

Supplementary Material

Ligand exchange of aryl iodine dicarboxylates to form reagents with differing solubilities

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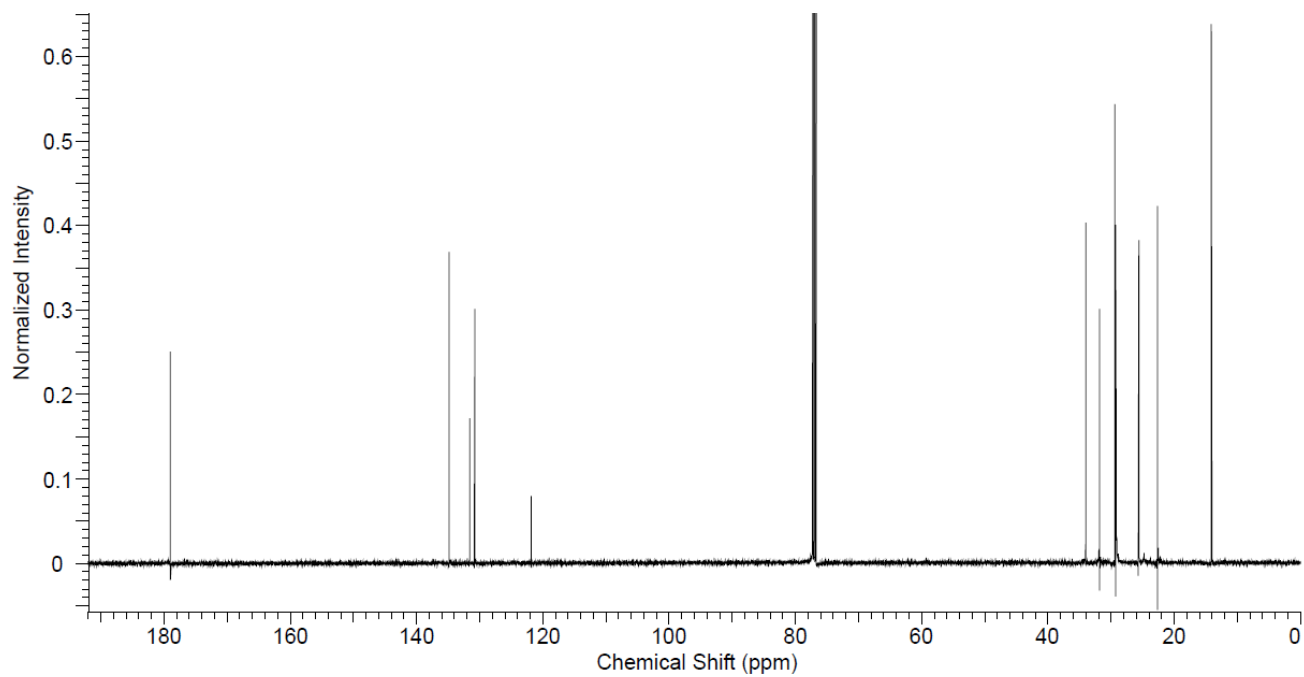
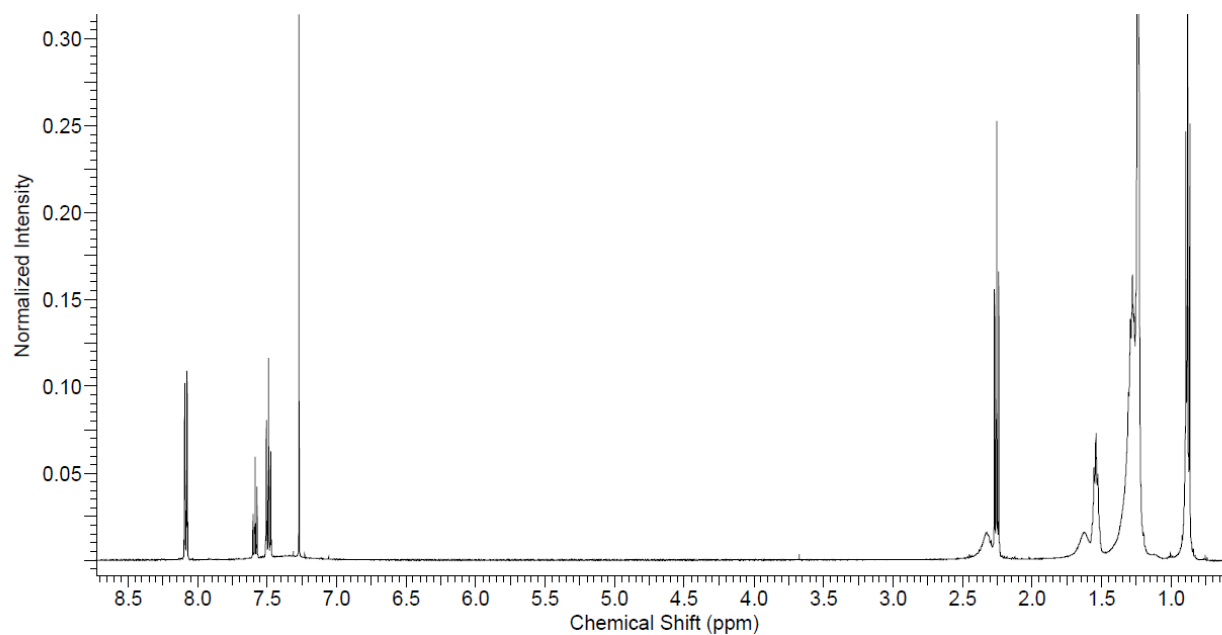
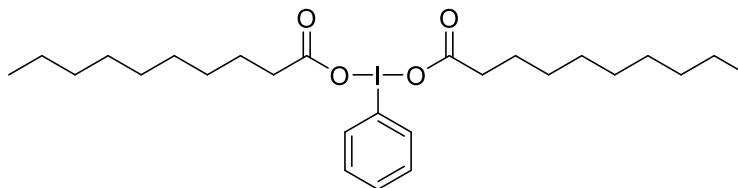
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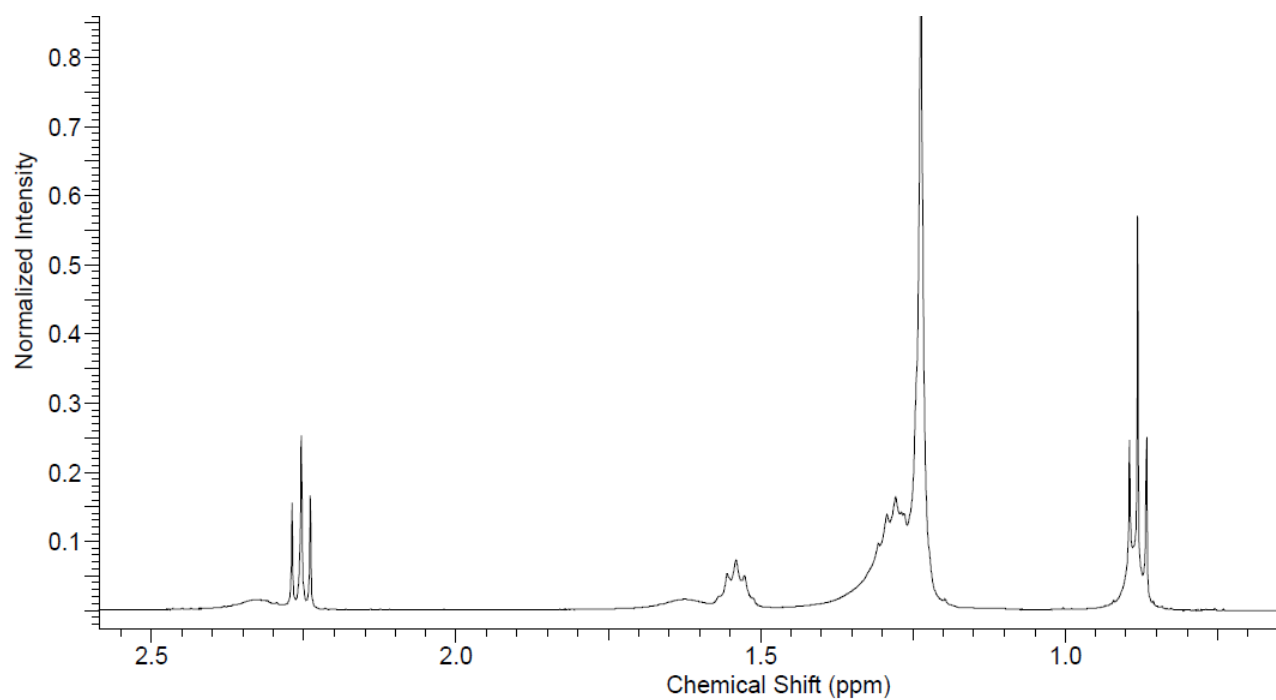
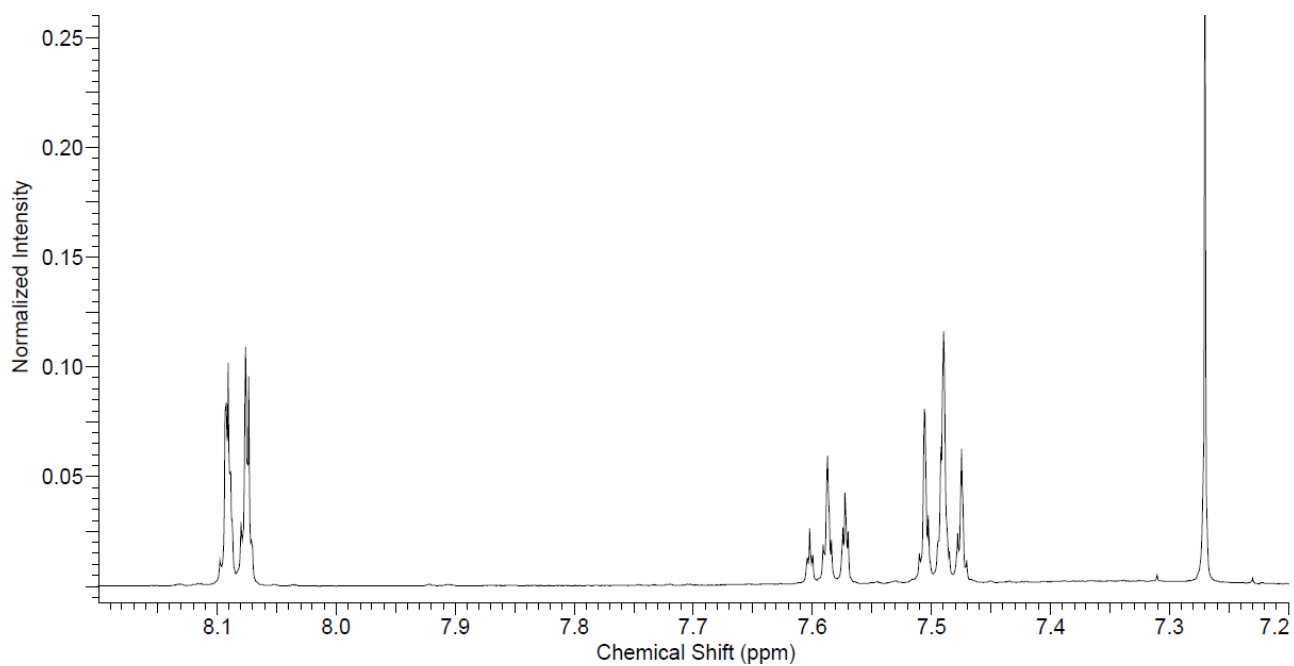
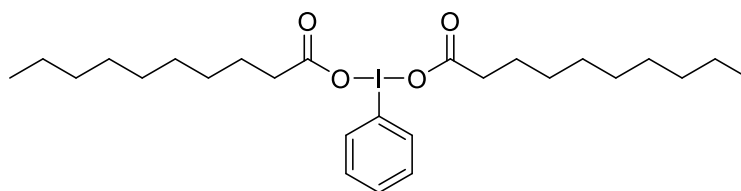
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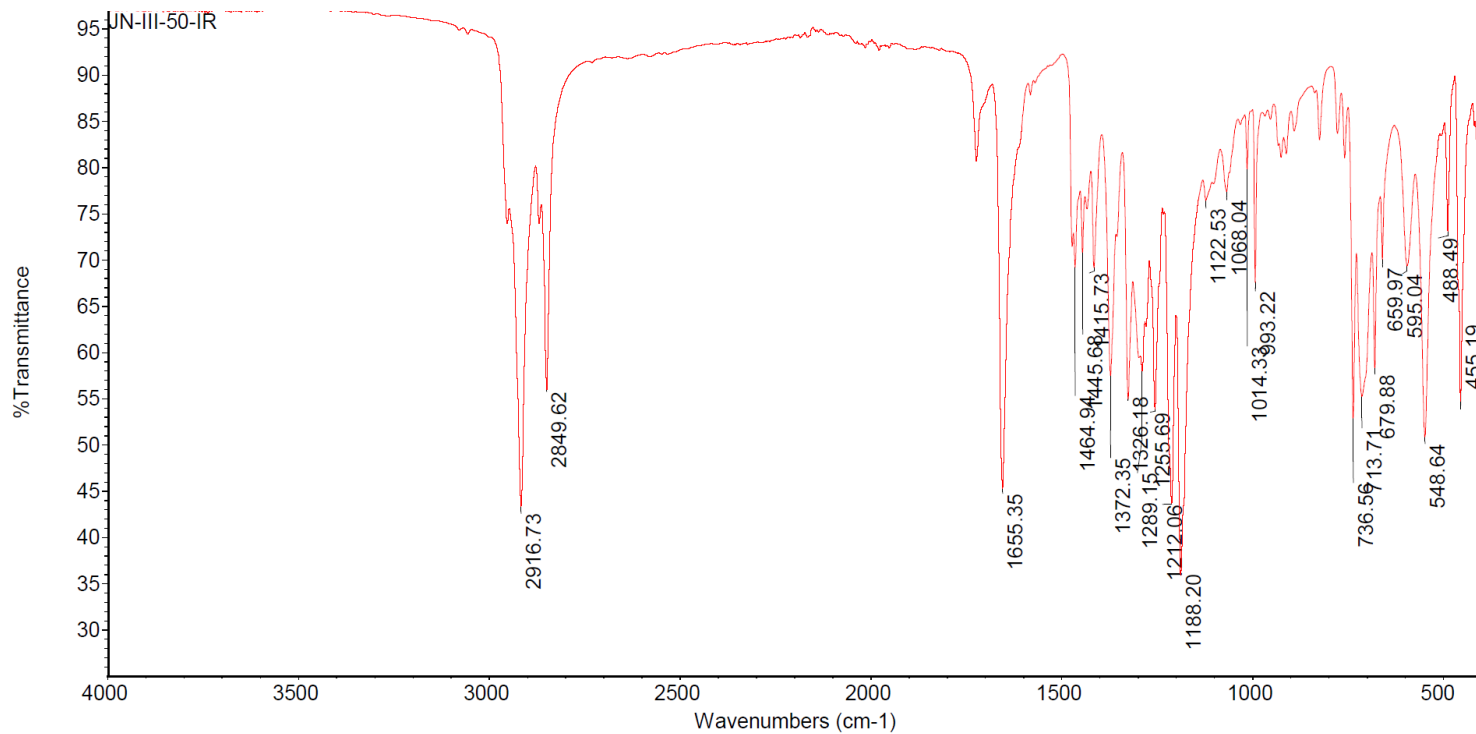
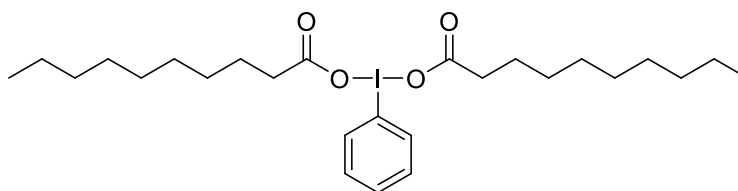
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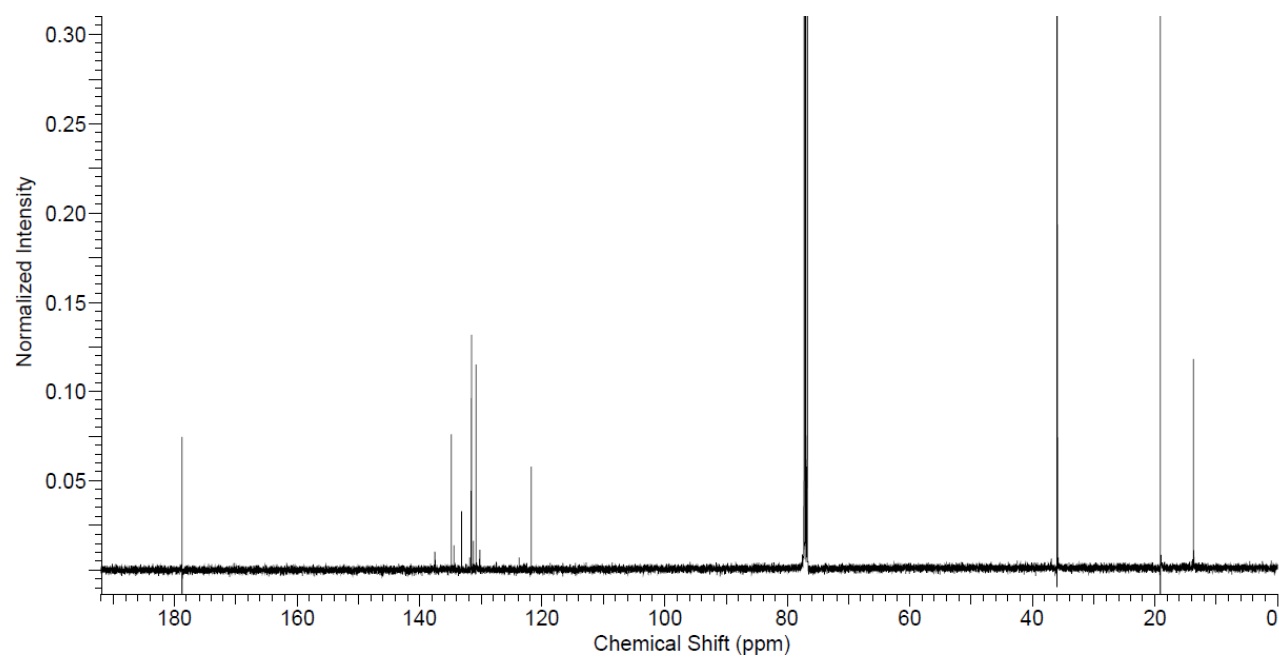
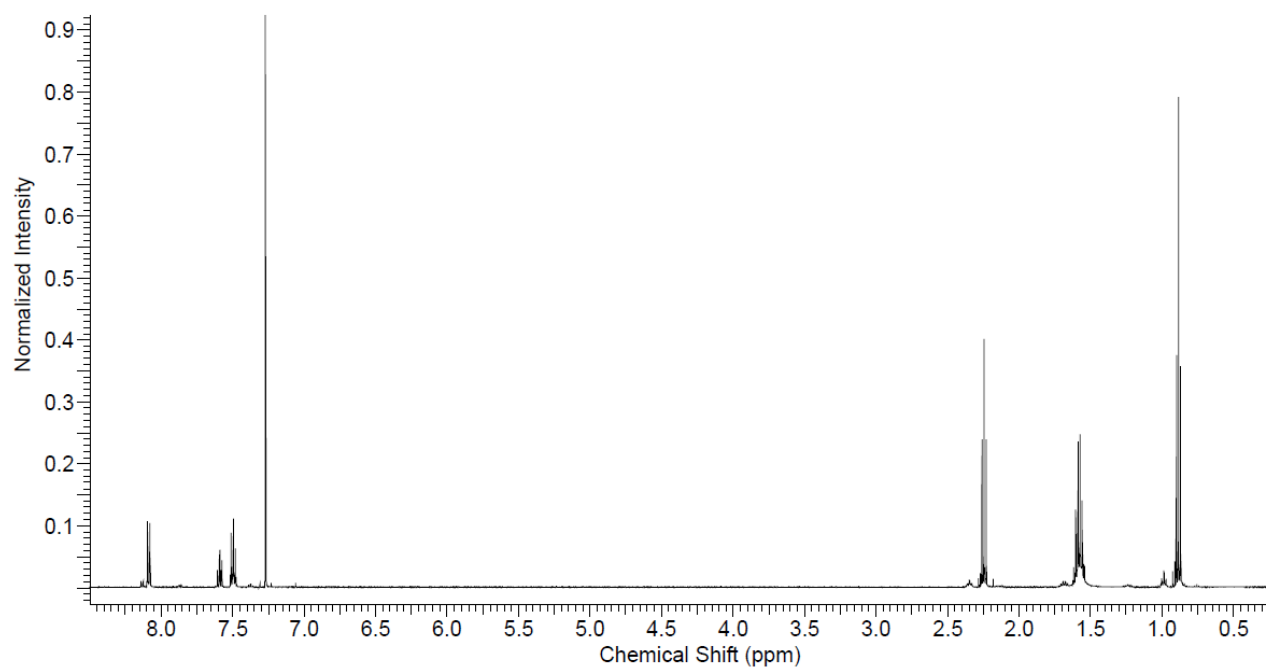
^1H NMR, ^{13}C NMR, and IR spectra of **phenyl- λ^3 -iodanediyl bis(decanoate) (4)**

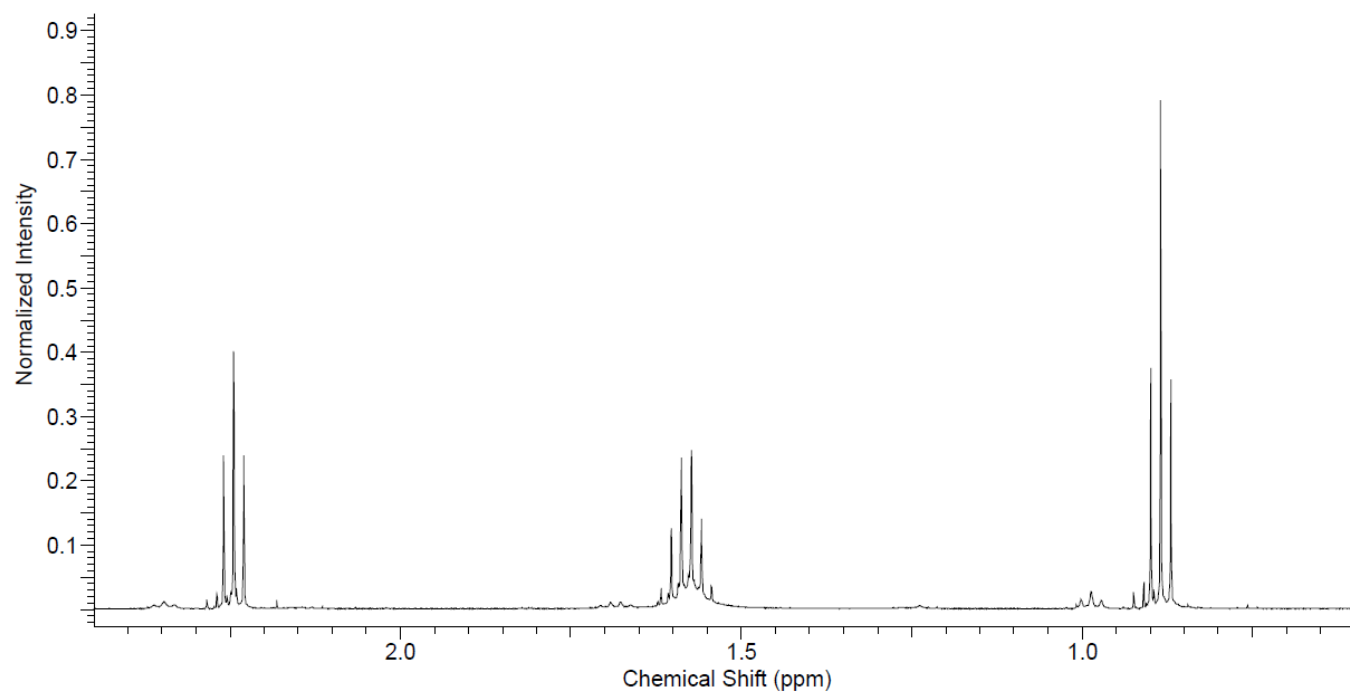
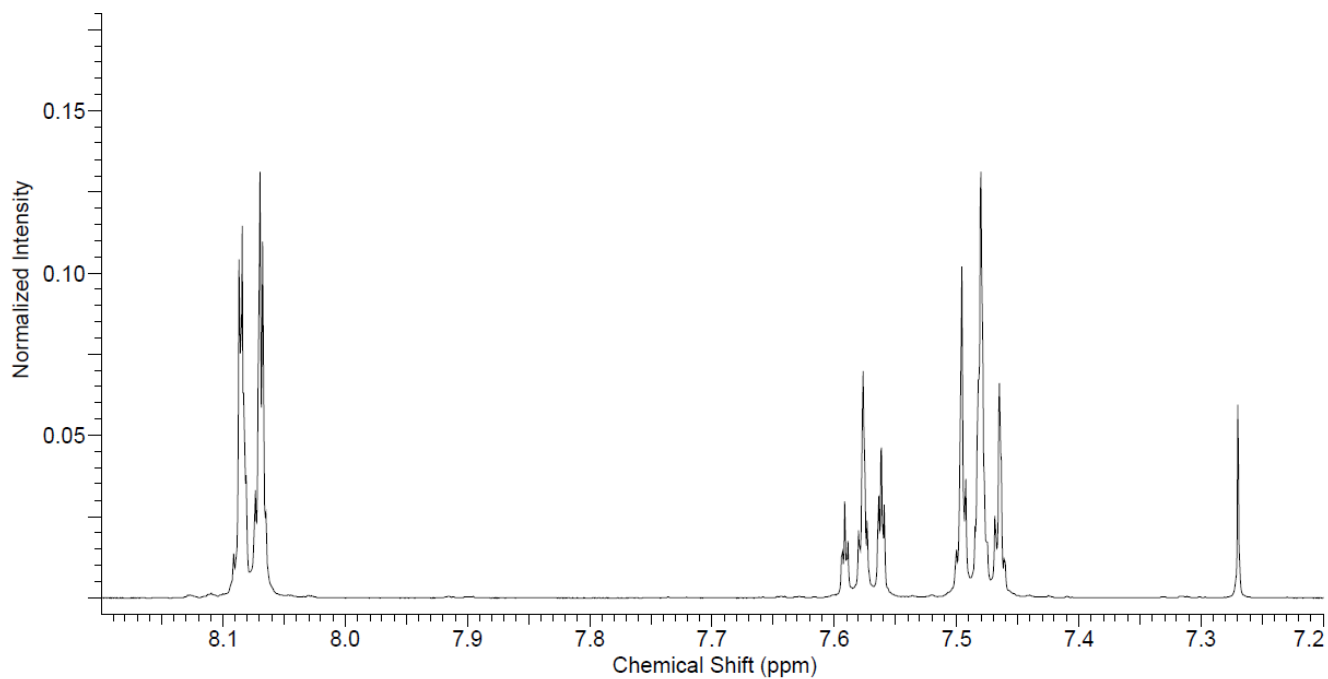
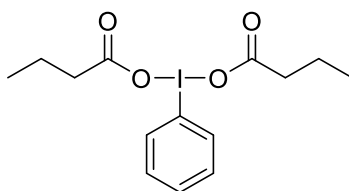


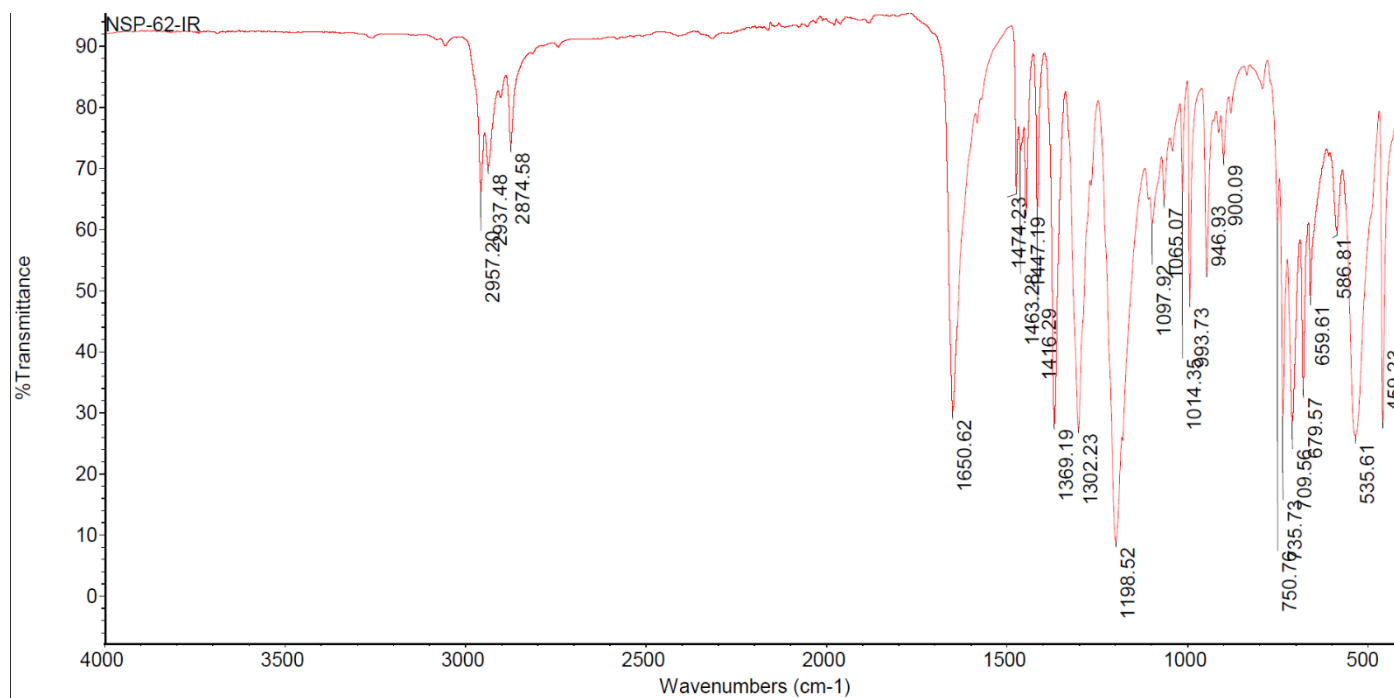
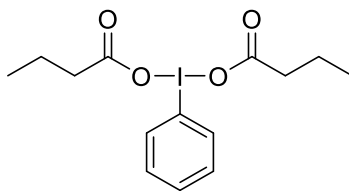




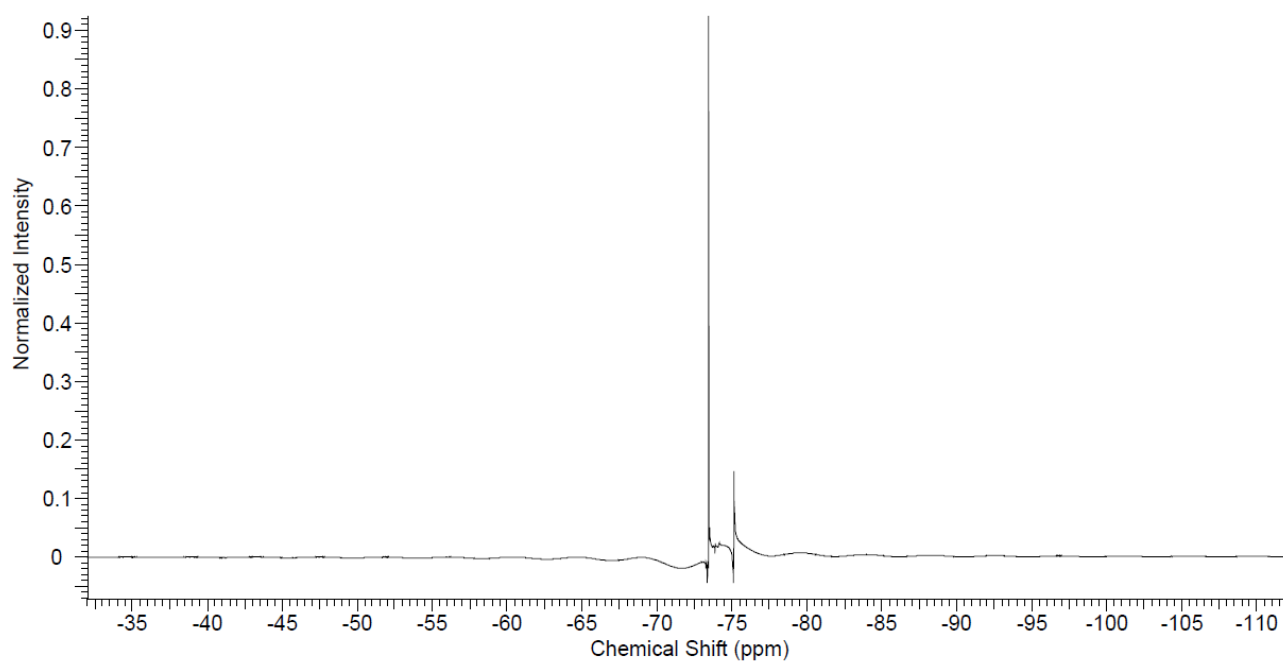
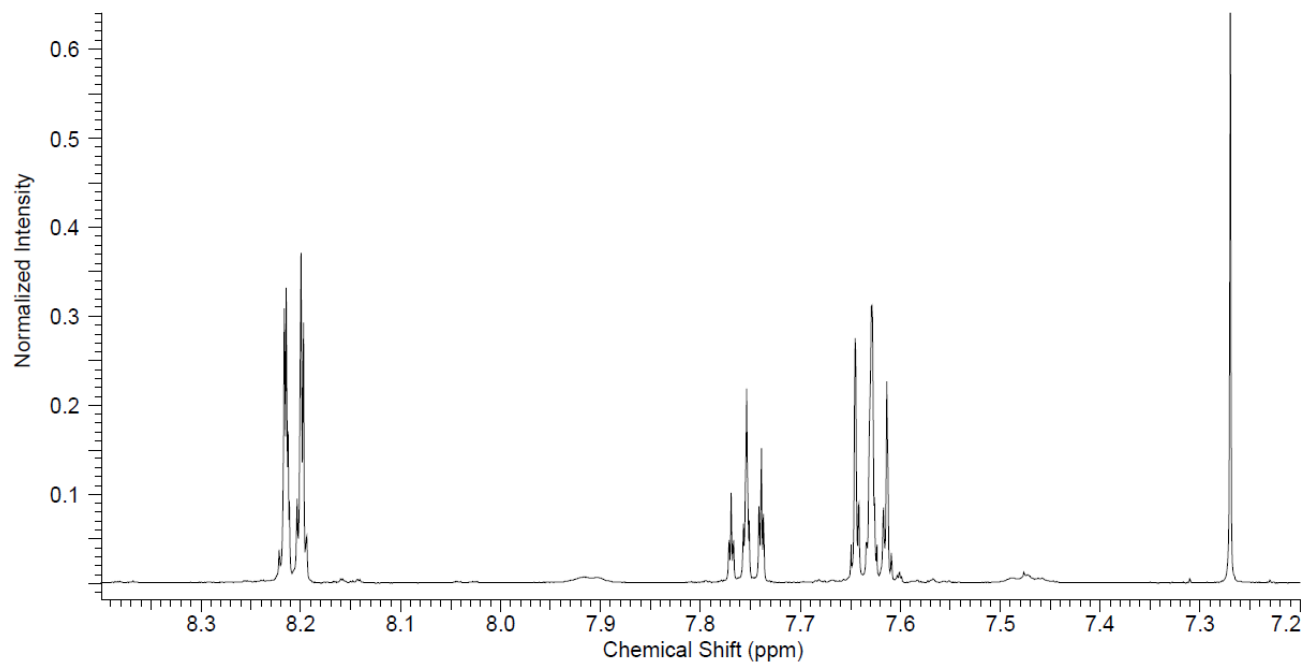
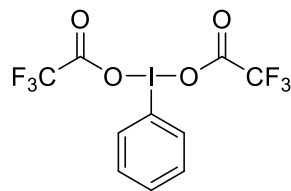
^1H NMR, ^{13}C NMR, and IR spectra of **phenyl- λ^3 -iodanediyl dibutyrate (3)**







^1H NMR and ^{19}F NMR spectra of **phenyl- λ^3 -iodanediyl bis(2,2,2-trifluoroacetate) (2)**



Data for Individual Solubility Measurements**Table S1: Data for solubility of compound 1**

Solvent	Solubility measured in each trial, mg/mL			
CH ₃ CN	60.4	62.8	65.0	51.0
CH ₂ Cl ₂	285	281	270	283
THF	55.8	57.1	60.3	55.7
Et ₂ O	7.8	7.4	7.9	7.4
toluene	14.4	12.5	12.0	12.7
hexanes	0.2	0.5	0.6	0.3

Table S2: Data for solubility of compound 2

Solvent	Solubility measured in each trial, mg/mL			
CH ₃ CN	516	541	546	551
CH ₂ Cl ₂	242	233	233	231
THF	727	612	626	625
Et ₂ O	147	144	139	141
toluene	108	113	119	103
hexanes	1.0	0.9	0.9	0.8

Table S3: Data for solubility of compound 3

Solvent	Solubility measured in each trial, mg/mL			
CH ₃ CN	3.3	5.1	4.4	4.6
CH ₂ Cl ₂	18.7	18.4	19.0	18.9
THF	3.7	3.5	3.9	5.4
Et ₂ O	27.0	24.1	24.0	24.2
toluene	5.7	6.1	5	4.5
hexanes	0	0.30	0	0.8

Table S4: Data for solubility of compound 4

Solvent	Solubility measured in each trial, mg/mL			
CH ₃ CN	2.8	2.6	2.6	2.6
CH ₂ Cl ₂	47.0	30.0	40.7	41.2
THF	196	194	197	194
Et ₂ O	95.6	99.0	67.5	67.6
toluene	21.7	21.5	21.0	28.8
hexanes	9.9	11.7	13.4	10.6