

다공성 고분자 전해질의 전기화학적 특성평가

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Polyurethane was synthesized by polyaddition of polytetra methylene ether glycol(PTMEG) and ethylene glycol(EG) with 4,4'-methylenebis(phenyl isocyanate)(MDI) and had been used of DMF as a solvent. Polyurethane solution was prepared by varying the composition of the DMF. And then, that was casted on Teflon sheet. Micro-porous polyurethane films were prepared by phase inversion, and their properties were characterized with Fourier transform infrared spectroscopy(FT-IR) and scanning electron microscope(SEM). Polyurethane polymer electrolytes were prepared by soaking the porous films in 1M LiCF₃SO₃-PC, and investigated ionic conductivity and decomposition voltage. The ionic conductivity of the 30% polyurethane film with LiCF₃SO₃-PC was 1.2×10^{-4} S/cm at room temperature.