Supplementary Information

Pyridinic- and Pyrrolic- Nitrogen enriched Carbon as Polysulfide Blocker for High-Performance Lithium-Sulfur Batteries

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Figure S1 (a) CV curves at 0.1 mV s⁻¹, (b) CV curves at various rate. (c) coefficient of the cell with CN_x -CM, (d) cycling performance of the cells with celgard and CN_x -CM at 0.2 C and corresponding galvanostatic charge–discharge profiles for celgard (e) and CN_x -CM (f).



Figure S2 Optical images for the generation and diffusion of PS in H-type cells with celgard or CNx-CM separator.



Figure S3 Cycling performance of the cells with CN_x -CM separator at different sulfur content (a) based on the sulfur loading and (b) based on the whole cathode.



Figure S4. (a) The photo of the cycled separators soaked in the THF solution, (b) the photo of the cycled lithium foil in the cells with different separators.