

Supplementary Information

**Low resistance bicomponent spunbond materials for fresh air
filtration with ultra-high dust holding capacity**

Jinxin Liu, Xing Zhang, Haifeng Zhang, Lei Zheng, Chen Huang, Haibo Wu, Rongwu Wang and Xiangyu Jin*

Engineering Research Center of Technical Textiles, Ministry of Education, College of Textiles, Donghua University, No. 2999 North Renmin Road, Songjiang, Shanghai 201620, China

* Correspondence: jinxu@dhu.edu.cn (Xiangyu Jin)

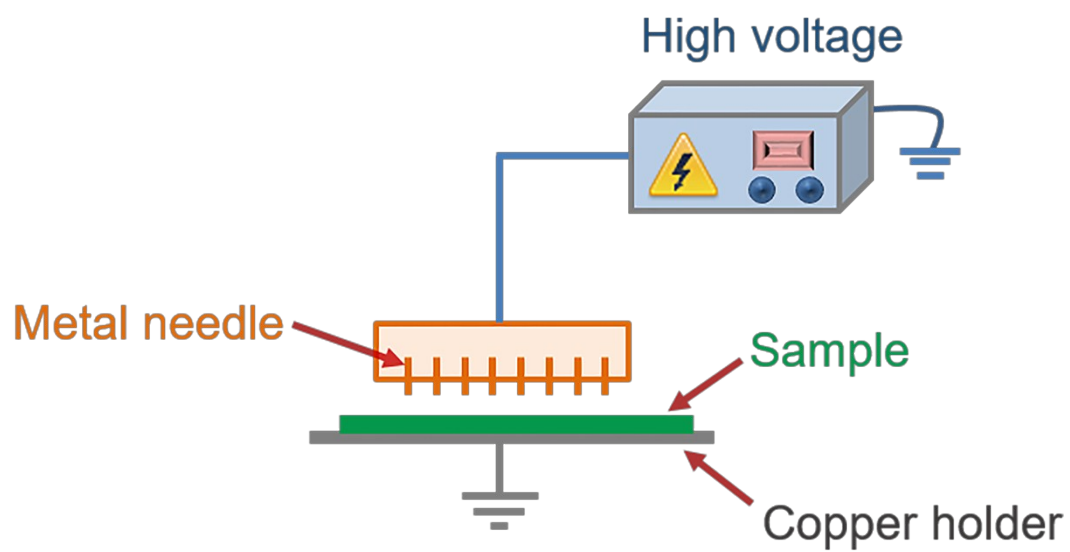


Fig. S1 Schematic diagram of needle-plane electrode system for corona charging of filtration materials.

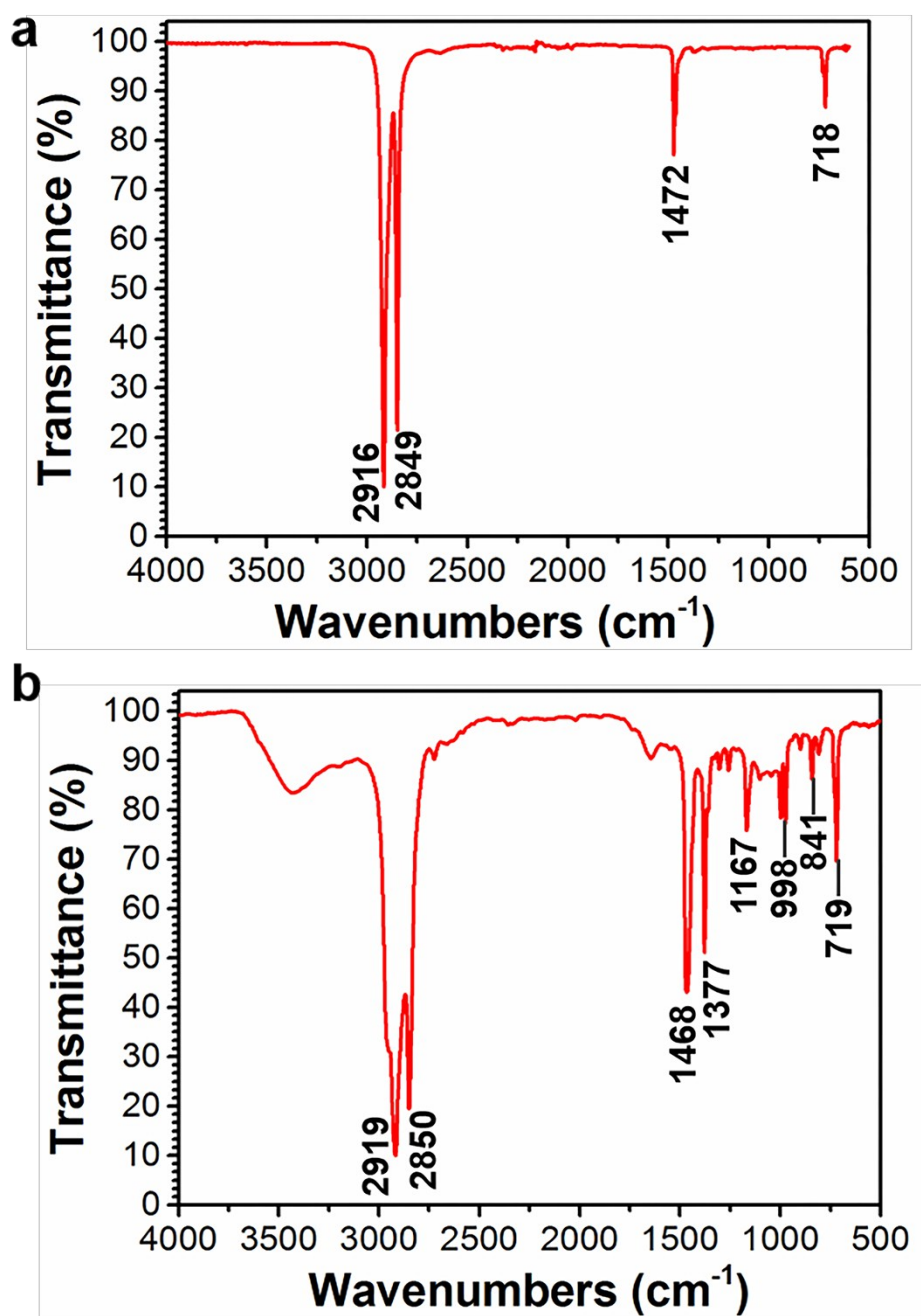


Fig. S2 FTIR spectra of (a) fiber surface and (b) fiber powder.

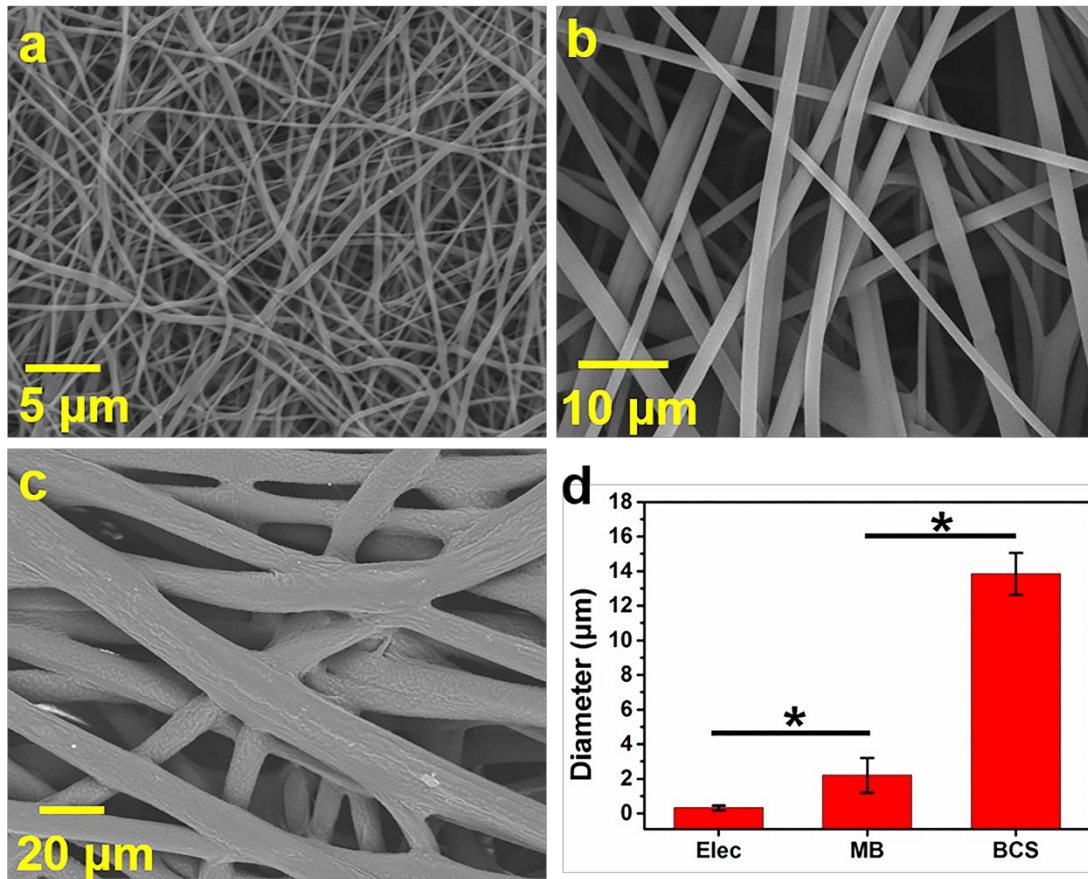


Fig. S3 SEM images of (a) electrospun materials (Elec), (b) melt-blown materials (MB), (c) BCS materials, and (d) fiber diameter of relevant materials.

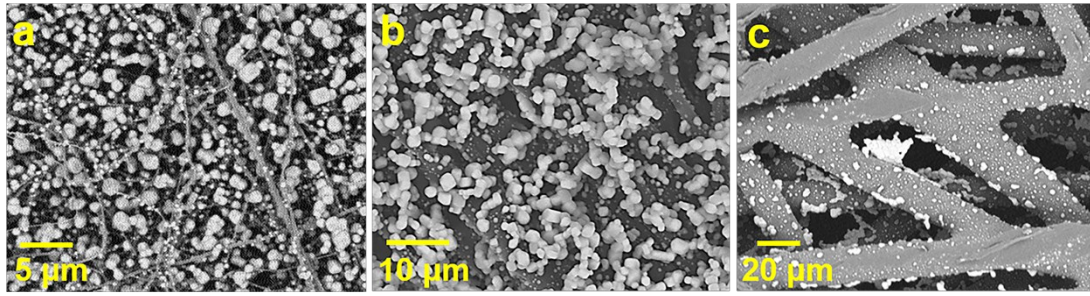


Fig. S4 SEM images of after filtration (a) electrospun materials, (b) melt-blown materials, and (c) BCS materials.

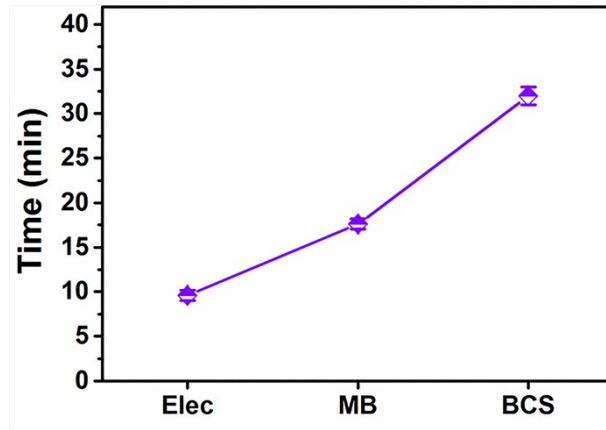


Fig. S5 The time electrospun materials (Elec), melt-blown materials (MB), and BCS materials took when the pressure drop reached industrial standard of 1000 Pa.