Electronic Supplementary Information for

Flexible Pd/CeO_2-TiO_2 nanofibrous membrane with high efficient ultrafine particulate filtration and improved CO catalytic oxidation performance

Wei Li, Yan Wang, Botao Ji, Xiuling Jiao* and Dairong Chen*

School of Chemistry & Chemical Engineering, National Engineering Research Center for Colloidal Materials, Shandong University, Jinan 250100, PR China

E-mail: jiaoxl@sdu.edu.cn, cdr@sdu.edu.cn

Fig. S1 XRD patterns (a), FT-IR spectra (b) of the xerogel fibrous membranes and those calcined at 500 °C.

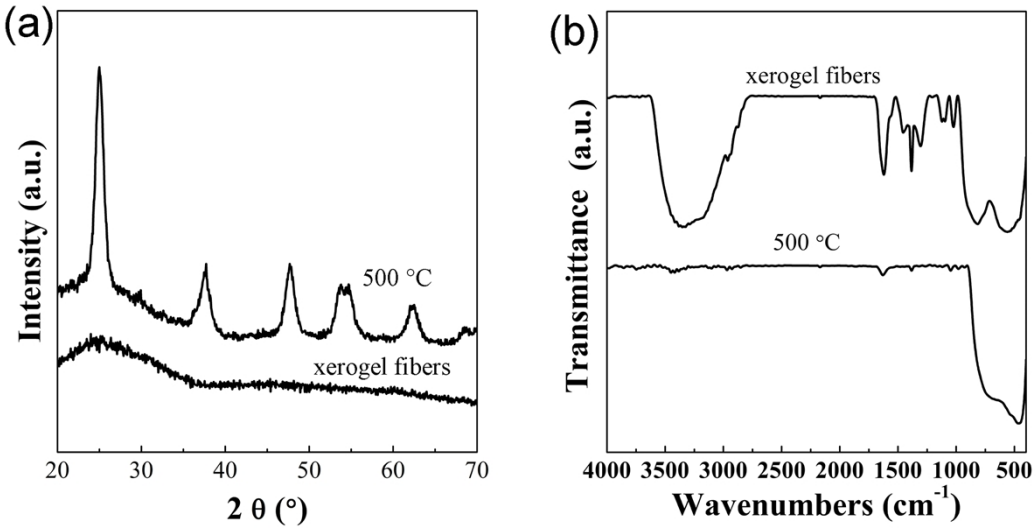


Fig. S2 FE-SEM images of TiO_2 (a), TC01 (b), TC05 (c), and TC10 (d) samples being calcined at 500 °C. (e), (f), (g), and (h) are the corresponding high resolution SEM images.

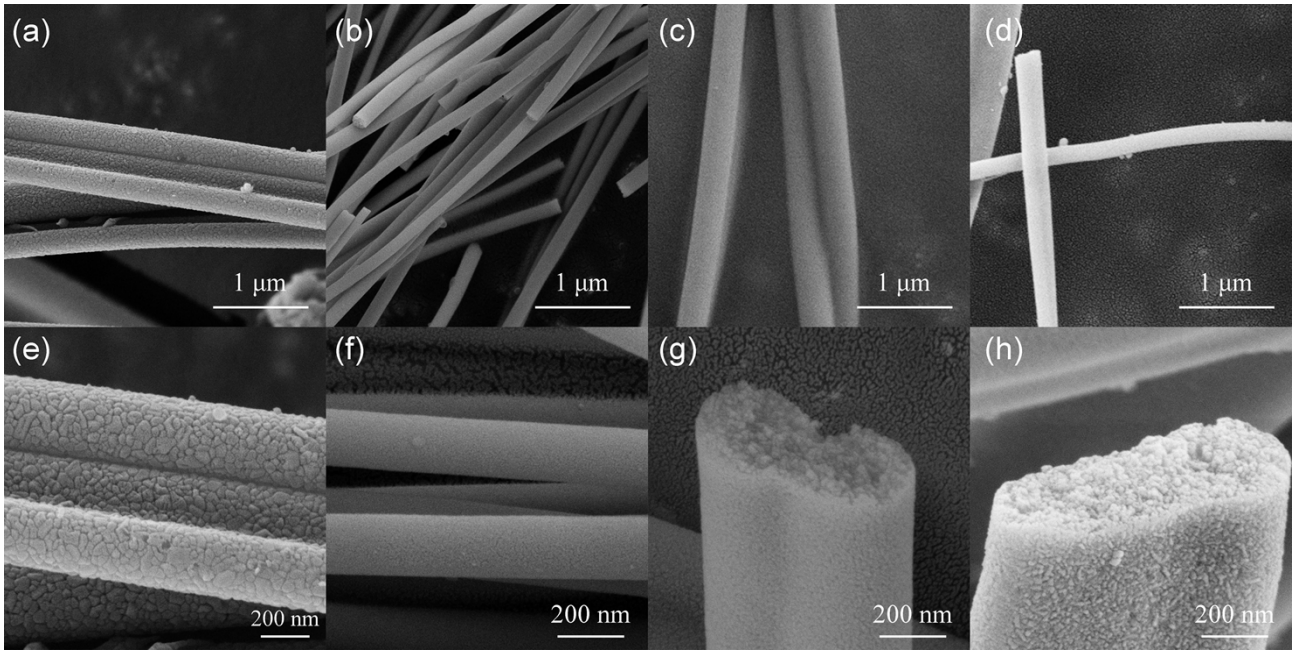


Fig. S3 N_2 adsorption-desorption isotherms (a) and pore size distributions (b) of TiO_2, TC01, TC05, and TC10 samples.

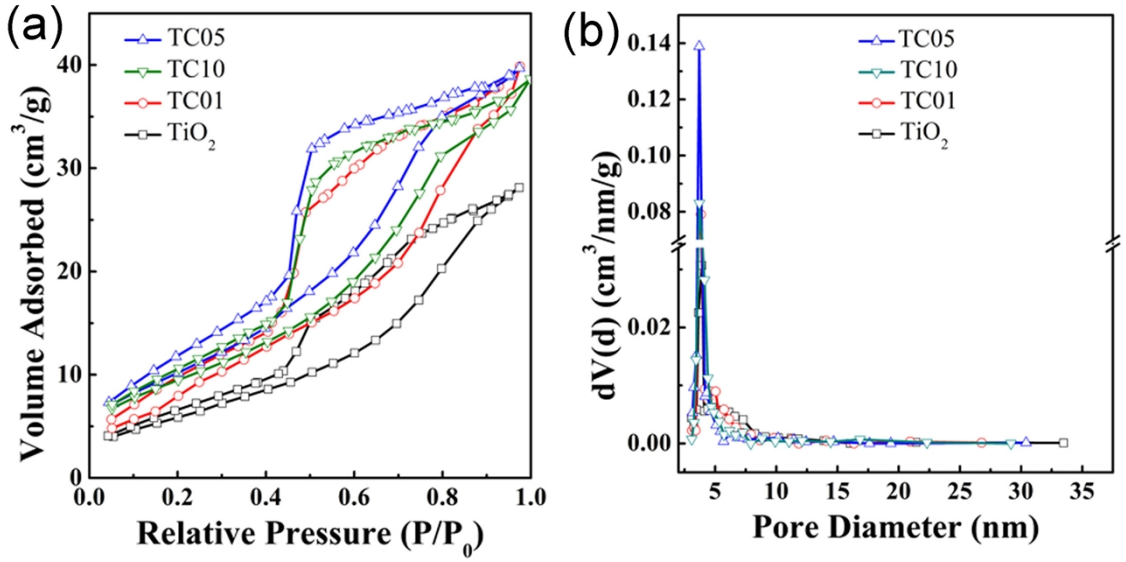
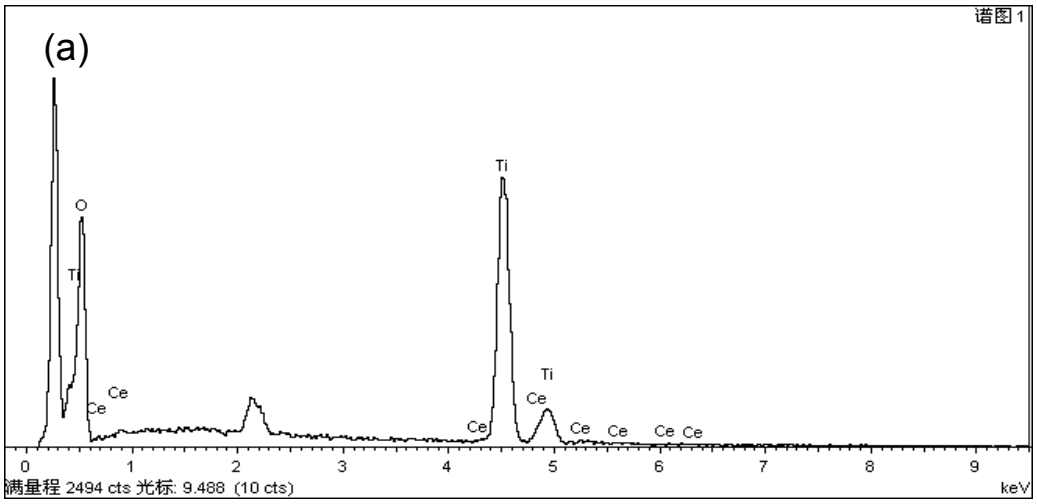


Fig. S4 X-ray energy dispersive spectrometry (EDS) (a) and corresponding elemental mapping (b) of TC05.



Element	Weight Precent(%)	Atom Precent (%)
O K	55.67	79.69
Ti K	41.52	19.85
Ce L	2.81	0.46
Total	100.00	

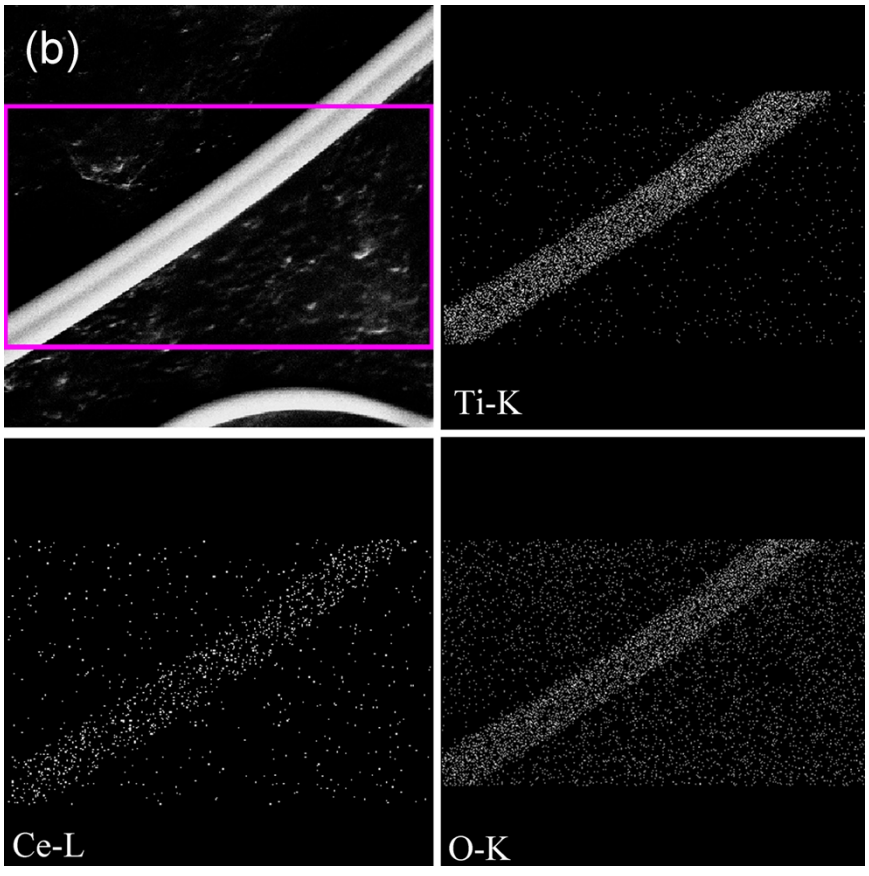


Fig. S5 TEM image (a), SEM images (b, c) XRD patterns (d) and optical image of Pd/TC05 sample calcined at 500 °C. XPS spectrum (f) of Pd in the Pd/TC05 nanofibers.