



## Advanced Research Progress of Concrete

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Deadline for manuscript  
submissions:

**closed (20 April 2023)**

### Message from the Guest Editor

Concrete is the most widely used construction material. It is characterised by a high compressive strength, availability, durability, as well as a compatible behaviour with reinforcement bars, low price, simple preparation, and possibility of casting into desired shapes and sizes.

Smart concrete is a very broad category of materials that includes self-sensing concrete and self-adjusting concrete, which both have excellent mechanical properties and durability, a long service life, and easy installation and maintenance.

Self-healing and/or self-curing concretes can be described as concrete elements that can achieve self-repair and return to their original condition by reducing cracks, and at the same time, reducing maintenance expenses and increasing strength and durability.

Ultra-high-performance concrete is a cementitious Portland cement-based concrete with supplementary cementitious materials. It has a superb strength, durability, ductility and toughness.

Sustainable concretes include reinforcing fibres, recycled materials, as well as organic and inorganic elements, such as concrete aggregates and reinforcement elements.





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## Message from the Editor-in-Chief

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