

Simulation analysis of osmotic pressure, water flux and draw solute permeation in forward osmosis process with adipic acid

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Performance of the Forward osmosis desalination process was measured in the lab by determining the permeate water flux. Experiments were carried out for water flux using the Adipic acid draw solution of varying concentration and a sodium chloride feed solution. Osmotic Pressure of draw solution was obtained when water flux was zero. Water permeability coefficient A, Solute permeability coefficient B and Membrane structure Parameter were determined in experiments. And then predict the performance of FO process through simulation considering concentration polarization. Using Optimization function to minimize result of experimental. In this study, osmotic pressure can be known to FO process and the result compared with Simulation.