

Special Issue

Development and Characterization of Bio-Based Insulation Materials

Message from the Guest Editors

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 bio-based 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.

Guest Editors

Prof. Dr. Florence Collet

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Dr. Eshrar Latif

Deadline for manuscript submissions

closed (20 February 2024)



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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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