

Supporting Information

Surfactant Assisted Ce-Fe Mixed Oxide Decorated Multiwalled Carbon Nanotubes and Their Arsenic Adsorption Performance

Bo Chen¹, Zhiliang Zhu^{*1}, Jie Ma^{*2}, Yanling Qiu¹ and Junhong Chen^{2,3}

^{1*}*Key Laboratory of Yangtze River Water Environment, Ministry of Education, Tongji University, Shanghai 200092, China; Tel: 86-21-6598 2426; E-mail: zzl@tongji.edu.cn*

^{2*}*State Key Laboratory of Pollution Control and Resource Reuse, Tongji University, Shanghai 200092, China; Tel: 86-21-6598 1831; E-mail: jma@tongji.edu.cn*

³*Department of Mechanical Engineering, University of Wisconsin–Milwaukee, Milwaukee, WI 53211, USA*

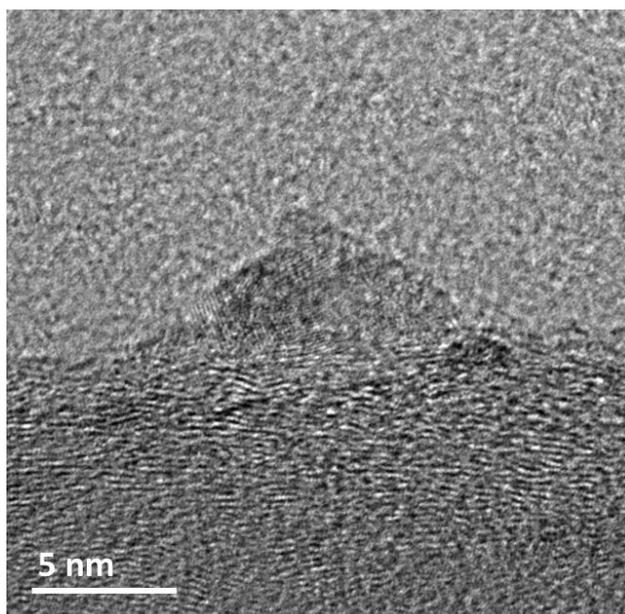


Fig. S1 HRTEM image of a nanoparticle on the surface of CF-CNTs.

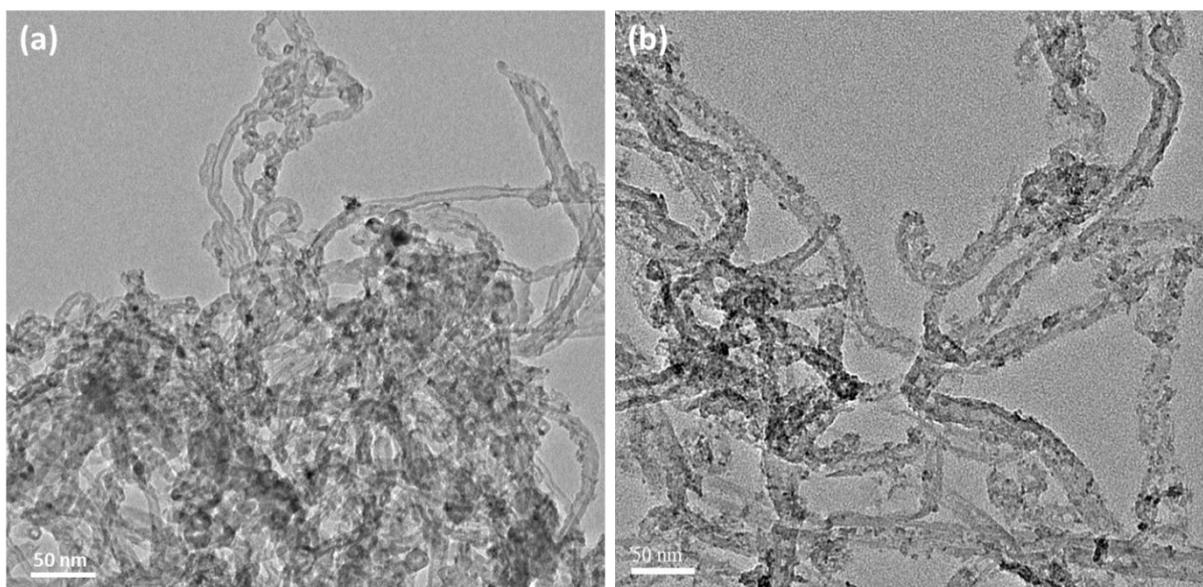


Fig. S2 Low magnification TEM images of CF-CNTs-A (a) and CF-CNTs (b).

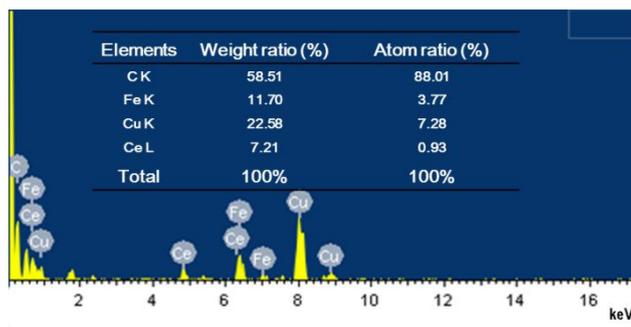


Fig. S3 EDS analysis of a single particle.

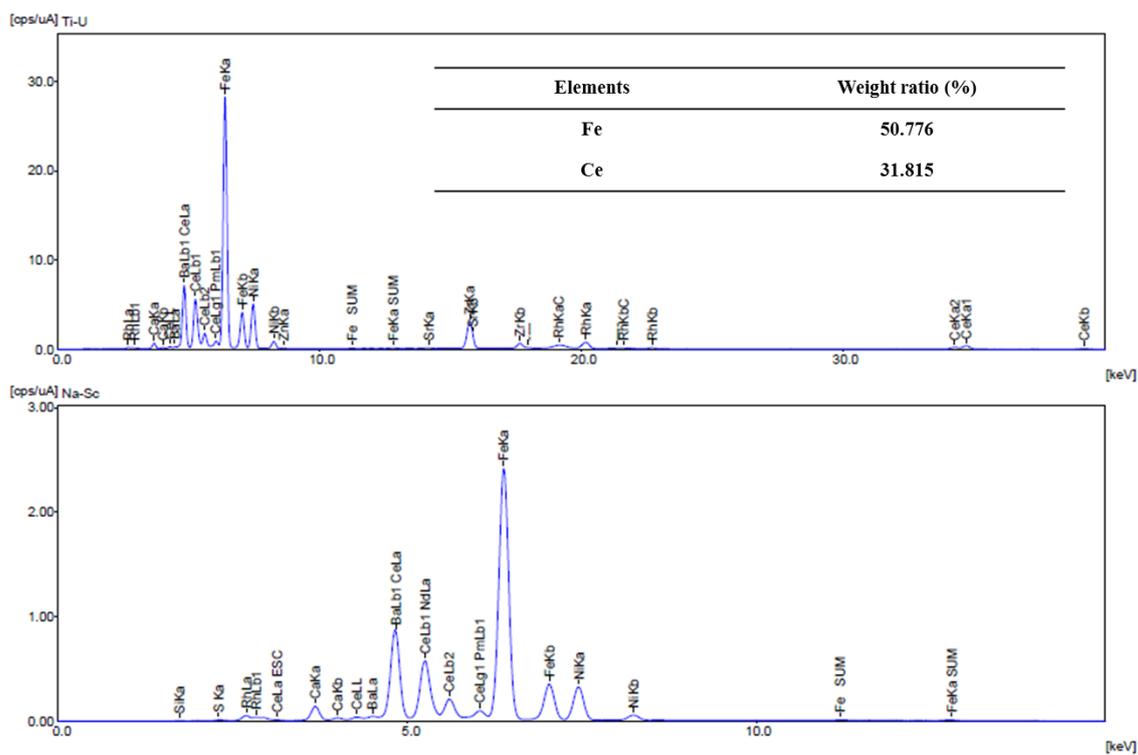


Fig. S4 The full XRF spectrum of CF-CNTs collected by fractional scanning.

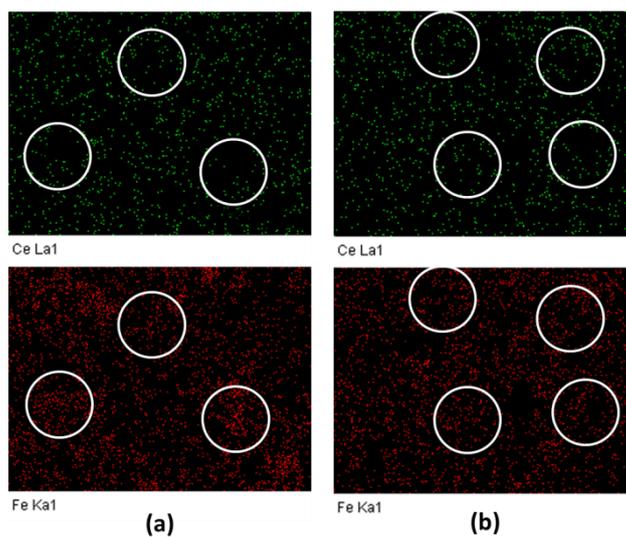


Fig. S5 The metal elemental distribution on the surface of CF-CNTs-A (a) and CF-CNTs (b).

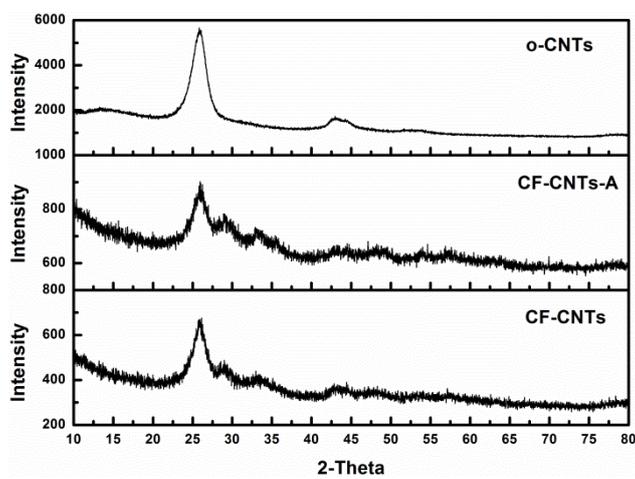


Fig. S6 XRD patterns of o-CNTs, CF-CNTs and CF-CNTs-A.

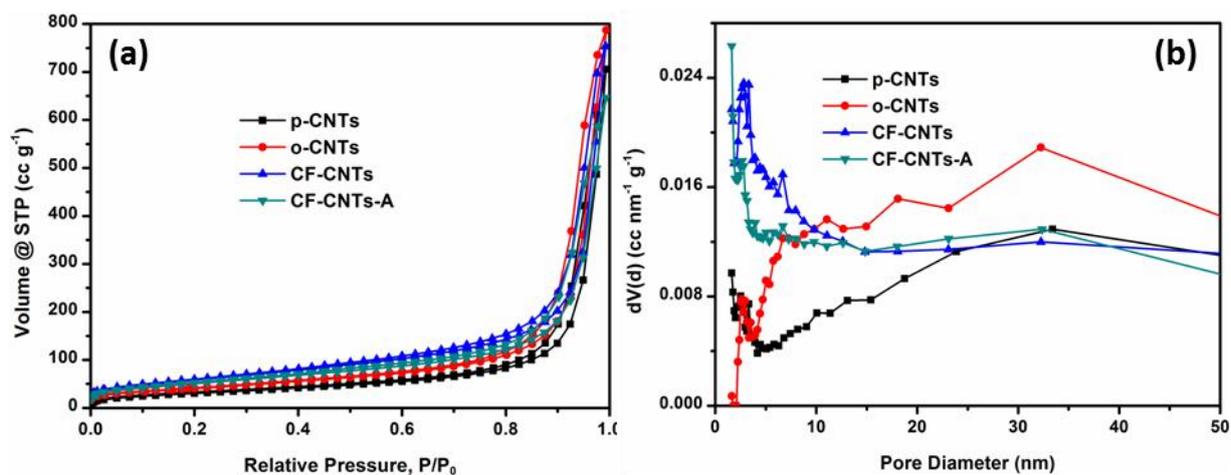


Fig. S7 N₂ adsorption/desorption isotherms (a) and pore size distribution curves (b)

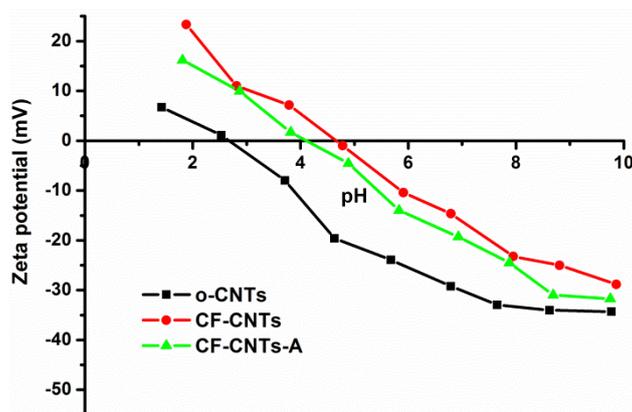


Fig. S8 Zeta potential of o-CNTs, CF-CNT and CF-CNTs-A as a function of solution pH.

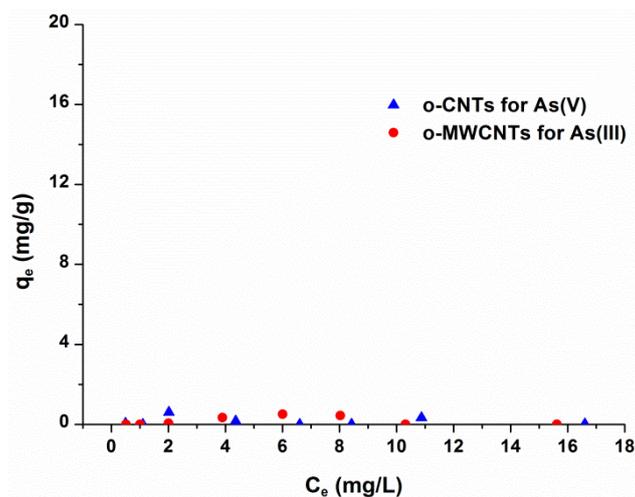


Fig. S9 The adsorption performance of arsenic on o-CNT.

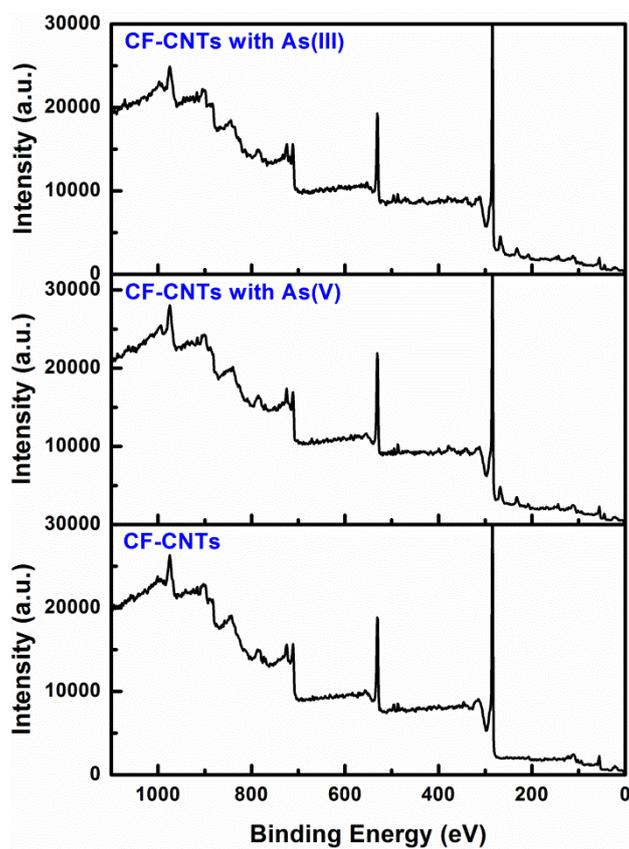


Fig. S10 Full-range XPS spectra of CF-CNTs before and after arsenic adsorption.