Supporting Information

Acid-Responsive Organogel Mediated by Arene-Perfluoroarene and Hydrogen Bonding Interactions

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1. Corey-Pauling-Koltun (CPK) Modeling of Imine 1

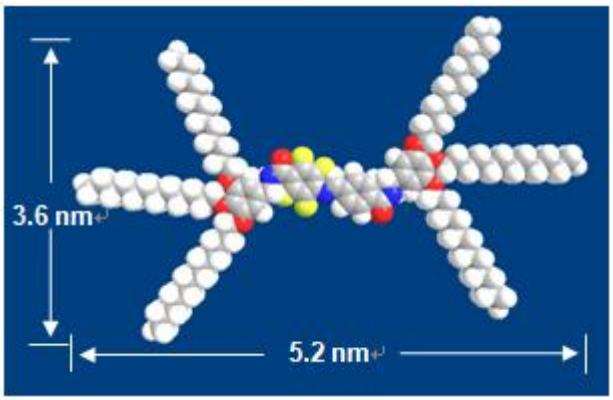


Figure S1. Corey-Pauling-Koltun (CPK) modeling of imine **1**. Molecular length = 5.2 nm and molecular width = 3.6 nm when the six *n*-dodecyl chains on benzylamine unit were extended.

2. ^{1}H NMR Dilution Study of Imine 1 in $CDCl_3$.

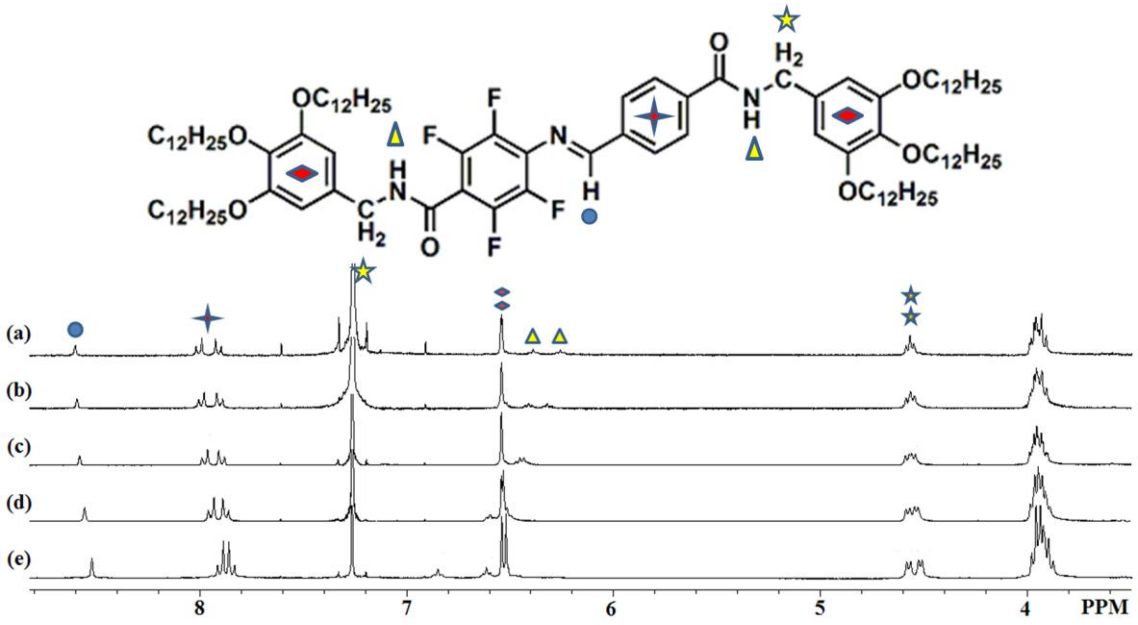


Figure S2. Partial ^{1}H NMR spectra of imine **1** in $CDCl_3$ at (a) 2.0×10^{-3} M; (b) 3.2×10^{-3} M; (c) 5.9×10^{-3} M; (d) 1.4×10^{-2} M; (e) 2.7×10^{-2} M.

3. ^{1}H NMR Dilution Study of 1:1 mixture of 3 and 4 in $CDCl_3$.

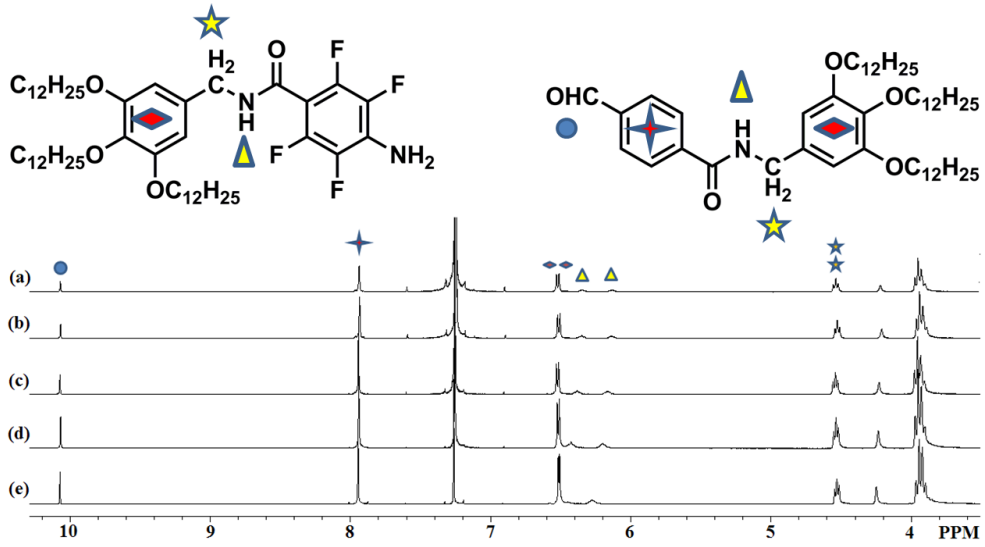


Figure S3. Partial ^{1}H NMR spectra of 1: 1 **3** and **4** in $CDCl_3$ at (a) 1.4×10^{-3} M; (b) 2.8×10^{-3} M; (c) 5.8×10^{-3} M; (d) 1.4×10^{-2} M; (e) 2.7×10^{-2} M.

4. Photos of Gels in Different Organic Solvents

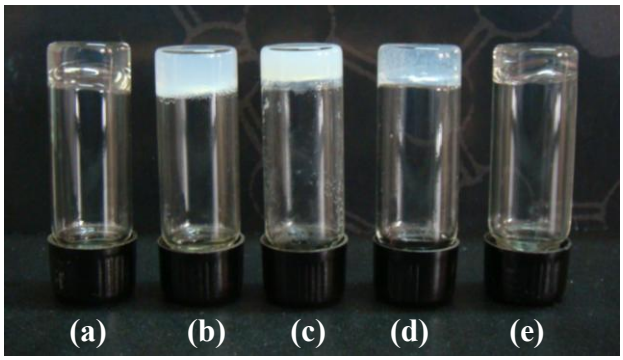


Figure S4. Photos of gels formed by imine **1** in (a) ethyl acetate/*n*-hexane (1/3, v/v) (5 g/L), (b) ethyl acetate (10 g/L), (c) 1,4-dioxane (10 g/L), (d) 1,4-dioxane/*n*-dodecane (1/3, v/v) (1/3, v/v) (5 g/L), (e) *n*-hexane (2 g/L).

5. ^{1}H NMR Monitoring Hydrolysis of Imine 1 Catalyzed by *p*-$MeC_6H_4SO_3H$

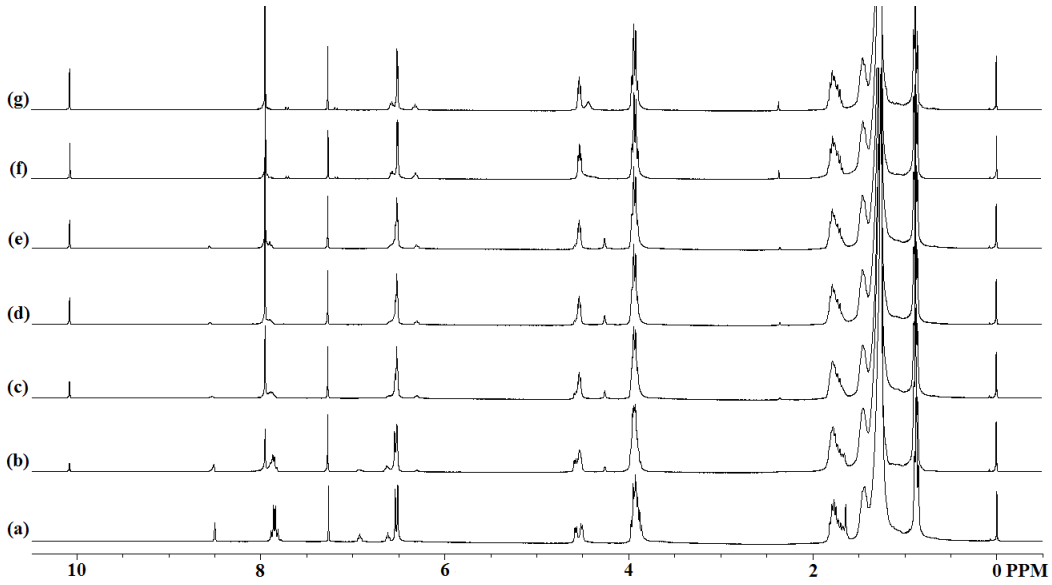


Figure S5. Hydrolysis of imine **1** in $CDCl_3$ (26.3×10^{-6} mol/mL) catalyzed by *p*-$MeC_6H_4SO_3H$ (<0.1 mg) was monitored by ^{1}H NMR at (a) 0 min; (b) 14 min; (c) 22 min; (d) 28 min; (e) 35 min; (f) 46 min; (g) 50 min.

6. Scanning Electron Microscopy (SEM) Image of 1:1 mixture of 3 and 4

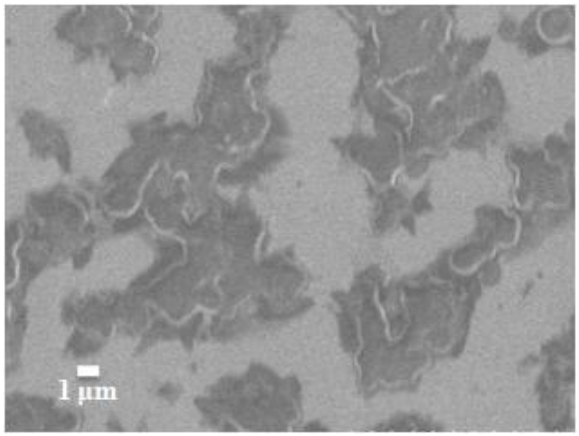
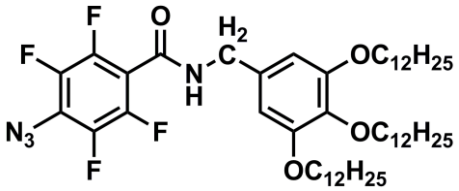


Figure S6. A 1:1 mixture of **3** and **4** in EA/*n*-hexane (1/3, v/v) solution with [**3**] = [**4**] = 8×10^{-3} mol/L was subjected to SEM test after the sample was dried. SEM image revealed that no fibrous aggregate was formed.

7. NMR Spectra of New Compounds



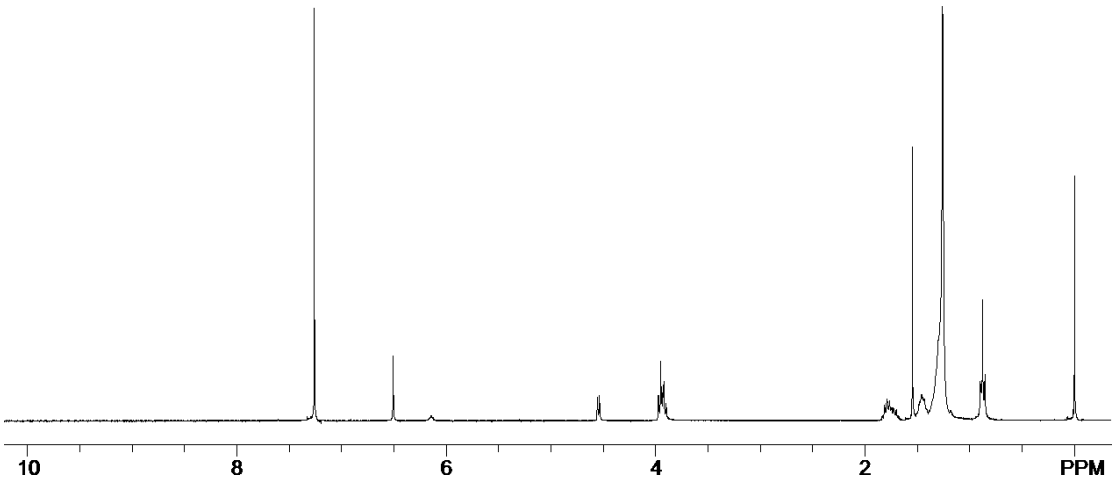


Figure S7. ^{1}H NMR spectrum of **2**

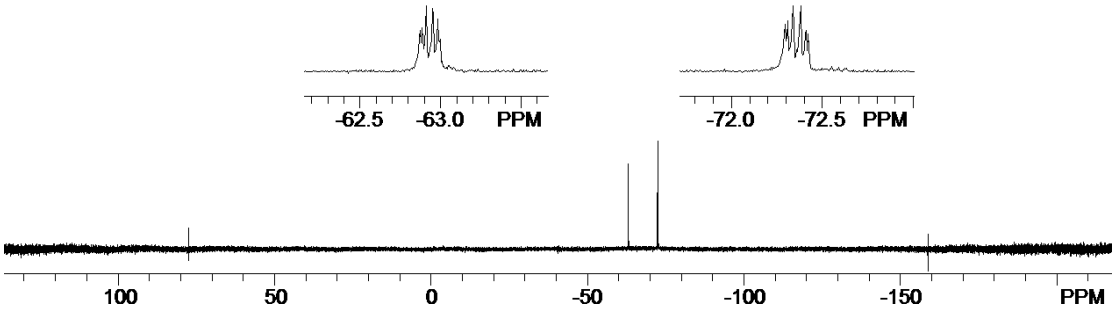


Figure S8. ^{19}F NMR spectrum of **2** (insert shows the enlarged ^{19}F signals)

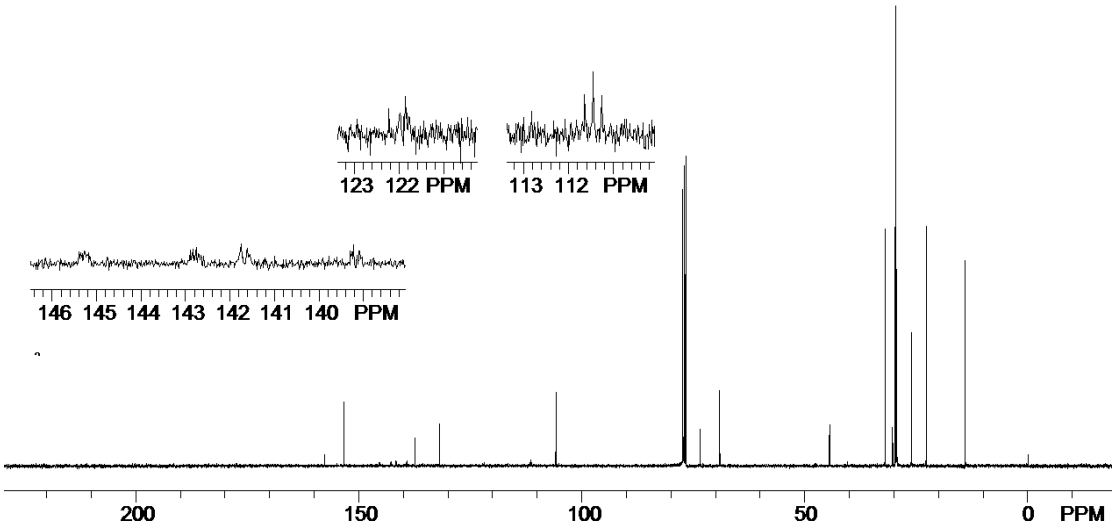


Figure S9. ^{13}C NMR spectrum of **2** (insert shows signals generated from fluorinated carbons)

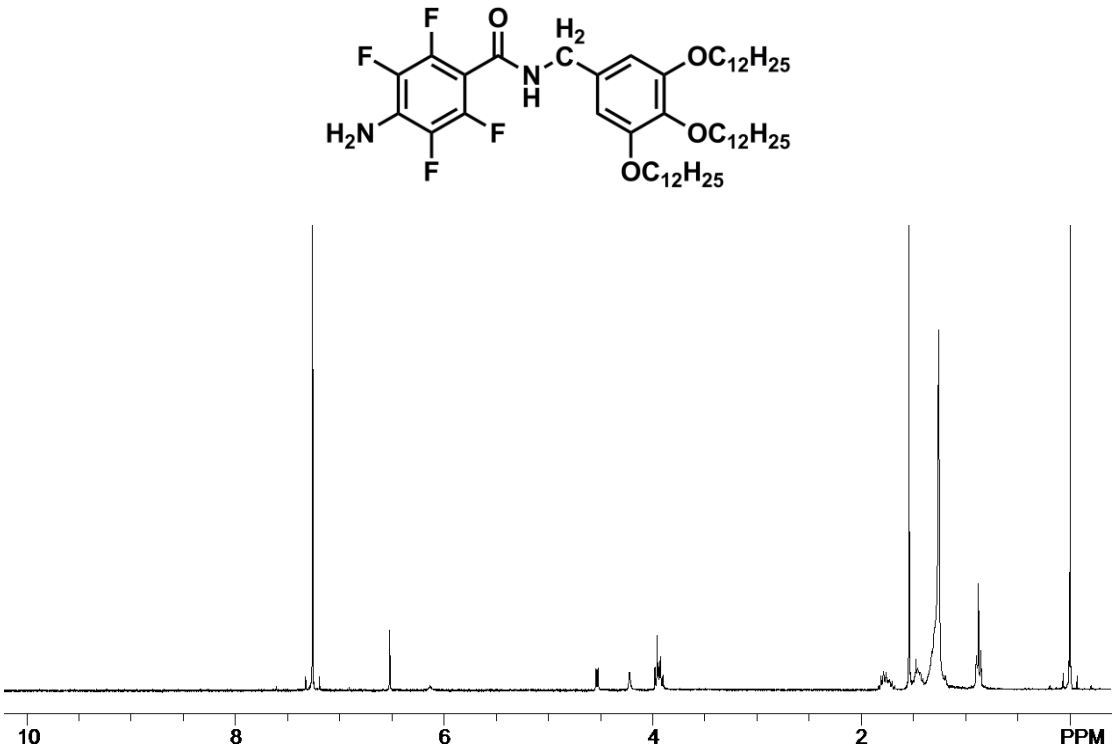


Figure S10. ^{1}H NMR spectrum of **3**

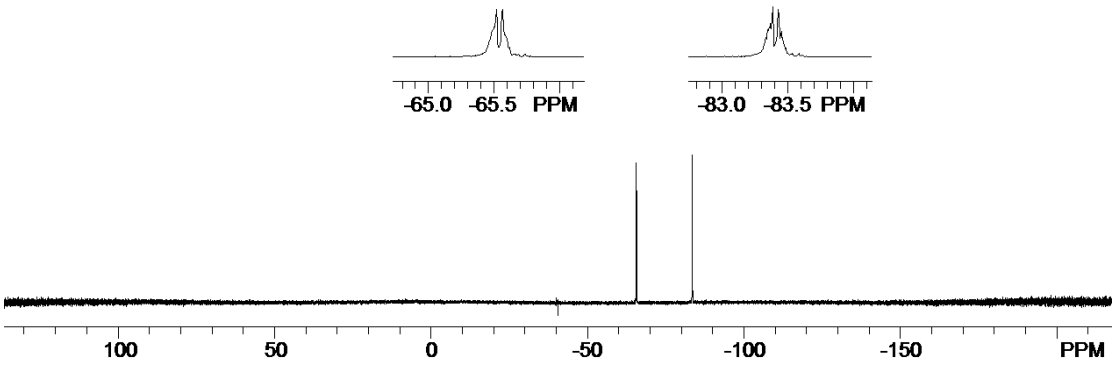


Figure S11. ^{19}F NMR spectrum of **3** (insert shows the enlarged ^{19}F signals)

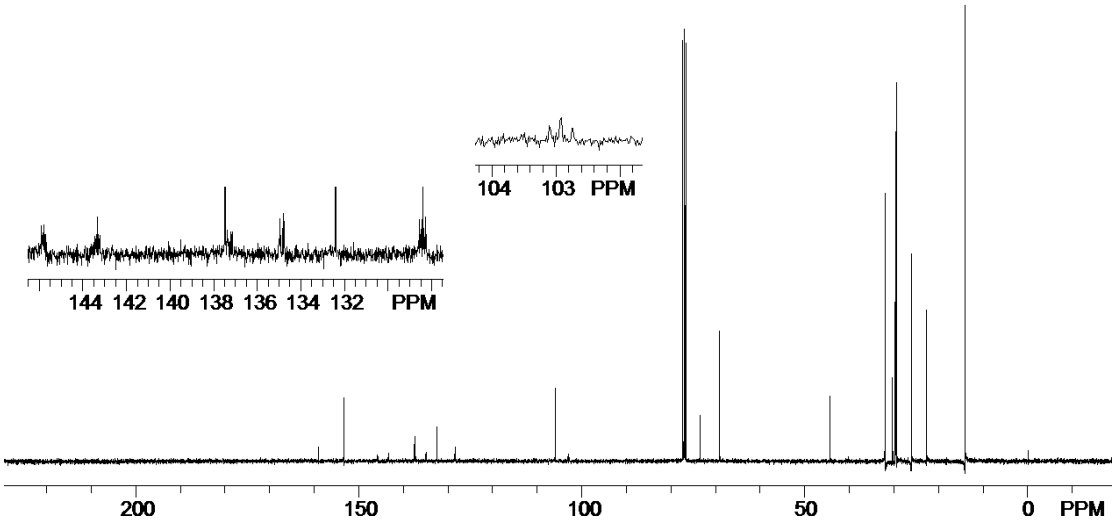


Figure S12. ^{13}C NMR spectrum of **3** (insert shows signals generated from fluorinated carbons)

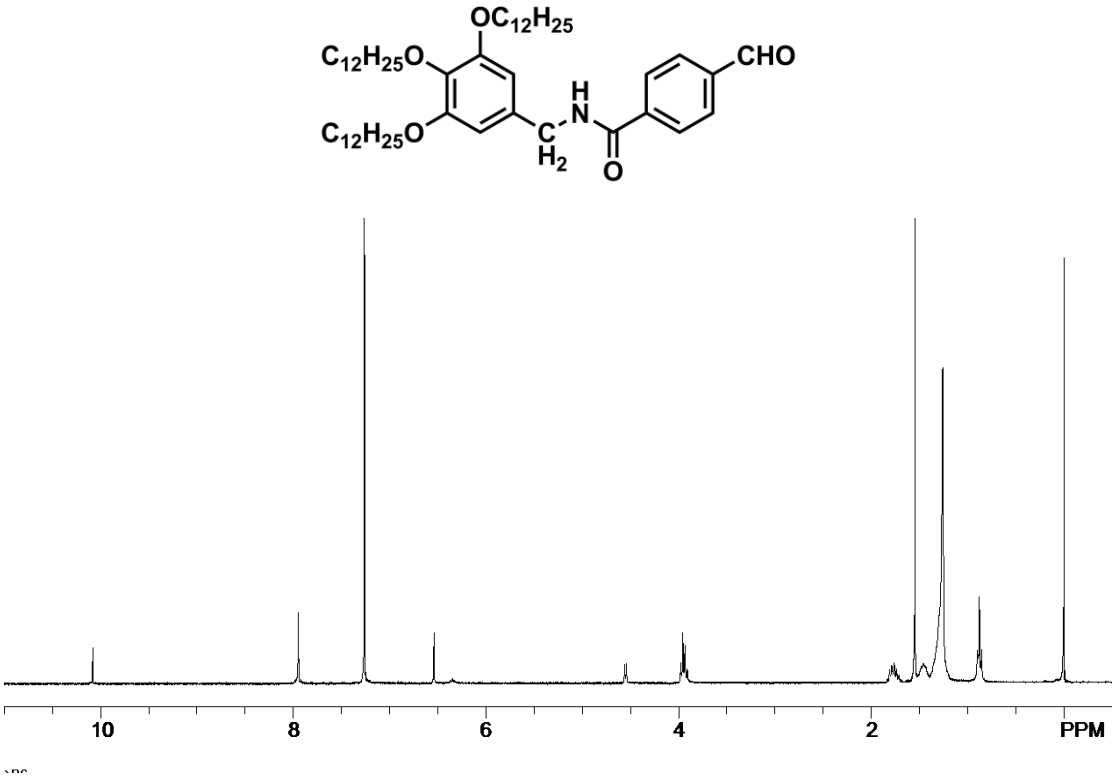


Figure S13. ^{1}H NMR spectrum of **4**

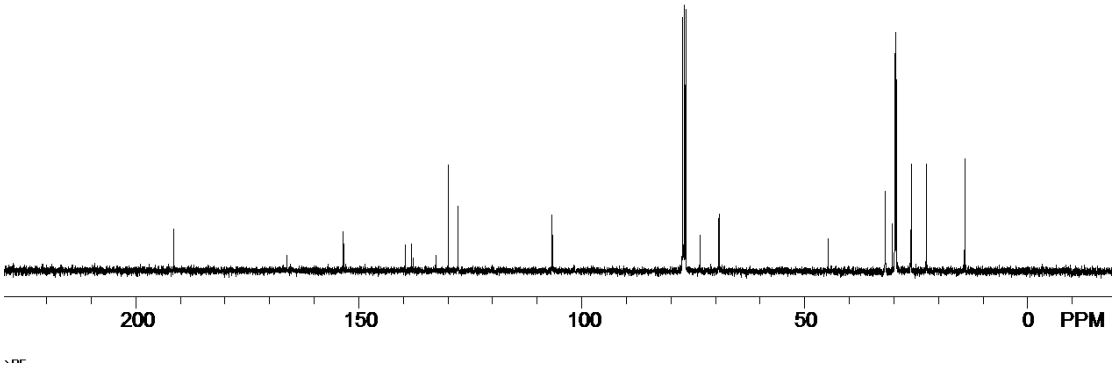


Figure S14. ^{13}C NMR spectrum of **4**

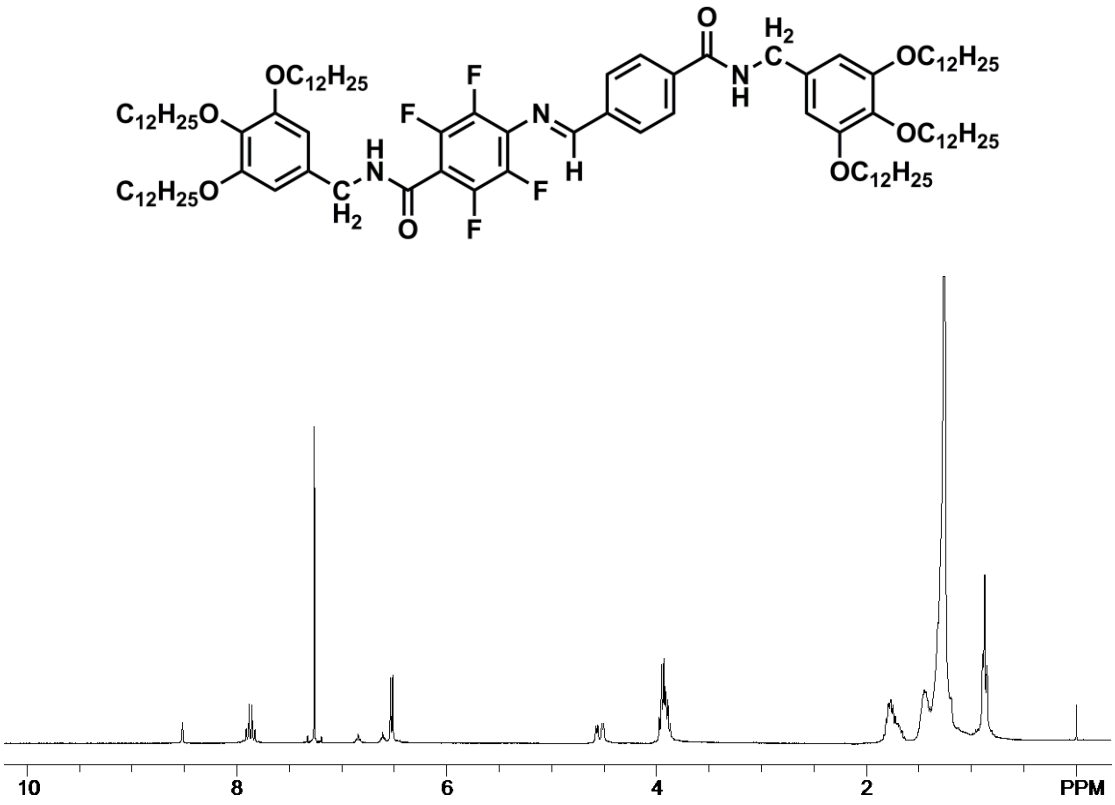


Figure S15. ^{1}H NMR spectrum of imine **1**

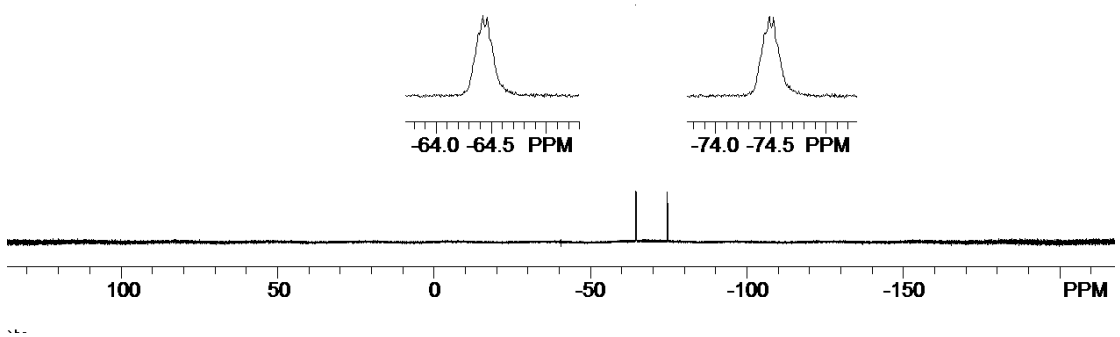


Figure S16. ^{19}F NMR spectrum of imine **1** (insert shows the enlarged ^{19}F signals)

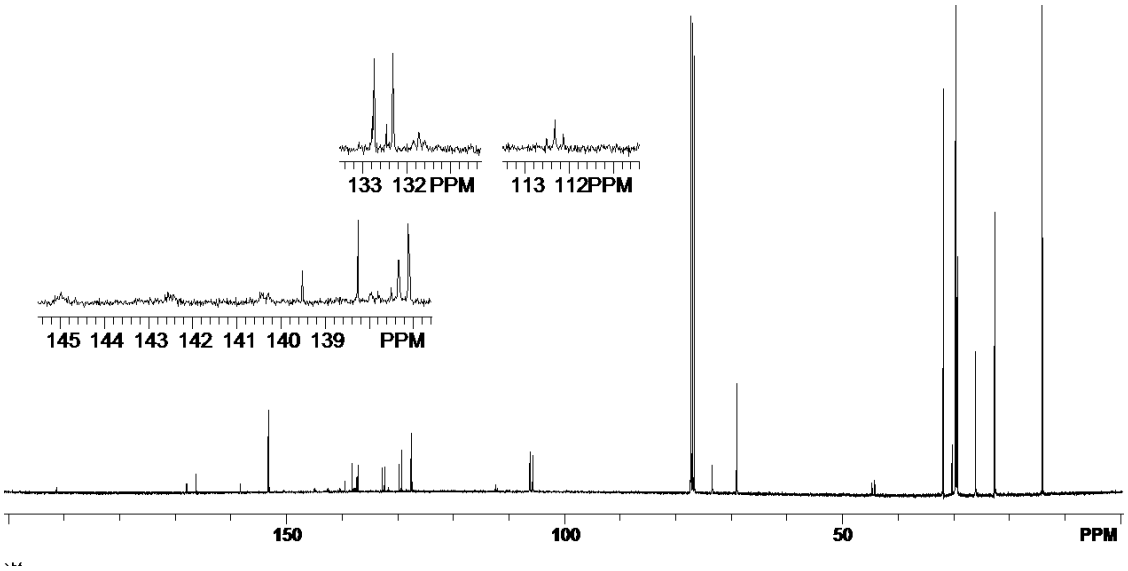


Figure S17. ^{13}C NMR spectrum of imine **1** (insert shows signals generated from fluorinated carbons)