

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

20 April 2025



Photonics

an Open Access Journal
by MDPI

Impact Factor 2.1
CiteScore 2.6



mdpi.com/si/197872

Photonics
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 2.1
CiteScore 2.6



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



About the Journal

Message from the Editor-in-Chief

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:

JCR - Q2 (Optics)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is
provided to authors approximately 14.9 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 2024).