

Special Issue

Properties and Applications of Cement and Concrete Composites

Message from the Guest Editors

Since the invention of Portland cement in 1824, cement has been developed and applied for 200 years. Cement-based materials are the world's most widely used building materials due to their wide range of raw materials and low cost. However, cement-based materials come with a number of disadvantages, such as high brittleness, easy cracking, low tensile strength, poor durability, heavyweight, and high energy consumption. With the continuous acceleration of urbanization, there are higher requirements for developing and utilizing cement-based materials. Cement-based materials are moving towards high strength and toughness, lightweight, multi-functionality, high efficiency, intelligence, and sustainable development. This Special Issue mainly focuses on the latest research on cement and concrete and realizes the high-value utilization of cement-based composite materials through research in different dimensions. Possible research topics include, but are not limited to, the following:

- Fiber-reinforced concrete;
- Low-carbon cement and concrete;
- Solid waste utilization of building materials;
- Carbonation of building materials;
- Durability of concrete.

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About the Journal

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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