

Special Issue

Interactive Fiber Rubber Composites—Volume II

Message from the Guest Editors

Due to their high intrinsic deformation capacity, the application of interactive fiber rubber composites (I-FRCs) has become a promising approach to generate controllably deformable components with specifically adjustable properties. FRCs can respond to changes in their environment (e.g., temperature and magnetic fields) and ensure precise as well as long-term stable functionalities by means of regulation and control circuits that are based on and linked to sensorial condition monitoring. However, these functionalities require innovative component designs and cross-scale modeling, simulation, and integration into system conceptions, experimental research, and material developments. These I-FRCs are a new class of materials offering new properties. This advantage makes them suitable for numerous fields of application, such as in mechanical engineering, vehicle construction, robotics, architecture, orthotics, and prosthetics. Given the significance of the material class offered by I-FRCs, this Special Issue aims to publish peer-reviewed and open access papers advancing the body of knowledge in this important area of material research, including applications.

Guest Editors

Prof. Dr. Chokri Cherif

Institute of Textile Machinery and High Performance Material Technology, Technische Universität Dresden, Dresden, Germany

Dr. Thomas Gereke

Institute of Textile Machinery and High Performance Material Technology, Technische Universität Dresden, Dresden, Germany

Deadline for manuscript submissions

closed (20 November 2024)



Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/150783

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

[mdpi.com/journal/
materials](https://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](https://mdpi.com/journal/materials)



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)