

Multifunctional Phase Change Composites Based on Elastic MXene/Silver Nanowire Sponges for Excellent Thermal/Solar/Electric Energy Storage, Shape Memory, and Adjustable Electromagnetic Interference Shielding Functions.

The application of phase change materials (PCMs) to energy storage composites has become the research and development trend of all-weather interface solar evaporators [31], [32], [33]. In ...

The development of phase change materials (PCMs) with high energy storage density, enhanced photothermal conversion efficiency and good form-stability is essential for practical application ...

This review summarizes the use of nanocellulose including cellulose nanocrystals and cellulose nanofibers in the field of latent heat storage (LHS). Firstly, the preparation, physical properties and surface modification of nanocellulose are ...

In this study, cellulose nanocrystal (CNC) was introduced as a high thermal-conductivity nanoskeleton material, and polyethylene glycol (PEG) was used as a solid-liquid phase-change functional material. A green, simple aqueous phase ...

Smart and robust phase change cellulose fibers from coaxial wet-spinning of cellulose nanofibril-reinforced paraffin capsules with excellent thermal management ... stimuli-responsive and self ...

Thermal energy storage and utilization is gathering intensive attention due to the renewable nature of the energy source, easy operation and economic competency. Among all the ...

Shape-stable solid-solid phase-change material (PCM) has attracted much attention due to its excellent thermal properties and shape stability. In this study, cellulose nanocrystal (CNC) was ...

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