

## Documents

Kabeel, A.E., Manokar, A.M., Sathyamurthy, R., Winston, D.P., El-Agouz, S.A., Chamkha, A.J.

**A review on different design modifications employed in inclined solar still for enhancing the productivity**  
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### Abstract

The current challenge of human society is to meet the large demand of freshwater, which is depleting at a faster rate due to a rapid rise in human population and fast urbanization. Solar still is the economical way to obtain fresh water since it solely requires the energy from the sun alone for its operation, which is abundantly and freely available in nature. The major constraint in conventional solar still (CSS) is to maintain a large surface area of water with a minimum water depth. The best solution for the above constraint is to prefer inclined solar still (ISS) in which the surface area of water is large with a minimum water depth. In order to improve the performance and efficiency of ISS, numerous works have been incorporated by increasing the free surface area of water. The distillate yield collected from the passive ISS was found as 1000-8100 mL/m<sup>2</sup> whereas active ISS produced the distillate yield of 1045-9000 mL/day. In this review, an attempt is made to analyze the present status of different designs in ISS to motivate further research in ISS technology for meeting the demand of fresh water. © 2019 by ASME.

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