## **Supporting Information**

## Facile synthesis of mesoporous graphene platelet with in-situ nitrogen and sulfur doping for lithium-sulfur batteries

Xiqing Yuan<sup>1</sup>, Bingchuan Liu<sup>1</sup>, Huijie Hou<sup>1</sup>, Kemal Zeinu<sup>1</sup>, Yuhang He<sup>1</sup>, Xiaorong Yang<sup>1</sup>, Weijun Xue<sup>1</sup>, Xiulin He<sup>1</sup>, Long Huang<sup>1</sup>, Xiaolei Zhu<sup>1</sup>, Longsheng Wu<sup>1</sup>, Jingping Hu<sup>1\*</sup>, Jiakuan Yang<sup>1\*</sup>, Jia Xie<sup>2</sup>

 <sup>1</sup>School of Environmental Science and Engineering, Huazhong University of Science and Technology (HUST), Wuhan, 430074, P R China
<sup>2</sup> School of Electrical & Electronic Engineering, Huazhong University of Science and Technology (HUST), Wuhan, 430074, P R China

\* Corresponding authors: Prof. Jingping Hu, E-mail: hujp@hust.edu.cn, Prof. Jiakuan Yang, E-mail: jkyang@hust.edu.cn Tel: +86-27-87793948; Fax: +86-27-87792101

## **Supplementary Figures**



Figure S1 (a, b) CV and EIS of the cathode after 200 cycles at 0.5C rate and (c, d) CV and EIS after rate cycles at 2C rate.



Figure S2 XPS spectrum of (a) O 1s of pristine NSG/S composite and (b) O 1s of NSG/S cathode after 200 cycles at 1C rate.

