

Special Issue on
Fiber-Reinforced Cement Composites: Mechanical Properties and Structural Implications

CALL FOR PAPERS

In order to overcome inherent brittleness of concrete, numerous studies on the development of high ductility fiber-reinforced cement composites have been performed thus far. Several types of fiber-reinforced cement composites incorporating metallic, polymer, carbon, glass, nylon, and waste tire fibers were successfully developed and effectively applied for building structures due to their benefits of limiting crack propagation and widening through fiber bridging. Furthermore, (ultra-) high-performance fiber-reinforced cement composites exhibiting strain- or deflection-hardening behavior with multiple microcracks were recently invented, and various relevant studies are actively underway.

This special issue aims to provide a comprehensive overview on fiber-reinforced cement composites, including aspects related to mechanical behaviors and structural implications under various loading conditions (i.e., quasi-static, impact, blast, and fire).

Authoritative review articles and original research papers describing recent findings in the field of fiber-reinforced cement composites are expected to cover the following topics.

Potential topics include but are not limited to the following:

- ▶ High-performance fiber-reinforced cementitious composites
- ▶ Fiber hybridization
- ▶ Fiber orientation
- ▶ Mechanical properties
- ▶ Impact and blast resistance
- ▶ Fracture mechanics
- ▶ Modeling
- ▶ Fire resistance
- ▶ Strain-rate effect
- ▶ Structural implication

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First Round of Reviews

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