^{119}I ε decay 1990Ma55

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	D. M. Symochko, E. Browne, J. K. Tuli	NDS 110,2945 (2009)	1-Dec-2008

Parent: ^{119}I: E=0.0; J$^\pi$=5/2$^+$; T$_{1/2}$=19.1 min *4*; Q(ε)=3.42×10^3 *3*; %ε+%β$^+$ decay=100.0

Additional information 1.

1990Ma55: ^{92}Mo(^{32}S,3p2n)^{119}Cs, E(^{32}S)=175 MeV, on-line mass separation; semi γ, ce, γγ, γce coin; Si(Li) with mini-orange filter for ce measurements.

1970Sp03: La(p,spallation) E(p)=3 GeV, mass separation, chem; semi γ, γγ.

1968Se05: semi γ, γγ.

Others: β-strength function (1965An05,1975Ho03); γ, β$^+$, γβ$^+$ (1969La33).

The decay scheme is that proposed by 1990Ma55 on the basis of γγ and Eγ sums.

^{119}Te Levels

E(level)†	J$^\pi$‡	T$_{1/2}$‡	E(level)†	J$^\pi$‡
0.0	1/2$^+$	16.05 h *5*	1162.32 *9*	7/2$^-$,9/2$^-$
257.484 *21*	3/2$^+$		1184.80 *6*	5/2$^-$,7/2$^+$
260.96 *5*	11/2$^-$	4.70 d *4*	1197.13 *6*	(3/2$^+$)
320.507 *20*	5/2$^+$		1197.71 *7*	3/2$^-$,5/2,7/2
360.39 *3*	7/2$^+$		1201.50 *17*	(1/2,3/2,5/2$^+$)
467.96 *4*	9/2$^-$		1370.86 *6*	3/2$^-$,5/2$^+$
501.10 *4*	7/2$^-$		1373.29 *10*	
557.17 *3*	3/2$^+$,5/2$^+$		1445.61 *8*	3/2$^+$,5/2$^+$
635.86 *3*	5/2$^+$		1512.89 *7*	5/2$^+$
661.27 *4*	7/2$^-$		1528.31 *8*	(1/2$^+$,3/2,5/2$^+$)
669.31 *4*	7/2$^+$		1530.55 *3*	3/2$^+$,5/2$^+$
707.68 *5*	1/2$^+$		1624.25 *8*	3/2,5/2$^+$
723.99 *4*	3/2$^+$,5/2$^+$		1632.05 *15*	(1/2,3/2,5/2$^+$)
743.08 *6*	7/2$^-$,9/2$^-$		1674.23 *4*	5/2$^+$
766.8 *4*	5/2$^-$,7/2$^-$		1729.21 *6*	3/2,5/2$^+$
813.31 *4*	3/2$^+$,5/2$^+$		1739.05 *5*	3/2,5/2$^+$
877.45 *5*	3/2$^+$,5/2$^+$		1834.92 *5*	(5/2$^-$,7/2$^+$)
889.07 *3*	3/2$^+$,5/2$^+$		2024.55 *15*	3/2$^+$,5/2,7/2$^+$
964.21 *4*	3/2$^+$,5/2$^+$		2078.45 *7*	3/2$^+$,5/2$^+$
1003.99 *3*	1/2$^+$		2105.95 *5*	(3/2$^+$,5/2,7/2$^+$)
1104.87 *9*	(7/2$^+$,9/2$^+$)		2113.10 *10*	3/2$^+$,5/2,7/2$^+$
1113.57 *3*	5/2$^+$			

† E(levels) are based on a least-squares fit by the evaluators to the E(γ′s).
‡ From Adopted Levels.

ε,β$^+$ radiations

I(γ$^\pm$)/I(257.5γ)=0.80 *8* (1970Sp03), 0.49 *1* (1968Se05); %β$^+$=51 (1965An05), 19 *7* (1975Ho03).

E(decay)	E(level)	Iβ$^+$ ‡#	Iε†‡#	Log *ft*	I(ε+β$^+$)‡#	Comments
(1.31×10^3 *3*)	2113.10	0.00023 *19*	0.075 *7*	6.99 *6*	0.075 *7*	av Eβ=178 *28*; εK=0.8524 *20*; εL=0.1144 *5*; εM+=0.03025 *13*
(1.31×10^3 *3*)	2105.95	0.0008 *7*	0.256 *10*	6.46 *5*	0.257 *10*	av Eβ=181 *28*; εK=0.8522 *21*; εL=0.1143 *5*; εM+=0.03024 *14*
(1.34×10^3 *3*)	2078.45	0.0005 *4*	0.118 *6*	6.81 *5*	0.119 *6*	av Eβ=193 *28*; εK=0.851 *3*; εL=0.1141 *6*;

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^{119}I ε decay 1990Ma55 (continued)

ε,β+ radiations (continued)

E(decay)	E(level)	Iβ+ ‡#	Iε†‡#	Log ft	I(ε+β+)‡#	Comments
						εM+=0.03019 15
(1.40×10³ 3)	2024.55	0.00021 14	0.031 4	7.43 7	0.031 4	av Eβ=217 28; εK=0.849 4; εL=0.1137 7; εM+=0.03006 18
(1.59×10³ 3)	1834.92	0.008 3	0.302 12	6.54 5	0.310 12	av Eβ=299 28; εK=0.835 8; εL=0.1113 12; εM+=0.0294 4
(1.68×10³ 3)	1739.05	0.009 3	0.217 10	6.74 5	0.226 10	av Eβ=341 28; εK=0.822 11; εL=0.1094 16; εM+=0.0289 4
(1.69×10³ 3)	1729.21	0.0046 15	0.105 10	7.05 6	0.110 10	av Eβ=345 28; εK=0.820 11; εL=0.1091 16; εM+=0.0288 5
(1.75×10³ 3)	1674.23	0.031 10	0.56 9	6.36 8	0.59 9	av Eβ=369 28; εK=0.811 13; εL=0.1078 18; εM+=0.0285 5
(1.79×10³ 3)	1632.05	0.0034 10	0.051 7	7.42 7	0.054 7	av Eβ=388 28; εK=0.803 14; εL=0.1066 20; εM+=0.0282 5
(1.80×10³ 3)	1624.25	0.0018 5	0.026 4	7.71 8	0.028 4	av Eβ=391 28; εK=0.801 14; εL=0.1064 20; εM+=0.0281 6
(1.89×10³ 3)	1530.55	0.095 21	0.97 4	6.18 5	1.07 4	av Eβ=432 28; εK=0.780 17; εL=0.1034 23; εM+=0.0273 6
(1.89×10³ 3)	1528.31	0.0056 14	0.056 7	7.42 7	0.062 8	av Eβ=433 28; εK=0.779 17; εL=0.1034 23; εM+=0.0273 6
(1.91×10³ 3)	1512.89	0.0100 22	0.096 6	7.20 5	0.106 6	av Eβ=440 28; εK=0.776 17; εL=0.1028 24; εM+=0.0272 7
(1.97×10³ 3)	1445.61	0.011 2	0.082 10	7.29 7	0.093 11	av Eβ=470 28; εK=0.757 19; εL=0.100 3; εM+=0.0265 7
(2.05×10³ 3)	1373.29	0.013 3	0.082 8	7.33 6	0.095 9	av Eβ=502 28; εK=0.736 21; εL=0.097 3; εM+=0.0257 8
(2.05×10³ 3)	1370.86	0.014 3	0.087 6	7.30 5	0.101 7	av Eβ=503 28; εK=0.735 21; εL=0.097 3; εM+=0.0257 8
(2.22×10³ 3)	1201.50	0.010 4	0.037 14	7.74 18	0.047 18	av Eβ=578 28; εK=0.678 24; εL=0.090 4; εM+=0.0236 9
(2.22×10³ 3)	1197.71	0.042 10	0.16 3	7.11 10	0.20 4	av Eβ=579 28; εK=0.677 24; εL=0.089 4; εM+=0.0236 9
(2.22×10³ 3)	1197.13	0.034 5	0.125 8	7.21 5	0.159 8	av Eβ=580 28; εK=0.676 24; εL=0.089 4; εM+=0.0236 9
(2.24×10³ 3)	1184.80	0.028 4	0.100 8	7.31 5	0.128 9	av Eβ=585 28; εK=0.672 24; εL=0.089 4; εM+=0.0234 9
(2.26×10³ 3)	1162.32	0.017 5	0.057 14	7.56 12	0.074 18	av Eβ=595 29; εK=0.664 24; εL=0.088 4; εM+=0.0231 9
(2.31×10³ 3)	1113.57	0.164 19	0.500 25	6.64 5	0.664 21	av Eβ=617 29; εK=0.645 24; εL=0.085 4; εM+=0.0225 9
(2.32×10³ 3)	1104.87	0.013 2	0.039 3	7.75 6	0.052 4	av Eβ=621 29; εK=0.642 24; εL=0.085 4; εM+=0.0224 9
(2.46×10³ 3)	964.21	0.43 5	0.94 9	6.42 6	1.37 11	av Eβ=684 29; εK=0.588 25; εL=0.078 4; εM+=0.0205 9
(2.53×10³ 3)	889.07	0.36 3	0.68 4	6.59 5	1.04 5	av Eβ=718 29; εK=0.559 25; εL=0.074 4; εM+=0.0194 9
(2.54×10³ 3)	877.45	0.041 6	0.076 10	7.54 7	0.117 14	av Eβ=723 29; εK=0.554 25; εL=0.073 4; εM+=0.0193 9
(2.61×10³ 3)	813.31	0.193 16	0.313 19	6.95 5	0.506 20	av Eβ=752 29; εK=0.530 25; εL=0.070 4; εM+=0.0184 9
(2.65×10³ 3)	766.8	0.007 4	0.010 5	8.45 24	0.017 9	av Eβ=773 29; εK=0.512 24; εL=0.067 4; εM+=0.0178 9
(2.68×10³ 3)	743.08	0.049 4	0.069 5	7.62 5	0.118 7	av Eβ=783 29; εK=0.503 24; εL=0.066 4; εM+=0.0175 9
(2.70×10³ 3)	723.99	0.148 14	0.204 17	7.16 5	0.352 24	av Eβ=792 29; εK=0.496 24; εL=0.065 4; εM+=0.0172 9

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^{119}I ε decay 1990Ma55 (continued)

ε,β$^+$ radiations (continued)

E(decay)	E(level)	Iβ$^+$ ‡#	Iε†‡#	Log *ft*	I(ε+β$^+$)‡#	Comments
(2.75×10^3 *3*)	669.31	0.13 *2*	0.17 *2*	7.27 *6*	0.30 *3*	av Eβ=817 *29*; εK=0.476 *24*; εL=0.063 *3*; εM+=0.0165 *9*
(2.76×10^3 *3*)	661.27	0.152 *11*	0.186 *13*	7.22 *5*	0.338 *15*	av Eβ=821 *29*; εK=0.473 *24*; εL=0.062 *3*; εM+=0.0164 *9*
(2.78×10^3 *3*)	635.86	1.39 *9*	1.64 *10*	6.28 *5*	3.03 *10*	av Eβ=832 *29*; εK=0.463 *23*; εL=0.061 *3*; εM+=0.0161 *8*
(2.86×10^3 *3*)	557.17	0.44 *5*	0.45 *5*	6.87 *6*	0.89 *9*	av Eβ=868 *29*; εK=0.436 *23*; εL=0.057 *3*; εM+=0.0151 *8*
(2.92×10^3 *3*)	501.10	0.10 *3*	0.092 *25*	7.57 *13*	0.19 *5*	av Eβ=893 *29*; εK=0.416 *22*; εL=0.055 *3*; εM+=0.0144 *8*
(2.95×10^3 *3*)	467.96	0.038 *7*	0.102 *17*	9.08^{1u} *9*	0.140 *23*	av Eβ=924 *29*; εK=0.624 *19*; εL=0.084 *3*; εM+=0.0221 *7*
(3.06×10^3 *3*)	360.39	1.6 *14*	1.3 *10*	6.5 *4*	2.9 *24*	av Eβ=958 *29*; εK=0.371 *20*; εL=0.049 *3*; εM+=0.0129 *7*
(3.10×10^3 *3*)	320.507	≤1.5	≤1.0	≥6.6	≤2.5	av Eβ=976 *29*; εK=0.359 *20*; εL=0.047 *3*; εM+=0.0124 *7*
(3.16×10^3 *3*)	257.484	50.4 *24*	33.3 *21*	5.08 *5*	83.7 *25*	av Eβ=1005 *29*; εK=0.341 *19*; εL=0.0447 *25*; εM+=0.0118 *7*

† Values are from transition intensity balance.
‡ Intensity per 100 decays.
# Absolute intensity per 100 decays.

γ(^{119}Te)

Iγ normalization: From Σ Ti(to g.s.)+ Σ Ti(to 261 level)=100 if Iβ(to g.s.)=0 and I(ε+β$^+$)(to 261 level)=0.

E_γ[‡]	I_γ[c]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[@]	δ[&]	α[†#]	Comments
39.95 *5*	0.138 *7*	360.39	7/2$^+$	320.507	5/2$^+$	[M1+E2]		29 *20*	α(K)=10.3 *21*; α(L)=15 *14*; α(M)=3 *3*; α(N+..)=0.6 *6* α: intensity balances at the 360 and 320 levels give α=17 *7*.
63.09 *4*	1.23 *6*	320.507	5/2$^+$	257.484	3/2$^+$	(M1+E2)	+0.12 *12*	2.6 *3*	α(K)=2.23 *11*; α(L)=0.33 *13*; α(M)=0.07 *3*; α(N+..)=0.014 *6* Mult.: from (α,2nγ).
78.5 *3*	0.013 *6*	635.86	5/2$^+$	557.17	3/2$^+$,5/2$^+$	[M1,E2]		2.714	α(K)=1.8 *7*; α(L)=0.7 *6*; α(M)=0.14 *12*; α(N+..)=0.029 *23*
160.18 *7*	0.072 *5*	661.27	7/2$^-$	501.10	7/2$^-$	[M1,E2]		0.25 *7*	α(K)=0.20 *5*; α(L)=0.038 *19*; α(M)=0.008 *4*; α(N+..)=0.0017 *8*
193.34 *7*	0.052 *6*	661.27	7/2$^-$	467.96	9/2$^-$	[M1,E2]		0.14 *3*	α(K)=0.115 *21*; α(L)=0.019 *8*; α(M)=0.0039 *16*; α(N+..)=0.0008 *3*
206.95 *5*	0.35 *2*	467.96	9/2$^-$	260.96	11/2$^-$	(M1+E2)	−0.235 *35*	0.0932 *15*	α(K)=0.0800 *13*; α(L)=0.01057 *23*; α(M)=0.00212 *5*; α(N+..)=0.000462 *10* Mult.: from (α,2nγ).
[x]214.72 *7*	0.060 *4*								
240.20 *5*	0.62 *3*	501.10	7/2$^-$	260.96	11/2$^-$	[E2]		0.0804	α(K)=0.0659 *10*; α(L)=0.01168 *17*; α(M)=0.00238 *4*; α(N+..)=0.000501 *7*
253.10 *5*	0.12 *3*	889.07	3/2$^+$,5/2$^+$	635.86	5/2$^+$	[M1,E2]		0.060 *8*	α(K)=0.051 *5*; α(L)=0.0077 *19*; α(M)=0.0016 *4*; α(N+..)=0.00033 *8*
257.52 *4*	100 *2*	257.484	3/2$^+$	0.0	1/2$^+$	M1+E2	+0.17 *6*	0.0512	α(K)exp=0.046 *3* α(K)=0.0442 *7*; α(L)=0.00567 *11*; α(M)=0.001132 *23*; α(N+..)=0.000248 *5* K:L:M=100 *6*:13.3 *6*:2.94 *18*. ΔIγ=2 estimated by evaluators.
275.0 *1*	0.034 *4*	743.08	7/2$^-$,9/2$^-$	467.96	9/2$^-$				
280.0[a] *1*	0.008[a] *4*	1003.99	1/2$^+$	723.99	3/2$^+$,5/2$^+$				
294.93 *6*	0.106 *7*	964.21	3/2$^+$,5/2$^+$	669.31	7/2$^+$				
298.8 *4*	0.02 *1*	766.8	5/2$^-$,7/2$^-$	467.96	9/2$^-$				
299.6 *2*	0.07 *2*	557.17	3/2$^+$,5/2$^+$	257.484	3/2$^+$				
301.0 *1*	0.031 *4*	661.27	7/2$^-$	360.39	7/2$^+$				
308.95 *6*	0.106 *6*	669.31	7/2$^+$	360.39	7/2$^+$	M1+E2+E0		0.0334[b] *18*	α(K)exp=0.056 *22*; α(L)exp=0.0051 *13* α(K)=0.0283 *11*; α(L)=0.0041 *7*; α(M)=0.00082 *14*; α(N+..)=0.00018 *3*
315.40 *5*	0.29 *1*	635.86	5/2$^+$	320.507	5/2$^+$	M1+E2+E0		0.0314[b] *15*	α(K)exp=0.061 *9* α(K)=0.0267 *9*; α(L)=0.0038 *6*; α(M)=0.00077 *12*; α(N+..)=0.000165 *23*
320.53 *4*	2.5 *1*	320.507	5/2$^+$	0.0	1/2$^+$	E2		0.0312	α(K)exp=0.028 *2*; K/L=6.0 *11*

$^{119}_{52}$Te$_{67}$-4

γ(^{119}Te) (continued)

E_γ[‡]	I_γ[c]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[@]	δ[&]	α[†#]	Comments
									α(K)=0.0261 *4*; α(L)=0.00412 *6*; α(M)=0.000834 *12*; α(N+..)=0.0001776 *25*
332.1 *1*	0.04 *1*	889.07	3/2$^+$,5/2$^+$	557.17	3/2$^+$,5/2$^+$				
340.76 *5*	0.27 *1*	661.27	7/2$^-$	320.507	5/2$^+$				
348.82 *5*	0.44 *2*	669.31	7/2$^+$	320.507	5/2$^+$	M1+E2	−0.27 *25*	0.0232	α(K)exp=0.018 *4* α(K)=0.0200 *3*; α(L)=0.00255 *9*; α(M)=0.000509 *19*; α(N+..)=0.000112 *4*
363.57 *6*	0.162 *8*	723.99	3/2$^+$,5/2$^+$	360.39	7/2$^+$				
378.40 *5*	0.46 *2*	635.86	5/2$^+$	257.484	3/2$^+$	(M1+E2)		0.0187	α(K)exp=0.012 *5* α(K)=0.0160 *4*; α(L)=0.00219 *16*; α(M)=0.00044 *4*; α(N+..)=9.5×10^{-5} *7*
382.75 *7*	0.074 *5*	743.08	7/2$^-$,9/2$^-$	360.39	7/2$^+$				
389.59 *7*	0.098 *6*	1113.57	5/2$^+$	723.99	3/2$^+$,5/2$^+$				
403.51 *5*	0.38 *2*	723.99	3/2$^+$,5/2$^+$	320.507	5/2$^+$	(M1)		0.01602	α(K)exp=0.014 *3* α(K)=0.01387 *20*; α(L)=0.001732 *25*; α(M)=0.000345 *5*; α(N+..)=7.58×10^{-5} *11*
406.93 *6*	0.129 *7*	964.21	3/2$^+$,5/2$^+$	557.17	3/2$^+$,5/2$^+$				
411.53 *8*	0.050 *4*	669.31	7/2$^+$	257.484	3/2$^+$				
414.6 *1*	0.019 *4*	1528.31	(1/2$^+$,3/2,5/2$^+$)	1113.57	5/2$^+$				
417.2 *1*	0.031 *5*	1530.55	3/2$^+$,5/2$^+$	1113.57	5/2$^+$				
444.2 *1*	0.021 *3*	1113.57	5/2$^+$	669.31	7/2$^+$				
446.81 *6*	0.103 *6*	1003.99	1/2$^+$	557.17	3/2$^+$,5/2$^+$				
452.39 *8*	0.06 *1*	1113.57	5/2$^+$	661.27	7/2$^-$				
466.8 *2*	0.021 *4*	723.99	3/2$^+$,5/2$^+$	257.484	3/2$^+$				
477.76 *7*	0.056 *5*	1113.57	5/2$^+$	635.86	5/2$^+$				
482.1 *1*	0.028 *3*	743.08	7/2$^-$,9/2$^-$	260.96	11/2$^-$				
484.2 *1*	0.030 *3*	1373.29		889.07	3/2$^+$,5/2$^+$				
492.9 *3*	0.04 *2*	1162.32	7/2$^-$,9/2$^-$	669.31	7/2$^+$				
493.8 *3*	0.04 *2*	1201.50	(1/2,3/2,5/2$^+$)	707.68	1/2$^+$				
524.5 *1*	0.030 *3*	1528.31	(1/2$^+$,3/2,5/2$^+$)	1003.99	1/2$^+$				
526.15[e] *8*	0.075 *5*	1530.55	3/2$^+$,5/2$^+$	1003.99	1/2$^+$				
528.73 *9*	0.10 *1*	889.07	3/2$^+$,5/2$^+$	360.39	7/2$^+$				
[x]537.6 *2*	0.036 *6*								
555.89 *7*	0.22 *1*	813.31	3/2$^+$,5/2$^+$	257.484	3/2$^+$				
557.2 *1*	0.12 *1*	877.45	3/2$^+$,5/2$^+$	320.507	5/2$^+$				
557.24 *5*	2.04 *9*	557.17	3/2$^+$,5/2$^+$	0.0	1/2$^+$				
566.5 *2*	0.032 *5*	1530.55	3/2$^+$,5/2$^+$	964.21	3/2$^+$,5/2$^+$				
568.7 *1*	0.23 *1*	889.07	3/2$^+$,5/2$^+$	320.507	5/2$^+$				
[x]586.9 *2*	0.017 *3*								
603.76 *8*	0.060 *4*	1104.87	(7/2$^+$,9/2$^+$)	501.10	7/2$^-$				
[x]605.8 *2*	0.014 *3*								
612.44 *5*	0.19 *1*	1113.57	5/2$^+$	501.10	7/2$^-$				
615.5 *1*	0.031 *6*	1729.21	3/2,5/2$^+$	1113.57	5/2$^+$				

From ENSDF

γ(^{119}Te) (continued)

E$_\gamma$[‡]	I$_\gamma$[c]	E$_i$(level)	J$^\pi_i$	E$_f$	J$^\pi_f$	Mult.[@]	α[†#]	Comments
620.00 *7*	0.09 *1*	877.45	3/2$^+$,5/2$^+$	257.484	3/2$^+$			
631.70 *6*	0.74 *4*	889.07	3/2$^+$,5/2$^+$	257.484	3/2$^+$	(M1)	0.00533 *8*	α(K)exp=0.0045 *9* α(K)=0.00463 *7*; α(L)=0.000570 *8*; α(M)=0.0001132 *16*; α(N+..)=2.49×10^{-5} *4*
635.86 *5*	3.1 *1*	635.86	5/2$^+$	0.0	1/2$^+$	E2	0.00426 *6*	α(K)exp=0.0032 *3* α(K)=0.00365 *6*; α(L)=0.000488 *7*; α(M)=9.75×10^{-5} *14*; α(N+..)=2.12×10^{-5} *3*
643.8[a] *1*	0.24[a] *4*	964.21	3/2$^+$,5/2$^+$	320.507	5/2$^+$			
653.4 *1*	0.028 *4*	1530.55	3/2$^+$,5/2$^+$	877.45	3/2$^+$,5/2$^+$			
660.05 *9*	0.011 *1*	1624.25	3/2,5/2$^+$	964.21	3/2$^+$,5/2$^+$			
661.23 *9*	0.026 *4*	1162.32	7/2$^-$,9/2$^-$	501.10	7/2$^-$			
663.20 *9*	0.024 *3*	1370.86	3/2$^-$,5/2$^+$	707.68	1/2$^+$			
^{x}664.72 *9*	0.012 *1*							
683.54 *6*	0.21 *1*	1003.99	1/2$^+$	320.507	5/2$^+$			
^{x}695.5 *5*	0.05 *5*							
696.3 *6*	0.04 *4*	1197.71	3/2$^-$,5/2,7/2	501.10	7/2$^-$			
706.74 *6*	1.13 *6*	964.21	3/2$^+$,5/2$^+$	257.484	3/2$^+$			
707.67 *9*	0.25 *4*	707.68	1/2$^+$	0.0	1/2$^+$			α(K)exp=0.0023 *4* α(K)exp: for the 706.7γ+707.7γ.
709.9 *1*	0.1 *1*	1674.23	5/2$^+$	964.21	3/2$^+$,5/2$^+$	M1+E2+E0	0.0036[b] *5*	α(K)exp>0.0134 α(K)=0.0031 *4*; α(L)=0.00040 *4*; α(M)=7.9×10^{-5} *7*; α(N+..)=1.73×10^{-5} *16* α(K)exp value of 0.0134 *5* in authors′ table is a misprint (priv. comm. from first author of 1990Ma55).
^{x}713.6 *2*	0.011 *4*							
716.77 *7*	0.058 *5*	1184.80	5/2$^-$,7/2$^+$	467.96	9/2$^-$			
^{x}718.9 *2*	0.012 *4*							
721.8 *2*	0.022 *7*	1445.61	3/2$^+$,5/2$^+$	723.99	3/2$^+$,5/2$^+$			
724.1 *1*	0.08 *1*	723.99	3/2$^+$,5/2$^+$	0.0	1/2$^+$			
725.5 *2*	0.034 *6*	1729.21	3/2,5/2$^+$	1003.99	1/2$^+$			
^{x}733.2 *2*	0.026 *6*							
735.0 *2*	0.028 *6*	1739.05	3/2,5/2$^+$	1003.99	1/2$^+$			
^{x}741.1 *1*	0.025 *4*							
746.52 *5*	0.180 *9*	1003.99	1/2$^+$	257.484	3/2$^+$			
753.11 *6*	0.150 *8*	1113.57	5/2$^+$	360.39	7/2$^+$			
^{x}781.7 *2*	0.028 *6*							
785.11 *8*	0.063 *4*	1674.23	5/2$^+$	889.07	3/2$^+$,5/2$^+$			
793.10 *7*	0.125 *7*	1113.57	5/2$^+$	320.507	5/2$^+$			
^{x}799.7 *5*	0.006 *3*							
806.62 *7*	0.096 *6*	1530.55	3/2$^+$,5/2$^+$	723.99	3/2$^+$,5/2$^+$			
813.27 *5*	0.40 *2*	813.31	3/2$^+$,5/2$^+$	0.0	1/2$^+$			
820.3 *3*	0.022 *7*	1528.31	(1/2$^+$,3/2,5/2$^+$)	707.68	1/2$^+$			
822.9 *1*	0.054 *9*	1530.55	3/2$^+$,5/2$^+$	707.68	1/2$^+$			

γ(^{119}Te) (continued)

E_γ[‡]	I_γ[c]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[@]	Comments
840.3 *1*	0.023 *4*	1729.21	3/2,5/2$^+$	889.07	3/2$^+$,5/2$^+$		
^{x}852.2 *2*	0.022 *4*						
855.94 *7*	0.083 *5*	1113.57	5/2$^+$	257.484	3/2$^+$		
860.9[d] *1*	0.036[d] *4*	1530.55	3/2$^+$,5/2$^+$	669.31	7/2$^+$		
860.9[d] *1*	0.036[d] *4*	1674.23	5/2$^+$	813.31	3/2$^+$,5/2$^+$		
864.41 *9*	0.077 *8*	1184.80	5/2$^-$,7/2$^+$	320.507	5/2$^+$		
869.97 *9*	0.045 *4*	1370.86	3/2$^-$,5/2$^+$	501.10	7/2$^-$		
877.20 *6*	0.19 *1*	1197.71	3/2$^-$,5/2,7/2	320.507	5/2$^+$		
^{x}884.9 *2*	0.012 *3*						
889.00 *6*	0.118 *6*	889.07	3/2$^+$,5/2$^+$	0.0	1/2$^+$		
^{x}892.3 *2*	0.013 *3*						
901.3 *2*	0.019 *4*	1162.32	7/2$^-$,9/2$^-$	260.96	11/2$^-$		
^{x}906.7 *3*	0.010 *3*						
927.2 *2*	0.013 *3*	1184.80	5/2$^-$,7/2$^+$	257.484	3/2$^+$		
^{x}930.8 *1*	0.031 *3*						
939.64 *6*	0.161 *8*	1197.13	(3/2$^+$)	257.484	3/2$^+$	M1+E2+E0	α(K)exp=0.005 *3* ce(K)/(γ+ce)=0.00163 *20*; ce(L)/(γ+ce)=0.000202 *21*; ce(M)/(γ+ce)=4.0×10^{-5} *4*; ce(N+)/(γ+ce)=8.8×10^{-6}
946.0 *2*	0.022 *3*	1834.92	(5/2$^-$,7/2$^+$)	889.07	3/2$^+$,5/2$^+$		
955.7 *1*	0.057 *5*	1512.89	5/2$^+$	557.17	3/2$^+$,5/2$^+$		
957.5 *1*	0.047 *4*	1834.92	(5/2$^-$,7/2$^+$)	877.45	3/2$^+$,5/2$^+$		
964.2 *1*	0.12 *1*	964.21	3/2$^+$,5/2$^+$	0.0	1/2$^+$		
967.0 *2*	0.10 *2*	1674.23	5/2$^+$	707.68	1/2$^+$		
973.37 *5*	0.54 *3*	1530.55	3/2$^+$,5/2$^+$	557.17	3/2$^+$,5/2$^+$		
1003.97 *6*	0.59 *3*	1003.99	1/2$^+$	0.0	1/2$^+$	M1(+E0)	α(K)exp=0.0020 *7*
^{x}1019.1 *2*	0.018 *5*						
1038.5 *1*	0.089 *7*	1674.23	5/2$^+$	635.86	5/2$^+$	M1+E2+E0	α(K)exp=0.014 *5* ce(K)/(γ+ce)=0.00130 *16*; ce(L)/(γ+ce)=0.000160 *17*; ce(M)/(γ+ce)=3.2×10^{-5} *4*; ce(N+)/(γ+ce)=7.0×10^{-6}
^{x}1040.3 *2*	0.035 *4*						
1050.11 *9*	0.048 *5*	1370.86	3/2$^-$,5/2$^+$	320.507	5/2$^+$		
1074.4 *2*	0.016 *3*	2078.45	3/2$^+$,5/2$^+$	1003.99	1/2$^+$		
^{x}1083.7 *4*	0.010 *3*						
1085.3 *2*	0.021 *4*	1445.61	3/2$^+$,5/2$^+$	360.39	7/2$^+$		
^{x}1095.1 *3*	0.012 *4*						
^{x}1097.0 *2*	0.016 *3*						
1103.3 *1*	0.058 *4*	1739.05	3/2,5/2$^+$	635.86	5/2$^+$		
1113.7 *1*	0.064 *5*	1113.57	5/2$^+$	0.0	1/2$^+$		
1115.9 *2*	0.08 *1*	1373.29		257.484	3/2$^+$		
1117.3 *4*	0.03 *1*	1674.23	5/2$^+$	557.17	3/2$^+$,5/2$^+$		
^{x}1121.1 *2*	0.08 *2*						
^{x}1146.3 *4*	0.014 *5*						
1152.5 *2*	0.027 *3*	1512.89	5/2$^+$	360.39	7/2$^+$		

γ(^{119}Te) (continued)

$E_γ$[‡]	$I_γ$[c]	E_i(level)	$J^π_i$	E_f	$J^π_f$
x1184.1 *2*	0.019 *7*				
1188.0 *1*	0.030 *8*	1445.61	3/2+,5/2+	257.484	3/2+
1197.1 *2*	0.022 *4*	1197.13	(3/2+)	0.0	1/2+
1199.1 *2*	0.030 *4*	1834.92	(5/2−,7/2+)	635.86	5/2+
1201.5 *2*	0.014 *3*	1201.50	(1/2,3/2,5/2+)	0.0	1/2+
1210.04 *6*	0.20 *1*	1530.55	3/2+,5/2+	320.507	5/2+
1217.0 *2*	0.023 *4*	2105.95	(3/2+,5/2,7/2+)	889.07	3/2+,5/2+
x1226.6 *2*	0.015 *3*				
1255.4 *1*	0.038 *3*	1512.89	5/2+	257.484	3/2+
x1270.0 *1*	0.034 *3*				
1273.06 *6*	0.161 *8*	1530.55	3/2+,5/2+	257.484	3/2+
1277.9 *1*	0.021 *3*	1834.92	(5/2−,7/2+)	557.17	3/2+,5/2+
1303.7 *2*	0.009 *3*	1624.25	3/2,5/2+	320.507	5/2+
x1334.4 *7*	0.080 *4*				
x1335.60 *9*	0.049 *3*				
1353.72 *5*	0.23 *1*	1674.23	5/2+	320.507	5/2+
1366.93 *9*	0.050 *4*	1834.92	(5/2−,7/2+)	467.96	9/2−
1370.66 *8*	0.071 *1*	2078.45	3/2+,5/2+	707.68	1/2+
1374.6 *2*	0.033 *7*	1632.05	(1/2,3/2,5/2+)	257.484	3/2+
1382.0 *2*	0.019 *4*	2105.95	(3/2+,5/2,7/2+)	723.99	3/2+,5/2+
1418.51 *6*	0.141 *7*	1739.05	3/2,5/2+	320.507	5/2+
1436.5 *1*	0.029 *3*	2105.95	(3/2+,5/2,7/2+)	669.31	7/2+
1444.1 *2*	0.032 *5*	2113.10	3/2+,5/2,7/2+	669.31	7/2+
1445.8 *2*	0.034 *5*	1445.61	3/2+,5/2+	0.0	1/2+
1470.3 *1*	0.039 *4*	2105.95	(3/2+,5/2,7/2+)	635.86	5/2+
1477.4 *2*	0.016 *4*	2113.10	3/2+,5/2,7/2+	635.86	5/2+
1481.5 *1*	0.034 *4*	1739.05	3/2,5/2+	257.484	3/2+
x1503.94 *7*	0.093 *5*				
1514.25 *9*	0.16 *1*	1834.92	(5/2−,7/2+)	320.507	5/2+
1530.28 *9*	0.058 *4*	1530.55	3/2+,5/2+	0.0	1/2+
1548.81 *7*	0.101 *6*	2105.95	(3/2+,5/2,7/2+)	557.17	3/2+,5/2+
1556.4 *2*	0.014 *3*	2113.10	3/2+,5/2,7/2+	557.17	3/2+,5/2+
x1568.0 *3*	0.015 *3*				
1577.2 *2*	0.027 *4*	1834.92	(5/2−,7/2+)	257.484	3/2+
x1613.9 *1*	0.035 *3*				
1624.2 *2*	0.012 *2*	1624.25	3/2,5/2+	0.0	1/2+
1632.0 *2*	0.029 *3*	1632.05	(1/2,3/2,5/2+)	0.0	1/2+
x1649.8 *2*	0.025 *3*				
1664.2 *2*	0.019 *3*	2024.55	3/2+,5/2,7/2+	360.39	7/2+
1674.1 *1*	0.035 *4*	1674.23	5/2+	0.0	1/2+
x1681.5 *1*	0.040 *4*				
x1685.4 *2*	0.013 *2*				
x1696.6 *1*	0.038 *3*				
1718.2 *1*	0.029 *4*	2078.45	3/2+,5/2+	360.39	7/2+
x1724.7 *2*	0.015 *3*				
1729.1 *1*	0.039 *5*	1729.21	3/2,5/2+	0.0	1/2+
1767.0 *2*	0.017 *2*	2024.55	3/2+,5/2,7/2+	257.484	3/2+
x1770.0 *2*	0.015 *2*				
x1776.0 *3*	0.010 *2*				
x1781.6 *2*	0.016 *2*				
1785.33 *7*	0.086 *5*	2105.95	(3/2+,5/2,7/2+)	320.507	5/2+
1791.8 *2*	0.011 *2*	2113.10	3/2+,5/2,7/2+	320.507	5/2+
1821.2 *3*	0.021 *4*	2078.45	3/2+,5/2+	257.484	3/2+
x1823.1 *7*	0.006 *4*				
x1829.1 *3*	0.010 *2*				
x1844.0 *2*	0.022 *3*				
1855.1 *3*	0.014 *2*	2113.10	3/2+,5/2,7/2+	257.484	3/2+
x1874.4 *2*	0.023 *3*				

[†] Additional information 2.
[‡] From 1990Ma55.
[#] α(K)exp are normalized to α(K)(257.5γ)=0.0464 *18*, as determined from mult=M1+E2 with δ=+0.17 *6* from (α,2nγ).
[@] From α(K)exp, subshell ratio (1990Ma55), except as noted.
[&] From Adopted Levels.
[a] From coincidence spectra.
[b] α(K)exp have a value larger than the theoretical range for M1+E2 multipolarities. This suggests E0 contribution.
[c] For absolute intensity per 100 decays, multiply by 0.863 *16*.
[d] Multiply placed with undivided intensity.

$^{119}_{52}$Te$_{67}$-8

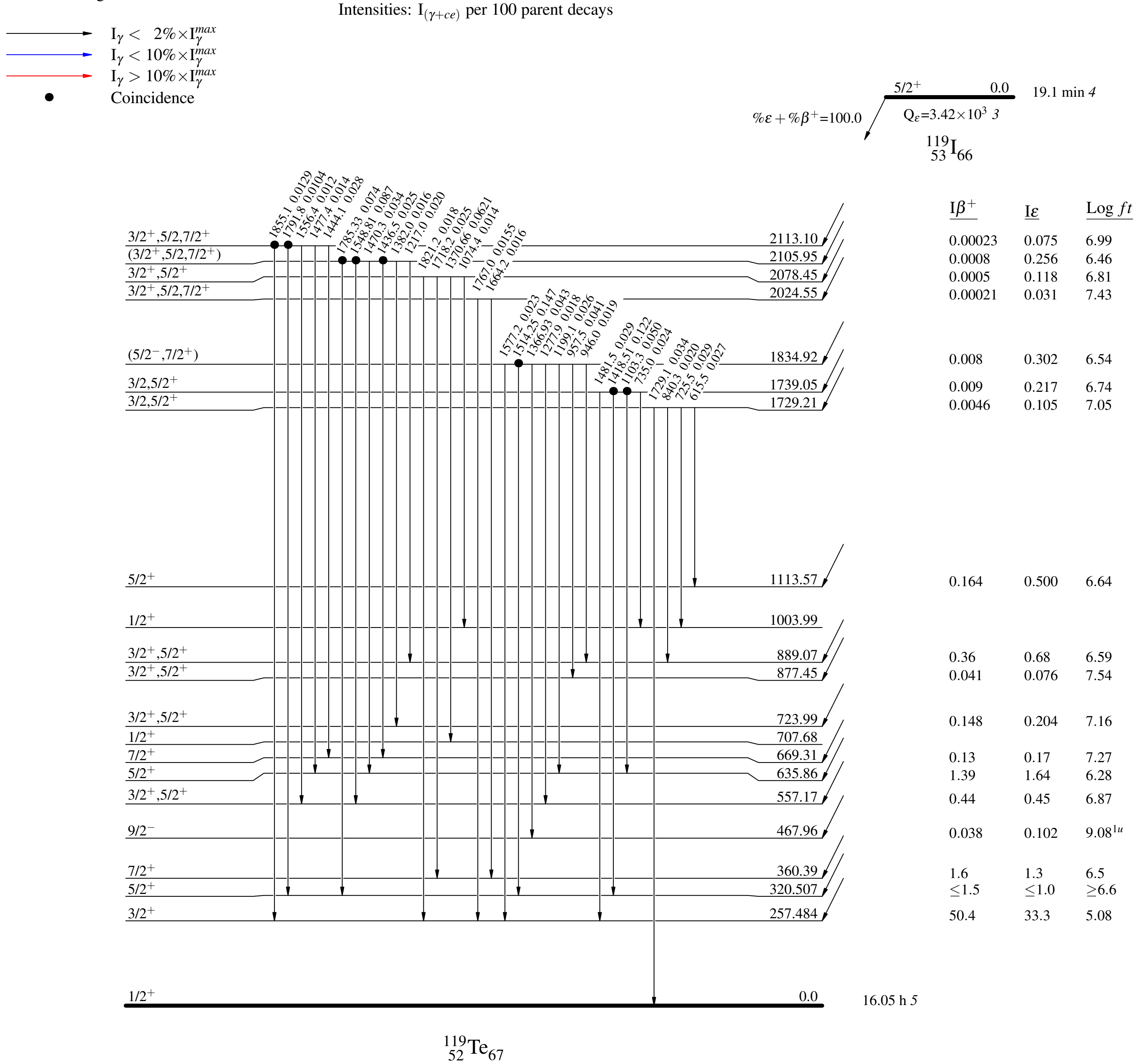
γ(^{119}Te) (continued)

[e] Placement of transition in the level scheme is uncertain.
[x] γ ray not placed in level scheme.

$^{119}I\ \varepsilon$ decay 1990Ma55

Decay Scheme

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays

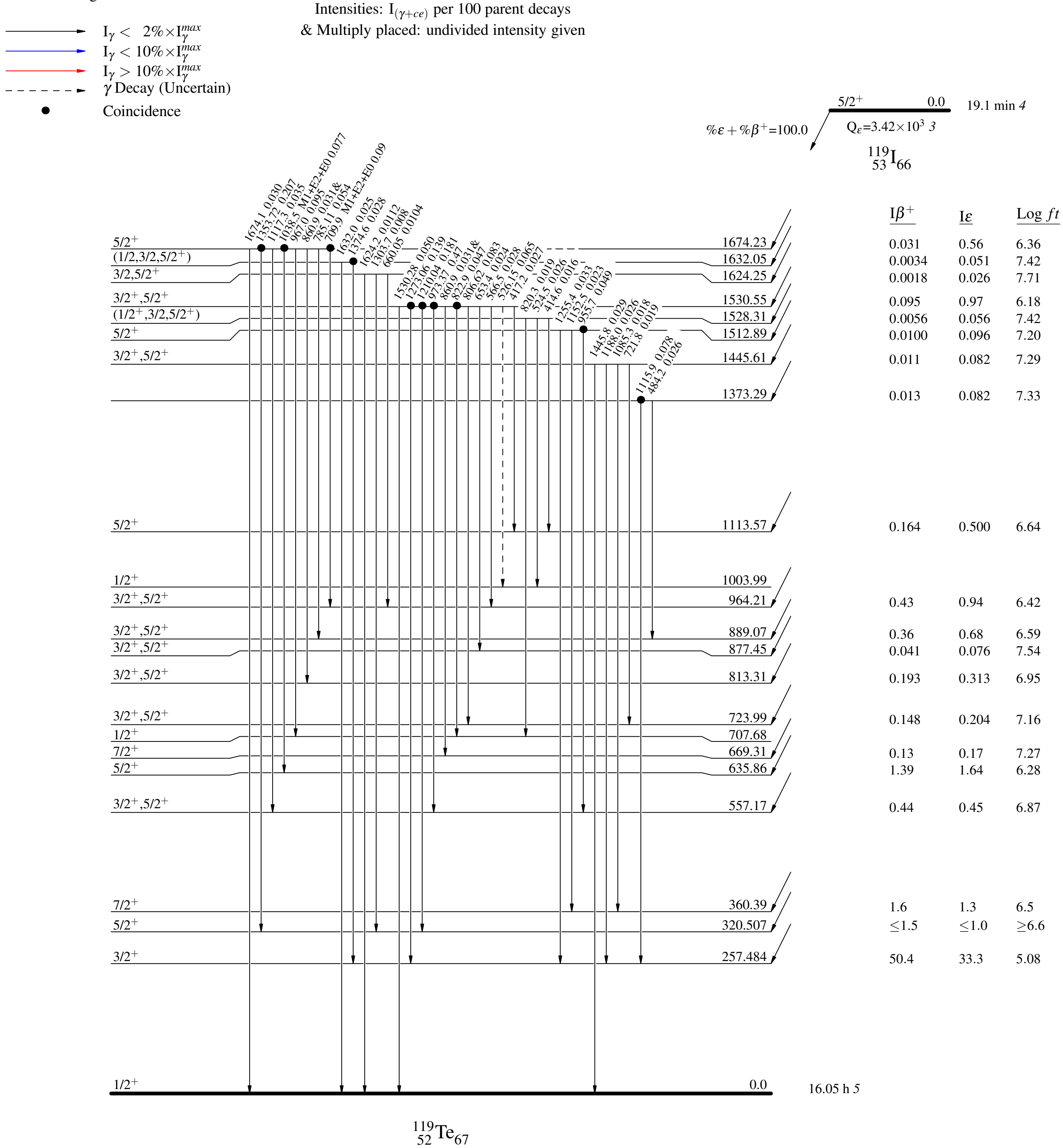


^{119}I ε decay 1990Ma55

Decay Scheme (continued)

Legend

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays
& Multiply placed: undivided intensity given



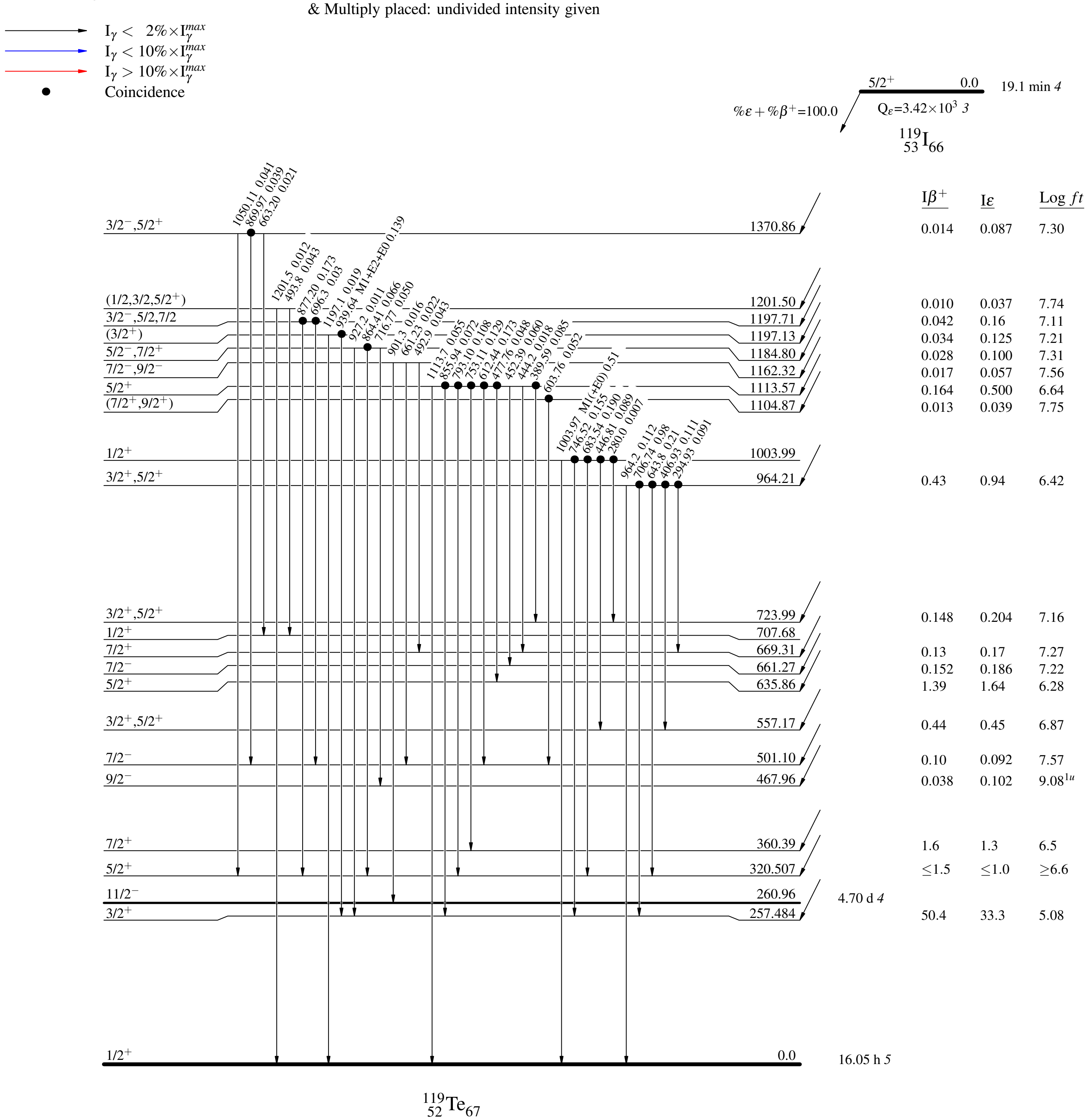
^{119}I ε decay 1990Ma55

Decay Scheme (continued)

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays

& Multiply placed: undivided intensity given

Legend



^{119}I ε decay 1990Ma55

Decay Scheme (continued)