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Concrete and Cement Matrix Composites: Microstructure, Permeability and Thermal Properties

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Concrete and cement matrix composites constitute a very wide group of construction materials; therefore, the topic of this issue is narrowed down to the microstructure, permeability and thermal properties. Permeability and diffusivity are understood to be used as concrete quality descriptors with respect to durability in a variety of aggressive environments. Various modifications of cement matrix and aggregate significantly affect the microstructure of concrete and cement matrix composites, and, thus, also their permeability and thermal properties that are closely related. Therefore, the topics of interest include but are not limited to the following:

- Characteristics of binders and aggregates in terms of the designed durability (transport properties).
- Microstructure formation and evaluation.
- Porosity and interfacial transition zone.
- Durability of cement based materials (resistance to liquid and gaseous media).
- Thermal and structural behavior.
- Thermo-mechanical modelling.

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Message from the Editor-in-Chief

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