

Special Issue

Metallic Materials for High-Temperature Processing and Applications

Message from the Guest Editor

This Special Issue aims to present the latest research concerning high-temperature materials and high-temperature processing. Many future materials will need to encounter extreme and highly demanding environments involving high temperatures. Typical examples include materials for use in aerospace, defense, the nuclear industry, and energy generation. Such materials may need to be resistant to high stresses, oxidation, fatigue, creep, erosion, and wear. Research articles on the high-temperature processing and applications of metals and alloys, intermetallics, ceramics and glasses, coatings, metal-ceramic composites, and energy materials are welcome for consideration of publication in this Special Issue. A wide range of processes will be considered including solid-state, liquid-state, gas-liquid-solid state, and solidification processes, as well as techniques using additive manufacturing, lasers, coating technology, sintering, self-propagating high-temperature synthesis, recycling of materials, and the high-temperature forming and joining of materials.

Guest Editor

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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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