Special Issue

Advances in Polymer Optical Fiber Sensors: Materials, Designs and Applications

Message from the Guest Editor

In recent years, polymer optical fibers (POFs) have gained significant attention due to their large sensitivity to external environments, biocompatibility, and easy handling, among other advantages. The use of polymers as fiber materials allows for cost-effective manufacturing and customization to meet specific sensing requirements. The purpose of this Special Issue is to present advances in fundamental research, development of technologies, as well as innovative sensing applications of POFs. Topics of interest include, but are not limited to, theoretical and experimental original work on the following:

- POF fabrication with new materials or structures;
- Manufacturing of sensor devices;
- Intensity-based sensors;
- Phase-shift-based sensors;
- Grating-based sensors;
- Interference-based sensors;
- Optical time-domain reflectometry sensors:
- Surface plasmon resonance sensors:
- Chemical and biological sensors;
- Vital signs monitoring;
- Structural health monitoring;
- Environmental monitoring;
- Sensor networking and distributed sensing.

Guest Editor

Dr. Xuehao Hu

Department of Electromagnetism and Telecommunication, University of Mons, Mons, Belgium

Deadline for manuscript submissions

30 October 2025

hv

Photonics

an Open Access Journal by MDPI

Impact Factor 1.9
CiteScore 3.5

mdpi.com/si/197872

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

mdpi.com/journal/photonics

MDPI

Photonics

an Open Access Journal by MDPI

Impact Factor 1.9
CiteScore 3.5

mdpi.com/journal/photonics

MDPI

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 14.8 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the first half of 2025).