

Preparation MEA for high temperature PEMFC with composited PBI membrane

최승혁, 이민주, 조성민, 장원봉, 한학수*
연세대학교
(hshan@yonsei.ac.kr*)

The PBI membranes are good thermal stability and good proton conductivity at high-temperature. In this work, to use PBI membrane for PEMFC at high-temperature, new PBI ionomer was preparation. The 2,5-PBIs are synthesized from 3,3-diaminobenzidine, pyridine-2,5-dicarboxylic acid and polyphosphoric acid as solvent. And each PBI solution dissolves in DMAc with Pt/C(vulcan XC-72 20wt%). PBI ionomer make of spraying and hot-pressing method. Adhesion of ionomer with membrane and electrode was measured by Scanning Electron Microscope (SEM). The performances of the MEA which was make of PBI ionomer measured by Fuel Cell Station and Impedence Analyzer.