



## Advances in Cement-Based and Construction Materials

Guest Editors:

**Dr. Payam Hosseini**

Department of Civil and  
Environmental Engineering,  
University of Wisconsin—  
Madison, Madison, WI 53706, USA

**Prof. Dr. Baoguo Han**

School of Civil Engineering,  
Dalian University of Technology,  
416-1 No.3 Linggong Road,  
Ganjingzi District, Dalian 116024,  
China

Deadline for manuscript  
submissions:

**closed (31 March 2022)**

### Message from the Guest Editors

Dear Colleagues,

Cement-based materials have always been the main choice for the construction of civil engineering infrastructures. Introducing alternative binders such as alkali-activated materials, modifying microstructures of cement-based materials by using various types of nanomaterials, developing recycling strategies, CO<sub>2</sub> mineralization, and digital construction, and 3D printing materials are all among the most recent developments in the manufacturing of functionally advanced construction materials. In addition, advancements in material characterization techniques can help to better understand the performance of construction materials, leading to the promotion of their practical applications.

Considering all the technological and scientific advances in cement-based and construction materials, this Special Issue aims at introducing new techniques and summarizing recent developments in the field, providing a platform for researchers to focus on the current progress and the future of construction materials.





# crystals



an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Alessandra Toncelli

Department of Physics, University of Pisa, 56126 Pisa, Italy

## Message from the Editor-in-Chief

Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

## Author Benefits

**Open Access:** free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

**High Visibility:** indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [Inspec](#), [CAPus / SciFinder](#), and [other databases](#).

**Journal Rank:** JCR - Q2 (*Crystallography*) / CiteScore - Q2 (*Condensed Matter Physics*)

## Contact Us

---

*Crystals* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/crystals](http://mdpi.com/journal/crystals)  
[crystals@mdpi.com](mailto:crystals@mdpi.com)  
[X@Crystals\\_MDPI](#)