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NANOSCIENCE COLLOQUIUM



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Cathode Lens Microscopy for Nanoscience

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The world of nanoscale materials and devices could not continue to develop without experimental tools that enable us to study the structure and properties of such materials and devices.

While area-averaging methods may provide useful information on ensembles, microscopic methods are required to study individual nanoscale objects. Cathode lens microscopy includes both Low Energy Electron Microscopy (LEEM) and Photo Electron Emission Microscopy (PEEM). In combination, these two methods can be used to study not only structural properties of materials, but also chemical, magnetic, and electronic aspects. In this talk I will discuss the basic characteristics of cathode lens microscopy, and its application to various problems in nanoscience. I will also present an outlook for future developments and applications, including correction of the primary aberrations of the objective lens.



Host: Anders Mikkelsen (Synchrotron Radiation Research)

This is one in a regular series of Nanoscience Colloquia, aimed at all researchers and students with an interest in nanoscience. The series is arranged by the Strategic Research Environment “The Nanometer Structure Consortium at Lund University” (nmC@LU) and by the Linnaeus environment “Nanoscience and Quantum Engineering”, funded by the Swedish Research Council (VR).



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