Special Issue

Advanced Metal Casting Processes: Latest Research, Insights, and Challenges

Message from the Guest Editor

Metal casting is one of the oldest manufacturing techniques in human history, but it undergoes constant evolution in order to adapt to the particular needs of each era. The goal of this Special Issue is to foster innovative solutions to address current industrial challenges and provide fresh insights for the metal casting community. We will be covering all aspects of any metal casting process, including, but not limited to, low- and high-pressure die casting, sand and investment casting, etc., with particular interest on the latest industrial research and developments. We welcome reviews and research studies on the following sub-topics:

- Alloy and equipment development for process optimization;
- Simulation approaches to predict solidification;
- Sustainability and recyclability challenges;
- Manufacture–structure–properties relationship;
- Pre- and post-processing techniques to improve casting integrity;
- Novel casting processes.

Guest Editor

Dr. Jaime Lazaro-Nebreda
Brunel Centre for Advanced Solidification Technology, Brunel University London, London UB8 3PH, UK

Deadline for manuscript submissions

28 February 2026

Metals

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.3

mdpi.com/si/204103

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 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).

MDPI