

## Special Issue on **Advanced Building Materials for Passive House and Energy Storage**

# CALL FOR PAPERS

Currently, passive and zero-energy houses have been attracting attention. For reducing the building energy, many researches of advanced building materials, including high-performance insulation materials, wood-based materials, thermal energy storage concretes, high-insulated windows, and airtight wall constructions, were developed. Also, buildings are the major energy consumers and account for as much as 45% of global energy consumption. Therefore, researches of the advanced building materials for saving energy have become increasingly important in academia and industries. And the analysis of the building energy and thermal transfer has to be considered using the energy simulation tools, such as Energy Plus, PHPP, and THERM, as well.

Thermal energy storage systems (i.e., phase change materials (PCM)) can be used to reduce energy consumption of buildings. The application of PCM in buildings not only saves energy, but also decreases the temperature fluctuation. The building materials, which have thermal storage, are a very important factor because they can also cause lowering of the peak temperature during the hottest time.

The main aim of this special issue is to publish high quality research articles and review articles addressing recent advances on advanced building materials for saving energy. So we are pleased to invite you to contribute a paper related to the topic "Advanced Building Materials for Passive House and Energy Storage." Contributions on high quality researches within the scope of this issue are welcome.

Potential topics include but are not limited to the following:

- ▶ Thermal energy storage materials in buildings
- ▶ Phase change materials (PCM) for energy saving
- ▶ High-performance insulation materials in buildings
- ▶ High-performance concrete in buildings
- ▶ Advanced wood-based materials for passive house
- ▶ Composites based on renewable and sustainable materials
- ▶ Energy simulation and modeling

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/amse/abmp/>.

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