







an Open Access Journal by MDPI

Microstructure and Mechanical Properties of Alloys

Guest Editor:

Dr. Xiaoqing Si

State Key Laboratory of Advanced Welding and Joining, Harbin Institute of Technology, Harbin 150001, China

Deadline for manuscript submissions:

closed (20 January 2024)

Message from the Guest Editor

Metal alloys are widely used in industrial products, and their microstructure and mechanical properties directly affect the performance of products. During the whole life cycle of a metal product, its microstructure and mechanical properties will undergo multiple stages of evolution. It is crucial to study the micro store and properties of alloys in the whole life cycle to promote the development and application of alloys.

The aim of this Special Issue is to provide an updated outlook on the microstructure and mechanical properties of alloys at various stages, including the preparation, processing and service stages. Especially the correspondence between alloys microstructure and mechanical properties needs to be established. These papers can help resolve and understand the evolution of properties of alloys products at different stages. This will help to adjust and design the microstructure and mechanical properties of alloys throughout the whole life cycle.

This Special Issue represents a good opportunity for researchers around the world to disseminate different aspects of their work and report the results related to this topic.













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, QC 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