

**Table S-1**

Specific surface area ( $a_s$ ), total pore volume ( $v_p$ ), and average pore diameter ( $r_p$ ) of pure  $\text{SiO}_2$ , MWCNTs modified  $\text{SiO}_2$  and Nbim functionalized MWCNTs/ $\text{SiO}_2$

Different particles	Parameters		
	$a_s$ ( $\text{m}^2 \text{ g}^{-1}$ )	$v_p$ ( $\text{cm}^3 \text{ g}^{-1}$ )	$r_p$ ( $\text{\AA}$ )
Pure $\text{SiO}_2$	544.8334	0.794891	47.768
Nbim modified $\text{SiO}_2$	366.0669	0.461915	42.858

**Table S-2**

optimum condition of extraction procedure of the developed method

optimum condition	Extraction material	Sample solution pH	Sample loading rate( $\text{mL min}^{-1}$ )	Eluent	Volume of eluent(mL)	Elution rate ( $\text{mL min}^{-1}$ )	Volume of sample loading (mL)
	Nbim-modified silica	4	1.5	1% CH <sub>3</sub> COOH-CH <sub>3</sub> OH(V:V)	1	0.5	30

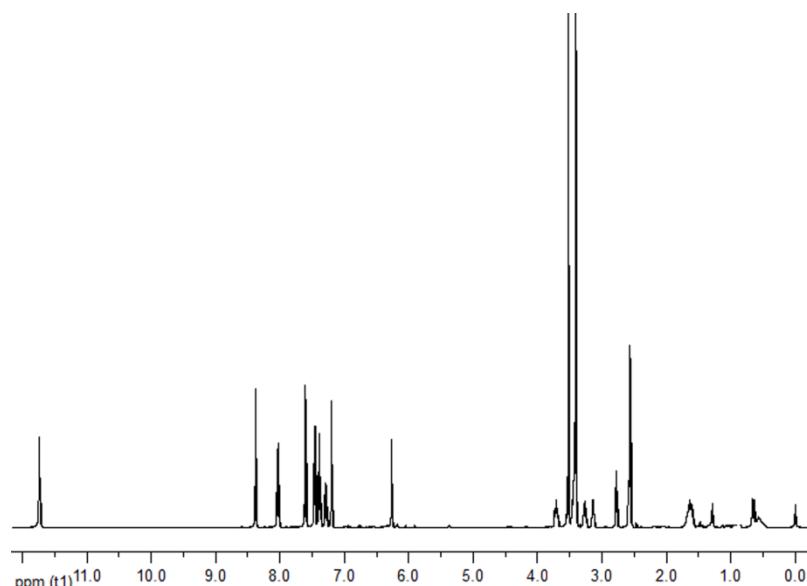


Fig. S-1 <sup>1</sup>H NMR spectrum of the product of the first step of Fig. 2(a)

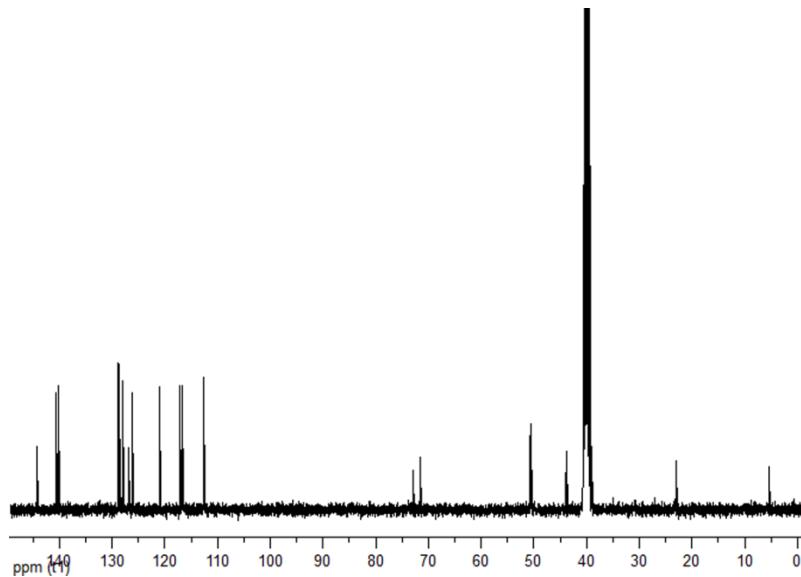


Fig. S-2  $^{13}\text{C}$  NMR spectrum of the product of the first step of Fig. 2(a)

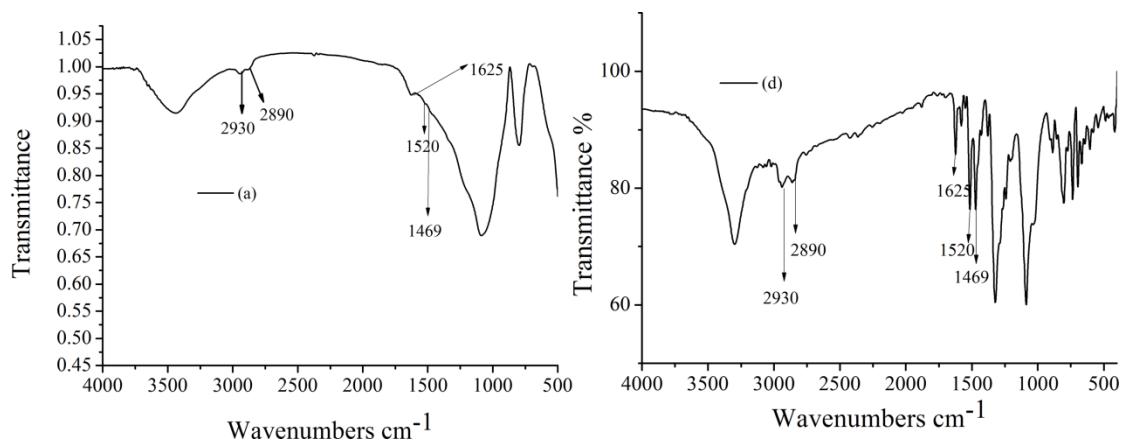


Fig. S-3 FT-IR of Nbim-modified silica (a), the product of the first step of fig. 2(a) (d).