

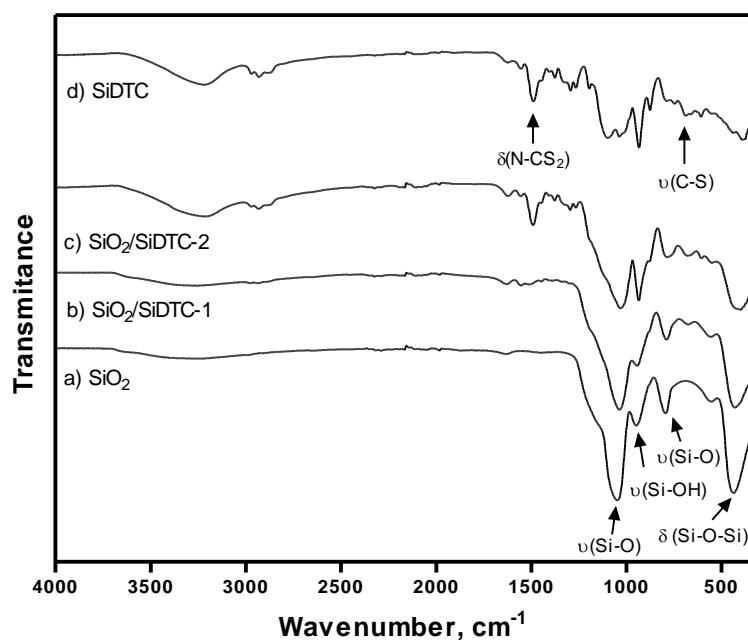
## Supporting Information

### Efficient sorbents based on magnetite coated with siliceous hybrid shells for removal of mercury ions

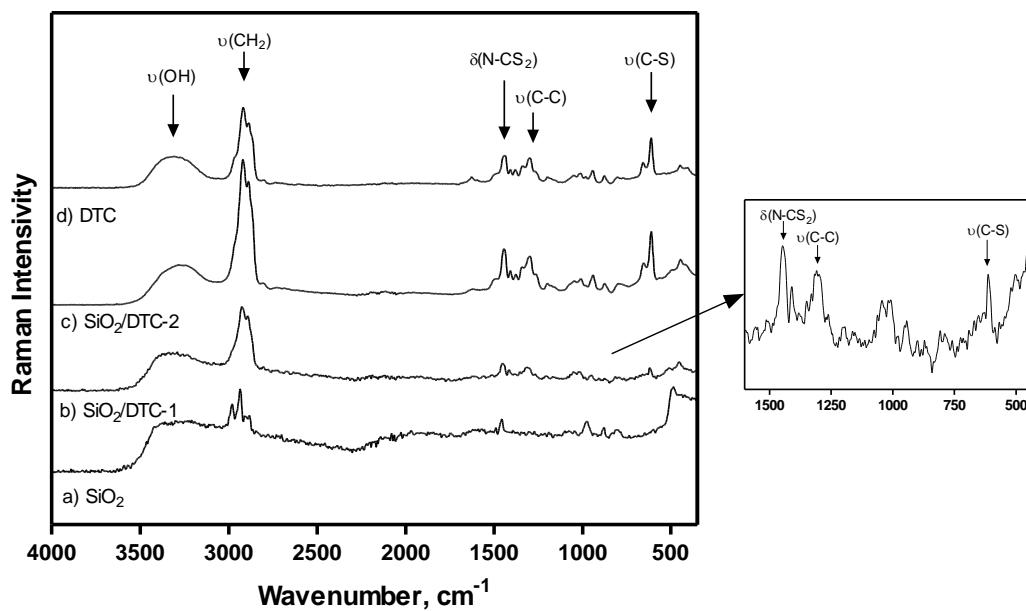
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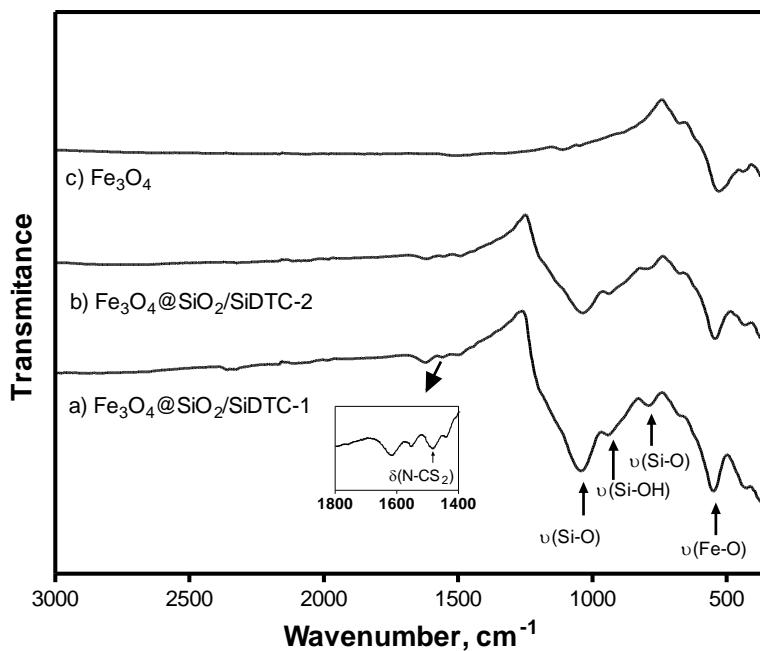
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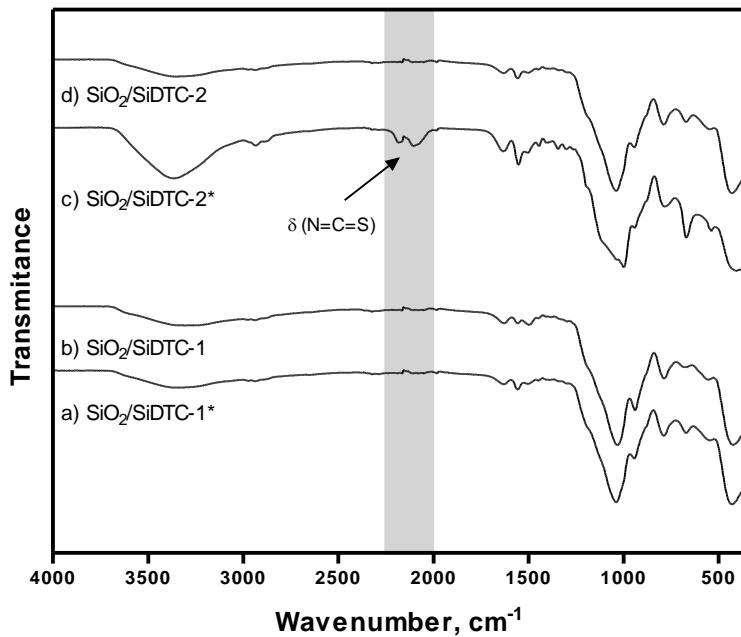
**Fig. 1S** ATR-FTIR spectra of the samples (a)  $\text{SiO}_2$ ; (b)  $\text{SiO}_2/\text{SiDTC-1}$ ; (c)  $\text{SiO}_2/\text{SiDTC-2}$  and d) SiDTC.



**Fig. 2S** Raman spectra for  $\text{SiO}_2$ ,  $\text{SiO}_2/\text{SiDTC-1}$  and  $\text{SiO}_2/\text{SiDTC-2}$  particles, and precursor SiDTC.



**Fig. 3S** ATR-FT-IR spectra of the samples (a)  $\text{Fe}_3\text{O}_4$ @ $\text{SiO}_2$ /SiDTC-1; (b)  $\text{Fe}_3\text{O}_4$ @ $\text{SiO}_2$ /SiDTC-2.



**Fig. 4S** ATR-FTIR spectra of the samples (a)  $\text{SiO}_2$ /SiDTC-1\* (after three months), (b)  $\text{SiO}_2$ /SiDTC-1, (c)  $\text{SiO}_2$ /SiDTC-2 \* (after three months) and (d)  $\text{SiO}_2$ /SiDTC-2.