



## Microstructure—Mechanical Property Relationships in High-Strength Steels

Guest Editors:

**Prof. Dr. Koh-ichi Sugimoto**

School of Science and  
Technology, Department of  
Mechanical Systems Engineering,  
Shinshu University, 4-17-1  
Wakasato, Nagano 380-8553,  
Japan

**Dr. Tomohiko Hojo**

Institute for Materials Research,  
Tohoku University, 2-1-1  
Katahira, Aoba-ku, Sendai 980-  
8557, Japan

Deadline for manuscript  
submissions:

**closed (31 March 2024)**

### Message from the Guest Editors

This Special Issue of *Metals* has as its focus the microstructure–mechanical property relationships in (1) traditional high-strength steels such as ferritic/pearlitic steels, precipitation-hardening steels, bainitic/martensitic steels, maraging steels, stainless steels, bearing steels, spring steels, rail steels, etc. Additionally, we intend to highlight (2) advanced high-strength steels such as dual-phase steels, complex phase steels, low-alloy TRIP-aided steels with a different matrix structure, medium-/high- Mn steels, medium-/high- entropy steels, low-density steels, etc. In addition to inviting submissions on these topics, we also welcome research articles on mechanical properties such as tensile properties, formability, toughness, fatigue properties, delayed fracture strength, wear properties, and so on, tested in several conditions such as elevated and cryogenic temperatures, corrosive atmosphere, etc.





an Open Access Journal by MDPI

## 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.

## 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, Ei Compindex, CAPlus / SciFinder, and other databases.

**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  
[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](#)