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DESIGN AND CHARACTERIZATION OF A SOLAR-POWERED WATER DISTILLER

We describe the design and performance of a solar-powered still. It works on the simple principle of using solar energy to evaporate water, and then condense it on an inclined glass surface. We have considered many parameters for improving its performance while keeping the constraint of a low cost. The optimized still has an area of 0.4 m^2, and can produce about 1.5 l of pure water per day. The cost of making the still at retail prices is about ₹ 2000. Muddy rainwater and super-saturated salt water have been purified using the still. Tests conducted on the output samples shows that it is completely potable.