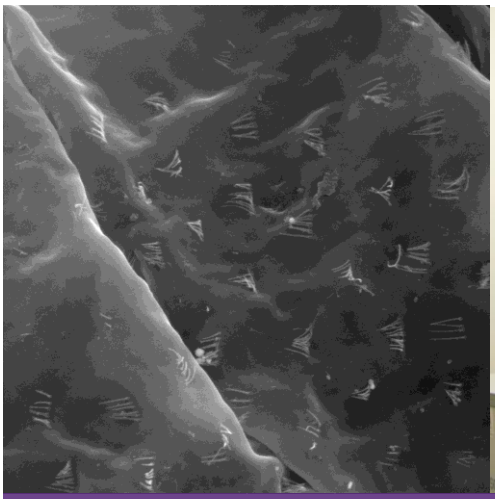
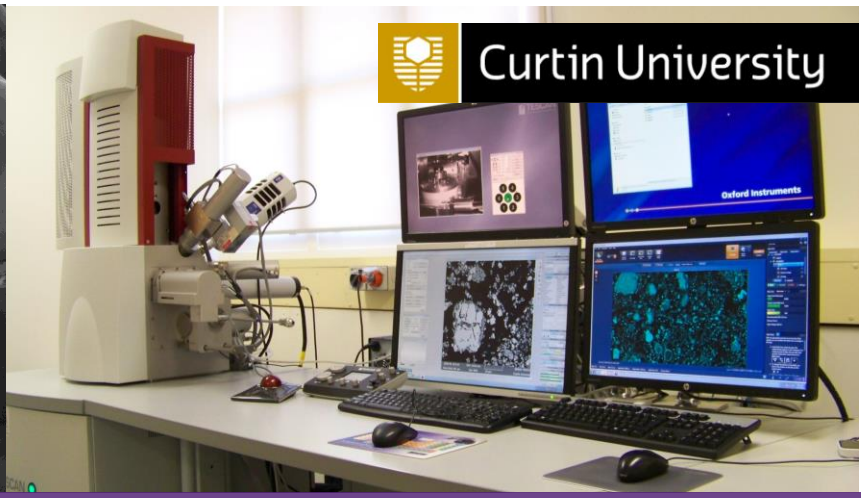




TESCAN MIRA3 VP-FESEM

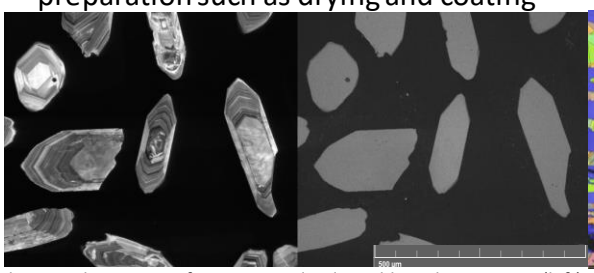
The Mira3 is a Variable Pressure Field Emission Scanning Electron Microscope (VP-FESEM) with a comprehensive range of detectors suitable for researchers in the fields of earth science, forensics, life sciences and materials sciences.

Application Examples

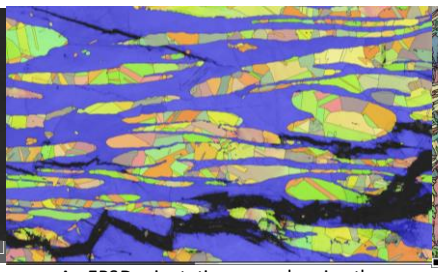
- Characterisation of crystallographic preferred orientations during 3D crustal deformation
- Analysis of corrosion products and processes
- Formation and deformation of grain structures in geological samples and metal alloys
- Analysis of shock deformation of terrestrial and lunar meteorite impacts
- Microstructural analysis of biological samples at low vacuum, without the need for sample preparation such as drying and coating

Key Capabilities

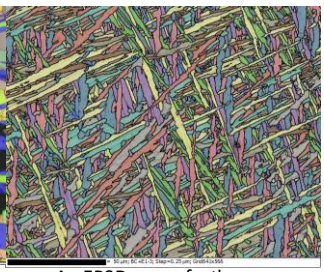
- High resolution Secondary Electron (SE) and Backscattered Electron (BSE) imaging, including both types of in-lens detector
- Electron Backscatter Diffraction (EBSD) analysis for crystallography
- Fast, high accuracy Energy Dispersive X-ray Spectroscopy (EDS) point analysis and mapping, including trace elements
- High quality monochromatic Cathodoluminescence (CL) imaging
- Low vacuum secondary electron imaging for non-conductive and moist samples
- Low voltage (down to 200V) imaging of beam-sensitive samples
- Simultaneous, large area automated data collection of images, EDS and EBSD



The growth patterns of zircons are clearly visible in the CL image (left) while the SE image (right) shows only surface structure



An EBSD orientation map showing the crack propagation mechanism in a dual-phase steel



An EBSD map of a thermo-mechanically processed titanium alloy

For more information

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