## A simple approach to mesoporous fibrous titania from potassium

## dititanate

## Ming He, Xiao-Hua Lu,\* Xin Feng, Lei Yu and Zhu-Hong Yang

Department of Chemical Engineering, Nanjing University of Techology, Nanjing, Jiangsu, 210009, P. R. China. Fax: 86-25 83588063; Tel: 86-25 83588063; Email: <u>xhlu@njuct.edu.cn</u>;

## **Supplementary Information**



Fig. S1 XRD patterns of the sintered product (a) ( $\circ$ , K<sub>2</sub>Ti<sub>2</sub>O<sub>5</sub>), the hydrated product (b) and the as-washed product (c).



Fig. S2 XRD patterns of the calcined samples at elevated temperature ( $\Box$ , anatase).





**Fig. S3** Nitrogen adsorption–desorption isotherms and the corresponding pore-size distribution (inset) for the calcined samples at 573K, 673K and 773K, respectively.



Fig. S4 SEM image of mesoporous fibrous titania synthesized from the 970°C sintered product.



Fig. S5 Photocatalytic activities of the calcined samples in comparison with P25 on the photodegradation of methyl orange.