Special Issue

Sustainable Strategies for Preventing Deterioration and Corrosion Risks in Reinforced Concrete Structures

Message from the Guest Editor

This Special Issue aims to add evidence to the scientific progress achieved in the research and development in the construction of sustainable and durable structures. Topics of interest include the following:

- Steel corrosion mechanism in traditional Portland cement concrete and in alternative binder matrices.
- Hydrophobic protections and treatments able to seal capillary pores.
- Organic and polymer-cementitious coatings.
- Self-healing admixtures.
- Corrosion-resistant reinforcements: galvanized steel or epoxy-coated bars, stainless steels and composite materials (fiber-reinforced polymers) reinforcements.
- Corrosion inhibitors.
- Special waterproofing aggregates.
- Innovative design strategy and approach to durability.
- Durability of low-carbon concretes (alkali-activated materials, geopolymers, CSA-based mixtures).
- High-performance multi-functional self-sensing concretes.
- Durable repair strategies of existing reinforced and prestressed concrete structures (electrochemical techniques, UHPFRC jackets and FRCM systems).
- Nanoparticles for conservation of cultural heritage.
- Case history and applications.

Guest Editor

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Deadline for manuscript submissions

closed (20 November 2022)

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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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