

This research explores the combination of fins into thermosyphon solar collectors to enhance energy efficiency. The storage system includes a finned container filled with nanomaterial (a ...

This review study is proposed to discuss the theoretical and experimental aspects of the design and integration of heat pipes with various solar applications including solar thermal, ...

The current study aims to enhance the thermal performance of the Solar Flat Plate Collector (SFPC). To achieve that, four proposed models of (SFPC) were investigated in terms of ...

Global industrial heat constitutes approximately two-thirds of the energy demand within the industrial sector. The utilization of Phase Change Composites (PCCs) for storing solar energy ...

The hot water thermal loads of 3 different domestic types in a northern region are used to assess the act of three patented thermosiphon heated pipe evacuated-assisted solar heaters [13-15].

This paper presents the construction of a heat pipe for a solar collectors. Using finite element simulation, the internal temperature distribution of the heat pipe and its affecting elements are investigated.

Effect of design parameters of solar system (collectors, desalination sys., cookers, etc.) on thermal output, Effect of different heat pipe types/geometries (e.g., conventional, PHP, LHP, CTPTS, micro ...

This study seeks to optimize the performance of an integrated collector-storage solar air heater (ICSSAH) based on lap joint-type (LJT) flat micro-heat pipe arrays (FMHPAs) and latent ...

A simple steam generation system based on the proposed flat looped heat pipe was developed, demonstrating the high efficiency and potential of the proposed flat looped heat pipe for ...

Thermo-enviro-economic analysis of solar photovoltaic/thermal system incorporated with u-shaped grid copper pipe, thermal electric generators and nanofluids: An experimental ...

Certain processes in the solar thermal system, like the stagnation, have not (or not adequately) been taken into account. Please see in the following calculation method (that considers the influence of the ...

