

**<sup>97</sup>Rh ε decay (46.2 min) 1974Oh07,1975PI05**

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

Parent: <sup>97</sup>Rh: E=258.76 18; J<sup>π</sup>=1/2<sup>-</sup>; T<sub>1/2</sub>=46.2 min 16; Q(ε)=3520 40; %ε+%β<sup>+</sup> decay=94.1 6  
<sup>97</sup>Rh-%ε+%β<sup>+</sup> decay: from %IT=5.6 6 (see <sup>97</sup>Rh IT decay data set).

<sup>97</sup>Ru Levels

The level scheme is that proposed by 1974Oh07 with the 3459-keV level added by 1975PI05. 1975PI05 proposes additional level at 3396.2 keV to accommodate 3397 keV and 748.3 keV gammas. The weighted averages of E<sub>γ</sub>'s are 3400.3 13 keV and 748.3 3 keV making the energy fit very poor; and at 3574.3 keV accommodating only the g.s. transition. 1981Gr20 proposes additional levels at 1585 keV (however, coin data (1974Oh07) shows that the 1586.66γ, the only transition from this level, cannot be a g.s. transition alone); at 3034 keV accommodating 1656.9γ and 3034.1γ (however, the 1656.9γ is in coin with the 908.35γ (1974Oh07) thus originating, at least in part from the 2576 level); at 3227.4 keV, accommodating only the 3227.4 G.

E(level) <sup>†</sup>	J <sup>π</sup> <sup>‡</sup>	T <sub>1/2</sub>	Comments
0.0	5/2 <sup>+</sup>		
189.24 7	3/2 <sup>+</sup>	0.23 ns 2	T <sub>1/2</sub> : from γ(cc(K)(18816g))(t) (1974Oh07).
527.84 5	3/2 <sup>+</sup>		
610.80 8	(1/2 <sup>+</sup> ,3/2,5/2 <sup>+</sup> )		
771.38 8	3/2 <sup>+</sup>		
908.29 7	1/2 <sup>+</sup>		
1184.55 10	3/2 <sup>+</sup> ,5/2 <sup>+</sup>		
1376.88 14			
2197.71 12	3/2 <sup>-</sup>		
2245.90 18	3/2 <sup>-</sup>		
2300.7 6	1/2,3/2		
2312.79 19	1/2 <sup>-</sup> ,3/2 <sup>-</sup>		
2564.91 16	3/2 <sup>-</sup>		
2576.1 5	1/2 <sup>-</sup> ,3/2 <sup>-</sup>		
2647.83 22	3/2 <sup>-</sup>		
2764.78 22	1/2 <sup>-</sup> ,3/2 <sup>-</sup>		
2797.0 3	1/2 <sup>-</sup> ,3/2 <sup>-</sup>		
2929.77 22	3/2 <sup>-</sup>		
3264.8 5	3/2 <sup>-</sup>		
3296.1 6	1/2 <sup>-</sup> ,3/2 <sup>-</sup>		
3374.7 4	3/2 <sup>-</sup>		
3458.9 6	3/2 <sup>-</sup>		

<sup>†</sup> From least squares fit to E<sub>γ</sub>.

<sup>‡</sup> From Adopted Levels.

ε,β<sup>+</sup> radiations

E(decay)	E(level)	Iε <sup>‡</sup>	Log ft	I(ε+β <sup>+</sup> ) <sup>†‡</sup>	Comments
(3.2×10 <sup>2</sup> 4)	3458.9	0.34 7	5.12 16	0.34 7	εK=0.8548 24; εL=0.1172 19; εM+=0.0280 6
(4.0×10 <sup>2</sup> 4)	3374.7	2.48 25	4.47 11	2.48 25	εK=0.8581 14; εL=0.1146 11; εM+=0.0273 3
(4.8×10 <sup>2</sup> 4)	3296.1	0.69 14	5.19 12	0.69 14	εK=0.8601 10; εL=0.1130 8; εM+=0.02683 20
(5.1×10 <sup>2</sup> 4)	3264.8	0.35 11	5.54 16	0.35 11	εK=0.8607 8; εL=0.1126 7; εM+=0.02670 18
(8.5×10 <sup>2</sup> 4)	2929.77	2.1 3	5.21 8	2.1 3	εK=0.8644 3; εL=0.10967 22; εM+=0.02591 6
(9.8×10 <sup>2</sup> 4)	2797.0	3.0 4	5.18 7	3.0 4	εK=0.8652 2; εL=0.10909 16; εM+=0.02575 5
(1.01×10 <sup>3</sup> 4)	2764.78	3.9 3	5.10 6	3.9 3	εK=0.8653 2; εL=0.10897 15; εM+=0.02572 4

Continued on next page (footnotes at end of table)

$^{97}\text{Rh}$   $\varepsilon$  decay (46.2 min) **1974Oh07,1975PI05** (continued) $\varepsilon, \beta^+$  radiations (continued)

E(decay)	E(level)	$I\beta^+$ ‡	$I\varepsilon$ ‡	Log $ft$	$I(\varepsilon + \beta^+)$ †‡	Comments
( $1.13 \times 10^3$ ) 4)	2647.83		8.2 6	4.87 5	8.2 6	$\varepsilon K=0.8658$ 2; $\varepsilon L=0.10860$ 12; $\varepsilon M+=0.02562$ 4
( $1.20 \times 10^3$ ) 4)	2576.1		1.52 14	5.66 6	1.52 14	$\varepsilon K=0.8657$ 3; $\varepsilon L=0.10838$ 15; $\varepsilon M+=0.02556$ 4
( $1.21 \times 10^3$ ) 4)	2564.91	0.004 6	10.5 10	4.83 6	10.5 10	av $E\beta=92$ 18; $\varepsilon K=0.8657$ 4; $\varepsilon L=0.10834$ 16; $\varepsilon M+=0.02555$ 4
( $1.47 \times 10^3$ ) 4)	2312.79	0.038 15	2.9 4	5.56 7	2.9 4	av $E\beta=201$ 18; $\varepsilon K=0.855$ 5; $\varepsilon L=0.1065$ 6; $\varepsilon M+=0.02509$ 15
( $1.48 \times 10^3$ ) 4)	2300.7	0.013 5	0.90 15	6.07 8	0.91 15	av $E\beta=207$ 18; $\varepsilon K=0.854$ 5; $\varepsilon L=0.1063$ 7; $\varepsilon M+=0.02505$ 16
( $1.53 \times 10^3$ ) 4)	2245.90	0.45 14	19.7 4	4.76 4	20.1 4	av $E\beta=230$ 18; $\varepsilon K=0.848$ 6; $\varepsilon L=0.1054$ 8; $\varepsilon M+=0.02483$ 20
( $1.58 \times 10^3$ ) 4)	2197.71	0.69 19	21.7 8	4.75 4	22.4 8	av $E\beta=251$ 18; $\varepsilon K=0.840$ 8; $\varepsilon L=0.1044$ 10; $\varepsilon M+=0.02459$ 24
( $2.40 \times 10^3$ ) 4)	1376.88	<0.54	<0.76	>6.6	<1.3	av $E\beta=612$ 18; $\varepsilon K=0.505$ 20; $\varepsilon L=0.0623$ 25; $\varepsilon M+=0.0147$ 6
( $2.59 \times 10^3$ ) 4)	1184.55	0.5 4	0.5 3	6.8 3	1.0 7	av $E\beta=698$ 18; $\varepsilon K=0.415$ 18; $\varepsilon L=0.0511$ 22; $\varepsilon M+=0.0120$ 6
( $2.87 \times 10^3$ ) 4)	908.29	1.2 3	0.64 18	6.80 13	1.8 5	av $E\beta=824$ 19; $\varepsilon K=0.308$ 14; $\varepsilon L=0.0378$ 17; $\varepsilon M+=0.0089$ 4
( $3.01 \times 10^3$ ) 4)	771.38	2.3 4	1.0 2	6.64 9	3.3 6	av $E\beta=886$ 19; $\varepsilon K=0.265$ 12; $\varepsilon L=0.0326$ 15; $\varepsilon M+=0.0077$ 4
( $3.17 \times 10^3$ ) 4)	610.80	<1.6	<0.57	>6.9	<2.2	av $E\beta=960$ 19; $\varepsilon K=0.223$ 10; $\varepsilon L=0.0274$ 12; $\varepsilon M+=0.0064$ 3
( $3.25 \times 10^3$ ) 4)	527.84	<2.1	<0.63	>6.9	<2.7	av $E\beta=998$ 19; $\varepsilon K=0.204$ 9; $\varepsilon L=0.0251$ 11; $\varepsilon M+=0.0059$ 3
( $3.59 \times 10^3$ ) 4)	189.24	11.0 18	2.2 4	6.46 8	13.2 21	av $E\beta=1155$ 19; $\varepsilon K=0.144$ 6; $\varepsilon L=0.0177$ 8; $\varepsilon M+=0.00416$ 17 E(decay): $E\beta+=2.63$ 10 from $\beta^+(18816g)$ coin (1974Oh07).

† Deduced from  $I\gamma$  balance in level scheme with  $I(\varepsilon + \beta^+ \text{ to g.s.})=0$ .

‡ For absolute intensity per 100 decays, multiply by 0.941 6.

γ(<sup>97</sup>Ru)

I<sub>γ</sub> normalization: Σ (I<sub>γ</sub> to g.s.)=100 and I(ε+β<sup>+</sup> to <sup>97</sup>Ru g.s.)=0.  
 For additional γ rays not placed in the level scheme, see <sup>97</sup>Rh ε decay (30.7 min).

E <sub>γ</sub> <sup>†</sup>	I <sub>γ</sub> <sup>‡h</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.	δ	α <sup>i</sup>	Comments
189.21 15	88	189.24	3/2 <sup>+</sup>	0.0	5/2 <sup>+</sup>	M1+E2	0.30 6	0.061 3	α(K)=0.053 2; α(L)=0.0066 4; α(M)=0.00121 7; α(N+..)=0.00023 α(K)=0.0527 22; α(L)=0.0066 4; α(M)=0.00121 7; α(N+..)=0.000203 11 α(N)=0.000194 11; α(O)=9.5×10 <sup>-6</sup> 4 I <sub>γ</sub> : unweighted average of <a href="#">1974Oh07</a> , <a href="#">1975PI05</a> and <a href="#">1981Gr20</a> . Mult.,δ: from α(K) <sub>exp</sub> =0.053 2 ( <a href="#">1975PI05</a> ). ( <a href="#">1975PI05</a> obtained α(K) <sub>exp</sub> =0.056 2 relative to α(K)(216γ in <sup>97</sup> Tc)=0.0350; the evaluator has recalculated α(K) <sub>exp</sub> using adopted α(K)(216γ in <sup>97</sup> Tc)=0.0330).
252.12 18	1.92 17	2564.91	3/2 <sup>-</sup>	2312.79	1/2 <sup>-</sup> ,3/2 <sup>-</sup>				
297.1 @ 5	0.6 @ 3	908.29	1/2 <sup>+</sup>	610.80	(1/2 <sup>+</sup> ,3/2,5/2 <sup>+</sup> )				
338.4 3	2.2 # 6	527.84	3/2 <sup>+</sup>	189.24	3/2 <sup>+</sup>				
367.3 3	1.16 9	2564.91	3/2 <sup>-</sup>	2197.71	3/2 <sup>-</sup>				
412.7 @ 6	0.5 @ 3	1184.55	3/2 <sup>+</sup> ,5/2 <sup>+</sup>	771.38	3/2 <sup>+</sup>				
421.55 5	23 # 3	610.80	(1/2 <sup>+</sup> ,3/2,5/2 <sup>+</sup> )	189.24	3/2 <sup>+</sup>				E <sub>γ</sub> : doublet; a 421.55γ also seen in g.s. decay.
527.85 5	15 2	527.84	3/2 <sup>+</sup>	0.0	5/2 <sup>+</sup>				
551.5 @ 6	0.4 @ 1	2797.0	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	2245.90	3/2 <sup>-</sup>				
<sup>x</sup> 562.1 1	1.9 # 2								
567.24 24	1.81 17	2764.78	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	2197.71	3/2 <sup>-</sup>				
578.6 6	0.6 # 2	3374.7	3/2 <sup>-</sup>	2797.0	1/2 <sup>-</sup> ,3/2 <sup>-</sup>				
582.25 21	5.1 5	771.38	3/2 <sup>+</sup>	189.24	3/2 <sup>+</sup>				
605.54 18	0.91 14	1376.88		771.38	3/2 <sup>+</sup>				
610.58 18	1.13 16	610.80	(1/2 <sup>+</sup> ,3/2,5/2 <sup>+</sup> )	0.0	5/2 <sup>+</sup>				
617.2 4	0.5 2	2929.77	3/2 <sup>-</sup>	2312.79	1/2 <sup>-</sup> ,3/2 <sup>-</sup>				E <sub>γ</sub> ,I <sub>γ</sub> : from <a href="#">1975PI05</a> , not observed by <a href="#">1974Oh07</a> , <a href="#">1981Gr20</a> .
683.8 & 5	0.6 2	2929.77	3/2 <sup>-</sup>	2245.90	3/2 <sup>-</sup>				
719.00 9	6.1 3	908.29	1/2 <sup>+</sup>	189.24	3/2 <sup>+</sup>				
731.8 3	0.88 12	2929.77	3/2 <sup>-</sup>	2197.71	3/2 <sup>-</sup>				
<sup>x</sup> 748.3 3	1.18 14								
771.37 9	9.8 5	771.38	3/2 <sup>+</sup>	0.0	5/2 <sup>+</sup>				
820.9 3	1.47 14	2197.71	3/2 <sup>-</sup>	1376.88					
869.2 & 6	0.72 <sup>a</sup> 14	2245.90	3/2 <sup>-</sup>	1376.88					
908.35 8	4.2 3	908.29	1/2 <sup>+</sup>	0.0	5/2 <sup>+</sup>				

<sup>97</sup>Rh ε decay (46.2 min) [1974Oh07](#),[1975PI05](#) (continued)

γ(<sup>97</sup>Ru) (continued)

$E_\gamma$ †	$I_\gamma$ ‡h	$E_i$ (level)	$J_i^\pi$	$E_f$	$J_f^\pi$	Comments
995.36 8	7.1 5	1184.55	3/2 <sup>+</sup> ,5/2 <sup>+</sup>	189.24	3/2 <sup>+</sup>	
1013.33 17	10.9 6	2197.71	3/2 <sup>-</sup>	1184.55	3/2 <sup>+</sup> ,5/2 <sup>+</sup>	
1060.0 <i>j&amp;</i> 10	0.5 <i>ja</i> 2	2245.90	3/2 <sup>-</sup>	1184.55	3/2 <sup>+</sup> ,5/2 <sup>+</sup>	
1060.9 <i>j&amp;</i> 10	0.5 <i>ja</i> 2	3374.7	3/2 <sup>-</sup>	2312.79	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	
1117.2 <i>&amp;</i> 10	0.4 <i>a</i> 2	2300.7	1/2,3/2	1184.55	3/2 <sup>+</sup> ,5/2 <sup>+</sup>	
1184.1 5	8.3 6	1184.55	3/2 <sup>+</sup> ,5/2 <sup>+</sup>	0.0	5/2 <sup>+</sup>	
1187.3 <i>k</i> 5	4.7 <i>k</i> 13	1376.88		189.24	3/2 <sup>+</sup>	$E_\gamma$ : doublet; coincidence data ( <a href="#">1974Oh07</a> , <a href="#">1975PI05</a> ) requires both placements in level scheme. $I_\gamma$ : total intensity (8.3 6) divided according to the coin data of <a href="#">1974Oh07</a> .
1187.3 <i>kb</i> 5	3.6 <i>kc</i> 10	2564.91	3/2 <sup>-</sup>	1376.88		
<sup>x</sup> 1287.2 <i>f</i> 6	0.8 <i>#</i> 2					
1337.5 4	1.66 14	2245.90	3/2 <sup>-</sup>	908.29	1/2 <sup>+</sup>	
1376.9 4	1.19 14	1376.88		0.0	5/2 <sup>+</sup>	
1421.1 <i>&amp;</i> 8	0.50 <i>a</i> 7	2797.0	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	1376.88		
1426.40 24	4.5 3	2197.71	3/2 <sup>-</sup>	771.38	3/2 <sup>+</sup>	
<sup>x</sup> 1451.3 5	0.9 <i>#</i> 2					
1463.2 4	2.4 2	2647.83	3/2 <sup>-</sup>	1184.55	3/2 <sup>+</sup> ,5/2 <sup>+</sup>	
1474.6 4	3.0 3	2245.90	3/2 <sup>-</sup>	771.38	3/2 <sup>+</sup>	
1586.66 24	16.1 9	2197.71	3/2 <sup>-</sup>	610.80	(1/2 <sup>+</sup> ,3/2,5/2 <sup>+</sup> )	
1656.9 3	3.6 3	2564.91	3/2 <sup>-</sup>	908.29	1/2 <sup>+</sup>	
1718.5 4	4.5 5	2245.90	3/2 <sup>-</sup>	527.84	3/2 <sup>+</sup>	
1739.7 5	2.3 4	2647.83	3/2 <sup>-</sup>	908.29	1/2 <sup>+</sup>	
1785.1 4	2.6 2	2312.79	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	527.84	3/2 <sup>+</sup>	
1876.5 5	0.3 <i>d</i> 1	2647.83	3/2 <sup>-</sup>	771.38	3/2 <sup>+</sup>	$E_\gamma$ : doublet with a γ in g.s. decay.
1888.0 <i>j</i> 6	≤0.7 <i>j</i>	2797.0	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	908.29	1/2 <sup>+</sup>	Multiply placed γ in this level scheme; also a doublet with a γ in g.s. decay.
1888.0 <i>jl</i> 6	≤0.7 <i>j</i>	3264.8	3/2 <sup>-</sup>	1376.88		Doublet in this decay, also a 1888.0γ seen in g.s. decay.
<sup>x</sup> 1907.3 <i>ef</i> 14	1.0 <i>e</i> 5					
1965.0 5	2.0 2	2576.1	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	610.80	(1/2 <sup>+</sup> ,3/2,5/2 <sup>+</sup> )	
2008.1 6	7.7 5	2197.71	3/2 <sup>-</sup>	189.24	3/2 <sup>+</sup>	
2036.8 <i>kb</i> 5	5.4 <i>kc</i> 13	2564.91	3/2 <sup>-</sup>	527.84	3/2 <sup>+</sup>	
2036.8 <i>k</i> 5	2.2 <i>kc</i> 6	2647.83	3/2 <sup>-</sup>	610.80	(1/2 <sup>+</sup> ,3/2,5/2 <sup>+</sup> )	
2110.9 7	1.15 16	2300.7	1/2,3/2	189.24	3/2 <sup>+</sup>	
2123.2 8	5.3 4	2312.79	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	189.24	3/2 <sup>+</sup>	
2152.1 <i>g</i> 6	2.4 3	2764.78	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	610.80	(1/2 <sup>+</sup> ,3/2,5/2 <sup>+</sup> )	$I_\gamma$ : from <a href="#">1974Oh07</a> , assigned to g.s. decay by <a href="#">1975PI05</a> , <a href="#">1981Gr20</a> .
2197.2 5	1.34 16	2197.71	3/2 <sup>-</sup>	0.0	5/2 <sup>+</sup>	
2237.1 6	1.9 3	2764.78	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	527.84	3/2 <sup>+</sup>	
2245.6 5	25.0	2245.90	3/2 <sup>-</sup>	0.0	5/2 <sup>+</sup>	
2318.5 <i>&amp;</i> 8	0.3 <i>a</i> 2	2929.77	3/2 <sup>-</sup>	610.80	(1/2 <sup>+</sup> ,3/2,5/2 <sup>+</sup> )	
2375.7 5	1.88 16	2564.91	3/2 <sup>-</sup>	189.24	3/2 <sup>+</sup>	
2458.7 <i>&amp;</i> 9	0.3 <i>a</i> 2	2647.83	3/2 <sup>-</sup>	189.24	3/2 <sup>+</sup>	

<sup>97</sup>Rh ε decay (46.2 min) 1974Oh07,1975PI05 (continued)

γ(<sup>97</sup>Ru) (continued)

$E_\gamma$ †	$I_\gamma$ ‡h	$E_i$ (level)	$J_i^\pi$	$E_f$	$J_f^\pi$	Comments
2492.9 9	0.10 <sup>d</sup> 8	3264.8	3/2 <sup>-</sup>	771.38	3/2 <sup>+</sup>	E <sub>γ</sub> : doublet with a γ from <sup>97</sup> Rh g.s. decay.
2564.0@ 9	0.3@ 2	2564.91	3/2 <sup>-</sup>	0.0	5/2 <sup>+</sup>	
2576.6 <sup>j</sup> 8	0.59 <sup>j</sup> 13	2576.1	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	0.0	5/2 <sup>+</sup>	
2576.6 <sup>j</sup> 8	0.59 <sup>j</sup> 13	2764.78	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	189.24	3/2 <sup>+</sup>	
2608.0 5	4.5 5	2797.0	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	189.24	3/2 <sup>+</sup>	
2647.8 5	6.5 5	2647.83	3/2 <sup>-</sup>	0.0	5/2 <sup>+</sup>	
2737.6@ 9	0.2@ 1	3264.8	3/2 <sup>-</sup>	527.84	3/2 <sup>+</sup>	
2767.1& 8	0.6 <sup>a</sup> 2	3296.1	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	527.84	3/2 <sup>+</sup>	
<sup>x</sup> 2852.8 6	0.5 <sup>#</sup> 2					
<sup>x</sup> 2899.3 6	0.5 <sup>#</sup> 1					
2930.6 6	1.3 3	2929.77	3/2 <sup>-</sup>	0.0	5/2 <sup>+</sup>	
<sup>x</sup> 3034.1 6	0.5 1					
3076.2& 10	0.2 <sup>a</sup> 1	3264.8	3/2 <sup>-</sup>	189.24	3/2 <sup>+</sup>	
3108.0 8	0.57 11	3296.1	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	189.24	3/2 <sup>+</sup>	
3185.5 7	0.44 8	3374.7	3/2 <sup>-</sup>	189.24	3/2 <sup>+</sup>	
<sup>x</sup> 3227.4 8	0.3 1					
3264.0& 10	0.10 7	3264.8	3/2 <sup>-</sup>	0.0	5/2 <sup>+</sup>	
3270.7& 10	0.08 <sup>a</sup> 5	3458.9	3/2 <sup>-</sup>	189.24	3/2 <sup>+</sup>	
3374.1 6	2.7 3	3374.7	3/2 <sup>-</sup>	0.0	5/2 <sup>+</sup>	
<sup>x</sup> 3400.3 13	0.9 <sup>#</sup> 4					
3458.5 6	0.5 1	3458.9	3/2 <sup>-</sup>	0.0	5/2 <sup>+</sup>	
<sup>x</sup> 3574.3 <sup>e</sup> 22	0.02 <sup>e</sup>					

† Weighted average of measurements by 1974Oh07 and 1975PI05.

‡ Weighted average of measurements by 1974Oh07, 1975PI05 and 1981Gr20, unless otherwise noted. The intensities of the three authors have been normalized at the 2245.6 keV G. The intensities of 1981Gr20 have been assigned an uncertainty (not given by the authors) comparable to the uncertainties given in 1974Oh07 and 1975PI05.

# Weighted average of measurements by 1974Oh07, 1975PI05.

@ Observed only by 1974Oh07.

& From 1974Oh07, not observed by 1975PI05.

<sup>a</sup> Unweighted average of measurements by 1974Oh07, 1981Gr20.

<sup>b</sup> Doublet from coin data (1974Oh07,1975PI05).

<sup>c</sup> Total intensity divided according to the coin data of 1974Oh07.

<sup>d</sup> From 1974Oh07.

<sup>e</sup> From 1975PI05.

<sup>f</sup> Assignment to this decay uncertain (1975PI05).

$\gamma(^{97}\text{Ru})$  (continued)

<sup>g</sup> Differ by  $3\sigma$  from calculated value.

<sup>h</sup> For absolute intensity per 100 decays, multiply by 0.551 4.

<sup>i</sup> Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on  $\gamma$ -ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

<sup>j</sup> Multiply placed with undivided intensity.

<sup>k</sup> Multiply placed with intensity suitably divided.

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

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

<sup>97</sup>Rh ε decay (46.2 min) 1974Oh07,1975PI05

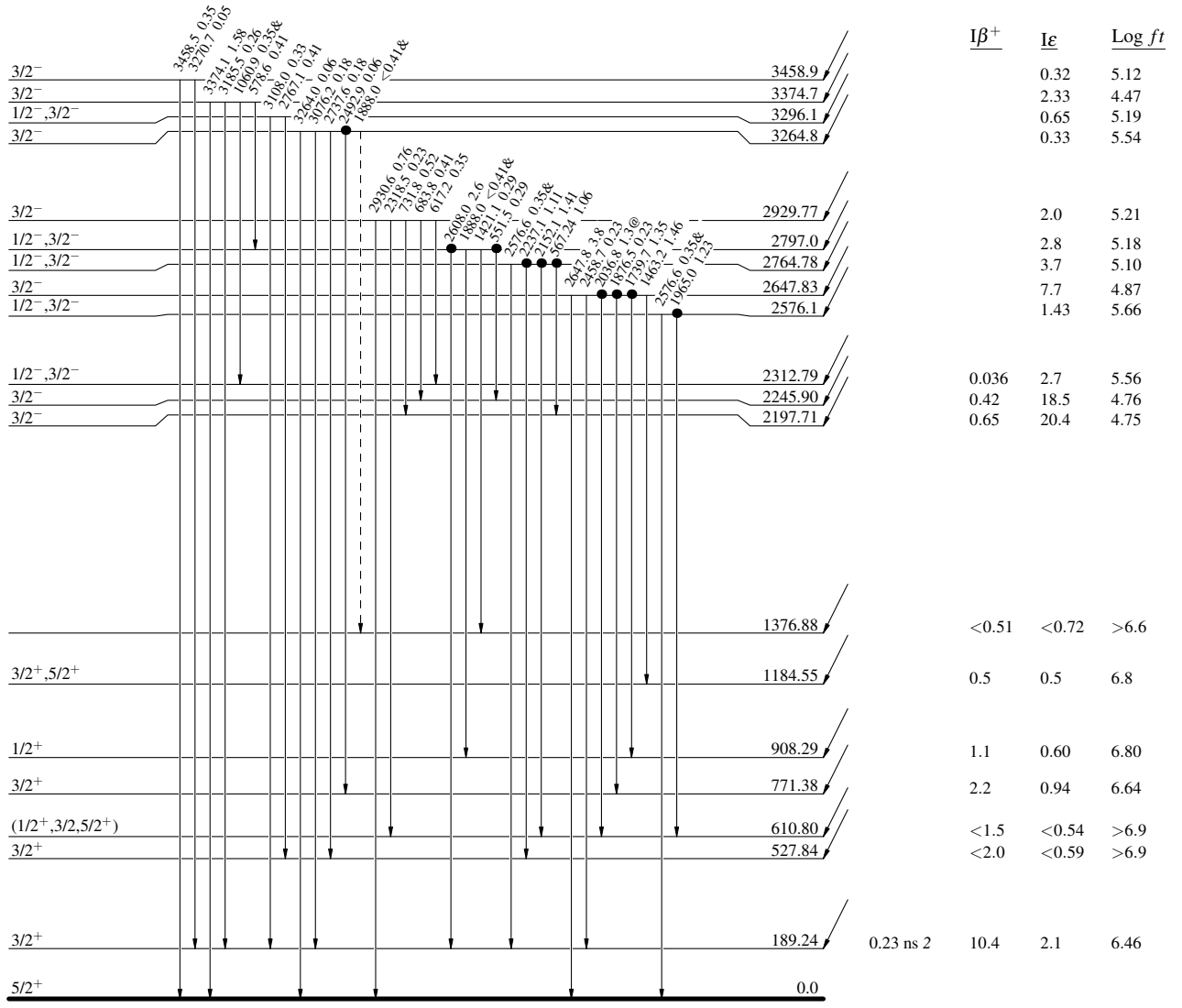
Decay Scheme

Legend

- I<sub>γ</sub> < 2% × I<sub>γ</sub><sup>max</sup>
- I<sub>γ</sub> < 10% × I<sub>γ</sub><sup>max</sup>
- I<sub>γ</sub> > 10% × I<sub>γ</sub><sup>max</sup>
- - - - - γ Decay (Uncertain)
- Coincidence

Intensities: I<sub>(γ+ce)</sub> per 100 decays through this branch  
 & Multiply placed: undivided intensity given  
 @ Multiply placed: intensity suitably divided

1/2<sup>-</sup> 258.76 46.2 min 16  
 Q<sub>ε</sub>=3520 40  
<sup>97</sup>Rh<sub>52</sub>  
 %ε + %β<sup>+</sup>=94.1



<sup>97</sup>Ru<sub>53</sub>

<sup>97</sup>Rh ε decay (46.2 min) 1974Oh07,1975PI05

Decay Scheme (continued)

Intensities: I<sub>(γ+ce)</sub> per 100 decays through this branch  
 & Multiply placed: undivided intensity given  
 @ Multiply placed: intensity suitably divided

Legend

- I<sub>γ</sub> < 2% × I<sub>γ</sub><sup>max</sup>
- I<sub>γ</sub> < 10% × I<sub>γ</sub><sup>max</sup>
- I<sub>γ</sub> > 10% × I<sub>γ</sub><sup>max</sup>
- Coincidence

1/2<sup>-</sup> 258.76 46.2 min 16  
 Q<sub>ε</sub>=3520.40  
<sup>97</sup>Rh<sub>52</sub>  
 %ε + %β<sup>+</sup> = 94.1

