

Special Issue

Self-Healing and Smart Cementitious Construction Materials

Message from the Guest Editors

In this Special Issue, the recent advances in the development of these smart admixtures are discussed. The compatibility of the smart admixtures with other concrete components and the effects on fresh and hardened concrete properties are considered.

Modelling of the hydration reactions and microstructure formation in the novel durable concrete, of the activation of smart properties, of the service life in specific environments, and of environmental impacts, is of importance as well. Evaluation of the resistance to extreme conditions is also included, with consideration of extreme thermal gradients, ice impact and abrasion, corrosion, freeze–thaw actions, deep-sea conditions, mechanical fatigue, and acid attack. *All these topics are considered in the “Conference on Durable Concrete for Infrastructure under Severe Conditions—Smart Admixtures, Self-Responsiveness and Nano-Additions”, organized in Ghent, 10–11 September 2019, by the partners of the European H2020 project Lorcenis.*

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Message from the Editor-in-Chief

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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