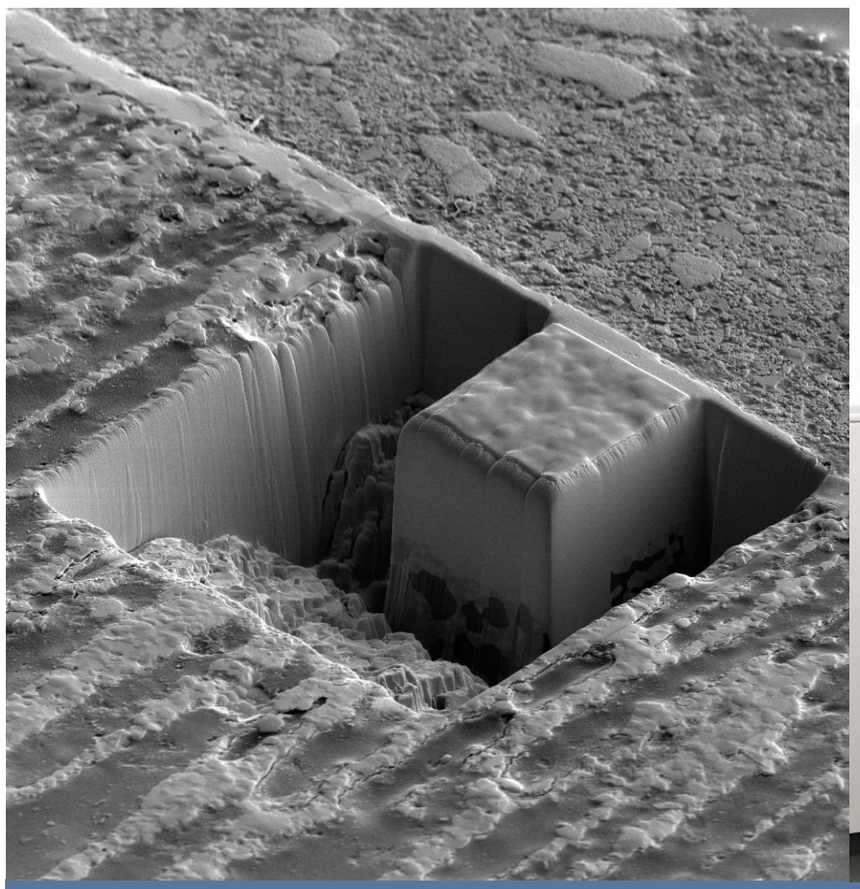
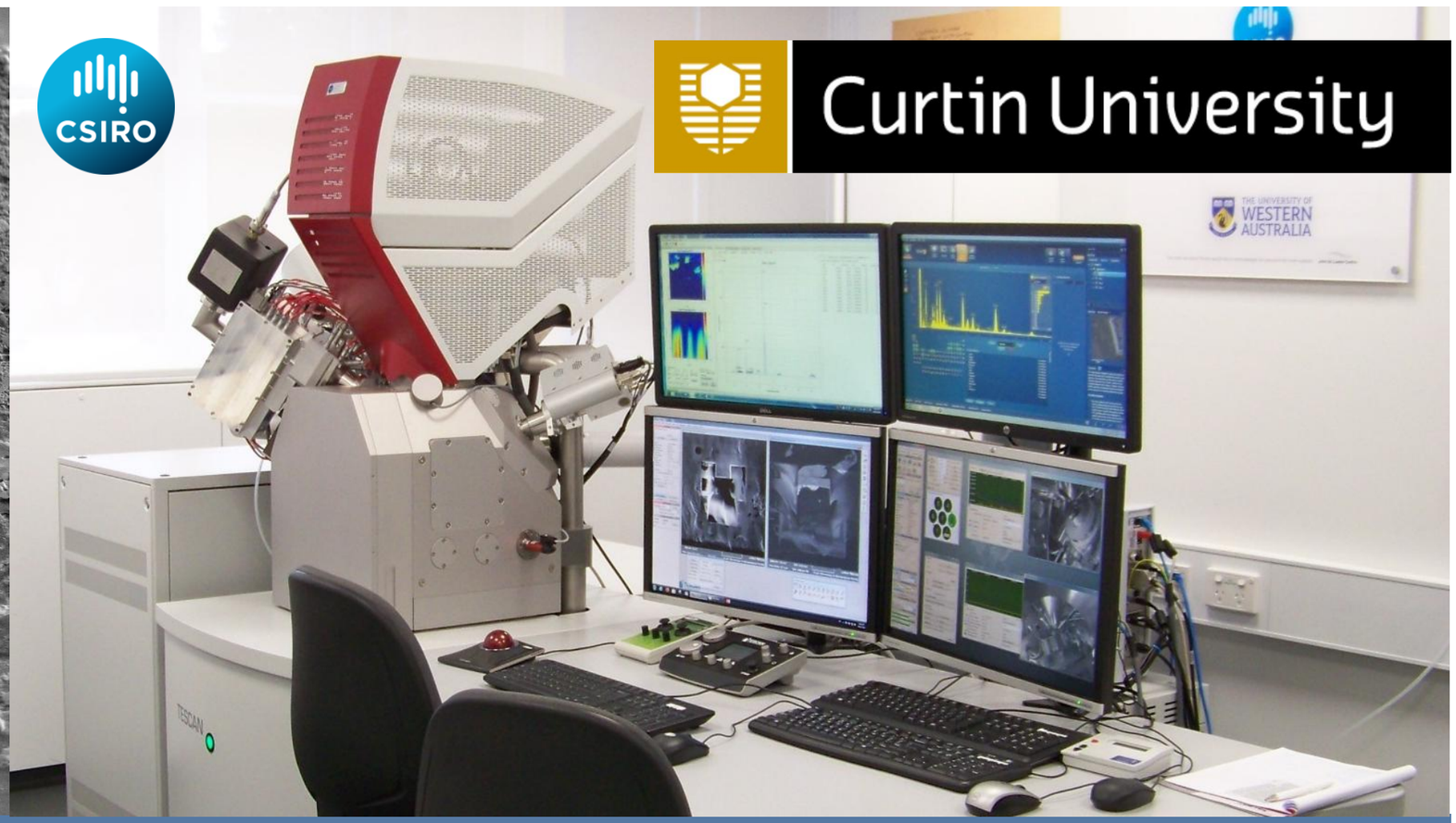




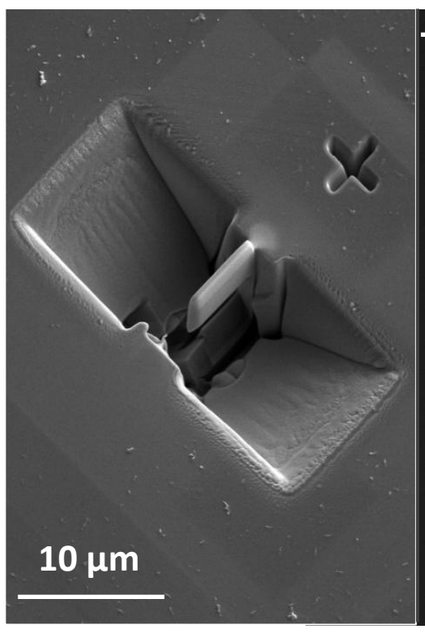
TESCAN LYRA3 GM FIBSEM

The Tescan Lyra Focused Ion Beam Scanning Electron Microscope (FIBSEM) combines high resolution electron imaging with a Ga^+ ion probe (2.5 nm resolution). It has a suite of detectors including ToF-SIMS, EDS and EBSD. This enables the FIBSEM to be used for high precision site-selective sample preparation and advanced microanalysis in two and three dimensions.

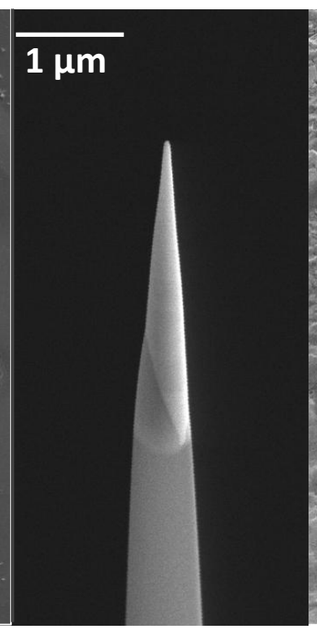
Results from surface analyses (electron and ion imaging, EDS, EBSD), sub-surface analyses (3D imaging, 3D EDS, 3D EBSD) and unique in-situ ToF-SIMS analyses are able to be correlated with site-specific nanoscale analyses (via TEM or APM) in a wide range of length scales.

Key Capabilities

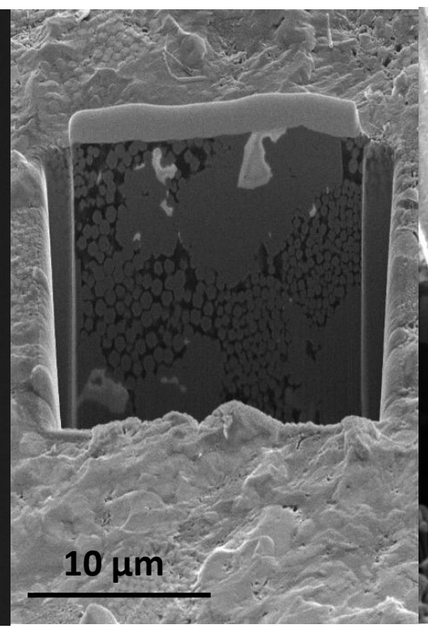
- High spatial resolution Time of Flight Secondary Ion Mass Spectrometry (ToF-SIMS)
- Cross-sectional imaging
- 3D slice and view (imaging + microanalysis)
- Site specific sample preparation for APM and TEM
- Nanofabrication
- Transmission Kikuchi Diffraction (TKD)
- Channelling contrast imaging



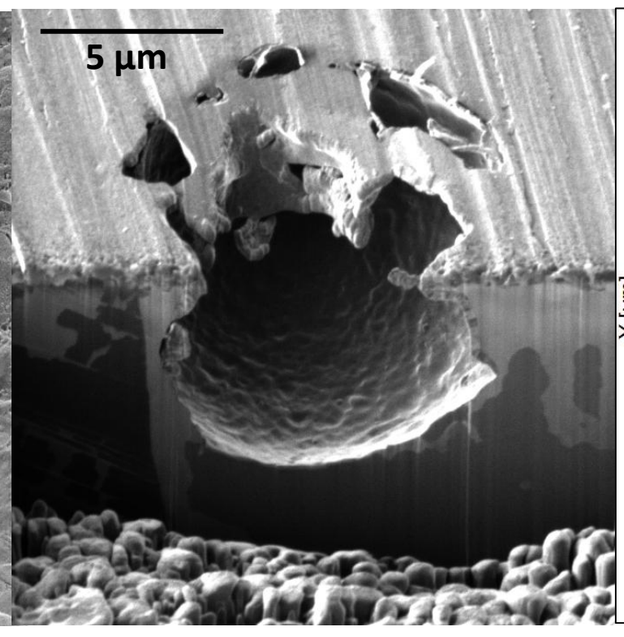
A specimen being prepared for TEM



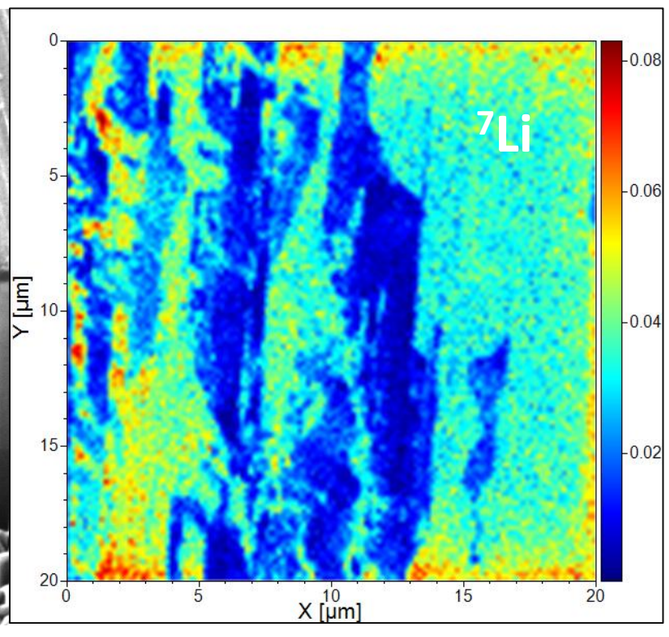
An APM needle specimen prepared by FIBSEM



Cross-sectional analysis of a shale sample



Fabrication of a nanoporous array



A SIMS map showing submicron variations in the lithium content in a mica

For more information

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