## Anode-Supported Honeycomb Solid Oxide Fuel Cell: Design, Fabrication and Performance

Nguyen Xuan Phuong Vo<sup>1,2</sup>, Quang Nhu Ho<sup>1</sup>, 남석우<sup>1</sup>, 윤성필<sup>1,\*</sup> <sup>1</sup>KIST; <sup>2</sup>UST (spyoon@kist.re.kr\*)

An anode-supported single cell of solid oxide fuel cell based on NiOYSZ with a proper microstructure was successfully fabricated by a simple dry-pressing and cheap spin/dip coating processes. The highly porous anode support and cathode with large open pores; and dense, thin layer of electrolyte with controlled thickness were achieved with high mechanical strength. The single cell consisting of thick NiOYSZ anode support, thin 8YSZ electrolyte and porous LSM cathode was subjected to measure performance in wet hydrogen as fuel and air as oxidant from 600 to 800°C.

화학공학의 이론과 응용 제16권 제2호 2010년