Special Issue

Structural, Physical and Mechanical Properties of Reinforced Concrete, Novel Cementitious Composites and Other Brittle Construction Materials

Message from the Guest Editor

In the field of modern concrete technology, scientists and practical engineers are greatly interested in the possibility of modifying the microstructure of cement-based materials with active mineral additives and admixtures. Additionally, the use of nanoparticles has been integral to the development of improved construction and building materials in recent years. Both traditional concrete additives and the nanoadditives that are part of modern cement matrix composites are referred to as supplementary cementitious materials (SCMs). The use of SCMs in the production of novel concrete composites promotes sustainability in the concrete industry. Moreover, advanced nanomaterials and modern nanotechnology play an increasingly important role in the field of concrete and reinforced concrete structures. However, these materials clearly change the structure, mechanical parameters, and brittleness of the concrete. they also affect one other important property of concrete, i.e., its fracture toughness. This Special Issue will compile recent developments in the field of novel materials that modify the structure of concrete to improve both its physical and mechanical parameters.

Guest Editor

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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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