Special Issue

Advances and Applications of Optical Waveguides

Message from the Guest Editor

This Special Issue aims to showcase the latest advances and emerging applications of optical waveguides, covering both theoretical and experimental developments. We welcome contributions that explore innovative waveguide structures, advanced modeling and simulation techniques, and novel integration strategies. Topics may include, but are not limited to, integrated photonics, specialty fibers, nonlinear and active waveguides, waveguide-based sensors, and design approaches for compact and broadband devices. Research areas may include (but are not limited to) the following:

- Novel optical waveguide structures and materials;
- Integrated photonic circuits and packaging;
- Nonlinear and active waveguides for signal processing;
- Specialty fibers and fiber-based devices;
- Waveguide-based sensors for biomedical and environmental applications;
- Advanced modeling, simulation, and optimization techniques;
- Fabrication technologies and process innovations;
- Broadband and compact waveguide couplers and splitters;
- Quantum photonics and waveguide-based quantum devices.

Guest Editor

Prof. Dr. Shuo-Yen Tseng

Department of Photonics, National Cheng Kung University, Tainan 701, Taiwan

Deadline for manuscript submissions

30 September 2026

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/253762

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

mdpi.com/journal/applsci

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/journal/applsci

About the Journal

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

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

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

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

MDPI