



Fabrication and Assembly of One-dimensional Nanostructures

**Wednesday March 21, 2006
Babbio Bldg, Room 122, Time 11am**

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Nanoelectronic, photonic, sensor, and spintronics are rapidly evolving areas of science and engineering that hold the promise of creating new techniques to manufacture devices and develop advanced information technology. It is fundamentally changing the way materials and devices will be produced and it will be central to the next epoch of the information age. The objective of our work is to control nanoscale sized features to enhance material properties and device functions beyond those that we currently know. The ability to develop and to engineer materials at the nanoscale level and to apply their unique properties will have great impact on technology, industry and commerce. During the presentation, a template-directed electrodeposition method to synthesize nanowires will be presented. In addition, we will demonstrate assembling, positioning, and spatial manipulating of nanostructures on ferromagnetic contacts using magnetic interaction between ferromagnetic electrodes and nano-magnet integrated on nanostructures

Professor Nosang Myung received his B.S. M.S. and Ph. D. Degree in Chemical Engineering from the University of California, Los Angeles in 1994, 1997, and 1998, respectively. He spent three years as a research engineer at the same institution. In 2001-2003, he joined micro electromechanical systems (MEMS) group at Jet Propulsion Laboratory (JPL) which is one of NASA center as a member of engineering staff. Currently, he is an assistant professor in Department of Chemical and Environmental Engineering at University of California, Riverside. During his career, he received a few awards including, University of California Regent Fellowship (2004), Jet Propulsion Laboratory Spot Award (2003), Abner Brenner gold medal award from American Electroplaters and Surface Finishers Society (AESF) (2003), First time author's award from Plating and Surface Finishing (2000), National Science Foundation graduate fellowship, Department of Education fellowship, American Electroplating and Surface Finishing summer scholarship, Hughes aircraft company scholarship. Dr. Myung's research interests are focused on the synthesis of nanoengineered materials and apply these materials in various advanced applications including spintronics, sensor, electronic, optoelectronics, energy harvesting, and environmental remediation. Dr. Myung's group objective is to control nanoscale sized features to enhance material properties and device functions beyond those that we currently know. Currently, he published 38 peer-reviewed journal papers, one US patent, three filed patent applications.

Light refreshments will be served prior to seminar



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