Supporting information

Magnetic Carbon Nanocomposites Derived from Polystyrene with Superior Tetrabromobisphenol A Adsorption Performance

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S1. Chemical Structure of TBBPA:

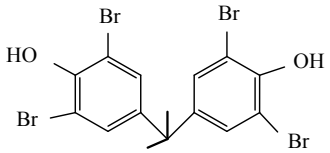

Figure S1. Chemical structure of TBBPA.

S2. Chemical Structure of Humic Acid:

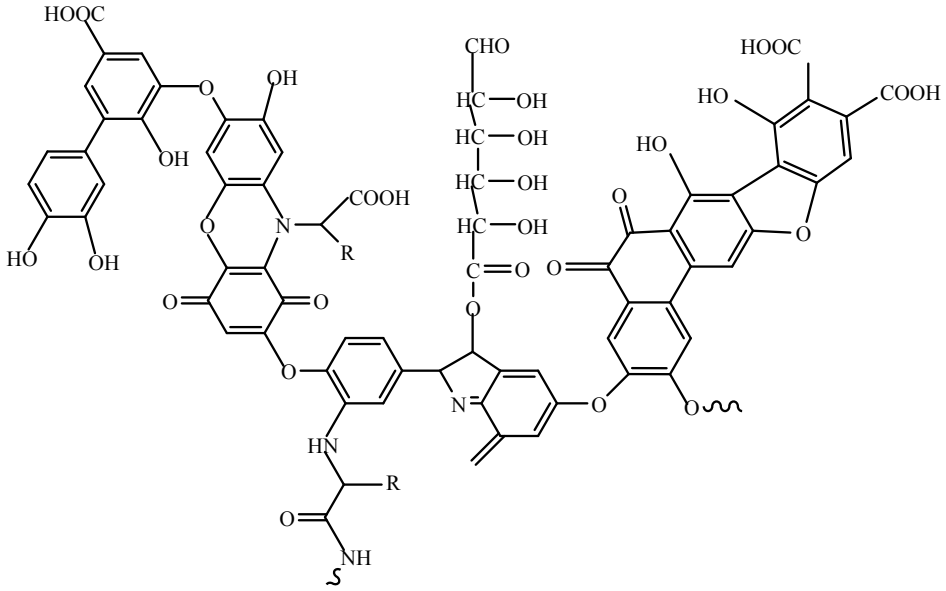

Figure S2. Chemical structure of humic acid.

S3. ΔH^0 and ΔS^0 Determination:

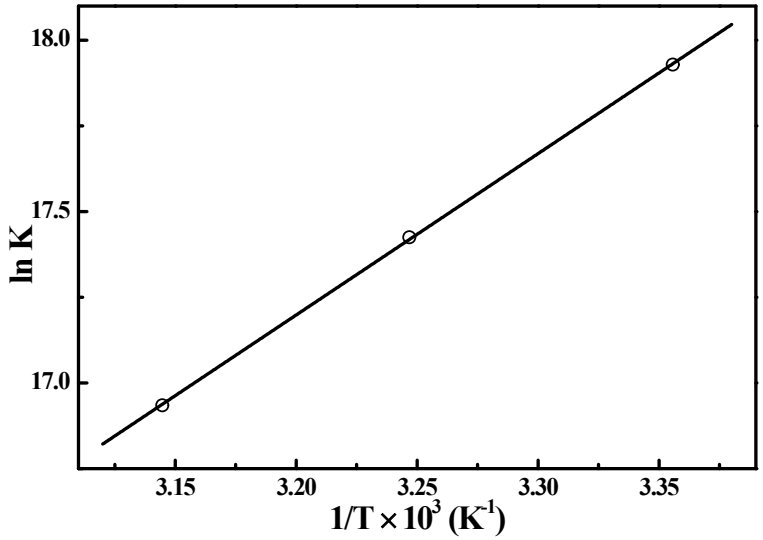

Figure S3. Plot of ln$K$ *vs.* 1/T × 10^3 for adsorption of TBBPA onto MPSN.

S4. TBBPA Species Distribution in Different pH Solution:

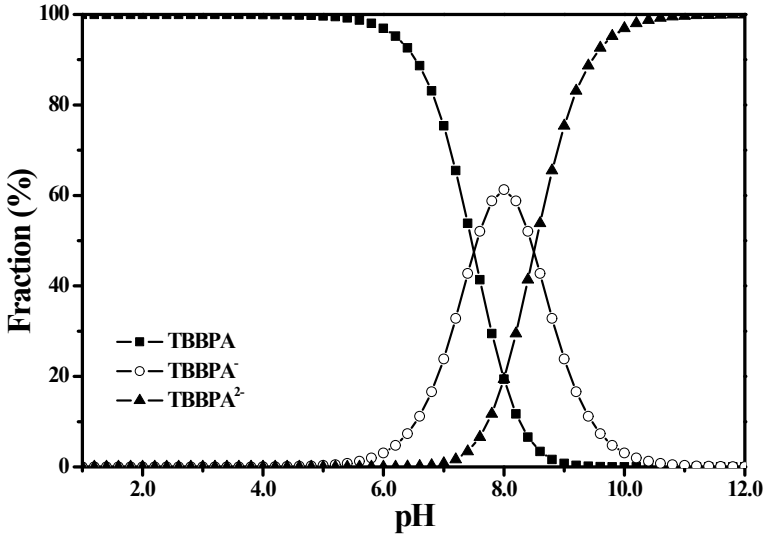

Figure S4. Species distribution of TBBPA as a function of pH (TBBPA = undissociated, $TBBPA^{-}$ = monoprotic, $TBBPA^{2-}$ = diprotic)[1, 2]

S5. Adsorption Mechanism Exploration: FT-IR

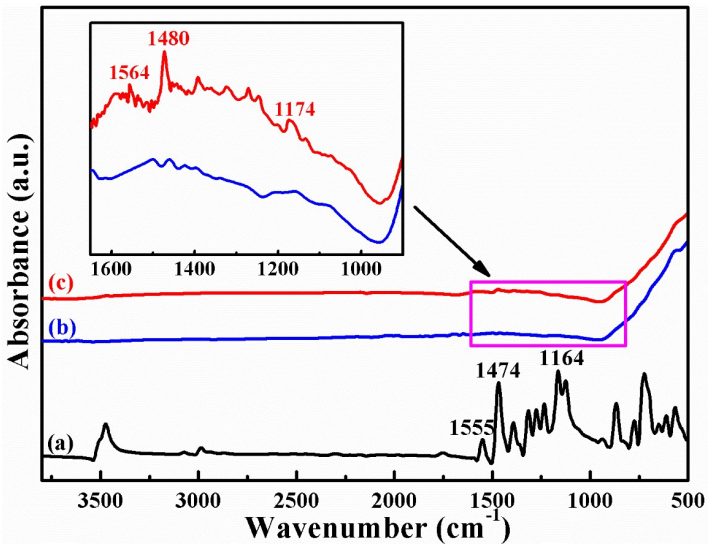

Figure S5. FT-IR spectra of (a) TBBPA, (b) MPSN, (c) after adsorption of MPSN. The inset shows the partial enlarged image from 900 - 1600 cm^{-1} of (b) and (c).

References:

1 Y. Zhang, Y. Tang, S. Li and S. Yu, *Chem. Eng. J.*, 2013, **222,** 94-100.

2 Y. Bao and J. Niu, *Chemosphere* 2015, **134,** 550-556.