

Electronic Supplementary Materials

Synthesis of 1-[1H,1H,2H,2H-perfluooctyl]-3-[2-(Oxiran-2-yl)ethyl]imidazolium 4-[(2-oxiran-2-yl)ethoxy]benzenesulfonate as a new perfluorinated ionic monomer

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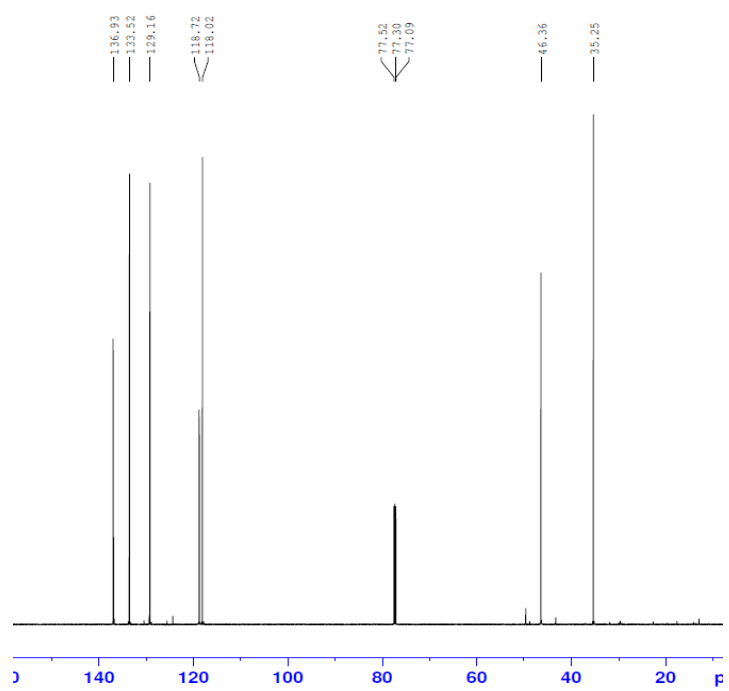
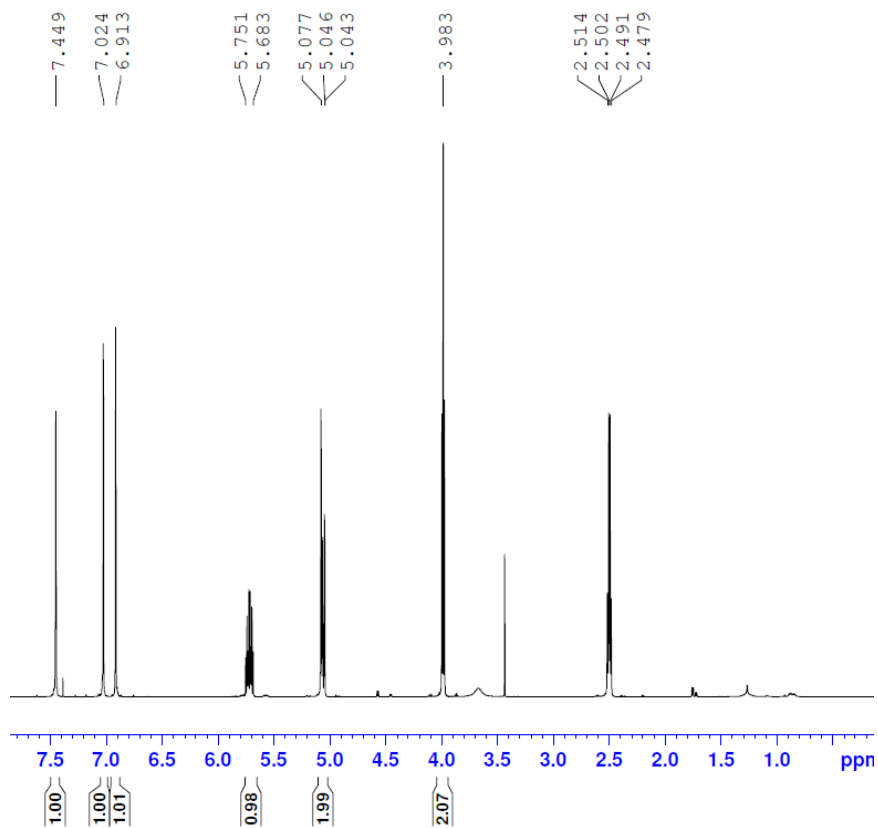
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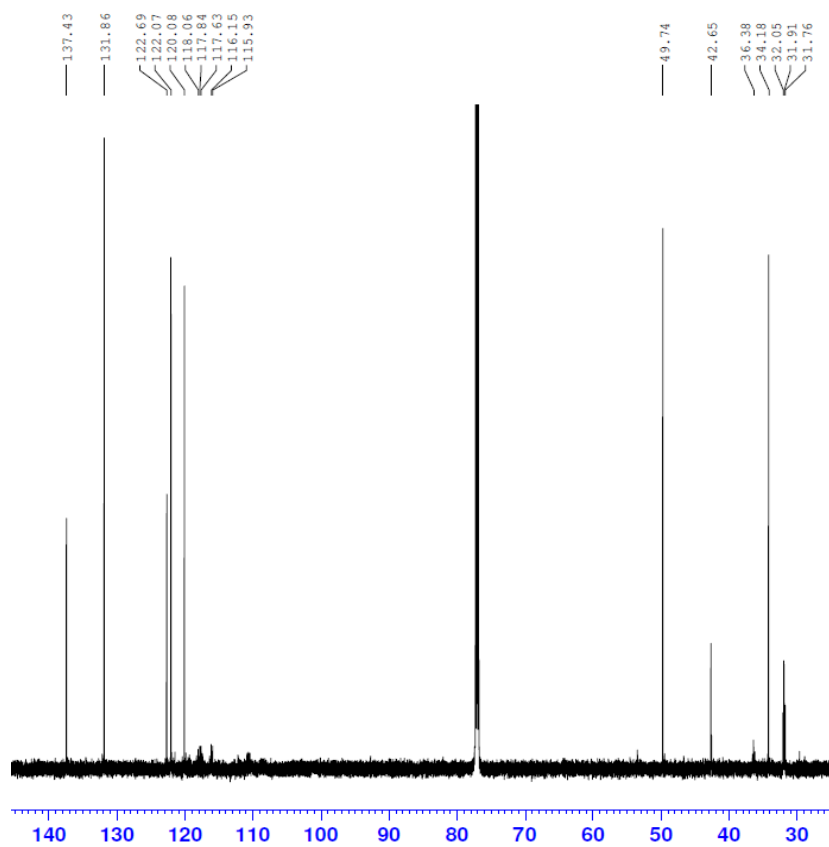
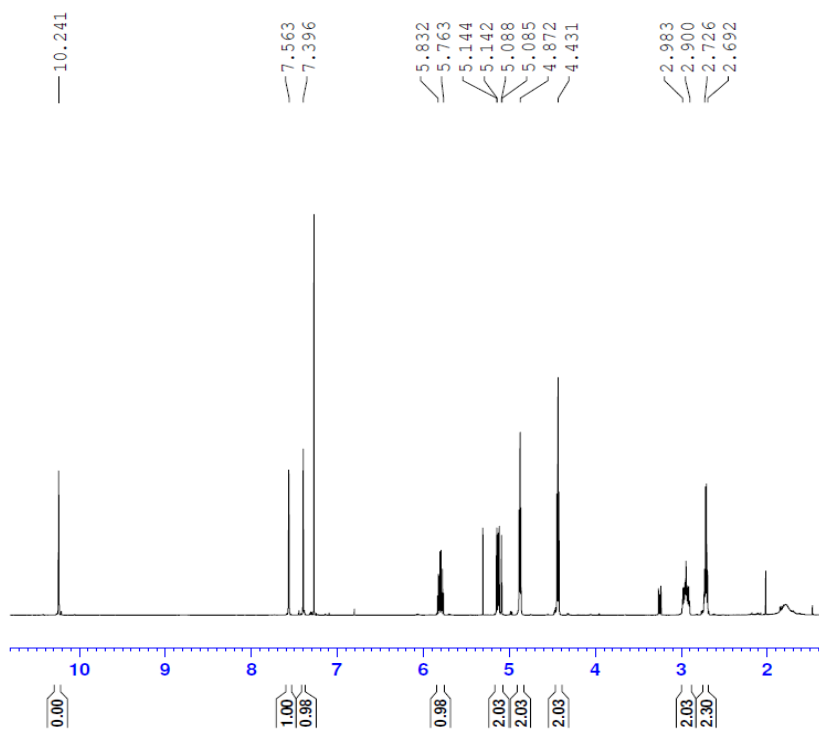
I.	NMR spectrum	(S-2)
II.	Thermogravimetric analysis	(S-12)
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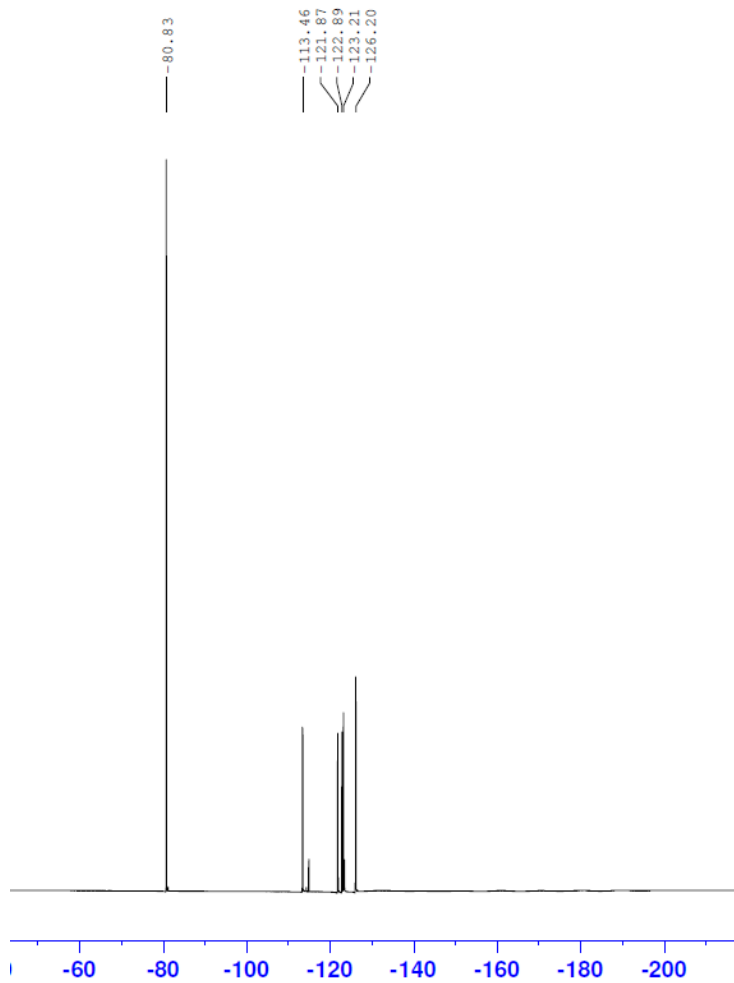
I. NMR spectrum

1-(3-buten-1-yl)imidazole **1**

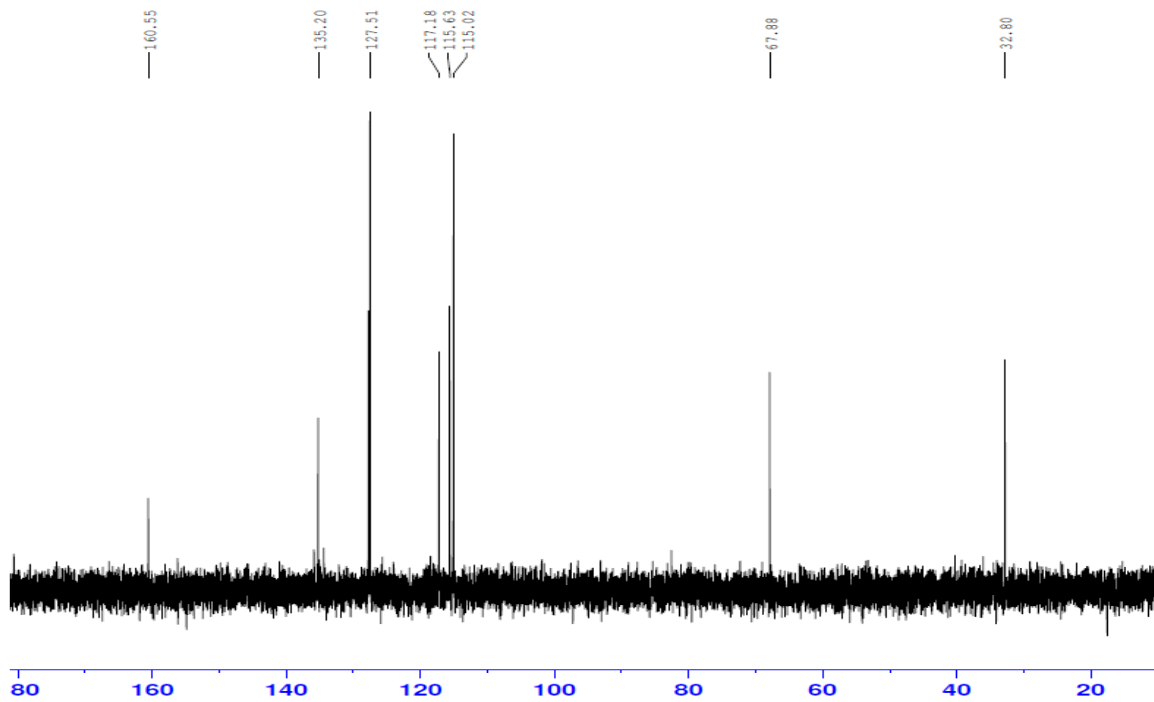
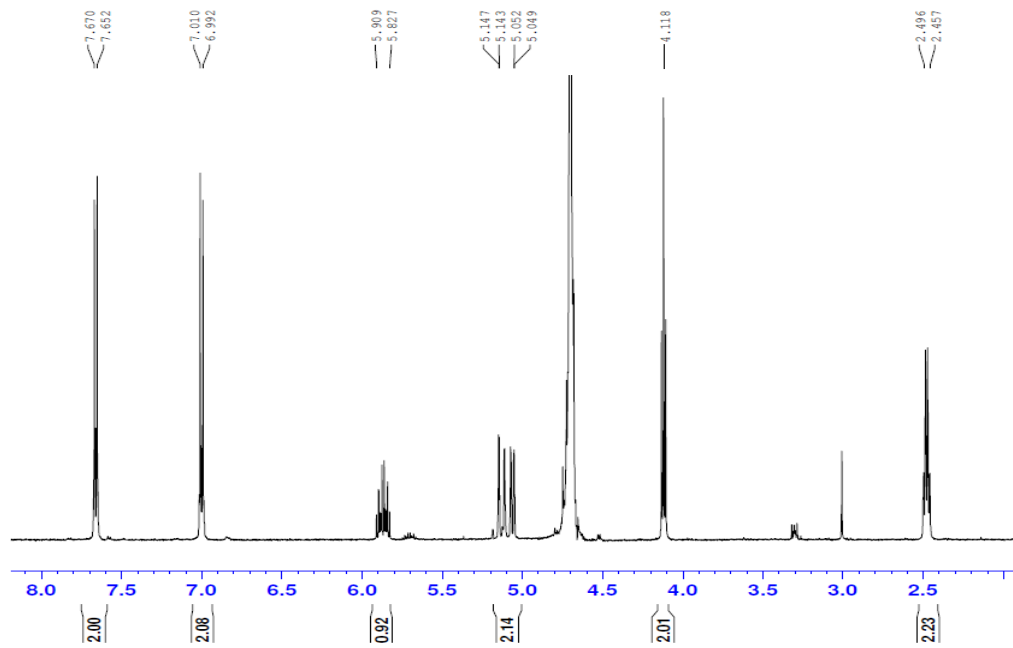


1-[1H,1H,2H,2H-perfluooctyl]-3-(3-buten-1-yl)imidazolium iodide **2**



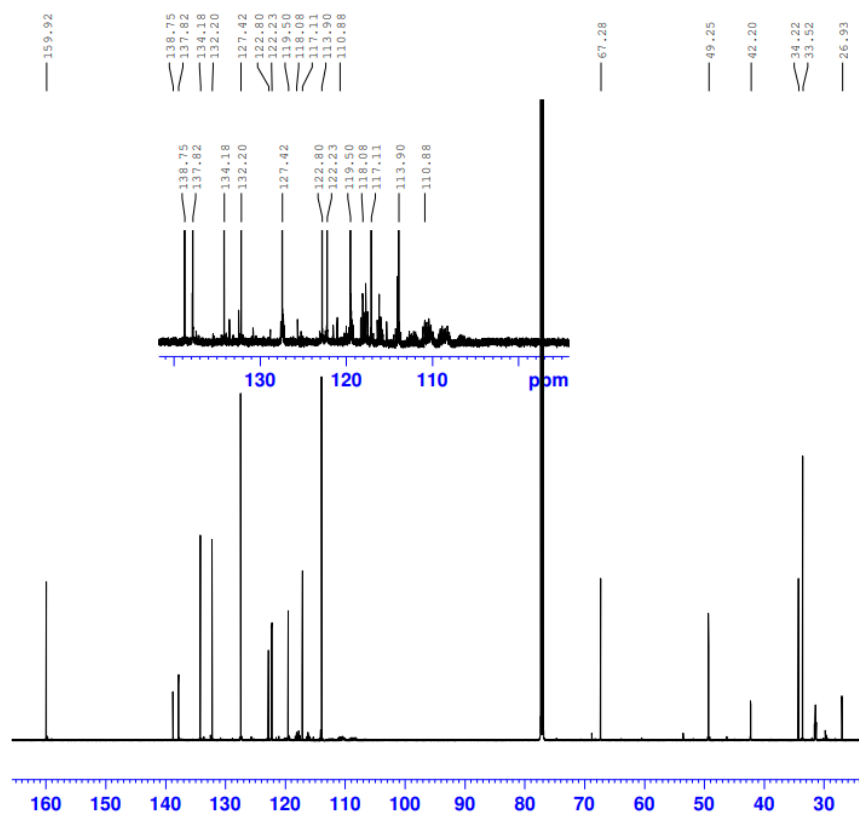
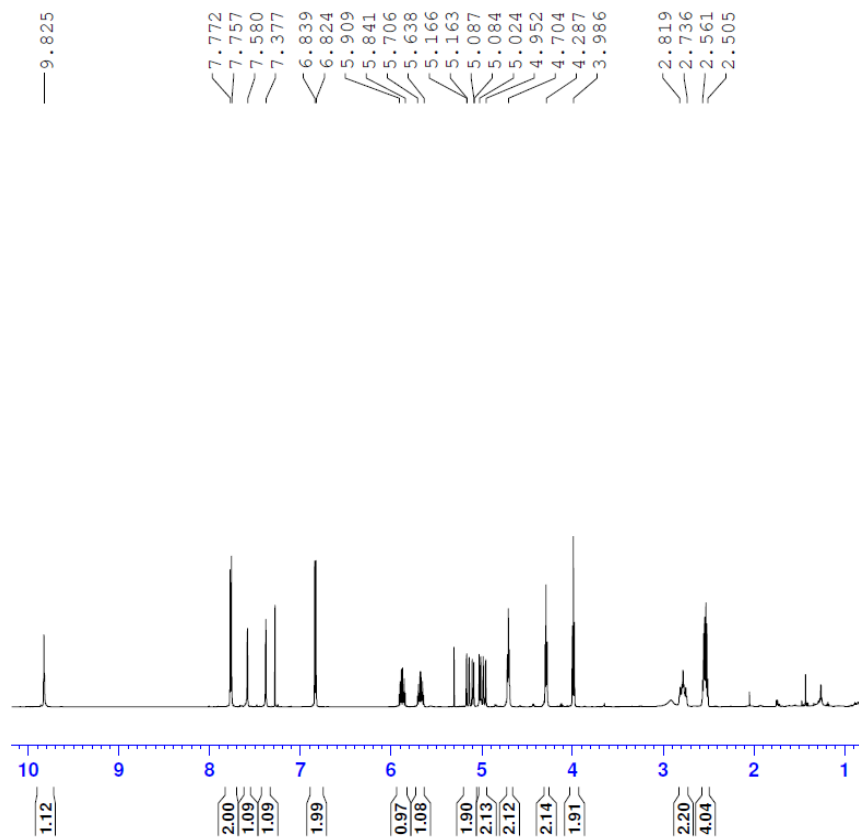


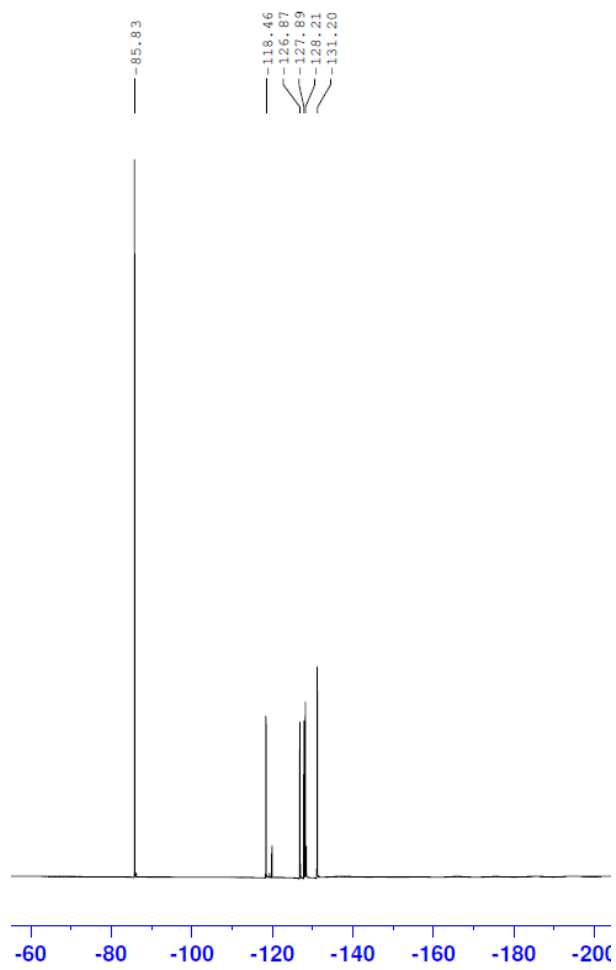
Sodium 4-(3-buten-1-yloxy)benzenesulfonate 3



1-[1H,1H,2H,2H-perfluooctyl]-3-(3-buten-1-yl)imidazolium
 yloxy)benzenesulfonate **4**

4-(3-buten-1-

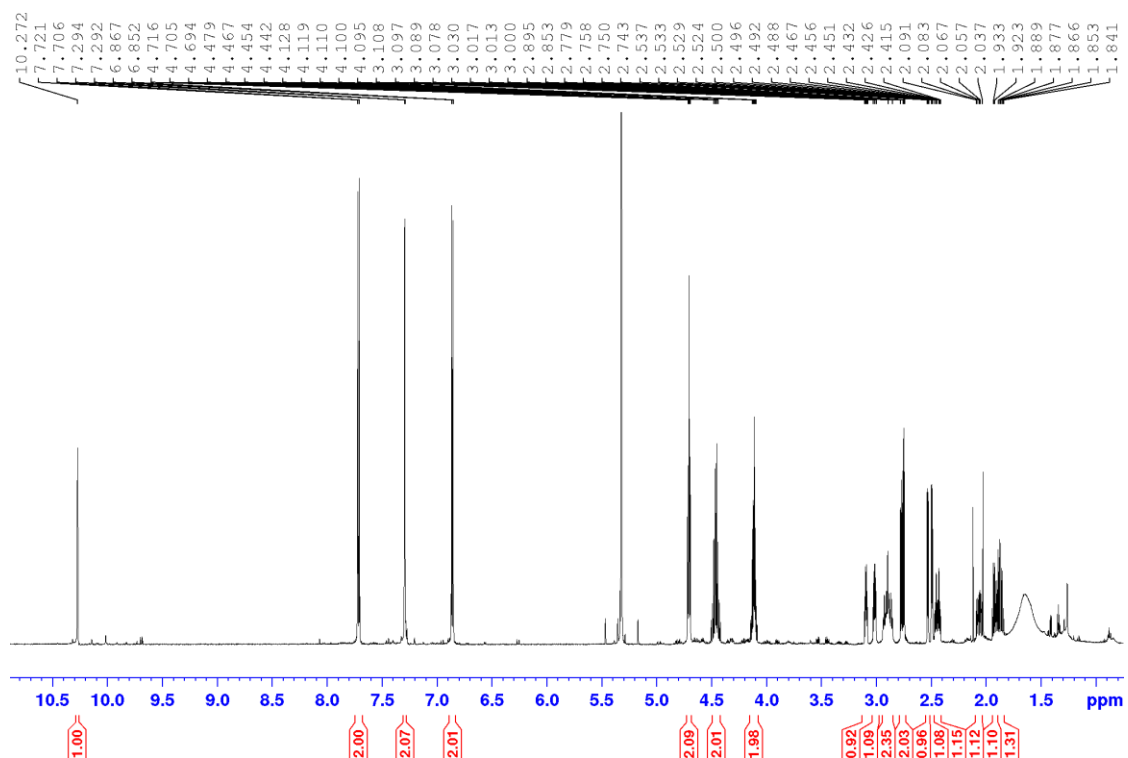




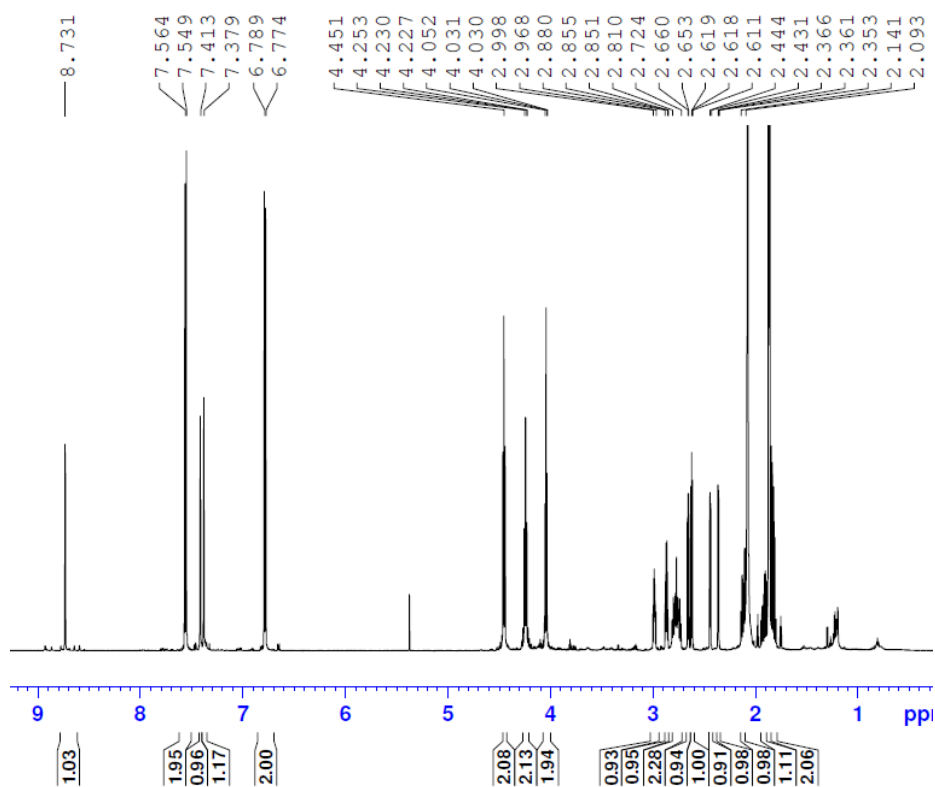
1-[1H,1H,2H,2H-perfluooctyl]-3-[2-(Oxiran-2-yl)ethyl]imidazolium

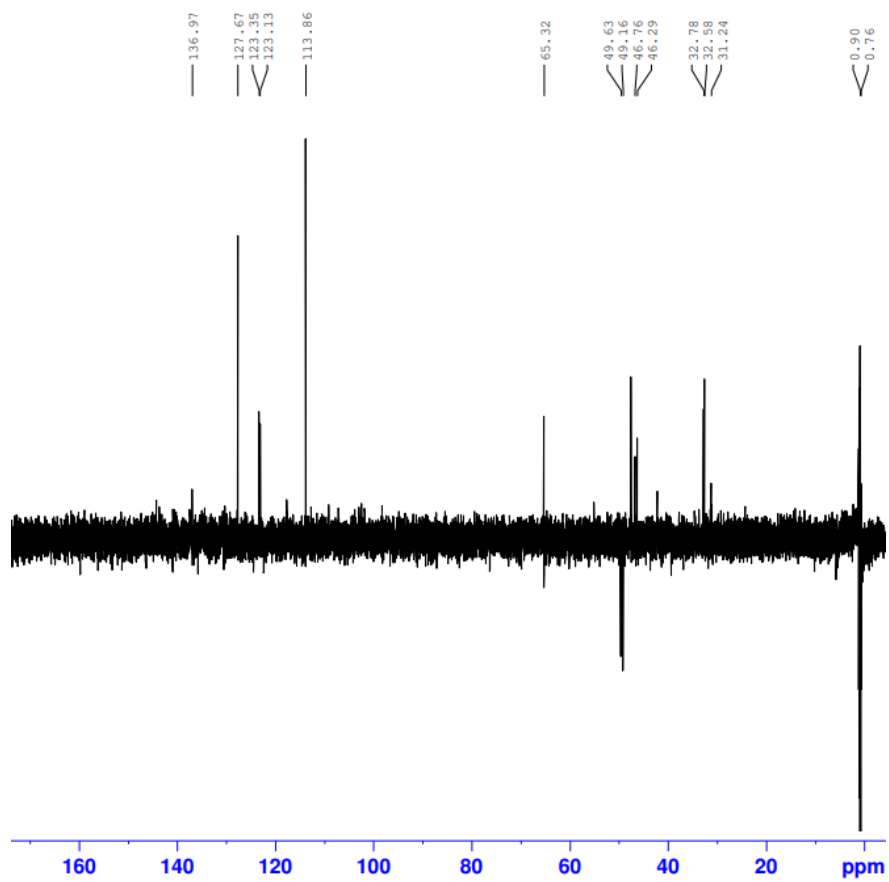
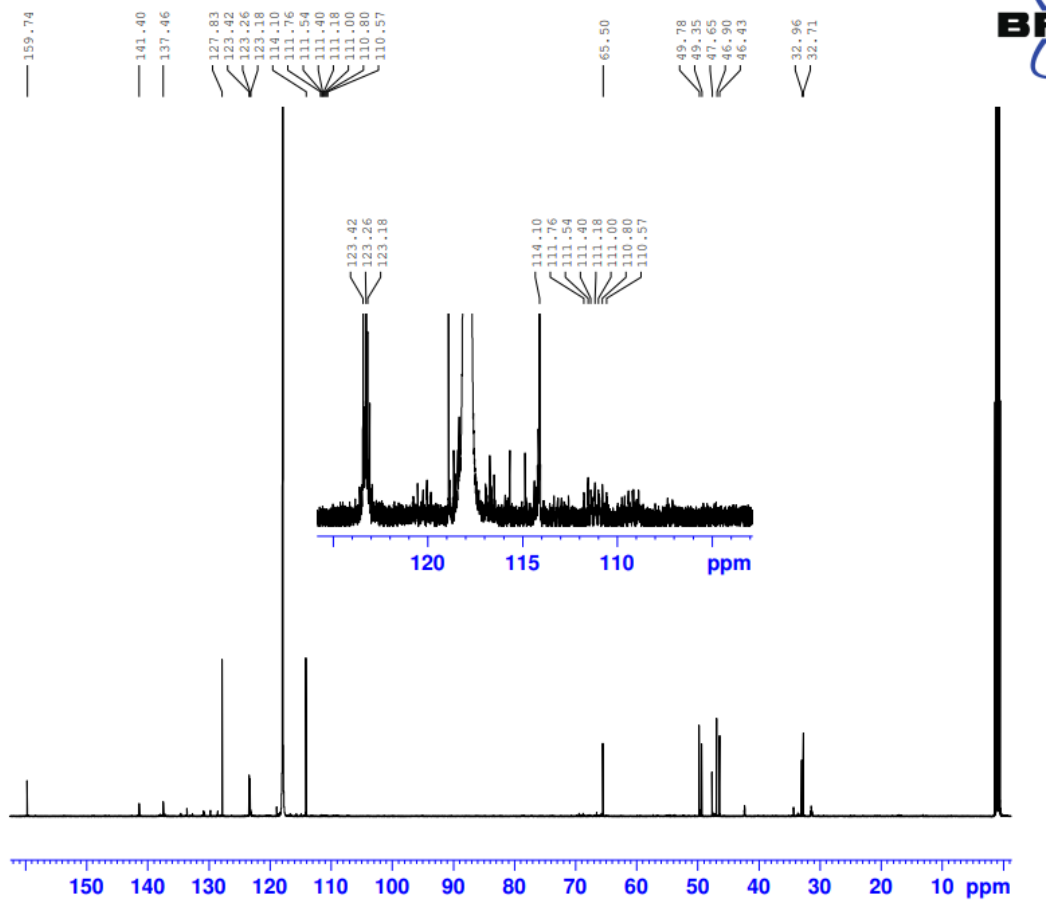
4-[(2-oxiran-2-yl)ethoxy]benzenesulfonate **5**

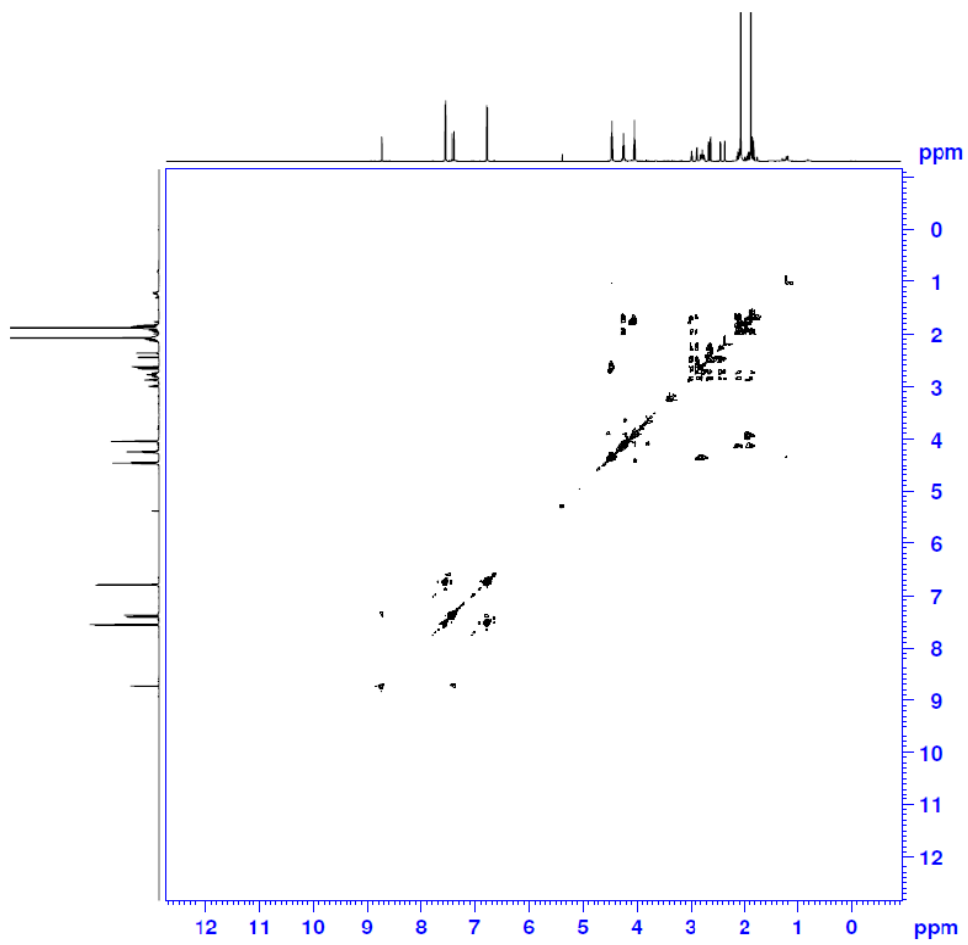
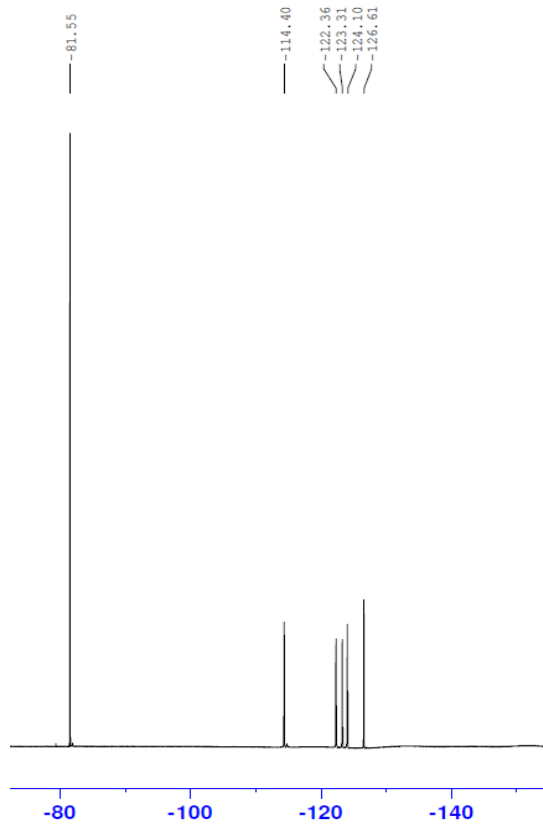
¹H NMR of **5** in CD₂Cl₂ :

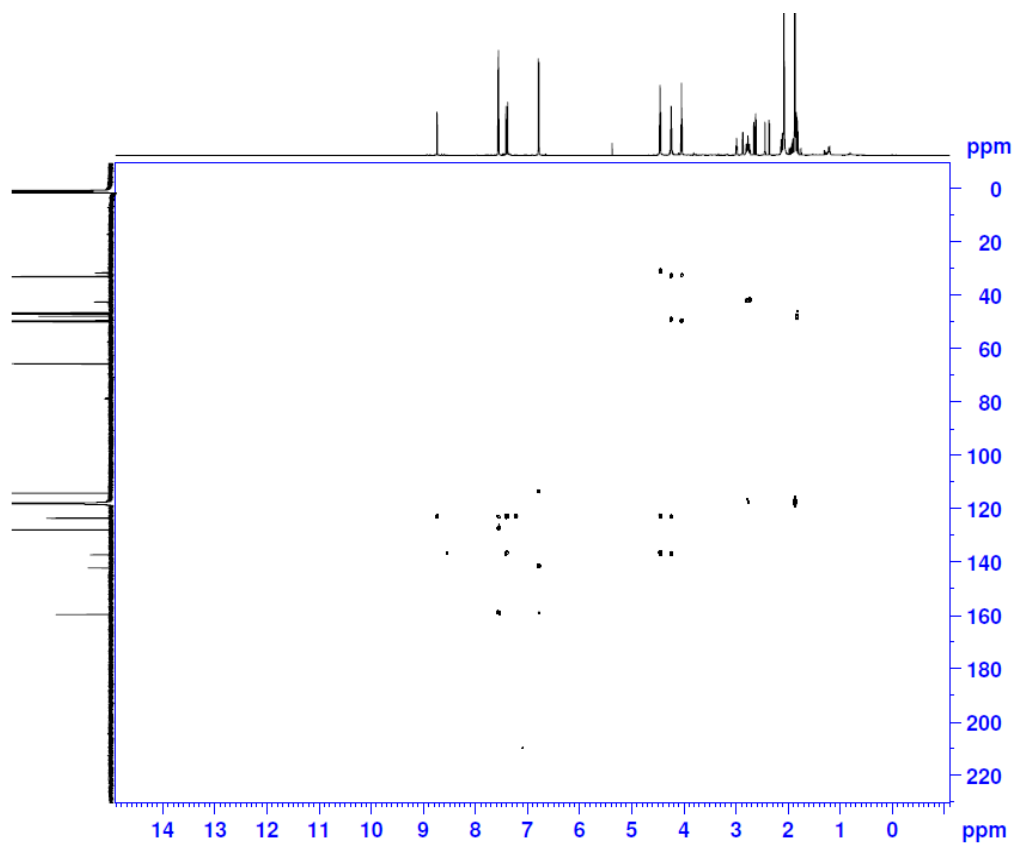
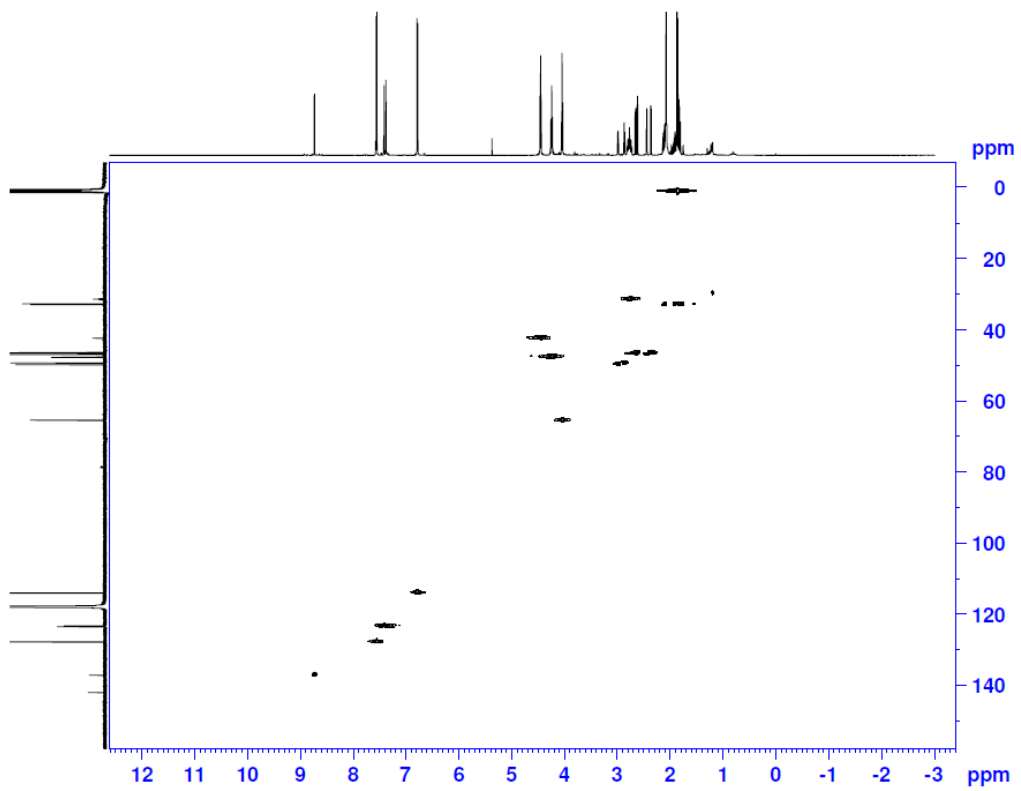


¹H NMR of **5** in CD₃CN :



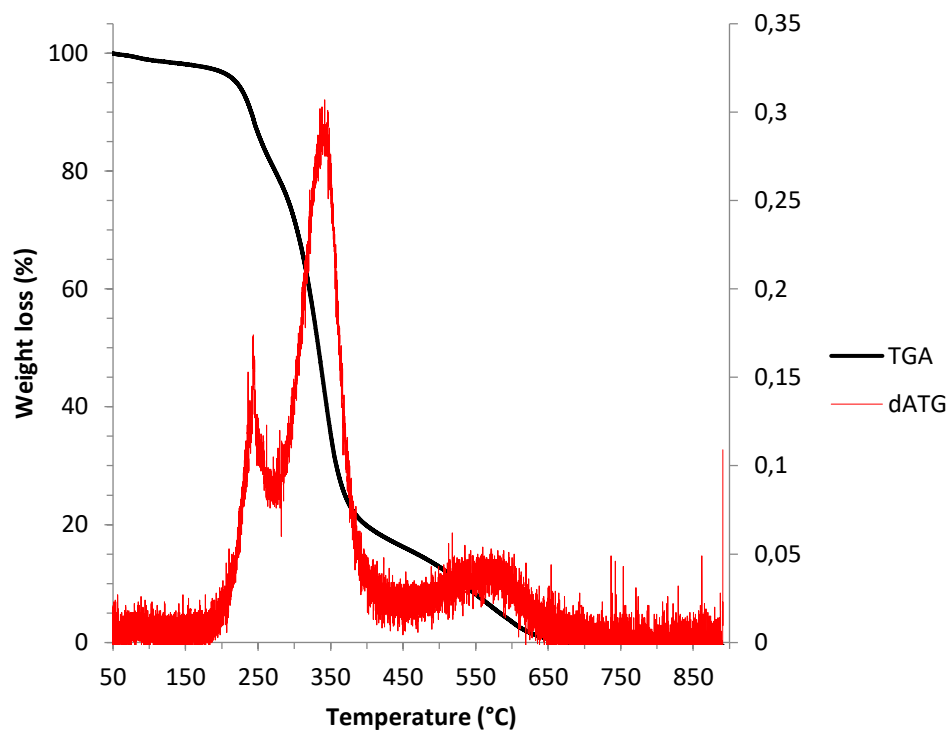






II. TGA analysis

TGA and dATG of 5



III. IR spectra

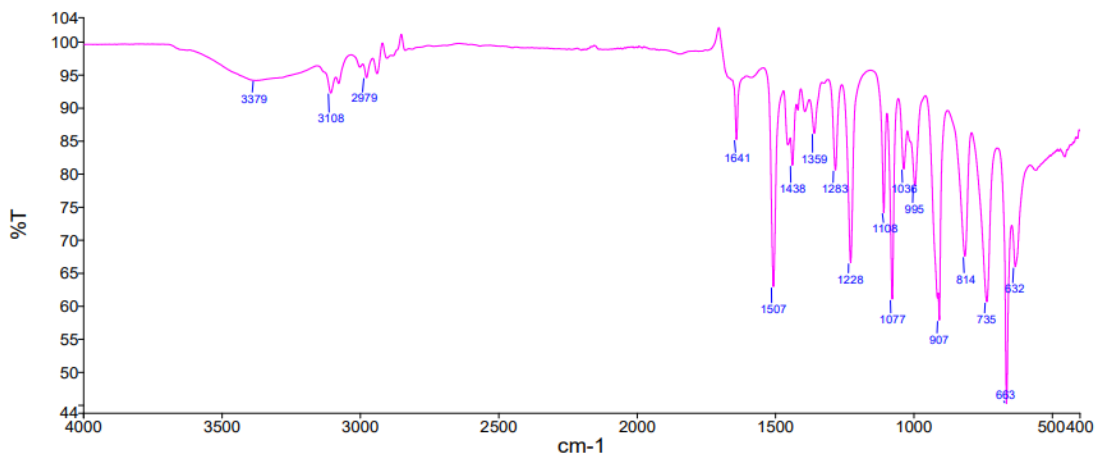


Figure 1: IR spectra of 1

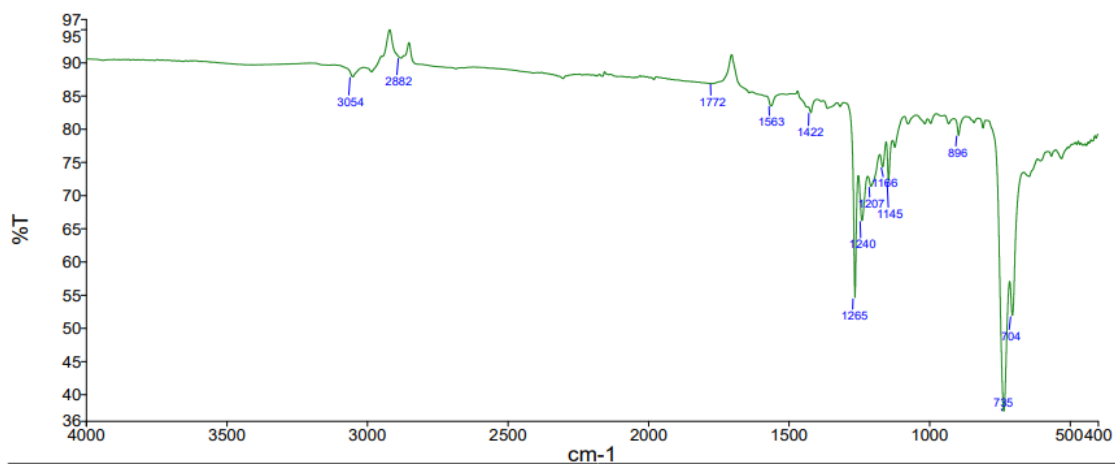


Figure 2: IR spectra of 2

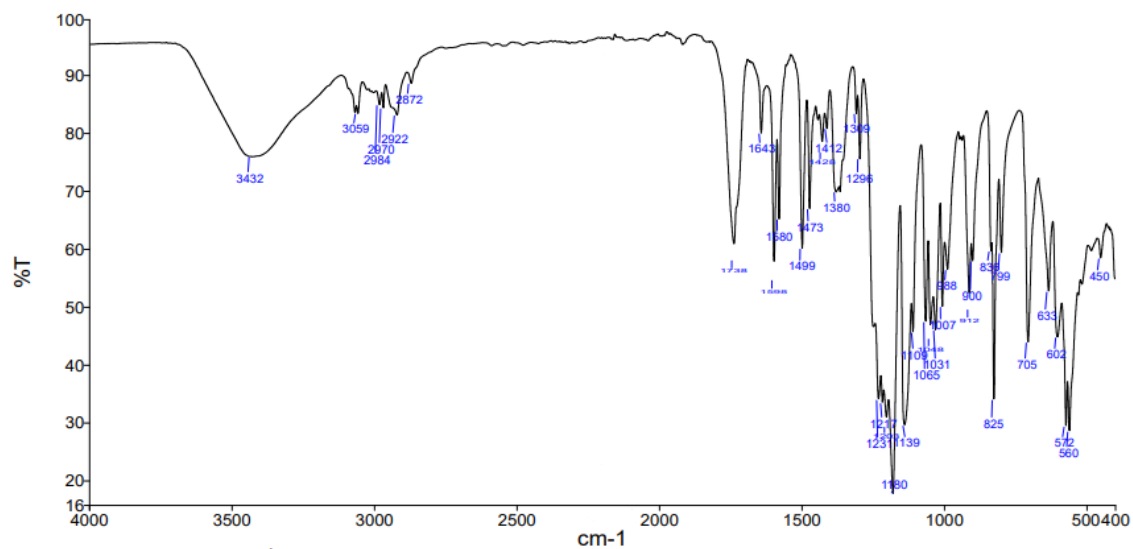


Figure 3: IR spectra of **3**

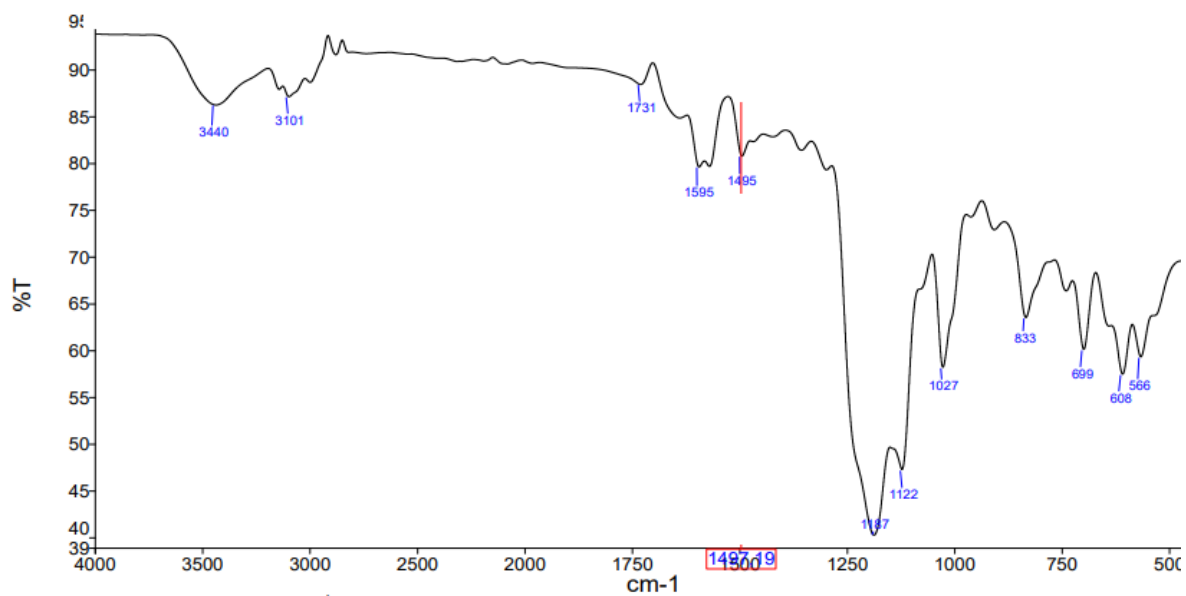


Figure 4: IR spectra of **4**

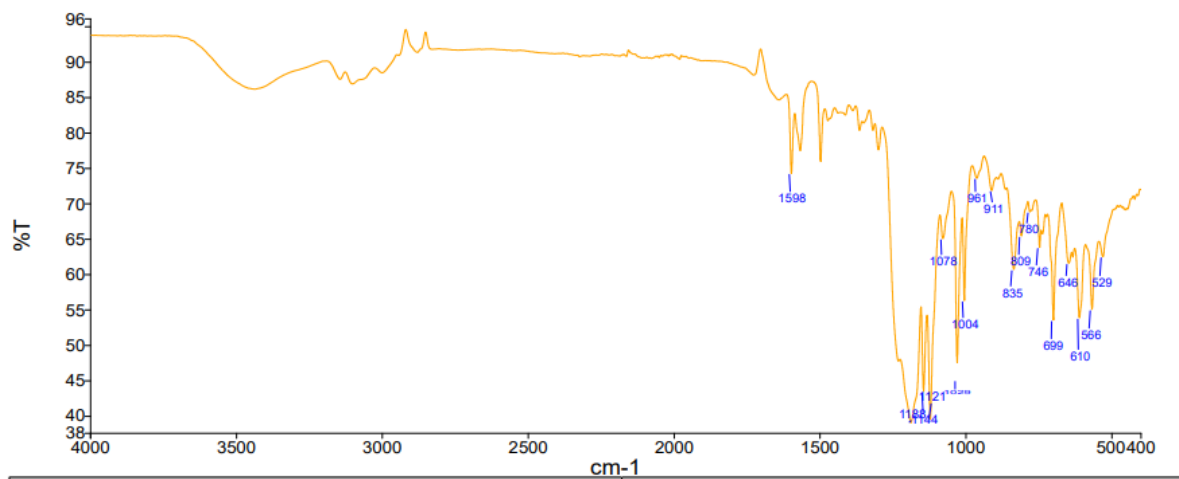


Figure 5: IR spectra of 5

IV. Pictures

a)

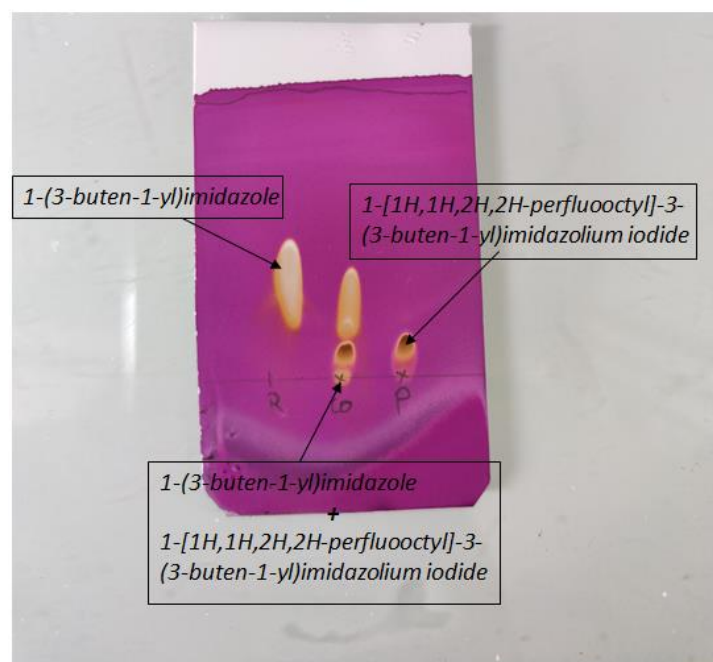


Figure 6: TLC of product **2** ($\text{CH}_2\text{Cl}_2/\text{MeOH}$ 9/1)

b)



Figure 7: Extraction of product **2** ($\text{CH}_2\text{Cl}_2/\text{H}_2\text{O}$)