

## Special Issue

# Recent Advances of Low-Carbon Cement

### Message from the Guest Editors

The development of low-carbon cement has gained recognition as a strategy for mitigating the carbon footprint of the Portland cement industry, in response to escalating global concerns regarding CO<sub>2</sub> emissions from the construction sector. Low-carbon cement supports sustainable construction practices, helps to meet regulatory requirements, and taps into the growing market demand for environmentally friendly products. There are different types of low-carbon cement, such as limestone calcined clay-based cement (LC3), alkali-activated cement/geopolymers, carbonate cement, and belite-ye'elinite-based cement. Therefore, the topics of interest include but are not limited to the following: recent advances in rheological properties, setting behaviour, volume stability, mechanical behaviour, and multiscale modelling of low-carbon cements.

### Guest Editors

Dr. Qiang Ren

Key Laboratory of Advanced Civil Engineering Materials of Ministry of Education, School of Materials Science and Engineering, Tongji University, Shanghai 201804, China

Dr. Xiaodi Dai

Laboratory for the Chemistry of Construction Materials (LC2), Department of Civil and Environmental Engineering, University of California, Los Angeles, CA 90095, USA

### Deadline for manuscript submissions

closed (20 September 2024)



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/si/178863](https://mdpi.com/si/178863)

*Applied Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[appls@mdpi.com](mailto:appls@mdpi.com)

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

[appls](https://appls.mdpi.com)





# Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



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



## About the Journal

### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

---

### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,  
20133 Milano, Italy

---

### 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), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering )