

This article reviews selected solar energy systems that utilize solar energy for heat generation and storage. Particular attention is given to research on individual components of these ...

Here, a compact thermal energy storage (CTES) system with two heat transfer fluid plates and one rib-enhanced PCM plate was investigated to minimize the response time.

It focuses on an analysis of the literature concerning the design of thermal storage units, with an emphasis on the use of computational fluid dynamics (CFD) as a research tool.

A simulation and experimental investigation was carried out to obtain the thermal performance and efficiency consideration of a solar cabinet dryer equipped with heat pipe evacuated ...

Computational Fluid Dynamic (CFD) is the best means at calculating spatial values for temperature, air velocity and air flow directions within the battery energy storage system.

In this study, the computational fluid dynamics (CFD) modeling of heat pipe evacuated tube solar collector (HPETC) is performed. In order to cross-validate the obtained results to the recent ...

This work is part of a study for the conservation of fish products through solar drying. The grey seabream is dried after a pre-treatment of 16 hours in a salt brine under two conditions: on a rack in ...

Explore how Computational Fluid Dynamics (CFD) optimizes battery enclosures, ensuring safety and efficiency in battery energy storage systems (BESSs) through fluid modeling.

In this article, the large-eddy simulation (LES) model and a computational fluid dynamics (CFD) approach were used to simulate CSE absorption by a fluidized bed of silicon carbide (SiC). ...

This paper investigates the performance of a solar cabinet drying system equipped with a heat pipe evacuated tube solar collector (ETSC) and thermal storage system with application of PCM.

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