



## Future-Proof Building Envelopes towards Zero Carbon Target

Guest Editors:

**Dr. Miren Juaristi Gutierrez**

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

miren.juaristigutierrez@  
eurac.edu

**Dr. Fabio Favoino**

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

fabio.favoino@polito.it

Deadline for manuscript  
submissions:  
**closed (1 November 2022)**

### 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: CO<sub>2</sub> 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;

...





an Open Access Journal by MDPI

## 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

## Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. *Sustainability* publishes original research articles, review articles and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

## Author Benefits

**Open Access:**— free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

**High Visibility:** indexed within [Scopus](#), [SCIE](#) and [SSCI \(Web of Science\)](#), [GEOBASE](#), [GeoRef](#), [Inspec](#), [AGRIS](#), [RePEc](#), [CAPlus / SciFinder](#), and other databases.

**Journal Rank:** [JCR - Q2 \(Environmental Sciences\)](#) / [CiteScore - Q1 \(Geography, Planning and Development\)](#)

## Contact Us

---

*Sustainability*  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/sustainability](http://mdpi.com/journal/sustainability)  
[sustainability@mdpi.com](mailto:sustainability@mdpi.com)  
[@Sus\\_MDPI](https://twitter.com/Sus_MDPI)