

## Fabrication and performance test of anode-supported tubular solid oxide fuel cell with (La, Sr)(Co, Fe)O<sub>3</sub>-based cathode

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We have established the coating method of Ce<sub>0.8</sub>Gd<sub>0.2</sub>O<sub>2-δ</sub>(CGO) layer between Y<sub>2</sub>O<sub>3</sub> stabilized ZrO<sub>2</sub> (YSZ) and (La,Sr)(Co,Fe)O<sub>3-δ</sub> (LSCF) as the efficient layer for the adoption of an efficient LSCF cathode. CGO layer was fabricated at the surface of YSZ by the vacuum slurry coating method and co-sintered in the ranges of 1300-1400°C. As a result of the performance test of SOFC cell which had YSZ-CGO coating layer, SOFC cell which sintered at 1350°C exhibited maximum performance (1040mW/cm<sup>2</sup> @ 800°C) due to the formation of dense CGO layer and the inhibition of SrZrO<sub>3</sub> formation between LSCF and YSZ during sintering.