

State-of-the-Art Studies of Green and Sustainable Building Materials

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Deadline for manuscript submissions:

closed (30 September 2023)

Message from the Guest Editors

Submissions are invited to this Special Issue of *Buildings* on the topic “State-of-the-Art Studies of Green and Sustainable Building Materials”.

Topics of interest for publication include, but are not limited to:

- Green walls and roofs.
- Advances in building insulation materials.
- Revival of building insulation materials from vernacular practices.
- Use of thermal mass.
- Healthy materials.
- Life cycle impact analysis of building materials.
- Consideration of modular prefab construction from the viewpoint of circular economy.
- Advances in structural materials with reduced environmental impact (e.g., green concrete).
- Advances in recycled materials.
- Construction waste utilization from the viewpoint of circular economy.
- Advances in phase-change materials for application in buildings.
- The use of bamboo, precast concrete slabs, cork, straw bales, plant-based polyurethane rigid foam, hempcrete, mycelium, ferrock, timbercrete, and terrazzo for building and construction.



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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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