

Supplementary

Construction of BPQDs/Ti₃C₂@TiO₂ Composites with Favorable Charge Transfer Channels for Enhanced Photocatalytic Activity under Visible Light Irradiation

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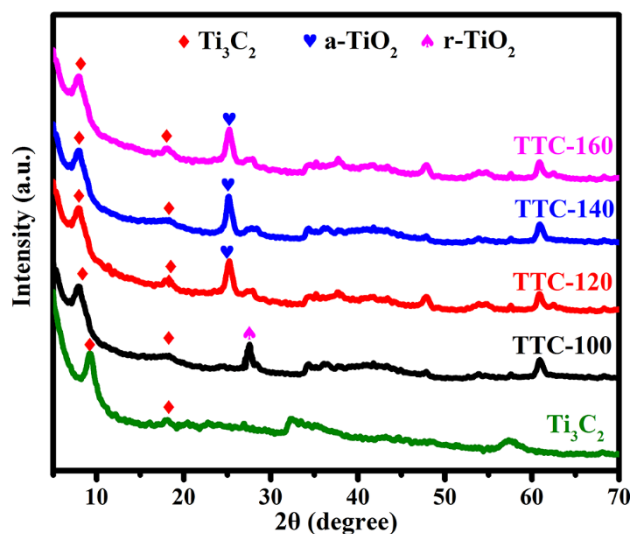


Figure S1: XRD patterns of Ti₃C₂ and TTC-x. (x=100, 120, 140 and 160 °C, respectively).

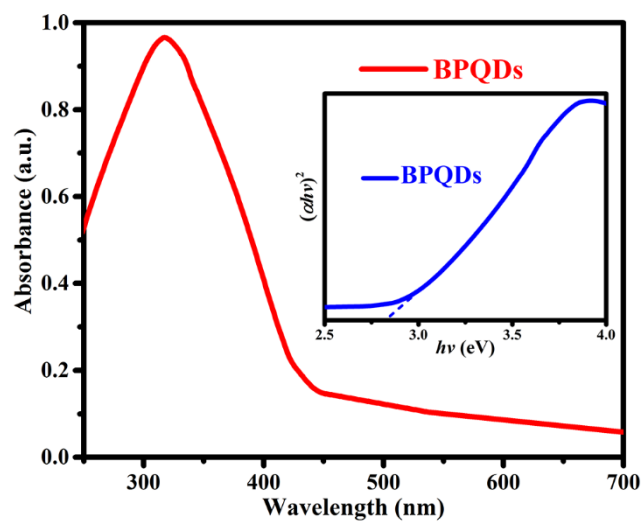


Figure S2: UV-vis DRS and plots of $(\alpha h\nu)^2$ vs $h\nu$ curves of BPQDs.

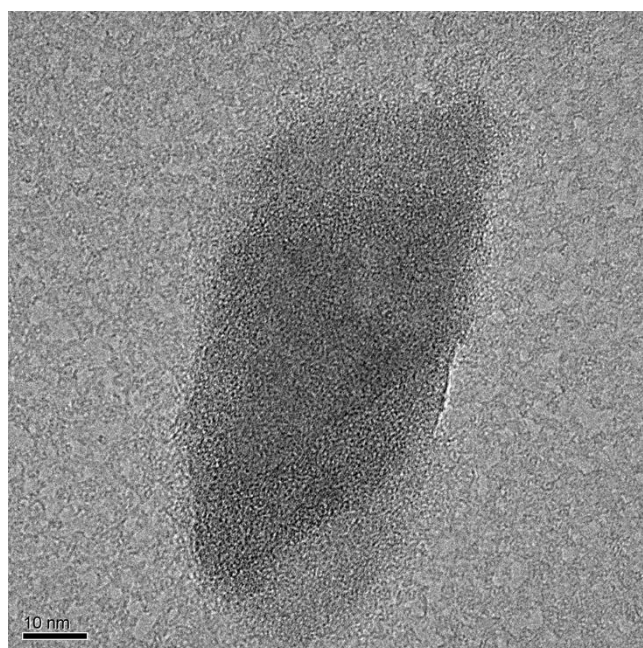


Figure S3: HRTEM image of black phosphorus nanosheets.

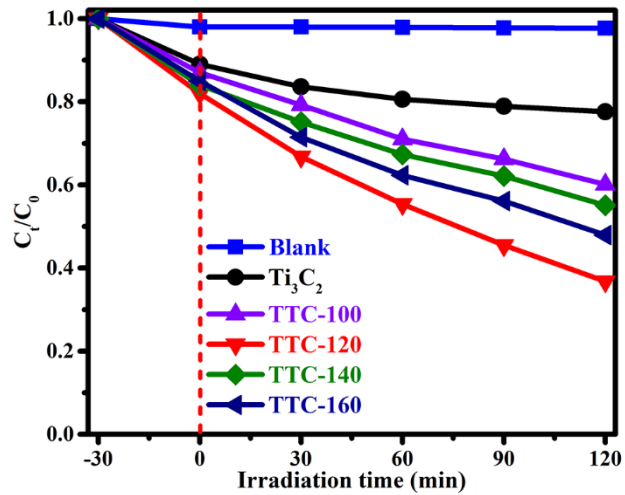


Figure S4: Comparison on the photocatalytic efficiency of pristine Ti_3C_2 and TTC-x composites (10 mg/L MO solution).

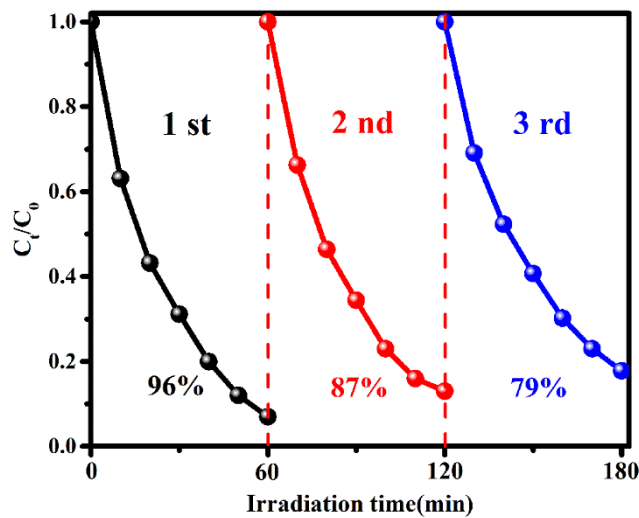


Figure S5: Cycling degradation curves of MO solution in the presence of BTTC-120 composite.

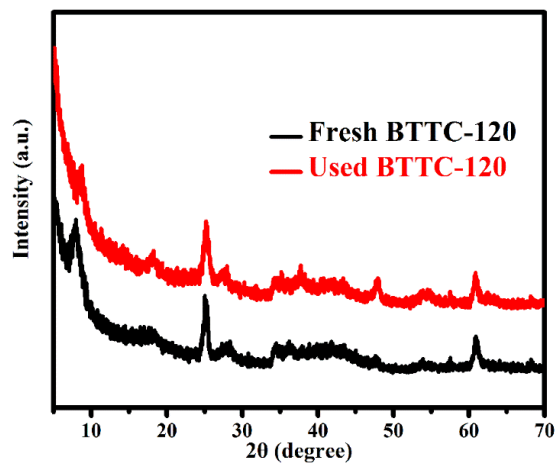


Figure S6: The XRD patterns of used and fresh BTTC-120 sample.

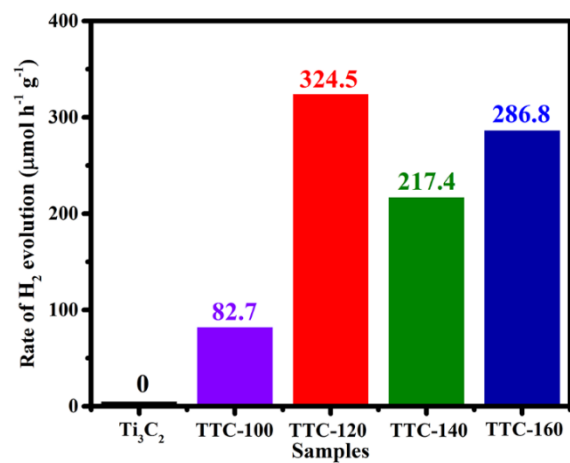


Figure S7: The photocatalytic hydrogen evolution rate of Ti₃C₂ and TTC-x (x=100, 120, 140 and 160 °C, respectively).