

Morphological control for grafting of glycidyl methacrylate on microporous membrane with plasma-induced graft polymerization

최은영, 문승현*
광주과학기술원 환경공학과
(shmoon@gist.ac.kr*)

Morphological control for grafting of glycidyl methacrylate (GMA) on microporous polypropylene (PP) with plasma-induced graft polymerization was proposed. GMA-g-PP membranes were prepared by grafting GMA on thin (25 μ m) microporous PP membranes via plasma-induced graft polymerization. The morphology of the prepared membranes was controlled by temperature for grafting polymerization and solvent for monomer solution and evaluated by a microscopic Fourier transform infrared mapping method and field emission scanning electron microscopy. This study demonstrates that low temperature for grafting reaction was effective to prepare more uniform grafting over cross-section of membrane matrix. Also, it was showed that solvents with different solubility parameters could affect the distribution of grafting.