

Preparation of reverse osmosis(RO) thin film composite(TFC) membranes using sulfonated poly(arylen ether sulfone)

전소녀, 김종표, 이관수, 이진원, 강경보*
호남석유화학
(kanggb@lottechem.com*)

The sulfonated poly(arylen ether sulfone)s(SPESs) were synthesized by direct copolymerization using dihalide monomers (sulfonated monomer (sulfonated dichlorodiphenyl sulfone)(SDCDPS) and dichlorodiphenyl sulfone(DCDPS)) with dihydroxy monomer. RO active layer for TFC membrane was fabricated by coating SPESs solution on a porous poly(ether sulfone)(PES) support. The active layer was confirmed by FT-IR. The morphology of TFC membrane was investigated by SEM. The cross section image of TFC membrane showed SPESs layer on PES support. The water permeability and salt rejection of TFC membranes were measured by using a cross-flow filtration system and compared with commercial polyamide(PA) membranes.