

## Analysis of Flow Uniformity and Electrochemical Reaction in Solid Oxide Fuel Cell

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This study presents computational fluid dynamics (CFDs) electrochemical model for solid oxide fuel cells (SOFCs). Flow uniformity is crucial point in solid oxide fuel cell stack since it influences the unit cell performance and this affects the overall stack power. Energy, mass, momentum, and species transport were simulated by the commercial CFD code FLUENT. The calculation of the electrochemical reactions was coupled with flow. The comparison of the flow uniformity between only flow model and the flow with electrochemical model will be performed.

Acknowledgment: This work was supported by Solid oxide fuel cell of New & Renewable Energy R&D program (20093021030010) under the Korea Ministry of Knowledge Economy (MKE). This work is the outcome of a Manpower Development Program for Energy supported by the Ministry of Knowledge and Economy (MKE). This work was supported by “The development of a residential green-home SOFC m-CHP system and its field test (MKE-2011-600810-2011T100200205)” under the Korea Ministry of Knowledge Economy (MKE).