Supporting Information

**MOF-based fibrous membranes adsorb PMs efficiently and capture toxic gases selectively**

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Fig. S1 TEM images of MIL-53(Al)-NH$_2$. 
Fig. S2 SEM images of MGP film.
Fig. S3 Removal efficiency of NH$_2$-MIL-53 (Al) powder for SO$_2$. 
Fig. S4 Removal efficiency of NH$_2$-MIL-53 (Al) powder for O$_3$. 
Fig. S5 The infrared spectroscopy of MIL-53(Al)-NH$_2$ before and after treatment with O$_3$. 

- a: MIL-53(Al)-NH$_2$ and MIL-53(Al)-NH$_2$-O$_3$
- b: H$_2$BDC-NH$_2$ and Al(NO$_3$)$_2$ and H$_2$BDC-NH$_2$ and Al(NO$_3$)$_2$ - O$_3$
Fig. S6 Real-time adsorption curve of O$_3$ by raw materials of MIL-53(Al)-NH$_2$ and MIL-53(Al)-NH$_2$. 