

Special Issue

High-Efficiency Processing of Metals and Alloys

Message from the Guest Editors

High-efficiency processing of metals and alloys includes become the most relevant today technologies and techniques of processing metals and most advanced alloys, including high-performance and high-entropy ones, their fast adaptation to the most relevant production tasks for the broad field of applications, and green aspects of their implementation in the conditions of the real production. Newly developed technologies and equipment contribute to more efficient materials processing using high-energy fluxes, energy redistribution in the spot, redirection of the energy fluxes using assisting means, and efficient processing of the advanced and super-hard materials that were not possible to achieve with the traditional processing technologies using conventional production approach. Application of the high-efficiency processing technologies and their spread positively influence and accelerate the transfer to the next technological paradigm, multi-component material, and nanosystems. The special issue is devoted to the most recent achievements in the high-efficiency processing of metals, the most relevant and advanced alloys.

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

Prof. Dr. Yong Zhang

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.7 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the second half of 2025).