Special Issue

Microstructure Engineering of Metals and Alloys, 3rd Edition

Message from the Guest Editor

Metals and alloys are materials that combine high mechanical properties such as strength, ductility, and stiffness with high physical properties such as electrical and thermal conductivity. These materials are generally split into ferrous and non-ferrous alloys.

Both materials' structures are formed of one, two, or more phases, and structural defects (vacancies, dislocations, grain boundaries, and others) affect their properties. Therefore, microstructure engineering is an effective approach to achieve the desired performance of metals and alloys. Moreover, this topic attracts researchers all around the globe who focus on different aspects of structure formation, including processing, alloying, and tailoring of a production condition.

The scope of the Special Issue will focus on recent innovations in the microstructure engineering of metals and alloys. Topics include, but are not limited to:

- Ferrous and non-ferrous alloysMetals fabrication
- Alloying and modification
- Microstructural evaluation
- Optical and electron microscopy
- Coatings and surfaces
- Metal joining processes
- Modeling and simulation of metallic materials

Guest Editor

Prof. Dr. Konstantin Borodianskiy

Department of Chemical Engineering, Ariel University, Ariel 40700, Israel

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

mdpi.com/journal/materials

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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.

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

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