Electronic Supplementary Material (ESI) for New Journal of Chemistry.

ELECTRONIC SUPPLEMENTARY INFORMATION

Zwitterionic Surfactant Assistant Fabrication of Mesoporous Silica Coated Carbon Nanotube for Organic Pollutants

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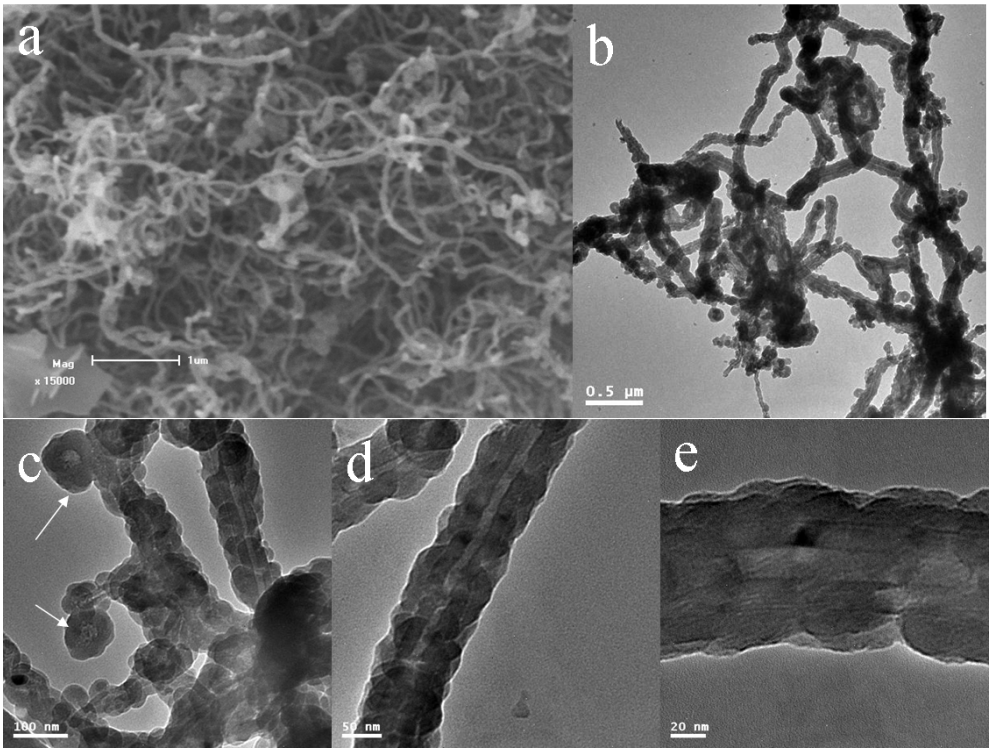
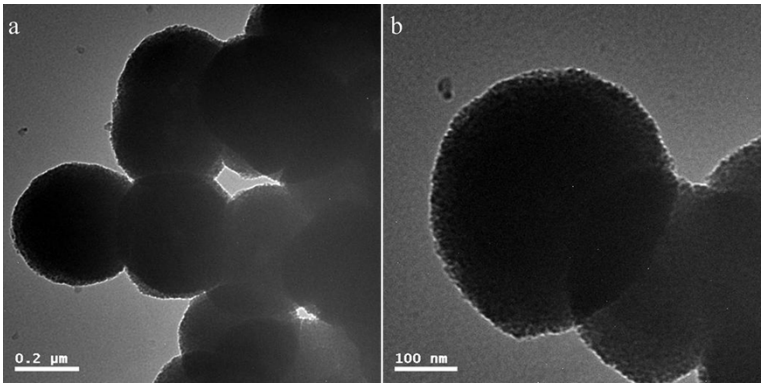
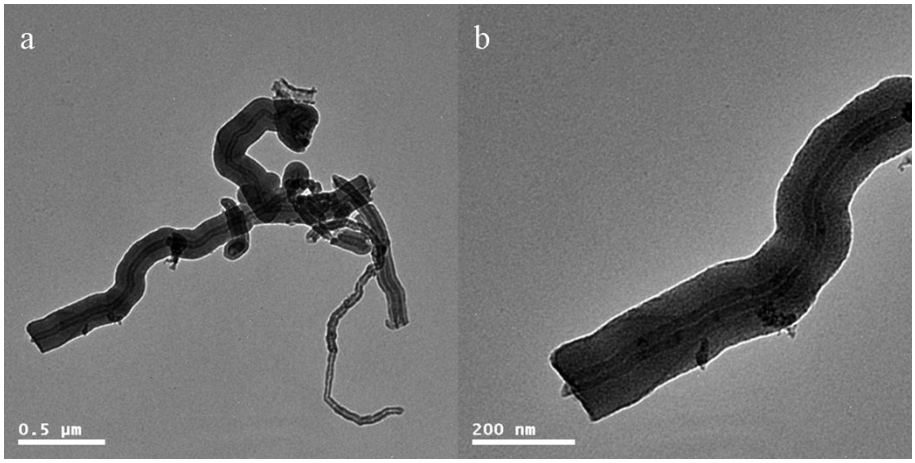


Figs. S1(a-e) SEM and TEM imagine of CNTs@SiO_2 using phospholipids(0.4 g), TEOS(500 uL) at different magnification



Figs. S2(a-b) TEM imagine of SiO_2 spheres without CNTs as template at different magnification



Figs. S3(a-b) TEM imagine of CNTs@SiO_2 using CTAB(0.2 g) at different magnification

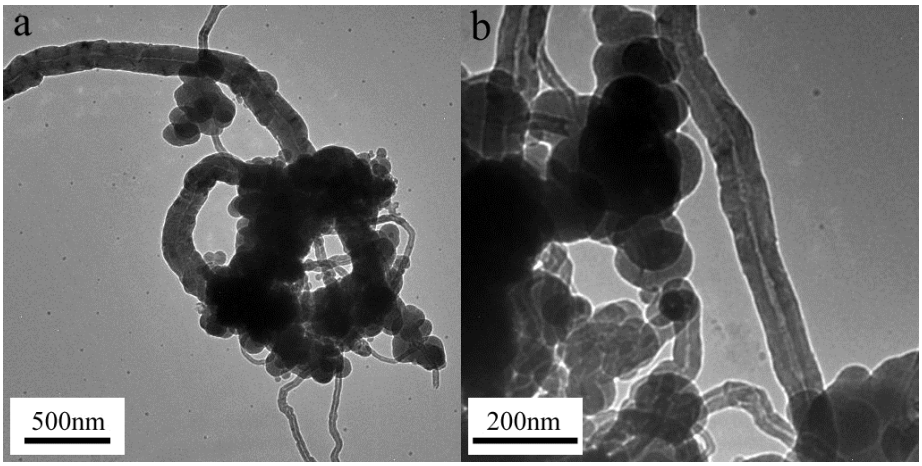


Fig. S4(a-b) TEM imagine of CNTs@SiO_2 using anionic surfactant(SDS) in the absence of APTES at different magnification

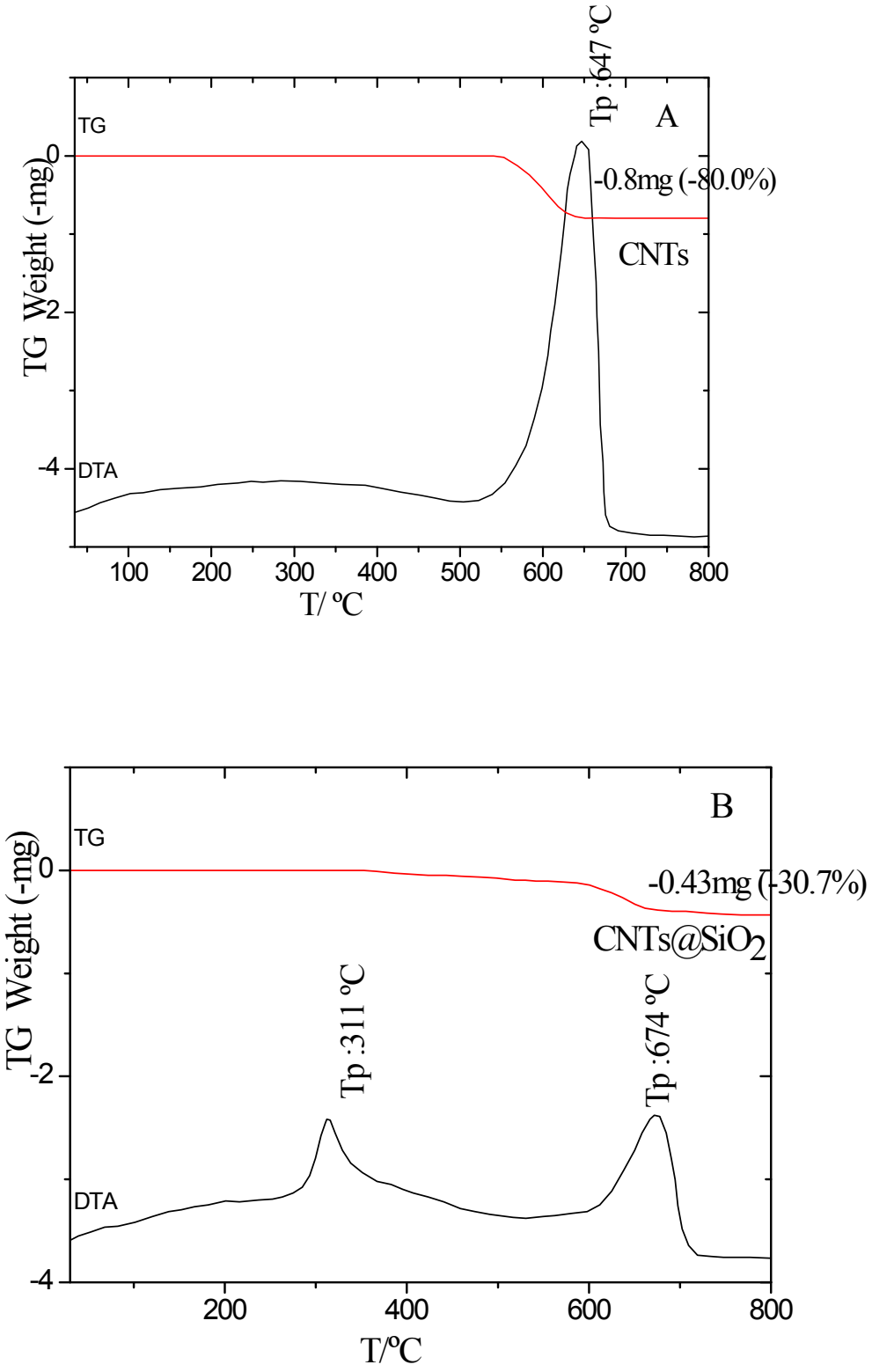


Fig. S5 TG/DSC data of the pristine CNTs (a) and CNTs@SDS@SiO_2 (b) respectively.

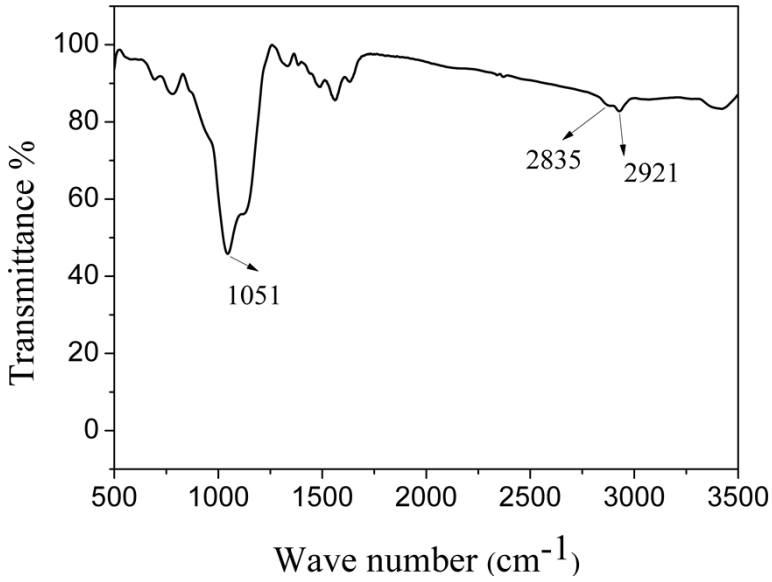


Fig. S6. FT-IR spectrum of as-prepared CNTs@SDS@SiO_2 composite using SDS surfactant

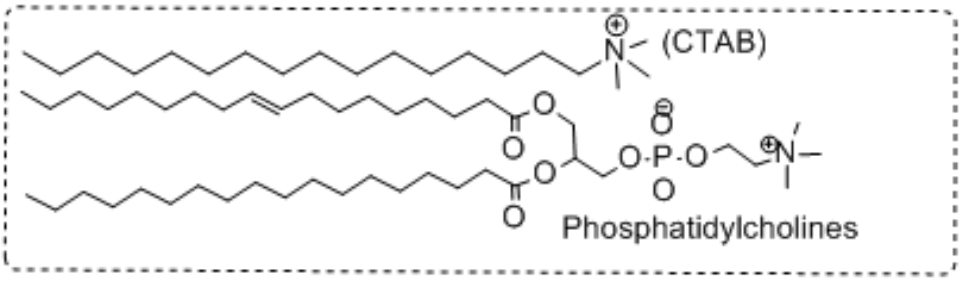


Fig. S7. The chemical structure of CTAB and Phosphatidylcholines

Table S1

BET specific surface values, BJH pore size and pore volume calculated from the N_2 adsorption/desorption isotherms for the materials used in this work.

Sample	BJH pore size/nm	BET Surface area/m^2 g^{-1}	Pore Volume/m^3 g^{-1}
CNTs@SiO_2(P)	14.27	187.31	0.67
CNTs@SiO_2(P/C 3:1)	3.95	413.24	0.41
CNTs@SiO_2(P/C 2:2)	2.92	644.85	0.47
CNTs@SiO_2((P/C1:3)	2.51	784.55	0.49
CNTs@SiO_2(C-extraction)	2.72	831.00	0.56
CNTs@SDS@SiO_2 (calcination)	4.71	207.84	0.24
CNTs@SDS@SiO_2 (extraction)	2.18	615.03	0.33

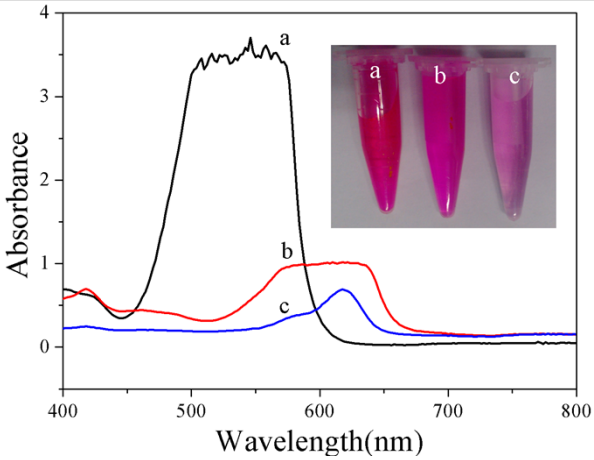


Fig. S8 Absorption spectra of a solution of Rhodamine B absorption of RB with the CNTs@Phospholipids@SiO_2 and the mesoporous CNTs@SiO_2(P) respectively: (a) 0 minutes; (b) after mixing with CNTs@Phospholipids@SiO_2 for 60 minutes; (c) after mixing with the mesoporous CNTs@SiO_2(P) for 60 minutes; (Inset imagine) Photos of absorption of RB with the CNTs@Phospholipids@SiO_2 and the mesoporous CNTs@SiO_2(P) respectively: (a) 0 minutes; (b) after mixing with CNTs@Phospholipids@SiO_2 for 60 minutes; (c) after mixing with the mesoporous CNTs @SiO_2(P) for 60 minutes;