

Special Issue

Advancements in Concrete Materials for Sustainable Construction

Message from the Guest Editor

This Special Issue is dedicated to reviewing the recent progress on SCC (Self-Compacting Concrete), UHPC (Ultra-High Performance Concrete), UHPFRC (Ultra-High Performance Fiber Reinforcement Concrete), and other novel materials with the aim of tackling, in particular, the most critical problems related to durability, strength, and sustainability while renewing construction standards. SCC has been characterized by its very good flowability without mechanical vibration; more recent developments include the inclusion of recycled aggregate, industrial by-products, and nano-additions with enhanced performance and ecological friendliness. While UHPC reaches outstanding compressive strength and durability, other binder alternatives are introduced, such as alkali-activated materials, with the aim of reduction in CO₂ emissions. UHPFRC, by using state-of-the-art developments of sustainable fibers and optimized mixes, combines unexcelled tensile strength and crack resistance.

This SI is concerned with such transformative technologies that enable sustainable construction to be in harmony with environmental needs and contribute toward a resilient, eco-conscious built environment.

Guest Editor

Prof. Dr. Mouhcine Benaïcha

Structure and Materials Laboratory, National School of Architecture,
Rabat 10000, Morocco

Deadline for manuscript submissions

30 April 2026



Sustainability

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 7.7



mdpi.com/si/227936

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

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





Sustainability

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 7.7



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



About the Journal

Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. *Sustainability* publishes original research articles, review articles and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

Prof. Dr. Marc A. Rosen

Faculty of Engineering and Applied Science, University of Ontario
Institute of Technology, Oshawa, ON L1G 0C5, 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 and SSCI (Web of Science), GEOBASE, GeoRef, Inspec, RePEc, CAPIus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Environmental Studies) / CiteScore - Q1
(Geography, Planning and Development)