Special Issue

Fiber-Reinforced Concrete: Design, Characterization, and Applications

Message from the Guest Editors

Concrete is the second most used material in the world after water. Unfortunately, concrete can be brittle, which means that it requires frequent repairs (thereby increasing its cost), has a reduced service life, and if that brittleness is not dealt with properly, there may be catastrophic consequences. Fibre-reinforced concrete has been researched in the past to overcome this issue by, for example, minimising crack propagation and hence providing resistance for water ingress. However, the incorporation of fibres leads to a reduced workability, and it is thus difficult to achieve a workable mix. Nevertheless, fibre-reinforced concrete is popular as it provides increased ductility and energy absorption compared to plain concrete. This Special Issue aims to focus on three broad areas of the use of fibres in concrete: material characterisation in terms of general mechanical properties as well as durability properties; structural performance leading to the design of structures with this material; and the application fibre-reinforced concrete in general.

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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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