Special Issue

Additive Manufacturing and Processing of Metallic Alloys and Composites

Message from the Guest Editors

We are pleased to invite you to contribute to a Special Issue titled “Additive Manufacturing and Processing of Metallic Alloys and Composites” . Additive manufacturing (AM) continues to revolutionize the way we design, manufacture, and process metallic alloys and composite materials, opening new possibilities in industries such as the aerospace, automotive, biomedical, and energy sectors. This Special Issue seeks to bring together cutting-edge research and developments in this exciting area.

Topics of interest include but are not limited to the following:

- Additive manufacturing techniques: innovations in LPBF, DED, binder jetting, cold spray, EBM, and WAAM.
- Materials for additive manufacturing: design and processing of metallic alloys (e.g., titanium, steels, superalloys), composites, and multi-material AM.
- Processing–structure–property relationships: microstructural evolution, mechanical properties, residual stress, and defect mitigation in AM parts.
- Computational modeling and simulation: modeling thermomechanical behavior, microstructure evolution, and multi-physics simulations of AM materials.

Guest Editors

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Deadline for manuscript submissions

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About the Journal

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 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.

Editors-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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