

Special Issue

Thermal Insulation for Buildings in a Changing Climate

Message from the Guest Editors

Thermal insulation is an important way to reduce building heating and cooling consumption and increase the energy efficiency of buildings..... In the face of climate change, the application of environmentally friendly insulation materials and super insulation materials will be more common..... The objective of this Special Issue is to present the latest research results related to thermal insulation in buildings. Topics of interest for the Special Issue include, but are not limited to, the following:

- Thermal insulation of zero-energy buildings;
- Energy-saving effect of thermal insulation;
- External insulation system for building retrofitting;
- Internal thermal insulation of historic buildings;
- Influence of thermal insulation on indoor thermal comfort;
- Simulation of moisture and heat transport in insulation materials;
- Hygrothermal properties of insulation materials;
- The durability of thermal insulation systems;
- Development of new thermal insulation materials.

For further reading, please follow the link to the Special Issue Website at:

https://www.mdpi.com/journal/buildings/special_issues/Insulation_Buildings

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About the Journal

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.

Editor-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.1 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the second half of 2025).