



an Open Access Journal by MDPI

## Recent Advances on Mechanical Properties and Microstructural Features of Alloy/Steel

Guest Editor:

**Dr. Anna Churakova**

Institute of Molecule and Crystal  
Physics, Saint Petersburg State  
University Ufa Fed Res Ctr,  
199034 Saint Petersburg, Russia

Deadline for manuscript  
submissions:

**closed (10 August 2023)**

### Message from the Guest Editor

Dear colleagues,

The modern development of science and technology makes high demands on the mechanical behavior of alloys/steels. The mechanical behavior of metallic materials is directly related to the structural and phase transformations that take place in them. As a result of deformation, thermal, and other effects on alloys/steels, various structural features can be observed in them, affecting mechanical behavior. Modern methods for studying structure and properties have made it possible to discover interesting features—for example, the segregation of grain boundaries in steels and other alloys, the special character of grain boundaries under severe plastic deformation, etc.

This Special Issue focuses on recent studies of the structural features and mechanical behavior of alloys/steels.

Dr. Anna Churakova

Guest Editor



[mdpi.com/si/105813](https://mdpi.com/si/105813)

# Special Issue



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 journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced 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 - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)

## Contact Us

*Materials* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/materials](http://mdpi.com/journal/materials)  
[materials@mdpi.com](mailto:materials@mdpi.com)  
[X@Materials\\_Mdpi](https://twitter.com/Materials_Mdpi)