metals

an Open Access Journal by MDPI

IMPACT FACTOR 2.9

CITESCORE 4.4

Alloys for High-Temperature Applications

Guest Editor:

Prof. Dr. Giulio Timelli
Department of Management and Engineering, University of Padova, Strad. San Nicola 3, 36100 Vicenza, Italy

Deadline for manuscript submissions:
closed (31 December 2018)

Message from the Guest Editor

Dear Colleagues,

High-temperature resistance is essential in many applications. The materials and alloys used for high-temperature components require a tailored combination of mechanical strength, microstructural stability and corrosion/oxidation resistance. Turbine blades, heat-exchangers, fuel nozzles, newer turbocharged engines are subjected to high tensile loads and pressures, as well as corrosive environments, all of which occurring under thermal fatigue conditions.

Operating at higher efficiency is often a key issue in order to achieve fuel economy, reduction in greenhouse gas emissions, and improved vehicle performance too. The requirement of higher operating temperatures is almost mandatory for higher efficiency. This challenge will drive to continuously improve the traditional materials and develop new alloys before brittle non-metallic materials, such as oxide systems, can be thought and applied.

The aim of this Special Issue is to collect full papers, communications, and reviews highlighting original and recent innovations about metals, alloys and composite materials for high-temperature applications.

metals

IMPACT FACTOR 2.9

CITESCORE 4.4

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 & Metallurgical Engineering*) / CiteScore - Q1 (*Metals and Alloys*)

Contact Us

Metals Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

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

mdpi.com/journal/metals
metals@mdpi.com
𝕏@Metals_MDPI