

Experimental Testing of Solar Still with Movable Inclined Surface and Equipped with Wick

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Abstract : This study examined a new solar still equipped with a movable inclined back, and this back is covered with a wick for seawater desalination. The tested backside inclination angles were 105, 125 and 160, respectively. The wick helped in increasing the seawater evaporation rate by increasing the evaporation surface area allowed for seawater in the still basin. The proposed modified solar still was compared with the conventional simple still. The results showed that the daily produced desalinated water of the modified solar still with angles 105, 125 and 160 increased by approximately 13.7%, 27.9%, and 39.2%, respectively, compared with the conventional solar still.

Keywords : solar still, inclined still, porous materials, Wick

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