

Versatile Solutions for Modern Analytical Instruments – SEM Calum Dickinson, JEOL (UK) Ltd

With the advancements of SEM and other electronic technologies in recent years, a wide variety of techniques have been made available to users. It is also increasingly desirable for a facility's SEM to be available for multiple disciplines or analytical techniques. Modern computing has led to faster communication and ease of use, allowing for more automation and correlative solutions between multiple devices.

In this presentation, applications from the JEOL FESEM range will be given and the importance of the location of attachments. We will cover collecting distortion free EBSD at low magnification, dual EDS solutions for sub- 10 nm particle mapping, and lithium detection and chemical state analysis with the JEOL SXES (soft x-ray emission spectrometer). A guide to the analysis of your samples, with analyses below 3 kV accelerating voltage will be given. We will also show the importance of having an instrument capable of high probe current and high beam stability, whilst still maintaining the capability of sub-nm resolution.

