

Special Issue

New Thermal Insulation Materials in Green Buildings

Message from the Guest Editors

Thermal insulation materials play an important role in the construction industry in terms of reducing energy consumption in new and existing buildings, which is of key importance for environmental protection and sustainable development. Currently, the most commonly used insulation materials in Central Europe are expanded polystyrene, mineral wool and polyurethane materials. However, these materials significantly burden the environment both during the production of the material itself and after its service life in the structure. Experts are striving to return to the original, easily renewable sources of raw materials or to use secondary industrial sources in the development of non-traditional but effective insulation materials. This Special Issue will focus on the development, characterization, and application of innovative thermal insulation materials that will contribute to improving the energy efficiency of buildings and reducing greenhouse gas emissions, especially CO₂. The aim of the journal is to present research that supports the transition to low-carbon, energy-efficient buildings through innovative insulation technologies and sustainable construction practices.

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Message from the Editorial Board

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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