Special Issue

Optoelectronic Materials, Heterostructures and Devices

Message from the Guest Editors

This Special Issue covers the development of novel materials and their application in various optoelectronic devices, including photodetectors, light-emitting diodes (LEDs), lasers, solar cells, etc. Emphasis will be placed on the design, synthesis, and characterization of new materials and heterostructures, as well as their integration into functional devices. Topics of interest include, but are not limited to, the following:

- Novel optoelectronic materials, such as compound semiconductors, perovskites, colloidal quantum dots, and 2D materials;
- Heterostructures and interfaces, such as quantum wells/superlattices and van der Waals heterostructures;
- Simulation, fabrication, and optimization of optoelectronic devices, including photodetectors, LEDs, lasers, and solar cells;
- Advanced characterization techniques for optoelectronic materials and devices, such as photoluminescence, transient absorption spectroscopy, and near-field scanning optical microscopy;
- Integration of optoelectronic devices in sensing, imaging, communication, and energy harvesting;
- Plasmonic materials, devices, and applications.

Guest Editors

Dr. Aobo Ren

Dr. Kai Shen

Dr. Keren Li

Deadline for manuscript submissions

closed (15 June 2024)

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

mdpi.com/journal/electronics

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About the Journal

Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

Prof. Dr. Flavio Canavero
Department of Electronics and Telecommunications, Politecnico di Torino, 10129 Torino, Italy

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.8 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).