



Research on the Airtightness of Buildings

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Message from the Guest Editors

Dear Colleagues,

Currently, it is not possible to design and construct nZEB buildings without taking this parameter into account, and it is essential that we can determine this parameter in buildings to be renovated in order to achieve a significant improvement in their final energy consumption.

The aim of this Special Issue is to present the most recent studies addressing airtightness and infiltration in buildings. Topics of interest include the following:

- Experimental tests in constructed buildings;
- Effects on the comfort and health of building occupants;
- Methods for testing individual zones within multi-zone complexes;
- Alternative methods of pressurization for calculating airtightness;
- Effects on the performance of heat recovery systems;
- Impact of infiltrations on the energy consumption of buildings.

Research papers, analytical reviews, case studies, conceptual frameworks and policy-relevant articles are welcome. All papers will be published as open access after a rigorous peer-review process.

Guest Editors



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Special Issue

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Message from the Editor-in-Chief

Current urban environments are home to multi-modal transit systems, extensive energy grids, a building stock, and integrated services. Sprawling neighborhoods are composed of buildings that accommodate living and working quarters. However, it is expected that the cities and communities of the future will face complex and enormous challenges, including maintenance, interconnectivity, resilience, energy efficiency, and sustainability issues, to name but a few. A smart city uses advanced technologies and a digital infrastructure to improve the outcomes in every aspect of a city's operations. A smart building optimizes the experience of occupants, staff, and management by using a modern and connected environment. Innovations in technology that can bring dramatic improvements to design, planning, and policy are critical in developing the cities and buildings of the future.

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