

# Science of Advanced Materials

(<http://www.aspbs.com/sam>)

*A Special Issue on*

**“Nanomaterials for Energy and Environment Sustainability”**

## Call for Papers

The evolution of nanotechnology in the past two decades represents an ever-improving process in design, discovery, creation and novel utilization of artificial nanoscale materials. Various types of nanomaterials have since been the major players including but not limited to the particular, wire-shaped, tubular and film-like nanosized building blocks. To meet the grand challenge in energy and environmental sustainability for human being, these nanomaterials in various hierarchical fashions are stimulating various important practical applications in energy, environmental, electronic and optoelectronic sectors.

In this special issue of “**Science of Advanced Materials**”, we will highlight the recent advances in advanced nanomaterials design and synthesis, characterization and applications in environmental remediation, environmental and energy catalysis, energy harvesting, conversion and storage, solid state lighting, sensing and actuating, nanomaterials growth theory, etc.

Contributions are invited in the forms of **original research papers**, **communications**, and **comprehensive reviews** to this special issue.

Specific topics for this special issue include, but are not limited to, the following research topics:

- Low-dimensional nanostructures (nanoparticles, nanowires, nanotubes, nanofilm) synthesis, fabrication and manipulation;
- Nanostructure growth method and theory;
- Self-assembly;
- Electronics and optoelectronics (LED, laser, etc.) of low dimensional nanostructures;
- Nanoscale sensors and actuators;
- Energy harvesting, conversion and storage using nanomaterials;
- Nanomechanics and micro-(nano-)fluidics;
- Micro- and Nano-electro-mechanical systems (MEMS and NEMS);
- Nanocatalysis for energy and environmental applications (Fuel Cell, Battery, pollution control).
- Environmental impacts of nanomaterials (nano-toxicology, remediation, etc.)

## GUEST EDITORS

### **Prof. Pu-Xian Gao**

Department of Chemical, Materials and Biomolecular Engineering & Institute of Materials Science, University of Connecticut

E-mail: [puxian.gao@ims.uconn.edu](mailto:puxian.gao@ims.uconn.edu)

### **Prof. Mehmet R. Dokmeci**

Department of Electrical and Computer Engineering  
Northeastern University

Email: [mehmetd@ece.neu.edu](mailto:mehmetd@ece.neu.edu)

### **Prof. Jianyu Liang**

Department of Mechanical Engineering  
Worcester Polytechnic Institute

E-mail: [jianyu@wpi.edu](mailto:jianyu@wpi.edu)

### **Prof. Xudong Wang**

Department of Materials Science and Engineering  
University of Wisconsin at Madison

Email: [xudong@enr.wisc.edu](mailto:xudong@enr.wisc.edu)

### **Prof. Jun Yang**

Department of Mechanical and Materials Engineering  
University of Western Ontario

Email: [jyang@eng.uwo.ca](mailto:jyang@eng.uwo.ca)

## MANUSCRIPT SUBMISSION

Manuscripts must be prepared according to the Journal's guidelines, available at <http://www.aspbs.com/sam>. **Submit your cover letter and manuscript in MS Word or PDF format directly to one of the Guest Editors.**

All submissions to this special issue will be subjected to a strict peer review process to ensure that only high quality articles are published. **Please indicate in your cover letter that the submitted paper has not been published previously and is not currently submitted for review to any other journal and will not be submitted elsewhere before a final decision is made by this journal.**

Please notify the Guest Editors well in advance for your kind intention for submitting a research paper.

## KEY DATES

**Manuscript Due: May 15, 2011**

**Authors' Notification: June 15, 2011**

**Publication Date: August-October, 2011**