Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 93,33 (2001)	11-May-2001

Q(β^-)=2944 *4*; S(n)=6500.33 *4*; S(p)=7220 *4*; Q(α)=−2.97×10^3 *4* 2012Wa38
Note: Current evaluation has used the following Q record 2949 3 *6500.33 4* 7216 3 −2960 32 1995Au04.
Other reaction:
^{130}Te(^{3}He,t) E=45.9 MeV: 1976Be49: IAR, Coulomb displacement energy=13937 *20*, Γ=37 keV *9*.
For possible isomers, see 1979HaZS.

^{130}I Levels

Cross Reference (XREF) Flags

A ^{130}I IT decay (8.84 min)
B ^{129}I(n,γ) E=th
C ^{129}I(d,p)
D ^{130}Te(p,n)
E ^{130}Te(p,nγ)

E(level)†	Jπ	$T_{1/2}$@	XREF	Comments
0.0	5$^+$	12.36 h *1*	ABCDE	%β^-=100 μ=3.349 *7* (1992Oh01) Jπ: atomic beam-NMR (1958Ga20,1959Sh63); log *ft*=5.8 to π=+. μ: low-temperature nuclear orientation and NMR (1992Oh01). configuration: $\pi g^3_{7/2}\nu d_{3/2}$ gives μ(theory)=−3.43 (1992Oh01). $T_{1/2}$: weighted average of 12.34 h *4* (1996Na23), 12.36 h *1* (1973Ho25), 12.4 h *1* (1972Ba51), 12.30 h *7* (1970Qa02), 12.3 h *1* (1968Re04), 12.3 h *1* (1965An05), 12.5 h *1* (1957Aa04). Others: 12.5 h (1968Le25), 12.5 h *5* (1939Ta01), 12.6 h *10* (1938Li05). Additional information 1.
39.9525 *13*	2$^+$	8.84 min *6*	ABC E	%β^-=16 *2*; %IT=84 *2* Jπ: M3 γ to 5$^+$; log *ft*=6.6 to 2$^+$. $T_{1/2}$: weighted average of 8.78 min *2* (1996Na23), 8.9 min *2* (1974Di03), 9.16 min *5* (1972Ba51), 9.2 min *2* (1970Qa02,1970Qa03), 8.82 min *4* (1968Re04), 9.2 min *1* (1966Wi15). Others: 8.3 min *10* (1984RoZO), 9.2 min (1967Ke12), 1974Me17. %β^-: average of 17 *3* (1973Ho25), 16 *3* (1970Qa03), 15 *4* (1967Ke12). Other: 15 (1972Ba51).
43.251 *3*	(1 to 4)$^+$		Bc E	Jπ: M1 γ from 2$^+$,3$^+$.
43.9362 *17*	(3)$^-$		Bc E	Jπ: E1 γ from 3$^+$, M1-M1 γ cascade from (5)$^-$, γ to 2$^+$ establish J^π(43.93)=(3)$^-$ and J^π(91.76)=(4)$^-$.
44.3269 *15*	3$^+$,4$^+$		Bc E	Jπ: E2 γ to 5$^+$, M1 γ from 3$^+$.
48.8327 *8*	4$^+$		BC E	Jπ: see comment for 93.7 level.
62.2 *6*			C	
69.5865 *7*	(6)$^-$	133 ns *7*	B DE	Jπ: E1 γ to 5$^+$; no primary γ from 3$^+$,4$^+$.
80	(2$^-$)#		C	
82.3960 *19*	−	315 ns *15*	BC E	Jπ: E2 γ to π=−.
82.4+x		66 ns *8*	B	E(level): x<25.
85.1099 *10*	(6)$^-$	254 ns *4*	B E	μ=−0.29 *3* (1975BlZY) Jπ: E1 γ to 5$^+$, no primary γ from 3$^+$,4$^+$. $T_{1/2}$: other: 229 ns *14* from (p,nγ). μ: from γ(θ,H,t) in (p,nγ) (1975BlZY). Additional information 2.
91.7605 *16*	(4)$^-$		Bc E	Jπ: see comment for 43.9 level.
93.7143 *14*	3$^+$		BC E	Jπ: M1 γ to 2$^+$, M1-M1 γ cascade to 5$^+$ through 48.83 level establish J^π(93.71)=3$^+$ and J^π(48.83)=4$^+$.
111.0607 *11*	(5)$^-$		BC E	Jπ: M1 γ to (6)$^-$, primary γ from 3$^+$,4$^+$.

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Adopted Levels, Gammas (continued)

^{130}I Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$[@]	XREF	Comments
125.7595 *16*	$4^+,5^+$		B E	Jπ: M1 γ's to 4^+ and 5^+.
180.3001 *15*	$(5,6,7)^-$		BC E	Jπ: M1 γ to $(6)^-$.
209.7392 *17*	$2^+,3^+$		BC E	Jπ: M1 γ's to 2^+ and 3^+.
223.9761 *15*	3^+		BC E	Jπ: M1 γ's to 2^+ and 4^+.
242.4+x			B	
245.1019 *13*	$(5)^-$		BC E	Jπ: M1 γ to $(6)^-$, primary γ from $3^+,4^+$.
251.5496 *23*	3^+		BC E	Jπ: M1 γ's to 2^+ and 4^+.
254.7947 *22*	$1^+,2^+,3^+$		B E	Jπ: M1 γ to 2^+.
262.0513 *19*	$3^+,4^+$		BC E	Jπ: M1 γ to 3^+; M1,E2 γ to 5^+.
264.7 *5*			C	
296.0376 *17*	$(4,5)^-$		B E	Jπ: M1 γ's to (4^-) and (5^-).
349.596 *4*	$(1\text{ to }4)^+$		B E	Jπ: M1,E2 γ to π=+, primary γ from $3^+,4^+$.
353.731 *4*	$(2\text{ to }5)^-$	<0.04 ns	BC E	Jπ: M1,E2 γ to $(3)^-$, primary γ from $3^+,4^+$.
374.681 *3*	$(2,3,4)^+$	<7 ns	B E	Jπ: M1,E2 γ's to $2^+,3^+$ and $3^+,4^+$.
378.3467 *22*	$(4,5)^-$	<0.07 ns	BC E	Jπ: M1,E2 γ to $(6)^-$; primary γ from $3^+,4^+$.
428.6 *7*			C	
437.638 *4*	$2^+,3^+,4^+$	<0.3 ns	B e	Jπ: M1 γ to 3^+.
460.912 *6*	$^-$		BC E	Jπ: M1,E2 γ to π=−.
480.7026 *20*	$(4,5)^-$	<0.1 ns	BC E	Jπ: M1 γ to $(5)^-$; γ to $(3)^-$.
525.881 *7*	$(2,3,4)^+$		B	Jπ: M1,E2 γ to π=+; γ's to 2^+ and $4^+,5^+$.
531.6 *7*			C	
544.968 *5*	$(2\text{ to }5)^+$	<0.8 ns	B E	Jπ: M1,E2 γ to 3^+; γ to 4^+.
593.993 *6*	$(3\text{ to }6)^-$		BC	Jπ: M1 γ from $(4,5)^-$.
606.550 *10*		<0.6 ns	BC	
642.0 *7*			C	
678.491 *4*	$(3,4,5)^-$	<0.4 ns	B	Jπ: M1,E2 γ to $(5)^-$; γ to $(3)^-$.
682.234 *4*	$(3,4,5)^-$	<0.2 ns	B E	Jπ: M1 γ's to $(4,5)^-$ and $(3)^-$.
699.206 *6*	$(4,5)^-$	<0.3 ns	B E	Jπ: M1 γ to $(6)^-$, primary γ from $3^+,4^+$.
761.516 *7*	$(2\text{ to }5)^-$	<0.2 ns	B E	Jπ: M1,E2 γ to π=−; primary γ from $3^+,4^+$.
768.415 *12*	$(2\text{ to }5)^-$	<0.3 ns	B	Jπ: M1,E2 γ to π=−; primary γ from $3^+,4^+$.
783.162 *9*	$(4\text{ to }7)^-$		B	Jπ: M1,E2 γ to π=−; γ's to $(5)^-$ and $(6)^-$.
804.07 *3*	$3^+,4,5^+$	<2 ns	Bc	Jπ: γ's to 3^+ and 5^+.
825.024 *22*	$(2\text{ to }5)^-$	<1.4 ns	Bc	Jπ: M1,E2 γ to π=−; primary γ from $3^+,4^+$.
876.261 *7*	$(4,5)^-$	<0.7 ns	Bc	Jπ: M1,E2 γ to π=−; γ to $(6)^-$; primary γ from $3^+,4^+$.
944.96 *3*	$(2\text{ to }5)^{(-)}$	<2 ns	B	Jπ: primary γ from $3^+,4^+$.
1079.050 *9*	$(3,4,5)^-$	<0.9 ns	B E	Jπ: M1 γ to $(4,5)^-$, primary γ from $3^+,4^+$.
1670[‡]			C	
2350[‡]			C	
3590[‡]			C	
4200[‡]			C	
6200[‡]	(1^+)[#]		C	
7850[‡]	(1^+)[#]		C	
9570[‡]	(1^+)[#]		C	

[†] From least-squares adjustment to Eγ's.
[‡] Broad peak in (p,n).
[#] σ(θ) in (p,n).
[@] From γγ(t) in (n,γ) for levels above 40 keV.

Adopted Levels, Gammas (continued)

$\gamma(^{130}I)$

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[#]	Comments
39.9525	2^+	39.9542 *21*	100	0.0	5^+	M3	4.94×10^3	α(K)= 1194; α(L)= 2850; α(M)= 675 B(M3)(W.u.)=0.20 *1*
43.251	$(1\text{ to }4)^+$	(3.30)	≈100	39.9525	2^+	[M1]	563	α(M)= 424
43.9362	$(3)^-$	(3.98)		39.9525	2^+	[E1]	55.5	α(M)= 41.8
44.3269	$3^+,4^+$	(4.37)		39.9525	2^+	[M1]	242.6	α(M)= 182.4
		44.336 *15*	100	0.0	5^+	E2	35.0	α(K)= 10.28; α(L)= 19.25; α(M)= 4.09
48.8327	4^+	48.8325 *8*	100	0.0	5^+	M1	6.03	α(K)= 5.16; α(L)= 0.680; α(M)= 0.1363
69.5865	$(6)^-$	69.5862 *7*	100	0.0	5^+	E1	0.563	α(K)= 0.482; α(L)= 0.0654; α(M)=0.01299; α(N+..)=0.00300 B(E1)(W.u.)=3.8×10^{-6} *2*
82.3960	$^-$	(12.81)	100	69.5865	$(6)^-$	E2	1.166×10^4	α(L)= 9130; α(M)= 1901 B(E2)(W.u.)=11.4 *6*
85.1099	$(6)^-$	85.1104 *10*	100	0.0	5^+	E1	0.321	α(K)= 0.276; α(L)= 0.0366; α(M)=0.00727; α(N+..)=0.00169 B(E1)(W.u.)=1.27×10^{-6} *2*
91.7605	$(4)^-$	47.8242 *6*	100	43.9362	$(3)^-$	M1	6.41	α(K)= 5.49; α(L)= 0.723; α(M)= 0.1449
93.7143	3^+	44.8818 *19*	57 *10*	48.8327	4^+	M1	7.72	α(K)= 6.62; α(L)= 0.872; α(M)= 0.1746
		49.389 *4*	25 *3*	44.3269	$3^+,4^+$	M1	5.83	α(K)= 4.99; α(L)= 0.658; α(M)= 0.1319
		53.7613 *14*	100 *11*	39.9525	2^+	M1	4.54	α(K)= 3.89; α(L)= 0.513; α(M)= 0.1029; α(N+..)= 0.0252
111.0607	$(5)^-$	19.312 *12*	3.4 *5*	91.7605	$(4)^-$	M1	13.48	α(L)= 10.64; α(M)= 2.133
		41.4737 *9*	100 *11*	69.5865	$(6)^-$	M1	9.73	α(K)= 8.33; α(L)= 1.101; α(M)= 0.2203
125.7595	$4^+,5^+$	76.923 *3*	6.6 *8*	48.8327	4^+	M1	1.602	α(K)= 1.376; α(L)= 0.1805; α(M)= 0.0362; α(N+..)=0.00890
		81.4331 *11*	27 *2*	44.3269	$3^+,4^+$	M1	1.360	α(K)= 1.169; α(L)= 0.1529; α(M)= 0.0307; α(N+..)=0.00755
		125.759 *3*	100 *5*	0.0	5^+	M1	0.396	α(K)= 0.340; α(L)= 0.0443; α(M)=0.00888; α(N+..)=0.00218
180.3001	$(5,6,7)^-$	95.1902 *11*	43 *3*	85.1099	$(6)^-$	M1	0.870	α(K)= 0.748; α(L)= 0.0976; α(M)=0.01959; α(N+..)=0.00481
		97.9040 *12*	100 *6*	82.3960	$^-$	M1	0.803	α(K)= 0.691; α(L)= 0.0901; α(M)=0.01807; α(N+..)=0.00444
209.7392	$2^+,3^+$	116.009 *12*	1.5 *2*	93.7143	3^+	M1	0.496	α(K)= 0.427; α(L)= 0.0557; α(M)=0.01115; α(N+..)=0.00274
		160.909 *10*	1.3 *3*	48.8327	4^+			
		165.4124 *21*	17 *1*	44.3269	$3^+,4^+$	M1	0.1848	α(K)= 0.1590; α(L)=0.02057; α(M)=0.00413; α(N+..)=0.00101
		166.486 *3*	16 *1*	43.251	$(1\text{ to }4)^+$	M1	0.1815	α(K)= 0.1562; α(L)=0.02021; α(M)=0.00405; α(N+..)= 0.0010
		169.7863 *15*	100 *5*	39.9525	2^+	M1	0.1719	α(K)= 0.1480; α(L)=0.01914;

α(M)=0.00384;
α(N+..)=0.00094

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Adopted Levels, Gammas (continued)

$\gamma(^{130}I)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[#]	Comments
223.9761	3^+	130.263 *4*	7.1 *7*	93.7143	3^+	M1	0.358	α(K)= 0.308; α(L)= 0.0401; α(M)=0.00804; α(N+..)=0.00197
		132.215 *3*	5.9 *5*	91.7605	$(4)^-$	E1	0.0935	α(K)= 0.0806; α(L)=0.01035; α(M)=0.00206; α(N+..)=0.00049
		175.137 *5*	18.5 *14*	48.8327	4^+	M1	0.1579	α(K)= 0.1359; α(L)=0.01757; α(M)=0.00353; α(N+..)=0.00087
		179.643 *3*	17.8 *8*	44.3269	$3^+,4^+$	M1	0.1472	α(K)= 0.1268; α(L)=0.01639; α(M)=0.00329; α(N+..)=0.00081
		180.041 *7*	4.3 *7*	43.9362	$(3)^-$	E1	0.0395	α(K)= 0.0342; α(L)=0.00431; α(M)=0.00086; α(N+..)=0.00020
		180.738 *16*	1.4 *2*	43.251	$(1\text{ to }4)^+$		0.15	
		184.0249 *15*	100 *4*	39.9525	2^+	M1	0.1379	α(K)= 0.1187; α(L)=0.01534; α(M)=0.00308; α(N+..)=0.00076
		223.980 *7*	5.4 *6*	0.0	5^+	(E2)	0.1061	α(K)= 0.0857; α(L)=0.01629; α(M)=0.00334; α(N+..)=0.00079
242.4+x		159.956 *9*	100	82.4+x				
245.1019	$(5)^-$	153.3396 *15*	19.8 *14*	91.7605	$(4)^-$	M1	0.2278	α(K)= 0.1961; α(L)= 0.0254; α(M)=0.00509; α(N+..)=0.00125
		159.9921 *12*	100 *7*	85.1099	$(6)^-$	M1	0.2026	α(K)= 0.1744; α(L)=0.02256; α(M)=0.00453; α(N+..)=0.00111
		175.515 *7*	6.2 *4*	69.5865	$(6)^-$	M1	0.1569	α(K)= 0.1351; α(L)=0.01747; α(M)=0.00350; α(N+..)=0.00086
251.5496	3^+	125.790 *9*	18 *4*	125.7595	$4^+,5^+$			
		157.832 *5*	19.1 *14*	93.7143	3^+	M1	0.2103	α(K)= 0.1811; α(L)=0.02343; α(M)=0.00470; α(N+..)=0.00115
		202.727 *8*	12.3 *16*	48.8327	4^+	M1	0.1061	α(K)= 0.0914; α(L)=0.01178; α(M)=0.00236; α(N)=0.00058
		207.221 *4*	23 *1*	44.3269	$3^+,4^+$	M1	0.1001	α(K)= 0.0862; α(L)=0.01110; α(M)=0.00222; α(N+..)=0.00055
		211.598 *3*	100 *3*	39.9525	2^+	M1	0.0946	α(K)= 0.0815; α(L)=0.01049; α(M)=0.00210; α(N+..)=0.00052
254.7947	$1^+,2^+,3^+$	214.8422 *18*	100	39.9525	2^+	M1	0.0909	α(K)= 0.0783; α(L)=0.01007; α(M)=0.00202; α(N+..)=0.00050
262.0513	$3^+,4^+$	168.3370 *15*	100 *4*	93.7143	3^+	M1	0.1760	α(K)= 0.1515; α(L)= 0.0196; α(M)=0.00393; α(N+..)=0.00097
		213.218 *8*	7.5 *14*	48.8327	4^+			
		217.726 *5*	14.5 *14*	44.3269	$3^+,4^+$	M1,E2	0.102 *15*	
		262.039 *12*	16.1 *9*	0.0	5^+	M1,E2	0.058 *5*	

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Adopted Levels, Gammas (continued)

γ(^{130}I) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.‡	α#	Comments
296.0376	(4,5)$^-$	50.931 *6*	1.4 *2*	245.1019	(5)$^-$	M1	5.31	α(K)= 4.56; α(L)= 0.601; α(M)= 0.1205; α(N+..)= 0.0296
		184.9756 *15*	100 *5*	111.0607	(5)$^-$	M1	0.1359	α(K)= 0.1170; α(L)=0.01513; α(M)=0.00303; α(N+..)=0.00075
		204.284 *4*	3.95 *14*	91.7605	(4)$^-$	M1	0.1040	α(K)= 0.0895; α(L)=0.01154; α(M)=0.00231; α(N+..)=0.00057
		252.105 *16*	0.97 *11*	43.9362	(3)$^-$			
349.596	(1 to 4)$^+$	306.350 *6*	35 *6*	43.251	(1 to 4)$^+$	M1,E2	0.037 *1*	
		309.640 *4*	100 *7*	39.9525	2$^+$			
353.731	(2 to 5)$^-$	309.794 *3*	100	43.9362	(3)$^-$	M1,E2	0.035	
374.681	(2,3,4)$^+$	112.632 *7*	7.1 *12*	262.0513	3$^+$,4$^+$	M1	0.540	α(K)= 0.464; α(L)= 0.0606; α(M)=0.01212; α(N+..)=0.00298
		150.694 *12*	4.7 *9*	223.9761	3$^+$	M1,E2	0.33 *11*	
		164.938 *4*	37 *4*	209.7392	2$^+$,3$^+$	M1	0.1862	α(K)= 0.1603; α(L)=0.02074; α(M)=0.00416; α(N+..)=0.00102
		325.850 *5*	100 *4*	48.8327	4$^+$	M1,E2	0.031	
		330.356 *4*	73 *4*	44.3269	3$^+$,4$^+$	M1,E2	0.030	
		334.73@ *5*	10.6 *17*	39.9525	2$^+$			
		374.63@ *4*	12.3 *17*	0.0	5$^+$			
378.3467	(4,5)$^-$	286.588 *3*	100 *6*	91.7605	(4)$^-$	M1,E2	0.045 *2*	
		293.242 *5*	26 *3*	85.1099	(6)$^-$	M1,E2	0.042 *2*	
437.638	2$^+$,3$^+$,4$^+$	186.090 *5*	87 *4*	251.5496	3$^+$	M1	0.1339	α(K)= 0.1153; α(L)=0.01490; α(M)=0.00299; α(N+..)=0.00073
		227.882 *10*	24 *3*	209.7392	2$^+$,3$^+$			
		393.294 *15*	42 *5*	44.3269	3$^+$,4$^+$	M1,E2		
		394.382 *14*	49 *8*	43.251	(1 to 4)$^+$	M1,E2		
		397.695 *8*	100 *12*	39.9525	2$^+$	M1,E2		
460.912	$^-$	280.614 *6*	100	180.3001	(5,6,7)$^-$	M1,E2	0.047 *3*	
480.7026	(4,5)$^-$	102.3585 *20*	23 *2*	378.3467	(4,5)$^-$	M1	0.708	α(K)= 0.609; α(L)= 0.0794; α(M)=0.01592; α(N+..)=0.00391
		184.673 *12*	15 *5*	296.0376	(4,5)$^-$			
		235.5986 *20*	100 *5*	245.1019	(5)$^-$	M1	0.0711	α(K)= 0.0613; α(L)=0.00785; α(M)=0.00157; α(N+..)=0.00039
		256.724@ *16*	2.5 *3*	223.9761	3$^+$			
		369.638 *12*	21.5 *11*	111.0607	(5)$^-$	M1,E2		
		388.932 *14*	5.5 *6*	91.7605	(4)$^-$			
		436.760 *11*	12.0 *11*	43.9362	(3)$^-$			
525.881	(2,3,4)$^+$	271.104 *18*	25 *3*	254.7947	1$^+$,2$^+$,3$^+$	M1,E2	0.052 *3*	
		274.328 *8*	30 *3*	251.5496	3$^+$			
		400.10 *5*	31 *4*	125.7595	4$^+$,5$^+$			
		485.926 *16*	100 *10*	39.9525	2$^+$			
544.968	(2 to 5)$^+$	293.421 *20*	50 *8*	251.5496	3$^+$			
		320.990 *5*	100 *5*	223.9761	3$^+$	M1,E2	0.032	
		335.28 *4*	27 *5*	209.7392	2$^+$,3$^+$			
		496.14 *3*	77 *7*	48.8327	4$^+$			
593.993	(3 to 6)$^-$	215.641 *6*	100	378.3467	(4,5)$^-$	M1,E2	0.105 *16*	
606.550		480.791 *12*	47 *9*	125.7595	4$^+$,5$^+$			

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Adopted Levels, Gammas (continued)

$\gamma(^{130}I)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[#]	Comments
606.550		606.545 *15*	100 *5*	0.0	5^+			
678.491	$(3,4,5)^-$	197.790 *6*	6.3 *5*	480.7026	$(4,5)^-$			
		240.82[@] *4*	2.0 *4*	437.638	$2^+,3^+,4^+$			
		324.772 *12*	9.0 *3*	353.731	$(2\text{ to }5)^-$	M1,E2	0.031	
		382.446 *6*	42 *3*	296.0376	$(4,5)^-$	M1,E2		
		416.47[@] *3*	5.5 *10*	262.0513	$3^+,4^+$			
		426.94[@] *4*	7.4 *8*	251.5496	3^+			
		433.392 *17*	57 *3*	245.1019	$(5)^-$	M1,E2		
		567.435 *16*	100 *11*	111.0607	$(5)^-$			
		634.515 *23*	30 *2*	43.9362	$(3)^-$			
682.234	$(3,4,5)^-$	201.531 *3*	47.2 *18*	480.7026	$(4,5)^-$	M1	0.1078	α(K)= 0.0929; α(L)=0.01198; α(M)=0.00240; α(N+..)=0.00059
		328.497 *8*	23 *3*	353.731	$(2\text{ to }5)^-$	M1,E2	0.030	
		386.182 *18*	88 *4*	296.0376	$(4,5)^-$	M1,E2		
		638.331 *16*	100 *6*	43.9362	$(3)^-$			
699.206	$(4,5)^-$	105.195 *11*	7.5 *18*	593.993	$(3\text{ to }6)^-$	M1	0.655	α(K)= 0.563; α(L)= 0.0735; α(M)=0.01472; α(N+..)=0.00362
		238.2950 *22*	100 *7*	460.912	$^-$	M1,E2	0.078 *14*	
		629.65 *3*	63 *4*	69.5865	$(6)^-$			
761.516	$(2\text{ to }5)^-$	83.005 *15*	2.5 *3*	678.491	$(3,4,5)^-$	M1	1.287	α(K)= 1.107; α(L)= 0.1446; α(M)= 0.0290; α(N+..)=0.00714
		280.835 *16*	8.4 *9*	480.7026	$(4,5)^-$	M1,E2	0.047 *3*	
		465.476 *10*	100 *5*	296.0376	$(4,5)^-$	M1,E2		
768.415	$(2\text{ to }5)^-$	414.680 *12*	71 *6*	353.731	$(2\text{ to }5)^-$	M1,E2		
		676.68 *6*	29 *4*	91.7605	$(4)^-$			
		724.49 *3*	100 *7*	43.9362	$(3)^-$			
783.162	$(4\text{ to }7)^-$	322.248 *7*	36 *4*	460.912	$^-$	M1,E2	0.032	
		672.12 *3*	100 *8*	111.0607	$(5)^-$			
		698.10 *6*	43 *5*	85.1099	$(6)^-$			
804.07	$3^+,4,5^+$	323.33[@] *6*	32 *6*	480.7026	$(4,5)^-$			
		454.47 *6*	53 *11*	349.596	$(1\text{ to }4)^+$			
		580.14 *4*	91 *14*	223.9761	3^+			
		803.99 *7*	100 *23*	0.0	5^+			
825.024	$(2\text{ to }5)^-$	446.676 *21*	100	378.3467	$(4,5)^-$	M1,E2		
876.261	$(4,5)^-$	194.04 *4*	5.7 *24*	682.234	$(3,4,5)^-$			
		331.27[@] *3*	21 *3*	544.968	$(2\text{ to }5)^+$			
		395.555 *7*	94 *6*	480.7026	$(4,5)^-$	M1,E2		
		631.26 *6*	35 *4*	245.1019	$(5)^-$			
		791.24 *7*	100 *22*	85.1099	$(6)^-$			
944.96	$(2\text{ to }5)^{(-)}$	464.33 *8*	28 *6*	480.7026	$(4,5)^-$			
		566.55 *4*	35 *4*	378.3467	$(4,5)^-$			
		591.24 *5*	38 *4*	353.731	$(2\text{ to }5)^-$			
		853.24 *5*	100 *12*	91.7605	$(4)^-$			
1079.050	$(3,4,5)^-$	202.790 *14*	20 *3*	876.261	$(4,5)^-$	M1	0.1060	α(K)= 0.0913; α(L)=0.01177; α(M)=0.00236; α(N+..)=0.00058
		317.532 *6*	100 *5*	761.516	$(2\text{ to }5)^-$	M1,E2	0.033	
		725.40 *7*	46 *5*	353.731	$(2\text{ to }5)^-$			

[†] For common levels, the Eγ and Iγ data are from (n,γ) where most precise and complete data are available.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

$\gamma(^{130}I)$ (continued)

‡ From (n,γ).
# Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.
@ Placement of transition in the level scheme is uncertain.

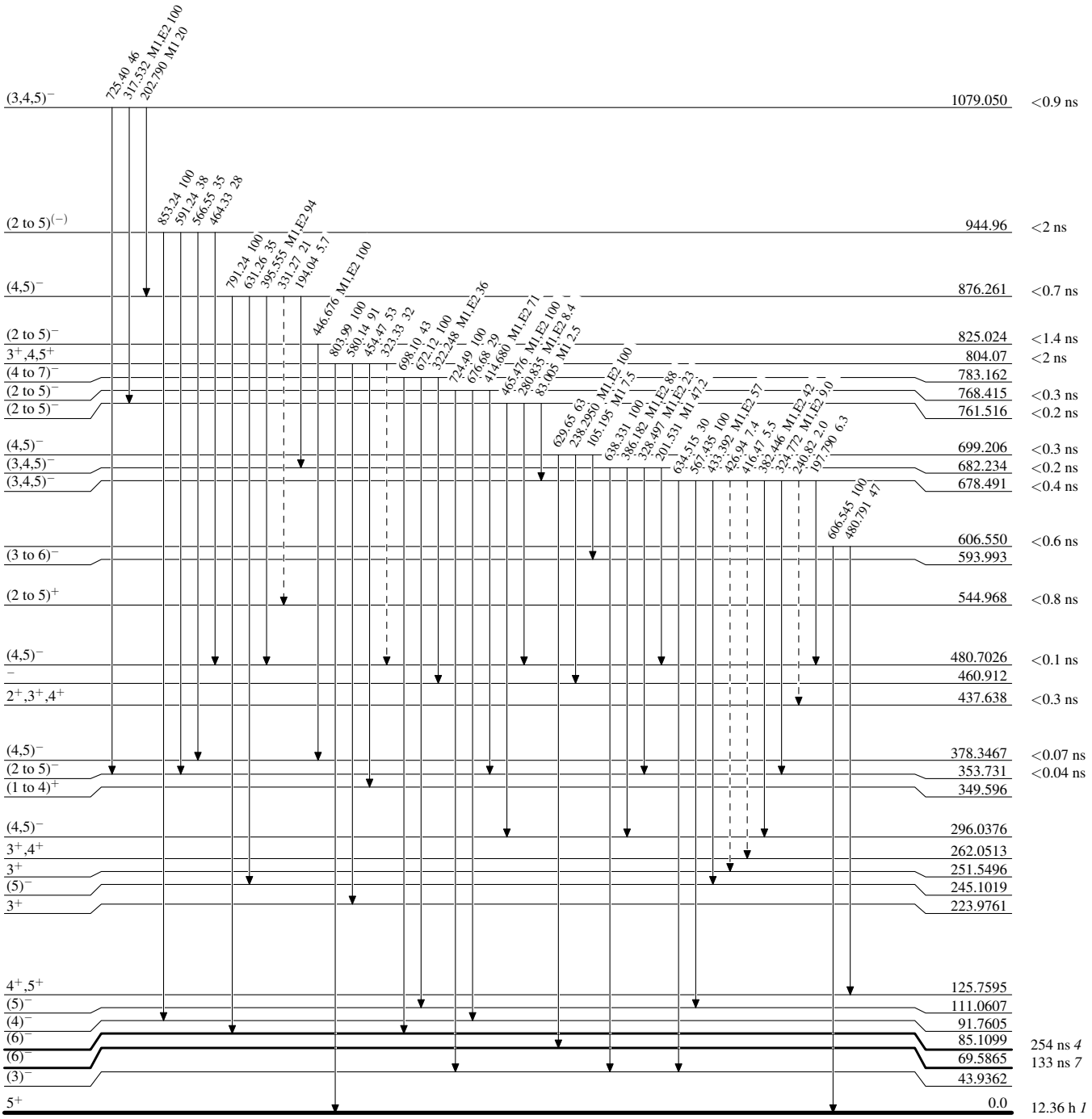
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

- - - - - - ► γ Decay (Uncertain)



$^{130}_{53}I_{77}$

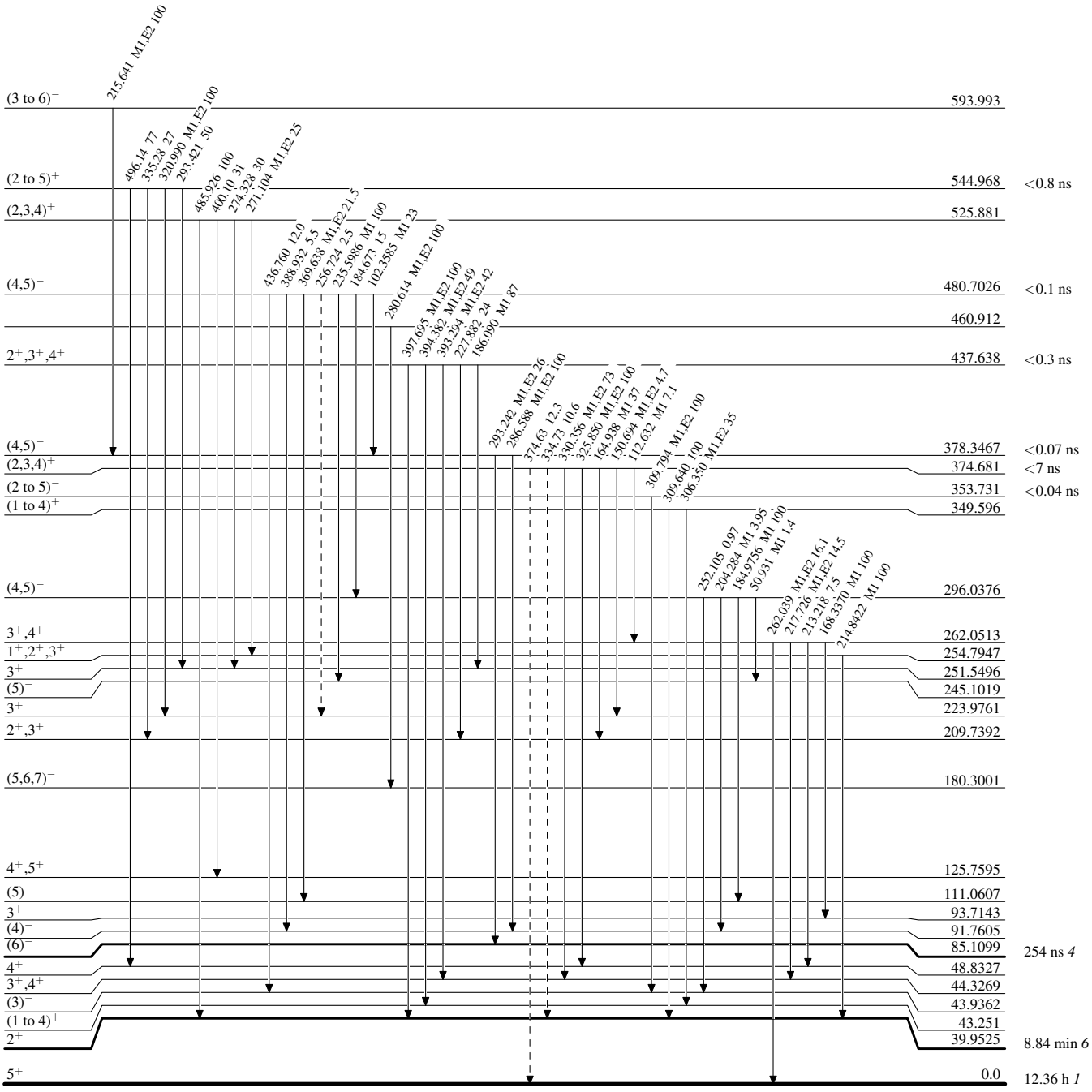
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{130}_{53}I_{77}$

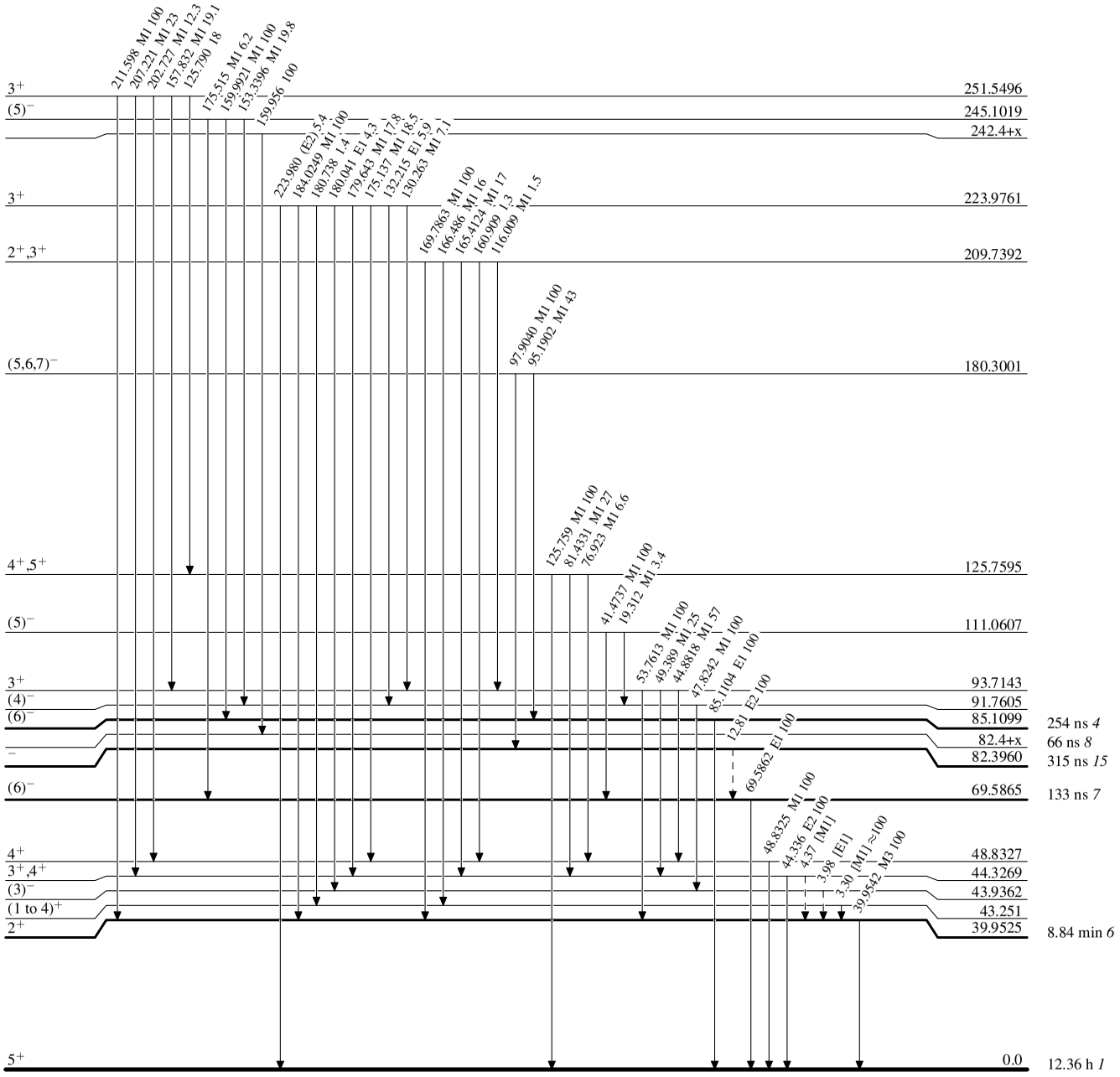
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

- - - - - - ► γ Decay (Uncertain)



$^{130}_{53}I_{77}$