

Monash Centre for Electron Microscopy Seminar



Increasing the Performance and Analytical Power of FIB-SEMs



Wednesday 22 February, 2017



11.00am



**Monash Centre for Electron
Microscopy Seminar Room G11
10 Innovation Walk
Clayton Campus**

Presenter - Antonin Doupal

Antonin is currently an Area Sales Manager for TESCAN, having previously served as a product specialist and field service engineer. This experience gives him an intimate knowledge of the inner workings of SEMs and FIBs and related devices. This experience builds on his education including a Masters in Physics and Nanotechnology and gives him an excellent background to help him understand your application and how their technologies can be applied so you get the maximum benefit.

Abstract

Xe plasma FIBs or iFIBs offer extremely high material removal rates and very low contamination compared to conventional gallium FIBs. As such Xe plasma FIBs have great potential in applications such as failure analysis and MEMS fabrication in the semiconductor industry as well as in generating large TEM samples and 3D tomography/EDS/EBSD datasets.

In this talk we will explain the advantages of Xe plasma FIBS from both a physico-chemical perspective and an efficiency perspective based on the physics of how they work and their performance.

Another technology that greatly adds to the analytical power of FIB-SEMs is ToF SIMS (Time of Flight Secondary Ion Mass Spectrometry). While EDS is a useful analytical technique for elemental analysis, ToF SIMS offers increased capabilities due to lower physical limits and increase spatial resolution. We will explain how ToF SIMS works, benefits compared to EDS and how it enhances the analytical capabilities of a FIB-SEM through a more elegant integration.

Learn how Xe plasma FIB with ToF SIMS can benefit your research and produce cutting edge results by providing more detailed analyses in less time, hence giving you an even better understanding of your system.

Convenor: **Dr Amelia Liu**
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