Supplementary materials

Graphitic-C_3N_4-hybridized Ag_3PO_4 tetrahedron with reactive {111} facets to enhance the visible-light photocatalytic activity

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Content

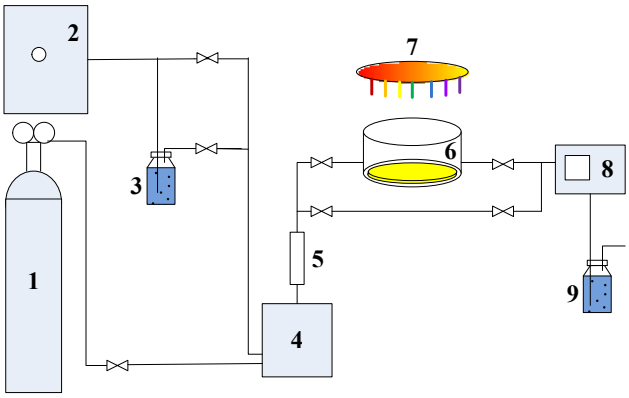

Fig. S1 Schematic diagram of the photocatalytic degradation set-up: 1. NO source, 2. air generator, 3. gas washing bottle, 4. mixing chamber, 5. flow control, 6. reactor cell, 7. illuminant, 8. NO analyser, 9. gas washing bottle filled with NaOH solution.

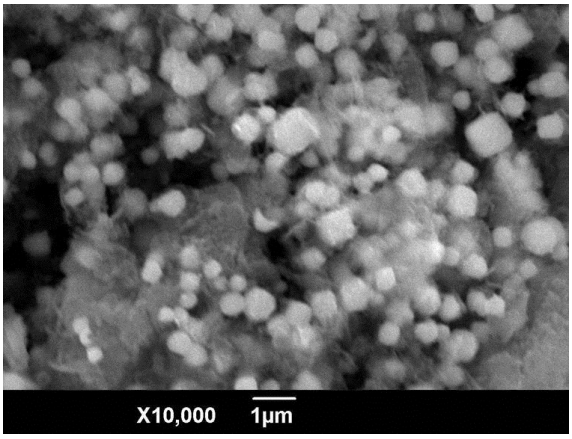

Fig. S2 SEM of C_3N_4/Ag_3PO_4(IR) hybrid.

Preparation of C_3N_4/Ag_3PO_4(IR) hybrid: the prepared Ag_3PO_4 (IR) powders were added into g-C_3N_4 dispersion. The mixture was sonicated for 30 min to completely disperse Ag_3PO_4 crystals and then stirred until the ethanol was volatilized completely. The weight ratios of g-C_3N_4 and Ag_3PO_4 is 10%.

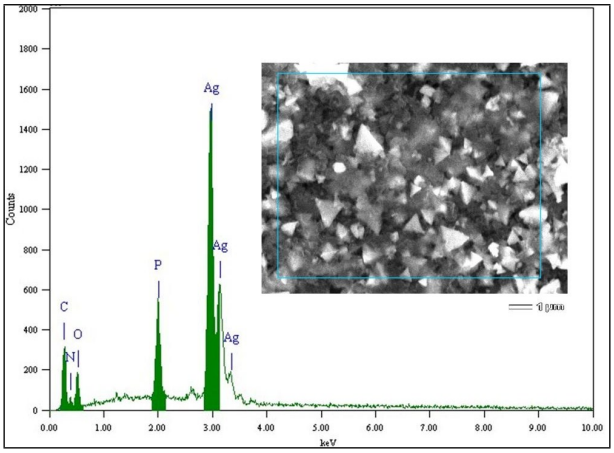

Fig. S3 EDS pattern of 10CA.

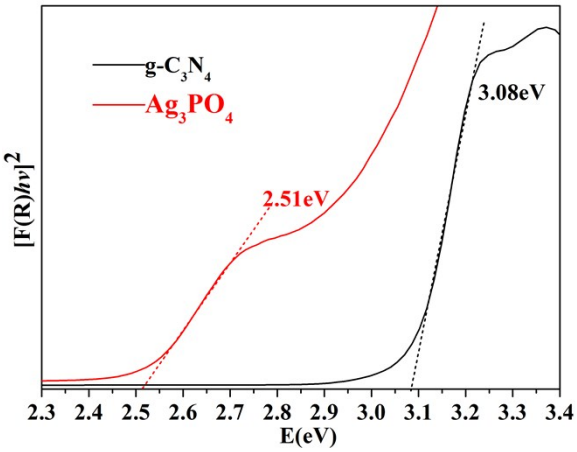

Fig. S4 The plot of transformed Kubelka-Munk function vs. the energy of light.

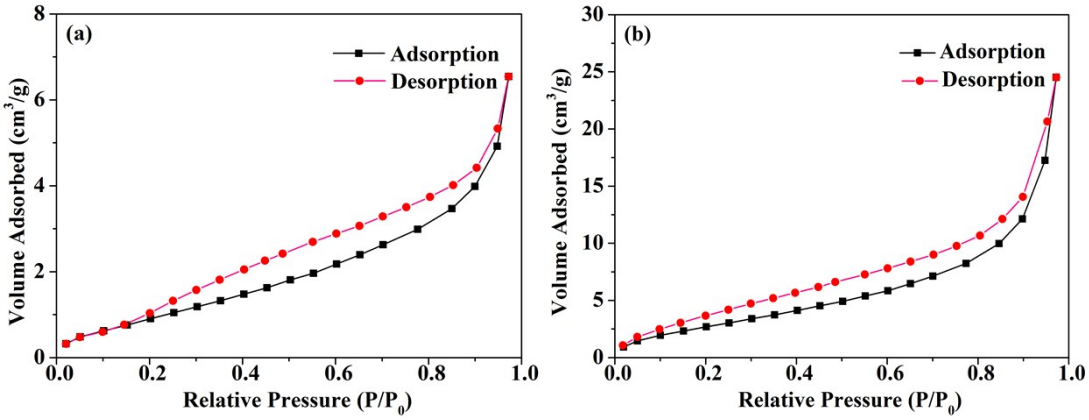

Fig. S5 Nitrogen adsorption-desorption isotherm of (a) Ag_3PO_4 and (b) 10CA.

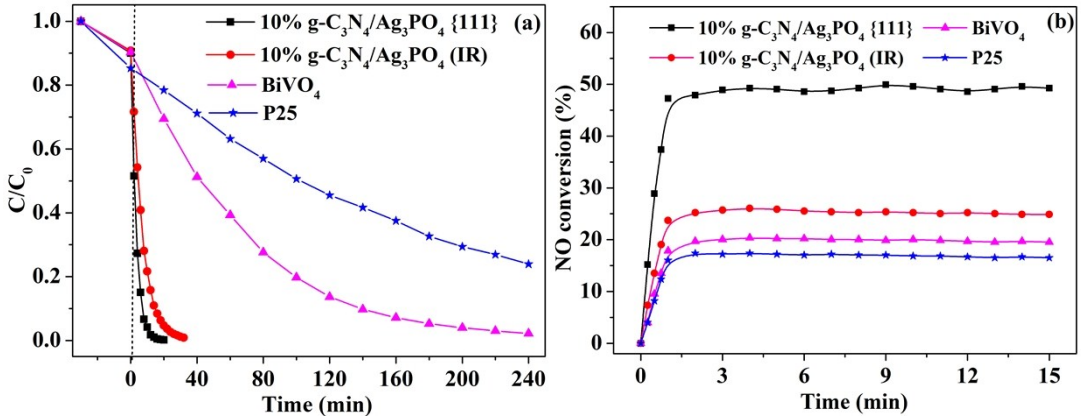

Fig. S6 Photocatalytic activity over samples under the visible-light irradiation (> 400 nm): (a) photocatalytic degradation of MB; photocatalytic removal of NO.