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Simulation of a solar still to investigate water depth and glass angle

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ABSTRACT

This paper presents a parametric study of a single-slope solar still (conventional solar still). In the parametric study, the effects of water depth in the basin and glass cover inclination angle on the productivity of the system are investigated. By proposing the best water depth and inclination angle, the accumulative productivity of the system is evaluated under the climatic condition of N. Cyprus on a typical day (21st March). The total productivity of the system was 5.3 kg/m^2.d while the error of the program was 3.37% comparing to experimental results.

Keywords: Solar desalination; Single-slope solar still; Conventional solar still; Simple solar still

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