

^{104}Rh IT decay (4.34 min)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 108,2035 (2007)	30-Mar-2007

Parent: ^{104}Rh : E=128.9679 5; $J^\pi=5^+$; $T_{1/2}=4.34$ min 3; %IT decay=99.87 1

See also ^{104}Rh β^- decay.

$\gamma\gamma$ -measurements are from [1963Gr01](#), [1963Wi10](#), [1964Es04](#), [1965Sc14](#).

 ^{104}Rh Levels

E(level)	J^π	$T_{1/2}$
0.0	1^+	42.3 s
51.4225 15	2^-	2.6 ns 2
97.1137 28	2^+	
128.956 10	5^+	4.34 min 5

 $\gamma(^{104}\text{Rh})$

I_γ normalization: from $\Sigma I(\gamma+ce)$ to g.s.=99.87.

$E_\gamma^\dagger$	$I_\gamma^{\ddagger\&}$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. @	$\alpha^\#$	Comments
31.842	0.0012 1	128.956	5^+	97.1137	2^+	M3	6846	B(M3)(W.u.)=0.092 23 E_γ : from level energies and (ce)(γ)-coincidences by 1965Sc14 .
51.4225 15	100	51.4225	2^-	0.0	1^+	E1	0.98	I_γ : from intensity balance and α . $\alpha(K)\text{exp}=0.85$; $\alpha(L)=0.107$; $\alpha(M+..)=0.026$ B(E1)(W.u.)=0.00044 4
77.533 10	4.3 1	128.956	5^+	51.4225	2^-	E3	44.9	$\alpha(K)\text{exp}=18.9$; $\alpha(L)=20.6$; $\alpha(M+..)=5.4$ B(E3)(W.u.)=0.0090 6 I_γ : from intensity balance and α . $I_\gamma=5.1$ 3 reported by 1972Si08 .
97.1137 28	6.2 3	97.1137	2^+	0.0	1^+	M1	0.38	$\alpha(K)\text{exp}=0.33$; $\alpha(L)=0.040$; $\alpha(M+..)=0.0098$

† From $^{103}\text{Rh}(n,\gamma)$.

‡ From [1972Si08](#). Others: [1964Es04](#), [1965Sc14](#).

$^\#$ Theoretical values from [1968Ha52](#) using multipolarities deduced from X γ -coincidences, intensity balances, and lifetimes (see [1962Be30](#), [1963Gr01](#), [1963Wi10](#), [1964Es04](#), [1965Sc14](#)). For ce-measurements see [1953Jo09](#), [1965Sc14](#), and [1966Bi01](#).

@ From ce measurements.

& For absolute intensity per 100 decays, multiply by 0.48277 5.

^{104}Rh IT decay (4.34 min)**Decay Scheme**

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays
%IT=99.87 I

Legend

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

