

Recommended Nuclear Decay Data

TI-201

Decay Mode: EC		Half-Life: (3.0424 ± 0.0026) d			[2]	
Radiation Type		Energy (keV)		Intensity (%)		Ref.
Auger-L		5.1	- 14.8	76	10	[3]
Auger-K		53.1	- 83.1	3.2	20	[3]
ce-L-2		15.7	- 18.3	10	4	[3]
ce-L-3		17.3	- 19.9	8.6	5	[3]
ce-MN-2		27.0	- 30.6	3.1	2	[3]
ce-MN-3		28.6	- 32.2	2.7	1	[3]
ce-K-4		52.24		7.6	4	[3]
ce-K-5		82.78		0.235	20	[3]
ce-K-6		84.33		15.9	6	[3]
ce-L-4		120.50		1.30	6	[3]
ce-MN-4		131	- 135	0.38	2	[3]
ce-L-6		152	- 155	2.69	10	[3]
ce-MN-6		163	- 167	0.80	2	[3]
X-ray L	Σ	11.1		42.7	18	[2]
X-ray K α	Σ	70.11		73.7	11	[2]
X-ray K β	Σ	80.7		20.3	5	[2]
γ		30.57		0.258	5	[2]
γ		32.14		0.263	5	[2]
γ		135.31		2.604	22	[2]
γ		141.18		0.006	2	[2]
γ		165.89		0.147	2	[2]
γ		167.45		10.0	1	[2]

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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
- [4] NCRP Report No.58, 2nd Edition, February 1985
- [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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