

Supporting Information

**N-doped porous carbon/MXene composite as sulfur host for
lithium-sulfur batteries**

Youquan Zhang^{a,b}, Wenwen Tang^{a,b}, Renming Zhan^{a,b}, Heng Liu^{a,b}, Hao Chen^{a,b}

Jingang Yang^{a, b *} and Maowen Xu*

^aKey Laboratory of Luminescent and Real-Time Analytical Chemistry (Southwest University), Ministry of Education, Institute of Materials and Energy, Southwest University, Chongqing 400715, PR China.

^bChongqing Key Laboratory for Advanced Materials and Technologies of Clean Energies, Chongqing 400715, P.R. China.

Corresponding author:

E-mail: yjg20140716@swu.edu.cn; xumaowen@swu.edu.cn.

Tel: +86-023-68254372

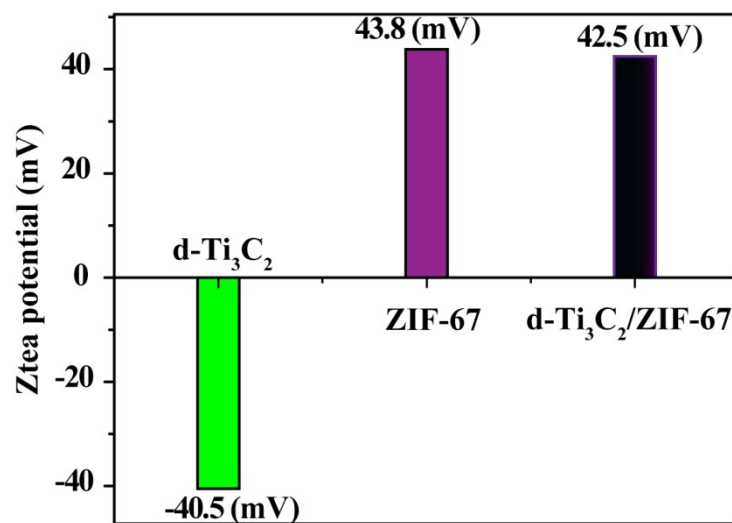


Fig. S1 Zeta potential of d-Ti₃C₂, ZIF-67, ZIF-67/Ti₃C₂ hybrid

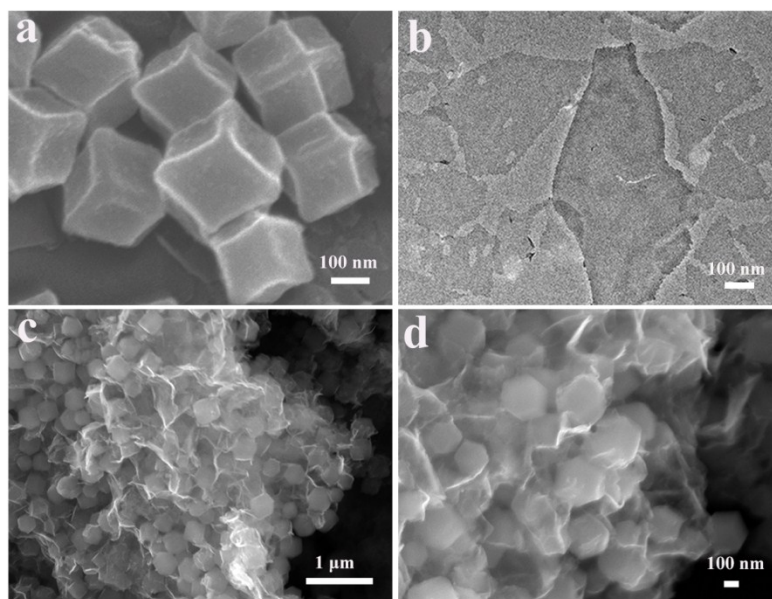


Fig. S2. Fig.S1 FESEM images of ZIF-67 (a), ZIF-67/Ti₃C₂ (c-d); TEM image of d-Ti₃C₂

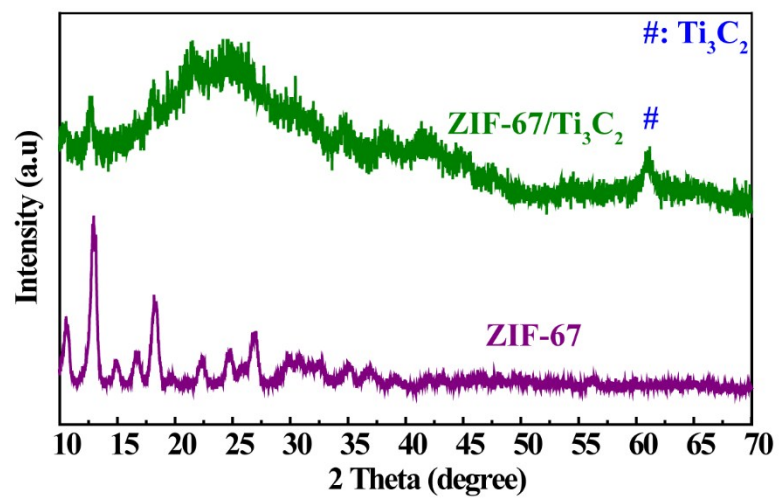


Fig. S3 XRD patterns of ZIF-67 and ZIF-67/Ti₃C₂ hybrid

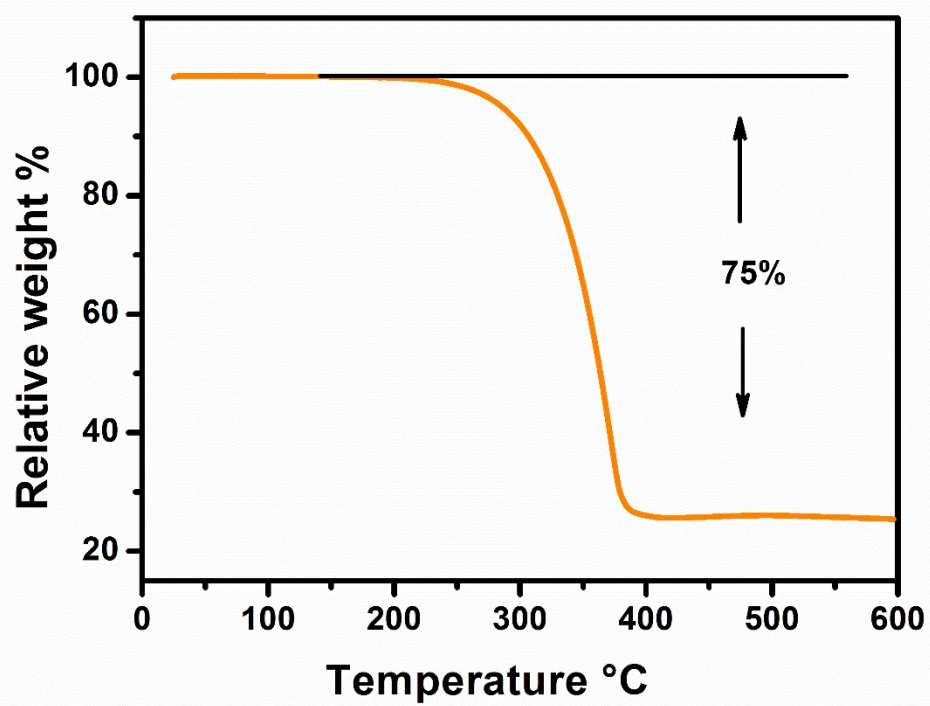


Fig. S4 TGA curve of S@Ti₃C₂.

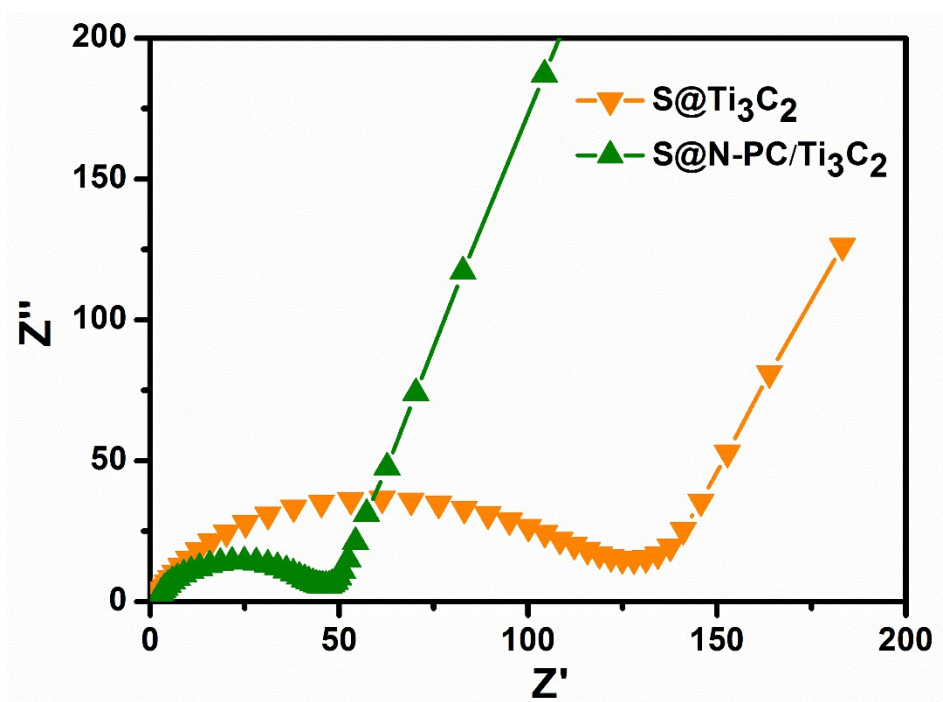


Fig. S5 Nyquist plots of fresh $S@N-PC/Ti_3C_2$ and $S@Ti_3C_2$.