

## **Supplementary Material**

# **High Performance Low-Temperature Solid Oxide Fuel Cell with Atomic Layer Deposited-Yttria Stabilized Zirconia Embedded Thin Film Electrolyte**

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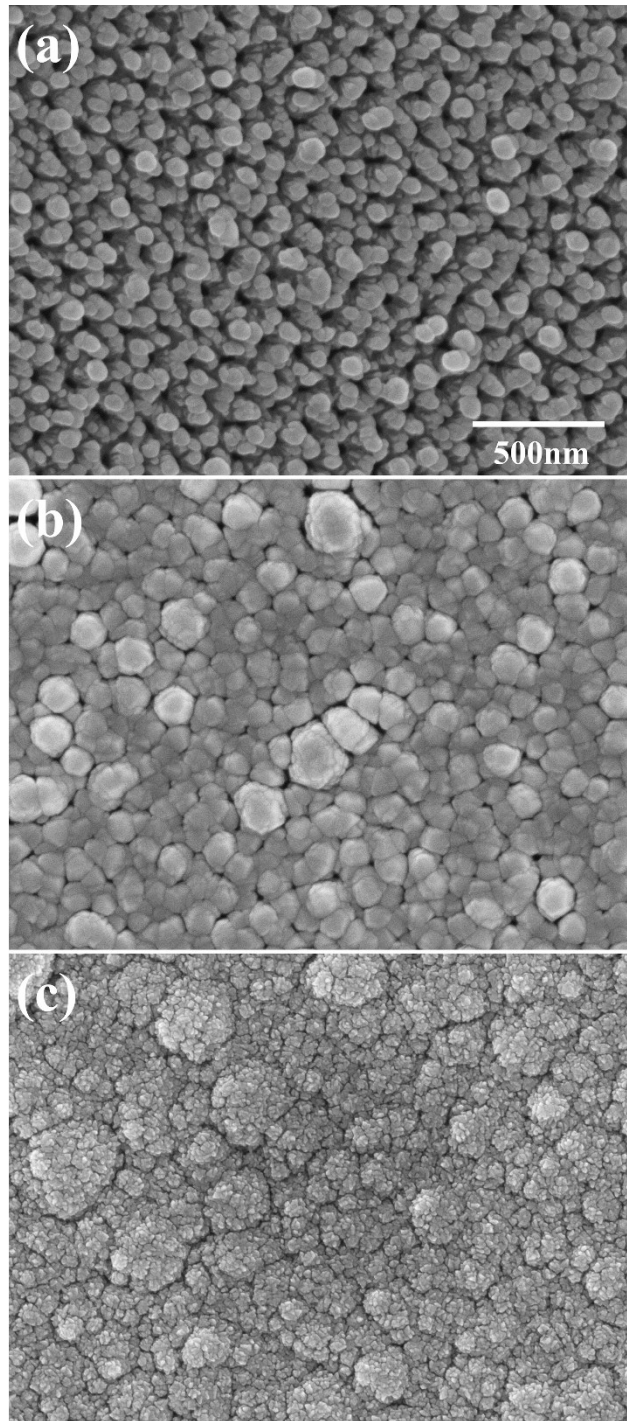
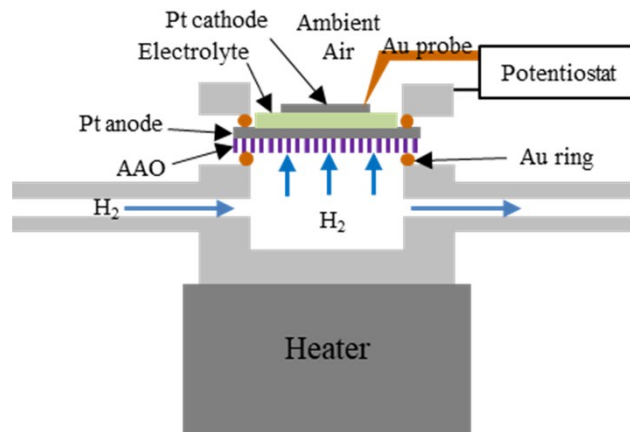
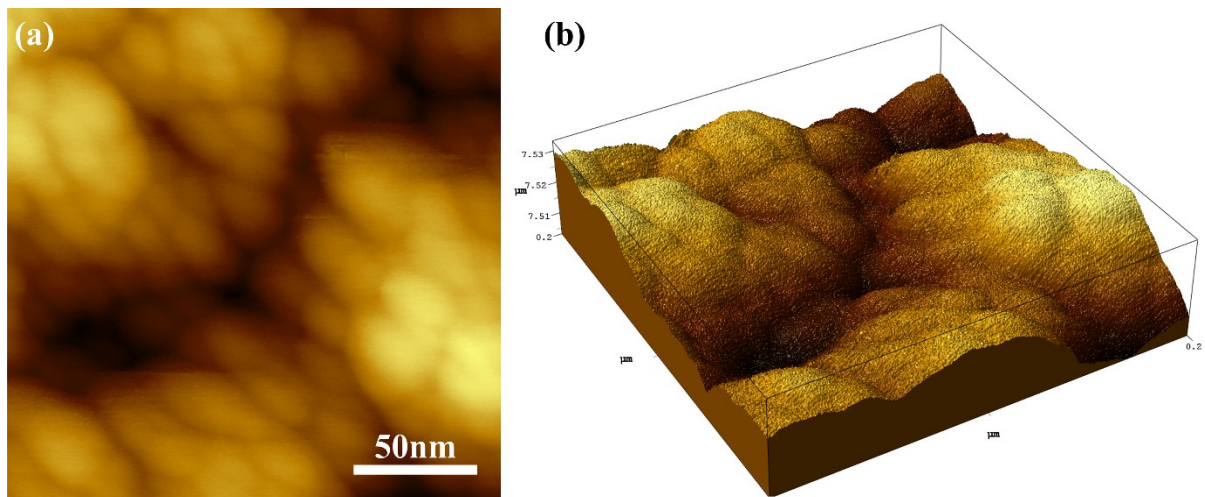


Fig. S1. FE-SEM images of (a) AAO surface, (b) Pt anode surface and (c) Pt cathode surface.



**Fig. S2.** Schematic of fuel cell measurement setup.



**Fig. S3.** AFM image (window size of 200nm x 200nm) of the SDC surface at cathode size of the CZC sample: (a) surface topology and (b) 3D images.