

1 **Facile synthesis of high-efficiency magnetic graphitic carbon nitride adsorbents**
2 **for selective removal of hazardous anionic dyes in wastewater**

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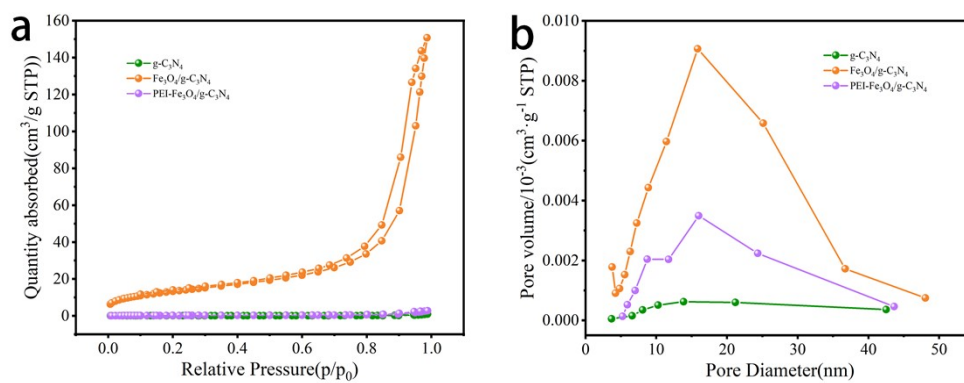
10 Tel. /Fax: 86-2443520571

11 **Chemical reagents**

12 All solutions were prepared with ultrapure water. g-C₃N₄ was purchased from
13 Beike Nano (Suzhou, China). Branched polyethyleneimine (PEI, MW: 600, content:
14 99%) was supplied by the Macklin Chemical Reagents Co., Ltd(Shanghai, China)
15 Congo red was purchased from Damao Chemical Reagent Co., Ltd (Tianjin, China).
16 Other materials used were analytical grade in this study.

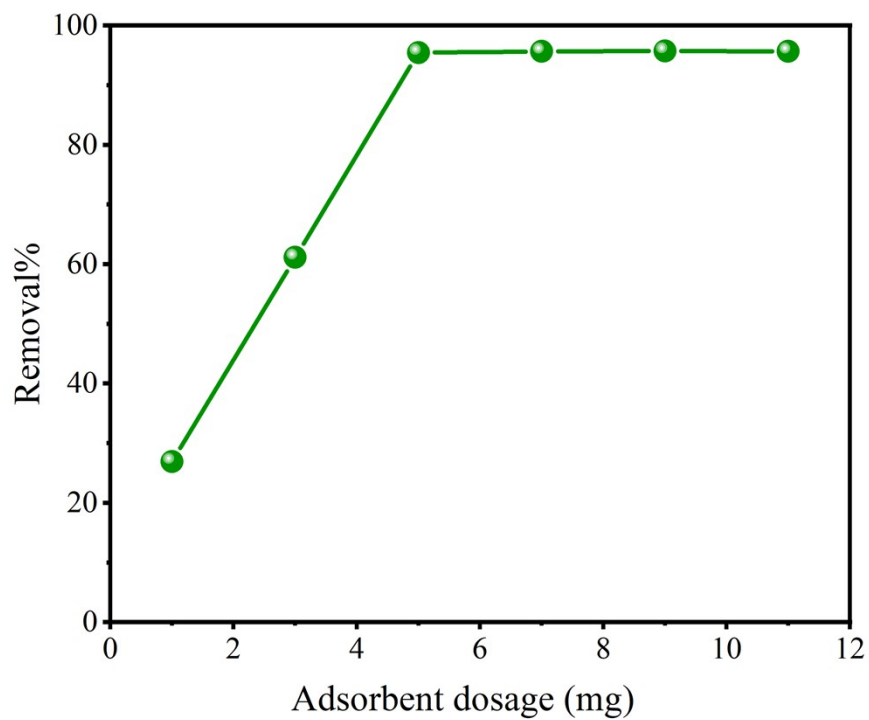
17 **Characterization**

18 Fourier transform infrared spectroscopy (FT-IR) was recorded on a Nicolet iS50
19 Fourier transform infrared spectrophotometer (Thermo Scientific Co., USA) in the
20 range of 400–4000 cm⁻¹. Scanning electron microscopy (SEM) was used to
21 characterize the microstructure of the sample using a FEI Nova Nano SEM 450
22 (JEOL Co., Japan) and Transmission Electron Microscope (TEM) was obtained on a
23 JEM-2100F electron micro scope (JEOL Co., Japan). Vibrating sample magnetometer
24 (VSM) analysis of the synthesized materials was carried out with Lake Shore 7407
25 (Lake Shore, USA) at room temperature. X-ray Photo Spectroscopy (XPS) analysis
26 was carried out by using a Thermo Fisher ESCALAB 250Xi (Thermo Scientific Co.,
27 USA) to confirm the chemical compositions. X-ray Diffraction (XRD) measurements
28 over 2θ range from 20 to 70° were carried out at room temperature by using a D8
29 Advance X-ray diffractometer (Bruker, Germany). The surface area and the pore size
30 of the samples were obtained with N₂ adsorption/desorption isotherms at 77.3K using
31 the ASAP2460 analyzer instrument (Micromeritics Instrument Corp, USA).



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33 Fig.S1. (a) N_2 adsorption/desorption isotherm (b) BJH pore size distribution



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Fig.S2. The effect of adsorption dosage..