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# The Effect of Wick Geometry Shape on The Performance of Slope Type Solar Energy Water Distillation

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**Abstract.** The increase in population and industrial activities are suspected to be the main factors that make water sources contaminated by substances harmful to the body. One of the solutions to solve this problem is by using slope-type solar water distillation. Slope-type solar distillation is commonly used because of its simple construction and environmental friendliness. The main problem with the use of slope-type solar distillation is the low efficiency that is produced because the flow rate of water in the distillation is generally too large. This research aims to increase the efficiency of distillation by regulating the flow rate of water in the distillation model using the capillarity method. The geometry shape of the wick is a factor that determines the rate of water flow in the capillarity method. The distillation used in this research has a 0.537 m2 wide area. The research was conducted in a laboratory using 6 infrared lamps to simulate solar energy. In this research, 3 different wick geometric shapes were varied. Research shows that the geometric shape of the wick affects the results of distilled water. This research can be applied in Indonesia, especially in areas that have contaminated water sources.

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