

## Supporting information

# In Situ Construction of Ag/TiO<sub>2</sub>/g-C<sub>3</sub>N<sub>4</sub> Heterojunction Nanocomposite Based on Hierarchical Co-Assembly with Sustainable Hydrogen Evolution

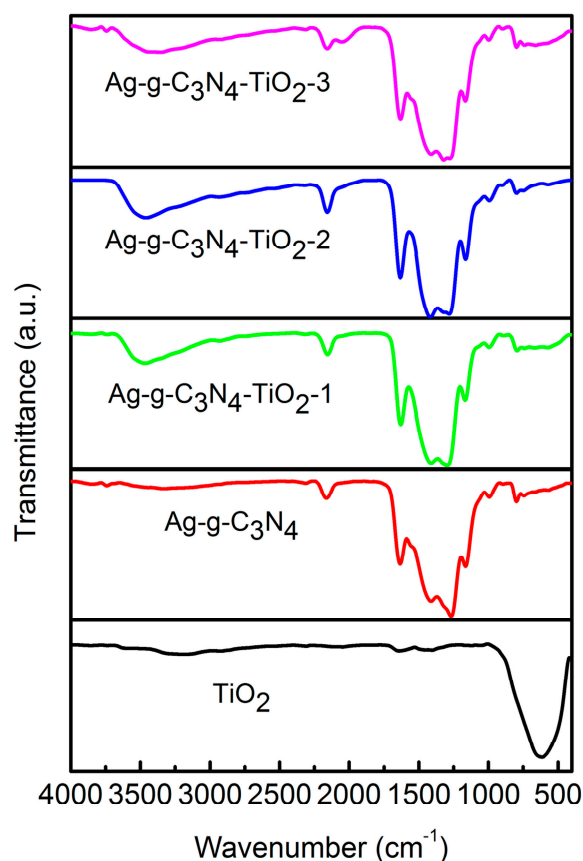
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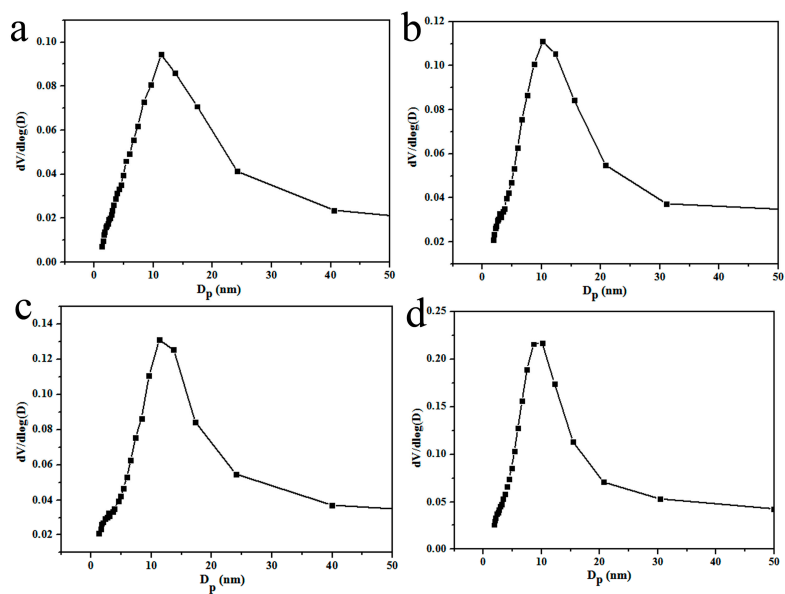
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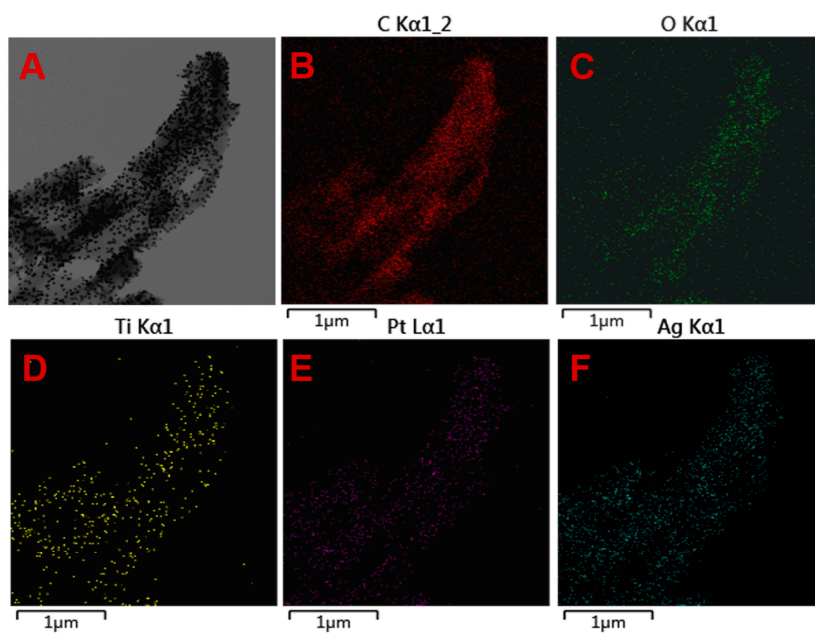
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**Figure S1.** FT-IR spectra of TiO<sub>2</sub>, Ag/g-C<sub>3</sub>N<sub>4</sub>, Ag/TiO<sub>2</sub>/g-C<sub>3</sub>N<sub>4</sub>-1, Ag/TiO<sub>2</sub>/g-C<sub>3</sub>N<sub>4</sub>-2, Ag/TiO<sub>2</sub>/g-C<sub>3</sub>N<sub>4</sub>-3.



**Figure S2.** The typical BJH pore-size distribution curves: (a) Ag/g-C<sub>3</sub>N<sub>4</sub>; (b) Ag/TiO<sub>2</sub>/g-C<sub>3</sub>N<sub>4</sub>-1; (c) Ag/TiO<sub>2</sub>/g-C<sub>3</sub>N<sub>4</sub>-2; (d) Ag/TiO<sub>2</sub>/g-C<sub>3</sub>N<sub>4</sub>-3.



**Figure S3.** TEM image (A) and Elemental mapping images (B-F) of the photodeposited Ag/TiO<sub>2</sub>/g-C<sub>3</sub>N<sub>4</sub>-2.