

## عنوان مقاله:

Thermal Investigation of Single Slope Solar Still by Using Energy Storage Material

## محل انتشار:

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## خلاصه مقاله:

In this research, a piece of copper scrap was placed in the 1m × 1m base of a single-slope solar still. An automated system steadily dripped salt water into the basin of the solar still. The experiment utilized dripping salt water and energy storage materials such as copper and brass scrap. Research has shown that the presence of copper scrap in the basin, combined with a shallow layer of salt water, has a significant impact on the distillate output. However, the high thermal capacity of the salt water in the basin can lead to reduced production. As more salt water is added to the basin, the temperature difference between the water inside and the glass cover increases. Based on the experimental results, the calculated yield is satisfactory, and the overall thermal efficiency remains at 71.3%. The production rate is also influenced by the diffusion process on the south-facing condensing cover. The temperatures of water, glass, and air, as well as their combined effects, are measured and analyzed.

## کلمات کلیدی:

Solar still, Copper scrap, brass scrap, Temperature, Productivity, Water, Salt Water

## لینک ثابت مقاله در پایگاه سیویلیکا:

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