







an Open Access Journal by MDPI

Application and Research of Novel Metal Materials in the High-Temperature Environment

Guest Editor:

Prof. Dr. Jinping Suo

State Key Laboratory of Material Processing and Die & Mould Technology, School of Materials Science and Engineering, Huazhong University of Science and Technology, Wuhan 430074, Hubei Province, China

Deadline for manuscript submissions:

closed (20 September 2023)

Message from the Guest Editor

Dear Colleagues,

Novel metals and their composites are one of the most important high-temperature materials. However, the common shortcoming of these materials is brittleness. How to overcome the brittleness of these materials has been a major research direction for some time now. In recent years, researchers have made many attempts to improve the toughness and related properties of the materials by alloying, compounding, etc. These attempts are constantly promoting the development of high-temperature materials and expanding them to more high-temperature applications.

The aim of this Special Issue on "Application and Research of Novel Metal Materials in High-Temperature Environments" to bring together the recent is developments in novel metal materials for the advancement of high-temperature metal materials. These developments include progress in material design, strengthening and toughening, high-temperature properties, irradiation damage, and application prospects. Manuscripts in the form of full research papers, communications, and review articles are encouraged.













an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, OC H3A 0C7, Canada

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The iournal covers twenty-five comprehensive biomaterials, energy materials, advanced composites. advanced materials characterization, porous materials, manufacturing processes and svstems. nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials. materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. Materials provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases

Journal Rank: JCR - Q1 (Metallurgy and Metallurgical Engineering) / CiteScore - Q2 (*Condensed Matter Physics*)

Contact Us

Materials Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/materials materials@mdpi.com X@Materials_Mdpi