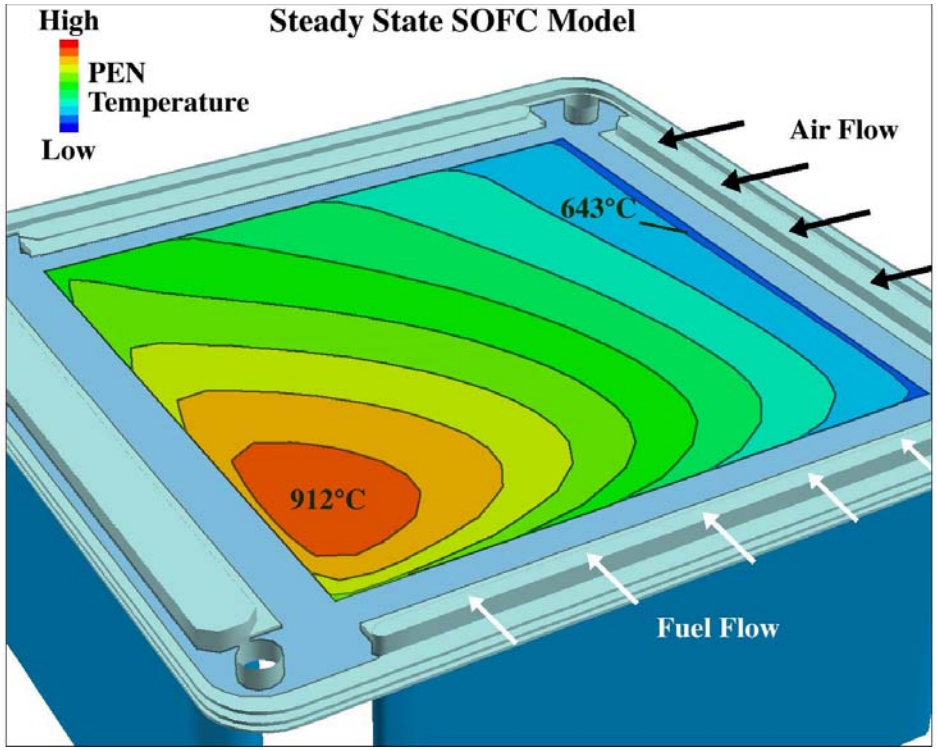
Pilot-Energy5 Highlight

Thermal-Fluid and Electrochemical Modeling of Solid Oxide Fuel Cells at Steady State



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Solid Oxide Fuel Cells (SOFCs) are autocatalytic electrochemical devices which operate at elevated temperatures (750-800 C). The reactions are unstable; cool spots become cooler and hot spots become hotter. Modeling of the SOFC at steady state is needed to predict fuel and oxidant flow conditions required to ensure stable operation.