

This paper details the use of piece-wise linear regression and non-linear optimisation to determine the heat transfer properties of two ice thermal stores of different volumes (85 m³ and 11 m ...

Significance of humidity level and the aspect ratio of chamber is explored. This article proposes a new correlation to estimate the convective heat transfer coefficient inside the evaporation ...

In this study, a multi-variable semi-empirical correlation is introduced to predict convective and evaporative heat transfer coefficients in a passive solar still with low humidity level.

This study analyzes the methodology for in situ measurement of the convective heat transfer coefficient on a photovoltaic module under outdoor conditions using a heat flux sensor.

In this work, heat transfer mechanisms involved in solar thermal devices, such as flat plate collector, evacuated tube collector, solar concentrating collectors, solar pond, solar distillation, ...

This page covers a small test to determine one of the key parameters in estimating how many water containers they need, what size they should be, and how much heat or coolth can be stored how fast.

By optimizing solar radiation absorption, improving heat transfer within the basin through conduction and natural convection, and increasing thermal energy storage, such as with PCMs, these adjustments ...

This study quantifies the heat transfer advantages of prioritizing fin arrangement on the intermediate tube, establishes a coupled optimization framework for structural parameters, and provides a ...

To address this, this work investigated the suitability of using a vertical flat plate correlation to predict convective heat transfer coefficient on the side wall of cylindrical tanks with various volumes and ...

Abstract. Heat transfer from and to fluidized beds is involved in many applications including chemical processes, power generation, solar collectors, etc. It is generally desired to ...

The variation of mean cover temperature and top loss coefficient for three different cover materials, $\theta=45^\circ$; and $H=25\text{mm}$ are shown in Figure 5 for different heat inputs and wind heat transfer coefficients ...

Moreover, we propose new relations to estimate water productivity, heat and mass transfer coefficients in the tubular solar still. Based on these relations, we suggest characteristic ...

The heat transfer processes start from radiation heat exchange from the solar energy to the container surface. Radiation is the heat transfer from a body by virtue of its temperature; it ...

This study introduces a novel approach for estimating the total, convective, and radiative heat transfer coefficients within solar irregular-shaped cavities, leveraging thermoelectric ...

This study presents a numerical investigation of natural convection heat transfer inside a vertical cylindrical storage tank. The simulated results were then used as a benchmark to assess the ...

The novelty of this work is the use of an experiment to develop convective heat transfer coefficients for Ghana and to produce representative equations for determining the heat transfer ...

Tripathi and Tiwari [2], studied the effects of the heat and mass transfer coefficients for an active solar still for different water depths in the absorber container, founding that the performance decreases ...



Heat transfer coefficient of solar container

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