

Special Issue

Novel Laser Technologies and Their Applications

Message from the Guest Editors

Recent advances in high-power laser technology have introduced novel phenomena and mechanisms in materials. To reveal the complex high-temperature and high-pressure physical processes with significant multiphase, multiscale and multifield coupling characteristics, we require advanced computational methods, diagnostic technologies and artificial intelligent (AI) technology. This understanding could accelerate the application of high-power lasers in various industrial sectors, such as advanced manufacturing, thermal protection, rock removal, laser cleaning, laser weapons, and a wide range of other areas. This Special Issue aims to be a forum for the presentation of the latest developments in basic and applied research in the field of laser interaction with matter. Potential topics include but are not limited to:

- Phenomena and mechanisms of laser ablation and damage;
- Theoretical, numerical and experimental characterization;
- Laser irradiation effect and mechanism;
- Laser spectrum technology and applications;
- High-power lasers.

Guest Editors

Dr. Changqing Cao

School of Physics and Optoelectronic Engineering, Xidian University, Xi'an 710071, China

Dr. Lixin Liu

School of Optoelectronic Engineering, Xidian University, Xi'an 710071, China

Deadline for manuscript submissions

closed (20 August 2024)



Photonics

an Open Access Journal
by MDPI

Impact Factor 2.1
CiteScore 2.6



mdpi.com/si/162172

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,
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 14.8 days after
submission; acceptance to publication is undertaken in 2.6
days (median values for papers published in this journal in
the first half of 2024).