

**Analysis of a Solar Distillator with a Triangular Prism Cover  
Modification Using a Wave-Type Absorber**  
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***ABSTRACT***

*Solar distillation is a method of distilling sea water by utilizing solar heat as its main energy source with the aim of producing fresh water and by-products of the distillation process in the form of salt. This research was conducted to modify the absorbent plate on the distillator in the form of a wave. This distillator is equipped with a reflector with an absorbent plate surface area of 0.639 m<sup>2</sup> with a volume capacity of seawater that can be accommodated in a ±9 liter reservoir. This distillator uses a knockdown system that aims to provide convenience in the maintenance and repair process. This distillator consists of three main parts, namely the cover, the reservoir, and the distillator stand. The distillator test was carried out with a duration of 6 hours at two different locations. The highest fresh water product produced is 0.37 liters with the quality of distilled water that meets the standards to be used, but further testing still needs to be done to ensure that the water is fit for consumption. The highest efficiency of the distillator test results is 6.333% on the 3rd day of testing located in the parking lot north of the Engineering Building with an average solar radiation intensity of 998.667 W/m<sup>2</sup>, and requires 38.289 watts of useful energy from the distiller.*

**Keywords:** *solar stove, solar energy, fossil, glasswool, styrofoam, fresnel lens.*