Special Issue

Calibration and Validation of Multi-phase Models for Cementitious and Geological Materials

Message from the Guest Editors

The consideration of interactions between solids and fluids and/or between different physical phenomena. such as thermal, hygral, mechanical, and chemical processes, is essential for an appropriate mathematical description of several problems in civil engineering involving cementitious and geological materials. The latter materials have a certain degree of permeability. allowing liquid or gaseous phases to enter the pore space and to interact with the surrounding solid phase. Since those interactions between different phases may strongly influence the structural behaviour, they have to be taken into account in numerical models. On the one hand, multi-phase models are a powerful approach for considering different interacting physical phenomena. On the other hand, they require the determination of a large number of material parameters from a broad range of different, and often elaborate, experiments. Hence, the calibration and validation of multi-phase models are challenging tasks... [For more details, please visit our Special Issue Website]

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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