



INSTITUTE OF NON-FERROUS METALS

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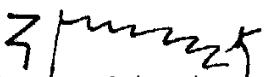
CERTIFICATE OF ANALYSIS

Chemical reference material of blende ore RB 7

The average results of chemical analyses in wt %

Component	Mean content	Mean deviation, s (n=20)
Zn	3,07	0,07
Fe	8,28	0,04
Cd	0,033	0,002
CaO	24,35	0,30
MgO	15,26	0,12
Pb	(0,26)	(0,04)
S	(10,3)	(0,08)
SiO ₂	(0,8)	(0,15)

Director of the Institute


Prof. Ph.D. Zbigniew Smieszek

Analytical methods applied:

- Zn
 - complexometric method in the presence of xylene orange
 - atomic absorption method
 - urbasch method (titration with hexacyanoen potassium ferrate (II))
- Fe
 - atomic absorption method
 - titration: chromatometric
- Cd
 - atomic absorption method
- Pb
 - atomic absorption method
 - polarographic method
- S
 - weight method in form of BaSO_4
 - weight method after wasting the sample with a mixture of sodium potassium carbonate with zinc oxide
- Ca
 - manganometric titration
 - complexometric in the presence of fluorexone with fluoresceine
- Mg
 - weight method in form of $\text{Mg}_2\text{P}_2\text{O}_7$
 - complexometric, in the presence of feriochrome black T
- Si
 - weight method in form of SiO_2
 - spectrophotometric method

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