Special Issue

Mechanical Behavior and Functional Applications of Fiber-Reinforced Composite Materials and Structures

Message from the Guest Editors

In this Special Issue, we will address innovative fabrication techniques, enhanced mechanical properties, and advanced functional capabilities of fiber-reinforced composite materials and structures. Potential topics for submissions include, but are not limited to:

Structural analysis and optimization design for fiberreinforced composite materials.

Energy absorption and impact resistance in fiberreinforced composite materials and structures. Design concepts and engineering examples for mechanical protection.

The modeling and simulation of mechanical behavior in fiber-reinforced composite structures.

The mechanical behavior of fiber-reinforced composite materials and structures under extreme environments. The failure mechanism of 3D/4D-printed composite materials and structures.

Deformable or shape memory control method.
The design and analysis of morphing structures.
Repair and evaluation technology for fiber-reinforced composite structures.

The health monitoring of fiber-reinforced composite materials and structures.

Functional applications of fiber-reinforced composite materials and structures in aerospace, automotive, healthcare, and electronics industries.

Guest Editors

Dr. Xin Zhang

Dr. Di Zhang

Dr. Jin Wang

Dr. Qinyuan Lin

Prof. Dr. Bing Wang



an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/240200

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)