

Review of different methods employed in pyramidal solar still desalination to augment the yield of freshwater

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ABSTRACT

Water plays a major part in all our regular activities. Requirement for freshwater is growing regularly, because of improved living standards. Some of the earth's regions are under severe stress due to a lack of water. The potable water needs of mankind can only be satisfied if salt water, which is plentiful, can be converted into drinkable water by desalination. Surfaces used for the evaporation and condensation processes play an important role in the performance of solar stills. Compared with basin-type solar stills, pyramid-shaped stills have larger condensation areas. In this review, various research works carried out on pyramid solar stills are discussed. The main objective of this review is that it will motivate researchers to investigate and promote pyramid solar still technology for appropriate development. The daily distilled water production from the passive and active pyramid solar still is in the range between 2–7 L/m² and 3–7 L/m², respectively.

Keywords: Pyramid solar still; Passive and active mode; Yield enhancement

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