



Research on Indoor Air Environment and Energy Conservation

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Message from the Guest Editors

Indoor air environment and energy conservation have become increasingly important issues due to the rapid development of modern society. With more people spending time indoors, the quality of indoor air has a direct impact on people's health and well-being. Furthermore, the increasing energy consumption of buildings to satisfy the indoor thermal environment has led to a significant increase in carbon emissions, exacerbating the issue of climate change.

To promote the development of healthy low-carbon buildings, this Special Issue of *Buildings* aims to address the outlined challenges by welcoming articles related to (but not limited to) the following topics:

- Advances and reviews of indoor air environment/building energy conversion;
- Passive and positive methods for the energy-efficient provision of clean air;
- Identification and control of indoor pollution sources;
- Novel energy materials for building applications;
- Renewable/integrated energy system for energy-saving construction;
- Applications of passive cooling/heating technologies in buildings;
- Modeling and simulation for indoor environment/building energy systems.





Editor-in-Chief

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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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