^{133}Te β^- decay (12.5 min)   **1983Hi03**

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Yu. Khazov and A. Rodionov, F. G. Kondev	NDS 112, 855 (2011)	31-Oct-2010

Parent: ^{133}Te: E=0.0; J^π=(3/2$^+$); $T_{1/2}$=12.5 min *3*; Q(β^-)=2942 *24*; %β^- decay=100.0

1983Hi03: ^{133}Te β^- decay (12.5 min) [from ^{235}U(n,f) products via ^{133}Sb β^- decay]; measured Eγ, Iγ, $\gamma\gamma$ coin.; radiochemical
techniques, Compton suppressed Ge(Li) detectors; deduced levels, J^π, β^- decay feeding, log *ft* values.
Others: 1968Mc09, 1968Pa03.

^{133}I Levels

E(level)[†]	J$^{\pi}$[‡]	T$_{1/2}$[‡]	E(level)[†]	J$^{\pi}$[‡]
0.0	7/2$^+$	20.83 h *8*	2193.60 *3*	(3/2$^+$,5/2)
312.073 *11*	(5/2$^+$)		2205.30 *22*	
719.751 *13*	(3/2$^+$)		2209.77 *5*	(3/2$^+$,5/2$^+$)
786.922 *10*	(5/2$^+$)		2225.06 *4*	(5/2$^+$)
912.694 *20*	(11/2$^+$)		2250.1 *10*	
914.741 *18*	9/2$^+$		2255.08 *6*	(3/2$^+$)
1239.83 *3*	(7/2$^+$)		2266.47 *9*	(3/2$^+$)
1307.187 *18*	(7/2$^+$)		2283.75 *17*	(1/2$^+$,3/2)
1312.797 *14*	(3/2$^+$,5/2)		2363.78 *21*	(3/2$^+$,5/2)
1333.228 *14*	(5/2$^+$)		2393.27 *23*	(3/2$^+$,5/2)
1373.685 *14*	(1/2$^+$,3/2$^-$)		2417.38 *6*	(5/2$^+$)
1564.125 *14*	(1/2$^+$,3/2$^-$)		2467.30 *6*	(3/2$^+$,5/2)
1608.7? *4*			2493.03 *7*	(1/2$^+$)
1671.426 *21*	(3/2$^+$)		2525.72 *10*	(3/2$^+$,5/2)
1717.625 *9*	(5/2$^+$)		2541.74 *3*	(3/2$^+$,5/2$^+$)
1943?			2597.45 *11*	(5/2$^+$)
1945.78 *20*			2661.0 *4*	(3/2$^+$,5/2$^+$)
2025.41 *4*	(3/2$^+$)		2768.20 *6*	(1/2$^+$,3/2,5/2)
2034.1? *10*			2808.34 *11*	(1/2$^+$,3/2,5/2$^+$)
2040.42 *17*	(1/2$^+$)		2825.31 *12*	(3/2$^+$,5/2)
2053.50 *4*	(3/2$^+$)		2866.29 *7*	(1/2$^+$,3/2,5/2$^+$)
2136.38 *3*	(5/2$^+$)		2935.83 *15*	(1/2$^+$,3/2,5/2$^+$)

† From a least-squares fit to Eγ.
‡ From Adopted Levels.

β^- radiations

E(decay)	E(level)	Iβ^-[†‡]	Log *ft*	Comments
(6 *24*)	2935.83	0.129 *23*		av Eβ=1.5 *61*
(76 *24*)	2866.29	0.47 *5*	3.0 *5*	av Eβ=19.6 *66*
(117 *24*)	2825.31	0.26 *4*	3.9 *4*	av Eβ=30.8 *68*
(134 *24*)	2808.34	0.42 *8*	3.8 *3*	av Eβ=35.6 *69*
(174 *24*)	2768.20	1.06 *12*	3.80 *21*	av Eβ=47.1 *71*
(281 *24*)	2661.0	0.18 *5*	5.24 *18*	av Eβ=79.8 *77*
(345 *24*)	2597.45	0.18 *5*	5.53 *16*	av Eβ=100.2 *80*
(400 *24*)	2541.74	2.17 *14*	4.66 *10*	av Eβ=118.8 *82*
(416 *24*)	2525.72	0.63 *7*	5.25 *10*	av Eβ=124.2 *83*
(449 *24*)	2493.03	0.36 *9*	5.61 *14*	av Eβ=135.5 *84*
(475 *24*)	2467.30	0.61 *8*	5.46 *10*	av Eβ=144.5 *85*
(525 *24*)	2417.38	0.56 *10*	5.64 *11*	av Eβ=162.1 *87*
(549 *24*)	2393.27	0.11 *3*	6.42 *14*	av Eβ=170.8 *88*

$^{133}\text{Te}\,\beta^-$ **decay (12.5 min)** **1983Hi03 (continued)**

β^- radiations (continued)

E(decay)	E(level)	I$\beta^{-\dagger\ddagger}$	Log ft	Comments
(578 24)	2363.78	0.14 5	6.39 17	av Eβ=181.5 89
(658 24)	2283.75	0.26 8	6.32 15	av Eβ=211.2 91
(676 24)	2266.47	0.46 8	6.11 10	av Eβ=217.7 91
(687 24)	2255.08	1.25 12	5.70 7	av Eβ=222.0 92
(692 24)	2250.1	0.031 19	7.3 3	av Eβ=223.9 92
(717 24)	2225.06	1.02 10	5.86 7	av Eβ=233.5 93
(732 24)	2209.77	1.33 10	5.77 7	av Eβ=239.3 93
(737 24)	2205.30	0.056 19	7.16 16	av Eβ=241.0 93
(748 24)	2193.60	2.27 9	5.57 6	av Eβ=245.6 93
(806 24)	2136.38	2.38 12	5.67 6	av Eβ=267.8 95
(889 24)	2053.50	1.08 12	6.16 7	av Eβ=300.6 97
(902 24)	2040.42	0.34 9	6.69 13	av Eβ=305.8 97
(908 24)	2034.1?	0.08 4	7.33 23	av Eβ=308.4 97
(917 24)	2025.41	1.39 19	6.10 8	av Eβ=311.9 97
(996 24)	1945.78	0.075 19	7.50 12	av Eβ=344.1 99
(1224 24)	1717.625	10.41 23	5.70 4	av Eβ=439 11
(1271 24)	1671.426	1.33 12	6.65 6	av Eβ=459 11
(1378 24)	1564.125	3.54 20	6.36 4	av Eβ=505 11
(1568 24)	1373.685	1.15 18	7.06 8	av Eβ=587 11
(1609 24)	1333.228	13.0 3	6.05 3	av Eβ=605 11
(1629 24)	1312.797	3.29 17	6.67 4	av Eβ=614 11
(2155 24)	786.922	<0.2	>8.4	av Eβ=850 11
(2222 24)	719.751	28.2 8	6.28 3	av Eβ=880 11
2.65×10^3 10	312.073	20.3 5	6.721 23	av Eβ=1067 11
				E(decay): From 1968Mc09. Other: Eβ^-=3210 100 in 1968Pa03.

† From intensity balances and the established level scheme.
‡ Absolute intensity per 100 decays.

^{133}Te β^- **decay (12.5 min)**   **1983Hi03 (continued)**

$\gamma(^{133}$I$)$

Iγ normalization: From decay scheme (Σ Ti(g.s.)=100), by assuming no direct β^- feeding to g.s. Other: 0.068 *3* from I(312.07γ)=70% *3* (1984Br31).

E_γ[‡]	I_γ[‡&]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[†]	Comments
67.2[#] *5*	1.7 *5*	786.922	(5/2$^+$)	719.751	(3/2$^+$)	[M1+E2]	4.8 *25*	α(K)=3.0 *10*; α(L)=1.5 *12*; α(M)=0.3 *3*; α(N+..)=0.07 *6* α(N)=0.06 *5*; α(O)=0.006 *5*
170.91 *13*	1.5 *5*	2768.20	(1/2$^+$,3/2,5/2)	2597.45	(5/2$^+$)			
183.3 *4*	0.3 *2*	2393.27	(3/2$^+$,5/2)	2209.77	(3/2$^+$,5/2$^+$)			
190.5 *1*	0.9 *4*	1564.125	(1/2$^+$,3/2$^-$)	1373.685	(1/2$^+$,3/2$^-$)	[M1]	0.1246	α(K)=0.1074 *16*; α(L)=0.01386 *20*; α(M)=0.00279 *4*; α(N+..)=0.000631 *9* α(N)=0.000565 *8*; α(O)=6.63×10^{-5} *10*
199.6 *3*	0.6 *2*	2225.06	(5/2$^+$)	2025.41	(3/2$^+$)	[M1+E2]	0.133 *24*	α(K)=0.110 *16*; α(L)=0.019 *7*; α(M)=0.0038 *14*; α(N+..)=0.0008 *3* α(N)=0.0008 *3*; α(O)=8.2×10^{-5} *24*
207.4 *1*	0.4 *2*	2417.38	(5/2$^+$)	2209.77	(3/2$^+$,5/2$^+$)			
230.9 *2*	0.3 *1*	1564.125	(1/2$^+$,3/2$^-$)	1333.228	(5/2$^+$)			
242.0 *1*	0.5 *2*	2467.30	(3/2$^+$,5/2)	2225.06	(5/2$^+$)			
251.4 *3*	0.5 *2*	1564.125	(1/2$^+$,3/2$^-$)	1312.797	(3/2$^+$,5/2)			
302 *1*	0.5 *3*	2768.20	(1/2$^+$,3/2,5/2)	2467.30	(3/2$^+$,5/2)			
312.08 *3*	1000	312.073	(5/2$^+$)	0.0	7/2$^+$	[M1+E2]	0.0345 *10*	α(K)=0.0292 *5*; α(L)=0.0043 *6*; α(M)=0.00086 *13*; α(N+..)=0.000192 *25* α(N)=0.000173 *23*; α(O)=1.94×10^{-5} *17*
324.3 *2*	0.8 *2*	1564.125	(1/2$^+$,3/2$^-$)	1239.83	(7/2$^+$)			
331.5 *2*	1.9 *7*	2541.74	(3/2$^+$,5/2$^+$)	2209.77	(3/2$^+$,5/2$^+$)			
338.22 *2*	4.3 *2*	1671.426	(3/2$^+$)	1333.228	(5/2$^+$)	[M1]	0.0274	α(K)=0.0236 *4*; α(L)=0.00300 *5*; α(M)=0.000603 *9*; α(N+..)=0.0001364 *20* α(N)=0.0001221 *17*; α(O)=1.436×10^{-5} *21*
341 *1*	0.5 *2*	2808.34	(1/2$^+$,3/2,5/2$^+$)	2467.30	(3/2$^+$,5/2)			
343.9 *1*	1.0 *4*	1717.625	(5/2$^+$)	1373.685	(1/2$^+$,3/2$^-$)			
358.7 *2*	1.4 *2*	1671.426	(3/2$^+$)	1312.797	(3/2$^+$,5/2)			
368.9 *2*	1.5 *7*	2040.42	(1/2$^+$)	1671.426	(3/2$^+$)	[M1]	0.0219	α(K)=0.0189 *3*; α(L)=0.00240 *4*; α(M)=0.000481 *7*; α(N+..)=0.0001090 *16* α(N)=9.75×10^{-5} *14*; α(O)=1.147×10^{-5} *17*
384.25 *5*	4.4 *5*	1717.625	(5/2$^+$)	1333.228	(5/2$^+$)	[M1+E2]	0.0191 *7*	α(K)=0.0163 *9*; α(L)=0.00227 *12*; α(M)=0.00046 *3*; α(N+..)=0.000103 *5* α(N)=9.2×10^{-5} *5*; α(O)=1.046×10^{-5} *19*
392.44 *3*	4.0 *4*	1307.187	(7/2$^+$)	914.741	9/2$^+$	[M1]	0.0187	α(K)=0.01620 *23*; α(L)=0.00204 *3*; α(M)=0.000411 *6*; α(N+..)=9.30×10^{-5} *13* α(N)=8.32×10^{-5} *12*; α(O)=9.79×10^{-6} *14*
394 *1*	0.5 *2*	1307.187	(7/2$^+$)	912.694	(11/2$^+$)	[E2]	0.0171 *3*	α(K)=0.01441 *23*; α(L)=0.00219 *4*; α(M)=0.000445 *8*; α(N+..)=9.85×10^{-5} *16* α(N)=8.87×10^{-5} *15*; α(O)=9.77×10^{-6} *16*

$\gamma(^{133}$I$)$ (continued)

E_γ[‡]	I_γ[‡&]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[†]	Comments
404.85 7	4.2 9	1717.625	$(5/2^+)$	1312.797	$(3/2^+,5/2)$			
407.63 3	434 5	719.751	$(3/2^+)$	312.073	$(5/2^+)$	[M1]	0.01703	α(K)=0.01472 21; α(L)=0.00186 3; α(M)=0.000373 6; α(N+..)=8.44×10^{-5} 12 α(N)=7.55×10^{-5} 11; α(O)=8.89×10^{-6} 13 E_γ: 407.58 4 measured by bent-crystal spectrometer (1979Bo26).
410.40 6	15 1	1717.625	$(5/2^+)$	1307.187	$(7/2^+)$	[M1]	0.01675	α(K)=0.01447 21; α(L)=0.00182 3; α(M)=0.000366 6; α(N+..)=8.30×10^{-5} 12 α(N)=7.42×10^{-5} 11; α(O)=8.74×10^{-6} 13
418.4 2	0.4 1	1333.228	$(5/2^+)$	914.741	$9/2^+$	[E2]	0.01432	α(K)=0.01207 17; α(L)=0.00180 3; α(M)=0.000366 6; α(N+..)=8.11×10^{-5} 12 α(N)=7.30×10^{-5} 11; α(O)=8.08×10^{-6} 12
431.61 13	2.0 5	1671.426	$(3/2^+)$	1239.83	$(7/2^+)$			
452.9 1	2 1	1239.83	$(7/2^+)$	786.922	$(5/2^+)$			
461.30 4	10 2	2025.41	$(3/2^+)$	1564.125	$(1/2^+,3/2^-)$			
474.85 1	14.1 5	786.922	$(5/2^+)$	312.073	$(5/2^+)$	[M1+E2]	0.0108 9	α(K)=0.0092 9; α(L)=0.00124 3; α(M)=0.000249 6; α(N+..)=5.60×10^{-5} 16 α(N)=5.02×10^{-5} 13; α(O)=5.8×10^{-6} 3
477.77 6	6.1 5	1717.625	$(5/2^+)$	1239.83	$(7/2^+)$			
484.5[#] 5	0.9 4	2768.20	$(1/2^+,3/2,5/2)$	2283.75	$(1/2^+,3/2)$			
[x]485.0 2	9.0 4							
488 2	1.4 5	2541.74	$(3/2^+,5/2^+)$	2053.50	$(3/2^+)$			
507.3 1	2.2 3	2225.06	$(5/2^+)$	1717.625	$(5/2^+)$	[M1+E2]	0.0091 9	α=0.0091 9; α(K)=0.0078 8; α(L)=0.00103 5; α(M)=0.000208 8; α(N+..)=4.67×10^{-5} 21 α(N)=4.19×10^{-5} 18; α(O)=4.8×10^{-6} 4
520.10 10	0.7 2	1239.83	$(7/2^+)$	719.751	$(3/2^+)$			
520.4 2	0.3 2	1307.187	$(7/2^+)$	786.922	$(5/2^+)$	[M1]	0.00928 13	α=0.00928 13; α(K)=0.00803 12; α(L)=0.001004 14; α(M)=0.000201 3; α(N+..)=4.56×10^{-5} 7 α(N)=4.08×10^{-5} 6; α(O)=4.81×10^{-6} 7
525.84 3	3.7 4	1312.797	$(3/2^+,5/2)$	786.922	$(5/2^+)$			
543.5 5	2 1	2768.20	$(1/2^+,3/2,5/2)$	2225.06	$(5/2^+)$			
546.29 3	8.2 5	1333.228	$(5/2^+)$	786.922	$(5/2^+)$	[M1+E2]	0.0075 8	α=0.0075 8; α(K)=0.0064 8; α(L)=0.00084 5; α(M)=0.000170 9; α(N+..)=3.82×10^{-5} 23 α(N)=3.43×10^{-5} 20; α(O)=4.0×10^{-6} 4
553.7 2	1.0 4	2225.06	$(5/2^+)$	1671.426	$(3/2^+)$	[M1]	0.00798 12	α=0.00798 12; α(K)=0.00690 10; α(L)=0.000861 12; α(M)=0.0001727 25; α(N+..)=3.91×10^{-5} α(N)=3.50×10^{-5} 5; α(O)=4.13×10^{-6} 6
[x]569.6 8	0.9 2							
572 1	0.4 2	2597.45	$(5/2^+)$	2025.41	$(3/2^+)$	[M1]	0.00737 11	α=0.00737 11; α(K)=0.00638 10; α(L)=0.000795 12; α(M)=0.0001594 24; α(N+..)=3.61×10^{-5} α(N)=3.23×10^{-5} 5; α(O)=3.81×10^{-6} 6
586.71 4	9.9 3	1373.685	$(1/2^+,3/2^-)$	786.922	$(5/2^+)$			

¹³³Te β[−] decay (12.5 min)   **1983Hi03** (continued)

γ(¹³³I) (continued)

E$_\gamma$[‡]	I$_\gamma$[‡&]	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.	α[†]	Comments
587.6 *4*	1.6 *3*	1307.187	(7/2$^+$)	719.751	(3/2$^+$)	[E2]	0.00551 *8*	α=0.00551 *8*; α(K)=0.00471 *7*; α(L)=0.000647 *10*; α(M)=0.0001308 *19*; α(N+..)=2.92×10^{-5} *5* α(N)=2.63×10^{-5} *4*; α(O)=2.98×10^{-6} *5*
593.0 *2*	2.8 *5*	1312.797	(3/2$^+$,5/2)	719.751	(3/2$^+$)			
613.52[@] *3*	5.1 *6*	1333.228	(5/2$^+$)	719.751	(3/2$^+$)	[M1]	0.00622 *9*	α=0.00622 *9*; α(K)=0.00539 *8*; α(L)=0.000670 *10*; α(M)=0.0001343 *19*; α(N+..)=3.04×10^{-5} *5* α(N)=2.72×10^{-5} *4*; α(O)=3.21×10^{-6} *5* E$_\gamma$: poor fit; the level energy difference is equal to 613.423 *22* keV.
620 *1*	0.5 *2*	2661.0	(3/2$^+$,5/2$^+$)	2040.42	(1/2$^+$)			
[x]635.8 *2*	1.1 *4*							
645.6 *1*	6.3 *7*	2209.77	(3/2$^+$,5/2$^+$)	1564.125	(1/2$^+$,3/2$^-$)			
653.98 *8*	5.0 *6*	1373.685	(1/2$^+$,3/2$^-$)	719.751	(3/2$^+$)			
667 *1*	3 *1*	2040.42	(1/2$^+$)	1373.685	(1/2$^+$,3/2$^-$)			
679.8 *7*	1.0 *5*	2053.50	(3/2$^+$)	1373.685	(1/2$^+$,3/2$^-$)			
690.8 *1*	2.2 *5*	2255.08	(3/2$^+$)	1564.125	(1/2$^+$,3/2$^-$)			
[x]696 *1*	1.3 *7*							
702 *1*	0.7 *4*	2266.47	(3/2$^+$)	1564.125	(1/2$^+$,3/2$^-$)			
712.6 *5*	3 *1*	2025.41	(3/2$^+$)	1312.797	(3/2$^+$,5/2)			
717.8 *2*	1.8 *8*	2025.41	(3/2$^+$)	1307.187	(7/2$^+$)	[E2]	0.00331 *5*	α=0.00331 *5*; α(K)=0.00284 *4*; α(L)=0.000376 *6*; α(M)=7.59×10^{-5} *11*; α(N+..)=1.702×10^{-5} *24* α(N)=1.527×10^{-5} *22*; α(O)=1.752×10^{-6} *25*
719.6[#] *5*	≤1	2283.75	(1/2$^+$,3/2)	1564.125	(1/2$^+$,3/2$^-$)			
719.71[@] *2*	142 *8*	719.751	(3/2$^+$)	0.0	7/2$^+$	[E2]	0.00329 *5*	α=0.00329 *5*; α(K)=0.00282 *4*; α(L)=0.000374 *6*; α(M)=7.53×10^{-5} *11*; α(N+..)=1.690×10^{-5} *24* α(N)=1.516×10^{-5} *22*; α(O)=1.740×10^{-6} *25* E$_\gamma$: poor fit; the level energy difference is equal to 719.797 *19* keV.
720.3 *5*	2 *1*	2053.50	(3/2$^+$)	1333.228	(5/2$^+$)	[M1]	0.00424 *6*	α=0.00424 *6*; α(K)=0.00367 *6*; α(L)=0.000454 *7*; α(M)=9.11×10^{-5} *13*; α(N+..)=2.06×10^{-5} *3* α(N)=1.85×10^{-5} *3*; α(O)=2.18×10^{-6} *3*
722 *1*	0.3 *2*	2393.27	(3/2$^+$,5/2)	1671.426	(3/2$^+$)			
727 *1*	0.7 *5*	2040.42	(1/2$^+$)	1312.797	(3/2$^+$,5/2)			
740.8 *2*	3.0 *7*	2053.50	(3/2$^+$)	1312.797	(3/2$^+$,5/2)			
743.0 *2*	5 *1*	2768.20	(1/2$^+$,3/2,5/2)	2025.41	(3/2$^+$)			
745.8 *2*	1.8 *5*	2053.50	(3/2$^+$)	1307.187	(7/2$^+$)	[E2]	0.00301 *5*	α=0.00301 *5*; α(K)=0.00259 *4*; α(L)=0.000341 *5*; α(M)=6.87×10^{-5} *10*; α(N+..)=1.542×10^{-5} *22* α(N)=1.383×10^{-5} *20*; α(O)=1.590×10^{-6} *23*
762.8 *2*	2.0 *5*	2136.38	(5/2$^+$)	1373.685	(1/2$^+$,3/2$^-$)			
778.0 *3*	3.2 *9*	1564.125	(1/2$^+$,3/2$^-$)	786.922	(5/2$^+$)			
786.93 *2*	86.5 *15*	786.922	(5/2$^+$)	0.0	7/2$^+$	[M1+E2]	0.0030 *4*	α=0.0030 *4*; α(K)=0.0026 *4*; α(L)=0.00033 *4*;

^{133}Te β^- decay (12.5 min)   1983Hi03 (continued)

$\gamma(^{133}$I) (continued)

E_γ[‡]	I_γ[‡&]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[†]	Comments
								$\alpha(M)=6.7\times10^{-5}$ 7; $\alpha(N+..)=1.51\times10^{-5}$ 17 $\alpha(N)=1.35\times10^{-5}$ 15; $\alpha(O)=1.58\times10^{-6}$ 19
802.9 3	1.0 3	1717.625	(5/2$^+$)	914.741	9/2$^+$	[E2]	0.00252 4	$\alpha=0.00252$ 4; $\alpha(K)=0.00217$ 3; $\alpha(L)=0.000283$ 4; $\alpha(M)=5.70\times10^{-5}$ 8; $\alpha(N+..)=1.280\times10^{-5}$ 18 $\alpha(N)=1.148\times10^{-5}$ 17; $\alpha(O)=1.324\times10^{-6}$ 19
803.3 3	2.1 3	2136.38	(5/2$^+$)	1333.228	(5/2$^+$)	[M1+E2]	0.0029 4	$\alpha=0.0029$ 4; $\alpha(K)=0.0025$ 4; $\alpha(L)=0.00032$ 4; $\alpha(M)=6.4\times10^{-5}$ 7; $\alpha(N+..)=1.44\times10^{-5}$ 16 $\alpha(N)=1.29\times10^{-5}$ 14; $\alpha(O)=1.50\times10^{-6}$ 19
813.4 2	2.0 5	2053.50	(3/2$^+$)	1239.83	(7/2$^+$)			
823.9 5	1.3 4	2136.38	(5/2$^+$)	1312.797	(3/2$^+$,5/2)			
829.2 3	1.5 4	2136.38	(5/2$^+$)	1307.187	(7/2$^+$)	[M1]	0.00305 5	$\alpha=0.00305$ 5; $\alpha(K)=0.00264$ 4; $\alpha(L)=0.000325$ 5; $\alpha(M)=6.52\times10^{-5}$ 10; $\alpha(N+..)=1.478\times10^{-5}$ 21 $\alpha(N)=1.322\times10^{-5}$ 19; $\alpha(O)=1.562\times10^{-6}$ 22
844.36 1	53 1	1564.125	(1/2$^+$,3/2$^-$)	719.751	(3/2$^+$)			
851.37 7	5.0 6	2225.06	(5/2$^+$)	1373.685	(1/2$^+$,3/2$^-$)			
854.2 9	1.0 5	2525.72	(3/2$^+$,5/2)	1671.426	(3/2$^+$)			
860.2 7	1.0 5	2193.60	(3/2$^+$,5/2)	1333.228	(5/2$^+$)			
880.7 1	1.0 5	2193.60	(3/2$^+$,5/2)	1312.797	(3/2$^+$,5/2)			
884.3[@] 5	11.6 9	1671.426	(3/2$^+$)	786.922	(5/2$^+$)	[M1]	0.00262 4	$\alpha=0.00262$ 4; $\alpha(K)=0.00228$ 4; $\alpha(L)=0.000280$ 4; $\alpha(M)=5.60\times10^{-5}$ 8; $\alpha(N+..)=1.271\times10^{-5}$ 18 $\alpha(N)=1.136\times10^{-5}$ 16; $\alpha(O)=1.343\times10^{-6}$ 19 E_γ: 884.29 3 keV in 1983Hi03.
886.0 4	0.7 4	2193.60	(3/2$^+$,5/2)	1307.187	(7/2$^+$)			
888.9[b] 4	0.5 4	1608.7?		719.751	(3/2$^+$)			
896.7 2	0.8 2	2136.38	(5/2$^+$)	1239.83	(7/2$^+$)			
902.5 1	3.0 5	2209.77	(3/2$^+$,5/2$^+$)	1307.187	(7/2$^+$)			
910.0 7	2 1	2283.75	(1/2$^+$,3/2)	1373.685	(1/2$^+$,3/2$^-$)			
912.3 6	1.0 3	2225.06	(5/2$^+$)	1312.797	(3/2$^+$,5/2)			
912.69 2	1.0 6	912.694	(11/2$^+$)	0.0	7/2$^+$	[E2]	0.00188 3	$\alpha=0.00188$ 3; $\alpha(K)=0.001619$ 23; $\alpha(L)=0.000207$ 3; $\alpha(M)=4.17\times10^{-5}$ 6; $\alpha(N+..)=9.39\times10^{-6}$ 14 $\alpha(N)=8.41\times10^{-6}$ 12; $\alpha(O)=9.75\times10^{-7}$ 14
914.74 2	11 1	914.741	9/2$^+$	0.0	7/2$^+$			
922 1	2 1	2255.08	(3/2$^+$)	1333.228	(5/2$^+$)	[M1]	0.00238 4	$\alpha=0.00238$ 4; $\alpha(K)=0.00207$ 3; $\alpha(L)=0.000254$ 4; $\alpha(M)=5.08\times10^{-5}$ 8; $\alpha(N+..)=1.153\times10^{-5}$ 17 $\alpha(N)=1.031\times10^{-5}$ 15; $\alpha(O)=1.219\times10^{-6}$ 18
[x]926 1	3 1							
927.75 3	8 1	1239.83	(7/2$^+$)	312.073	(5/2$^+$)			
928 1	2 1	2493.03	(1/2$^+$)	1564.125	(1/2$^+$,3/2$^-$)	[M1+E2]	0.0021 3	$\alpha=0.0021$ 3; $\alpha(K)=0.00180$ 24; $\alpha(L)=0.00022$ 3; $\alpha(M)=4.5\times10^{-5}$ 5; $\alpha(N+..)=1.02\times10^{-5}$ 12 $\alpha(N)=9.1\times10^{-6}$ 11; $\alpha(O)=1.07\times10^{-6}$ 14
930.71 1	61 2	1717.625	(5/2$^+$)	786.922	(5/2$^+$)	[M1+E2]	0.0021 3	$\alpha=0.0021$ 3; $\alpha(K)=0.00179$ 24; $\alpha(L)=0.00022$ 3; $\alpha(M)=4.5\times10^{-5}$ 5;

^{133}Te β^- decay (12.5 min)   1983Hi03 (continued)

$\gamma(^{133}$I) (continued)

E$_\gamma$‡	I$_\gamma$‡&	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.	α†	Comments
								α(N+..)=1.01×10^{-5} 12
								α(N)=9.1×10^{-6} 11; α(O)=1.06×10^{-6} 14
934 1	2 1	2266.47	(3/2$^+$)	1333.228	(5/2$^+$)	[M1]	0.00231 4	α=0.00231 4; α(K)=0.00201 3; α(L)=0.000246 4;
								α(M)=4.93×10^{-5} 7; α(N+..)=1.119×10^{-5} 16
								α(N)=1.000×10^{-5} 15; α(O)=1.183×10^{-6} 17
942.2 2	5 1	2255.08	(3/2$^+$)	1312.797	(3/2$^+$,5/2)			
943 1	1.0 7	2661.0	(3/2$^+$,5/2$^+$)	1717.625	(5/2$^+$)			
951.51 7	3.6 6	1671.426	(3/2$^+$)	719.751	(3/2$^+$)	[M1+E2]	0.0020 3	α=0.0020 3; α(K)=0.00170 23; α(L)=0.000212 24;
								α(M)=4.3×10^{-5} 5; α(N+..)=9.6×10^{-6} 11
								α(N)=8.6×10^{-6} 10; α(O)=1.01×10^{-6} 13
971 1	0.8 5	2283.75	(1/2$^+$,3/2)	1312.797	(3/2$^+$,5/2)			
978 1	2 1	2541.74	(3/2$^+$,5/2$^+$)	1564.125	(1/2$^+$,3/2$^-$)			
995.09 2	11.1 8	1307.187	(7/2$^+$)	312.073	(5/2$^+$)	[M1]	0.00200 3	α=0.00200 3; α(K)=0.001737 25; α(L)=0.000213 3;
								α(M)=4.26×10^{-5} 6; α(N+..)=9.66×10^{-6} 14
								α(N)=8.64×10^{-6} 12; α(O)=1.022×10^{-6} 15
997.7@ 5	16.6 8	1717.625	(5/2$^+$)	719.751	(3/2$^+$)	[M1]	0.00199 3	α=0.00199 3; α(K)=0.001726 25; α(L)=0.000211 3;
								α(M)=4.23×10^{-5} 6; α(N+..)=9.60×10^{-6} 14
								α(N)=8.59×10^{-6} 12; α(O)=1.015×10^{-6} 15
								E$_\gamma$: 997.66 1 keV in 1983Hi03.
1000.72 1	58 1	1312.797	(3/2$^+$,5/2)	312.073	(5/2$^+$)			
1015.3 3	2.0 7	2255.08	(3/2$^+$)	1239.83	(7/2$^+$)			
1021.13 8	45 1	1333.228	(5/2$^+$)	312.073	(5/2$^+$)	[M1+E2]	0.00168 22	α=0.00168 22; α(K)=0.00145 19; α(L)=0.000180 21;
								α(M)=3.6×10^{-5} 4; α(N+..)=8.2×10^{-6} 10
								α(N)=7.3×10^{-6} 9; α(O)=8.6×10^{-7} 11
1026.8 2	0.9 3	2266.47	(3/2$^+$)	1239.83	(7/2$^+$)			
1051.1 3	0.8 3	2363.78	(3/2$^+$,5/2)	1312.797	(3/2$^+$,5/2)			
1061.61 1	19 2	1373.685	(1/2$^+$,3/2$^-$)	312.073	(5/2$^+$)			
1109.9 2	2 1	2417.38	(5/2$^+$)	1307.187	(7/2$^+$)	[M1]	0.001564 22	α=0.001564 22; α(K)=0.001357 19; α(L)=0.0001657 24;
								α(M)=3.32×10^{-5} 5; α(N+..)=8.08×10^{-6}
								α(N)=6.73×10^{-6} 10; α(O)=7.96×10^{-7} 12;
								α(IPF)=5.60×10^{-7} 9
1123.9 3	1.0 7	2363.78	(3/2$^+$,5/2)	1239.83	(7/2$^+$)			
1137 1	2 1	2808.34	(1/2$^+$,3/2,5/2$^+$)	1671.426	(3/2$^+$)			
1156.3^b 3	1.1 4	1943?		786.922	(5/2$^+$)			
1208.5 3	2.6 6	2541.74	(3/2$^+$,5/2$^+$)	1333.228	(5/2$^+$)			
1221.7 3	0.3 1	2136.38	(5/2$^+$)	914.741	9/2$^+$	[E2]	0.001010 15	α=0.001010 15; α(K)=0.000867 13; α(L)=0.0001078 15;
								α(M)=2.16×10^{-5} 3; α(N+..)=1.429×10^{-5}
								α(N)=4.37×10^{-6} 7; α(O)=5.11×10^{-7} 8; α(IPF)=9.41×10^{-6}
								14
1224 1	0.10 5	2597.45	(5/2$^+$)	1373.685	(1/2$^+$,3/2$^-$)			
1227.7 4	1.8 3	2467.30	(3/2$^+$,5/2)	1239.83	(7/2$^+$)			

$^{133}\text{Te } \beta^-$ **decay (12.5 min)**   **1983Hi03 (continued)**

$\gamma(^{133}\text{I})$ (continued)

E_γ[‡]	I_γ[‡&]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[†]	Comments
1238.5 5	2 1	2025.41	(3/2$^+$)	786.922	(5/2$^+$)	[M1]	0.001235 18	α=0.001235 18; α(K)=0.001063 15; α(L)=0.0001294 19; α(M)=2.59×10^{-5} 4; α(N+..)=1.675×10^{-5} α(N)=5.25×10^{-6} 8; α(O)=6.21×10^{-7} 9; α(IPF)=1.088×10^{-5} 17
1239.9 3	3.3 8	1239.83	(7/2$^+$)	0.0	7/2$^+$			
1243.9 2	1.2 4	2808.34	(1/2$^+$,3/2,5/2$^+$)	1564.125	(1/2$^+$,3/2$^-$)			
1252.08 2	23 1	1564.125	(1/2$^+$,3/2$^-$)	312.073	(5/2$^+$)			
1254.2 5	0.3 1	2040.42	(1/2$^+$)	786.922	(5/2$^+$)	[E2]	0.000963 14	α=0.000963 14; α(K)=0.000821 12; α(L)=0.0001019 15; α(M)=2.04×10^{-5} 3; α(N+..)=1.89×10^{-5} α(N)=4.13×10^{-6} 6; α(O)=4.83×10^{-7} 7; α(IPF)=1.426×10^{-5} 22
1266.58 5	3.1 6	2053.50	(3/2$^+$)	786.922	(5/2$^+$)	[M1]	0.001179 17	α=0.001179 17; α(K)=0.001011 15; α(L)=0.0001230 18; α(M)=2.46×10^{-5} 4; α(N+..)=2.06×10^{-5} α(N)=4.99×10^{-6} 7; α(O)=5.91×10^{-7} 9; α(IPF)=1.503×10^{-5} 21
1285 1	0.4 2	2597.45	(5/2$^+$)	1312.797	(3/2$^+$,5/2)			
1286 1	0.4 2	2525.72	(3/2$^+$,5/2)	1239.83	(7/2$^+$)			
1290 1	0.3 2	2597.45	(5/2$^+$)	1307.187	(7/2$^+$)	[M1]	0.001137 16	α=0.001137 16; α(K)=0.000971 14; α(L)=0.0001181 17; α(M)=2.36×10^{-5} 4; α(N+..)=2.42×10^{-5} α(N)=4.79×10^{-6} 7; α(O)=5.67×10^{-7} 8; α(IPF)=1.89×10^{-5} 4
[x]1294.0 2	2.3 4							
1302 1	0.7 4	2541.74	(3/2$^+$,5/2$^+$)	1239.83	(7/2$^+$)			
1306.0 6	4.3 5	2025.41	(3/2$^+$)	719.751	(3/2$^+$)	[M1+E2]	0.00100 11	α=0.00100 11; α(K)=0.00085 10; α(L)=0.000104 11; α(M)=2.09×10^{-5} 22; α(N+..)=2.74×10^{-5} 6 α(N)=4.2×10^{-6} 5; α(O)=5.0×10^{-7} 6; α(IPF)=2.26×10^{-5} 9
1307.2 2	8.6 5	1307.187	(7/2$^+$)	0.0	7/2$^+$	[M1+E2]	0.00100 11	α=0.00100 11; α(K)=0.00085 10; α(L)=0.000104 11; α(M)=2.08×10^{-5} 22; α(N+..)=2.76×10^{-5} 6 α(N)=4.2×10^{-6} 5; α(O)=5.0×10^{-7} 6; α(IPF)=2.29×10^{-5} 9
1310.40 12	2.2 3	2225.06	(5/2$^+$)	914.741	9/2$^+$	[E2]	0.000892 13	α=0.000892 13; α(K)=0.000752 11; α(L)=9.29×10^{-5} 13; α(M)=1.86×10^{-5} 3; α(N+..)=2.86×10^{-5} 4 α(N)=3.76×10^{-6} 6; α(O)=4.41×10^{-7} 7; α(IPF)=2.44×10^{-5} 4
1312.80 23	13.7 7	1312.797	(3/2$^+$,5/2)	0.0	7/2$^+$			
1320.4 6	0.4 2	2040.42	(1/2$^+$)	719.751	(3/2$^+$)	[M1]	0.001087 16	α=0.001087 16; α(K)=0.000922 13; α(L)=0.0001121 16; α(M)=2.24×10^{-5} 4; α(N+..)=2.98×10^{-5} α(N)=4.55×10^{-6} 7; α(O)=5.39×10^{-7} 8; α(IPF)=2.47×10^{-5} 4
1333.21 2	171 3	1333.228	(5/2$^+$)	0.0	7/2$^+$	[M1]	0.001067 15	α=0.001067 15; α(K)=0.000903 13; α(L)=0.0001097 16; α(M)=2.20×10^{-5} 3; α(N+..)=3.24×10^{-5} α(N)=4.45×10^{-6} 7; α(O)=5.27×10^{-7} 8; α(IPF)=2.74×10^{-5} 4

Te β^- decay (12.5 min)   1983Hi03 (continued)

$\gamma(^{133}$I) (continued)

E_γ‡	I_γ‡&	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α†	Comments
1333.7 5	1.3 5	2053.50	(3/2+)	719.751	(3/2+)	[M1+E2]	0.00097 10	α=0.00097 10; α(K)=0.00081 9; α(L)=0.000100 11; α(M)=1.99×10−5 21; α(N+..)=3.31×10−5 8 α(N)=4.0×10−6 5; α(O)=4.8×10−7 6; α(IPF)=2.86×10−5 11
1349.63 13	1.6 5	2136.38	(5/2+)	786.922	(5/2+)	[M1+E2]	0.00095 10	α=0.00095 10; α(K)=0.00079 9; α(L)=9.7×10−5 10; α(M)=1.94×10−5 20; α(N+..)=3.67×10−5 9 α(N)=3.9×10−6 4; α(O)=4.6×10−7 5; α(IPF)=3.23×10−5 12
1359.45 7	1.5 3	1671.426	(3/2+)	312.073	(5/2+)	[M1]	0.001030 15	α=0.001030 15; α(K)=0.000865 13; α(L)=0.0001051 15; α(M)=2.10×10−5 3; α(N+..)=3.84×10−5 α(N)=4.27×10−6 6; α(O)=5.05×10−7 7; α(IPF)=3.37×10−5 5
1371.7 5	0.16 7	2935.83	(1/2+,3/2,5/2+)	1564.125	(1/2+,3/2−)			
1405.48 5	9.4 8	1717.625	(5/2+)	312.073	(5/2+)	[M1+E2]	0.00089 9	α=0.00089 9; α(K)=0.00073 8; α(L)=8.9×10−5 9; α(M)=1.78×10−5 18; α(N+..)=5.16×10−5 13 α(N)=3.6×10−6 4; α(O)=4.3×10−7 5; α(IPF)=4.76×10−5 16 E_γ: 1405.48 52 in the table I of 1983Hi03, apparently, ΔE is a misprint.
1416.9@ 5	2.1 4	2136.38	(5/2+)	719.751	(3/2+)	[M1]	0.000960 14	α=0.000960 14; α(K)=0.000791 11; α(L)=9.59×10−5 14; α(M)=1.92×10−5 3; α(N+..)=5.38×10−5 8 α(N)=3.89×10−6 6; α(O)=4.61×10−7 7; α(IPF)=4.95×10−5 7 E_γ: 1416.90 7 keV in 1983Hi03.
1438 1	0.1 1	2225.06	(5/2+)	786.922	(5/2+)	[M1+E2]	0.00086 8	α=0.00086 8; α(K)=0.00070 8; α(L)=8.5×10−5 9; α(M)=1.70×10−5 17; α(N+..)=6.13×10−5 16 α(N)=3.4×10−6 4; α(O)=4.1×10−7 5; α(IPF)=5.74×10−5 19
1455.24 7	2.4 9	2768.20	(1/2+,3/2,5/2)	1312.797	(3/2+,5/2)			
1468.2 6	0.8 5	2255.08	(3/2+)	786.922	(5/2+)	[M1]	0.000908 13	α=0.000908 13; α(K)=0.000732 11; α(L)=8.87×10−5 13; α(M)=1.775×10−5 25; α(N+..)=6.94×10−5 α(N)=3.60×10−6 5; α(O)=4.26×10−7 6; α(IPF)=6.53×10−5 10
1473.74 8	5.1 5	2193.60	(3/2+,5/2)	719.751	(3/2+)			
1489.88 14	1.9 4	2209.77	(3/2+,5/2+)	719.751	(3/2+)			
1493 1	0.4 2	2866.29	(1/2+,3/2,5/2+)	1373.685	(1/2+,3/2−)			
1502.8 5	0.5 4	2417.38	(5/2+)	914.741	9/2+	[E2]	0.000742 11	α=0.000742 11; α(K)=0.000574 8; α(L)=7.02×10−5 10; α(M)=1.405×10−5 20; α(N+..)=8.39×10−5 1 α(N)=2.84×10−6 4; α(O)=3.34×10−7 5; α(IPF)=8.08×10−5 12
1505.2 3	1.1 5	2225.06	(5/2+)	719.751	(3/2+)	[M1]	0.000876 13	α=0.000876 13; α(K)=0.000694 10; α(L)=8.40×10−5 12; α(M)=1.681×10−5 24; α(N+..)=8.16×10−5 α(N)=3.41×10−6 5; α(O)=4.04×10−7 6; α(IPF)=7.78×10−5 11
1535.1 1	3.4 5	2255.08	(3/2+)	719.751	(3/2+)	[M1+E2]	0.00079 7	α=0.00079 7; α(K)=0.00061 6; α(L)=7.4×10−5 7; α(M)=1.48×10−5 14; α(N+..)=9.38×10−5 21 α(N)=3.0×10−6 3; α(O)=3.5×10−7 4; α(IPF)=9.04×10−5 24
1564.0 2	1.2 3	2283.75	(1/2+,3/2)	719.751	(3/2+)			

^{133}Te β^- decay (12.5 min)   **1983Hi03 (continued)**

$\gamma(^{133}$I) (continued)

E_γ[‡]	I_γ[‡&]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[†]	Comments
1630.1 *3*	0.4 *2*	2417.38	(5/2$^+$)	786.922	(5/2$^+$)	[M1+E2]	0.00075 *6*	α=0.00075 *6*; α(K)=0.00054 *5*; α(L)=6.5×10^{-5} *6*; α(M)=1.30×10^{-5} *11*; α(N+..)=0.000130 *3* α(N)=2.64×10^{-6} *23*; α(O)=3.1×10^{-7} *3*; α(IPF)=0.000127 *3*
1633.7 *2*	1.2 *3*	1945.78		312.073	(5/2$^+$)			
1671.19 *7*	2.6 *4*	1671.426	(3/2$^+$)	0.0	7/2$^+$	[E2]	0.000685 *10*	α=0.000685 *10*; α(K)=0.000468 *7*; α(L)=5.69×10^{-5} *8*; α(M)=1.138×10^{-5} *16*; α(N+..)=0.0001491 α(N)=2.30×10^{-6} *4*; α(O)=2.71×10^{-7} *4*; α(IPF)=0.0001465 *21*
1680 *1*	1.5 *9*	2467.30	(3/2$^+$,5/2)	786.922	(5/2$^+$)			
1682.9 *2*	2.2 *4*	2597.45	(5/2$^+$)	914.741	9/2$^+$	[E2]	0.000683 *10*	α=0.000683 *10*; α(K)=0.000462 *7*; α(L)=5.61×10^{-5} *8*; α(M)=1.122×10^{-5} *16*; α(N+..)=0.0001541 α(N)=2.27×10^{-6} *4*; α(O)=2.68×10^{-7} *4*; α(IPF)=0.0001515 *22*
1697.3 *2*	1.0 *4*	2417.38	(5/2$^+$)	719.751	(3/2$^+$)	[M1]	0.000771 *11*	α=0.000771 *11*; α(K)=0.000537 *8*; α(L)=6.48×10^{-5} *9*; α(M)=1.296×10^{-5} *19*; α(N+..)=0.0001564 α(N)=2.63×10^{-6} *4*; α(O)=3.11×10^{-7} *5*; α(IPF)=0.0001534 *22*
1706 *1*	1.0 *7*	2493.03	(1/2$^+$)	786.922	(5/2$^+$)			
1713.0 *5*	6 *1*	2025.41	(3/2$^+$)	312.073	(5/2$^+$)	[M1]	0.000766 *11*	α=0.000766 *11*; α(K)=0.000526 *8*; α(L)=6.35×10^{-5} *9*; α(M)=1.270×10^{-5} *18*; α(N+..)=0.0001631 α(N)=2.58×10^{-6} *4*; α(O)=3.05×10^{-7} *5*; α(IPF)=0.0001602 *23*
1717.61 *1*	51 *2*	1717.625	(5/2$^+$)	0.0	7/2$^+$	[M1]	0.000764 *11*	α=0.000764 *11*; α(K)=0.000523 *8*; α(L)=6.32×10^{-5} *9*; α(M)=1.263×10^{-5} *18*; α(N+..)=0.0001651 α(N)=2.56×10^{-6} *4*; α(O)=3.04×10^{-7} *5*; α(IPF)=0.0001623 *23*
1722 *1*	1.3 *5*	2034.1?		312.073	(5/2$^+$)			
1738 *2*	0.8 *4*	2525.72	(3/2$^+$,5/2)	786.922	(5/2$^+$)			
1741.57 *8*	2.2 *2*	2053.50	(3/2$^+$)	312.073	(5/2$^+$)	[M1]	0.000757 *11*	α=0.000757 *11*; α(K)=0.000508 *8*; α(L)=6.13×10^{-5} *9*; α(M)=1.226×10^{-5} *18*; α(N+..)=0.0001757 α(N)=2.49×10^{-6} *4*; α(O)=2.95×10^{-7} *5*; α(IPF)=0.0001729 *25*
1754.9 *2*	0.7 *1*	2541.74	(3/2$^+$,5/2$^+$)	786.922	(5/2$^+$)			
1773.27 *7*	2.2 *7*	2493.03	(1/2$^+$)	719.751	(3/2$^+$)			
1806.9[@] *5*	4.1 *4*	2525.72	(3/2$^+$,5/2)	719.751	(3/2$^+$)			E_γ: 1806.9 *1* keV in 1983Hi03.
1821.7 *2*	3.5 *4*	2541.74	(3/2$^+$,5/2$^+$)	719.751	(3/2$^+$)			
1824.25 *3*	6.4 *5*	2136.38	(5/2$^+$)	312.073	(5/2$^+$)	[M1+E2]	0.00071 *4*	α=0.00071 *4*; α(K)=0.00043 *4*; α(L)=5.2×10^{-5} *4*; α(M)=1.04×10^{-5} *8*; α(N+..)=0.000215 *4* α(N)=2.10×10^{-6} *16*; α(O)=2.48×10^{-7} *20*; α(IPF)=0.000213 *4*
1881.52 *4*	19.5 *7*	2193.60	(3/2$^+$,5/2)	312.073	(5/2$^+$)			
1893.21 *22*	0.9 *3*	2205.30		312.073	(5/2$^+$)			
1897.59 *7*	1.7 *1*	2209.77	(3/2$^+$,5/2$^+$)	312.073	(5/2$^+$)			
1912.91 *6*	1.9 *1*	2225.06	(5/2$^+$)	312.073	(5/2$^+$)	[M1+E2]	0.00070 *3*	α=0.00070 *3*; α(K)=0.00039 *3*; α(L)=4.7×10^{-5} *4*; α(M)=9.4×10^{-6} *7*; α(N+..)=0.000256 *4* α(N)=1.91×10^{-6} *14*; α(O)=2.25×10^{-7} *17*; α(IPF)=0.000254 *4*
1938 *1*	0.5 *3*	2250.1		312.073	(5/2$^+$)			
1943.8[@] *5*	1.3 *2*	2255.08	(3/2$^+$)	312.073	(5/2$^+$)	[M1]	0.000732 *11*	α=0.000732 *11*; α(K)=0.000403 *6*; α(L)=4.86×10^{-5} *7*; α(M)=9.71×10^{-6} *14*; α(N+..)=0.000270 *4*

$\gamma(^{133}$I) (continued)

$E_\gamma^\ddagger$	$I_\gamma^{\ddagger\&}$	E_i(level)	J_i^π	E_f	J_f^π	Mult.	$\alpha^\dagger$	Comments
								α(N)=1.97×10^{-6} 3; α(O)=2.33×10^{-7} 4; α(IPF)=0.000268 4
								E_γ: 1943.8 1 keV in 1983Hi03.
1972^b 2	0.24 8	2283.75	(1/2$^+$,3/2)	312.073	(5/2$^+$)			
2025.6 2	1.3 2	2025.41	(3/2$^+$)	0.0	7/2$^+$	[E2]	0.000686 10	α=0.000686 10; α(K)=0.000327 5; α(L)=3.94×10^{-5} 6;
								α(M)=7.87×10^{-6} 11; α(N+..)=0.000312 5
								α(N)=1.595×10^{-6} 23; α(O)=1.88×10^{-7} 3; α(IPF)=0.000310 5
^{x}2036.2 3	0.3 1							
2048.5 4	0.6 2	2768.20	(1/2$^+$,3/2,5/2)	719.751	(3/2$^+$)			
2053.43 8	2.3 5	2053.50	(3/2$^+$)	0.0	7/2$^+$	[E2]	0.000690 10	α=0.000690 10; α(K)=0.000319 5; α(L)=3.84×10^{-5} 6;
								α(M)=7.67×10^{-6} 11; α(N+..)=0.000325 5
								α(N)=1.555×10^{-6} 22; α(O)=1.84×10^{-7} 3; α(IPF)=0.000323 5
2079.3 2	1.5 3	2866.29	(1/2$^+$,3/2,5/2$^+$)	786.922	(5/2$^+$)			
2081.3 3	0.9 3	2393.27	(3/2$^+$,5/2)	312.073	(5/2$^+$)			
^{x}2093 1	0.3 2							
2105.5^a 2	1.6^a 4	2417.38	(5/2$^+$)	312.073	(5/2$^+$)	[M1+E2]	0.000720 24	α=0.000720 24; α(K)=0.000323 19; α(L)=3.89×10^{-5} 23;
								α(M)=7.8×10^{-6} 5; α(N+..)=0.000350 5
								α(N)=1.57×10^{-6} 10; α(O)=1.86×10^{-7} 12; α(IPF)=0.000348 5
2105.5^a 2	1.6^a 4	2825.31	(3/2$^+$,5/2)	719.751	(3/2$^+$)			
2136.51 8	20 1	2136.38	(5/2$^+$)	0.0	7/2$^+$	[M1]	0.000744 11	α=0.000744 11; α(K)=0.000332 5; α(L)=3.99×10^{-5} 6;
								α(M)=7.97×10^{-6} 12; α(N+..)=0.000365 6
								α(N)=1.616×10^{-6} 23; α(O)=1.92×10^{-7} 3; α(IPF)=0.000363 5
2148.3 4	0.4 2	2935.83	(1/2$^+$,3/2,5/2$^+$)	786.922	(5/2$^+$)			
2155 1	0.4 3	2467.30	(3/2$^+$,5/2)	312.073	(5/2$^+$)			
2180.9 4	0.5 3	2493.03	(1/2$^+$)	312.073	(5/2$^+$)	[E2]	0.000713 10	α=0.000713 10; α(K)=0.000286 4; α(L)=3.44×10^{-5} 5;
								α(M)=6.86×10^{-6} 10; α(N+..)=0.000386 6
								α(N)=1.390×10^{-6} 20; α(O)=1.643×10^{-7} 23; α(IPF)=0.000384 6
2193.65 5	9.1 7	2193.60	(3/2$^+$,5/2)	0.0	7/2$^+$			
2210.2$^@$ 5	11 1	2209.77	(3/2$^+$,5/2$^+$)	0.0	7/2$^+$			E_γ: 2210.22 4 keV in 1983Hi03.
2213.6 1	3.4 6	2525.72	(3/2$^+$,5/2)	312.073	(5/2$^+$)			
2225.00 14	3.6 4	2225.06	(5/2$^+$)	0.0	7/2$^+$	[M1]	0.000759 11	α=0.000759 11; α(K)=0.000305 5; α(L)=3.67×10^{-5} 6;
								α(M)=7.32×10^{-6} 11; α(N+..)=0.000409 6
								α(N)=1.486×10^{-6} 21; α(O)=1.762×10^{-7} 25; α(IPF)=0.000408 6
2229.64 3	14 1	2541.74	(3/2$^+$,5/2$^+$)	312.073	(5/2$^+$)			
2255.4 1	3.3 5	2255.08	(3/2$^+$)	0.0	7/2$^+$	[E2]	0.000730 11	α=0.000730 11; α(K)=0.000269 4; α(L)=3.23×10^{-5} 5;
								α(M)=6.45×10^{-6} 9; α(N+..)=0.000422 6
								α(N)=1.307×10^{-6} 19; α(O)=1.545×10^{-7} 22; α(IPF)=0.000420 6
2266.4 1	3.8 5	2266.47	(3/2$^+$)	0.0	7/2$^+$	[E2]	0.000733 11	α=0.000733 11; α(K)=0.000267 4; α(L)=3.20×10^{-5} 5;
								α(M)=6.39×10^{-6} 9; α(N+..)=0.000427 6
								α(N)=1.296×10^{-6} 19; α(O)=1.531×10^{-7} 22; α(IPF)=0.000426 6
2285.5 4	0.15 5	2597.45	(5/2$^+$)	312.073	(5/2$^+$)	[M1+E2]	0.000754 20	α=0.000754 20; α(K)=0.000276 14; α(L)=3.31×10^{-5} 17;
								α(M)=6.6×10^{-6} 4; α(N+..)=0.000438 7
								α(N)=1.34×10^{-6} 7; α(O)=1.59×10^{-7} 9; α(IPF)=0.000436 7

^{133}Te β^- decay (12.5 min)   1983Hi03 (continued)

$\gamma(^{133}$I) (continued)

E_γ‡	I_γ‡&	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α†	Comments
^{x}2336 *1*	0.23 *9*							
2349 *1*	0.13 *7*	2661.0	$(3/2^+,5/2^+)$	312.073	$(5/2^+)$			
2363 *1*	0.4 *2*	2363.78	$(3/2^+,5/2)$	0.0	$7/2^+$			
2393 *1*	0.2 *1*	2393.27	$(3/2^+,5/2)$	0.0	$7/2^+$			
2417.7 *1*	3 *1*	2417.38	$(5/2^+)$	0.0	$7/2^+$	[M1]	0.000801 *12*	α=0.000801 *12*; α(K)=0.000258 *4*; α(L)=3.09×10^{-5} *5*; α(M)=6.18×10^{-6} *9*; α(N+..)=0.000505 *7* α(N)=1.254×10^{-6} *18*; α(O)=1.487×10^{-7} *21*; α(IPF)=0.000504 *7*
2456.20 *9*	4.1 *4*	2768.20	$(1/2^+,3/2,5/2)$	312.073	$(5/2^+)$			
2467.40 *7*	6.5 *5*	2467.30	$(3/2^+,5/2)$	0.0	$7/2^+$			
^{x}2485 *1*	0.3 *2*							
2496.35 *12*	3.1 *4*	2808.34	$(1/2^+,3/2,5/2^+)$	312.073	$(5/2^+)$			
2525.5 *4*	0.4 *2*	2525.72	$(3/2^+,5/2)$	0.0	$7/2^+$			
2541.80 *7*	8 *1*	2541.74	$(3/2^+,5/2^+)$	0.0	$7/2^+$			
2554.19 *7*	5.6 *6*	2866.29	$(1/2^+,3/2,5/2^+)$	312.073	$(5/2^+)$			
2597.7 *3*	0.9 *3*	2597.45	$(5/2^+)$	0.0	$7/2^+$	[M1]	0.000849 *12*	α=0.000849 *12*; α(K)=0.000224 *4*; α(L)=2.68×10^{-5} *4*; α(M)=5.34×10^{-6} *8*; α(N+..)=0.000593 *9* α(N)=1.084×10^{-6} *16*; α(O)=1.286×10^{-7} *18*; α(IPF)=0.000592 *9*
2623.82 *16*	1.5 *3*	2935.83	$(1/2^+,3/2,5/2^+)$	312.073	$(5/2^+)$			
2661.1 *4*	1.2 *3*	2661.0	$(3/2^+,5/2^+)$	0.0	$7/2^+$			
2825.30 *14*	2.5 *3*	2825.31	$(3/2^+,5/2)$	0.0	$7/2^+$			

† Additional information 1.
‡ From 1983Hi03.
# Uncertainty assigned by evaluators, since was not given by the authors.
@ Energy fit is poor. $\Delta E\gamma$=0.5 keV assigned by evaluators.
& For absolute intensity per 100 decays, multiply by 0.0624 *4*.
^{a} Multiply placed with undivided intensity.
^{b} Placement of transition in the level scheme is uncertain.
^{x} γ ray not placed in level scheme.

^{133}Te β^- decay (12.5 min)   1983Hi03

Decay Scheme

Intensities: Relative I_γ

& Multiply placed: undivided intensity given

Legend

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

$(3/2^+)$ 0.0   12.5 min 3

$Q_{\beta^-}=2942$ 24 $\%\beta^-=100$

$^{133}_{52}\text{Te}_{81}$

$I\beta^-$	Log ft		level
0.129		$(1/2^+,3/2,5/2^+)$	2935.83
0.47	3.0	$(1/2^+,3/2,5/2^+)$	2866.29
0.26	3.9	$(3/2^+,5/2)$	2825.31
0.42	3.8	$(1/2^+,3/2,5/2^+)$	2808.34
1.06	3.80	$(1/2^+,3/2,5/2)$	2768.20
0.18	5.24	$(3/2^+,5/2^+)$	2661.0
0.18	5.53	$(5/2^+)$	2597.45
0.61	5.46	$(3/2^+,5/2)$	2467.30
0.26	6.32	$(1/2^+,3/2)$	2283.75
1.02	5.86	$(5/2^+)$	2225.06
0.34	6.69	$(1/2^+)$	2040.42
1.39	6.10	$(3/2^+)$	2025.41
10.41	5.70	$(5/2^+)$	1717.625
1.33	6.65	$(3/2^+)$	1671.426
3.54	6.36	$(1/2^+,3/2^-)$	1564.125
1.15	7.06	$(1/2^+,3/2^-)$	1373.685
3.29	6.67	$(3/2^+,5/2)$	1312.797
		$(7/2^+)$	1307.187
		$9/2^+$	914.741
<0.2	>8.4	$(5/2^+)$	786.922
28.2	6.28	$(3/2^+)$	719.751
20.3	6.721	$(5/2^+)$	312.073
		$7/2^+$	0.0 20.83 h 8

Gamma transitions (labels):
2623.82 1.5, 2148.3 0.4, 1371.7 0.16, 2554.19 5.6, 2079.3 1.5, 1493 0.4, 2825.30 2.5, 2105.5 1.6&, 2496.35 3.1, 1243.9 1.2, 1137 2, 341 0.5, 2456.20 4.1, 2048.5 0.6, 1455.24 2.4, 743.0 5.2, 543.5 2, 484.5 0.9, 302 0.5, 170.91 1.5, 2661.1 1.2, 2349 0.13, 943 1.0, 620 0.5, 2597.7 [M1], 2285.5 [M1+E2]0.15, 1682.9 [M1] 0.9, 1290 [M1] 0.3, 1285 0.4, 1224 0.10, 572 [M1] 0.4

$^{133}_{53}\text{I}_{80}$

^{133}Te β^- decay (12.5 min)　　　1983Hi03

Decay Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given

Legend

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

(3/2$^+$)　　0.0　　12.5 min 3

Q_{β^-}=2942 24　　%β^-=100

$^{133}_{52}$Te$_{81}$

Iβ^-	Log ft		
2.17	4.66	(3/2$^+$,5/2$^+$)	2541.74
0.63	5.25	(3/2$^+$,5/2)	2525.72
0.36	5.61	(1/2$^+$)	2493.03
0.61	5.46	(3/2$^+$,5/2)	2467.30
0.56	5.64	(5/2$^+$)	2417.38
1.02	5.86	(5/2$^+$)	2225.06
1.33	5.77	(3/2$^+$,5/2$^+$)	2209.77
1.08	6.16	(3/2$^+$)	2053.50
1.33	6.65	(3/2$^+$)	1671.426
3.54	6.36	(1/2$^+$,3/2$^-$)	1564.125
13.0	6.05	(5/2$^+$)	1333.228
		(7/2$^+$)	1307.187
		(7/2$^+$)	1239.83
		9/2$^+$	914.741
<0.2	>8.4	(5/2$^+$)	786.922
28.2	6.28	(3/2$^+$)	719.751
20.3	6.721	(5/2$^+$)	312.073
		7/2$^+$	0.0

2541.80 8
2229.64 14
1821.7 3.5
1754.9 0.7
1302 0.7
1208.5 2.6
978 2
488 1.4
331.5 1.9
225.5 0.4
2213.6 3.4
1806.9 4.1
1738 0.8
1286 0.4
854.2 1.0
2180.9 [E2] 0.5
1773.27 2.2
1706 1.0
928 [M1+E2] 2
2467.40 6.5
2155 0.4
1680 1.5
1227.1 1.8
242.0 0.5
2417.7 [M1] 3
2105.5 [M1] 3
1697.3 [M1+E2] 1.6&
1630.1 [M1+E2] 1.0
1502.8 [E2] 0.5
1109.9 [M1] 2
207.4 0.4

20.83 h 8

$^{133}_{53}$I$_{80}$

^{133}Te β^- decay (12.5 min)   1983Hi03

Decay Scheme (continued)

Intensities: Relative I$_\gamma$
& Multiply placed: undivided intensity given

Legend

- →   I$_\gamma$ < 2%×I$_\gamma^{max}$
- →   I$_\gamma$ < 10%×I$_\gamma^{max}$
- →   I$_\gamma$ > 10%×I$_\gamma^{max}$
- ⇢ γ Decay (Uncertain)

(3/2$^+$)   0.0   12.5 min 3

Q$_{\beta-}$=2942 24 %β^-=100

$^{133}_{52}$Te$_{81}$

Iβ^-	Log ft		level
0.11	6.42	(3/2$^+$,5/2)	2393.27
0.14	6.39	(3/2$^+$,5/2)	2363.78
0.26	6.32	(1/2$^+$,3/2)	2283.75
0.46	6.11	(3/2$^+$)	2266.47
1.25	5.70	(3/2$^+$)	2255.08
0.031	7.3		2250.1
1.33	5.77	(3/2$^+$,5/2$^+$)	2209.77
1.33	6.65	(3/2$^+$)	1671.426
3.54	6.36	(1/2$^+$,3/2$^-$)	1564.125
1.15	7.06	(1/2$^+$,3/2$^-$)	1373.685
13.0	6.05	(5/2$^+$)	1333.228
3.29	6.67	(3/2$^+$,5/2)	1312.797
		(7/2$^+$)	1239.83
<0.2	>8.4	(5/2$^+$)	786.922
28.2	6.28	(3/2$^+$)	719.751
20.3	6.721	(5/2$^+$)	312.073
		7/2$^+$	0.0 20.83 h 8

$^{133}_{53}$I$_{80}$

^{133}Te β^- **decay (12.5 min)**　　**1983Hi03**

Decay Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given

Legend

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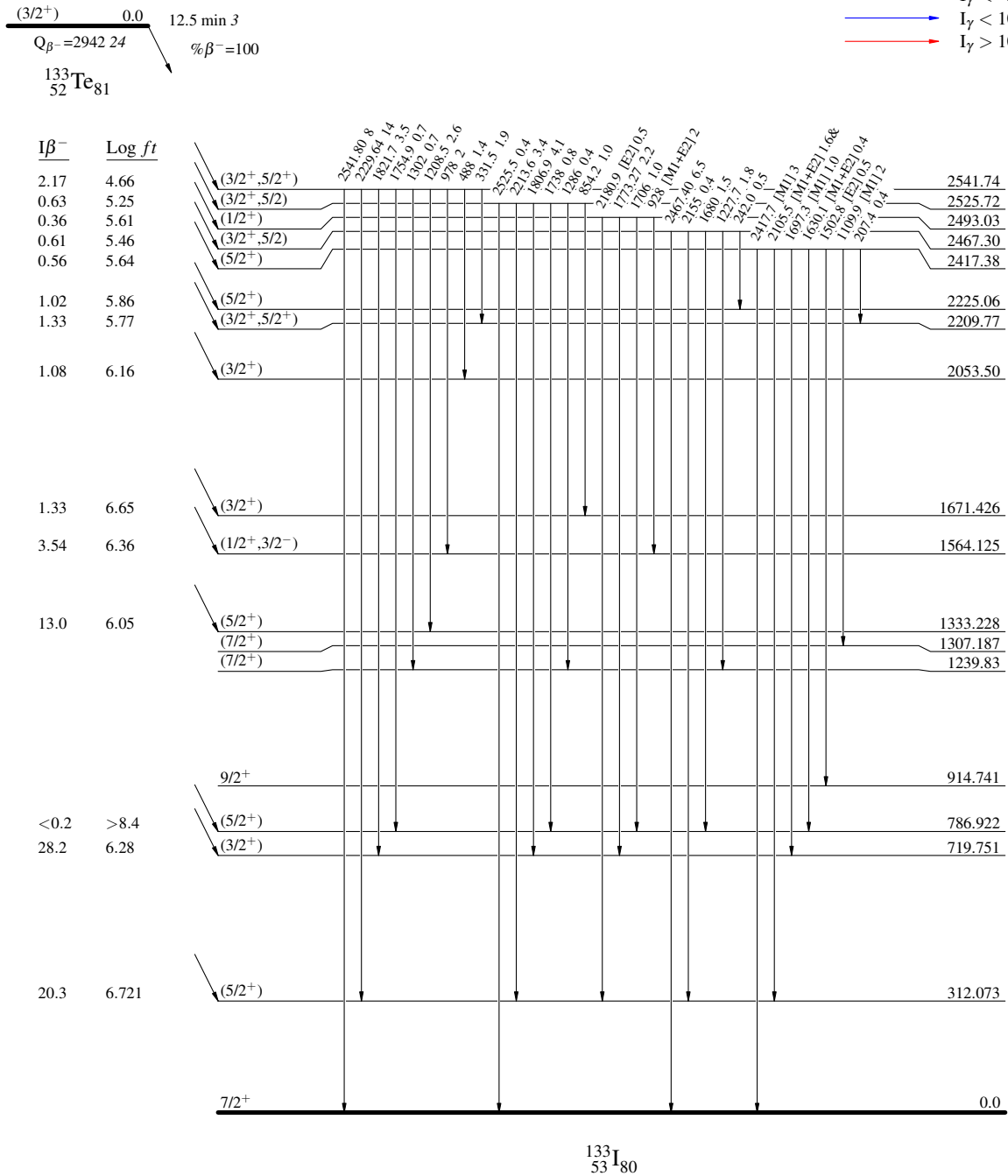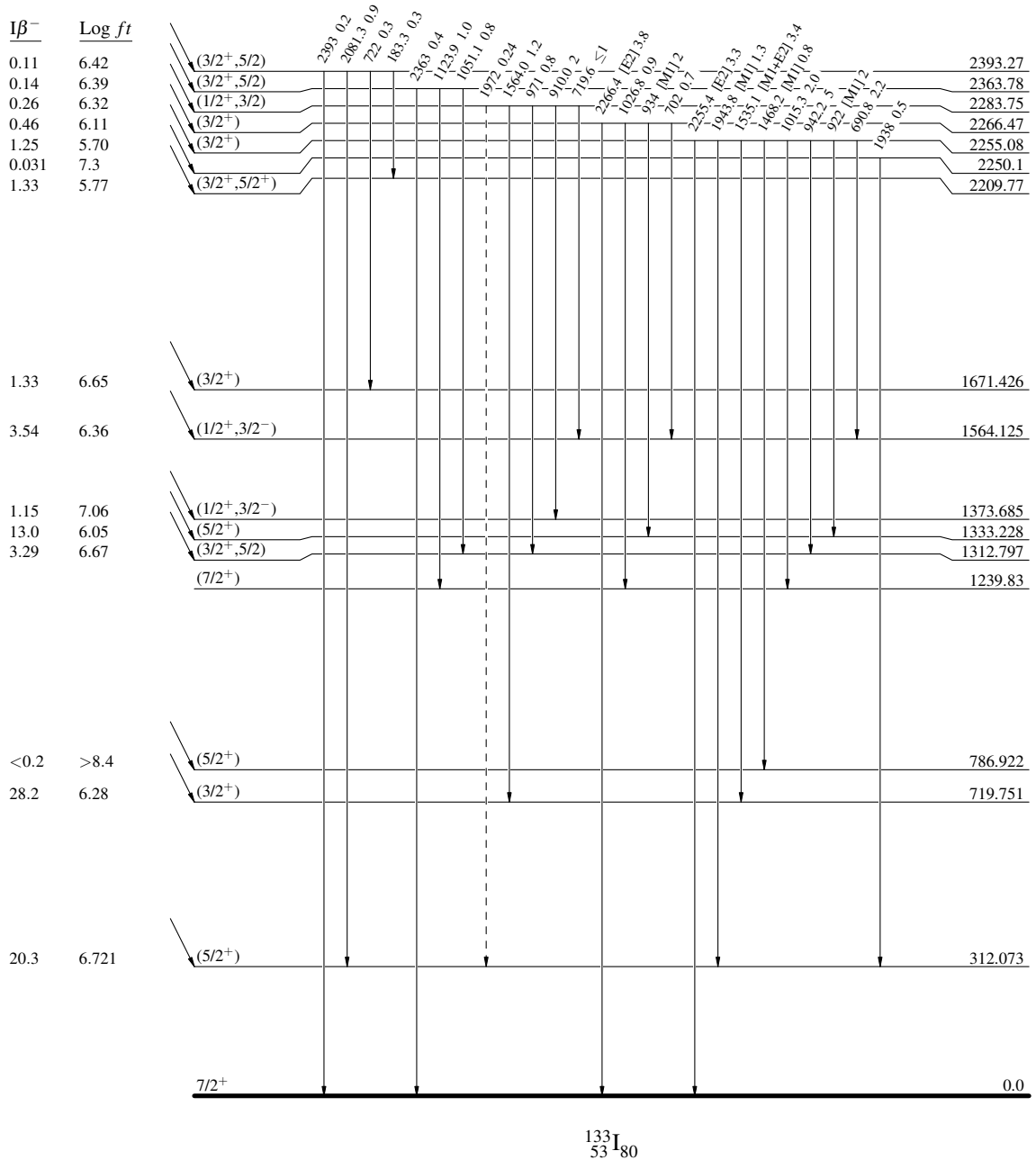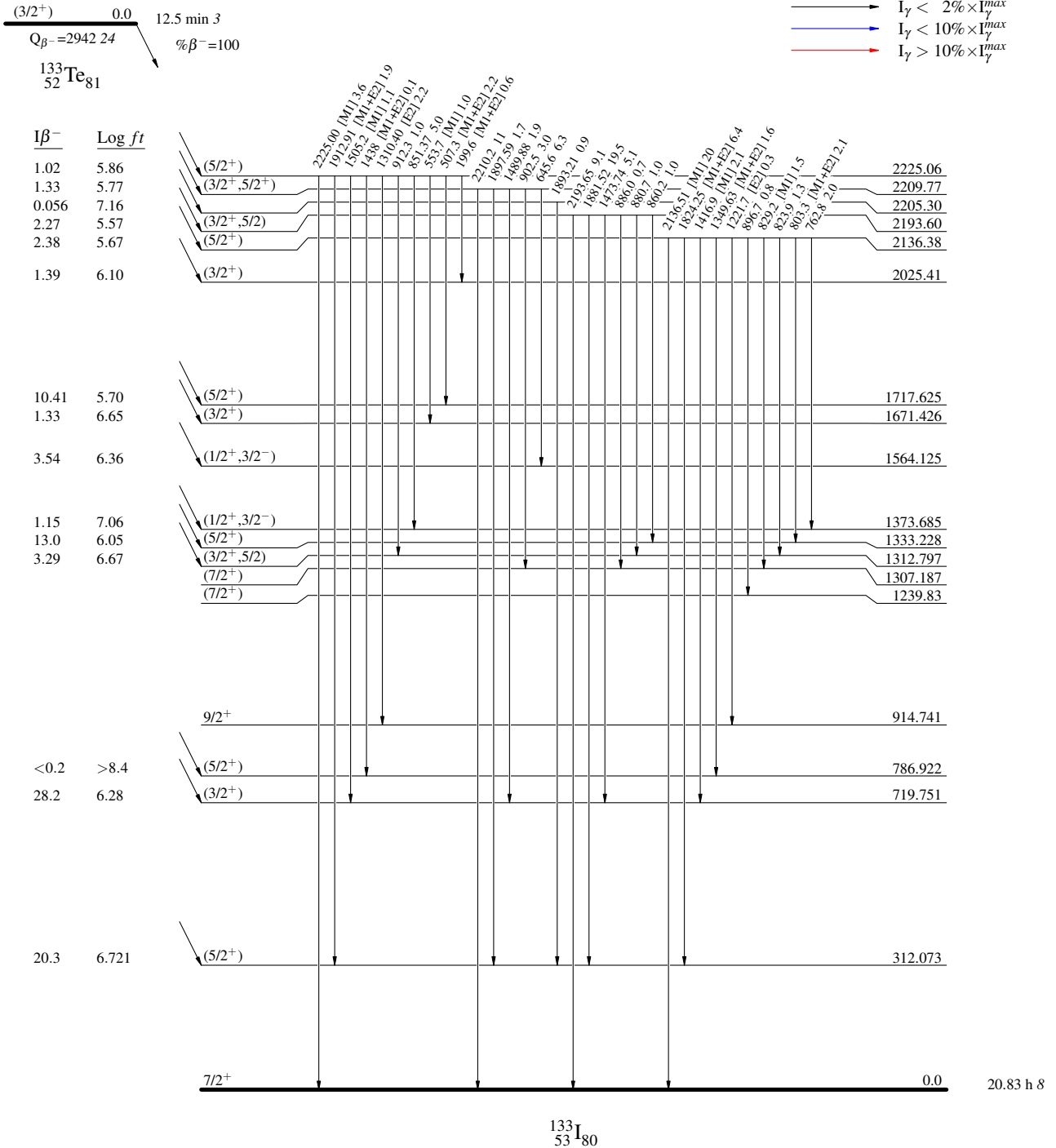$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$

$(3/2^+)$　　0.0　　12.5 min 3
Q_{β^-}=2942 24　　%β^-=100

$^{133}_{52}\text{Te}_{81}$

$I\beta^-$	Log ft		
1.02	5.86	$(5/2^+)$	2225.06
1.33	5.77	$(3/2^+,5/2^+)$	2209.77
0.056	7.16		2205.30
2.27	5.57	$(3/2^+,5/2)$	2193.60
2.38	5.67	$(5/2^+)$	2136.38
1.39	6.10	$(3/2^+)$	2025.41
10.41	5.70	$(5/2^+)$	1717.625
1.33	6.65	$(3/2^+)$	1671.426
3.54	6.36	$(1/2^+,3/2^-)$	1564.125
1.15	7.06	$(1/2^+,3/2^-)$	1373.685
13.0	6.05	$(5/2^+)$	1333.228
3.29	6.67	$(3/2^+,5/2)$	1312.797
		$(7/2^+)$	1307.187
		$(7/2^+)$	1239.83
		$9/2^+$	914.741
<0.2	>8.4	$(5/2^+)$	786.922
28.2	6.28	$(3/2^+)$	719.751
20.3	6.721	$(5/2^+)$	312.073
		$7/2^+$	0.0　20.83 h 8

Gamma transitions (labels):
2225.00 [M1] 3.6, 1912.91 [M1+E2] 1.9, 1505.2 [M1] 1.1, 1438 [M1+E2] 0.1, 1310.40 [E2] 2.2, 912.3 1.0, 851.37 5.0, 553.7 [M1] 1.0, 507.3 [M1+E2] 2.2, 199.6 [M1+E2] 0.6, 2210.2 11, 1897.59 1.7, 1489.88 1.9, 902.5 3.0, 645.6 6.3, 1893.21 0.9, 2193.65 9.1, 1881.52 19.5, 1473.74 5.1, 886.0 0.7, 880.7 1.0, 860.2 1.0, 2136.51 [M1] 30, 1824.25 [M1+E2] 6.4, 1416.9 [M1] 2.1, 1349.63 [M1+E2] 1.6, 1221.7 [E2] 0.3, 896.7 0.8, 829.2 [M1] 1.3, 823.9 1.3, 803.3 [M1+E2] 1.5, 762.8 [M1+E2] 2.1

$^{133}_{53}\text{I}_{80}$

^{133}Te β^- decay (12.5 min)   1983Hi03

Decay Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given

Legend

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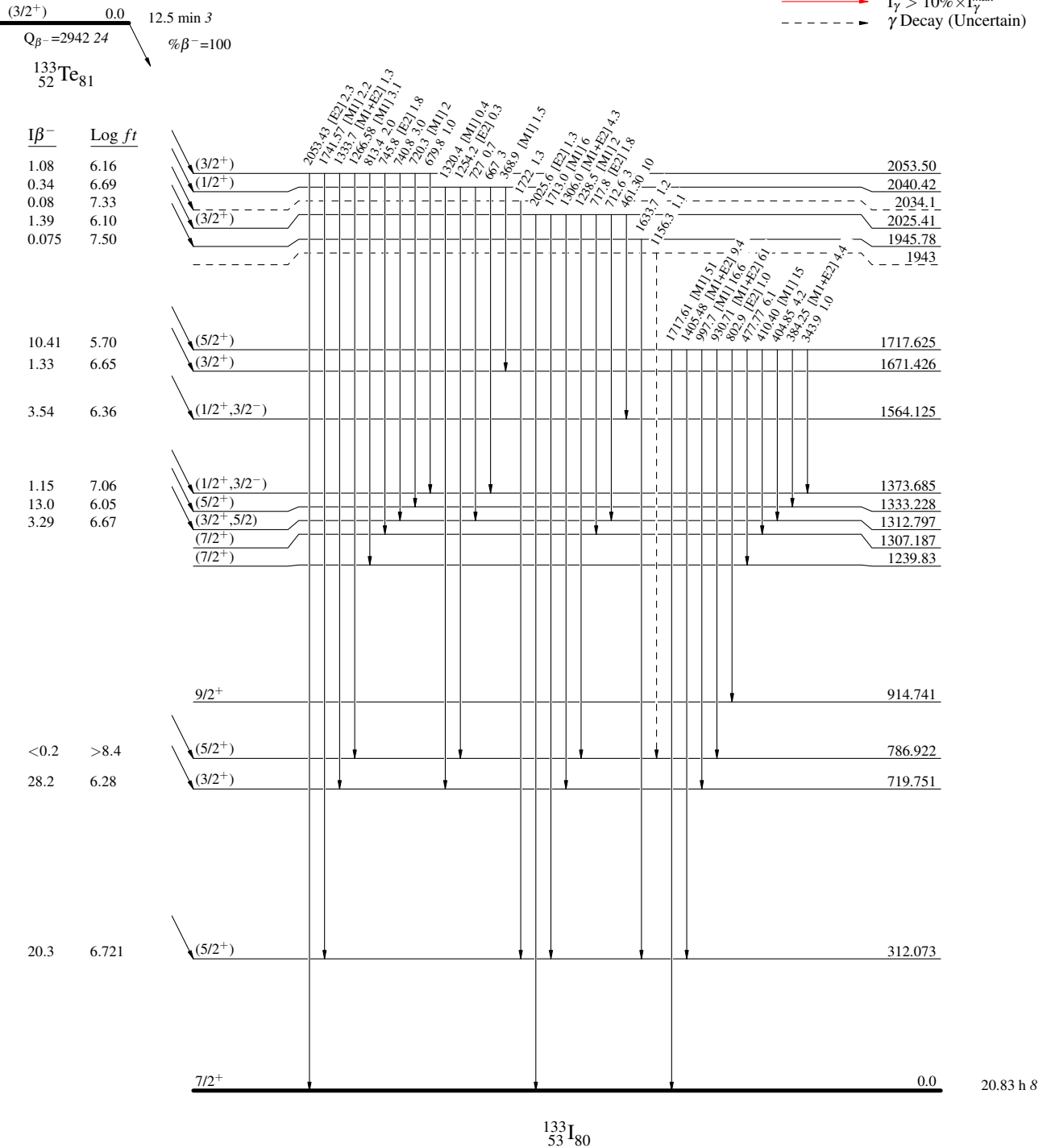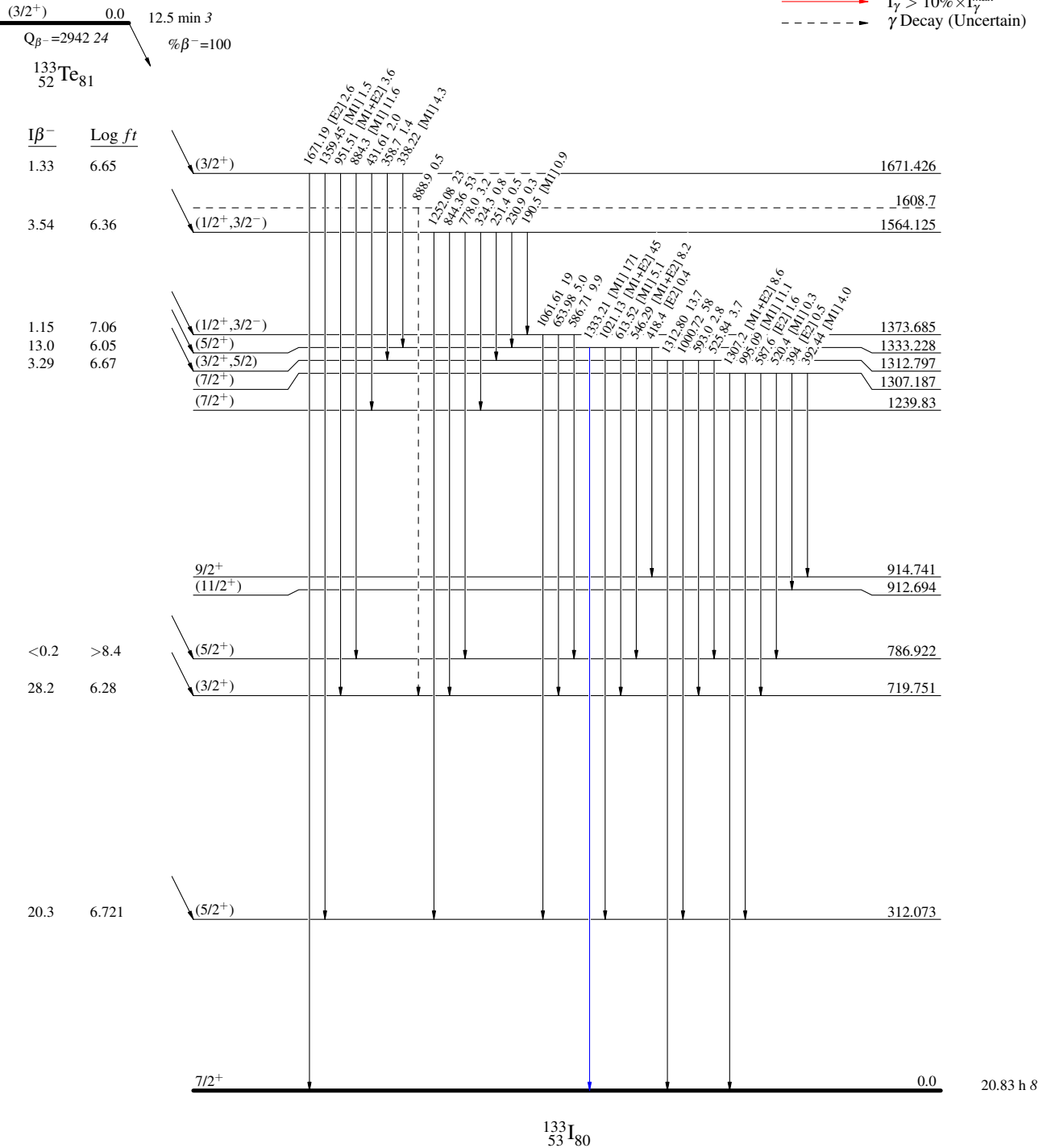→ $I_\gamma > 10\% \times I_\gamma^{max}$
⇢ γ Decay (Uncertain)

^{133}Te β^- **decay (12.5 min)**   **1983Hi03**

Decay Scheme (continued)

Intensities: Relative I$_\gamma$
& Multiply placed: undivided intensity given

Legend

→ I$_\gamma$ < 2%×I$_\gamma^{max}$
→ I$_\gamma$ < 10%×I$_\gamma^{max}$
→ I$_\gamma$ > 10%×I$_\gamma^{max}$
⇢ γ Decay (Uncertain)

^{133}Te β^- decay (12.5 min)　　1983Hi03

Decay Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given

Legend

I$_\gamma$ < 2%×I$_\gamma^{max}$
I$_\gamma$ < 10%×I$_\gamma^{max}$
I$_\gamma$ > 10%×I$_\gamma^{max}$