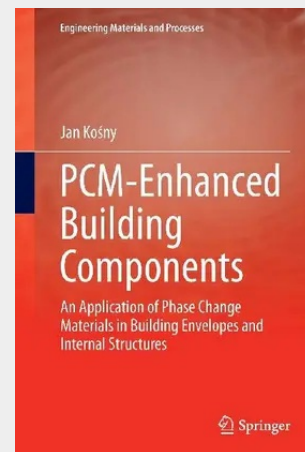


PCM-Enhanced Building Components

An Application of Phase Change Materials in Building Envelopes and Internal Structures

Presenting an overview of the use of Phase Change Materials (PCMs) within buildings, this book discusses the performance of PCM-enhanced building envelopes. It reviews the most common PCMs suitable for building applications, and discusses PCM encapsulation and packaging methods. In addition to this, it examines a range of PCM-enhanced building products in the process of development as well as examples of whole-building-scale field demonstrations. Further chapters discuss experimental and theoretical analyses (including available software) to determine dynamic thermal and energy performance characteristics of building enclosure components containing PCMs, and present different laboratory and field testing methods. Finally, a wide range of PCM building products are presented which are commercially available worldwide. This book is intended for students and researchers of mechanical, architectural and civil engineering and postgraduate students of energy analysis, dynamic design of building structures, and dynamic testing procedures. It also provides a useful resource for professionals involved in architectural and mechanical-civil engineering design, thermal testing and PCM manufacturing.

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