Recommended Nuclear Decay Data

I-125

Decay Mode: EC		Half-Life: (59.391 ± 0.018) d					[2]
Radiation Type		**Energy (keV)**			**Intensity (%)**		**Ref.**
Auger-L		2.3	-	4.8	157.6	20	[3]
Auger-K		21.8	-	31.7	19.9	7	[3]
ce-K-1		3.68			79.3	4	[3]
ce-L-1		30.5	-	31.2	10.7	3	[3]
ce-MNO-1		34.4	-	35.5	3.4	1	[3]
X-ray L	Σ	3.33	-	4.93	14.9	7	[3]
X-ray Kα	Σ	27.38			113.7	16	[3]
X-ray Kβ	Σ	31.1			25.79	6	[3]
γ		35.49			6.67	17	[3]

Recommended Nuclear Decay Data

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 ≥ 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 Kα, Kβ	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	56	=	1.2	±	5.6
1.23	56	=	1.23	±	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 Radionuclidés, 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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