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The Status Of SDD Technology For SEM-EDS And TEM-EDS Applications

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2.00-3.00pm
Science Lecture Theatre, S11 (Building 25)

Abstract

Silicon drift detectors (SDD) have almost completely replaced the conventional technology of lithium diffused silicon (SiLi) detectors for energy dispersive spectroscopy in the scanning electron microscope (SEM-EDS). In this presentation a brief history for the development of the SDD detector will outlined with reference to the various device architectures commercially available today. The advantages of the SDD in EDS applications (such as spectrum imaging) when combined with wave dispersive spectroscopy (WDS) and electron back scattered diffraction (EBSD) will also be outlined. Disadvantages such as count rate and spectral artefacts will be discussed. Finally, the recent announcement by two commercial vendors for the application of the SDD technology for EDS on a transmission electron microscope (TEM-EDS) will be reviewed.

Convenor: Associate Professor Joanne Etheridge
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