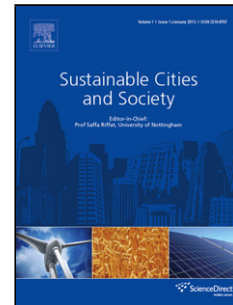


Accepted Manuscript

Title: A review on applications of shape-stabilized phase change materials embedded in building enclosure in recent ten years

Authors: Na Zhu, Shanshan Li, Pingfang Hu, Shen Wei, Renjie Deng, Fei Lei



PII: S2210-6707(18)31429-X
DOI: <https://doi.org/10.1016/j.scs.2018.08.028>
Reference: SCS 1226

To appear in:

Received date: 19-7-2018
Revised date: 15-8-2018
Accepted date: 20-8-2018

Please cite this article as: Zhu N, Li S, Hu P, Wei S, Deng R, Lei F, A review on applications of shape-stabilized phase change materials embedded in building enclosure in recent ten years, *Sustainable Cities and Society* (2018), <https://doi.org/10.1016/j.scs.2018.08.028>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

A review on applications of shape-stabilized phase change materials embedded in building enclosure in recent ten years

*Na Zhu ^a, Shanshan Li ^a, Pingfang Hu ^a, Shen Wei ^b, Renjie Deng ^a, Fei Lei ^a

^a School of Environment of Science and Engineering, Huazhong University of Science and Technology, Wuhan 430074, Hubei, PR China

^b The Bartlett School of Construction and Project Management, University College London, United Kingdom

*Corresponding author. Tel.: +86 027 87792164x415, E-mail: bezhuna@hust.edu.cn (N. Zhu)

Highlights

- Classification of SSPCMs used in building envelope is presented.
- Applications of SSPCMs used in building envelope is presented.
- SSPCM element is a promising technique for thermal energy storage in building envelope.

Abstract

Phase change material (PCM) elements in buildings as effective thermal energy storage technologies could decrease indoor temperature swings and lower building cooling/heating loads due to their great latent heat and proper thermal conductivity.

Shape-stabilized phase change materials (SSPCMs) attracted interest of many researchers due to their outstanding ability of keeping shape for long-term multiple thermal cycles with no need of encapsulation. A summarize on thermal dynamic characteristic and thermal performance of buildings integrated with SSPCMs is

Download English Version:

<https://daneshyari.com/en/article/10132144>

Download Persian Version:

<https://daneshyari.com/article/10132144>

[Daneshyari.com](https://daneshyari.com)