



Future-Proof Building Envelopes towards Zero Carbon Target

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Message from the Guest Editors

Dear Colleagues,

The building sector has a high environmental impact. Research on building envelopes can contribute substantially to achieving carbon neutrality. Research on envelope technologies has been mainly driven by the need to optimise operational energy use and integrate renewable energy technologies. Nevertheless, the achievement of this target is not limited to the right choice of materials: CO₂ emissions also depend on the fabrication processes; the operational energy of buildings; the durability of buildings and their components, etc. There are emerging papers and investigators working on these topics, anticipating a change in the trends of building envelope research.

This Special Issue aims to reflect this change of thinking in the field of building envelopes with a compilation of the latest research results. Potential topics to be presented in the SI are:

- Materials, technologies and methods that promote circularity and reusability of building envelope components;
- Bio-based, reusable and/or recycled materials for high performance facades or roofs;
- Digital tools and/or processes to reduce the carbon footprint of building envelopes;

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