Special Issue

Heat Treatment, Microstructure and Properties of Nonferrous Metals and Alloys

Message from the Guest Editors

Nonferrous metals and alloys are groups of high-performance materials with outstanding physical and mechanical properties, and they are widely used in the aerospace, automotive, marine, chemical and biomedical industrial sectors. The microstructure and properties of nonferrous alloys are mainly governed by their fabrication and thermomechanical processing routes, among which, heat treatment is known to be an imperative step in tailoring their microstructures and optimizing their properties. In this Special Issue, we will accept papers that cover both experimental and simulation work regarding heat treatment and the microstructures and properties of nonferrous alloys, including but not limited to Ti alloys, Al alloys, Mg alloys, Ni alloys, Zr alloys, Cu alloys, etc. We aim to collect a wide array of articles regarding the effect of heat treatment on microstructures and mechanical properties and the relationship between the microstructures and properties of these alloys processed via casting, forging, rolling, sintering and additive manufacturing.

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.

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