





an Open Access Journal by MDPI

Laser-Assisted Processing of Metals and Alloys

Guest Editors:

Dr. Andrei C. Popescu

Center for Advanced Laser Technologies (CETAL), National Institute for Lasers, Plasma and Radiation Physics, 077125 Magurele, Romania

Dr. Liviu Duta

National Institute for Laser, Plasma and Radiation Physics, RO-077125 Magurele, Romania

Prof. Dr. Ion N. Mihailescu

Lasers Department, National Institute for Lasers, Plasma and Radiation Physics, 077125 Magurele, Romania

Deadline for manuscript submissions:

closed (28 February 2023)

Message from the Guest Editors

Dear Colleagues,

We start from the premise that any material could be melted/vaporized under high intensity laser irradiation by either pulses or continuous beam. New top industrial applications can be envisaged and designed on this basis. Thus, one can tune the melting process to develop high-performance cutting, welding, marking or additive manufacturing technologies.

On the other hand, laser beams can hardly process thick metal sheets because of the mandatory removal of large amounts of molten material from the irradiation site, and the inherent geometrical difficulties.

New industrial challenges were proposed in recent years via various laser-assisted processes. This Special Issue is opened to specialists in materials science and metallurgy, where lasers stand for a processing tool of metallic materials. High quality, novel and original research papers or reviews that highlight the latest trends in laser-assisted processing of metallic materials will be welcomed to this Special Issue.

Waiting for your important contributions and wishing you prolific scientific achievements under these hard pandemic times!











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