

Morphology-dependent enhancement of the removal of Cr (VI) of template-guided tunable polyaniline nanostructures

Yaxi Tian, Haizhen Li, Yan Liu, Guijia Cui, Zebin Sun, Shiqiang Yan*

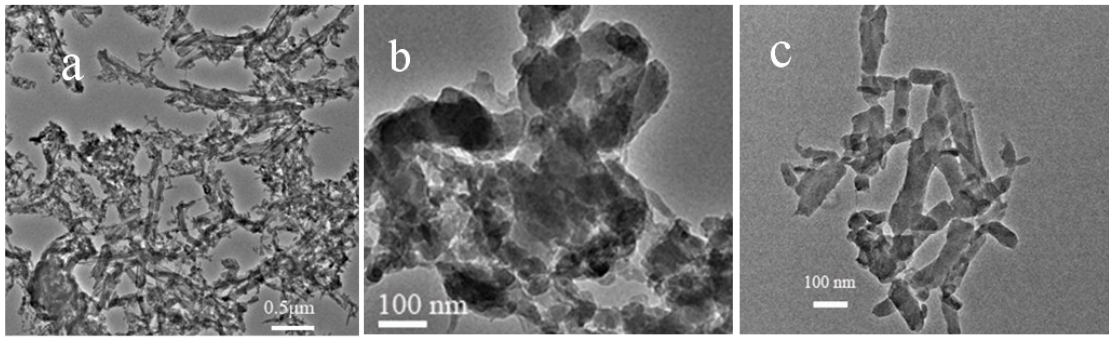
College of Chemistry and Chemical Engineering, Lanzhou University, Lanzhou 730000, P. R.

China

* Corresponding author. Tel.: +86 931 8912582; Fax: +86 931 8912582

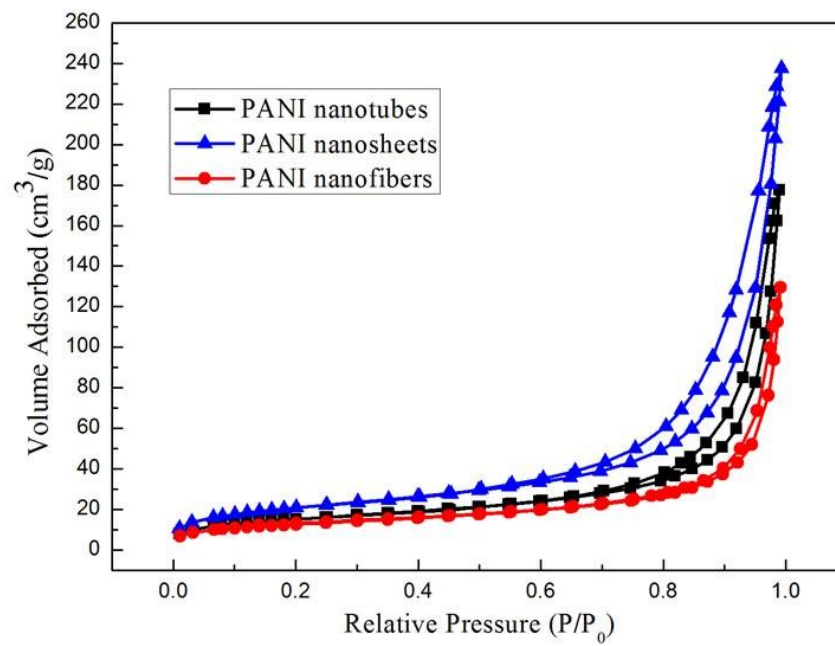
E-mail address: yansq@lzu.edu.cn

1. TEM images

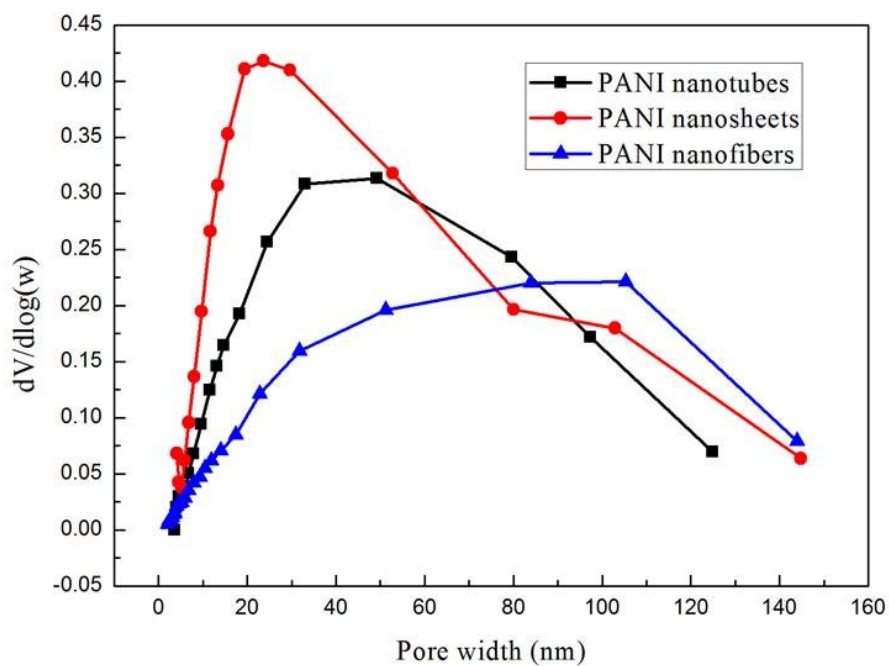


TEM images of (a) PANI nanotubes and (b) PANI nanosheets and (c) PANI nanofibers.

2.



N_2 adsorption-desorption isotherms of three different morphologies of PANIs nanostructures.



Pore size distributions of three different morphologies of PANIs nanostructures.

3. Adsorption capacities of different materials.

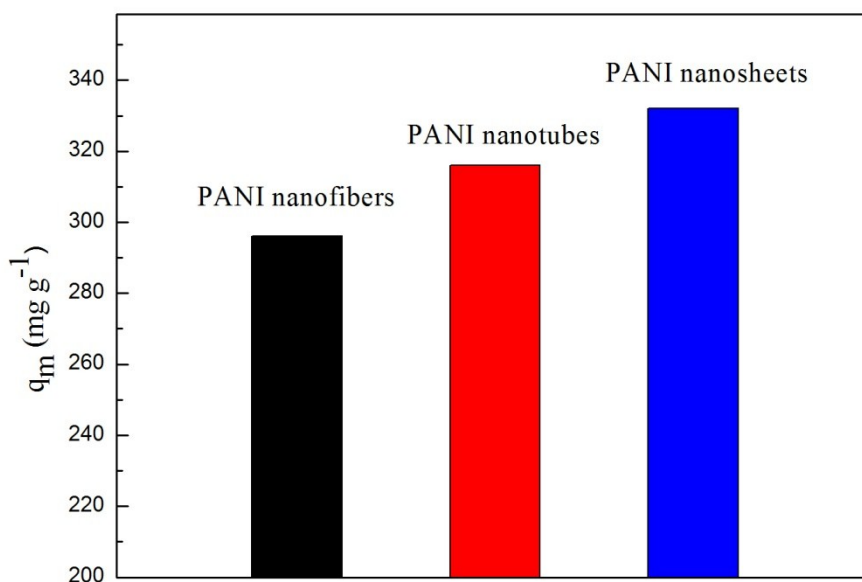


Fig.S1 Adsorption capacities of different materials (experimental conditions: adsorbents dosage: 0.2 g L⁻¹, concentration: 300 mg L⁻¹, pH: 2, T: 298K) .

4. Adsorption kinetics

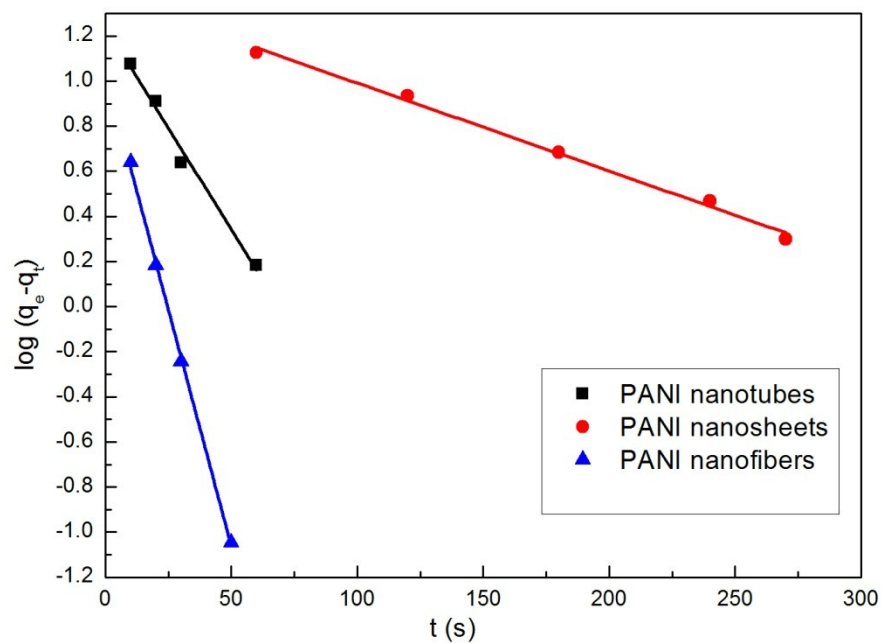


Fig.S2 Plot of the pseudo-first order kinetic model for Cr (VI) on different materials.

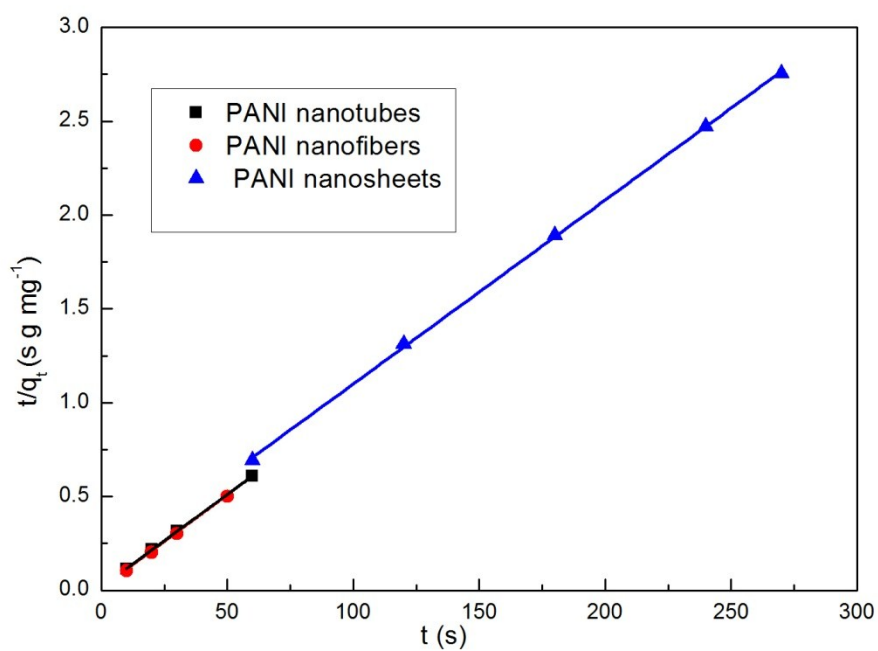


Fig.S3 Plot of the pseudo-second order kinetic model for Cr (VI) on different materials.

5. Adsorption isotherms.

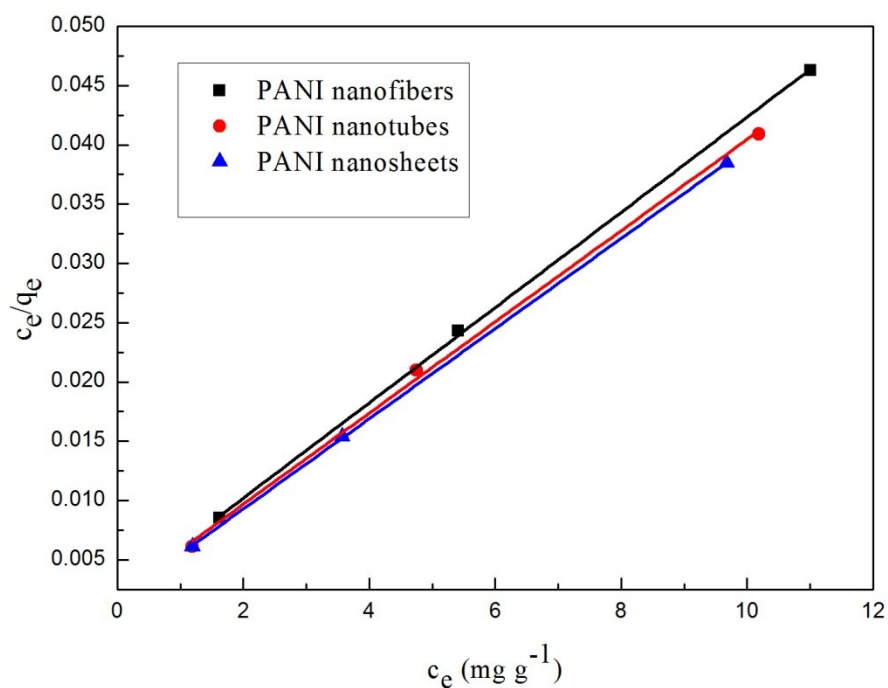


Fig.S4 Langmuir isotherms for Cr (VI) ion adsorption on three different morphologies of PANIs nanostructures

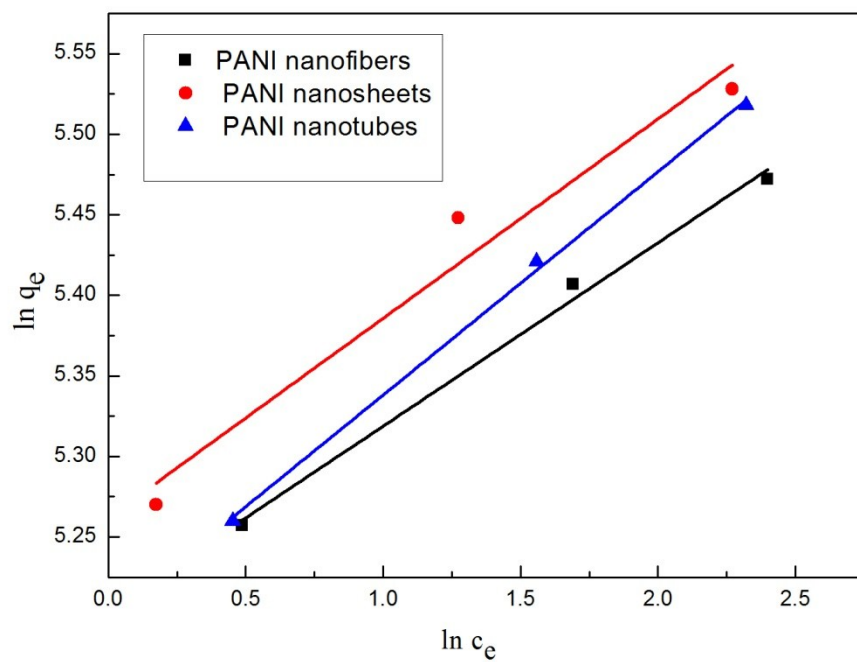


Fig.S5 Freundlich isotherms for Cr (VI) ion adsorption on three different morphologies of PANIs nanostructures