Special Issue

Preparation and Characterization of Metal-Ceramic Composites

Message from the Guest Editor

Metal-ceramic composites are a family of heterogeneous composite materials composed of metals/alloys and one or more types of ceramic, which combine the good properties of metals and ceramics. Traditional metal-ceramic composites consist of a continuous metal/alloy matrix and uniformly dispersed ceramic particles in the matrix, which can be fabricated by powder metallurgy, casting, in situ synthesis, etc. Recently, metal-ceramic composites with different types of structures have attracted more and more attention. Meanwhile, different preparation methods have been employed to form those different structures that further improve the comprehensive properties of metal-ceramic composites. In this Special Issue, we are pleased to invite you to submit research articles and reviews focused on recent experimental and theoretical results related to the preparation and structure-property characterization of metal-ceramic composites, which is expected to provide some reference for the further research and the development of metal-ceramic composites. We look forward to receiving your contributions.

Guest Editor

Dr. Zhuo Zhang

State Key Laboratory of Solidification Processing, Northwestern Polytechnical University, Xi'an 710072, China

Deadline for manuscript submissions

29 August 2025



Metals

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.3



mdpi.com/si/213998

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 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.

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

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).