Supporting Information

FeP/Ni_2P Nanosheet Arrays as High-Efficiency Hydrogen Evolution Electrocatalysts

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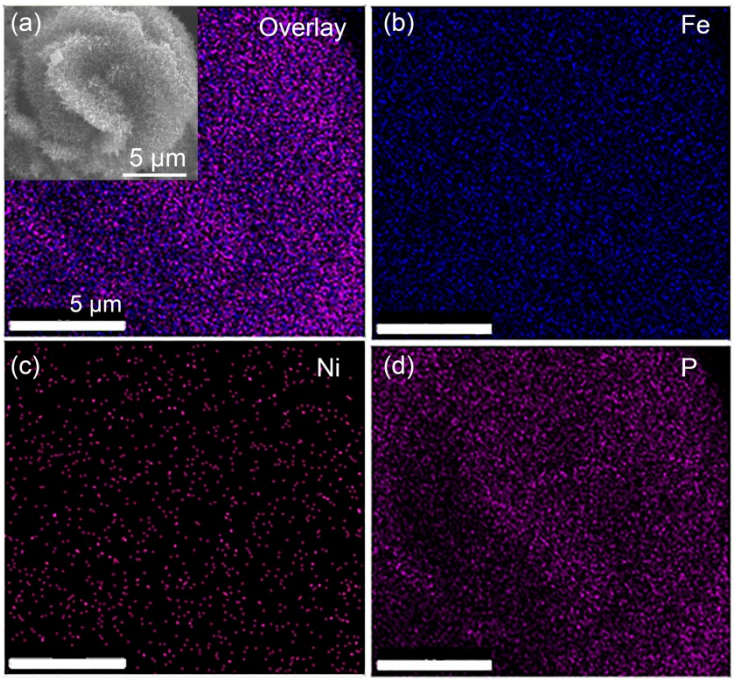

Fig.S1 EDS elemental mapping images of FeP/Ni_2P/CP. (a) overlay, (b) Fe element, (c) Ni element, (d) P element.

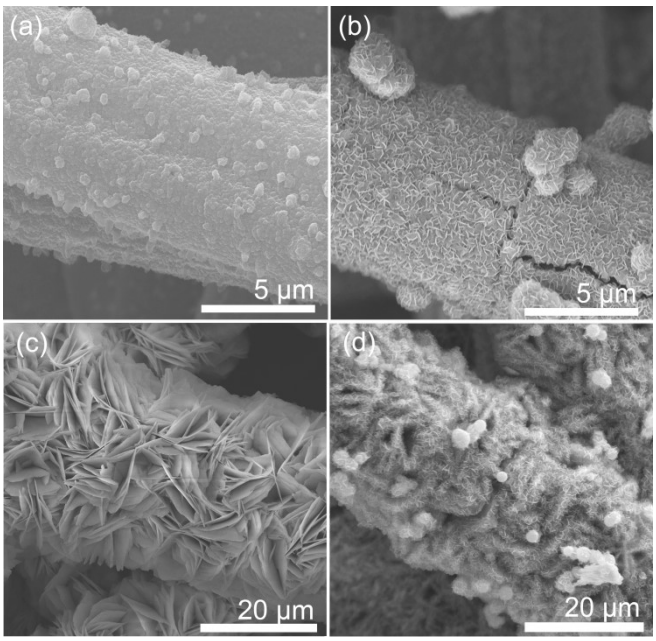

Fig.S2 SEM images of (a) FeP/CP-NA, (b) FeP/CP, (c) Ni_2P/CP, (d) FeP/Ni_2P/CP.

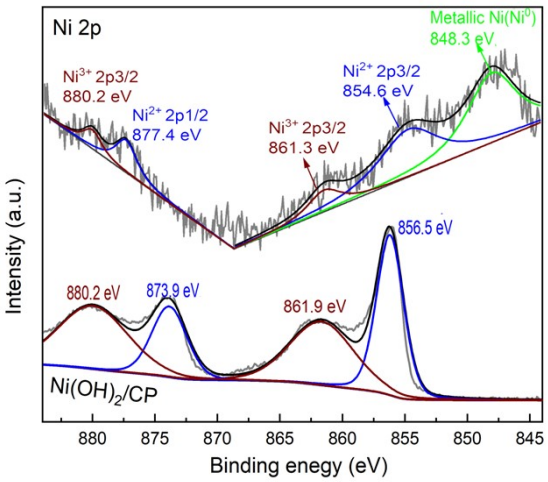

Fig.S3 XPS spectra of $Ni(OH)_2$/CP and FeOOH/$Ni(OH)_2$/CP precursor.

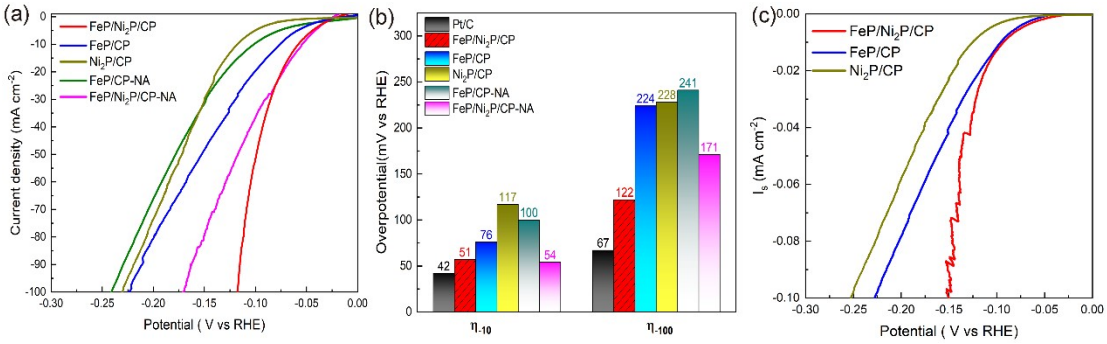

Fig.S4 (a) LSV curves of FeP/Ni_2P/CP, FeP/CP, Ni_2P/CP, FeP/CP-NA and FeP/Ni_2P/CP-NA. (b) Corresponding η_{-10} and η_{-100}. (c) Plots of specific current densities (I_s) of FeP/Ni_2P/CP, FeP/CP and Ni_2P/CP. The electrolyte is 0.5 M H_2SO_4.

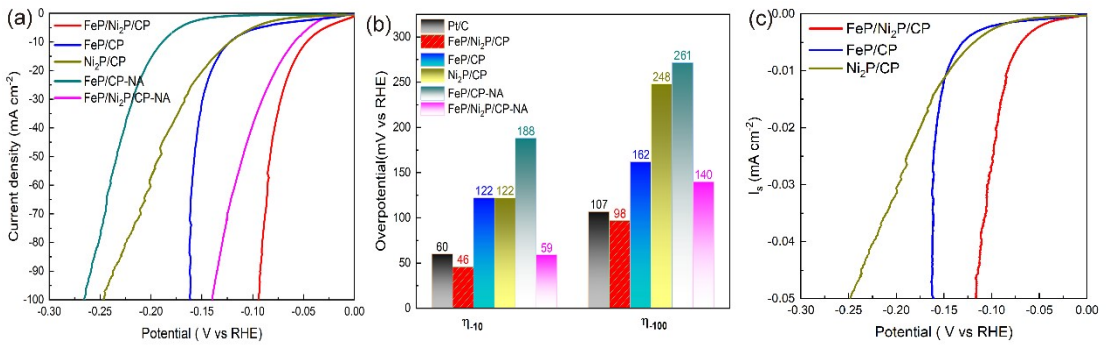

Fig.S5 (a) LSV curves of FeP/Ni_2P/CP, FeP/CP, Ni_2P/CP, FeP/CP-NA and FeP/Ni_2P/CP-NA. (b) Corresponding η_{-10} and η_{-100}. (c) Plots of specific current densities (I_s) of FeP/Ni_2P/CP, FeP/CP and Ni_2P/CP. The electrolyte is 1.0 M KOH.

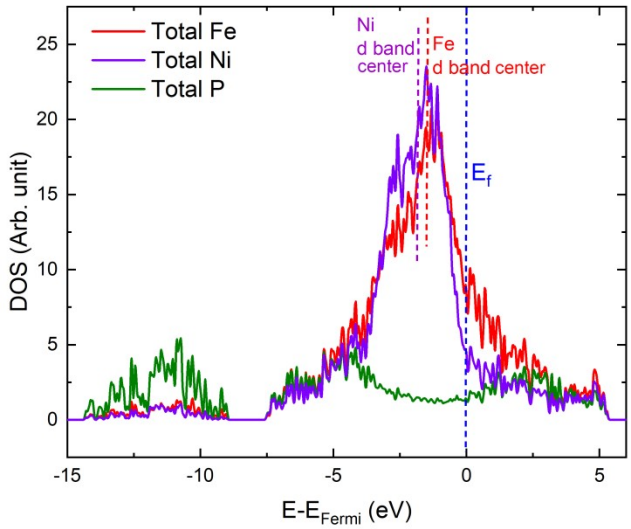

Fig.S6 simulated DOS of the Fe-3*d* orbital, Ni-3*d* orbital and P-3*p* orbital in FeP/Ni_2P.

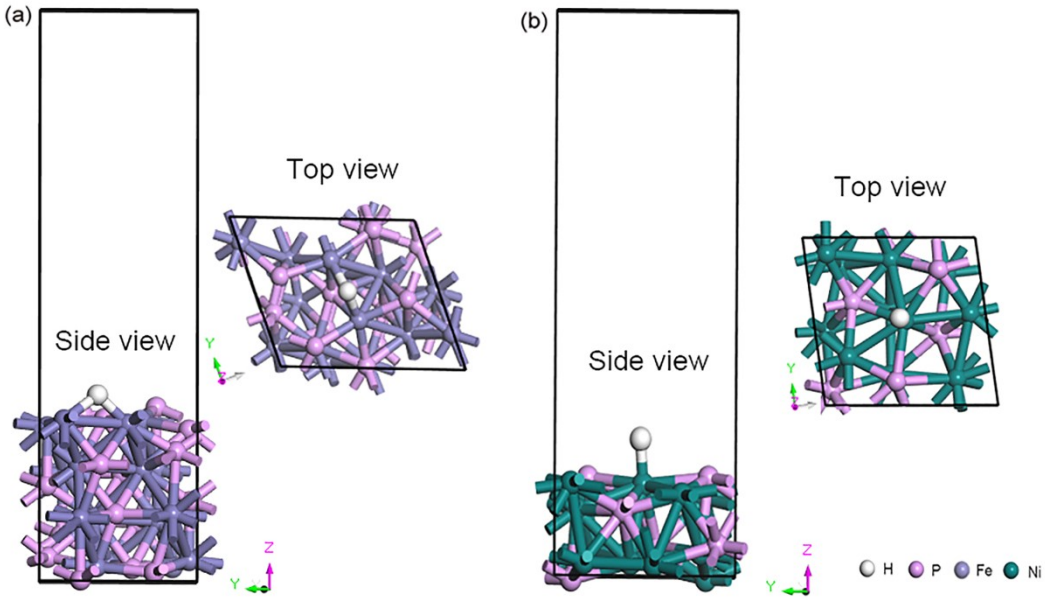

Fig.S7 Optimized structure of H_{ad} on (a) FeP(211) and (b) Ni_2P(111).