Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

Converting Obsolete Copy Paper to Porous Carbon Materials with Preeminent Adsorption Performance of Tetracycline Antibiotic

Atian Xie[a], Jiangdong Dai[a], Jinsong He[a], Jun Sun[a], Zhongshuai Chang[a], Chunxiang Li[a]* and Yongsheng Yan[a,b]*

[a] School of Chemistry and Chemical Engineering, Jiangsu University, Zhenjiang 212013, China

[b] Key Laboratory of Preparation and Applications of Environmental Friendly Materials (Ministry of Education), Jilin Normal University, Siping 136000, China

Corresponding Author*: Chunxiang Li

E-mail: ujsxat@163.com

Telephone Number: +86 0511-88790683; fax: +86 0511-88791800

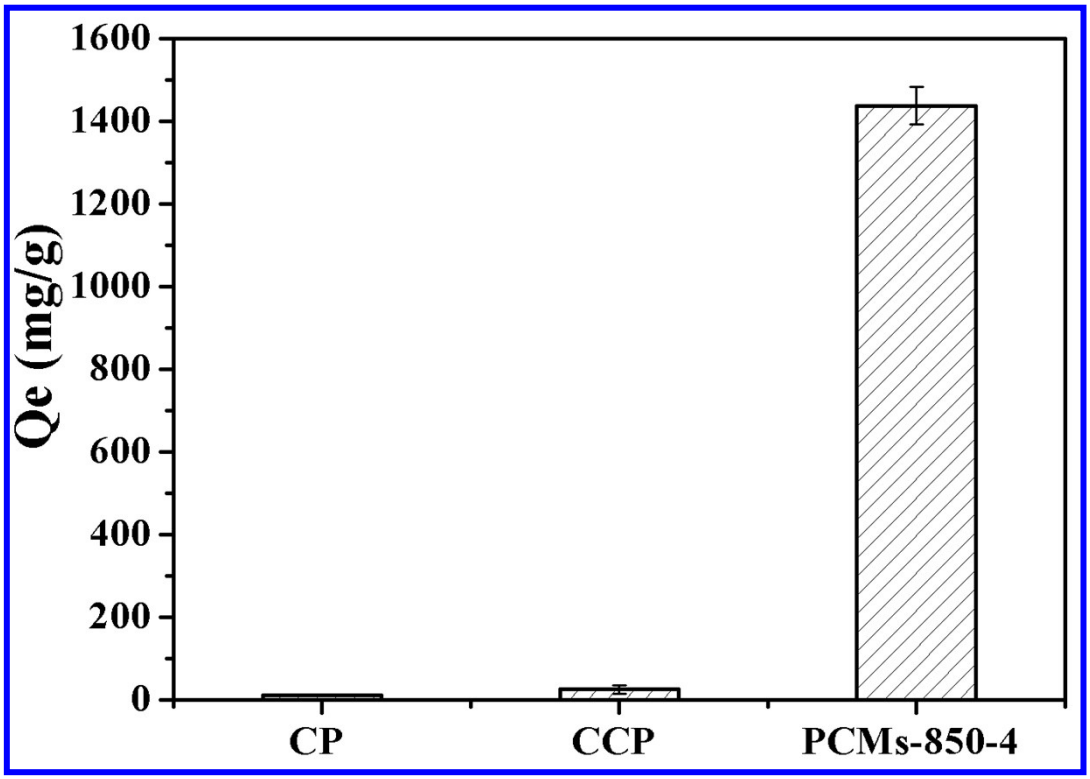

Fig. S1 Equilibrium absorption capacity of CP, CCP and PCMs-850-4 for TC.

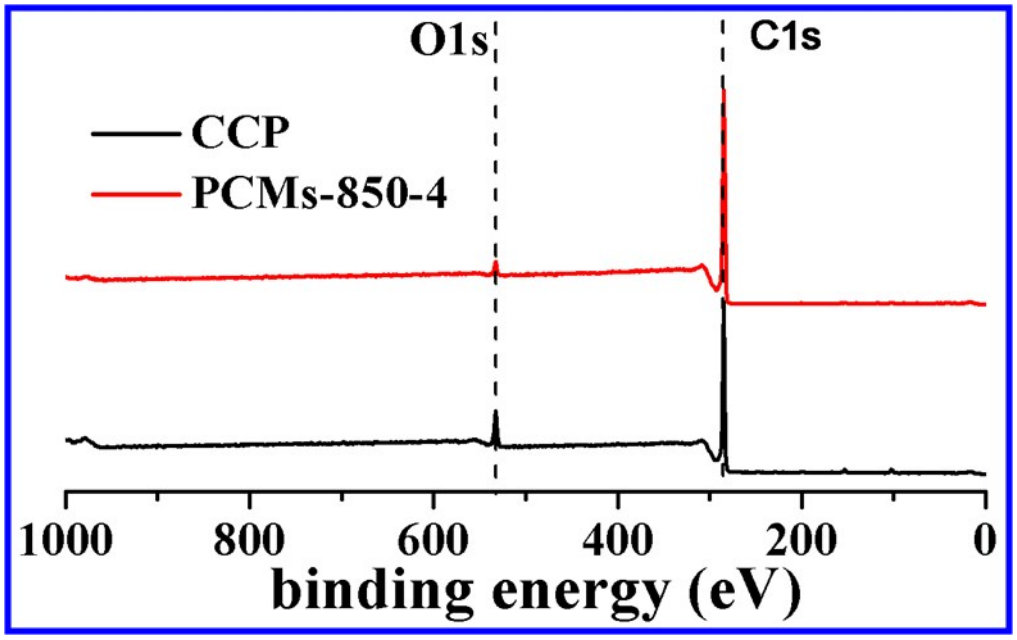

Fig. S2 The survey scans spectra of CCP and PCMs-850-4.

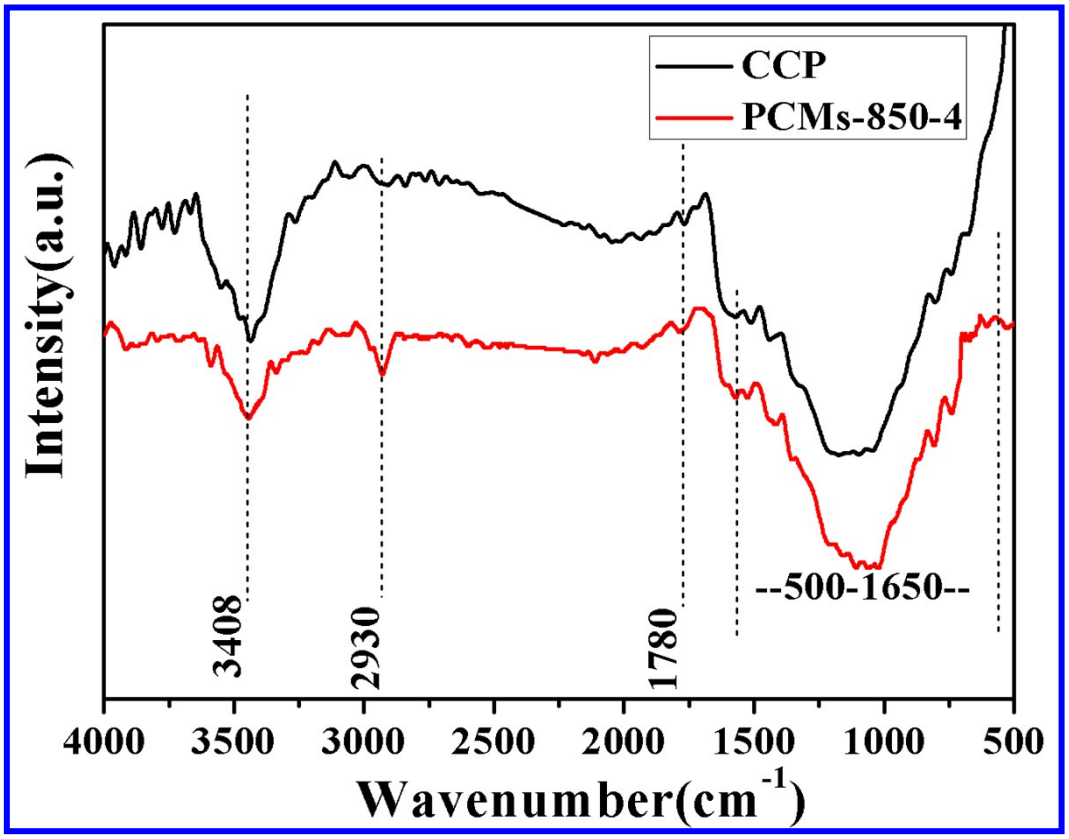

Fig. S3 FT-IR spectra of the CCP and PCMs-850-4.

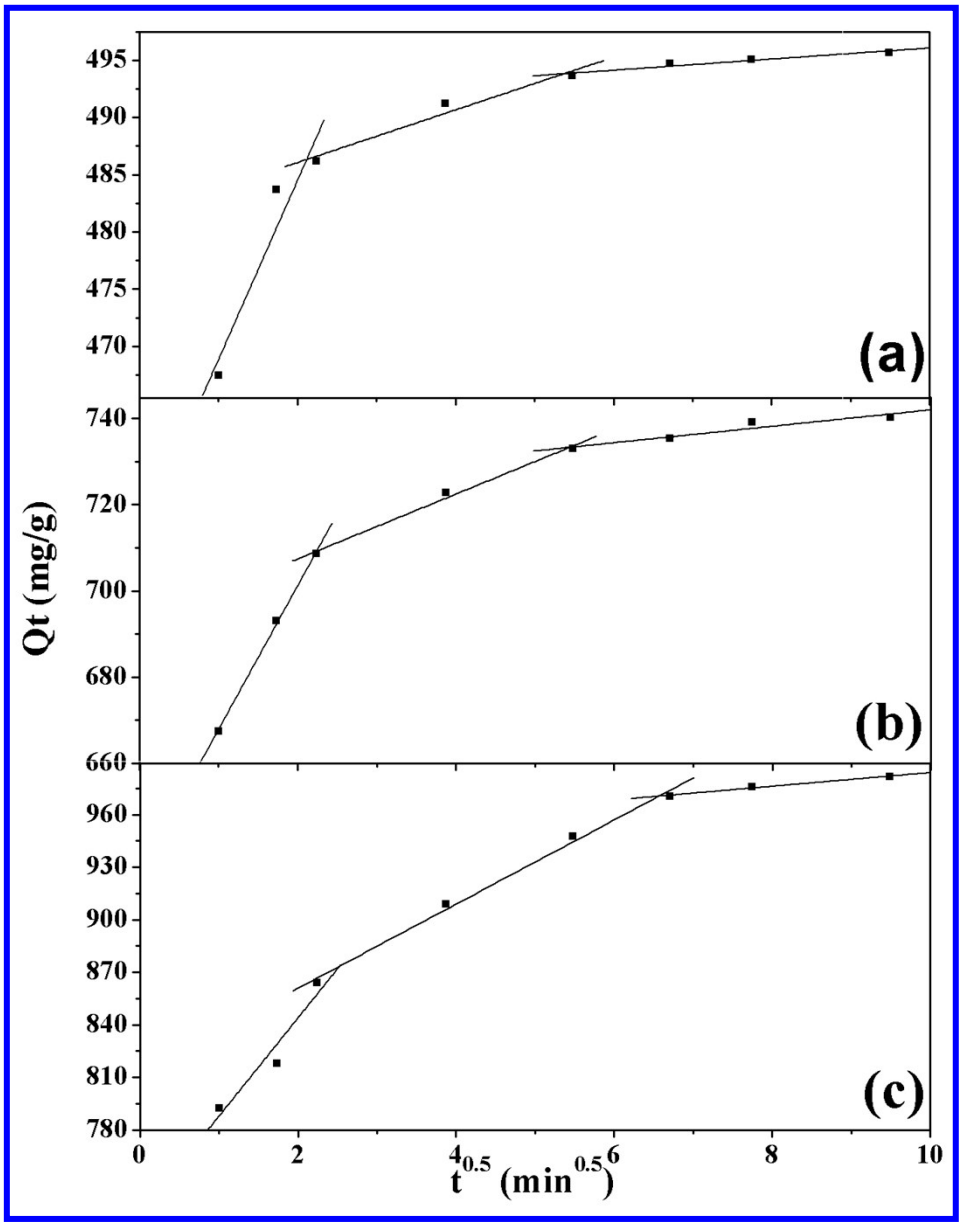

Fig. S4 The intra-particle diffusion model of PCMs-850-4 (a) initial concentration=100mg/L (b) initial concentration=150mg/L (c) initial concentration=200mg/L.

Table S1 Elemental analysis of CP, CCP and PCMs-850-4

Elements	C (%)	H (%)	O (%)
CP	35.08717	60.06297	4.849865
CCP	76.91172	19.39662	3.691662
PCMs-850-4	89.29566	10.11361	0.590733

Table S2 Functional group percentages of CCP and PCMs-850-4

Content (%)	O=C (531.3 eV)	H-O (532.4 eV)	C-O-C (533.7 eV)
CCP O1s	8.20	71.34	20.46
PCMs-850-4 O1s	10.20	59.49	30.31

Table S3 Parameter of Intra-particle diffusion model

Parameter	Intra-particle diffusion model		
	100 (mg/L)	150 (mg/L)	200 (mg/L)
C_1 (mg/g)	453.1	634.3	731.8
K_1 (mg/(g $min^{0.5}$)	15.66	33.39	56.11
R_1^2	0.915	0.998	0.928
C_2(mg/g)	481.4	692.3	812.8
K_2 (mg/(g $min^{0.5}$)	2.302	7.539	24.01
R_2^2	0.962	0.992	0.994
C_3 (mg/g)	491.2	722.9	944.8
K_3 (mg/(g $min^{0.5}$)	0.486	1.91	3.91
R_3^2	0.929	0.915	0.986