

<sup>94</sup>Rb  $\beta^-$  decay    1980Ju03,1980JuZY

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	A. Negret, A. A. Sonzogni		ENSDF	31-Mar-2011

Parent: <sup>94</sup>Rb: E=0.0; J $\pi$ =3 $(-)$ ; T<sub>1/2</sub>=2.702 s 5; Q( $\beta^-$ )=10281 8; % $\beta^-$  decay=100.0

See <sup>94</sup>Rb  $\beta$ -n decay for delayed neutrons.

1980Ju03: Source: mass separated fission products. Measured: E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ ,  $\gamma\gamma(\theta)$ , Ge(Li) (FWHM=2.0 keV at 1.33 MeV); Ice, Si(Li).

2006Lh01: measured absolute intensity of first 2 $^+$  to g.s. gamma from the gamma intensity as a function of time for parent-daughter nuclides.

$\alpha$ : Additional information 1.

<sup>94</sup>Sr Levels

E(level)	J $\pi$ <sup>†</sup>	T <sub>1/2</sub> <sup>‡</sup>	Comments
0	0 $^+$	75.3 s 2	
836.91 10	2 $^+$	6.9 ps 28	T <sub>1/2</sub> : from Adopted Levels.
1926.28 14	3 $(-)$	$\leq$ 4.9 ps	
2146.00 14	4 $^+$	$\leq$ 4.2 ps	
2271.22 16	(2 $^+$ )		
2414.11 18	(3 $^-$ )	4.2 ps 14	
2603.94 14	(4 $^-$ )	$\leq$ 7.6 ps	
2614.1 4	(2,3,4)		
2649.78 15	4 $^{(+)}$	$\leq$ 4.2 ps	
2703.94 16	(2,3,4)		
2710.6 4	(2,3,4)		
2739.19 16	(4 $^-$ )	$\leq$ 5.5 ps	
2851.27 17	(2,3,4)		
2856.89 15	(5 $^-$ )	25 ps 11	J $\pi$ : from Adopted Levels not in agreement with the log ft value.
2921.8 4	(2 $^+$ )		
2929.81 16	(2,3,4)		
2965.0 5	(2,3,4)		
2972.07 16	5 $^-$	$\leq$ 6.2 ps	J $\pi$ : the value from Adopted Levels is not in agreement with the log ft value.
2981.1 5	(2,3,4)		
3047.38 19	(2,3,4)		
3077.70 15	2 $^+$		
3262.34 21	(2,3,4)		
3310.73 21	(5 $^-$ )		J $\pi$ : the value from the Adopted dataset is not in agreement with the log ft value.
3338.42 17	(2,3,4)		
3340.9? 3	(2,3,4)		
3438.61 24	(2,3,4)	$\leq$ 9.7 ps	
3485.41? 24	(2,3,4)		
3580.35? 25	(2,3,4)		
3724.7? 3	(2,3,4)		
3768.9 7	(2,3,4)		
3815.7? 8	(2,3,4)		
3948.63 19	(2,3,4)	$\leq$ 4.2 ps	
3953.3? 10	(2,3,4)		
3968.9 10	(2,3,4)		
3982.5 10	(2,3,4)		
4024.2? 10	(2,3,4)		
4066.4? 10	(2,3,4)		
4087.1? 10	(2,3,4)		
4117.4? 5	(2,3,4)		
4142.5? 10	(2,3,4)		
4168.2 4	(2,3,4)		
4198.49 23	(2,3,4)		

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$^{94}\text{Rb}$   $\beta^-$  decay    1980Ju03,1980JuZY (continued) $^{94}\text{Sr}$  Levels (continued)

E(level)	$J^\pi \dagger$	E(level)	$J^\pi \dagger$	E(level)	$J^\pi \dagger$	E(level)	$J^\pi \dagger$
4211.0? 10	(2,3,4)	4366.8? 10	(2,3,4)	5213.0? 10	(2,3,4)	5402.4? 8	(2,3,4)
4268.4? 10	(2,3,4)	4481.1 7	(2,3,4)	5223.2? 10	(2,3,4)	5735.4? 10	(2,3,4)
4281.65? 23	(2,3,4)	4653.5? 6	(2,3,4)	5267.3? 10	(2,3,4)	5828.2? 9	(2,3,4)
4308.4? 10	(2,3,4)	4673.7 4	(2,3,4)	5289.1 4	(2,3,4)	5831.1? 5	(2,3,4)
4361.0 5	(2,3,4)	4838.4 3	(2,3,4)	5312.9? 10	(2,3,4)	6063.7? 10	(2,3,4)

<sup>†</sup> From Adopted Levels.<sup>‡</sup> From 1991Ma05 using  $\beta\gamma\gamma(t)$ , unless stated otherwise. $\beta^-$  radiations $\beta^-$  spectrum and av  $E\beta=2.51$  MeV 13 measured by 1982Al01.

E(decay)	E(level)	$I\beta^- \dagger \#$	Log $ft^{\ddagger}$	Comments
(4217@ 8)	6063.7?	0.122 20	7.15 8	av $E\beta=1849.9$ 39
(4450@ 8)	5831.1?	0.18 3	7.08 8	av $E\beta=1961.7$ 39
(4453@ 8)	5828.2?	0.26 6	6.92 10	av $E\beta=1963.1$ 39
(4546@ 8)	5735.4?	0.177 22	7.13 6	av $E\beta=2007.7$ 39
(4879@ 8)	5402.4?	0.037 7	7.94 9	av $E\beta=2168.0$ 39
(4968@ 8)	5312.9?	0.153 21	7.36 6	av $E\beta=2211.1$ 39
(4992 8)	5289.1	0.30 3	7.08 5	av $E\beta=2222.5$ 39
(5014@ 8)	5267.3?	0.21 3	7.24 7	av $E\beta=2233.0$ 39
(5058@ 8)	5223.2?	0.18 3	7.33 8	av $E\beta=2254.3$ 39
(5068@ 8)	5213.0?	0.23 3	7.22 6	av $E\beta=2259.2$ 39
(5443 8)	4838.4	0.67 5	6.90 4	av $E\beta=2439.7$ 39
(5607 8)	4673.7	0.55 6	7.04 5	av $E\beta=2519.2$ 39
(5628@ 8)	4653.5?	0.159 21	7.59 6	av $E\beta=2528.9$ 39
(5800 8)	4481.1	0.27 4	7.42 7	av $E\beta=2612.1$ 39
(5914@ 8)	4366.8?	0.19 3	7.61 7	av $E\beta=2667.2$ 39
(5920 8)	4361.0	0.37 12	7.32 14	av $E\beta=2670.0$ 39
(5973@ 8)	4308.4?	0.110 20	7.87 8	av $E\beta=2695.4$ 39
(5999@ 8)	4281.65?	0.34 3	7.38 4	av $E\beta=2708.3$ 39
(6013@ 8)	4268.4?	0.189 22	7.64 5	av $E\beta=2714.7$ 39
(6070@ 8)	4211.0?	0.146 21	7.78 7	av $E\beta=2742.4$ 39
(6083 8)	4198.49	1.26 20	6.84 7	av $E\beta=2748.4$ 39
(6113 8)	4168.2	0.39 7	7.36 8	av $E\beta=2763.0$ 39
(6139@ 8)	4142.5?	0.122 15	7.88 6	av $E\beta=2775.4$ 39
(6164@ 8)	4117.4?	0.098 14	7.98 7	av $E\beta=2787.5$ 39
(6194@ 8)	4087.1?	0.134 20	7.85 7	av $E\beta=2802.1$ 39
(6215@ 8)	4066.4?	0.23 3	7.62 6	av $E\beta=2812.1$ 39
(6257@ 8)	4024.2?	0.085 13	8.07 7	av $E\beta=2832.5$ 39
(6299 8)	3982.5	0.23 3	7.65 6	av $E\beta=2852.6$ 39
(6312 8)	3968.9	0.24 3	7.64 6	av $E\beta=2859.2$ 39
(6328@ 8)	3953.3?	0.110 14	7.98 6	av $E\beta=2866.7$ 39
(6332 8)	3948.63	1.52 12	6.84 4	av $E\beta=2869.0$ 39

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<sup>94</sup>Rb  $\beta^-$  decay    1980Ju03,1980JuZY (continued) $\beta^-$  radiations (continued)

E(decay)	E(level)	$I\beta^{\dagger\#}$	Log $f\beta^{\ddagger}$	Comments
(6465 @ 8)	3815.7?	0.20 3	7.76 7	av $E\beta=2933.1$ 39
(6512 8)	3768.9	0.20 3	7.78 7	av $E\beta=2955.7$ 39
(6556 @ 8)	3724.7?	0.153 21	7.91 6	av $E\beta=2977.0$ 39
(6701 @ 8)	3580.35?	0.085 8	8.20 4	av $E\beta=3046.7$ 39
(6796 @ 8)	3485.41?	0.256 25	7.75 5	av $E\beta=3092.5$ 39
(6842 8)	3438.61	2.38 20	6.80 4	av $E\beta=3115.0$ 39
(6940 @ 8)	3340.9?	0.195 18	7.91 4	av $E\beta=3162.2$ 39
(6943 8)	3338.42	0.36 4	7.65 5	av $E\beta=3163.4$ 39
(6970 8)	3310.73	0.60 4	7.43 3	av $E\beta=3176.7$ 39
(7019 8)	3262.34	0.58 5	7.46 4	av $E\beta=3200.1$ 39
(7203 8)	3077.70	0.83 6	7.36 4	av $E\beta=3289.2$ 39
(7234 8)	3047.38	1.44 15	7.13 5	av $E\beta=3303.8$ 39
(7300 8)	2981.1	0.49 6	7.61 6	av $E\beta=3335.8$ 39
(7309 8)	2972.07	0.65 8	7.49 6	av $E\beta=3340.1$ 39
(7316 8)	2965.0	1.28 15	7.20 5	av $E\beta=3343.5$ 39
(7351 8)	2929.81	1.79 16	7.07 4	av $E\beta=3360.5$ 39
(7359 8)	2921.8	0.62 6	7.53 5	av $E\beta=3364.4$ 39
(7424 8)	2856.89	0.95 8	7.36 4	av $E\beta=3395.7$ 39
(7430 8)	2851.27	0.42 4	7.72 5	av $E\beta=3398.4$ 39
(7542 8)	2739.19	1.33 17	7.24 6	av $E\beta=3452.4$ 39
(7570 8)	2710.6	0.61 7	7.59 5	av $E\beta=3466.2$ 39
(7577 8)	2703.94	1.94 23	7.09 6	av $E\beta=3469.4$ 39
(7631 8)	2649.78	2.01 19	7.09 5	av $E\beta=3495.5$ 39
(7667 8)	2614.1	0.61 7	7.62 5	av $E\beta=3512.7$ 39
(7677 8)	2603.94	1.4 3	7.26 10	av $E\beta=3517.6$ 39
(7867 8)	2414.11	21.4 18	6.12 4	av $E\beta=3609.1$ 39
(8010 8)	2271.22	1.53 21	7.30 6	av $E\beta=3678.0$ 39
(8135 8)	2146.00	3.5 9	6.98 12	av $E\beta=3738.4$ 39
(8355 8)	1926.28	2.7 11	7.14 18	av $E\beta=3844.2$ 39

<sup>†</sup> Deduced from intensity balance if  $I\beta(\text{g.s.})=0$ . Due to the decay scheme complexity and incompleteness, should be taken as approximate values.

<sup>‡</sup> From  $I\beta$  values, which due to the decay scheme complexity and incompleteness, should be taken as approximate values.

# Absolute intensity per 100 decays.

@ Existence of this branch is questionable.

<sup>94</sup>Rb β<sup>-</sup> decay    1980Ju03,1980JuZY (continued) $\gamma(^{94}\text{Sr})$ 

Iγ normalization: From absolute I(837 γ)=0.61 4 (2006Lh01). As a result, the missing energy is about 33% of the effective Q(β<sup>-</sup>) value. The beta intensities, which were obtained from the gamma intensities, add up to 60%. If the decay scheme was complete, they would add up to 89.5.

No strongly converted line was found (Ice(E0-transition)<0.02 per 100 decays of <sup>94</sup>Rb). High-energy levels are indicated as uncertain if they are defined by one γ only, unless the only γ is very strong.

1980JuZY: full report of the experiment.

E <sub>γ</sub>	I <sub>γ</sub> #	E <sub>f</sub> (level)	J <sub>i</sub> <sup>π</sup>	E <sub>f</sub>	J <sub>f</sub> <sup>π</sup>	Mult. <sup>†</sup>	δ <sup>†</sup>	α	Comments
x117.7 2	0.10 1								
207.1 @ 1	0.22 2	2856.89	(5 <sup>-</sup> )	2649.78	4 <sup>(+)</sup>				
253.0 1	0.68 5	2856.89	(5 <sup>-</sup> )	2603.94	4 <sup>(-)</sup>				
x332.6 2	0.05 1								
x453.6 1	0.12 2								
458.0 1	0.64 4	2603.94	(4 <sup>-</sup> )	2146.00	4 <sup>+</sup>				
503.8 1	2.0 1	2649.78	4 <sup>(+)</sup>	2146.00	4 <sup>+</sup>	(M1+E2)	-0.35 8	0.00269 6	$\alpha(K)=0.00238 6$ ; $\alpha(L)=0.000261 7$ ; $\alpha(M)=4.39 \times 10^{-5} 11$ ; $\alpha(N)=5.50 \times 10^{-6} 13$ ; $\alpha(O)=3.57 \times 10^{-7} 8$ $\alpha(N..)=5.86 \times 10^{-6} 14$ δ: $\gamma\gamma(\theta)$ analyzed assuming J(2650)=(3), J(2146)=(4). $\delta=-0.55 +17-30$ or $\delta=-3.1 +20-25$ from 504-1309 cascade assuming 1309γ is pure E2. $\delta=-0.35 +9-7$ or $\delta=-7 +2-5$ from 504-(1309 unobserved)-837 cascade.
558.0 1	0.19 2	2703.94	(2,3,4)	2146.00	4 <sup>+</sup>				
601.7 2	0.32 2	3340.9?	(2,3,4)	2739.19	4 <sup>(-)</sup>				
633.7 2	0.15 2	3047.38	(2,3,4)	2414.11	3 <sup>(-)</sup>				
658.5 2	0.13 2	3262.34	(2,3,4)	2603.94	4 <sup>(-)</sup>				
660.9 2	0.25 2	3310.73	(5 <sup>-</sup> )	2649.78	4 <sup>(+)</sup>				
677.7 1	4.2 2	2603.94	(4 <sup>-</sup> )	1926.28	3 <sup>(-)</sup>	(M1+E2)	-0.54 24	0.00136 4	$\alpha(K)=0.00120 4$ ; $\alpha(L)=0.000131 5$ ; $\alpha(M)=2.21 \times 10^{-5} 8$ ; $\alpha(N)=2.77 \times 10^{-6} 9$ ; $\alpha(O)=1.80 \times 10^{-7} 5$ $\alpha(N..)=2.95 \times 10^{-6} 9$ δ: $\gamma\gamma(\theta)$ analyzed assuming J(2604)=(4), J(1926)=(3). $\delta=-0.54 +15-31$ or $\delta=-2.5 +10-14$ from 678-1090 cascade assuming 1090γ is pure E1. $-0.71 < \delta < +1.81$ from 678-(1090 unobserved)-837 cascade.
710.7 2	0.65 10	2856.89	(5 <sup>-</sup> )	2146.00	4 <sup>+</sup>				
723.7 2	0.54 10	2649.78	4 <sup>(+)</sup>	1926.28	3 <sup>(-)</sup>				
734.5 1	0.21 3	3338.42	(2,3,4)	2603.94	4 <sup>(-)</sup>				
783.8 1	0.63 4	2929.81	(2,3,4)	2146.00	4 <sup>+</sup>				
806.5 1	0.14 5	3077.70	2 <sup>+</sup>	2271.22	(2 <sup>+</sup> )				
812.9 1	2.7 2	2739.19	(4 <sup>-</sup> )	1926.28	3 <sup>(-)</sup>				
826.1 1	0.75 10	2972.07	5 <sup>-</sup>	2146.00	4 <sup>+</sup>				
836.9 1	100.00 5	836.91	2 <sup>+</sup>	0	0 <sup>+</sup>	E2		0.000888 13	$\alpha=0.000888 13$ ; $\alpha(K)=0.000785 11$ ; $\alpha(L)=8.63 \times 10^{-5} 12$ ;

$\gamma(^{94}\text{Sr})$  (continued)

E <sub>γ</sub>	I <sub>γ</sub> #	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>	δ <sup>‡</sup>	α	Comments
<sup>x</sup> 871.0 2	0.10 1								$\alpha(M)=1.448 \times 10^{-5}$ 21
<sup>x</sup> 888.3 2	0.10 3								$\alpha(O)=1.160 \times 10^{-7}$ 17; $\alpha(N+..)=1.93 \times 10^{-6}$
925.0 1	0.26 2	2851.27	(2,3,4)	1926.28	3 <sup>(-)</sup>				
931.6 1	0.32 2	3077.70	2 <sup>+</sup>	2146.00	4 <sup>+</sup>				
976.4 @ 2	0.14 1	3580.35?	(2,3,4)	2603.94	4 <sup>(-)</sup>				
<sup>x</sup> 1019.0 2	0.17 2								
1045.7 2	0.59 5	2972.07	5 <sup>-</sup>	1926.28	3 <sup>(-)</sup>				
1089.4 2	19.6 10	1926.28	3 <sup>(-)</sup>	836.91	2 <sup>+</sup>	(E1+M2)	+0.02 2	0.000212 4	$\alpha=0.000212$ 4; $\alpha(K)=0.000188$ 3; $\alpha(L)=2.01 \times 10^{-5}$ 3; $\alpha(M)=3.37 \times 10^{-6}$ 5; $\alpha(N)=4.23 \times 10^{-7}$ 7 $\alpha(O)=2.78 \times 10^{-8}$ 5; $\alpha(N+..)=4.51 \times 10^{-7}$ 7
1120.8 2	0.21 2	3047.38	(2,3,4)	1926.28	3 <sup>(-)</sup>				
1151.7 2	0.64 6	3077.70	2 <sup>+</sup>	1926.28	3 <sup>(-)</sup>				
<sup>x</sup> 1208.5 2	0.24 2								
1244.9 2	0.31 3	3948.63	(2,3,4)	2703.94	(2,3,4)				
1292.6 2	3.9 2	3438.61	(2,3,4)	2146.00	4 <sup>+</sup>				
1309.1 2	16.3 9	2146.00	4 <sup>+</sup>	836.91	2 <sup>+</sup>	E2		0.000349 5	$\alpha(K)\text{exp}=0.00040$ 13 $\alpha=0.000349$ 5; $\alpha(K)=0.000283$ 4; $\alpha(L)=3.06 \times 10^{-5}$ 5; $\alpha(M)=5.13 \times 10^{-6}$ 8; $\alpha(N)=6.44 \times 10^{-7}$ 9 $\alpha(O)=4.20 \times 10^{-8}$ 6; $\alpha(N+..)=3.01 \times 10^{-5}$ 5 $\alpha(K)\text{exp}$ deduced from I(ce) using the 837 transition as calibration standard. The value is in accordance with M1 or E2 multipolarity. The $\gamma\gamma$ data from the <sup>252</sup> Cf SF decay dataset indicate an E2 multipolarity.
<sup>x</sup> 1324.0 3	0.10 1								
1336.0 3	0.19 2	3262.34	(2,3,4)	1926.28	3 <sup>(-)</sup>				
1339.4 @ 2	0.42 3	3485.41?	(2,3,4)	2146.00	4 <sup>+</sup>				
1345.0	0.2 <sup>‡</sup>	3948.63	(2,3,4)	2603.94	4 <sup>(-)</sup>				
1384.4 3	0.59 4	3310.73	(5 <sup>-</sup> )	1926.28	3 <sup>(-)</sup>				
1434.4 2	0.50 4	2271.22	(2 <sup>+</sup> )	836.91	2 <sup>+</sup>				
1453.5 @ 2	0.25 3	3724.7?	(2,3,4)	2271.22	(2 <sup>+</sup> )				
<sup>x</sup> 1460.2 5	0.05 2								
<sup>x</sup> 1485.6 3	0.09 2								
<sup>x</sup> 1522.2 3	0.25 3								
1534.3 2	0.66 5	3948.63	(2,3,4)	2414.11	(3 <sup>-</sup> )				
1577.5 2	36.5 18	2414.11	(3 <sup>-</sup> )	836.91	2 <sup>+</sup>	(E1+M2)	-0.02 2	0.000419 6	$\alpha=0.000419$ 6; $\alpha(K)=9.89 \times 10^{-5}$ 15; $\alpha(L)=1.050 \times 10^{-5}$ 16; $\alpha(M)=1.76 \times 10^{-6}$ 3; $\alpha(N)=2.21 \times 10^{-7}$ 4 $\alpha(O)=1.459 \times 10^{-8}$ 22; $\alpha(N+..)=0.000308$ 5
1594.5 2	0.34 3	4198.49	(2,3,4)	2603.94	4 <sup>(-)</sup>				
1632.0 @ 2	0.34 3	4281.65?	(2,3,4)	2649.78	4 <sup>(+)</sup>				

<sup>94</sup>Rb β<sup>-</sup> decay    1980Ju03,1980JuZY (continued) $\gamma(^{94}\text{Sr})$  (continued)

E <sub>γ</sub>	I <sub>γ</sub> #	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	Comments
1703.3 @ 4	0.16 2	4117.4?	(2,3,4)	2414.11	(3 <sup>-</sup> )			
x1742.7 3	0.10 1							
1755.8 8	0.4 1	4168.2	(2,3,4)	2414.11	(3 <sup>-</sup> )			
1757.0 4	0.6 2	4361.0	(2,3,4)	2603.94	(4 <sup>-</sup> )			
1766.8 @ 4	0.15 2	2603.94	(4 <sup>-</sup> )	836.91	2 <sup>+</sup>			
1777.2 3	1.0 1	2614.1	(2,3,4)	836.91	2 <sup>+</sup>			
1812.7 3	1.9 2	2649.78	4 <sup>(+)</sup>	836.91	2 <sup>+</sup>	(E2)	0.000386 6	$\alpha=0.000386 6$ ; $\alpha(K)=0.0001485 21$ ; $\alpha(L)=1.588\times 10^{-5} 23$ ; $\alpha(M)=2.66\times 10^{-6} 4$ $\alpha(O)=2.20\times 10^{-8} 3$ ; $\alpha(N..)=0.000219$ Mult.: from Adopted Gammas.
1866.9 3	3.3 3	2703.94	(2,3,4)	836.91	2 <sup>+</sup>			$\delta(E2/M1)=+1.0 6$ from $\gamma\gamma(\theta)$ , but $\Delta J^\pi$ requires E2. $\delta: +0.29 +7-6$ if $J(2704 \text{ level})=2$ ; $+0.13 6$ if $J=3$ . $\delta=0$ if $J=4$ also possible within two standard deviations.
1873.7 3	1.0 1	2710.6	(2,3,4)	836.91	2 <sup>+</sup>			
1902.2 3	0.23 3	2739.19	(4 <sup>-</sup> )	836.91	2 <sup>+</sup>			
1934.5 4	0.12 3	4673.7	(2,3,4)	2739.19	(4 <sup>-</sup> )			
x1964.6 4	0.06 1							
x1976.0 4	0.09 2							
2014.0 4	0.43 5	2851.27	(2,3,4)	836.91	2 <sup>+</sup>			
2022.3 4	1.32 15	3948.63	(2,3,4)	1926.28	3 <sup>(-)</sup>			
2084.7 4	0.82 8	2921.8	(2 <sup>+</sup> )	836.91	2 <sup>+</sup>			
2093.0 4	2.3 2	2929.81	(2,3,4)	836.91	2 <sup>+</sup>			$\delta: 0.00 17$ if $J(2930 \text{ level})=2$ , $+0.45 < \delta < +1.53$ if $J=3$ .
2098.9 4	0.31 3	4838.4	(2,3,4)	2739.19	(4 <sup>-</sup> )			
2128.1 4	2.1 2	2965.0	(2,3,4)	836.91	2 <sup>+</sup>			
2144.2 4	0.80 8	2981.1	(2,3,4)	836.91	2 <sup>+</sup>			
2189.0 4	0.34 3	4838.4	(2,3,4)	2649.78	4 <sup>(+)</sup>			
2209.9 4	2.0 2	3047.38	(2,3,4)	836.91	2 <sup>+</sup>			
2241.5 4	0.24 3	4168.2	(2,3,4)	1926.28	3 <sup>(-)</sup>			
2271.4 5	2.4 3	2271.22	(2 <sup>+</sup> )	0	0 <sup>+</sup>			
2272.2 5	1.5 3	4198.49	(2,3,4)	1926.28	3 <sup>(-)</sup>			
2317.1 5	0.27 3	5289.1	(2,3,4)	2972.07	5 <sup>-</sup>			
x2338.8 5	0.21 2							
2354.4 @ 5	0.21 2	4281.65?	(2,3,4)	1926.28	3 <sup>(-)</sup>			
x2373.1 5	0.10 2							
2424.9 5	0.63 6	3262.34	(2,3,4)	836.91	2 <sup>+</sup>			
x2433.9 5	0.18 2							
2474.2 @ 5	0.15 2	3310.73	(5 <sup>-</sup> )	836.91	2 <sup>+</sup>			
x2484.3 5	0.15 2							
2501.0 5	0.38 4	3338.42	(2,3,4)	836.91	2 <sup>+</sup>			
2507.5 @ 5	0.26 3	4653.5?	(2,3,4)	2146.00	4 <sup>+</sup>			
2554.8 6	0.44 5	4481.1	(2,3,4)	1926.28	3 <sup>(-)</sup>			
x2574.9 6	0.31 3							
x2606.2 6	0.16 2							

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>	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>
x2633.8 6	0.16 2					x3320.6 10	0.22 2				
x2659.8 6	0.11 2					3341.0 @ 10	0.35 4	5267.3?	(2,3,4)	1926.28	3 <sup>(-)</sup>
x2663.5 6	0.10 1					3362.2 10	0.23 3	4198.49	(2,3,4)	836.91	2 <sup>+</sup>
2684.9 6	0.22 2	5289.1	(2,3,4)	2603.94	(4 <sup>-</sup> )	3374.0 @ 10	0.24 3	4211.0?	(2,3,4)	836.91	2 <sup>+</sup>
2692.1 6	0.45 5	4838.4	(2,3,4)	2146.00	4 <sup>+</sup>	3386.6 @ 10	0.25 3	5312.9?	(2,3,4)	1926.28	3 <sup>(-)</sup>
x2733.1 7	0.22 2					x3416.6 10	0.22 3				
x2748.5 7	0.09 3					3431.4 @ 10	0.31 3	4268.4?	(2,3,4)	836.91	2 <sup>+</sup>
x2753.9 7	0.21 2					3471.4 @ 10	0.18 3	4308.4?	(2,3,4)	836.91	2 <sup>+</sup>
x2759.0 7	0.09 2					x3483.8 10	0.09 2				
x2771.1 7	0.13 2					x3506.0 10	0.30 3				
2798.4 @ 7	0.06 1	5402.4?	(2,3,4)	2603.94	(4 <sup>-</sup> )	3529.8 @ 10	0.31 4	4366.8?	(2,3,4)	836.91	2 <sup>+</sup>
x2821.1 7	0.30 3					x3575.7 10	0.20 3				
2922.3 7	0.20 2	2921.8	(2 <sup>+</sup> )	0	0 <sup>+</sup>	x3638.6 10	0.28 4				
2931.9 7	0.32 4	3768.9	(2,3,4)	836.91	2 <sup>+</sup>	3681.8 @ 10	0.23 3	5828.2?	(2,3,4)	2146.00	4 <sup>+</sup>
2978.7 @ 8	0.32 4	3815.7?	(2,3,4)	836.91	2 <sup>+</sup>	3809.0 @ 10	0.29 3	5735.4?	(2,3,4)	1926.28	3 <sup>(-)</sup>
x3009.1 8	0.10 2					3836.4 10	0.78 8	4673.7	(2,3,4)	836.91	2 <sup>+</sup>
x3016.6 8	0.11 2					3917.6 @ 10	0.20 3	6063.7?	(2,3,4)	2146.00	4 <sup>+</sup>
x3064.3 9	0.28 3					x3993.7 10	0.12 3				
3076.6 @ 9	0.26 3	3077.70	2 <sup>+</sup>	0	0 <sup>+</sup>	x4008.2 10	0.03 1				
3116.3 @ 10	0.18 2	3953.3?	(2,3,4)	836.91	2 <sup>+</sup>	x4385.0 6	0.16 3				
3131.9 10	0.39 4	3968.9	(2,3,4)	836.91	2 <sup>+</sup>	x4661.1 5	0.22 4				
3145.5 10	0.38 4	3982.5	(2,3,4)	836.91	2 <sup>+</sup>	x4692.9 7	0.10 2				
x3168.6 10	0.15 2					x4811.4 5	0.21 3				
3187.2 @ 10	0.14 2	4024.2?	(2,3,4)	836.91	2 <sup>+</sup>	x4843.1 5	0.19 3				
3224.9 @ 15	0.2 1	5828.2?	(2,3,4)	2603.94	(4 <sup>-</sup> )	4994.0 @ 5	0.30 5	5831.1?	(2,3,4)	836.91	2 <sup>+</sup>
3229.4 @ 10	0.38 4	4066.4?	(2,3,4)	836.91	2 <sup>+</sup>	x5086.2 7	0.10 3				
3250.1 @ 10	0.22 3	4087.1?	(2,3,4)	836.91	2 <sup>+</sup>	x5229.4 5	0.16 4				
x3265.0 10	0.13 2					x5452.1 7	0.08 3				
3286.7 @ 10	0.38 4	5213.0?	(2,3,4)	1926.28	3 <sup>(-)</sup>	x5684.7 5	0.14 4				
3296.9 @ 10	0.30 4	5223.2?	(2,3,4)	1926.28	3 <sup>(-)</sup>	x5807.9 10	0.06 3				
3305.5 @ 10	0.20 2	4142.5?	(2,3,4)	836.91	2 <sup>+</sup>	x6346.9 15	0.02 1				

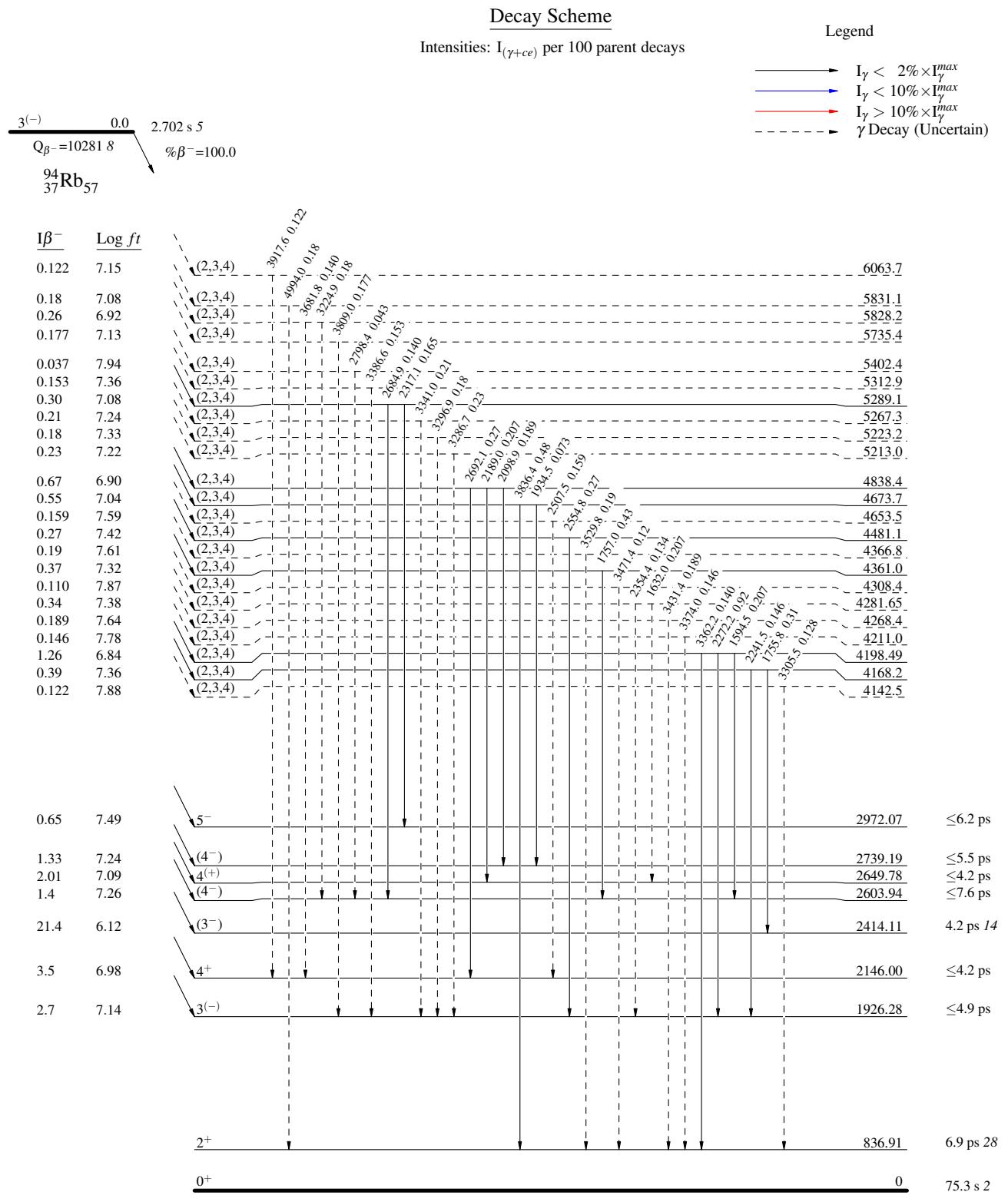
<sup>†</sup> From  $\gamma\gamma(\theta)$  if the 836.9 $\gamma$  is pure E2 as is usual for deexcitation of first-excited states in even-even nuclei. Quadrupole transitions are assumed to be E2. Dipole transitions are assigned M1 if  $\delta > 0.3$ ; those with negligible mixing are tentatively assigned E1 though M1 is also possible.

<sup>‡</sup>  $\gamma$  appears in the coincidences table only.

<sup>#</sup> For absolute intensity per 100 decays, multiply by 0.61 4.

<sup>@</sup> Placement of transition in the level scheme is uncertain.

<sup>x</sup>  $\gamma$  ray not placed in level scheme.

$^{94}\text{Rb}$   $\beta^-$  decay    1980Ju03, 1980JuZY

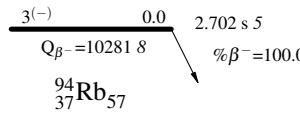
$^{94}\text{Rb}$   $\beta^-$  decay 1980Ju03,1980JuZY

## Decay Scheme (continued)

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

## Legend

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

 $I\beta^- \quad \text{Log } ft$ 