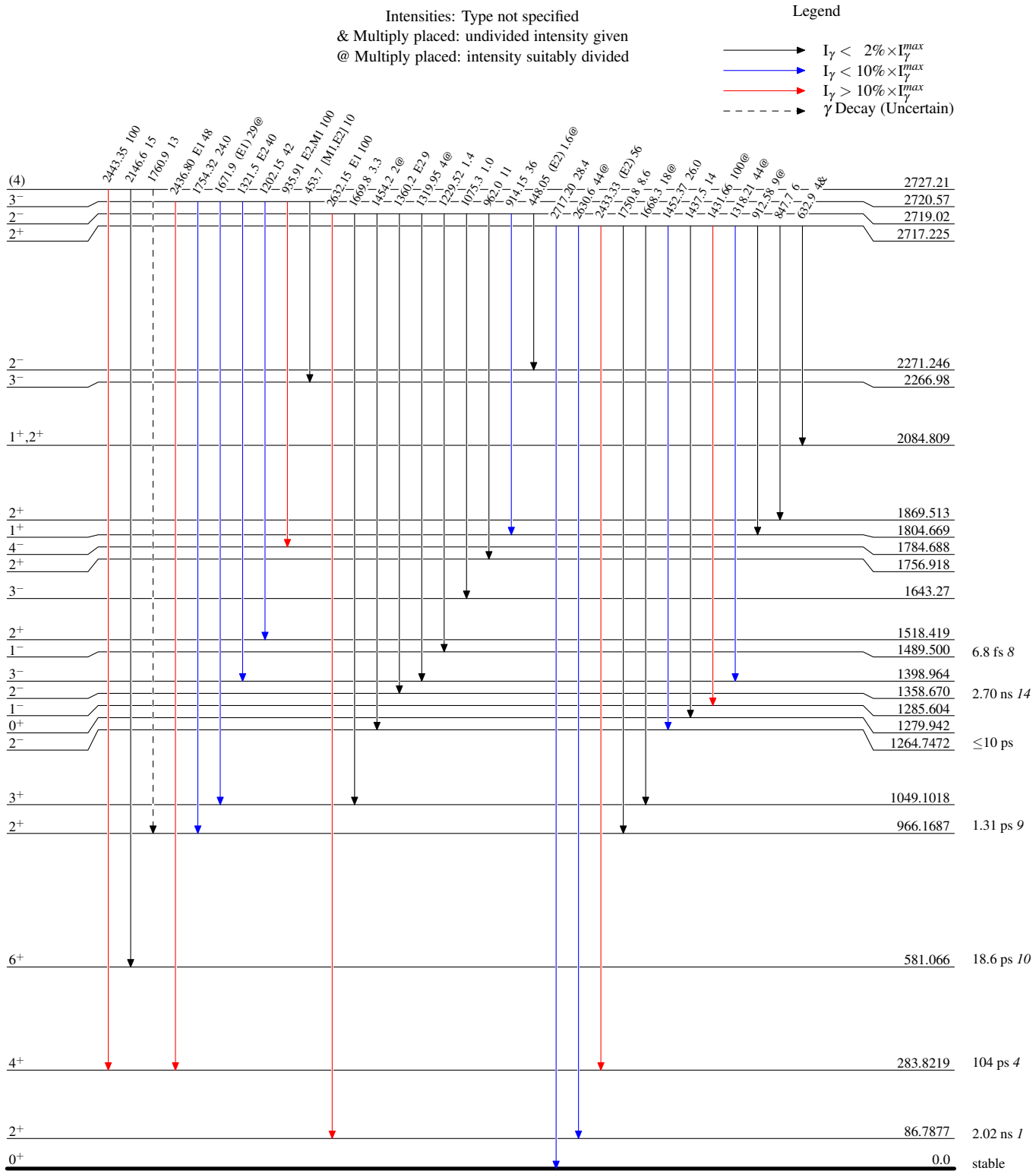


$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided



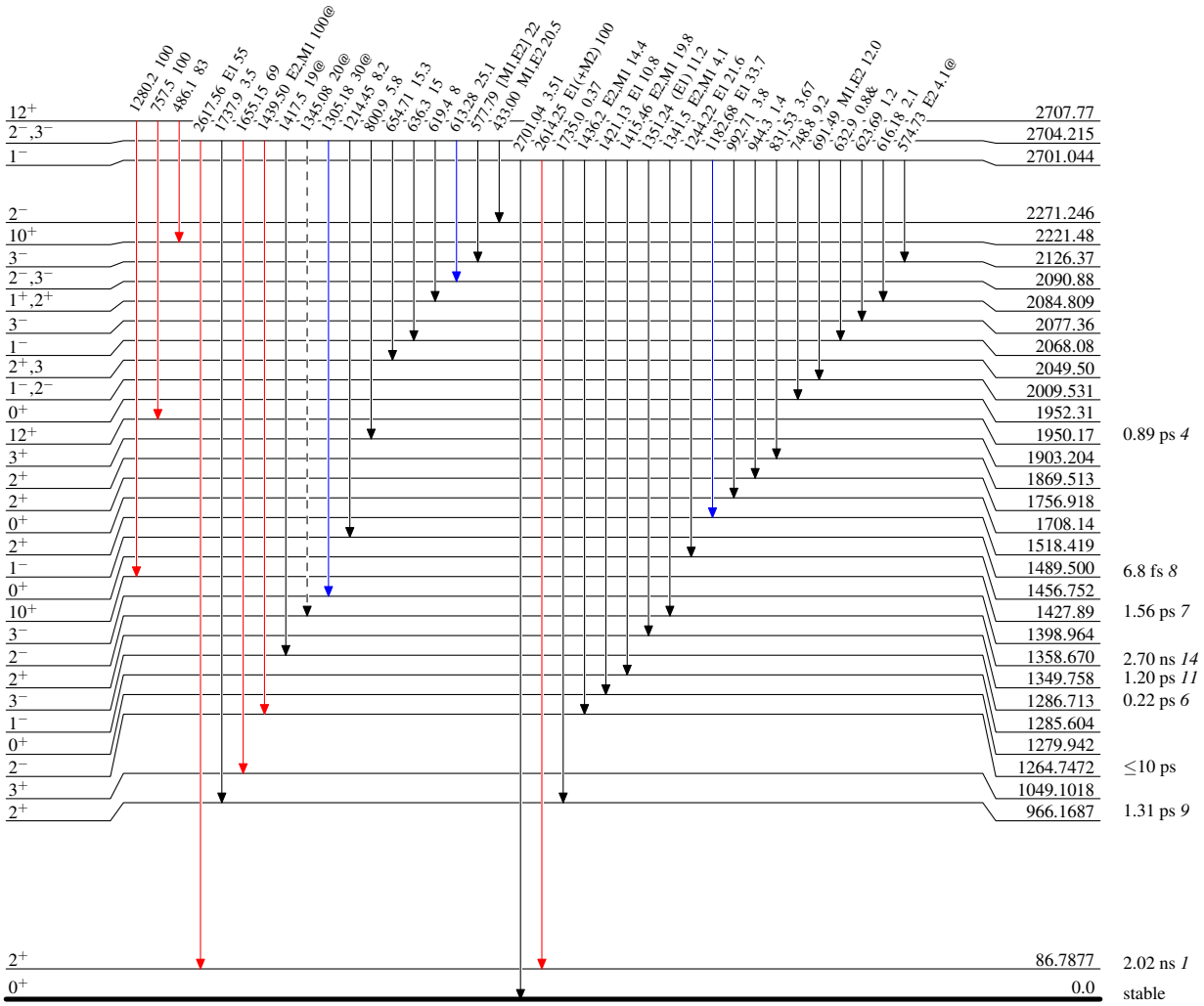
$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
γ Decay (Uncertain)



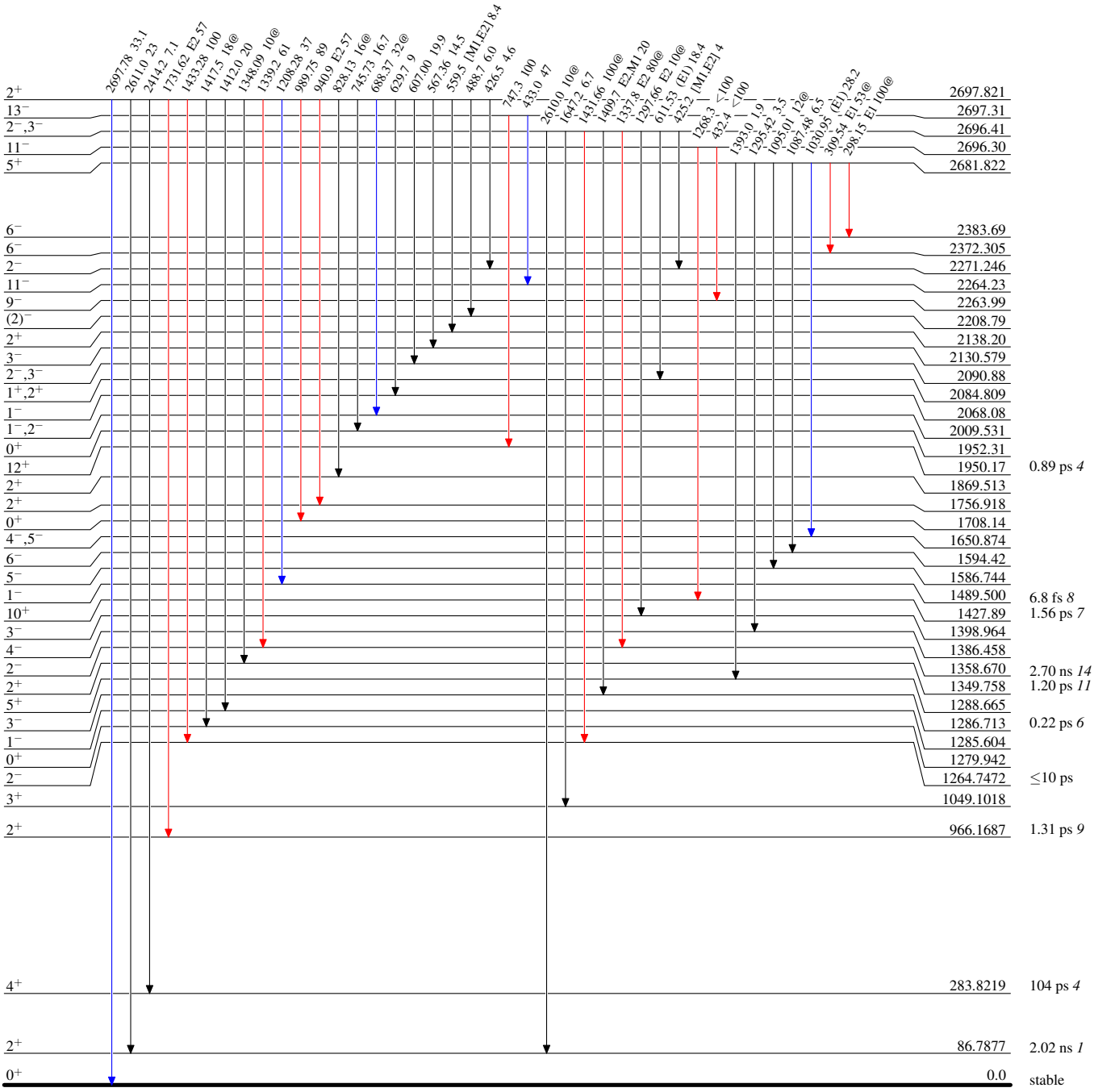
$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$

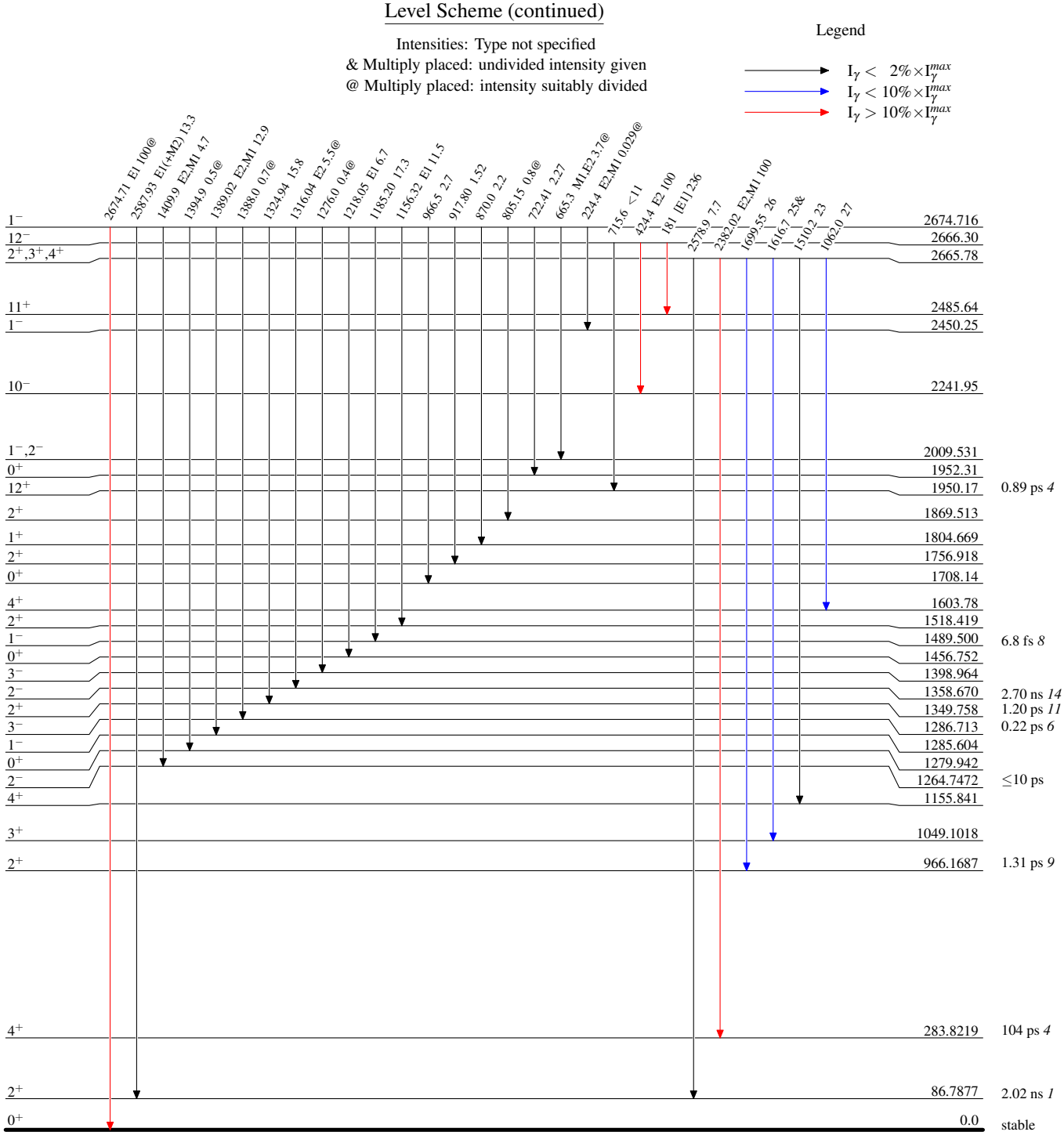


$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided



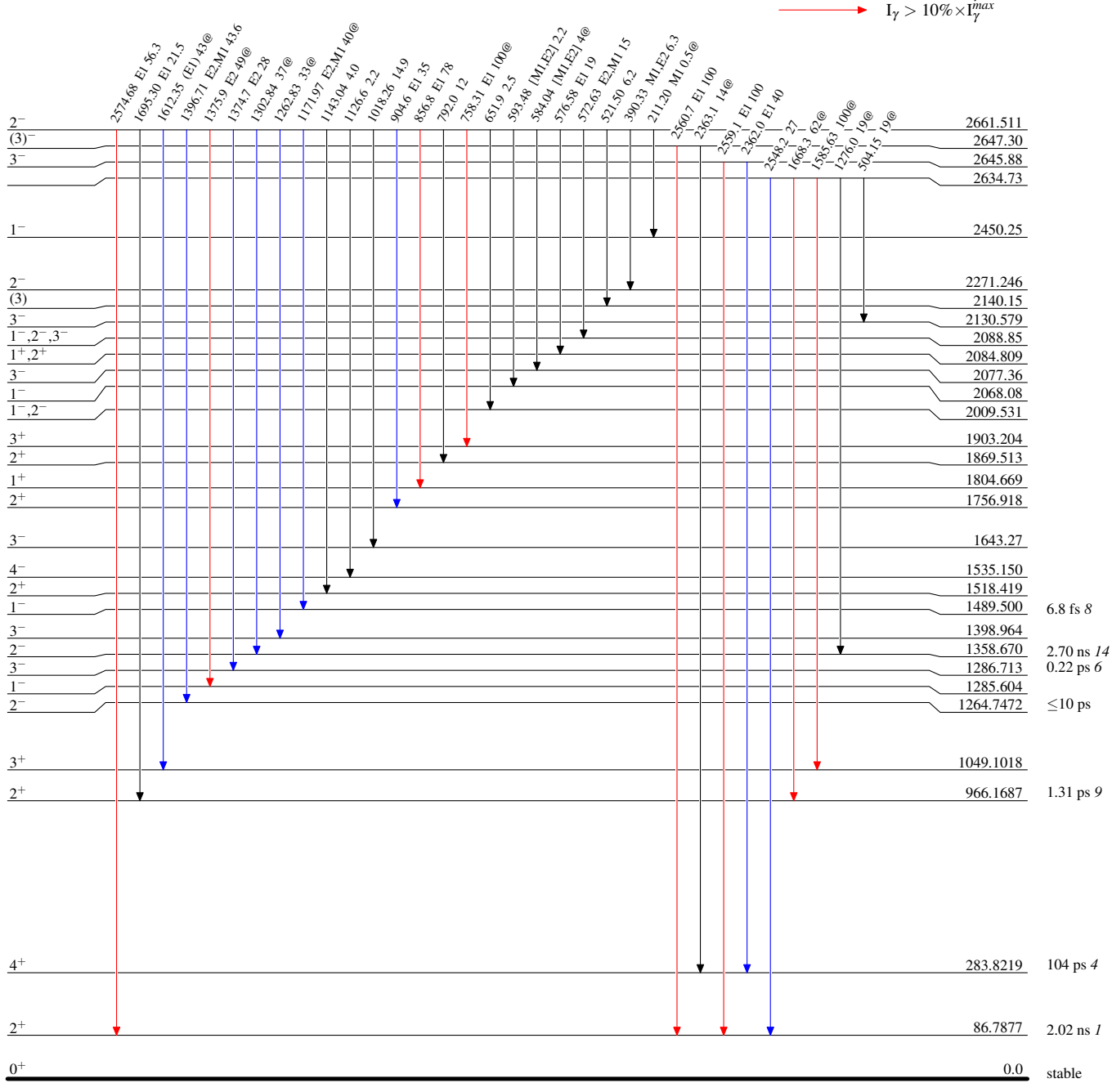
$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$

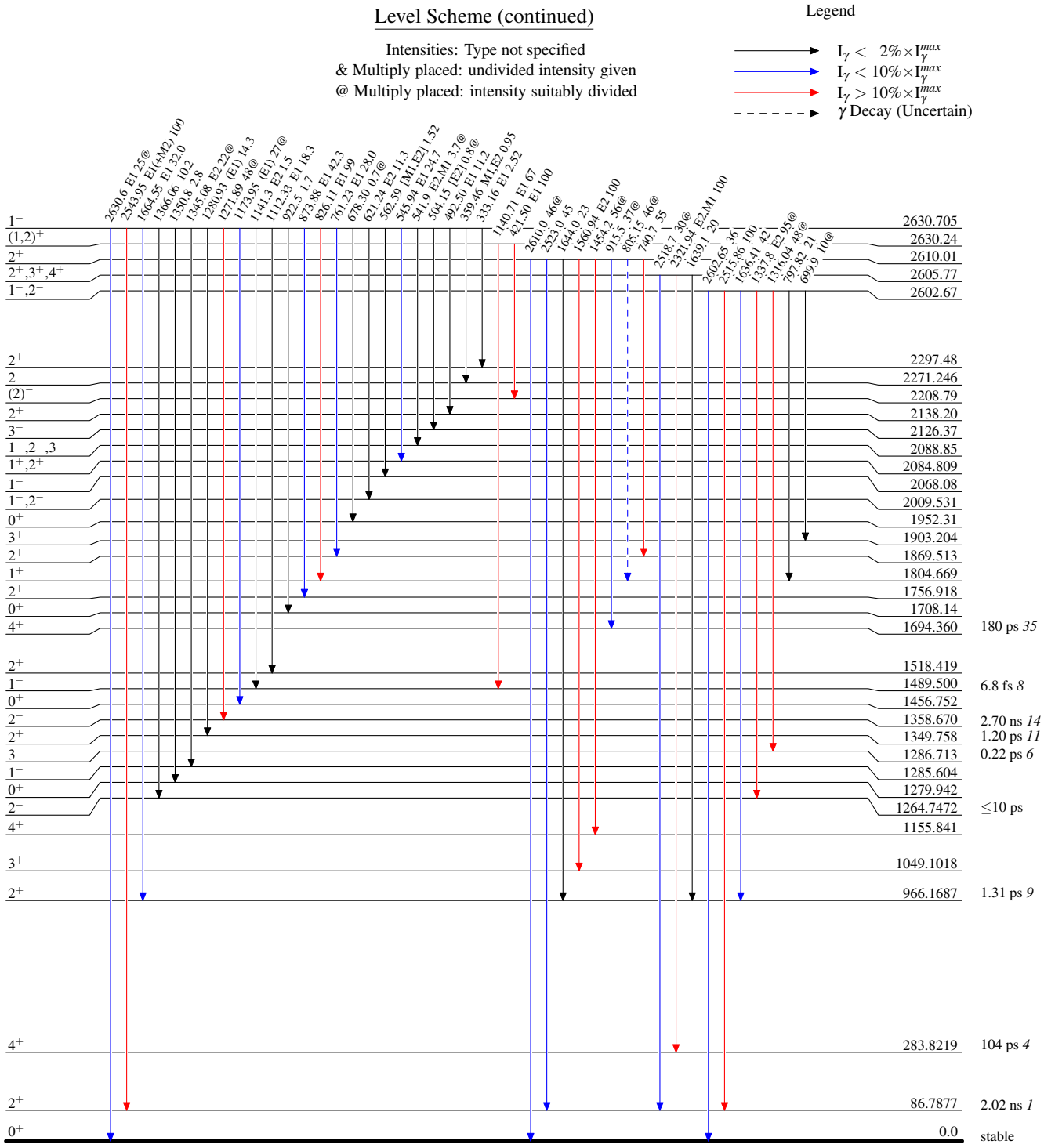


$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided



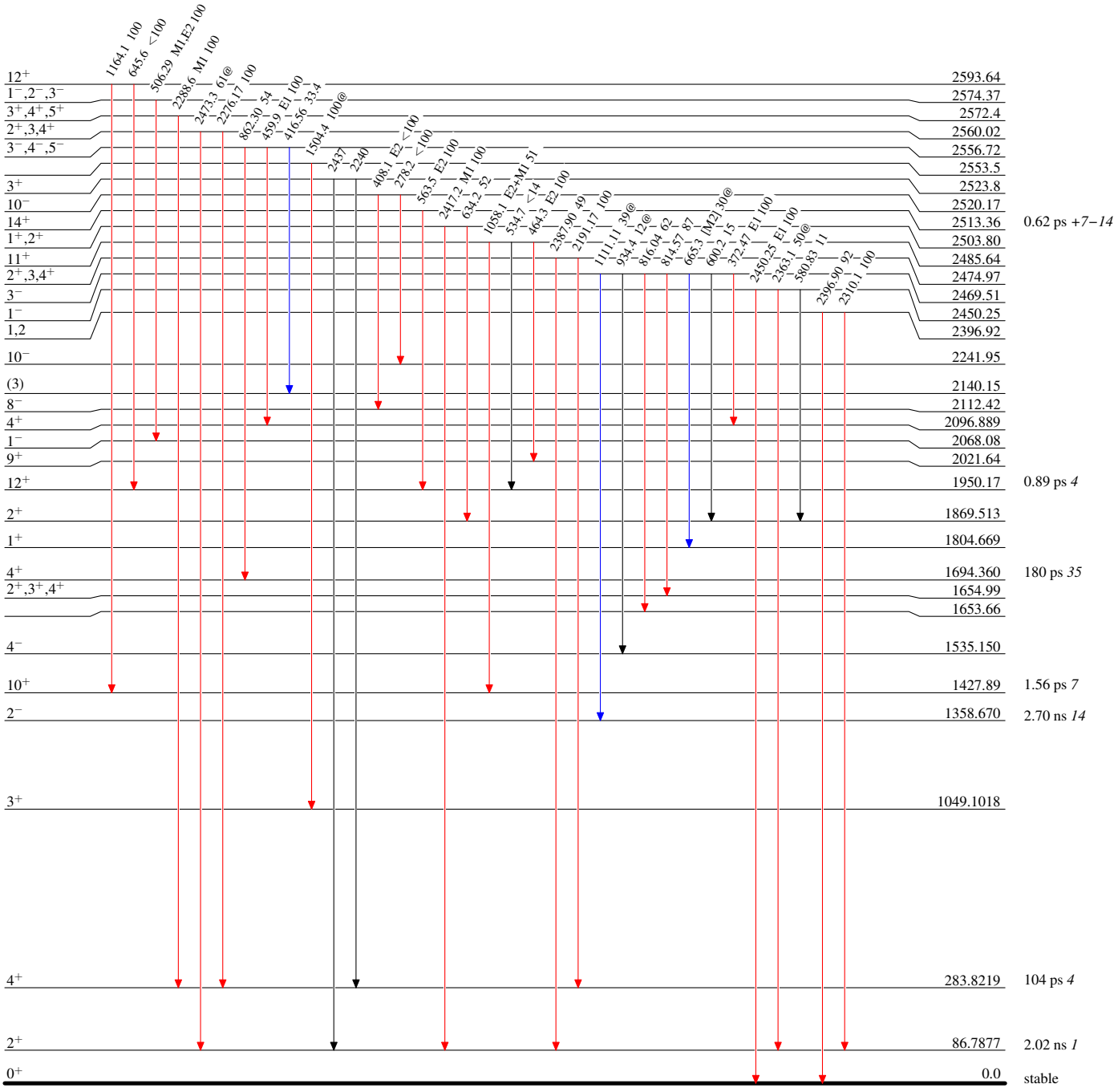
$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$



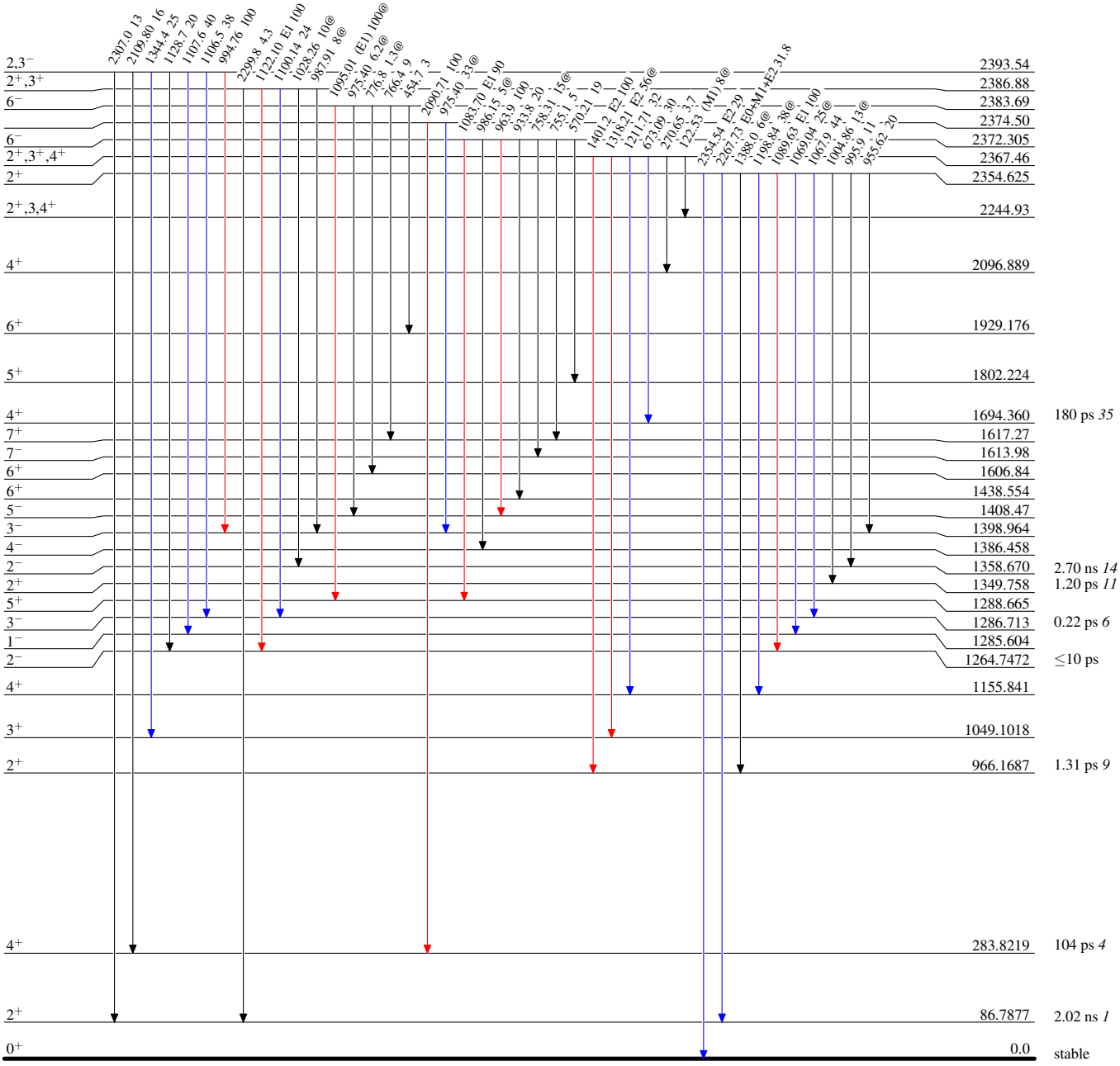
$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$



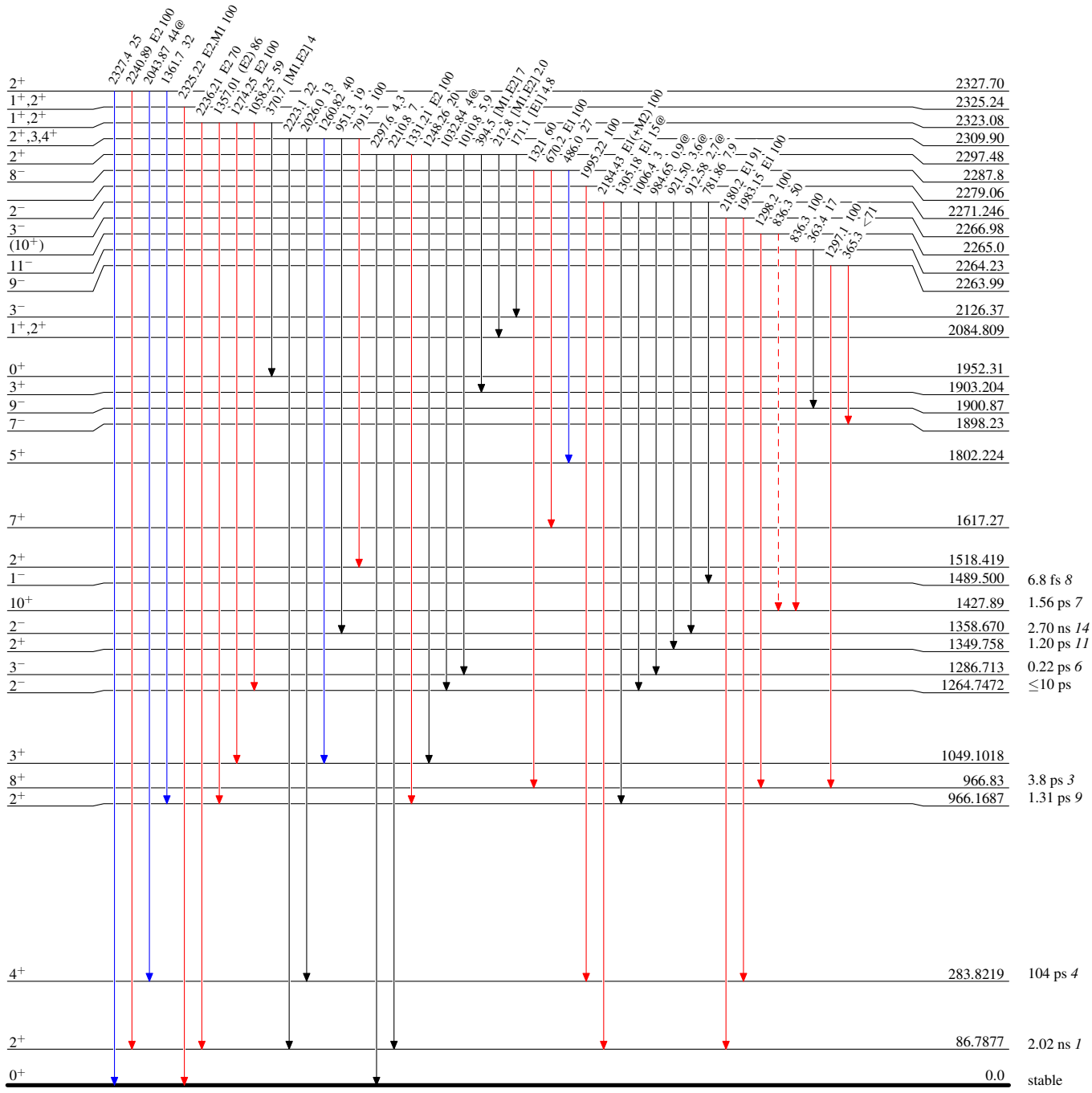
$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
γ Decay (Uncertain)

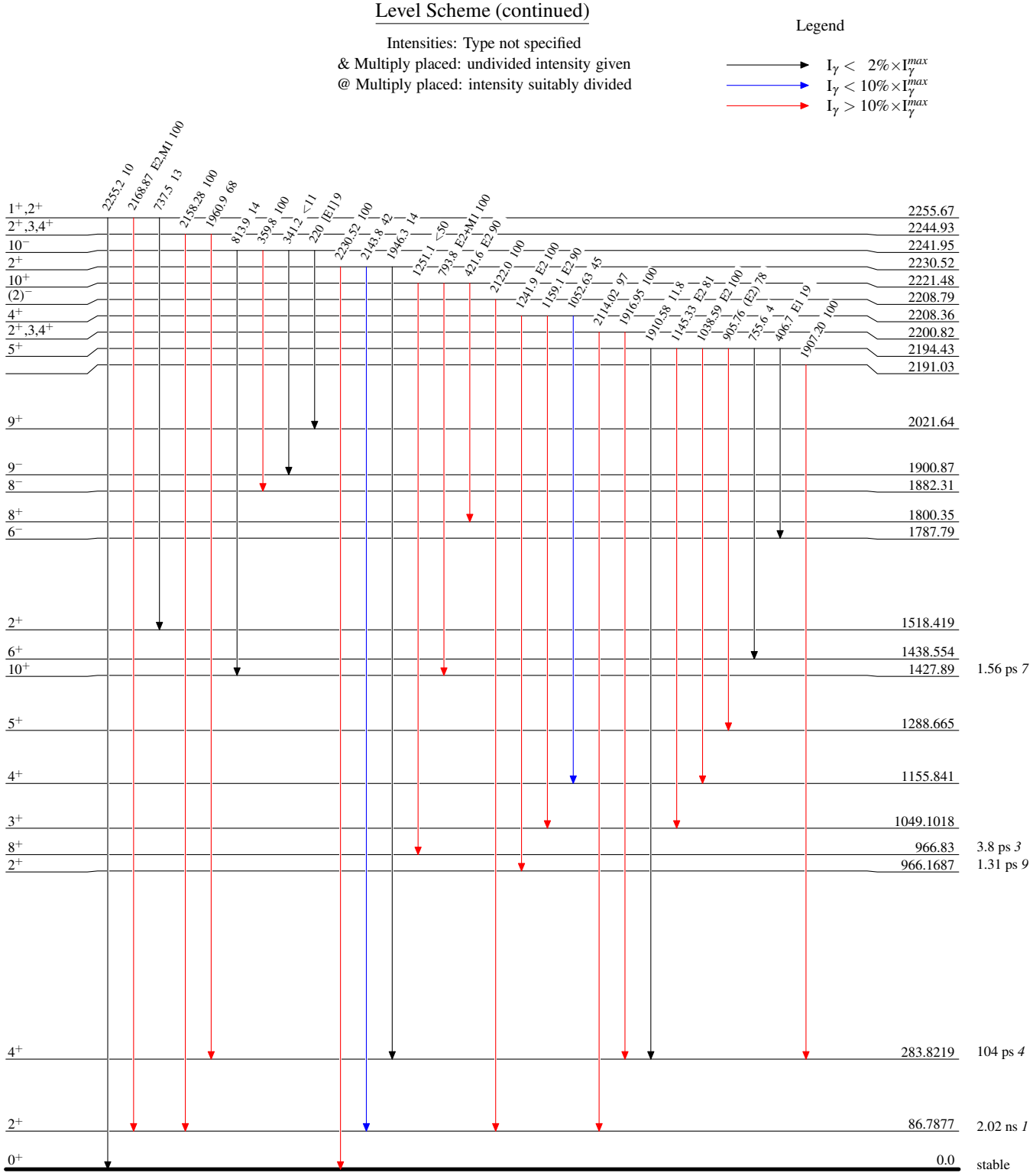


$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided



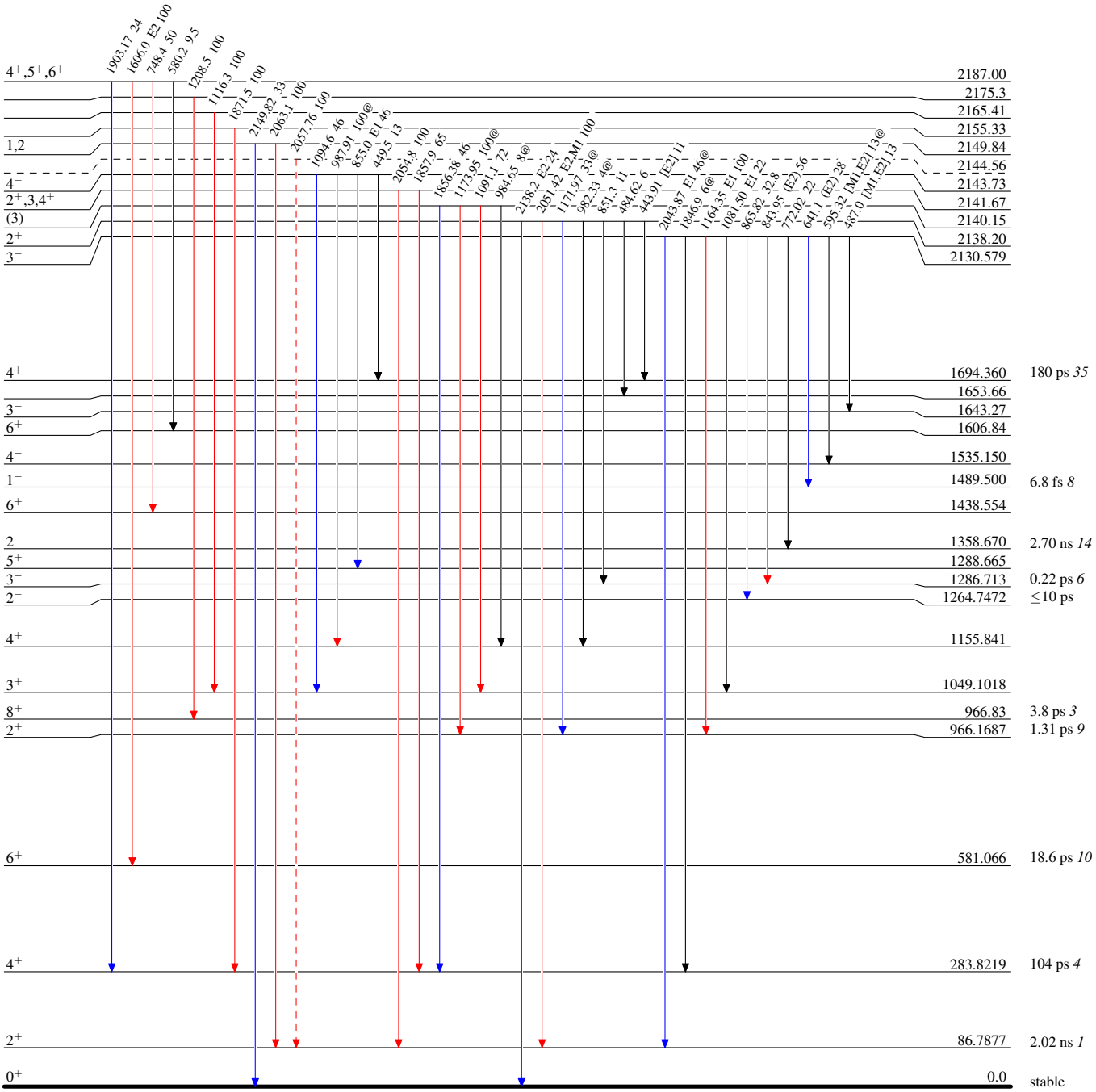
$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
γ Decay (Uncertain)



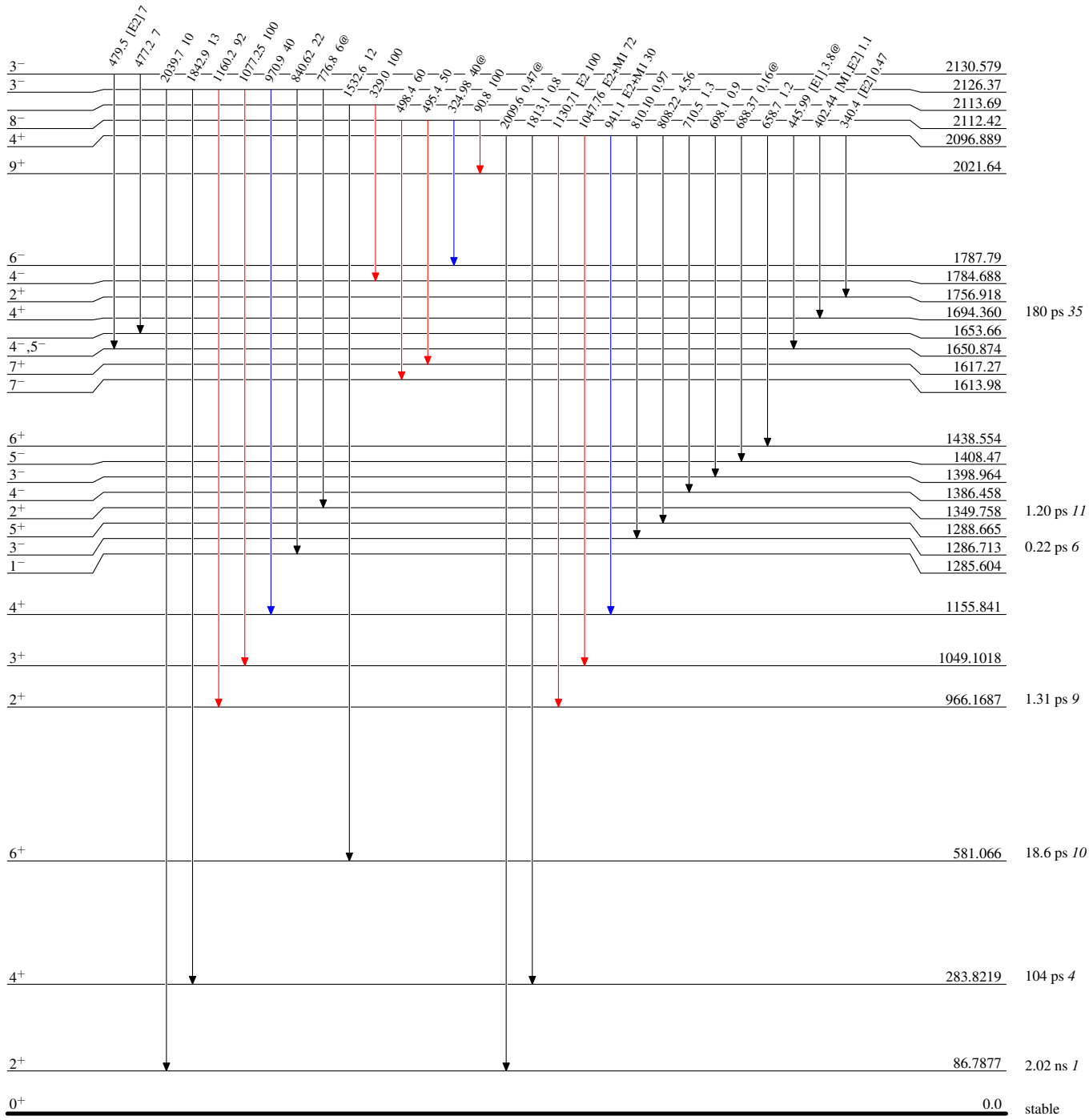
$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$



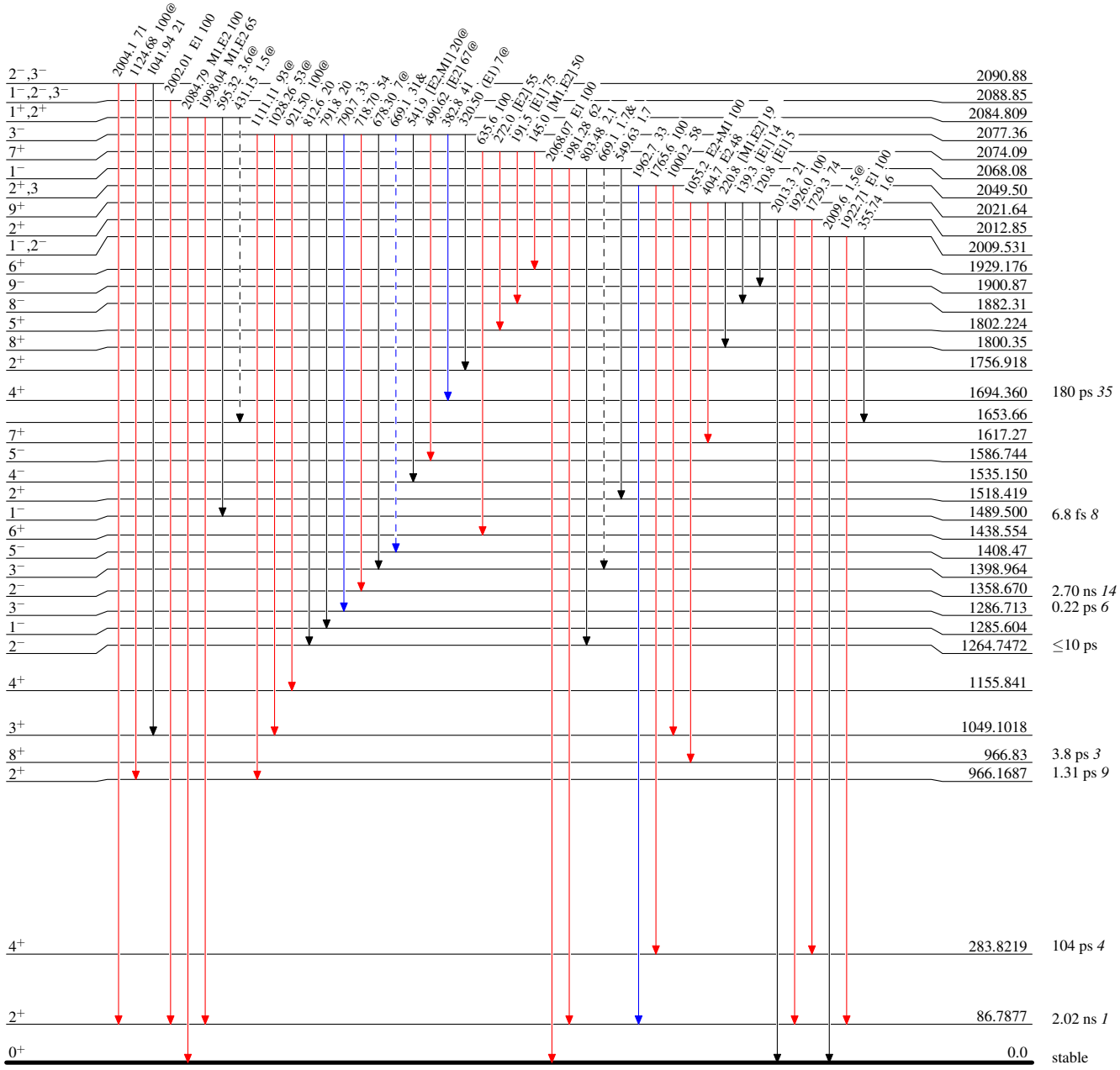
$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
γ Decay (Uncertain)



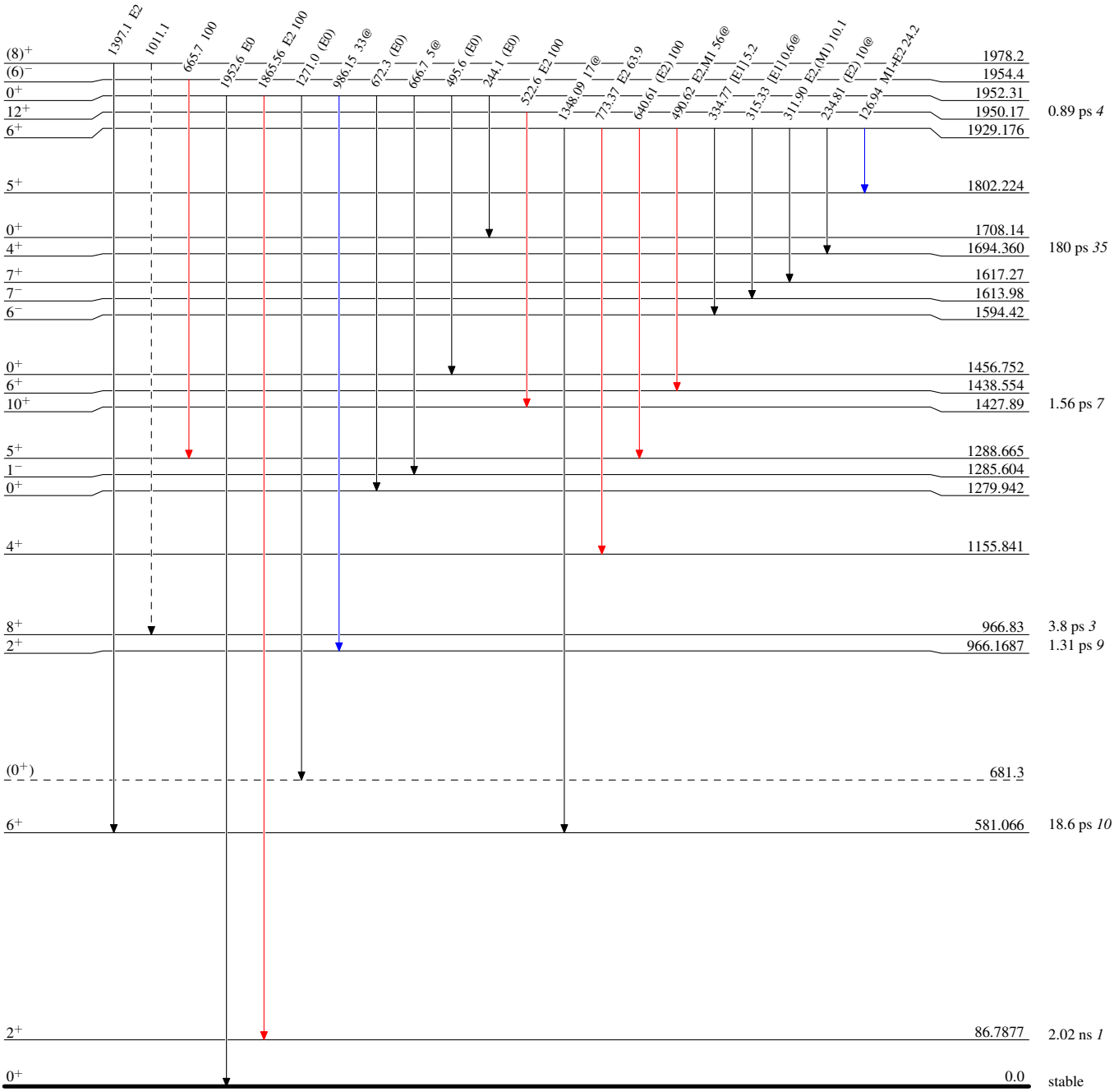
$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
γ Decay (Uncertain)



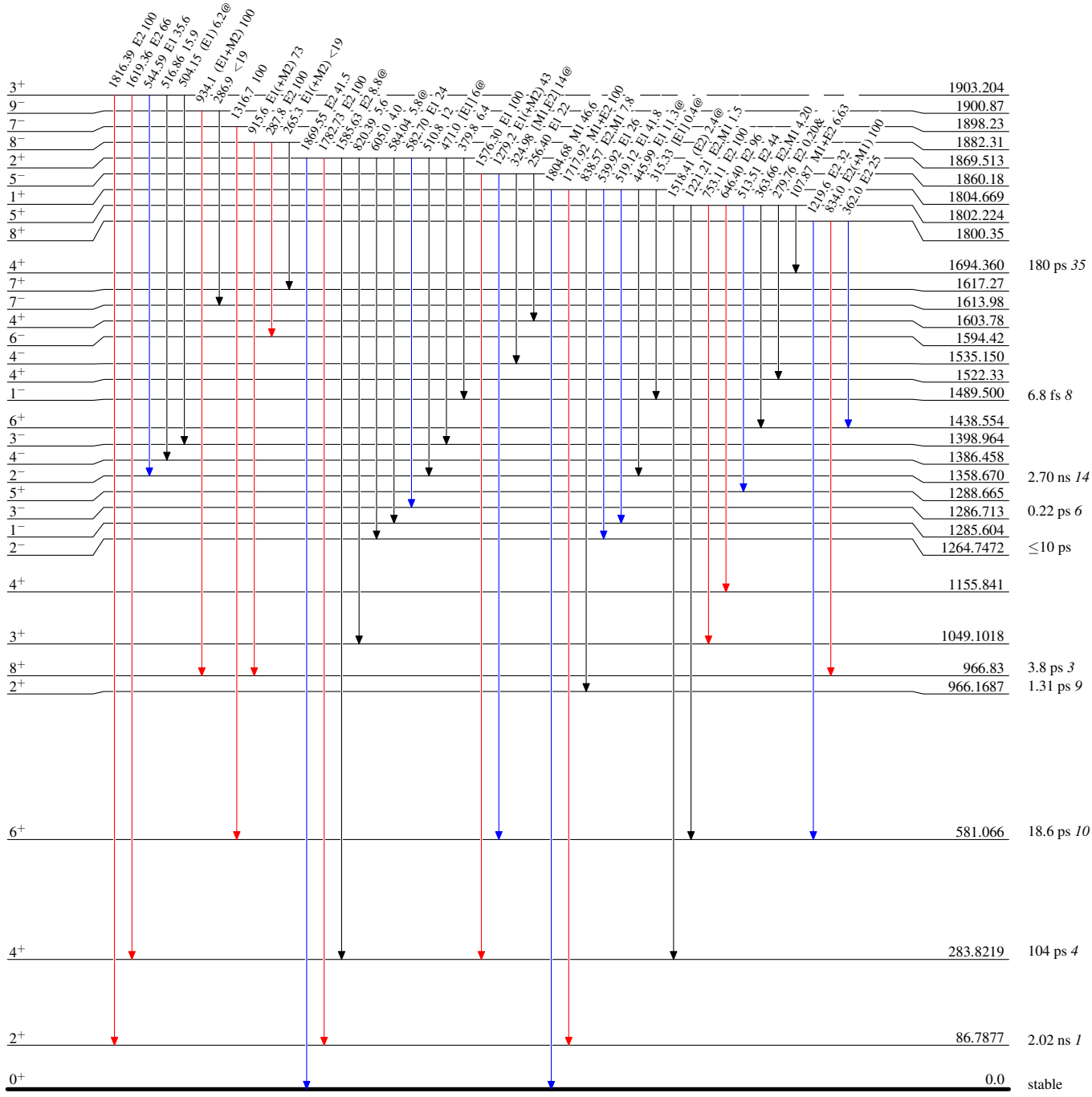
$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$



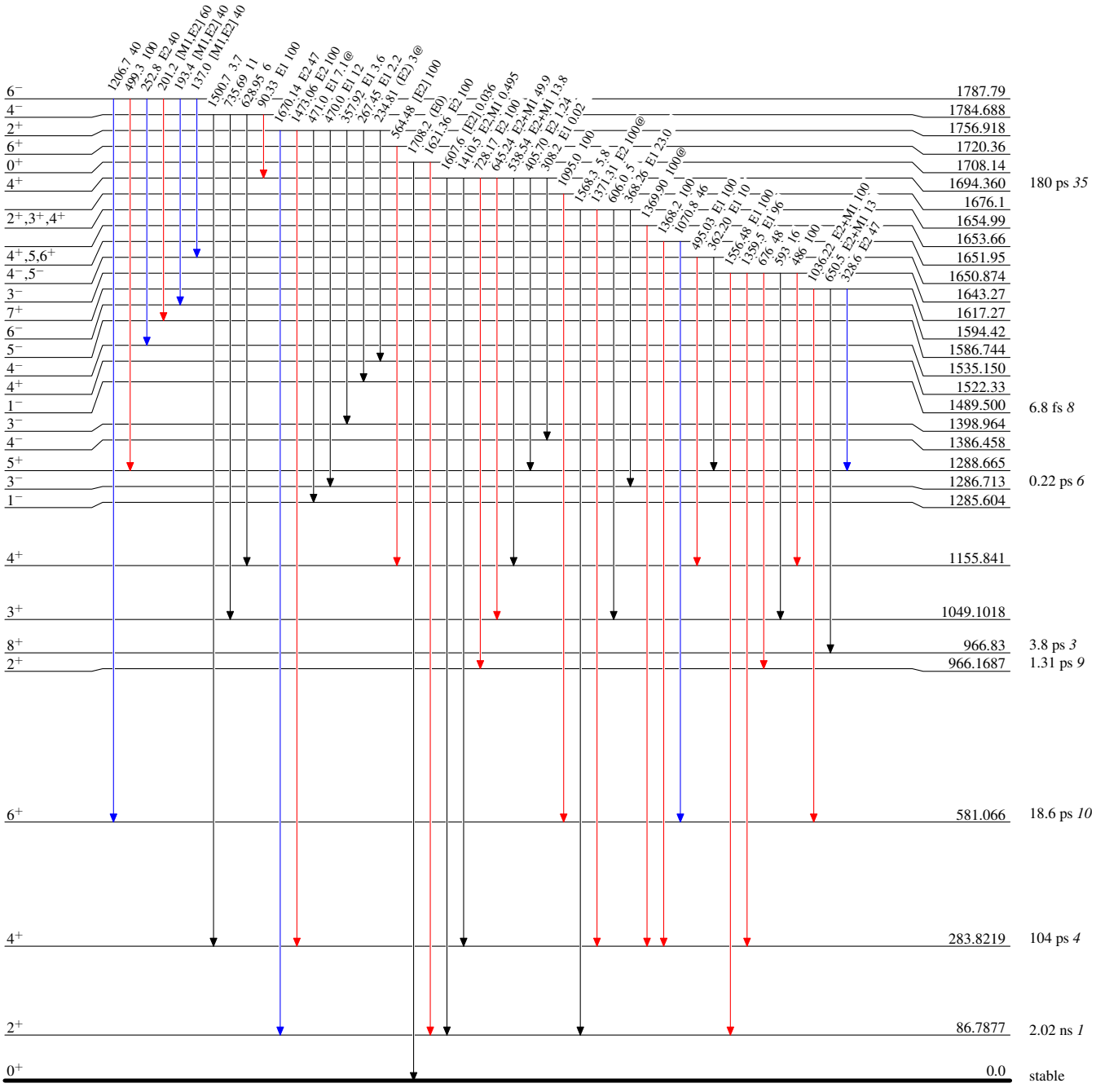
$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$



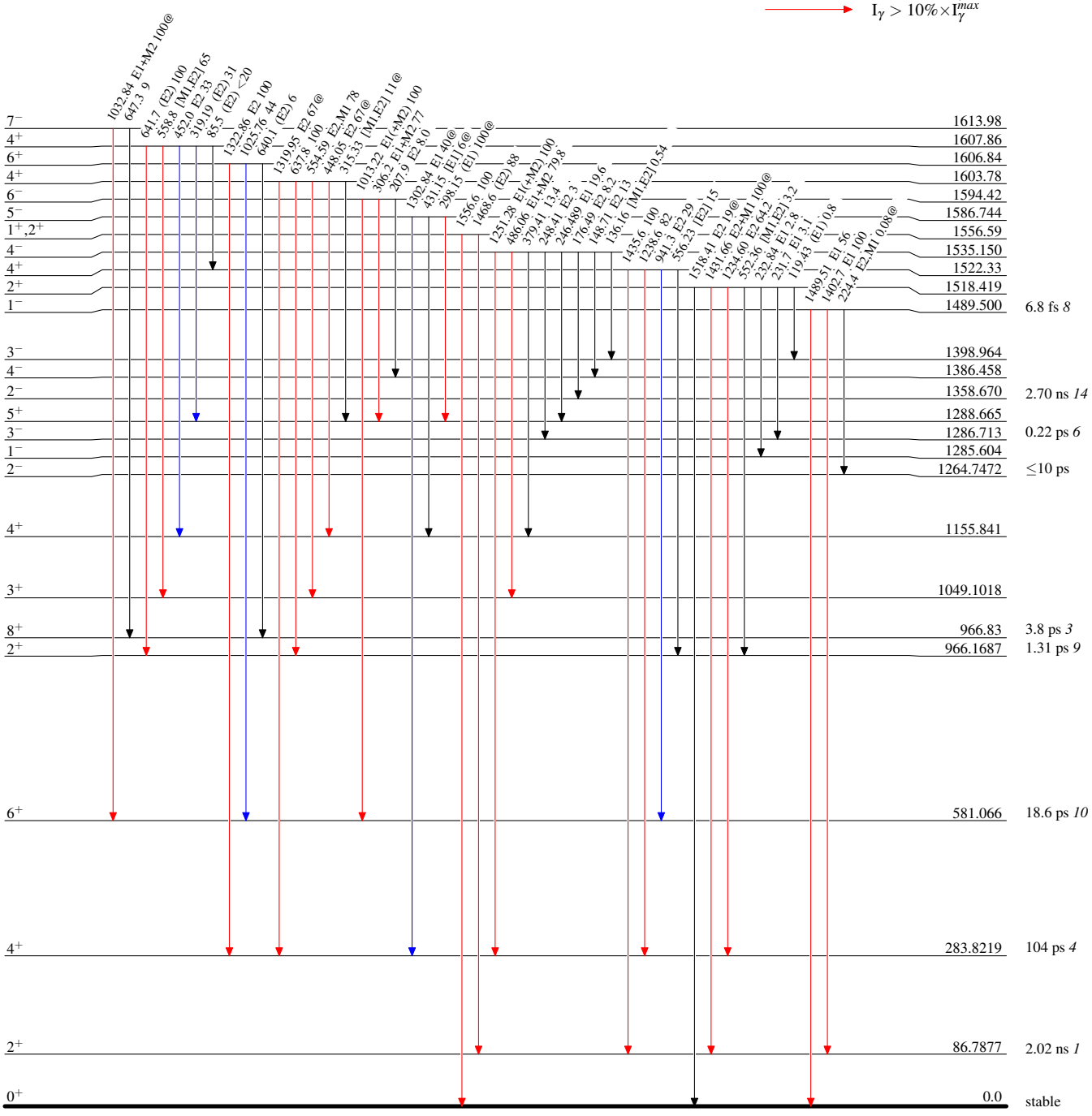
$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$



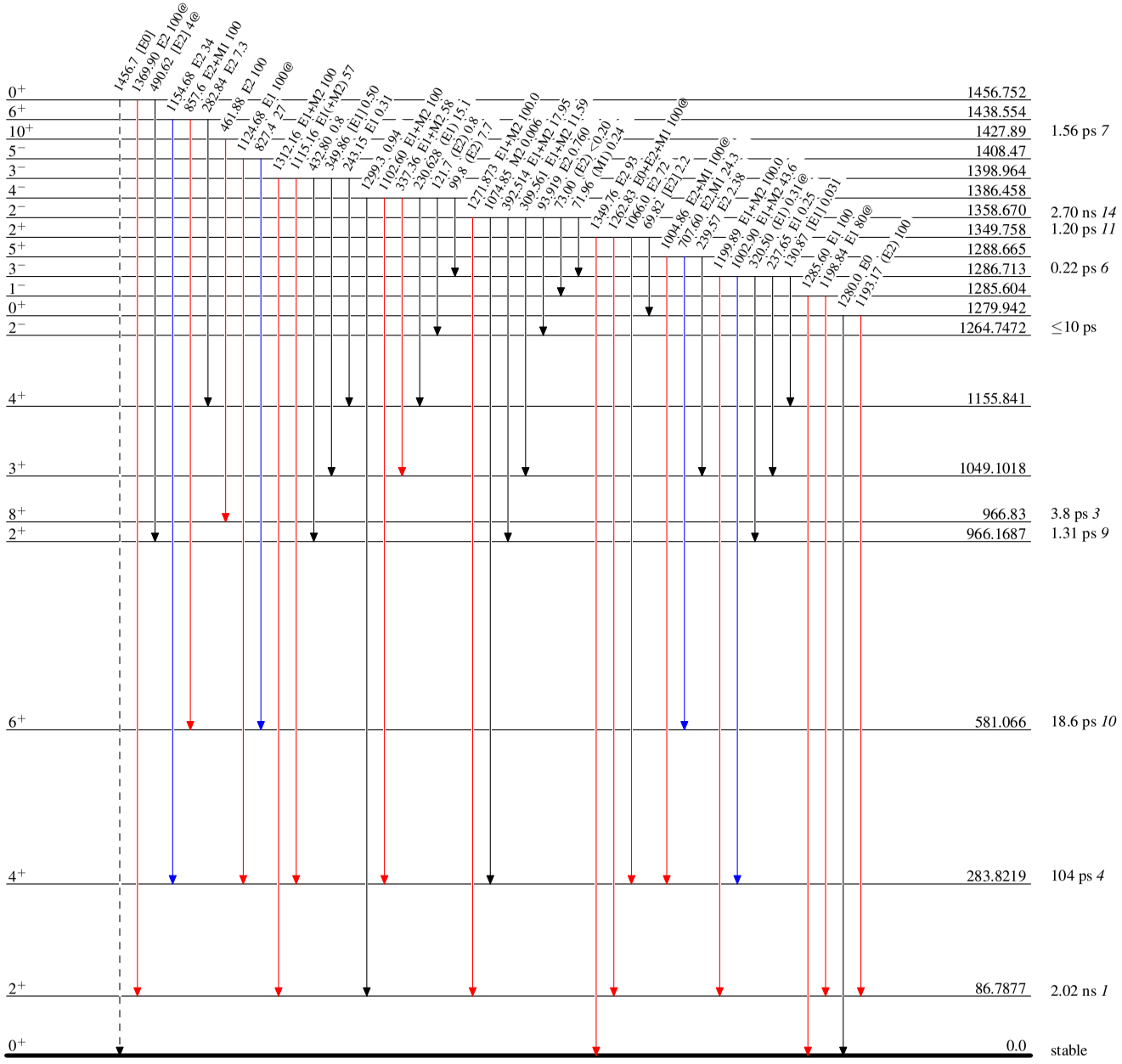
$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
γ Decay (Uncertain)



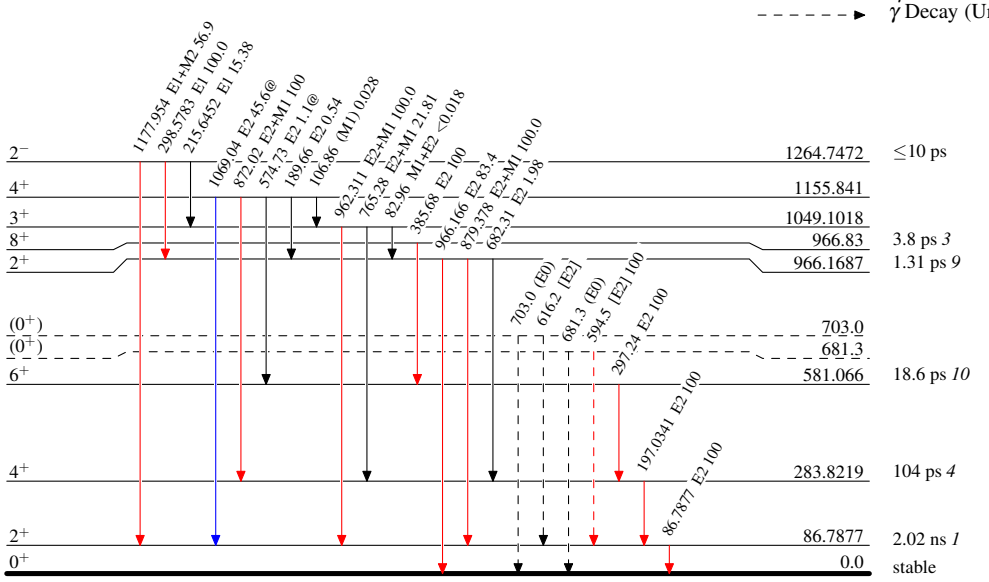
$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas

Level Scheme (continued)

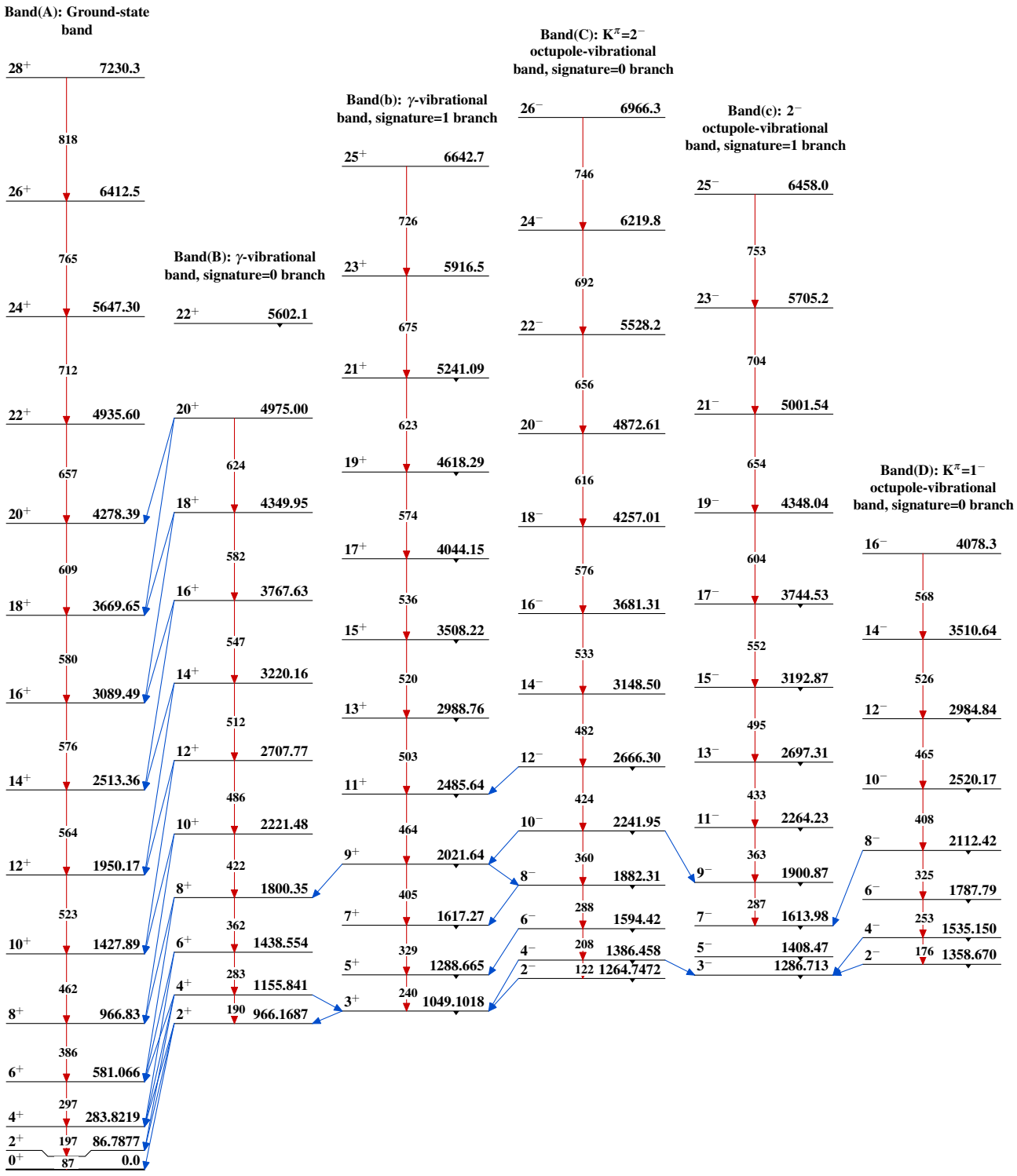
Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
γ Decay (Uncertain)



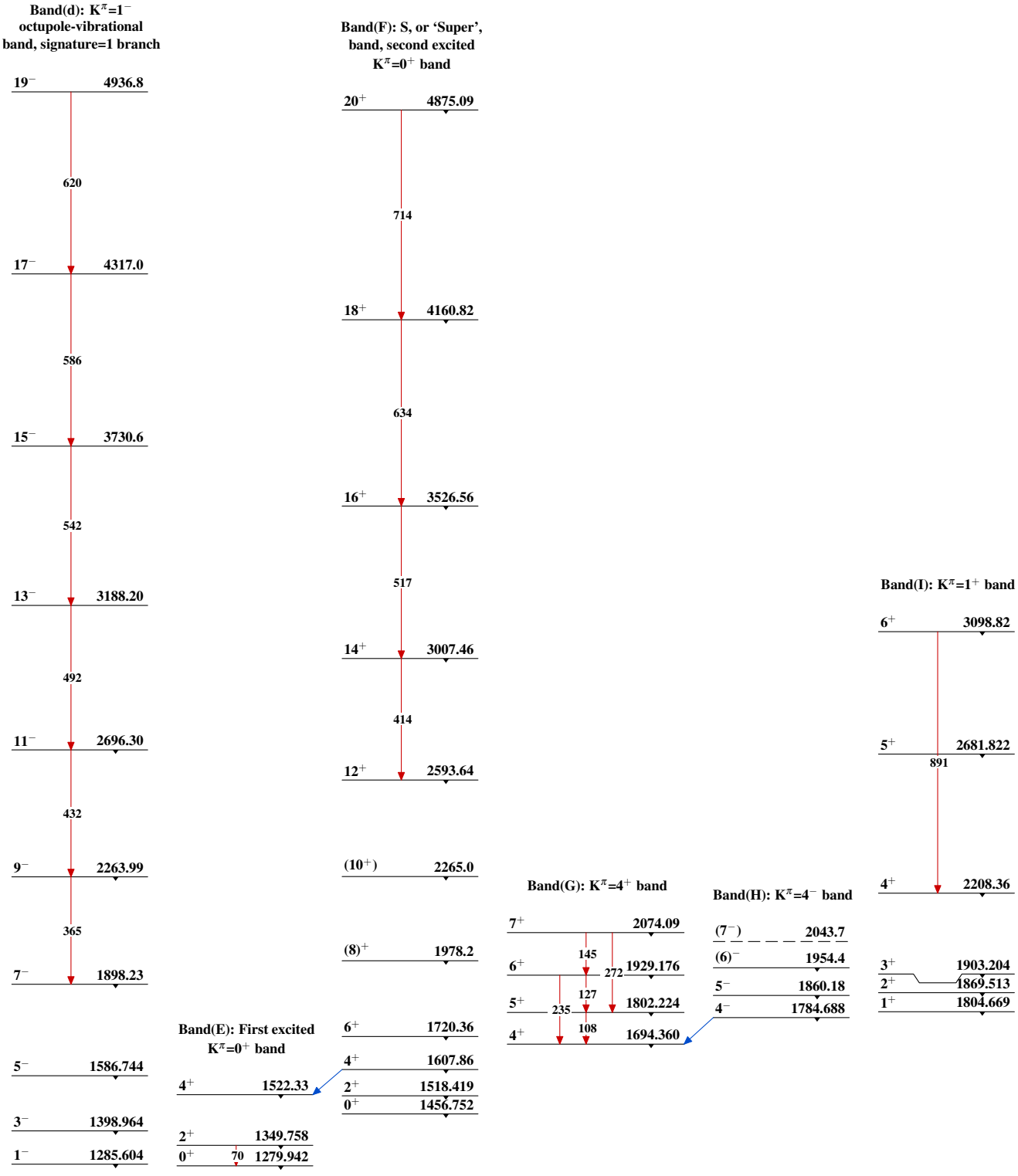
$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas



$^{160}_{66}Dy_{94}$

Adopted Levels, Gammas (continued)



Adopted Levels, Gammas (continued)

Band(M): Proposed (1987Gr37) two-phonon quadrupole (β)-octupole state

3^- 2720.57

1^- 2701.044

Band(L): $K^\pi=8^-$ bandhead

8^- 2287.8

Band(K): Second $K^\pi=4^+$ band

5^+ 2194.43

4^+ 2096.889

Band(O): Fourth excited $K^\pi=0^+$ band

2^+ 2012.85

0^+ 1952.31

Band(J): Bandhead of the third excited $K^\pi=0^+$ band

0^+ 1708.14

Band(N): Possible $K^\pi=0^-$ (octupole?) band

3^- 1643.27

1^- 1489.500