

Special Issue

High-Entropy and Complex Concentrated Alloys: A New Generation of Alloys

Message from the Guest Editors

The goal of this Special Issue is to discuss major materials issues for complex concentrated alloys (CCAs) and high entropy alloys (HEAs), from property-targeted design to process optimization, from structures to properties, and from the fundamental science to viable industrial applications. CCAs have been reported to have useful performances, including great toughness, high-temperature strength, corrosion resistance, as well as a good irradiation resistance. In addition, the concept of CCAs shifts the focus away from the corners of alloy phase diagrams toward their centers, vastly increasing the number of possible alloy systems with an unexplored property realm. Thus, CCAs have attracted worldwide attention as a new generation of alloys to resolve the challenges of modern industries in the fields of transportation, energy, safety, and infrastructure with remarkable properties never seen before.

Guest Editors

Prof. Dr. Eun Soo Park

Department of Materials Science and Engineering, College of Engineering, Seoul National University, 1 Gwanak-ro Gwanak-gu, Seoul 08826, Republic of Korea

Dr. Hyunseok Oh

Department of Materials Science and Engineering, Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, MA, USA

Deadline for manuscript submissions

closed (15 July 2022)



Metals

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.3



mdpi.com/si/34589

Metals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
metals@mdpi.com

[mdpi.com/journal/
metals](https://mdpi.com/journal/metals)





Metals

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.3



[mdpi.com/journal/
metals](https://mdpi.com/journal/metals)



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).