

Special Issue on
**Application of Nanomaterials and Structures in Optics
and Photonics**

CALL FOR PAPERS

Optical and photonic devices are widely used in all aspects of our life and their advancement has become one of the most pressing issues in today's society. However, conventional (macroscopic) structures used in such devices have exhibited a crucial limit in improving their performance.

With the development of nanotechnology, nanostructures such as ultrathin films, nanowires, quantum dots, metamaterials, and photonic crystals have offered new alternatives to construct highly efficient optical and photonic devices. On one hand, by fabricating macroscale materials into subwavelength nanostructures, the optical and photonic properties of such structures may change dramatically and thus possibly benefit the devices such as lasers, optical sensors, solar cells, and light emitting diodes. On the other hand, variabilities in nanofabrication, as well as the reliability of the structures under different usage conditions, may influence the mechanical and optical performance of the devices. The purpose of this special issue is to comprehensively cover the theoretical and experimental investigations of the novel and promising properties of the optical and photonic devices constructed by subwavelength nanostructures.

We kindly invite you to contribute to this special issue which intends to publish high-quality research articles and review papers in all related fields.

Potential topics include but are not limited to the following:

- ▶ Theoretical investigation of nanostructures in optical/photonic devices
- ▶ Nanostructures in light trapping techniques
- ▶ Nanostructures in light emitting diodes
- ▶ Nanostructure-based (e.g., nanowires, nanoparticles, and quantum dots) solar cells
- ▶ Photonic bandgap structures (e.g., photonic crystals) in optics and photonics
- ▶ Graphene in optics and photonics
- ▶ Metamaterials in optics and photonics
- ▶ Nanofabrication and reliability of optical/photonic devices

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/jnm/noph/>.

Lead Guest Editor

Yunlu Xu, University of Maryland,
College Park, USA
ylxu@umd.edu

Guest Editors

Andrea Marini, Institute of Photonic
Sciences, Barcelona, Spain
andrea.marini@icfo.es

Jingshi Meng, University of Maryland,
College Park, USA
mengjshi@umd.edu

Tao Gong, University of Maryland,
College Park, USA
got1989@gmail.com

Manuscript Due

Friday, 16 June 2017

First Round of Reviews

Friday, 8 September 2017

Publication Date

Friday, 3 November 2017