

**Global Research Center for Environment and Energy**  
**based on Nanomaterials Science(GREEN)**  
**National Institute for Materials Science (NIMS)**  
**13<sup>th</sup> GREEN Seminar**

Date and time: 2011. Feb. 25(Fri) 15:30-17:00

Venue: 1st Conference Room(1F) at Central Bldg in Sengen site, NIMS

Program and Abstract:

15:30-17:00 “Advanced transmission electron microscopy and materials science”

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At the beginning of the 21<sup>st</sup> century, we are now facing global problems such as energy security, exhaustion of natural resources, environmental pollution, and so on. “Nanotechnology”, through its ability to create new materials and devices, is a powerful tool for making some of the breakthroughs necessary to deal with the complicated problems which confront us. Nanostructures Research Laboratory at the Japan Fine Ceramics Center (JFCC) aims to contribute to nanotechnology by means of advanced microscopy and calculations, such as Cs-corrected Scanning Transmission Electron Microscopy, Electron Holography, and First-Principles Calculations. Our goal is “to contribute to the creation of new materials and devices by microscopy and calculations”. In this talk some of the latest results about advanced microscopy such as visualization of lithium and hydrogen are presented and future plans are discussed.