Special Issue

Effect of Environmental Conditions on Self-Healing Concrete for Durable and Sustainable Infrastructure

Message from the Guest Editor

Self-healing concrete is a new product. It can timely heal the cracks in itself through autogenous or autonomous approaches, which increases its durability and regains the lost strength. Cement replacement materials are important for a reduction in carbon footprint. In order to enhance the durability and sustainability of infrastructure concrete, self-healing concrete containing PVA fibres, bacteria, and/or a high content of cement-replacement materials, such as fly ash and Silica Fume, have been investigated in literature. However, further research is needed, particularly in areas such as self-healing low-carbon concrete containing new self-healing capsules/agents for sustainable and durable infrastructures. Therefore, this Special Issue calls for papers in (but not limited to) the following areas:

- Currently used self-healing agents/bacteria;
- PVA as self-healing additive;
- Sustainability of self-healed concrete;
- Self-healing concrete for repair of existing infrastructure;
- Durability of self-healing concrete;
- New developed self-healing agents;
- Self-healing and health hazardous;
- Structural health of self-healing concrete structures.

Guest Editor

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Deadline for manuscript submissions

closed (20 October 2023)

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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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