

Solid oxide fuel cell cell and stack design

Disclosure Number

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Technology Summary

An electrochemical device is designed to conduct a process gas both horizontally and vertically through the electrochemical device, such that problems resulting from mal-distribution of the process gas are substantially eliminated. The structure of the electrochemical device includes a stacked assembly of planar sheets of parallel, integrally connected tubes, wherein the tubes conduct a first process gas horizontally throughout the electrochemical device, passages defined between adjacent stacked sheets conduct a second process gas horizontally throughout the electrochemical device, and novel apertures formed at the connection between adjacent tubes within the sheets conduct the second process gas vertically throughout the electrochemical device.

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