Special Issue

Modeling and Analysis of Damage and Failure of Concrete-Like, Brittle and Quasi-brittle Materials

Message from the Guest Editors

Modeling and analysis of damage and failure of materials and structures is an active and persistent challenge in computational mechanics, materials, and various scientific and industrial fields. This Special Issue provides an informative and stimulating forum to enhance academic communications on this challenging topic, focusing on the development and applications of computational theories, numerical and experimental methods, models, and algorithms for modeling and analyzing damage and failure of concrete-like, brittle, and quasi-brittle materials and structures. Potential topics include—but are not limited to-failure mechanisms and experimental and numerical analyses of concrete-like, brittle, and quasi-brittle materials and structures: multi-scale models and methods for deformation and failure analysis; fluid-structure interaction; concrete corrosion; durability of concretelike materials and structures; thermomechanical coupling and other multi-physics fracture modeling; dynamic fracture studies; numerical methods and approaches for damage and failure modeling; and datadriven computational mechanics and modeling.

Guest Editors

Prof. Dr. Dan Huang

Prof. Dr. Lisheng Liu

Prof. Dr. Zhanqi Cheng

Dr. Liwei Wu

Deadline for manuscript submissions

closed (31 July 2023)



an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/129570

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

mdpi.com/journal/ materials





an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 6.4 Indexed in PubMed





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

 Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
 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)