



TESCAN INTEGRATED MINERAL ANALYZER (TIMA)

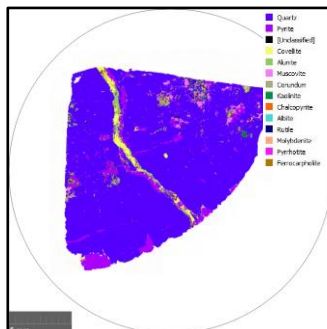
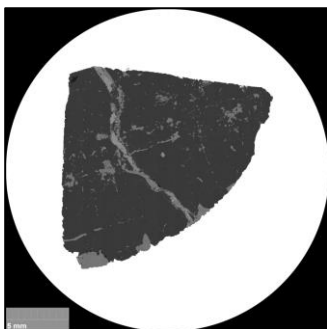
The TIMA is a high throughput, analytical Field Emission Scanning Electron Microscope (FESEM) for analysis of sample composition and morphology. It is equipped with BSE, colour CL and four Energy Dispersive X-ray Spectroscopy (EDS) detectors for fast analyses.

Key Capabilities

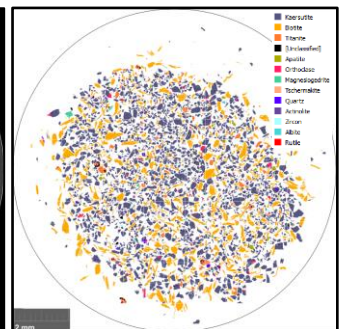
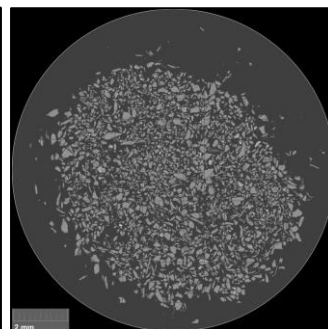
- Secondary Electron (SE) and Backscattered Electron (BSE) imaging
- Colour Cathodoluminescence (CL) imaging
- Variable Pressure (VP) imaging for biological and sensitive samples
- Mineral Liberation Analysis (MLA), modal abundance and bright phase search
- Mineral and elemental mapping
- Particle size and grain locking analysis
- Mineral association analysis
- Large area automated imaging
- Correlative Light and Electron Microscopy (CLEM)
- Complementary with other techniques, such as LA-ICP-MS, XRD and SHRIMP
- High automated throughput can handle up to 9 thin sections or 22 resin mounts

Application Examples

- Fast, high throughput method for identifying the mineral constituents in samples
- Bright phase imaging searches to determine precious metal deportment in oresamples
- Particle size analysis for determining the best practice methodology for ore liberation
- Searching and location of minerals suitable for dating and identifying trace element distributions



Backscattered (left) and phase classification (right) images of a quarter core from Indonesia



Backscattered (left) and phase classification (right) images of mineral concentrate from Western Australia

For more information

Microscopy & Microanalysis Facility
 Website: www.jdlc.edu.au
 Phone: +61 8 9266 7511
 Email: MMF@curtin.edu.au



John de Laeter Centre