

## Special Issue

# Hot Deformation of Metal and Alloys

### Message from the Guest Editor

Hot working is an important forming method of metal materials, which is related to deformation flow stress, deformation mechanism, dynamic softening mechanism and hot deformation damage. With different high temperatures and strain rates, metal and alloys will have various responses at macroscale, such as flow stress. At the same time, the microstructures evolve with confrontation between hardening mechanism and softening mechanism (dynamic recovery and dynamic recrystallization). Moreover, hot deformation damage is a weakening form that should be avoided. The deep understanding of hot deformation is the basis to guide for optimization of the process and high temperature forming of materials. This Special Issue will discuss the constitutive models, microstructure evolution, plastic deformation, softening mechanism and hot processing map of metals and alloys during hot deformation.

### Guest Editor

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### Deadline for manuscript submissions

closed (30 April 2024)



## 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.

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### Editor-in-Chief

Prof. Dr. Yong Zhang

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