

Supporting Information

Electrospun Polyimide/Metal-organic Framework Nanofibrous Membrane with Superior Thermal Stability for Efficient PM_{2.5} Capture

By Zhimin Hao, † Juntao Wu, *, † Chaolu Wang, † Jingang Liu*, ‡

†Key Laboratory of Bioinspired Smart Interfacial Science and Technology of
Ministry of Education, School of Chemistry, Beihang University, Beijing, 100191, P.
R. China. wjt@buaa.edu.cn

‡ Beijing Key Laboratory of Materials Utilization of Nonmetallic Minerals and Solid
Wastes, National Laboratory of Mineral Materials, School of Materials Science and
Technology, China University of Geosciences, Beijing 100083, P. R. China.
liujg@cugb.edu.cn

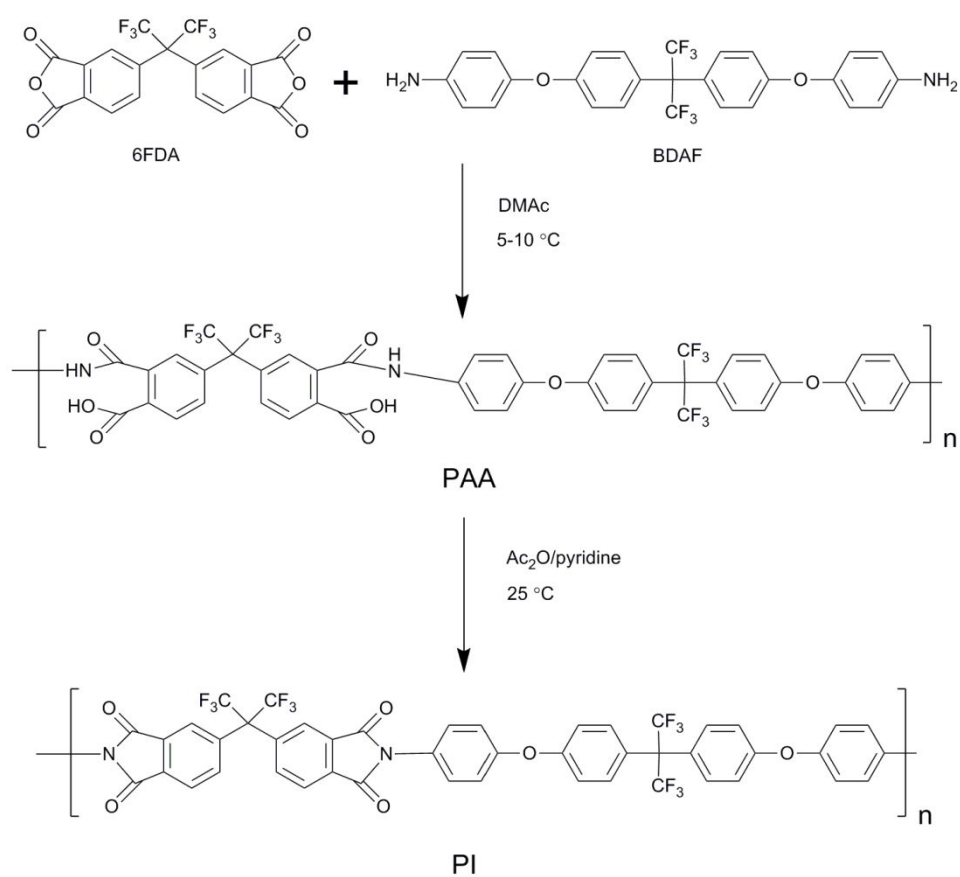


Figure S1. Synthetic route of 6FDA-BDAF.

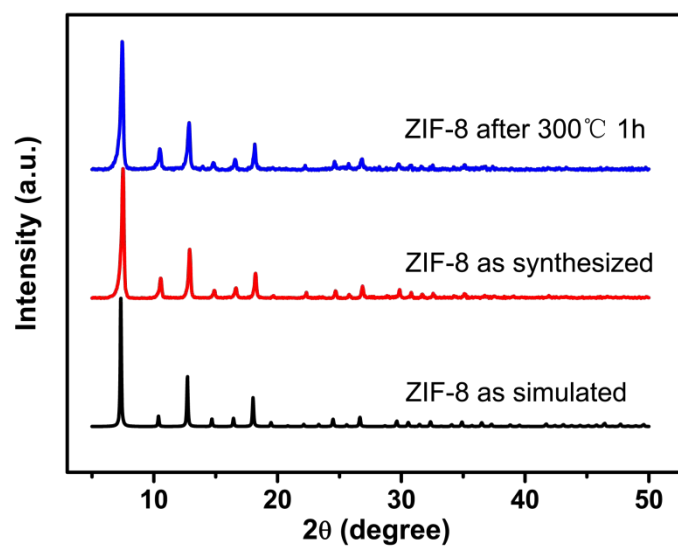


Figure S2. XRD patterns of ZIF-8, ZIF-8 after heat treatment under 300 °C for 1h and simulated XRD pattern of ZIF-8.

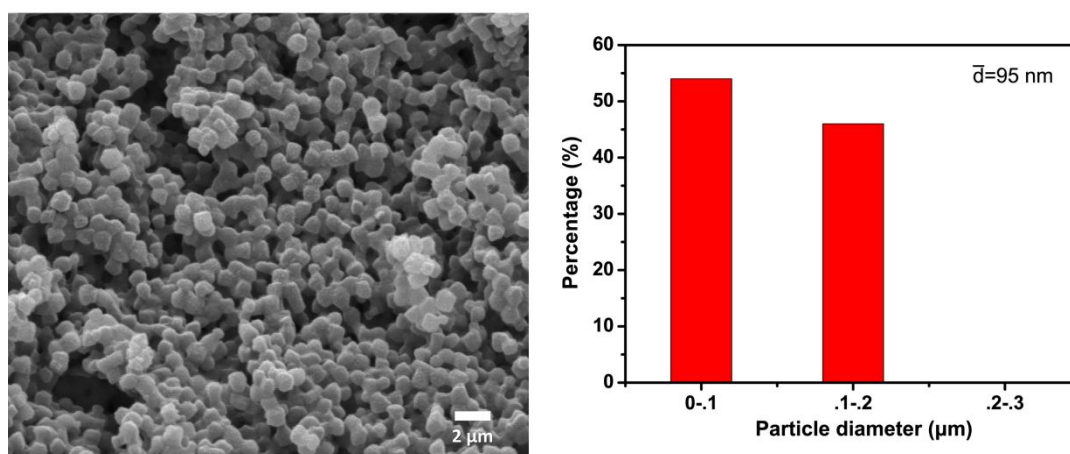


Figure S3. SEM image of ZIF-8 and its particle diameter distribution.

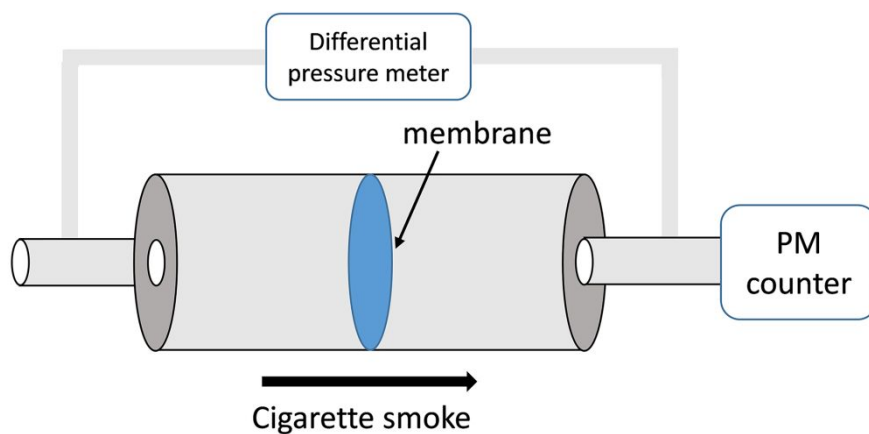


Figure S4. Schematic illustration of setup for filtration efficiency and pressure drop measurement.

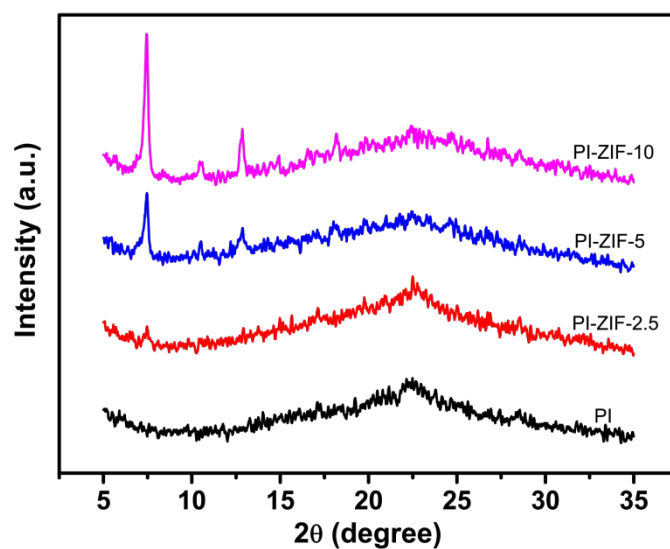


Figure S5. XRD patterns of PI and PI-ZIF membranes.

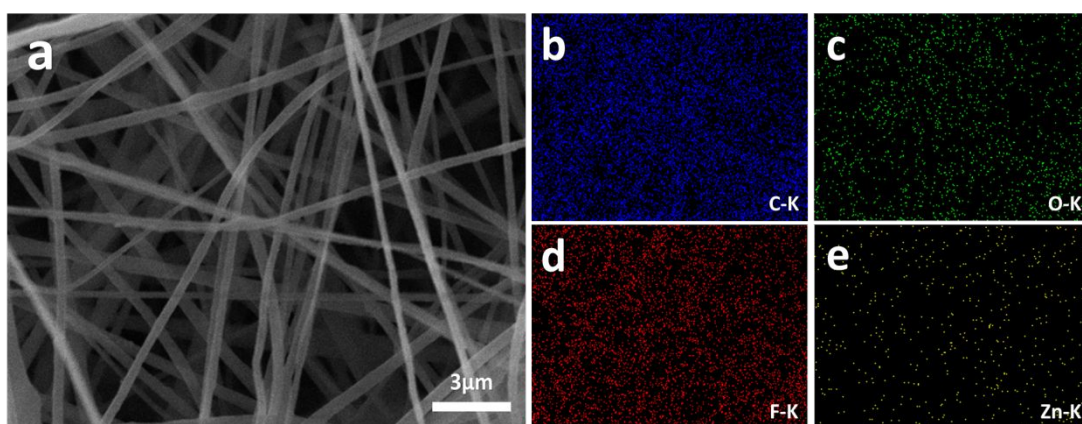


Figure S6. EDS elemental mapping of PI-ZIF-10 membrane: (a) bright field image, (b) C-K edge, (c) O-K edge, (d) F-K edge, (e) Zn-K edge.