

Supporting information

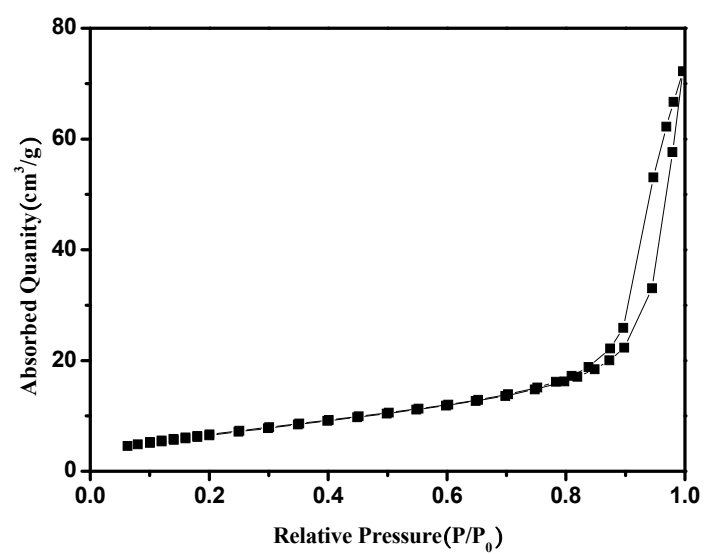


Figure S1. BET curve of core-shell $\text{NiCo}_2\text{O}_4@ \text{NiCo}_2\text{O}_4$

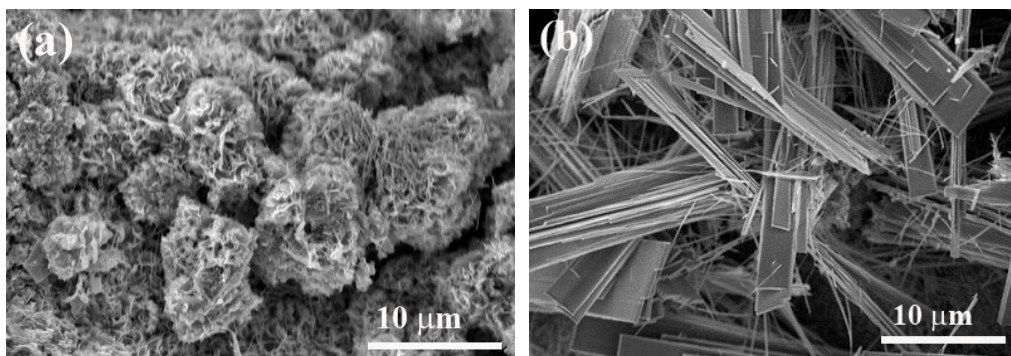


Figure S2. SEM of $\text{NiCo}_2\text{O}_4@\text{NiCo}_2\text{O}_4/\text{NF}$ composites prepared at different temperatures of (a) 100 °C and (b) 140°C

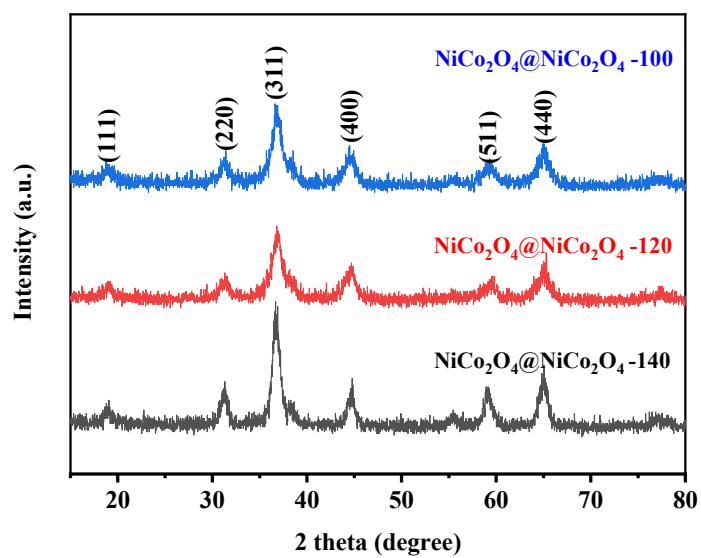


Figure S3. XRD pattern of $\text{NiCo}_2\text{O}_4@/\text{NiCo}_2\text{O}_4/\text{NF}$ composites prepared at different temperatures

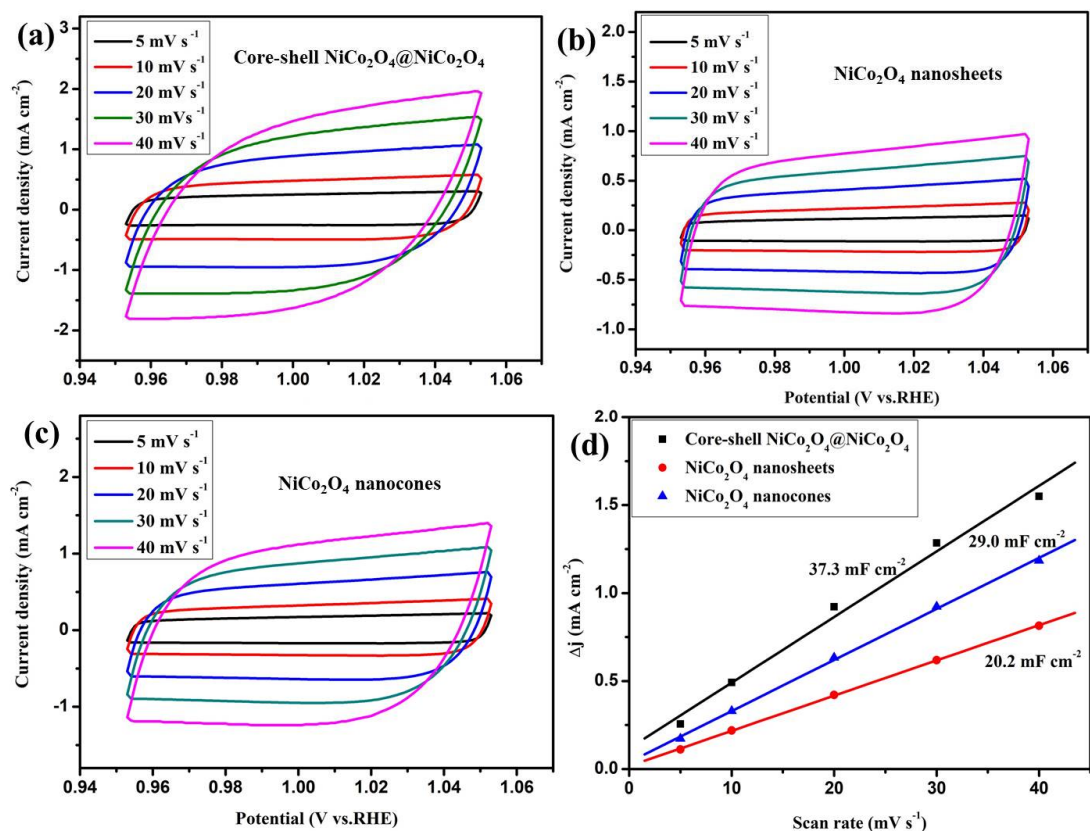


Figure S4. Cyclic voltammetry curves of (a) core-shell $\text{NiCo}_2\text{O}_4@\text{NiCo}_2\text{O}_4$ (b) NiCo_2O_4 nanosheets (c) NiCo_2O_4 nanoneedles at different scan rates from 5 to 40 mV/s in 1.0 M KOH (d) electrochemical surface areas of different samples

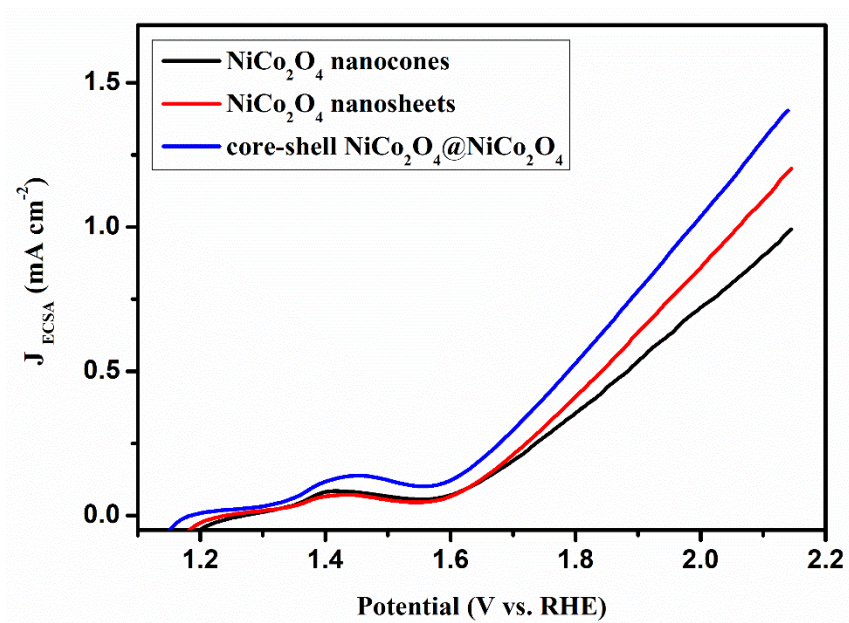


Figure S5. Polarization curves for different catalysts with current density normalized by ECSA

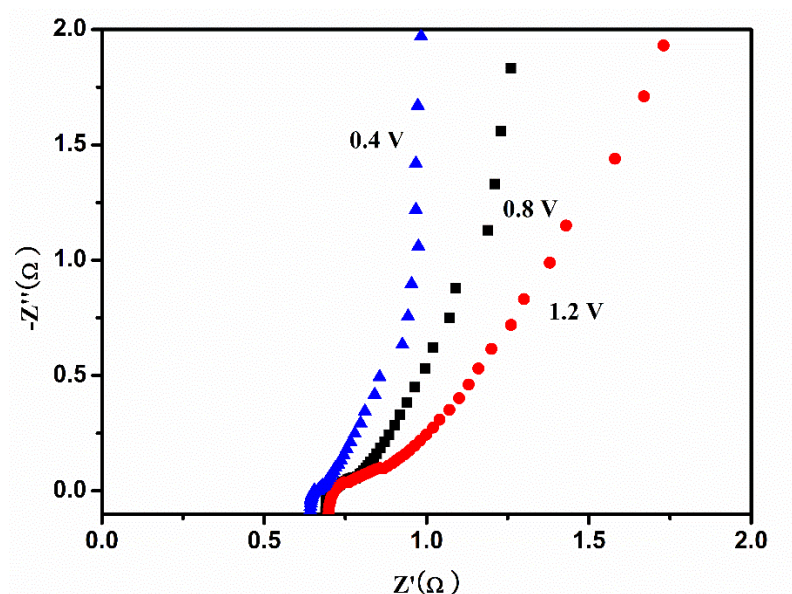


Figure S6. The Nyquist plots of NiCo₂O₄@NiCo₂O₄/NF at different potential

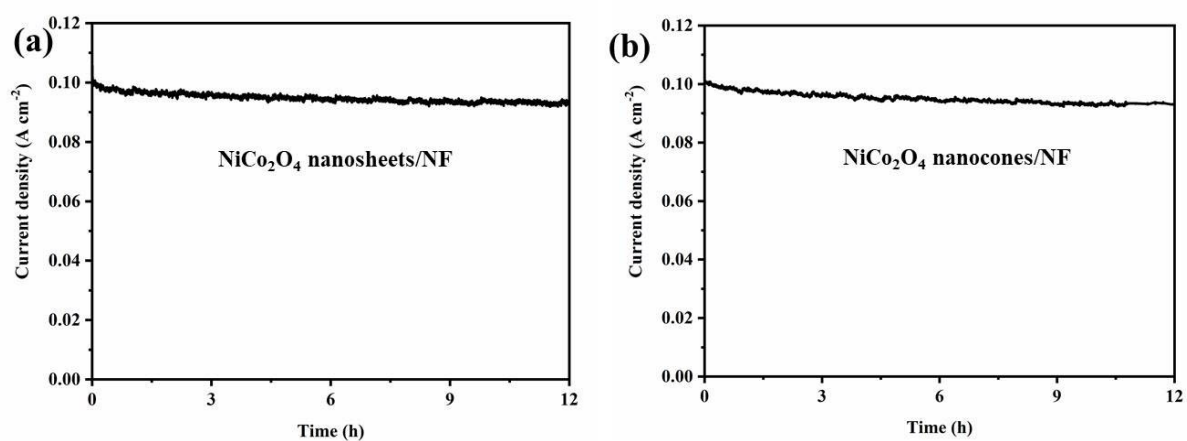


Figure S7. Long time stability test of (a) NiCo₂O₄ nanosheets/NF and (b) NiCo₂O₄ nanocones/NF at 100 mA cm⁻² in 1.0 M KOH

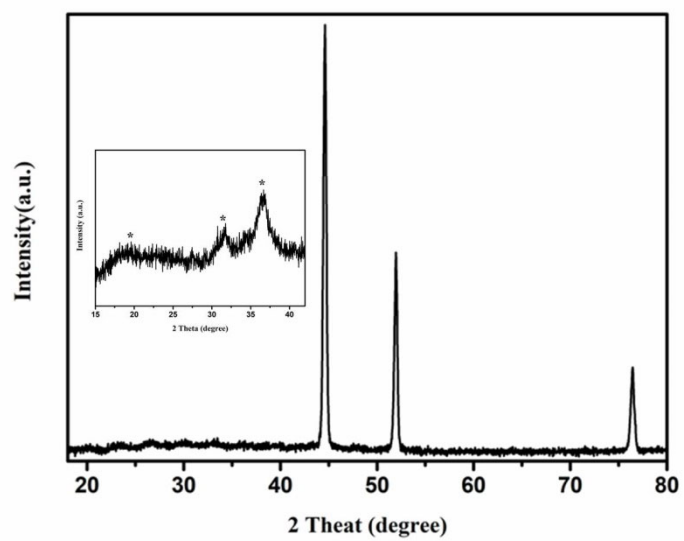


Figure S8. XRD patterns of $\text{NiCo}_2\text{O}_4@\text{NiCo}_2\text{O}_4/\text{NF}$ after the OER stability test