Special Issue

Plastic Deformation, Strengthening and Toughening of Advanced Metallic Materials (2nd Edition)

Message from the Guest Editor

After our successful first volume of the Special Issue "Plastic Deformation, Strengthening and Toughening of Advanced Metallic Materials", we have decided to create a second volume to collect and publish state-of-the-art research in the field of plastic deformation, strengthening and toughening of metallic materials.

Metallic structure materials have been gaining widespread industrial applications, owing to their excellent properties, such as in extensive applications of high-strength steels and aluminium (Al) alloys. In most industrial alloy production and modern alloy design strategies, multiple obstacle families (for instance, solid solutions, particles and grain boundaries) and dislocations are employed to increase the strength. However, for such advanced alloys, the mechanisms of strengthening and toughening, as well as their plastic deformation mechanisms related dislocations evolutions, are still under debate.

In this Special Issue, we welcome the submission of original research articles, communications and reviews concerning the plastic deformation, strengthening and toughening of advanced metallic materials.

Guest Editor

Dr. Fulin Jiang

College of Materials Science and Engineering, Hunan University, Changsha 410082, China

Deadline for manuscript submissions

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

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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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