Application of pinning effect in solar container

Are PCM container designs practical for solar thermal storage?
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The pinning effect of second-phase particles on grain growth in polycrystalline films was studied by means of 3-D phase field simulations. A novel methodology that combines the Fourier ...

Abstract Pinning effect of second-phase particles has been demonstrated as an extremely effective way to impede grain boundary (GB) migration to increase strength or thermal ...

Reference 18 articles. 1. Image Stabilization System for Hinode (Solar-B) Solar Optical Telescope 2. Vibration Isolation of Precision Payloads: A Six-Axis Electromagnetic Relaxation Isolator 3. A six-axis ...

The choice of container geometry is pivotal in fine-tuning PCM performance for applications, guaranteeing effective heat transfer and dependable storage and release of energy ...

The effect of Fermi level pinning in the SQD structures has been studied previously [26], [27]. Here, we have varied the pinning effect through in-situ QD size monitoring and this would help in ...

The enhanced flux pinning achieved with the low level of alumina nano-particles endorses the effectiveness of insulating nano-inclusions to induce effectives pinning sites within the ...

This review focuses on PCM"s melting and solidification in different container geometries and their orientations for heat storage in solar thermal systems. The thermal storage performance of ...

We study the effect of different sizes and shapes of pinning centers on the vortex motion in superconducting strip in the presence of external current and magnetic field using the time-dependent ...

Spare parts are kept in stock and can be delivered quickly if required. The areas of application and use cases are wide-ranging. This results in very general use cases such as: The solar container can be ...

Despite a significant number of recent literatures report that the Fermi level pinning significantly alters the photochemical reactions of semiconductors, the effect of Fermi level control on ...

Environmental parameters have been collected, i.e., solar radiation, surface temperature, and air temperature. Data analysis shows that the direct effect of solar radiation on the ...

Pinning effect of second-phase particles has been demonstrated as an extremely effective way to impede grain

boundary (GB) migration to increase strength or thermal stability, ...

Abstract We investigate the effects of random pinning, where we freeze the relaxation degrees of freedom for a fraction of randomly selected particles, on the yielding transition under ...

We demonstrate that as the mass of the heavy particles increases, the coupling of the dynamics between the lighter and heavier particles weakens. Consequently, the heavier the mass of ...

In this study, the effect of fin application for the melting time of phase change material (PCM) under artificial solar radiation was experimentally investigated. A paraffin wax in a thermal ...

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