

## Electronic Supplementary Information

for

# Laser-induced fabrication of highly branched Au@TiO<sub>2</sub> nano-dendrites with excellent near-infrared absorption properties

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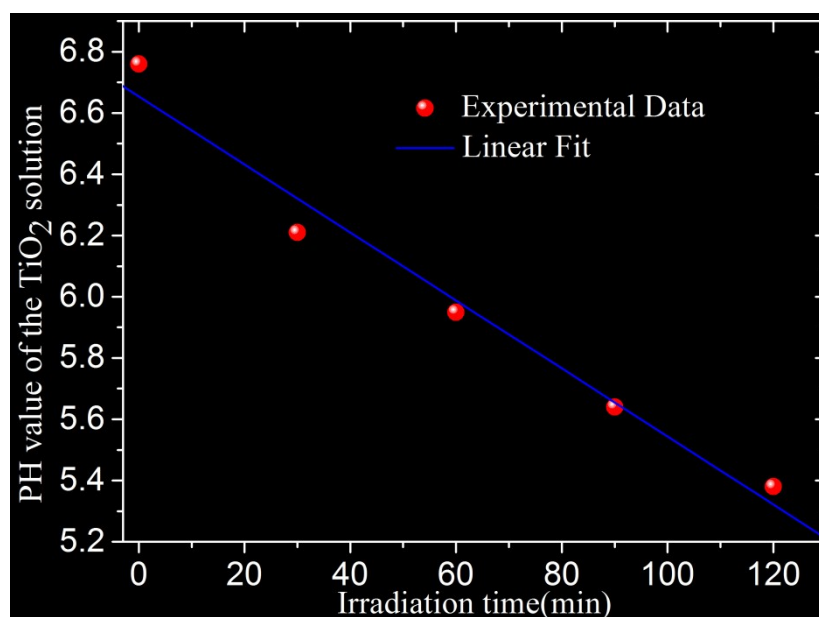


Fig. S1 The PH value of the TiO<sub>2</sub> solution versus the UV-laser irradiation time.

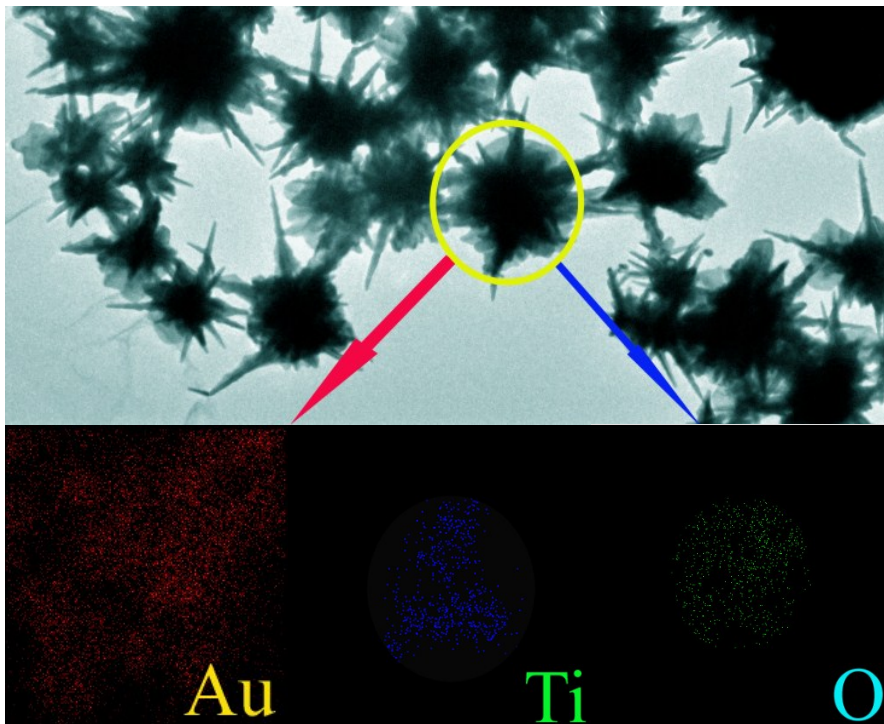


Fig. S2 The typical TEM images of the Au@TiO<sub>2</sub> nano-dendrites by using 100 $\mu$ L HAuCl<sub>4</sub>. The precursors were modified by UV-laser irradiation for 120 min. The below pictures show the elemental mapping images of the representative Au@TiO<sub>2</sub> nano-dendrites.

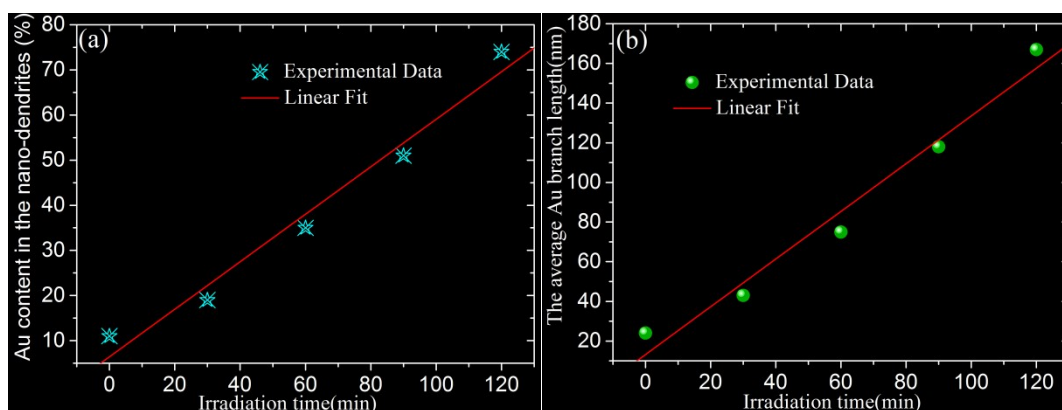


Fig. S3 The structure-evolutions of Au@TiO<sub>2</sub> nan-dendrites obtained by using 100 $\mu$ L HAuCl<sub>4</sub> in each experiment versus UV-laser irradiation time : (a) the average Au branch length and (b) the Au content in the Au@TiO<sub>2</sub> nan-dendrites.