

Supplementary Information:

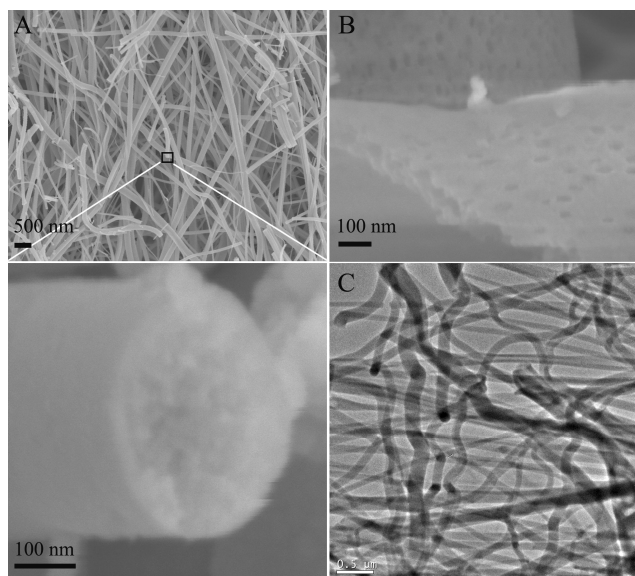


Figure 1 Scanning electron micrographs of A) TiO₂ nanofibers when in electrospinning process the environmental temperature is room temperature, and B) TiO₂ nanobelts; C) Transmission electron micrographs of nanobelts mixed with nanotubes and nanofibers when the environmental temperature in the electrospinning process is 120 °C.

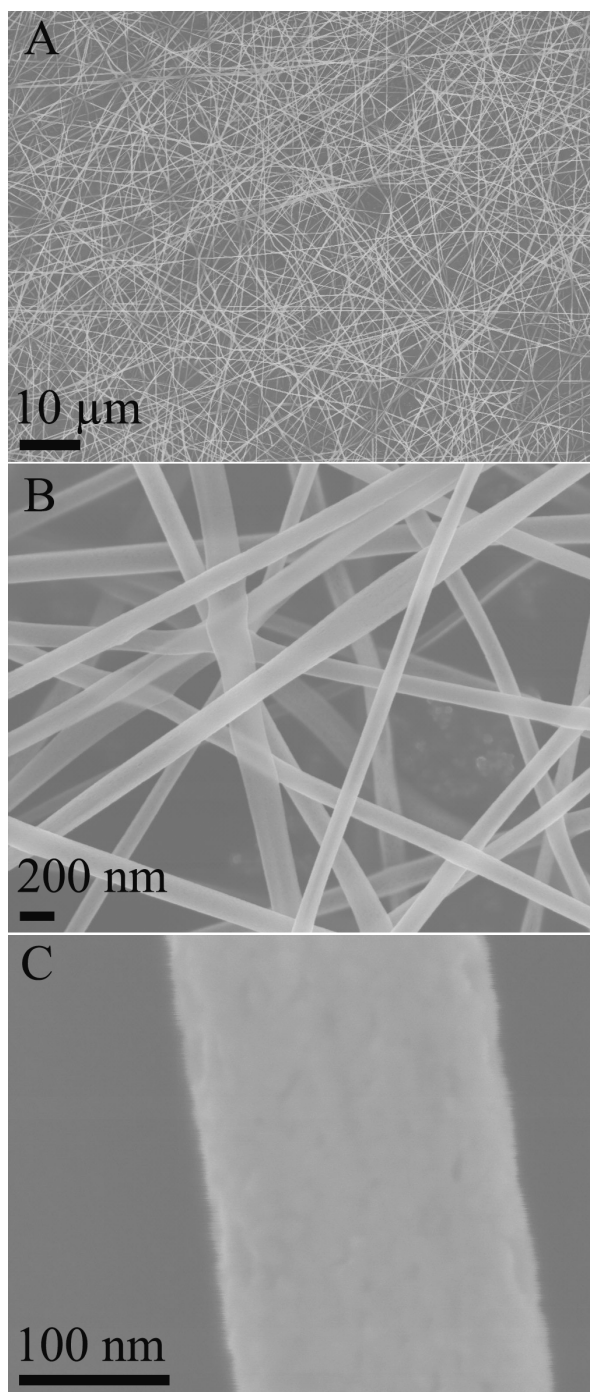


Figure 2 Scanning electron micrographs of highly porous ultrathin TiO_2 nanotubes when *N,N*-Dimethylformamide (DMF) was added to the electrospinning solution. However, DMF is harmful to the environment. In contrast, the reported electrospinning solution did not contain any materials harmful to the environment and so could be used for industrial production.

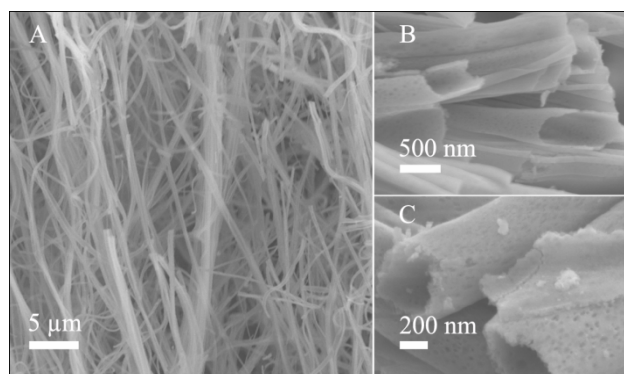


Figure 3 Scanning electron micrographs of the highly porous nanotubes after five times cycling catalytic measurements. The micrographs showed that there was almost no change in the nanotubes' morphology. This means that the nanotubes were stable enough to be used in photocatalysis.

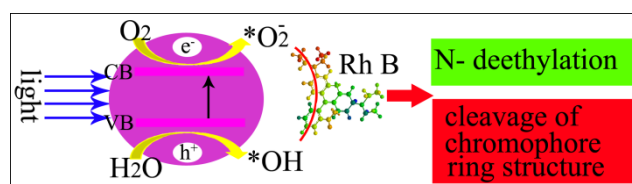


Figure 4 Schematic diagram of TiO_2 photocatalysis decomposed Rhodamine B.