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Control fouling in membrane distillation

Madiah Humoud

New Jersey Institute of Technology, USA

Membrane distillation (MD) is a technology that designed to remove the salt particles, minerals and other contaminants from sea, brackish or wastewater to produce pure water. The process exhibits higher than 99% salt rejection from the brine water. However, like other membrane processes, membrane fouling is one of the major concerns in MD that reduces the performances of the process significantly. The primary aim of this study was to reduce the fouling by using different antiscalants materials. These active antiscalants interact with the fouling materials and helps to prevent and remove the deposition of the salt clusters from the membrane surfaces to maintain a consistent performance. The use of antiscalant materials was observed to be beneficial in maximizing the overall yield and reducing the time of operation.

msh36@njit.edu

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