

## Supplementary Material (ESI) for Journal of Material Chemistry

### Molecule-Induced Gradient Electronic Potential Distribution on Polymeric Photocatalyst Surface and the Improved Photocatalytic Performance

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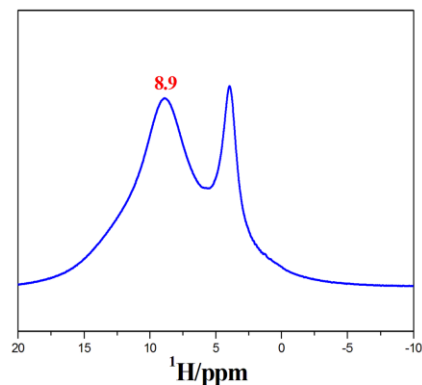


Fig.S1  $^1\text{H}$  NMR spectra of  $\text{g-C}_3\text{N}_4$  sample.

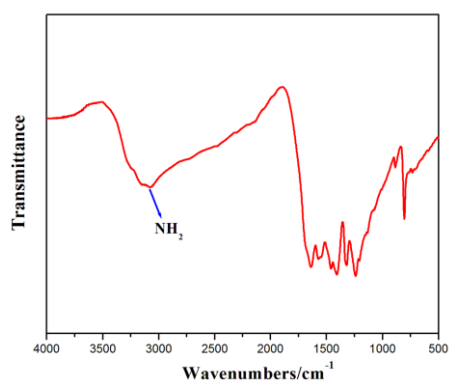


Fig.S2 IR spectra of  $\text{g-C}_3\text{N}_4$  sample.

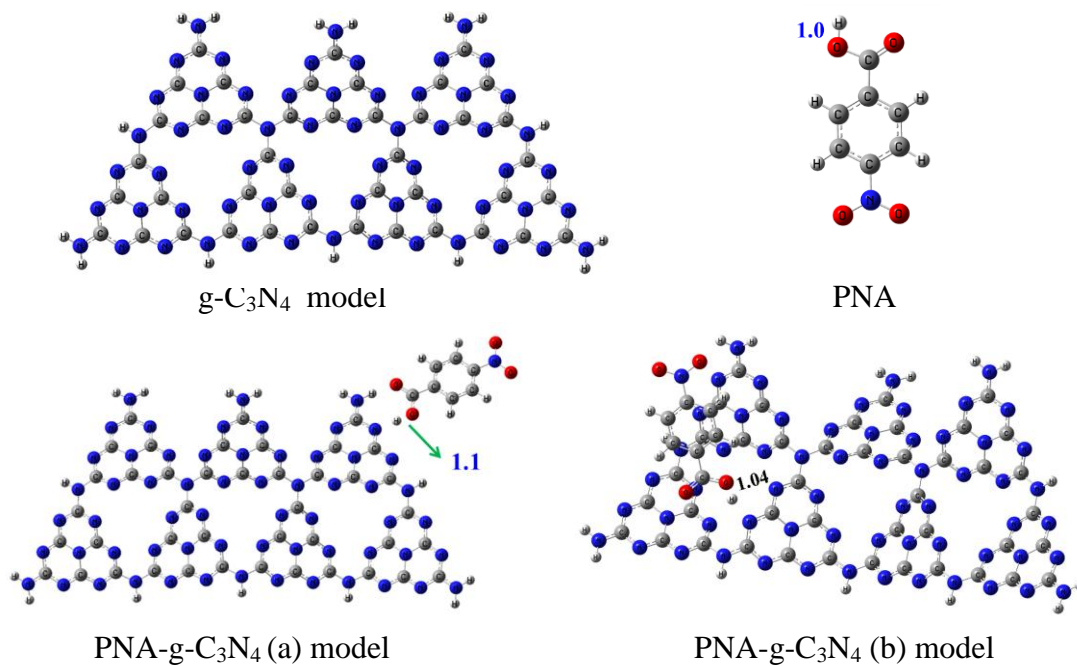


Fig S3 The optimized structure of  $\text{g-C}_3\text{N}_4$ , PNA, PNA-g-C<sub>3</sub>N<sub>4</sub> (a) and PNA-g-C<sub>3</sub>N<sub>4</sub> (b) models.

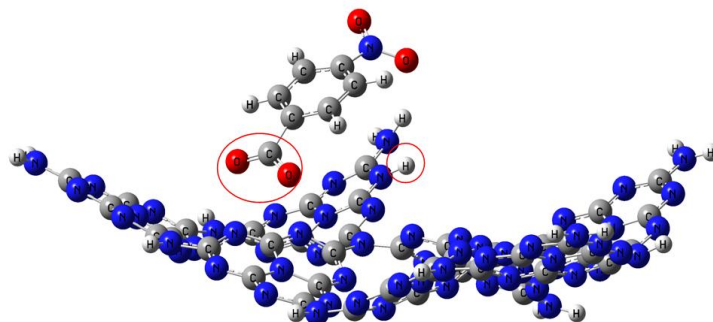


Fig S4 The optimized structure of PNA-g-C<sub>3</sub>N<sub>4</sub> (c) model.

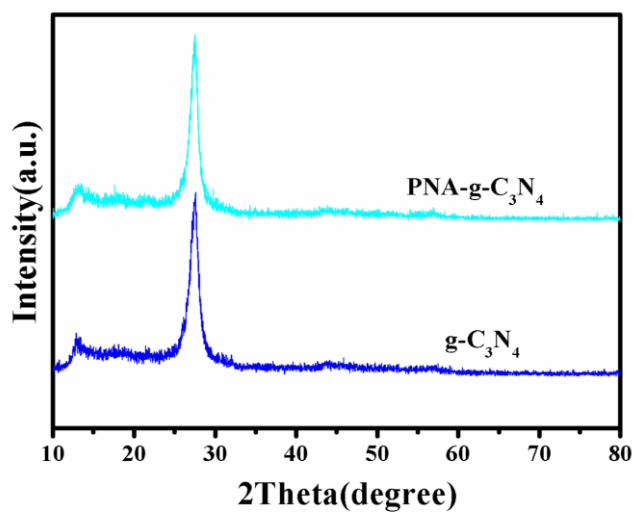


Fig S5 XRD spectra of g-C<sub>3</sub>N<sub>4</sub> and PNA-g-C<sub>3</sub>N<sub>4</sub>.

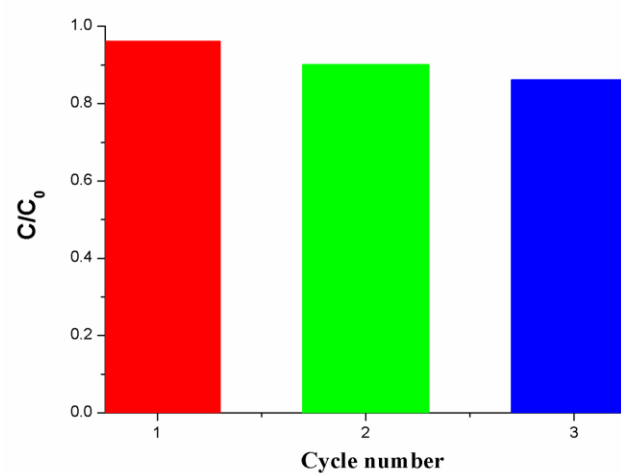


Fig. S6. The recycle usage test of PNA-g-C<sub>3</sub>N<sub>4</sub> photocatalyst.

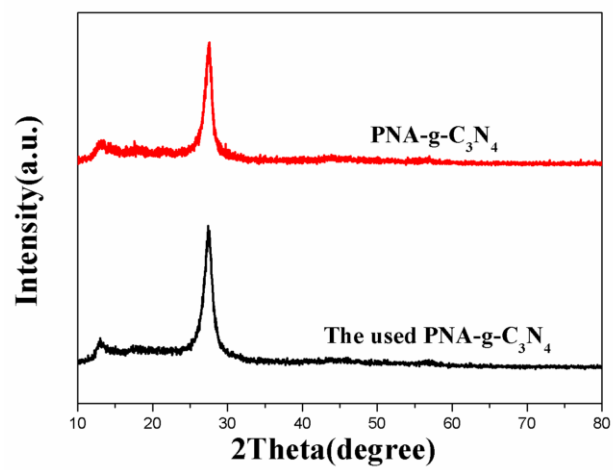


Fig S7 XRD spectra of PNA-g-C<sub>3</sub>N<sub>4</sub> and the used PNA-g-C<sub>3</sub>N<sub>4</sub> samples.