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# Study on Stepped-Type Basin Solar Still and Analytical Validation Using RSM

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## Abstract

The idea of harmonizing inclined flat plates along with a tread-type solar still is breached to maximize the productivity of the solar still. In this tread-type solar still, an absorber plate on the top beneath a customary basin of area  $1 \text{ m}^2$  was placed. It is composed of subsequent trays inclined flat plate collectors which provide additional exposure area. This demonstration is channeled with various water depths in the customary basin. A solar still was constructed and operated with an experimental setup to estimate the degree of similarity. The main objective is to reinforce the evaporation rate. wicks cotton, coconut coir and sponge pin are placed on the tilted plate, which



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