



Characterization and Design of Cement and Concrete Materials

Guest Editors:

Dr. Muhan Wang

Department of Civil Engineering,
Qingdao University of
Technology, Qingdao 266033,
China

Dr. Zhipeng Li

School of Transportation and
Civil Engineering, Shandong
Jiaotong University, Ji'nan
250357, China

Dr. Yu Zhang

School of Civil Engineering and
Architecture, Shandong
University of Science and
Technology, Qingdao 266590,
China

Deadline for manuscript
submissions:

10 July 2024

Message from the Guest Editors

Cement and concrete stand out as the predominant materials in construction, surpassing the combined usage of all other construction materials. This ***Special Issue*** will focus on reporting the interesting results of research on the properties and performance of cement and concrete materials. This issue of cement is interpreted including not only Portland-based materials, but also blended cement and other binding materials. Contributions are expected to cover the topics listed below, but more topics can be included if they fit the field:

Comments and deep thinking on the significance of cement characterization and design (invited only);

Development of new characterization methods; Revealing the relationship between characterization and design;

Characterization by modeling; Advanced techniques for cement characterization;

Cutting-edge cement-based material design;

The chemical reaction of hydration, pozzolanic, alkali-activated process or any other process in cement (or concrete) generation.



Editor-in-Chief

Prof. Dr. David Arditi

Construction Engineering and
Management Program,
Department of Civil,
Architectural, and Environmental
Engineering, Illinois Institute of
Technology, 3201 South
Dearborn Street, Chicago, IL
60616, USA

Message from the Editor-in-Chief

Current urban environments are home to multi-modal transit systems, extensive energy grids, a building stock, and integrated services. Sprawling neighborhoods are composed of buildings that accommodate living and working quarters. However, it is expected that the cities and communities of the future will face complex and enormous challenges, including maintenance, interconnectivity, resilience, energy efficiency, and sustainability issues, to name but a few. A smart city uses advanced technologies and a digital infrastructure to improve the outcomes in every aspect of a city's operations. A smart building optimizes the experience of occupants, staff, and management by using a modern and connected environment. Innovations in technology that can bring dramatic improvements to design, planning, and policy are critical in developing the cities and buildings of the future.

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, and other databases.

Journal Rank: JCR - Q2 (*Engineering, Civil*) / CiteScore - Q1 (*Architecture*)

Contact Us

Buildings Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

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

mdpi.com/journal/buildings
buildings@mdpi.com
[X@Buildings_MDPI](https://twitter.com/Buildings_MDPI)