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# Advances in Metal Materials: Structure, Properties and Heat Treatment

Guest Editor:

**Dr. Jiayi Zhang**
Faculty of Materials Science and Engineering, Jiangxi University of Science and Technology, Ganzhou 341000, China

Deadline for manuscript submissions:
**closed (25 May 2025)**

## Message from the Guest Editor

Dear Colleagues,

This research necessitates the precise manipulation of heat treatment process parameters, encompassing temperature, duration, and cooling rate, to systematically analyze the phase transformation behavior, grain refinement mechanisms, and mechanical property evolution of metallic materials under varying heat treatment conditions. It aims to elucidate the influence of heat treatment on the microhardness, strength, toughness, creep resistance, fatigue endurance, and corrosion resistance of metallic materials, thereby furnishing a theoretical foundation for optimizing material properties to meet the demands of advanced engineering applications.

Dr. Jiayi Zhang
*Guest Editor*

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## 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

## 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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**Journal Rank:** JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Metals and Alloys)

## Contact Us

*Metals* Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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mdpi.com/journal/metals
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