



Inclusions in Steels and Alloys

Guest Editors:

Prof. Dr. Min Wang

State Key Lab of Advanced Metallurgy, Institute of Research of Iron & Steel, University of Science & Technology Beijing, Beijing 100083, China

Prof. Dr. Xingang Ai

School of Materials and Metallurgy, University of Science and Technology Liaoning, Anshan 114051, China

Deadline for manuscript submissions:

closed (31 May 2023)

Message from the Guest Editors

Dear Colleagues,

Inclusions have adverse effects on the continuity of the matrix and the properties of steels and alloys. The size, quantity, type, morphology and distribution of inclusions in the matrix have impacts on the properties and final service life of steels and alloys. Therefore, the realization of the high quality and cleanliness of the variety steel is closely related to the metallurgical engineering of the inclusions.

This Special Issue aims to provide a platform for academic exchange to explore new methods and technologies for three-dimensional characterization, quantitative analysis, and phasing characterization of non-metallic inclusions in steel; understand the formation, growth, floating removal, slag adsorption and shell capture of inclusions in molten steel in a metallurgical reactor; analyze the source and evolution of non-metallic inclusions in steel, the relationship between them and the properties of the final products; understand the inheritance relationship and genetic law between inclusions in alloys and the cleanliness of steels; and to show more new achievements and discoveries related to inclusions.





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 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

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