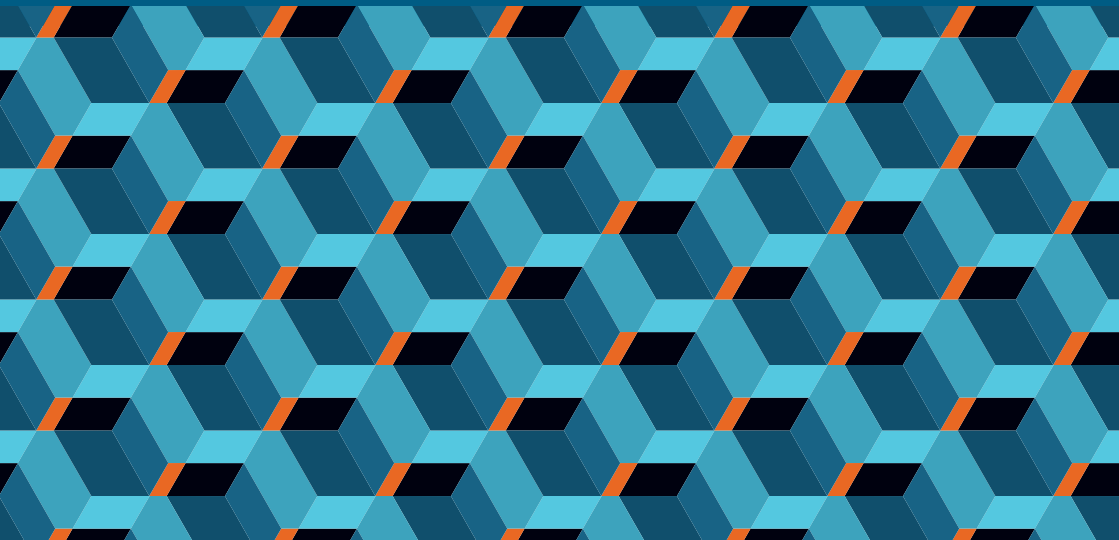


Centre for Nuclear Safety

# High-Resolution Inductively Coupled Plasma Mass Spectrometry (ICP-MS)

Elemental and isotopic analyses in a clean room  
environment



**High-resolution inductively coupled plasma mass spectrometry (ICP-MS)** is needed to detect metals and non-metals at concentrations as low as 1 part in  $10^{15}$ . Concentrations to measure range from the mg/L to sub pg/L in pure chemical, geological, material science, semiconductor and other types of samples.

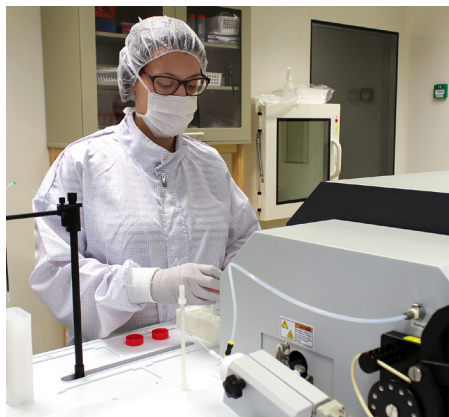
## Services

### Our offering:

- Quantitative analyses of elemental concentrations
- Isotopic ratio analysis
- Qualitative analysis by scanning mass spectra
- Sample preparation within clean room conditions (ISO 5/6 class)

### Sample types:

- Liquids: groundwater, fresh water, liquid fractions of experiments, etc.
- Dissolved solids: metals, sediments, minerals, biological materials, filters, etc.
- Radioactive samples



## Facilities

### Sector Field Inductively Coupled Plasma Mass Spectrometer (SF-ICP-MS)

- Thermo Scientific ELEMENT 2™ ICP-MS with ESI Autosampler
- Quartz double pass spray chamber
- Peltier cooling unit, installed in ISO 7 class clean room

### Sample introduction system equipment

- Ni, Al and Pt sampler cones
- Chemically inert Teflon™ PFA (perfluoroalkoxy copolymer resin) nebulizer
- Platinum injector
- Chemically inert Teflon™ PFA spray chamber
- APEX IR (Isotope Ratio) desolvation system by Elemental Scientific
- Quartz dual spray chamber

### Sample pre-treatment equipment

- Optical microscope in clean room
- Centrifuges (5000, 12000 rpm)
- Heat chamber
- Muffle furnace
- Microwave digestion unit

### Get in touch with us:

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