Electronic Supplementary Material (ESI) for RSC Advances. This journal is © The Royal Society of Chemistry 2014

## A table of contents entry

## PEI@SiO<sub>2</sub>: synthesis from diatomite and application for capturing phenolic compounds from aqueous solution

Zheng-Yong Chen, a Ya-Yuan Hea and Hong-Wen Gao\*a

PEl@SiO2

Abandon
the precipitation

Phenolic
compounds
centrifugal

PEl@SiO2-phenolic

The PEI@SiO $_2$  hybrid composite was synthesized for sorption of phenolic compounds.

5

## $PEI@SiO_2: synthesis \ from \ diatomite \ and \ application \ for \ capturing \ phenolic \ compounds \ from$

## aqueous solution

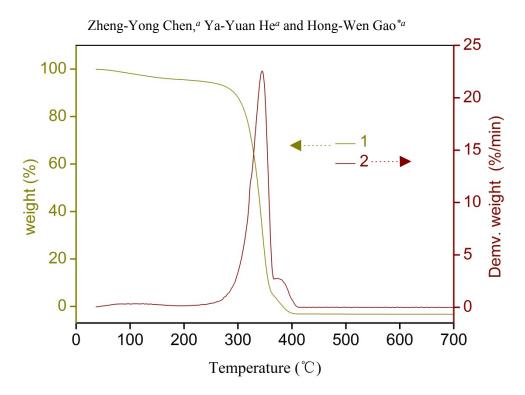


Fig. S1 DTA (1) and TGA of PEI (2)

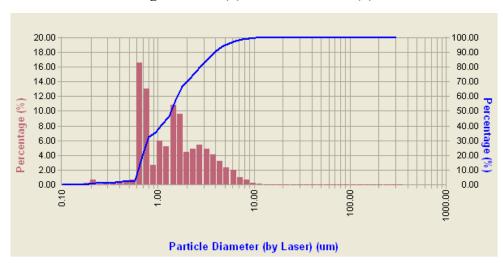
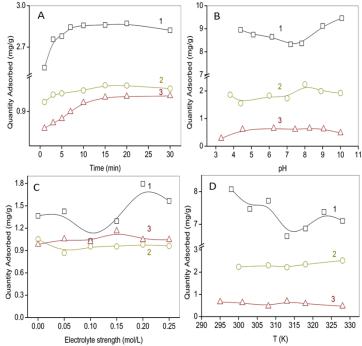


Fig. S2 Particle size distribution of the PEI@SiO<sub>2</sub>

5



**Fig. S3** A: the sorption curve of phenolic compounds (1- phenol, *o*-chlorophenol and 3- BPA) to the the PEI@SiO<sub>2</sub> at different times. **B**: the sorption curve of phenolic compounds (1- phenol, 2- o-5 chlorophenol and 3- BPA) to the the PEI@SiO<sub>2</sub> at different pH. **C**: the sorption curve of phenolic compounds (1- phenol, 2- o-chlorophenol and 3- BPA) to the the PEI@SiO<sub>2</sub> at different ionic strength. **D**: the sorption curve of phenolic compounds (1- phenol, 2- o-chlorophenol and 3- BPA) to the the PEI@SiO<sub>2</sub> at different temperature.