

Supporting Information

Co-Co₉S₈-NC particles anchored on 3D hyperfine carbon nanofiber networks with a hierarchical structure as a catalyst promoting polysulfide conversion for lithium-sulfur batteries

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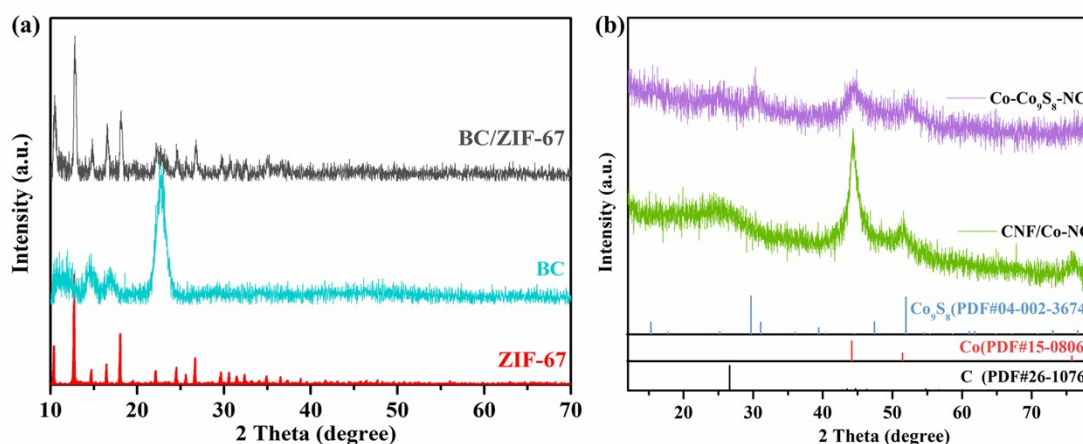


Fig. S1 XRD pattern of (a) BC/ZIF-67, BC and ZIF 67; (b) Co-Co₉S₈-NC and CNF/Co-NC.

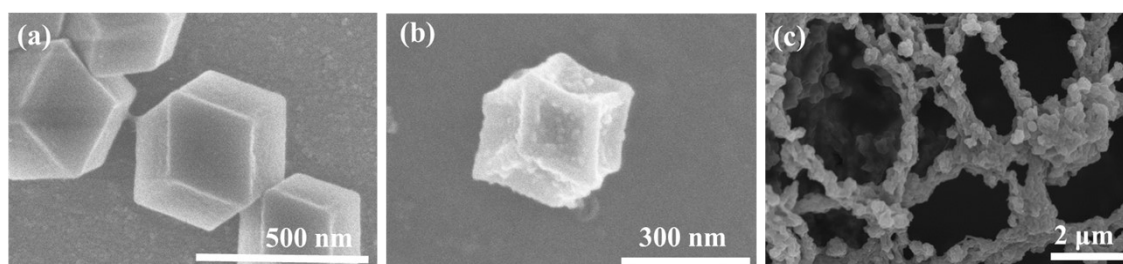


Fig. S2 SEM images: (a) ZIF-67; (b) Co-Co₉S₈-NC; (c) CNF/Co-NC.

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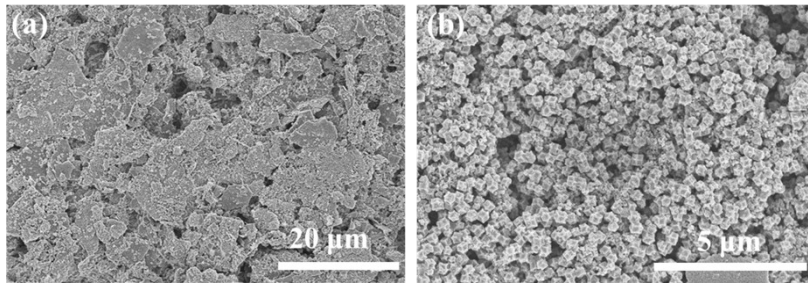


Fig. S3 SEM images of surface morphology: (a) CNF/Co-NC separator; (b) Co-Co₉S₈-NC separator.

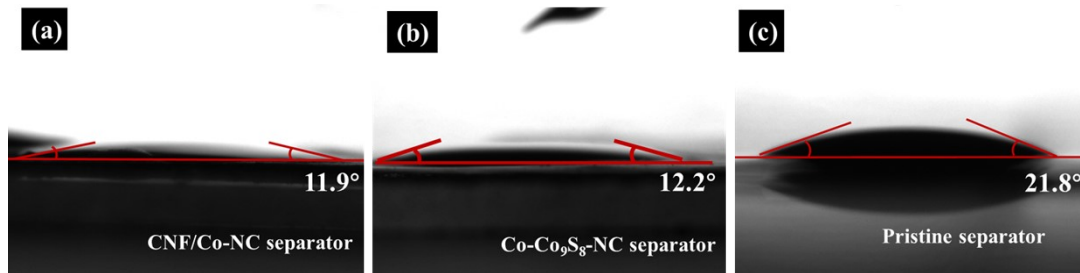


Fig. S4 Contact angles between the electrolyte and separators: (a) the CNF/Co-NC separator; (b) Co- Co₉S₈-NC separator; (c) pristine separator.

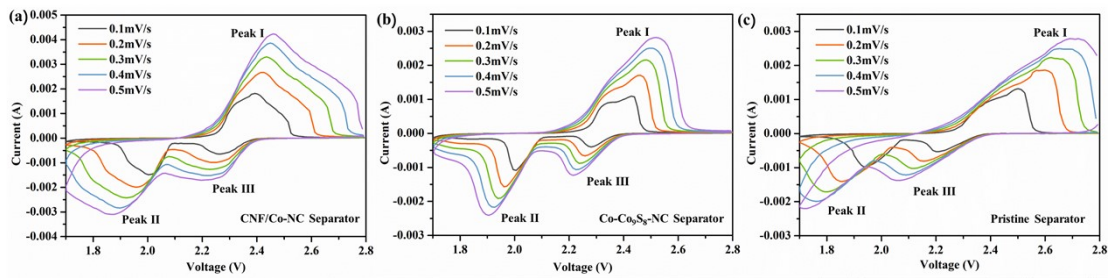


Fig. S5 CV curves of Li-S batteries with (a) CNF/Co-NC, (b) Co- Co₉S₈-NC, and (c) pristine separators at different sweep speeds.

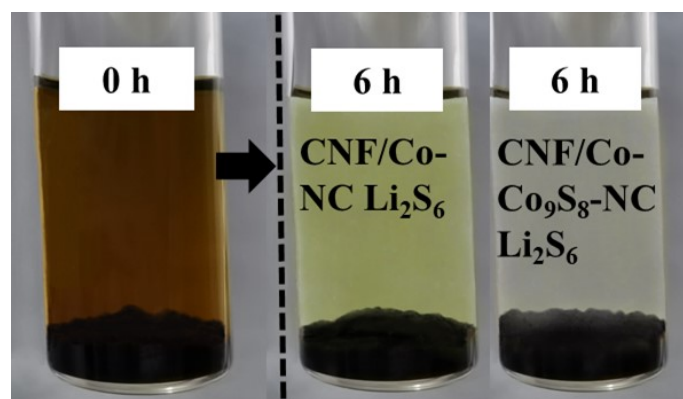


Fig. S6 LiPSs adsorption ability of CNF/Co-NC and CNF/Co-Co₉S₈-NC composites in the Li₂S₆ solution.