



*metals*



an Open Access Journal by MDPI

## Studies on Wear, Friction and Fatigue Behaviour of Rail Transit Metallic Materials

Guest Editor:

**Prof. Dr. Yizhu He**

School of Materials Science and Engineering, Anhui University of Technology, Maanshan 243099, China

Deadline for manuscript submissions:

**closed (30 June 2023)**

### Message from the Guest Editor

Dear Colleagues,

The advancement of railway technologies towards high-speed and heavy-haul railways has become an important development target for countries all over the world. Wheel-rail is a crucial part of the vehicle track system, and its service status is directly related to the safety and economy of train operation. Wear, friction and fatigue occur on wheel tread and the trail surface, which negatively affects the service life of trains.

This Special Issue focuses on the wear, friction and rolling contact fatigue of wheel and rail in high-speed/heavy-haul types of railway. The research collated in this Special Issue will provide a beneficial reference for reducing wheel/rail surface damage and ensuring the reliable operation of railway systems.

Prof. Dr. Yizhu He

*Guest Editor*



[mdpi.com/si/115698](https://mdpi.com/si/115698)

# Special Issue



an Open Access Journal by MDPI

## Editors-in-Chief

### **Prof. Dr. Hugo F. Lopez**

Department of Materials Science  
and Engineering, College of  
Engineering & Applied Science,  
University of Wisconsin-  
Milwaukee, 3200 N. Cramer  
Street, Milwaukee, WI 53211, USA

### **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 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.

## Author Benefits

**Open Access:** free for readers, with **article processing charges (APC)** paid by authors or their institutions.

**High Visibility:** indexed within **Scopus**, **SCIE (Web of Science)**, **Inspec**, **CAPLUS / SciFinder**, and **other databases**.

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

## Contact Us

Metals Editorial Office  
MDPI, St. Alban-Anlage 26  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/metals](http://mdpi.com/journal/metals)  
[metals@mdpi.com](mailto:metals@mdpi.com)  
[X@Metals\\_MDPI](https://twitter.com/X@Metals_MDPI)