

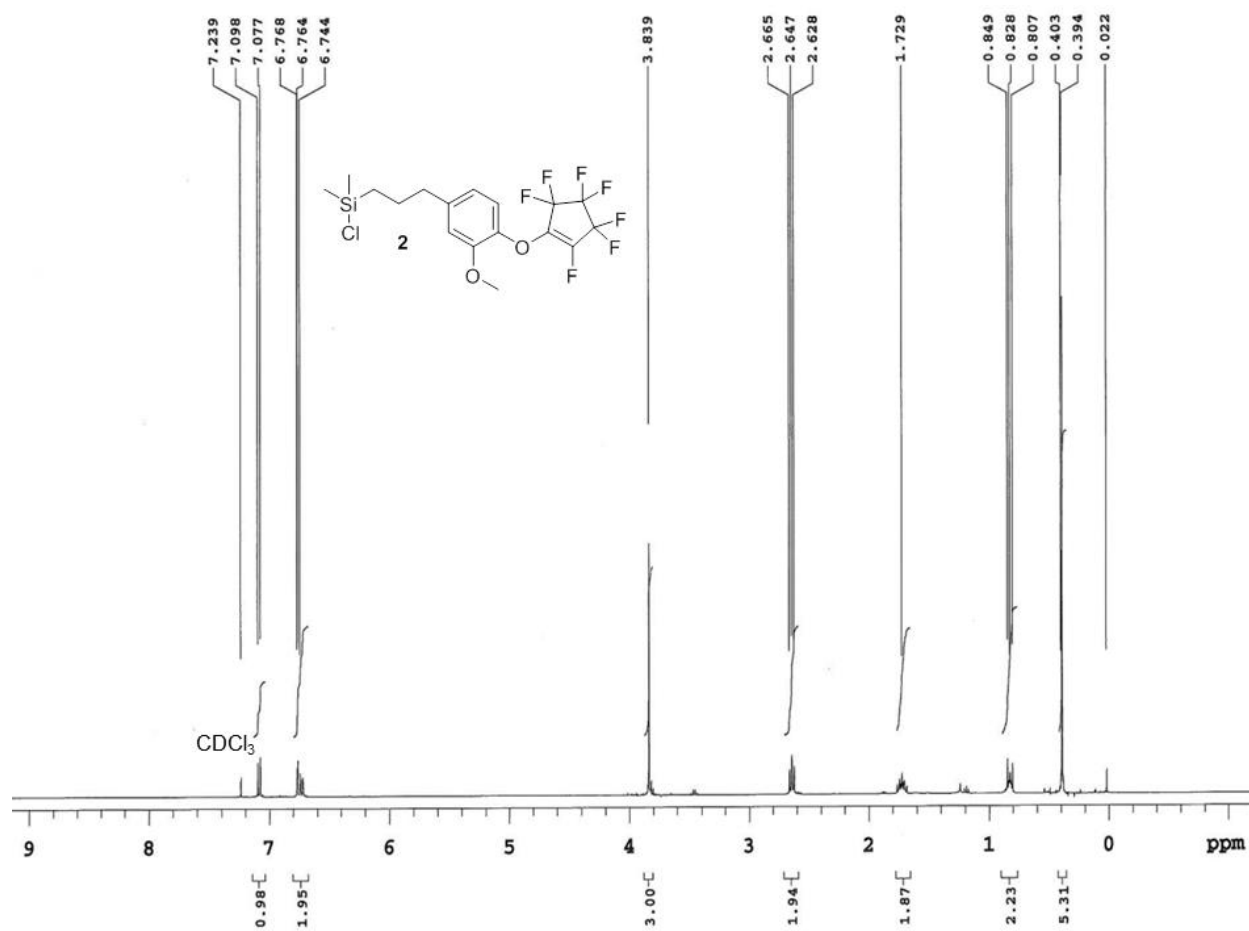
## SUPPORTING INFORMATION

# Synthesis of Fluorinated Silica Nanoparticles Containing Latent Reactive Groups for Post- synthetic Modification and for Tunable Surface Energy

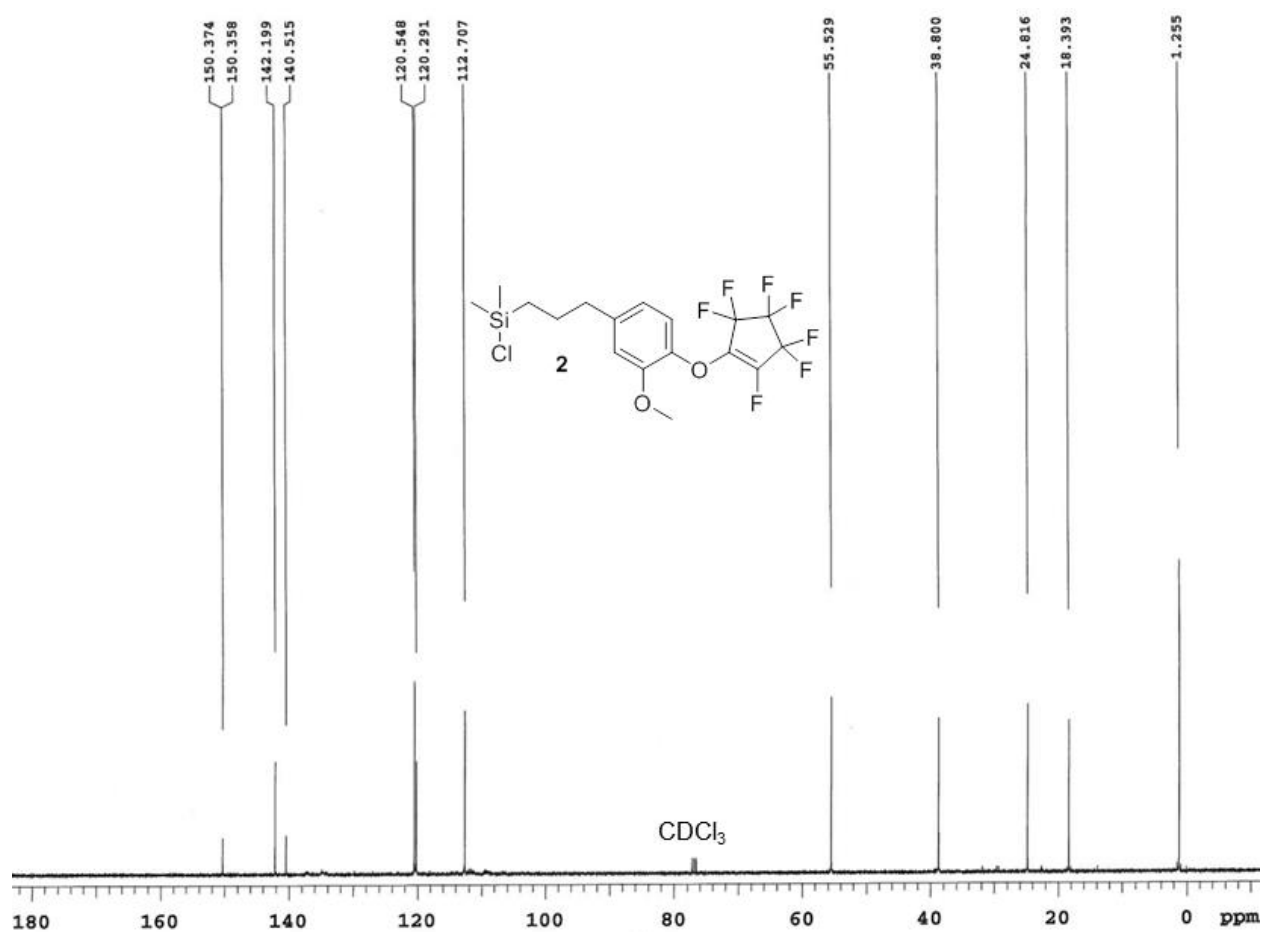
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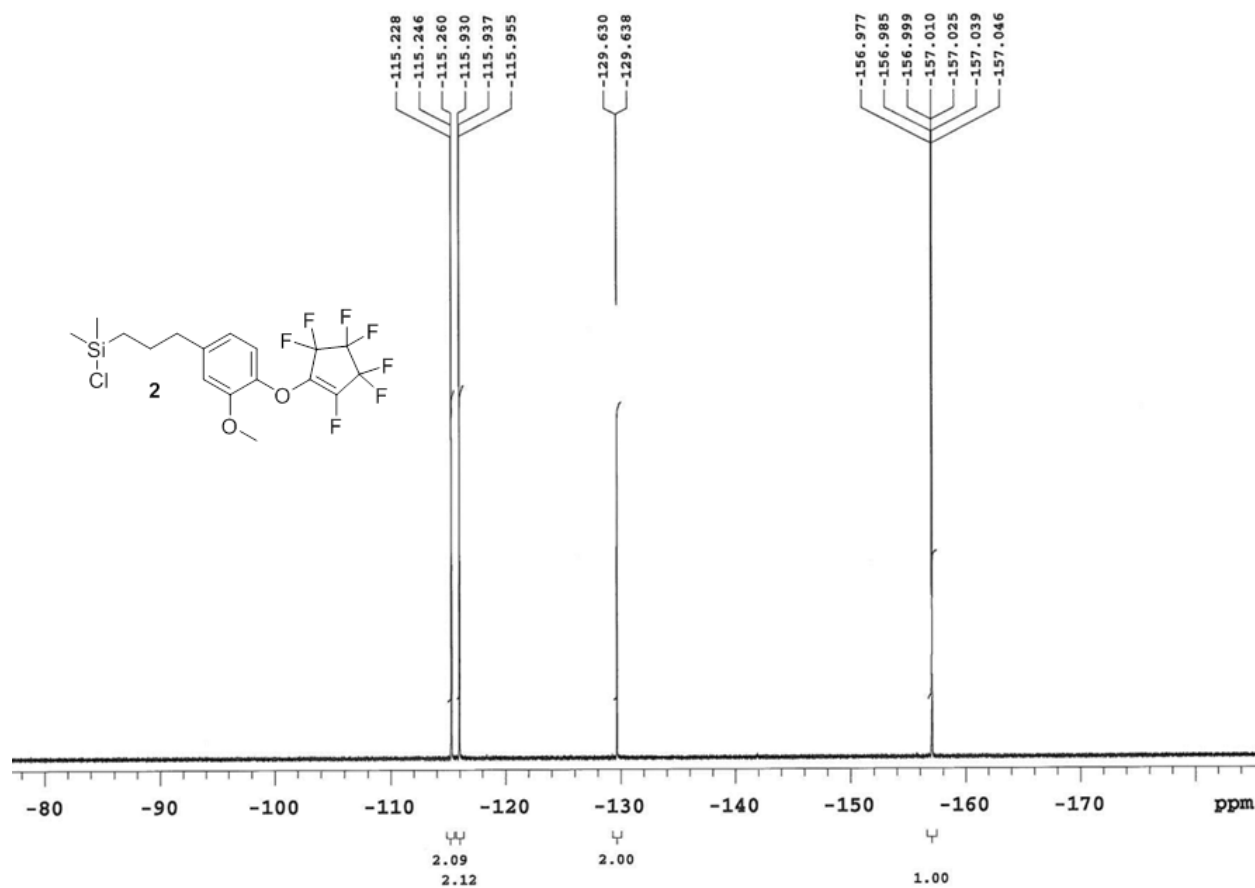
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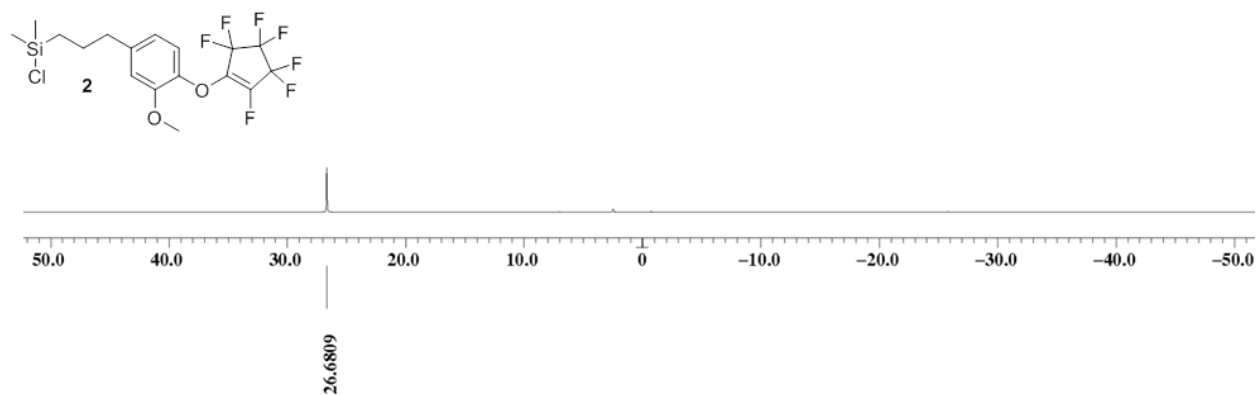
**Figure S1.**  $^1\text{H}$  NMR Spectrum (400 MHz,  $\text{CDCl}_3$ ) of **2**.



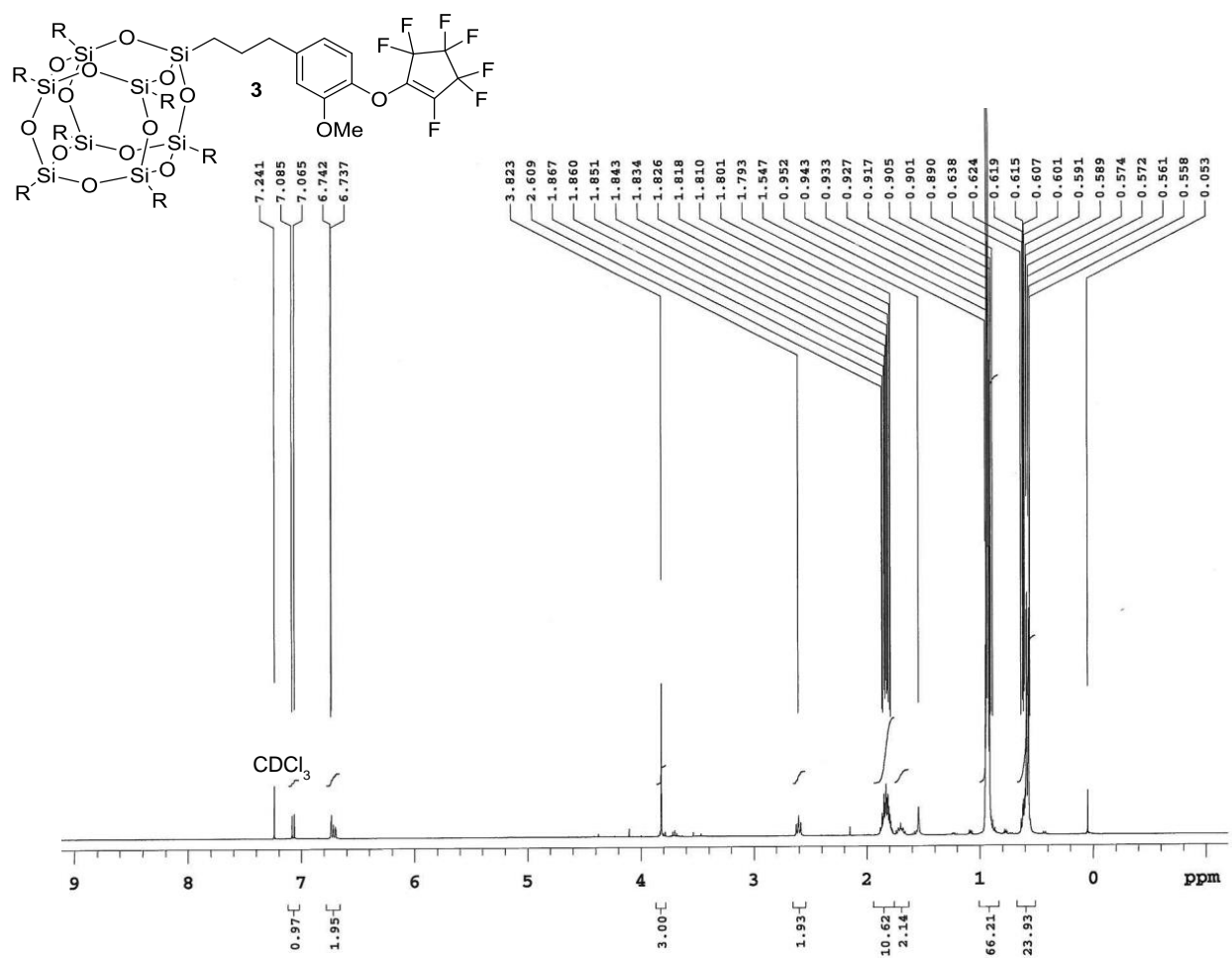
**Figure S2.**  $^{13}\text{C}$  NMR (100 MHz,  $\text{CDCl}_3$ ) of **2**.



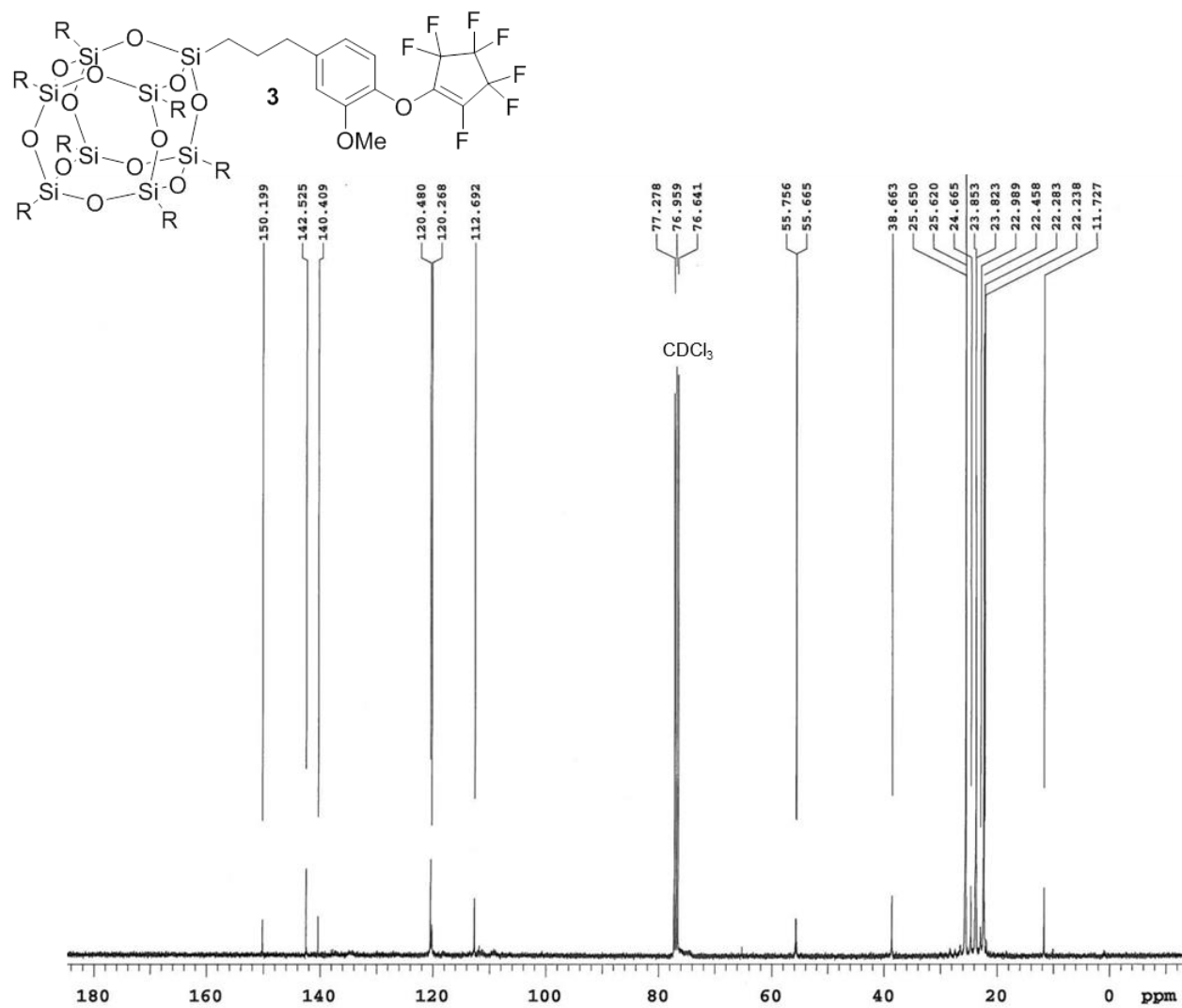
**Figure S3.** <sup>19</sup>F NMR Spectrum (376 MHz, CDCl<sub>3</sub>) of **2**.



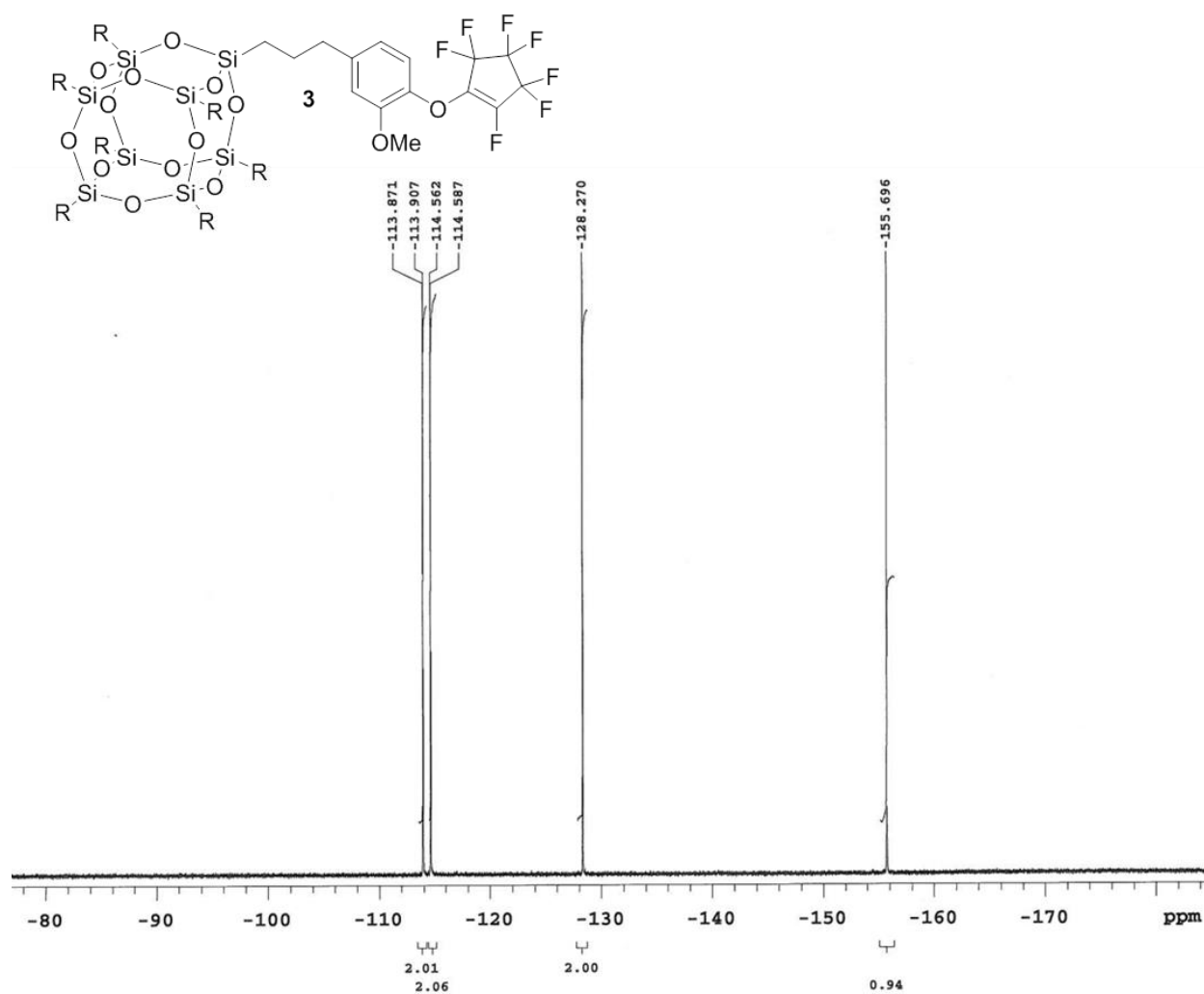
**Figure S4.** <sup>29</sup>Si NMR Spectrum (CDCl<sub>3</sub>, 99 MHz) of **2**.



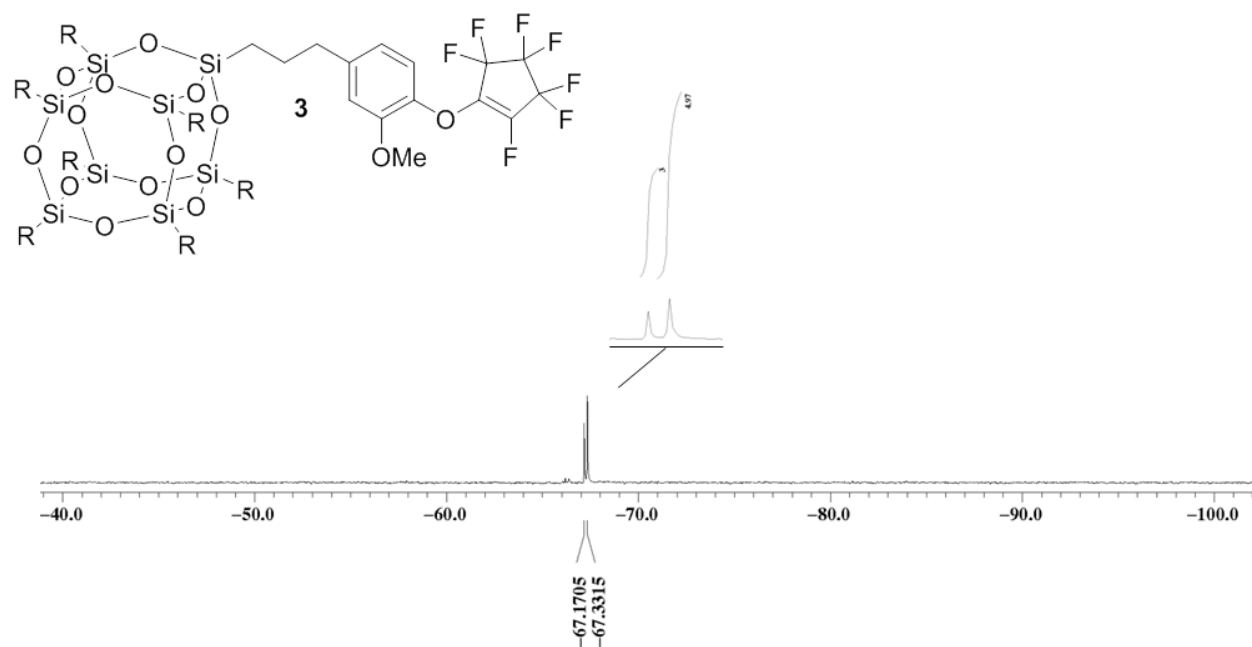
**Figure S5.**  $^1\text{H}$  NMR Spectrum (400 MHz,  $\text{CDCl}_3$ ) of **3**.



**Figure S6.**  $^{13}\text{C}$  NMR Spectrum (100 MHz,  $\text{CDCl}_3$ ) of **3**.

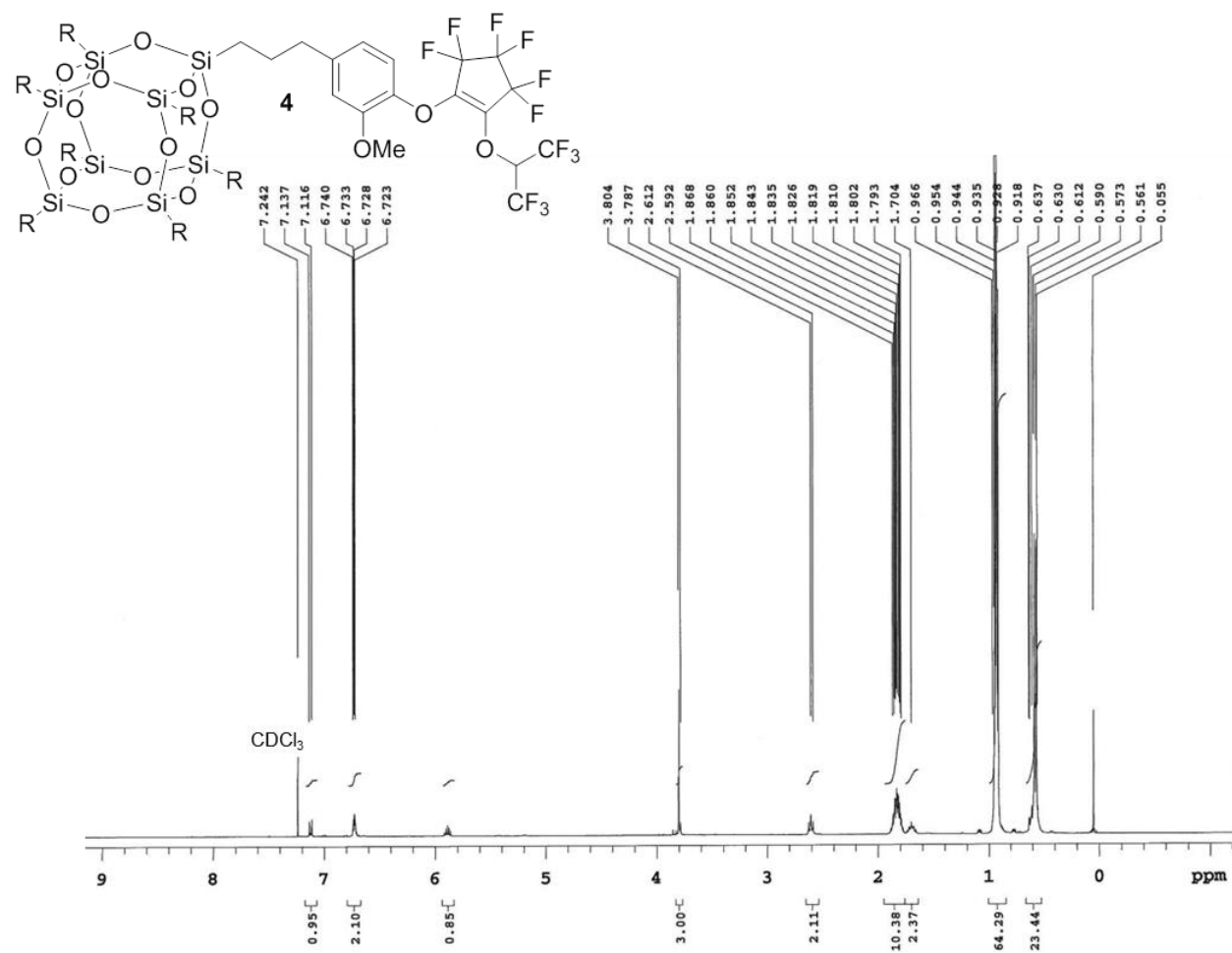


**Figure S7.**  $^{19}\text{F}$  NMR Spectrum (376 MHz,  $\text{CDCl}_3$ ) of **3**.

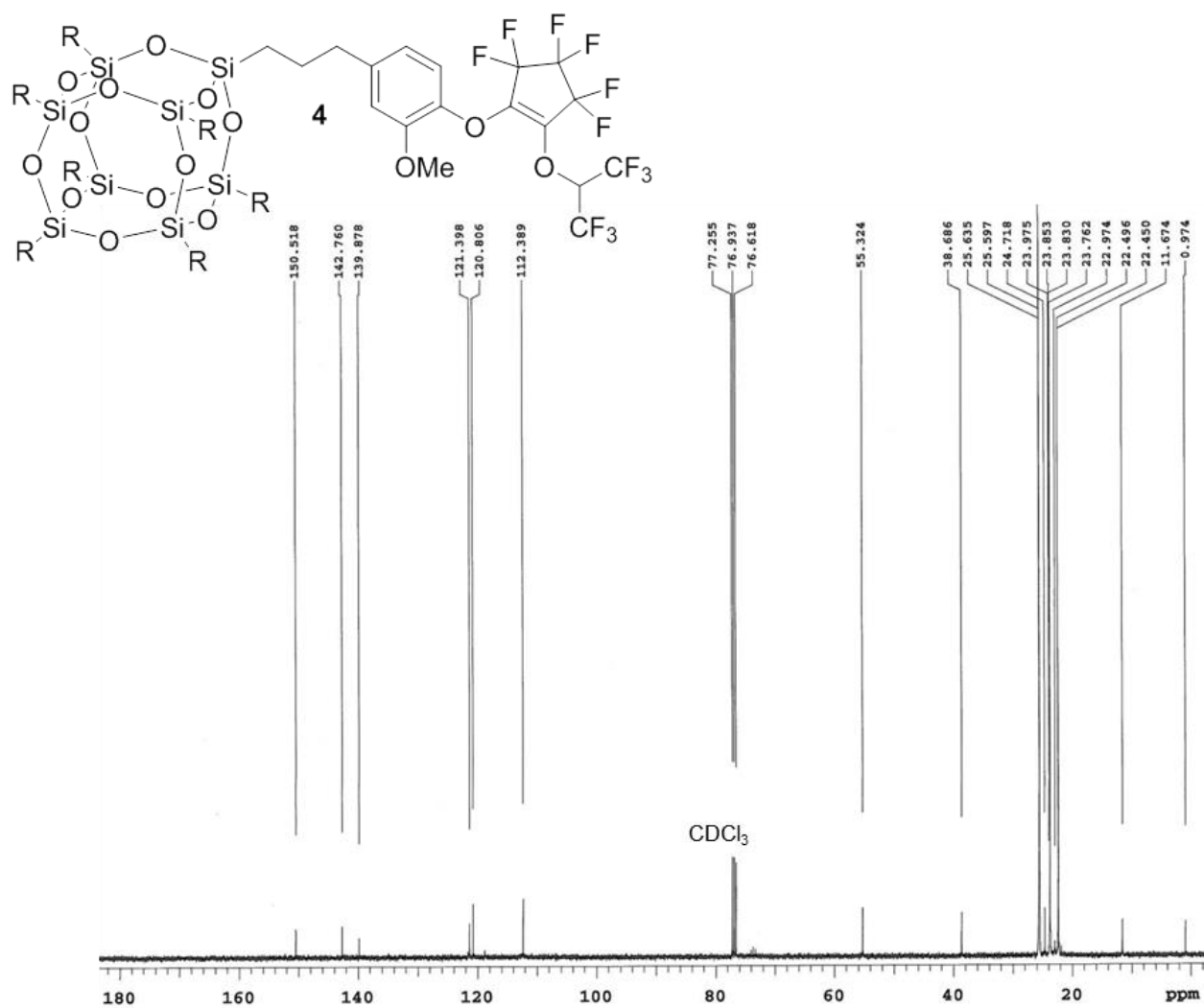


**Figure S8.**  $^{29}\text{Si}$  NMR Spectrum (CDCl<sub>3</sub>, 99 MHz) of **3**.

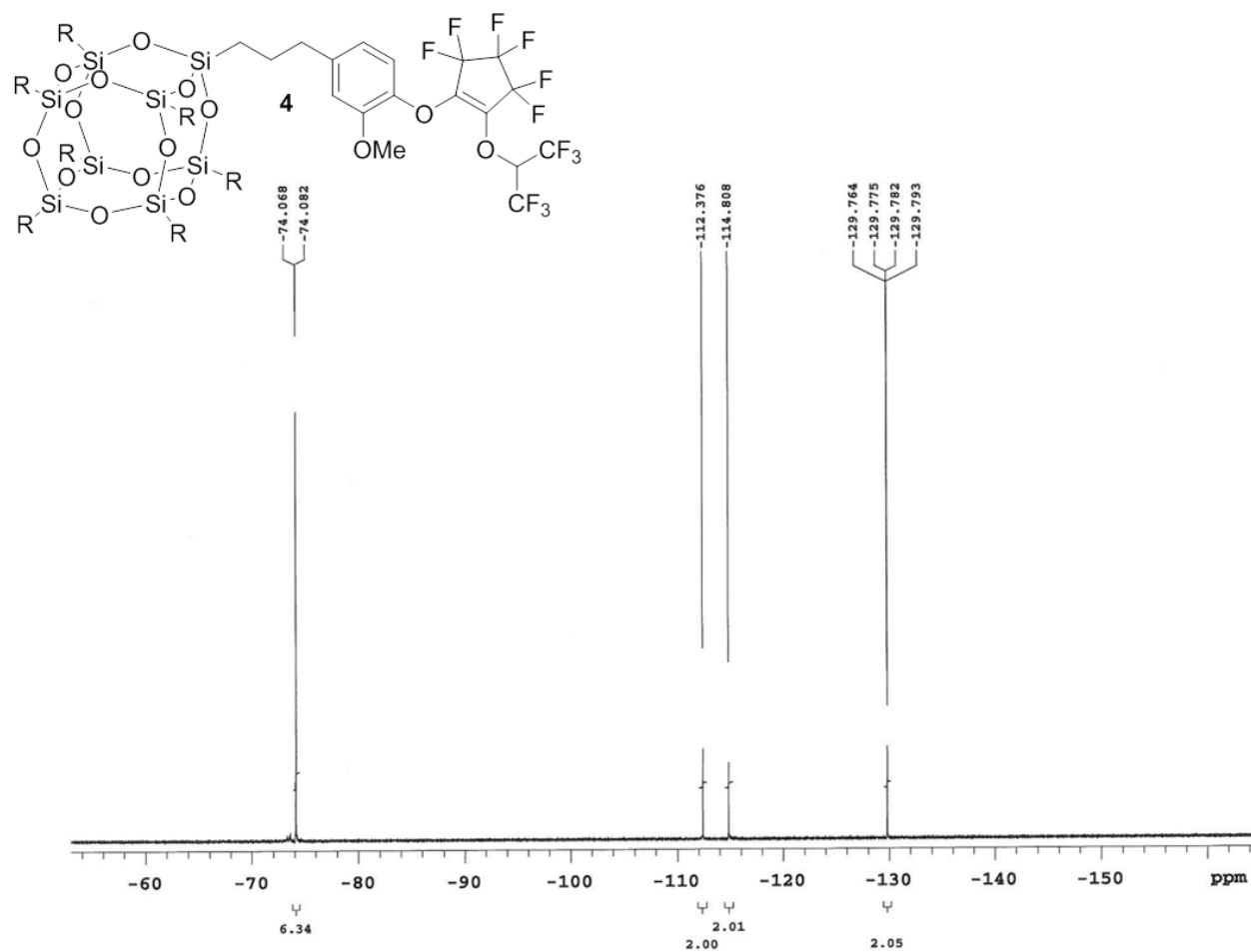




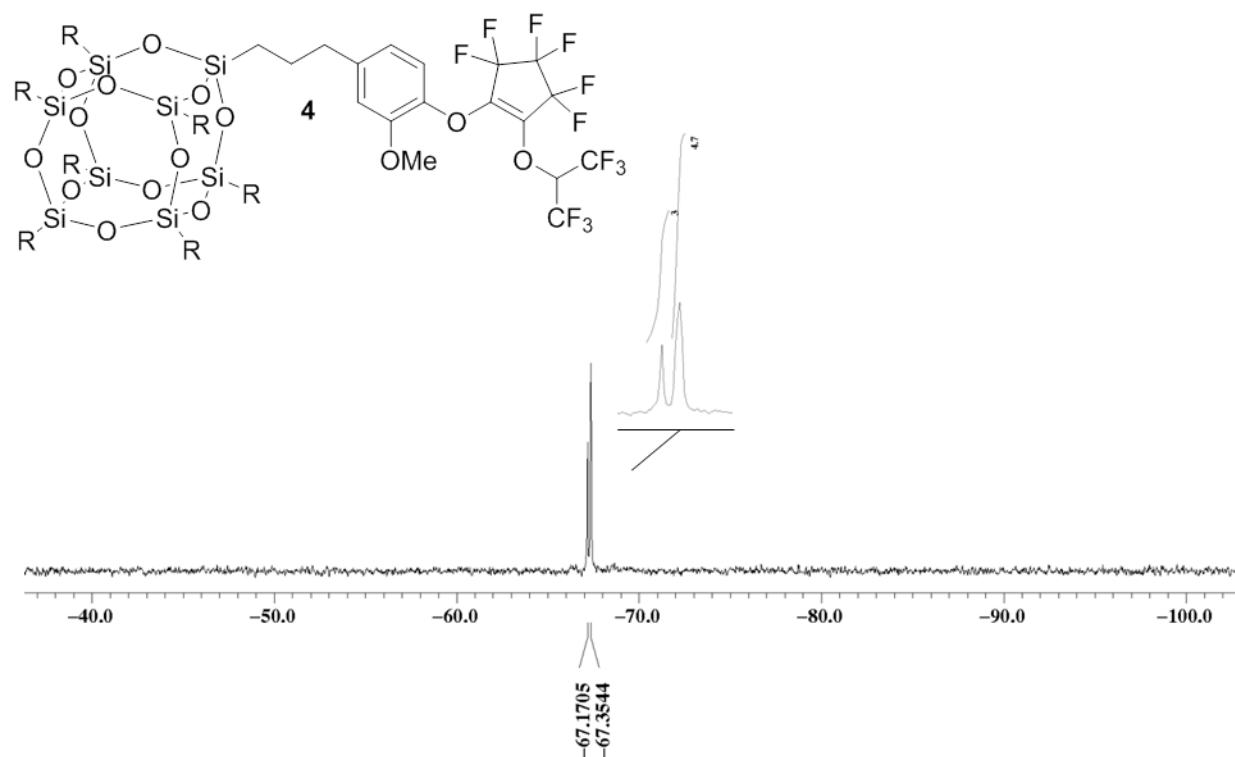
**Figure S9.**  $^1\text{H}$  NMR Spectrum (400 MHz,  $\text{CDCl}_3$ ) of **4**.



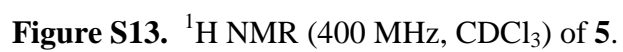
**Figure S10.** <sup>13</sup>C NMR Spectrum (100 MHz, CDCl<sub>3</sub>) of **4**.



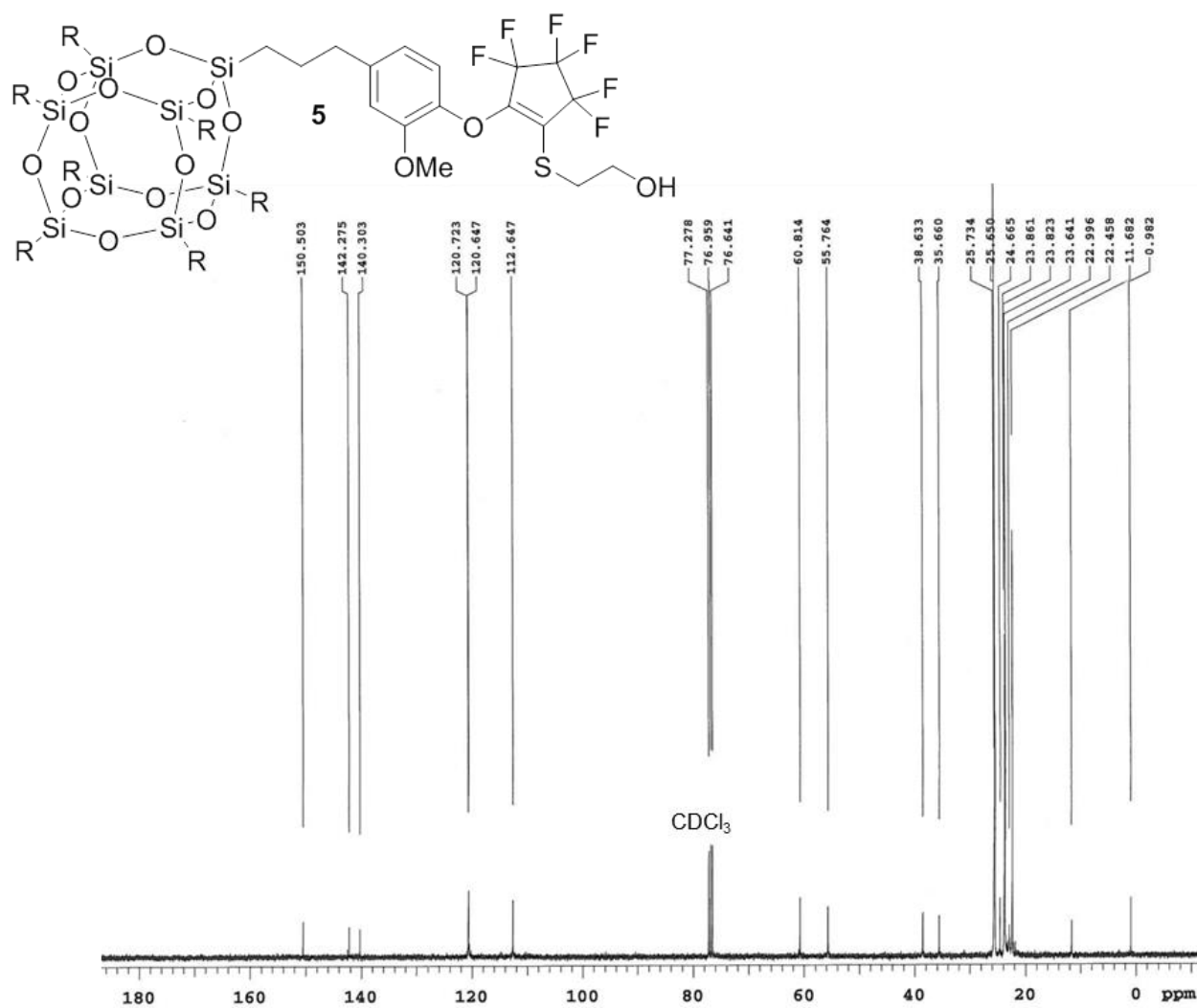
**Figure S11.**  $^{19}\text{F}$  NMR Spectrum (376 MHz,  $\text{CDCl}_3$ ) of **4**.



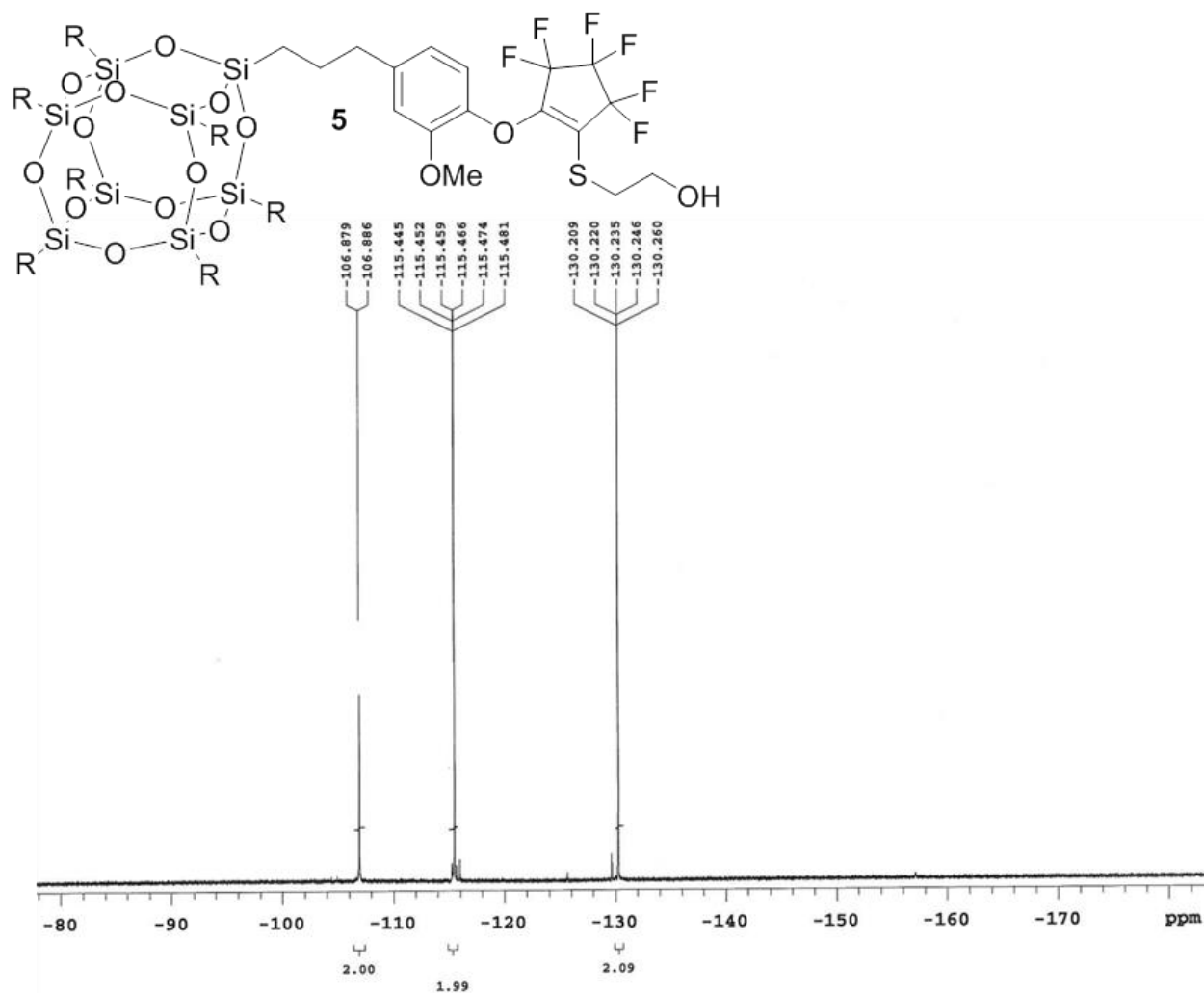
**Figure S 12.**  $^{29}\text{Si}$  NMR Spectrum (CDCl<sub>3</sub>, 99 MHz) of **4**.



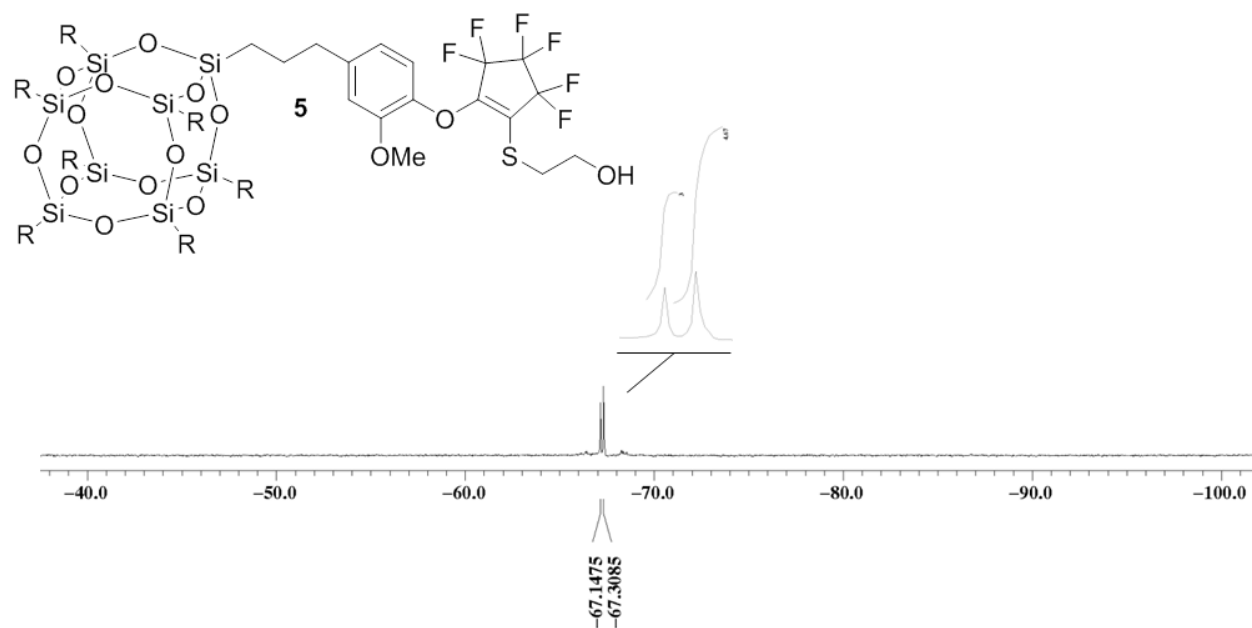
**Figure S13.**  $^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ ) of **5**.



**Figure S14.**  $^{13}\text{C}$  NMR Spectrum (100 MHz,  $\text{CDCl}_3$ ) of **5**.

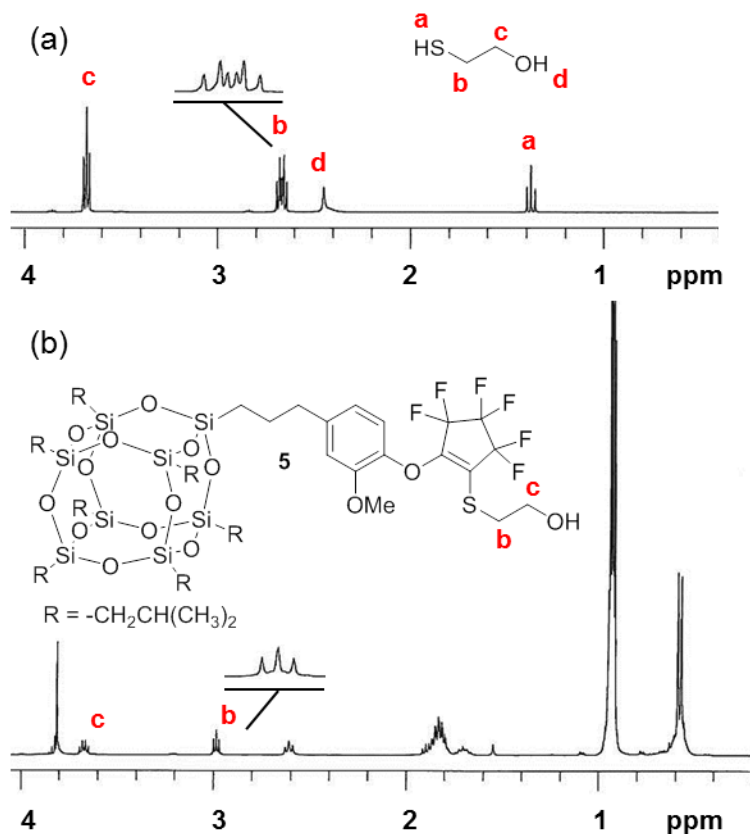


**Figure S15.**  $^{19}\text{F}$  NMR Spectrum (376 MHz,  $\text{CDCl}_3$ ) of **5**.

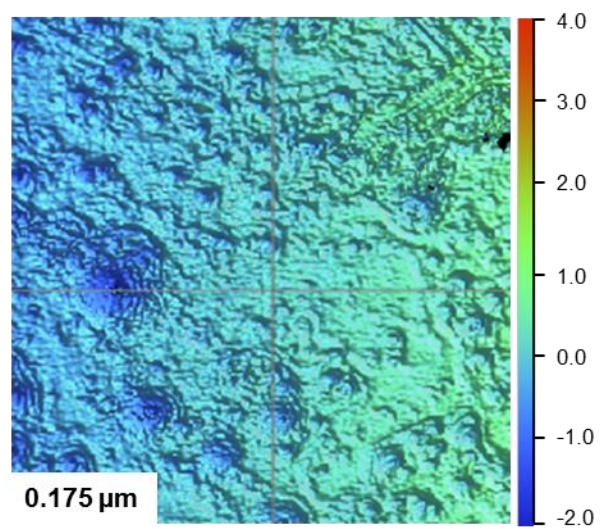


**Figure S16.**  $^{29}\text{Si}$  NMR Spectrum (CDCl<sub>3</sub>, 99 MHz) of **5**.





**Figure S17.**  $^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ ) of (a) 2-ME and (b) **5**. The nucleophilic addition of the thiol group results in the loss of the triplet; signal **a**, Figure S17 (a). Furthermore, the doublet of triplets; signal **b**, Figure S17 (a), transforms into a triplet as the result of the loss of the  $\text{-SH}$  group.



**Figure S18.** Profilometer image of the Stöber particles. Image size is 600x600 μm, with μm scale bar. The RMS roughness is shown in the inset.