

Special Issue

Polarization Optics in Biomedical Applications

Message from the Guest Editors

All manuscripts will be internationally peer reviewed. We solicit papers covering various topics of interest that include, but are not limited to, the following:

PROPERTIES OF TISSUES

- Tissue birefringence, diattenuation and depolarization, Poincare sphere
- Polarimetric phantoms of biological tissues
- Interaction of polarized light with cells/tissue measurements and modeling

NOVEL POLARIMETRIC TECHNIQUES AND METHODS

- Mueller–Stokes polarimetry
- Polarized light microscopy
- Polarized light endoscopy
- Polarization-based fluorescence imaging
- Circular dichroism
- Shaped light with Orbital Angular Momentum
- Higher-order Poincare sphere, generalized Mueller matrix formalism
- Interaction of spin and orbital angular momentum of light

TOPOLOGICAL STATES AND SCATTERING

ELASTOGRAPHY BIOMEDICAL APPLICATIONS OF POLARIZED LIGHT

- Reproductive medicine
- Ophthalmology
- Neurosurgery
- Gastroenterology
- Cardiology
- Dermatology
- Cancer screening

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Deadline for manuscript submissions

closed (30 January 2024)



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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.

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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).