

Supporting information

Fe-decorated-NiCo Layered Double Hydroxide Nanoflakes via Corrosion Engineering for High-Energy Rechargeable Zn-Based Battery

Jianning Zeng, Jinhao Xie, Jie Liu, Zilong Wang*, Xianshuo Cao,* and Xihong Lu*

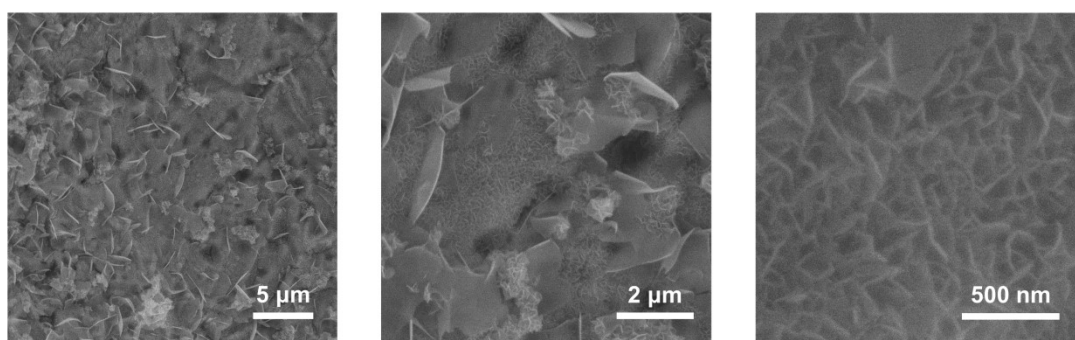


Fig. S1. SEM images of the FeNiCo LDH sample in different magnification.

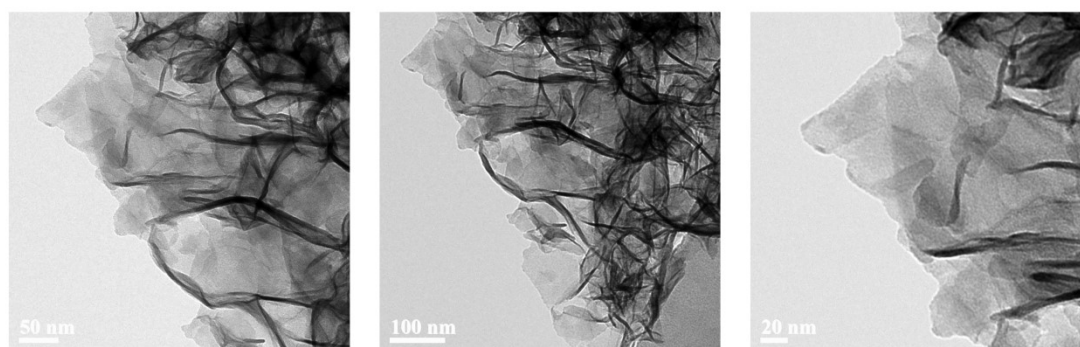


Fig. S2. TEM images of FeNiCo LDH sample.

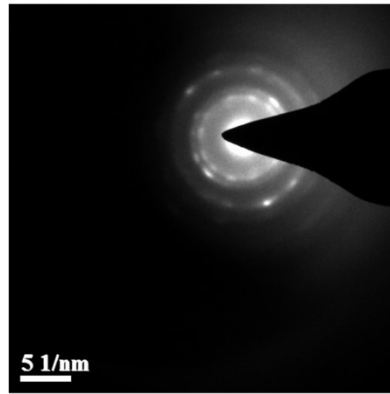


Fig. S3. SAED pattern of FeNiCo LDH sample.

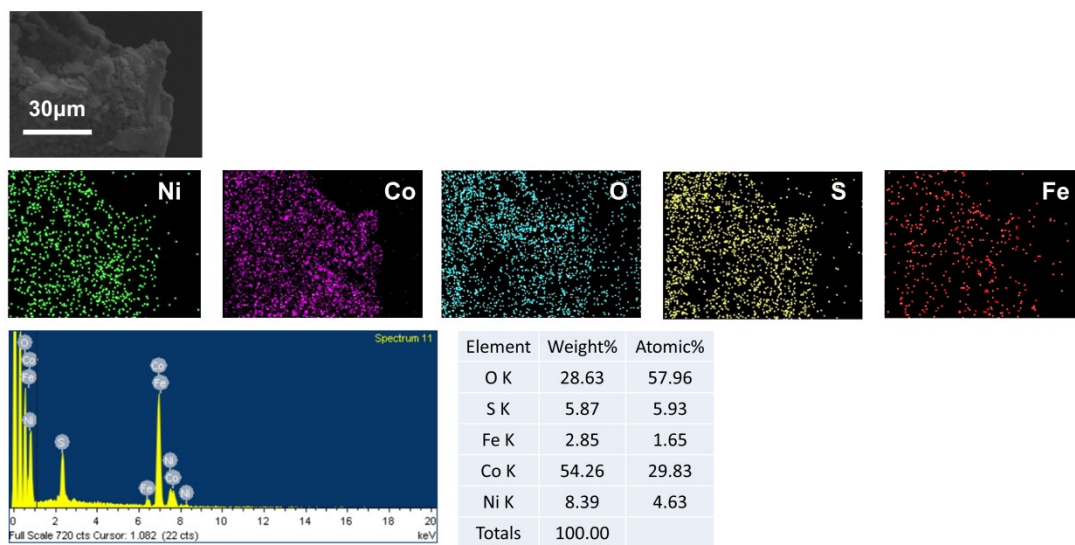


Fig. S4. Mapping of FeNiCo LDH sample.

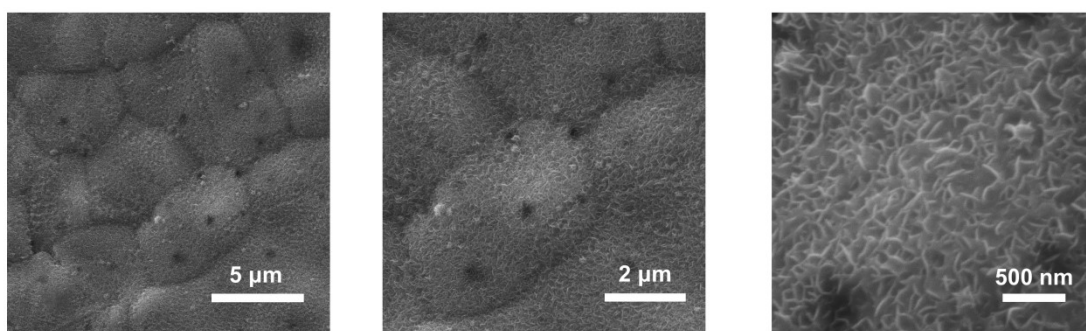


Fig. S5. SEM images of the NiCo LDH sample in different magnification.

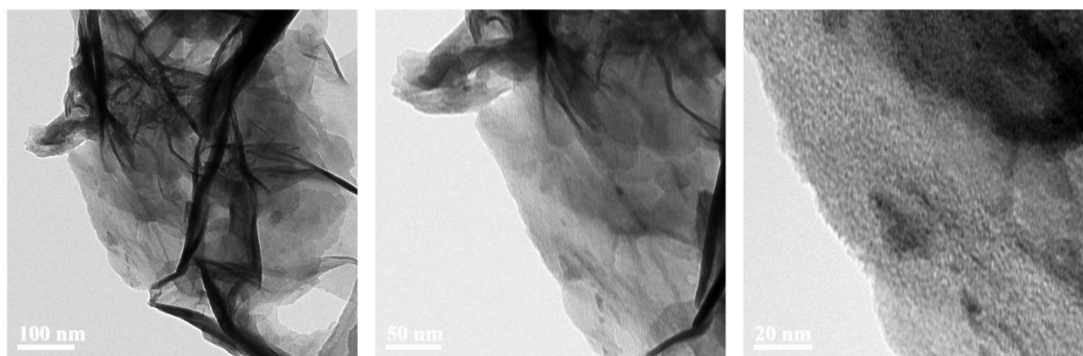


Fig. S6. TEM images of the NiCo LDH sample in different magnification.

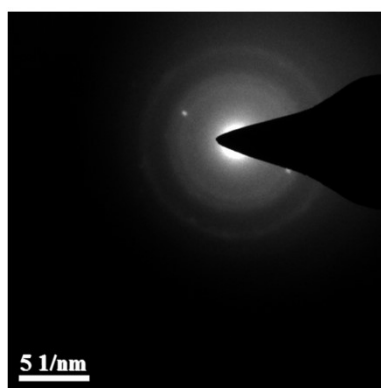


Fig. S7. SAED pattern of NiCo LDH sample.

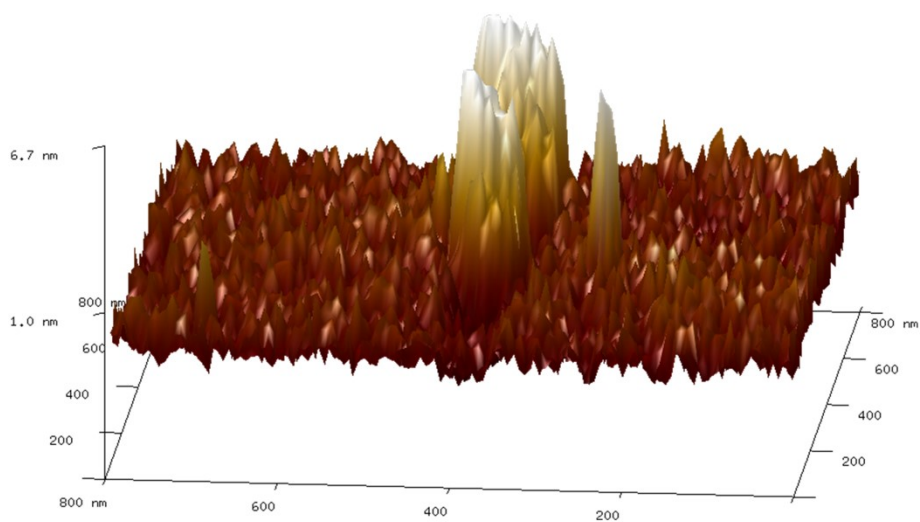


Fig. S8. 3D graph of a monodisperse LDH measured by AFM of NiCo LDH.

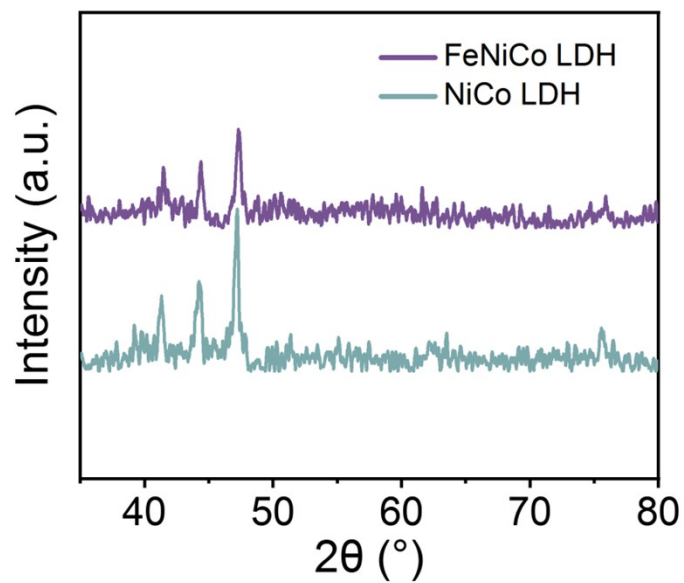


Fig. S9. XRD patterns of FeNiCo LDH and NiCo LDH sample.

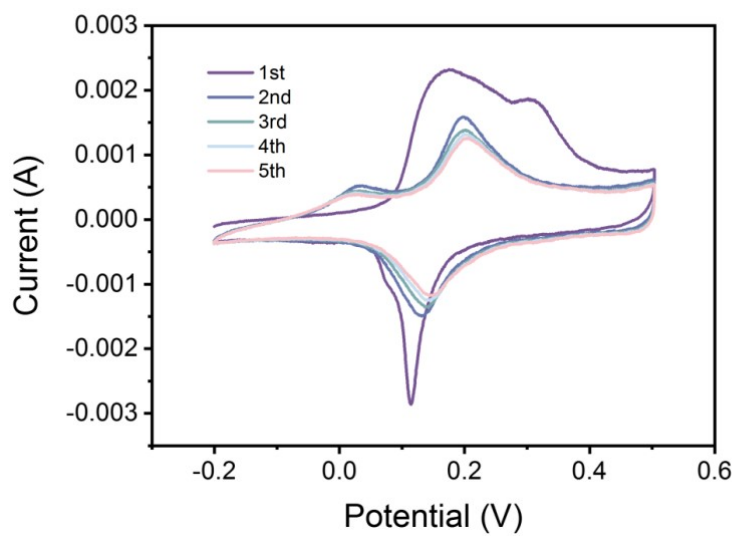


Fig. S10. CV curves of NiCo LDH electrodes at 10 mV s⁻¹.

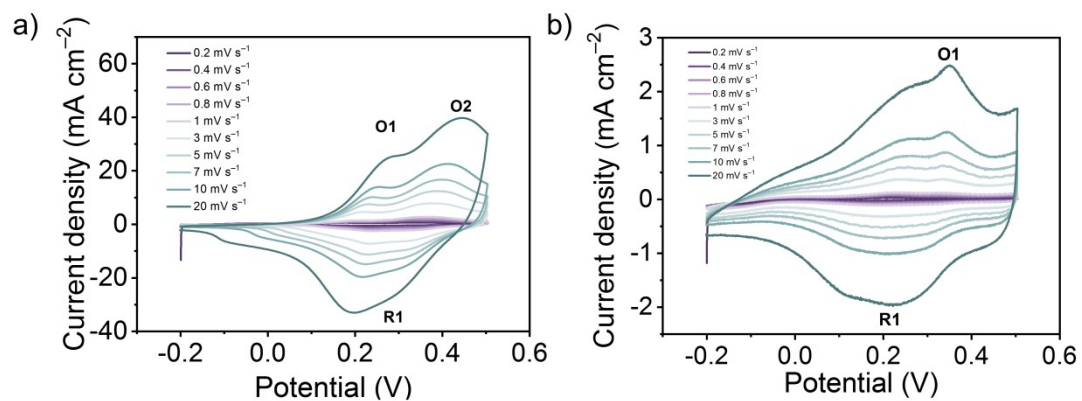


Fig. S11. CV curves from the scan rate from 0.2 mV s⁻¹-20 mV s⁻¹ of (a) FeNiCo LDH and (b) NiCo LDH samples.

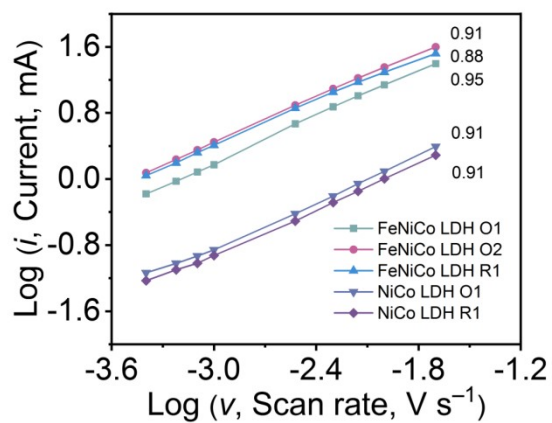


Fig. S12. Log (*i*) versus log (*v*) plots of NiCo LDH and FeNiCo LDH electrodes.

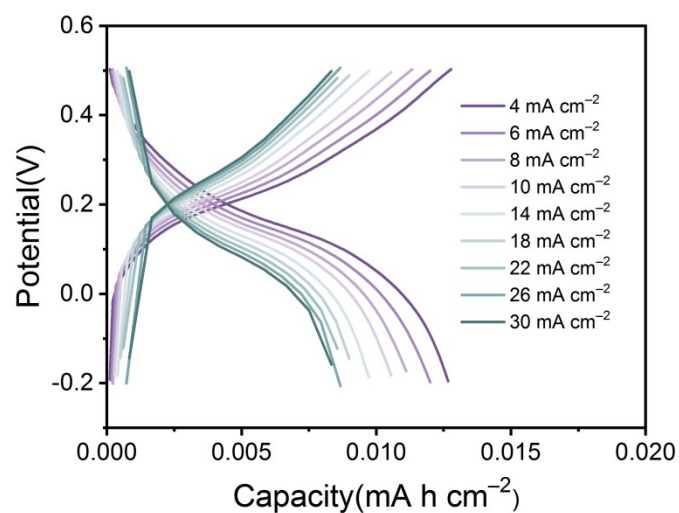


Fig. S13. GCD curves of NiCo LDH electrodes collected at 4-30 mA cm⁻².

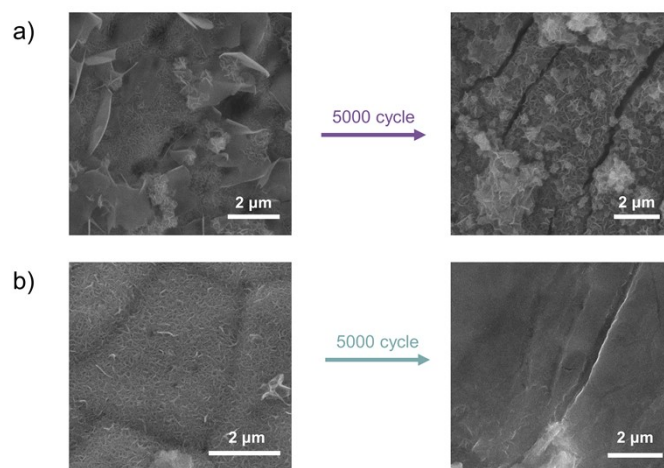


Fig.S14. SEM images of (a) FeNiCo LDH and (b) NiCo LDH sample before and after cycle.

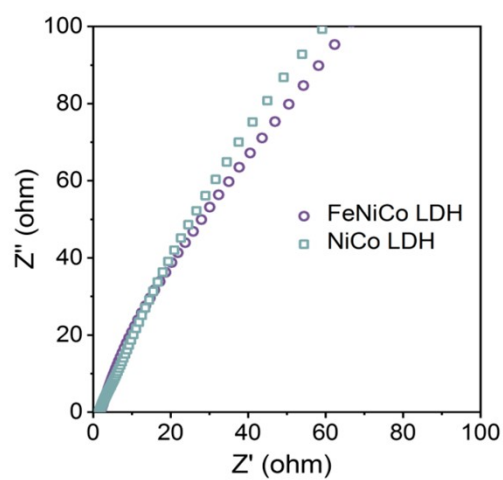


Fig. S15. Nyquist plots for the FeNiCo LDH and the NiCo LDH electrodes.

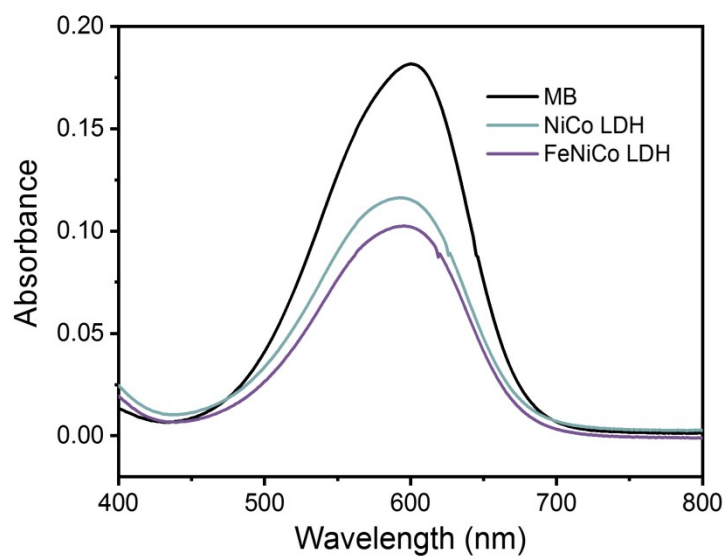


Fig. S16. UV-vis absorption spectra collected for the original MB solution (0.5 mg L^{-1} in water) and for the MB solutions after reacting with FeNiCo LDH and NiCo LDH for 12 h.