

## **Applications of Electron Microscopy in Materials Characterisation: New and Existing Research Activities**

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Application of various electron microscopy methods has been widely exploited for more than seven decades, due to the unique capabilities provided by electrons and the advancement in instrumentation. Their unprecedented spatial resolution and complex nature of interaction with matter, to name but a few, render high energy electron beams quite beneficial not only for high-magnification morphology studies, but also for a complete structural, chemical and electronic analysis of materials.

In this talk, a review of past and ongoing research activities employing electron microscopy methods will be presented. Structural studies are predominately focused in materials for renewable technologies, energy generation or harvesting, or environmental applications. Furthermore, results from electron microscopy method development, which currently forms one of our main research directions will be also briefly discussed.

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