

Special Issue

Frontier Research in Nano Reinforced Cement and Concrete Composites

Message from the Guest Editor

At present, the use of nanomaterials (NM) to improve the performance of cement and concrete matrixes appears as a potential alternative to the exclusive use of Portland cement (PC).

The NM evolution has allowed the production of new cement-based nanocomposites with previously unimaginable properties. In general, NM can be grouped into three main types: zero-dimensional (0D) nanoparticles, such as nanosilica; one-dimensional (1D) nanofibers, such as carbon nanotubes; and lastly, the most recent two-dimensional (2D) nanosheet, i.e., graphene oxide (GO). These materials, especially 1D and 2D NM, have the ability to, in very small dosages, strengthen the cement and concrete matrix through reinforcement and pore refinement. This allows for conventional cement composites to achieve higher performance levels or to maintain the same performance levels with decreasing PC consumption.

The SI Link:

journal/applsci/special_issues/Nano_Reinforced_Cement

The aim of this Special Issue is to explore the potential of use of nanomaterials in the production of mortar and concrete composites and to discuss new opportunities in this field.

Guest Editor

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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

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