

Special Issue

Cement-Based Materials: Synthesis, Mechanical Properties and Applications

Message from the Guest Editors

This Special Issue, entitled “*Special Inorganic Cements and Cement-Based Materials: Synthesis, Properties and Applications*”, is dedicated to all scientists who adhere to the principle “from science to technology”. Special inorganic cements are powdered materials that undergo reactions in water medium to produce ions in solution. The ions then combine and the solid hydrates precipitate from the solution. Hardened cement paste is unstable both chemically and structurally, and it continuously changes with time. Fine and ultrafine components of binders, here referred to as matrix, are an important part of concretes, cement-based materials and cement-free materials, that determine, besides the flowability, workability and strength, the performance in special application (e.g. high temperature applications). Hence, designing cementitious materials with improved properties via the bottom-up nanofabrication approach is an important strategy to develop technologically attractive materials.

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Deadline for manuscript submissions

closed (31 December 2021)



Applied Sciences

an Open Access Journal
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Impact Factor 2.5
CiteScore 5.5



mdpi.com/si/57869

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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.

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