

# Recommended Nuclear Decay Data

Cl-36

| Decay Mode: $\beta^-$ , EC |          | Half-Life: (301000 $\pm$ 2000) y |               | [2]  |
|----------------------------|----------|----------------------------------|---------------|------|
| Radiation Type             |          | Energy (keV)                     | Intensity (%) | Ref. |
| Auger-K                    |          | 2.10                             | 1.58 9        | [4]  |
| $\beta^-$ max              |          | 709.3                            | 98.10 10      | [4]  |
| $\beta^-$ av               |          | 251.23                           |               | [4]  |
| X-ray K                    | $\Sigma$ | 2.31                             | 0.133 10      | [2]  |

# Recommended Nuclear Decay Data

## ■ Decay Mode

|                       |                     |
|-----------------------|---------------------|
| $\alpha$              | Alpha               |
| $\beta^-$ , $\beta^+$ | 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         |
| $\alpha$                     | Alpha particle                                   |
| $\beta^-$ max, $\beta^+$ max | Beta particle (maximal energy)                   |
| $\beta^-$ av, $\beta^+$ av   | Beta particle (average energy)                   |
| X-ray L                      | L X-ray  |
| X-ray $K\alpha$ , $K\beta$   | K X-rays   |
| $\gamma$                     | Gamma ray  |
| $\gamma$ Annih.              | Annihilation radiation                           |
| $\Sigma$                     | 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

## Eckert & Ziegler Nuclitec GmbH

Gieselweg 1  
38110 Braunschweig  
Deutschland

Tel. +49 5307 932-555  
Fax +49 5307 932-194  
www.nuclitec.de