

Special Issue

Advances in Laser-Based Approaches in Materials Processing and Additive Manufacturing

Message from the Guest Editors

This Special Issue aims to include research on recent developments, current trends, and challenges in laser-based techniques for materials processing and additive manufacturing. We invite submissions of original research articles, thorough reviews, and case studies that consider, but are not limited to, the following:

- Laser-based surface modification and enhancement;
- Laser shock peening for fatigue and wear resistance;
- Laser-assisted additive manufacturing (L-PBF, DED, SLA, etc.);
- Hybrid laser processing techniques;
- Advances in laser-material interaction and process optimization;
- Post processing techniques for additive manufacturing;
- In situ monitoring and control strategies in laser processing;
- Applications of ultrafast and high-power lasers in manufacturing;
- Laser modelling and parametric predictions;
- Machine learning and system integration for additive manufacturing;
- Dynamic digital twin for laser-assisted manufacturing.

Guest Editors

Dr. Pathak Sunil

Dr. Ashish Shukla

Dr. Petr Hauschwitz

Deadline for manuscript submissions

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*Journal of Manufacturing and
Materials Processing*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
jmmp@mdpi.com

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About the Journal

Message from the Editor-in-Chief

Journal of Manufacturing and Materials Processing (JMMP) (ISSN 2504-4494) is a new MDPI peer-reviewed, open access venue with a focus on the scientific fundamentals and engineering methodologies of manufacturing and materials processing. We offer an online platform facilitating effective exchange of innovative scientific and engineering ideas and the dissemination of recent, original, and significant research and developmental findings. On behalf of the Editorial Board, I extend an invitation to our scientific and engineering colleagues to contribute high-quality, innovative, and ground-breaking research articles to *JMMP*.

Editor-in-Chief

Prof. Dr. Steven Y. Liang
George W. Woodruff School of Mechanical Engineering, Georgia
Institute of Technology, Atlanta, GA 30332-0405, USA

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.2 days after submission; acceptance to publication is undertaken in 3.6 days (median values for papers published in this journal in the first half of 2025).