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Development and Characterization of Bio-Based Insulation Materials

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Deadline for manuscript submissions: closed (20 February 2024)

Message from the Guest Editors

Dear Colleagues,

Reduction in the environmental impact of construction requires the development of building materials that reduce the energy needs and the carbon footprint of buildings. Bio-based insulation building materials, made from biobased fibers or aggregates, meet these two objectives simultaneously. They can also contribute to indoor comfort. Such materials can be used in new buildings or for retrofit. However, these materials still represent a very small part of the construction market. There is a need to summarize and increase our knowledge of their properties, their durability, and their application in buildings.

We invite you to submit new or state-of-the-art research on the development and characterization of bio-based insulating building materials, with a particular focus on hygrothermal and acoustic properties and life cycle assessment. Studies can investigate physical characteristics at material scale, physical behavior at wall or building scale, or ambient conditions (comfort, air quality). Experimental and numerical studies are welcome, including the development of experimental methods or numerical codes.









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Message from the Editor-in-Chief

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