

# Electronic Supplementary Information

## Hierarchical CoP@Ni<sub>2</sub>P core-shell nanosheets for high-energy density asymmetric supercapacitors

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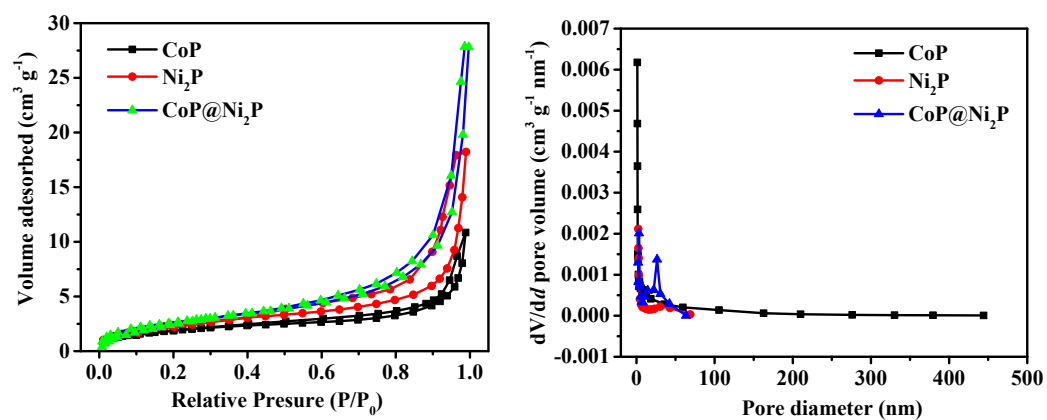
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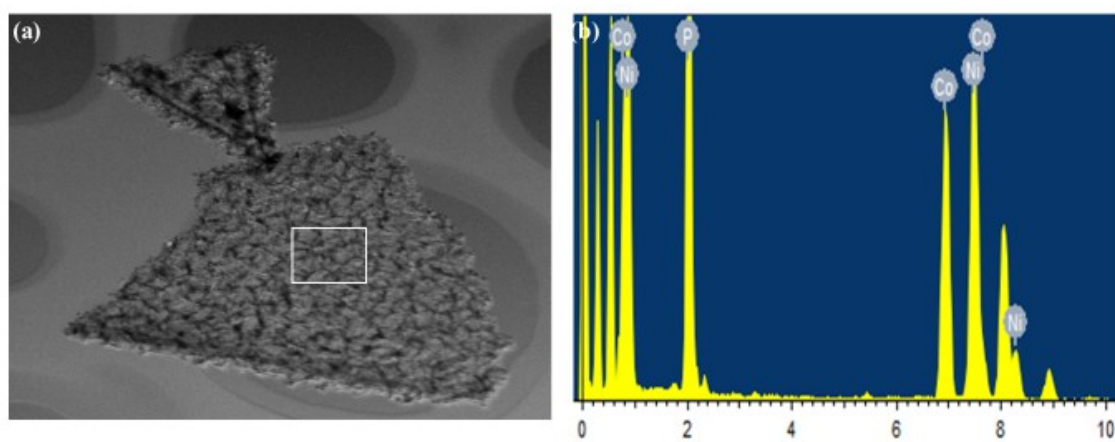
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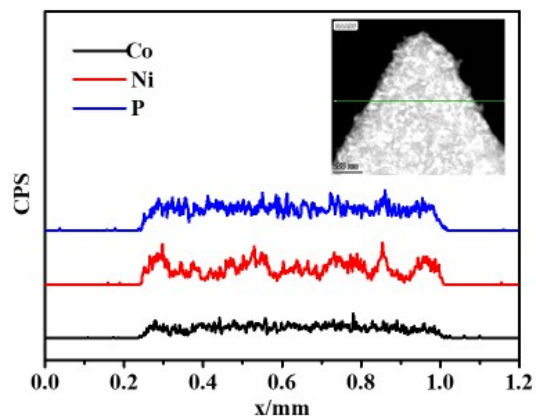
## Supplementary Figures



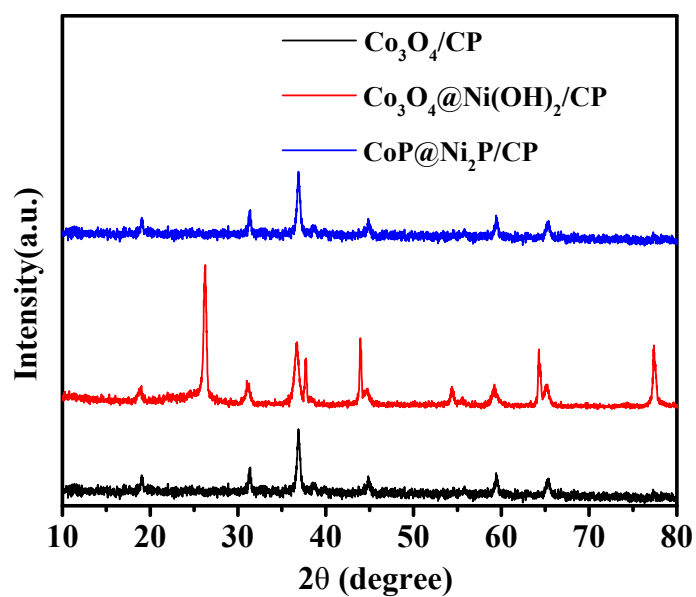
**Figure S1.** The nitrogen sorption isotherms and BJH pore size distributions of the CoP, Ni<sub>2</sub>P, CoP@Ni<sub>2</sub>P sample.



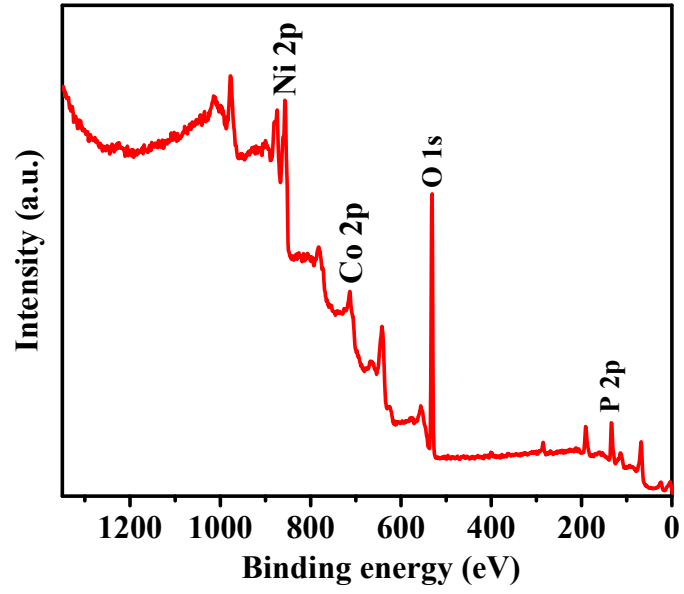
**Fig. S2.** The composition analysis of CoP@Ni<sub>2</sub>P/CP by TEM-EDX



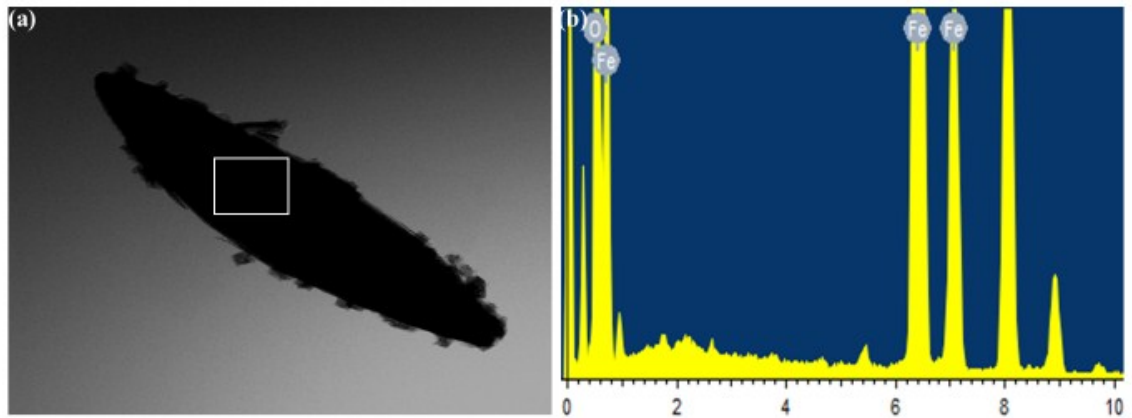
**Fig. S3.** The line scan of energy spectrum images of CoP@Ni<sub>2</sub>P NSs/CP



**Fig. S4.** The XRD of Co<sub>3</sub>O<sub>4</sub>/CP, Co<sub>3</sub>O<sub>4</sub>@Ni(OH)<sub>2</sub>/CP and CoP@Ni<sub>2</sub>P/CP



**Fig. S5.** The XPS survey spectrum of the CoP@Ni<sub>2</sub>P NSs/CP



**Fig. S6.** The composition analysis of  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> by TEM-EDX

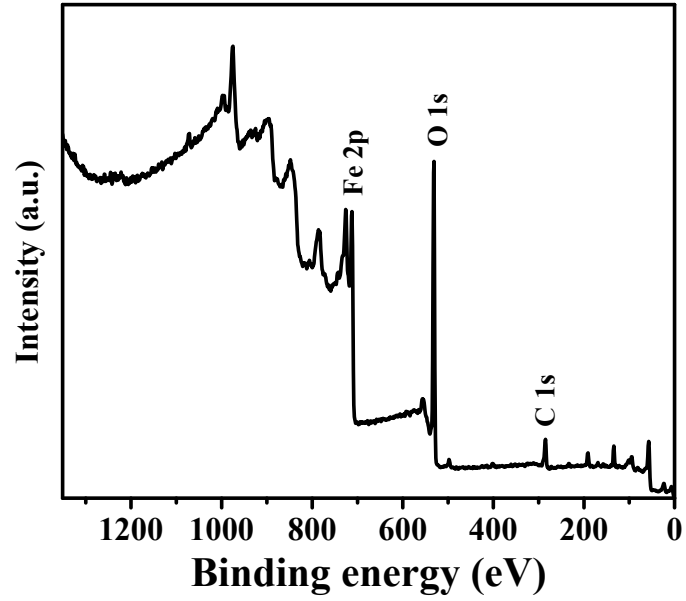


Fig. S7. The XPS survey spectrum of the  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>/CP

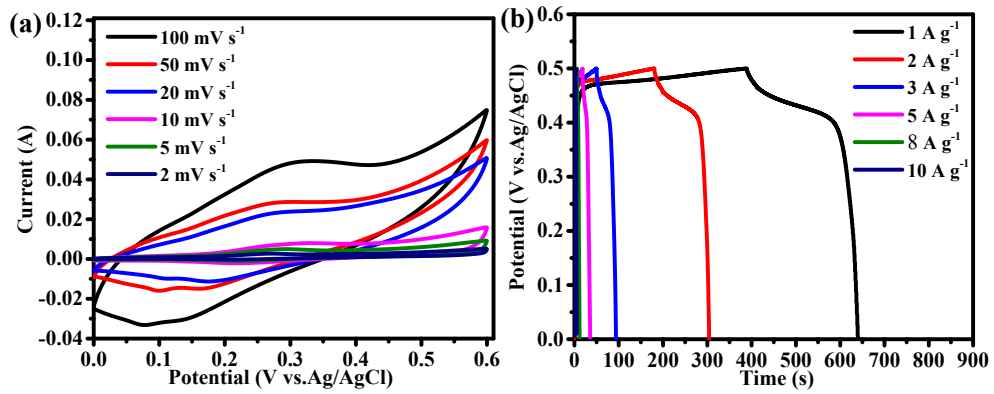


Fig. S8. The CV and GCD curves of the Ni<sub>2</sub>P/CP

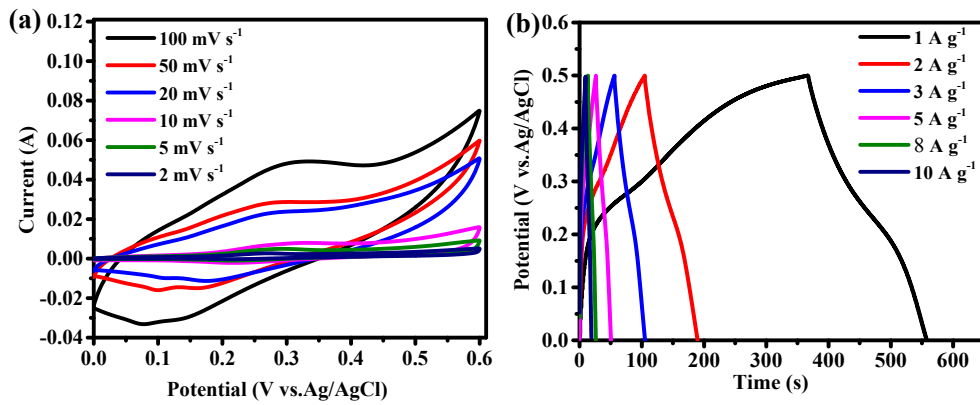
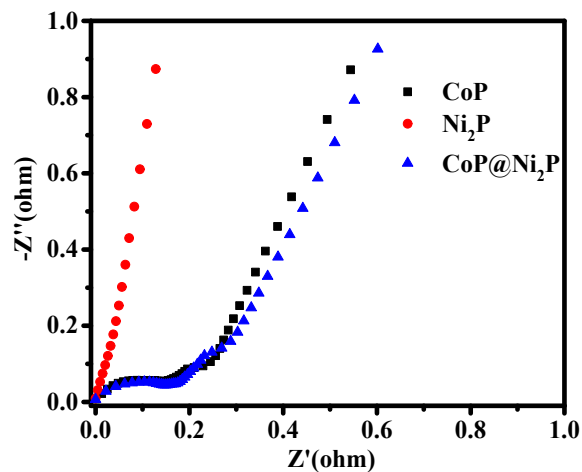
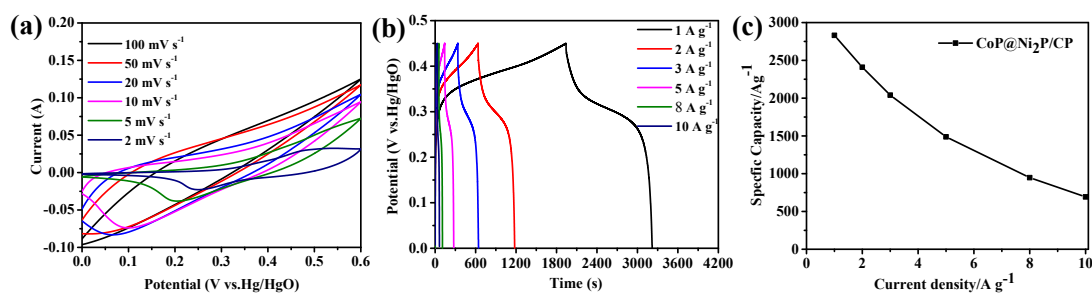


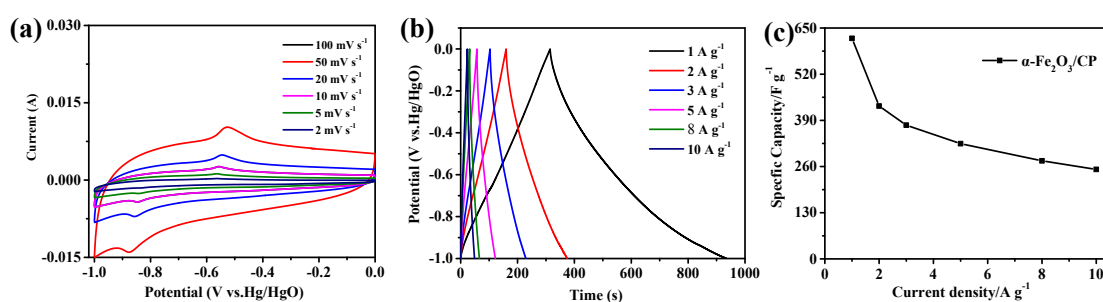
Fig. S9. The CV and GCD curves of the CoP/CP



**Figure S10.** The Enlarged part of different electrodes EIS impedance.



**Figure S11.** CV curves of CoP@Ni<sub>2</sub>P NSs/CP electrode at various scan rates (a), GCD curves of CoP@Ni<sub>2</sub>P NSs/CP electrode and specific capacitance at various current densities (b, c).



**Figure S12.** CV curves of  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>/CP electrode at various scan rates (a), GCD curves of  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>/CP electrode and specific capacitance at various current densities (b, c).