

Solid Oxide Fuel Cell Cathode Material

Disclosure Number

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Technology Summary

A mixed ionic and electronic conducting cathode material has been developed with the general formula $A_2B_2O_5$ where $A = \text{Ca, Sr, Ba, La, Bi}$ and $B = \text{Fe, Ni, Ti, Co, Mn, Cu, V}$ or mixtures thereof. This new material demonstrates high oxygen ion conductivity and when used as a cathode for a solid oxide fuel cell distributes the oxygen exchange from a single point to a three dimensional surface reducing interfacial polarization losses and improving fuel cell performance.

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