



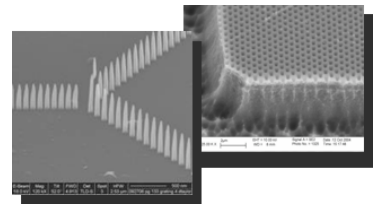
## **NANOENGINEERED MATERIALS: INNOVATION AND BEYOND**

**Wednesday March 18, 2009  
Babbio 122, 11 am**

**Professor Daniel S. Choi**

Department of Materials Science Engineering, University of Idaho

Nanotechnology is an anticipated manufacturing technology that allows thorough, inexpensive control of the structure of matter by working with nanometer-scale materials. By manipulating matter at a molecular-scale, nanotechnology may allow us to develop new materials and devices that have unique properties beyond the realm of current conventional technology.



Nanotechnology is sure to manifest in innovations both large and small in diverse industries. My research group is focusing on the area of research in developing variety of engineered/advanced nanomaterial systems for novel device applications. During my presentation, two areas of ongoing research will be presented, namely: (i) energy devices (batteries, solar cells, and ultracapacitors) based on nanomaterials (ii) bio-applications (new way of cancer treatment) based on multi-functional/dynamic nanomaterials.

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**Professor Daniel S. Choi** received his B.S. degree in Metallurgical Engineering from the Seoul National University in Korea and his Ph.D. in Electrical Engineering at UCLA. He worked for five years at Electronics & Photonics Laboratory of the Aerospace Corporation as a staff engineer, developing high-resolution focused ion beam (FIB) and electron beam lithography. Dr. Choi joined Jet Propulsion Laboratory at NASA in 1999, where he performed research on MEMS and nanotechnology for space applications. He has been an Associate Professor in Department of Materials Science and Engineering at University of Idaho, Moscow since 2007. He is also an Associate Director of the University Cleanroom Facilities. During his carrier, he received several awards including, Jet Propulsion Laboratory Spot Award (2005), NASA Tech Brief Awards (eight times), and Augmentation Fellowship for Science & Engineering Research Training Program, and Aerospace Outstanding Invention Award (1997). Prof. Choi's research interests are focused on the synthesis of nanoengineered materials and apply these materials in various advanced applications including sensors, electronic, optronic, green energy applications, medical devices and nanomanufacturing.

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