THE Alan G. MacDiarmid NanoTech Institute

PRESENTS

Qingwen Li

Professor, Sushou Institute of Nano-Tech and Nano-Bionics (SINANO)
Chinese Academy of Sciences

Friday, December 2nd at 11 a.m.
ECS South 3.910

Dr. Qingwen Li got her B.S. in chemistry in1987 from Xinjiang University (china), M.S. and PhD in physical chemistry in 1990 and 2000 from Shandong University and Tsinghua University, respectively. She has been working with carbon nanotube since she joined Professor Zhongfan Liu's group as a PostDoc in 2001. Her interests include carbon nanotube controllable growth, surface modification and application development. She once worked with Professor Alan Windle in University of Cambridge from 2003 to 2005 on wet-processing of carbon nanotubes, and Dr. Y. T. Zhu at Los Alamos national laboratory from March 2005 to Dec. 2007 on growing ultralong carbon nanotube arrays and spinning strong carbon nanotube fibers. She joined Suzhou institute of Nanotech and Nanobionics at the end of 2007, as a professor of "hundred talent project" supported by Chinese Academy of Science. She has published over 50 peer reviewed journal articles and applied 5 American and 10 Chinese patents. Dr. Li has won the Nano 50TM and Micro 25 awards in 2007 (US) and also award of excellence by Los Alamos National lab. Dr. Li 's current research focus is on the development and applications of carbon nanotube based composites.

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Controlled Synthesis of Carbon Nanotube Arrays for Real Applications

Vertically aligned CNT arrays with different structures and morphology have been extensively investigated recently, due to its promising applications in high performance electronics, field emitters,[3] transparent conducting films, lightweight and high-strength materials, thermal interface materials, and super hydrophobic surfaces for self-cleaning surfaces etc. In my talk, I will summary our recent progress in the controlled growth of carbon nanotube arrays toward real applications, which include; 1) growth of carbon nanotube arrays with desire tubular structures; 2) sustained growth of carbon nanotubes with fast rate and ultra-long length; 3) scalable growth of drawable carbon nanotube arrays; 4) potential applications in electronic and structural materials .