Special Issue

Advances in Manufacturing and Machining Processes of Metals

Message from the Guest Editors

Metal manufacturing and machining are undergoing a remarkable transformation, driven by demands for higher efficiency, precision, and sustainability in modern industry. As a key manufacturing process, metal machining remains crucial for achieving near-perfect surface finish and surface integrity, as well as the within-tolerance geometric accuracy in component interactions. Emerging technologies are reshaping these fields: additive manufacturing, along with hybrid approaches combining additive and subtractive techniques, enables the creation of complex geometries while cutting material waste. Sustainability is a core focus. Industry 4.0 elements are also being increasingly integrated.

This collection compiles the latest advancements, offering a comprehensive view of the current progress and trends in these areas. It highlights innovations that will define the future of metal manufacturing and machining.

- manufacturing
- machining
- machine tools
- cutting tools
- additive manufacturing
- sustainable manufacturing
- Industry 4.0
- high-precision machining

Guest Editors

Dr. Abdul Mazid

1. School of Engineering and Technology, Central Queensland University, Rockhampton, Australia
2. Center for Regional Economies and Supply Chains (CRESC), Centre for Hydrogen and Renewable Energy (CHRE), Central Queensland University, Rockhampton, Australia

Dr. Jorge Salguero

School of Engineering, Department of Mechanical Engineering and Industrial Design, University of Cadiz, Adv. Universidad de Cadiz 10, E11519 Puerto Real, Spain

Metals

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.3

mdpi.com/si/253071

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