Special Issue

Plastic Deformation and Mechanical Properties of Metallic Materials

Message from the Guest Editors

Plastic deformation of metals is a very interesting research topic because of its multi-disciplinary nature. For efficient research work, one has to be familiar with mechanics and materials sciences as well. Therefore, the present Special Issue focuses mainly on the field of mechanics of metals. The metallurgical aspect of plastic deformation is also a relevant topic. Submissions on the following topics are welcome: strain hardening with relation to microstructure characteristics, crystal plasticity, polycrystal plasticity, micro-mechanics, crystallographic textures developing during plastic deformation, dislocation mechanics, molecular dynamics simulations of plastic deformation, mechanical behavior of new materials, new forming techniques, new mathematical descriptions of forming operations, microstructure dependent material strength, and friction induced plasticity. For all the listed topics, experimental as well as modeling works, or their combinations, are appropriate.

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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.

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