Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A.

Supporting information

Ni_2P-CoP Hybrid Nanosheet Arrays Supported on Carbon Cloth as an Efficient Flexible Cathode for Hydrogen Evolution

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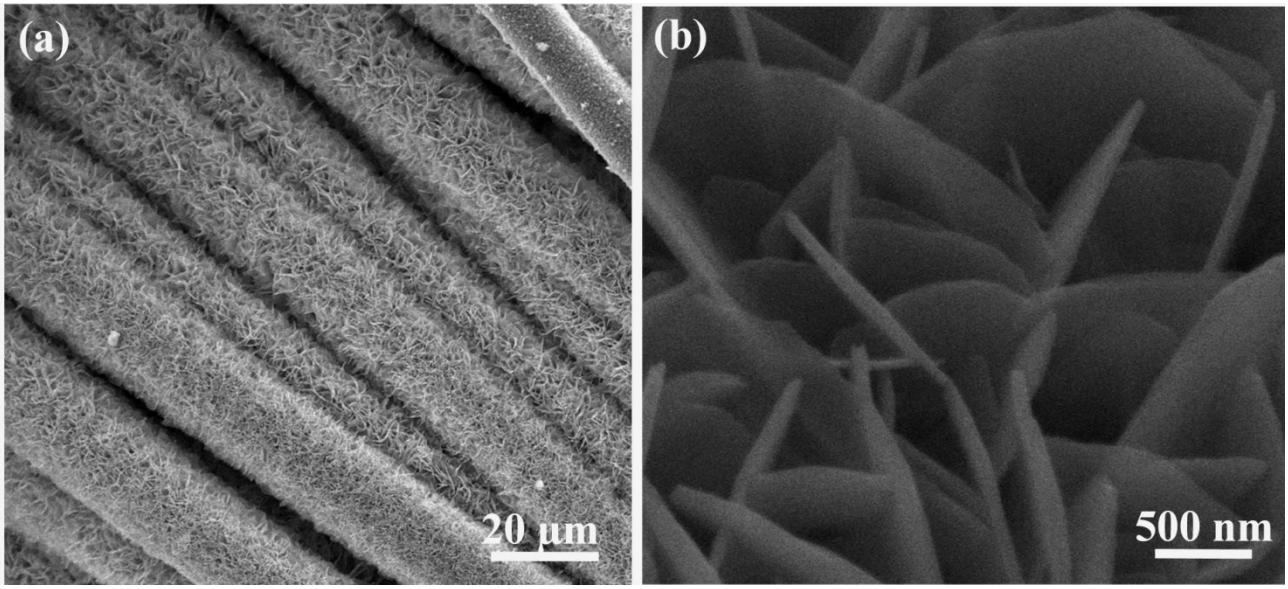

Figure S1. SEM images of the $Ni(OH)_2$-$Co(OH)_2$ HNSAs/CC with different magnifications.

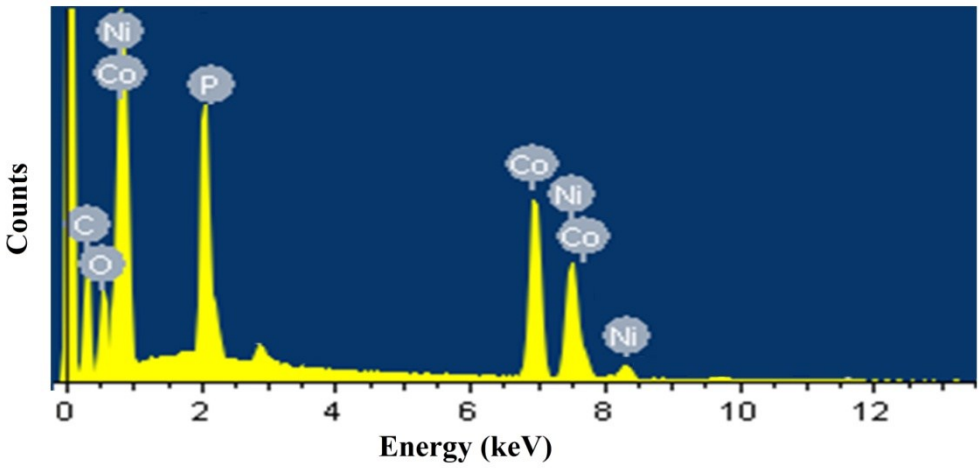

Figure S2. EDS spectrum of the Ni_2P-CoP HNSAs/CC.

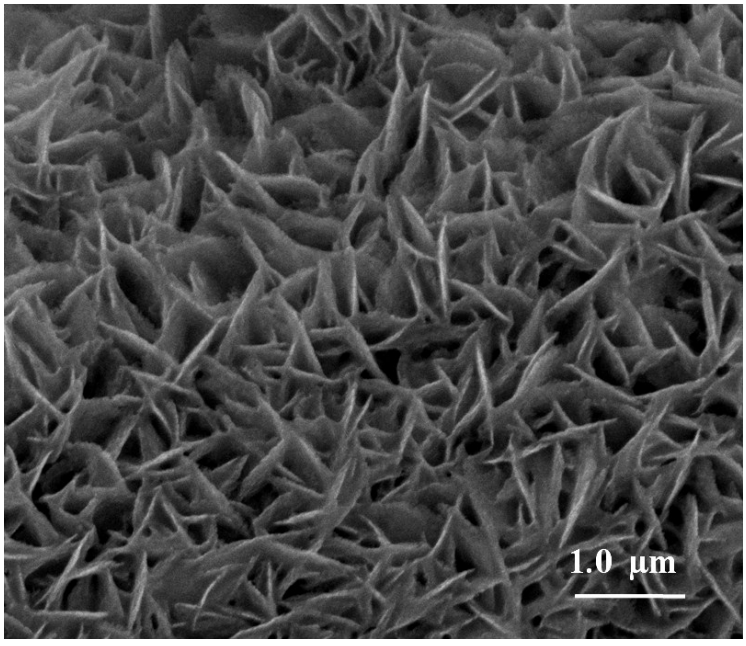

Figure S3. SEM image of Ni_2P NSs/CC with different magnifications.

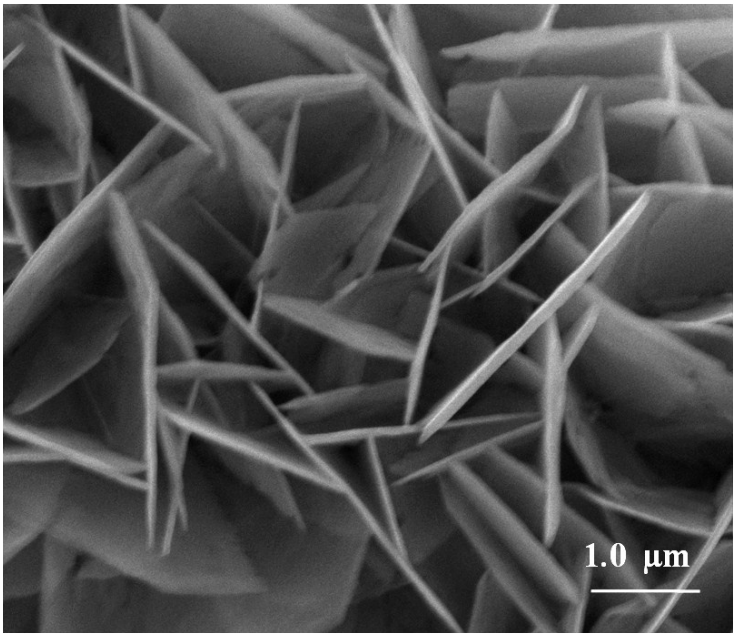

Figure S4. SEM images of CoP NSs/CC with different magnifications.

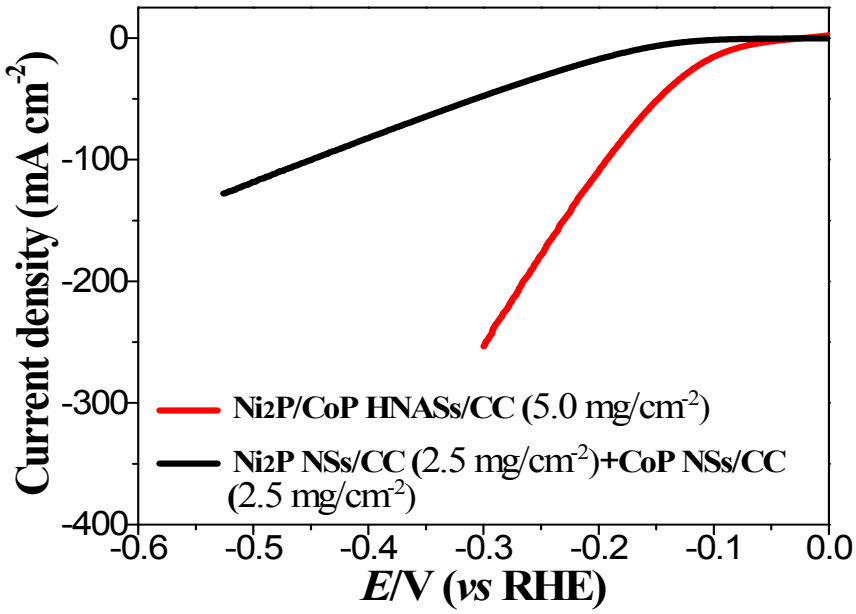

Figure S5. Polarization curves of Ni_2P-CoP HNSAs/CC (the mole ratio of Ni_2P:CoP is 1:2 and loading is 5 mg cm^{-2}) and the electroactivity superimposition of Ni_2P NSs/CC (2.5 mg cm^{-2}) + CoP NSs/CC (2.5 mg cm^{-2}) in solution of 0.5 M H_2SO_4 at a scan rate of 2 mV s^{-1}.

Table S1. Comparisons of HER performance for Ni_2P-CoP HNSAs/CC in acid media with other non-noble-metal HER electrocatalysts. (The references are listed in paper)

Catalyst	Overpotential (η, mV)	Current density (j, mA cm^{-2})	Reference
Ni_2P/CoP HNS/CC	**85**	**10**	**This work**
	192	**100**	
	266	**200**	
MoP nanoparticles	125	10	28
CoP/CNT	122	10	30
Ni_2P hollow nanoparticles	116	10	34
CoP/Ti	90	10	42
NiP_2 NS/CC	75	10	46
$CoSe_2$ nanaoparticles /CC	137	10	48
MoS_2/rGO	150	10	49
Amorphous WP nanoparticles	120	10	50
CoP nanoparticles	95	20	25
Ni_2P nanoparticles	140	20	47
Mo_2C nanowire	200	60	51

*The above references have been listed in paper.

Table S2. Comparison of HER performance for Ni_2P-CoP HNSAs/CC in alkaline media with other non- noble metal HER electrocatalysts. (The references are listed in paper)

Catalyst	Overpotential (η, mV)	Current density (j, mA cm^{-2})	Reference
Ni_2P/CoP HNS/CC	**73**	**30**	**This work**
	163	**100**	
Ni_2P NS/CC	102	10	46
Ni-Mo alloy/Ti	80	10	52
Ni nanowire	350	10	52
bulk MoB	225	10	53
CoP/CC	209	10	54

*The above references have been listed in paper.