

# Supporting Information: Intercalation of Thin Film Gd-doped Ceria Barrier Layers in Electrolyte Supported Solid Oxide Cells: Physico-chemical Aspects

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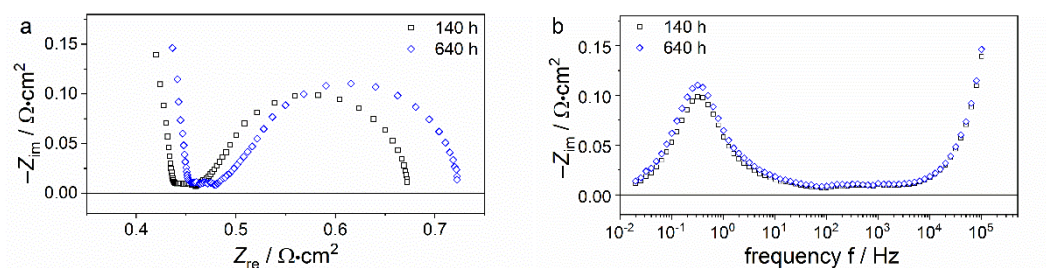


Figure S1. Nyquist and imaginary impedance plots at 140 h and 640 h of durability test 1 of the cell with 0.3  $\mu\text{m}$  thick barrier layer.

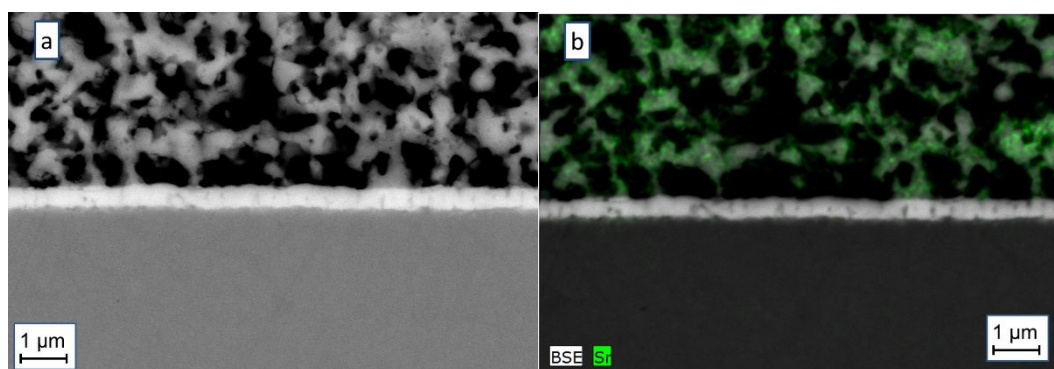


Figure S2. Post mortem a) SEM and b) EDX images of the LSCF/CGO/YSZ interface of the cell with 0.5  $\mu\text{m}$  thick CGO layers of the first durability test.

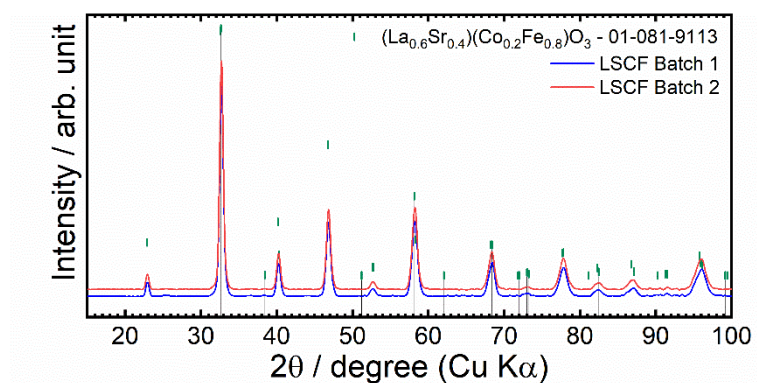


Figure S3. XRD patterns of the LSCF inks used in batch 1 and 2.

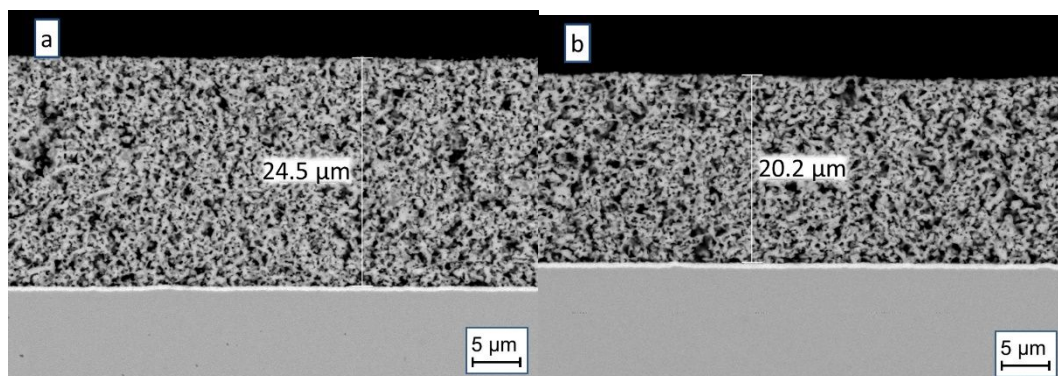


Figure S4. Post mortem SEM images of the LSCF/CGO/YSZ interface of the cells with 0.5  $\mu\text{m}$  thick CGO layers in a) batch 1 and b) batch 2.