Special Issue

Phase Transformation and Microstructure Characterization in Steels

Message from the Guest Editor

There is a wide variety of microstructures and properties that can be generated by solid-state transformation and processing in steels, which are leading to numerous exciting discoveries in the context of iron and its alloys today. Phase transformation in steels cause a combination of diverse microstructures, leading to the kaleidoscope of performances. However, the processing, microstructure, and property relationships in steels continue to present challenges to researchers because of the complexity of phase transformation and the wide scope of microstructures and properties achievable. This Special Issue is focused on the recent development trends of steels, such as high strength and toughness, wear resistance, corrosion resistance, etc., and the state of metals and their alloys. The Special Issue also aims to outline fundamental trends in the field of modeling and engineering applications and the relationship of microstructure characterization and properties in steels.

Guest Editor

Dr. Na Min

Laboratory for Microstructures, School of Materials Science and Engineering, Shanghai University, Shanghai 200444, China

Deadline for manuscript submissions

closed (25 October 2024)

Metals

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.3

mdpi.com/si/129982

Metals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
metals@mdpi.com

mdpi.com/journal/metals

Metals

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.3

mdpi.com/journal/metals

About the Journal

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.

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

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, Ei Compendex, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Metals and Alloys)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).

MDPI