

## Supporting information

### *In situ* fabrication of $\text{Ag}_3\text{PO}_4/\text{TiO}_2$ nanotube heterojunction with enhanced visible-light photocatalytic activity

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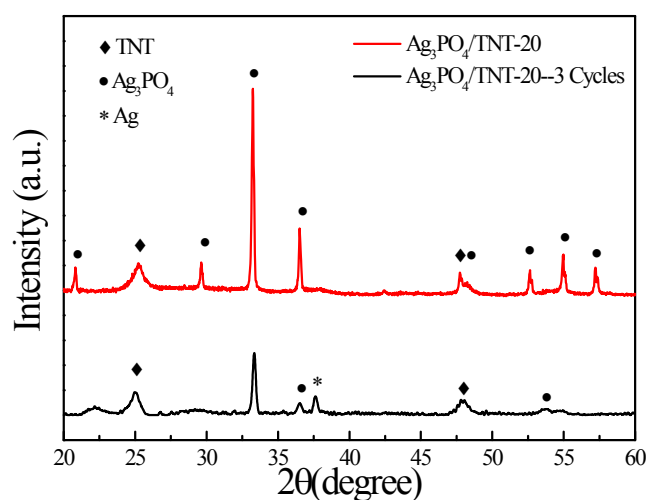


Fig. S1 XRD patterns of  $\text{Ag}_3\text{PO}_4/\text{TNT-20}$  sample before and after three cycles.

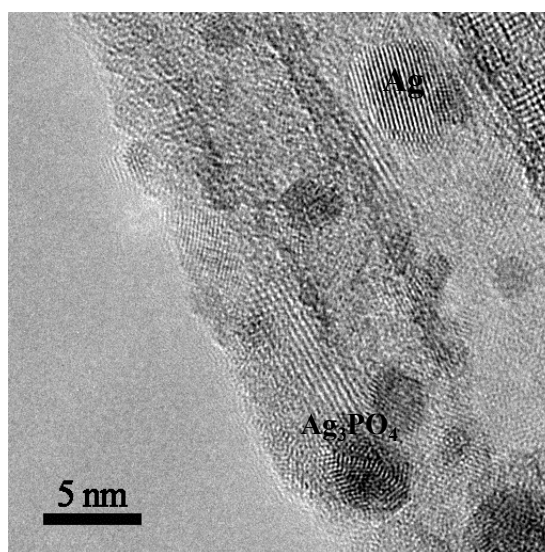


Fig. S2 HRTEM image of  $\text{Ag}_3\text{PO}_4/\text{TNT-20}$  sample after three cycles.

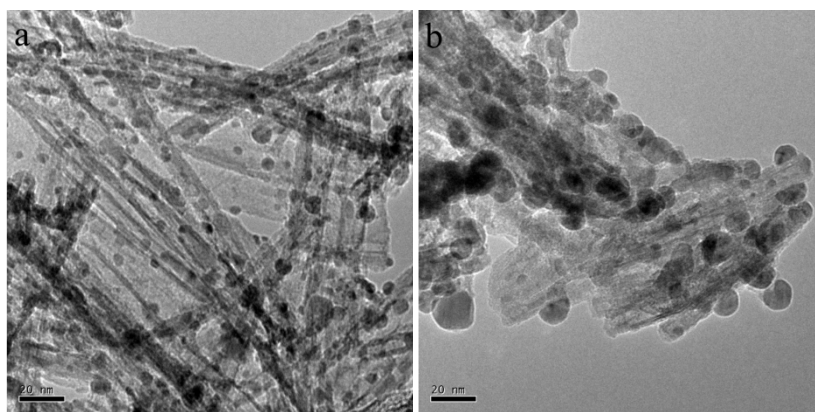


Fig. S3 TEM images of (a)  $\text{Ag}_3\text{PO}_4/\text{TNT-60}$  and (b)  $\text{Ag}_3\text{PO}_4/\text{TNT-80}$  samples.