

TESCAN MIRA3 XMU VP-FESEM

pressure The MIRA3 is a variable field emission scanning electron microscope (VP-FESEM) equipped with comprehensive range of detectors a suitable for researchers in the fields of earth science, forensics, life science and materials science.

Application Examples

• Characterisation of crystallographic preferred orientations during 3D crustal deformation

Key Capabilities

- High resolution imaging using Secondary Electrons (SE), Backscattered Electrons (BSE) and inlens detectors (resolution is 1 - 3 nm dependent upon conditions used)
- Ultra fast Electron Backscatter Diffraction (EBSD) mapping
- Energy Dispersive X-ray Spectroscopy (EDS) point analysis and mapping
- High quality cathodoluminescence (CL) imaging
- Electron Beam Induced Current (EBIC) imaging
- Low vacuum imaging up to 500 Pa
- Fast, high accuracy quantitative EDS
- Shock deformation of terrestrial and lunar meteorite impacts
- Formation and deformation of ore minerals \bullet and ore bodies
- Role of crystal orientations in SIMS analysis
- Micro-structural analysis of fragile and biological samples
- Scanning Transmission Electron Microscope (STEM) imaging
- Low voltage (down to 200 V) for imaging of lacksquarebeam-sensitive samples
- Large area autonomous data collection
- Simultaneous EBSD and EDS mapping



InLens BSE (left) and CL (right) images of a zircon from South Africa

EBSD phase map of a meteroite

For more information

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