Modeling of Thermosyphon heating Energy in a Solar Water Heater

Improving of thermal efficiency and optimum designing of heat pipes is essential to choose appropriate manufacturing method. To reach this goal we need adequate study about the variation of operating parameters inside the heat pipe. In this paper, effective parameters of solar thermosyphon heat pipe at quasi-steady state has been studied. These parameters are saturated temperature of working fluid, thickness variation of fluid's film on the inner surface of the pipe, variation of flow rate of vapor and fluid, pressure drop of working fluid along the heat pipe. Investigation behavior of working fluid in thermosyphon heat pipe has been carried out numerically in this paper.

Keywords: Heat Transfer, Energy, Two Phase Fluid

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