Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

Facile synthesis of nitrogen-defective g-C_3N_4 for superior photocatalytic degradation of rhodamine B

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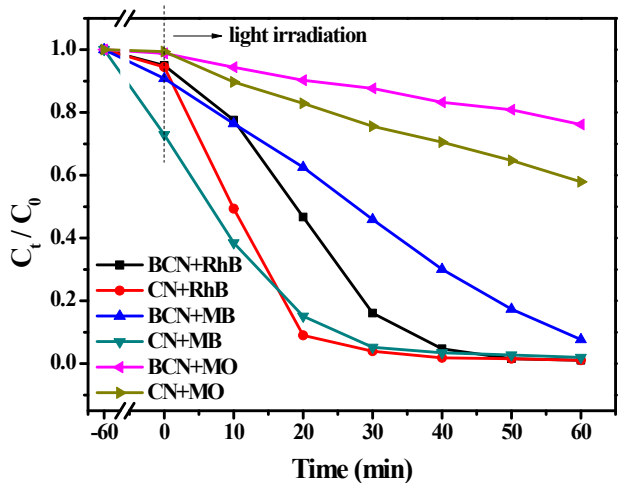

Fig. S1. Degradation curves of RhB, MO and MB by BCN and CN.

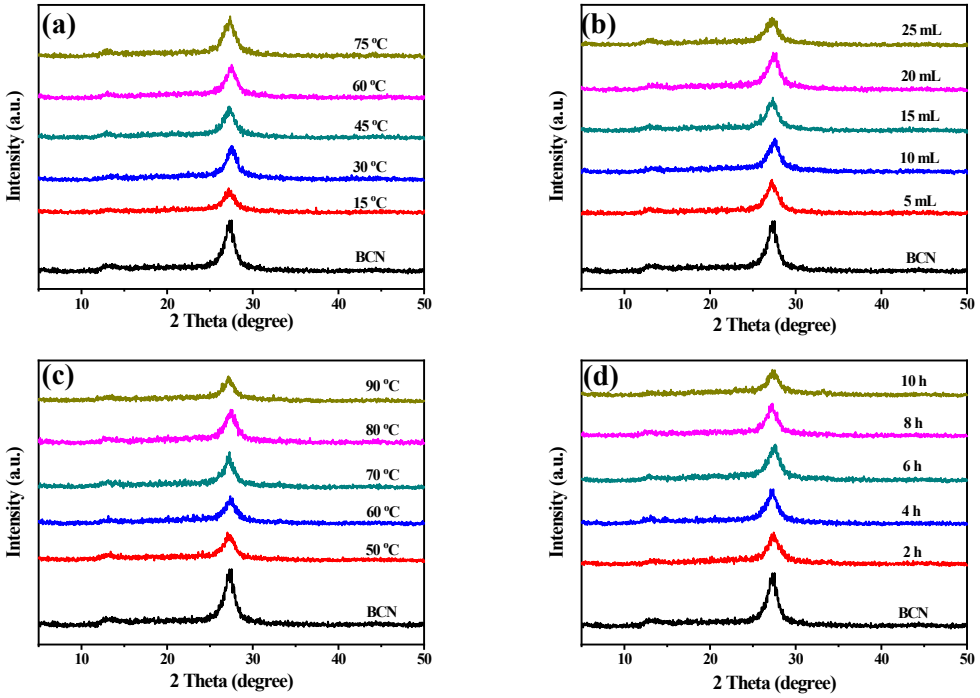

Fig. S2. XRD patterns of g-C_3N_4 synthesized under different modification conditions: (a) different water treatment temperature, (b) different water treatment consumption, (c) different precursor drying temperature, and (d) different precursor drying time.

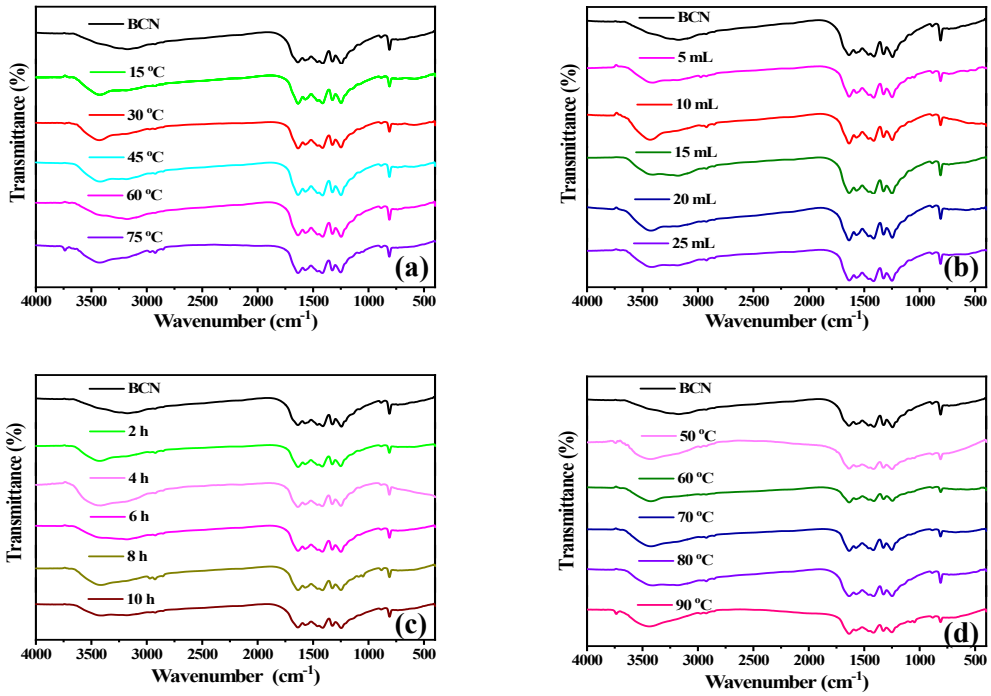

Fig. S3. FT-IR spectra of g-C_3N_4 under different modification conditions: (a) different water treatment temperature, (b) different water treatment consumption, (c) different precursor drying temperature, and (d) different precursor drying time.

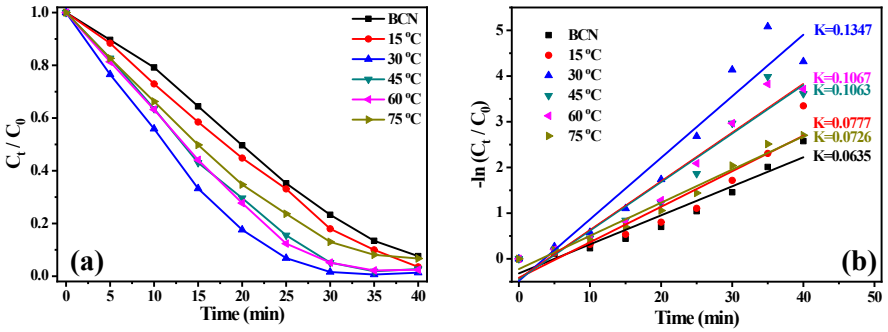

Fig. S4. The g-C_3N_4 material prepared by optimizing the precursor melamine different water treatment temperature for RhB degradation: (a) the degradation curve, (b) the first-order kinetics fitting curve.

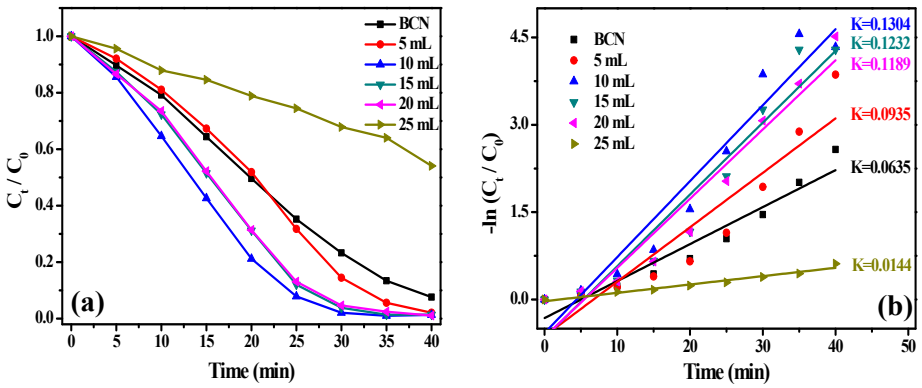

Fig. S5. The g-C_3N_4 material prepared by optimizing the precursor melamine different water treatment consumption for RhB degradation: (a) the degradation curve, (b) the first-order kinetics fitting curve.

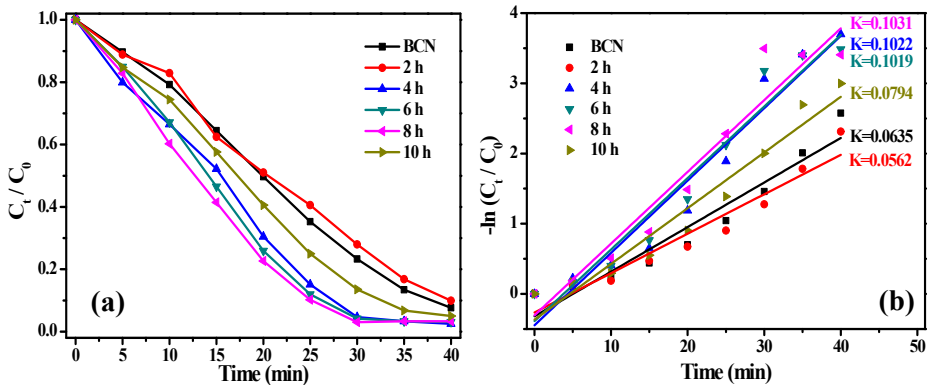

Fig. S6. The g-C_3N_4 material prepared by optimizing the precursor melamine different drying time for RhB degradation: (a) the degradation curve, (b) the first-order kinetics fitting curve.

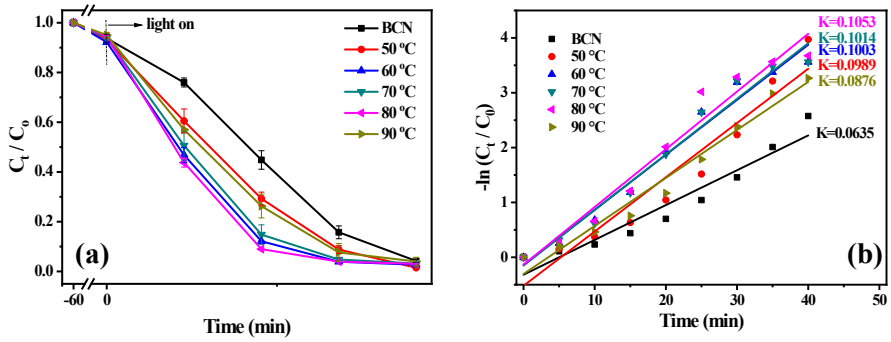

Fig. S7. The g-C_3N_4 material prepared by optimizing the precursor melamine different drying temperature for RhB degradation: (a) the degradation curve, (b) the first-order kinetics fitting curve.

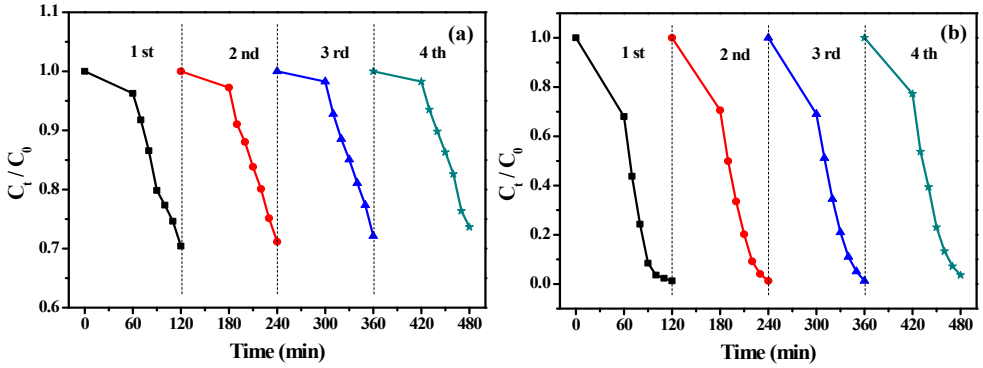

Fig. S8. Degradation cycle curves of MO(a) and MB(b) by CN.

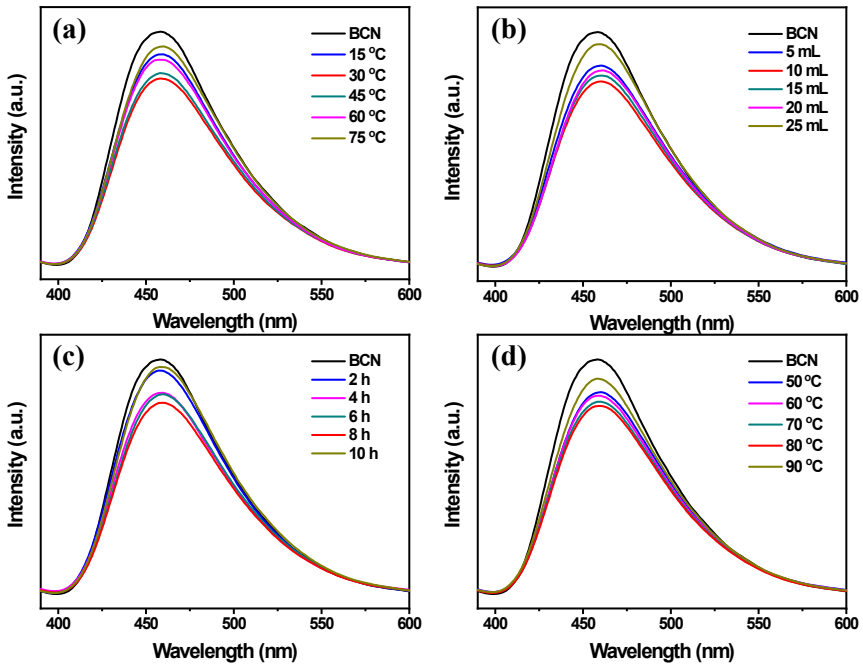

Fig. S9. PL spectrum of g-C_3N_4 synthesized under different modification conditions: (a) Different water treatment temperature, (b) Different water treatment consumption, (c) Different precursor drying time, (d) Different precursor drying temperature.

Table S1. EDS elemental analysis of BCN and CN.

Element	**C**	**N**	**C/N**
BCN	51.30 %	48.70 %	1.053
CN	63.41 %	35.59 %	1.782