# Special Issue

# Power Scaling of Semiconductor Lasers

### Message from the Guest Editor

Scaling up on-chip diode laser power is of great importance for many emerging applications, such as integrated nonlinear optics, remote sensing, free space communication, infrared counter measure, and light detection and ranging (LIDAR). In recent years, great progress has been made in the power scaling of semiconductor lasers, at both the single emitter and integrated system level. Through new epi, waveguide, and cavity design, the output power of a single semiconductor laser emitter has been greatly increased while maintaining the single spatial mode. By use of various beam combining methods, the power and brightness of semiconductor lasers could be further improved. For this Special Issue, you are invited to submit research papers on advances in the power scaling of semiconductor lasers. Specific areas of interest in the topic include (but are not limited to) the following:

- New epi, waveguide, and cavity design for power scaling;
- Wavelength beam combining;
- Coherent beam combining;
- Direct diode laser systems;
- Hybrid photonic integration for power scaling.

### Guest Editor

Prof. Dr. Lin Zhu

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### Deadline for manuscript submissions

closed (30 June 2023)

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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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