Simulation of flow design of solid oxide fuel cell

서의진, 이성철*
한양대학교
(scyi@hanyang.ac.kr*)

This study presents three dimensions (3D) channel design in solid oxide fuel cells. Because of their high operating temperatures, the management of the temperature is important in the full system and there has been speculation that flow field design may play an important role in the overall heat transfer in solid oxide fuel cells (SOFCs). The parametric study performed the effect of the heat transfer in single cell with several flow field designs. The temperature distribution and the fuel cell performance was studied and discussed. The model was validated with experimental data from Roger et al.