

Preparation of porous polycarbonate membrane by supercritical CO₂

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In this study, porous polycarbonate membrane were made from PC/PEG/DCM blend and PC/PEG/EM200/DCM blend by supercritical CO₂. Porous polycarbonate membranes were analyzed to investigate the effect of EM200 on structural and mechanical properties of PC membranes. From the analysis of surface and cross section of PC membranes with SEM, it is confirmed that the cross sections of the membranes have an asymmetric structure and the surface of the membranes have a uniform pore distribution. The tensile strength of PC membrane made from PC/PEG/EM200/DCM blend was higher than that of PC membrane made from PC/PEG/DCM blend. Therefore, it is estimated that mechanical properties of PC membrane has improved when EM200 blended with PC/PEG.