

Supplementary Materials

Fluorinated Poly(ionic liquid)s Coated Superhydrophobic Functional Materials with Efficient Oil/Water Separation Performance

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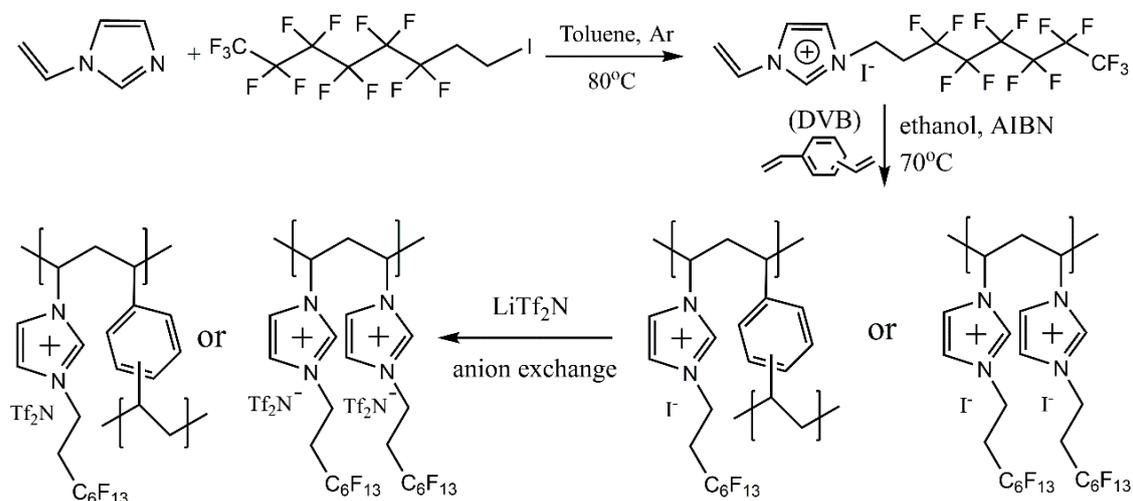
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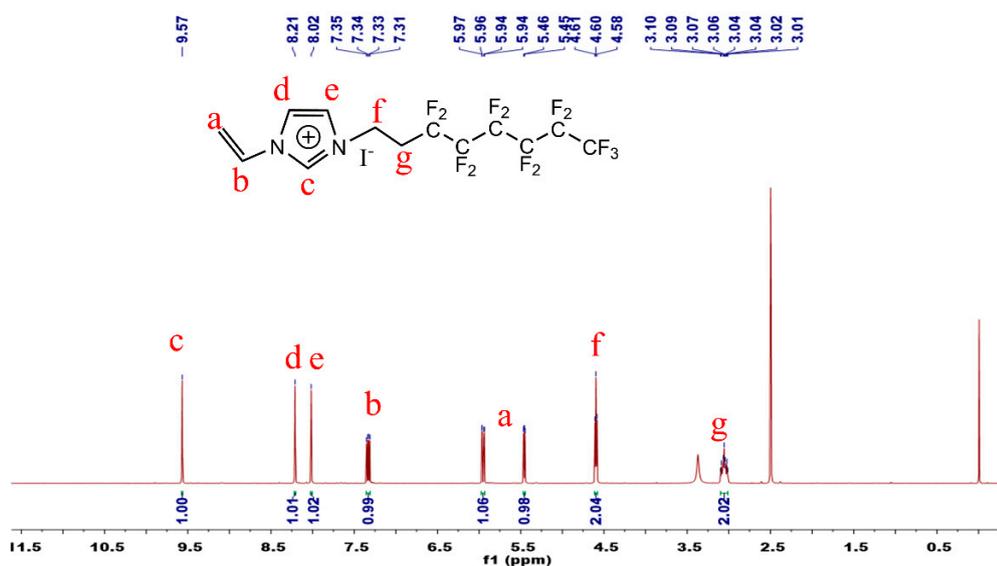
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Scheme S1. The schematic of the reaction of PIL-1 with and without DVB.



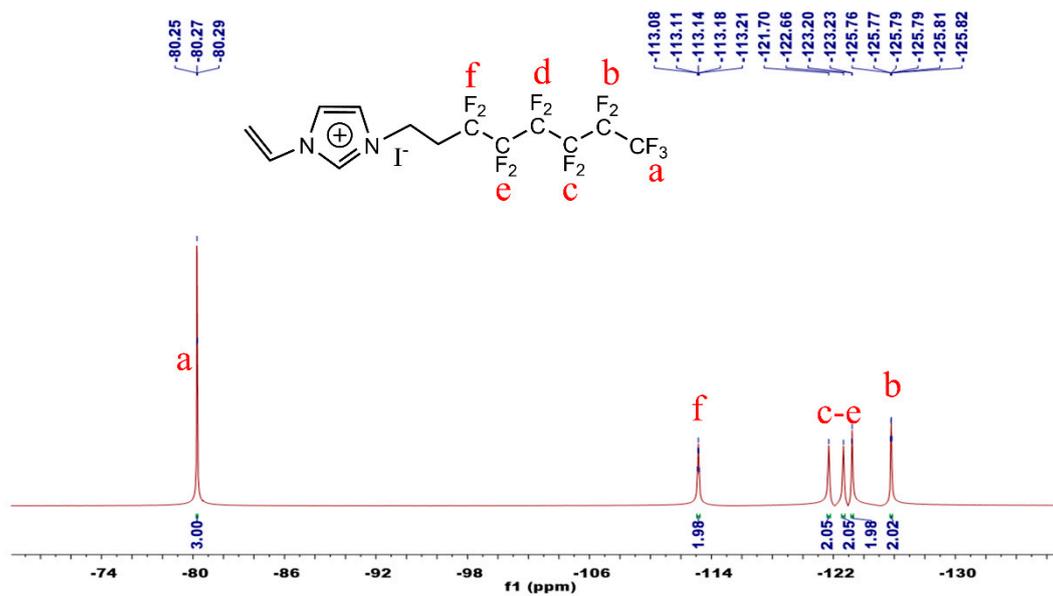
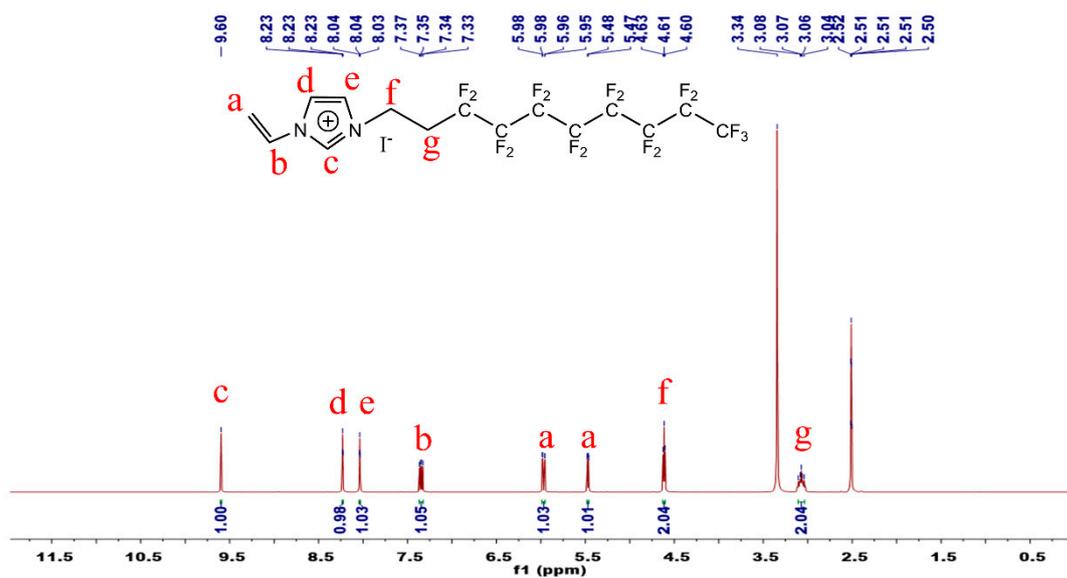


Figure S1. ¹H NMR and ¹⁹F NMR spectra of [C₈H₄F₁₃vim]⁺I⁻



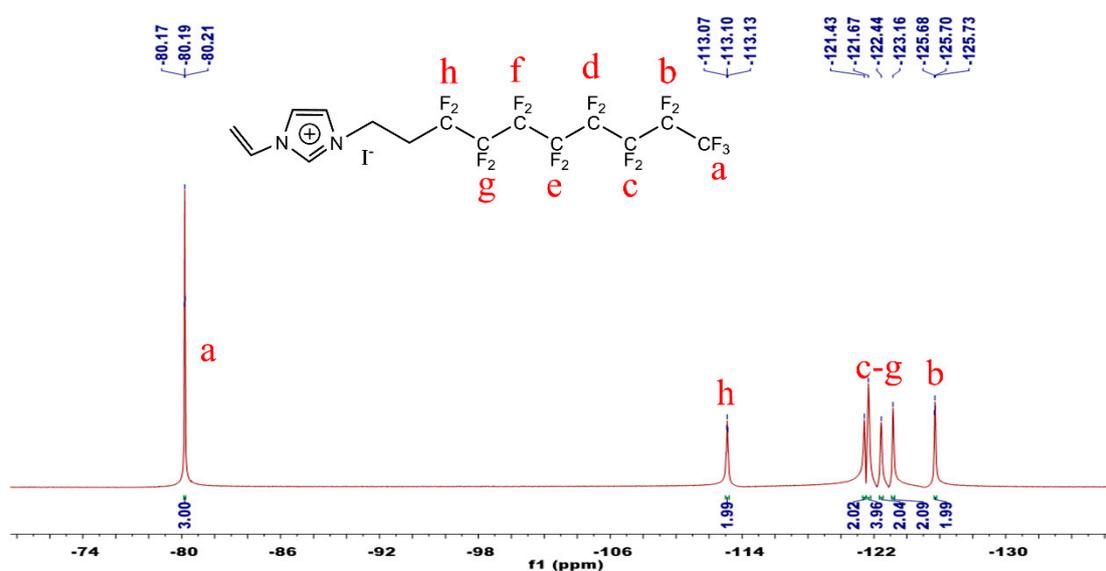


Figure S2. ¹H NMR and ¹⁹F NMR spectra of [C₁₀H₄F₁₇vim]⁺I⁻

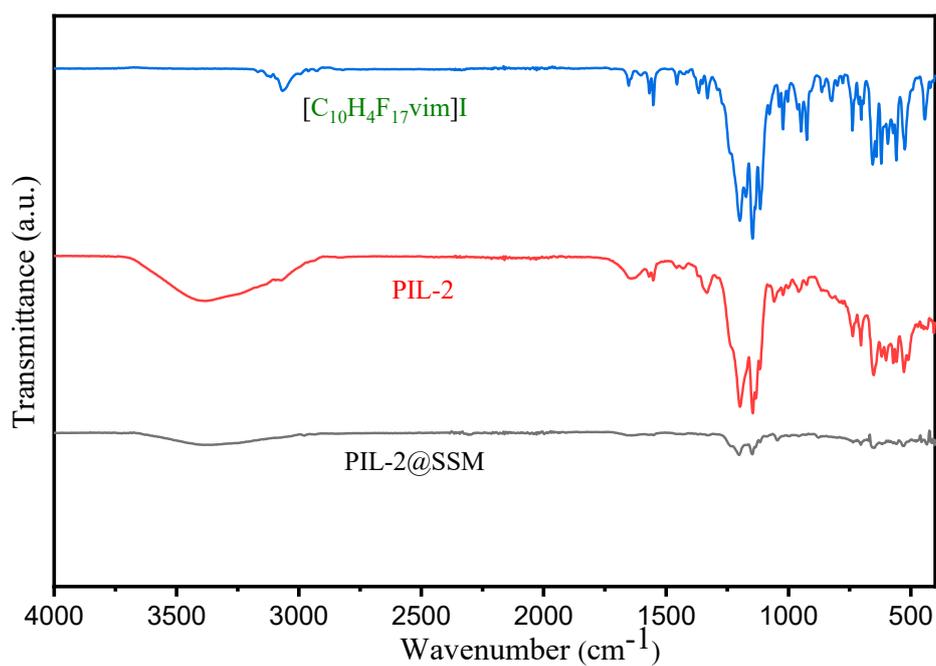


Figure S3. FTIR spectra of [C₁₀H₄F₁₇vim]⁺I⁻

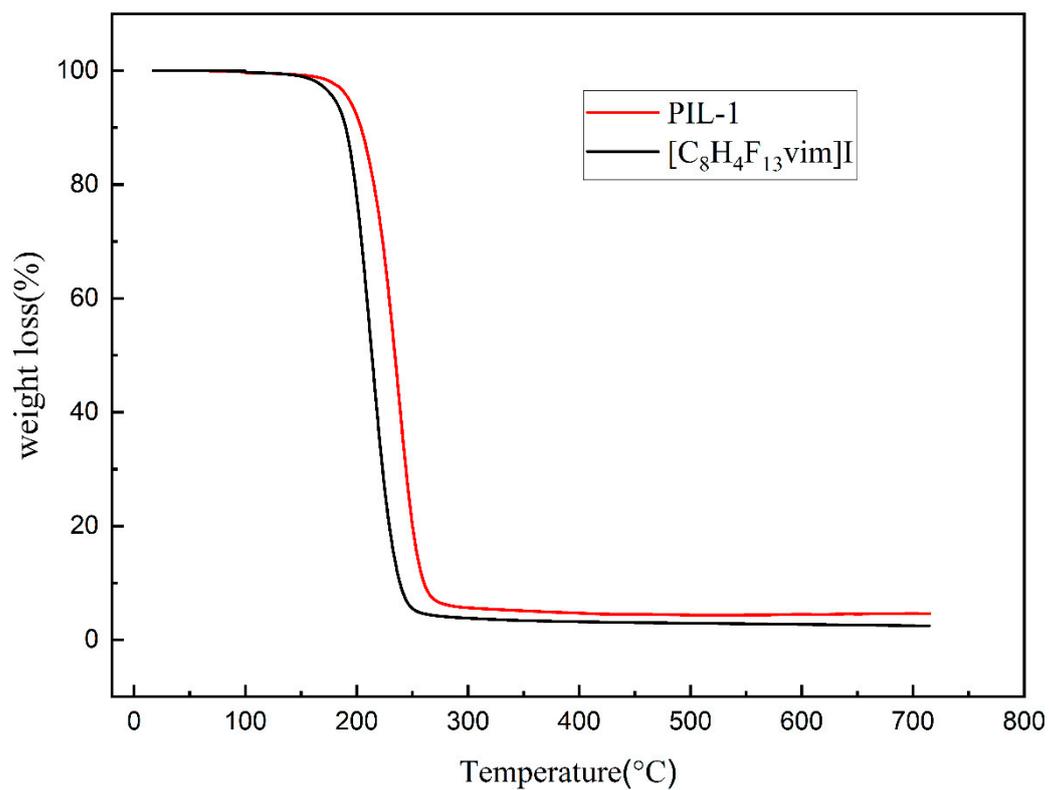


Figure S4. TGA curves of [C₈H₄F₁₃vim]I and PIL-1

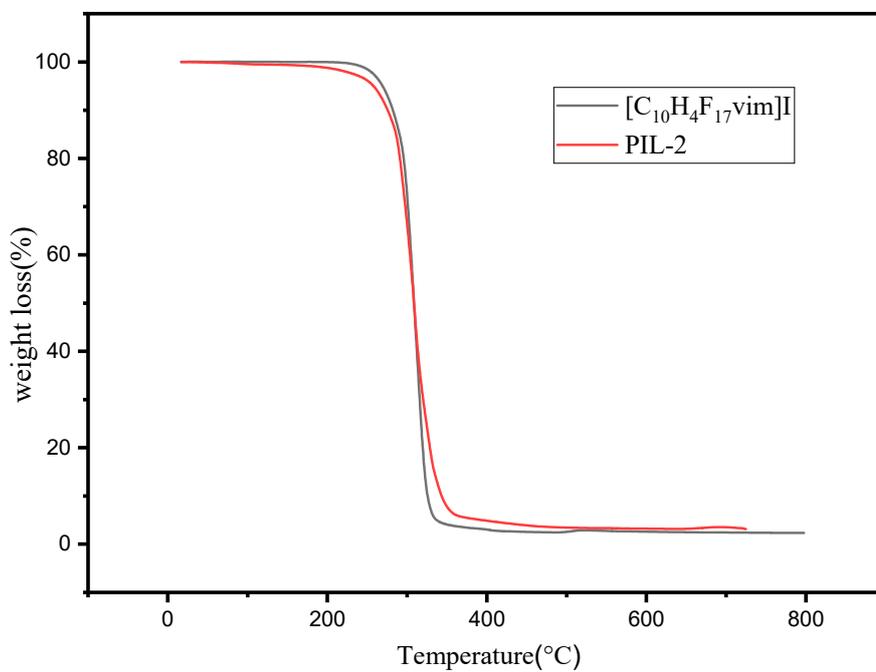


Figure S5. TGA curves of [C₁₀H₄F₁₇vim]I and PIL-1

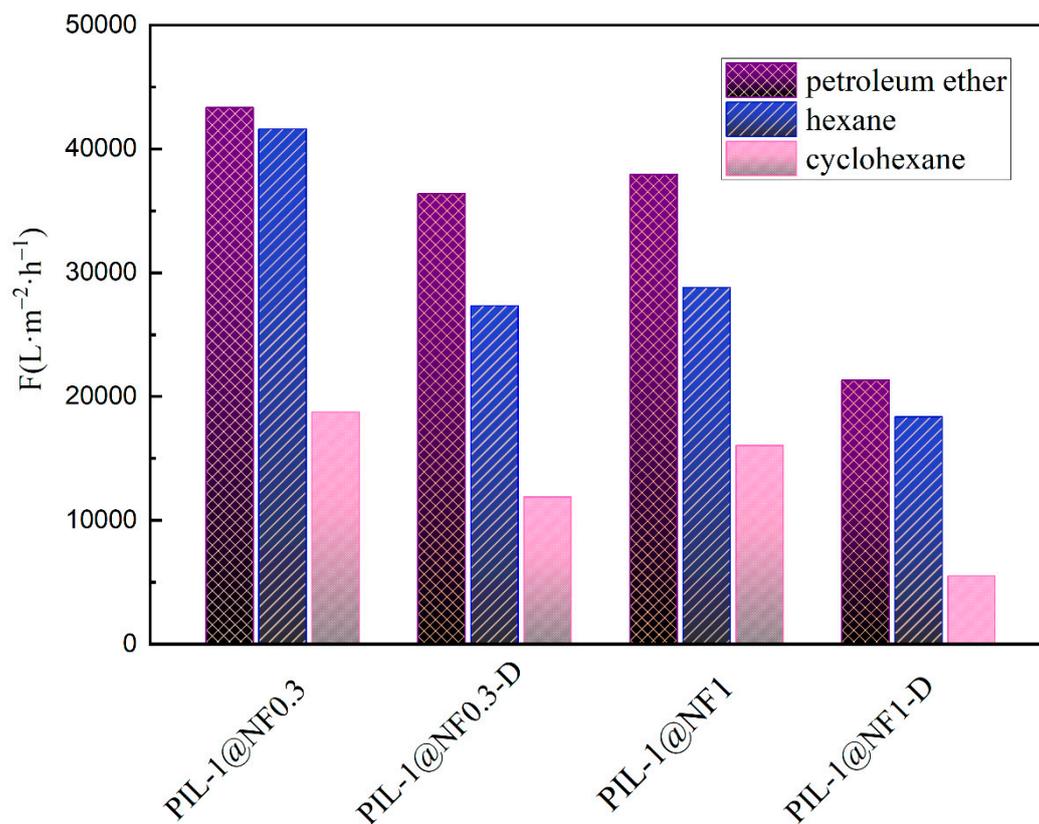


Figure S6. The permeate flux of oil phase for different materials

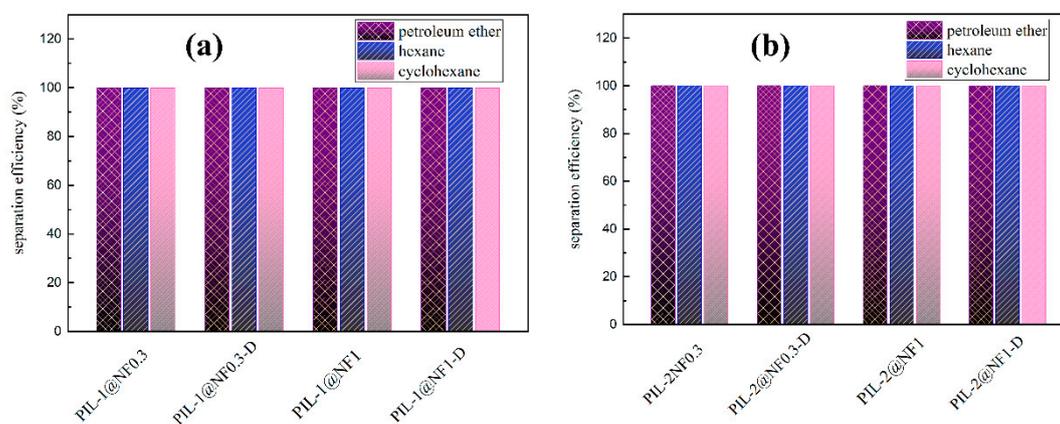


Figure S7. Separation efficiency of oil phase for different materials

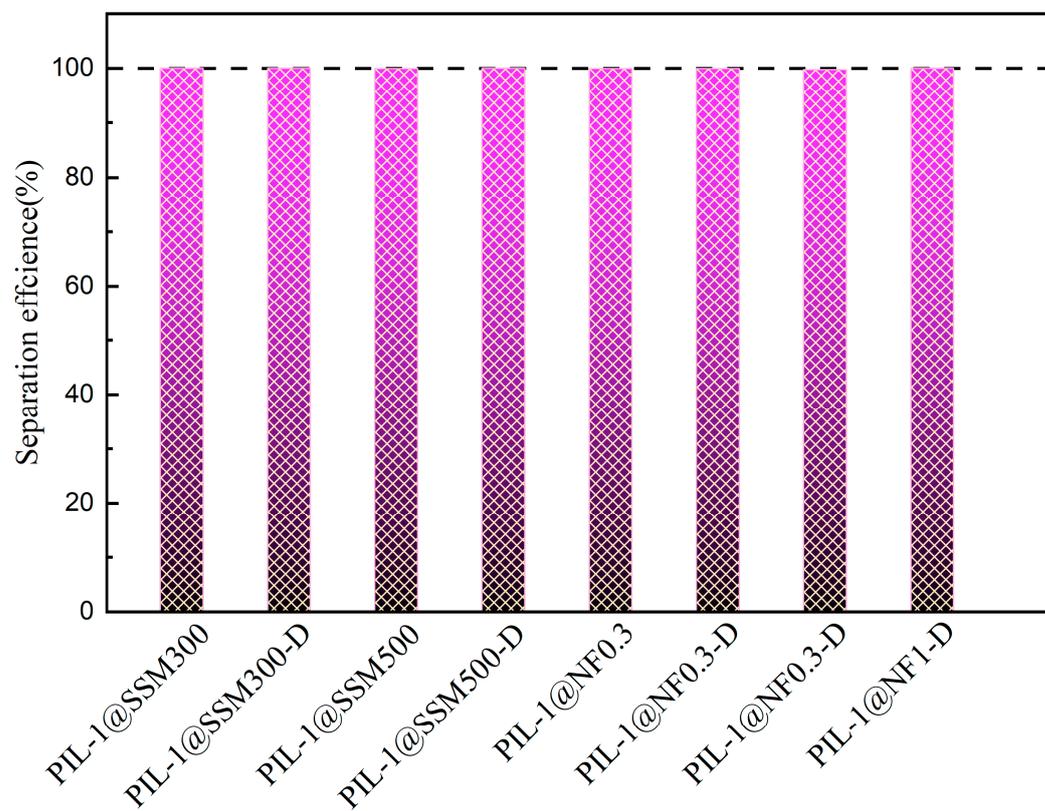


Figure S8. Separation efficiency of oil phase for different materials at least 20 times recycle