

<sup>107</sup>Ru β<sup>-</sup> decay 1986Ka43

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 109, 1383 (2008)	1-Mar-2008

Parent: <sup>107</sup>Ru: E=0.0; J<sup>π</sup>=(5/2)<sup>+</sup>; T<sub>1/2</sub>=3.75 min 5; Q(β<sup>-</sup>)=2.94×10<sup>3</sup> 12; %β<sup>-</sup> decay=100.0

The level scheme is mainly from 1986Ka43.

1986Ka43: measured γ, γγ, γγ(t).

Others: 1969WiZX, 1971Ri02.

Sources: <sup>235</sup>U, <sup>239</sup>Pu(n,F) E=th, <sup>238</sup>U(n,F) E=fast, rapid Ru chem (1978Fr16).

<sup>107</sup>Rh Levels

See drawings for partial decay scheme based on βγ, γγ coin (1962Pi02), and Eγ fits.

E(level)	J <sup>π</sup> †	T <sub>1/2</sub>	E(level)	J <sup>π</sup> †
0.0	7/2 <sup>+</sup>	21.7 min 4	953.48 7	(9/2 <sup>+</sup> )
194.05 3	9/2 <sup>+</sup>		974.44 11	(3/2 <sup>-</sup> , 5/2 <sup>-</sup> , 7/2 <sup>-</sup> )
268.36 4	1/2 <sup>-</sup>	>10 μs	1009.76 9	(3/2 <sup>-</sup> , 5/2 <sup>-</sup> )
374.28 3	(3/2 <sup>+</sup> )	15 ns 2	1041.95 3	(5/2 <sup>+</sup> , 7/2 <sup>+</sup> )
384.82 5	(1/2 <sup>+</sup> )		1272.20 3	5/2 <sup>+</sup> , 7/2 <sup>+</sup>
405.80 3	(3/2 <sup>+</sup> )		1306.43 3	(5/2 <sup>+</sup> , 7/2 <sup>+</sup> )
462.61 3	5/2 <sup>+</sup>		1386.36 5	1/2 <sup>-</sup> , 3/2 <sup>-</sup>
485.66 6	3/2 <sup>-</sup>		1639.07 5	(1/2 <sup>-</sup> , 3/2 <sup>-</sup> )
543.84 6	(5/2 <sup>-</sup> )		1863.10 6	(5/2 <sup>+</sup> , 7/2 <sup>+</sup> )
559.97 6	(5/2 <sup>+</sup> , 7/2 <sup>+</sup> , 9/2 <sup>-</sup> )		2020.51 11	
568.90 3	(7/2 <sup>+</sup> )		2054.20 8	(3/2 <sup>+</sup> , 5/2 <sup>+</sup> , 7/2 <sup>+</sup> )
588.92 4	(3/2 <sup>+</sup> , 5/2 <sup>+</sup> )		2115.42 11	
680.00 5			2177.98 16	
683.10 3	(7/2 <sup>+</sup> )		2207.68 17	
752.55 9	3/2 <sup>-</sup>		2249.68 7	(5/2, 7/2) <sup>+</sup>
877.75 10	5/2 <sup>-</sup>		2303.40 14	(3/2 <sup>+</sup> , 5/2 <sup>+</sup> )
911.99 10	( <sup>+</sup> )		2331.08 14	(3/2 <sup>+</sup> , 5/2 <sup>+</sup> , 7/2 <sup>+</sup> )
948.12 6			2510.00 15	(5/2 <sup>+</sup> , 7/2 <sup>+</sup> )

† From Adopted Levels.

β<sup>-</sup> radiations

Q(β<sup>-</sup>)=3150 300 from Eβ=2100 to 1042 level (1962Pi02), and Q(β<sup>-</sup>)=2900 135 (1989Gr23).

E(decay)	E(level)	Iβ <sup>-</sup> †‡	Log ft	Comments
(4.3×10 <sup>2</sup> 12)	2510.00	0.091 16	5.5 5	av Eβ=130 43
(6.1×10 <sup>2</sup> 12)	2331.08	0.22 6	5.6 4	av Eβ=195 46
(6.4×10 <sup>2</sup> 12)	2303.40	0.26 6	5.6 4	av Eβ=206 47
(6.9×10 <sup>2</sup> 12)	2249.68	0.47 6	5.5 3	av Eβ=226 47
(7.3×10 <sup>2</sup> 12)	2207.68	0.125 19	6.1 3	av Eβ=243 48
(7.6×10 <sup>2</sup> 12)	2177.98	0.136 23	6.1 3	av Eβ=254 48
(8.2×10 <sup>2</sup> 12)	2115.42	0.19 3	6.1 3	av Eβ=279 49
(8.9×10 <sup>2</sup> 12)	2054.20	0.7 1	5.67 24	av Eβ=304 50
(9.2×10 <sup>2</sup> 12)	2020.51	0.22 3	6.24 23	av Eβ=318 50
(1.08×10 <sup>3</sup> 12)	1863.10	0.88 11	5.89 20	av Eβ=383 51
(1.30×10 <sup>3</sup> 12)	1639.07	0.75 9	6.27 17	av Eβ=478 53

Continued on next page (footnotes at end of table)

$^{107}\text{Ru}$   $\beta^-$  decay **1986Ka43** (continued) $\beta^-$  radiations (continued)

E(decay)	E(level)	$I\beta^{-\dagger\ddagger}$	Log $ft$	Comments
( $1.55 \times 10^3$ 12)	1386.36	<0.06	>7.7	av $E\beta=589$ 54
( $1.63 \times 10^3$ 12)	1306.43	4.0 5	5.93 15	av $E\beta=625$ 54
( $1.67 \times 10^3$ 12)	1272.20	7.1 8	5.72 14	av $E\beta=640$ 54
( $1.90 \times 10^3$ 12)	1041.95	11.3 13	5.74 13	av $E\beta=744$ 55
( $1.93 \times 10^3$ 12)	1009.76	0.045 15	8.17 19	av $E\beta=759$ 55
( $1.97 \times 10^3$ 12)	974.44	0.074 12	7.99 14	av $E\beta=775$ 55
( $1.99 \times 10^3$ 12)	953.48	<0.09	>7.9	av $E\beta=784$ 55
( $1.99 \times 10^3$ 12)	948.12	<0.09	>7.7	av $E\beta=787$ 55
( $2.03 \times 10^3$ 12)	911.99	0.24 10	7.53 21	av $E\beta=803$ 55
( $2.06 \times 10^3$ 12)	877.75	0.15 7	7.76 23	av $E\beta=819$ 56
( $2.19 \times 10^3$ 12)	752.55	0.097 18	8.06 13	av $E\beta=877$ 56
( $2.26 \times 10^3$ 12)	683.10	1.8 3	6.84 13	av $E\beta=909$ 56
( $2.26 \times 10^3$ 12)	680.00	0.062 25	8.31 20	av $E\beta=910$ 56
( $2.35 \times 10^3$ 12)	588.92	0.29 8	7.71 16	av $E\beta=952$ 56
( $2.37 \times 10^3$ 12)	568.90	0.2 3	7.9 7	av $E\beta=961$ 56
( $2.38 \times 10^3$ 12)	559.97	0.12 2	8.12 12	av $E\beta=966$ 56
( $2.40 \times 10^3$ 12)	543.84	0.17 4	7.98 14	av $E\beta=973$ 56
( $2.45 \times 10^3$ 12)	485.66	0.23 5	7.89 13	av $E\beta=1000$ 56
( $2.48 \times 10^3$ 12)	462.61	<0.6	>7.5	av $E\beta=1011$ 56
( $2.53 \times 10^3$ 12)	405.80	0.58 20	7.55 18	av $E\beta=1037$ 56
( $2.57 \times 10^3$ 12)	374.28	<1	>7.3	av $E\beta=1052$ 56
( $2.67 \times 10^3$ 12)	268.36	<0.40	>9.1 <sup>1u</sup>	av $E\beta=1100$ 56
( $2.75 \times 10^3$ 12)	194.05	<2.0	>7.2	av $E\beta=1136$ 57
( $2.94 \times 10^3$ 12)	0.0	68 4	5.75 8	av $E\beta=1227$ 57

<sup>†</sup> Calculated from  $I(\gamma+ce)$  imbalances at each level.

<sup>‡</sup> Absolute intensity per 100 decays.

<sup>107</sup>Ru β<sup>-</sup> decay **1986Ka43** (continued)

γ(<sup>107</sup>Rh)

I<sub>γ</sub> normalization: absolute I<sub>γ</sub>(194γ)=10.6% 10 (**1975Fe12**) calibrated via absolute I<sub>γ</sub>(303γ,<sup>107</sup>Pd)=66% (**1962Pi02,1969Gr18**).

Semi γ-singles measurements of **1978Fr16** are listed; I<sub>γ</sub> determined for strong peaks only are confirmed by **1975Fe12**.

E <sub>γ</sub>	I <sub>γ</sub> <sup>#</sup>	E <sub>i</sub> (level)	J <sub>i</sub> <sup>π</sup>	E <sub>f</sub>	J <sub>f</sub> <sup>π</sup>	Mult. <sup>†</sup>	α <sup>@</sup>	I <sub>(γ+ce)</sub> <sup>#</sup>	Comments
(10.54 6)		384.82	(1/2 <sup>+</sup> )	374.28	(3/2 <sup>+</sup> )	[M1]	34.4	6 2	α(L)= 27.6; α(M)= 5.13
(31.52 4)		405.80	(3/2 <sup>+</sup> )	374.28	(3/2 <sup>+</sup> )	[M1]	9.79	1.2 6	I <sub>(γ+ce)</sub> : from γγ. E <sub>γ</sub> from level energy differences. α(K)= 8.49; α(L)= 1.045; α(M)= 0.1947
56.81 5	6.5 4	462.61	5/2 <sup>+</sup>	405.80	(3/2 <sup>+</sup> )	[M1]	1.739		I <sub>(γ+ce)</sub> : from γγ. E <sub>γ</sub> from level energy differences. α(K)= 1.512; α(L)= 0.1859; α(M)= 0.0345; α(N+..)=0.00673
58.18 5	0.3 1	543.84	(5/2 <sup>-</sup> )	485.66	3/2 <sup>-</sup>	[M1]	1.622		α(K)= 1.410; α(L)= 0.1734; α(M)= 0.0322; α(N+..)=0.00628
88.3 1	0.4 1	462.61	5/2 <sup>+</sup>	374.28	(3/2 <sup>+</sup> )	[M1]	0.491		α(K)= 0.427; α(L)= 0.0521; α(M)=0.00968; α(N+..)=0.00189
93.8 1	0.4 1	1041.95	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	948.12		[M1]	0.414		α(K)= 0.360; α(L)= 0.0438; α(M)=0.00815; α(N+..)=0.00159
105.92 5	4.9 4	374.28	(3/2 <sup>+</sup> )	268.36	1/2 <sup>-</sup>	[E1]	0.1239		α(K)= 0.1082; α(L)=0.01290; α(M)=0.00236; α(N+..)=0.00044
106.3 1	0.6 1	568.90	(7/2 <sup>+</sup> )	462.61	5/2 <sup>+</sup>	[M1]	0.291		α(K)= 0.253; α(L)= 0.0308; α(M)=0.00572; α(N+..)=0.00112
116.45 5	2.9 3	384.82	(1/2 <sup>+</sup> )	268.36	1/2 <sup>-</sup>	[E1]	0.0944		α(K)= 0.0825; α(L)=0.00977; α(M)=0.00179; α(N+..)=0.00034
183.1 1	0.8 1	588.92	(3/2 <sup>+</sup> ,5/2 <sup>+</sup> )	405.80	(3/2 <sup>+</sup> )	[M1]	0.0657		α(K)= 0.0573; α(L)=0.00686; α(M)=0.00127; α(N+..)=0.00025
194.05 5	186 20	194.05	9/2 <sup>+</sup>	0.0	7/2 <sup>+</sup>	[M1]	0.0563		α(K)= 0.0491; α(L)=0.00587; α(M)=0.00109; α(N+..)=0.00021
194.64 5	15 3	568.90	(7/2 <sup>+</sup> )	374.28	(3/2 <sup>+</sup> )	[E2]	0.0559		α(K)= 0.0487; α(L)=0.00582; α(M)=0.00108; α(N+..)=0.00021
204.09 5	6.3 4	588.92	(3/2 <sup>+</sup> ,5/2 <sup>+</sup> )	384.82	(1/2 <sup>+</sup> )	[E2]	0.1064		α(K)= 0.0897; α(L)=0.01366; α(M)=0.00255; α(N+..)=0.00047
214.66 5	4.0 3	588.92	(3/2 <sup>+</sup> ,5/2 <sup>+</sup> )	374.28	(3/2 <sup>+</sup> )	[M1]	0.0431		α(K)= 0.0376; α(L)=0.00448; α(M)=0.00083; α(N+..)=0.00016
217.30 5	6.6 4	485.66	3/2 <sup>-</sup>	268.36	1/2 <sup>-</sup>	[M1]	0.0418		α(K)= 0.0365; α(L)=0.00433; α(M)=0.00080; α(N+..)=0.00016
220.49 5	10 1	683.10	(7/2 <sup>+</sup> )	462.61	5/2 <sup>+</sup>	[M1]	0.0402		α(K)= 0.0351; α(L)=0.00417; α(M)=0.00077; α(N+..)=0.00015
230.26 5	2.5 2	1272.20	5/2 <sup>+</sup> ,7/2 <sup>+</sup>	1041.95	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	[M1]	0.0359		α(K)= 0.0313; α(L)=0.00372; α(M)=0.00069; α(N+..)=0.00013
252.70 5	2.2 2	1639.07	(1/2 <sup>-</sup> ,3/2 <sup>-</sup> )	1386.36	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	[M1]	0.0281		α(K)=0.02457; α(L)=0.00291; α(M)=0.00054; α(N+..)=0.00011
257.2 1	0.8 1	1009.76	(3/2 <sup>-</sup> ,5/2 <sup>-</sup> )	752.55	3/2 <sup>-</sup>				
265.0 1	1.2 2	948.12		683.10	(7/2 <sup>+</sup> )				

<sup>107</sup>Ru β<sup>-</sup> decay **1986Ka43** (continued)

γ(<sup>107</sup>Rh) (continued)

E <sub>γ</sub>	I <sub>γ</sub> <sup>#</sup>	E <sub>i</sub> (level)	J <sub>i</sub> <sup>π</sup>	E <sub>f</sub>	J <sub>f</sub> <sup>π</sup>	Mult. <sup>†</sup>	α <sup>@</sup>	Comments
266.8	2	0.3	1	752.55	3/2 <sup>-</sup>			
268.36	5	23	3	268.36	1/2 <sup>-</sup>			
268.5	3	6	2	462.61	5/2 <sup>+</sup>			
275.48	5	4.9	4	543.84	(5/2 <sup>-</sup> )	[E2]	0.0410	α(K)= 0.0350; α(L)=0.00492; α(M)=0.00092; α(N+..)=0.00017
333.9	1	1.7	2	877.75	5/2 <sup>-</sup>	[E2]	0.0376	α(K)= 0.0321; α(L)=0.00448; α(M)=0.00084; α(N+..)=0.00016
358.5	5	2	1	1306.43	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )			
358.8	2	6	2	1041.95	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )			
360.22	5	12.3	7	1272.20	5/2 <sup>+</sup> ,7/2 <sup>+</sup>	[M1]	0.01141	α(K)=0.00997; α(L)=0.00117; α(M)=0.00022
364.5	1	0.9	2	953.48	(9/2 <sup>+</sup> )			
365.9	1	2.9	2	559.97	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> ,9/2 <sup>-</sup> )			
374.28	5	56	8	374.28	(3/2 <sup>+</sup> )	[E2]	0.01371	α(K)=0.01183; α(L)=0.00154; α(M)=0.00029
374.9	1	14	3	568.90	(7/2 <sup>+</sup> )	[M1]	0.01033	α(K)=0.00903; α(L)=0.00106; α(M)=0.00020
384.5	5	0.1	1	953.48	(9/2 <sup>+</sup> )			
392.1	5	0.7	3	877.75	5/2 <sup>-</sup>			
394.41	5	7.4	4	1306.43	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )			
394.7	3	0.4	2	588.92	(3/2 <sup>+</sup> ,5/2 <sup>+</sup> )			
405.80	5	40	3	405.80	(3/2 <sup>+</sup> )	[E2]	0.01063	α(K)=0.00919; α(L)=0.00118; α(M)=0.00022
430.6	1	1.1	1	974.44	(3/2 <sup>-</sup> ,5/2 <sup>-</sup> ,7/2 <sup>-</sup> )			
462.61	5	69	4	462.61	5/2 <sup>+</sup>			
476.8	1	1.8	2	1863.10	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )			
484.2	1	2.2	2	752.55	3/2 <sup>-</sup>			
485.95	5	5.5	3	680.00				
488.7	5	0.2	1	974.44	(3/2 <sup>-</sup> ,5/2 <sup>-</sup> ,7/2 <sup>-</sup> )			
489.05	5	25	2	683.10	(7/2 <sup>+</sup> )			
524.1	1	0.3	1	1009.76	(3/2 <sup>-</sup> ,5/2 <sup>-</sup> )			
560.0	1	0.5	1	559.97	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> ,9/2 <sup>-</sup> )			
568.89	5	8.0	5	568.90	(7/2 <sup>+</sup> )			
579.36	5	46	2	1041.95	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )			
588.9	1	1.2	1	588.92	(3/2 <sup>+</sup> ,5/2 <sup>+</sup> )			
592.2	1	2.7	2	1272.20	5/2 <sup>+</sup> ,7/2 <sup>+</sup>			
597.1	1	0.6	2	1639.07	(1/2 <sup>-</sup> ,3/2 <sup>-</sup> )			
609.4	2	1	1	877.75	5/2 <sup>-</sup>			
626.4	1	1.7	2	1306.43	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )			
636.10	5	4.5	3	1041.95	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )			
683.11	5	10	1	683.10	(7/2 <sup>+</sup> )			
683.3	3	2	1	1272.20	5/2 <sup>+</sup> ,7/2 <sup>+</sup>			
690.9	2	1.1	2	1639.07	(1/2 <sup>-</sup> ,3/2 <sup>-</sup> )			
703.30	5	18	1	1272.20	5/2 <sup>+</sup> ,7/2 <sup>+</sup>			
712.3	1	0.8	1	1272.20	5/2 <sup>+</sup> ,7/2 <sup>+</sup>			
717.5	1	3.5	3	1306.43	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )			
718.0	5	1	1	911.99	( <sup>+</sup> )			
727.1	1	1.2	1	1639.07	(1/2 <sup>-</sup> ,3/2 <sup>-</sup> )			

<sup>107</sup>Ru β<sup>-</sup> decay 1986Ka43 (continued)

γ(<sup>107</sup>Rh) (continued)

<u>E<sub>γ</sub></u>	<u>I<sub>γ</sub> #</u>	<u>E<sub>i</sub>(level)</u>	<u>J<sub>i</sub><sup>π</sup></u>	<u>E<sub>f</sub></u>	<u>J<sub>f</sub><sup>π</sup></u>
737.55 5	17 1	1306.43	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	568.90	(7/2 <sup>+</sup> )
746.4 1	0.5 1	1306.43	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	559.97	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> ,9/2 <sup>-</sup> )
759.5 1	1.6 1	953.48	(9/2 <sup>+</sup> )	194.05	9/2 <sup>+</sup>
809.57 5	7.6 5	1272.20	5/2 <sup>+</sup> ,7/2 <sup>+</sup>	462.61	5/2 <sup>+</sup>
821.1 1	3.7 5	1863.10	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	1041.95	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )
843.9 1	10.6 6	1306.43	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	462.61	5/2 <sup>+</sup>
847.93 5	100 5	1041.95	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	194.05	9/2 <sup>+</sup>
866.5 1	1.3 1	1272.20	5/2 <sup>+</sup> ,7/2 <sup>+</sup>	405.80	(3/2 <sup>+</sup> )
897.9 1	14.0 8	1272.20	5/2 <sup>+</sup> ,7/2 <sup>+</sup>	374.28	(3/2 <sup>+</sup> )
912.0 1	29.2 9	911.99	( <sup>+</sup> )	0.0	7/2 <sup>+</sup>
924.0 5	0.7 3	1386.36	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	462.61	5/2 <sup>+</sup>
932.1 1	13 1	1306.43	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	374.28	(3/2 <sup>+</sup> )
948.1 1	7.2 6	948.12		0.0	7/2 <sup>+</sup>
951.2 1	2.8 5	1863.10	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	911.99	( <sup>+</sup> )
956.0 2	1.2 2	1639.07	(1/2 <sup>-</sup> ,3/2 <sup>-</sup> )	683.10	(7/2 <sup>+</sup> )
980.6 1	2.6 3	1386.36	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	405.80	(3/2 <sup>+</sup> )
1041.95 5	48 2	1041.95	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	0.0	7/2 <sup>+</sup>
1050.3 2	0.9 2	1639.07	(1/2 <sup>-</sup> ,3/2 <sup>-</sup> )	588.92	(3/2 <sup>+</sup> ,5/2 <sup>+</sup> )
1067.0 2	0.8 1	2020.51		953.48	(9/2 <sup>+</sup> )
1078.12 5	14.8 9	1272.20	5/2 <sup>+</sup> ,7/2 <sup>+</sup>	194.05	9/2 <sup>+</sup>
1106.0 5	0.8 4	2054.20	(3/2 <sup>+</sup> ,5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	948.12	
1112.4 1	2.9 3	1306.43	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	194.05	9/2 <sup>+</sup>
1142.2 1	2.1 2	2054.20	(3/2 <sup>+</sup> ,5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	911.99	( <sup>+</sup> )
1161.9 2	0.6 1	2115.42		953.48	(9/2 <sup>+</sup> )
1167.3 1	2.7 3	2115.42		948.12	
1176.5 2	1.1 2	1639.07	(1/2 <sup>-</sup> ,3/2 <sup>-</sup> )	462.61	5/2 <sup>+</sup>
1272.20 5	48 3	1272.20	5/2 <sup>+</sup> ,7/2 <sup>+</sup>	0.0	7/2 <sup>+</sup>
1293.7 5	0.3 2	2303.40	(3/2 <sup>+</sup> ,5/2 <sup>+</sup> )	1009.76	(3/2 <sup>-</sup> ,5/2 <sup>-</sup> )
1294.0 5	0.6 4	1863.10	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	568.90	(7/2 <sup>+</sup> )
1296.3 2	1.4 2	2249.68	(5/2,7/2) <sup>+</sup>	953.48	(9/2 <sup>+</sup> )
1306.43 5	12 1	1306.43	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	0.0	7/2 <sup>+</sup>
1386.3 1	1.2 2	1386.36	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	0.0	7/2 <sup>+</sup>
1425.6 3	0.8 2	2303.40	(3/2 <sup>+</sup> ,5/2 <sup>+</sup> )	877.75	5/2 <sup>-</sup>
1445.0 1	3.9 3	1639.07	(1/2 <sup>-</sup> ,3/2 <sup>-</sup> )	194.05	9/2 <sup>+</sup>
1558.0 2	1.8 2	2020.51		462.61	5/2 <sup>+</sup>
1566.7 2	3.7 3	2249.68	(5/2,7/2) <sup>+</sup>	683.10	(7/2 <sup>+</sup> )
1589.1 3	0.8 2	2177.98		588.92	(3/2 <sup>+</sup> ,5/2 <sup>+</sup> )
1591.6 1	8.1 6	2054.20	(3/2 <sup>+</sup> ,5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	462.61	5/2 <sup>+</sup>
1639.0 2	1.0 2	1639.07	(1/2 <sup>-</sup> ,3/2 <sup>-</sup> )	0.0	7/2 <sup>+</sup>
1648.0 5	1.0 5	2331.08	(3/2 <sup>+</sup> ,5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	683.10	(7/2 <sup>+</sup> )
1648.4 3	1.4 5	2054.20	(3/2 <sup>+</sup> ,5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	405.80	(3/2 <sup>+</sup> )
1669.0 2	2.3 2	1863.10	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	194.05	9/2 <sup>+</sup>
1692.5 5	0.2 1	2177.98		485.66	3/2 <sup>-</sup>

<sup>107</sup>Ru β<sup>-</sup> decay **1986Ka43** (continued)

γ(<sup>107</sup>Rh) (continued)

<u>E<sub>γ</sub></u>	<u>I<sub>γ</sub><sup>#</sup></u>	<u>E<sub>i</sub>(level)</u>	<u>J<sub>i</sub><sup>π</sup></u>	<u>E<sub>f</sub></u>	<u>J<sub>f</sub><sup>π</sup></u>	<u>E<sub>γ</sub></u>	<u>I<sub>γ</sub><sup>#</sup></u>	<u>E<sub>i</sub>(level)</u>	<u>J<sub>i</sub><sup>π</sup></u>	<u>E<sub>f</sub></u>	<u>J<sub>f</sub><sup>π</sup></u>
1772.1 2	1.4 2	2177.98		405.80	(3/2 <sup>+</sup> )	2020.4 2	0.7 1	2020.51		0.0	7/2 <sup>+</sup>
1817.7 3	0.4 1	2303.40	(3/2 <sup>+</sup> ,5/2 <sup>+</sup> )	485.66	3/2 <sup>-</sup>	2055.5 1	1.9 2	2249.68	(5/2,7/2) <sup>+</sup>	194.05	9/2 <sup>+</sup>
1826.5 3	0.6 2	2020.51		194.05	9/2 <sup>+</sup>	2207.7 2	1.2 1	2207.68		0.0	7/2 <sup>+</sup>
1863.0 1	4.3 4	1863.10	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	0.0	7/2 <sup>+</sup>	2249.7 1	1.2 1	2249.68	(5/2,7/2) <sup>+</sup>	0.0	7/2 <sup>+</sup>
1868.5 2	1.0 2	2331.08	(3/2 <sup>+</sup> ,5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	462.61	5/2 <sup>+</sup>	2316.0 2	0.9 2	2510.00	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	194.05	9/2 <sup>+</sup>
1897.6 2	1.6 2	2303.40	(3/2 <sup>+</sup> ,5/2 <sup>+</sup> )	405.80	(3/2 <sup>+</sup> )	2331.0 2	1.9 2	2331.08	(3/2 <sup>+</sup> ,5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	0.0	7/2 <sup>+</sup>
1929.0 5	1.4 7	2303.40	(3/2 <sup>+</sup> ,5/2 <sup>+</sup> )	374.28	(3/2 <sup>+</sup> )	2509.9 2	0.7 1	2510.00	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	0.0	7/2 <sup>+</sup>
2013.5 3	1.0 2	2207.68		194.05	9/2 <sup>+</sup>						

† Assignments are from the authors and are assumed values based upon adopted J<sup>π</sup> values.

‡ From γγ.

# For absolute intensity per 100 decays, multiply by 0.053 7.

@ Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multiplicities, and mixing ratios, unless otherwise specified.

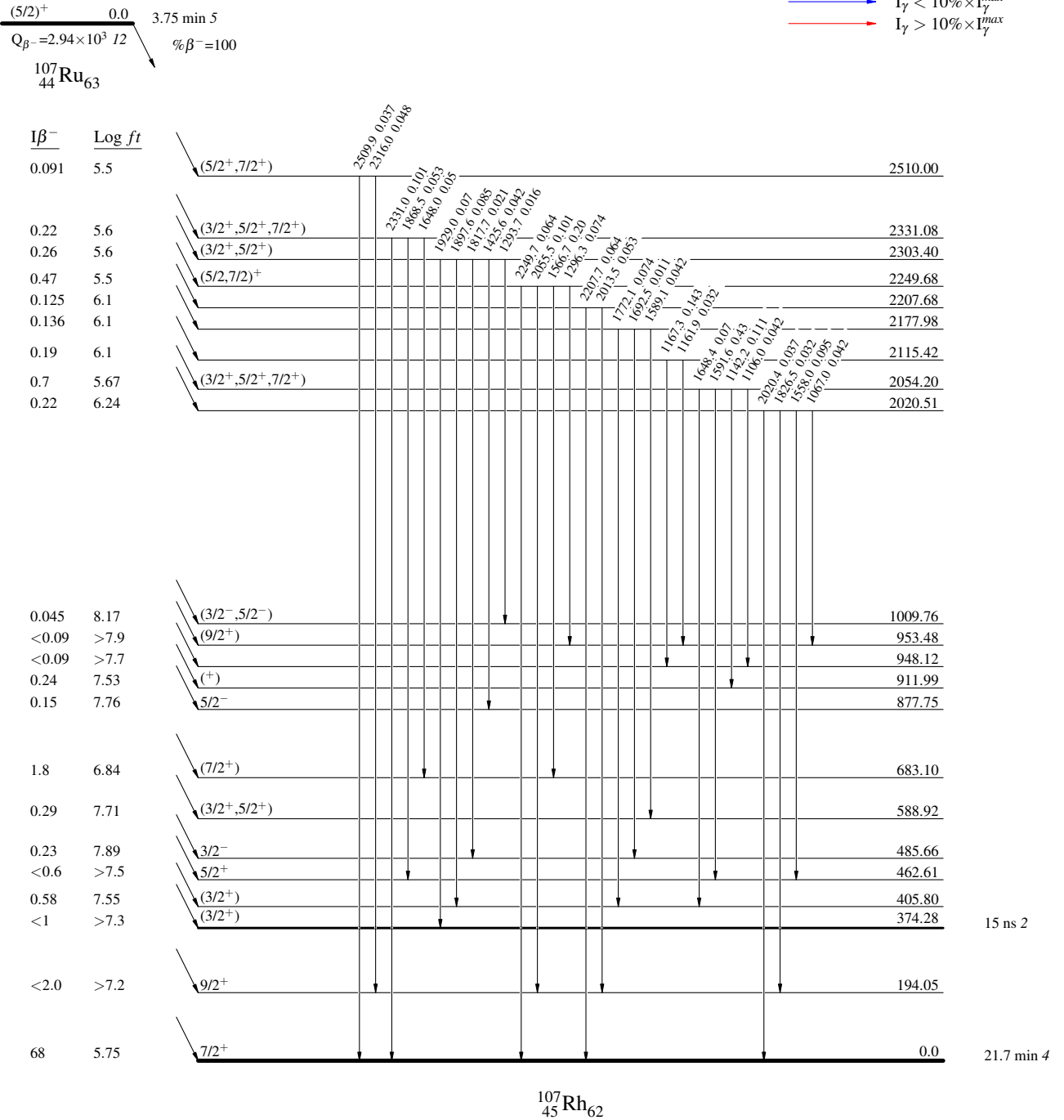
$^{107}\text{Ru}$   $\beta^-$  decay 1986Ka43

Decay Scheme

Intensities:  $I_\gamma$  per 100 parent decays

Legend

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



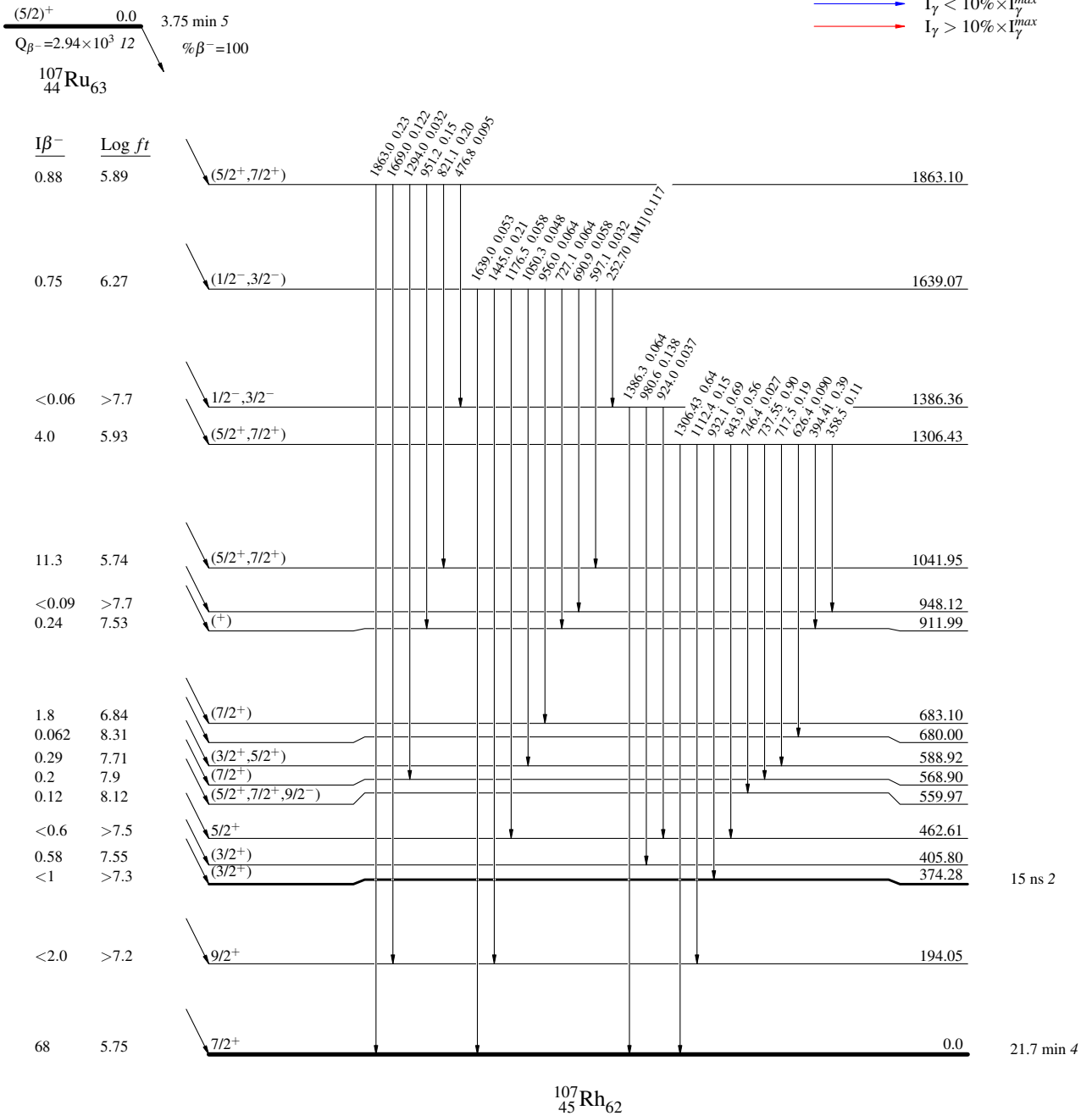
$^{107}\text{Ru}$   $\beta^-$  decay 1986Ka43

Decay Scheme (continued)

Intensities:  $I_\gamma$  per 100 parent decays

Legend

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





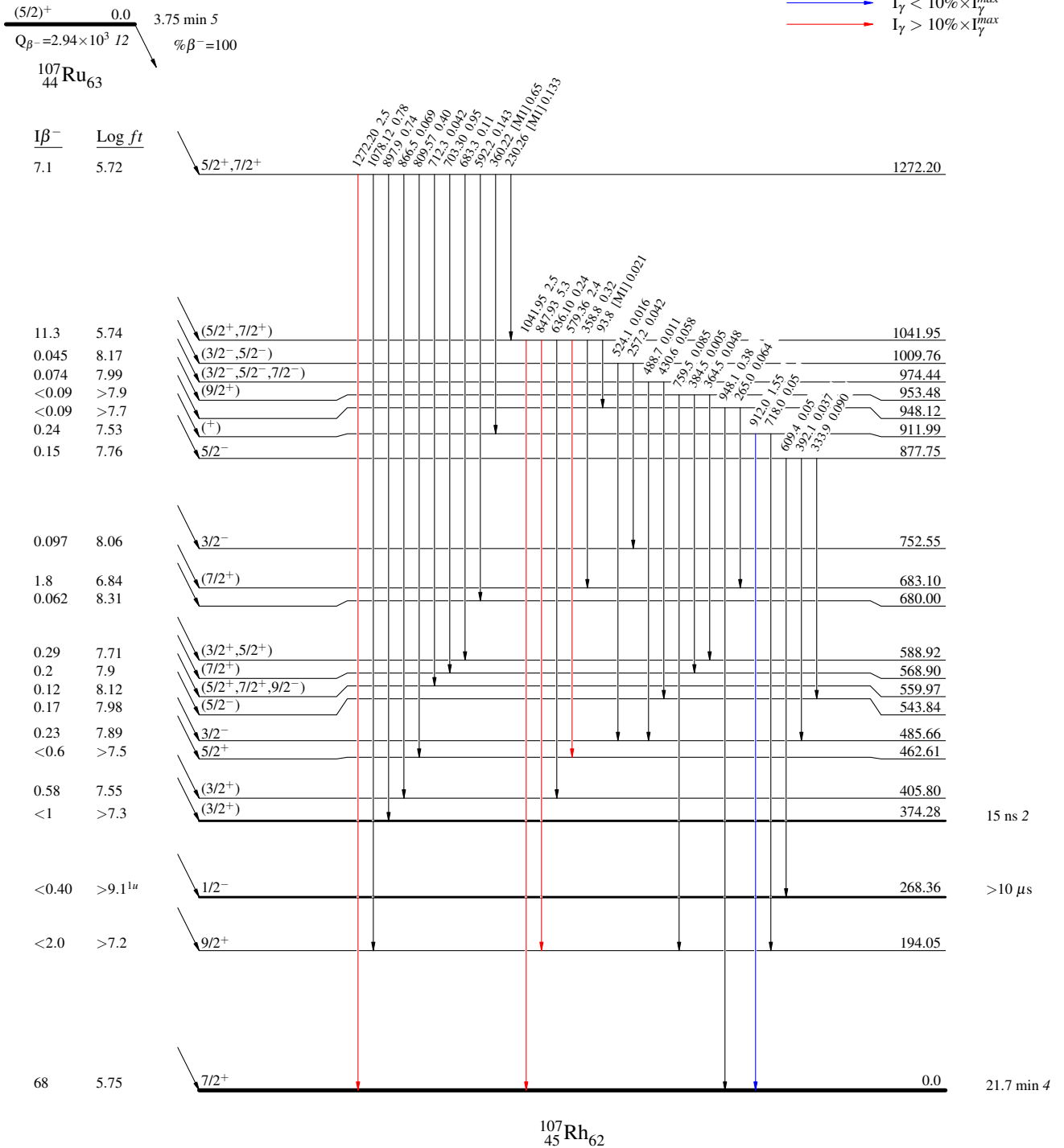
$^{107}\text{Ru}$   $\beta^-$  decay 1986Ka43

Decay Scheme (continued)

Intensities:  $I_\gamma$  per 100 parent decays

Legend

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



$^{107}\text{Ru}$   $\beta^-$  decay 1986Ka43

Decay Scheme (continued)

Intensities:  $I_\gamma$  per 100 parent decays

Legend

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

