Special Issue

Processes, Properties and Applications of Metal Additive Manufacturing

Message from the Guest Editors

Additive manufacturing (AM) and three-dimensional (3D) printing, based on the innovational principle of the incremental addition of a material to build a part directly in its final or near-final geometry, have been accelerating the development of advanced manufacturing technologies. In recent years, after the long-term contribution of metal AM research in improving component densification and forming quality, it has entered a new stage of development where more attention is being paid to the enhancement and breakthrough of mechanical properties and the functionalization of components. At present, this work has gradually developed several prominent research hotspots including the multi-scale modeling and in situ monitoring of AM process, AM of nanoparticle-reinforced metal matrix composites, AM of graded functional materials, innovation design and the AM of function-driven porous structures, etc.

In this Special Issue, we welcome articles that focus on the novel designs, metallurgical process controls, property characterizations and particular applications of additive manufactured metals.

Guest Editors

Dr. Chenglong Ma
Dr. Hongmei Zhang
Dr. Shuai Ma

Deadline for manuscript submissions

closed (31 July 2024)

Metals

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.3

mdpi.com/si/130579

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 18.7 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the second half of 2025).

MDPI