# Special Issue

# Microstructure, Tensile Properties and Creep Behavior of Metallic Materials

## Message from the Guest Editors

Under sustained stress, metallic materials undergo creep deformation at a low strain rate, which can been seen in various industries. For example, in the field of forming manufacturing, creep can be used to shape large sheet metal components, while for the supercritical power generating units, creep at high temperatures can reduce the reliability of components. During the creep process, time-varying dislocations, grains, second phases and other microstructures are interact, making the microstructural evolution extremely complex and affecting the macroscopic mechanical properties of the metallic material. Understanding the microscopic mechanism of this process is of great significance for the effective regulation of material properties and reliable prediction of material life. In this Special Issue, we welcome research on the creep behavior of metallic materials ranging from their microstructural evolution to their macroscopic properties. Cross-scale analysis is of particular interest.

## Guest Editors

Dr. Youliang Yang
Dr. Ziyao Ma
Prof. Dr. Lihua Zhan

## Deadline for manuscript submissions

closed (25 October 2025)

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**CiteScore 5.3**

mdpi.com/si/212313

*Metals*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
metals@mdpi.com

mdpi.com/journal/metals

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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
Beijing Advanced Innovation Center of Materials Genome Engineering, State Key Laboratory for Advanced Metals and Materials, University of Science and Technology Beijing, 30 Xueyuan Road, Beijing 100083, China

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