

# Supplementary Information

## **Bismuth metal organic framework-derived $\text{Bi}_2\text{Se}_3@C$ for high performance supercapacitors**

Hengjie Qin<sup>a</sup>, Ying Lv<sup>a\*</sup>, Ping Li<sup>a</sup>, Meixia Xiao<sup>a</sup>, Haiyang Song<sup>a</sup>, Qian Zhang<sup>b</sup>, Jialun Yang<sup>b</sup>

*<sup>a</sup>College of Materials Science and Engineering, Xi'an Shiyou University, No.18,*

*2nd East Dianzi Road, Xian, Shaanxi, 710065, China.*

*<sup>b</sup>School of Nuclear Science and Technology, Xi'an Jiaotong University, Xi'an*

*710049, China.*

Corresponding author

E-mail: 180305@xsyu.edu.cn

Tel: +86-029-88382536

Fax: +86-029-88382536

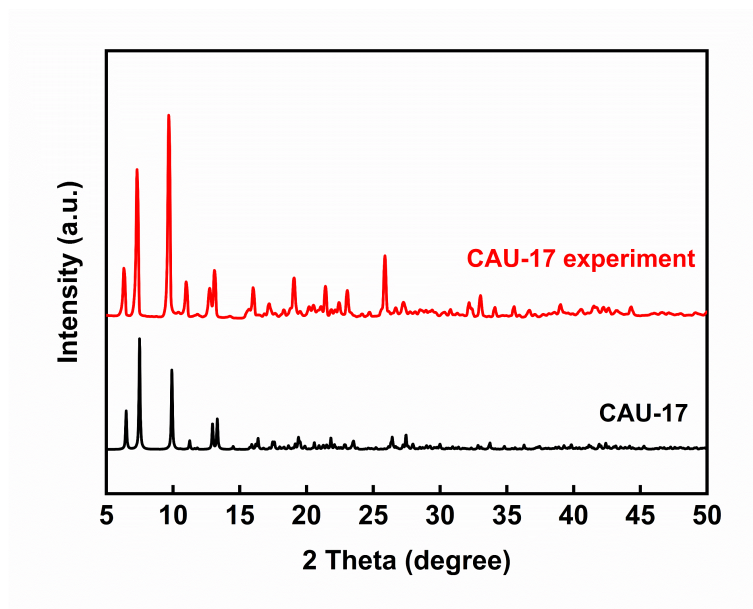


Fig. S1 XRD pattern of synthesized CAU-17.

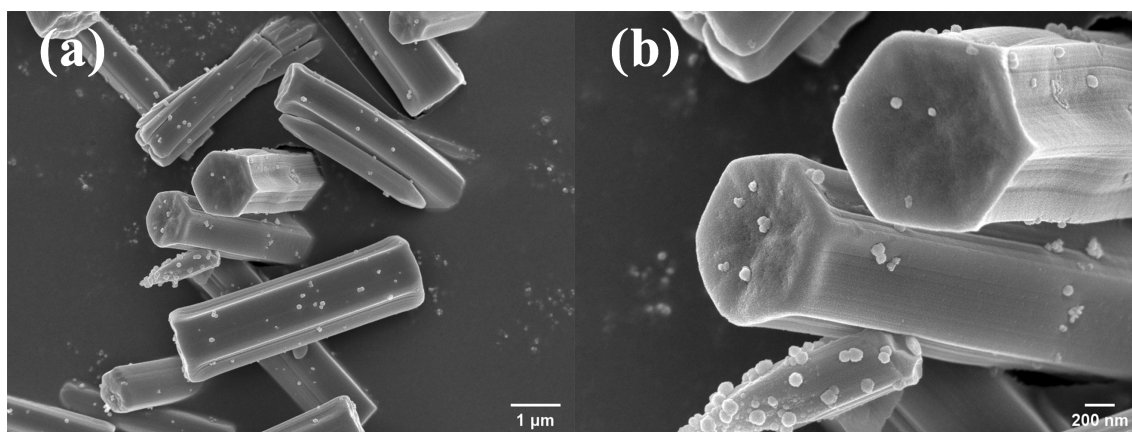


Fig. S2 SEM images of synthesized CAU-17.

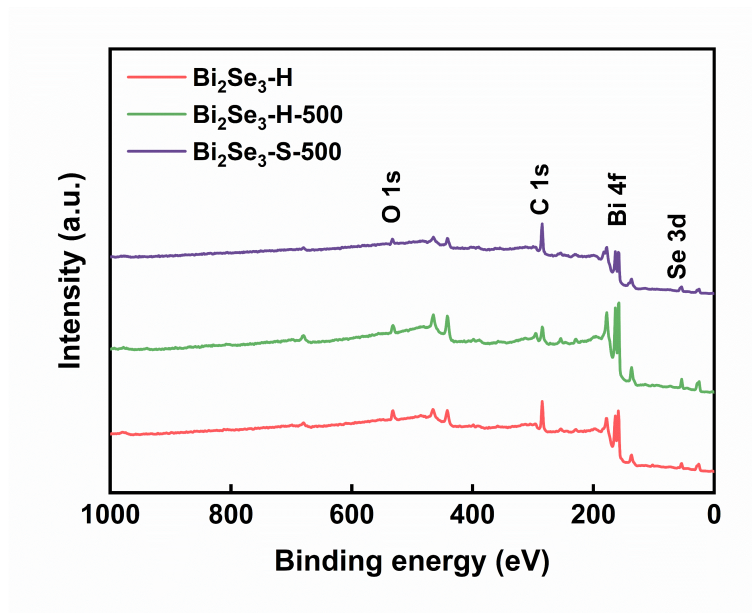


Fig. S3 XPS survey spectrum of  $\text{Bi}_2\text{Se}_3\text{-H}$ ,  $\text{Bi}_2\text{Se}_3\text{-H-500}$  and  $\text{Bi}_2\text{Se}_3\text{-S-500}$ .

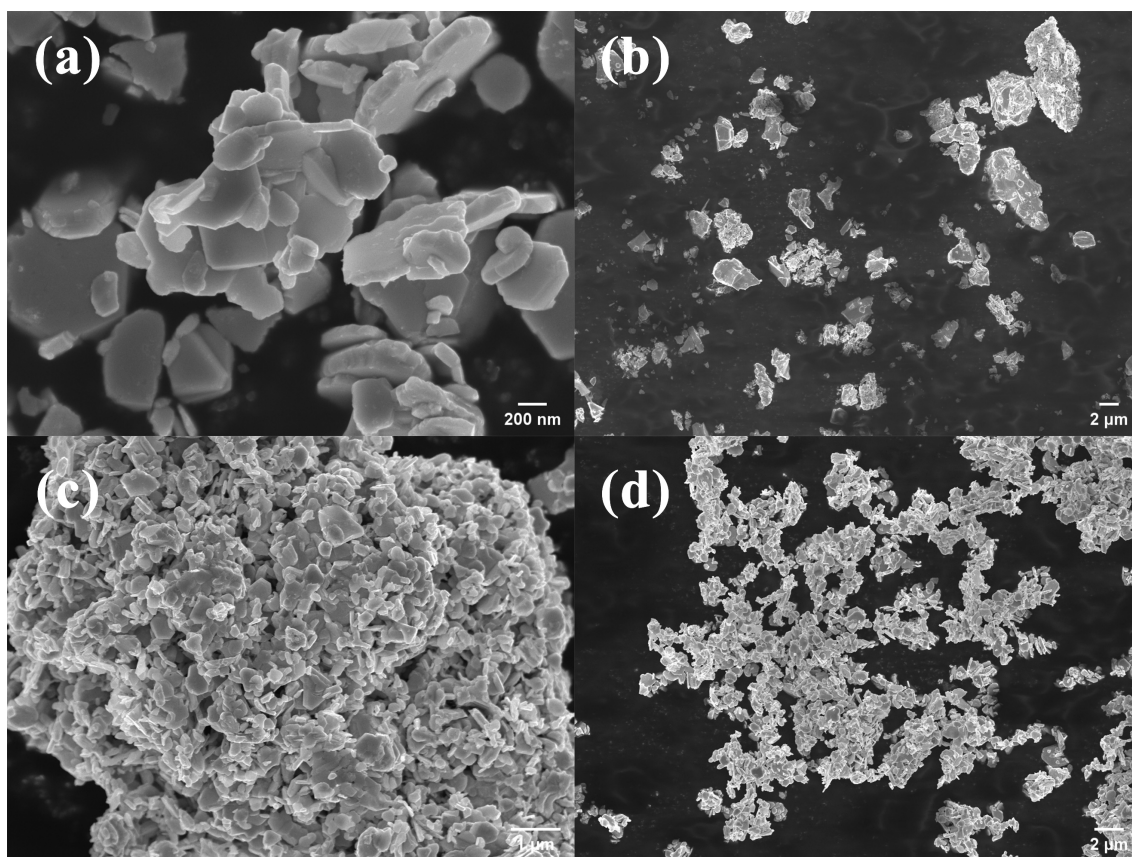
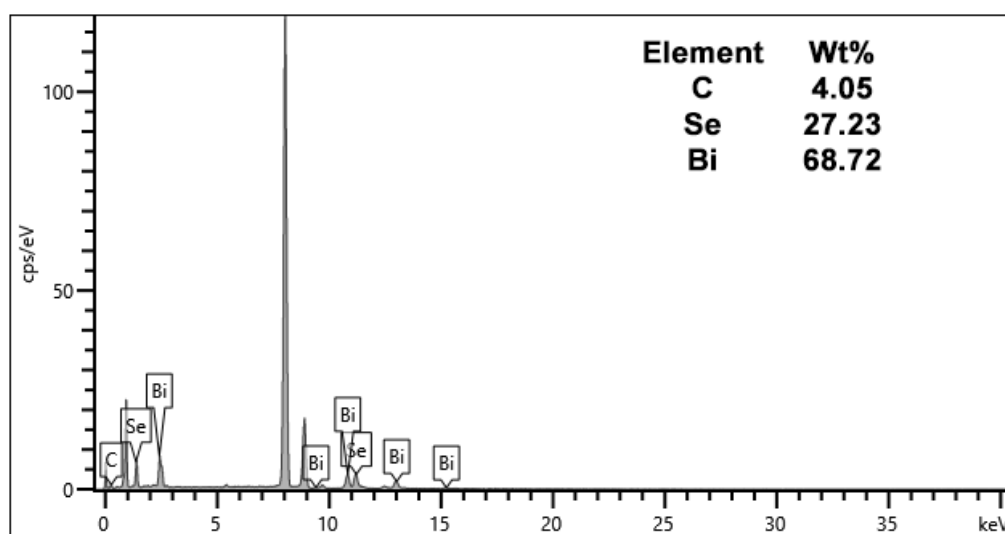
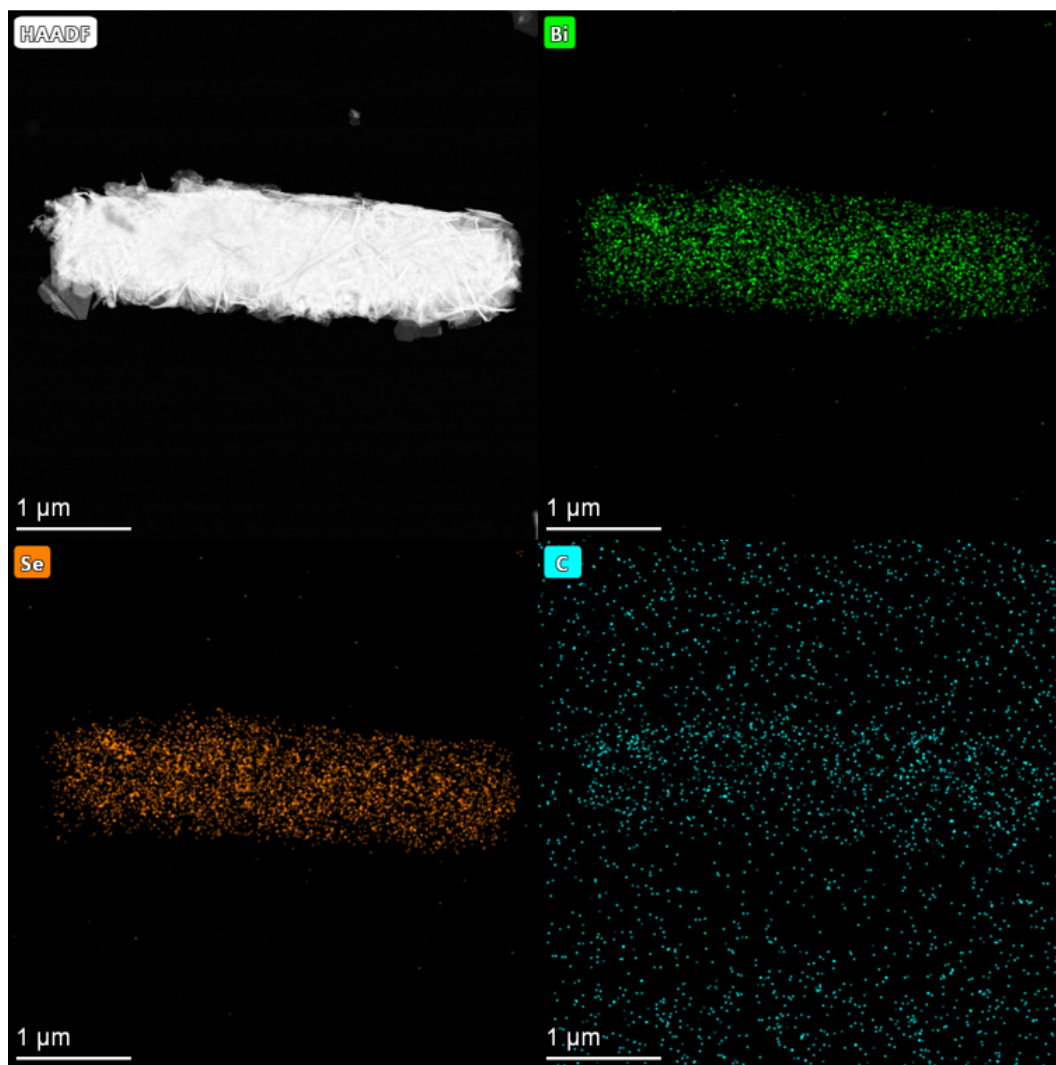


Fig. S4 SEM images of (a-b)  $\text{Bi}_2\text{Se}_3\text{-H-400}$  and (c-d)  $\text{Bi}_2\text{Se}_3\text{-H-600}$ .



**Fig. S5** (a) Elements mappings of  $\text{Bi}_2\text{Se}_3\text{-H}$ . (b) EDS spectrum of  $\text{Bi}_2\text{Se}_3\text{-H-500}$ .

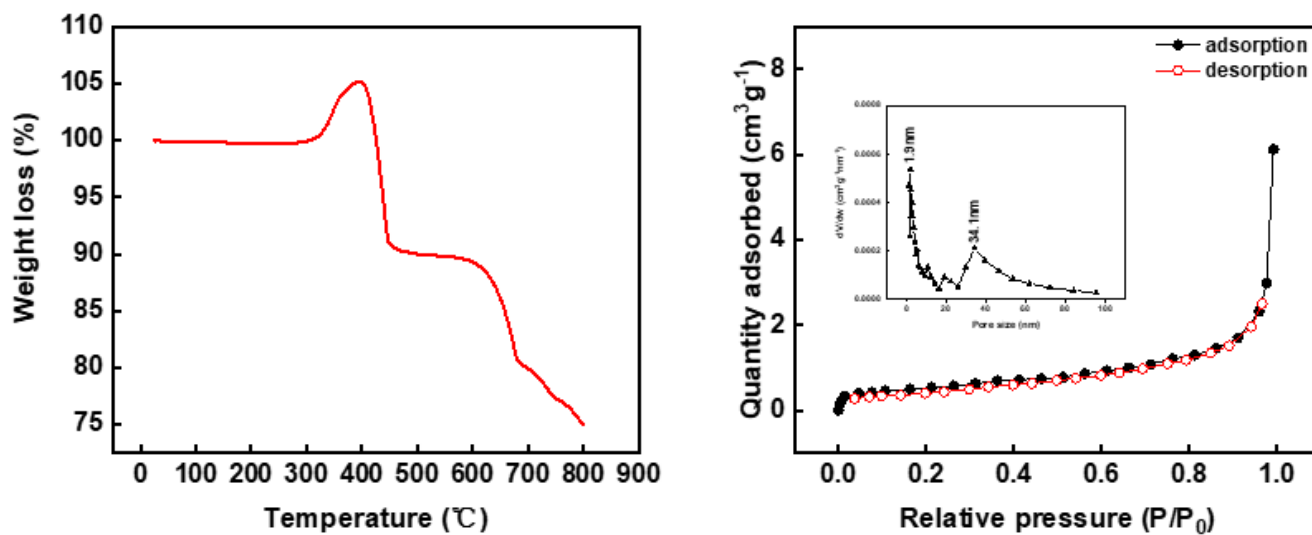


Fig. S6 (a) TGA characterizations of Bi<sub>2</sub>Se<sub>3</sub>-H-500. (b) N<sub>2</sub> adsorption/desorption isotherms of Bi<sub>2</sub>Se<sub>3</sub>-H-500 and the pore size distribution of inset picture.

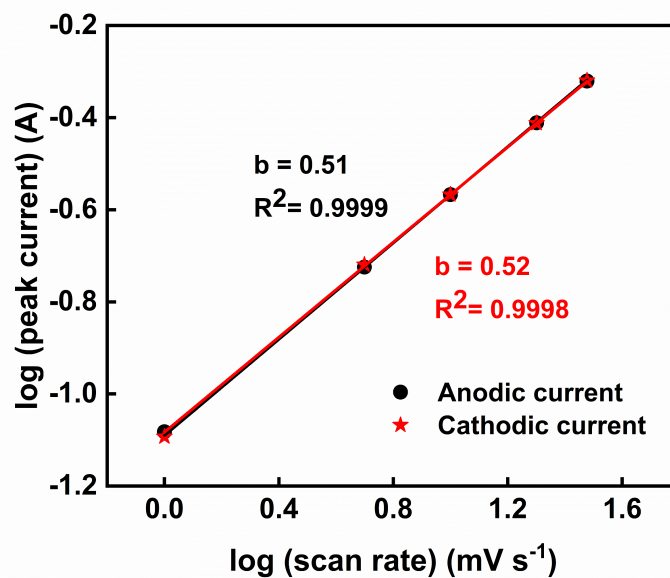


Fig. S7 The plots of  $\log(i)$  against  $\log(v)$  for Bi<sub>2</sub>Se<sub>3</sub>-H-500.

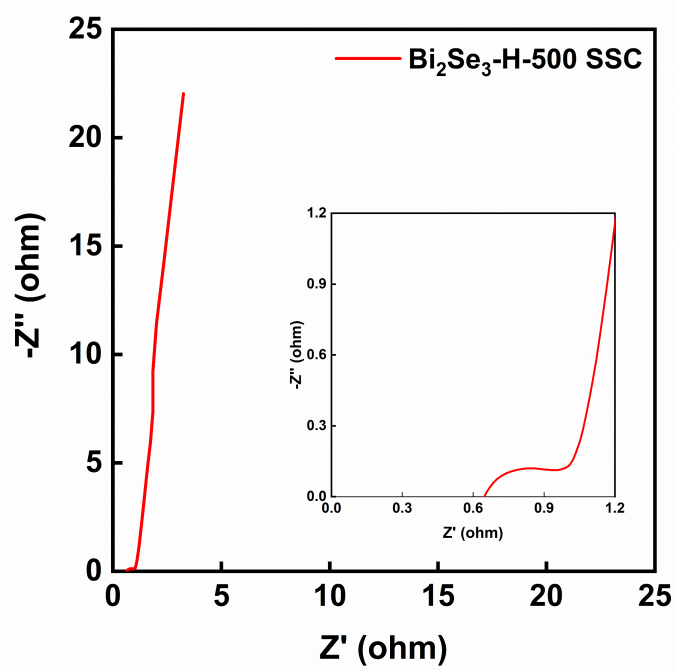


Fig. S8 EIS Nyquist plots of the  $\text{Bi}_2\text{Se}_3\text{-H-500}$  electrode.