Recommended Nuclear Decay Data

Sn-113

Decay Mode: EC		Half-Life: (115.09 ± 0.04) d			[2]
Radiation Type		**Energy (keV)**	**Intensity (%)**		**Ref.**
Auger-L		2.84	115	7	[4]
Auger-K		20.0	17	4	[4]
ce-K-2		363.76	28.2	6	[4]
ce-L-2		387.46	5.48	16	[4]
ce-MNOP-2		391.0	1.245	13	[4]
X-ray L	Σ	3.42	7.6	8	[2]
X-ray Kα	Σ	24.14	79.6	6	[2]
X-ray Kβ	Σ	27.4	17.2	3	[2]
γ		255.12	2.13	2	[2]
γ		382.9	« 0.001	--	[3]
γ	In-113m	391.69	64.89	13	[2]
γ		638.0	0.00095	29	[2]
γ		646.8	« 0.001	--	[3]

Sn-113 with In-113m (half-life: 1.6582 h) in equilibrium

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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