

SOLAR OVEN AS AN ALTERNATIVE WATER DISINFECTION RESOURCE.

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ABSTRACT

The present work seeks to use the solar oven as an alternative water disinfection resource and to show the application, the procedures are performed from 1000 mL polyethylene bottles containing water from the Maratauíra River belonging to the municipality of Abaetetuba-Pa. The samples were taken to the disciplinary laboratory of the Basílio de Carvalho School where the prototype of the solar oven was assembled telling the partnership of the local Science Club. In a specific area surrounding the school, the temperature and pH of the samples were measured at time intervals of one hour (1h) from the time of 8: 00h to 13: 00h to table the values obtained from the experiment. To table the values of the quantities, the heated water was collected. After 48 hours of incubation, colonies were counted for each sample collected and for evaluation and analysis of the physicochemical parameters, the samples were tested in the analytical laboratory. The results were satisfactory demonstrating that the solar furnace can be used as an alternative resource for water disinfection and hopefully with this prototype, extend the research to contribute to communities that do not have water treatment.

Keywords: oven, solar, disinfection, filtration, riverside community