

Special Issue

Hygrothermal Design to Inform Durable and Sustainable Energy Efficient Buildings

Message from the Guest Editors

The building regulatory framework for each nation still ranges from a total ignorance of this issue, through to advanced industry-based guidelines for envelope design, construction, and hygrothermal simulation. Whether it be the vapor resistivity of construction materials, or external environmental inputs, or internal environmental inputs, many researchers are exploring the application of and differences between hygrothermal simulation methods. Recognizing this international diversity in regulatory development, standards, and calculation methods used by each nation, and jurisdictions within each nation, this Special Issue thus intends to promote a comprehensive approach to the theme of hygrothermal simulation and its use to inform building design and building regulation, including topics such as:

- The vapor resistivity properties of construction materials;
- Climate data for hygrothermal simulation;
- Interior environmental conditions for hygrothermal simulation;
- Hygrothermal simulation studies to inform building standards and building regulation;
- Forensic hygrothermal studies of existing buildings;
- New developments in hygrothermal simulation algorithms.

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Deadline for manuscript submissions

closed (26 March 2025)



Energies

an Open Access Journal
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Impact Factor 3.2
CiteScore 7.3



mdpi.com/si/163492

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Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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