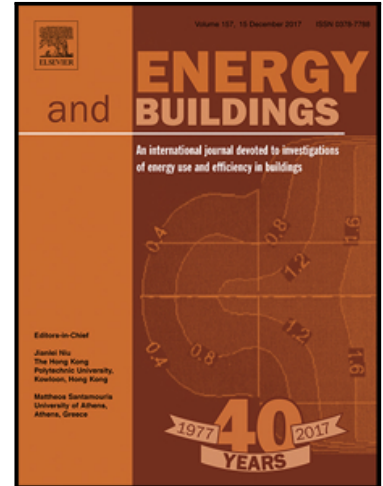


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Thermal performance and numerical simulation of geopolymer concrete containing different types of thermoregulating materials for passive building applications

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Highlights

- GPC with a high storage heat capacity containing MPCM was successfully fabricated.
- The thermal conductivity of GPC decreases with increasing amount of MPCM.
- Hygroscopic nature and size of MPCM significantly affects thermal properties of GPC.
- New equation for modeling the specific heat capacity of GPC containing MPCM.
- Energy efficiency increases with increasing MPCM concentration and wall thickness.

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