



materials



an Open Access Journal by MDPI

Performance and Properties of Reinforced-Cement-Based Materials in Aggressive Environments

Guest Editors:

**Prof. Dr. Elena de la Fuente
González**

Department of Chemical
Engineering and Materials,
Universidad Complutense de
Madrid, 28040 Madrid, Spain

Prof. Dr. Gustavo Tonoli

Department of Forest Science,
Universidade Federal de Lavras,
Lavras, CEP 37200-900, Brazil

Deadline for manuscript
submissions:

closed (20 November 2022)

Message from the Guest Editors

Dear Colleagues,

The degradation mechanisms of cement-based materials under various aggressive environments and the development of strategies to reinforce those materials and increase their durability have increasingly attracted the attention of scientists, engineers, and technologists. The maintenance of structures suffering these kinds of environments is costly and may disturb human activities inside or near the structures for a time. The frequency and cost of repair and maintenance can be minimized by means of composite design strategies based on selecting the reinforcement material and the composition of the matrix or coating strategies that avoid direct exposure of the material to the aggressive environment.

In this Special Issue, degradation mechanisms, kinetics, and analyses, as well as different approaches aiming to increase the durability of cement-based materials in aggressive environments are highlighted and discussed.

It is our pleasure to invite you to submit a manuscript for this Special Issue. Full papers, communications, and reviews are all welcome.



mdpi.com/si/93989

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 & Metallurgical Engineering*) / CiteScore - Q2 (*Condensed Matter Physics*)

Contact Us

Materials Editorial Office
MDPI, St. Alban-Anlage 66
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)