

Special Issue

Microstructures and Durability of Cement-Based Materials

Message from the Guest Editors

By understanding the microstructure of cement-based materials using the latest analytical techniques, it is possible to enhance our understanding of the mechanical properties and durability of cement-based materials, which are closely related to the microstructure of these materials. Therefore, topics of interest include but are not limited to the following: The characterization of Portland cement-based materials and those derived from alternative binders; Materials design for enhanced durability; Cementitious composites including advanced nano- and bio-materials; Hydration and microstructural formation; Durability of cement-based materials (e.g., chloride attack, carbonation, sulfate attack, acid attack, alkali-silica reaction, freeze/thaw, and bio-degradation); Durability and sustainability assessment; Life cycle assessment. The aim of this Special Issue is to showcase the latest research and advances in this area, particularly on the microstructures and durability of various types of cement-based materials. Original research papers, state-of-the-art reviews, communications, and discussions are welcomed.

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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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