

Supporting Information

Surface dual-oxidation induced metallic copper dopant into NiFe
electrode for electrocatalytic water oxidation

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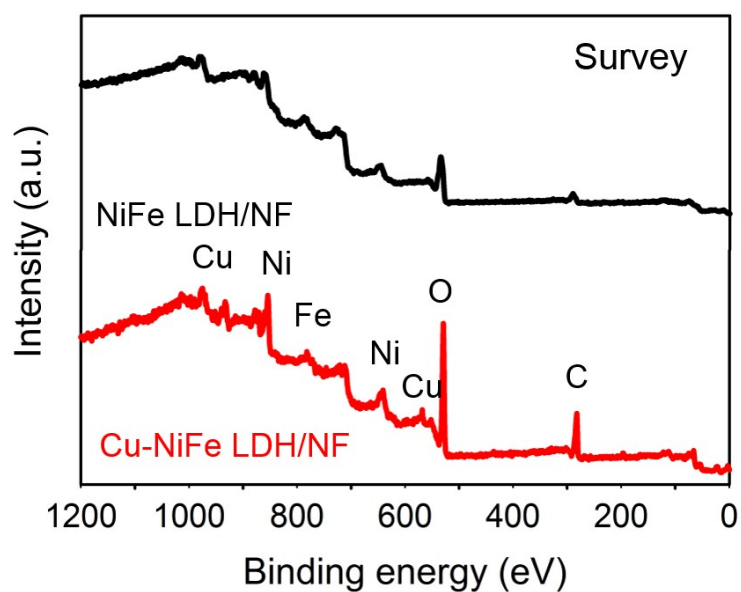


Figure S1. XPS spectra of survey scan of Cu-NiFe LDH/NF and NiFe LDH/NF.

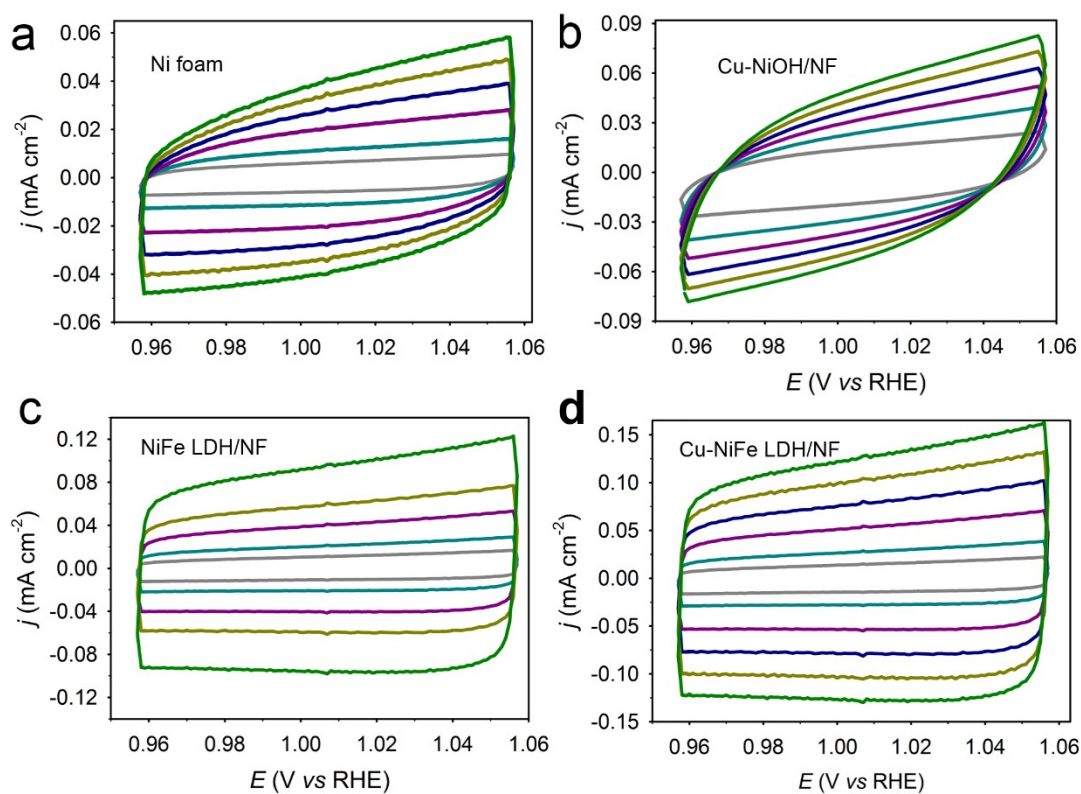


Figure S2. (a-d) CVs of NF, Cu-NiOH/NF, NiFe LDH/NF and Cu-NiFe LDH/NF at various scan rates.

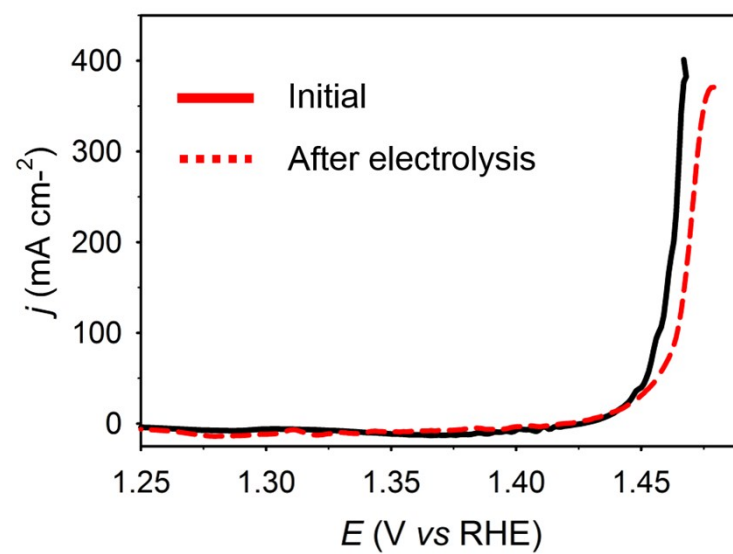


Figure S3. LSV curves before and after long-time electrolysis

Table S1 Comparisons of OER electrocatalytic activity of this work of NiFe-based catalysts vs other reported NiFe-based OER electrocatalysts in the past few years.

Electrocatalysts	E_{10} (V vs RHE)	Tafel slope (mV dec ⁻¹)	Electrode	References
NiFe ANTAs/CFC	220	57	CFC	<i>ACS Appl. Mater. Interfaces</i> , 2017, 9, 34954-34960
NiFe LDH/RGO	245	N.A.	RGO	<i>J. Am. Chem. Soc.</i> 2013, 135, 8452-8455
GDY@NiFe	260	95	Cu foil	<i>ACS Appl. Mater. Interfaces</i> , 2019, 11, 2662-2669
NiFe/C	210	30	GCE	<i>ACS Appl. Mater. Interfaces</i> , 2015, 7, 9203-9210
hcp-NiFe@NC	226	41	CC	<i>Angew. Chem.</i> 10.1002/ange.201902446
NiFeRu-LDH	225	-	NF	<i>Adv. Mater.</i> , 2018, 30, 1706279
NiFeS _x /NiFe(OH) _y /NF	E_{100} 341	58	NF	<i>Appl. Catal. B: Environmental</i> , 2019, 246, 337-348
NiFe-OH NS/NF-7	≈210	46.7	NF	<i>Appl. Catal. B: Environmental</i> , 2019, 244, 844–852
CS-NiFeCu/NF	180	33	NF	<i>Nat. Commun.</i> , 2018, 381
NiFe LDHs/NF	269	48.3	NF	<i>Nat. Commun.</i> , 2018, 2609
NiFeCe-LDH/CNT	227	33	GC	<i>ACS Appl. Mater. Interfaces</i> , 2018, 10, 6336-6345
NiFeV-LDHs/NF	231	39.4	NF	<i>Small</i> , 2018, 14, 1703257
Cu-NiFe LDH/NF	185	30	NF	This Work
NiFe LDH/NF	219	33	NF	This Work