Medium Affecting Thermal Efficiency in the Heating Pipe System with the Simultaneous Prevention of Eutrophication Process

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The purpose of my research was to find the optimal medium for heating pipes to collect solar energy from the lake or any other water reservoir in a substance of thermal energy. It turned out to be 40% ethanol. During my experiments I have found that heating pipes can be alternative form of obtaining thermal energy, taking minimum of 8.45-9.63W of heat per heating pipe, that can last all year. I have also calculated that during collection of 2MW of heat, the water in the reservoir will only cool by 0.07 °C. It is an extremely small quantity which is included within the daily temperature fluctuations of water in natural reservoirs lake lakes. Increasing the inclination at an acute angle to 82 ° the potency of heating pipe increases up to 13W. Lowering the water temperature and increasing the diffusion of oxygen by pumping water in turbulent flow at high pressure by the injector contributed to better oxygenation of water. Because of oxygenation a decrease in concentration phosphate was observed form > 5mg / dm3 to 1mg /dm3.

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