Special Issue

Current Opinion and Development in Superalloy Research

Message from the Guest Editor

In this Special Issue of *Metals*, an open access forum is provided for publishing original papers that investigate the correlations between thermomechanical processing parameters and generated microstructures to understand the physical and mechanical properties of superalloys, including nickel- and cobalt-based superalloys. The following aspects of the science and engineering of superalloys are of particular interest:

- Original research studies that relate to the understanding of mechanical properties of superalloys obtained following specific processing/heat treatment route (Experimental, theoretical and simulation modeling).
- Understanding the mechanisms involved in microstructure evolution and phase transformation during the processing of superalloys, specifically as they relate to the understanding of final mechanical properties.
- Nano/micro/macro-structure characterisation and chemistry of superalloys used in power generation, nuclear, aerospace and other critical applications.
- Micro/macro texture devolvement during thermo-mechanical processing of superalloys.

Guest Editor

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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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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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