

Recommended Nuclear Decay Data

Bi-207

Decay Mode: EC, β^+		Half-Life: (11523 \pm 1) d				[1]
Radiation Type		Energy (keV)		Intensity (%)		Ref.
Auger-L		5.2	- 15.7	53.8	14	[5]
Auger-K		56.0	- 88.0	2.8	3	[5]
ec-K-1		481.7		1.52	2	[5]
ec-L-1		553.8	- 557.7	0.440	6	[5]
ec-M-1		565.8	- 567.2	0.15	2	[5]
ec-K-2		809.8		0.003	1	[5]
ec-K-3		975.7		7.03	13	[5]
ec-L-3		1047	- 1051	1.84	5	[5]
ec-M-3		1059	- 1061	0.54	7	[5]
ec-K-4		1682		0.02	1	[5]
β +max		806.5		0.012	2	[5]
β +av		383.4				[5]
X-ray L	Σ	9.18	- 15.8	33.2	14	[5]
X-ray K α	Σ	74.2		58.19	24	[5]
X-ray K β	Σ	84.4	- 87.6	16.22	25	[5]
γ		328.11		0.00076	8	[5]
γ	Annih	511.0		0.0024	4	[5]
γ		569.70		97.76	3	[5]
γ		897.8		0.131	6	[5]
γ		1063.7		74.58	49	[5]
γ		1442.2		0.131	2	[5]
γ		1770.2		6.87	3	[5]

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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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