

Possible ways for measurement of metals in minerals and ores with MetExpert



field measurements



representative samples



direct measurement at several points of the sample



milling

an internal standard in form of metal or metal compound which is absent in sample, for example CuO, can be added.

The samples could be milled to less than 0,04 mm particle size.



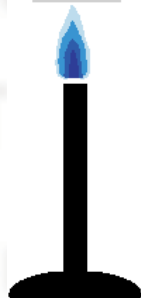
measurement of elements in the powder



borate compounds

fluxing

The powder will be heated to 1030 °C to determine loss on ignition (LOI). After mixing the residue with lithium borate, it is fused at 1200°C for 20 min. Glass beads are rapidly produced with a good precision for analysis. Platinum crucibles and automatic fluxer are used for the fusion.



measurement of elements in the glass



The uniform elemental distribution in glass beads and reduction of matrix effects are widely acknowledged to be the advantage of fusion technologies.

Literature:

Törlk, S.B., Labar, J., Injuk, J. & van Grieken, R.E. (1996): X-ray Spectrometry. Anal. Chem., 68: 467 R- 485 R