Special Issue

Advances in Laser Processing of Metals and Alloys

Message from the Guest Editor

Laser processing of metals and alloys enables high precision, efficiency, and flexibility. At the same time, it enables innovative functionalities of workpieces that meet the current requirements of ecology and digitalization. These include welded lightweight car bodies, the welding of copper-based electrical components, the microstructuring of surfaces for highstrength and airtight hybrid components, and many others. This Special Issue aims to present research and development results in the fundamentals and applications of laser processing of metals and alloys. Topics of interest include laser processing of advanced materials for electromobility, energy storage, tribology. and medicine. It covers a wide range of technologies, such as proven welding, cutting, and drilling, as well as advanced laser-based 3D printing, micro- and nanostructuring, and cleaning processes. In addition, the development of new laser processing systems, process monitoring, and real-time control are also very welcome.

Guest Editor

Prof. Dr. Matiia Jezeršek

Faculty of Mechanical Engineering, University of Ljubljana, 1000 Ljubljana, Slovenia

Deadline for manuscript submissions

31 December 2025



Metals

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.3



mdpi.com/si/222178

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

mdpi.com/journal/ metals





Metals

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.3



About the Journal

Message from the Editor-in-Chief

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

Editor-in-Chief

Prof. Dr. Yong Zhang

Beijing Advanced Innovation Center of Materials Genome Engineering, State Key Laboratory for Advanced Metals and Materials, University of Science and Technology Beijing, 30 Xueyuan Road, Beijing 100083, China

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, Ei Compendex, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Metals and Alloys)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18 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 2025).

