



2016 **MRS**[®]
FALL MEETING & EXHIBIT

November 27 – December 2, 2016 | Boston, Massachusetts

CALL FOR PAPERS

Abstract Deadline: June 16, 2016

REMINDER: In fairness to all potential authors, late abstracts will not be accepted.

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Symposium NM3: Nanotubes and Related Nanostructures

Carbon nanotubes, graphenes, and related nanostructures such as fullerenes, and other non-carbon nanotubes and nanostructures (materials in the B-C-N system, including boron nitride, and boron), have attracted tremendous attentions for their unique structures and intriguing properties. These nanomaterials have been widely investigated, from synthesis, structure and property characterization to applications in electronic devices, field emission displays, biological and chemical sensors etc. This symposium will emphasize both solid-state and molecular aspect of these carbon and non-carbon nanostructures. It will bring together researchers from different disciplines to discuss the fundamentals of theory, synthesis, characterization, chemical and biochemical methods for purification and assembly, toxicity and bio-compatibility, and applications in electronics, chemistry, biochemistry, biomedicine, etc.

Topics will include:

- Synthesis, doping, and characterization
- Theoretical study on the growth, doping, and the fundamental properties
- Electron transport and scanning tunneling microscopy studies
- Optical spectroscopy
- Nanotube/graphene for applications in transparent conductors, touch sensors, flexible transistors, etc.
- Application in advanced functional materials, composites, etc.
- Molecular approaches for purification, modification and sorting
- Nanotube/graphene as actuator, sensor, and electromechanical devices (NEMS)
- CNT (or graphene)/biomolecule interactions: biochemical applications and toxicity studies
- Hierarchical organization
- Synthesis and characterization of B-C-N nanostructures

Invited speakers include:

Z Bao	Stanford University, USA	A Loiseau	ONERA, France
C Bichara	Centre national de la recherche scientifique (CNRS), France	S Maruyama	Tokyo University, Japan
Q Cao	Thomas J. Watson Research Center, IBM, USA	Y Ohno	Nagoya University, Japan
S Doorn	Los Alamos National Laboratory, USA	A Rubio	Max Plank Institute for Structure and Dynamics of Matter at Hamburg, Germany
J Fagan	National Institute of Standards and Technology, USA	S Sakurai	National Institute of Advanced Industrial Science and Technology (AIST), Japan
D Heller	Memorial Sloan Kettering Cancer Center, USA	E Soininen	Canatu, Finland
H Jiang	Aalto University, Finland	S Tomonoh	National Institute of Advanced Industrial Science and Technology (AIST), Japan
J Kono	Rice University, USA	S Wind	Columbia University, USA
Y Li	Peking University, China	B Yakobson	Rice University, USA
J Liu	Duke University, USA	Y. K. Yap	Michigan Technological University, USA

Symposium Organizers

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