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Sustainable, Self-Healing, and Functional Building Materials

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Deadline for manuscript submissions:
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Message from the Guest Editors

Dear Colleagues,

Concrete is the most used building material which accounts for 5–10% of the global CO_2 emissions. Due to the brittle nature of concrete, cracking and cracking-related deteriorations are usually the biggest threats to the durability of concrete structures. Self-healing, a phenomenon originating from biological systems, is a promising concept that can be adopted to treat cracks in cementitious materials. Attaching such new function to cementitious materials can extend the service life of structures, and mitigate the environmental burdens associated with concrete production and structural maintenance. It can be an important strategy toward the sustainability of modern cement and concrete industry.

In this Special Issue, modern trends in self-healing concrete preparation, including the healing fundamentals and mechanisms, and the properties of healed concrete, are highlighted and discussed. Sustainable techniques and new functional materials that are related to self-healing cementitious materials will also be covered. It is my pleasure to invite you to submit a manuscript for this Special Issue.

Prof. Dr. Zhengwu Jiang
Prof. Dr. Biqin Dong
Guest Editors

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Message from the Editor-in-Chief

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