



High Entropy Alloys: Trends and Future Challenges

Guest Editor:

Dr. Ziyuan Rao

Max-Planck-Institut für
Eisenforschung GmbH, 40237
Düsseldorf, Germany

Deadline for manuscript
submissions:

closed (31 October 2023)

Message from the Guest Editor

High-entropy alloys have been proposed for nearly 20 years. This kind of alloy has multiple principle elements, subverting the traditional thinking of alloy design, and offers a very large compositional region with almost unlimited possibilities. During the last 20 years, the understanding of high-entropy alloys has continuously changed and progressed. At first, high-entropy alloys were strictly defined as those comprising five or more elements with exactly the same composition ratio. Later, it was found that this definition limited the development of high-entropy alloys, and only then did non-equiatomic high-entropy alloys and medium-entropy alloys come into being. We are still in the early stages of high-entropy alloys research, and we look forward to the greater potential of these alloys in the decades to come.

This Special Issue of *Metals* focuses on works related to high-entropy alloys towards industrial application. We hope that this Special Issue will include articles reporting research on high-entropy alloys giving impetus to their industrial application. Any research on the properties and structures of these alloys is more than welcome.





an Open Access Journal by MDPI

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

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q2 (*Metallurgy and Metallurgical Engineering*) / CiteScore - Q1 (Metals and Alloys)

Contact Us

Metals Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/metals
metals@mdpi.com
[X@Metals_MDPI](https://twitter.com/Metals_MDPI)