

Supporting Information

Improving the oxygen evolution activity of Co_3O_4 by introducing Ce species derived from Ce-substituted ZIF-67

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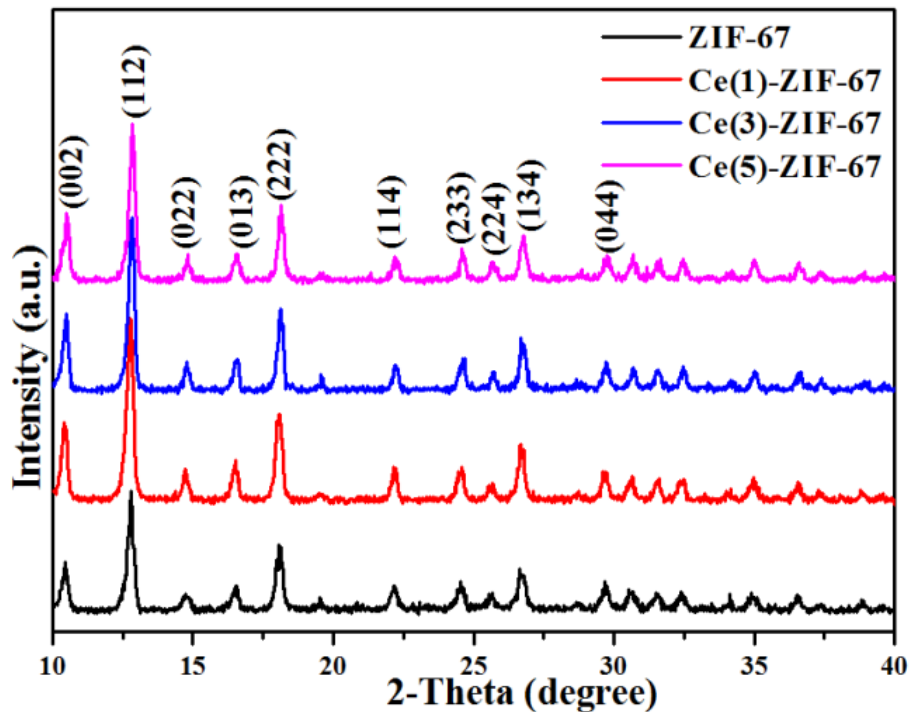


Fig. S1. XRD patterns of as-prepared precursors

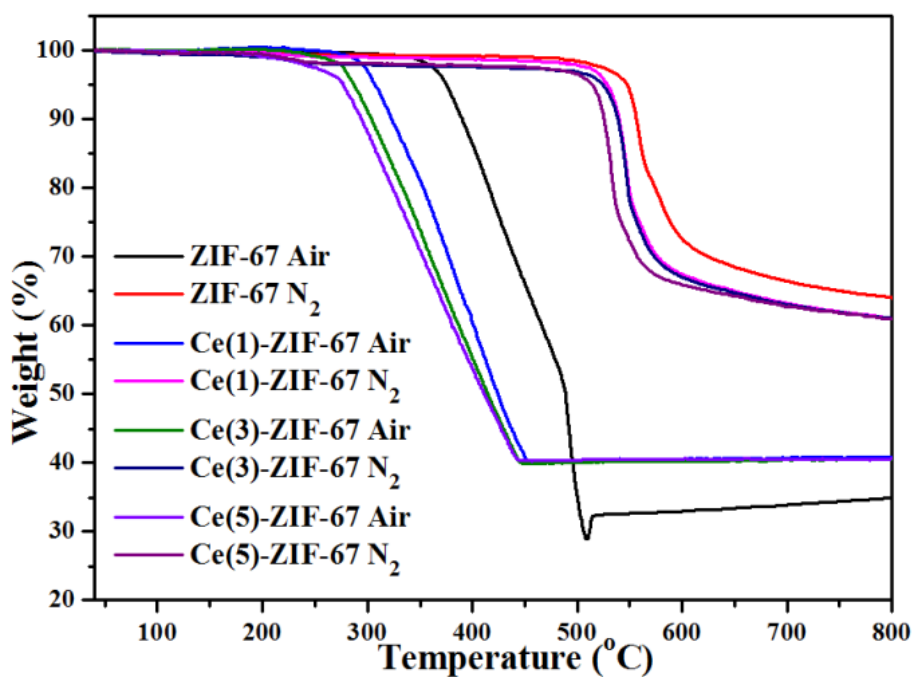


Fig. S2. TGA curves of as-prepared precursors under flowing air and N₂ with a 10 °C/min increasing rate.

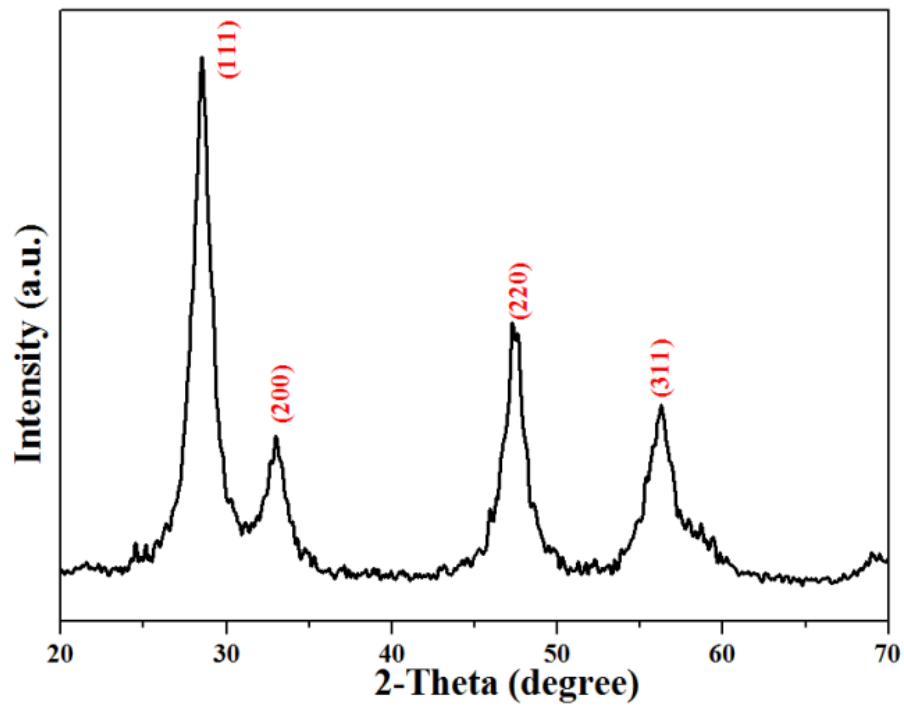


Fig. S3. XRD pattern of as-prepared CeO₂.

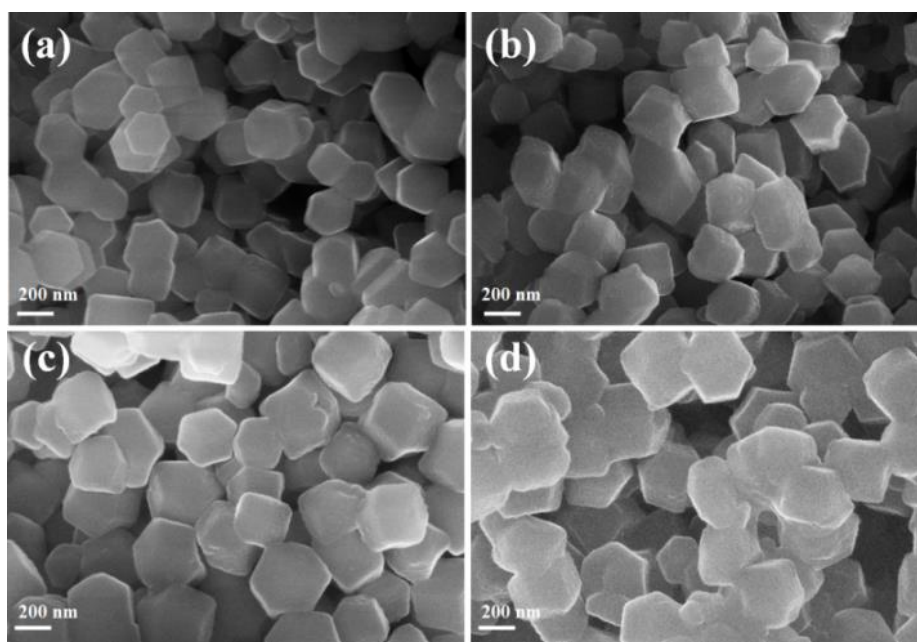


Fig. S4. SEM images of as-prepared precursors: (a) ZIF-67, (b) Ce(1)-ZIF-67, (c) Ce(3)-ZIF-67 and (d) Ce(5)-ZIF-67.

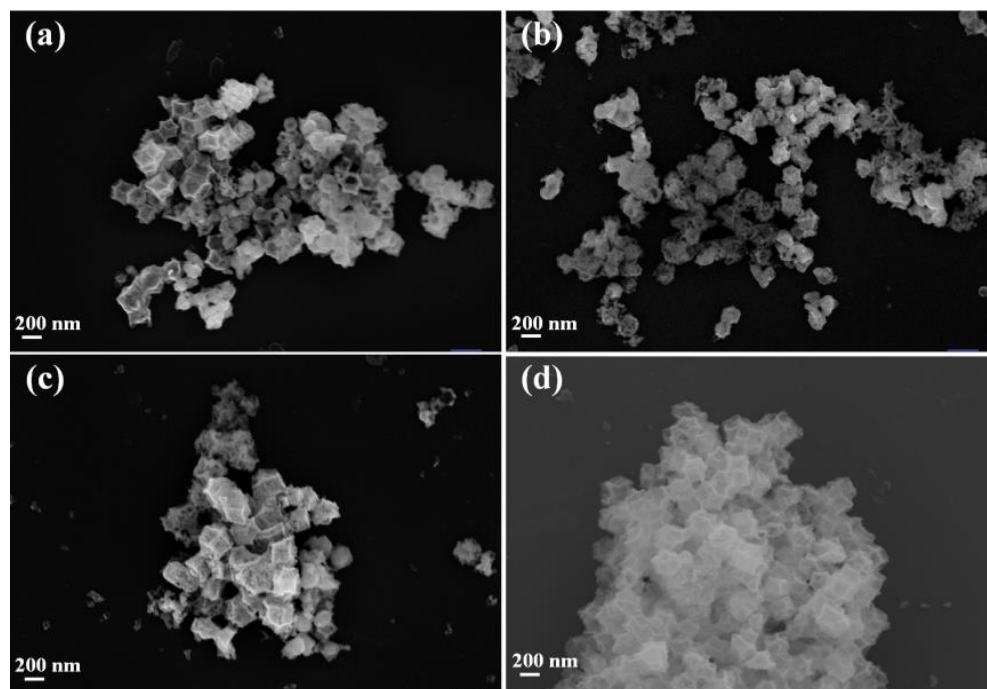


Fig. S5. FESEM images for (a) Co_3O_4 , (b) $\text{Ce}(1)\text{-Co}_3\text{O}_4$, (c) $\text{Ce}(3)\text{-Co}_3\text{O}_4$ and (d) $\text{Ce}(5)\text{-Co}_3\text{O}_4$.

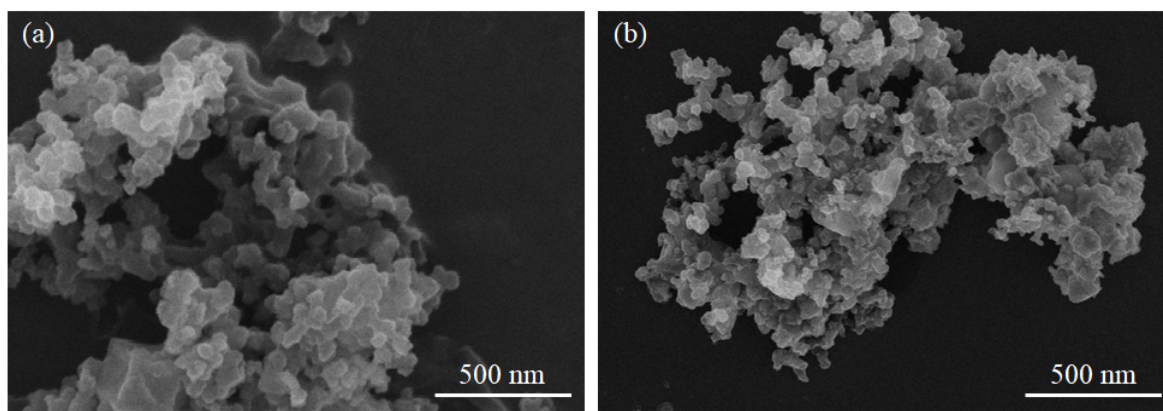


Fig. S6. SEM images of $\text{Ce}(3)\text{-Co}_3\text{O}_4$ mixed with acetylene black before (a) and after (b) the stability test.

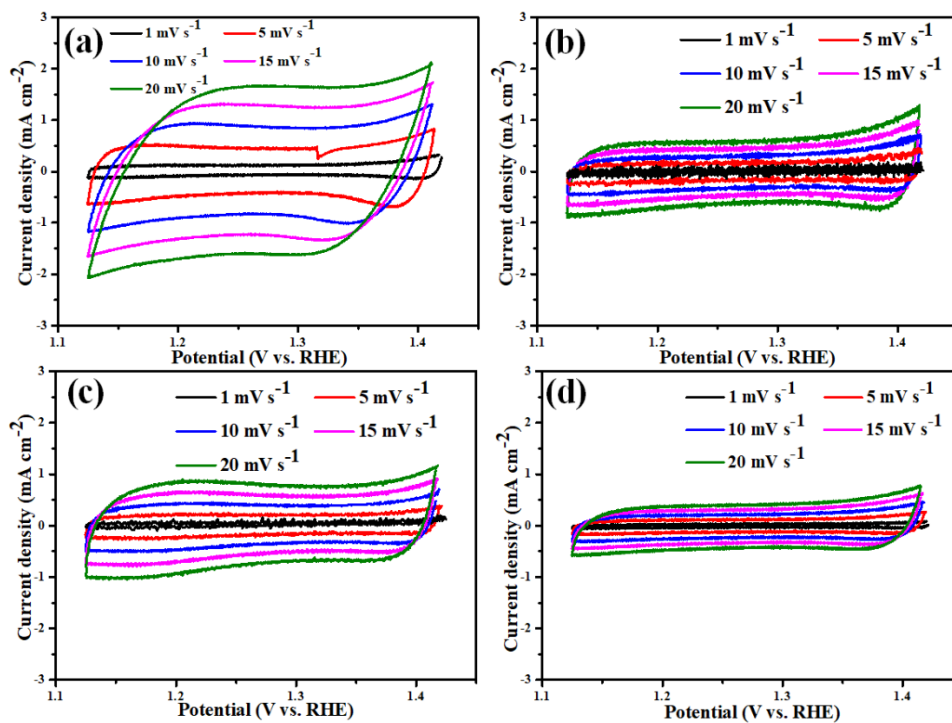


Fig. S7. The CV curves of as-prepared samples at various scan rates with voltage of 0.1-0.4 V: (a) Co₃O₄, (b) Ce(1)-Co₃O₄, (c) Ce(3)-Co₃O₄ and (d) Ce(5)-Co₃O₄.