

Supporting Information:

Efficient and durable S-doped Ni/FeOOH electrocatalyst for oxygen evolution reaction

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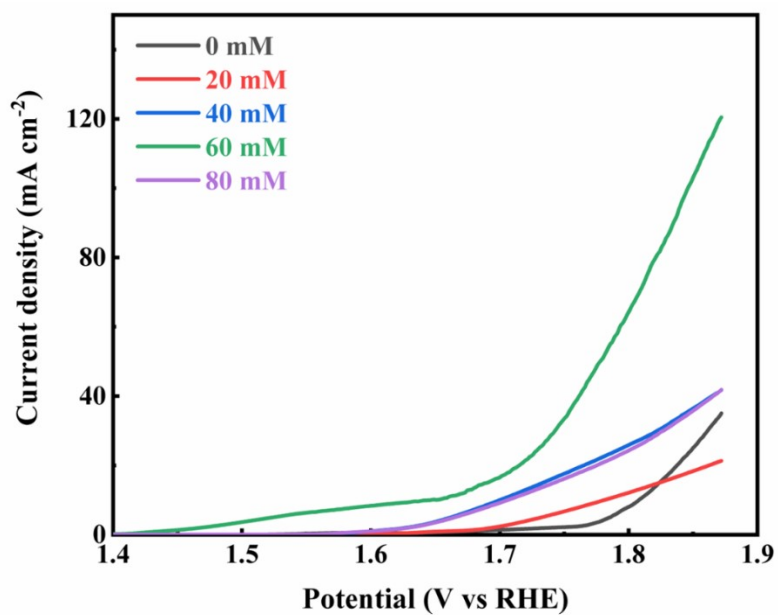


Fig. S1 LSV curves of Ni/FeOOH@NFF prepared by using different $\text{Fe}(\text{NO}_3)_3$ concentrations.

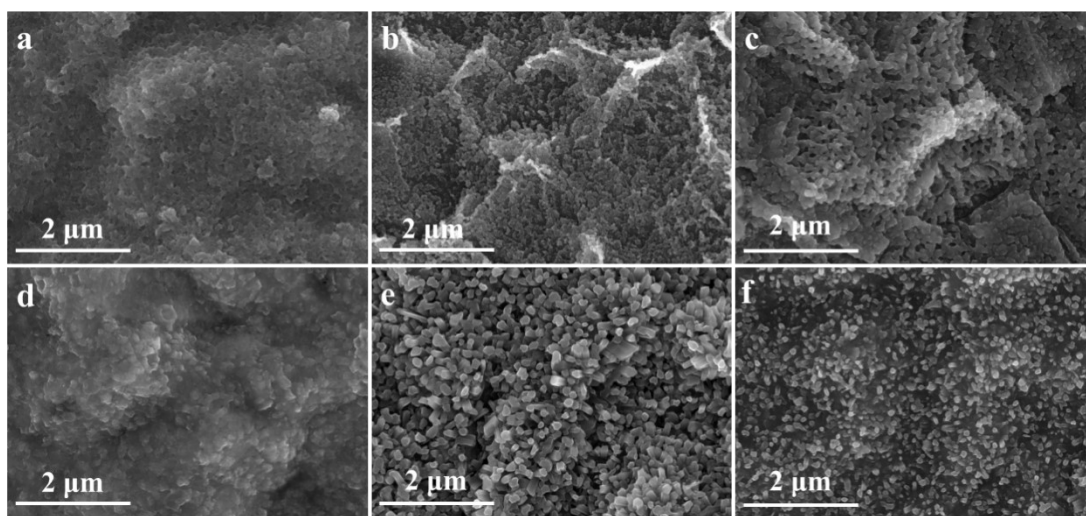


Fig. S2 SEM images of S-Ni/FeOOH@NFF prepared by using different amounts $\text{Na}_2\text{S}_2\text{O}_3$: (a) 0 mg, (b) 5 mg, (c) 10 mg, (d) 20 mg, (e) 30 mg, (f) 40 mg.

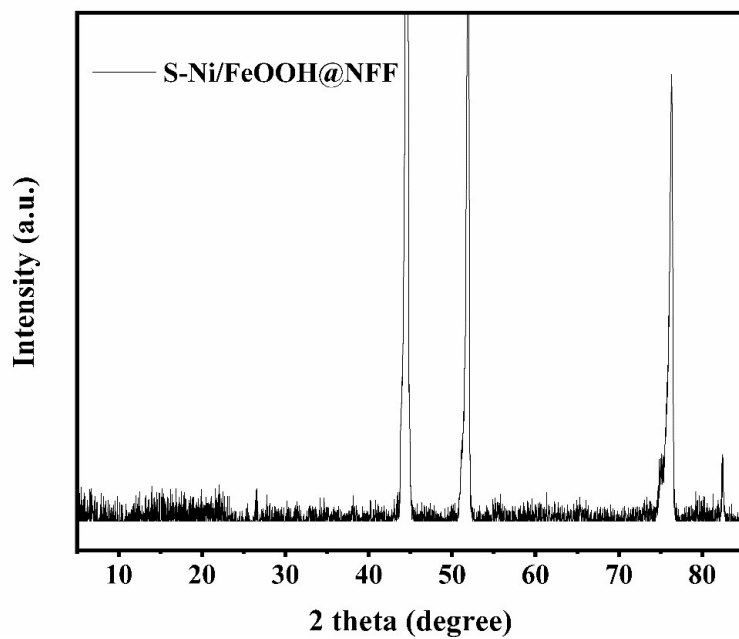


Fig. S3 XRD patterns of S-Ni/FeOOH@NFF.

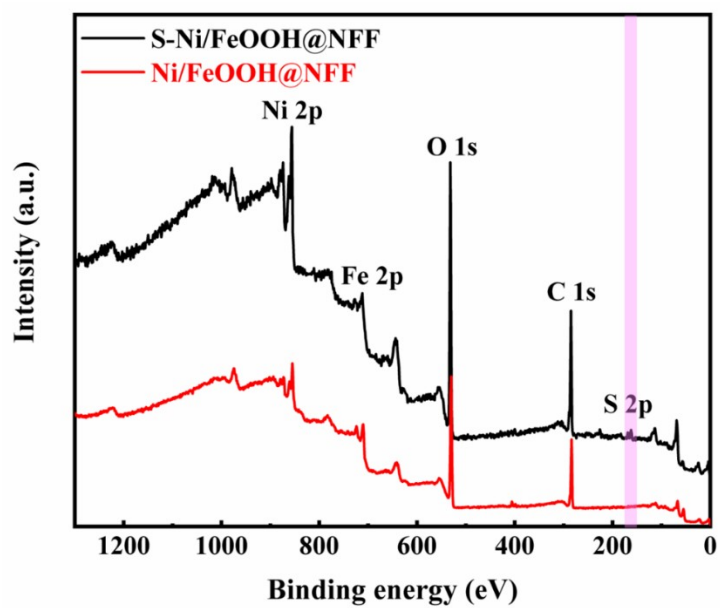


Fig. S4 Full XPS survey spectrum of S-Ni/FeOOH@NFF and Ni/FeOOH@NFF.

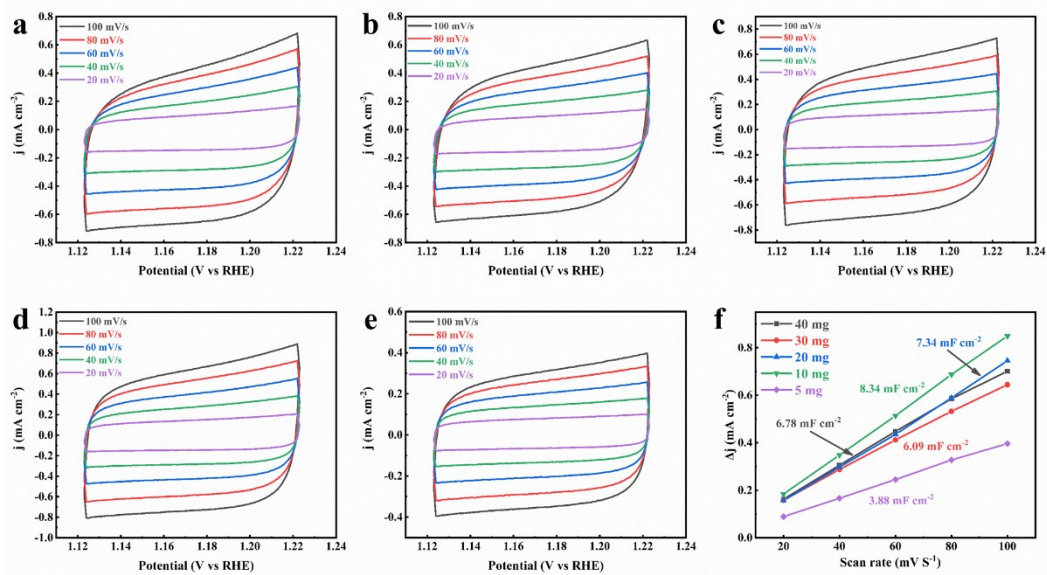


Fig. S5 CV curves in the non-Faraday interval of S-Ni/FeOOH@NFF prepared by using different amounts $\text{Na}_2\text{S}_2\text{O}_3$: (a) 40 mg. (b) 30 mg. (c) 20 mg. (d) 10 mg. (e) 5 mg. (f) Plots used for evaluating the ECSA as a function of scan rate.

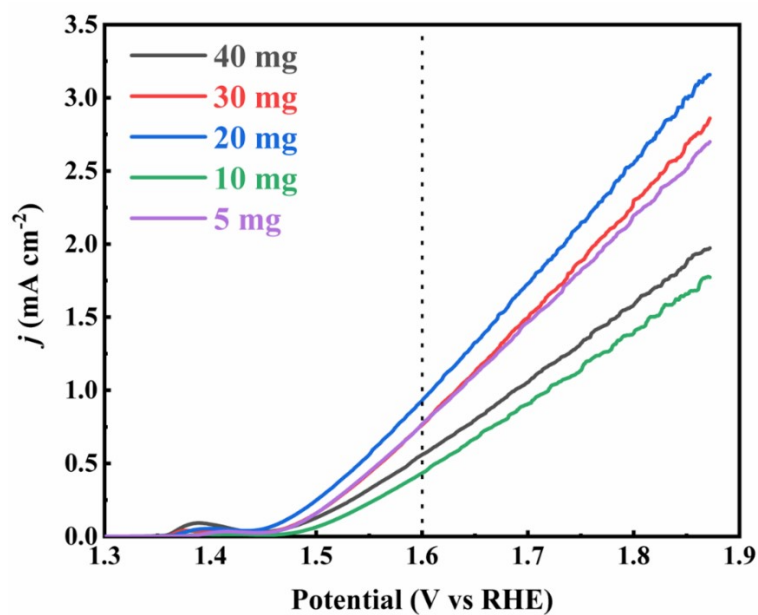


Fig. S6 ECSA-normalized LSV curves of S-Ni/FeOOH@NFF prepared by using different amounts $\text{Na}_2\text{S}_2\text{O}_3$.

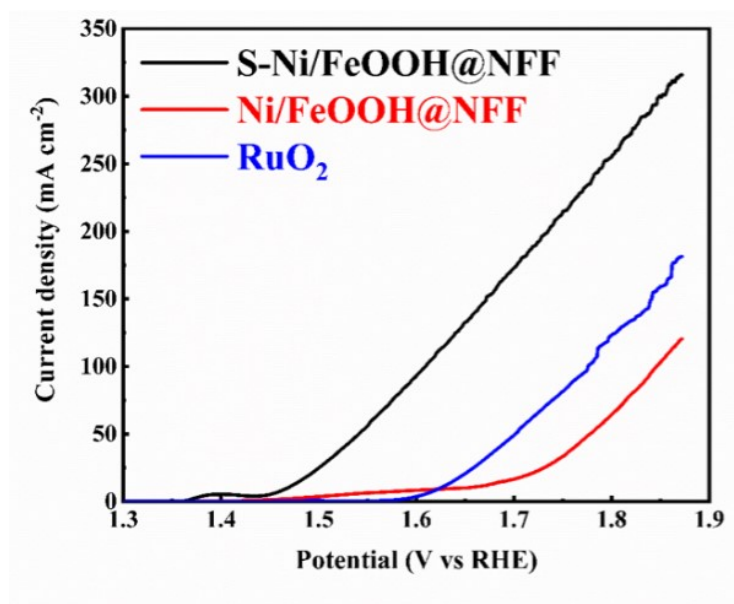


Fig. S7 LSV curves without *iR*-compensation of S-Ni/FeOOH@NFF, Ni/FeOOH@NFF and RuO₂.

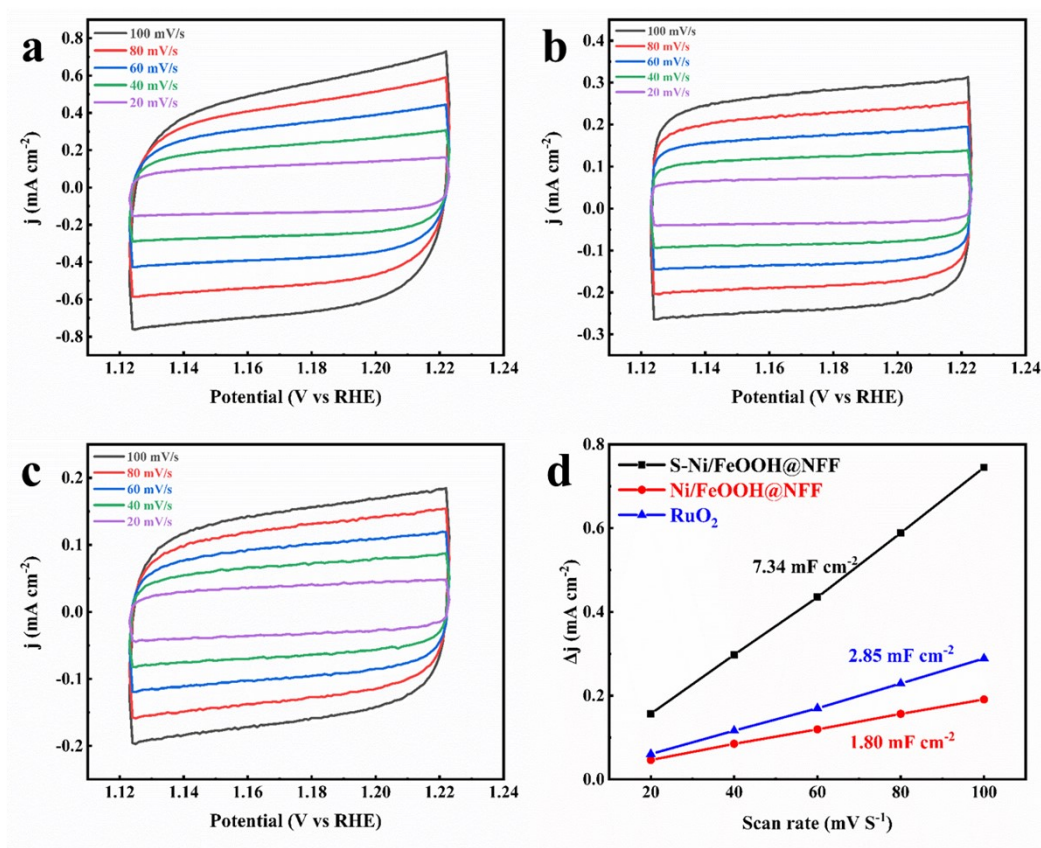


Fig. S8 CV curves in the non-Faraday interval: (a) S-Ni/FeOOH@NFF, (b) RuO₂, (c) Ni/FeOOH@NFF. (d) Plots used for evaluating the ECSA as a function of scan rate.

Table S1. The activity comparisons of S-Ni/FeOOH with other related catalysts at 10 mA cm⁻².

Electrocatalyst	Substrate	Overpotential (mV) at 10 mA cm ⁻²	References
S-Ni/FeOOH	Nickel-iron foam	229	this work
NFF-MOF	Nickel-iron foam	250	1
NiCo ₁ Fe ₁ LDH	Ni foam	231	2
Ni ₃ S ₂ -NiO _x	Ni foam	241	3
MnCoP	Ni foam	266	4
Co _{1-x} S/Co(OH)F	Carbon cloth	269	5
H-CoS _x @NiFe LDH	Ni foam	250	6
CeO _x /CoP	Ni foam	264	7
(Fe _{0.5} Ni _{0.5})S ₂	Carbon fiber paper	241	8
FeS/FeO _x H@Fe	Ni foam	245	9
Cu ₁ Co ₁₀ P	Glassy carbon	252	10
NiCoON	Ni foam	247	11
FeS ₂ /CoNiSe ₂	Ni foam	230	12
ECT- Co _{0.37} Ni _{0.26} Fe _{0.37} O	Carbon fiber	232	13
Co ₅ Fe ₃ Cr ₂	Ni foam	232	14
Fe,Ni-CoS ₂	Glassy carbon	242	15

Supplementary References:

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