

## Heating System for Water Pool by Solar Energy

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**Abstract :** A swimming pool heating system is presented, composed of two alternative collectors with serial PVC absorber tubes that work in regimen of forced stream that is gotten through a bomb. A 500 liters reservoir was used, simulating the swimming pool, being raised some data that show the viability of the considered system. The chosen outflow was corresponding to 100 l/h. In function of the low outflow it was necessary the use of a not popular bomb, choosing the use of a low outflow alternative pumping system, using an air conditioner engine with three different rotations for the desired end. The thermal data related to each collector and their developed system will be presented. The UV and thermal degradations of the PVC exposed to solar radiation will be also boarded, demonstrating the viability of using tubes of this material as absorber elements of radiation in water heating solar collectors.

**Keywords :** solar energy, solar swimming pool, water heating, PVC tubes, alternative system

**Conference Title :** ICEES 2014 : International Conference on Environmental and Ecological Systems

**Conference Location :** Sydney, Australia

**Conference Dates :** December 15-16, 2014