Special Issue

Carbon-Based Nanomaterials-Engineered Cementitious Composites

Message from the Guest Editors

Cement concrete is the most widely used man-made material in civil engineering; however, its inherently quasi-brittle behaviour has limited its structural application. Over the past decade, advancements in nanotechnology and nanomaterials have provided invaluable opportunities to improve the microstructure of cementitious composites at the nanoscale. Although carbon-based nanomaterials (CNMs) demonstrate great potential in cement modification, their broad application is still limited due to their poor dispersion quality and the controversial understanding of the effects of CNMs on cement hydration. This Special Issue plans to give an overview of the most recent advances in CNMs-modified cementitious composites and provide selected contributions on advances in their development and applications. Potential topics include but are not limited to: cementitious composites; smart concrete; carbon-based nanomaterials; dispersion; cement hydration; durability; the role of nanomaterials in cementitious composites; and future perspectives for nanomaterials-modified cementitious composites.

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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