





an Open Access Journal by MDPI

Laser Processing and Additive Manufacturing of Metallic Materials

Guest Editors:

Dr. Xin Chen

Welding Engineering and Laser Processing Centre, School of Aerospace, Transport and Manufacturing, Cranfield University, Cranfield MK43 0AL, UK

Dr. Tao Zhang

Light Alloy Research Institute, Central South University, Changsha 410083, China

Dr. Yongle Sun

Welding Engineering and Laser Processing Centre, School of Aerospace, Manufacturing and Transport, Cranfield University, Cranfield MK43 OAL, UK

Deadline for manuscript submissions:

closed (29 February 2024)

Message from the Guest Editors

Dear Colleagues,

Laser processing and additive manufacturing are revolutionary techniques for the advanced manufacturing of a broad range of materials, especially metallic materials used in structural applications. This Special Issue aims to provide a platform for appreciating state-of-the-art advances, inspiring and promoting the new development and applications of laser processing and the additive manufacturing of metallic materials. Topics include but are not limited to the following areas:

- Laser welding;
- Laser cladding;
- Laser cutting;
- Laser-arc hybrid welding and additive manufacturing;
- Laser-based additive manufacturing;
- Wire arc additive manufacturing (WAAM);
- Electron beam-based additive manufacturing;
- Modelling and simulation of laser processing and additive manufacturing;
- Al and machine learning for laser processing and additive manufacturing;
- Monitoring and control of laser processing and additive manufacturing;
- Quality inspection of laser processing and additive manufacturing;
- Micro and nano laser welding and additive manufacturing

Specialsue









an Open Access Journal by MDPI

Editors-in-Chief

Prof. Dr. Hugo F. Lopez

Department of Materials Science and Engineering, College of Engineering & Applied Science, University of Wisconsin-Milwaukee, 3200 N. Cramer Street, Milwaukee, WI 53211, USA

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

Message from the Editorial Board

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 metallurgical field the 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.

Author Benefits

Open Access: free for readers, with <u>article processing charges (APC)</u> paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science),

Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q2 (Metallurgy & Metallurgical Engineering) / CiteScore - Q1 (Metals

and Alloys)

Contact Us

Metals Editorial Office MDPI, St. Alban-Anlage 66 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/metals metals@mdpi.com X@Metals_MDPI