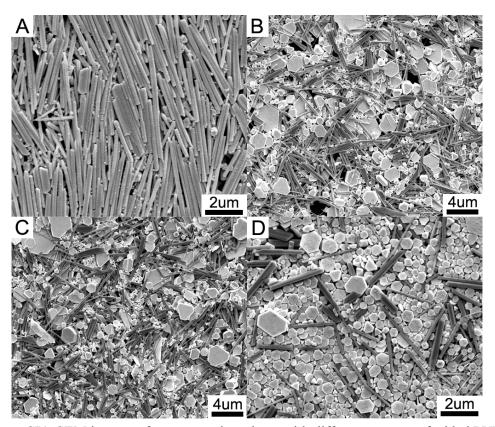
## **Supplementary Information**

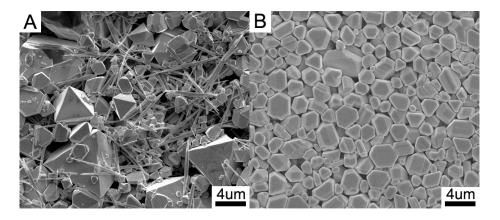
## Facile Synthesis of One Dimensional AgBr@Ag Nanostructures and Their Visible Light Photocatalystic Properties

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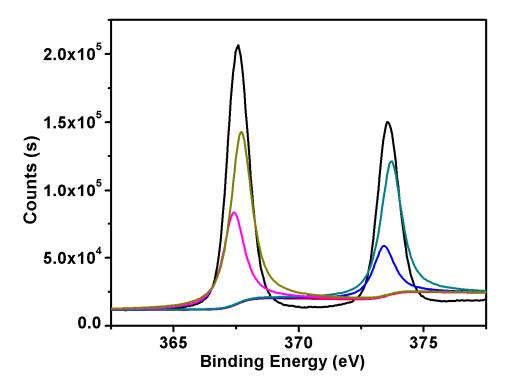
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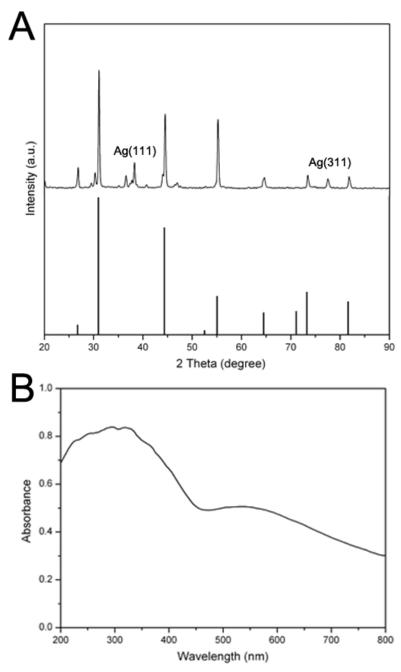
**Figure SI1**. SEM images of as-prepared products with different amount of added PVP: (A) 0.054 g; (B) 0.27 g; (C) 0.54 g; (D) 1.08 g.



**Figure SI2**. SEM images of as-prepared products with no  $H_2O$  added (A) and using  $AgNO_3$  instead of  $CH_3COOAg$  (B).



 $\textbf{Figure SI3}. \ \ \text{The Ag 3d XPS spectra of as-prepared AgBr nanorods}.$ 



**Figure SI4**. XRD patterns and typical UV-Vis diffuse reflectance spectra (DRS) of as-prepared AgBr nanowires.