

Recommended Nuclear Decay Data

Ru-106

Decay Mode: β^-		Half-Life: (373.59 \pm 0.15) d		[2]	
Radiation Type		Energy (keV)	Intensity (%)		Ref.
Auger-L		6.88	6.5	5	[4]
Auger-K		48.3	0.19	9	[4]
ce-K		81.17	4.9	3	[4]
ce-L		142.07	5.5	4	[4]
ce-M		151.99	1.40	9	[4]
ce-NOP		154.39	0.420	25	[4]
β^- max		178.6	0.107	7	[4]
β^- max		354.3	0.186	10	[4]
β^- max		657.2	0.52	3	[4]
β^- max		1033.3	0.64	3	[4]
β^- max		1486.7	1.60	14	[4]
β^- max		1964.7	25.1	13	[4]
β^- max		2119.7	71.6	15	[4]
X-ray L	Σ	9.9	3.14	15	[2]
X-ray K α	Σ	62.45	3.797	15	[2]
X-ray K β	Σ	71.73	0.986	11	[2]
γ		155.03	15.79	15	[2]
γ		477.99	1.089	10	[2]
γ		632.98	1.366	13	[2]
γ		635.00	0.1641	19	[2]
γ		672.53	0.1209	13	[2]
γ		824.50	0.0169	5	[2]
γ		829.46	0.436	4	[2]
γ		931.34	0.594	6	[2]

Ru-106 with Rh-106 (half-life: 29.80 s) in equilibrium

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■ Decay Mode

α	Alpha
β^- , β^+	Beta
EC	Electron capture
IT	Isomeric transition

■ Half-Life

s	Seconds
m	Minutes
h	Hours
d	Days
y	Years

■ Energy

All energies are given in keV.
Normally there are energies listed with an intensity $\geq 1\%$.

■ Radiation Type

Auger-L/K	L or K-shell auger electron
ce-K-1	K-shell conversion electron transition 1
ce-L-2	L-shell conversion electron transition 2
α	Alpha particle
β^- max, β^+ max	Beta particle (maximal energy)
β^- av, β^+ av	Beta particle (average energy)
X-ray L	L X-ray
X-ray $K\alpha$, $K\beta$	K X-rays
γ	Gamma ray
γ Annih.	Annihilation radiation
Σ	Signifies weighted mean energies and intensities

■ Intensity

Values are given in percent. The format used for the uncertainties in the listed values can be illustrated by the following examples:

$$1.2 \quad 56 \quad = \quad 1.2 \pm 5.6$$
$$1.23 \quad 56 \quad = \quad 1.23 \pm 0.56$$

■ References

- [1] PTB-6.11-97-1, Braunschweig, Oktober 1997
- [2] PTB-Ra-16/5, Braunschweig, Mai 2000
- [3] LMRI. Table de radionuclides. 1982 ff
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- [5] Table de Radionuclides, BNM-CEA/DTA/LPRI Commissariat à l'Énergie Atomique – France 1999
- [6] National Nuclear Data Center USA, Brookhaven National Laboratory Upton N.Y.
- [7] Table of Isotopes, 8th Edition, 1996
- [8] BNM-CEA/DTA/DAMRI Nuclear and Atomic Decay Data ; 19/12/98

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