

Special Issue

Laser Processing of Materials for Advanced Manufacturing

Message from the Guest Editors

This Special Issue aims to provide a comprehensive overview of recent advances in laser processing technologies with a strong focus on process engineering, materials performance, and industrial applications. Contributions addressing both fundamental aspects of laser–material interaction and applied research in manufacturing environments are welcome. Topics of interest include, but are not limited to:

- Laser welding and joining;
- Laser cutting and drilling;
- Laser surface treatment (hardening, cladding, alloying, remelting);
- Laser additive manufacturing (e.g., powder bed fusion, directed energy deposition);
- Surface functionalization and texturing;
- Residual stress and distortion control;
- Microstructure evolution and phase transformations;
- Laser forming processes;
- Process modeling and numerical simulation;
- Process monitoring and real-time control;
- Mechanical performance and structural integrity of laser-processed components;
- Process optimization and industrial scalability;
- Sustainability and energy efficiency in laser manufacturing.

Submissions bridging process parameters, microstructural development, and mechanical performance are particularly welcome.

Guest Editors

Dr. Fábio A.O. Fernandes

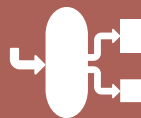
TEMA— Centre for Mechanical Technology and Automation,
Department of Mechanical Engineering, University of Aveiro, 3810-193
Aveiro, Portugal

Dr. Bappa Acherjee

Department of Production and Industrial Engineering, Birla Institute of
Technology, Mesra, Ranchi 835215, India

Deadline for manuscript submissions

30 September 2026



Processes

an Open Access Journal
by MDPI

Impact Factor 3.4
CiteScore 5.7



mdpi.com/si/274289

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

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





Processes

an Open Access Journal
by MDPI

Impact Factor 3.4
CiteScore 5.7



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



About the Journal

Message from the Editor-in-Chief

You are invited to contribute either a research article or a comprehensive review for consideration and publication in *Processes*. *Processes* is published in open access format – research articles, reviews, and other content are released on the internet immediately after acceptance. The scientific community and the general public have unlimited, free access to the content. As an open access journal, *Processes* is supported by the authors and their institutes through the payment of article processing charges (APCs) for accepted papers. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Giancarlo Cravotto

Department of Drug Science and Technology, University of Turin, Via P. Giuria 9, 10125 Turin, 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, AGRIS, and other databases.

Journal Rank:

CiteScore - Q2 (Chemical Engineering (miscellaneous))