



metals



an Open Access Journal by MDPI

Microstructural Tailoring of Metals and Alloys

Guest Editors:

Dr. Elvira Oñorbe

Division of Materials of Energy
Interest, CIEMAT, Avenida
Complutense 40, 28040 Madrid,
Spain

Dr. Judit Medina

Department of Physical
Metallurgy, CENIM, Avenida
Gregorio del Amo 8, 28040
Madrid, Spain

Deadline for manuscript
submissions:

closed (20 September 2024)

Message from the Guest Editors

The development of high-performance structural metallic materials is essential in many different industrial areas where materials are submitted to harsh environments. The aim of this Special Issue focuses on the optimization of the microstructure of metals and alloys to achieve the required performance under service conditions, modifying different parameters during fabrication routes, such as the control of the alloy chemistry and processing techniques. This Special Issue will be dedicated to a wide range of contributions, starting with those works based on computational metallurgy to improve and design alloys, followed by those focused on the fabrication routes (casting, powder metallurgy, additive manufacturing, etc.) and post-fabrication processing techniques (thermomechanical processes, heat treatments, combinations thereof, etc.). Finally, papers regarding the characterization of microstructural and mechanical properties will also be part of this issue. Studies of light alloys, high-entropy alloys (HEAs), alumina-forming alloys (AFAs), oxide dispersion strengthened alloys (ODSs), advanced steels, and other innovative metallic materials will be welcomed.



mdpi.com/si/113850

Special Issue



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, Ei Compendex, CAPus / 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/X@Metals_MDPI)