Special Issue

Novel Developments in Optoelectronic Materials and Devices

Message from the Guest Editor

This Special Issue aims to highlight cutting-edge research and interdisciplinary efforts shaping the future of optoelectronics, with a focus on novel materials, advanced device architectures, and emerging applications. Scope of the Issue: We invite original research articles, reviews, and perspectives addressing key challenges and opportunities in optoelectronics. Topics include, but are not limited to, the following:
Next-generation materials: perovskites, 2D materials, organic semiconductors, and quantum dots.
Advanced photonic and optoelectronic devices: LEDs, solar cells, photodetectors, lasers, and optical modulators.
Flexible, stretchable, and wearable optoelectronics for healthcare and IoT applications.
Integration of optoelectronic systems with AI-driven technologies and neuromorphic computing.
Novel characterization techniques and theoretical modeling of optoelectronic processes.
Sustainable fabrication methods and recycling strategies for eco-friendly devices.
Metamaterials and metasurfaces, and the related optoelectronic materials and devices.

Guest Editor

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Deadline for manuscript submissions

30 September 2025

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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.

Editor-in-Chief

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