

Special Issue

The Effect of Additives on the Fracturing of Alloys

Message from the Guest Editor

Modern industrial applications demand excellent mechanical properties of structural materials. The desired characteristics are generally developed by extensive alloying or the design of composite structure. However, many composites, high-alloy steels, and alloys lack ductility, which results in their early fracture during processing or operation. To prevent the failure of metallic materials, it is important to investigate the effect of element composition and microstructure on fracturing. Experimental mechanical tests and fracture simulation using finite element modeling represent powerful approaches to determine the failure conditions. By applying both methods, researchers significantly reduce the time needed to find fracture conditions with high accuracy.

Guest Editor

Dr. Alexander Yu Churyumov

Department of Physical Metallurgy of Non-Ferrous Metals, National University of Science and Technology "MISIS", Leninskiy Prospekt 4, 119049 Moscow, Russia

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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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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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