

# **Supplementary Material**

## **Scandium Doping Effect on the Layered Perovskite Cathode for Low-temperature Solid Oxide Fuel Cells (LT-SOFCs)**

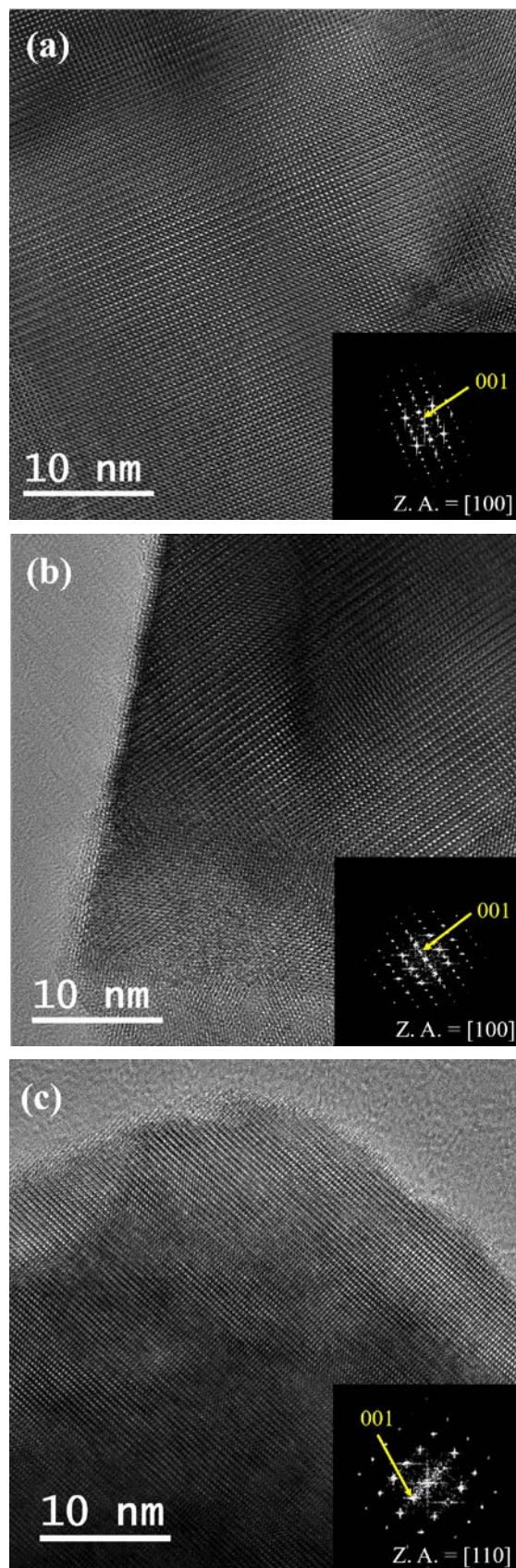
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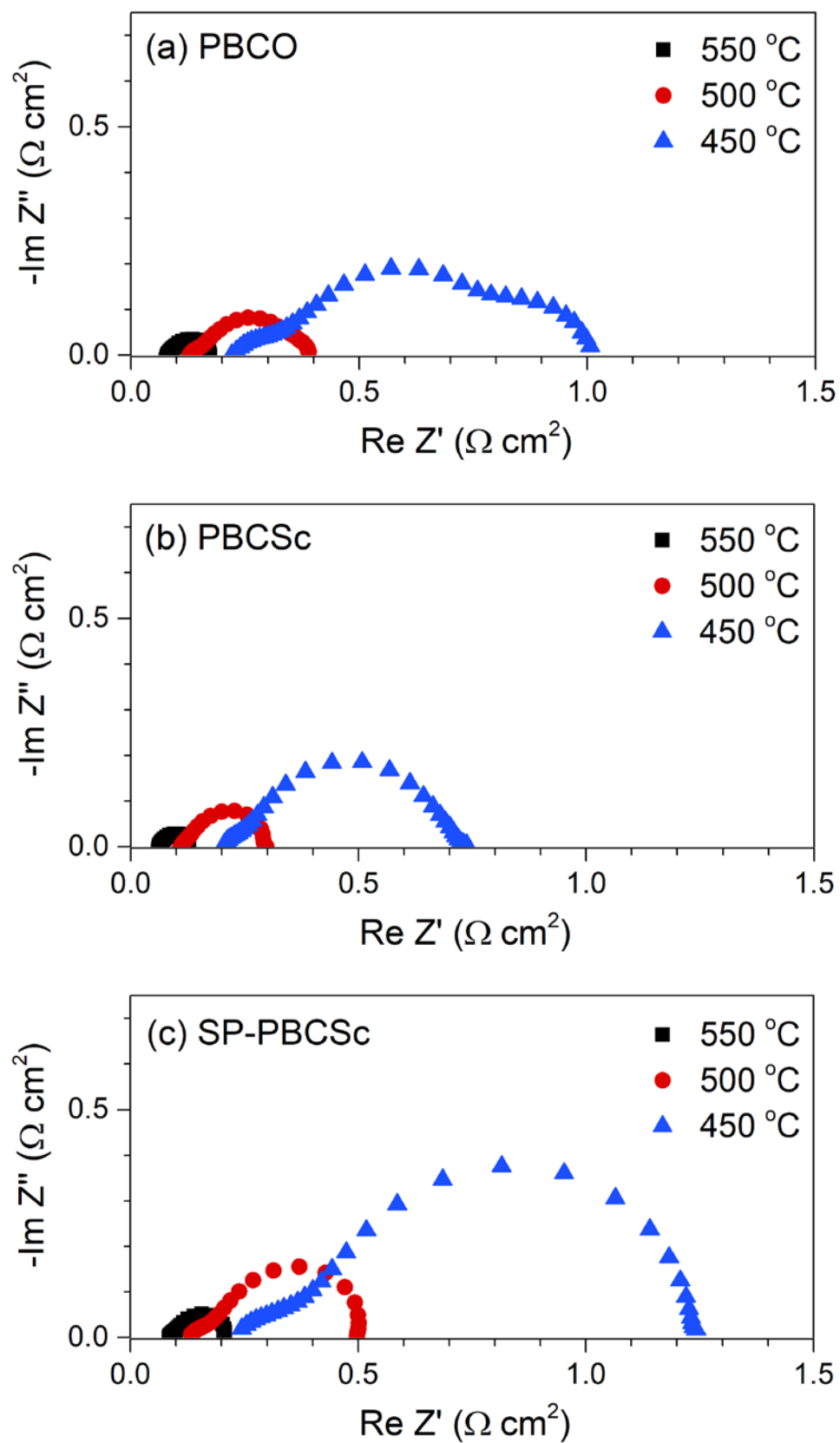
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**Figure S1.** The high-resolution transmission electron microscopy (HR TEM) images of (a) PBCO, (b) PBCSc, and (c) SP-PBCSc.



**Figure S2.** Impedance spectra of single cells (Cathode / GDC / Ni-GDC) in a temperature range of 450 to 550 °C: (a) PBCO, (b) PBCSc and (c) SP-PBCSc, respectively.