



Forecasting the effect of seasonal parameters on fouling deposition: a single effect thermal-vapor compression desalination unit as study case

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ABSTRACT

The aim of this paper is to apply a new approach focus in the context of the desalination process in the Caribbean. A practical procedure based on in the combination of a nonlinear function and sequential annealing (SA) algorithm allowed predicting the fouled deposit thickness. The methodology is based on the fact that values of these parameters are target values along the year rather than fixed real numbers. The results of this paper indicate that the fouling deposition can change up to 0.4 mm according to the season.

Keywords: Sequential annealing (SA) algorithm; Salinity; Thermo vapor compressor unit; Desalination; Fouling; Cleaning; Optimization; Caribbean

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