Special Issue

Frontiers on Energetic Materials: Pouring, Cure, Storage, Combustion

Message from the Guest Editors

Energetic materials are the energy sources for rocket motors, missile, and cannon, etc. In recent decades, astronautics has developed so fast and many innovations on energetic materials have bloomed.Energetic materials must be capable of maintaining structural integrity over a demanding range of operating and storage conditions. Significant mechanical loads are introduced in the conditions, especially for case bonded grains. Additionally, the solid propellants must possess enough toughness to resist fracture or fragmentation upon failure under high stress or strain rates. Modern techniques, such as non-destructive inspections, mechanical tests in laboratory, analytical solutions, and multi-scale numerical simulations have been excessively employed onto exploring the properties of energetic materials during pouring, curing, storage, and combustion recently. In this topic, there is a focus on the fundamental problems of energetic materials during its pouring, curing, storage, and combustion. Both theoretical and experimental contributions can be submitted.

Guest Editors

Dr. Changjun Zhou

School of Infrastructure Engineering, Dalian University of Technology, Dalian 116024, China

Prof. Dr. Pengfei Liu

Institute of Highway Engineering, RWTH Aachen University, 52062 Aachen, Germany

Deadline for manuscript submissions

closed (20 June 2023)

Materials

an Open Access Journal by MDPI

Impact Factor 3.1
CiteScore 5.8
Indexed in PubMed

mdpi.com/si/141510

Materials
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 3.1
CiteScore 5.8
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 - Q1 (Metallurgy and Metallurgical Engineering) / CiteScore - Q2 (Condensed Matter Physics)