Special Issue

Emerging Approaches for Performance Assessment and Prediction of Cement-Based Materials

Message from the Guest Editors

This Special Issue brings together a collection of research papers that delve into emerging approaches for assessing performance of cement-based composites. The Issue covers a broad spectrum of topics, including:

- Novel imaging techniques: These contributions explore state-of-the-art imaging methods to provide detailed insights into the microstructure of cement-based composites at different length scales.
- Smart sensing systems: These contributions emphasize the development and application of smart sensors, wireless sensor networks, and data analysis techniques for real-time monitoring of structural behavior of cement-based composites.
- Multi-scale modeling: These contributions present computational modeling approaches to simulate and predict the behavior of cement-based composites.
- Data-driven approaches: These contributions showcases the use of data-driven methodologies, machine learning techniques, and big data analysis to enhance the characterization and assessment of cement-based materials.

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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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