

Analytical packages - solution ICP-MS

ICP-MS Laboratory

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We offer five solution ICP MS analytical packages that differ in sample dissolution and analytical procedures. Selection of particular type of analysis depends on the sample matrix and the elements that are determined.

All samples will be diluted to less than 1mg total salt content in 1ml solution prior to the analysis on ICP MS.

In addition, a special custom-tailored analysis (e.g. organic matter) can be arranged upon request.

Precision and accuracy are controlled using by international reference materials (e.g. SRM 1639, 1640 NIST U.S.A.; G-2, AGV-2, BCR-2, BIR-1 USGS; WMG-1, WPR-1 CCRMP Canada).

The listed prices are in Czech currency - Kč (1EUR is currently ca 28 Kč).

The listed prices reflect the cost of consumable material, instrument running and spare parts per analysis.

Minimum sample order is ten. No charges will be added.

It is the policy of our lab that all publications using the isotopic data from the ICP MS facility and publications describing a new technique development must involve a lab/department member as co-author.

1. Trace element water analysis

Analysed elements: Li, Be, Al, Cr, Mn, Co, Ni, Cu, Zn, As, Se, Rb, Sr, Ag, Cd, Sb, Cs, Ba, Tl, Pb, U, Th. Please ensure that water samples are filtered and acidified with 2% v/v HNO₃ (suprapure grade) shortly after collection. We require at least 10 ml of each sample.

1 sample (X elements)	900 Kč
1 sample (1 element)	120 Kč

2. Trace element whole-rock analysis (HF+HClO₄ dissolution or borate fusion)

Analysed elements: (Li), Be, Sc, Cr, Mn, Co, Ni, Zn, Rb, Sr, Cs, Ba, Y, Zr, Nb, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Hf, Ta, Pb, U, Th. Please note that accurate determination of refractory elements (e.g. Zr, Hf, Nb...; especially in granitic rocks) may require sample fusion – please specify in your order. We require at least 1 g of rock powder for each sample pulverized down to 200 mesh (< 70 µm particle size).

1 sample (X elements)	1200 Kč
1 sample (1 element)	200 Kč

3. Arsenic analysis (Aqua-Regia dissolution)

We require at least 2 g of rock powder for each sample pulverized down to 200 mesh (< 70 µm particle size).

1 sample	200 Kč
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4. Isotopic ratio measurements of Pb (²⁰⁷Pb/²⁰⁶Pb and ²⁰⁸Pb/²⁰⁶Pb)

We require samples to be dissolved in 10-20 ml 2% (v/v) HNO₃ along with corresponding procedural blanks. Isotopic composition can be determined by solution ICP-MS better than 0.5%.

1 sample (solution)	700 Kč
1 sample (with dissolution)	950 Kč

5. Platinum-group elements analysis (Ru, Rh, Pd, Ir, Pt) after collection to Ni-S button

At the moment, we are not able to offer Ni-S fire assay preparation in our lab. For this type of decomposition please contact our collaborator CGS (<http://nts2.cgu.cz/>). We require at least 10 g of rock powder for each sample pulverized down to 200 mesh (< 70 µm particle size). Price does not include collection to nickel-sulphide.

1 sample (only solution analysis)	950 Kč
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