

Supporting Information

Hierarchically porous Co₃O₄/C nanowire arrays derived from metal-organic framework for high performance supercapacitors and oxygen evolution reaction

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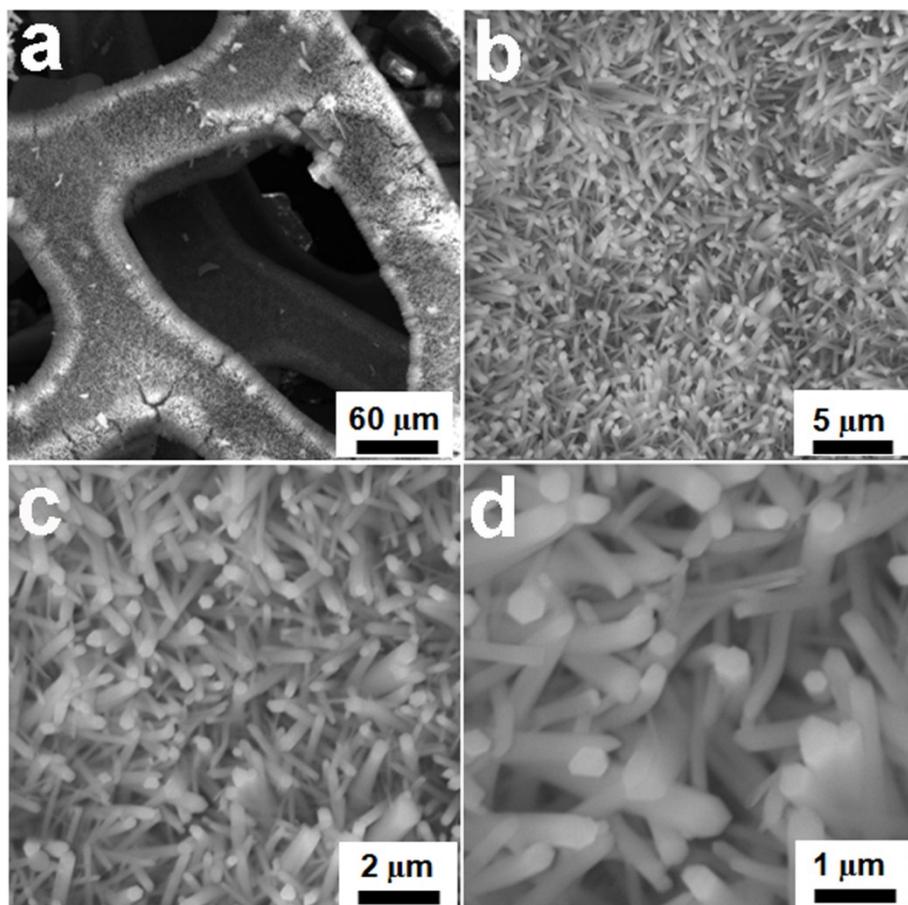


Figure S1. SEM images of Co-MOF NAs growing on the Ni foam at different magnifications.

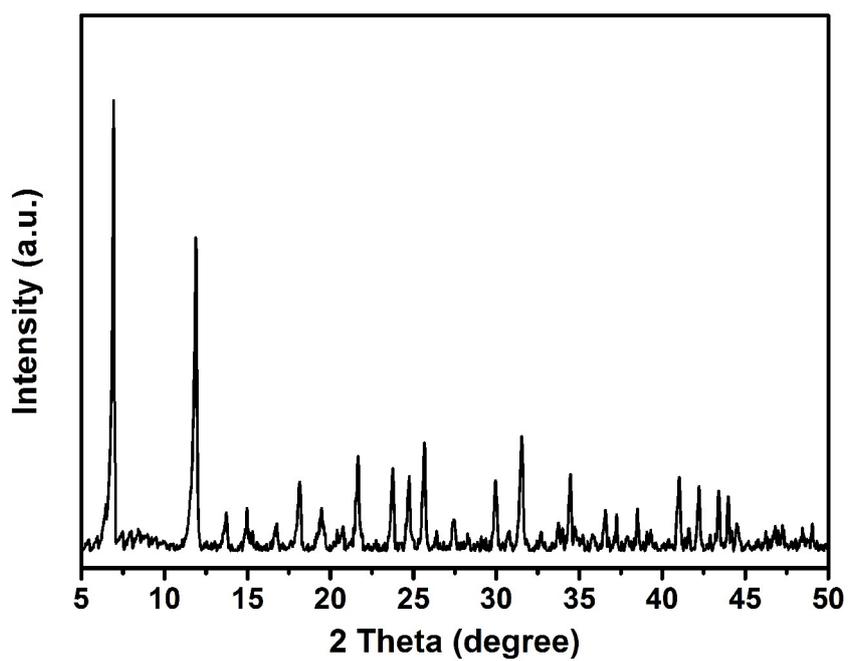


Figure S2. XRD patterns of the Co-MOF nanowire arrays.

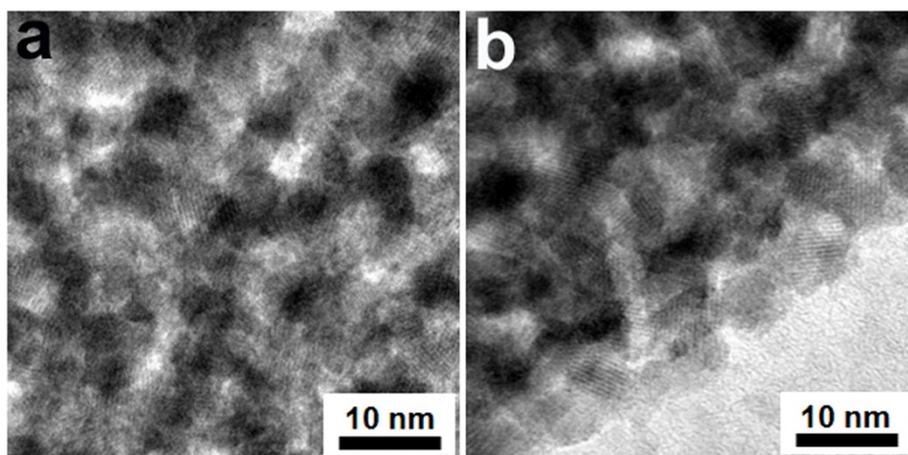


Figure S3. HRTEM images of $\text{Co}_3\text{O}_4/\text{C}$ NAs at (a) the center and (b) the edge.

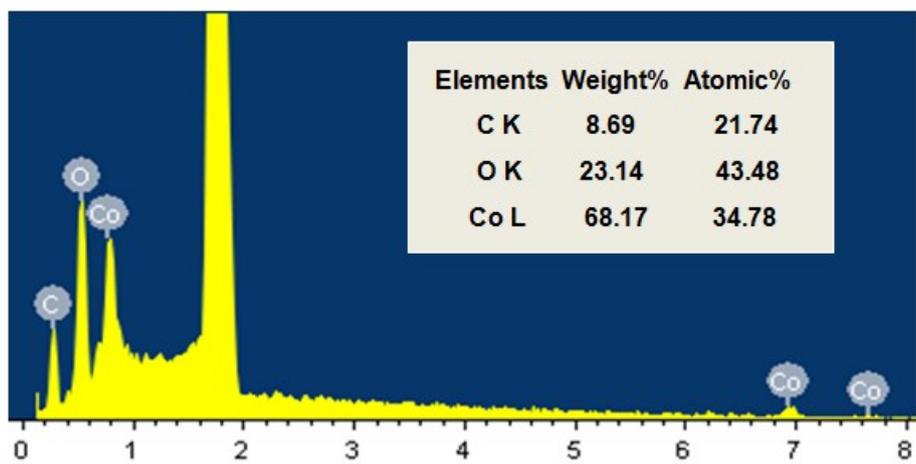


Figure S4. EDX spectrum of Co₃O₄/C NAs.

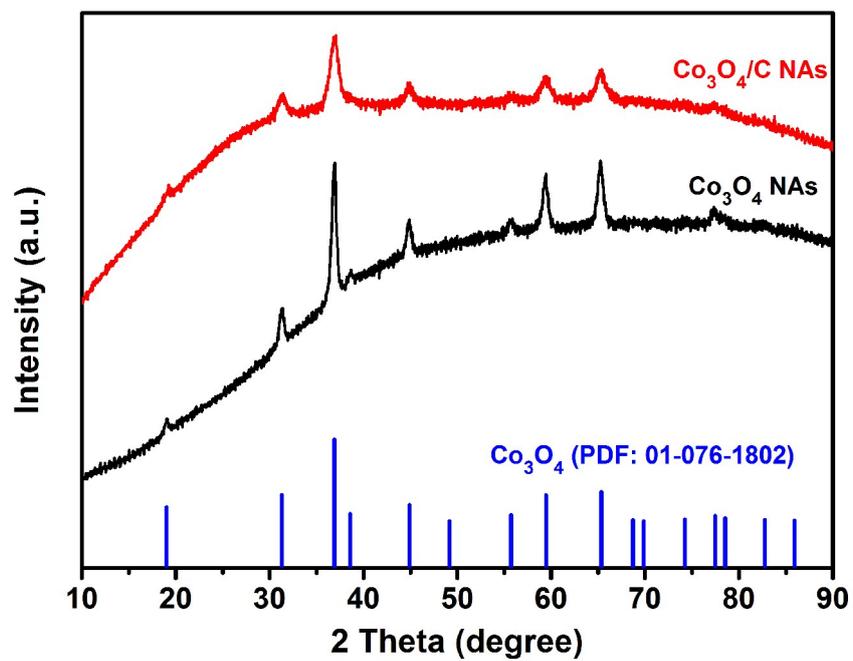


Figure S5. The XRD patterns of the as-synthesized Co₃O₄/C NAs and Co₃O₄ NAs. The standard XRD pattern of Co₃O₄ (PDF: 01-076-1802) is also shown.

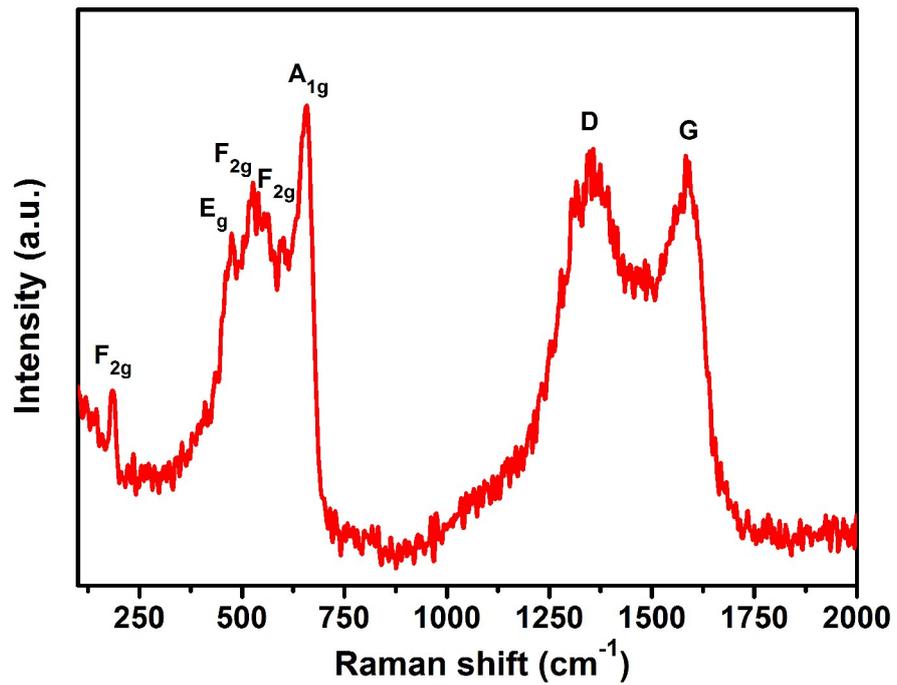


Figure S6. Raman spectrum of the hybrid $\text{Co}_3\text{O}_4/\text{C}$ NAs.

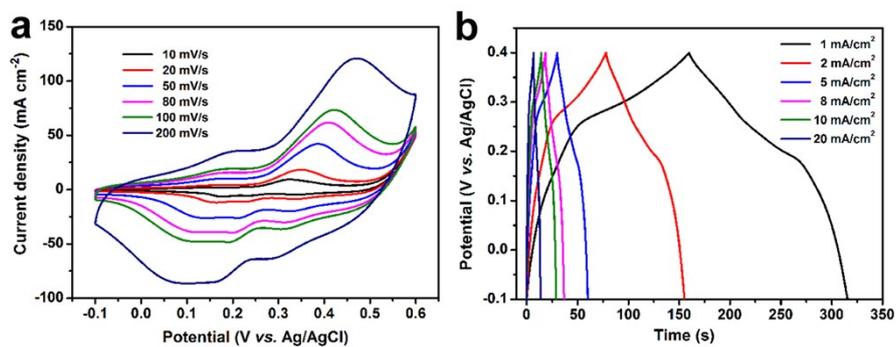


Figure S7. (a) CV curves of pristine Co_3O_4 NAs at the scan rates from 10 to 200 mV s^{-1} . (b) Galvanostatic charge and discharge curves of pristine Co_3O_4 NAs at different current densities ranging from 1 to 20 mA cm^{-2} .

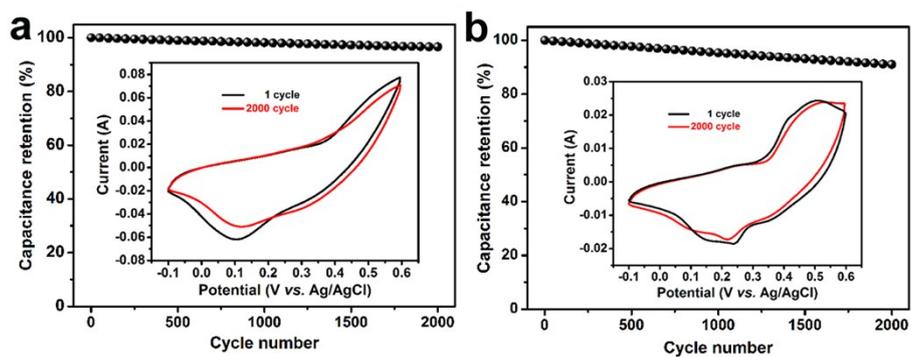


Figure S8. Cycling stability of the (a) hybrid $\text{Co}_3\text{O}_4/\text{C}$ NAs and (b) pristine Co_3O_4 NAs tested at a scan rate of 100 mV s^{-1} . The inset is the corresponding first and last cycles for the cycling stability tests.

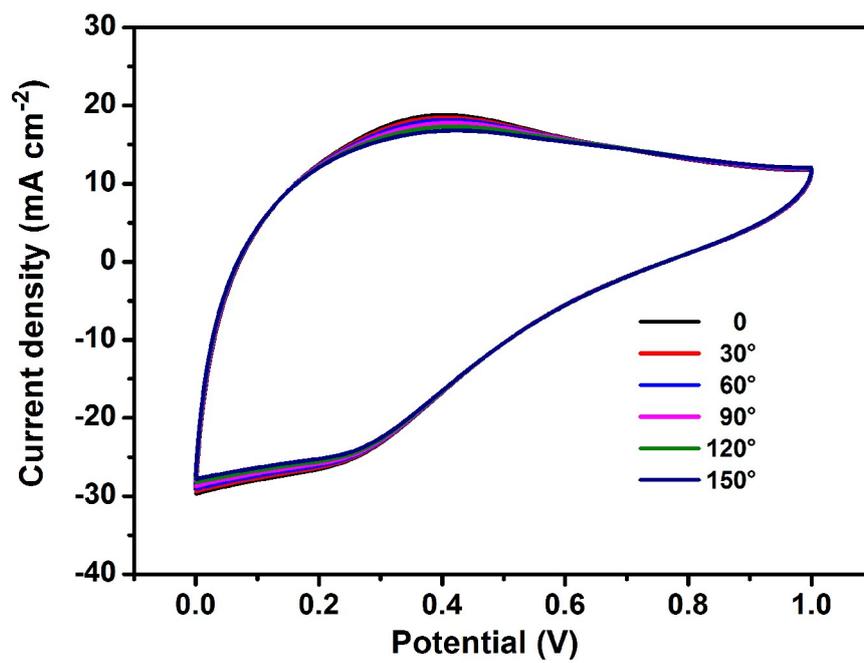


Figure S9. CV curves obtained at different bending angles at a scan rate of 100 mV s⁻¹.

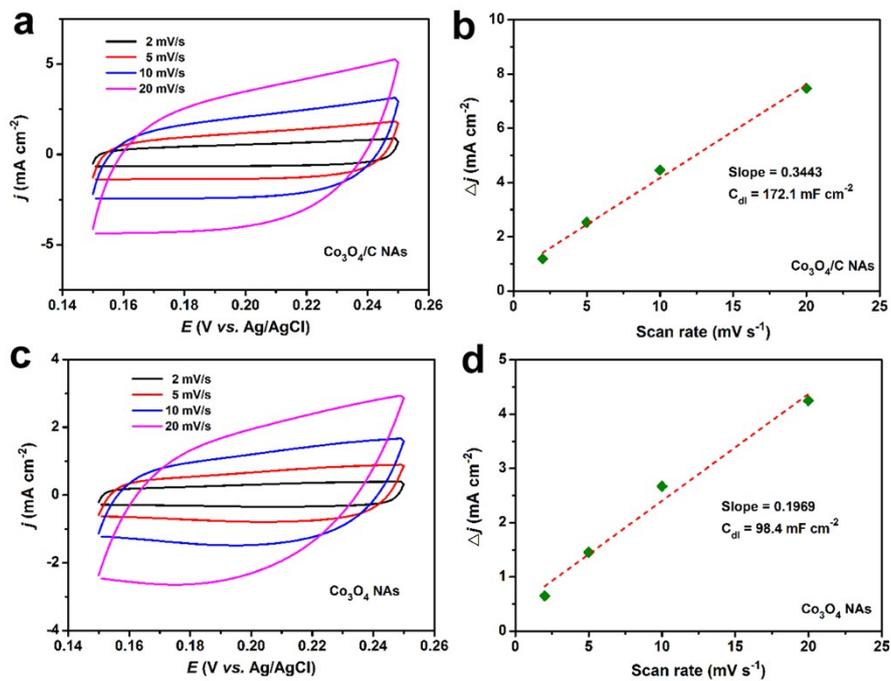


Figure S10. (a, c) Cyclic voltammograms and (b, d) the capacitive currents at 0.20 V vs. Ag/AgCl as a function of scan rate for $\text{Co}_3\text{O}_4/\text{C}$ NAs and Co_3O_4 NAs in 1 M KOH.