



Enhanced Building Energy Performance through Materials Innovation

Guest Editors:

Dr. Javier Orozco-Messana

Institute for Materials
Technology, Universitat
Politecnica de Valencia, 46022
Valencia, Spain

Dr. Martijn Rietbergen

Smart Sustainable Cities, Utrecht
University of Applied Sciences,
3584 CH Utrecht, The
Netherlands

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Message from the Guest Editors

The purpose of this Special Issue is to concentrate on the most relevant enhancements proposed by new approaches to building materials, their processing, and complete lifecycle re-design. The expected scope includes all relevant approaches, namely concentrating on:

- Phase-changing materials (PCMs) and their integration in building envelopes;
- Cellular materials and their functional development;
- Natural renewable materials engineered for long durability and a negative carbon impact;
- Hybrid materials design for shape and functional enhancement;
- Multilayered solutions for enhanced structural materials;
- Bio-inspired materials innovation;
- 3D-printed building solutions for multifunctional performance;
- Sandwich materials as integrated solutions;
- Thin-films and inkjet-printed design of e-functionalities on advanced materials processing to building materials;
- Passive design of building subsystems;
- Modular construction and circularity;
- Building materials reuse and reconditioning—from waste to value;
- Assessment of materials' impact on building certification and carbon reduction.





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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

Message from the Editor-in-Chief

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MDPI, Grosspeteranlage 5
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