

Special Issue

Future-Proof Building Envelopes towards Zero Carbon Target

Message from the Guest Editors

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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Guest Editors

Dr. Miren Juaristi Gutierrez

Energy Efficient Buildings group, Institute for Renewable Energy, Eurac Research, 39100 Bolzano, Italy

Dr. Fabio Favoino

Technology Energy Building Environment research group, Department of Energy, Politecnico di Torino, 10129 Torino, Italy

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Sustainability
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
sustainability@mdpi.com

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Editor-in-Chief

Prof. Dr. Marc A. Rosen

Faculty of Engineering and Applied Science, University of Ontario
Institute of Technology, Oshawa, ON L1G 0C5, Canada

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