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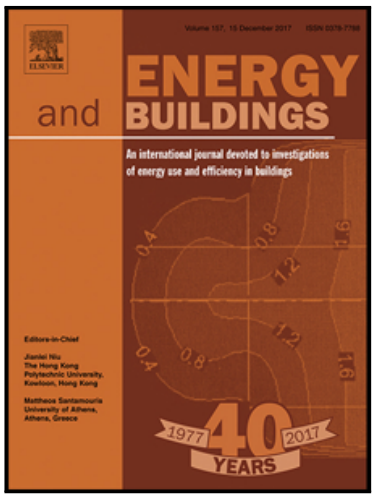

Sustainability evaluation of retrofitting solutions for rural buildings through life cycle approach and multi-criteria analysis

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Highlights

- We evaluate overall sustainability of insulating materials for retrofitting solutions
- We combine Life Cycle Costing and Assessment with Dynamic thermal simulation
- Multi-criteria analysis is used to account for a set of conflicting objectives
- The materials are compared against pre-defined characteristic class profiles
- The most favorable materials are polystyrene, kenaf, hemp, and cellulose

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