

## Supporting Information

### **In-situ synthesis of TiO<sub>2</sub>/NC on cotton fibers with antibacterial properties and reusable photocatalytic degradation of dyes**

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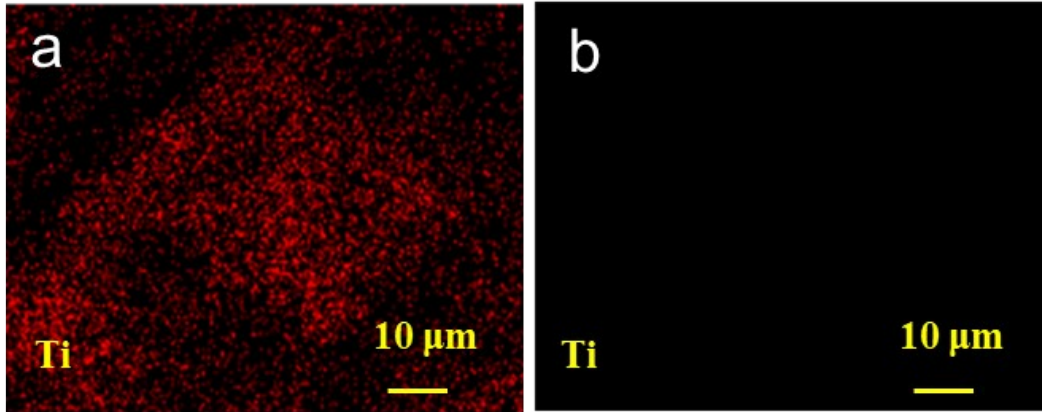


Fig. S1 The element mapping image of  $\text{TiO}_2@\text{Cot}$  (a) and the original bare cotton fibers (b)

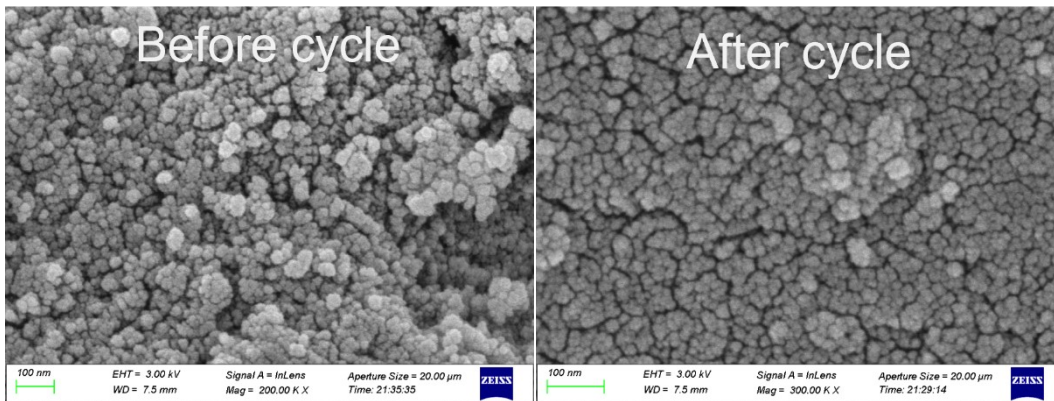


Fig. S2 The FESEM of  $\text{TiO}_2@\text{Cot}$  before and after photocatalytic recycling