

*Special Issue Reprint*

## **Sustainable Construction Materials: From Paste to Concrete**

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With increasing attention on the reduction of CO<sub>2</sub> emissions, the sustainability of construction materials has become one of the most growing issues in concrete science and engineering research fields. New sustainable construction materials, such as alkali-activated materials, calcium sulfoaluminate (CSA) cement, and limestone calcined clay cement (LC3), have been suggested and high-performance and/or highly durable construction materials using special admixtures, such as nanomaterials, have been studied to reduce the environmental impact during the life cycle of construction materials.

This Special Issue aims to highlight and share recent findings in developing new sustainable cementitious materials, modeling their hydration kinetics, investigating their microstructure, improving the performance and durability of cementitious materials using functional supplementary ingredients, suggesting novel test methods for new construction materials, etc. In this Special Issue are presented the following areas:

- Sustainable concrete and alternative binders;
- Hydration kinetics of sustainable cementitious materials;
- Characterization of sustainable cementitious materials;
- Re-utilization of industrial by-products for construction materials;
- High strength and durable cementitious materials;
- Property enhancement by functional additives;
- Energy storage through construction materials.

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