



an Open Access Journal by MDPI

Advances in Ultra-High-Performance Fiber-Reinforced Concrete

Guest Editors:

Dr. Peng Gao

School of Civil Engineering, Hefei
University of Technology, Hefei
230009, China

Dr. Zheng Dong

College of Civil Engineering,
Zhejiang University of
Technology, Hangzhou 310023,
China

Dr. Tan Wang

School of Civil Engineering,
Wuhan University, Wuhan
430072, China

Deadline for manuscript
submissions:

closed (20 January 2026)

Message from the Guest Editors

This Special Issue is dedicated to exploring the latest advancements in FRC technology, aiming to push the boundaries of its application and performance. Key topics will include fiber reinforcement strategies to improve performance, strategies for reducing the carbon footprint, and innovations in the curing process that enhance the hydration and overall performance of FRC. This Special Issue will also explore the behavior of FRC under extreme conditions, its structural applications, and the interface properties crucial for its performance. Furthermore, it will delve into mix ratio optimization and the constitutive relations of FRC to provide deeper insights into its capabilities and design. Importantly, contributions are not limited to these topics alone.

- fiber reinforcement strategy
- low-carbon UHPC
- curing environment
- hydration process of FRC
- extreme environment
- UHPC structure
- FRC interface
- mix ratio optimization
- constitutive relation



mdpi.com/si/207895

Special Issue



an Open Access Journal by MDPI

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

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.

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)

Contact Us

Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/materials
materials@mdpi.com
[X@Materials_Mdpi](https://twitter.com/Materials_Mdpi)