

Special Issue

New Perspectives in Semiconductor Optics

Message from the Guest Editors

The field of semiconductor optics is vast and intriguing with its applications in many fields including, but not limited to, energy detection and conversion, optical waveguides, optoelectronics, integrated optics, and optical communications. Moreover, due to the rich tunable and unique electro-optic, thermo-optic, and non-linear optical properties specific to semiconductor materials, cutting-edge, efficient, and low power-consuming optoelectronic, all-optical devices, chemical and biosensors, biomedical imaging and neuro-inspired ultra-fast optical computing devices are suggested. The prospects for these applications are even more exciting with the advent of semiconductor plasmonics, which offer next-generation photonic integrated circuits with ultra-small footprints and high-performance optical detectors. This Special Issue aims to collect the latest experimental and theoretical research articles on the electro-optical, thermo-optical, and non-linear properties of semiconductors and their applications. The scope of this Special Issue covers the advances in the field of semiconductor optics.

Guest Editors

Dr. Raj Vinnakota
Dr. Shantanu Saha
Dr. Yanhua Hong

Deadline for manuscript submissions

closed (15 June 2025)



Photonics

an Open Access Journal
by MDPI

Impact Factor 1.9
CiteScore 3.5



mdpi.com/si/171811

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

[mdpi.com/journal/
photonics](https://mdpi.com/journal/photonics)





Photonics

an Open Access Journal
by MDPI

Impact Factor 1.9
CiteScore 3.5



[mdpi.com/journal/
photonics](https://mdpi.com/journal/photonics)



About the Journal

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

Prof. Dr. Nelson Tansu

School of Electrical and Electronic Engineering (EEE), The University of Adelaide, Adelaide, SA 5005, Australia

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, Ei Compendex, CAPlus / SciFinder, and other databases.

Journal Rank:

CiteScore - Q2 (Instrumentation)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 15 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the second half of 2025).