Special Issue

High-Temperature Behavior of Metals

Message from the Guest Editors

The design of new alloys or metal-based composites, and the optimization of processes involving whichever form of high-temperature deformation can't disregard the characterization and/or modelling of the high-temperature structural response of the material. Similar considerations hold in the case of conventional or innovative metallic materials, where 'high-temperature deformation' occurs as a consequence of high-temperature service of the structural components. The effects on the initial microstructure, and the microstructural changes taking place during in-service deformation are important for the optimization of high-temperature structural alloys. The main focus on this Special Issue is to collect contributions dealing with metallic materials and presenting the recent advances in the field of high-temperature structural behavior of metallic materials, which is of interest during both the manufacturing and the service stages of the components' life and which is intimately linked to microstructural features, their evolution with deformation or exposure time, and thus other material characteristics of potential interest for specific applications.

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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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