



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

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

mdpi.com/journal/metals
metals@mdpi.com
[X@Metals_MDPI](https://twitter.com/X@Metals_MDPI)