

**고분자 전해질 막 연료 전지의 고성능을 위한 술폰화된 과불소계 poly(arylene ether)s와 화학적으로 변형된 polyvinylidene fluoride의 blend 막 연구**

김나영, 서민선, 이인자\*  
동국대학교

**Blend membranes based on sulfonated-fluorinated poly(arylene ether)s and chemically-modified polyvinylidene fluoride for high performance PEMFC**

Na-young Kim, Min-seon Seo, In-Ja Lee\*  
Dongguk University

**Abstract :** Blend membranes were prepared by solvent casting method from sulfonated fluorinated poly(arylene ether)s (SDFF) and chemically modified polyvinylidene fluoride (mPVdF) in isopropanol and were evaluated as proton exchange membrane electrolytes in PEMFC. <sup>1</sup>H- NMR, differential scanning calorimeter and thermogravimetric analysis was utilized to characterize the structure of the blend membranes (SDFF/mPVDF) and effects of mPVDF content on the properties of the membrane such as water uptake and proton conductivity were also investigated.

**Key Words :** blend membrane, PEMFC, SDFF/mPVDF