Special Issue

Inclusions in Steel and Other Metallic Materials

Message from the Guest Editor

Nonmetallic inclusions can be divided into endogenous (produced by the chemical reaction between components dissolved in liquid metal) and exogenous (from the outside, in the form of particles of refractory or slag). They can arise at all stages of the process. The increasing requirements of metal purity necessitate the reduction in number and size of nonmetallic inclusions in it. The tightening of standards forced to take a number of studies to understand the phenomena of liquid metal and inclusions flow at different stages of its production. Since the inclusions are lifted by the liquid metal, it is necessary to analyze the structure of the flow and possibilities of the inclusions separation from metal. The current Special Issue focuses on the newest research concerning different techniques used to investigate the inclusions in metallic materials. Since the experimental research performed on the liquid metalduring standard operating conditions—is limited due to the high temperatures and opacity of the fluid, the process is often analyzed based on the research on the physical (mostly water) models and using numerical modeling techniques.

Guest Editor

Prof. Dr. Marek Warzecha

Institute of Metallurgy and Metal Technology, Czestochowa University of Technology, Armii Krajowej 19, 42-201 Czestochowa, Poland

Deadline for manuscript submissions

closed (30 April 2020)



Metals

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.3



mdpi.com/si/32571

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



About the Journal

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.

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

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).

