INSTITUTE OF NON-FERROUS METALS

Analytical Chemistry Department
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CERTIFICATE OF ANALYSIS

Chemical reference material of copper ore MR Z

The average results of chemical analyses in wt %

Component	Mean contents	Mean deviation, s
Cu	1,61	0,05
Zn	0,025	0,0015
Pb	0,085	0,007
Fe	0,88	0,05
Ag	0,0029	0,0003
As	0,013	0,00089
SiO_2	(22)	---
Al_2O_3	(4,9)	---
MgO	(8,2)	---
CaO	(25,1)	---

Director of the Institute

Prof. Ph.D. Zbigniew Śmieszek

Analytical methods applied:

Cu - atomic absorption spectrometry
- titration iodine fluoride
- ICP

Zn - atomic absorption spectrometry
- ICP

Pb - atomic absorption spectrometry
- ICP

Fe - atomic absorption spectrometry
- titration dichromate
- ICP

Ag - atomic absorption spectrometry
- ICP

As - atomic absorption spectrometry
- ICP

SiO_2 - weight method

Al_2O_3 - complexometric titration
- atomic absorption spectrometry
- ICP

MgO - weight method
- complexometric titration
- ICP
- atomic absorption spectrometry

CaO - titration manganometrie
- atomic absorption spectrometry
- ICP

The chemical analyses have been carried out in six industrial laboratories and in laboratory of the Institute of Non-Ferrous Metals.