Special Issue

Materials and Modelling for Extreme Loading Conditions

Message from the Guest Editor

Investigation into the mechanical behavior of materials is a present challenge, especially if exploited in the building of predictive models aimed to replicate the mechanical behavior of complex systems and structures. This Special Issue aims to address the mechanical behavior of different kind of materials (metals, ceramic, composites, etc.) including innovative ones with focus on modelling approaches for extreme loading conditions: large deformation and failure, ballistic and low velocity impact, explosion, crack and damage, delamination, corrosion, and so on. Papers dealing with the modeling of the mechanical behavior of materials, advanced simulation methods including both analytical and numerical approaches, multi-physics and multiscale approaches, testing solutions, and advanced applications to systems and structures and theoretical approaches, all in the field of extreme loading conditions, are encouraged. **Keywords**

- extreme loading
- material behavior
- tests
- simulations

Guest Editor

Prof. Dr. Andrea Manes
Politecnico di Milano, Department of Mechanical Engineering, via la Masa, 1, 20156 Milan, Italy

Deadline for manuscript submissions

closed (15 October 2021)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/35768

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

mdpi.com/journal/materials

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/journal/materials

MDPI

About the Journal

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

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)