

Heterogeneous Co-Ni phosphide with active sites for water dissociation and efficient hydrogen evolution reaction

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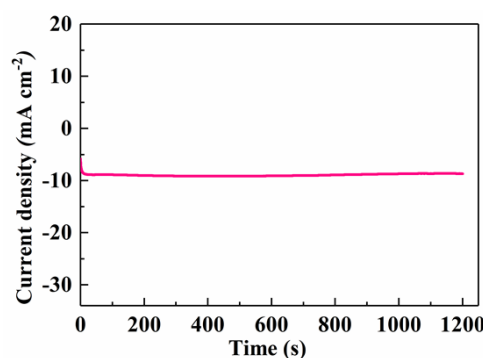


Figure S1. Chronopotentiometry curve for the preparation of $\text{Co}_{0.5}\text{Ni}_{0.5}\text{-P}$ precursor

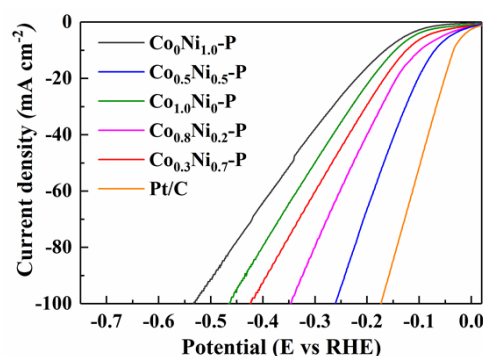
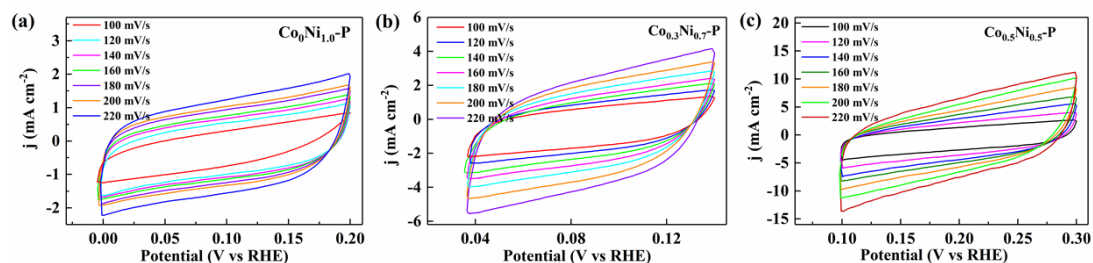


Figure S2. Polarization curves for $\text{Co}_x\text{Ni}_{1-x}\text{-P}$ and Pt/C (without IR compensation)



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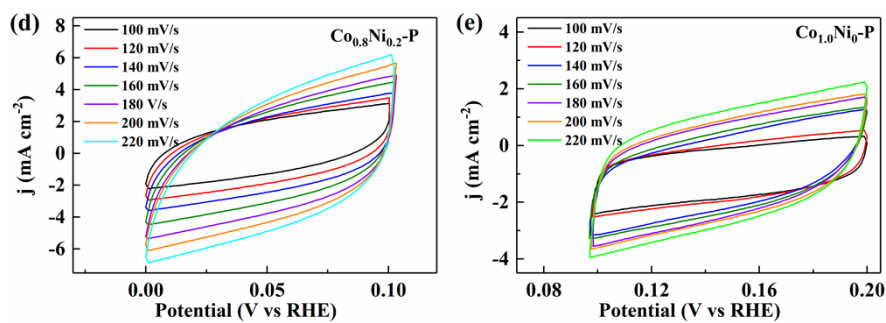


Figure S3. CV curves of (a) $\text{Co}_0\text{Ni}_{1.0}\text{-P}$, (b) $\text{Co}_{0.3}\text{Ni}_{0.7}\text{-P}$, (c) $\text{Co}_{0.5}\text{Ni}_{0.5}\text{-P}$, (d) $\text{Co}_{0.8}\text{Ni}_{0.2}\text{-P}$ and (e) $\text{Co}_{1.0}\text{Ni}_0\text{-P}$ in non-faradaic regions .

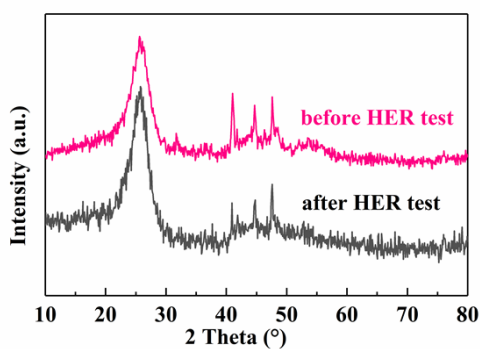


Figure S4. The XRD pattern of $\text{Co}_{0.5}\text{Ni}_{0.5}\text{-P}$ before and after long-term HER measurement.

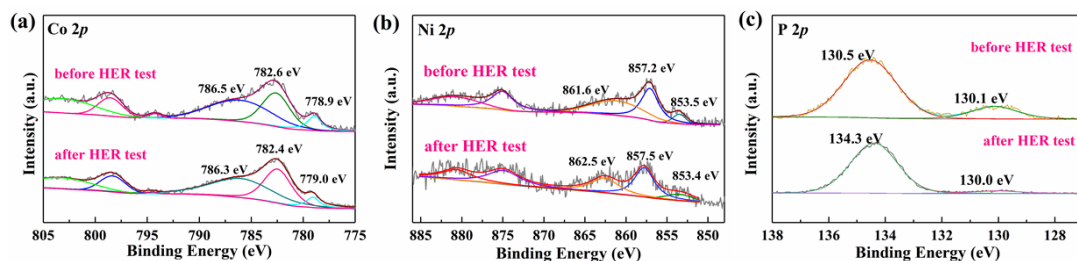


Figure S5. (a) The Co 2p, (b) Ni 2p and (c) P 2p of $\text{Co}_{0.5}\text{Ni}_{0.5}\text{-P}$ before and after long-term HER measurement.