

Electronic Supplementary Information (ESI)

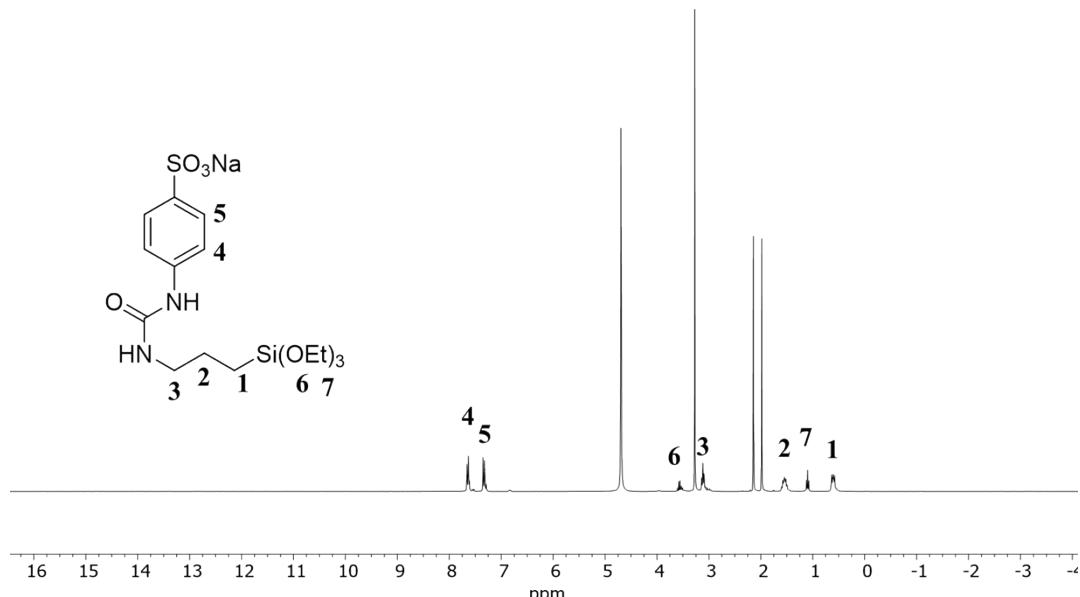
**Acid Properties of Organosiliceous Hybrid Materials Based on Pendant (Fluoro)Aryl-Sulfonic Groups through Spectroscopic Study with Probe Molecules**

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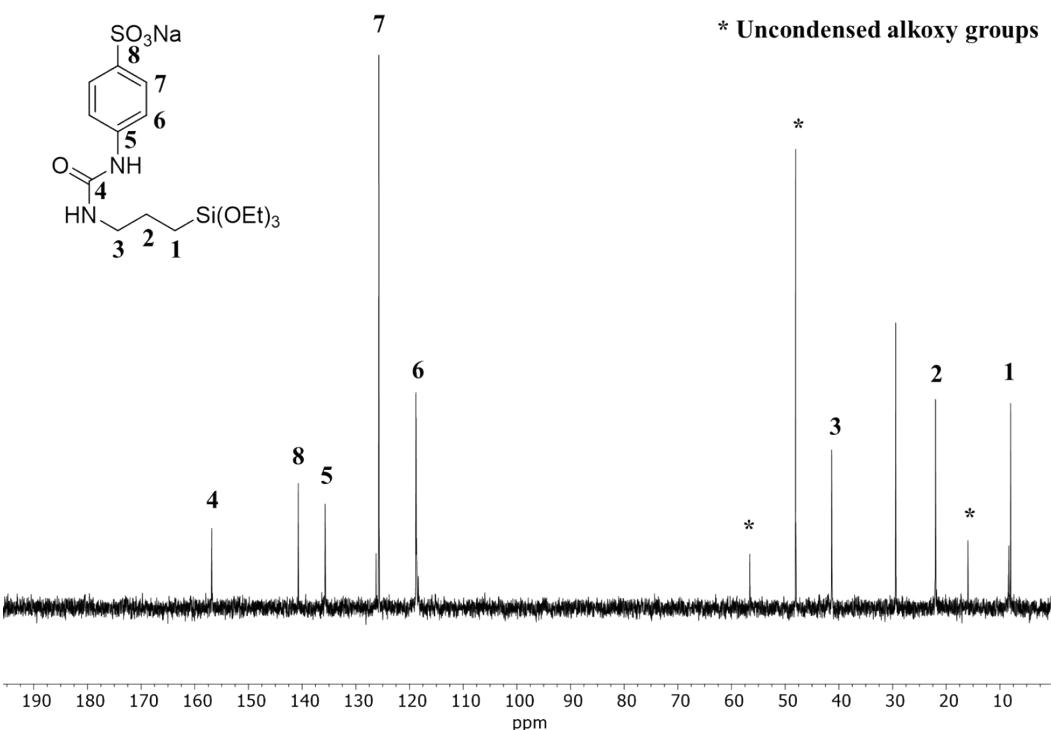
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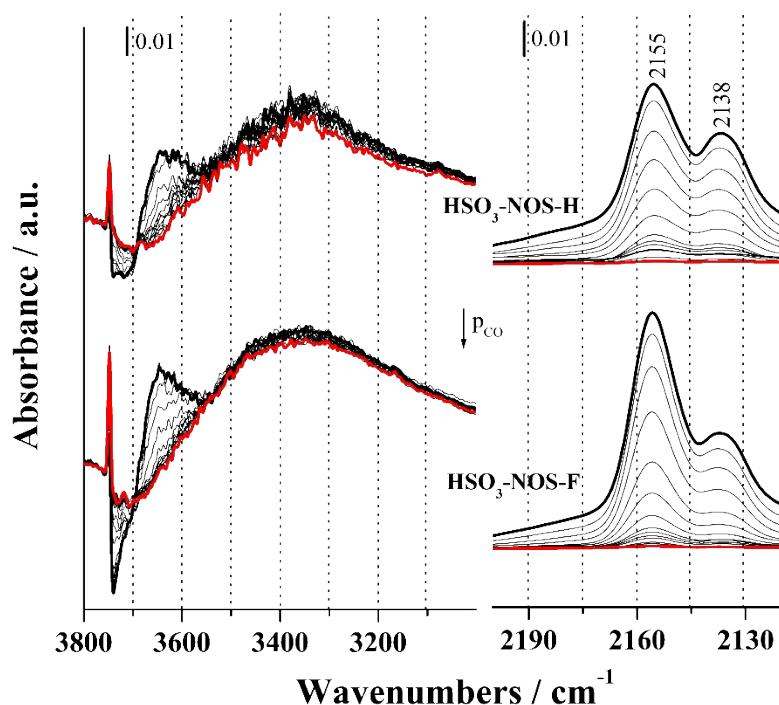
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**Figure S1.** <sup>1</sup>H NMR spectrum of compound 2



**Figure S2.**  $^{13}\text{C}$  NMR spectrum of compound 2



**Figure S3.** FTIR difference spectra in the OH (left panel) and CO (right panel) stretching region of CO adsorption at 80 K on HSO<sub>3</sub>-NOS-H and HSO<sub>3</sub>-NOS-F.