



## Advanced Steel Materials: Recrystallization, Phase Transformation and Microstructure Analysis

Guest Editor:

**Dr. Toshio Ogawa**

Department of Mechanical  
Engineering, Aichi Institute of  
Technology, Toyota, Japan

Deadline for manuscript  
submissions:

**20 November 2024**

### Message from the Guest Editor

Steel materials are widely used in various applications for their low cost and capacity for mass production. A key point of material design for steel materials is mainly the control of recrystallization and phase transformation in the manufacturing process. Moreover, the interaction between recrystallization and phase transformation plays an important part in controlling the microstructure.

The long history of research on recrystallization and phase transformation of steel materials is well known. Recently, not only experimental approaches but also various other approaches such as modeling, simulation, high-dimensional analysis, and machine learning have been attracting attention. These approaches have led to new and important findings. Thus, the research on recrystallization and phase transformation of steel materials will continue to increasingly develop in the future.

This Special Issue is focused on the recrystallization and phase transformation of steel materials. I would like to invite you to submit original research articles for this 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 & Metallurgical Engineering*) / CiteScore - Q2 (*Condensed Matter Physics*)

## Contact Us

Materials Editorial Office  
MDPI, St. Alban-Anlage 66  
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)