



## Effects of the simple/double glass cover use and the orientation of a simple solar still on operating parameters

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### ABSTRACT

Evaluation of inner glass, outer glass water and basin temperatures as well as yield of a simple solar distiller (SSD) still is performed. Numerical computation based on the Runge-Kutta method is used. Experimental results and those calculated are then compared in terms of the above-mentioned parameters. Results concern the climatic conditions of Gabès (south east region of Tunisia). Effects of different parameters, namely the orientation and the use of single or double glass cover of the SSD still are studied. It is important to notice the significant effects on daily yield due to the studied operating parameters. It was found that the double glass cover use provides higher values of temperatures as well as the still productivity.

**Keywords:** Theoretical temperature; Simple Solar Distiller (SSD); Yields

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