

Supplementary Materials: Manganese-cobalt spinel nanoparticles anchored on carbon nanotubes as bi-functional catalysts for oxygen reduction and oxygen evolution reactions

Supplementary Figures

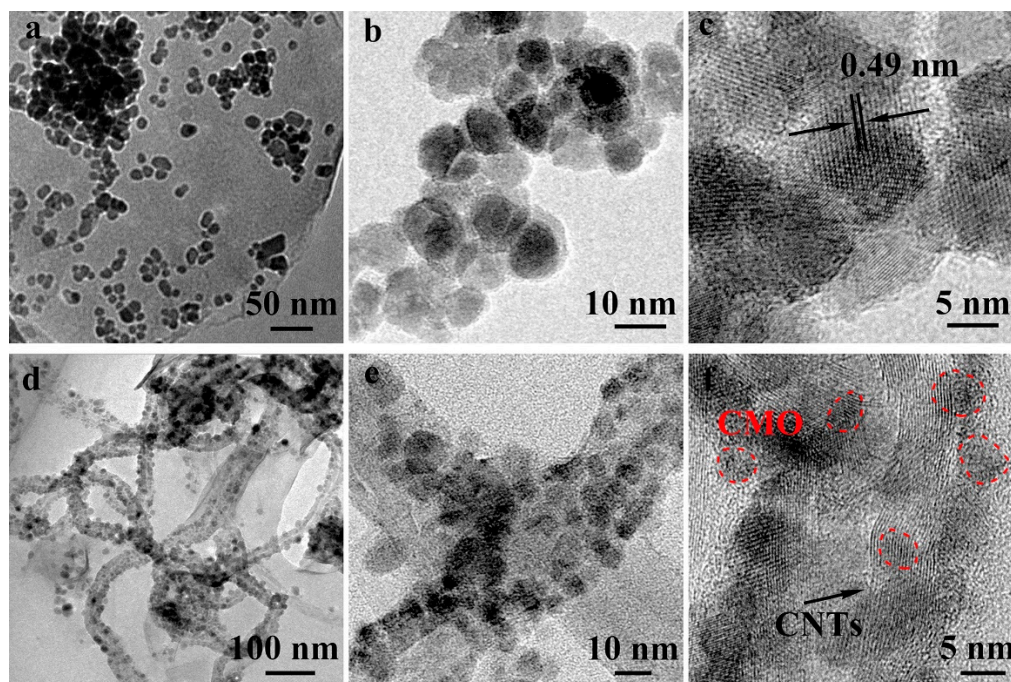


Figure S1. TEM images of (a-c) CoMn₂O₄ nanoparticles, and (d-f) CoMn₂O₄-CNTs nanocomposites.

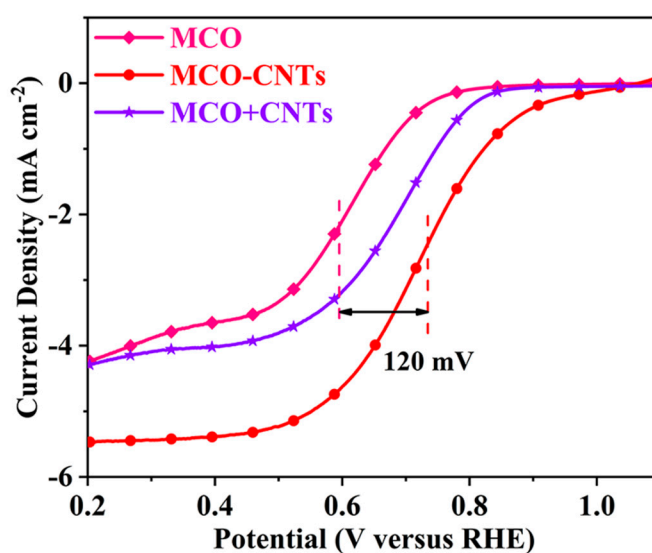


Figure S2. ORR polarization curves

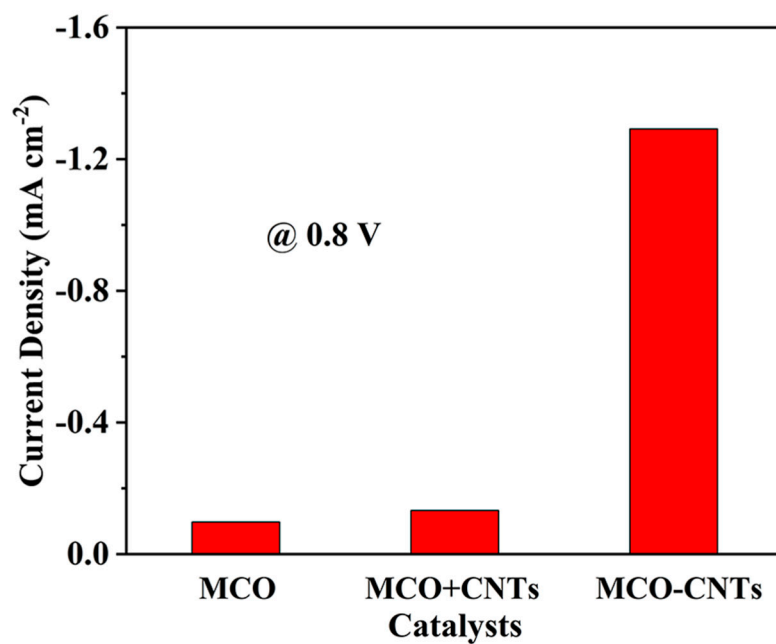


Figure S3. The current density at the electrode potential of 0.8 V vs. RHE of MnCo₂O₄, MnCo₂O₄-CNTs and CoMn₂O₄+CNTs with the rotation of 1600 rpm.

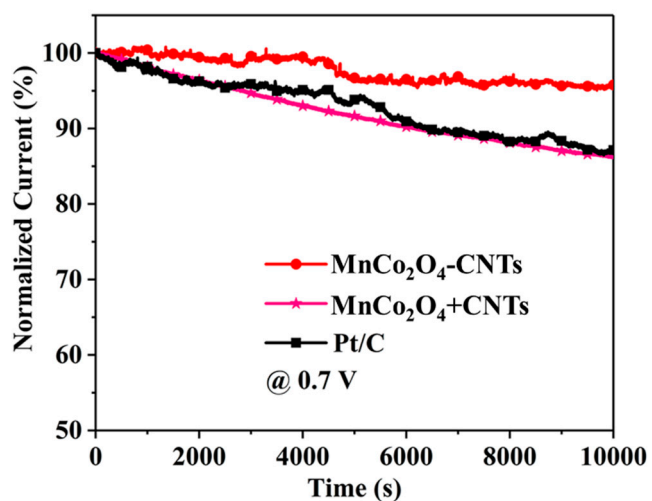


Figure S4. Chronoamperometric curves of MnCo₂O₄-CNTs, MnCo₂O₄+CNTs and Pt/C with the rotation of 1600 rpm.

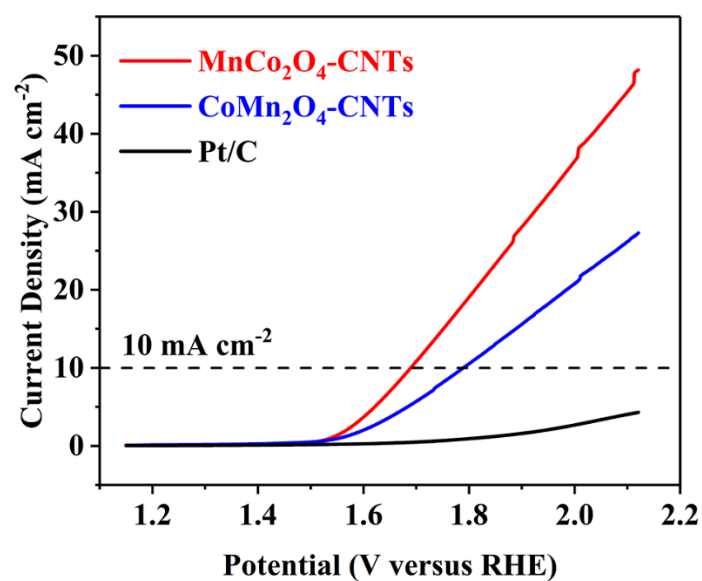


Figure S5. OER polarization curves of MnCo₂O₄-CNTs, CoMn₂O₄-CNTs and commercial Pt/C catalyst at the rotation of 1600 rpm.

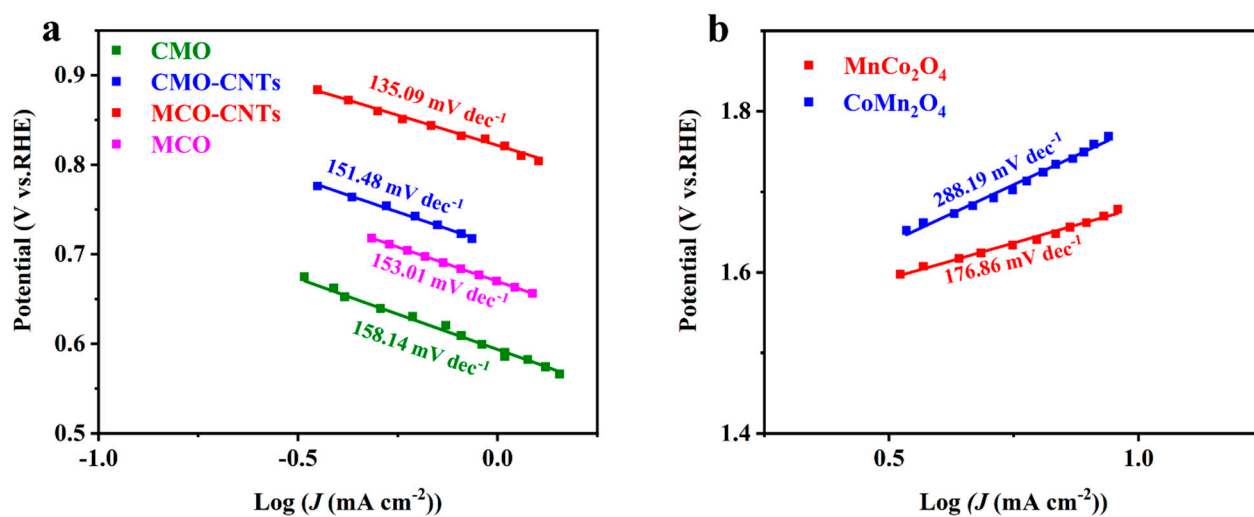


Figure S6. Corresponding Tafel slopes (a) Tafel slopes of ORR, and (b) Tafel slopes of OER.