

Development of high performance MEAs and characterization of a 50 W PEMFC stack

문고영, 박경일, 정하철, 이상현, 송성민, 이원호*
LG화학 기술연구원
(whlee@lgchem.co.kr*)

Proton exchange membrane fuel cell (PEMFC) is being considered as a promising and efficient power generator with truly zero emission property.

High performance MEAs for PEMFC were developed and a 50 W PEMFC stack with developed MEAs was evaluated under the various operation conditions for the basic understanding of fuel cell systems and MEAs.

The performance of individual MEA was optimized using electrode design and catalyst formulation and showed $>0.8 \text{ A/cm}^2 @ 0.6\text{V}, 70 \text{ }^\circ\text{C}$.

Furthermore, our operation experience of a 50 W PEMFC stack will be presented.