Visualizing Crystal Growth in the Transmission Electron Microscope

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Presented by…

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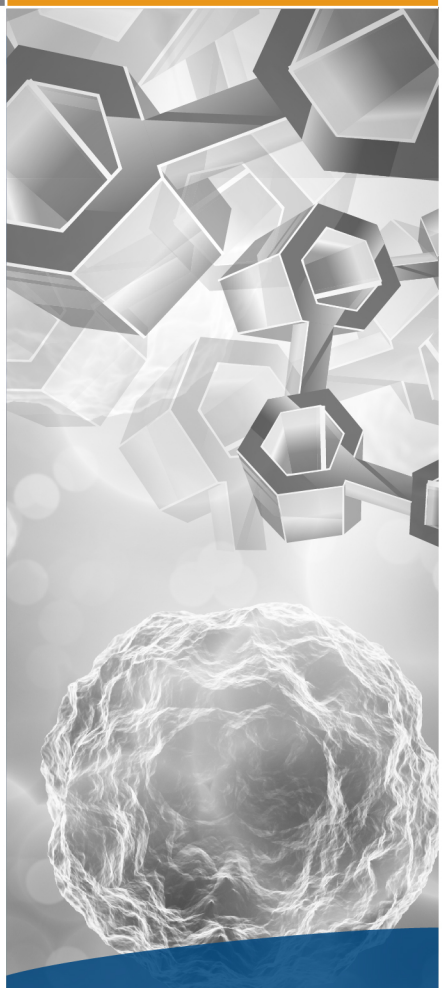
Abstract

In situ transmission electron microscopy is a unique and exciting technique for visualizing and quantifying crystal growth. Physical and chemical vapour deposition and even electrochemical deposition can be carried out inside the microscope. By recording movies while growth takes place, we can measure kinetics, identify transient structures, and determine mechanisms. Here we describe two materials systems that illustrate the opportunities and challenges of in situ microscopy: the vapour-phase self-assembly of semiconductor nanowires from catalytic particles, and the liquid-phase electrochemical deposition of metals to form nuclei, thin films and dendrites. The range of materials and processes that can be examined suggest that in situ microscopy of crystal growth can play a key role in basic physics understanding and nanomaterials design.

More info? http//www.zoominfo.com/s/



Date: Tuesday, November 19, 2013

Location: EMSL Auditorium

Time: 10:00 a.m.