Special Issue

Advanced Infrared Semiconductor Lasers and Integrated Optics Devices

Message from the Guest Editors

Infrared semiconductor laser diodes and integrated devices are important light sources due to their incomparable tuning ability, high efficiency and highly integrated features. The new generation of infrared semiconductor lasers has a greater focus on higher power outputs, low power consumption, purer spectra, narrower linewidths, advanced cascade structures, integrated devices and new laser-generated quantum mechanisms; these play important roles in industries such as detection, Lidar, gas sensing, computing, medical treatment, 6G, quantum technology, automatic pilot and advanced manufacturing. This Special Issue will focus on advances in the mechanisms, materials, processes and applications of infrared semiconductor lasers and integrated devices. Potential topics include, but are not limited to:

- High-power infrared semiconductor lasers;
- Single-mode lasers including DFB, DBR, ECL and photonic crystal lasers;
- Infrared cascade lasers including ICL and QCL;
- Narrow-linewidth DFB for silicon photonics;
- Low-dimensional infrared laser materials and quantum dot lasers;
- Hybrid- and on-chip-integrated silicon-based lasers and relative MOEMS devices.

Guest Editors

Dr. Cheng-Ao Yang

State Key Laboratory for Superlattices and Microstructures, Institute of Semiconductors, Chinese Academy of Sciences, Beijing 100083, China

Dr. Ying Yu

State Key Laboratory of Optoelectronic Materials and Technologies, School of Electronics and Information Technology, Sun Yat-sen University, Guangzhou 510275, China

Deadline for manuscript submissions

closed (30 June 2023)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/153499

Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

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