

Electronic Supplementary Information

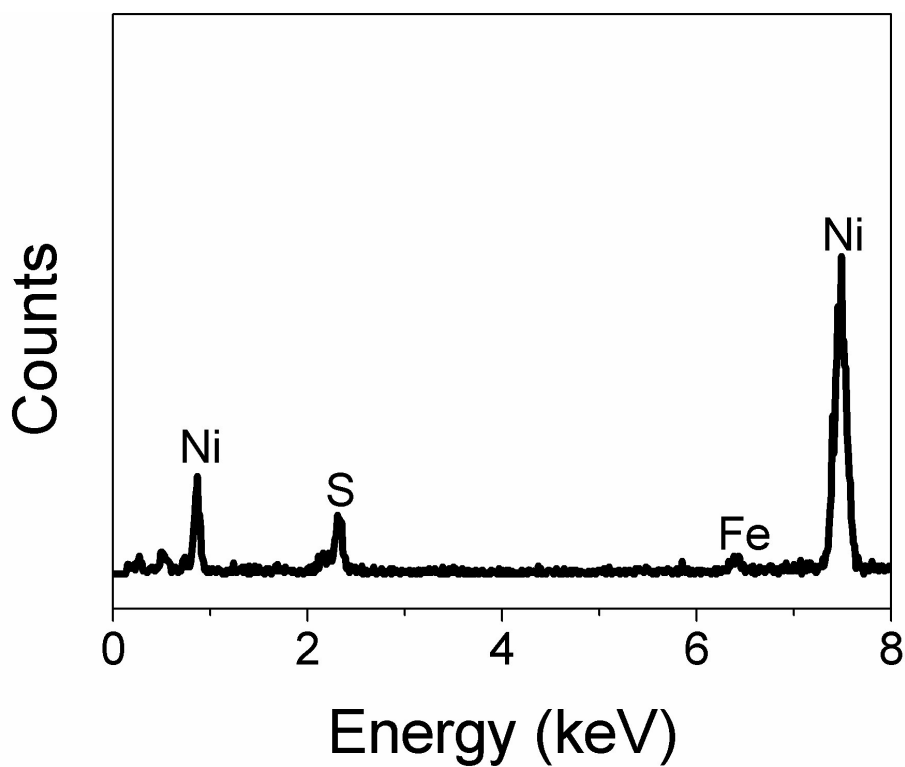


Fig. S1 EDX spectrum of $\text{Fe}_{11.8\%}\text{-Ni}_3\text{S}_2/\text{NF}$.

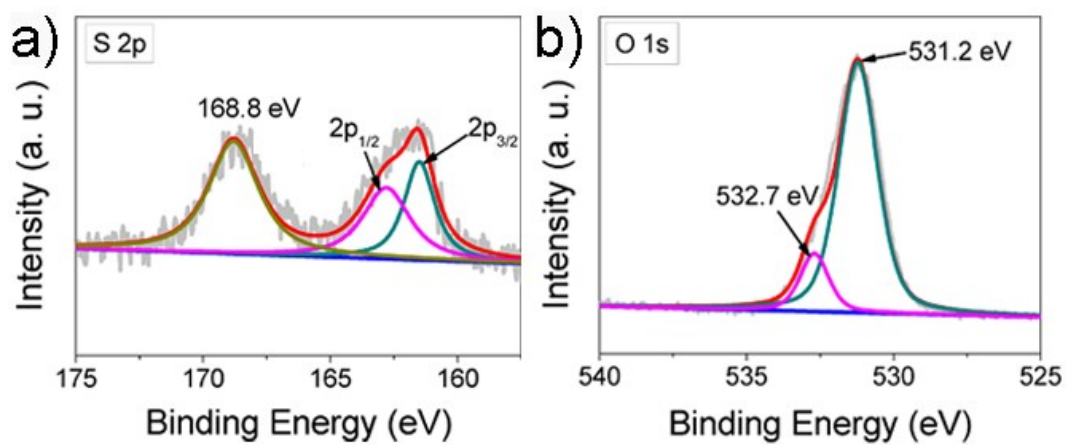


Fig. S2 XPS spectra in (a) S 2p and (b) O 1s regions for Fe_{11.8%}-Ni₃S₂/NF.

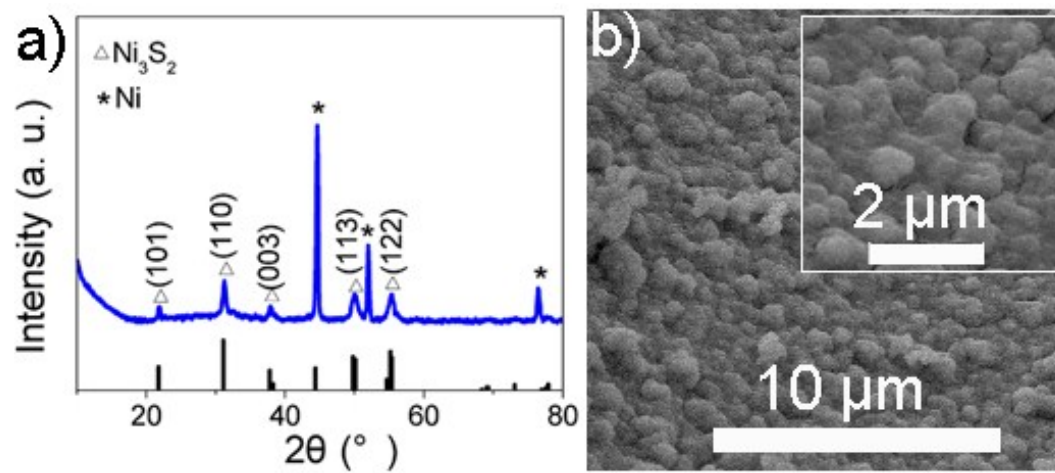


Fig. S3 (a) XRD pattern and (b) SEM images of $\text{Ni}_3\text{S}_2/\text{NF}$.

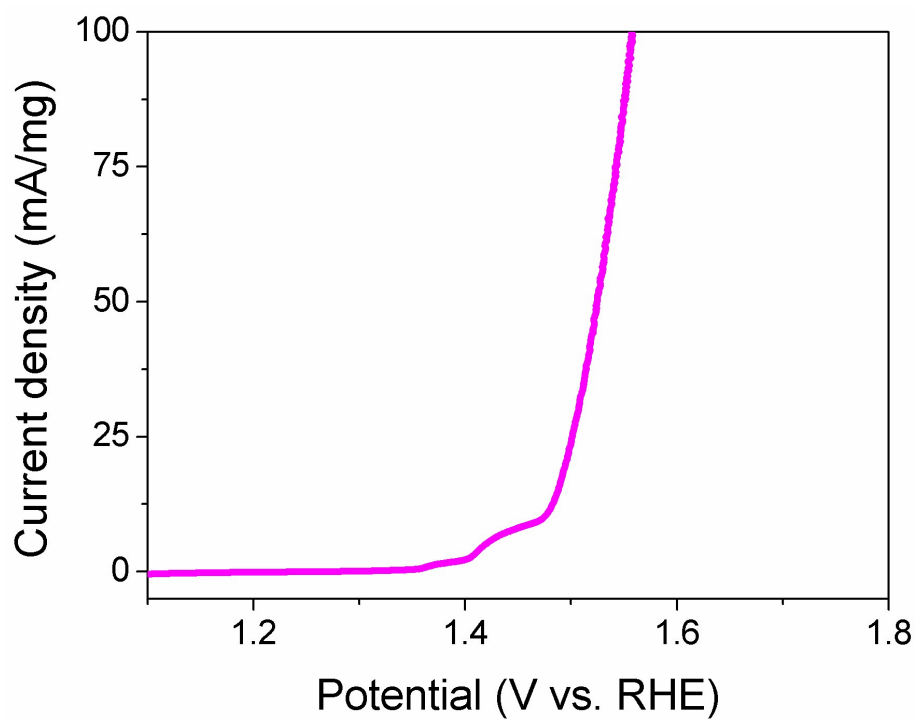


Fig. S4 Polarization curve for Fe_{11.8%}-Ni₃S₂/NF with a scan rate of 2 mV/s in 1 M KOH.

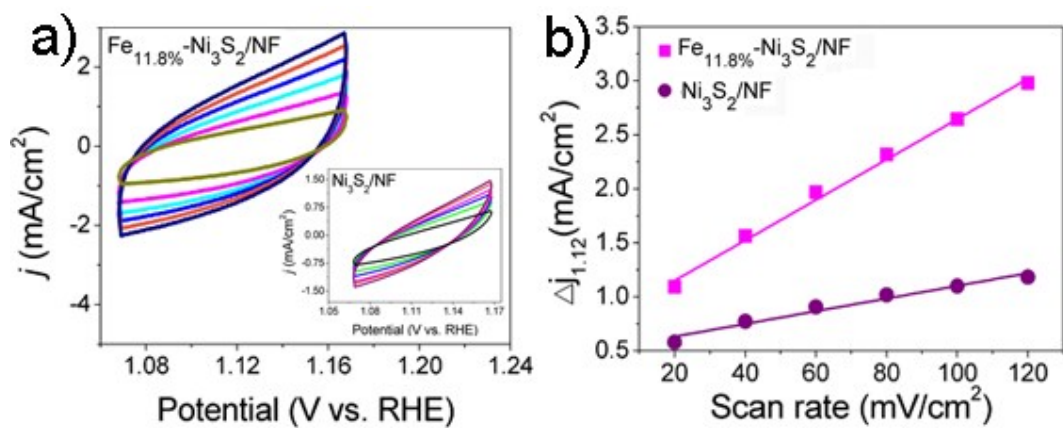


Fig. S5 (a) CVs for Fe_{11.8%}-Ni₃S₂/NF and Ni₃S₂/NF (inset) in 1 M KOH. (b) The capacitive current at 1.12 V as a function of scan rate for Fe_{11.8%}-Ni₃S₂/NF and Ni₃S₂/NF ($\Delta j = j_a - j_c$).

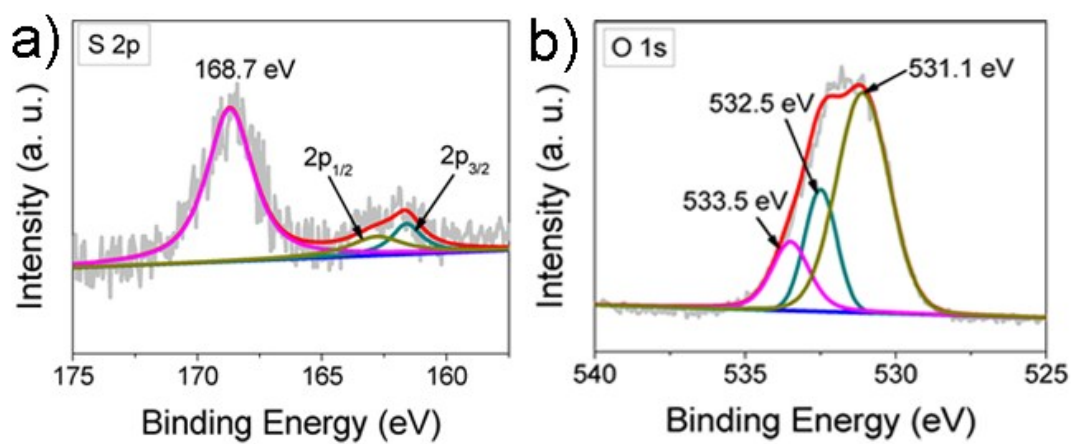


Fig. S6 XPS spectra in (a) S 2p region and (b) O 1s regions of $\text{Fe}_{11.8\%}\text{-Ni}_3\text{S}_2/\text{NF}$ after OER electrolysis.

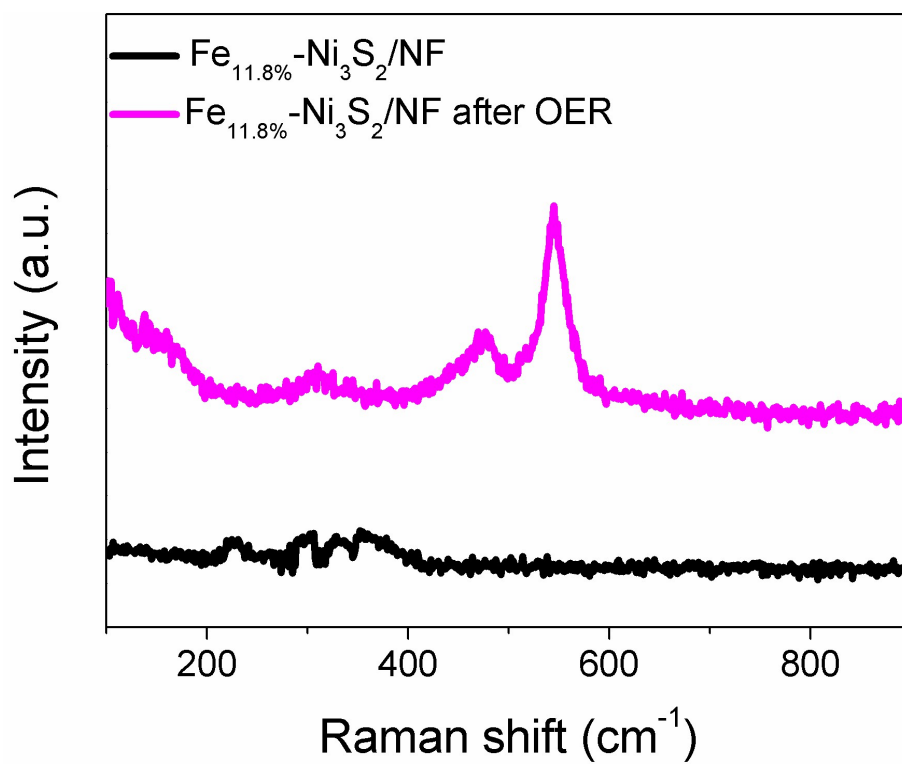


Fig. S7 Raman spectra of Fe_{11.8%}-Ni₃S₂/NF before and after OER electrolysis in 1.0 M KOH..

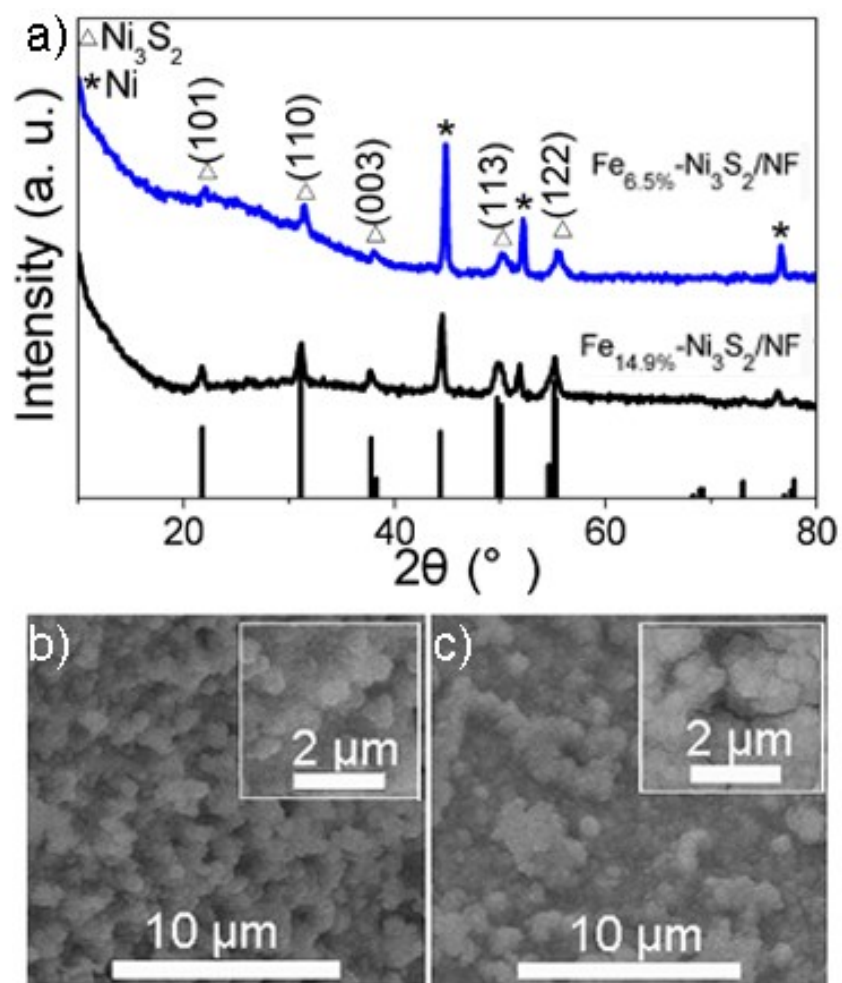


Fig. S8 (a) XRD patterns of $\text{Fe}_{6.5\%}\text{-Ni}_3\text{S}_2/\text{NF}$ and $\text{Fe}_{14.9\%}\text{-Ni}_3\text{S}_2/\text{NF}$. SEM images of (b) $\text{Fe}_{6.5\%}\text{-Ni}_3\text{S}_2/\text{NF}$ and (c) $\text{Fe}_{14.9\%}\text{-Ni}_3\text{S}_2/\text{NF}$.

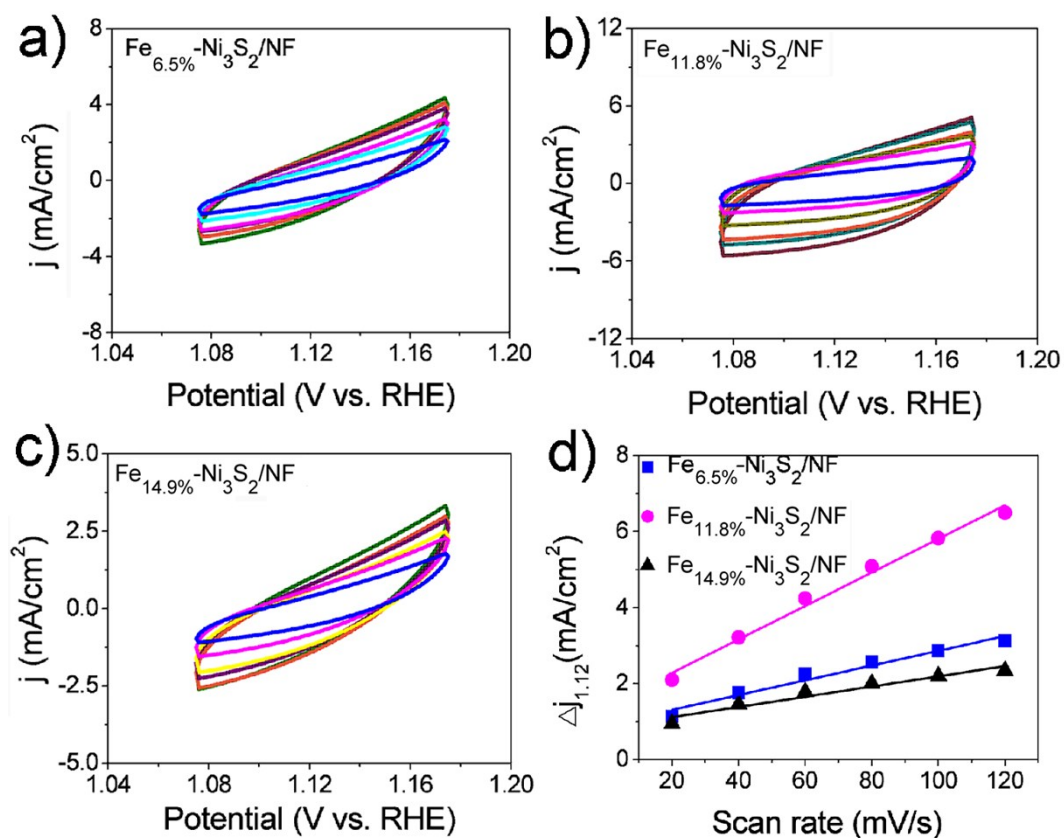


Fig. S9 CVs for (a) Fe_{6.5%}-Ni₃S₂/NF, (b) Fe_{11.8%}-Ni₃S₂/NF, and (c) Fe_{14.9%}-Ni₃S₂/NF in 30 wt% KOH. d) The capacitive currents at 1.12 V as a function of scan rate for Fe_{6.5%}-Ni₃S₂/NF, Fe_{11.8%}-Ni₃S₂/NF, and Fe_{14.9%}-Ni₃S₂/NF ($\Delta j = j_a - j_c$).