Special Issue

Microstructure and the Mechanical and Physical Properties of Light Metal Materials

Message from the Guest Editors

Lightweight alloys are attracting increasing attention due to their potential applications. In the last several decades, these materials have been the focus of researchers and engineers because of their low density and high specific strength. Currently, great attention is devoted to the thermomechanical treatment of lightweight materials. It should be mentioned that alloys subjected to various types of severe plastic deformation exhibit improved mechanical properties. On the other hand, anisotropy of such materials may increase. It is valid in particular in hexagonal magnesium and titanium alloys and partially in aluminum alloys and cubic body centered titanium alloys. The main topics of this Special Issue are studies revealing the mechanical and physical properties of light alloys subjected to severe plastic deformation. Papers dealing with new alloys, alloys with some special properties. This Special Issue provides an opportunity to exchange new ideas and results concerning light metals and their possible applications.

Guest Editors

Prof. Dr. Zuzanka Trojanová

Faculty of Mathematics and Physics, Charles University, Ke Karlovu 5, 121 16 Praha 2, Czech Republic

Prof. Dr. Zdeněk Drozd

Charles University, Faculty of Mathematics and Physics, V Holešovičkách 2, 180 00 Praha 8, Czech Republic

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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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