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New Perspectives in Semiconductor Optics

Guest Editors:

Dr. Raj Vinnakota

Assistant Professor, Department of Chemistry and Physics, Troy University, 600 University Ave, Troy, AL 36082, USA

Dr. Shantanu Saha

Associate Professor, Department of Electrical, Electronics and Communication Engineering, GITAM (Deemed to be) University, Rudraram, Hyderabad, Telangana 502329, India

Dr. Yanhua Hong

School of Computer Science and Electronic Engineer, Bangor University, Bangor LL57 2DG, UK

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Message from the Guest Editors

The field of semiconductor optics is vast and intriguing with its applications in many fields including, but not limited to, energy detection and conversion, optical waveguides, optoelectronics, integrated optics, and optical communications. Moreover, due to the rich tunable and unique electro-optic, thermo-optic, and non-linear optical properties specific to semiconductor materials, cuttingedge, efficient, and low power-consuming optoelectronic, all-optical devices, chemical and biosensors, biomedical imaging and neuro-inspired ultra-fast optical computing devices are suggested. The prospects for these applications are even more exciting with the advent of semiconductor plasmonics, which offer next-generation photonic integrated circuits with ultra-small footprints and high-performance optical detectors.

This Special Issue aims to collect the latest experimental and theoretical research articles on the electro-optical, thermo-optical, and non-linear properties of semiconductors and their applications. The scope of this Special Issue covers the advances in the field of semiconductor optics.



