

Supporting Information

Construction of Hierarchical CoP@Ni₂P Nanoarrays for Efficient Electrocatalytic Hydrogen Evolution in Alkaline Solution

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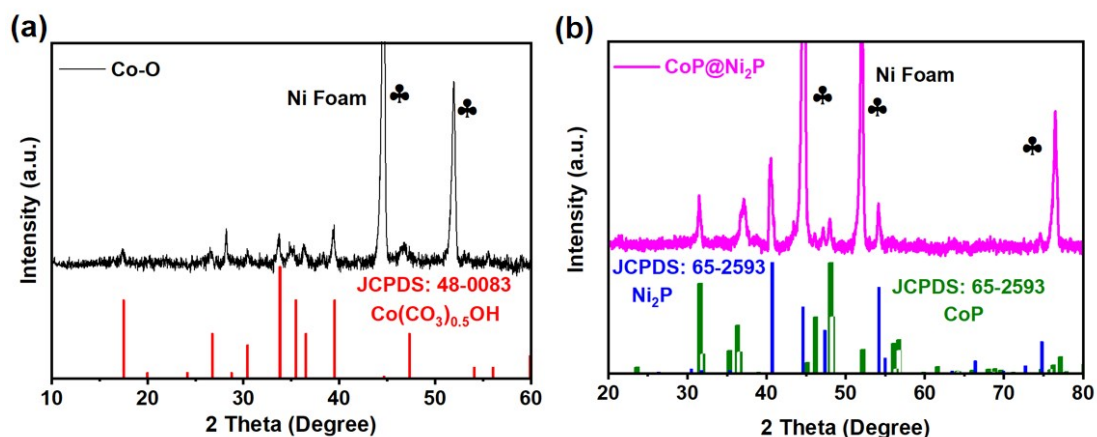


Fig. S1. XRD patterns of (a) Co-O nanowires and (b) CoP@Ni₂P, respectively.

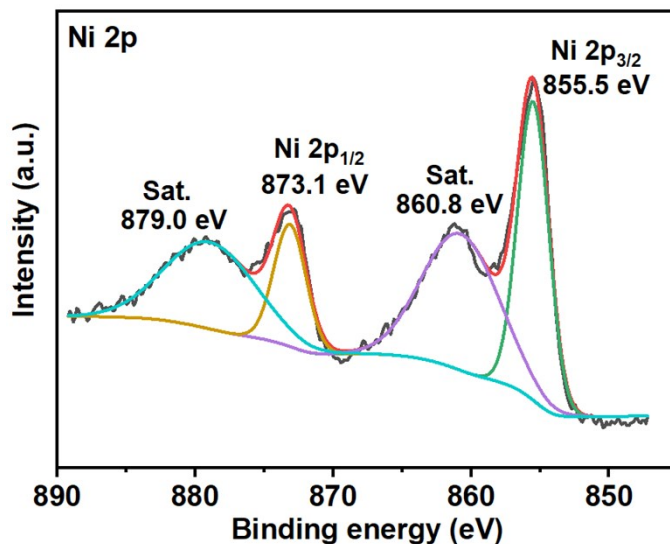


Fig. S2. XPS spectra of Ni 2p for Ni₂P.

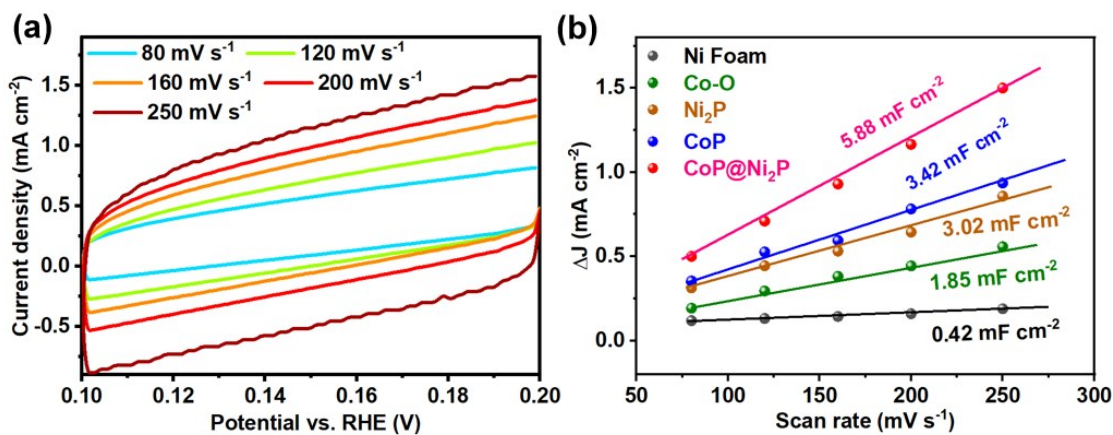


Fig. S3. (a) Typical cyclic voltammogram shows the capacitive current for the Ni₂P@CoP

at five different scan rates from 80 to 250 mV/s. (b) Plots show the the linear relationship between the capacitive current and scan rate for various catalysts.

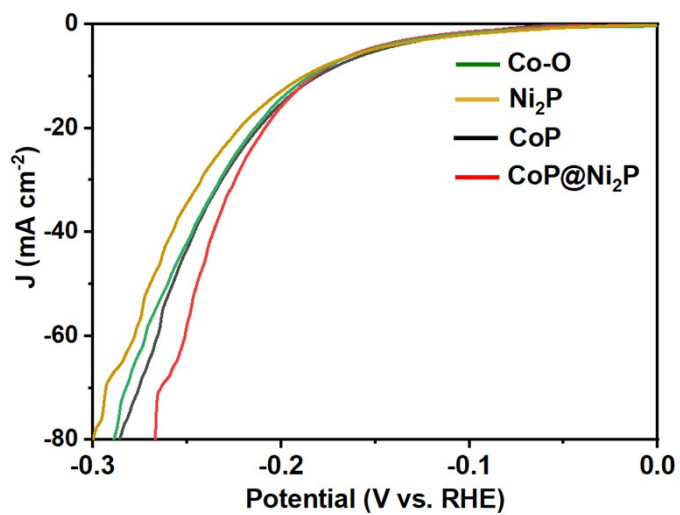


Fig. S4. LSV curves of obtained samples for HER in 1.0 M KOH with the current density normalized by their ECSA.

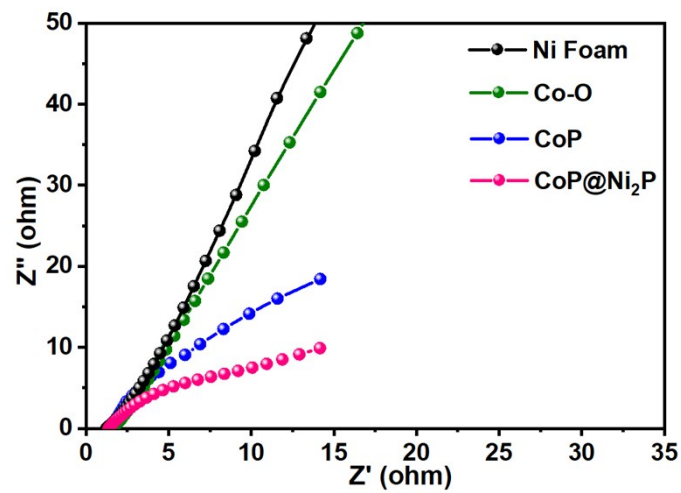


Fig. S5. Nyquist plots of CoP@Ni₂P and control catalysts at a constant potential of -0.15 V versus RHE.

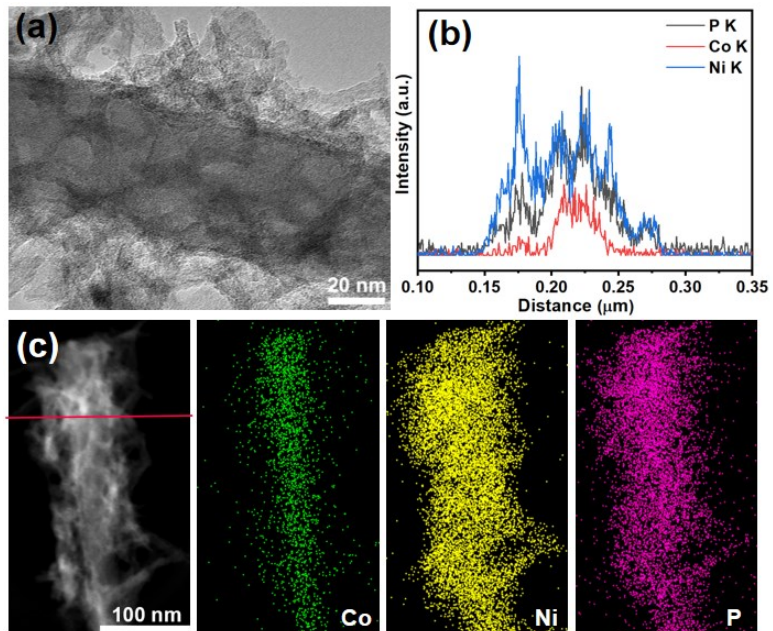


Fig. S6. (a) TEM image, (b) EDX line scanning spectra, and (c) elemental mapping images of CoP@Ni₂P after the durability test for 20 h in 1.0 M KOH. The EDX line scanning region is indicated by the red solid line in (c).

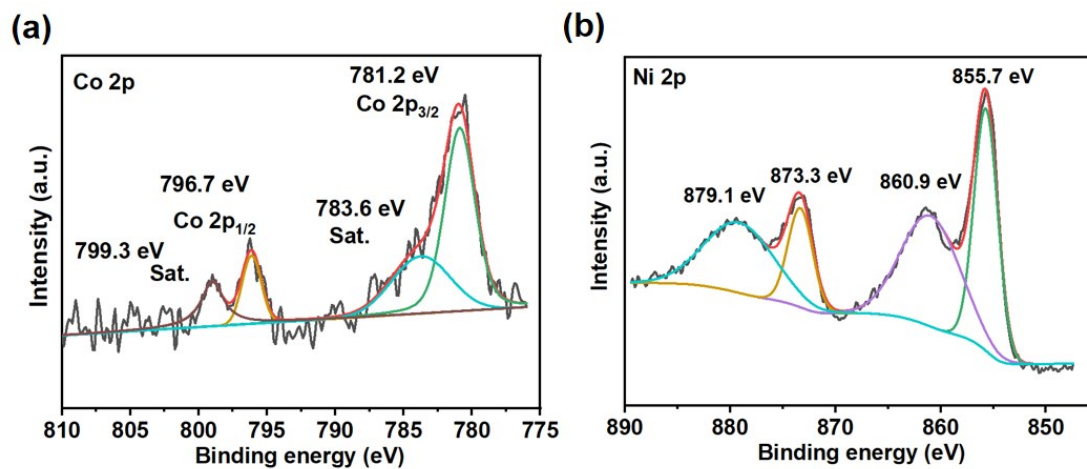


Fig. S7. The Co 2p and Ni 2p XPS spectrum of CoP@NiP after the durability test for 20 h in 1.0 M KOH.