

Supporting Information

High-performance Zn microbatteries based on a NiCo-LDH@ITO nanowire/carbon cloth composite

LI Xi-juan, LIU Guo, WU Qing-feng, WANG Xu-kun, SUI Xin-yi, WANG Xin-ge, FAN Zi-ye, XIE Er-qing, ZHANG Zheng-xing*

(Key Laboratory for Magnetism and Magnetic Materials of the Ministry of Education, School of Physical Science and Technology, Lanzhou University, Lanzhou, 730000, China)

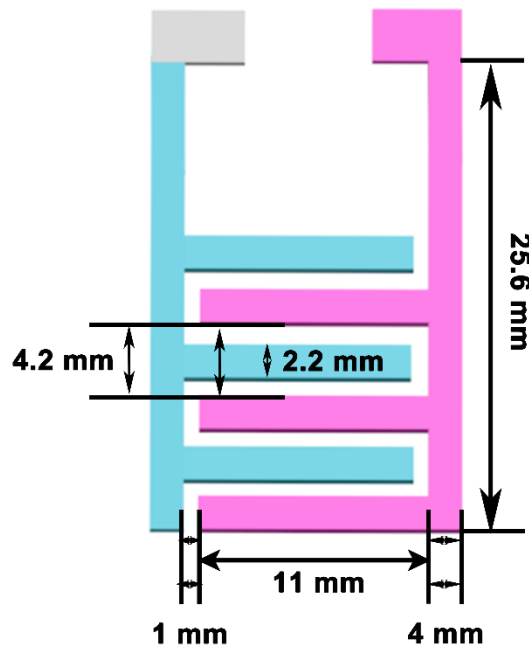


Fig. S1 Detailed Dimensions of planar interdigitated Zn//NiCo-LDH@ITO NWs@CC MBs.

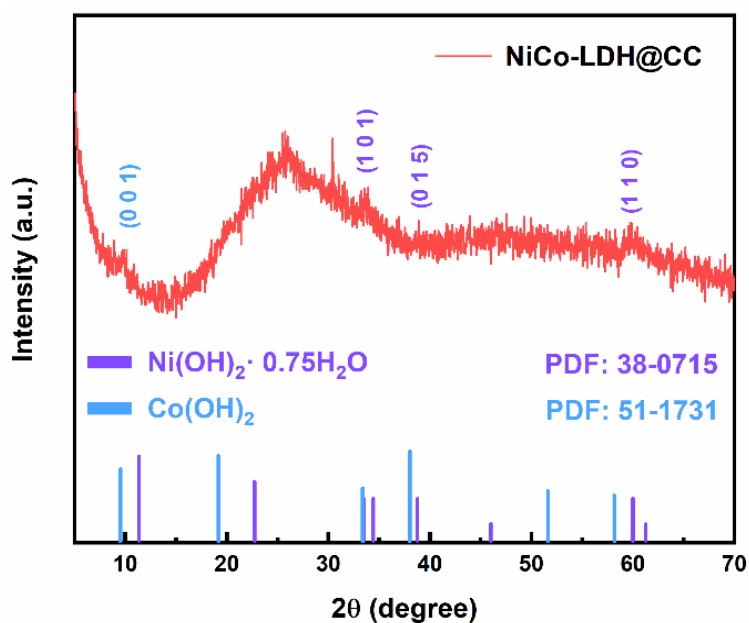


Fig. S2 XRD patterns and the survey XPS spectrum of of NiCo-LDH@CC.

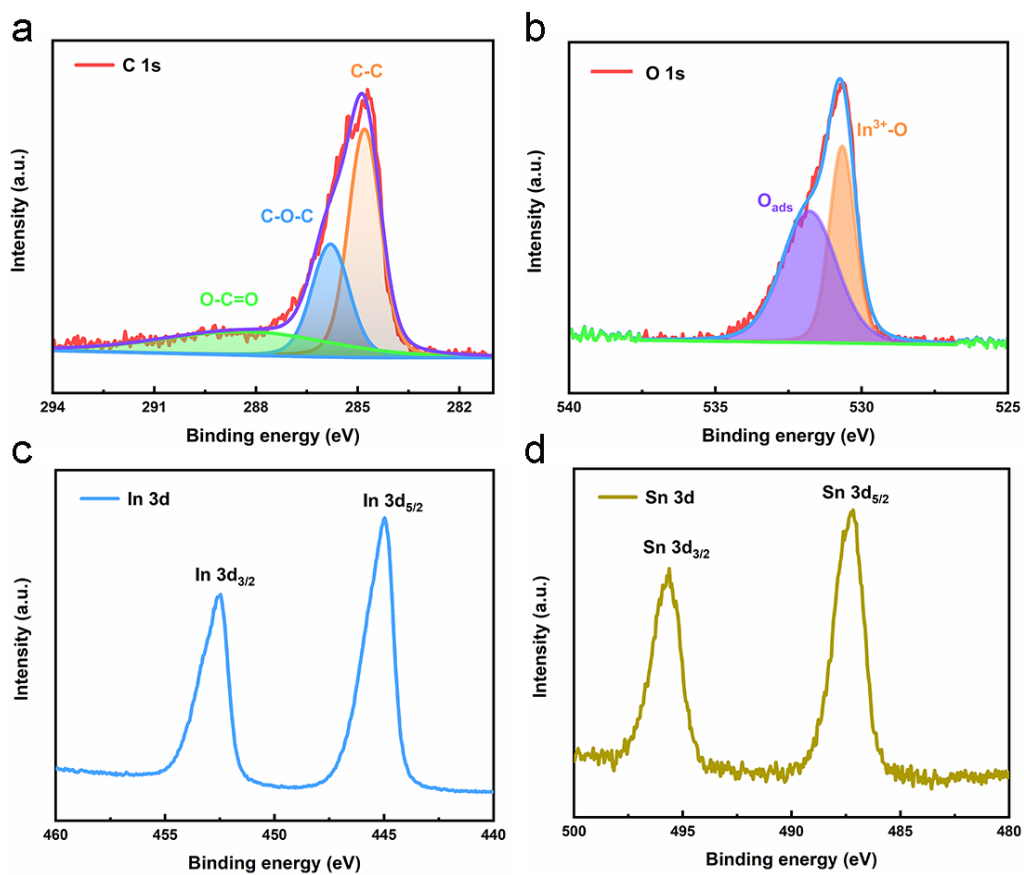


Fig. S3 XPS fine spectra of (a) C 1s, (b) O 1s, (c) In 3d and (d) Sn 3d of ITO NWs@CC.

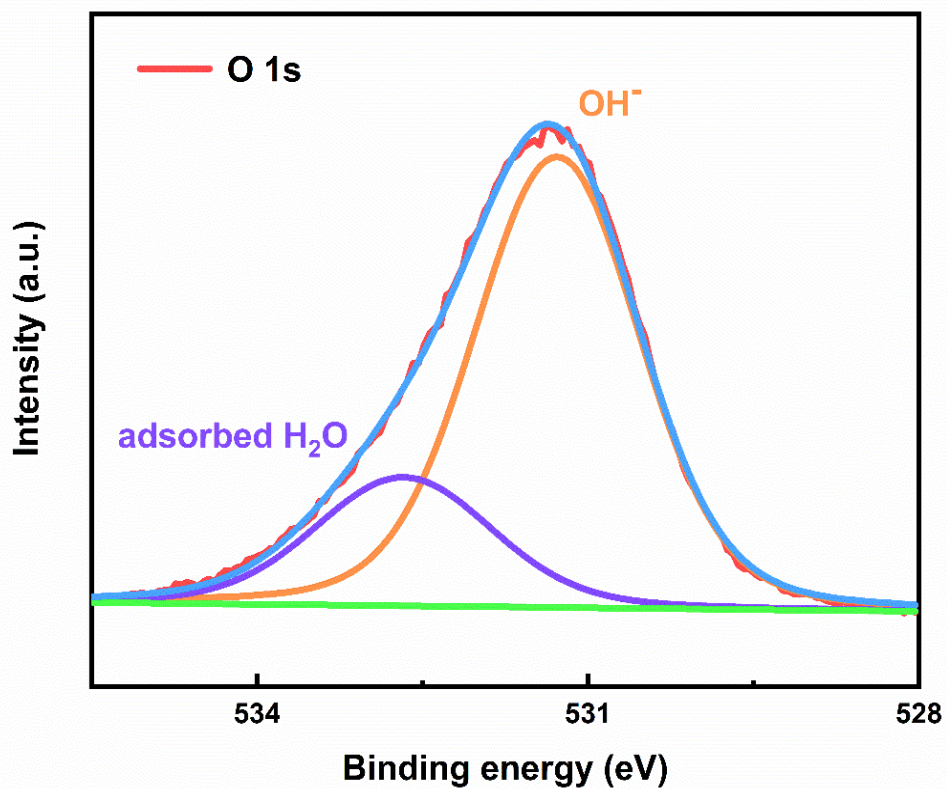


Fig. S4 O 1s XPS fine spectrum of NiCo-LDH@ITO NWs@CC.

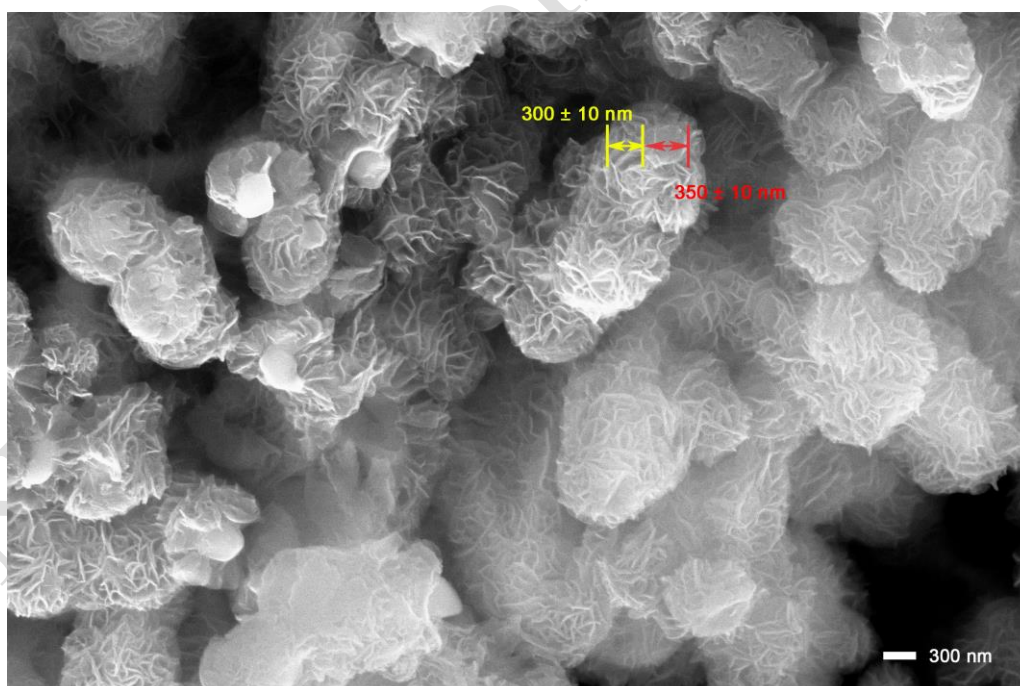


Fig. S5 SEM image of NiCo-LDH@ITO NWs@CC.

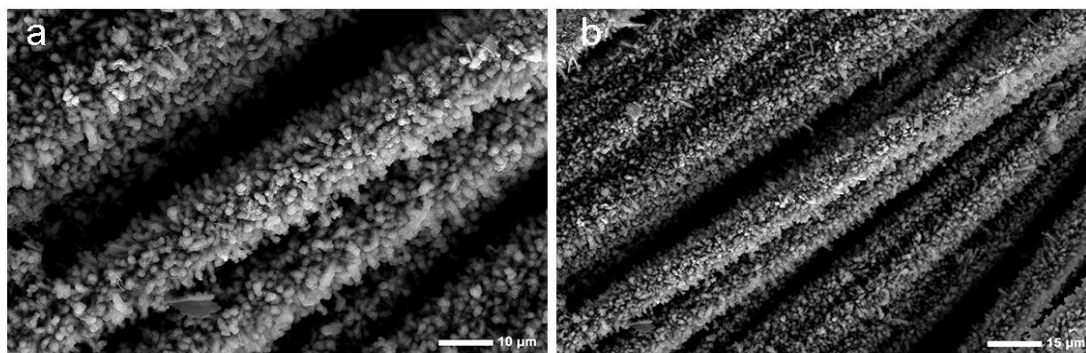


Fig. S6 SEM images of NiCo-LDH@ITO NWs@CC.

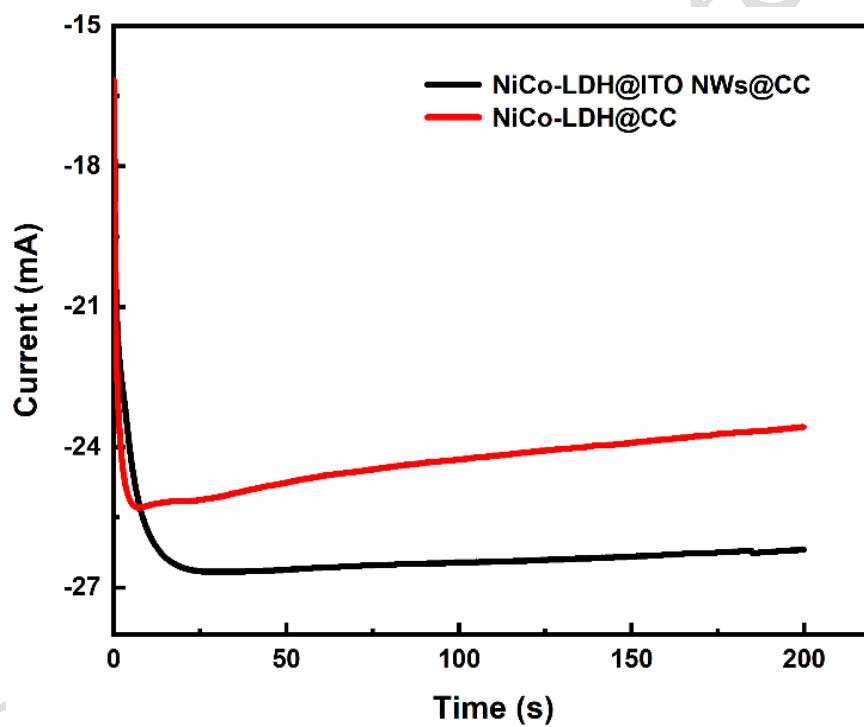


Fig. S7 I-t curves during the electrodeposition of NiCo-LDH at -1 V on different substrates.

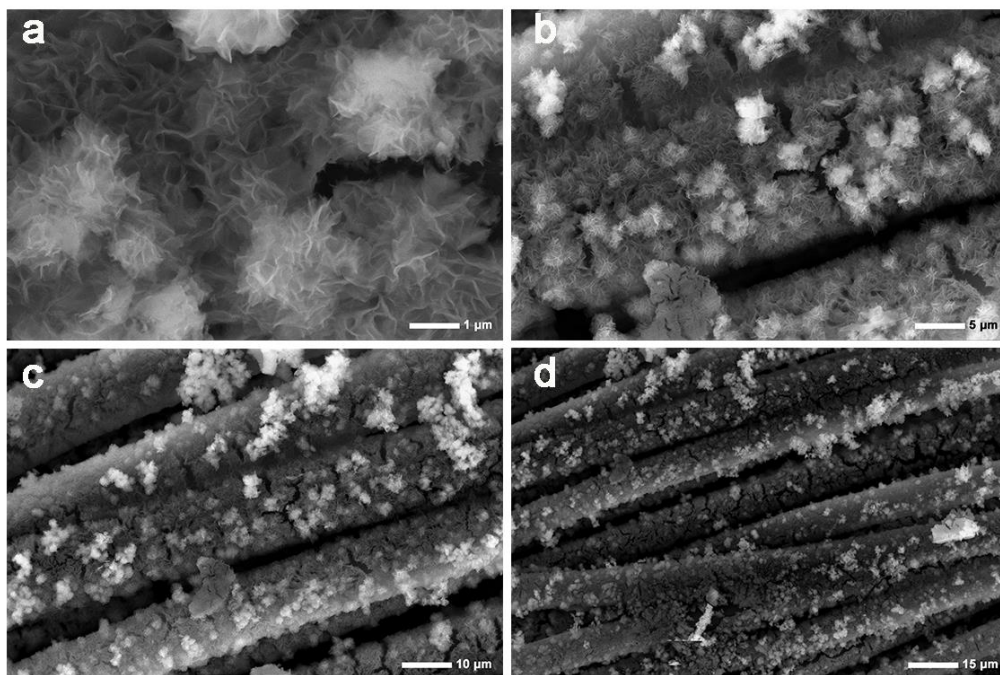


Fig. S8 SEM images of NiCo-LDH@CC.

New Carbon Materials

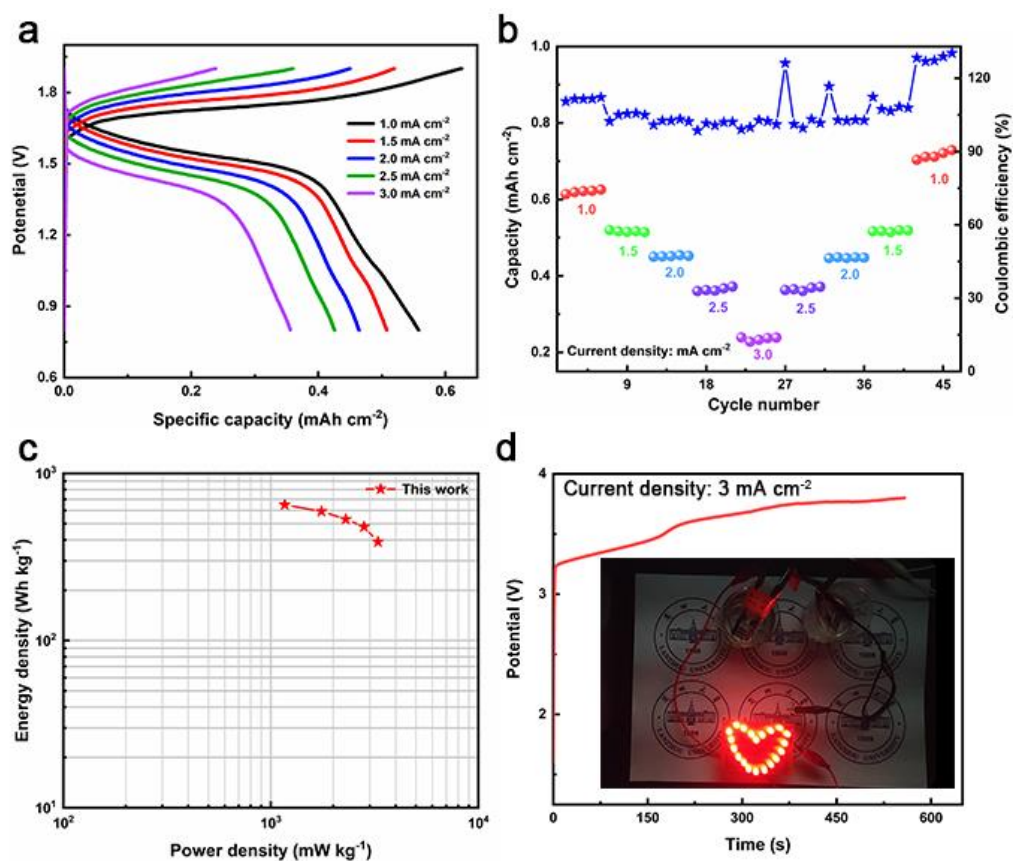


Fig. S9 Zn/NiCo-LDH@ITO NWs@CC: (a) Charge/discharge curves at current densities from 1.0 to 3.0 mA cm⁻². (b) Rate performance of ZMBs. (c) Ragone plot. (d) Charge curve of two ZMBs in series at 3 mA cm⁻² (inset: photo image of two ZMBs in series lighting up 20 parallel red LEDs).

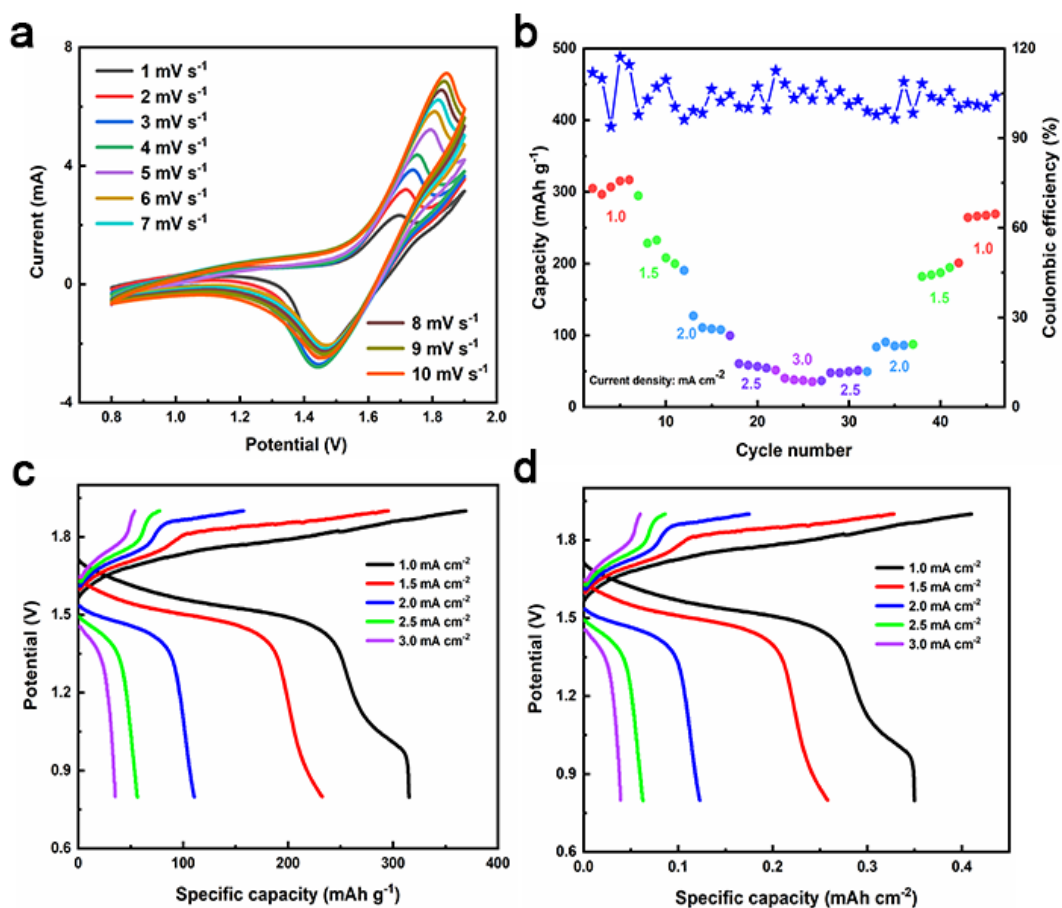


Fig. S10 Zn/NiCo-LDH@CC: (a) CV curves. (b) Rate performance. (c,d) Charge/discharge curves at current densities from 1.0 to 3.0 mA cm⁻².

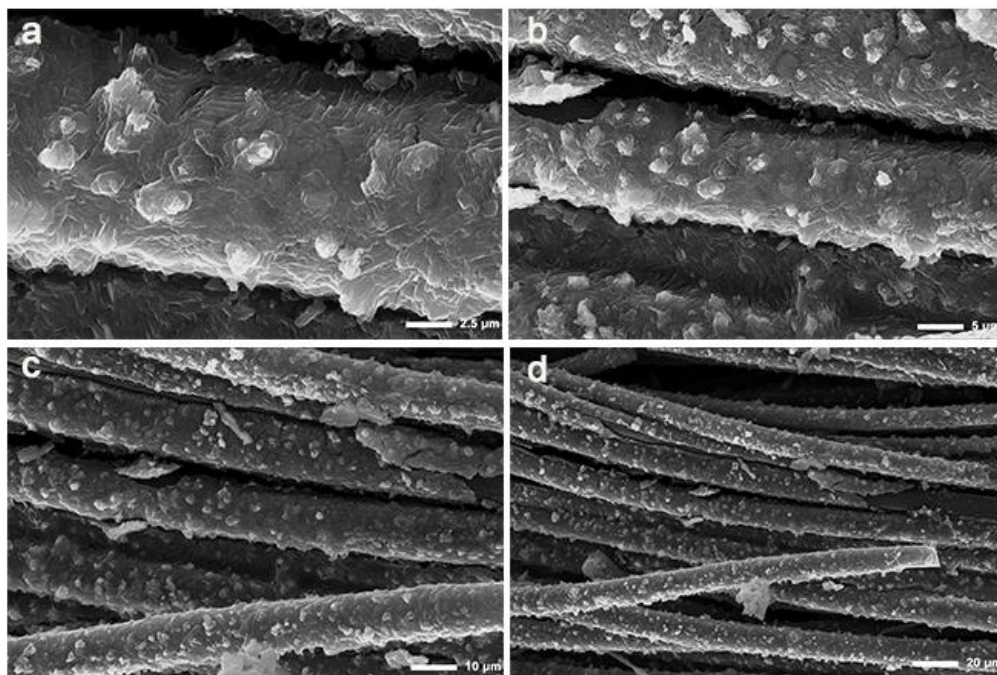


Fig. S11 (a-d) SEM images after long term cycling of Zn/NiCo-LDH@CC MBs.