

عنوان مقاله:

The effect of acylation catalyst and surfactant additives on the performance of reverse osmosis membranes prepared by interfacial polymerization

محل انتشار:

یازدهمین سمینار بین المللی علوم و تکنولوژی پلیمر (سال: 1393)

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خلاصه مقاله:

In this study, polyamide thin film composite (TFC) reverse osmosis membranes were prepared by interfacial polymerization of m-henylendiamine (MPD) and 1,3,5-benzene tricarboxylic acid chloride or trimesoyl chloride (TMC) monomers. Also, the effect of triethylamine (TEA) as an acylation catalyst and camphor sulfonic acid (CSA) as a surfactant was investigated on the performance of the prepared membranes. The results revealed with the addition of the 4 wt.% TEA and 4 wt.% CSA, the salt retention increased from 57% to 95.3% without loss in the water permeability.

کلمات کلیدی:

Interfacial polymerization, Reverse osmosis, Desalination, Thin film composite

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