Special Issue

Mechanical and Modeling of Composite Materials

Message from the Guest Editors

The backfilling mining method can promote the green, low-carbon, circular and sustainable development of traditional mines. Considering that the cemented backfill is a multi-phase composite material composed of tailings, gangue, cementing agent and other materials, it is crucial to accurately understand the mechanical properties and evolutionary laws of the composite backfill material (CBM) to ensure safe production of backfilling mining. The purpose of this Special Issue is to collect the latest research results on the mechanical properties and numerical modelling of CBM. At the same time, the Special Issue will provide information on the applicability of integrated design methods for mine backfill, as well as on the safety evaluation of mine backfill stability. We kindly invite you to submit original research and review articles.

Keywords

- composite materials
- mechanical properties
- strength properties
- solid waste resource utilization
- cementing agent
- numerical simulation
- dynamic mechanical properties
- damage mechanism

Guest Editors

Dr. Gaili Xue

College of Mining Technology, Taiyuan University of Technology, Taiyuan, China

Prof. Dr. Shuai Cao

School of Civil and Resource Engineering, University of Science and Technology Beijing, Beijing 100083, China

Deadline for manuscript submissions

closed (20 September 2023)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/120421

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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