

Support information

Bi-doped Graphitic Carbon Nitride Nanotubes Boosts the Degradation Photocatalysis of Rhodamine B

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Electrochemical measurements

The electrochemical characteristics and electrochemical impedance spectroscopy (EIS) were measured on an electrochemical workstation (CHI660E, China) with a three-electrode system to describe the carrier transfer process of the samples during the reaction. The sample was prepared as a working electrode while an Ag/AgCl electrode and a Pt slice worked as a reference electrode and a counter electrode, respectively. All the electrochemical testing was conducted in 0.2 M Na₂SO₄ solution.

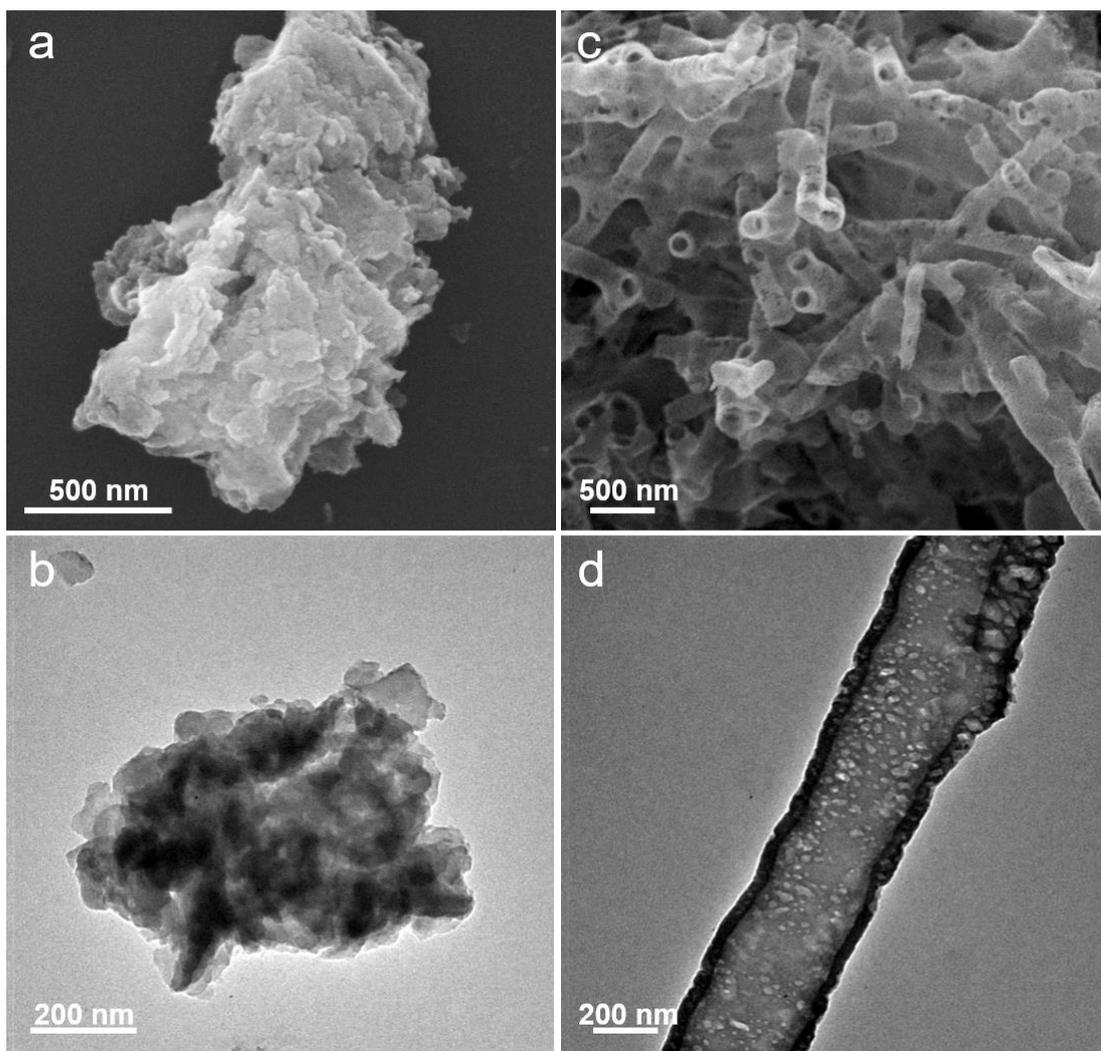


Fig. S1. SEM images of (a) PCN, (c) PCN-1; TEM images of (b) PCN, (d) PCN-1.

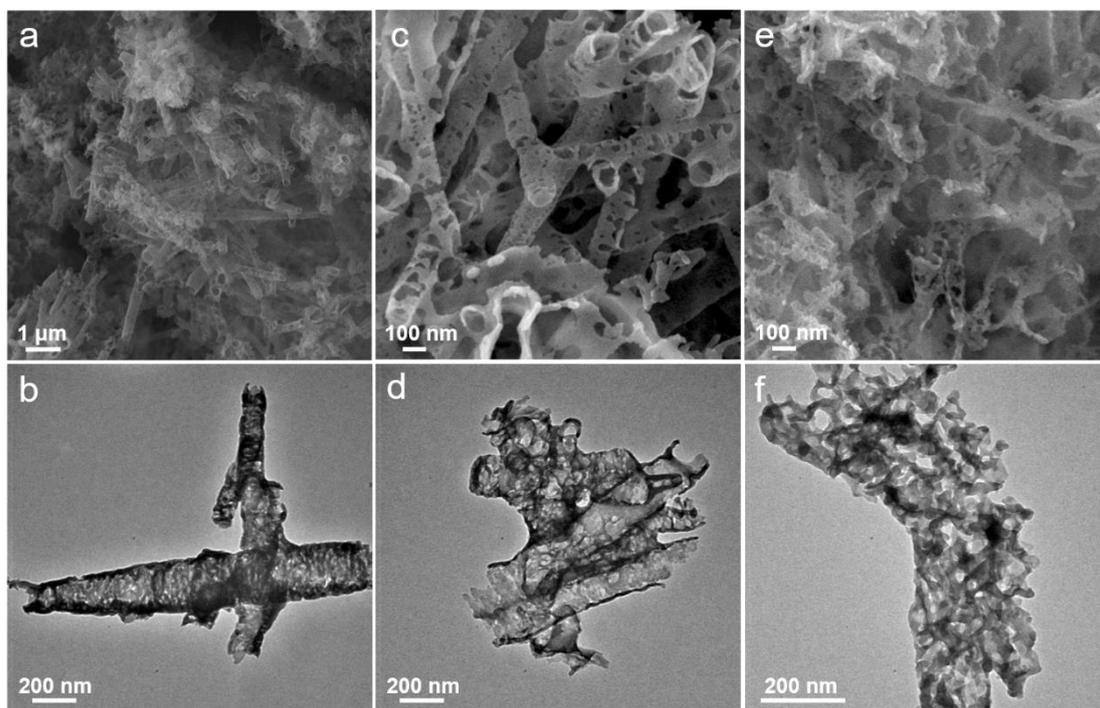


Fig. S2. SEM images of (a) 0.05BCN, (c) 0.2BCN, (e) 0.4BCN; TEM images of (b) 0.05BCN, (d) 0.2BCN, (f) 0.4BCN.

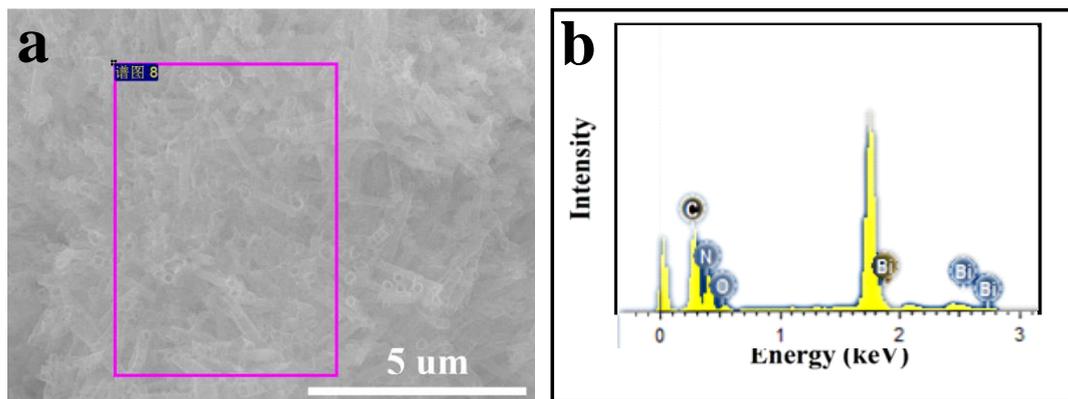


Fig. S3. SEM-EDS of the 0.1BCN

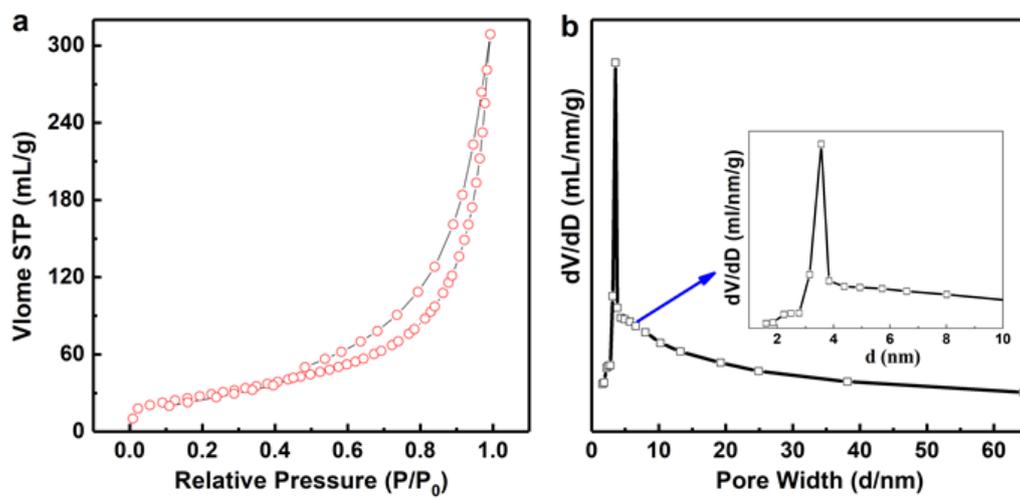


Figure S4. a) N₂ adsorption-desorption isotherm and b) pore-size distribution curves of 0.1BCN.

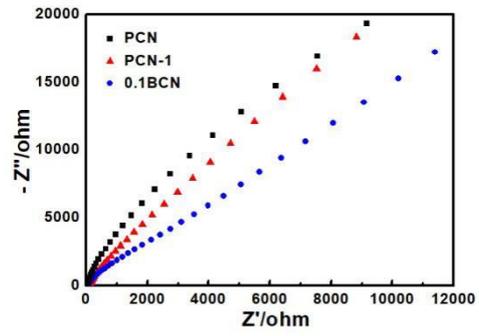


Fig. S5. The EIS plots of PCN, PCN-1 and 0.1BCN.

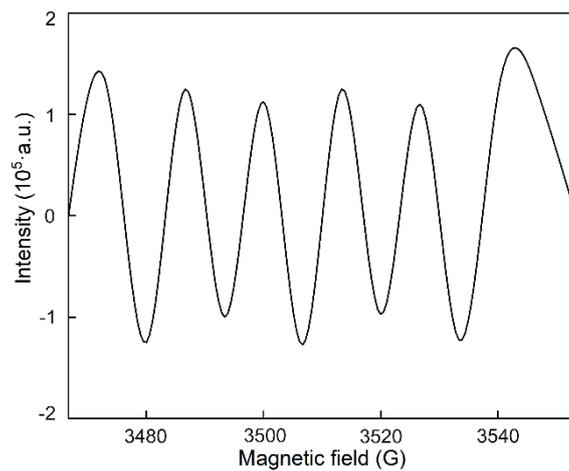


Figure S6. ESR signals of DMPO-·OH adducts in 0.1BCN dispersion of water under 120 s illumination.

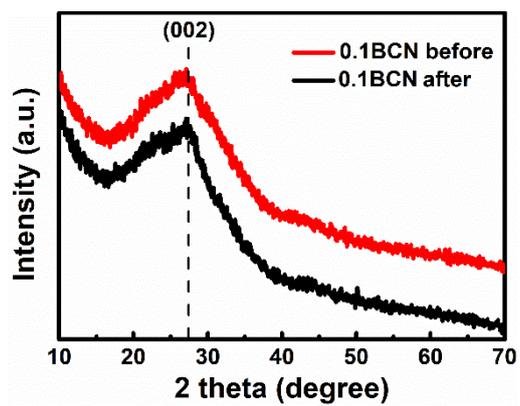


Fig. S7. XRD of 0.1BCN before and after use for four times

Table S1 mass percentage of Bi in PCN-1 and xBCN samples

Sample	PCN-1	0.05BCN	0.1BCN	0.2BCN	0.4BCN
Bi(wt%)	0	5.04	6.48	13.35	25.49

Table S2 contents of C and N in PCN-1 and 0.1BCN samples

Sample	N(wt%)	C(wt%)	C/N (in mol)
PCN-1	56.925	32.765	0.67
0.1BCN	51.81	29.81	0.62