

عنوان مقاله:

Evaluation of morphology and performance of polyethersulfone reverses osmosis composite membranes

محل انتشار:

ششمین کنگره بین المللی مهندسی شیمی (سال: 1388)

تعداد صفحات اصل مقاله: 6

نویسنده:

خلاصه مقاله:

Reverses osmosis membranes were prepared by phase inversion technique using polyethersulfone (PES) dissolved in Dimethylacetamide (DMAc) with and without the addition of polyvinylpyrrolidone (PVP). The effect of the composition of the casting solution on membrane morphology and performance were investigated on the basis of ions removal from treated water. For preparation polyamide composite membranes, interfacial polymerization technique was employed. In this procedure hexamethylenediamine (HMDA) and sebasylchloride (SC) were reacted with each other on the surface of membrane support. Synthesis conditions such as concentration of monomers and reaction time significantly affect the performance of composite membranes. The permeation rate and ion rejection capability of composite polyamide membranes were 40- 80 (l/m².h) and 28- 30% respectively with the initial feed conditions of 400 .psi and 250C.

کلمات کلیدی:

Membrane, Reverses osmosis, Thin film composite, Poly ethersulfone, Morphology

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