

Special Issue

Advances in Metallic Heat Treatment and Surface Engineering

Message from the Guest Editor

Heat treatment is a process in which a metal material is heated or cooled in order to change the internal or surface structures of the metal and thus obtain the properties required. In this Special Issue, articles regarding the use of heat treatments with various metal materials are sought, especially those focused on phase structures (including surface) and mechanical properties, informing readers about the latest ongoing research and development activities, on the current state of the art, and on prior history. The Special Issue will seek to encompass (but will not be limited to) the following topics:

- The effects of alloy composition on workability.
- The microstructure evolution of metal materials during heat treatment, and the relationship between the structures and final mechanical properties (static, dynamic, and cyclic behavior in relevant final applications).
- Influences of heat treatments on the environmental sensitivity of metal materials (including corrosion and hydrogen embrittlement, etc.).
- Surface hardening for metal materials.

Guest Editor

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Deadline for manuscript submissions

closed (28 February 2023)



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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.

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.8 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 2024).