

LIGHT ENERGY STORAGE AND HIGH TEMPERATURE THERMAL CONDUCTIVITY



Additionally, the high thermal conductivity of $0.65 \text{ W m}^{-1} \text{ K}^{-1}$ for PEI-NH 2 -CQDs contributes to the superior thermal stability and reliability of the capacitors, reinforcing the potential of this ???



With the merits of inherent physicochemical properties of hollow structure, high mechanical strength, thermal stability, ultrahigh light absorption capacity, and ultrahigh thermal ???



Phase change material (PCM) refers to a kind of materials capable of changing the physical state (solid-liquid, liquid-gas, solid-gas, solid-solid, etc.) with the temperature, light, or ???



Phase change materials (PCMs), capable of reversibly storing and releasing tremendous thermal energy during nearly isothermal and isometric phase state transition, have received extensive attention in the fields of energy ???



Heat conduction is fundamental to nearly all energy technologies, and the relevance to global energy usage is tremendous since around 90% of the world's energy use involves heat transfer in some form []. Both high and low ???

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PCMs represent a novel form of energy storage materials capable of utilizing latent heat in the phase change process for thermal energy storage and utilization [6], [7]. Solid-liquid ???



In past few years, PCM has garnered a substantial attention in heat energy storage (HES) applications due to their high-energy storage densities, open rational simplicity, and ???



Being thermally conductive and compatible with organic PCMs, sp²-rich carbon-based nanomaterials are a class of filler material that can be added directly into PCMs to form ???



Self-luminous wood composites exhibit high latent heat of fusion (146.7 J g⁻¹), suitable phase change temperature at about 37 °C, excellent thermal reliability and thermal ???



High temperature thermal energy storage is one promising option with low cost and high scalability, but it is hindered by the inherent complexity of simultaneously satisfying all of ???

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A high-thermal-conductivity (thermal conductivity $>2.9 \text{ W/m} \cdot \text{K}$) ER adhesive was applied to the CPCM to create a PCPCM, which can be used directly as a heat storage ???