

Electronic supplementary information

Template-free synthesis of three dimensional porous boron nitride nanosheets for efficient water cleaning

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Fig. S1 The photo of the obtained 3D porous BNNSs.

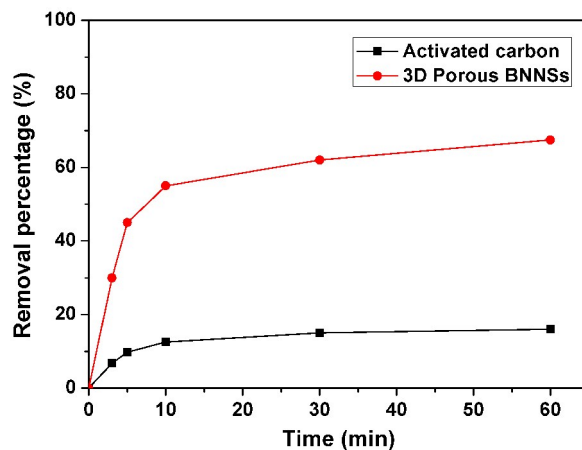


Fig. S2 Effect of contact time on adsorption of MB on the activated carbon and the 3D porous BNNSs reported previously (mass of adsorbent: 50 mg, solution pH: 8, dye concentration: 100 mg L⁻¹, adsorption temperature: 30 °C).

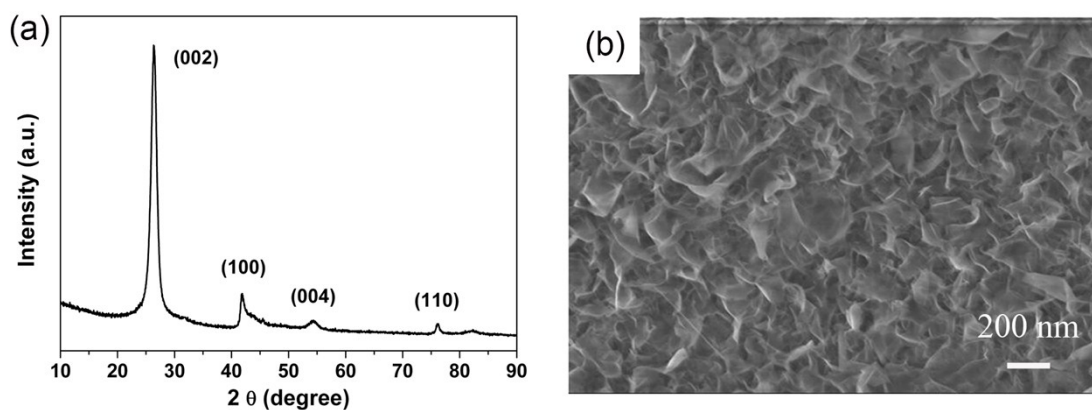


Fig. S3 (a) Powder XRD pattern of the regenerated 3D porous BNNSs. (b) The corresponding SEM image.

Table S1. adsorption capabilities of some reported BN materials for organic dyes.

Adsorbents	maximum capacity (mg/g)	Ref
porous BNNSs	313	14
BN nanocarpet	272.4	16
Activated BN	392.2	17
3D BNNSs foam	497	20
BN hollow spheres	191.7	37
3D porous BNNSs	413.3	this work

Equation S1.

$$V_{liq} = \frac{P_a V_{ads} V_m}{RT}$$

In which P_a and T are ambient pressure and temperature, respectively, and V_m is the molar volume of the liquid adsorbate.

