

Improved Seals for Solid-Oxide Fuel Cells

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Technology Summary

Planar SOFC stacks are comprised of alternating fuel and air chambers, which are sealed from each other and connected to fuel and air delivery manifolds, respectively. Seals must have low electrical conductivity, be chemically and mechanically stable at high temperature in dual environments (e.g., moist reducing vs. oxidizing), and be chemically compatible with the cell and interconnect materials of the particular cell/stack design. The present invention provides improved materials and methods for sealing the alternating air/fuel chambers in a solid-oxide fuel cell with planar design.

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