Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	D. Abriola(a), A. A. Sonzogni	NDS 109, 2501 (2008)	1-Apr-2008

Q(β^-)=259 *6*; S(n)=7872 *8*; S(p)=5399 *6*; Q(α)=−1792 *6* 2012Wa38
Note: Current evaluation has used the following Q record.
Q(β^-)=255 *10*; S(n)=7872 *7*; S(p)=5399 *5*; Q(α)=−1794 *6* 2003Au03
Levels with E≤50 and J^π=7^+ to 2^+ form a sextet with configuration π(g9/2),ν(d5/2).
α: Additional information 1.

^{96}Tc Levels

Cross Reference (XREF) Flags

A	^{96}Tc IT decay (51.5 min)	D	^{82}Se(^{19}F,5nγ)
B	^{93}Nb(α,nγ)	E	^{65}Cu(^{36}S,αnγ)
C	^{95}Mo(^{3}He,d)		

E(level)‡	J^π	$T_{1/2}$†	XREF	Comments
0.0	7^+	4.28 d *7*	ABcDE	%ε+%β^+=100 μ=+5.04 *8* (1989Ra17) $T_{1/2}$: average of 4.20 d *4* (1950Co69) and 4.35 d *4* (1950Me21). Other: 4.2 d *1* (1948Mo06). J^π: J=7 from NMR (1975Sa18), L=4 in (^{3}He,d) on $5/2^+$ target. μ from 1975Sa18, other value μ=5.09 *5* (1995Hi06) from NMR on oriented nuclei.
34.23 *4*	4^+	51.5 min *10*	ABc	%IT=98.0 *5*; %ε+%β^+=2.0 *5* $T_{1/2}$: from 1950Me21. Other: 52 min *2* (1978Ke10). J^π: γ to 7^+ is M3; log *ft*=5.5 to 3^+. %IT, %ε+%β^+ from 1967Ce01.
35.38 *9*	$(2)^+$		Bc	J^π: J=2 from strong excitation in (p,nγ), π=+ from M1/E1 transitions to positive/negative parity states.
36.22 *7*	$(3)^+$		Bc	J^π: M1 γ from 4^+ 228.7 keV level, E1 γ from $(2)^-$ 121.2 keV level.
45.28 *6*	5^+		BcD	J^π: γ from 6^+ 319.2 keV level is M1; γ from 4^+ 228.7 keV level is M1.
49.19 *5*	6^+		BcD	J^π: γ from 5^+, 177 keV level is M1; γ to 7^+ g.s. is M1.
121.24 *7*	$(2)^-$	25.6 ns *+4−2*	BC	μ=−0.466 *22* (1989Ra17) $T_{1/2}$: other: 25.9 ns *4* (1988BeYU). J^π: J=2 from strong excitation in (p,nγ), π=− from M1/E1 transitions to positive/negative parity states. μ from TDPAD.
176.99 *5*	5^+		BC	J^π: γ to 4^+ 34 keV level is M1; γ to 7^+ g.s..
227.12 *8*	3^-	<0.35 ns	Bc	J^π: γ to $(2)^-$ is M1; D γ from 4^-.
228.76 *6*	4^+		Bc	J^π: M1 γ to 5^+ 177 keV level, D+Q γ from J=3 *1437* keV level.
239.31 *10*	3^+	<0.35 ns	B	J^π: J=3 from analysis of σ(E), M1 γ to 4^+ 34 keV level.
256.06 *8*	$(2)^+$	<0.35 ns	B	J^π: J=2 from strong excitation in (p,nγ), π=+ from M1/E1 transitions to positive/negative parity states.
316.60 *7*	$(3)^-$	2.0 ns *+4−2*	BC	$T_{1/2}$: other: 2.11 ns *23* from 1988BeYU (α,nγ). J^π: M1 γ to $(2)^-$, M1 γ from 4^-.
319.21 *6*	6^+		B D	J^π: γ to 7^+ g.s. is M1; γ from 5^+ 506 keV level is M1.
321.58 *7*	3^-		B	J^π: E1 γ's to 4^+ and $(2)^+$ levels.
352.53 *8*	3^-	<0.35 ns	BC	J^π: from analysis of σ J=3, L=1 in (^{3}He,d) on $5/2^+$ target.
444.91 *7*	$(3)^+$		B	J^π: M1 γ's to $(2)^+$ 35 keV level and 4^+ 34 keV level.
458.16 *12*	3^+		B	J^π: J=3 from analysis of σ(E), M1 γ to $(2)^+$.
493.12 *10*	$(3)^+$		Bc	J^π: γ to 4^+ is M1; D γ to $(2)^-$.
506.32 *6*	5^+		Bc	J^π: γ to 4^+ 34 keV level is M1; γ to 6^+ 49 keV level is M1.
530.25 *8*	$(4)^+$		B	J^π: M1 γ's to 5^+ and $(3)^+$.
530.43 *8*	$(4)^-$		B	J^π: γ to $(3)^-$ 352 keVe level is M1; J=4 from analysis of σ(E).

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Adopted Levels, Gammas (continued)

^{96}Tc Levels (continued)

E(level)[‡]	J^π	XREF	Comments
542.09 *21*	5^+	B	J^π: γ to 6^+ 49 keV level is M1; J=5 from analysis of σ(E).
547.8 *3*	(3)	B	J^π: γ to $(2)^+$ is D; analysis of $\gamma(\theta)$.
551.87 *6*	4^-	B	J^π: E1, Δj=0 γ to 4^+.
564.11 *13*	$(3)^+$	B	J^π: M1 γ to 4^+, No γ's to 6^+ and 7^+ levels.
565.58 *7*	5^+	B	J^π: M1 γ's to 4^+ 34 keV level and 6^+ 319 keV level.
568.02 *22*	$(3)^-$	BC	J^π: L=1 in (^{3}He,d) on $5/2^+$ target, analysis of σ(E).
574.94 *6*	7^+	B D	J^π: M1 γ' to 6^+ 49 keV level, Q γ to 5^+ 177 keV level.
585.81 *15*	(4^+)	B	J^π: γ's to 3^+ and 3^- are d; analysis of σ(E) in (p,n).
619.56 *9*	$(3)^-$	B	J^π: γ to $(2)^-$ is M1; γ to 3^+.
622.74 *21*	$(4)^+$	BC	J^π: M1 γ to 3^+ 239 keV level.
627.31 *8*	$(3)^-$	B	J^π: γ to $(2)^-$ is M1,E2, D γ to 4^+.
646.67 *12*	4^-	B	J^π: γ to $(3)^-$ 352 keV level is M1, J=4 from analysis of σ(E).
655.9 *3*		B	
720.55 *19*	6^+	B	J^π: γ to 7^+ g.s. is M1; D γ to 5^+ 177 keV level.
732.60 *9*	4^-	B	J^π: from analysis of σ(E) J=4, γ to 3^- is M1.
739.8 *4*		B	
749.76 *13*	$(3)^-$	B	J^π: γ to (2^+) is ΔJ=(1); L=1 in (^{3}He,d) on $5/2^+$ target.
752.52 *7*	6^+	BC	J^π: M1 γ's to 7^+ g.s. and 5^+ 177 keV level.
788.82 *9*	$(4)^-$	B	J^π: γ to 3^- is M1; γ to 4^+.
794.15 *18*	(4^-)	B	J^π: γ to $(3)^-$ is M1; γ to $(2)^-$; analysis of σ(E).
801.44 *9*	$4^{(-)}$	BC	J^π: γ to 3^- is D; γ to 2^-; analysis of σ(E).
815.10 *8*	$(4)^+$	BC	J^π: γ to 5^+ is D; γ to 6^+ is Q.
816.43 *10*	(3)	B	J^π: γ to 4^+ is D; γ to $(2)^-$.
820.95 *23*		B	
821.71 *10*	(6)	B	J^π: possible ΔJ=1 γ to 5^+, possible ΔJ=0 γ to 6^+.
828.4 *3*		B	
839.9 *3*		B	
867.15 *10*	4^-	BC	J^π: J=4 from σ(E), L=1 in (^{3}He,d) on $5/2^+$ target.
885.84 *10*	6^+	B D	J^π: γ to 7^+ g.s. is M1; γ to 5^+ is D.
909.51 *14*	4	B	J^π: D γ's to 3^- and 5^+.
927.21 *8*	9^+	BCDE	J^π: γ to 7^+ is E2; analysis of $\gamma(\theta)$ and linear pol, no γ's to 6^+.
933.90 *10*	$(3)^+$	BC	J^π: γ to 4^+ is D, L=2 in (^{3}He,d) on $5/2^+$ target.
942.40 *21*	(4,2)	B	J^π: γ to 3^- is D.
946.93 *8*	8^+	B D	J^π: γ to 7^+ is M1 and M1 γ from 9^+.
971.21 *15*	3	B	J^π: γ to 2^+ is D; γ to 4^-.
979.02 *7*	5^-	B	J^π: J=5 from σ(E), M1 γ's to negative parity levels.
980.69 *15*	(5)	BC	J^π: D+Q γ to 6^+, γ to 5^+.
1040.91 *14*	7^+	B	J^π: γ to 6^+ is D; γ to 7^+ is M1+E2, no γ's to 5^+ levels.
1042.25 *24*	5	B	J^π: γ's to 4^+ and 6^+ are D.
1053.9 *5*	5,7	B	J^π: γ to 6^+ is D.
1062.44 *9*	8^+	B D	J^π: γ's to 7^+ and 9^+ are M1.
1065.7 *3*		BC	
1071.6 *3*	(4,6)	B	J^π: γ to 5^+ is probably D.
1103.10 *21*	5,7	B	J^π: γ to 6^+ is D.
1118.25 *22*	$(5^+,6^+,7^+)$	B	J^π: γ to 6^+ may be M1; γ to 5^+.
1138.95 *11*	8^+	B	J^π: D+Q γ's to 9^+, 7^+, Q gamma to 6^+.
1139.93 *21*	(5)	B	J^π: J=5 from σ(E).
1149.0 *3*	(5)	B	J^π: γ to 4^+ is probably D; γ to 6^+.
1152.04 *8*	6^-	B	J^π: M1 γ to 5^- 979 keV level, γ to 7^+ g.s..
1158 *4*	$^-$	C	J^π: L=1 in (^{3}He,d) on $5/2^+$ target.
1183.23 *10*	5	B	J^π: γ to 6^+ is D; γ to 4^-.
1187.56 *11*	5	B	J^π: γ to 4^- is D; γ to 6.
1202.74 *10*	(6^+)	B	J^π: γ to 6^+ is D+Q; analysis of σ(E).
1211.6 *3*	(2,4)	BC	J^π: γ to 3^- is D.
1255.09 *11*	(4)	B	J^π: γ to 5^+ may be D; analysis of σ(E).
1271.0 *3*		B	

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Adopted Levels, Gammas (continued)

^{96}Tc Levels (continued)

E(level)[‡]	J^π	XREF	Comments
1290.21 *15*	4	B	J^π: γ to 5^+ is D; analysis of σ(E).
1294.4 *3*	(5)	BC	J^π: γ to 5^+ is $\Delta J=(0)$.
1314.11 *9*	5^+	B	J^π: γ's to 6^+ and 4^+ are D, γ to 7^+.
1338 *8*	$^-$	C	J^π: L=1 in (^{3}He,d) on $5/2^+$ target.
1366.81 *21*	(4,2)	B	J^π: γ to 3^- is D.
1408.30 *21*	(4^-)	BC	J^π: γ to 5^+ is D; L=1 in (^{3}He,d); analysis of σ(E).
1437.91 *25*	3^-	B	J^π: γ to 4^- is M1,E2; J=3 from analysis of σ(E).
1447.73 *9*	9^+	B D	J^π: γ to 7^+ 574.9 keV level is E2; γ to 8^+ 1062 keV level is M1, no γ to 6^+.
1482.3 *3*	$(4)^-$	BC	J^π: γ to 5^+ is D; γ to 2^-; L=1 in (^{3}He,d) on $5/2^+$ target.
1487.45 *21*	(8)	B	J^π: γ to 7^+ is D; analysis of σ(E).
1516.21 *22*	$(7^+,5)$	B	J^π: γ to 6^+ is D; γ to 5^+.
1536.2 *4*	$^-$	BC	J^π: L=1 in (^{3}He,d) on $5/2^+$ target.
1557.02 *22*	(4,6)	B	J^π: γ to 4 is $\Delta J=0$ or 2; γ to 5^+.
1596.40 *21*		BC	
1597.39 *9*	6^-	BC	J^π: J=6 from σ(E), γ to 4^- is $\Delta J=0$ or 2; γ to 7^+.
1610.2 *5*		B	
1636.3 *5*		B	
1661 *8*		C	J^π: L=(1+2) in (^{3}He,d) on $5/2^+$ target.
1703.34 *10*	$(10)^+$	B D	J^π: γ to 9^+ is M1; analysis of σ(E).
1767.42 *21*		BC	
1825 *8*	$(^+)$	C	J^π: L=(2) in (^{3}He,d) on $5/2^+$ target.
1861.74 *12*	$(9)^+$	B D	J^π: γ to 8^+ is M1; analysis of σ(E).
1884 *15*		C	J^π: L=(1+2) in (^{3}He,d) on $5/2^+$ target.
1922.68 *16*	$(11)^+$	B DE	J^π: γ to 9^+ is E2; from $\gamma(\theta)$ and lin pol.
1940 *15*	$^+$	C	J^π: L=2 in (^{3}He,d) on $5/2^+$ target.
1974.4 *6*	(8)	B	J^π: γ to 7^+ is D; analysis of σ(E).
2020 *15*		C	
2148.34 *15*	$(11)^+$	B DE	J^π: γ to 10^+ is D; E2 γ to 9^+; analysis of σ(E).
2214.00 *14*	$(10)^+$	B D	J^π: γ to 9^+ is M1; analysis of σ(E).
2317.89 *16*	$(12)^+$	B DE	J^π: γ to 11^+ is M1; γ to 10^+ is Q.
2397.54 *16*	$(11)^+$	B D	J^π: γ to 10^+ is M1; analysis of σ(E).
2599.89 *19*	$(13)^+$	B DE	J^π: γ to 12^+ is M1; analysis of σ(E).
2643.1 *3*	$(10)^+$	B	J^π: γ to 12^+ is E2; analysis of σ(E).
2816.9 *7*		D	
3020.6 *3*	$(12)^+$	B D	J^π: γ to 10^+ is E2.
3291.1 *6*	(13^+)[#]	D	
3537.7 *10*	(15^+)[#]	D	
3546.7 *8*	(13)[#]	D	
3779.2 *6*	(14^+)[#]	D	
4011.4 *14*	(17^+)[#]	D	
4121.0 *9*	(15^+)[#]	D	
4904.2 *13*	(17^+)[#]	D	
5186.3 *17*	(18^+)[#]	DE	
6115.4 *19*	(19^+)[#]	DE	
6389.7 *17*	(19^+)[#]	D	
6846.8 *19*	(20^+)[#]	D	
7187.4 *19*	(20^+)[#]	DE	
7623.4 *20*	(21^+)[#]	DE	
8042.8 *22*	(21,22)[#]	D	
8755.4 *22*		DE	
10046.9 *24*	[#]	D	

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Adopted Levels, Gammas (continued)

^{96}Tc Levels (continued)

† From 1974Mc14 except where noted otherwise; no γ's except the 85-keV were found to have half-lives longer than 2 ns (1976Bi13).
‡ From least-squares fit to Eγ.
# From DCO values, γ intensity patterns in ^{82}Se(^{19}F,5nγ).

Adopted Levels, Gammas (continued)

γ(^{96}Tc)

E_i(level)	J_i^π	E_γ‡	I_γ‡	E_f	J_f^π	Mult.‡	α	Comments
34.23	4+	34.20 *5*	100	0.0	7+	M3	3.79×10^3	α(K)=1.69×10^3 *3*; α(L)=1.69×10^3 *3*; α(M)=347 *6*; α(N)=51.8 *9*; α(O)=1.513 *25*; α(N+..)=53.3 *9* B(M3)(W.u.)=0.232 *9* E_γ,Mult.: from it decay.
49.19	6+	49.3 *1*	100	0.0	7+	M1	2.11	α(K)=1.84 *3*; α(L)=0.223 *4*; α(M)=0.0405 *7*; α(N)=0.00641 *10*; α(O)=0.000416 *7* α(N+..)=0.00683 *11*
121.24	(2)−	85.1 *1*	100	36.22	(3)+	E1	0.212	α(K)=0.185 *3*; α(L)=0.0218 *4*; α(M)=0.00392 *6*; α(N)=0.000610 *9*; α(O)=3.53×10^{-5} *5* α(N+..)=0.000645 *10* B(E1)(W.u.)=1.396×10^{-5} *+17−26*
		85.9 *1*	21.0	35.38	(2)+	E1	0.206	α(K)=0.180 *3*; α(L)=0.0212 *3*; α(M)=0.00382 *6*; α(N)=0.000594 *9*; α(O)=3.44×10^{-5} *5* α(N+..)=0.000628 *9* B(E1)(W.u.)=2.85×10^{-6} *+4−6*
176.99	5+	127.7 *1*	47	49.19	6+	M1	0.1417	α(K)=0.1238 *18*; α(L)=0.01476 *21*; α(M)=0.00268 *4*; α(N)=0.000426 *6*; α(O)=2.80×10^{-5} *4* α(N+..)=0.000454 *7*
		142.6 *1*	100	34.23	4+	M1	0.1048	α(K)=0.0916 *13*; α(L)=0.01089 *16*; α(M)=0.00198 *3*; α(N)=0.000314 *5*; α(O)=2.07×10^{-5} *3* α(N+..)=0.000335 *5*
		176.8 *3*	0.50	0.0	7+	(E2)	0.1612	α(K)=0.1362 *21*; α(L)=0.0206 *4*; α(M)=0.00377 *6*; α(N)=0.000573 *9*; α(O)=2.65×10^{-5} *4* α(N+..)=0.000600 *10*
227.12	3−	105.8 *1*	100	121.24	(2)−	M1	0.238	α(K)=0.208 *3*; α(L)=0.0249 *4*; α(M)=0.00453 *7*; α(N)=0.000719 *11*; α(O)=4.72×10^{-5} *7* α(N+..)=0.000766 *11* B(M1)(W.u.)>0.038
		191.8 *3*	13.7	35.38	(2)+			
228.76	4+	52.0 *1*	4.0	176.99	5+	M1	1.80	α(K)=1.573 *24*; α(L)=0.191 *3*; α(M)=0.0347 *6*; α(N)=0.00549 *9*; α(O)=0.000357 *6* α(N+..)=0.00585 *9*
		183.3 *1*	100	45.28	5+	M1	0.0534	α(K)=0.0467 *7*; α(L)=0.00551 *8*; α(M)=0.001000 *14*; α(N)=0.0001589 *23* α(O)=1.053×10^{-5} *15*; α(N+..)=0.0001695 *24*
		192.2 *3*	7.9	36.22	(3)+	M1	0.0471	α(K)=0.0412 *6*; α(L)=0.00485 *7*; α(M)=0.000881 *13*; α(N)=0.0001400 *21*; α(O)=9.29×10^{-6} *14* α(N+..)=0.0001493 *22*
239.31	3+	205.1 *1*	100	34.23	4+	M1	0.0397	α(K)=0.0347 *5*; α(L)=0.00408 *6*; α(M)=0.000740 *11*; α(N)=0.0001177 *17*; α(O)=7.82×10^{-6} *11* α(N+..)=0.0001256 *18* B(M1)(W.u.)>0.0070
256.06	(2)+	219.8 *1*	100	36.22	(3)+	M1	0.0331	α(K)=0.0290 *4*; α(L)=0.00340 *5*; α(M)=0.000616 *9*; α(N)=9.80×10^{-5} *14*; α(O)=6.52×10^{-6} *10*

$^{96}_{43}Tc_{53}$-5

Adopted Levels, Gammas (continued)

γ(^{96}Tc) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[‡]	δ[†]	α	Comments
									α(N+..)=0.0001045 *15* B(M1)(W.u.)>0.0044
256.06	(2)$^+$	220.6 *2*	31	35.38	(2)$^+$	M1		0.0328	α(K)=0.0287 *4*; α(L)=0.00336 *5*; α(M)=0.000611 *9*; α(N)=9.71×10^{-5} *14*; α(O)=6.46×10^{-6} *10* α(N+..)=0.0001035 *15* B(M1)(W.u.)>0.0013
316.60	(3)$^-$	195.2 *1*	100	121.24	(2)$^-$	M1		0.0452	α(K)=0.0395 *6*; α(L)=0.00465 *7*; α(M)=0.000845 *12*; α(N)=0.0001343 *19*; α(O)=8.91×10^{-6} *13* α(N+..)=0.0001432 *21* B(M1)(W.u.)=0.00123 *+13−25*
		280.3 *1*	13.5	36.22	(3)$^+$	E1		0.00702 *10*	α(K)=0.00617 *9*; α(L)=0.000703 *10*; α(M)=0.0001268 *18*; α(N)=2.01×10^{-5} *3* α(O)=1.292×10^{-6} *19*; α(N+..)=2.13×10^{-5} *3* B(E1)(W.u.)=8.2×10^{-7} *+9−17*
		282.3 *3*	1.91	34.23	4$^+$	D+Q		0.04 *4*	α(K)=0.04 *4*; α(L)=0.005 *5*; α(M)=0.0009 *8*; α(N)=0.00014 *13*; α(O)=9.E−6 *8* α(N+..)=0.00015 *13*
319.21	6$^+$	273.8 *1*	100	45.28	5$^+$	M1+E2	+0.05 *3*	0.0188	α(K)=0.01647 *24*; α(L)=0.00192 *3*; α(M)=0.000348 *6*; α(N)=5.54×10^{-5} *8*; α(O)=3.70×10^{-6} *6* α(N+..)=9.E−5 *3*
		319.1[#] *1*	83	0.0	7$^+$	M1		0.01273	α(K)=0.01116 *16*; α(L)=0.001294 *19*; α(M)=0.000235 *4*; α(N)=3.73×10^{-5} *6*; α(O)=2.50×10^{-6} *4* α(N+..)=3.98×10^{-5} *6*
321.58	3$^-$	65.5 *1*	21.7	256.06	(2)$^+$	E1		0.449	α(K)=0.392 *6*; α(L)=0.0471 *7*; α(M)=0.00846 *13*; α(N)=0.001306 *20*; α(O)=7.24×10^{-5} *11* α(N+..)=0.001379 *21*
		285.1 *2*	50	36.22	(3)$^+$	E1		0.00671 *10*	α(K)=0.00589 *9*; α(L)=0.000671 *10*; α(M)=0.0001211 *18*; α(N)=1.91×10^{-5} *3* α(O)=1.235×10^{-6} *18*; α(N+..)=2.04×10^{-5} *3*
		285.9 *2*	49	35.38	(2)$^+$	E1		0.00665 *10*	α(K)=0.00585 *9*; α(L)=0.000666 *10*; α(M)=0.0001202 *17*; α(N)=1.90×10^{-5} *3* α(O)=1.226×10^{-6} *18*; α(N+..)=2.02×10^{-5} *3*
		287.2 *1*	100	34.23	4$^+$	E1		0.00657 *10*	α(K)=0.00578 *9*; α(L)=0.000658 *10*; α(M)=0.0001187 *17*; α(N)=1.88×10^{-5} *3* α(O)=1.211×10^{-6} *17*; α(N+..)=2.00×10^{-5} *3*
352.53	3$^-$	125.3 *1*	5.9	227.12	3$^-$	M1+(E2)		0.35 *21*	α(K)=0.29 *17*; α(L)=0.05 *4*; α(M)=0.009 *6*; α(N)=0.0013 *9*; α(O)=6.E−5 *3*; α(N+..)=0.000478 *7* B(M1)(W.u.)>0.0017
		231.1 *1*	100	121.24	(2)$^-$	M1		0.0290	α(K)=0.0254 *4*; α(L)=0.00298 *5*; α(M)=0.000540 *8*; α(N)=8.59×10^{-5} *12*; α(O)=5.72×10^{-6} *8* α(N+..)=9.16×10^{-5} *13* B(M1)(W.u.)>0.0044

$^{96}_{43}Tc_{53}$-6

Adopted Levels, Gammas (continued)

γ(^{96}Tc) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[‡]	α	Comments
352.53	3⁻	316.3 *3*	4.1	36.22	(3)⁺			
444.91	(3)⁺	188.9 *1*	4.2	256.06	(2)⁺	M1+(E2)	0.09 *4*	α(K)=0.08 *4*; α(L)=0.011 *6*; α(M)=0.0019 *10*; α(N)=0.00030 *15*; α(O)=1.5×10^{-5} *6* α(N+..)=0.0001563 *22*
		216.1 *1*	12.7	228.76	4⁺	(E2)	0.0791	α(K)=0.0675 *10*; α(L)=0.00957 *14*; α(M)=0.001746 *25*; α(N)=0.000268 *4* α(O)=1.344×10^{-5} *19*; α(N+..)=0.000281 *4*
		409.3[a] *3*	58[a]	35.38	(2)⁺	M1	0.00687 *10*	α(K)=0.00603 *9*; α(L)=0.000694 *10*; α(M)=0.0001258 *18*; α(N)=2.00×10^{-5} *3* α(O)=1.348×10^{-6} *19*; α(N+..)=2.14×10^{-5} *3*
		410.7 *1*	100	34.23	4⁺	M1	0.00682 *10*	α(K)=0.00598 *9*; α(L)=0.000688 *10*; α(M)=0.0001247 *18*; α(N)=1.99×10^{-5} *3* α(O)=1.337×10^{-6} *19*; α(N+..)=2.12×10^{-5} *3*
458.16	3⁺	202.1 *1*	100	256.06	(2)⁺	M1	0.0412	α(K)=0.0361 *5*; α(L)=0.00424 *6*; α(M)=0.000770 *11*; α(N)=0.0001224 *18*; α(O)=8.13×10^{-6} *12* α(N+..)=0.0001306 *19*
		422.8 *2*	98	35.38	(2)⁺	M1	0.00635 *9*	α(K)=0.00558 *8*; α(L)=0.000641 *9*; α(M)=0.0001161 *17*; α(N)=1.85×10^{-5} *3* α(O)=1.245×10^{-6} *18*; α(N+..)=1.97×10^{-5} *3*
493.12	(3)⁺	236.8 *3*	9.4	256.06	(2)⁺	D		
		264.3 *1*	100	228.76	4⁺	M1	0.0205	α(K)=0.0180 *3*; α(L)=0.00210 *3*; α(M)=0.000380 *6*; α(N)=6.05×10^{-5} *9*; α(O)=4.04×10^{-6} *6* α(N+..)=6.46×10^{-5} *9*
		372.3 *2*	5.2	121.24	(2)⁻			
		458.4 *7*	<20.0	34.23	4⁺			
506.32	5⁺	187.0 *1*	4.4	319.21	6⁺	M1	0.0506	α(K)=0.0443 *7*; α(L)=0.00522 *8*; α(M)=0.000948 *14*; α(N)=0.0001506 *22*; α(O)=9.99×10^{-6} *14* α(N+..)=0.0001606 *23*
		277.4 *2*	1.40	228.76	4⁺	D		
		329.1 *2*	2.50	176.99	5⁺	Q		
		457.2 *1*	100	49.19	6⁺	M1	0.00526 *8*	α(K)=0.00462 *7*; α(L)=0.000529 *8*; α(M)=9.59×10^{-5} *14*; α(N)=1.527×10^{-5} *22* α(O)=1.030×10^{-6} *15*; α(N+..)=1.630×10^{-5} *23*
		460.8 *3*	3.8	45.28	5⁺			
		472.2[a] *1*	27[a]	34.23	4⁺	M1	4.86×10^{-3} *7*	α(K)=0.00427 *6*; α(L)=0.000489 *7*; α(M)=8.86×10^{-5} *13*; α(N)=1.412×10^{-5} *20*; α(O)=9.53×10^{-7} *14* α(N+..)=1.507×10^{-5} *22*
530.25	(4)⁺	301.6 *2*	8.7	228.76	4⁺	Q+D		
		353.2 *1*	3.6	176.99	5⁺			
		485.0 *1*	100	45.28	5⁺	M1	0.00456 *7*	α(K)=0.00401 *6*; α(L)=0.000459 *7*; α(M)=8.31×10^{-5} *12*; α(N)=1.324×10^{-5} *19*; α(O)=8.94×10^{-7} *13* α(N+..)=1.413×10^{-5} *20*
		494.0[a] *2*	40[a]	36.22	(3)⁺	M1	0.00437 *7*	α(K)=0.00384 *6*; α(L)=0.000439 *7*; α(M)=7.95×10^{-5} *12*; α(N)=1.266×10^{-5}

$^{96}_{43}Tc_{53}$-7

Adopted Levels, Gammas (continued)

γ(^{96}Tc) (continued)

E_i(level)	J_i^π	E_γ‡	I_γ‡	E_f	J_f^π	Mult.‡	α	Comments
								18; α(O)=8.55×10^{-7} *12* α(N+..)=1.352×10^{-5} *19*
530.43	(4)$^-$	178.0 *1*	16.3	352.53	3$^-$	M1	0.0577	α(K)=0.0505 *8*; α(L)=0.00596 *9*; α(M)=0.001082 *16*; α(N)=0.0001720 *25* α(O)=1.139×10^{-5} *16*; α(N+..)=0.000183 *3*
		208.7 *1*	47	321.58	3$^-$	M1	0.0379	α(K)=0.0332 *5*; α(L)=0.00390 *6*; α(M)=0.000707 *10*; α(N)=0.0001124 *16*; α(O)=7.47×10^{-6} *11* α(N+..)=0.0001199 *17*
		213.8 *1*	42	316.60	(3)$^-$	M1(+E2)	0.059 *24*	α(K)=0.051 *20*; α(L)=0.007 *4*; α(M)=0.0012 *6*; α(N)=0.00019 *9*; α(O)=1.0×10^{-5} *4* α(N+..)=0.0001125 *16*
		303.3 *1*	11.6	227.12	3$^-$	D		
		409.3 *1*	100	121.24	(2)$^-$	Q		
542.09	5$^+$	492.9 *2*	100	49.19	6$^+$	M1	0.00439 *7*	α(K)=0.00386 *6*; α(L)=0.000441 *7*; α(M)=7.99×10^{-5} *12*; α(N)=1.273×10^{-5} *18*; α(O)=8.60×10^{-7} *12* α(N+..)=1.359×10^{-5} *19*
547.8	(3)	291.7 *3*	100	256.06	(2)$^+$	D		
551.87	4$^-$	235.1 *1*	26	316.60	(3)$^-$	M1	0.0278	α(K)=0.0243 *4*; α(L)=0.00285 *4*; α(M)=0.000516 *8*; α(N)=8.21×10^{-5} *12*; α(O)=5.47×10^{-6} *8* α(N+..)=8.76×10^{-5} *13*
		323.1 *1*	17.7	228.76	4$^+$	E1	0.00479 *7*	α(K)=0.00421 *6*; α(L)=0.000478 *7*; α(M)=8.63×10^{-5} *13*; α(N)=1.366×10^{-5} *20*; α(O)=8.87×10^{-7} *13* α(N+..)=1.455×10^{-5} *21*
		374.7 *1*	7.7	176.99	5$^+$	D		
		506.6 *1*	62	45.28	5$^+$	E1	1.53×10^{-3} *2*	α(K)=0.001346 *19*; α(L)=0.0001518 *22*; α(M)=2.74×10^{-5} *4*; α(N)=4.35×10^{-6} *6*; α(O)=2.88×10^{-7} *4* α(N+..)=4.64×10^{-6} *7*
		515.8 *1*	100	36.22	(3)$^+$	E1	1.47×10^{-3} *2*	α(K)=0.001290 *18*; α(L)=0.0001454 *21*; α(M)=2.62×10^{-5} *4*; α(N)=4.17×10^{-6} *6*; α(O)=2.76×10^{-7} *4* α(N+..)=4.44×10^{-6} *7*
		517.7 *2*	50	34.23	4$^+$	E1	1.45×10^{-3} *2*	α(K)=0.001278 *18*; α(L)=0.0001441 *21*; α(M)=2.60×10^{-5} *4*; α(N)=4.13×10^{-6} *6*; α(O)=2.74×10^{-7} *4* α(N+..)=4.40×10^{-6} *7*
564.11	(3)$^+$	308.1 *2*	13.5	256.06	(2)$^+$	M1	0.01391	α(K)=0.01219 *18*; α(L)=0.001415 *20*; α(M)=0.000257 *4*; α(N)=4.08×10^{-5} *6*; α(O)=2.73×10^{-6} *4* α(N+..)=4.36×10^{-5} *7*
		443.1 *3*	3.6	121.24	(2)$^-$	D+Q		
		528.8 *3*	84	35.38	(2)$^+$	M1	0.00372 *6*	α(K)=0.00326 *5*; α(L)=0.000373 *6*; α(M)=6.75×10^{-5} *10*; α(N)=1.075×10^{-5} *16*; α(O)=7.27×10^{-7} *11* α(N+..)=1.148×10^{-5} *17*
		529.7 *2*	100	34.23	4$^+$	M1	0.00370 *6*	α(K)=0.00325 *5*; α(L)=0.000371 *6*; α(M)=6.72×10^{-5} *10*; α(N)=1.071×10^{-5} *15*; α(O)=7.24×10^{-7} *11* α(N+..)=1.144×10^{-5} *16*

$^{96}_{43}Tc_{53}$-8

Adopted Levels, Gammas (continued)

γ(^{96}Tc) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[‡]	α	Comments
565.58	5^+	246.3 *2*	3.9	319.21	6^+	M1	0.0246	α(K)=0.0216 *3*; α(L)=0.00252 *4*; α(M)=0.000457 *7*; α(N)=7.27×10^{-5} *11*; α(O)=4.85×10^{-6} *7* α(N+..)=7.76×10^{-5} *11*
		388.5 *1*	33	176.99	5^+	M1	0.00781 *11*	α(K)=0.00685 *10*; α(L)=0.000790 *11*; α(M)=0.0001431 *20*; α(N)=2.28×10^{-5} *4* α(O)=1.532×10^{-6} *22*; α(N+..)=2.43×10^{-5} *4*
		516.4 *1*	34	49.19	6^+	(M1)	0.00393 *6*	α(K)=0.00345 *5*; α(L)=0.000394 *6*; α(M)=7.14×10^{-5} *10*; α(N)=1.138×10^{-5} *16*; α(O)=7.69×10^{-7} *11* α(N+..)=1.215×10^{-5} *17*
		520.3 *3*	22.8	45.28	5^+	M1,E2	0.0042 *4*	α(K)=0.0037 *3*; α(L)=0.00043 *5*; α(M)=7.8×10^{-5} *8*; α(N)=1.23×10^{-5} *12*; α(O)=8.0×10^{-7} *5* α(N+..)=1.31×10^{-5} *13*
		531.4 *1*	100	34.23	4^+	M1	0.00367 *6*	α(K)=0.00323 *5*; α(L)=0.000368 *6*; α(M)=6.67×10^{-5} *10*; α(N)=1.063×10^{-5} *15*; α(O)=7.19×10^{-7} *10* α(N+..)=1.135×10^{-5} *16*
568.02	$(3)^-$	340.9 *2*	100	227.12	3^-	Q+D		
574.94	7^+	255.6 *1*	38.4[&] *11*	319.21	6^+	M1	0.0224	α(K)=0.0196 *3*; α(L)=0.00229 *4*; α(M)=0.000415 *6*; α(N)=6.60×10^{-5} *10*; α(O)=4.40×10^{-6} *7* α(N+..)=7.04×10^{-5} *10*
		397.6[#] *3*	0.90[&]	176.99	5^+	Q		
		525.7 *1*	100.0[&] *14*	49.19	6^+	M1	0.00377 *6*	α(K)=0.00331 *5*; α(L)=0.000378 *6*; α(M)=6.84×10^{-5} *10*; α(N)=1.091×10^{-5} *16*; α(O)=7.37×10^{-7} *11* α(N+..)=1.164×10^{-5} *17*
		574.8 *2*	9.6[&] *11*	0.0	7^+	Q		
585.81	(4^+)	269.1 *2*	41	316.60	$(3)^-$	D		
		346.5 *2*	100	239.31	3^+	D		
619.56	$(3)^-$	266.9 *1*	30	352.53	3^-	Q		
		392.5 *1*	78	227.12	3^-	Q+D		
		498.4 *1*	100	121.24	$(2)^-$	M1,E2	0.0047 *5*	α(K)=0.0041 *4*; α(L)=0.00048 *6*; α(M)=8.8×10^{-5} *10*; α(N)=1.39×10^{-5} *15*; α(O)=8.9×10^{-7} *6* α(N+..)=1.48×10^{-5} *16*
		583.4 *4*	57	36.22	$(3)^+$	D+Q		
622.74	$(4)^+$	383.5 *2*	46	239.31	3^+	M1,E2	0.0097 *17*	α(K)=0.0085 *14*; α(L)=0.00103 *22*; α(M)=0.00019 *4*; α(N)=2.9×10^{-5} *6*; α(O)=1.83×10^{-6} *25* α(N+..)=3.1×10^{-5} *7*
		577.0 *5*	100	45.28	5^+	Q		
627.31	$(3)^-$	274.6 *1*	18.3	352.53	3^-			
		310.8 *1*	28	316.60	$(3)^-$	D		
		398.6 *2*	8.5	228.76	4^+	D		
		506.1 *1*	100	121.24	$(2)^-$	M1,E2	0.0045 *4*	α(K)=0.0039 *4*; α(L)=0.00046 *5*; α(M)=8.4×10^{-5} *10*; α(N)=1.33×10^{-5} *14*; α(O)=8.6×10^{-7} *5* α(N+..)=1.42×10^{-5} *15*
		591.4 *6*	56	36.22	$(3)^+$	D		

$^{96}_{43}Tc_{53}$-9

Adopted Levels, Gammas (continued)

$\gamma(^{96}Tc)$ (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[‡]	α	Comments
		592.3 *3*	56	35.38	$(2)^+$	D+Q		

$^{96}_{43}Tc_{53}$-10

Adopted Levels, Gammas (continued)

γ(^{96}Tc) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[‡]	α	Comments
646.67	4⁻	294.2 *1*	100	352.53	3⁻	M1	0.01563	α(K)=0.01370 *20*; α(L)=0.001592 *23*; α(M)=0.000289 *4*; α(N)=4.59×10^{-5} *7*; α(O)=3.07×10^{-6} *5* α(N+..)=4.90×10^{-5} *7*
		419.3 *2*	20.5	227.12	3⁻	D		
655.9		162.8 *3*	100	493.12	(3)⁺			
720.55	6⁺	543.5 *2*	28	176.99	5⁺	D		
		720.9 *5*	100	0.0	7⁺	M1	0.00181 *3*	α(K)=0.001592 *23*; α(L)=0.000180 *3*; α(M)=3.26×10^{-5} *5*; α(N)=5.21×10^{-6} *8*; α(O)=3.54×10^{-7} *5* α(N+..)=5.56×10^{-6} *8*
732.60	4⁻	380.0 *1*	100	352.53	3⁻	M1	0.00825 *12*	α(K)=0.00724 *11*; α(L)=0.000834 *12*; α(M)=0.0001512 *22*; α(N)=2.41×10^{-5} *4* α(O)=1.618×10^{-6} *23*; α(N+..)=2.57×10^{-5} *4*
		416.0 *1*	92	316.60	(3)⁻	M1	0.00661 *10*	α(K)=0.00580 *9*; α(L)=0.000667 *10*; α(M)=0.0001208 *17*; α(N)=1.92×10^{-5} *3* α(O)=1.296×10^{-6} *19*; α(N+..)=2.05×10^{-5} *3*
		505.8 *3*	6.1	227.12	3⁻			
		611.4 *1*	55	121.24	(2)⁻			
739.8		690.6 *4*	100	49.19	6⁺			
749.76	(3)⁻	493.7 *1*	100	256.06	(2)⁺			
752.52	6⁺	575.5 *1*	100	176.99	5⁺	M1	0.00304 *5*	α(K)=0.00268 *4*; α(L)=0.000305 *5*; α(M)=5.52×10^{-5} *8*; α(N)=8.80×10^{-6} *13*; α(O)=5.96×10^{-7} *9* α(N+..)=9.39×10^{-6} *14*
		702.5 *4*	7.5	49.19	6⁺			
		752.6 *1*	93	0.0	7⁺	M1	1.64×10^{-3} *2*	α(K)=0.001445 *21*; α(L)=0.0001635 *23*; α(M)=2.96×10^{-5} *5*; α(N)=4.72×10^{-6} *7*; α(O)=3.21×10^{-7} *5* α(N+..)=5.04×10^{-6} *7*
788.82	(4)⁻	472.2[a] *1*	65[a]	316.60	(3)⁻	M1	0.00486 *7*	α(K)=0.00427 *6*; α(L)=0.000489 *7*; α(M)=8.86×10^{-5} *13*; α(N)=1.412×10^{-5} *20*; α(O)=9.53×10^{-7} *14* α(N+..)=1.507×10^{-5} *22*
		667.7 *1*	100	121.24	(2)⁻	Q		
		754.7 *6*	11.6	34.23	4⁺	Q+D		
794.15	(4⁻)	477.6 *2*	100	316.60	(3)⁻	D+Q		
		672.8 *3*	18.9	121.24	(2)⁻			
801.44	4$^{(-)}$	448.7 *2*	31	352.53	3⁻	D+Q		
		484.8 *1*	29	316.60	(3)⁻	D+Q		
		680.3 *1*	100	121.24	(2)⁻			
815.10	(4)⁺	638.0 *1*	100	176.99	5⁺	D+Q		
		766.0 *1*	42	49.19	6⁺			
		770.0 *4*	17.5	45.28	5⁺	Q		
816.43	(3)	589.3 *1*	100	227.12	3⁻	D+Q		
		695.2 *1*	97	121.24	(2)⁻			
		782.0 *5*	34	34.23	4⁺	D+Q		
820.95		699.7 *3*	100	121.24	(2)⁻			
821.71	(6)	502.3 *3*	73	319.21	6⁺	D		

$^{96}_{43}Tc_{53}$-11

Adopted Levels, Gammas (continued)

γ(^{96}Tc) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[‡]	δ[†]	α	Comments
821.71	(6)	644.7 *1*	100	176.99	5^+	D			
		772.7 *2*	95	49.19	6^+	M1+E2	−0.6 *2*	1.54×10^{-3} *2*	α(K)=0.001357 *20*; α(L)=0.0001547 *22*; α(M)=2.80×10^{-5} *4*; α(N)=4.46×10^{-6} *7*; α(O)=2.99×10^{-7} *5* α(N+..)=4.76×10^{-6} *7*
828.4		572.3 *4*	54	256.06	$(2)^+$	D+Q			
		793.0 *3*	100	35.38	$(2)^+$				
839.9		612.8 *3*	100	227.12	3^-				
867.15	4^-	550.4 *1*	100	316.60	$(3)^-$	D			
885.84	6^+	310.9 *1*	100	574.94	7^+	M1		0.01359	α(K)=0.01192 *17*; α(L)=0.001383 *20*; α(M)=0.000251 *4*; α(N)=3.99×10^{-5} *6*; α(O)=2.67×10^{-6} *4* α(N+..)=4.26×10^{-5} *6*
		319.9 *3*	33	565.58	5^+				
		379.6[#] *2*	20.6	506.32	5^+	D+Q			
		840.7[#] *3*	42	45.28	5^+	D+Q			
		886.0 *5*	22.6	0.0	7^+				
909.51	4	403.5 *5*	21.0	506.32	5^+	D			
		588.5 *3*	100	321.58	3^-	D			
		680.7 *2*	22.6	228.76	4^+	D+Q			
		732.3 *3*	19.4	176.99	5^+				
		864.5 *5*	39	45.28	5^+	D+Q			
927.21	9^+	927.3 *1*	100	0.0	7^+	E2		9.85×10^{-4} *14*	α(K)=0.000864 *12*; α(L)=9.94×10^{-5} *14*; α(M)=1.80×10^{-5} *3*; α(N)=2.85×10^{-6} *4*; α(O)=1.88×10^{-7} *3* α(N+..)=3.04×10^{-6} *5*
933.90	$(3)^+$	612.1 *1*	33	321.58	3^-	D+Q			
		705.4 *2*	50	228.76	4^+				
		890.0 *3*	100	45.28	5^+				
		899.6 *4*	55	34.23	4^+	D+Q			
942.40	(4,2)	625.8 *2*	100	316.60	$(3)^-$	D			
946.93	8^+	371.8 *1*	100[&] *3*	574.94	7^+	M1+E2	+0.11 *2*	0.00875 *13*	α(K)=0.00767 *11*; α(L)=0.000887 *13*; α(M)=0.0001607 *23*; α(N)=2.56×10^{-5} *4* α(O)=1.715×10^{-6} *25*; α(N+..)=2.73×10^{-5} *4*
		897.9 *2*	46.3[&] *23*	49.19	6^+	Q			I_γ: from ^{82}Se(^{19}F,5nγ), other: Iγ=26 (^{93}Nb,αnγ).
		947.1 *3*	74.3[&] *18*	0.0	7^+	D			I_γ: from ^{82}Se(^{19}F,5nγ), other: Iγ=48 (^{93}Nb,αnγ).
971.21	3	182.6 *2*	100	788.82	$(4)^-$				
		714.9 *2*	90	256.06	$(2)^+$	D			
		936.2 *6*	77	35.38	$(2)^+$				
979.02	5^-	111.6 *2*	2.7	867.15	4^-				
		427.0 *1*	100	551.87	4^-	M1		0.00620 *9*	α(K)=0.00544 *8*; α(L)=0.000626 *9*; α(M)=0.0001133 *16*; α(N)=1.80×10^{-5} *3* α(O)=1.216×10^{-6} *17*; α(N+..)=1.93×10^{-5} *3*
		662.5 *1*	77	316.60	$(3)^-$	Q			

$^{96}_{43}Tc_{53}$-12

Adopted Levels, Gammas (continued)

γ(^{96}Tc) (continued)

E_i(level)	J_i^π	E_γ‡	I_γ‡	E_f	J_f^π	Mult.‡	δ†	α	Comments
979.02	5⁻	750.5 *2*	18.7	228.76	4⁺	D			
		934.4 *6*	7.2	45.28	5⁺	Q			
		945.4 *4*	22.3	34.23	4⁺	D+Q			
980.69	(5)	803.7 *2*	100	176.99	5⁺				
		931.5 *2*	93	49.19	6⁺	D+Q			
1040.91	7⁺	721.9 *2*	61	319.21	6⁺	D			
		1040.7 *2*	100	0.0	7⁺	M1+E2	−0.32 *15*	7.99×10^{-4} *12*	α(K)=0.000703 *11*; α(L)=7.91×10^{-5} *12*; α(M)=1.430×10^{-5} *21*; α(N)=2.28×10^{-6} *4* α(O)=1.554×10^{-7} *25*; α(N+..)=2.44×10^{-6} *4*
1042.25	5	993.4 *3*	60	49.19	6⁺	D+Q			
		1007.4 *4*	100	34.23	4⁺	D+Q			
1053.9	5,7	1004.7 *5*	100	49.19	6⁺	D			
1062.44	8⁺	135.3 *2*	11.2& *12*	927.21	9⁺	M1		0.1210	α(K)=0.1057 *16*; α(L)=0.01258 *19*; α(M)=0.00229 *4*; α(N)=0.000363 *6*; α(O)=2.39×10^{-5} *4* α(N+..)=0.000387 *6* I_γ: from ^{82}Se(^{19}F,5nγ), other: Iγ=12.5 (^{93}Nb,αnγ).
		487.4 *1*	100& *3*	574.94	7⁺	M1+E2	+0.12 *5*	0.00452 *7*	α(K)=0.00397 *6*; α(L)=0.000455 *7*; α(M)=8.24×10^{-5} *12*; α(N)=1.313×10^{-5} *19*; α(O)=8.85×10^{-7} *13* α(N+..)=1.401×10^{-5} *21* I_γ: from ^{82}Se(^{19}F,5nγ), other: Iγ=65 (^{93}Nb,αnγ).
		1013.6 *2*	62.4& *17*	49.19	6⁺	E2		8.02×10^{-4} *12*	α(K)=0.000704 *10*; α(L)=8.06×10^{-5} *12*; α(M)=1.457×10^{-5} *21*; α(N)=2.32×10^{-6} *4* α(O)=1.534×10^{-7} *22*; α(N+..)=2.47×10^{-6} *4* I_γ: from ^{82}Se(^{19}F,5nγ), other: Iγ=100 (^{93}Nb,αnγ).
1065.7		809.6 *3*	100	256.06	(2)⁺				
1071.6	(4,6)	894.6 *3*	100	176.99	5⁺	D+Q			
1103.10	5,7	1053.9 *2*	100	49.19	6⁺	D+Q			
1118.25	(5⁺,6⁺,7⁺)	799.1 *3*	80	319.21	6⁺	D			
		941.2 *3*	100	176.99	5⁺	D			
1138.95	8⁺	211.5 *3*	5.0	927.21	9⁺	D+Q			
		564.1 *2*	8.5	574.94	7⁺	D+Q			
		1089.7 *2*	5.5	49.19	6⁺	Q			
		1139.0 *2*	100	0.0	7⁺	D+Q			
1139.93	(5)	912.8 *2*	67	227.12	3⁻				
		1105.8 *8*	100	34.23	4⁺				
1149.0	(5)	829.7 *4*	63	319.21	6⁺				
		1115.0 *5*	100	34.23	4⁺	(D)			
1152.04	6⁻	173.0 *1*	15.2	979.02	5⁻	M1		0.0623	α(K)=0.0545 *8*; α(L)=0.00644 *9*; α(M)=0.001168 *17*; α(N)=0.000186 *3*; α(O)=1.229×10^{-5} *18* α(N+..)=0.000198 *3*
		599.9 *2*	100	551.87	4⁻	E2		0.00299 *5*	α(K)=0.00261 *4*; α(L)=0.000312 *5*; α(M)=5.65×10^{-5} *8*;

$^{96}_{43}Tc_{53}$-13

Adopted Levels, Gammas (continued)

γ(^{96}Tc) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[‡]	δ[†]	α	Comments
									α(N)=8.91×10^{-6} *13*; α(O)=5.62×10^{-7} *8* α(N+..)=9.47×10^{-6} *14*
1152.04	6$^-$	833.0 *3*	26	319.21	6$^+$	Q			
		975.2 *2*	12.0	176.99	5$^+$	(D)			
		1106.8 *1*	58	45.28	5$^+$	D			
		1151.7 *4*	13.9	0.0	7$^+$	D			
1183.23	5	395.5 *5*	38	788.82	(4)$^-$	D			
		596.4 *6*	73	585.81	(4$^+$)	D+Q			
		676.5 *3*	90	506.32	5$^+$	D+Q			
		1006.5 *2*	65	176.99	5$^+$				
		1134.0 *1*	100	49.19	6$^+$	D			
1187.56	5	320.4 *1*	39	867.15	4$^-$				
		366.6 *3*	9.8	820.95		M1,E2		0.0111 *21*	α(K)=0.0097 *18*; α(L)=0.0012 *3*; α(M)=0.00021 *5*; α(N)=3.4×10^{-5} *8*; α(O)=2.1×10^{-6} *3* α(N+..)=3.6×10^{-5} *8*
		635.9 *2*	100	551.87	4$^-$	(D)			
		1138.0 *3*	48	49.19	6$^+$	D+(Q)			
1202.74	(6$^+$)	883.7 *3*	64	319.21	6$^+$	D+(Q)			
		1153.4 *3*	100	49.19	6$^+$	M1+E2	−0.4 *2*	6.41×10^{-4} *11*	α(K)=0.000562 *10*; α(L)=6.31×10^{-5} *10*; α(M)=1.141×10^{-5} *18*; α(N)=1.82×10^{-6} *3* α(O)=1.242×10^{-7} *22*; α(N+..)=4.29×10^{-6} *9*
		1168.5 *1*	32	34.23	4$^+$				
1211.6	(2,4)	895.0 *3*	100	316.60	(3)$^-$	D+Q			
1255.09	(4)	1078.1 *1*	100	176.99	5$^+$				
		1209.8[a] *3*	90[a]	45.28	5$^+$	D+Q			
1271.0		918.5 *3*	100	352.53	3$^-$				
1290.21	4	783.8 *2*	100	506.32	5$^+$	D			
		1113.3 *2*	77	176.99	5$^+$	D			
1294.4	(5)	1117.4 *3*	100	176.99	5$^+$	Q+(D)			
1314.11	5$^+$	162.3 *4*	10.3	1152.04	6$^-$				
		994.8 *3*	69	319.21	6$^+$	D+Q			
		1084.9 *3*	28	228.76	4$^+$	D			
		1137.9 *5*	20.5	176.99	5$^+$	D+(Q)			
		1264.9 *1*	62	49.19	6$^+$	D			
		1269.1 *4*	53	45.28	5$^+$	Q			
		1314.1 *3*	100	0.0	7$^+$				
1366.81	(4,2)	1050.2 *2*	100	316.60	(3)$^-$	D			
1408.30	(4$^-$)	1231.3 *2*	100	176.99	5$^+$	D+(Q)			
1437.91	3$^-$	569.6 *4*	100	867.15	4$^-$	M1,E2		0.00329 *18*	α(K)=0.00288 *15*; α(L)=0.00034 *3*; α(M)=6.1×10^{-5} *5*; α(N)=9.7×10^{-6} *7*; α(O)=6.29×10^{-7} *21* α(N+..)=1.03×10^{-5} *7*
		1209.8[a] *3*	58[a]	228.76	4$^+$	D+Q			

$^{96}_{43}Tc_{53}$-14

Adopted Levels, Gammas (continued)

γ(^{96}Tc) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[‡]	δ[†]	α	Comments
1447.73	9$^+$	385.2 *2*	100[&] *6*	1062.44	8$^+$	M1		0.00798 *12*	α(K)=0.00700 *10*; α(L)=0.000807 *12*; α(M)=0.0001462 *21*; α(N)=2.33×10^{-5} *4* α(O)=1.565×10^{-6} *22*; α(N+..)=2.48×10^{-5} *4* I$_\gamma$: from ^{82}Se(^{19}F,5nγ), other: Iγ=15.3 (^{93}Nb,αnγ).
		500.8 *1*	55[&] *6*	946.93	8$^+$	M1		0.00423 *6*	α(K)=0.00371 *6*; α(L)=0.000425 *6*; α(M)=7.69×10^{-5} *11*; α(N)=1.225×10^{-5} *18*; α(O)=8.28×10^{-7} *12* α(N+..)=1.308×10^{-5} *19* I$_\gamma$: from ^{82}Se(^{19}F,5nγ), other: Iγ=63 (^{93}Nb,αnγ).
		872.8 *1*	70[&] *4*	574.94	7$^+$	E2		1.14×10^{-3} *2*	α(K)=0.000997 *14*; α(L)=0.0001152 *17*; α(M)=2.08×10^{-5} *3*; α(N)=3.31×10^{-6} *5*; α(O)=2.17×10^{-7} *3* α(N+..)=3.52×10^{-6} *5* I$_\gamma$: from ^{82}Se(^{19}F,5nγ), other: Iγ=100 (^{93}Nb,αnγ).
1482.3	(4)$^-$	1305.4 *3*	100	176.99	5$^+$	D+Q			
		1360.8 *5*	50	121.24	(2)$^-$				
1487.45	(8)	912.5 *2*	100	574.94	7$^+$	D			
1516.21	(7$^+$,5)	1196.8 *3*	100	319.21	6$^+$	D			
		1339.4 *3*	59	176.99	5$^+$				
1536.2	$^-$	1359.2 *4*	100	176.99	5$^+$				
1557.02	(4,6)	647.7 *2*	100	909.51	4	Q+(D)			
		1378.8 *5*	43	176.99	5$^+$				
1596.40		1419.4 *2*	100	176.99	5$^+$				
1597.39	6$^-$	618.3 *2*	100	979.02	5$^-$				
		1045.5 *3*	54	551.87	4$^-$	Q			
		1597.4 *1*	77	0.0	7$^+$				
1610.2		491.9 *4*	100	1118.25	(5$^+$,6$^+$,7$^+$)	D+(Q)			
1636.3		1459.3 *5*	100	176.99	5$^+$				
1703.34	(10)$^+$	255.6 *1*	71.2[&] *21*	1447.73	9$^+$	M1		0.0224	α(K)=0.0196 *3*; α(L)=0.00229 *4*; α(M)=0.000415 *6*; α(N)=6.60×10^{-5} *10*; α(O)=4.40×10^{-6} *7* α(N+..)=7.04×10^{-5} *10* I$_\gamma$: from ^{82}Se(^{19}F,5nγ), other: Iγ=100 (^{93}Nb,αnγ).
		756.3 *1*	33[&] *4*	946.93	8$^+$	Q			I$_\gamma$: from ^{82}Se(^{19}F,5nγ), other: Iγ=67 (^{93}Nb,αnγ).
		776.7 *5*	100.0[&] *21*	927.21	9$^+$	D+(Q)			I$_\gamma$: from ^{82}Se(^{19}F,5nγ), other: Iγ=58 (^{93}Nb,αnγ).
1767.42		1448.2 *2*	100	319.21	6$^+$				
1861.74	(9)$^+$	799.3 *1*	100[&] *3*	1062.44	8$^+$	D			I$_\gamma$: from ^{82}Se(^{19}F,5nγ), other: Iγ=70 (^{93}Nb,αnγ).
		914.7 *2*	70.2[&] *17*	946.93	8$^+$	M1+E2	+0.07 *5*	1.06×10^{-3} *2*	α(K)=0.000936 *14*; α(L)=0.0001054 *15*; α(M)=1.91×10^{-5} *3*; α(N)=3.04×10^{-6} *5*; α(O)=2.07×10^{-7} *3* α(N+..)=3.25×10^{-6} *5* I$_\gamma$: from ^{82}Se(^{19}F,5nγ), other: Iγ=100 (^{93}Nb,αnγ).

$^{96}_{43}Tc_{53}$-15

Adopted Levels, Gammas (continued)

γ(^{96}Tc) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[‡]	δ[†]	α	Comments
1922.68	(11)$^+$	995.7 *2*	100	927.21	9$^+$	E2		8.35×10^{-4} *12*	α(K)=0.000733 *11*; α(L)=8.40×10^{-5} *12*; α(M)=1.519×10^{-5} *22*; α(N)=2.41×10^{-6} *4* α(O)=1.596×10^{-7} *23*; α(N+..)=2.57×10^{-6} *4*
1974.4	(8)	1399.4 *6*	100	574.94	7$^+$	D			
2148.34	(11)$^+$	225.8 *2*	100[&] *3*	1922.68	(11)$^+$	Q+D			I$_\gamma$: from ^{82}Se(^{19}F,5nγ), other: Iγ=42 (^{93}Nb,αnγ).
		444.9 *2*	77[&] *3*	1703.34	(10)$^+$	D			I$_\gamma$: from ^{82}Se(^{19}F,5nγ), other: Iγ=100 (^{93}Nb,αnγ).
		1221.4 *3*	55[&] *8*	927.21	9$^+$	E2		5.44×10^{-3} *8*	α(K)=0.000468 *7*; α(L)=5.31×10^{-5} *8*; α(M)=9.59×10^{-6} *14*; α(N)=1.526×10^{-6} *22* α(O)=1.022×10^{-7} *15*; α(N+..)=1.239×10^{-5} *18* I$_\gamma$: from ^{82}Se(^{19}F,5nγ), other: Iγ=63 (^{93}Nb,αnγ).
2214.00	(10)$^+$	352.2 *1*	100.0[&] *10*	1861.74	(9)$^+$	M1		0.00995 *14*	α(K)=0.00873 *13*; α(L)=0.001009 *15*; α(M)=0.000183 *3*; α(N)=2.91×10^{-5} *4*; α(O)=1.95×10^{-6} *3* α(N+..)=3.11×10^{-5} *5*
		510.8[@]	≈20.9[&]	1703.34	(10)$^+$				
		1151.7 *4*	19.9[&] *10*	1062.44	8$^+$				
2317.89	(12)$^+$	169.6 *1*	39.6[&] *14*	2148.34	(11)$^+$	M1		0.0657	α(K)=0.0574 *8*; α(L)=0.00679 *10*; α(M)=0.001233 *18*; α(N)=0.000196 *3*; α(O)=1.297×10^{-5} *19* α(N+..)=0.000209 *3* I$_\gamma$: from ^{82}Se(^{19}F,5nγ), other: Iγ=29 (^{93}Nb,αnγ), Iγ=7.1 *14* (^{65}Cu,αnγ).
		395.3 *2*	100.0[&] *8*	1922.68	(11)$^+$	M1+E2	+0.07 *1*	0.00750 *11*	α(K)=0.00658 *10*; α(L)=0.000758 *11*; α(M)=0.0001374 *20*; α(N)=2.19×10^{-5} *3* α(O)=1.470×10^{-6} *21*; α(N+..)=2.33×10^{-5} *4* I$_\gamma$: from ^{82}Se(^{19}F,5nγ), other: Iγ=100 (^{93}Nb,αnγ), Iγ=100 *10* (^{65}Cu,αnγ).
		614.0 *3*	30.6[&] *12*	1703.34	(10)$^+$	E2		0.00281 *4*	α(K)=0.00245 *4*; α(L)=0.000292 *5*; α(M)=5.29×10^{-5} *8*; α(N)=8.34×10^{-6} *12*; α(O)=5.28×10^{-7} *8* α(N+..)=8.87×10^{-6} *13* I$_\gamma$: from ^{82}Se(^{19}F,5nγ), other: Iγ=57 (^{93}Nb,αnγ), Iγ=13.9 *14* (^{65}Cu,αnγ).
2397.54	(11)$^+$	183.5 *1*	71[&] *3*	2214.00	(10)$^+$	M1+E2	+0.11 *2*	0.0543 *9*	α(K)=0.0474 *8*; α(L)=0.00564 *10*; α(M)=0.001024 *18*; α(N)=0.000163 *3*; α(O)=1.066×10^{-5} *17* α(N+..)=0.000173 *3* I$_\gamma$: from ^{82}Se(^{19}F,5nγ), other: Iγ=100 (^{93}Nb,αnγ).
		536.0 *2*	100[&] *6*	1861.74	(9)$^+$	E2		0.00411 *6*	α(K)=0.00359 *5*; α(L)=0.000433 *6*; α(M)=7.85×10^{-5} *11*; α(N)=1.235×10^{-5} *18*; α(O)=7.67×10^{-7} *11* α(N+..)=1.312×10^{-5} *19* I$_\gamma$: from ^{82}Se(^{19}F,5nγ), other: Iγ=77 (^{93}Nb,αnγ).
2599.89	(13)$^+$	282.0 *1*	100	2317.89	(12)$^+$	M1		0.01740	α(K)=0.01525 *22*; α(L)=0.001775 *25*; α(M)=0.000322 *5*;

$^{96}_{43}Tc_{53}$-16

Adopted Levels, Gammas (continued)

γ(^{96}Tc) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[‡]	α	Comments
								α(N)=5.12×10^{-5} *8*; α(O)=3.42×10^{-6} *5* α(N+..)=5.46×10^{-5} *8*
2643.1	(10)$^+$	325.2 *2*	100	2317.89	(12)$^+$	E2	0.0195	α(K)exp=0.020 *5* α(K)=0.01684 *24*; α(L)=0.00218 *3*; α(M)=0.000396 *6*; α(N)=6.16×10^{-5} *9*; α(O)=3.49×10^{-6} *5* α(N+..)=6.51×10^{-5} *10*
2816.9		419.5	100	2397.54	(11)$^+$			
3020.6	(12)$^+$	203.8[@]	10.4[&] *18*	2816.9				
		623.2[@]	55[&] *7*	2397.54	(11)$^+$			
		806.6 *3*	100[&] *3*	2214.00	(10)$^+$	E2	1.38×10^{-3} *2*	α(K)=0.001207 *17*; α(L)=0.0001403 *20*; α(M)=2.54×10^{-5} *4*; α(N)=4.02×10^{-6} *6*; α(O)=2.62×10^{-7} *4* α(N+..)=4.29×10^{-6} *6*
3291.1	(13$^+$)	270	4.3 *12*	3020.6	(12)$^+$			
		893.7	100.0 *19*	2397.54	(11)$^+$			
3537.7	(15$^+$)	937.8	100	2599.89	(13)$^+$			
3546.7	(13)	525.9	100	3020.6	(12)$^+$			
3779.2	(14$^+$)	232.4	33.2 *12*	3546.7	(13)			
		487.7	<105	3291.1	(13$^+$)			
		758.8	100 *3*	3020.6	(12)$^+$			
		1179.5	16.0 *12*	2599.89	(13)$^+$			
4011.4	(17$^+$)	473.7	100	3537.7	(15$^+$)			
4121.0	(15$^+$)	341.7	100 *3*	3779.2	(14$^+$)			
		830.0	21 *5*	3291.1	(13$^+$)			
4904.2	(17$^+$)	783.2	100	4121.0	(15$^+$)			
5186.3	(18$^+$)	1174.9	100	4011.4	(17$^+$)			
6115.4	(19$^+$)	929.2	100	5186.3	(18$^+$)			
6389.7	(19$^+$)	1485.5	100	4904.2	(17$^+$)			
6846.8	(20$^+$)	457.1	100	6389.7	(19$^+$)			
7187.4	(20$^+$)	1072		6115.4	(19$^+$)			
		2001		5186.3	(18$^+$)			
7623.4	(21$^+$)	436		7187.4	(20$^+$)			
		1508		6115.4	(19$^+$)			
8042.8	(21,22)	1196.0	100	6846.8	(20$^+$)			
8755.4		1132	100	7623.4	(21$^+$)			
10046.9		2004	100	8042.8	(21,22)			

† From combination of γ(θ), pol and α(K)exp data in ^{93}Nb(α,nγ) (1988Ma14).
‡ From (α,nγ) (1988Ma14) unless noted otherwise.
# Not observed in ^{82}Se(^{19}F,5nγ).

$^{96}_{43}Tc_{53}$-17

Adopted Levels, Gammas (continued)

$\gamma(^{96}Tc)$ (continued)

[@] Observed only in $^{82}Se(^{19}F,5n\gamma)$.
[&] From $^{82}Se(^{19}F,5n\gamma)$.
[a] Multiply placed with intensity suitably divided.

$^{96}_{43}Tc_{53}$-18

Adopted Levels, Gammas

Level Scheme

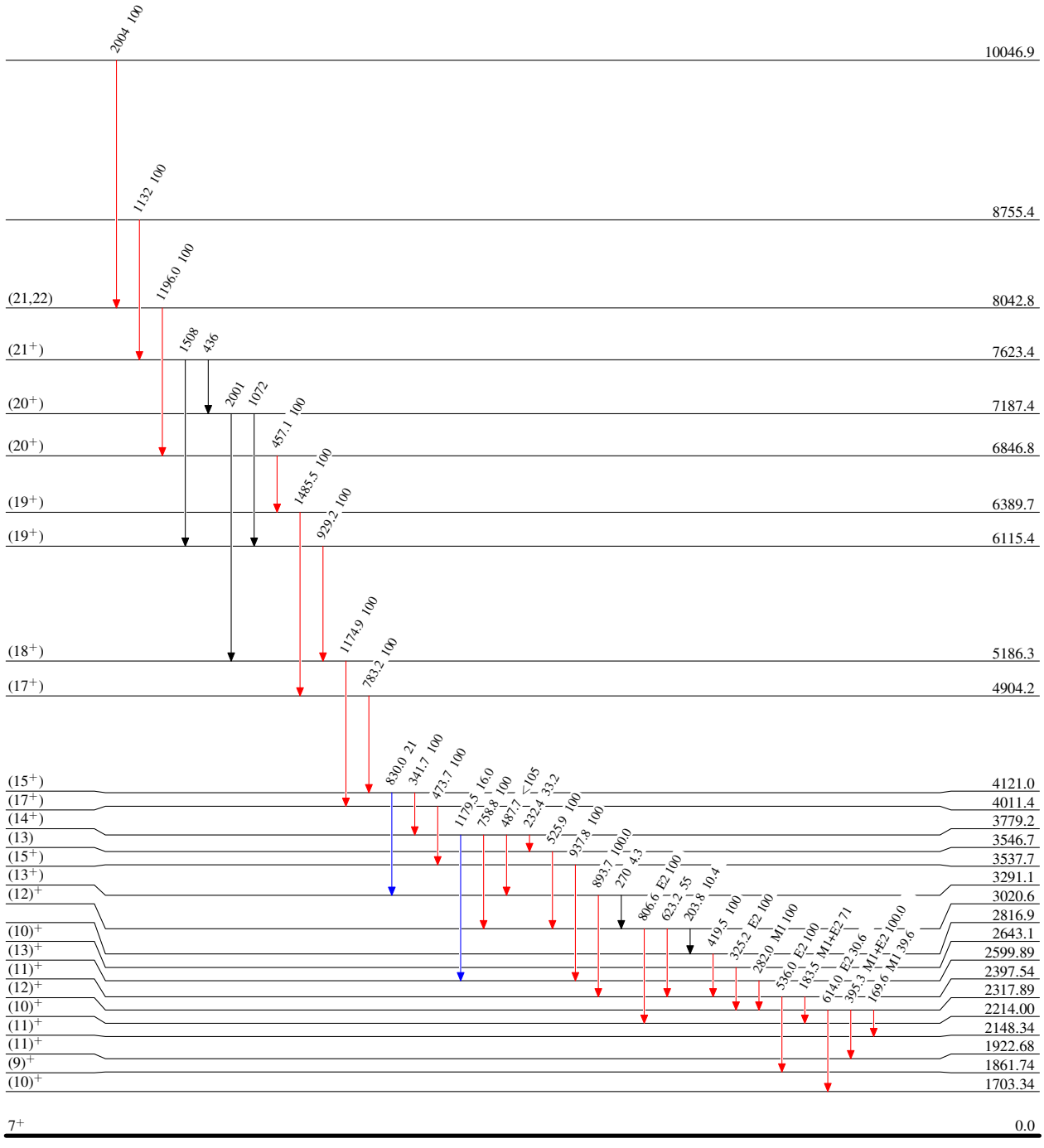
Intensities: Type not specified

Legend

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

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

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

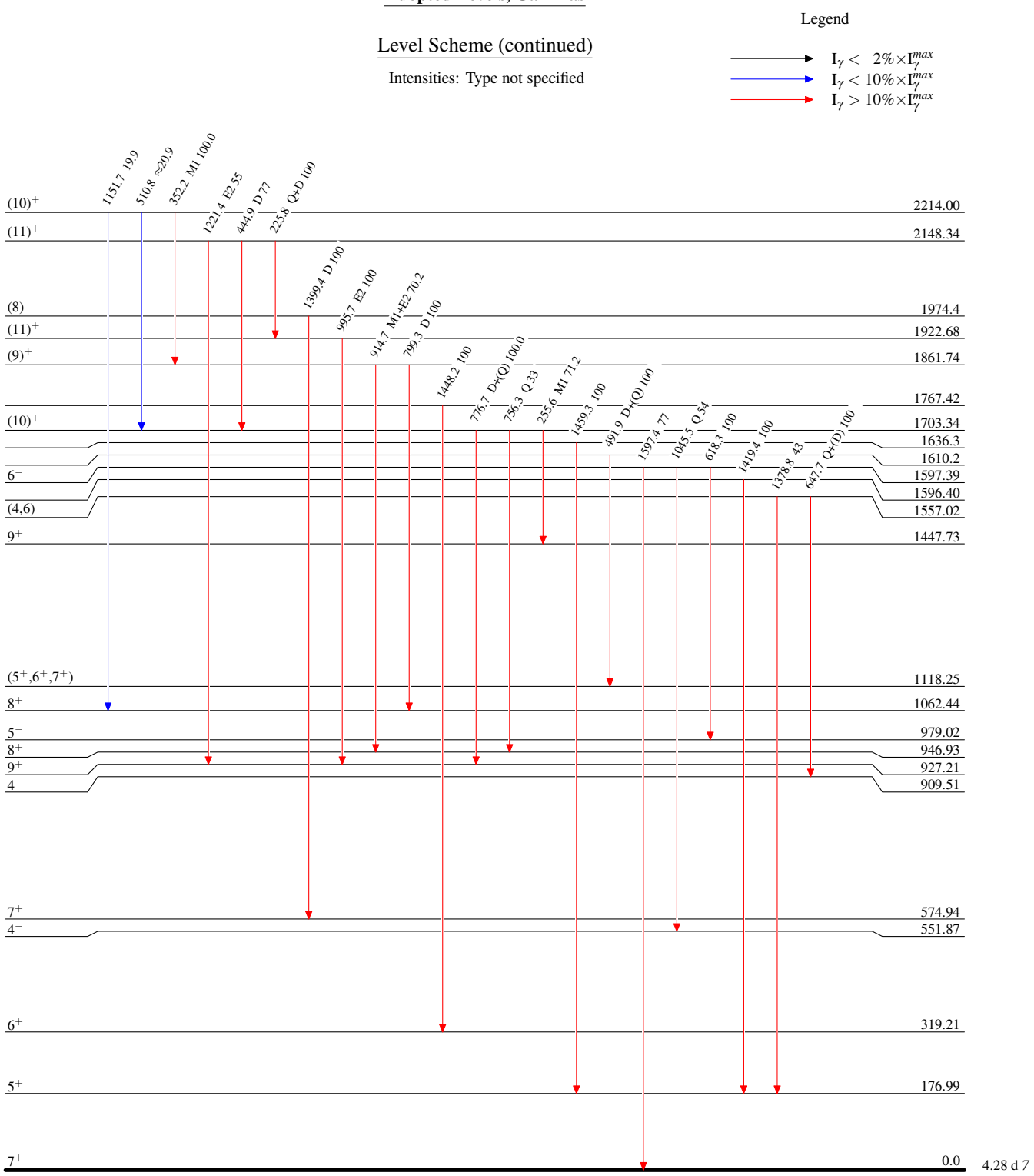


$^{96}_{43}Tc_{53}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified



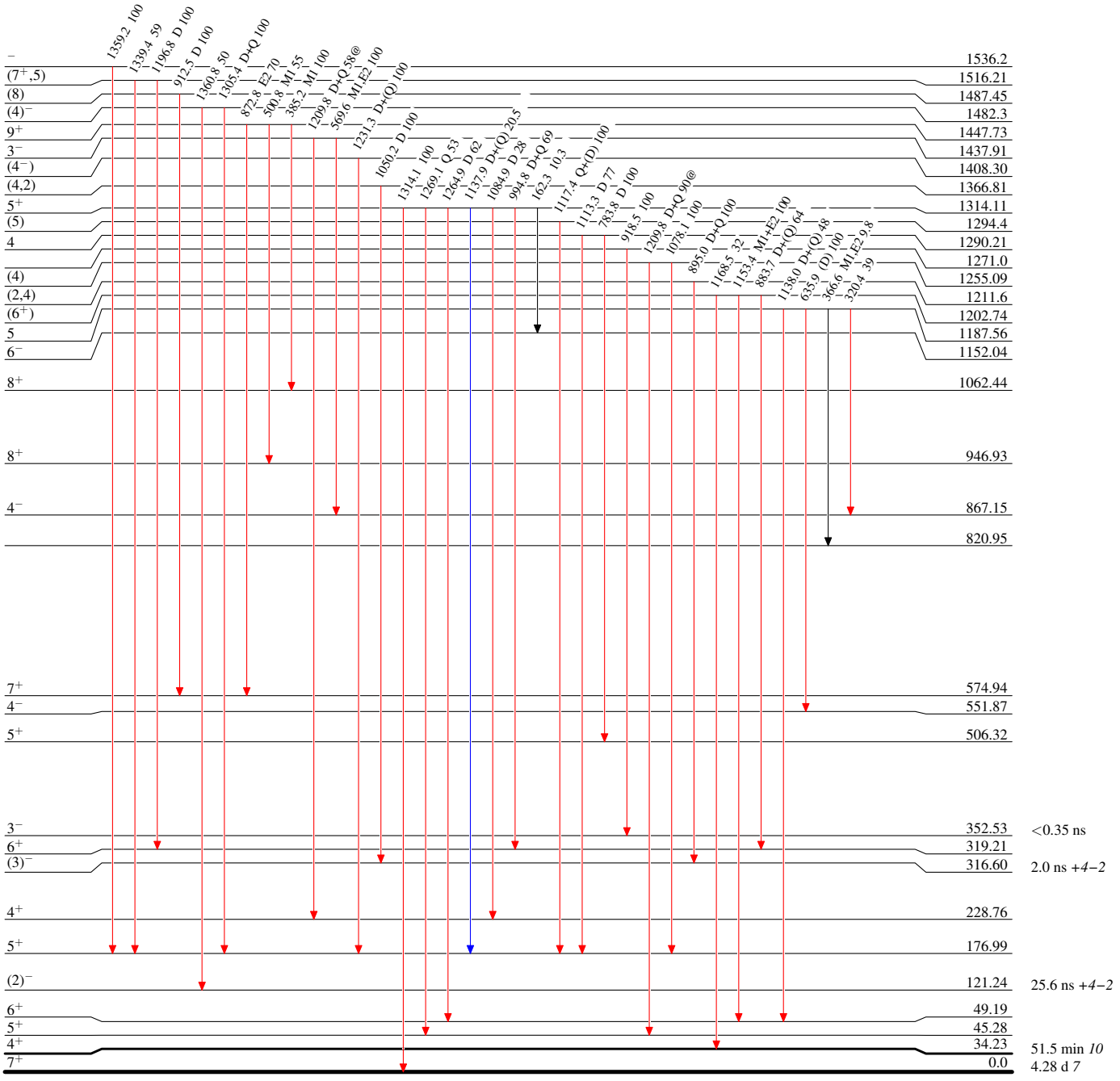
$^{96}_{43}Tc_{53}$

Adopted Levels, Gammas

Level Scheme (continued)

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

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



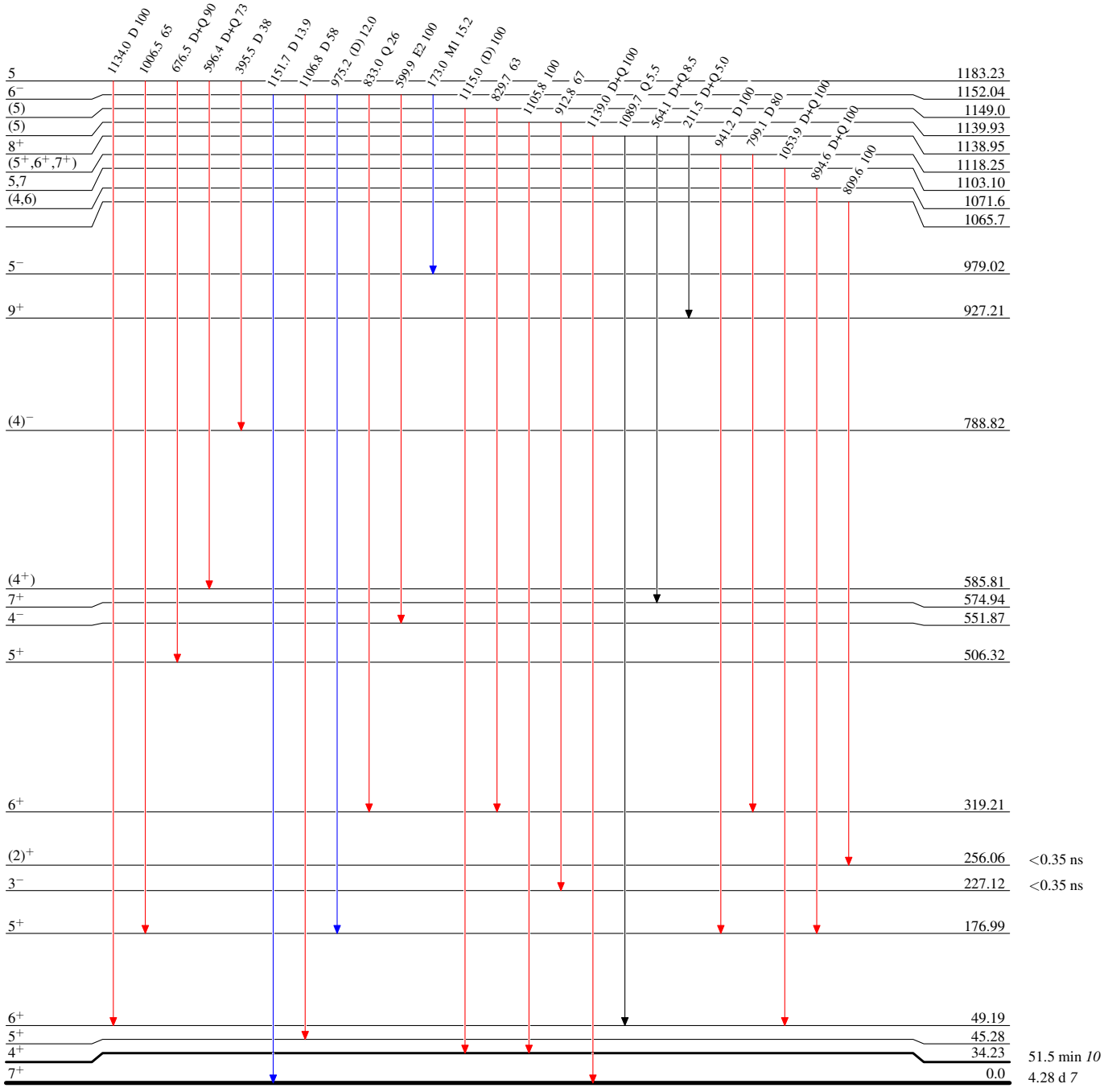
$^{96}_{43}Tc_{53}$

Adopted Levels, Gammas

Level Scheme (continued)

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

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



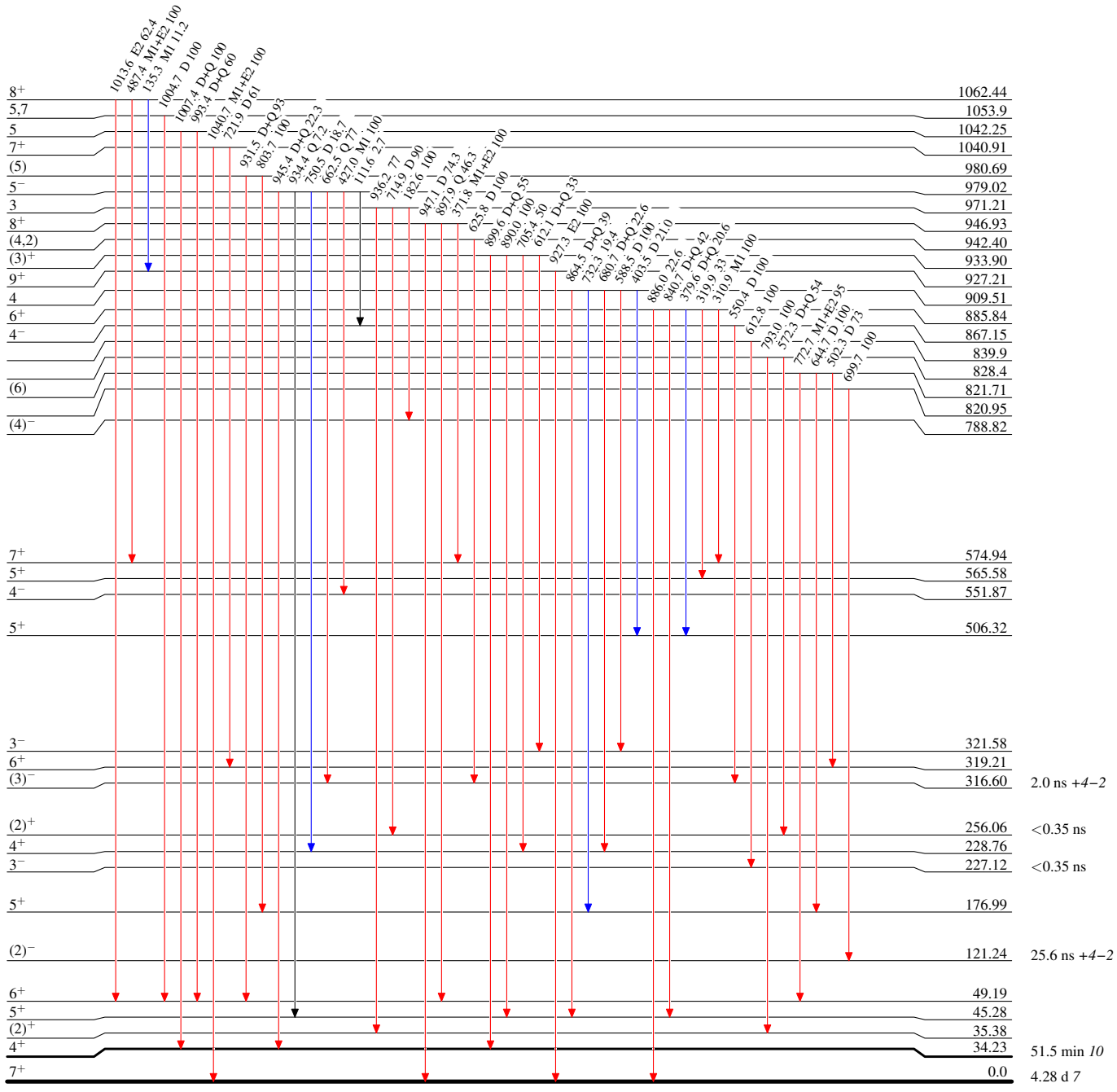
$^{96}_{43}Tc_{53}$

Adopted Levels, Gammas

Level Scheme (continued)

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

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



$^{96}_{43}Tc_{53}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
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Legend
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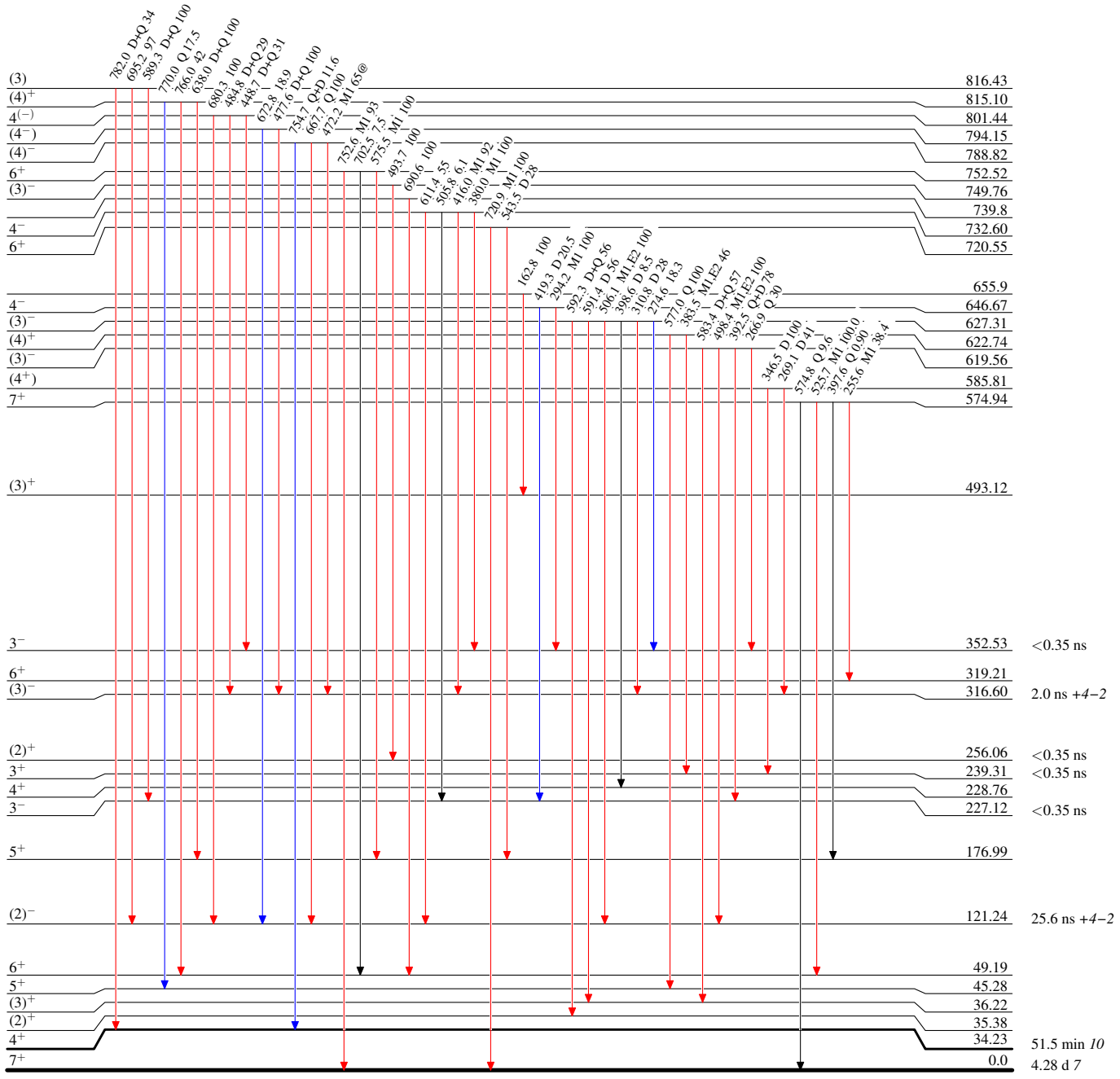
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$



$^{96}_{43}Tc_{53}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
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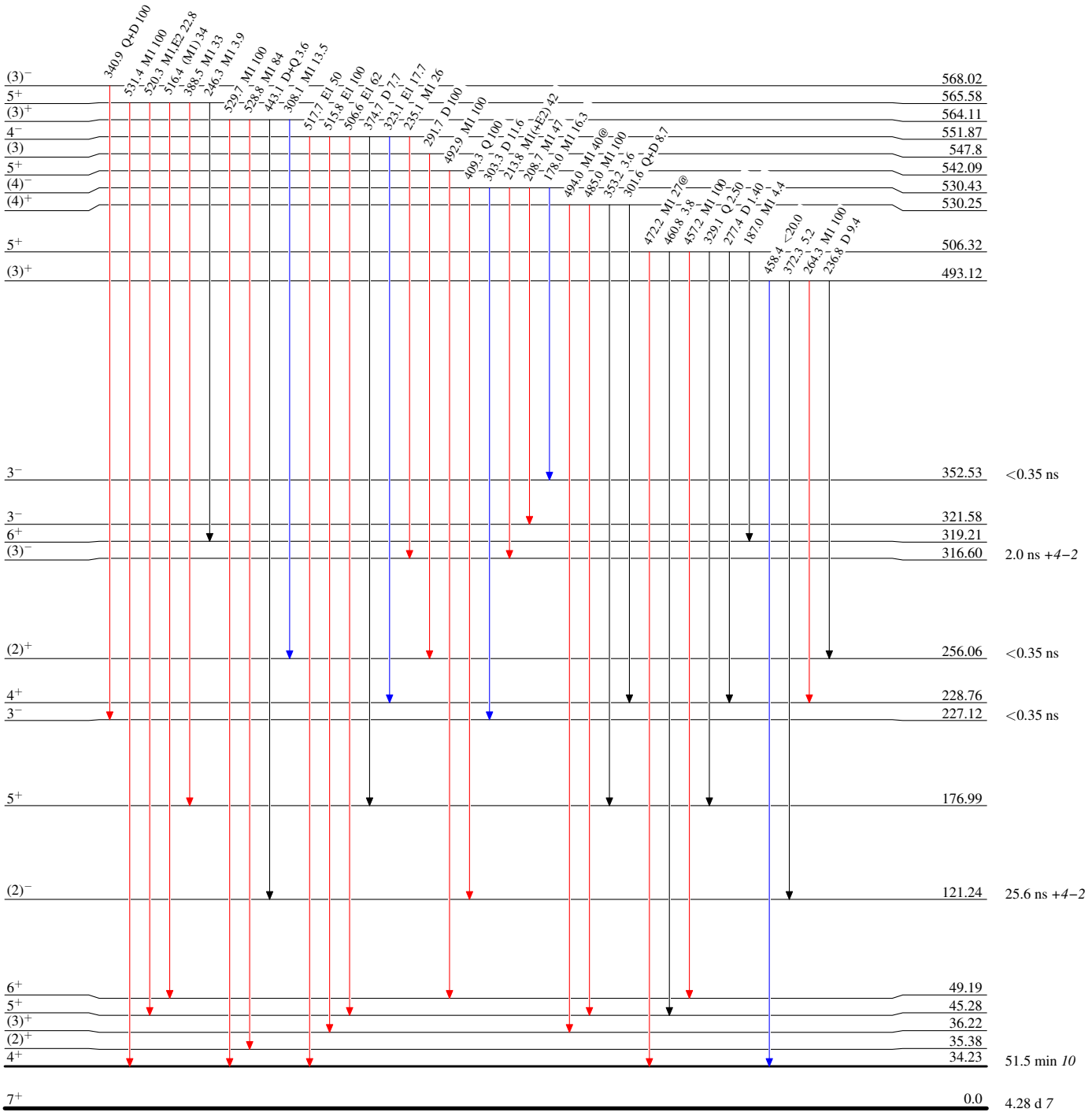
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$



$^{96}_{43}Tc_{53}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
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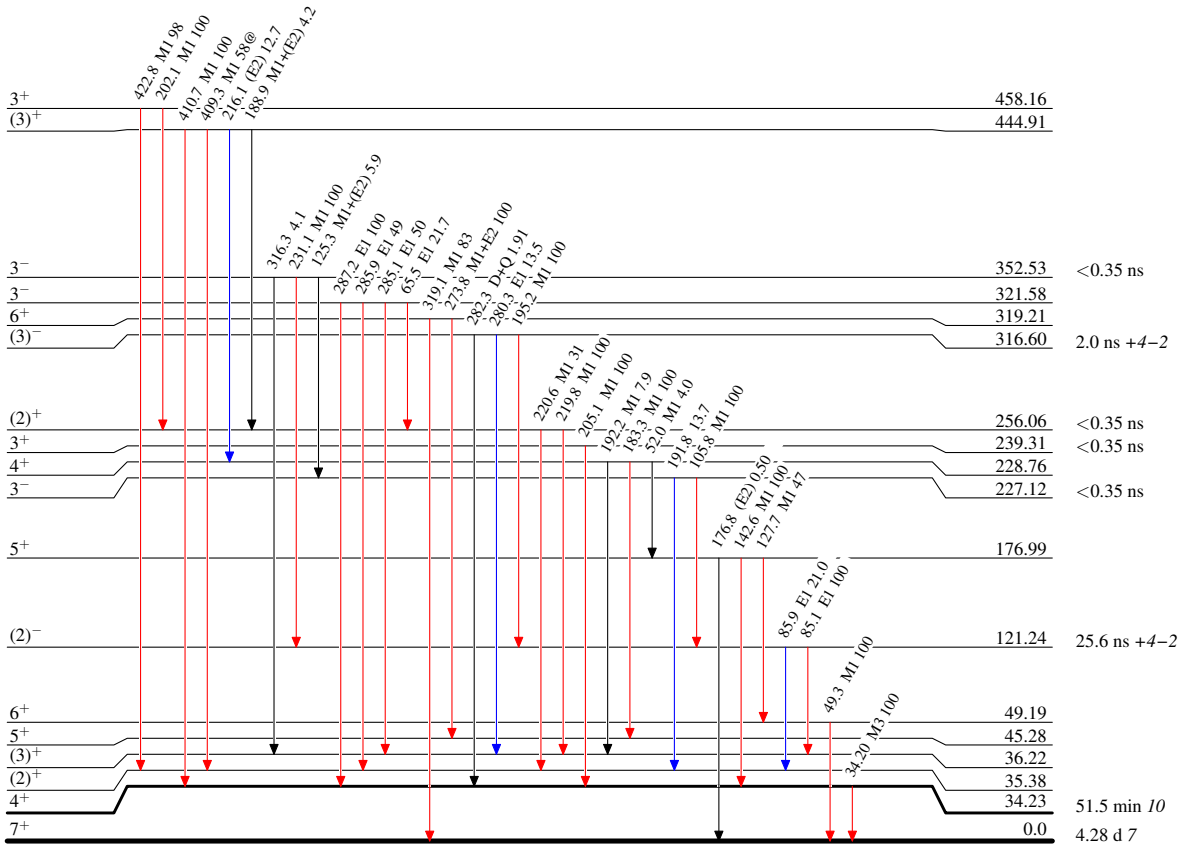
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$



$^{96}_{43}Tc_{53}$