# Special Issue

# Advances in Creep Behavior of Metallic Materials

### Message from the Guest Editors

Creep is the tendency of a solid material to move slowly or deform permanently under the influence of persistent mechanical stresses. After a material creeps, its performance will deteriorate over time. High temperature is the trend of modern industrial development, and high efficiency and reliability are a contradiction between the two aspects. In the field of transport and in the energy and chemical industries, creep is one of the main deformation mechanisms for the failure of components working under high stress or high temperature, which affects the safe and effective service of structural components. Hence, the study of creep-resistant materials is significant for industrial development. For this Special Issue, we welcome the submission of original research articles, communications, and reviews on recent advances in the creep behavior of metallic materials, with a particular interest in the optimization of composition and microstructural design, the preparation of new creep-resistant metal materials, and the latest advances in creep experiments, characterization of microstructural evolution, and computational simulations at different scales.

### Guest Editors

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### Deadline for manuscript submissions

closed (30 June 2025)

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# About the Journal

## Message from the Editor-in-Chief

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.

## Editor-in-Chief

Prof. Dr. Yong Zhang
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