# Special Issue

# Compressive Behaviour and Micro-Structures of Low-Carbon/Recycled Concrete

## Message from the Guest Editors

This Special Issue seeks to bring together research articles and review papers on cutting-edge low-carbon research and innovative solutions. Topics of interest include, but are not limited to:

- **Design and preparation of low-carbon/recycled concrete in structural applications**, encompassing areas such as carbonation (or mineralization) mechanisms, advanced carbonation treatment techniques, enhanced compressive strength, durability, and performance in various environmental conditions.
- **Microstructural analysis and characterization of low-carbon and recycled concrete**, focusing on the relationships between microstructure and macroscopic properties, including porosity, the interfacial transition zone (ITZ), and various hydration products.
- **Innovative recycling and reusing techniques for improving the compressive behavior of low-carbon/recycled concrete**, such as the use of new waste materials or supplementary cementitious materials (SCMs), advanced curing methods, and novel mix designs.
- **Case studies and practical applications of low-carbon/recycled concrete in real-world projects**, demonstrating its feasibility, performance, and benefits in sustainable construction.

## Guest Editors

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## Deadline for manuscript submissions

20 April 2026

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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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