

## Solar Heating System to Promote the Disinfection of Water

**Authors :** Elmo Thiago Lins Cöuras Ford, Valentina Alessandra Carvalho do Vale

**Abstract :** It presents a heating system using low cost alternative solar collectors to promote the disinfection of water in low income communities that take water contaminated by bacteria. The system consists of two solar collectors, with total area of 4 m<sup>2</sup> and was built using PET bottles and cans of beer and soft drinks. Each collector is made up of 8 PVC tubes, connected in series and work in continuous flow. It will determine the flux the most appropriate to generate the temperature to promote the disinfection. It will be presented results of the efficiency and thermal loss of system and results of analysis of water after undergoing the process of heating.

**Keywords :** Disinfection of water, solar heating system, poor communities, bioinformatics, biomedicine

**Conference Title :** ICBB 2015 : International Conference on Bioinformatics and Biomedicine

**Conference Location :** Istanbul, Turkey

**Conference Dates :** May 21-22, 2015