Electronic Supplementary Material (ESI) for Materials Chemistry Frontiers.

Ultrathin CNTs@FeOOH nanoflakes core/shell networks as efficient electrocatalysts for oxygen evolution reaction

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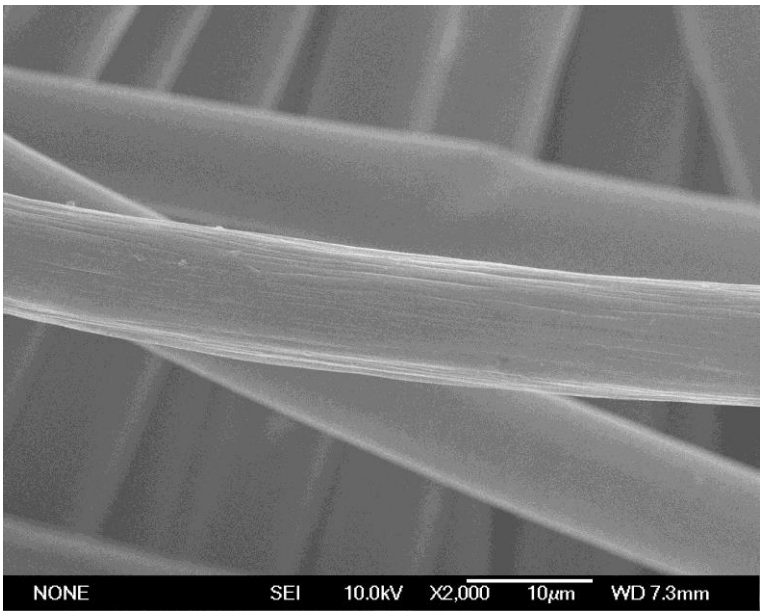

Figure S1. SEM image of pure carbon cloth.

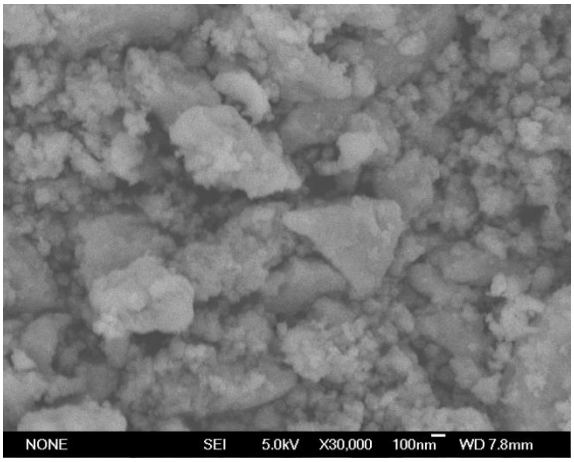

Figure S2. SEM image of the FeOOH powder used for comparison.

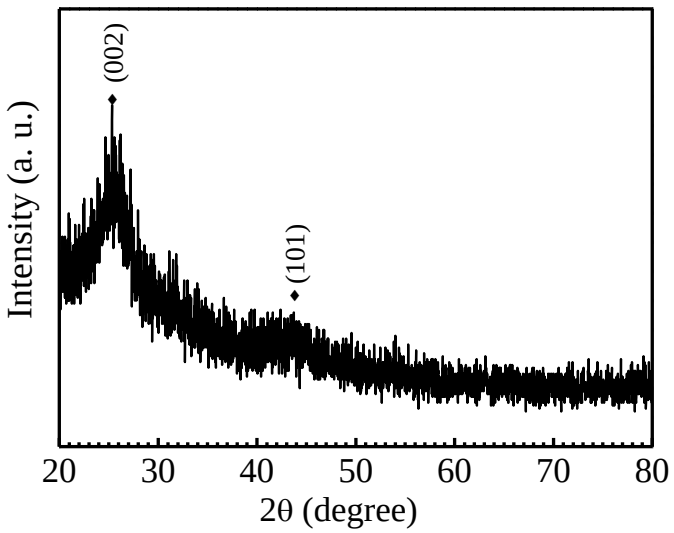

Figure S3 XRD pattern of pure carbon cloth

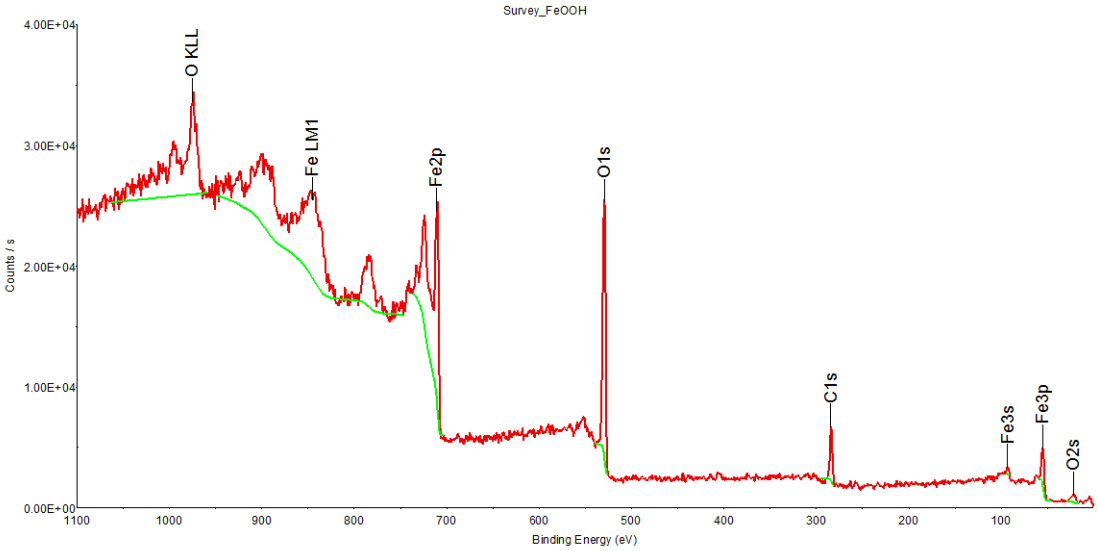

Figure S4. Full XPS spectra of CNTs@FeOOH/CC.

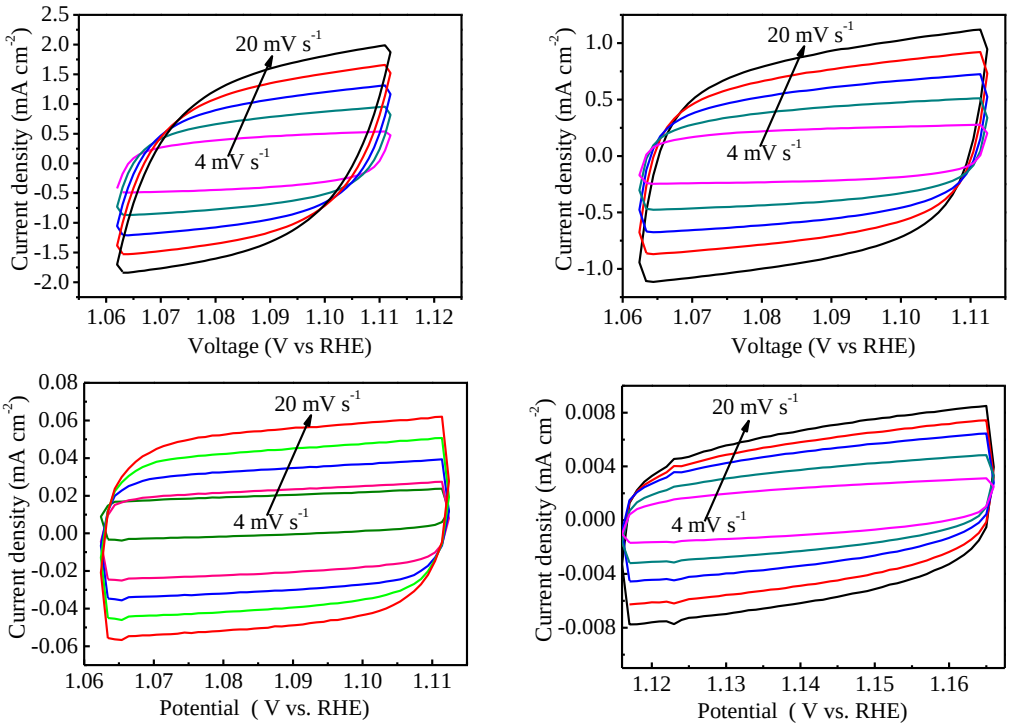

Figure S5 Cyclic voltammograms of a) CNTs@FeOOH/CC, b) CNTs/CC, c) FeOOH/CC and d) FeOOH powder in the double layer region at scan rate of 4, 8, 12, 16, 20 mV s^{-1}.

Table S1. Comparison of OER activity for CNTs@FeOOH/CC and recently reported non-noble metal-based catalysts.

Catalyst	Electrolyte	Overpotential @10 mA cm^{-2} (mV)	Tafel slope (mV dec^{-1})	Substrate	Reference
CNTs@FeOOH/CC	1 M KOH	250	36	Carbon cloth	This work
$CoFe_2O_4$	1 M KOH	314	31	Carbon nanotube	[1]
$NiCo_2O_4$	1 M NaOH	320	47	Carbon cloth	[2]
$CoNi(OH)_x$	1 M KOH	280	77	Cu foil	[3]
FeOOH/Co/FeOOH	1 M NaOH	~240	32	Nickel foam	[4]
CuO	1 M KOH	475	90	Cu foil	[5]
FeOOH/CeO_2/FeOOH	1 M KOH	~230	-	Nickel foam	[6]
FeO_x	1 M KOH	558	93	Carbon cloth	[7]
$Ni(OH)_2$/CNTs	1 M KOH	270	32	Glass carbon	[8]
NiFe LDH	1 M KOH	215	33	MWCNT fiber	[9]
Co nanoparticles	1 M KOH	256	41	Carbon cloth	[10]

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