Special Issue

Cracking Risks in Blended Cement-Based Concrete: Mechanisms, Evaluation and Control

Message from the Guest Editors

This Special Issue aims to provide a comprehensive platform for cutting-edge research on the mechanisms, evaluation techniques, predictive modeling, and control strategies related to cracking in cement-based and composite materials used across infrastructure applications. Topics of interest include but are not limited to hydration heat control, autogenous and drying shrinkage, thermal stress evolution, restrained cracking behavior, creep effects, fiber reinforcement, numerical and analytical modeling approaches, and the role of innovative admixtures and internal curing techniques. Studies addressing both fundamental scientific understanding and practical engineering applications—spanning buildings, bridges, tunnels, pavements, and other critical structures—are encouraged. By bringing together multidisciplinary insights, this Special Issue seeks to advance the knowledge base on crack formation and mitigation, supporting the development of more resilient, sustainable, and long-lasting construction materials and systems.

Guest Editors

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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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