^{97}Rb β^- decay 1990Lh02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 111, 525 (2010)	19-Nov-2009

Parent: ^{97}Rb: E=0.0; J$^\pi$=3/2$^+$; $T_{1/2}$=169.1 ms *6*; Q(β^-)=10432 *28*; %β^- decay=100.0
^{97}Rb-ADOPTED values for ^{97}Rb.
1990Lh02: measured Eγ, Iγ, $\gamma\gamma$(t).
1983Kr11: measured Eγ, Iγ, Ice, $\gamma\gamma$, $\beta\gamma$(t).
1990Bu01: measured $\beta\gamma\gamma$(t).
1992Pr03: measured β^- endpoint with achromatic magnetic sector field filter with GE(HP) β^- detector.
Other: 1975Gu03.
1990Mo15, 1984Ha58, 1984Kr03, 1984Kr06, 1984Kr07: β-decay strength function calculations.
The level scheme is that proposed by 1983Kr11 and modified by 1990Lh02.

^{97}Sr Levels

E(level)[†]	J$^\pi$[‡]	$T_{1/2}$[#]	Comments
0.0	1/2$^+$	429 ms *5*	%β^-=100; %β^-n≤0.05 $T_{1/2}$,%β^-,%β^-n: from Adopted Levels.
167.13 *8*	3/2$^+$	0.22 ns *4*	$T_{1/2}$: from 1987Oh05. Other: 15 ns (1983Kr11).
308.13 *11*	7/2$^+$	170 ns *10*	$T_{1/2}$: from 1983Kr11.
522.49 *9*	3/2$^+$,5/2$^+$		
585.06[&] *9*	(3/2)$^+$	≤8 ps	
600.48 *9*	3/2$^+$,5/2$^+$	≤11 ps	Possibly a 2$^+$ phonon excitation (1990Bu01).
644.73[a] *9*	(3/2)$^-$	7.2 ns *10*	$T_{1/2}$: from 1983Kr11.
687.09[@] *9*	5/2$^+$	0.364 ns *20*	
713.82[b] *9*	(5/2)$^-$	1.27 ns *19*	$T_{1/2}$: other: 1.7 ns (1983Kr11).
755.37 *15*			
768.7 *3*			
771.50[a] *13*	7/2$^-$		
822.42[&] *15*	(7/2)$^+$	0.21 ns *3*	
916.44 *15*			
985.49 *13*	(3/2$^+$,5/2$^+$)	≤6 ps	
1095.50 *14*	(3/2$^+$,5/2)		
1320.70 *14*		≤7 ps	
1374.67 *16*		≤6 ps	
1507.3 *3*	(1/2$^+$,3/2,5/2$^+$)		
2854.9 *4*			

† From least squares fit to Eγ.
‡ From ^{97}Sr Adopted Levels.
# From 1990Bu01, except where otherwise noted.
@ Band(A): Band based on 5/2$^+$, α=+1/2.
& Band(a): Band based on 3/2$^+$, α=−1/2.
a Band(B): Band based on 3/2$^-$, α=−1/2.
b Band(b): Band based on 5/2$^-$, α=+1/2.

^{97}Rb β^- decay 1990Lh02 (continued)

β^- radiations

E(decay)	E(level)	Iβ^-[†@]	Log *ft*	Comments
(7.58×10^3 *3*)	2854.9	0.84 *17*	6.25 *9*	av Eβ=3469 *14*
(8.92×10^3 *3*)	1507.3	1.53 *25*	6.32 *8*	av Eβ=4118 *14*
(9.06×10^3 *3*)	1374.67	3.5 *5*	5.99 *7*	av Eβ=4182 *14*
(9.11×10^3 *3*)	1320.70	4.3 *3*	5.91 *3*	av Eβ=4208 *14*
(9.34×10^3 *3*)	1095.50	2.7 *3*	6.16 *5*	av Eβ=4316 *14*
(9.45×10^3 *3*)	985.49	6.5 *6*	5.80 *4*	av Eβ=4369 *14*
(9.52×10^3 *3*)	916.44	0.97 *22*	6.64 *10*	av Eβ=4402 *14*
(9.61×10^3[&] *3*)	822.42	0.40[‡] *8*	7.05[‡] *9*	av Eβ=4447 *14*
(9.66×10^3[&] *3*)	771.50	0.69[‡] *11*	6.82[‡] *7*	av Eβ=4472 *14*
(9.66×10^3 *3*)	768.7	0.16[#] *6*	7.46[#] *17*	av Eβ=4473 *14*
(9.68×10^3 *3*)	755.37	0.47 *10*	6.99 *10*	av Eβ=4480 *14*
(9.72×10^3 *3*)	713.82	3.1 *4*	6.18 *6*	av Eβ=4500 *14*
(9.74×10^3 *3*)	687.09	12.8 *11*	5.57 *4*	av Eβ=4512 *14*
(9.79×10^3 *3*)	644.73	7.0 *6*	5.84 *4*	av Eβ=4533 *14*
(9.83×10^3 *3*)	600.48	7.2 *7*	5.84 *5*	av Eβ=4554 *14*
(9.85×10^3 *3*)	585.06	14.7 *12*	5.53 *4*	av Eβ=4561 *14*
(9.91×10^3 *3*)	522.49	1.7 *4*	6.48 *11*	av Eβ=4591 *14*
(1.012×10^4[&] *3*)	308.13	1.0[‡] *4*	6.75[‡] *18*	av Eβ=4694 *14*
(1.026×10^4 *3*)	167.13	2.0 *8*	6.48 *18*	av Eβ=4762 *14*
(1.043×10^4 *3*)	0.0	3 *3*	6.3 *5*	av Eβ=4842 *14* E(decay): 10462 *47* (1992Pr03); 10450 *30* (1984BlZN).

[†] Calculated from intensity balance on the proposed level scheme. The intensity of the ground-state β group was deduced by 1983Kr11 from a filiation measurement assuming the absolute intensity of I(743γ ^{97}Nb)=0.928 and %β^-n=25.2. (correcting for the adopted Iγ (0.9306 *15*) and %β^-n (25.5 *9*) does not alter the deduced Iβ(g.s.).).

[‡] The log *ft* value is in disagreement with the spin assignment. The log *ft* value suggests J=1/2, 3/2, 5/2. However, since the β group is weak, the available decay energy is high (suggesting possible unknown higher levels), and there is enough intensity in unplaced gammas which might feed this level, the β^- group can be considered questionable.

[#] Iβ=1.21 *18*, log *ft*=6.58 *7* if placement of 768.7γ to this level is confirmed.

[@] Absolute intensity per 100 decays.

[&] Existence of this branch is questionable.

$\gamma(^{97}Sr)$

Iγ normalization: based on intensity balance at ^{97}Sr g.s. with %β^-n=25.5 *9* (Adopted Levels for ^{97}Sr) and I(g.s. β^-)=3 *3*% (from 1983Kr11). Total unplaced Iγ=5.4% (strongest unplaced γ has Iγ=0.60 *11*%).

E_γ †	I_γ †@	E_i(level)	J^π_i	E_f	J^π_f	Mult.‡	δ	α &	Comments
x40.7 *1*	3 *1*								
42.4 *1*	2 *1*	687.09	5/2+	644.73	(3/2)−	[E1]		1.231 *20*	α(K)=1.081 *17*; α(L)=0.1262 *20*; α(M)=0.0209 *4*; α(N+..)=0.00263 *4* α(N)=0.00250 *4*; α(O)=0.0001325 *21*
44.3 *1*	28 *3*	644.73	(3/2)−	600.48	3/2+,5/2+	(E1)		1.086 *17*	α(K)=0.955 *15*; α(L)=0.1109 *18*; α(M)=0.0184 *3*; α(N+..)=0.00232 *4* α(N)=0.00220 *4*; α(O)=0.0001177 *18* Mult.: from α(exp)=0.98 *50*, α(K)exp=0.61 *33* (1990Lh02).
57.7 *1*	10 *1*	771.50	7/2−	713.82	(5/2)−	M1+E2#	0.26# *+9−12*	1.2 *3*	α(K)=1.00 *24*; α(L)=0.16 *7*; α(M)=0.027 *11*; α(N+..)=0.0033 *12* α(N)=0.0032 *12*; α(O)=0.00014 *3*
59.7 *1*	96 *6*	644.73	(3/2)−	585.06	(3/2)+	(E1)		0.460	α(K)=0.405 *6*; α(L)=0.0460 *7*; α(M)=0.00764 *12*; α(N+..)=0.000976 *15* α(N)=0.000924 *14*; α(O)=5.18×10−5 *8* Mult.: from α(exp)=0.43 *18*, α(K)exp=0.24 *17* (1990Lh02); α(K)exp=0.50 *15* (1983Kr11).
62.5 *2*	1 *1*	585.06	(3/2)+	522.49	3/2+,5/2+	[M1,E2]		3 *3*	α(K)=2.5 *20*; α(L)=0.5 *5*; α(M)=0.09 *8*; α(N+..)=0.010 *9* α(N)=0.010 *9*; α(O)=0.00031 *23*
69.1 *1*	67 *3*	713.82	(5/2)−	644.73	(3/2)−	M1+E2	0.19 *+6−7*	0.58 *9*	α(K)=0.50 *7*; α(L)=0.067 *15*; α(M)=0.0114 *25*; α(N+..)=0.0014 *3* α(N)=0.0014 *3*; α(O)=7.3×10−5 *8* Mult.,δ: from α(K)exp=0.50 *6* (weighted average of α(K)exp=0.53 *15* and 0.53 *12* (1990Lh02) and α(K)exp=0.48 *8* (1983Kr11)).
78.0 *2*	1 *1*	600.48	3/2+,5/2+	522.49	3/2+,5/2+	[M1,E2]		1.4 *11*	α(K)=1.2 *9*; α(L)=0.21 *18*; α(M)=0.04 *3*; α(N+..)=0.004 *4* α(N)=0.004 *4*; α(O)=0.00015 *11*
86.6 *1*	15 *2*	687.09	5/2+	600.48	3/2+,5/2+	[M1,E2]		1.0 *8*	α(K)=0.8 *6*; α(L)=0.14 *12*; α(M)=0.023 *19*; α(N+..)=0.0028 *23* α(N)=0.0027 *22*; α(O)=0.00011 *8*
102.0 *1*	98 *4*	687.09	5/2+	585.06	(3/2)+	M1+E2	0.43 *12*	0.28 *6*	α(K)=0.24 *5*; α(L)=0.033 *9*; α(M)=0.0056 *15*; α(N+..)=0.00070 *17* α(N)=0.00066 *17*; α(O)=3.3×10−5 *7* Mult.,δ: from α(K)exp=0.24 *5* (1983Kr11).
113.3 *1*	15 *2*	713.82	(5/2)−	600.48	3/2+,5/2+	[E1]		0.0703	α(K)=0.0622 *9*; α(L)=0.00686 *10*; α(M)=0.001143 *17*; α(N+..)=0.0001492 *22* α(N)=0.0001407 *20*; α(O)=8.46×10−6 *12*
122.2 *2*	14 *5*	644.73	(3/2)−	522.49	3/2+,5/2+	[E1]		0.0563	α(K)=0.0498 *8*; α(L)=0.00548 *9*; α(M)=0.000914 *14*;

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γ(^{97}Sr) (continued)

E_γ [†]	I_γ [†@]	E_i(level)	J^π_i	E_f	J^π_f	Mult. [‡]	α [&]	Comments
								α(N+..)=0.0001195 *18* α(N)=0.0001127 *17*; α(O)=6.81×10^{-6} *10*
126.7 *2*	3 *1*	771.50	7/2$^-$	644.73	(3/2)$^-$	E2[#]	0.427	α(K)=0.364 *6*; α(L)=0.0531 *9*; α(M)=0.00893 *14*; α(N+..)=0.001096 *17* α(N)=0.001048 *16*; α(O)=4.77×10^{-5} *8*
128.8 *1*	28 *4*	713.82	(5/2)$^-$	585.06	(3/2)$^+$	(E1)	0.0482	α(K)=0.0426 *6*; α(L)=0.00469 *7*; α(M)=0.000782 *11*; α(N+..)=0.0001024 *15* α(N)=9.65×10^{-5} *14*; α(O)=5.86×10^{-6} *9* Mult.: from α(K)exp=0.04 *2* (1983Kr11).
135.4 *2*	6 *1*	822.42	(7/2)$^+$	687.09	5/2$^+$	[M1+E2]	0.20 *14*	α(K)=0.17 *12*; α(L)=0.024 *17*; α(M)=0.004 *3*; α(N+..)=0.0005 *4* α(N)=0.0005 *4*; α(O)=2.4×10^{-5} *15*
141.0 *1*	100 *8*	308.13	7/2$^+$	167.13	3/2$^+$	E2	0.288	α(K)=0.247 *4*; α(L)=0.0347 *5*; α(M)=0.00584 *9*; α(N+..)=0.000722 *11* α(N)=0.000690 *10*; α(O)=3.28×10^{-5} *5* Mult.: from α(K)exp=0.24 *4* (1983Kr11).
164.6 *1*	45 *5*	687.09	5/2$^+$	522.49	3/2$^+$,5/2$^+$	M1	0.0421	α(K)=0.0371 *6*; α(L)=0.00418 *6*; α(M)=0.000704 *10*; α(N+..)=9.38×10^{-5} *14* α(N)=8.81×10^{-5} *13*; α(O)=5.65×10^{-6} *8* Mult.: from α(K)exp=0.036 *7* (1983Kr11).
167.1 *1*	1000	167.13	3/2$^+$	0.0	1/2$^+$	M1	0.0404	%Iγ=26.3 *12* α(K)=0.0356 *5*; α(L)=0.00402 *6*; α(M)=0.000676 *10*; α(N+..)=9.01×10^{-5} *13* α(N)=8.46×10^{-5} *12*; α(O)=5.43×10^{-6} *8* %Iγ: using the calculated normalization. Mult.: from α(K)exp=0.035 *2* (1983Kr11).
214.3 *2*	4 *1*	522.49	3/2$^+$,5/2$^+$	308.13	7/2$^+$			
229.6 *7*	3 *2*	916.44		687.09	5/2$^+$			
232.8 *2*	4 *1*	755.37		522.49	3/2$^+$,5/2$^+$			
237.3 *2*	10 *2*	822.42	(7/2)$^+$	585.06	(3/2)$^+$			
271.7 *7*	2 *1*	985.49	(3/2$^+$,5/2$^+$)	713.82	(5/2)$^-$			
273.1 *2*	2 *1*	1095.50	(3/2$^+$,5/2)	822.42	(7/2)$^+$			
298.4 *2*	10 *2*	985.49	(3/2$^+$,5/2$^+$)	687.09	5/2$^+$			
315.5 *3*	3 *1*	916.44		600.48	3/2$^+$,5/2$^+$			
331.3 *3*	4 *1*	916.44		585.06	(3/2)$^+$			
355.3 *2*	105 *8*	522.49	3/2$^+$,5/2$^+$	167.13	3/2$^+$	M1	0.00593	α(K)=0.00524 *8*; α(L)=0.000578 *9*; α(M)=9.72×10^{-5} *14*; α(N+..)=1.299×10^{-5} *19* α(N)=1.220×10^{-5} *18*; α(O)=7.93×10^{-7} *12* Mult.: from α(K)exp=0.0058 *10* (1983Kr11).
379.0 *2*	57 *4*	687.09	5/2$^+$	308.13	7/2$^+$	(M1)	0.00507	α(K)=0.00448 *7*; α(L)=0.000493 *7*; α(M)=8.29×10^{-5} *12*; α(N+..)=1.109×10^{-5} *16* α(N)=1.041×10^{-5} *15*; α(O)=6.78×10^{-7} *10* Mult.: from α(K)exp=0.0035 *15* (1983Kr11).
382.4 *10*	3 *2*	1095.50	(3/2$^+$,5/2)	713.82	(5/2)$^-$			
^{x}383.2 *3*	6 *2*							

From ENSDF

$\gamma(^{97}$Sr) (continued)

E_γ[†]	I_γ[†@]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[‡]	α[&]	Comments
385.3 3	17 3	985.49	(3/2$^+$,5/2$^+$)	600.48	3/2$^+$,5/2$^+$			
389.3 3	8 2	1374.67		985.49	(3/2$^+$,5/2$^+$)			
394.1 3	15 2	916.44		522.49	3/2$^+$,5/2$^+$			
400.4 2	60 4	985.49	(3/2$^+$,5/2$^+$)	585.06	(3/2)$^+$	(M1)	0.00444	α(K)=0.00393 6; α(L)=0.000432 6; α(M)=7.25×10^{-5} 11; α(N+..)=9.70×10^{-6} 14 α(N)=9.11×10^{-6} 13; α(O)=5.93×10^{-7} 9 Mult.: from α(K)exp=0.0045 20.
405.8 2	9 2	713.82	(5/2)$^-$	308.13	7/2$^+$			
408.4 3	18 5	1095.50	(3/2$^+$,5/2)	687.09	5/2$^+$			
417.9 2	226 14	585.06	(3/2)$^+$	167.13	3/2$^+$	M1,E2	0.0052 12	α(K)=0.0046 11; α(L)=0.00052 13; α(M)=8.7×10^{-5} 22; α(N+..)=1.2×10^{-5} 3 α(N)=1.1×10^{-5} 3; α(O)=6.7×10^{-7} 14 Mult.: from α(K)exp=0.0045 10 (1983Kr11); theory: α(K)(M1)=0.00355 α(K)(E2)=0.00564.
433.4 2	98 6	600.48	3/2$^+$,5/2$^+$	167.13	3/2$^+$	M1,E2	0.0047 11	α(K)=0.0041 9; α(L)=0.00047 11; α(M)=7.8×10^{-5} 19; α(N+..)=1.04×10^{-5} 24 α(N)=9.8×10^{-6} 23; α(O)=6.1×10^{-7} 12 Mult.: from α(K)exp=0.0048 15 (1983Kr11); theory: α(K)(M1)=0.00325, α(K)(E2)=0.00503.
477.5 2	36 5	644.73	(3/2)$^-$	167.13	3/2$^+$			
495.1 2	40 3	1095.50	(3/2$^+$,5/2)	600.48	3/2$^+$,5/2$^+$			
510.3 4	12 4	1095.50	(3/2$^+$,5/2)	585.06	(3/2)$^+$			
520.0 2	241 12	687.09	5/2$^+$	167.13	3/2$^+$	(M1)	0.00239	α(K)=0.00212 3; α(L)=0.000231 4; α(M)=3.89×10^{-5} 6; α(N+..)=5.20×10^{-6} 8 α(N)=4.88×10^{-6} 7; α(O)=3.19×10^{-7} 5 Mult.: from α(K)exp=0.0020 15 (1983Kr11).
522.5 3	48 6	522.49	3/2$^+$,5/2$^+$	0.0	1/2$^+$			%Iγ=1.26 17 %Iγ: using the calculated normalization.
546.5 3	5 1	713.82	(5/2)$^-$	167.13	3/2$^+$			
565.3 3	9 2	1320.70		755.37				
573.0 3	6 1	1095.50	(3/2$^+$,5/2)	522.49	3/2$^+$,5/2$^+$			
585.2 2	809 26	585.06	(3/2)$^+$	0.0	1/2$^+$	M1,E2	0.00207 25	%Iγ=21.2 11 α(K)=0.00183 22; α(L)=0.00020 3; α(M)=3.4×10^{-5} 5; α(N+..)=4.5×10^{-6} 6 α(N)=4.2×10^{-6} 6; α(O)=2.7×10^{-7} 3 %Iγ: using the calculated normalization. Mult.: from α(K)exp=0.0016 5 (1983Kr11); theory: α(K)(M1)=0.00162, α(K)(E2)=0.00204.
588.3 2	23 3	755.37		167.13	3/2$^+$			
591.0 4	16 6	1507.3	(1/2$^+$,3/2,5/2$^+$)	916.44				
600.5 2	409 14	600.48	3/2$^+$,5/2$^+$	0.0	1/2$^+$	E2,M1	0.00193 22	%Iγ=10.7 6

$^{97}_{38}$Sr$_{59}$-5

γ(^{97}Sr) (continued)

E_γ[†]	I_γ[†@]	E_i(level)	J_i^π	E_f	J_f^π	Comments
						α(K)=0.00171 *19*; α(L)=0.000189 *24*; α(M)=3.2×10^{-5} *4*; α(N+..)=4.2×10^{-6} *5* α(N)=4.0×10^{-6} *5*; α(O)=2.53×10^{-7} *25* %Iγ: using the calculated normalization. Mult.: from α(K)exp=0.0021 *8* (1983Kr11); theory: α(K)(E2)=0.00190, α(K)(M1)=0.00152.
601.6 *3*	6 *2*	768.7		167.13	3/2$^+$	
644.6 *2*	132 *5*	644.73	(3/2)$^-$	0.0	1/2$^+$	%Iγ=3.47 *21* %Iγ: using the calculated normalization.
660.5 *4*	19 *3*	1374.67		713.82	(5/2)$^-$	
687.1 *3*	110 *20*	687.09	5/2$^+$	0.0	1/2$^+$	%Iγ=2.9 *6* %Iγ: using the calculated normalization.
687.7 *2*	75 *15*	1374.67		687.09	5/2$^+$	
[x]712.5 *5*	8 *2*					
720.3 *2*	60 *3*	1320.70		600.48	3/2$^+$,5/2$^+$	
735.6 *2*	71 *4*	1320.70		585.06	(3/2)$^+$	
749.4 *3*	22 *4*	916.44		167.13	3/2$^+$	
768.7[a] *4*	40 *6*	768.7		0.0	1/2$^+$	
787.0 *4*	20 *4*	1095.50	(3/2$^+$,5/2)	308.13	7/2$^+$	
789.7 *4*	31 *6*	1374.67		585.06	(3/2)$^+$	
818.5 *5*	55 *15*	985.49	(3/2$^+$,5/2$^+$)	167.13	3/2$^+$	
820.0 *5*	14 *4*	1507.3	(1/2$^+$,3/2,5/2$^+$)	687.09	5/2$^+$	
[x]829.5 *4*	12 *3*					
[x]872.2 *4*	9 *2*					
917.0 *4*	6 *2*	916.44		0.0	1/2$^+$	%Iγ=0.16 *6* %Iγ: using the calculated normalization.
985.3 *3*	110 *9*	985.49	(3/2$^+$,5/2$^+$)	0.0	1/2$^+$	%Iγ=2.9 *3* %Iγ: using the calculated normalization.
[x]1013.9 *3*	8 *2*					
[x]1053.0 *3*	23 *4*					
1207.0 *4*	15 *3*	1374.67		167.13	3/2$^+$	
[x]1242.0 *4*	12 *4*					
1320.8 *4*	28 *4*	1320.70		0.0	1/2$^+$	%Iγ=0.74 *11* %Iγ: using the calculated normalization.
[x]1375.7 *4*	20 *4*					
[x]1423.2 *5*	7 *2*					
1480.0 *5*	14 *4*	2854.9		1374.67		
1507.3 *5*	28 *5*	1507.3	(1/2$^+$,3/2,5/2$^+$)	0.0	1/2$^+$	%Iγ=0.74 *14* %Iγ: using the calculated normalization.
1535.3 *8*	4 *2*	2854.9		1320.70		
[x]1578.4 *5*	5 *2*					
[x]1628.4 *5*	7 *2*					
[x]1667.5 *5*	11 *2*					
[x]1846.3 *5*	15 *3*					
[x]2037.3 *5*	9 *3*					

$\gamma(^{97}Sr)$ (continued)

E_γ[†]	I_γ[†@]	E_i(level)	J_i^π	E_f	J_f^π
2254.0 *6*	14 *4*	2854.9		600.48	$3/2^+,5/2^+$
[x]2646.0 *15*	9 *3*				
[x]2718.5 *15*	7 *3*				
[x]2800.0 *15*	11 *3*				
[x]2840.0 *15*	5 *2*				
[x]2900.0 *15*	20 *5*				

[†] From 1990Lh02.

[‡] Deduced from α(exp) and α(K)exp (measured intensity balance and I(K x ray)/Iγ, respectively, in coincidence spectra) (1990Lh02); and from I(ce)/Iγ from simultaneously recorded spectra, using transitions of known multipolarity of α=96 to 98 isotopes for internal calibration (1983Kr11). Some mult. and δ values, noted In table, are from Adopted Gammas.

[#] From Adopted Gammas.

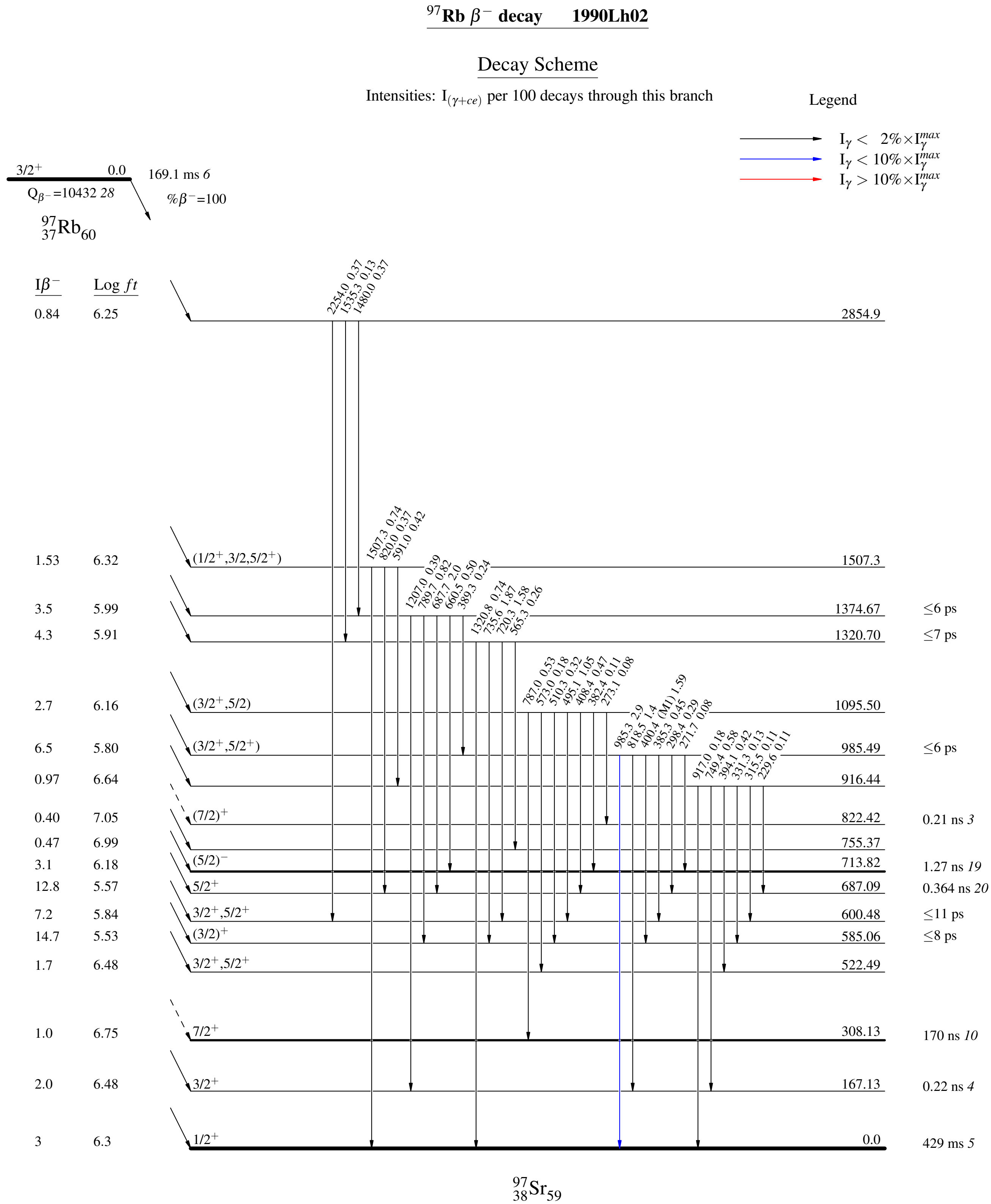
[@] For absolute intensity per 100 decays, multiply by 0.0263 *12*.

[&] 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.

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

[x] γ ray not placed in level scheme.

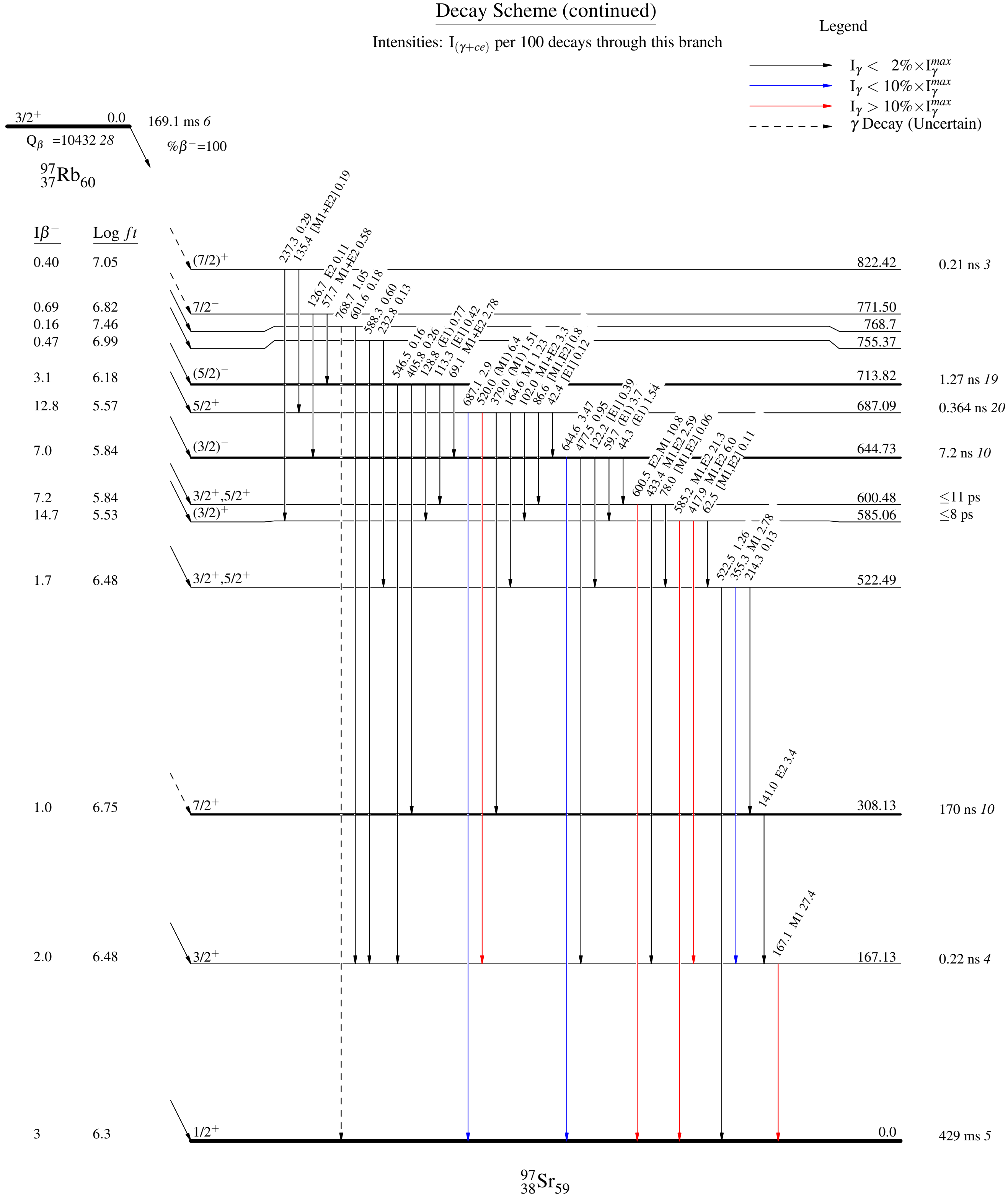
$^{97}_{38}Sr_{59}$-7


^{97}Rb β^- decay 1990Lh02
Decay Scheme
Intensities: $I_{(\gamma+ce)}$ per 100 decays through this branch
Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
3/2+ 0.0 169.1 ms 6
Q_{β^-}=10432 28
%β−=100
$^{97}_{37}Rb_{60}$
Iβ− Log ft
0.84 6.25 2854.9
1.53 6.32 (1/2+,3/2,5/2+) 1507.3
3.5 5.99 1374.67 ≤6 ps
4.3 5.91 1320.70 ≤7 ps
2.7 6.16 (3/2+,5/2) 1095.50
6.5 5.80 (3/2+,5/2+) 985.49 ≤6 ps
0.97 6.64 916.44
0.40 7.05 (7/2)+ 822.42 0.21 ns 3
0.47 6.99 755.37
3.1 6.18 (5/2)− 713.82 1.27 ns 19
12.8 5.57 5/2+ 687.09 0.364 ns 20
7.2 5.84 3/2+,5/2+ 600.48 ≤11 ps
14.7 5.53 (3/2)+ 585.06 ≤8 ps
1.7 6.48 3/2+,5/2+ 522.49
1.0 6.75 7/2+ 308.13 170 ns 10
2.0 6.48 3/2+ 167.13 0.22 ns 4
3 6.3 1/2+ 0.0 429 ms 5
2254.0 0.37
1535.3 0.13
1480.0 0.37
1507.3 0.74
820.0 0.37
591.0 0.42
1207.0 0.39
789.7 0.82
687.7 2.0
660.5 0.50
389.3 0.24
1320.8 0.74
735.6 1.87
720.3 1.58
565.3 0.26
787.0 0.53
573.0 0.18
510.3 0.32
495.1 1.05
408.4 0.47
382.4 0.11
273.1 0.08
985.3 2.9
818.5 1.4
400.4 (M1) 1.59
385.3 0.45
298.4 0.29
271.7 0.08
917.0 0.18
749.4 0.58
394.1 0.42
331.3 0.13
315.5 0.11
229.6 0.11
$^{97}_{38}Sr_{59}$

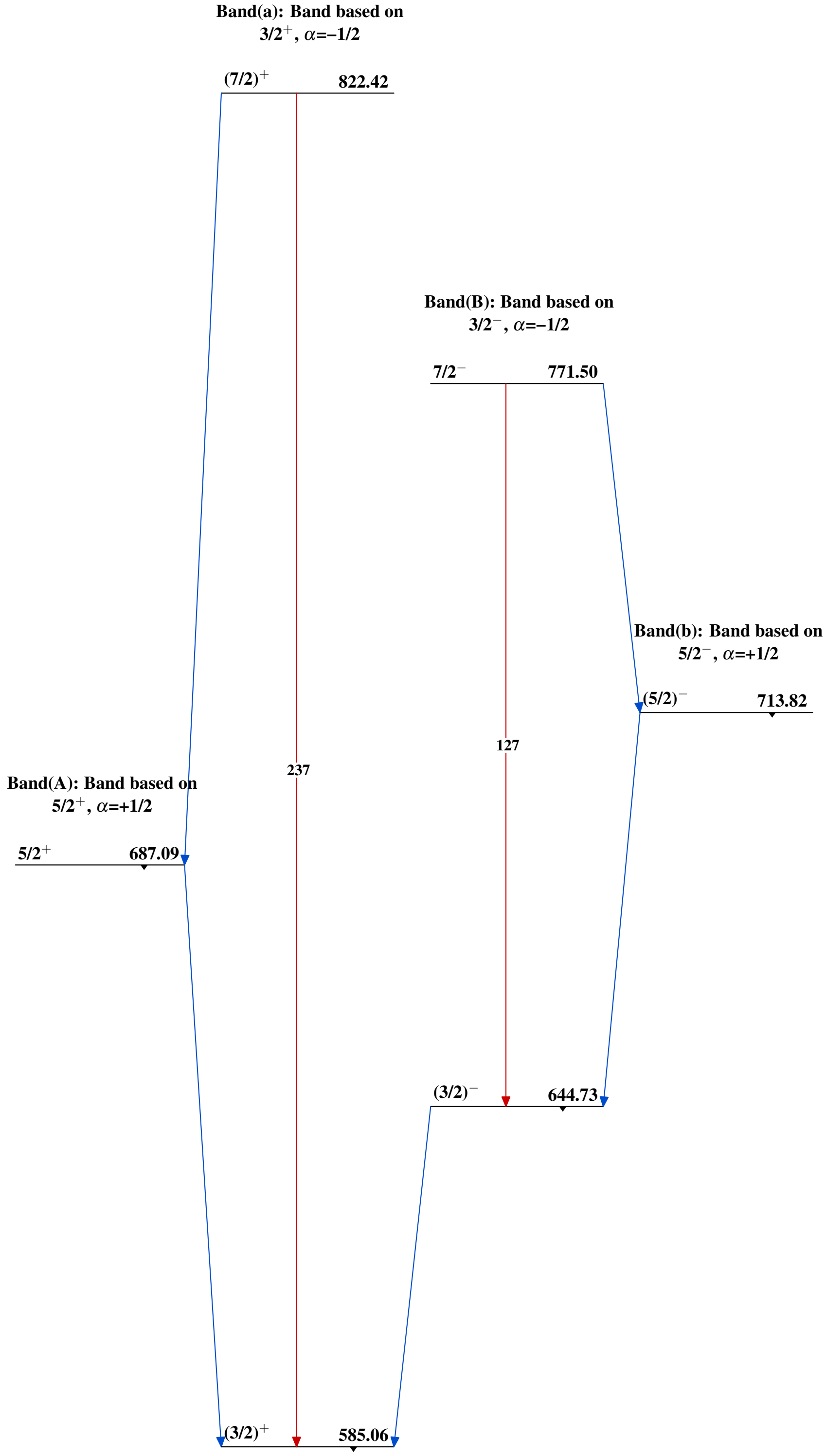
^{97}Rb β^- decay 1990Lh02

Decay Scheme (continued)

Intensities: $I_{(\gamma+ce)}$ per 100 decays through this branch



^{97}Rb β^- decay 1990Lh02



$^{97}_{38}Sr_{59}$