Special Issue

Laser Processing of Metals and Alloys

Message from the Guest Editors

Laser processing is a multi-parameter process, and it is necessary to take into account the physics of the interaction of the substance with concentrated energy flow, the hydrodynamics of the melt in the welding bath, the peculiarities of the crystallization processes, the formation of microstructure and properties at extreme speeds of heating and cooling, and much more. On the other hand, in the development of technological processes and subsequent implementation in the industry, it is necessary to take into account the peculiarities of obtaining products. These issues are connected incessantly.

This Special Issue will be comprised of articles which report new and progressive research results in the field of laser and hybrid welding, cladding, additive manufacturing, and the surface treatment of meals and alloys, including all steps of technological processes' development. Manuscripts will be welcomed from both fundamental scientific researchers and authors belonging to industrial companies that are involved in the field.

Guest Editors

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Deadline for manuscript submissions

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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

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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).

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