Electronic Supplementary Information

Three-Dimensional Ordered Macroporous ZIF-8 Nanoparticles-Derived Nitrogen-Doped Hierarchical Porous Carbon for High-Performance Lithium-Sulfur Batteries

Xinxin Ji^a, Qian Li^b, Haoquan Yu^a, Xiaolin Hu^a, Buyin Li^{*a}, Yuanzheng Luo^{*c}

^a Key Laboratory of Electronic Information Functional Material of Electronic Information, Huazhong University of Science and Technology, Wuhan, Hubei, 430074, China.

^b School of Optical and Electronic Information, Huazhong University of Science and Technology, Wuhan, Hubei, 430074, China.

^c Department of physics and Optoelectronics Technolog, Guangdong Ocean University, Zhanjiang, Guangdong, 524088, China.

* Corresponding Author: libuyin@hust.edu.cn; Tel: +86-27-87542994



Fig.S1 (a) {100} (yellow) and {111} (blue) orientation of fcc stacking templates and cuboctahedron. (b) Forming mechanism of COM-ZIF-8 with shape of cuboctahedron.



Fig.S2 XRD patterns of COM-ZIF-8 and ZIF-8, along with XRD pattern of simulated ZIF-8 for reference.



Fig.S3 XPS survey spectrum for COM-MPC.



Fig.S4 (a) SEM image of C-ZIF-8@S and corresponding elemental mappings of (b) carbon, (c) nitrogen and (d) sulfur. (e) XRD patterns of C-ZIF-8, C-ZIF-8/S and C-ZIF-8@S.



Fig.S5 Galvanostatic charge/discharge profiles of C-ZIF-8@S at 0.1 C.