

Supporting Information

Hollow CeO₂ Dodecahedrons: One-Step Template Synthesis and Enhanced Catalytic Performance

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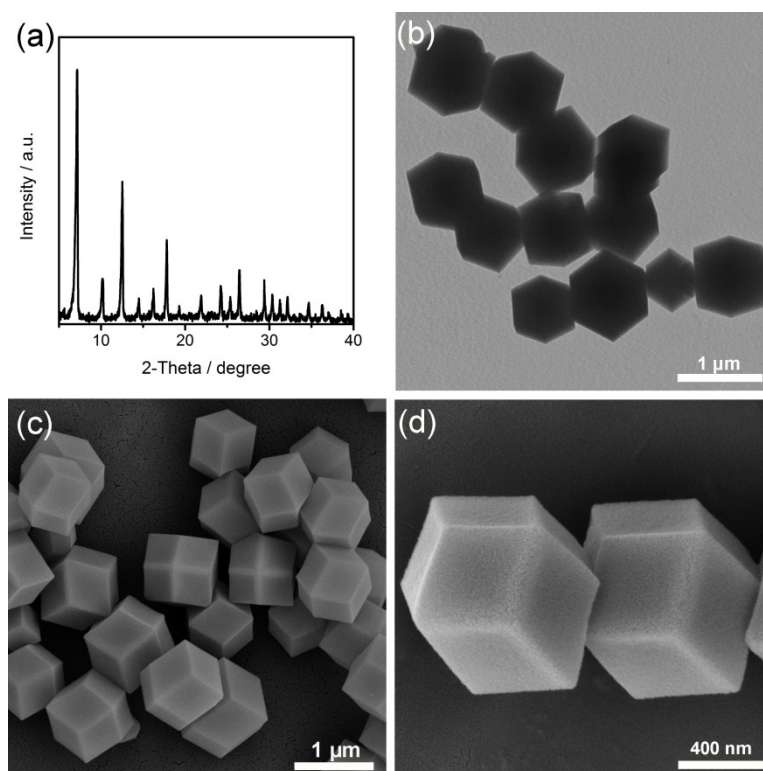


Figure S1. XRD pattern (a), TEM image (b), and low- (c) and high-magnification SEM images (d) of ZIF-67 nanocrystals.

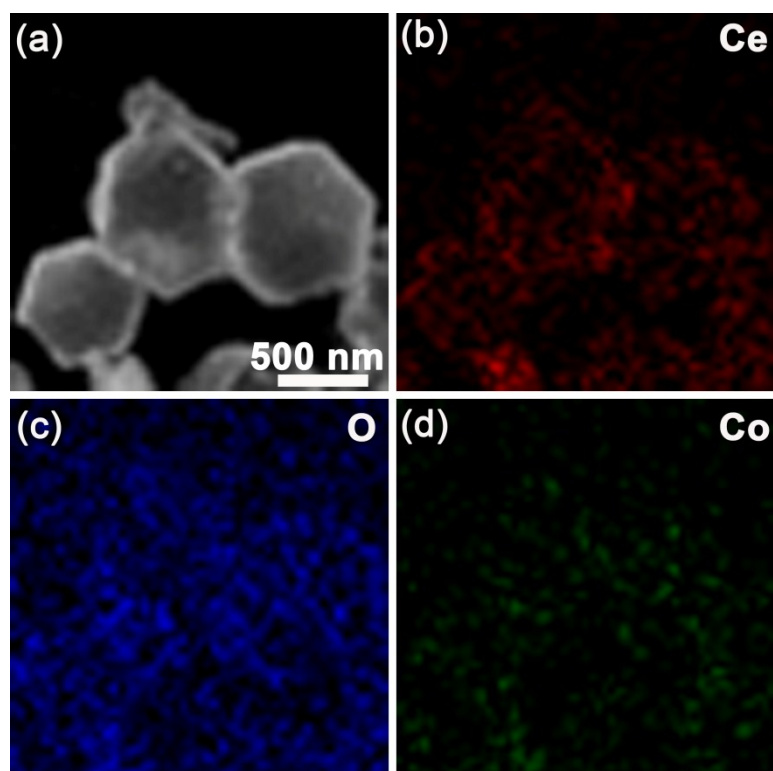


Figure S2. SEM image (a) and the corresponding EDS mapping of Ce (b), O (c), and Co (d) of the as-obtained hollow CeO_2 dodecahedrons.

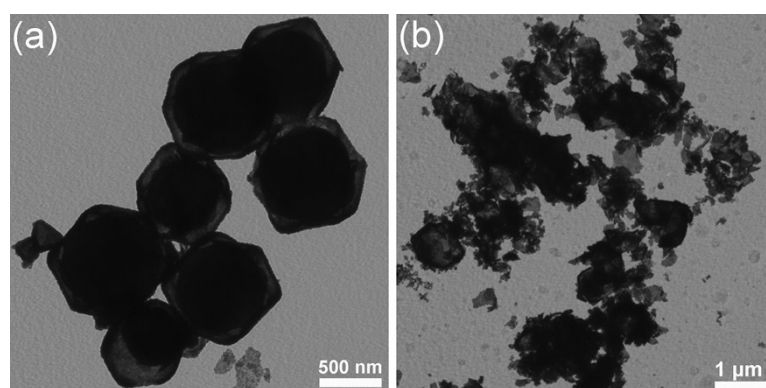


Figure S3. TEM images of ZIF-67@ CeO_2 yolk-shell structures (a) and cracked plates (b) formed using 0.03 g and 0.6 g of $\text{Ce}(\text{NO}_3)_3 \cdot 6\text{H}_2\text{O}$, respectively.

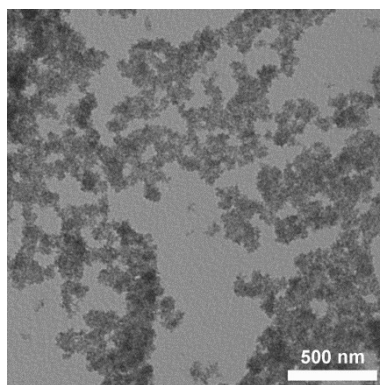


Figure S4. TEM image of the product using water as the solvent.

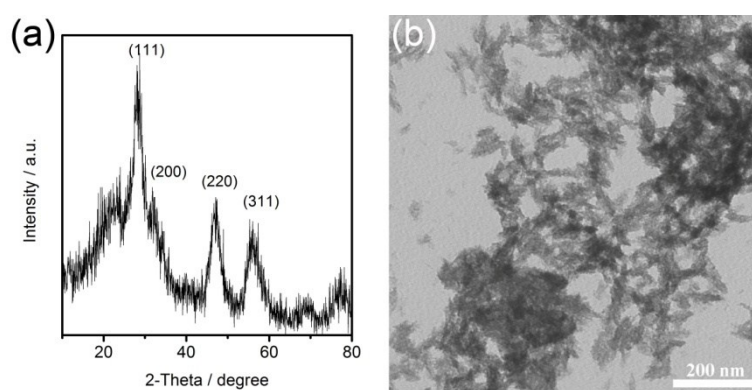


Figure S5. XRD pattern (a) and TEM image (b) of spindle-like nanostructures of CeO_2 formed using $\text{CeCl}_3 \cdot 7\text{H}_2\text{O}$ as the cerium source.

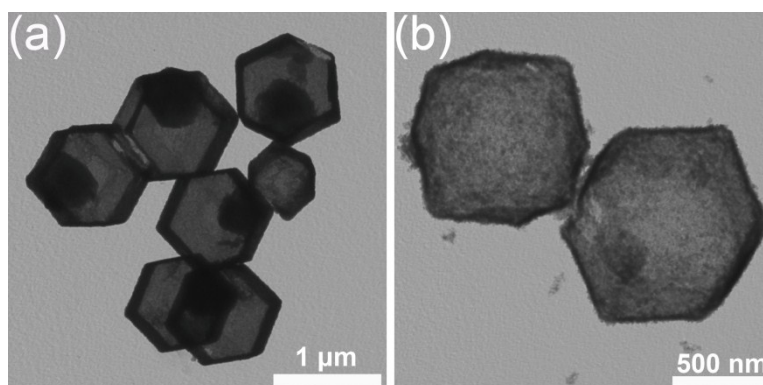


Figure S6. TEM images of the yolk-shell structures (a) and hollow structures after acid etching (b).

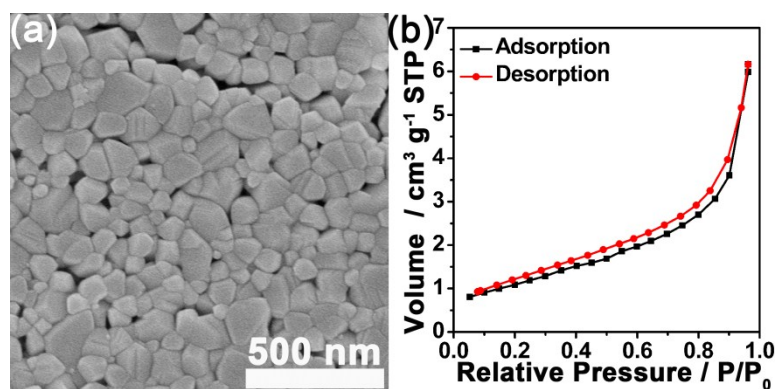


Figure S7. SEM image (a) and N₂ adsorption-desorption isotherm (b) of the commercial CeO₂ powder.

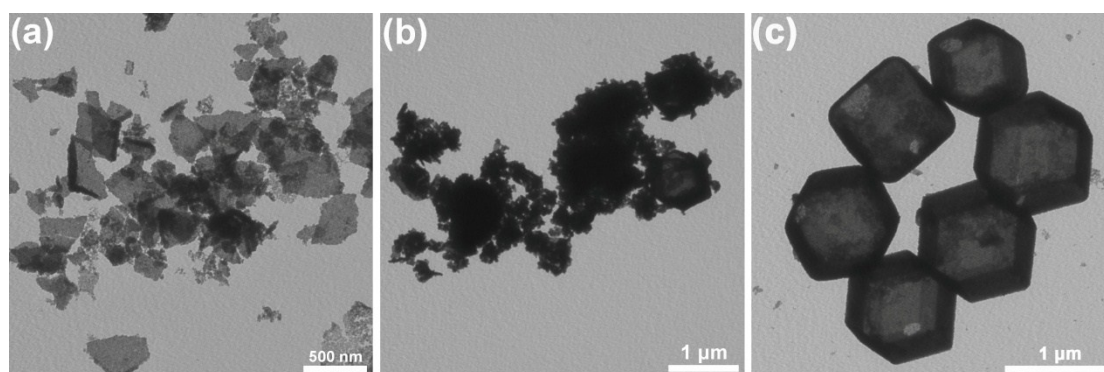


Figure S8. TEM images of crushed (a), annealed (b) and acid washed (c) hollow CeO₂ dodecahedrons.

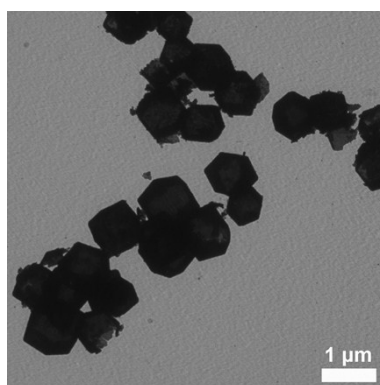


Figure S9. TEM images of hollow CeO₂ dodecahedrons after the catalysis of CO oxidation.