Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A.

Supporting Information

Polarity Engineering of Porous Aromatic Frameworks for Specific Water Contaminants Capture

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Section 1. Materials Characterization

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Materials Characterizations

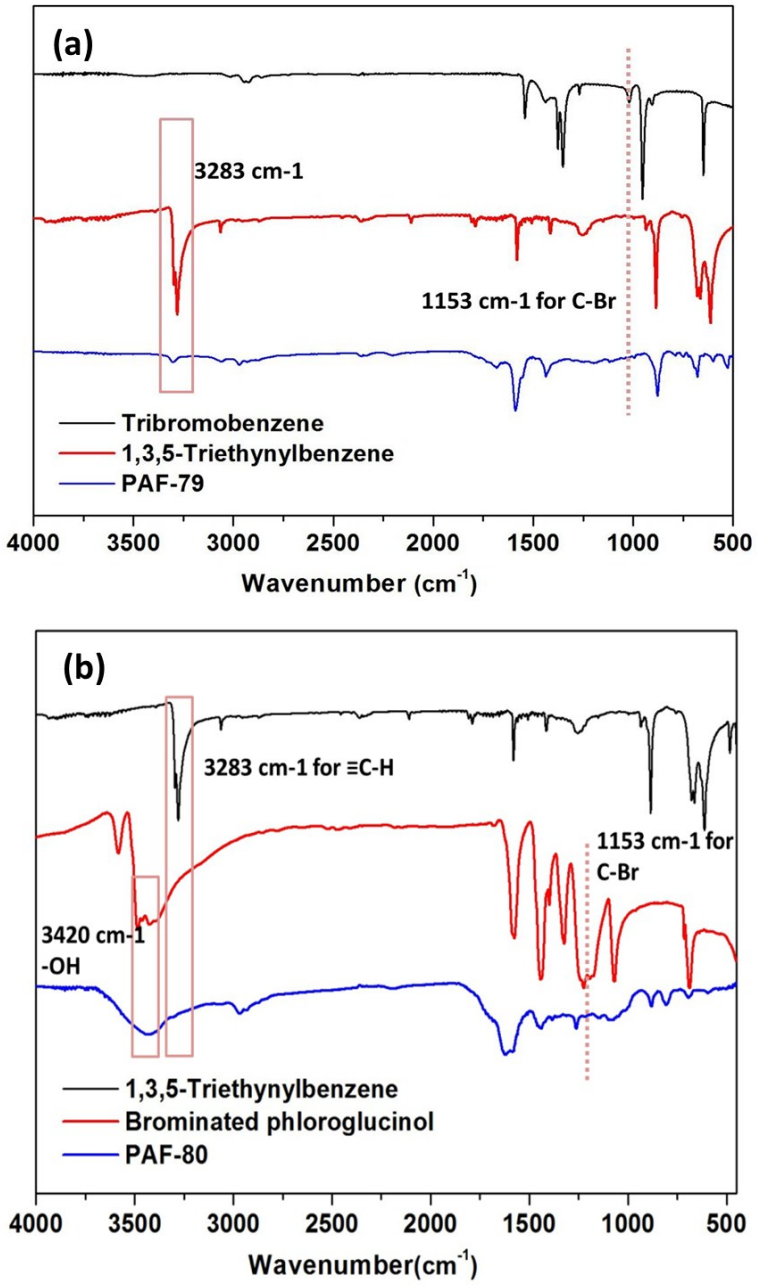

Fig. S1 FT-IR spectra of (a) PAF-79 and (b) PAF-80 and their respective starting materials [1,2]

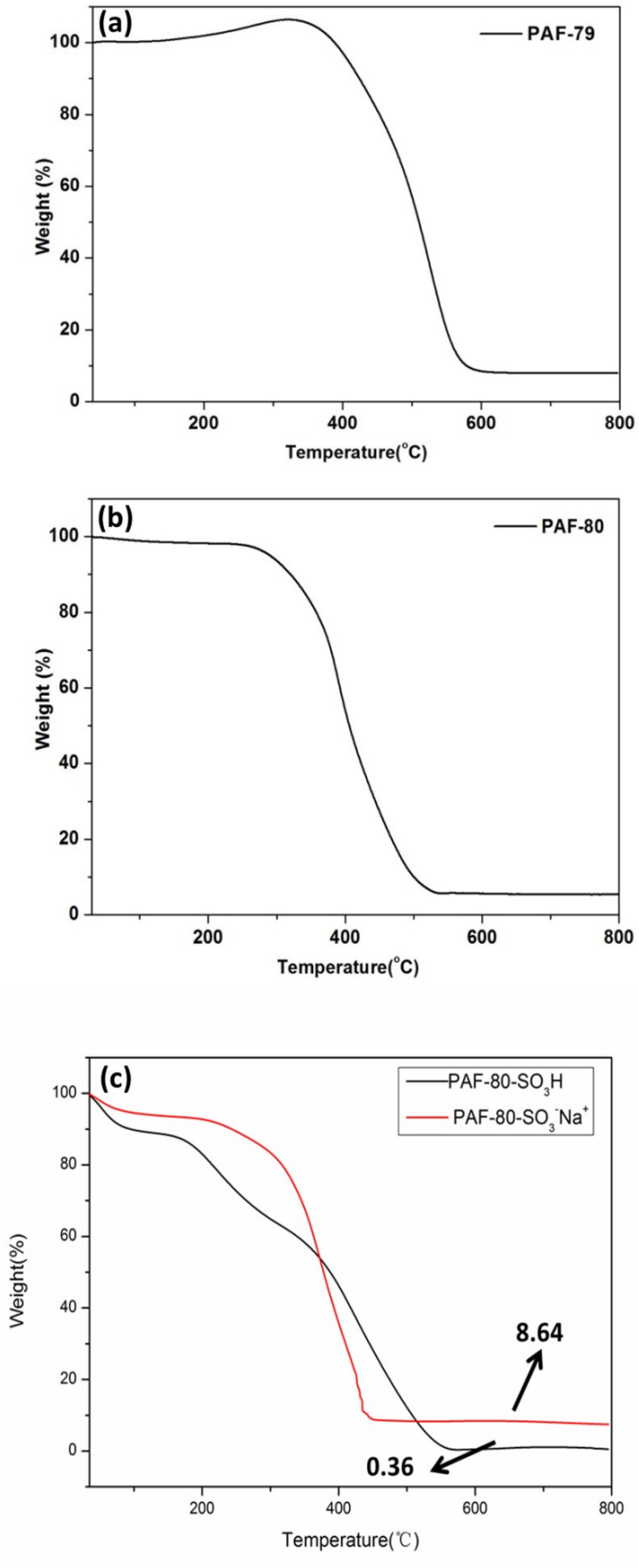

Fig. S2 TGA curves of (a) PAF-79, (b) PAF-80 and (c) PAF-80-SO_3Na and PAF-80-SO_3H

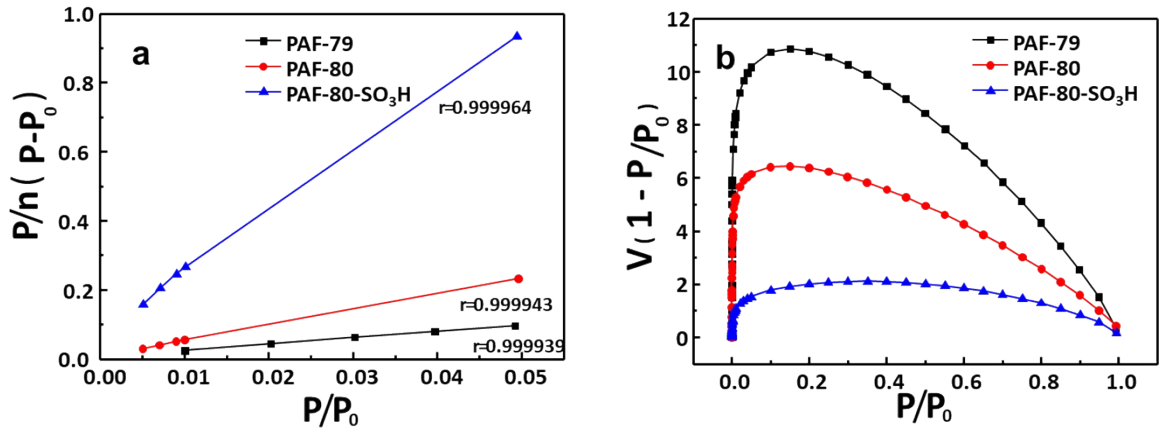

Fig. S3 Represents (a) BET plots and (b) Rouquerol plots of PAF materials and leads to selection of an appropriate pressure range (0.01-0.05, 0.01-0.08 and 0.01-0.1 P/P_0 for PAF-79, PAF-80 and PAF-80-SO_3H, respectively).

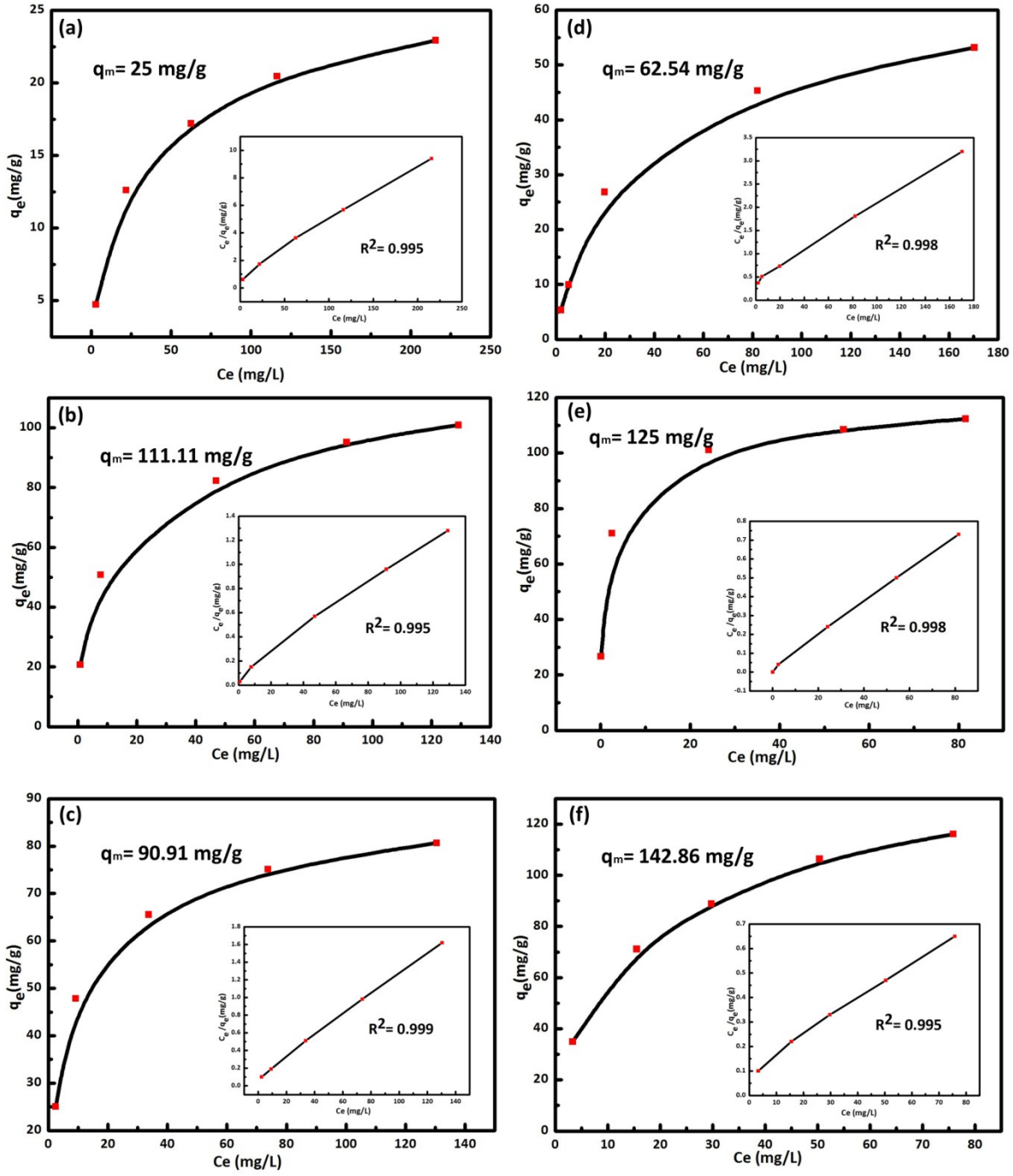

Fig. S4 Antibiotic adsorption isotherms of (a) PAF-79, (b) PAF-80, (c) PAF-80-SO_3H for tetracycline (TC) and (d) PAF-79, (e) PAF-80, (f) PAF-80-SO_3H for doxycycline hydrochloride (DOX).

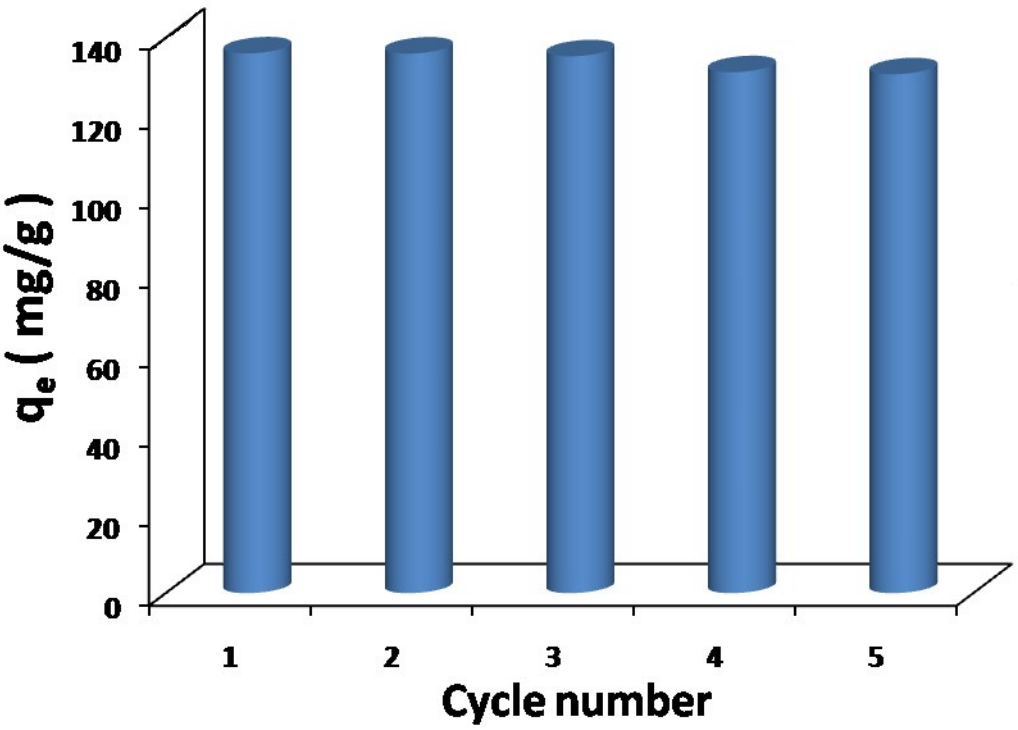

Fig. S5 Recyclability of PAF-80-SO_3H for doxycycline hydrochloride (DOX) adsorption by shaking DOX/PAF-80-SO_3H for 12h in aqueous solution to displace adsorbed species.

References

(1) D. Tan, W. Fan, W. Xiaong, H. Sun, Y. Cheng, X. Liu, C. Meng, A. Li and W. Q. Deng, Macromol. Chem. Phys. 2012, 213, 1435−1440.

(2) Z. Yan, H. Ren, H. Ma, R. Yuan, Y. Yuan, X. Zou, F. Sun and G. Zhu, Microporous and Mesoporous Materials, 2013, 173, 92–98.