^{72}Kr ε decay 2003Pi03

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	D. Abriola(a), A. A. Sonzogni	NDS 111,1 (2010)	1-May-2009

Parent: ^{72}Kr: E=0; J$^{\pi}$=0^{+}; T$_{1/2}$=17.1 s *2*; Q(ε)=5129 *10*; %ε+%β^{+} decay=100.0

^{72}Kr-%ε+%β^{+} decay: %εp<1×10^{-4}.

Measured Eγ, Iγ, γγ, βγγ coin, T$_{1/2}$ of ^{72}Kr isotope using two HPGe detectors, and a tape transport system connected with a HPGe γ-counter and a Si(Li) detector.

Others: 1973Da22, 1973Sc17, 1980DaZO.

^{72}Br Levels

E(level)[†]	J$^{\pi}$	T$_{1/2}$[‡]	E(level)[†]	J$^{\pi}$	E(level)[†]	J$^{\pi}$
0.0	1^{+}	78.6 s *24*	509.7 *3*	1	1173.2 *3*	1$^{(+)}$
101.14 *19*	(3^{-})	10.6 s *3*	545.58 *13*		1322.8 *4*	1$^{(+)}$
124.22 *9*	1		575.83 *12*	1^{+}	1386.08 *15*	1^{+}
131.70 *21*	(2^{-})		576.79 *21*	1^{+}	1604.93 *20*	1^{+}
162.72 *7*			682.4 *4*	1$^{(+)}$	1703.8 *4*	1^{+}
218.79 *19*	1$^{(-)}$		707.97 *17*	1	1772.05 *18*	1^{+}
309.92 *7*	1^{+}		722.13 *15*	1$^{(+)}$	1799.5 *3*	1^{+}
313.75 *21*	1		755.57 *23*	1^{+}	1835.53 *18*	1^{+}
328.52 *12*	1		795.89 *14*		1943.5? *7*	1
379.10 *22*	1		901.99 *19*	1^{+}	1950.0? *7*	1
392.70 *15*			939.27 *15*	1^{+}	1988.4? *10*	1
398.39 *12*	(2)		1027.80 *18*	1^{+}	3304.9? *10*	1^{+}
415.15 *9*	1^{+}		1154.30 *19*	1		

† From least-squares fit to Eγ′s.

‡ from Adopted Levels.

ε,β^{+} radiations

E(decay)	E(level)	Iβ^{+} [†]	Iε[†]	Log *ft*	I(ε+β^{+})[†]	Comments
(1824[‡] *10*)	3304.9?	0.038 *5*	0.116 *16*	4.53 *6*	0.154 *21*	av Eβ=348.6 *44*; εK=0.664 *7*; εL=0.0766 *8*; εM+=0.01535 *17*
(3141[‡] *10*)	1988.4?	0.022 *4*	0.0030 *6*	6.60 *9*	0.025 *5*	av Eβ=941.3 *47*; εK=0.1044 *14*; εL=0.01198 *16*; εM+=0.00240 *4*
(3179[‡] *10*)	1950.0?	0.036 *7*	0.0046 *9*	6.41 *9*	0.041 *8*	av Eβ=959.1 *47*; εK=0.0994 *13*; εL=0.01140 *15*; εM+=0.00228 *3*
(3186[‡] *10*)	1943.5?	0.054 *11*	0.0068 *14*	6.25 *9*	0.061 *12*	av Eβ=962.1 *47*; εK=0.0986 *13*; εL=0.01131 *15*; εM+=0.00226 *3*
(3293 *10*)	1835.53	0.69 *4*	0.076 *4*	5.233 *25*	0.77 *4*	av Eβ=1012.3 *47*; εK=0.0863 *11*; εL=0.00989 *13*; εM+=0.001980 *25*
(3330 *10*)	1799.5	0.32 *5*	0.033 *5*	5.60 *7*	0.35 *5*	av Eβ=1029.0 *47*; εK=0.0826 *10*; εL=0.00947 *12*; εM+=0.001895 *23*
(3357 *10*)	1772.05	2.63 *11*	0.263 *12*	4.708 *21*	2.89 *12*	av Eβ=1041.8 *47*; εK=0.0799 *10*; εL=0.00916 *11*; εM+=0.001834 *22*
(3425 *10*)	1703.8	0.30 *5*	0.028 *4*	5.70 *7*	0.33 *5*	av Eβ=1073.6 *47*; εK=0.0738 *9*; εL=0.00846 *10*; εM+=0.001692 *20*
(3524 *10*)	1604.93	0.47 *11*	0.038 *9*	5.59 *11*	0.51 *12*	av Eβ=1119.9 *47*; εK=0.0659 *8*; εL=0.00755 *9*; εM+=0.001511 *18*
(3743 *10*)	1386.08	1.86 *15*	0.117 *10*	5.15 *4*	1.98 *16*	av Eβ=1222.5 *47*; εK=0.0519 *6*; εL=0.00595 *7*; εM+=0.001191 *13*

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^{72}Kr ε decay 2003Pi03 (continued)

ε,β⁺ radiations (continued)

E(decay)	E(level)	Iβ⁺ †	Iε†	Log *ft*	I(ε+β⁺)†	Comments
(3806 *10*)	1322.8	0.224 *22*	0.0131 *13*	6.12 *5*	0.237 *23*	av Eβ=1252.3 *48*; εK=0.0487 *5*; εL=0.00557 *6*; εM+=0.001115 *12*
(3956 *10*)	1173.2	0.31 *4*	0.016 *2*	6.07 *6*	0.33 *4*	av Eβ=1322.9 *48*; εK=0.0419 *5*; εL=0.00480 *5*; εM+=0.000960 *10*
(3975 *10*)	1154.30	0.13 *6*	0.007 *3*	6.46 *19*	0.14 *6*	av Eβ=1331.8 *48*; εK=0.0411 *4*; εL=0.00471 *5*; εM+=0.000942 *10*
(4101 *10*)	1027.80	1.60 *13*	0.069 *6*	5.46 *4*	1.67 *14*	av Eβ=1391.7 *48*; εK=0.0364 *4*; εL=0.00417 *4*; εM+=0.000835 *8*
(4190 *10*)	939.27	1.04 *5*	0.0412 *20*	5.706 *22*	1.08 *5*	av Eβ=1433.7 *48*; εK=0.0336 *3*; εL=0.00384 *4*; εM+=0.000769 *7*
(4227 *10*)	901.99	0.83 *15*	0.032 *6*	5.83 *9*	0.86 *16*	av Eβ=1451.4 *48*; εK=0.0325 *3*; εL=0.00372 *4*; εM+=0.000744 *7*
(4333 *10*)	795.89	0.19 *14*	0.007 *5*	6.5 *4*	0.20 *15*	av Eβ=1501.8 *48*; εK=0.0295 *3*; εL=0.00338 *3*; εM+=0.000677 *6*
(4373 *10*)	755.57	1.50 *12*	0.050 *4*	5.66 *4*	1.55 *12*	av Eβ=1521.0 *48*; εK=0.02852 *25*; εL=0.00327 *3*; εM+=0.000653 *6*
(4407 *10*)	722.13	0.53 *6*	0.017 *2*	6.13 *5*	0.55 *6*	av Eβ=1536.9 *48*; εK=0.02771 *24*; εL=0.00317 *3*; εM+=0.000635 *6*
(4421 *10*)	707.97	0.6 *3*	0.02 *1*	6.10 *22*	0.6 *3*	av Eβ=1543.7 *48*; εK=0.02738 *24*; εL=0.00313 *3*; εM+=0.000627 *6*
(4447 *10*)	682.4	0.61 *4*	0.019 *1*	6.09 *3*	0.63 *4*	av Eβ=1555.9 *48*; εK=0.02679 *23*; εL=0.00307 *3*; εM+=0.000614 *6*
(4552 *10*)	576.79	13.0 *8*	0.374 *23*	4.82 *3*	13.4 *8*	av Eβ=1606.2 *48*; εK=0.02453 *21*; εL=0.002807 *24*; εM+=0.000562 *5*
(4553 *10*)	575.83	1.44 *18*	0.041 *5*	5.78 *6*	1.48 *19*	av Eβ=1606.7 *48*; εK=0.02451 *21*; εL=0.002805 *24*; εM+=0.000561 *5*
(4583‡ *10*)	545.58	<0.15	<0.0041	>6.8	<0.15	av Eβ=1621.1 *48*; εK=0.02391 *20*; εL=0.002736 *23*; εM+=0.000548 *5*
(4619 *10*)	509.7	0.35 *10*	0.010 *3*	6.43 *12*	0.36 *10*	av Eβ=1638.3 *48*; εK=0.02322 *19*; εL=0.002658 *22*; εM+=0.000532 *5*
(4714 *10*)	415.15	15.8 *9*	0.397 *23*	4.83 *3*	16.2 *9*	av Eβ=1683.5 *48*; εK=0.02153 *17*; εL=0.002464 *20*; εM+=0.000493 *4*
(4731‡ *10*)	398.39	<0.010	<0.0002	>8.0	<0.01	av Eβ=1691.5 *48*; εK=0.02125 *17*; εL=0.002432 *20*; εM+=0.000487 *4*
(4736‡ *10*)	392.70	<0.04	<0.0010	>7.4	<0.04	av Eβ=1694.2 *48*; εK=0.02116 *17*; εL=0.002421 *20*; εM+=0.000484 *4*
(4750 *10*)	379.10	0.33 *17*	0.008 *4*	6.52 *22*	0.34 *17*	av Eβ=1700.7 *48*; εK=0.02093 *17*; εL=0.002395 *19*; εM+=0.000479 *4*
(4800 *10*)	328.52	0.50 *7*	0.012 *2*	6.37 *6*	0.51 *7*	av Eβ=1725.0 *48*; εK=0.02013 *16*; εL=0.002303 *18*; εM+=0.000461 *4*
(4815 *10*)	313.75	0.39 *10*	0.0091 *23*	6.49 *11*	0.40 *10*	av Eβ=1732.0 *48*; εK=0.01990 *16*; εL=0.002277 *18*; εM+=0.000456 *4*
(4819 *10*)	309.92	16.4 *6*	0.379 *14*	4.864 *18*	16.8 *6*	av Eβ=1733.9 *48*; εK=0.01984 *16*; εL=0.002270 *18*; εM+=0.000454 *4*
(4910 *10*)	218.79	0.49 *20*	0.011 *4*	6.44 *18*	0.50 *20*	av Eβ=1777.6 *48*; εK=0.01851 *14*; εL=0.002118 *16*; εM+=0.000424 *4*
(4966‡ *10*)	162.72	<0.4	<0.008	>6.6	<0.4	av Eβ=1804.5 *48*; εK=0.01776 *14*; εL=0.002032 *16*; εM+=0.000406 *3*
(4997‡ *10*)	131.70	<0.10	<0.002	>7.2	<0.1	av Eβ=1819.4 *48*; εK=0.01736 *13*; εL=0.001986 *15*; εM+=0.000397 *3*
(5005 *10*)	124.22	1.0 *6*	0.020 *12*	6.2 *3*	1.0 *6*	av Eβ=1822.9 *48*; εK=0.01726 *13*; εL=0.001975 *15*; εM+=0.000395 *3*
(5028‡ *10*)	101.14	<1.6	<0.031	>6.0	<1.6	av Eβ=1834.0 *48*; εK=0.01697 *13*; εL=0.001942 *15*; εM+=0.000388 *3*
(5129 *10*)	0.0	34.4 *10*	0.628 *20*	4.699 *15*	35.0 *10*	av Eβ=1882.6 *48*; εK=0.01578 *12*; εL=0.001805

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^{72}Kr ε decay 2003Pi03 (continued)

ϵ,β^{+} radiations (continued)

E(decay)	E(level)	Comments
		13; εM+=0.000361 *3* I($\varepsilon+\beta^{+}$): deduced by 2003Pi03 from parent-daughter activities.

† Absolute intensity per 100 decays.
‡ Existence of this branch is questionable.

$\gamma(^{72}Br)$

Iγ normalization, I(γ+ce) normalization: from Σ(I(γ+ce) of γ′s to g.s.)= 65 *1*, using feeding to g.s.= 35.0 *10* (2003Pi03). 2003Pi03 give Iγ normalization= 0.1533 *24*.

E_γ	I_γ‡	E_i(level)	J^π_i	E_f	J^π_f	Mult.†	α#	$I_{(\gamma+ce)}$‡	Comments
30.5 *5*	1.11 *19*	131.70	(2⁻)	101.14	(3⁻)	(M1+E2)	3.×10^1 *3*	24 *4*	α(exp)=20.7 (2003Pi03); ce(K)/(γ+ce)=0.7 *5*; ce(L)/(γ+ce)=0.3 *3*; ce(M)/(γ+ce)=0.04 *6*; ce(N)/(γ+ce)=0.003 *4* Mult.: from α(exp).
38.8 *2*	1.1 *3*	162.72		124.22	1			3.0 *7*	I_γ: calculated assuming Mγ=M1.
^{x}85.9									
87.2 *5*	5.3 *8*	218.79	1$^{(-)}$	131.70	(2⁻)	[M1]	0.167 *4*	6.2 *9*	ce(K)/(γ+ce)=0.1267 *24*; ce(L)/(γ+ce)=0.0141 *3*; ce(M)/(γ+ce)=0.00224 *5*; ce(N)/(γ+ce)=0.000208 *5*
88.5 *5*	0.5 *4*	398.39	(2)	309.92	1⁺			0.6 *5*	I_γ: calculated assuming Mγ=M1.
91.5 *5*	0.30 *6*	309.92	1⁺	218.79	1$^{(-)}$	[E1]	0.1102 *24*	0.33 *7*	ce(K)/(γ+ce)=0.0882 *18*; ce(L)/(γ+ce)=0.00946 *21*; ce(M)/(γ+ce)=0.00149 *4*; ce(N)/(γ+ce)=0.000135 *3*
101.3 *3*	15.3 *19*	101.14	(3⁻)	0.0	1⁺	(M2)	1.145 *21*	33 *4*	ce(K)/(γ+ce)=0.460 *5*; ce(L)/(γ+ce)=0.0625 *12*; ce(M)/(γ+ce)=0.01008 *21*; ce(N)/(γ+ce)=0.000912 *19*
^{x}102.8									
105.3 *1*	3.1 *3*	415.15	1⁺	309.92	1⁺	[M1]	0.0995	3.4 *3*	ce(K)/(γ+ce)=0.0801 *11*; ce(L)/(γ+ce)=0.00886 *13*; ce(M)/(γ+ce)=0.001411 *21*; ce(N)/(γ+ce)=0.0001310 *19*
117.8 *5*	0.51 *12*	218.79	1$^{(-)}$	101.14	(3⁻)	[M1]	0.0733 *14*	0.55 *13*	ce(K)/(γ+ce)=0.0605 *11*; ce(L)/(γ+ce)=0.00668 *13*; ce(M)/(γ+ce)=0.001063 *20*; ce(N)/(γ+ce)=9.87×10^{-5} *18*
124.4 *2*	22.4 *20*	124.22	1	0.0	1⁺			31.2 *28*	I_γ: Calculated assuming Mγ=E2.
130.5 *5*	0.69 *11*	509.7	1	379.10	1	[M1]	0.0557 *10*	0.73 *12*	ce(K)/(γ+ce)=0.0467 *8*; ce(L)/(γ+ce)=0.00514 *9*; ce(M)/(γ+ce)=0.000818 *15*; ce(N)/(γ+ce)=7.60×10^{-5} *14*
132.5 *5*	0.22 *4*	707.97	1	575.83	1⁺			0.23 *4*	I_γ: calculated assuming Mγ=M1.
146.2 *4*	0.14 *10*	722.13	1$^{(+)}$	575.83	1⁺			0.14 *10*	I_γ: calculated assuming Mγ=M1.
147.2@ *1*	3.4@ *3*	309.92	1⁺	162.72				3.5 *3*	I_γ: calculated assuming Mγ=(M1).
147.2@ *1*	0.60@ *23*	545.58		398.39	(2)				
160.8 *6*	0.70 *8*	575.83	1⁺	415.15	1⁺				
162.7 *1*	60 *5*	162.72		0.0	1⁺			69 *6*	I_γ: calculated assuming Mγ=E2.
166.1 *7*	0.70 *14*	328.52	1	162.72				0.72 *14*	I_γ: calculated assuming Mγ=M1.
177.2 *5*	0.86 *8*	575.83	1⁺	398.39	(2)	[M1]	0.0248	0.88 *8*	ce(K)/(γ+ce)=0.0215 *4*; ce(L)/(γ+ce)=0.00234 *4*; ce(M)/(γ+ce)=0.000372 *6*; ce(N)/(γ+ce)=3.47×10^{-5} *6*
178.5 *5*	16.1 *13*	309.92	1⁺	131.70	(2⁻)	[E1]	0.01519 *25*	16.3 *13*	ce(K)/(γ+ce)=0.01331 *22*; ce(L)/(γ+ce)=0.001411 *23*; ce(M)/(γ+ce)=0.000223 *4*; ce(N)/(γ+ce)=2.05×10^{-5} *4*
183.3 *5*	1.76 *22*	575.83	1⁺	392.70				1.80 *22*	I_γ: calculated assuming Mγ=M1.
185.5 *7*	0.18 *11*	309.92	1⁺	124.22	1			0.18 *11*	
^{x}186.8									
196.2@ *5*	2.3@ *8*	415.15	1⁺	218.79	1$^{(-)}$	[E1]	0.01152 *19*	2.3 *8*	ce(K)/(γ+ce)=0.01013 *16*; ce(L)/(γ+ce)=0.001073 *17*; ce(M)/(γ+ce)=0.000170 *3*; ce(N)/(γ+ce)=1.566×10^{-5} *25*

From ENSDF

$\gamma(^{72}$Br) (continued)

E_γ	I_γ[‡]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[†]	α[#]	$I_{(\gamma+ce)}$[‡]	Comments
196.2[@] 5	1.1[@] 6	509.7	1	313.75	1	[M1]	0.0191	1.1 6	ce(K)/(γ+ce)=0.0166 3; ce(L)/(γ+ce)=0.00180 3; ce(M)/(γ+ce)=0.000287 5; ce(N)/(γ+ce)=2.67×10^{-5} 5
199.8[&] 5		509.7	1	309.92	1^+				
204.4 2	0.65 12	328.52	1	124.22	1			0.66 12	I_γ: calculated assuming Mγ=M1.
208.9 3	4.2 3	309.92	1^+	101.14	(3^-)			4.2 3	
218.8 5	0.38 14	218.79	$1^{(-)}$	0.0	1^+	[E1]		0.38 14	ce(K)/(γ+ce)=0.00741 12; ce(L)/(γ+ce)=0.000784 13; ce(M)/(γ+ce)=0.0001240 20; ce(N)/(γ+ce)=1.146×10^{-5} 18
^{x}226.5									
230.1 3	2.35 18	392.70		162.72				2.38 18	I_γ: calculated assuming Mγ=M1.
231.8[&] 3		545.58		313.75	1				
^{x}233.9									
235.5 4	3.24 24	545.58		309.92	1^+				
252.4 2	15.3 5	415.15	1^+	162.72				15.5 5	I_γ: calculated assuming Mγ=M1.
254.9 5	1.23 9	379.10	1	124.22	1				
^{x}257.8									
265.7 2	3.03 15	575.83	1^+	309.92	1^+	[M1]		3.06 15	ce(K)/(γ+ce)=0.00777 11; ce(L)/(γ+ce)=0.000837 12; ce(M)/(γ+ce)=0.0001331 19; ce(N)/(γ+ce)=1.242×10^{-5} 18
267.0 5	0.55 14	398.39	(2)	131.70	(2^-)				
274.2 3	1.20 7	398.39	(2)	124.22	1			1.21 7	I_γ: calculated assuming Mγ=M1.
283.4 4	4.74 13	415.15	1^+	131.70	(2^-)	[E1]		4.76 13	ce(K)/(γ+ce)=0.00357 6; ce(L)/(γ+ce)=0.000377 6; ce(M)/(γ+ce)=5.97×10^{-5} 9; ce(N)/(γ+ce)=5.53×10^{-6} 8
290.7 4	0.31 6	415.15	1^+	124.22	1			0.31 6	
307.0 5	1.15 11	722.13	$1^{(+)}$	415.15	1^+			1.16 11	I_γ: calculated assuming Mγ=M1.
309.9 1	98.6 15	309.92	1^+	0.0	1^+			100.0 15	I_γ: calculated assuming Mγ=E2.
313.8 3	3.61 11	313.75	1	0.0	1^+	[M1]		3.63 11	ce(K)/(γ+ce)=0.00516 8; ce(L)/(γ+ce)=0.000554 8; ce(M)/(γ+ce)=8.81×10^{-5} 13; ce(N)/(γ+ce)=8.23×10^{-6} 12
^{x}322.0									
328.4 2	7.60 24	328.52	1	0.0	1^+				
356.3 5	0.56 4	901.99	1^+	545.58					
^{x}363.1									
379.3[@] 5	5.2[@] 10	379.10	1	0.0	1^+				
379.3[@] 5	0.13[@] 2	707.97	1	328.52	1				
380.8 2	3.89 16	795.89		415.15	1^+				
385.4 5	0.44 6	509.7	1	124.22	1				
392.7 2	3.75 13	392.70		0.0	1^+				
398.4 2	3.61 17	398.39	(2)	0.0	1^+				
412.1 2	2.35 8	722.13	$1^{(+)}$	309.92	1^+				
414.5 5	41 4	576.79	1^+	162.72					
415.1 2	84 5	415.15	1^+	0.0	1^+				
427.1 3	0.48 5	755.57	1^+	328.52	1				
^{x}445.7									
451.4 5	1.02 20	1027.80	1^+	575.83	1^+				

^{72}Kr ε decay 2003Pi03 (continued)

γ(^{72}Br) (continued)

E_γ	I_γ‡	E_i(level)	J^π_i	E_f	J^π_f
452.3 *3*	4.63 *17*	576.79	1^{+}	124.22	1
482.5 *5*	0.82 *20*	1027.80	1^{+}	545.58	
484.7 *5*	2.75 *22*	1386.08	1^{+}	901.99	1^{+}
485.9 *5*	2.82 *8*	795.89		309.92	1^{+}
489.2 *5*	0.24 *5*	707.97	1	218.79	$1^{(-)}$
504.0 *7*	1.9 *5*	901.99	1^{+}	398.39	(2)
519.5 *5*	2.01 *15*	682.4	$1^{(+)}$	162.72	
541.1 *5*	0.50 *15*	939.27	1^{+}	398.39	(2)
545.3 *3*	1.08 *7*	707.97	1	162.72	
546.7 *5*	0.53 *8*	939.27	1^{+}	392.70	
559.7 *4*	3.01 *12*	722.13	$1^{(+)}$	162.72	
575.8 *4*	7.3 *8*	575.83	1^{+}	0.0	1^{+}
^{x}576					
576.9 *4*	39.9 *15*	576.79	1^{+}	0.0	1^{+}
579.0& *5*		1154.30	1	575.83	1^{+}
583.3 *5*	0.8 *16*	707.97	1	124.22	1
590.6 *5*	2.5 *8*	1386.08	1^{+}	795.89	
592.5 *4*	0.4 *6*	901.99	1^{+}	309.92	1^{+}
^{x}597.1					
610.4 *4*	0.38 *7*	939.27	1^{+}	328.52	1
617.9 *3*	1.5 *3*	1772.05	1^{+}	1154.30	1
629.8 *5*	0.85 *5*	1027.80	1^{+}	398.39	(2)
631.3 *5*	2.1 *5*	755.57	1^{+}	124.22	1
633.5 *5*	2.84 *9*	795.89		162.72	
635.2 *5*	4.0 *3*	1027.80	1^{+}	392.70	
648.8 *5*	1.03 *7*	1027.80	1^{+}	379.10	1
^{x}665.0					
671.7 *5*	0.79 *21*	795.89		124.22	1
682.5 *5*	2.00 *13*	682.4	$1^{(+)}$	0.0	1^{+}
699.5 *5*	1.47 *6*	1027.80	1^{+}	328.52	1
^{x}706					
708.0 *3*	1.29 *8*	707.97	1	0.0	1^{+}
722.3 *4*	0.46 *7*	722.13	$1^{(+)}$	0.0	1^{+}
739.2 *3*	1.12 *9*	1154.30	1	415.15	1^{+}
755.5 *4*	7.3 *5*	755.57	1^{+}	0.0	1^{+}
^{x}762.7					
^{x}766					
774.5 *8*	0.50 *10*	1173.2	$1^{(+)}$	398.39	(2)
777.5 *5*	2.36 *23*	901.99	1^{+}	124.22	1
^{x}793					
795.7 *5*	0.89 *7*	795.89		0.0	1^{+}
801.7 *5*	0.74 *10*	1703.8	1^{+}	901.99	1^{+}
810.1 *2*	1.64 *9*	1386.08	1^{+}	575.83	1^{+}
815.1 *2*	1.52 *11*	939.27	1^{+}	124.22	1
840.3 *5*	2.0 *3*	1386.08	1^{+}	545.58	
844.5@ *5*	1.01@ *19*	1154.30	1	309.92	1^{+}
844.5@ *5*	0.66@ *16*	1173.2	$1^{(+)}$	328.52	1
^{x}858					
865.3 *5*	0.56 *13*	1027.80	1^{+}	162.72	
869.9 *5*	0.93 *24*	1772.05	1^{+}	901.99	1^{+}
895.4& *5*		1027.80	1^{+}	131.70	(2^{-})
901.9 *5*	4.7 *5*	901.99	1^{+}	0.0	1^{+}
908.0 *7*	1.16 *24*	1703.8	1^{+}	795.89	
939.2 *3*	3.92 *13*	939.27	1^{+}	0.0	1^{+}
954.6 *5*	0.93 *16*	1173.2	$1^{(+)}$	218.79	$1^{(-)}$
976.6 *5*	4.38 *16*	1772.05	1^{+}	795.89	
991.2 *5*	0.25 *7*	1154.30	1	162.72	
994.3 *5*	0.69 *5*	1322.8	$1^{(+)}$	328.52	1
1027.7 *5*	0.9 *7*	1027.80	1^{+}	0.0	1^{+}
1029.0 *2*	1.3 *7*	1604.93	1^{+}	575.83	1^{+}
1039.5 *3*	1.93 *14*	1835.53	1^{+}	795.89	
1049.9 *6*	3.61 *25*	1772.05	1^{+}	722.13	$1^{(+)}$
1058.0 *5*	1.93 *24*	1386.08	1^{+}	328.52	1
1076.0 *5*	0.63 *12*	1386.08	1^{+}	309.92	1^{+}
^{x}1080					
^{x}1130.0					
^{x}1154.8					
1160.1 *5*	0.82 *13*	1322.8	$1^{(+)}$	162.72	
^{x}1161.7					
1167.1 *5*	0.13 *6*	1386.08	1^{+}	218.79	$1^{(-)}$
1222.4 *7*	0.48 *3*	1799.5	1^{+}	576.79	1^{+}
^{x}1277.6					
^{x}1312					
^{x}1319					
^{x}1321.2					
1373.3 *5*	1.53 *7*	1772.05	1^{+}	398.39	(2)
1386.0 *4*	1.06 *5*	1386.08	1^{+}	0.0	1^{+}
1392.6 *5*	1.49 *17*	1772.05	1^{+}	379.10	1
1441.9 *7*	0.14 *1*	1604.93	1^{+}	162.72	
1457.0 *5*	1.02 *8*	1835.53	1^{+}	379.10	1
1481.3 *5*	0.87 *3*	1604.93	1^{+}	124.22	1
^{x}1485.0					
1541.0 *7*	0.19 *3*	1703.8	1^{+}	162.72	
^{x}1552.6					
^{x}1561.0					
1605.1 *6*	0.92 *14*	1604.93	1^{+}	0.0	1^{+}

$^{72}_{35}Br_{37}$-6

^{72}Kr ε decay 2003Pi03 (continued)

γ(^{72}Br) (continued)

E_γ	I_γ‡	E_i(level)	J^π_i	E_f	J^π_f	$I_{(\gamma+ce)}$‡
1609.2 *6*	2.15 *15*	1772.05	1^+	162.72		
x1614						
1636.9 *5*	0.6 *3*	1799.5	1^+	162.72		
1648.0 *7*	2.52 *10*	1772.05	1^+	124.22	1	
1672.7 *4*	0.24 *7*	1835.53	1^+	162.72		
1675.0 *6*	0.89 *6*	1799.5	1^+	124.22	1	
1711.2 *3*	1.57 *5*	1835.53	1^+	124.22	1	1.57
x1725						
1771.9 *6*	0.32 *3*	1772.05	1^+	0.0	1^+	
1799.6 *6*	0.25 *2*	1799.5	1^+	0.0	1^+	
1835.8 *6*	0.14 *1*	1835.53	1^+	0.0	1^+	0.14 *1*
1943.5& *7*		1943.5?	1	0.0	1^+	0.39 *7*
1950.0& *7*		1950.0?	1	0.0	1^+	0.26 *5*
1988.4& *10*		1988.4?	1	0.0	1^+	0.16 *3*
x2235						
3304.8& *10*		3304.9?	1^+	0.0	1^+	0.98 *13*

† From Adopted Gammas.

‡ For absolute intensity per 100 decays, multiply by 0.157 *4*.

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.

@ Multiply placed with intensity suitably divided.

& Placement of transition in the level scheme is uncertain.

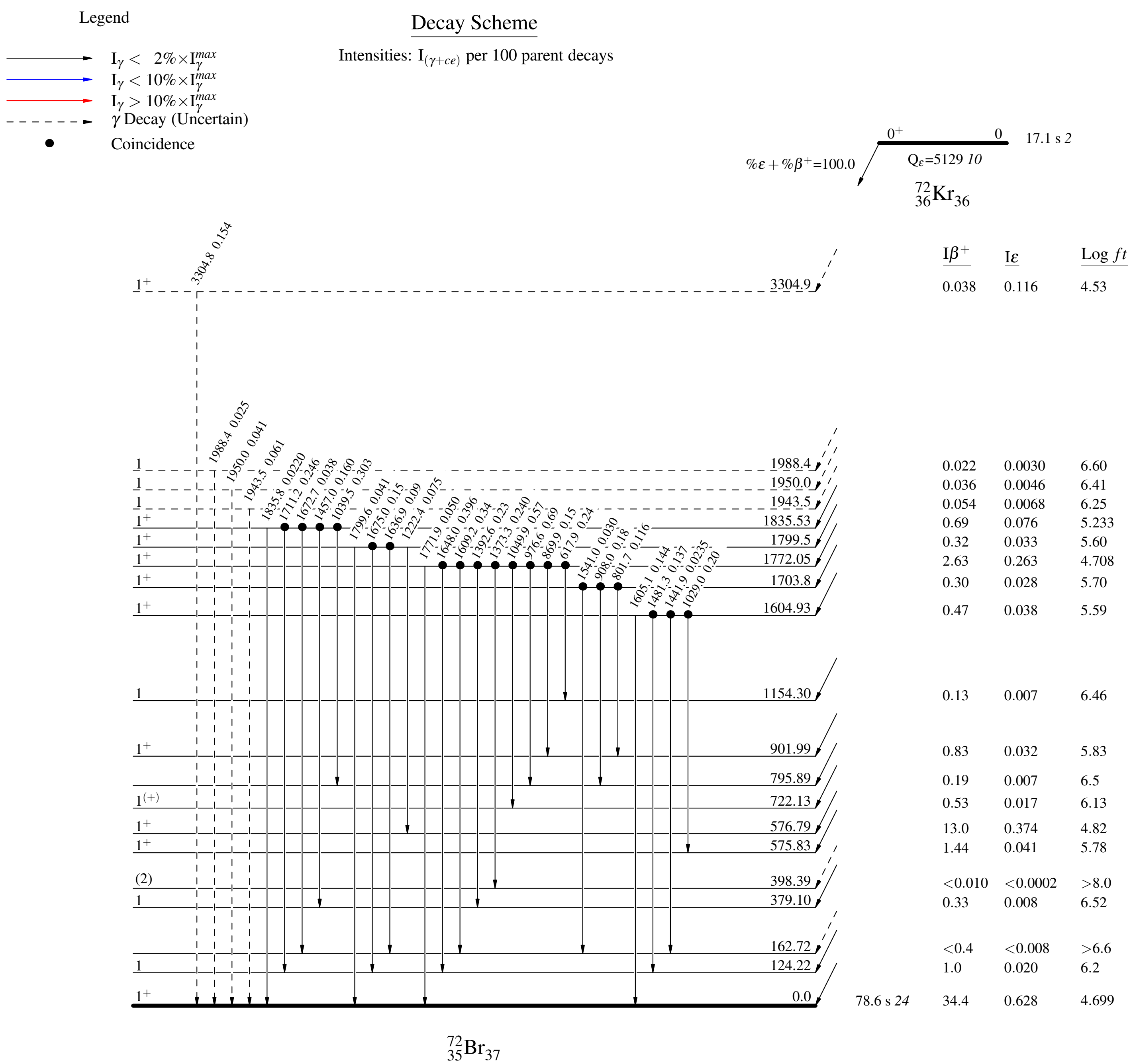
x γ ray not placed in level scheme.

$^{72}_{35}Br_{37}$-7

^{72}Kr ε decay 2003Pi03

Decay Scheme

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



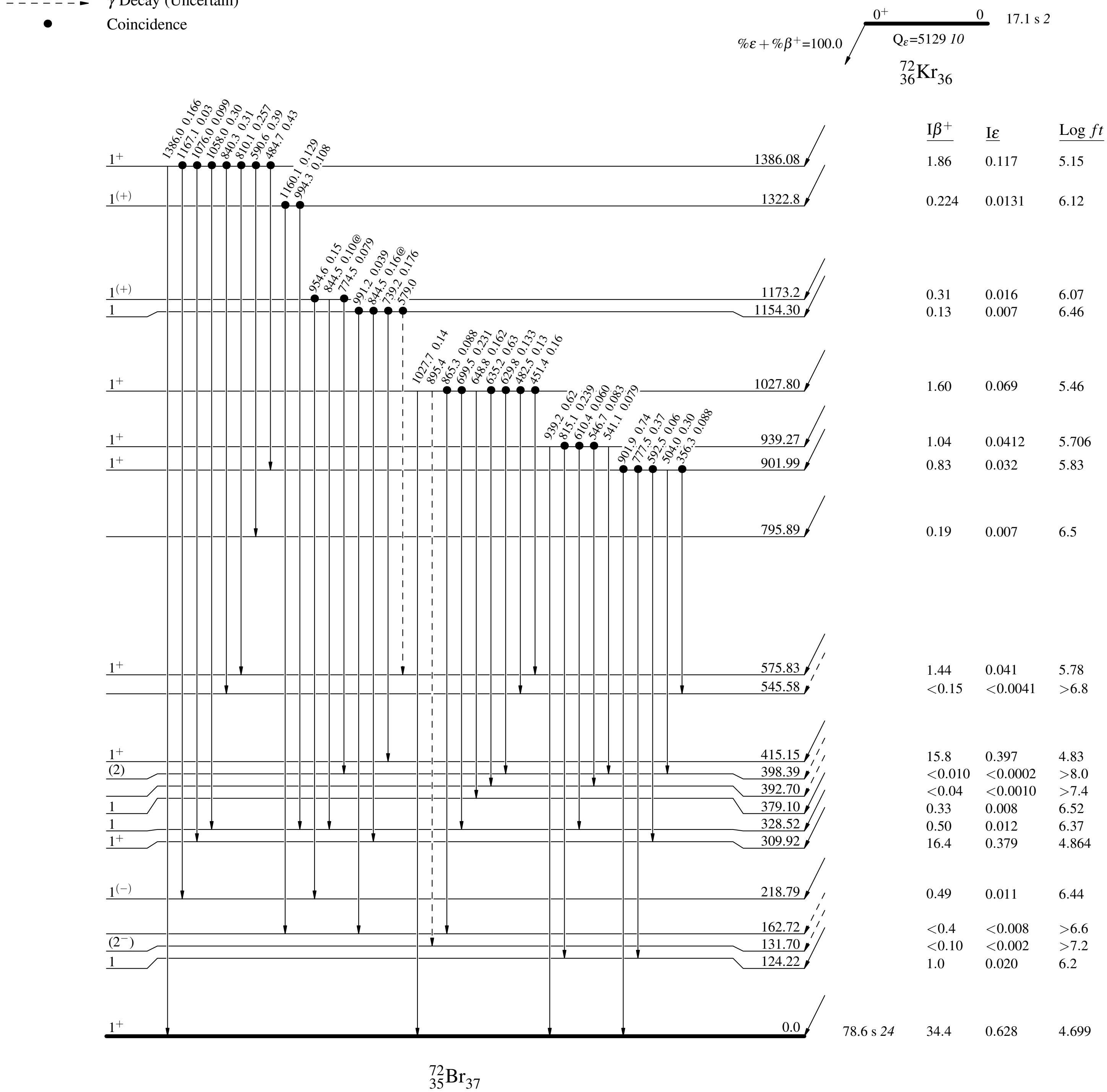
^{72}Kr ε decay 2003Pi03

Decay Scheme (continued)

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays
@ Multiply placed: intensity suitably divided

Legend

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



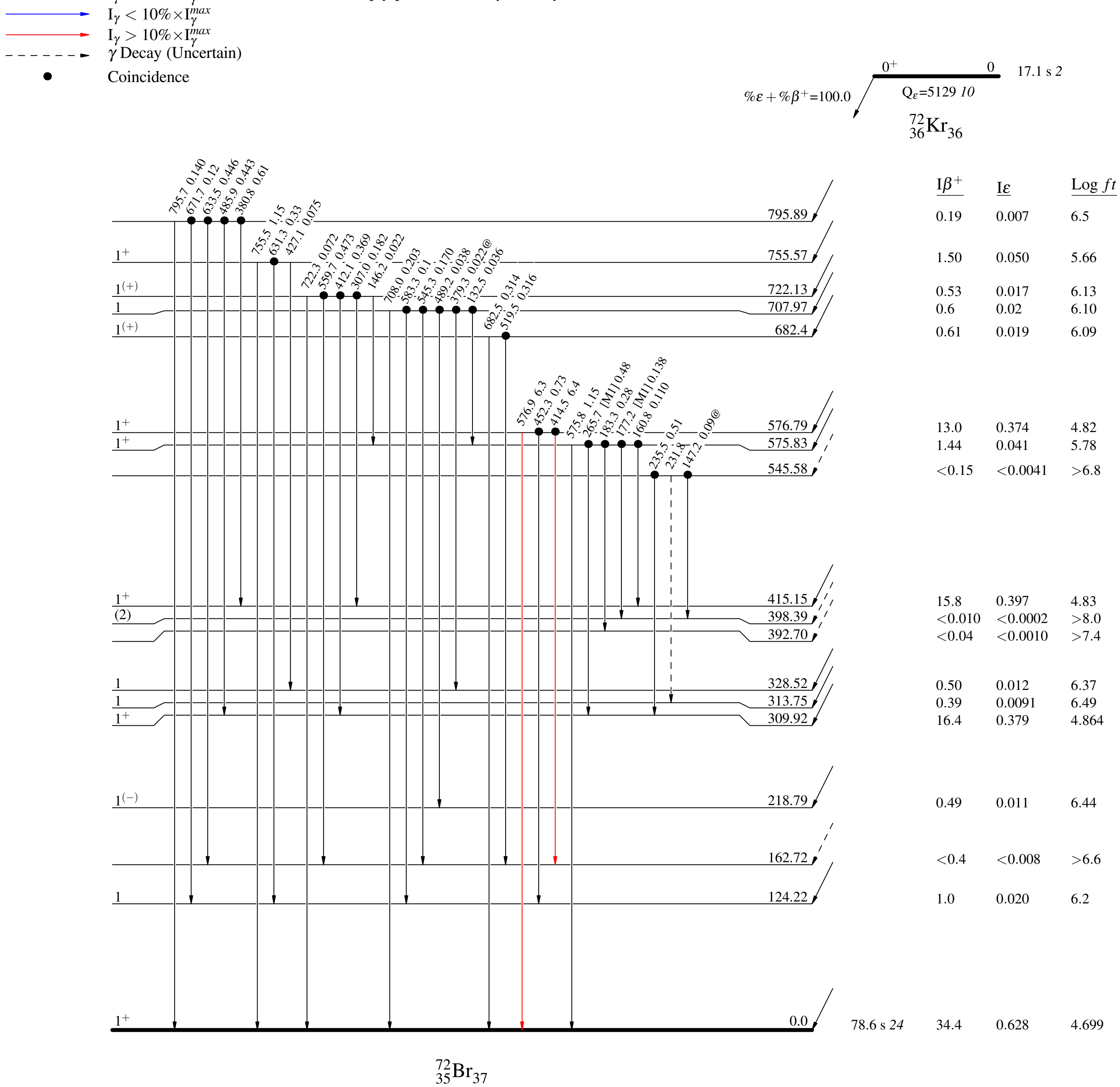
^{72}Kr ε decay 2003Pi03

Decay Scheme (continued)

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

@ Multiply placed: intensity suitably divided

Legend



^{72}Kr ε decay 2003Pi03

Decay Scheme (continued)

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays
@ Multiply placed: intensity suitably divided