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ASSESSING DIFFERENT LEACHING MODELS IN SOUTH EAST IRAN

FOROUGH ALLAHYARI POUR¹

¹ F. A. Pour, Islamic Republic Of Iran, Iran, forough_ums@yahoo.com

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ABSTRACT Iran is located in a dry region with low nearly rainfalls and high evaporation, accumulating different salts in the soils surface. Therefore, it is necessary to accomplish an operational method in order to evaluate the required water needed to wash out salts from the soils. To study the possibility of the desalinization as well as desodification, three different experiments were conducted with 1) Karoon river water 2) a saline water, 3) 1 meter drainage water depth with 5 tone sulfuric acid in four (0.25 cm) intervals. Soil samples were analyzed in a laboratory. The desalinization and desodification leaching curves were then obtained. Different theoretical models were obtained from the desalinization and desodification curves. The results indicated that there is a relationship between the theoretical and experimental leaching curves for the studied area. Among the 11 analyzed models for desalinization and desodification, the logarithmic and exponential models with least standard errors and largest correlation factor were selected to be best for the studied area.

Keywords: Saline, desodification, desalinization, model