^{91}Kr β^- decay 1976Gl02

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 114, 1293 (2013)	1-Sep-2013

Parent: ^{91}Kr: E=0.0; $J^\pi=5/2^{(+)}$; $T_{1/2}$=8.57 s *4*; Q(β^-)=6771 *8*; %β^- decay=100.0

Others: 1970Ma53, 1973Cl02, 1974Ac01, 1975Al11, 1975Wo05, 1979Bo26, 1982Al01, 1986Si20, 1990Ru05.

1976Gl02: on-line isotope separation of fission products. Ge(Li), FWHM=2.5 keV at 1332 keV and FWHM=0.5 keV at 122 keV. Measured Eγ, Iγ, $\gamma\gamma$ (40 ns timing window), $\gamma\gamma$(t).

^{91}Rb Levels

E(level)[†]	J^π[‡]	$T_{1/2}$[#]	Comments
0	$3/2^{(-)}$	58.4 s *4*	$T_{1/2}$: from Adopted Levels.
108.788 *6*	$(5/2^-)$	0.8 ns *3*	$T_{1/2}$: from centroid shift in $\beta\gamma$(t) (1976Gl02).
502.04 *9*			
506.593 *9*	$\leq 7/2^{(-)}$	<0.3 ns	
555.55 *4*			
662.42 *7*			
721.66 *4*	$(\leq 7/2^-)$	<0.4 ns	
1133.79 *6*	$(9/2^+)$	17.0 ns *8*	$T_{1/2}$: misprinted as 17.8 ns *8* in fig. 1 of 1986Si20.
1136.74 *6*			
1178.07 *6*			
1211.10 *9*			
1267.69 *6*			
1304.25 *6*			
1324.27 *9*			
1401.83 *12*			
1501.63 *6*	3/2,5/2,7/2		
1547.65 *12*			
1615.22 *6*	3/2,5/2,7/2	<0.5 ns	
1637.07 *14*			
1722.87? *14*			
1775.49? *14*			
1779.05 *13*			
1975.20 *12*			
2002.81 *13*			
2037.36 *12*			
2089.81 *6*	3/2,5/2,7/2		
2195.79 *12*			
2377.29 *18*			
2381.60 *15*	3/2,5/2,7/2		
2490.14 *8*	3/2,5/2,7/2		
2559.45 *15*	3/2,5/2,7/2		
2593.21 *9*	$3/2,5/2,7/2^{(-)}$		
2686.80 *19*	3/2,5/2,7/2		
2729.16 *19*	3/2,5/2,7/2		
2844.56 *12*	3/2,5/2,7/2		
2861.56 *8*	$3/2^{(+)}$ to $7/2^{(+)}$		
2919.99 *12*	3/2,5/2,7/2		
2926.9 *3*			
2964.13 *13*	3/2,5/2,7/2		
2979.75 *13*	3/2,5/2,7/2		
3002.32 *11*	$3/2,5/2,7/2^{(-)}$		
3044.57? *19*			
3046.23 *20*	3/2,5/2,7/2		
3056.96 *16*	3/2,5/2,7/2		
3090.67 *12*	3/2,5/2,7/2		

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^{91}Kr β^- decay 1976Gl02 (continued)

^{91}Rb Levels (continued)

E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡
3113.62 *13*	3/2,5/2,7/2$^{(-)}$	3974.3 *3*	(3/2,5/2,7/2)	4545.9? *4*	(3/2$^+$,5/2$^+$,7/2$^+$)
3206.19 *17*	3/2,5/2,7/2	4072.06? *25*		4569.7 *5*	3/2$^{(+)}$ to 7/2$^{(+)}$
3218.22 *24*		4129.19 *21*	3/2,5/25,7/2$^{(-)}$	4683.6 *3*	3/2$^{(+)}$ to 7/2$^{(+)}$
3325.07 *25*	3/2,5/2,7/2$^{(-)}$	4199.5? *3*	(3/2,5/2,7/2)	4698.06? *24*	
3687.6 *4*	3/2,5/2,7/2	4211.7 *3*	3/2$^{(+)}$ to 7/2$^{(+)}$		
3910.11 *25*	3/2,5/2,7/2$^{(-)}$	4543.3 *3*	3/2$^{(+)}$ to 7/2$^{(+)}$		

† From least-squares fit to Eγ, omitting transitions with tentative or multiple placements unless all transitions deexciting the level are of that character, and also the 215γ which fits its placement poorly.
‡ From Adopted Levels.
# From βγ(t) (1986Si20), if not noted otherwise.

β^- radiations

β^-singles and/or βγ coincidence spectra measured by 1970Ma53, 1973Cl02, 1974Ac01, 1989Gr03. 1973Cl02 deduced Q(β^-)=6120 *70* (βγ coin, 4 gates), 6250 *80* (β singles); these results were revised to 6420 *80* in 1978Wo15. 1989Gr03 report Q(β^-)=6450 *80* (5 gates).
β strength function measurement: 1975Al11.
Measured average β^- decay energy: 1530 *70* (1982Al01), 2100 *80* (1990Ru05).

E(decay)†	E(level)	Iβ$^-$‡@	Log *ft*	Comments
(2073& *8*)	4698.06?	≤0.7	≥5.6	av Eβ=834.9 *37*
(2087 *8*)	4683.6	0.57 *12*	5.65 *10*	av Eβ=841.6 *37*
(2201 *8*)	4569.7	0.37 *8*	5.94 *10*	av Eβ=894.5 *38*
(2225& *8*)	4545.9?	0.13 *11*	6.4 *4*	av Eβ=905.5 *38*
(2228 *8*)	4543.3	0.59 *9*	5.76 *7*	av Eβ=906.7 *38*
(2559 *8*)	4211.7	0.57 *11*	6.02 *9*	av Eβ=1061.9 *38*
(2572& *8*)	4199.5?	0.10 *7*	6.8 *3*	av Eβ=1067.7 *38*
(2642 *8*)	4129.19	0.73 *7*	5.97 *5*	av Eβ=1100.8 *38*
(2699& *8*)	4072.06?	≤0.12	≥6.8	av Eβ=1127.7 *38*
(2797& *8*)	3974.3	0.13 *9*	6.8 *3*	av Eβ=1173.9 *38*
(2861 *8*)	3910.11	0.75 *11*	6.11 *7*	av Eβ=1204.3 *38*
(3083 *8*)	3687.6	0.34 *7*	6.59 *9*	av Eβ=1309.8 *38*
(3446 *8*)	3325.07	0.67 *11*	6.51 *8*	av Eβ=1482.6 *39*
(3553& *8*)	3218.22	≤0.7	≥6.5	av Eβ=1533.6 *39*
(3565 *8*)	3206.19	0.77 *8*	6.51 *5*	av Eβ=1539.4 *39*
(3657 *8*)	3113.62	3.2 *3*	5.94 *4*	av Eβ=1583.7 *39*
(3680 *8*)	3090.67	2.40 *18*	6.08 *4*	av Eβ=1594.7 *39*
(3714 *8*)	3056.96	1.47 *24*	6.31 *8*	av Eβ=1610.8 *39*
(3725 *8*)	3046.23	0.36 *5*	6.92 *6*	av Eβ=1615.9 *39*
(3769 *8*)	3002.32	3.2 *3*	6.00 *4*	av Eβ=1637.0 *39*
(3791 *8*)	2979.75	1.69 *17*	6.29 *5*	av Eβ=1647.8 *39*
(3807 *8*)	2964.13	1.38 *14*	6.38 *5*	av Eβ=1655.3 *39*
(3844 *8*)	2926.9	0.28 *8*	7.09 *13*	av Eβ=1673.1 *39*
(3851 *8*)	2919.99	2.06 *16*	6.23 *4*	av Eβ=1676.4 *39*
(3909 *8*)	2861.56	3.9 *4*	5.98 *5*	av Eβ=1704.5 *39*
(3926 *8*)	2844.56	2.57 *25*	6.17 *5*	av Eβ=1712.6 *39*
3.99×10^3 *25*	2593.21	4.6 *4*	6.04 *4*	av Eβ=1833.3 *39*

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^{91}Kr β^- decay 1976Gl02 (continued)

β^- radiations (continued)

E(decay)†	E(level)	Iβ⁻‡@	Log *ft*	Comments
(4042 *8*)	2729.16	0.70 *8*	6.79 *5*	av Eβ=1768.0 *39*
(4084 *8*)	2686.80	0.67 *9*	6.83 *6*	av Eβ=1788.4 *39*
(4212 *8*)	2559.45	1.66 *16*	6.50 *5*	av Eβ=1849.6 *39*
(4281 *8*)	2490.14	3.00 *23*	6.27 *4*	av Eβ=1882.9 *39*
(4389 *8*)	2381.60	0.82 *9*	6.88 *5*	av Eβ=1935.1 *39*
(4394 *8*)	2377.29	0.55 *8*	7.06 *7*	av Eβ=1937.2 *39*
(4575 *8*)	2195.79	0.88 *9*	6.93 *5*	av Eβ=2024.5 *39*
(4681 *8*)	2089.81	2.77 *23*	6.48 *4*	av Eβ=2075.6 *39*
(4768& *8*)	2002.81	0.36 *7*	7.40 *9*	av Eβ=2117.5 *39*
(4796 *8*)	1975.20	1.12 *11*	6.92 *5*	av Eβ=2130.8 *39*
(4992 *8*)	1779.05	0.38 *11*	7.46 *13*	av Eβ=2225.4 *39*
(4996& *8*)	1775.49?	0.73 *12*	7.18 *8*	av Eβ=2227.1 *39*
(5134 *8*)	1637.07	0.55 *10*	7.36 *8*	av Eβ=2293.8 *39*
4.81×10^3 *10*	1615.22	6.3 *6*	6.31 *5*	av Eβ=2304.4 *39*
(5223 *8*)	1547.65	1.20 *12*	7.05 *5*	av Eβ=2337.0 *39*
4.91×10^3 *30*	1501.63	3.0 *5*	6.67 *8*	av Eβ=2359.2 *39*
(5369 *8*)	1401.83	0.85 *15*	7.26 *8*	av Eβ=2407.3 *39*
(5447 *8*)	1324.27	0.83 *12*	7.30 *7*	av Eβ=2444.8 *39*
(5467& *8*)	1304.25	0.6 *3*	7.44 *22*	av Eβ=2454.4 *39*
(5503 *8*)	1267.69	1.60 *16*	7.03 *5*	av Eβ=2472.1 *39*
(5560 *8*)	1211.10	0.31 *17*	7.76 *24*	av Eβ=2499.4 *39*
(5593 *8*)	1178.07	0.67 *16*	7.44 *11*	av Eβ=2515.4 *39*
(5634 *8*)	1136.74	1.3 *3*	7.17 *10*	av Eβ=2535.3 *39*
(5637 *8*)	1133.79	1.6 *4*	7.08 *11*	av Eβ=2536.7 *39*
(6049& *8*)	721.66	1.6 *5*	7.22 *14*	av Eβ=2735.8 *39*
(6109 *8*)	662.42	1.05 *12*	7.42 *5*	av Eβ=2764.4 *39*
5.86×10^3 *30*	555.55	0.97 *21*	7.49 *10*	av Eβ=2816.0 *39*
6.07×10^3 *15*	506.593	3.7 *14*	6.92 *17*	av Eβ=2839.7 *39*
(6269& *8*)	502.04	0.7 *3*	7.65 *19*	av Eβ=2841.9 *39*
6.27×10^3 *10*	108.788	18 *3*	6.36 *8*	av Eβ=3031.9 *39*
(6771 *8*)	0	9# *4*	6.69 *20*	av Eβ=3084.4 *39*

† Values given without parentheses are measured β^- endpoint energies from $\beta\gamma$ coin (1989Gr03). Other measurements: 1970Ma53, 1974Ac01 obtain inconsistent results.

‡ From intensity balance at level, setting intensity to $I_\gamma/2 \pm I_\gamma/2$ for transitions whose placement is uncertain.

Weighted average of 12 *5* (direct measurement using a 4π plastic scin detector; 1976Wo05) and 5 *5*. The latter is the datum 8 *5* deduced by 1976Gl02 based on relative Iγ for ^{91}Kr and ^{91}Rb decay chain activities in decay equilibrium with ^{91}Sr growing in, assuming %Iβ(^{91}Y g.s.)=30.8, after revision by the evaluator for consistency with %Iβ(^{91}Y g.s.)=28.6 adopted in this evaluation. Other Iβ: 20 *2* (1974Ac01); note that Iβ(^{91}Sr,g.s.), derived by these authors in a similar manner, was also inconsistent with independent measurements.

@ Absolute intensity per 100 decays.

& Existence of this branch is questionable.

$\gamma(^{91}Rb)$

Iγ normalization: From Σ (I(γ+ce) to g.s.)=(100 − %Iβ(^{91}Rb,g.s.)), assuming %Iβ(^{91}Rb,g.s.)=9 *4*.

E_γ[‡]	I_γ[‡][b]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	δ	α[†]	Comments
108.788[a] *6*	1000 *58*	108.788	(5/2$^-$)	0	3/2$^{(-)}$	M1(+E2)	0.12 *+5−9*	0.123 *9*	α(K)exp=0.109 *7* (1975Wo05) α(K)=0.108 *8*; α(L)=0.0126 *12*; α(M)=0.00208 *19*; α(N+..)=0.000242 *20* α(N)=0.000232 *19*; α(O)=9.6×10^{-6} *6* δ: calculated by the evaluator from α(K)exp. α(K)exp: Weighted average of 0.108 *11* from I(K x ray)/Iγ and 0.110 *10* from I(93ce(K),^{91}Sr)/I(109ce(K),^{91}Rb)=10.0 *3* (1975Wo05). Other: 0.067 *12* (1974Ac01). %Iγ(109)=43.1 *24* using adopted normalization.
215.46 *2*	24.1 *8*	721.66	(≤7/2$^-$)	506.593	≤7/2$^{(-)}$				
384.3 *4*	1.5 *6*	3113.62	3/2,5/2,7/2$^{(-)}$	2729.16	3/2,5/2,7/2				
397.83 *13*	36.0 *25*	506.593	≤7/2$^{(-)}$	108.788	(5/2$^-$)				α(K)exp≤0.008 (1974Ac01)
400.7 *3*	4.9 *12*	2490.14	3/2,5/2,7/2	2089.81	3/2,5/2,7/2				
412.04 *8*	54 *3*	1133.79	(9/2$^+$)	721.66	(≤7/2$^-$)				
446.78 *6*	38.0 *20*	555.55		108.788	(5/2$^-$)				
450.8[d] *4*	1.2 *4*	1775.49?		1324.27					
470.0 *5*	1.5 *5*	2559.45	3/2,5/2,7/2	2089.81	3/2,5/2,7/2				
474.63 *10*	21.0 *14*	2089.81	3/2,5/2,7/2	1615.22	3/2,5/2,7/2				
481.39 *9*	28.5 *19*	1615.22	3/2,5/2,7/2	1133.79	(9/2$^+$)				
489.49 *15*	9.9 *13*	1211.10		721.66	(≤7/2$^-$)				
501.97 *12*	37 *6*	502.04		0	3/2$^{(-)}$				α(K)exp≤0.007 (1974Ac01)
506.592[a] *9*	440 *30*	506.593	≤7/2$^{(-)}$	0	3/2$^{(-)}$	(M1,E2)		0.0028 *5*	α(K)exp=0.0031 *10* (1974Ac01) α=0.0028 *5*; α(K)=0.0025 *5*; α(L)=0.00027 *6*; α(M)=4.5×10^{-5} *9*; α(N+..)=5.3×10^{-6} *10* α(N)=5.1×10^{-6} *10*; α(O)=2.1×10^{-7} *4*
541.9 *9*	1.3 *7*	2089.81	3/2,5/2,7/2	1547.65					
545.96 *11*	9.4 *8*	1267.69		721.66	(≤7/2$^-$)				
555.57 *7*	44.7 *24*	555.55		0	3/2$^{(-)}$				
569.00 *19*	4.7 *6*	4543.3	3/2$^{(+)}$ to 7/2$^{(+)}$	3974.3	(3/2,5/2,7/2)				
588.22 *7*	20.7 *12*	2089.81	3/2,5/2,7/2	1501.63	3/2,5/2,7/2				
612.87 *6*	177 *9*	721.66	(≤7/2$^-$)	108.788	(5/2$^-$)	(M1,E2)		0.00169 *21*	α(K)exp=0.0025 *12* (1974Ac01) α=0.00169 *21*; α(K)=0.00149 *18*;

^{91}Kr β^- decay 1976Gl02 (continued)

$\gamma(^{91}Rb)$ (continued)

E_γ[‡]	I_γ[‡b]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	Comments
							α(L)=0.000163 *22*; α(M)=2.7×10^{-5} *4*; α(N+..)=3.2×10^{-6} *4* α(N)=3.0×10^{-6} *4*; α(O)=1.30×10^{-7} *14*
630.14 *7*	51 *3*	1136.74		506.593	≤7/2$^{(-)}$		
662.42 *7*	29.4 *18*	662.42		0	3/2$^{(-)}$		
671.46 *8*	16.2 *12*	1178.07		506.593	≤7/2$^{(-)}$		
680.0 *3*	2.7 *7*	1401.83		721.66	(≤7/2$^-$)		
712.39 *15*	5.1 *6*	1267.69		555.55			
721.55 *8*	15.2 *10*	721.66	(≤7/2$^-$)	0	3/2$^{(-)}$		
748.64 *8*	13.1 *9*	1304.25		555.55			
761.01 *8*	23.9 *15*	1267.69		506.593	≤7/2$^{(-)}$		
766.0 *9*	1.2 *7*	1267.69		502.04			
771.86 *16*	8.0 *9*	2861.56	3/2$^{(+)}$ to 7/2$^{(+)}$	2089.81	3/2,5/2,7/2		
780.2 *6*	2.4 *9*	1501.63	3/2,5/2,7/2	721.66	(≤7/2$^-$)		
785.25 *16*	10.7 *12*	2089.81	3/2,5/2,7/2	1304.25			
797.68 *15*	5.6 *6*	1304.25		506.593	≤7/2$^{(-)}$		
802.17 *15*	2.8 *5*	1304.25		502.04			
807.14 *9*	13.2 *9*	2844.56	3/2,5/2,7/2	2037.36			
814.0 *4*	3.0 *7*	2593.21	3/2,5/2,7/2$^{(-)}$	1779.05			
817.64 *18*	10.6 *10*	1324.27		506.593	≤7/2$^{(-)}$		
822.14 *18*	9.1 *9*	2089.81	3/2,5/2,7/2	1267.69			
825.82 *16*	9.4 *9*	1547.65		721.66	(≤7/2$^-$)		
846.7 *4*	2.5 *8*	1401.83		555.55			
858.68 *22*	5.9 *10*	2861.56	3/2$^{(+)}$ to 7/2$^{(+)}$	2002.81			
874.92 *8*	29.3 *16*	2490.14	3/2,5/2,7/2	1615.22	3/2,5/2,7/2		
879.5 *3*	2.9 *5*	2381.60	3/2,5/2,7/2	1501.63	3/2,5/2,7/2		
893.6 *4*	4.0[@] *10*	1615.22	3/2,5/2,7/2	721.66	(≤7/2$^-$)		
895.0 *5*	6.6[@] *15*	1401.83		506.593	≤7/2$^{(-)}$		
900.5 *4*	3.6 *9*	2037.36		1136.74			
953.24 *16*	7.6 *8*	2089.81	3/2,5/2,7/2	1136.74			
955.74 *16*	7.3 *8*	2089.81	3/2,5/2,7/2	1133.79	(9/2$^+$)		
992.1 *6*	2.9 *11*	1547.65		555.55			
995.08 *12*	18.4 *13*	1501.63	3/2,5/2,7/2	506.593	≤7/2$^{(-)}$		
1008.98 *23*	4.3 *7*	3046.23	3/2,5/2,7/2	2037.36			
1024.91 *15*	66 *5*	1133.79	(9/2$^+$)	108.788	(5/2$^-$)	[M2]	
1028.3 *3*	15 *3*	1136.74		108.788	(5/2$^-$)		
1041.80[d] *15*	5.0 *6*	3044.57?		2002.81			
1058.90 *15*	6.2 *6*	2195.79		1136.74			
1069.0 *3*	2.0 *5*	1178.07		108.788	(5/2$^-$)		
1085.9[d] *3*	2.7 *5*	4199.5?	(3/2,5/2,7/2)	3113.62	3/2,5/2,7/2$^{(-)}$		
1091.61 *14*	7.9 *7*	2593.21	3/2,5/2,7/2$^{(-)}$	1501.63	3/2,5/2,7/2		
1102.18 *15*	17.4 *18*	1211.10		108.788	(5/2$^-$)		

$^{91}_{37}Rb_{54}$-5

γ(^{91}Rb) (continued)

E_γ[‡]	I_γ[‡b]	E_i(level)	J^π_i	E_f	J^π_f
1108.68 *10*	165 *9*	1615.22	3/2,5/2,7/2	506.593	$\leq 7/2^{(-)}$
1129.8 *6*	2.5 *9*	3974.3	(3/2,5/2,7/2)	2844.56	3/2,5/2,7/2
1136.81 *14*	23.8 *19*	1136.74		0	$3/2^{(-)}$
1158.8 *7*	2.4 *11*	1267.69		108.788	$(5/2^-)$
1178.03 *11*	29.6 *16*	1178.07		0	$3/2^{(-)}$
1195.42 *20*	6.0 *6*	1304.25		108.788	$(5/2^-)$
1198.9 *5*	2.2 *6*	2377.29		1178.07	
1202.2 *4*	2.7 *6*	4129.19	$3/2,5/25,7/2^{(-)}$	2926.9	
1215.57 *14*	15.2 *12*	1324.27		108.788	$(5/2^-)$
1227.49[d] *22*	2.8 *5*	4072.06?		2844.56	3/2,5/2,7/2
1231.1 *3*	1.2 *5*	3206.19	3/2,5/2,7/2	1975.20	
1247.4 *4*	4.0 *10*	4211.7	$3/2^{(+)}$ to $7/2^{(+)}$	2964.13	3/2,5/2,7/2
1267.83 *13*	15.3 *11*	1267.69		0	$3/2^{(-)}$
1277.0 *4*	4.8 *8*	1779.05		502.04	
1281.11 *15*	14.2 *11*	2002.81		721.66	$(\leq 7/2^-)$
1292.95 *17*	11.2 *12*	1401.83		108.788	$(5/2^-)$
1304.28 *13*	28.8 *19*	1304.25		0	$3/2^{(-)}$
1311.34 *21*	10.2 *12*	3090.67	3/2,5/2,7/2	1779.05	
1315.54 *17*	13.5 *13*	2037.36		721.66	$(\leq 7/2^-)$
1324.22 *18*	12.6 *12*	1324.27		0	$3/2^{(-)}$
1327.3 *6*	3.0 *9*	2964.13	3/2,5/2,7/2	1637.07	
1338.0[d] *4*	4.0 *8*	3113.62	$3/2,5/2,7/2^{(-)}$	1775.49?	
1353.54 *21*	13.8 *20*	2490.14	3/2,5/2,7/2	1136.74	
1356.17 *18*	17.2 *20*	2490.14	3/2,5/2,7/2	1133.79	$(9/2^+)$
1359.63 *22*	5.0 *11*	2861.56	$3/2^{(+)}$ to $7/2^{(+)}$	1501.63	3/2,5/2,7/2
1365.3 *5*	5.3 *13*	3002.32	$3/2,5/2,7/2^{(-)}$	1637.07	
1368.5 *3*	7.7 *13*	2089.81	3/2,5/2,7/2	721.66	$(\leq 7/2^-)$
1386.99 *17*	12.6 *13*	3002.32	$3/2,5/2,7/2^{(-)}$	1615.22	3/2,5/2,7/2
1392.74 *17*	12.6 *12*	1501.63	3/2,5/2,7/2	108.788	$(5/2^-)$
1402.0 *3*	5.2 *11*	1401.83		0	$3/2^{(-)}$
1419.72 *13*	19.4 *13*	1975.20		555.55	
1426.1 *6*	2.4 *8*	2559.45	3/2,5/2,7/2	1133.79	$(9/2^+)$
1439.11 *21*	8.3 *9*	1547.65		108.788	$(5/2^-)$
1456.5 *5*	8.1 *23*	2593.21	$3/2,5/2,7/2^{(-)}$	1136.74	
1459.0 *7*	6.5 *18*	2593.21	$3/2,5/2,7/2^{(-)}$	1133.79	$(9/2^+)$
1468.2 *6*	3.7 *9*	1975.20		506.593	$\leq 7/2^{(-)}$
1474.6 *5*	2.0 *6*	2195.79		721.66	$(\leq 7/2^-)$
1479.90[d] *21*	12.4 *14*	4698.06?		3218.22	
1500.6 *5*	16.0 *20*	3002.32	$3/2,5/2,7/2^{(-)}$	1501.63	3/2,5/2,7/2
1501.60 *11*	111[@] *7*	1501.63	3/2,5/2,7/2	0	$3/2^{(-)}$
1506.4 *4*	19 *4*	1615.22	3/2,5/2,7/2	108.788	$(5/2^-)$

^{91}Kr β^- decay 1976Gl02 (continued)

$\gamma(^{91}$Rb) (continued)

E_γ[‡]	I_γ[‡b]	E_i(level)	J^π_i	E_f	J^π_f
1517.8 *5*	2.0 *6*	2729.16	3/2,5/2,7/2	1211.10	
1525.0 *5*	3.7 *9*	2926.9		1401.83	
1528.29 *14*	20.9 *14*	1637.07		108.788	$(5/2^-)$
1537.34 *24*	7.6 *10*	2861.56	$3/2^{(+)}$ to $7/2^{(+)}$	1324.27	
1547.65 *25*	8.4 *11*	1547.65		0	$3/2^{(-)}$
1555.3 *4*	14 *4*	3056.96	3/2,5/2,7/2	1501.63	3/2,5/2,7/2
1557.2 *5*	11 *4*	2861.56	$3/2^{(+)}$ to $7/2^{(+)}$	1304.25	
1563.6 *4*	4.0 *8*	4543.3	$3/2^{(+)}$ to $7/2^{(+)}$	2979.75	3/2,5/2,7/2
1577.6 *6*	2.2 *7*	2979.75	3/2,5/2,7/2	1401.83	
1583.51 *19*	8.8 *8*	2089.81	3/2,5/2,7/2	506.593	$\leq 7/2^{(-)}$
1589.2 *5*	2.5 *7*	3090.67	3/2,5/2,7/2	1501.63	3/2,5/2,7/2
1614.07[d] *14*	23.8 *17*	1722.87?		108.788	$(5/2^-)$
1626.7 *4*	7.5 *22*	4683.6	$3/2^{(+)}$ to $7/2^{(+)}$	3056.96	3/2,5/2,7/2
1633.5 *7*	3.3 *25*	2844.56	3/2,5/2,7/2	1211.10	
1650.22 *24*	3.9 *8*	2861.56	$3/2^{(+)}$ to $7/2^{(+)}$	1211.10	
1659.4 *5*	2.4 *6*	2964.13	3/2,5/2,7/2	1304.25	
1666.73[cd] *13*	18.1[c] *15*	1775.49?		108.788	$(5/2^-)$
1666.73[c] *13*	6.2[c] *15*	2844.56	3/2,5/2,7/2	1178.07	
1675.83 *19*	8.8 *8*	2979.75	3/2,5/2,7/2	1304.25	
1681.2 *3*	4.0 *7*	4683.6	$3/2^{(+)}$ to $7/2^{(+)}$	3002.32	$3/2,5/2,7/2^{(-)}$
1697.6 *5*	3.4 *11*	3002.32	$3/2,5/2,7/2^{(-)}$	1304.25	
1710.0 *4*	5.6 *18*	3325.07	$3/2,5/2,7/2^{(-)}$	1615.22	3/2,5/2,7/2
1725.2 *3*	4.4 *10*	2861.56	$3/2^{(+)}$ to $7/2^{(+)}$	1136.74	
1727.85 *16*	11.5 *9*	2861.56	$3/2^{(+)}$ to $7/2^{(+)}$	1133.79	$(9/2^+)$
1741.78 *13*	18.5 *14*	2919.99	3/2,5/2,7/2	1178.07	
1752.9 *3*	4.3 *7*	2964.13	3/2,5/2,7/2	1211.10	
1778.85 *16*	18.9 *15*	1779.05		0	$3/2^{(-)}$
1783.4 *3*	8.7 *11*	2919.99	3/2,5/2,7/2	1136.74	
1789.43 *21*	9.4 *10*	3113.62	$3/2,5/2,7/2^{(-)}$	1324.27	
1823.05 *24*	6.8 *8*	3090.67	3/2,5/2,7/2	1267.69	
1827.1 *4*	4.7 *9*	2964.13	3/2,5/2,7/2	1136.74	
1834.6 *4*	3.0 *6*	4211.7	$3/2^{(+)}$ to $7/2^{(+)}$	2377.29	
1843.1 *6*	2.9 *8*	2979.75	3/2,5/2,7/2	1136.74	
1856.6 *8*	1.9 *8*	4543.3	$3/2^{(+)}$ to $7/2^{(+)}$	2686.80	3/2,5/2,7/2
1866.2 *3*	3.8 *8*	1975.20		108.788	$(5/2^-)$
1871.8 *3*	4.4 *13*	2593.21	$3/2,5/2,7/2^{(-)}$	721.66	$(\leq 7/2^-)$
1874.99 *24*	10.9 *14*	2381.60	3/2,5/2,7/2	506.593	$\leq 7/2^{(-)}$
1880.1 *4*	5.6 *10*	3090.67	3/2,5/2,7/2	1211.10	
1884.3 *8*	2.4 *4*	3974.3	(3/2,5/2,7/2)	2089.81	3/2,5/2,7/2
1913.9 *8*	1.5 *7*	3218.22		1304.25	
1965.11 *19*	15.3 *14*	2686.80	3/2,5/2,7/2	721.66	$(\leq 7/2^-)$

$^{91}_{37}Rb_{54}$-7

$\gamma(^{91}Rb)$ (continued)

E_γ[‡]	I_γ[‡b]	E_i(level)	J_i^π	E_f	J_f^π
1982.7 *5*	3.8 *9*	2490.14	3/2,5/2,7/2	506.593	≤7/2$^{(-)}$
1995.0[&] *8*	1.0 *5*	3206.19	3/2,5/2,7/2	1211.10	
2004.1 *9*	0.9 *9*	2559.45	3/2,5/2,7/2	555.55	
2039.36 *24*	8.9 *10*	4129.19	3/2,5/25,7/2$^{(-)}$	2089.81	3/2,5/2,7/2
2057.27 *18*	9.6 *8*	2559.45	3/2,5/2,7/2	502.04	
2072.25 *25*	7.1 *10*	3206.19	3/2,5/2,7/2	1133.79	(9/2$^+$)
2087.0 *4*	4.0 *10*	2195.79		108.788	(5/2$^-$)
2139.98 *21*	16.4 *18*	2861.56	3/2$^{(+)}$ to 7/2$^{(+)}$	721.66	(≤7/2$^-$)
2195.99 *23*	8.1 *10*	2195.79		0	3/2$^{(-)}$
2242.50 *25*	3.9 *6*	2964.13	3/2,5/2,7/2	721.66	(≤7/2$^-$)
2251.4[d] *5*	3.3 *9*	3974.3	(3/2,5/2,7/2)	1722.87?	
2268.6 *4*	5.2 *11*	2377.29		108.788	(5/2$^-$)
2281.1 *6*	3.4 *11*	3002.32	3/2,5/2,7/2$^{(-)}$	721.66	(≤7/2$^-$)
2322.6[d] *8*	2.5 *10*	3044.57?		721.66	(≤7/2$^-$)
2377.34 *23*	8.2 *8*	2377.29		0	3/2$^{(-)}$
2381.87 *24*	5.0 *7*	2381.60	3/2,5/2,7/2	0	3/2$^{(-)}$
2391.8 *9*	2.6 *10*	3113.62	3/2,5/2,7/2$^{(-)}$	721.66	(≤7/2$^-$)
2395.1 *7*	3.0 *10*	3056.96	3/2,5/2,7/2	662.42	
2413.7 *3*	7.8 *11*	2919.99	3/2,5/2,7/2	506.593	≤7/2$^{(-)}$
2425.0 *7*	3.4 *10*	2926.9		502.04	
2447.3 *7*	5.7 *16*	3002.32	3/2,5/2,7/2$^{(-)}$	555.55	
2450.7 *3*	15.6 *19*	2559.45	3/2,5/2,7/2	108.788	(5/2$^-$)
2457.7 *3*	8.1 *12*	2964.13	3/2,5/2,7/2	506.593	≤7/2$^{(-)}$
2473.1 *5*	9.4 *20*	2979.75	3/2,5/2,7/2	506.593	≤7/2$^{(-)}$
2480.0 *7*	4.9 *14*	4569.7	3/2$^{(+)}$ to 7/2$^{(+)}$	2089.81	3/2,5/2,7/2
2484.35 *13*	64 *4*	2593.21	3/2,5/2,7/2$^{(-)}$	108.788	(5/2$^-$)
2495.82 *22*	15.9 *15*	3002.32	3/2,5/2,7/2$^{(-)}$	506.593	≤7/2$^{(-)}$
2539.4 *3*	3.9 *5*	3046.23	3/2,5/2,7/2	506.593	≤7/2$^{(-)}$
2550.6 *4*	4.2 *5*	3056.96	3/2,5/2,7/2	506.593	≤7/2$^{(-)}$
2555.8 *6*	2.2[@] *10*	3218.22		662.42	
2558.0 *4*	4.0[@] *15*	3113.62	3/2,5/2,7/2$^{(-)}$	555.55	
2559.4 *4*	8.1[@] *13*	2559.45	3/2,5/2,7/2	0	3/2$^{(-)}$
2585.6 *5*	2.3 *6*	3910.11	3/2,5/2,7/2$^{(-)}$	1324.27	
2593.15 *20*	12.5 *12*	2593.21	3/2,5/2,7/2$^{(-)}$	0	3/2$^{(-)}$
2606.9 *5*	5.6 *11*	3113.62	3/2,5/2,7/2$^{(-)}$	506.593	≤7/2$^{(-)}$
2620.33 *23*	15.5 *14*	2729.16	3/2,5/2,7/2	108.788	(5/2$^-$)
2627.7 *8*	4.0 *5*	4129.19	3/2,5/25,7/2$^{(-)}$	1501.63	3/2,5/2,7/2
2642.5 *4*	4.7 *8*	3910.11	3/2,5/2,7/2$^{(-)}$	1267.69	
2663.0 *7*	2.0 *6*	3218.22		555.55	
2687.0 *9*	2.1 *10*	2686.80	3/2,5/2,7/2	0	3/2$^{(-)}$

$^{91}_{37}Rb_{54}$-8

$\gamma(^{91}Rb)$ (continued)

E_γ [‡]	I_γ [‡b]	E_i(level)	J_i^π	E_f	J_f^π
2732.1 *7*	5.5 *17*	3910.11	3/2,5/2,7/2$^{(-)}$	1178.07	
2735.83 *19*	34 *3*	2844.56	3/2,5/2,7/2	108.788	(5/2$^-$)
2752.59 *19*	17.0 *14*	2861.56	3/2$^{(+)}$ to 7/2$^{(+)}$	108.788	(5/2$^-$)
2769.4 *5*	4.8 *12*	3325.07	3/2,5/2,7/2$^{(-)}$	555.55	
2809.9 *12*	2.8 *16*	4211.7	3/2$^{(+)}$ to 7/2$^{(+)}$	1401.83	
2811.7 *6*	6.2 *7*	2919.99	3/2,5/2,7/2	108.788	(5/2$^-$)
2845.0 *3*	7.7 *12*	2844.56	3/2,5/2,7/2	0	3/2$^{(-)}$
2855.3 *3*	9.3 *12*	2964.13	3/2,5/2,7/2	108.788	(5/2$^-$)
2870.54 *21*	19.6 *17*	2979.75	3/2,5/2,7/2	108.788	(5/2$^-$)
2893.5 *3*	9.2 *11*	3002.32	3/2,5/2,7/2$^{(-)}$	108.788	(5/2$^-$)
2904.4 *11*	1.7 *9*	4683.6	3/2$^{(+)}$ to 7/2$^{(+)}$	1779.05	
2919.9 *4*	6.2 *10*	2919.99	3/2,5/2,7/2	0	3/2$^{(-)}$
2926.7 *5*	2.0 *7*	2926.9		0	3/2$^{(-)}$
2930.8[d] *5*	4.5 *10*	4545.9?	(3/2$^+$,5/2$^+$,7/2$^+$)	1615.22	3/2,5/2,7/2
2966.6 *7*	2.9 *8*	3687.6	3/2,5/2,7/2	721.66	(≤7/2$^-$)
2981.85 *19*	30.0 *19*	3090.67	3/2,5/2,7/2	108.788	(5/2$^-$)
3001.9 *8*	5.9 *21*	3002.32	3/2,5/2,7/2$^{(-)}$	0	3/2$^{(-)}$
3005.1 *10*	2.6 *19*	3113.62	3/2,5/2,7/2$^{(-)}$	108.788	(5/2$^-$)
3041.3 *10*	2.9 *13*	4543.3	3/2$^{(+)}$ to 7/2$^{(+)}$	1501.63	3/2,5/2,7/2
3043.7[d] *9*	1.2 *11*	3044.57?		0	3/2$^{(-)}$
[x]3052.6 *11*	3.6 *19*				
3056.80 *22*	20.0 *20*	3056.96	3/2,5/2,7/2	0	3/2$^{(-)}$
3097.4 *3*	8.4 *9*	3206.19	3/2,5/2,7/2	108.788	(5/2$^-$)
3109.6 *5*	8.3 *18*	3218.22		108.788	(5/2$^-$)
3113.50 *20*	49 *3*	3113.62	3/2,5/2,7/2$^{(-)}$	0	3/2$^{(-)}$
3180.9 *8*	2.5 *9*	3687.6	3/2,5/2,7/2	506.593	≤7/2$^{(-)}$
3265.4 *10*	1.4 *5*	4569.7	3/2$^{(+)}$ to 7/2$^{(+)}$	1304.25	
3324.9 *4*	5.0 *7*	3325.07	3/2,5/2,7/2$^{(-)}$	0	3/2$^{(-)}$
3393.6[d] *3*	6.5 *8*	4698.06?		1304.25	
3403.4 *5*	3.7 *8*	3910.11	3/2,5/2,7/2$^{(-)}$	506.593	≤7/2$^{(-)}$
3435.7 *10*	2.2 *9*	4569.7	3/2$^{(+)}$ to 7/2$^{(+)}$	1133.79	(9/2$^+$)
[x]3444.4 *5*	4.9 *10*				
3490.0 *11*	1.7 *8*	4211.7	3/2$^{(+)}$ to 7/2$^{(+)}$	721.66	(≤7/2$^-$)
3578.4 *5*	2.5 *6*	3687.6	3/2,5/2,7/2	108.788	(5/2$^-$)
3705.0 *11*	1.5 *6*	4211.7	3/2$^{(+)}$ to 7/2$^{(+)}$	506.593	≤7/2$^{(-)}$
3910.0 *11*	1.1 *4*	3910.11	3/2,5/2,7/2$^{(-)}$	0	3/2$^{(-)}$
3973.9 *10*	1.1 *4*	3974.3	(3/2,5/2,7/2)	0	3/2$^{(-)}$
4129.3 *10*	1.2 *4*	4129.19	3/2,5/25,7/2$^{(-)}$	0	3/2$^{(-)}$
4199.6[d] *8*	1.7 *5*	4199.5?	(3/2,5/2,7/2)	0	3/2$^{(-)}$
4436.8[d] *6*	1.6 *3*	4545.9?	(3/2$^+$,5/2$^+$,7/2$^+$)	108.788	(5/2$^-$)

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^{91}Kr β^- decay 1976Gl02 (continued)

$\gamma(^{91}Rb)$ (continued)

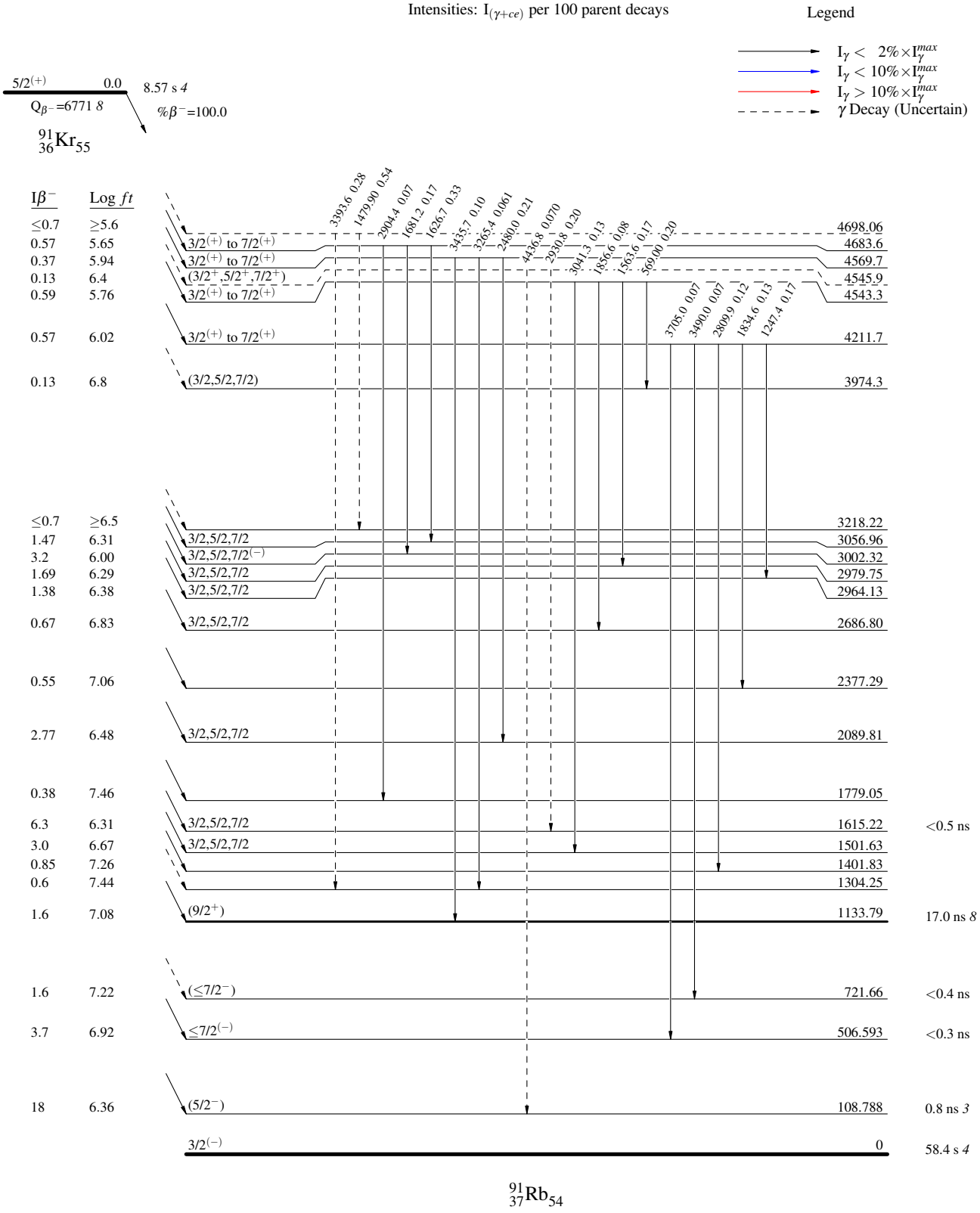
† Additional information 1.
‡ From 1976Gl02, if not noted otherwise.
# From α(K)exp.
@ From $\gamma\gamma$ coin (1976Gl02).
& Transition identified only in $\gamma\gamma$ coincidence spectra.
a From curved-crystal spectrometer measurement (1979Bo26).
b For absolute intensity per 100 decays, multiply by 0.0435 *24*.
c Multiply placed with intensity suitably divided.
d Placement of transition in the level scheme is uncertain.
x γ ray not placed in level scheme.

$^{91}_{37}Rb_{54}$-10

^{91}Kr β^- decay 1976Gl02

Decay Scheme

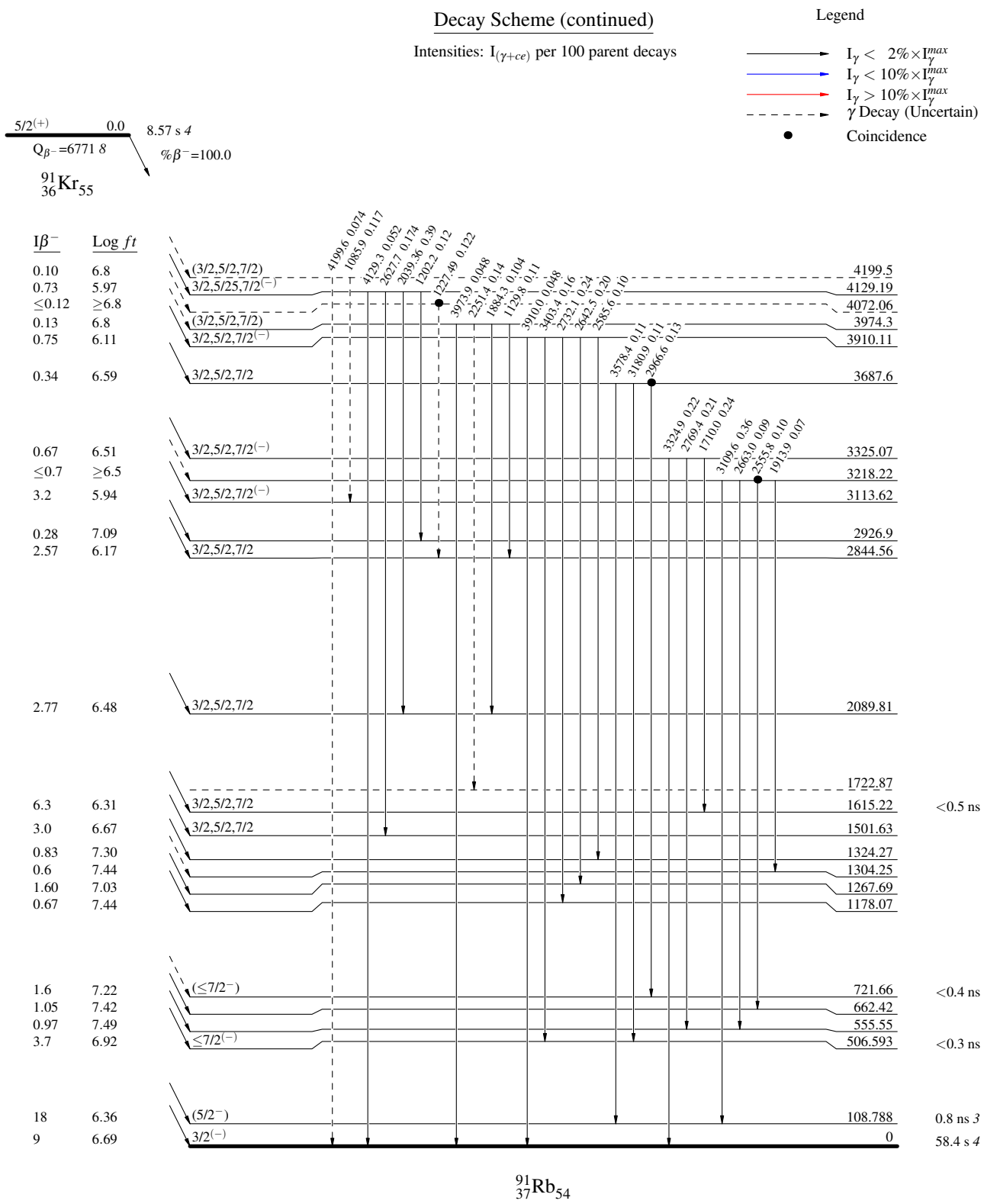
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{91}Kr β^- decay 1976Gl02

Decay Scheme (continued)

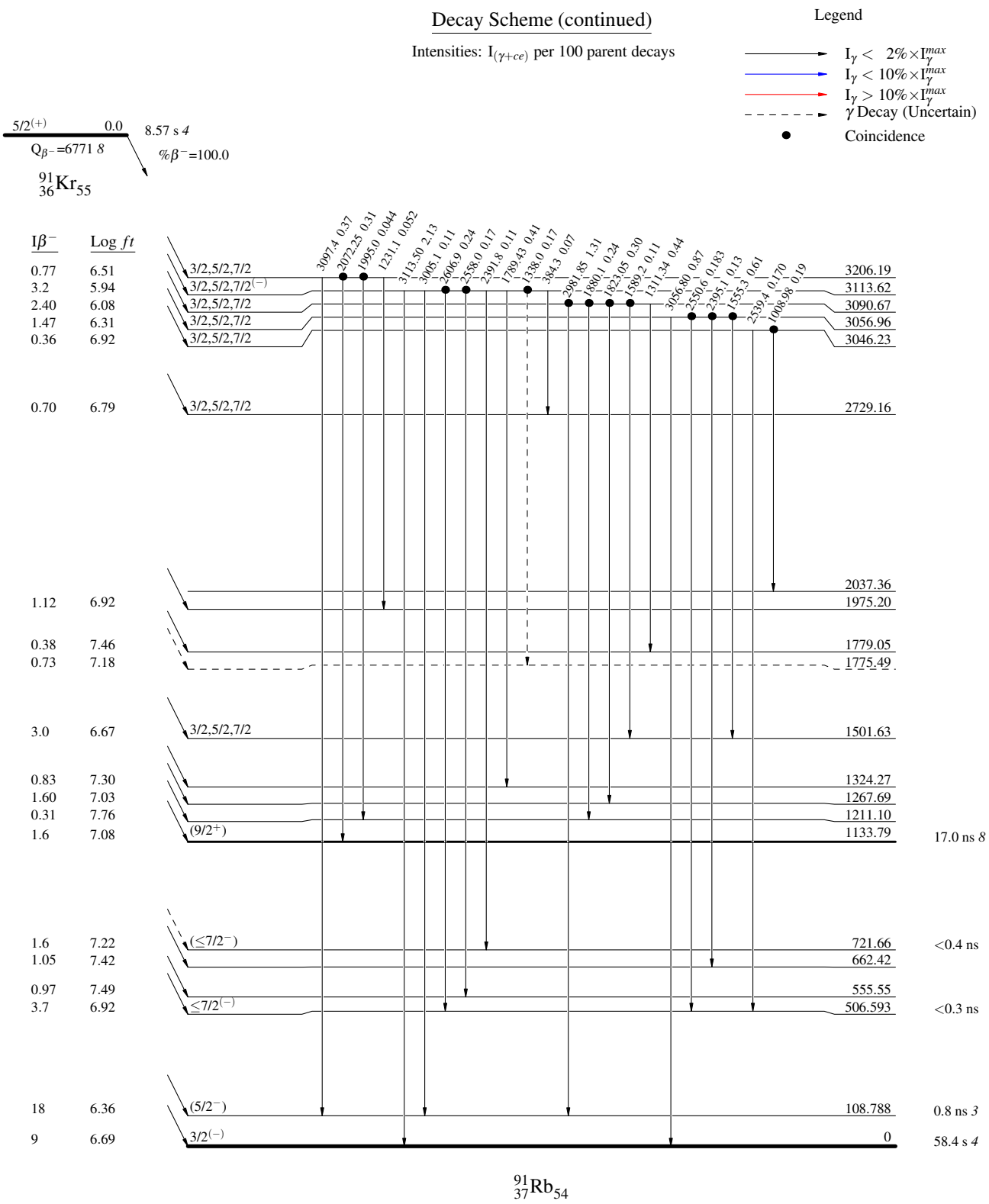
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{91}Kr β^- decay 1976Gl02

Decay Scheme (continued)

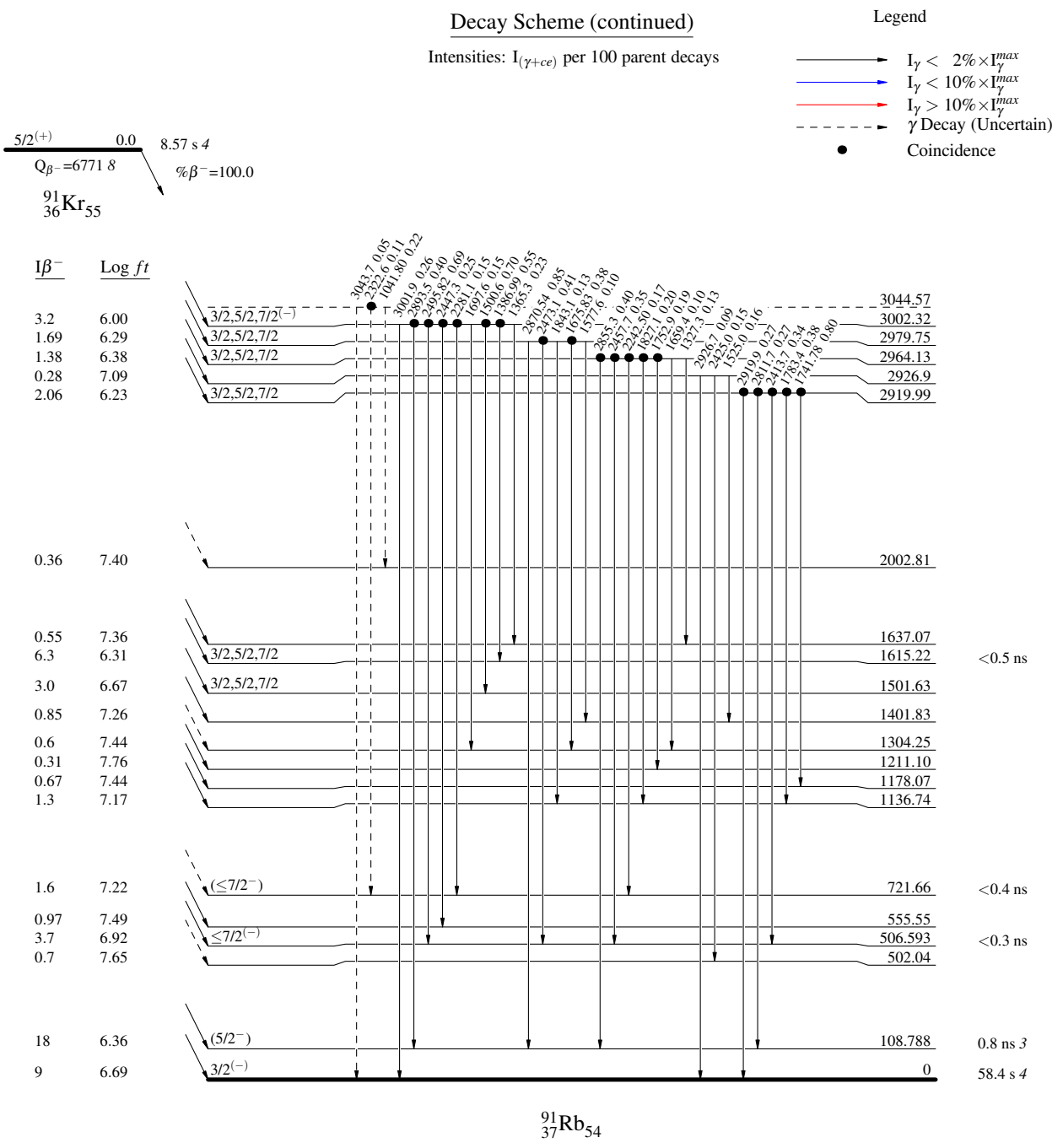
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{91}Kr β^- decay 1976Gl02

Decay Scheme (continued)

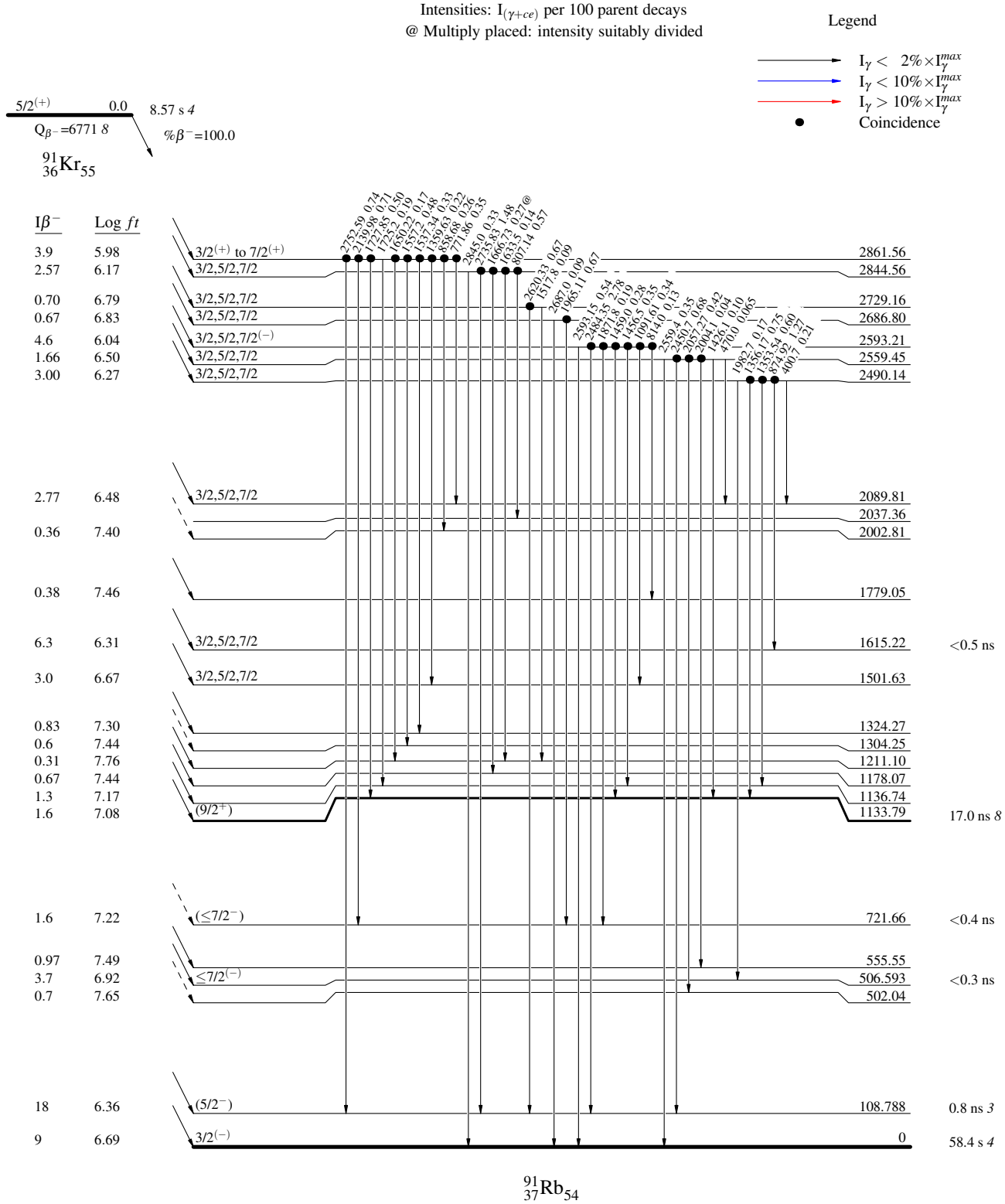
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{91}Kr β^- decay 1976Gl02

Decay Scheme (continued)

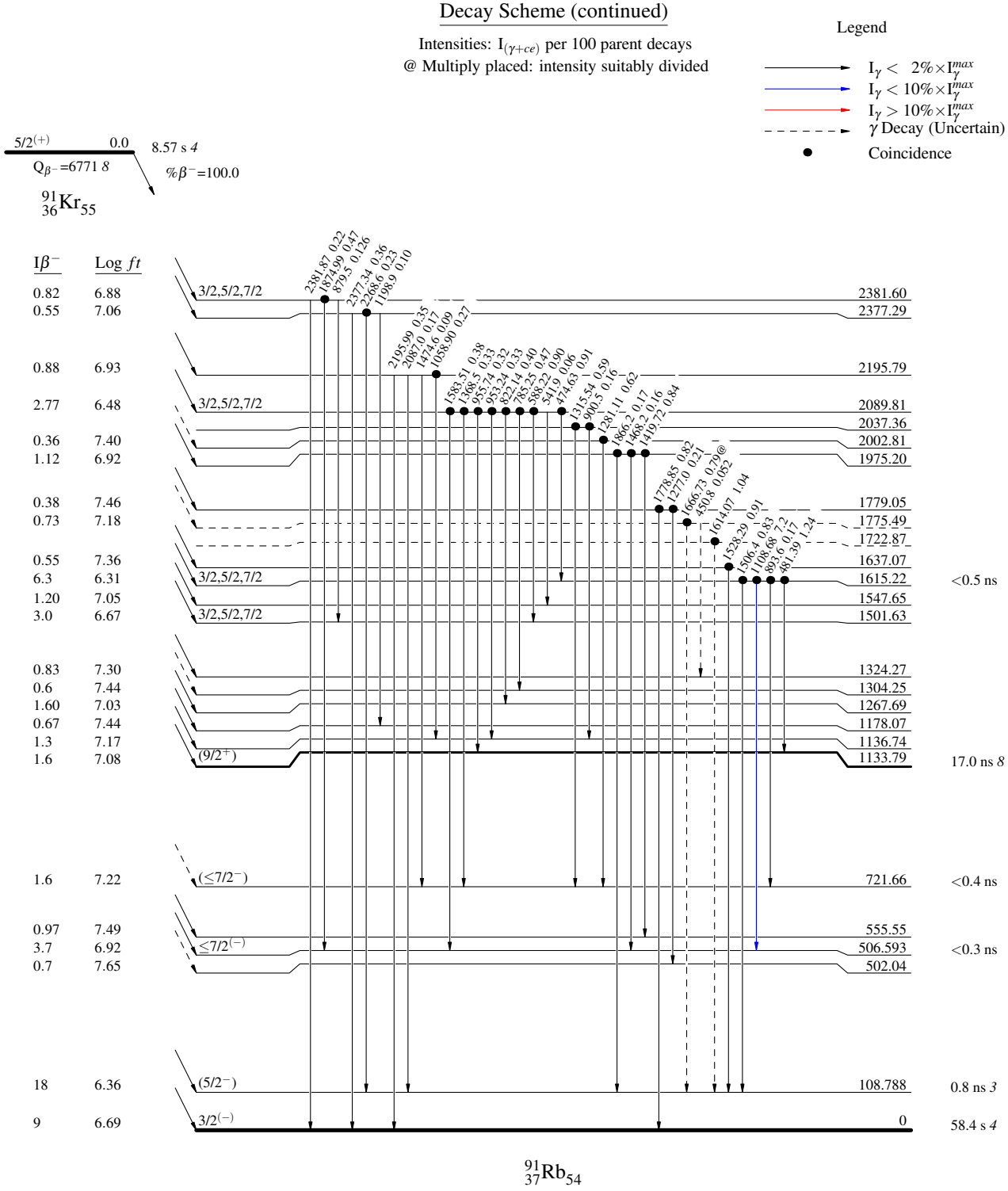
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays
@ Multiply placed: intensity suitably divided



^{91}Kr β^- decay 1976Gl02

Decay Scheme (continued)

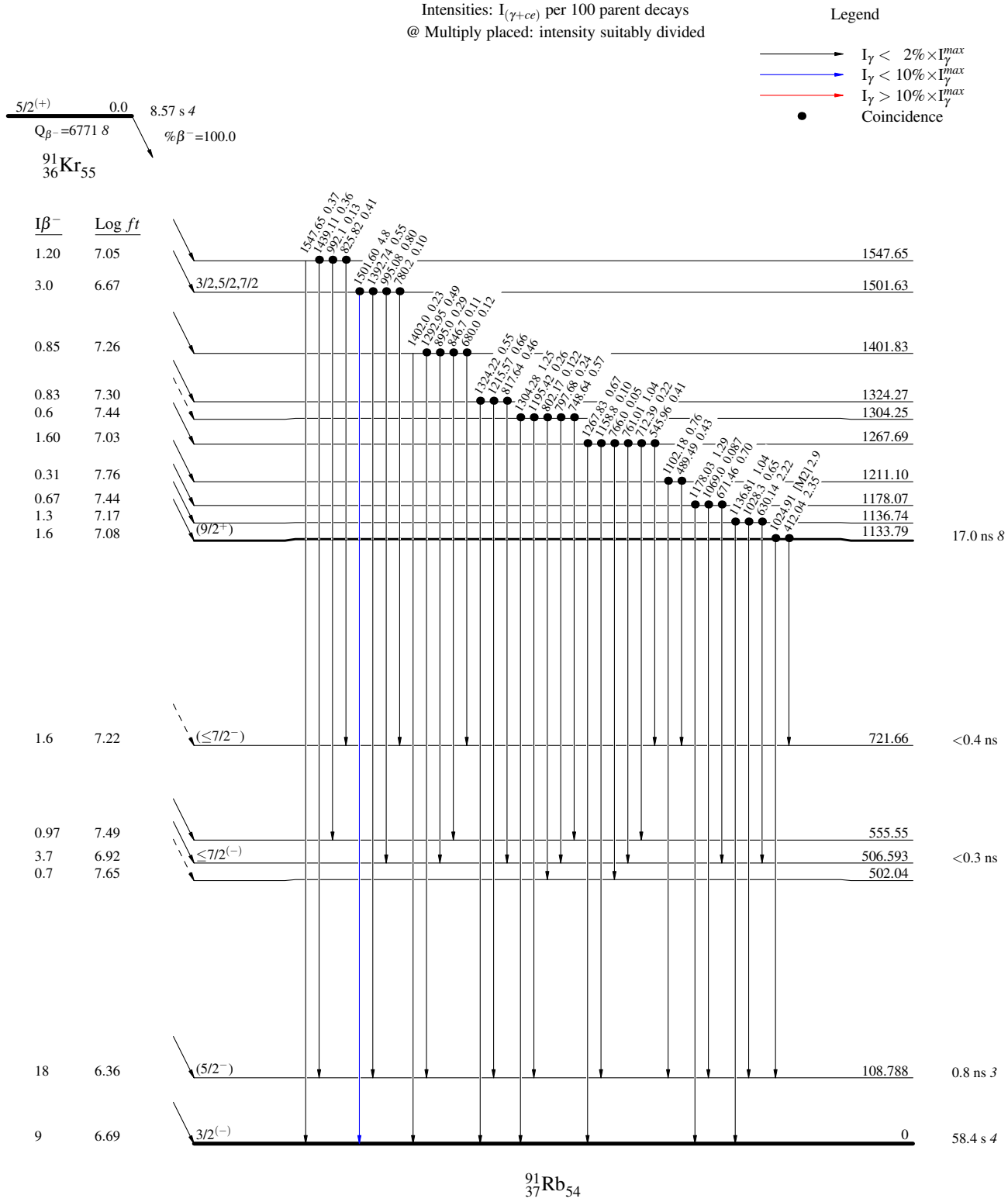
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays
@ Multiply placed: intensity suitably divided



^{91}Kr β^- decay 1976Gl02

Decay Scheme (continued)

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



^{91}Kr β^- decay 1976Gl02

Decay Scheme (continued)

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