Special Issue

Advanced Semiconductor Laser Diodes and Detectors

Message from the Guest Editors

The new generation of semiconductor lasers and detectors is moving towards small size, lightweight, higher performance, low power consumption, low price, new light generating and detecting quantum mechanism, which plays an important role in sensing, computing, medical treatment, 6G, quantum technology, automatic pilot, Lidar, advanced manufacturing and other industries. This Special Issue will focus on the advanced progress of mechanisms, materials, processes and applications of semiconductor laser diodes and detectors. Potential topics include but are not limited to the following:

- Energy band simulation design of semiconductors and detectors;
- High-power semiconductor lasers;
- Single-mode lasers including DFB , DBR, ECL and photonic crystal laser;
- Tunable laser and integrated laser devices;
- Lasers and detectors based on quantum mechanisms including ICL, QCL, T2SL, MCT and QCD et al.;
- Cooled and uncooled detectors;
- Multicolour FPA detector;
- High-operating-temperature detectors;
- Other high-performance semiconductor lasers and detectors.

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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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