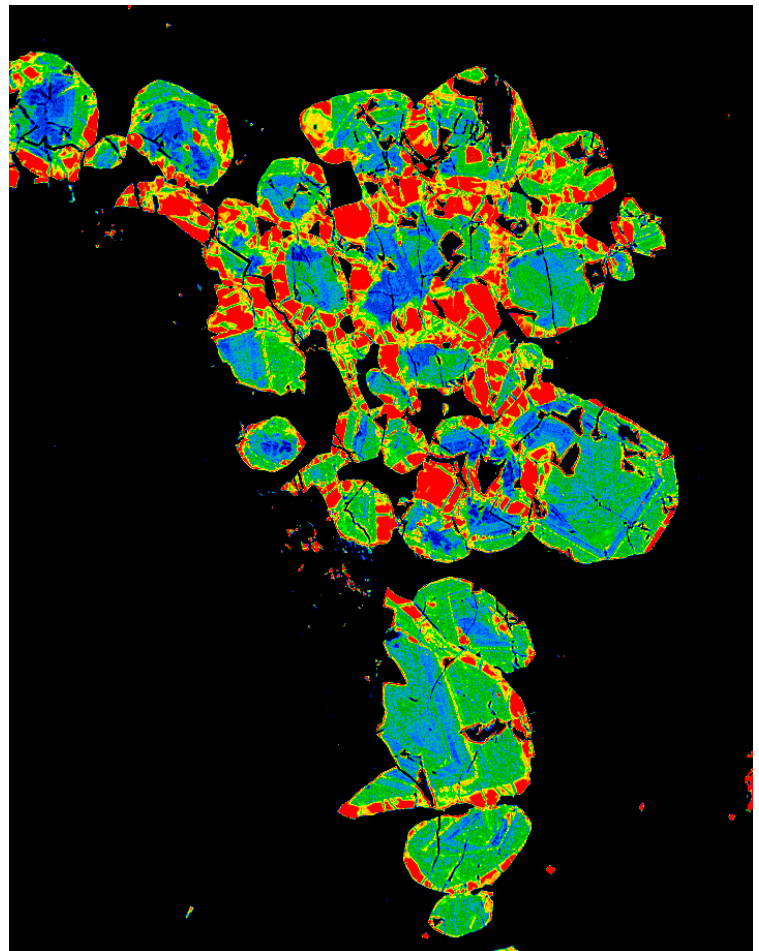


## Advanced Microanalysis Centre™ Electron Probe Micro-analyzer (EPMA)

The Saskatchewan Research Council's (SRC) Advanced Microanalysis Centre™ electron probe micro-analyzer (EPMA), also referred to as an electron microprobe, can be used to perform highly sensitive chemical analyses of micro-volumes of samples.

Elements, from boron to uranium, can be analyzed from 100% abundance down to trace levels with typical detection limits less than 0.01 wt %. Providing in situ, nondestructive analysis of very small volumes ( $1-2 \mu\text{m}^3$ ) combined with the ability to create detailed images of the sample, makes the electron microprobe one of the most important tools for micro-chemical analysis.

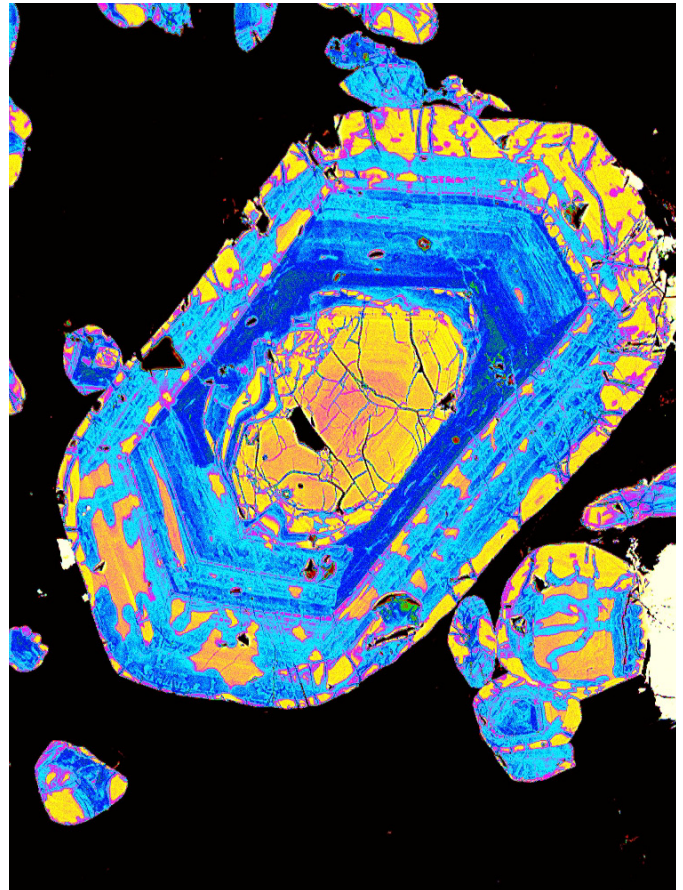
***The Advanced Microanalysis Centre™ at SRC offers a variety of services using state-of-the-art equipment to support the requirements of the exploration and mining industries.***



## Services, Features and Equipment

- Cameca SX-100 electron microprobe equipped with five wavelength dispersive spectrometers and fitted with a variety of large area diffraction crystals; provides the greatest possible sensitivity for quantitative analysis.
- Imaging using secondary and back-scattered electron detectors and the panchromatic cathodoluminescence (CL) detector.
- Thin window silicon drift energy dispersive X-ray detector (EDS) used for rapid identification based on qualitative chemical composition.
- Quantitative analysis for kimberlite indicator mineral chemistry and analysis of minor and trace gold in sulfide minerals.
- Identification of sample material and homogeneity by mapping element distribution.
- Determination of the concentration of rare earth elements (REE) in REE-bearing minerals.
- U-Th-Pb analysis of uraniferous minerals to provide chemical age dates and micro-scale chemical analysis for metallurgy.
- X-ray mapping capabilities for quantitative mineralogy.

EPMA at the Advanced Microanalysis Centre™ is available on a fee-for-service basis.



***The Advanced Microanalysis Centre™ Team: Our people make all the difference. We strive to grow our services to meet the changing needs of industry and our clients.***