

A study on the operating characteristics of PEMF stacks

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ABSTRACT

The present research investigates the influence of humidification of reactant gas, operating temperature on the performance of an air-breathing PEM fuel cell stack. During the experiments, two methods are used to fuel the fuel cell stack: one is to supply the hydrogen by a fuel cell testing system and the other is by a metal hydride storage tank. The result shows that the supply of hydrogen affects the performance of the fuel cell stack substantially, especially the cells near the hydrogen inlet. Although supplied with humidified air, the performance of fuel cell stack decreases after one hour's operation due to lack of hydrogen.

Keywords : PEM、Fuel cell、performance

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