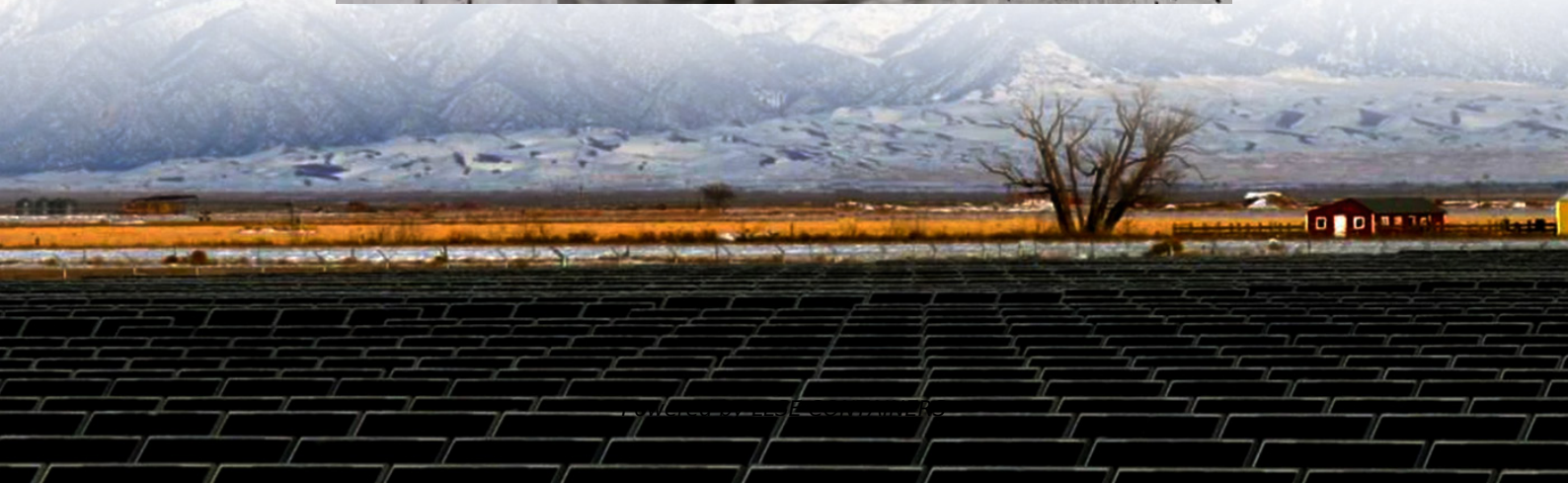


# **Phase change microcapsule room solar container energy storage system**





## Overview

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How can photo-thermal phase-change microcapsules improve the utilization rate of solar energy?

In order to improve the utilization rate of solar energy, a new type of photo-thermal phase-change microcapsules PCM@SA@PDA was successfully prepared with n-docosane (C-22) as core material and sodium alginate (SA) and polydopamine (PDA) as composite wall material.

Why are phase-change microcapsules used in thermal energy storage?

The high energy storage density and the isothermal quality are the main reasons why the latent heat storage system based on phase-change materials is an effective way of storing thermal energy . As a much more robust form of PCM, phase-change microcapsules can more effectively complete the application and development of energy storage.

Are phase change micro-nanocapsules suitable for solar thermal systems?

In recent years, significant progress has been made in the types of PCMs, methods for preparing phase change micro-nanocapsules, and their applications in solar thermal systems. This paper introduces the material selection for phase change micro-nanocapsules, their preparation methods, and the photothermal conversion performance.

What are the research technologies related to phase-change microcapsule materials?

At present, the research technologies related to phase-change microcapsule materials were not only focused on packaging technology and thermal energy storage performance, but also related to energy conversion and storage efficiency.



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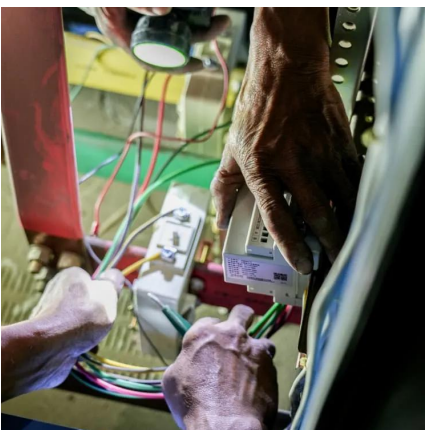
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