^{88}Br β^- decay 1986Sk02,1980Ho03

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan and A. A. Sonzogni	NDS 115, 135 (2014)	1-Nov-2013

Parent: ^{88}Br: E=0.0; J$^\pi$=(2$^-$); T$_{1/2}$=16.34 s *8*; Q(β^-)=8975 *4*; %β^- decay=100.0

1986Sk02: ^{88}Br activity produced in ^{235}U(p,F), E(n)=thermal and separated using fast chemical methods. Measured Eγ, Iγ, $\gamma\gamma$, γ(t) using HPGe detector and Ge(Li) detectors. Generally, the decay scheme of 1986Sk02 is adopted; however, some γ's mismatch the level energy difference by several standard deviations. These γ's are denoted as questionable by the evaluators and not included in the adopted gammas.

1980Ho03: ^{88}Br activity produced in ^{235}U(p,F), E(n)=thermal and separated by the OSIRIS mass separator. Measured Eγ, Iγ, $\gamma\gamma$ with two Ge(Li) detectors and I(n) with 30 parallel coupled ^{3}He detectors.

Others: 2011Ta26, 1983Me17, 1977Pf01, 1976Sl04, 1975Hu02.

A total energy release of 7900 keV *400* is calculated by the code RADLST, which can be compared to the decay Q value of 8975 keV *4*. Note that about 6% absolute intensity is unplaced in the decay scheme.

α: Additional information 1.

^{88}Kr Levels

E(level)†	J$^\pi$‡	E(level)†	J$^\pi$‡	E(level)†	J$^\pi$‡	E(level)†	J$^\pi$‡
0	0$^+$	2929.47 *9*	(3,4$^+$)	4268.61 *8*	(1$^-$,2,3)	5627.1 *4*	(1,2,3)
775.31 *4*	2$^+$	2945.81 *7*	(1,2$^+$)	4287.80 *20*	(1,2$^+$)	5693.4 *3*	(1,2,3)
1577.40 *4*	2$^+$	3045.03 *8*		4560.12 *21*	(1,2,3)	5726.2 *3*	
1643.95 *5*	4$^+$	3113.50 *21*	(1,2$^+$)	4562.97 *13*	(1,2$^+$)	5915.02 *20*	(1$^-$,2$^+$,3$^-$)
2103.97? *7*	(4$^+$)	3163.50 *8*	(3,4$^+$)	4596.84 *10*	(1$^-$,2$^+$)	5972.87 *20*	(1,2,3)
2216.16 *4*	2$^+$	3204.11 *11*		4707.56 *8*	(1$^-$,2$^+$)	5977.53 *23*	(1,2,3)
2342.11 *5*	(3,4$^+$)	3331.59 *10*	(1,2$^+$)	4923.50 *9*	(2,3)	5988.5 *3*	(1,2,3)
2370.32 *7*		3335.99 *8*	(3,4$^+$)	4985.69 *14*	(1,2$^+$)	6034.4 *4*	(1,2$^+$)
2419.59 *5*	(3$^-$)	3341.65 *10*	(2$^+$)	5019.74 *13*	(1,2$^+$)	6071.2 *4*	(1,2$^+$)
2549.88 *8*	(4$^+$)	3362.13 *7*		5070.31 *18*	(2$^+$,3,4$^+$)	6231.8 *3*	(1,2$^+$)
2630.87 *5*	(3,4$^+$)	3399.47 *6*	(1,2$^+$)	5088.2 *4*	(1,2$^+$)	6539.2 *5*	(1,2,3)
2651.20 *5*	2$^+$	3709.83 *9*	(3)	5270.5 *5*	(1,2,3)	6718.4 *4*	(1,2,3)
2775.84 *9*	0$^+$	3770.59 *7*	(1$^-$,2$^+$)	5439.3 *5*	(1,2,3)	6758.0 *5*	(1,2,3)
2828.49 *6*	(1,2$^+$)	4048.3 *3*	(2$^+$)	5495.83 *20*	(1,2,3)	6999.5 *5*	(1,2$^+$)
2875.18 *6*	(2$^+$)	4100.31 *11*	(3$^-$)	5503.4 *3*	(1,2$^+$)		

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

β^- radiations

E(decay)	E(level)	Iβ^-†‡	Log *ft*	Comments
(1976 *4*)	6999.5	0.275 *25*	6.14 *4*	av Eβ=791.3 *19*
(2217 *4*)	6758.0	0.43 *4*	6.15 *4*	av Eβ=903.2 *19*
(2257 *4*)	6718.4	0.10 *4*	6.82 *18*	av Eβ=921.7 *19*
(2436 *4*)	6539.2	0.44 *4*	6.31 *4*	av Eβ=1005.5 *19*
(2743 *4*)	6231.8	1.04 *10*	6.16 *5*	av Eβ=1150.3 *19*
(2904 *4*)	6071.2	0.76 *7*	6.40 *4*	av Eβ=1226.3 *19*
(2941 *4*)	6034.4	0.11 *3*	7.26 *12*	av Eβ=1243.8 *19*
(2987 *4*)	5988.5	1.02 *10*	6.32 *5*	av Eβ=1265.6 *19*
(2997 *4*)	5977.53	0.81 *20*	6.43 *11*	av Eβ=1270.8 *19*
(3002 *4*)	5972.87	0.94 *9*	6.37 *5*	av Eβ=1273.0 *19*
(3060 *4*)	5915.02	0.81 *21*	6.47 *12*	av Eβ=1300.5 *19*
(3249 *4*)	5726.2	0.06 *4*	7.7 *3*	av Eβ=1390.4 *20*
(3282 *4*)	5693.4	0.19 *4*	7.23 *10*	av Eβ=1406.1 *20*

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^{88}Br β^- decay 1986Sk02,1980Ho03 (continued)

β^- radiations (continued)

E(decay)	E(level)	Iβ^{-} †‡	Log *ft*	Comments
(3348 *4*)	5627.1	0.78 *14*	6.65 *8*	av Eβ=1437.7 *20*
(3472 *4*)	5503.4	0.21 *7*	7.29 *15*	av Eβ=1496.8 *20*
(3479 *4*)	5495.83	1.81 *17*	6.36 *4*	av Eβ=1500.5 *20*
(3536 *4*)	5439.3	0.39 *6*	7.06 *7*	av Eβ=1527.5 *20*
(3705 *4*)	5270.5	1.19 *20*	6.66 *8*	av Eβ=1608.4 *20*
(3887 *4*)	5088.2	0.85 *10*	6.90 *6*	av Eβ=1695.8 *20*
(3905 *4*)	5070.31	0.58 *10*	7.07 *8*	av Eβ=1704.4 *20*
(3955 *4*)	5019.74	1.69 *13*	6.63 *4*	av Eβ=1728.7 *20*
(3989 *4*)	4985.69	2.06 *15*	6.56 *4*	av Eβ=1745.0 *20*
(4052 *4*)	4923.50	4.7 *3*	6.24 *3*	av Eβ=1774.9 *20*
(4267 *4*)	4707.56	5.6 *4*	6.26 *4*	av Eβ=1878.8 *20*
(4378 *4*)	4596.84	1.61 *12*	6.85 *4*	av Eβ=1932.1 *20*
(4412 *4*)	4562.97	3.28 *21*	6.56 *3*	av Eβ=1948.4 *20*
(4415 *4*)	4560.12	0.61 *9*	7.29 *7*	av Eβ=1949.8 *20*
(4687 *4*)	4287.80	0.29 *8*	7.73 *12*	av Eβ=2081.1 *20*
(4706 *4*)	4268.61	1.24 *15*	7.10 *6*	av Eβ=2090.3 *20*
(4875 *4*)	4100.31	0.57 *6*	7.51 *5*	av Eβ=2171.5 *20*
(4927 *4*)	4048.3	0.30 *13*	7.81 *19*	av Eβ=2196.6 *20*
(5204 *4*)	3770.59	0.79 *15*	7.49 *9*	av Eβ=2330.7 *20*
(5265 *4*)	3709.83	1.94 *14*	7.13 *4*	av Eβ=2360.0 *20*
(5576 *4*)	3399.47	2.35 *18*	7.16 *4*	av Eβ=2510.0 *20*
(5613 *4*)	3362.13	1.27 *13*	7.44 *5*	av Eβ=2528.1 *20*
(5633 *4*)	3341.65	0.16 *7*	8.34 *19*	av Eβ=2538.0 *20*
(5639 *4*)	3335.99	0.36 *6*	7.99 *8*	av Eβ=2540.7 *20*
(5643 *4*)	3331.59	0.44 *10*	7.91 *10*	av Eβ=2542.8 *20*
(5771 *4*)	3204.11	0.59 *6*	7.82 *5*	av Eβ=2604.5 *20*
(5812 *4*)	3163.50	1.33 *21*	7.48 *7*	av Eβ=2624.1 *20*
(5862 *4*)	3113.50	0.28 *9*	8.18 *14*	av Eβ=2648.3 *20*
(5930 *4*)	3045.03	1.07 *9*	7.62 *4*	av Eβ=2681.4 *20*
(6029 *4*)	2945.81	3.59 *23*	7.13 *3*	av Eβ=2729.4 *20*
(6046 *4*)	2929.47	1.54 *22*	7.50 *7*	av Eβ=2737.3 *20*
(6100 *4*)	2875.18	2.47 *18*	7.31 *4*	av Eβ=2763.5 *20*
(6147 *4*)	2828.49	1.89 *19*	7.44 *5*	av Eβ=2786.1 *20*
(6199 *4*)	2775.84	0.54 *5*	9.99[1u] *4*	av Eβ=2807.2 *20*
(6324 *4*)	2651.20	1.47 *12*	7.61 *4*	av Eβ=2871.8 *20*
(6344 *4*)	2630.87	2.71 *18*	7.35 *3*	av Eβ=2881.7 *20*
(6425 *4*)	2549.88	0.24 *4*	10.44[1u] *8*	av Eβ=2916.5 *20*
(6605 *4*)	2370.32	0.41 *11*	8.25 *12*	av Eβ=3007.7 *20*
(6633 *4*)	2342.11	2.8 *6*	7.42 *10*	av Eβ=3021.3 *20*
(6759 *4*)	2216.16	3.1 *4*	7.42 *6*	av Eβ=3082.3 *20*
(7331 *4*)	1643.95	1.40 *13*	10.04[1u] *4*	av Eβ=3355.3 *20*
(7398 *4*)	1577.40	5.4 *5*	7.35 *4*	av Eβ=3391.2 *20*
(8200 *4*)	775.31	8.7 *16*	7.35 *8*	av Eβ=3778.9 *20*
(8975 *4*)	0	<11	>9.7[1u]	av Eβ=4153.1 *20* Iβ^-: upper limit calculated as 100 − 6.6 − sum Iβ.

† From gamma ray intensity balance.

‡ Absolute intensity per 100 decays.

^{88}Br β^- decay 1986Sk02,1980Ho03 (continued)

$\gamma(^{88}Kr)$

Iγ normalization: From absolute intensity of 775γ as 62.5 % *36* (1980Ho03). Original value in 1980Ho03 is 65% *4* taking %β^-n=6.8 *3*. Using the Adopted Value of %β^-n=6.58 *18*, the 775γ absolute intensity is corrected to 62.5 % *36*.

E_γ [†‡]	I_γ [‡&]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[#]	α	Comments
125.9 *1*	0.05 *2*	2342.11	(3,4$^+$)	2216.16	2$^+$			
207.8 *1*	<0.1	2549.88	(4$^+$)	2342.11	(3,4$^+$)			
288.68[@] *10*	0.31 *4*	2630.87	(3,4$^+$)	2342.11	(3,4$^+$)			I_γ: Other: 0.30 *2* (1980Ho03).
309.2 *1*	0.12 *4*	2651.20	2$^+$	2342.11	(3,4$^+$)			
435.0[a] *1*	0.24 *5*	2651.20	2$^+$	2216.16	2$^+$			
460.02[@a] *5*	0.83 *4*	2103.97?	(4$^+$)	1643.95	4$^+$			I_γ: Other: 0.97 *2* (1980Ho03). E_γ: Unplaced in 1986Sk02; placed by 1980Ho03 on the basis of a level identified in (t,p).
486.5 *1*	0.25 *7*	2828.49	(1,2$^+$)	2342.11	(3,4$^+$)			
559.6[a] *1*	0.16 *7*	2775.84	0$^+$	2216.16	2$^+$			
612.4 *1*	1.0 *2*	2828.49	(1,2$^+$)	2216.16	2$^+$			
638.7[a] *1*	0.5 *2*	2216.16	2$^+$	1577.40	2$^+$			
658.9 *1*	0.34 *8*	2875.18	(2$^+$)	2216.16	2$^+$			
^{x}681.70 *4*	0.32 *5*							
698.57 *10*	0.53 *4*	2342.11	(3,4$^+$)	1643.95	4$^+$			I_γ: Other: 0.45 *2* (1980Ho03).
743.7 *1*	1.3 *3*	3163.50	(3,4$^+$)	2419.59	(3$^-$)			
764.6 *1*	1.02 *6*	2342.11	(3,4$^+$)	1577.40	2$^+$			I_γ: Other: 1.0 *3* (1980Ho03).
775.28[@] *6*	100 *2*	775.31	2$^+$	0	0$^+$	E2	9.27×10^{-4}	α(K)=0.000822 *12*; α(L)=8.88×10^{-5} *13*; α(M)=1.436×10^{-5} *21*; α(N)=1.442×10^{-6} *21* I_γ: $\Delta I\gamma$ not provided by 1986Sk02, estimated by evaluators based on $\Delta I\gamma$ of other strongly observed transitions.
792.9 *1*	1.20 *5*	2370.32		1577.40	2$^+$			I_γ: Other: 1.5 *2* (1980Ho03).
802.14[@] *6*	20.84 *20*	1577.40	2$^+$	775.31	2$^+$			I_γ: 20.84 *2* given in 1986Sk02 is probably a misprint. Other: 20.8 *6* (1980Ho03).
842.2[a] *1*	0.25 *4*	2419.59	(3$^-$)	1577.40	2$^+$			
862.0 *1*	0.20 *4*	3204.11		2342.11	(3,4$^+$)			
868.57[@] *6*	4.74 *8*	1643.95	4$^+$	775.31	2$^+$	(E2)	6.95×10^{-4}	α(K)=0.000617 *9*; α(L)=6.63×10^{-5} *10*; α(M)=1.073×10^{-5} *15*; α(N)=1.079×10^{-6} *16* I_γ: Other: 5.39 *9* (1980Ho03).
905.5[a] *1*	0.23 *7*	2549.88	(4$^+$)	1643.95	4$^+$			E_γ: 905.97 from level energy difference.
912.0[a] *1*	0.12 *5*	3331.59	(1,2$^+$)	2419.59	(3$^-$)			
942.5 *1*	0.6 *1*	3362.13		2419.59	(3$^-$)			
986.4 *1*	0.46 *5*	2630.87	(3,4$^+$)	1643.95	4$^+$			
1028.9 *1*	0.49 *8*	3399.47	(1,2$^+$)	2370.32				
1053.70[@] *6*	2.36 *5*	2630.87	(3,4$^+$)	1577.40	2$^+$			I_γ: Other: 2.07 *7* (1980Ho03).
1073.74[@] *6*	1.51 *4*	2651.20	2$^+$	1577.40	2$^+$			I_γ: Other: 1.65 *4* (1980Ho03).
1146.0 *1*	0.46 *9*	3362.13		2216.16	2$^+$			
1198.61[@] *14*	0.56 *4*	2775.84	0$^+$	1577.40	2$^+$			I_γ: Other: 5.1 *4* (1980Ho03).
1231.3 *1*	0.26 *6*	2875.18	(2$^+$)	1643.95	4$^+$			
1251.1 *1*	0.4 *1*	2828.49	(1,2$^+$)	1577.40	2$^+$			
1285.50[@] *11*	0.46 *3*	2929.47	(3,4$^+$)	1643.95	4$^+$			I_γ: Other: 0.43 *3* (1980Ho03).
1290.4 *1*	0.53 *4*	3709.83	(3)	2419.59	(3$^-$)			
1297.76[@] *11*	0.28 *3*	2875.18	(2$^+$)	1577.40	2$^+$			I_γ: Other: 0.50 *3* (1980Ho03).

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^{88}Br β^- decay 1986Sk02,1980Ho03 (continued)

$\gamma(^{88}Kr)$ (continued)

E_γ [†‡]	I_γ [‡&]	E_i(level)	J^π_i	E_f	J^π_f	Comments
1351.2 *1*	0.3 *2*	3770.59	$(1^-,2^+)$	2419.59	(3^-)	
1351.9[@] *2*	1.3 *3*	2929.47	$(3,4^+)$	1577.40	2^+	I_γ: Other: 1.05 *10* (1980Ho03).
1368.52[@] *7*	1.4 *1*	2945.81	$(1,2^+)$	1577.40	2^+	I_γ: Other: 2.54 *7* (1980Ho03).
1428.8 *1*	0.42 *4*	3770.59	$(1^-,2^+)$	2342.11	$(3,4^+)$	I_γ: Other: 0.51 *5* (1980Ho03).
1440.69[@] *7*	7.49 *9*	2216.16	2^+	775.31	2^+	I_γ: Other: 7.4 *3* (1980Ho03).
1467.63[@] *9*	0.55 *4*	3045.03		1577.40	2^+	I_γ: Other: 0.46 *2* (1980Ho03).
1519.8 *1*	0.17 *4*	3163.50	$(3,4^+)$	1643.95	4^+	I_γ: Other: 0.59 *6* (1980Ho03).
1553.9[a] *1*	0.77 *9*	3770.59	$(1^-,2^+)$	2216.16	2^+	E_γ: 1554.39 from level energy difference.
1566.98[@] *9*	4.7 *9*	2342.11	$(3,4^+)$	775.31	2^+	I_γ: Other: 3.48 *11* (1980Ho03).
1577.41[@] *6*	5.49 *5*	1577.40	2^+	0	0^+	I_γ: Other: 5.57 *14* (1980Ho03).
1594.8 *1*	0.2 *1*	2370.32		775.31	2^+	
1644.19[@] *6*	4.7 *1*	2419.59	(3^-)	775.31	2^+	I_γ: Other: 4.21 *11* (1980Ho03).
[x]1660.57 *5*	0.35 *6*					
[x]1683.91 *5*	0.46 *7*					
1692.0 *1*	0.08 *5*	3335.99	$(3,4^+)$	1643.95	4^+	I_γ: Other: 0.52 *4* (1980Ho03).
1697.7 *1*	0.05 *3*	3341.65	(2^+)	1643.95	4^+	
1758.6 *1*	0.50 *6*	3335.99	$(3,4^+)$	1577.40	2^+	
1775.44[@] *15*	0.27 *5*	2549.88	(4^+)	775.31	2^+	I_γ: Other: 0.42 *4* (1980Ho03).
1784.7 *1*	0.31 *5*	3362.13		1577.40	2^+	I_γ: Other: 0.46 *3* (1980Ho03).
1821.7 *1*	0.33 *6*	3399.47	$(1,2^+)$	1577.40	2^+	
1848.7 *1*	0.08 *3*	4268.61	$(1^-,2,3)$	2419.59	(3^-)	
1855.43[@] *12*	1.2 *1*	2630.87	$(3,4^+)$	775.31	2^+	I_γ: Other: 1.66 *8* (1980Ho03).
[x]1866.00 *6*	0.4 *1*					
1876.0 *1*	0.49 *7*	2651.20	2^+	775.31	2^+	
[x]1913.60 *6*	0.35 *6*					
2000.4 *3*	0.31 *5*	2775.84	0^+	775.31	2^+	
2053.08[@] *12*	0.64 *5*	2828.49	$(1,2^+)$	775.31	2^+	I_γ: Other: 0.92 *4* (1980Ho03).
2053.08[a] *12*	0.64 *5*	4268.61	$(1^-,2,3)$	2216.16	2^+	E_γ: 2052.16 from level energy difference.
[x]2061.49 *6*	0.41 *6*					
2071.7[a] *3*	0.44 *6*	4287.80	$(1,2^+)$	2216.16	2^+	
2099.6 *3*	0.37 *7*	2875.18	(2^+)	775.31	2^+	
[x]2122.98 *6*	1.5 *1*					
2132.7 *3*	0.07 *4*	3709.83	(3)	1577.40	2^+	
[x]2142.83 *6*	0.25 *7*					
2154.23[@] *14*	0.7 *1*	2929.47	$(3,4^+)$	775.31	2^+	I_γ: Other: 0.57 *4* (1980Ho03).
2169.8 *3*	0.94 *7*	2945.81	$(1,2^+)$	775.31	2^+	
2177.3 *3*	0.57 *5*	4596.84	$(1^-,2^+)$	2419.59	(3^-)	
2192.9 *3*	0.25 *8*	4562.97	$(1,2^+)$	2370.32		
2216.10[@] *12*	1.28 *9*	2216.16	2^+	0	0^+	I_γ: Other: 0.83 *5* (1980Ho03).
2269.67[@] *14*	1.16 *8*	3045.03		775.31	2^+	I_γ: Other: 1.38 *8* (1980Ho03).
2287.83[@] *12*	0.72 *5*	4707.56	$(1^-,2^+)$	2419.59	(3^-)	I_γ: Other: 0.74 *4* (1980Ho03).
2338.2 *3*	0.3 *1*	3113.50	$(1,2^+)$	775.31	2^+	
2387.7 *3*	0.66 *6*	3163.50	$(3,4^+)$	775.31	2^+	
2428.7 *3*	0.75 *6*	3204.11		775.31	2^+	I_γ: Other: 0.44 *5* (1980Ho03).
2470.9 *3*	0.08 *3*	4048.3	(2^+)	1577.40	2^+	
2491.24[@] *11*	0.5 *1*	4707.56	$(1^-,2^+)$	2216.16	2^+	I_γ: Other: 0.60 *3* (1980Ho03).
2503.90[@] *12*	0.7 *1*	4923.50	(2,3)	2419.59	(3^-)	I_γ: Other: 0.42 *3* (1980Ho03).
2522.87[@] *10*	0.91 *7*	4100.31	(3^-)	1577.40	2^+	I_γ: Other: 0.73 *3* (1980Ho03).
2556.1 *3*	0.5 *1*	3331.59	$(1,2^+)$	775.31	2^+	
2586.9 *3*	0.67 *8*	3362.13		775.31	2^+	
2624.41 *8*	2.14 *9*	3399.47	$(1,2^+)$	775.31	2^+	I_γ: Other: 2.52 *7* (1980Ho03).

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^{88}Br β^- decay 1986Sk02,1980Ho03 (continued)

γ(^{88}Kr) (continued)

E_γ [†‡]	I_γ [‡&]	E_i(level)	J^π_i	E_f	J^π_f	Comments
2650.8 3	0.23 8	2651.20	2^+	0	0^+	
2650.8 3	0.23 8	5070.31	$(2^+,3,4^+)$	2419.59	(3^-)	
2707.3 3	0.41 4	4923.50	(2,3)	2216.16	2^+	
2828.09[@] 15	0.74 6	2828.49	$(1,2^+)$	0	0^+	I_γ: Other: 0.54 4 (1980Ho03).
2875.21[@] 10	2.7 1	2875.18	(2^+)	0	0^+	I_γ: Other: 2.52 9 (1980Ho03).
[x]2895.07 7	1.7 3					
2934.13 13	2.5 1	3709.83	(3)	775.31	2^+	I_γ: Other: 2.38 9 (1980Ho03).
2945.52[@] 12	3.4 1	2945.81	$(1,2^+)$	0	0^+	I_γ: Other: 3.12 10 (1980Ho03).
2983.1 3	0.8 1	4560.12	(1,2,3)	1577.40	2^+	
2995.2 3	0.42 7	3770.59	$(1^-,2^+)$	775.31	2^+	
3019.38[@] 10	1.7 1	4596.84	$(1^-,2^+)$	1577.40	2^+	I_γ: Other: 1.24 4 (1980Ho03).
3076.4 3	0.09 6	5495.83	(1,2,3)	2419.59	(3^-)	
3113.4 3	0.15 8	3113.50	$(1,2^+)$	0	0^+	
3130.4 3	1.1 2	4707.56	$(1^-,2^+)$	1577.40	2^+	
3161.2 3	0.3 1	5503.4	$(1,2^+)$	2342.11	$(3,4^+)$	
3273.7 3	0.30 5	5693.4	(1,2,3)	2419.59	(3^-)	
3279.2[a] 3	3.2 3	5495.83	(1,2,3)	2216.16	2^+	I_γ: Other: 2.99 11 (1980Ho03). E_γ: 3279.67 from level energy difference. Placed from a level at 4054 by 1980Ho03.
3331.7 3	0.2 1	3331.59	$(1,2^+)$	0	0^+	
3341.4 3	0.2 1	3341.65	(2^+)	0	0^+	
3400.0 2	0.8 1	3399.47	$(1,2^+)$	0	0^+	I_γ: Other: 0.34 3 (1980Ho03).
3408.0[a] 3	<0.1	4985.69	$(1,2^+)$	1577.40	2^+	
3426.2 3	0.50 7	5070.31	$(2^+,3,4^+)$	1643.95	4^+	
3440.9 3	0.30 7	5019.74	$(1,2^+)$	1577.40	2^+	
3492.0 3	1.9 2	4268.61	$(1^-,2,3)$	775.31	2^+	I_γ: Other: 1.52 6 (1980Ho03).
3492.8 3	0.2 1	5070.31	$(2^+,3,4^+)$	1577.40	2^+	
3495.5 3	0.73 8	5915.02	$(1^-,2^+,3^-)$	2419.59	(3^-)	
3510.0 3	0.10 6	5726.2		2216.16	2^+	
3512.5 3	0.3 1	4287.80	$(1,2^+)$	775.31	2^+	
3568.8 3	0.61 7	5988.5	(1,2,3)	2419.59	(3^-)	
3635.3 3	0.10 5	5977.53	(1,2,3)	2342.11	$(3,4^+)$	
3698.3 3	0.4 3	5915.02	$(1^-,2^+,3^-)$	2216.16	2^+	
3770.3 3	0.12 4	3770.59	$(1^-,2^+)$	0	0^+	
3784.3 3	0.17 8	4560.12	(1,2,3)	775.31	2^+	
3821.4 3	0.23 4	4596.84	$(1^-,2^+)$	775.31	2^+	
3932.37[@] 13	6.1 2	4707.56	$(1^-,2^+)$	775.31	2^+	I_γ: Other: 5.38 15 (1980Ho03).
4015.5 5	0.6 1	6231.8	$(1,2^+)$	2216.16	2^+	
[x]4022.0 1	2.4 1					
4048.2 5	0.4 2	4048.3	(2^+)	0	0^+	
4049.6 5	0.3 2	5627.1	(1,2,3)	1577.40	2^+	
4148.05[@] 13	6.4 2	4923.50	(2,3)	775.31	2^+	I_γ: Other: 4.59 9 (1980Ho03).
4209.9 5	0.2 1	4985.69	$(1,2^+)$	775.31	2^+	
4268.2[a] 5	<0.1	4268.61	$(1^-,2,3)$	0	0^+	
4287.2 5	0.16 7	4287.80	$(1,2^+)$	0	0^+	
4312.4 5	0.96 9	5088.2	$(1,2^+)$	775.31	2^+	
4376.2 5	0.08 5	6718.4	(1,2,3)	2342.11	$(3,4^+)$	
4400.0 5	0.49 5	5977.53	(1,2,3)	1577.40	2^+	
4495.1 5	1.9 3	5270.5	(1,2,3)	775.31	2^+	
4562.77[@] 15	5.0 1	4562.97	$(1,2^+)$	0	0^+	I_γ: Other: 3.49 9 (1980Ho03).
4596.7 5	0.07 3	4596.84	$(1^-,2^+)$	0	0^+	
4663.9 5	0.62 8	5439.3	(1,2,3)	775.31	2^+	I_γ: Other: 0.64 4 (1980Ho03).
4707.8 5	0.5 1	4707.56	$(1^-,2^+)$	0	0^+	
4720.9 5	2.8 2	5495.83	(1,2,3)	775.31	2^+	I_γ: Other: 1.45 5 (1980Ho03).

Continued on next page (footnotes at end of table)

^{88}Br β^- decay 1986Sk02,1980Ho03 (continued)

γ(^{88}Kr) (continued)

E_γ [†‡]	I_γ [‡&]	E_i(level)	J_i^π	E_f	J_f^π	Comments
4851.6 *5*	0.95 *7*	5627.1	(1,2,3)	775.31	2^+	I_γ: Other: 0.52 *6* (1980Ho03).
4985.64[@] *16*	3.1 *1*	4985.69	(1,2^+)	0	0^+	I_γ: Other: 1.70 *5* (1980Ho03).
5019.93[@] *15*	2.4 *1*	5019.74	(1,2^+)	0	0^+	I_γ: Other: 1.31 *3* (1980Ho03).
5088.4 *5*	0.4 *1*	5088.2	(1,2^+)	0	0^+	
5197.4[@] *2*	1.5 *1*	5972.87	(1,2,3)	775.31	2^+	I_γ: Other: 0.54 *3* (1980Ho03).
5202.2 *5*	0.7 *3*	5977.53	(1,2,3)	775.31	2^+	
5213.1 *5*	1.02 *9*	5988.5	(1,2,3)	775.31	2^+	I_γ: Other: 0.34 *5* (1980Ho03).
5259.3 *5*	0.05 *3*	6034.4	(1,2^+)	775.31	2^+	
5295.7 *5*	1.14 *7*	6071.2	(1,2^+)	775.31	2^+	
5456.3 *5*	1.02 *6*	6231.8	(1,2^+)	775.31	2^+	
[x]5479.1 *2*	0.5 *1*					
5503.2 *5*	0.04 *3*	5503.4	(1,2^+)	0	0^+	
5763.7 *5*	0.70 *5*	6539.2	(1,2,3)	775.31	2^+	I_γ: Other: 0.38 *4* (1980Ho03).
5915.7 *5*	0.17 *4*	5915.02	(1^-,2^+,3^-)	0	0^+	
5942.8 *5*	0.08 *4*	6718.4	(1,2,3)	775.31	2^+	
5982.5 *5*	0.68 *5*	6758.0	(1,2,3)	775.31	2^+	
6033.8 *5*	0.13 *3*	6034.4	(1,2^+)	0	0^+	
6071.0 *5*	0.08 *5*	6071.2	(1,2^+)	0	0^+	
6231.5 *5*	0.05 *3*	6231.8	(1,2^+)	0	0^+	
6999.2 *5*	0.44 *3*	6999.5	(1,2^+)	0	0^+	I_γ: Other: 0.28 *3* (1980Ho03).

[†] 1986Sk02 report ΔE<0.1 keV for E<4000 keV and ΔE<0.3 keV for E>4000 keV. These uncertainties are underestimated as indicated by the energy sum relations. Therefore, the energies of 1980Ho03 are adopted whenever possible. For the energies of 1986Sk02, ΔE has been increased to ΔE=0.1 keV for E<2000 keV, ΔE=0.3 keV for E<4000 keV, ΔE=0.5 keV for E>4000 keV.

[‡] From 1986Sk02, except where noted.

[#] From the Adopted Gammas.

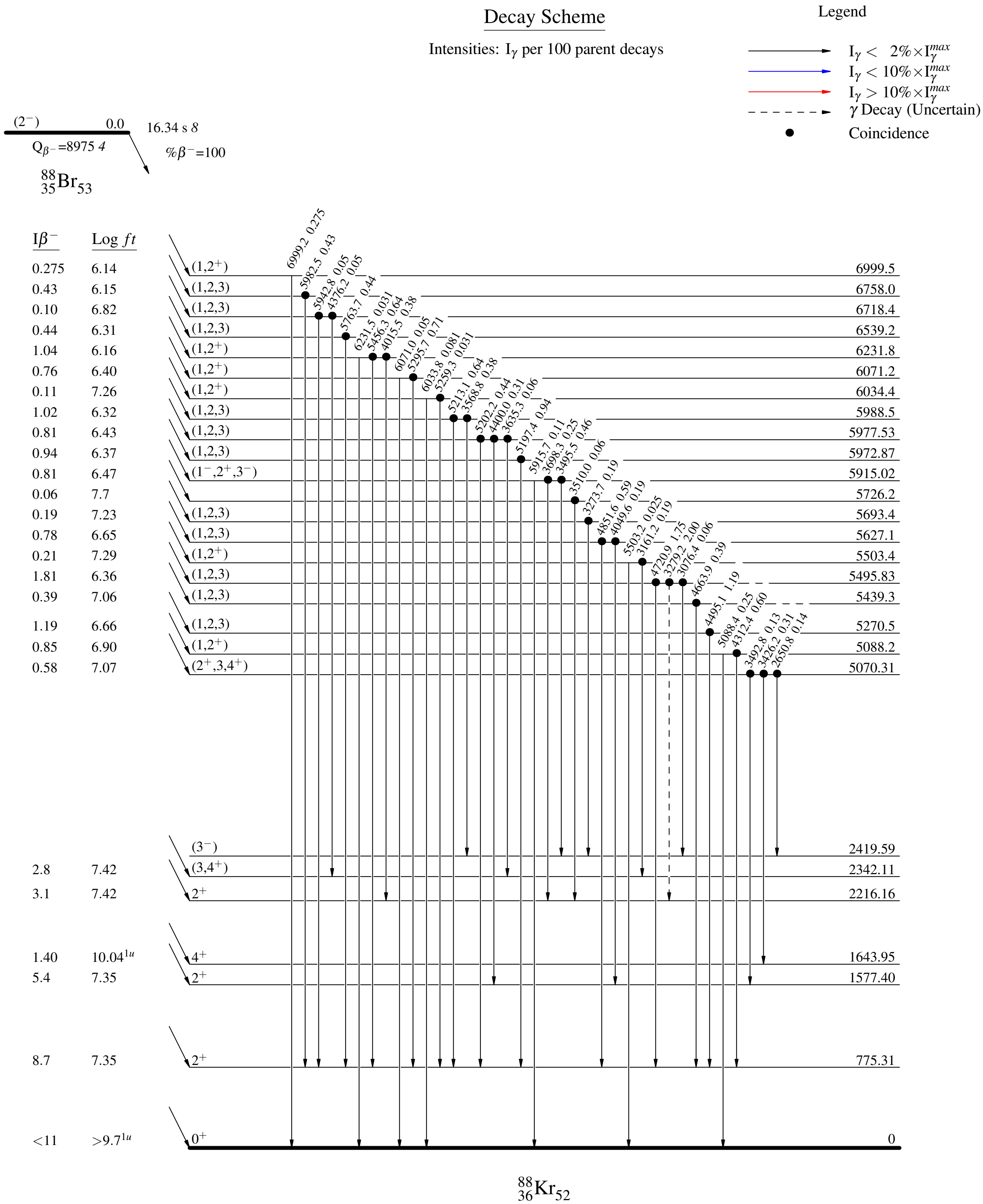
[@] From 1980Ho03.

[&] For absolute intensity per 100 decays, multiply by 0.625 *36*.

[a] Placement of transition in the level scheme is uncertain.

[x] γ ray not placed in level scheme.

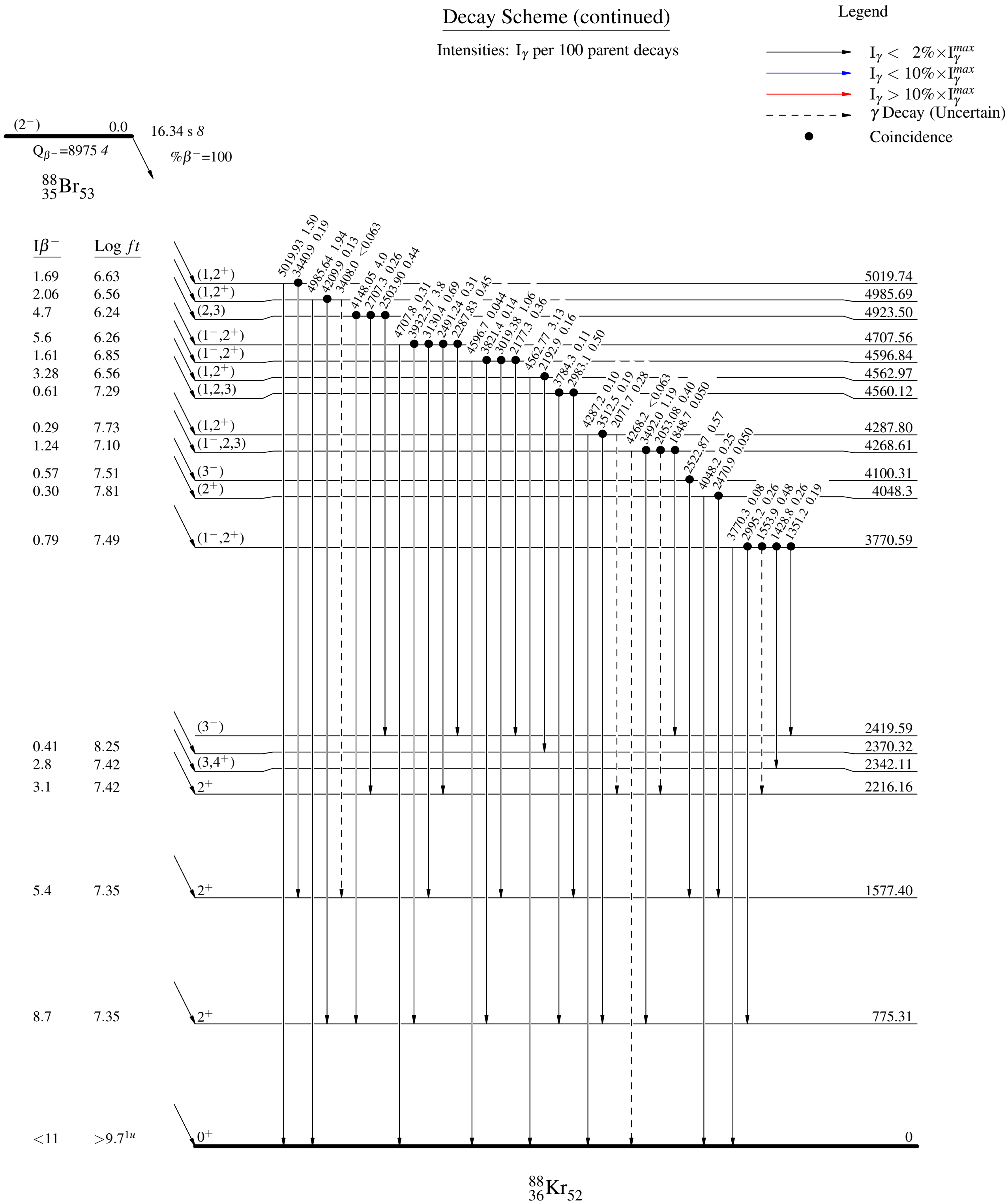
^{88}Br β^- decay 1986Sk02,1980Ho03



^{88}Br β^- decay 1986Sk02,1980Ho03

Decay Scheme (continued)

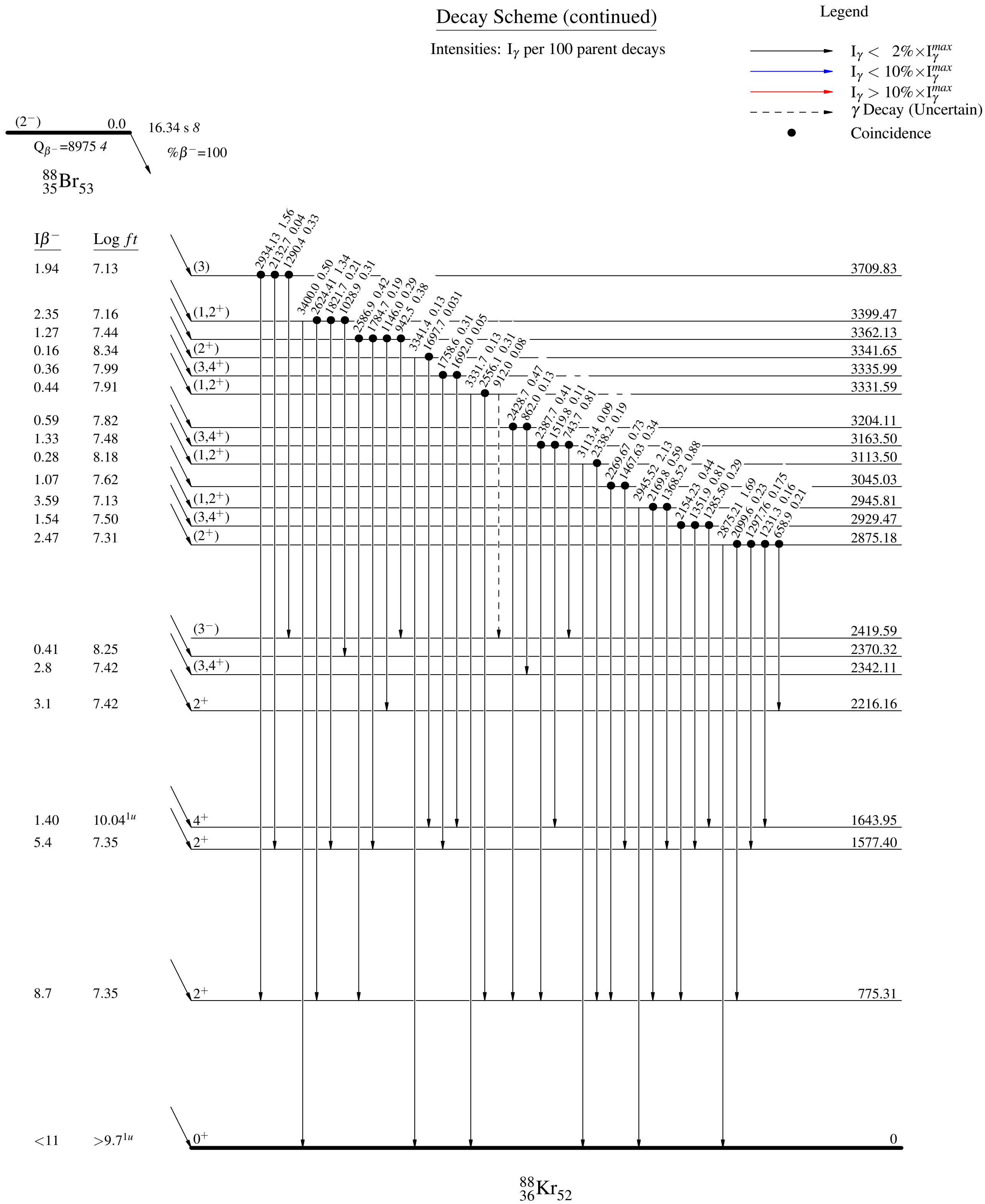
Intensities: I_γ per 100 parent decays



^{88}Br β^- decay 1986Sk02,1980Ho03

Decay Scheme (continued)

Intensities: I_γ per 100 parent decays



^{88}Br β^- decay 1986Sk02,1980Ho03

Decay Scheme (continued)

Intensities: I_γ per 100 parent decays