

## Supporting Information

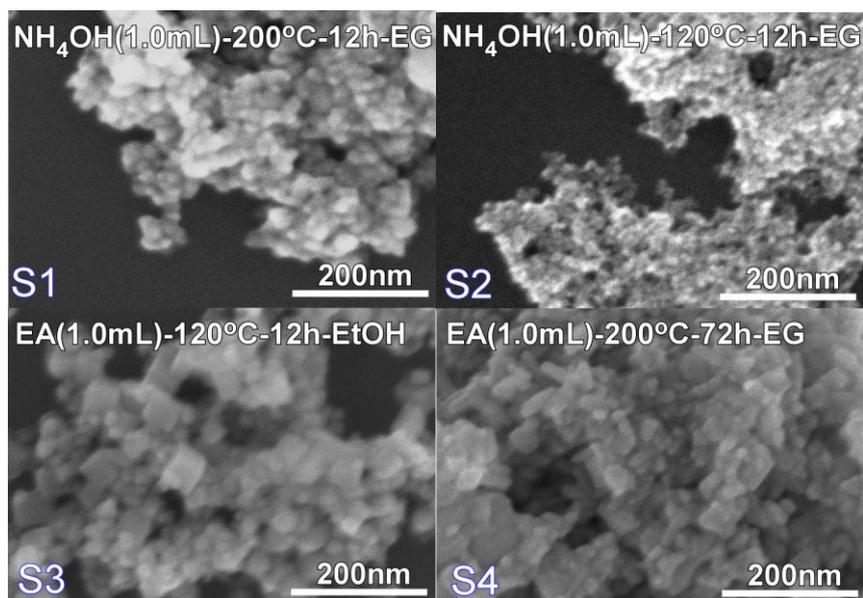
### **Fundamental nature and CO oxidation activities of Indium oxide nanostructures: 1-D wires, 2D-plates, and 3D-cubes and donuts**

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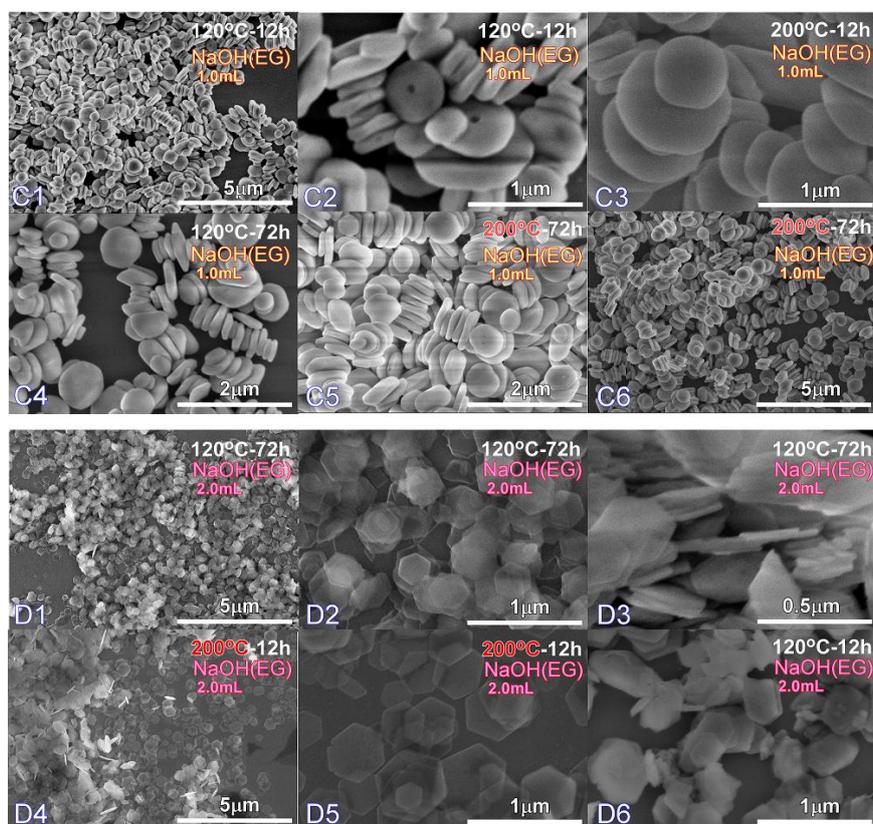
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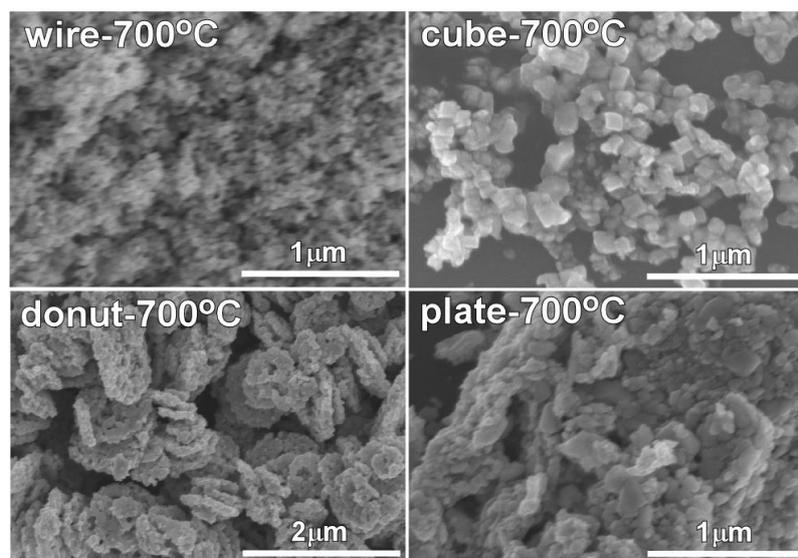
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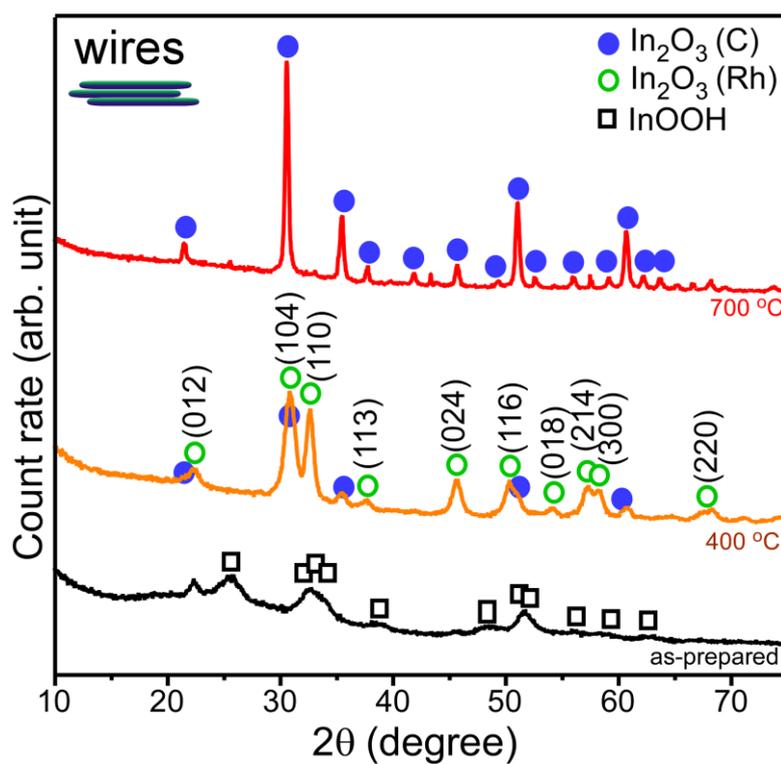
**Figure S1:** Nanoparticles formed in EG with ammonia (S1 and S2), in ethanol with ethylamine (S3), and in EG with EA at  $200^\circ\text{C}$  for 72 hours (S4).



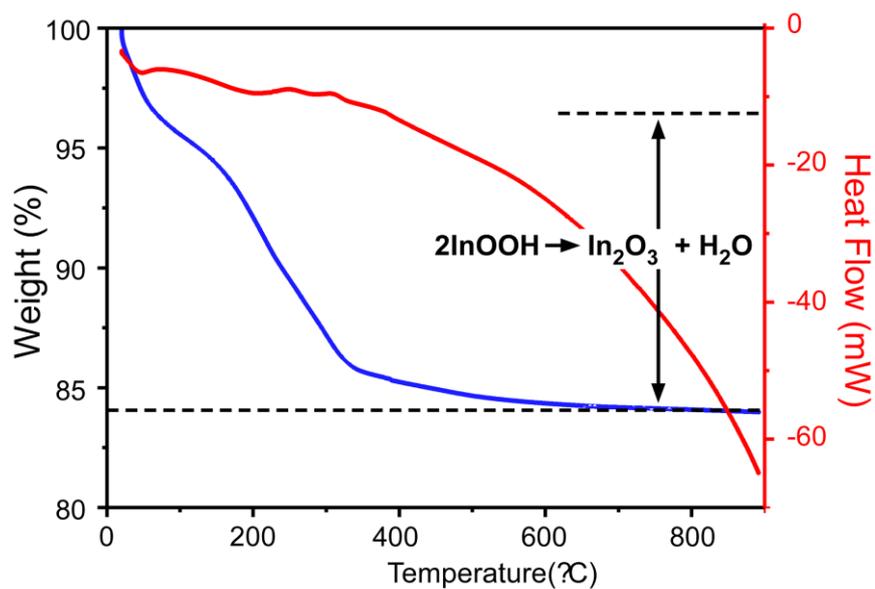
**Figure S2:** Donuts (top two lines, with 1.0 mL NaOH) and plates (bottom two lines, with 2.0 mL NaOH) synthesized in EG condition at  $120^\circ\text{C}$ .



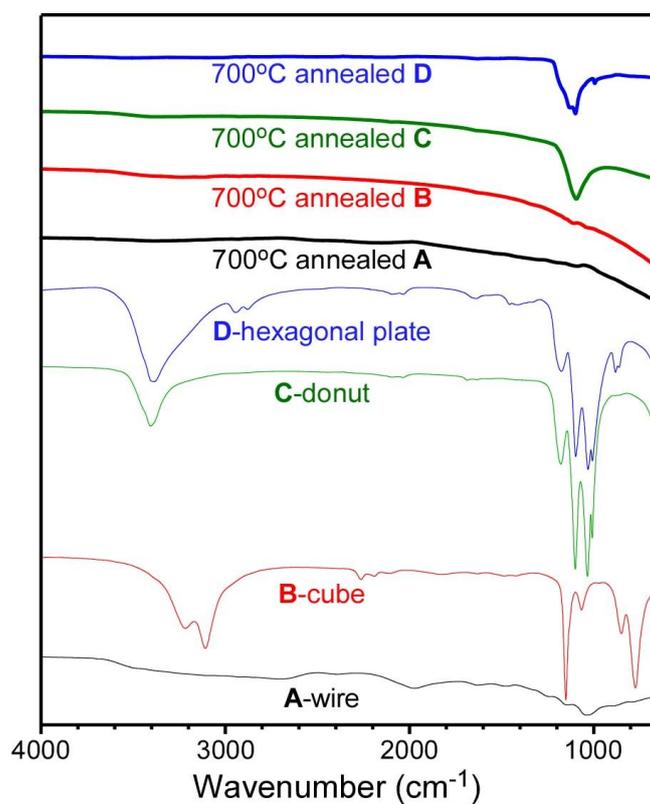
**Figure S3:** SEM images of 700 °C-annealed In oxide samples.



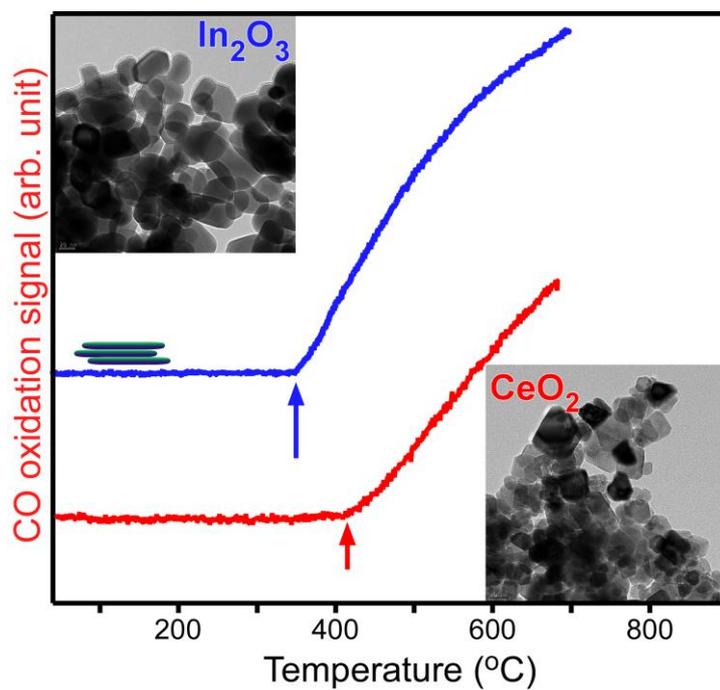
**Figure S4:** XRD patterns of as-prepared, 400 °C and 700 °C annealed wire samples.



**Figure S5:** Thermogravimetric and differential scanning calorimetry analysis (TG/DSC) curves for InOOH wires.



**Figure S6:** FT-IR spectra of as-prepared and 700°C-annealed In samples.



**Figure S7:** Comparison of CO oxidation profiles between In<sub>2</sub>O<sub>3</sub> (wires before annealing) and synthesized CeO<sub>2</sub> nanopowders. We collected the data at the same experimental conditions with the same amount (10 mg) of the catalysts.