Special Issue

Optoelectronics

Message from the Guest Editors

Empowered by novel device concepts and nanostructured material systems, optoelectronics has enabled groundbreaking innovations in diverse fields such as ICTs, automotive, energy production, and biomedical research. This Special Issue is intended to highlight recent advances in semiconductor optoelectronic devices, with attention to both theory and applications. Topics covered include but are not limited to: - Physics of optoelectronic devices; - High-speed dynamics in light emitters and modulators; - Nonlinear optics: frequency-mixing processes, Pockels, Kerr, and acousto-optic effects; - Noise in optoelectronic devices; - Quantum kinetic models of nanostructures: nonequilibrium Green's functions and density matrix; - Multiphysics semiclassical models of optoelectronic devices coupling drift–diffusion, optical and thermal solver; - Visible and UV light emitters; - Superlattice infrared photodetectors; - Quantum cascade lasers; - Solar cells: intermediate band, hot carrier effects, nanotextures, novel materials; - Novel devices: wavelength-tunable VCSELs, photonic crystal lasers.

Guest Editors

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Deadline for manuscript submissions

closed (31 December 2021)

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Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Photonics* (ISSN 2304-6732). *Photonics* is an online open access journal covering both the fundamental and applications of optics and photonics. *Photonics* strives to provide an avenue to allow authors to disseminate their scientific findings—both theoretical/ simulations and experimental works—in highly accessible peer-reviewed journal publications. The manuscript in *Photonics* will be handled with quick turnaround production processing time. We welcome authors to submit their manuscripts for publications in *Photonics*. Our goal in *Photonics* is to enable fast dissemination of high impact works to the scientific community.

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