



INSTITUTE OF NON-FERROUS METALS

Analytical Chemistry Department

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CERTIFICATE OF ANALYSIS

Cadmium

The average results of chemical analyses in wt %

Element	No.	K 1	K 2	K 3	K 4	K 5
Ni		0,0086	0,018	0,063	0,11	0,0054
As		(0,00030)	0,0012	0,0010	0,0056	0,0014
Sb		0,0064	0,0038	0,0010	0,0011	0,00017
Sn		0,0061	0,0032	0,00065	0,00091	---

Director of the Institute

Prof. Ph.D. Zbigniew Smieszek

The confidence intervals in wt % at the probability level of 0,05

Element No.	K 1	K 2	K 3	K 4	K 5
Ni	0,00065	0,00084	0,0019	0,0039	0,00035
As	---	0,00016	0,000090	0,00035	0,00017
Sb	0,00028	0,00023	0,000097	0,000094	0,000020
Sn	0,00035	0,00015	0,000045	0,000067	---

Analytical methods applied:

- Ni - spectrophotometric (DMG) after extraction, atomic absorption*
- As - spectrophotometric, distillation, atomic absorption*
- Sb - atomic absorption after enrichment*
- Sn - spectrophotometric, atomic absorption*

The chemical analyses have been carried out in three industrial laboratories and at the Institute of Non-Ferrous Metals. The cadmium reference materials were made by melting of all components in the coreless induction furnace and by casting into special cast iron moulds preventing elimination of segregation of the components during solidification. The set consists of 5 reference materials in form of discs 40 mm in diameter and 20 mm in height.