Special Issue

Laser-Induced Self-Formed Structures: From Physical Phenomena and Theoretical Concepts to Engineering Applications

Message from the Guest Editors

Laser processing provides a practical means of generating structures with fine profiles at the micro-/nanoscale. However, the scale of features strongly depends on the laser wavelength due to the diffraction limit. On the other hand, there is no diffraction-limited constraint imposed on the scale of laser-induced self-formed structures. This kind of structure is the result of surface behavior after the irradiation of a specific laser. Therefore, investigation of the formation and characteristics of these structures and relevant laser processing technologies is of great significance for the processing of micro-/nanostructures.

Keywords:

- laser processing
- self-formed structures
- micro/nano
- surface behavior

Guest Editors

Dr. Huaiyu Cui

National Key Laboratory of Laser Spatial Information, School of Aeronautics, Harbin Institute of Technology, Harbin 150001, China

Dr. Jinshi Wang

State Key Laboratory of Precision Measurement Technology and Instruments, Laboratory of Micro/Nano Manufacturing Technology (MNMT), Tianjin University, Tianjin 300072, China

Deadline for manuscript submissions

20 October 2026

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/249166

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

MDPI

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, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

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