Special Issue

Cement Materials and Binding Materials for Construction: Preparation, Characterization and Applications

Message from the Guest Editors

Widely different binders have been used in building construction since antiquity. Today, Portland cement seems to be the sole binder used.

Since the second half of the last century, investigations on Portland cement, focusing on production first and on its hydration mechanism later, have improved the quality of its fresh and solid properties, leading to the development of self-consolidating, self-curing, ductile, strain-hardening, and high-performance concrete. The aim of this Special Issue is to gather recent advances on the production and use of binders, not limited to Portland cement but also open to more sustainable hydraulic binders such as geopolymers, alkali-activated binders, recycled aggregates, and raw earth/clays. In this context, the analytical techniques to investigate the materials at all different organization levels, from nano to macro, and the assessment of their macro mechanical characteristics in the fresh and hardened state represent key topics. Link: applsci/special_issues/Cement_Binding_Materials

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Deadline for manuscript submissions

closed (31 January 2022)



Applied Sciences

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Impact Factor 2.5 CiteScore 5.5



mdpi.com/si/89960

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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 multidimensional network.

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