

Supporting Information

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

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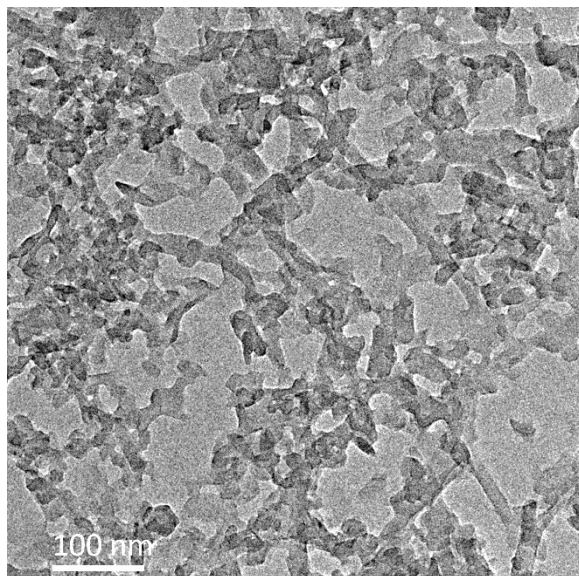


Fig. S1 TEM images of MIL-53(Al)-NH₂.

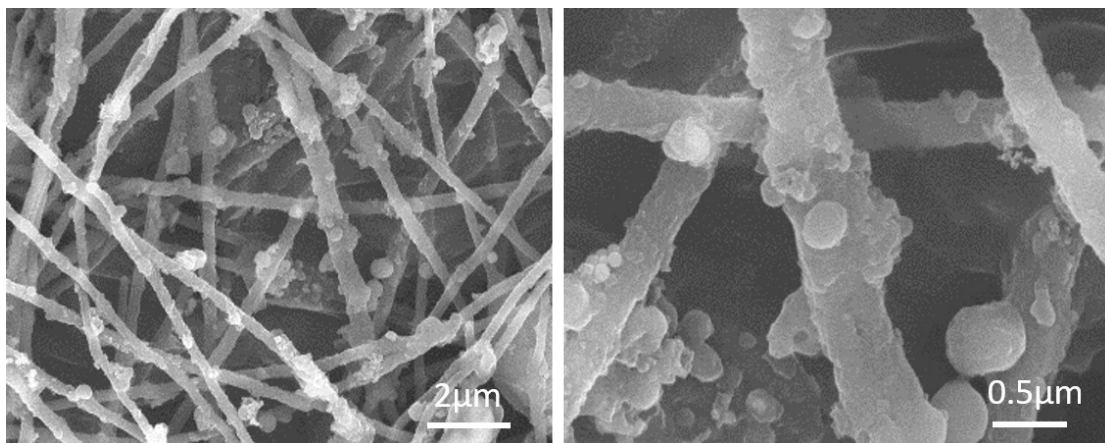


Fig. S2 SEM images of MGP film.

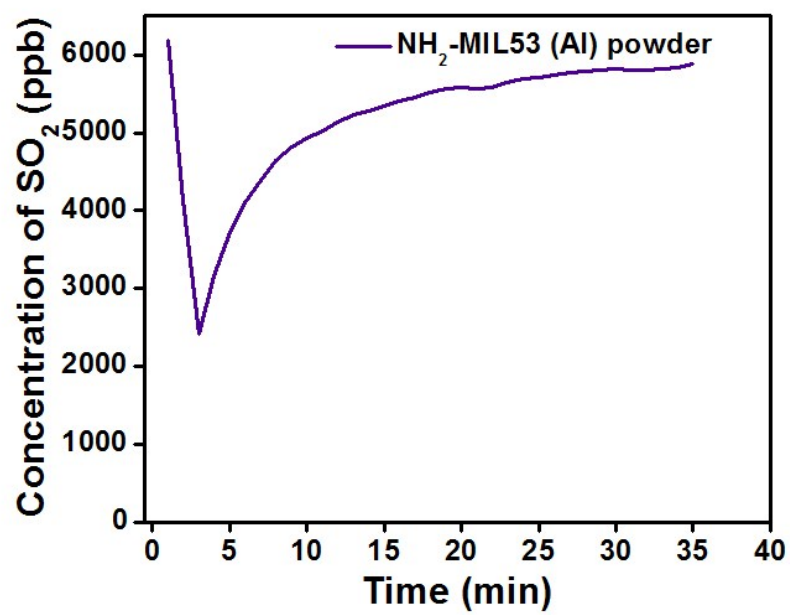


Fig. S3 Removal efficiency of $\text{NH}_2\text{-MIL-53 (Al)}$ powder for SO_2 .

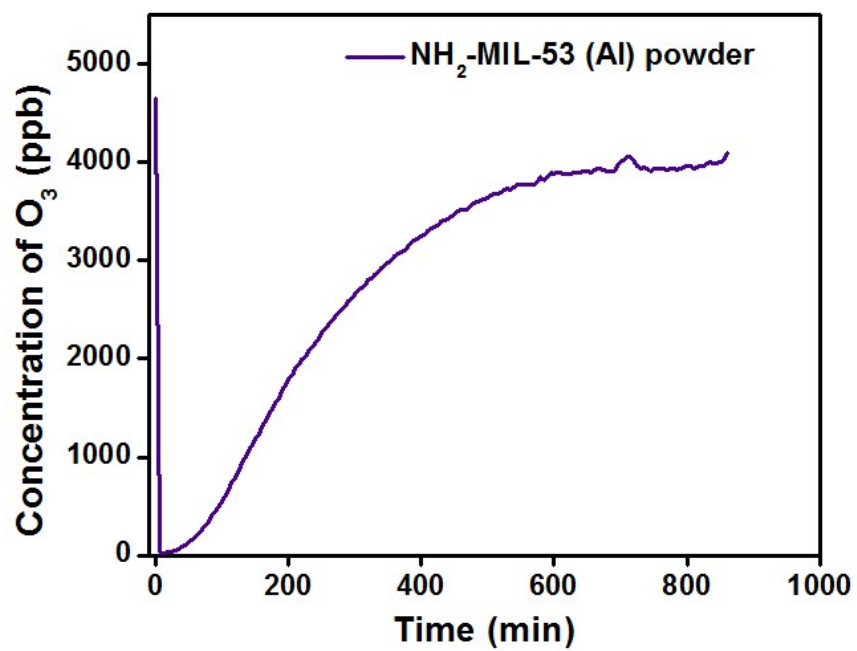


Fig. S4 Removal efficiency of NH_2 -MIL-53 (Al) powder for O_3 .

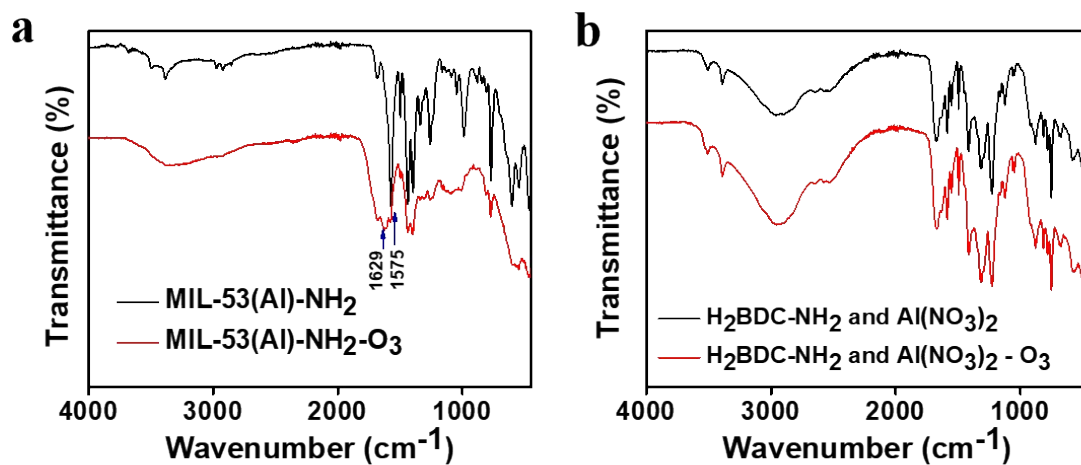


Fig. S5 The infrared spectroscopy of MIL-53(Al)-NH₂ before and after treatment with O₃.

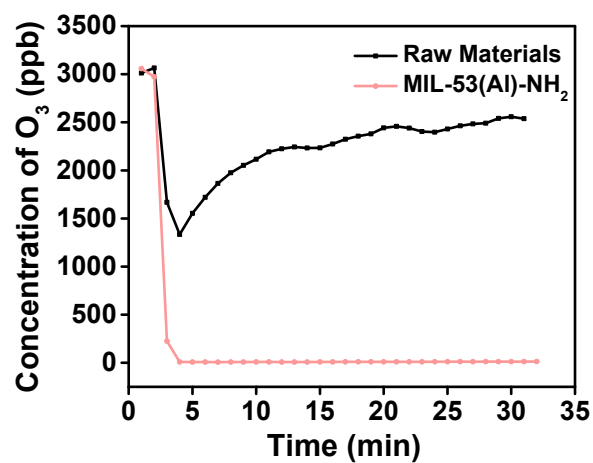


Fig. S6 Real-time adsorption curve of O₃ by raw materials of MIL-53(Al)-NH₂ and MIL-53(Al)-NH₂.