

## Supplementary Material

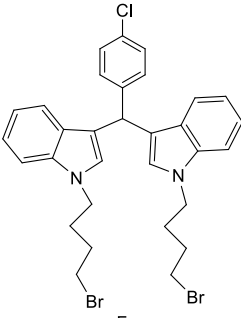
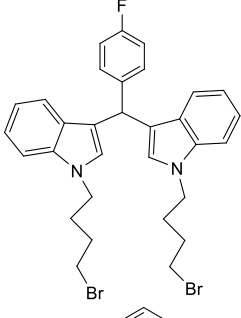
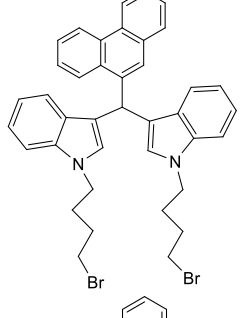
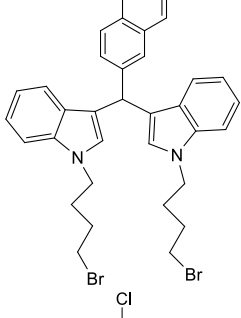
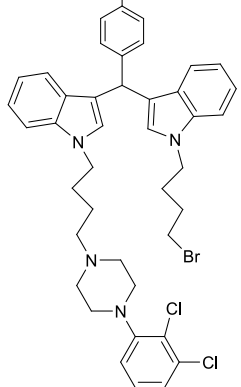
### Synthesis of arylpiperazine substituted bisindolymethanes as possible pharmacologically active new compounds

Busra Arvas, Omer Tahir Gunkara, and Nuket Ocal \*

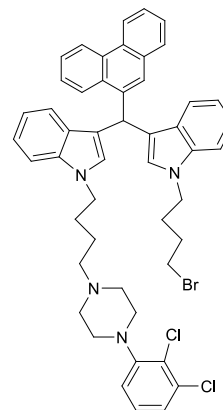
*Yildiz Technical University, Faculty of Science and Arts, Department of Chemistry, Davutpasa Campus, 34220, Esenler, Istanbul, Turkey*  
Email: [nocal@yildiz.edu.tr](mailto:nocal@yildiz.edu.tr)

#### Table of Contents

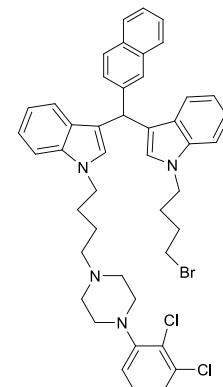
New bisindolymethanes list .....	S2-S4
IR, <sup>1</sup> H-NMR, <sup>13</sup> C-NMR, Qtof or LCMS spectra of new compounds .....	S5-S24

Entry	Compound Name	Compound Structure
3	3,3'-((4-Chlorophenyl)methylene)bis(1-(4-bromobutyl)-1H-indole)	
4	3,3'-((4-Fluorophenyl)methylene)bis(1-(4-bromobutyl)-1H-indole)	
5	3,3'-(Phenanthren-9-ylmethylene)bis(1-(4-bromobutyl)-1H-indole)	
6	3,3'-(Naphthalen-2-ylmethylene)bis(1-(4-bromobutyl)-1H-indole)	
11	1-(4-Bromobutyl)-3-((4-chlorophenyl)(1-(4-(2,3-dichlorophenyl)piperazin-1-yl)butyl)-1H-indol-3-yl)methyl)-1H-indole	

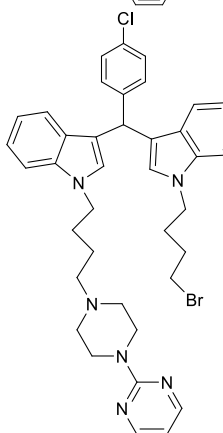
- 12 1-(4-Bromobutyl)-3-((1-(4-(4-(2,3-dichlorophenyl)piperazin-1-yl)butyl)-1H-indol-3-yl)(phenanthren-9-yl)methyl)-1H-indole



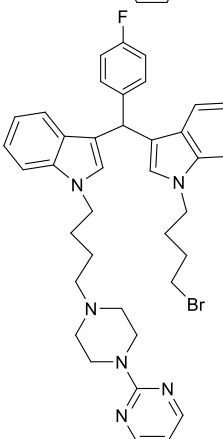
- 13 1-(4-Bromobutyl)-3-((1-(4-(4-(2,3-dichlorophenyl)piperazin-1-yl)butyl)-1H-indol-3-yl)(naphthalen-2-yl)methyl)-1H-indole



- 14 1-(4-Bromobutyl)-3-((4-chlorophenyl)(1-(4-(4-(pyrimidin-2-yl)piperazin-1-yl)butyl)-1H-indol-3-yl)methyl)-1H-indole

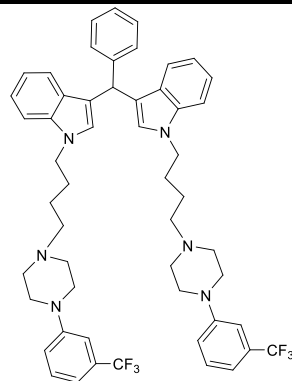


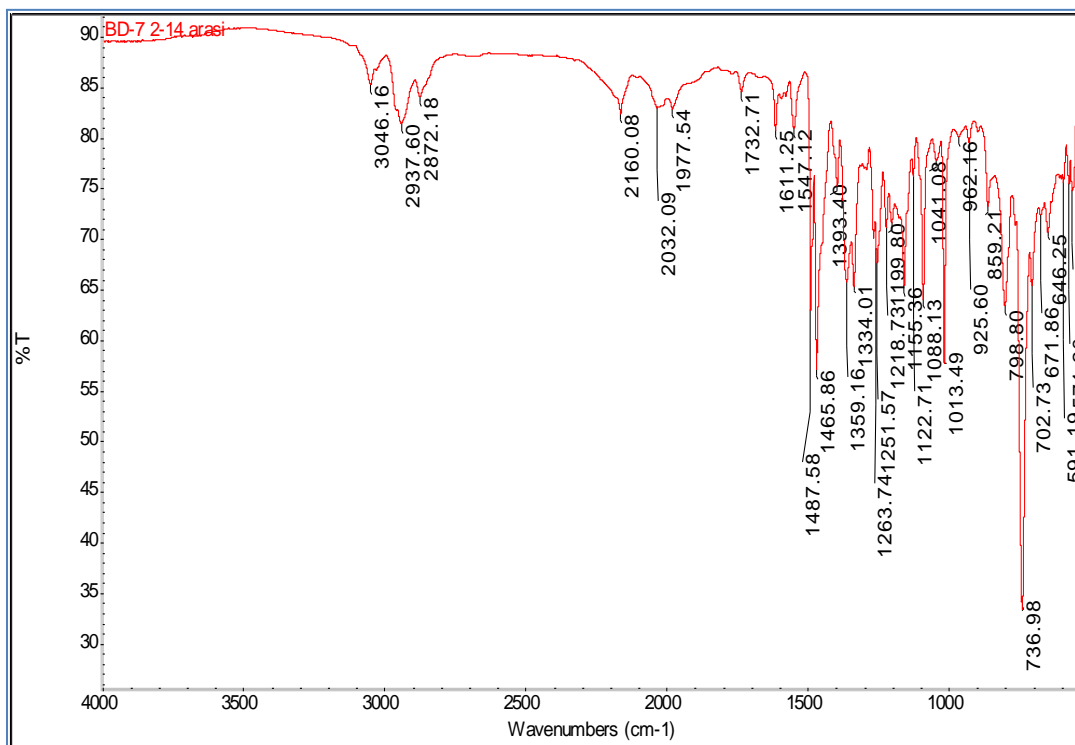
- 15 1-(4-Bromobutyl)-3-((4-fluorophenyl)(1-(4-(4-(pyrimidin-2-yl)piperazin-1-yl)butyl)-1H-indol-3-yl)methyl)-1H-indole



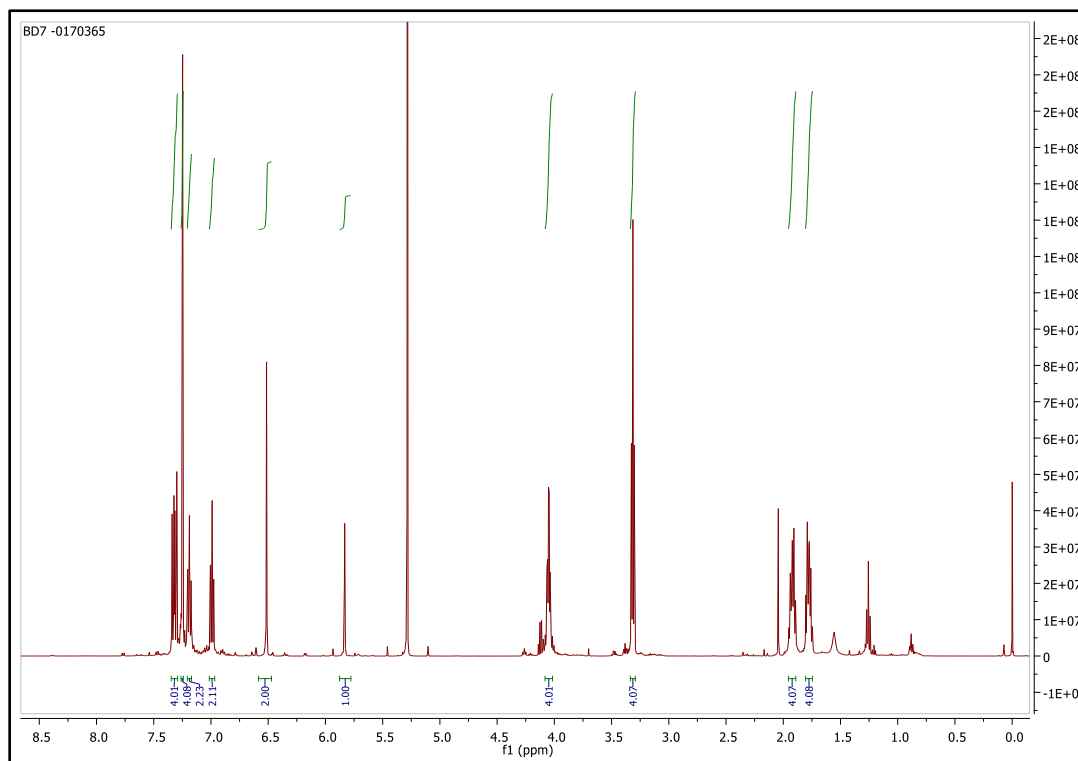
17

3,3'-(Phenylmethylene)bis(1-(4-(4-(3-trifluoromethyl)phenyl)piperazin-1-yl)butyl)-1H-indole

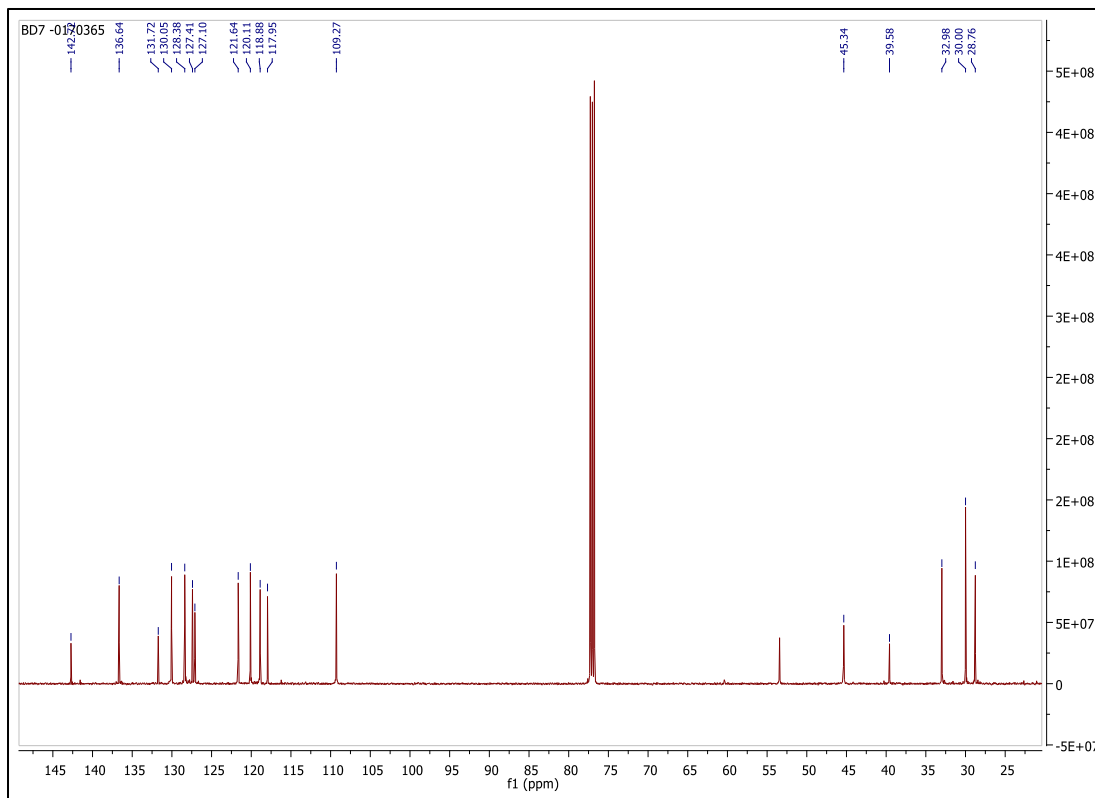




IR Spectrum of Compound 3

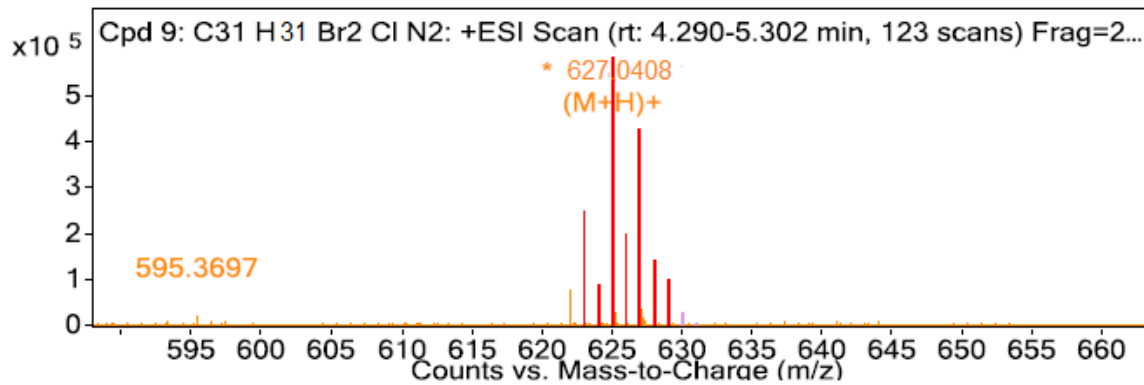


<sup>1</sup>H NMR spectrum of Compound 3

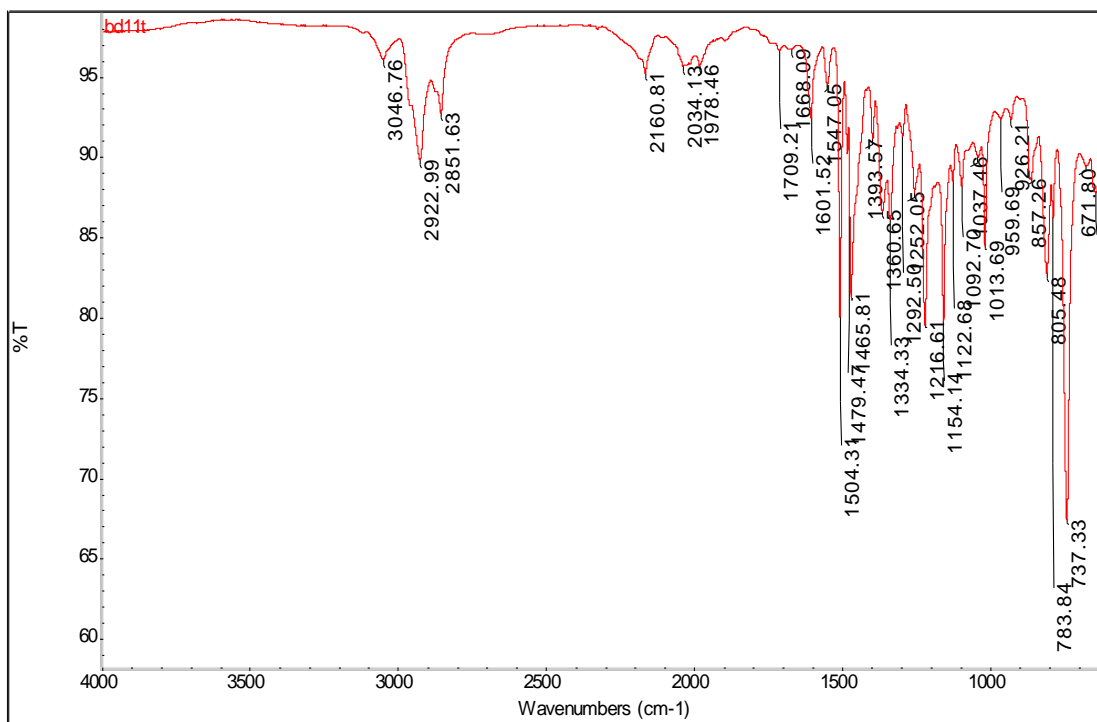


**<sup>13</sup>C NMR spectrum of Compound 3**

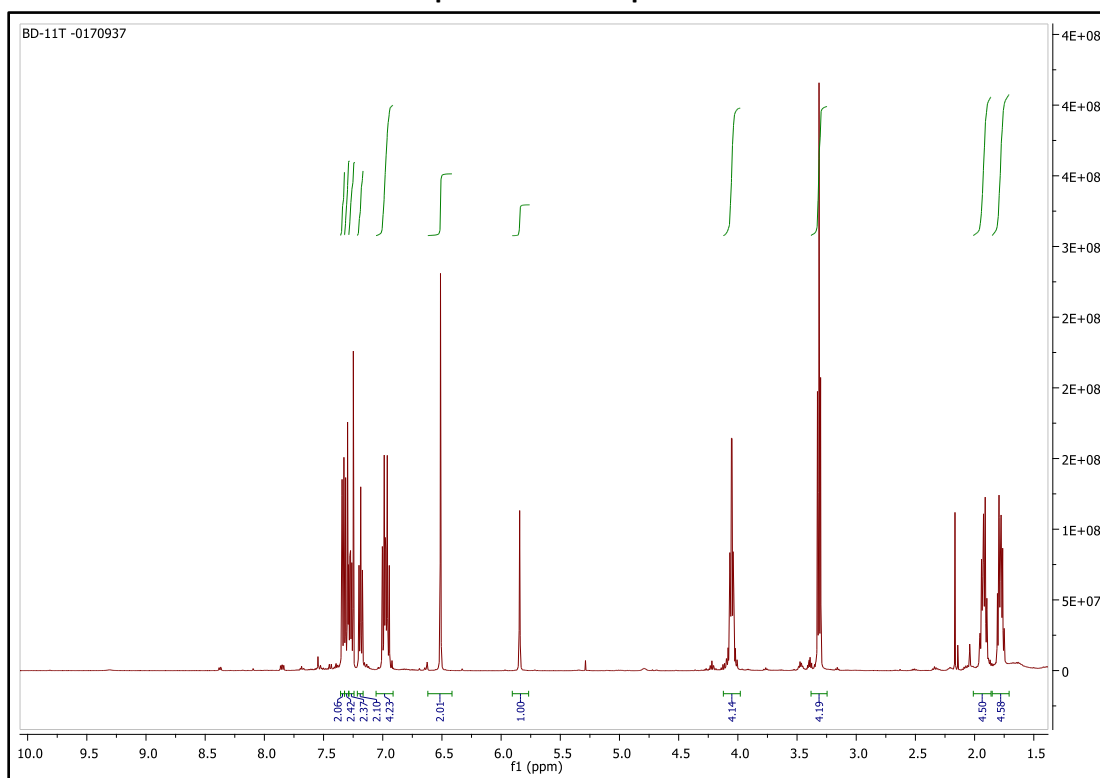
**MS Zoomed Spectrum**



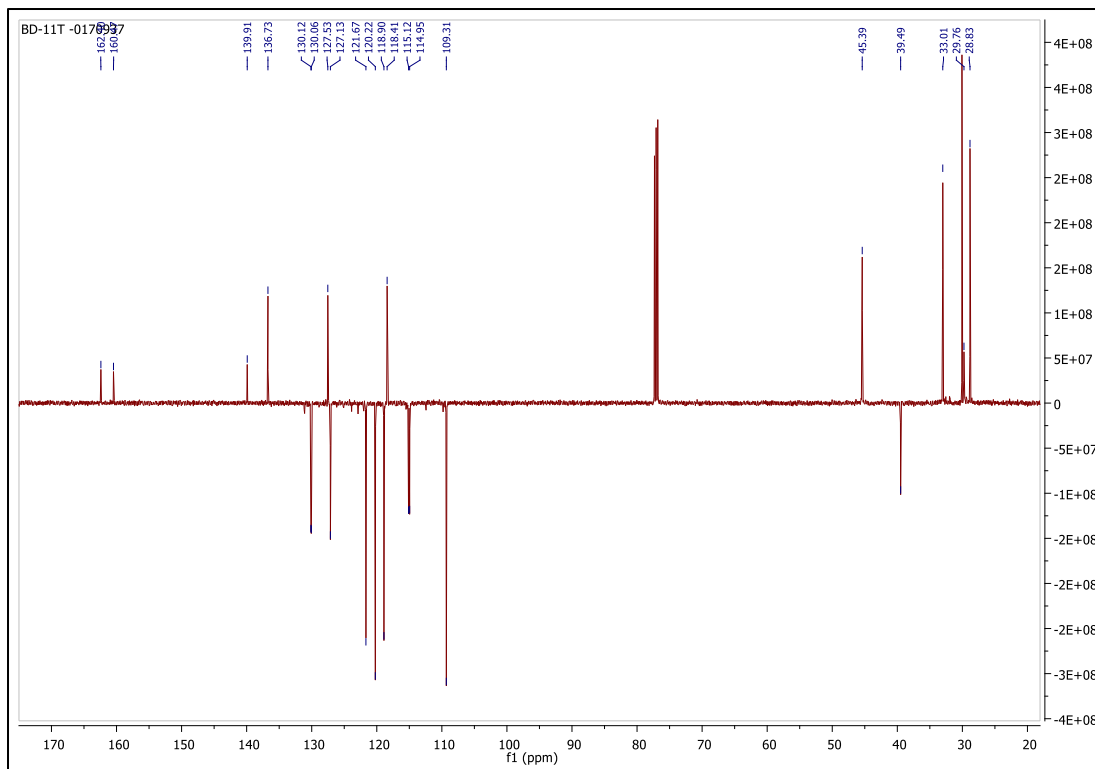
**QToF Spectrum of Compound 3**



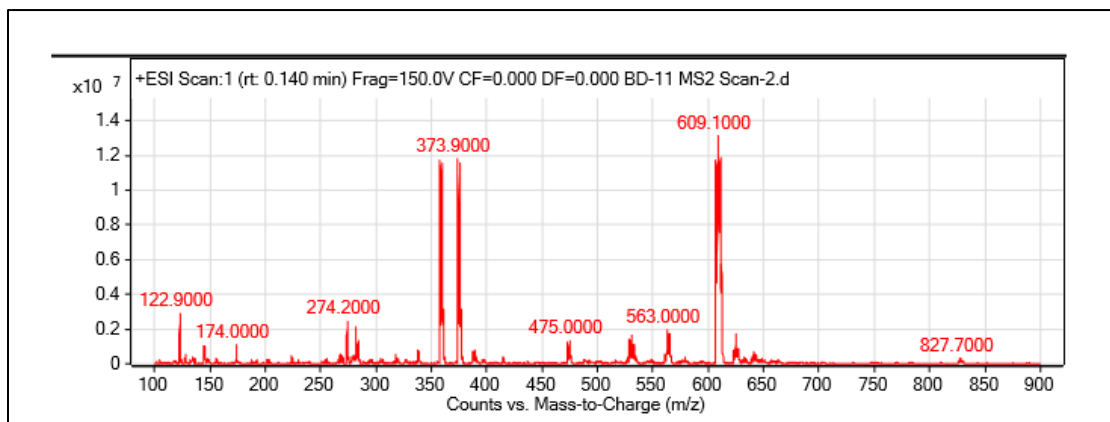
IR spectrum of Compound 4



<sup>1</sup>H-NMR spectrum of Compound 4

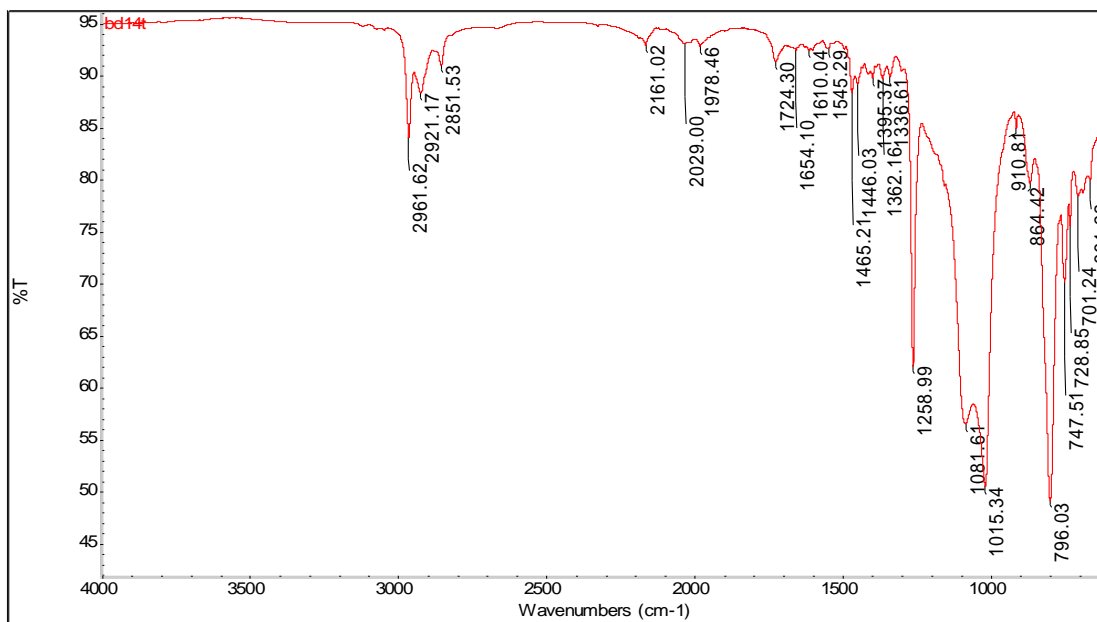


APT spectrum of Compound 4

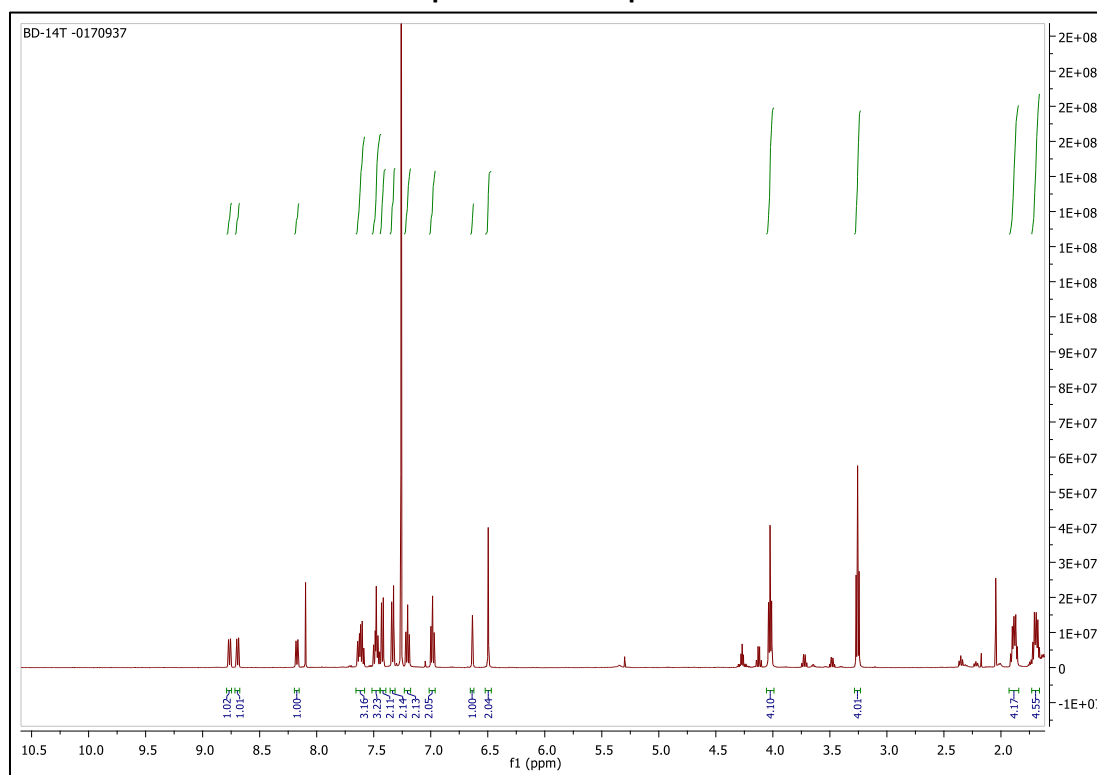


LCMS Spectrum of Compound 4

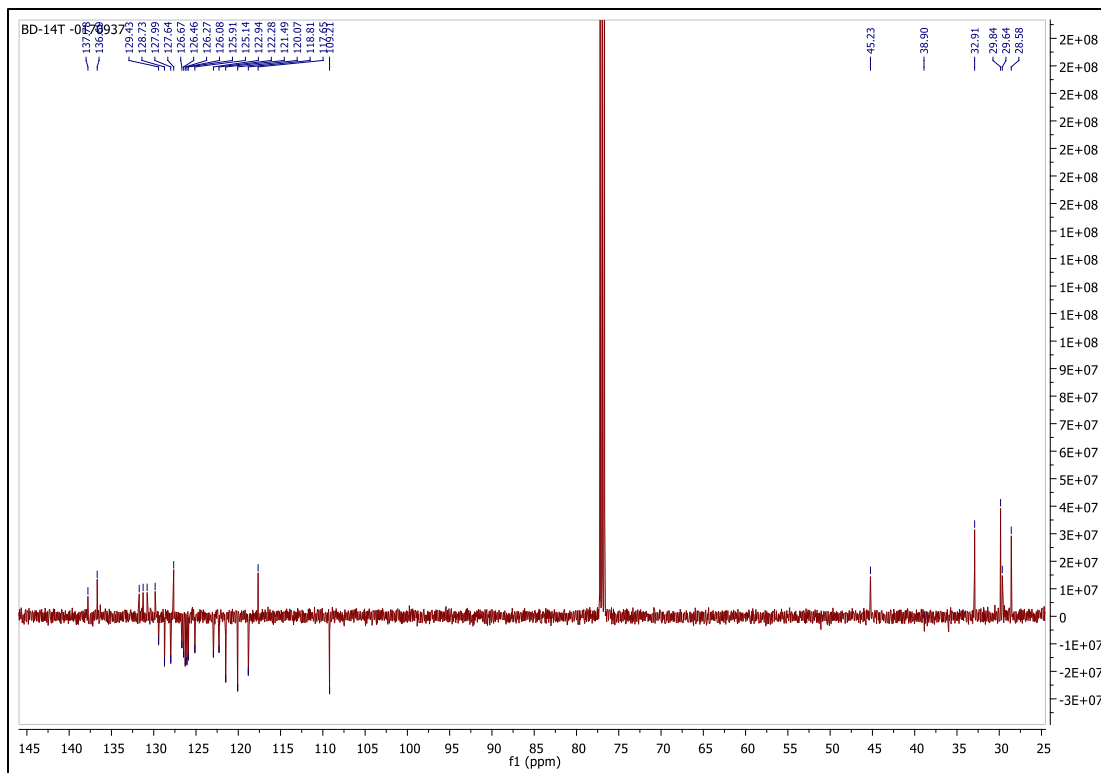




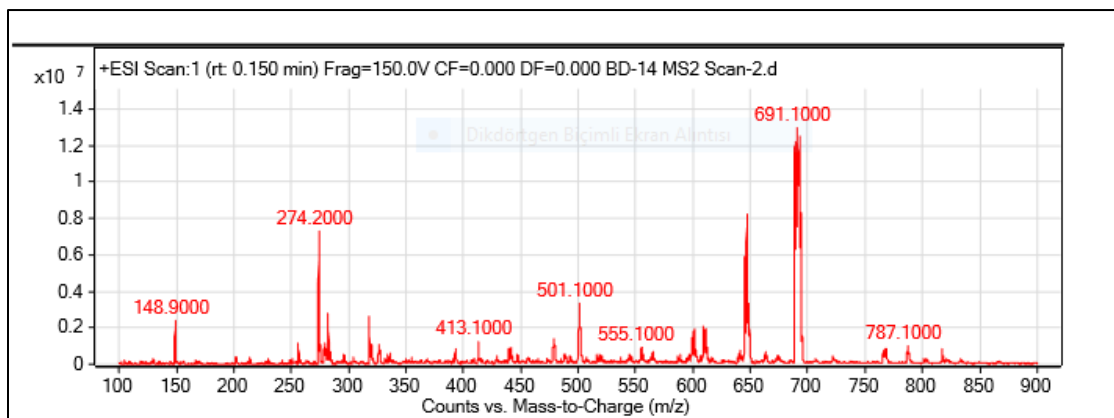
IR spectrum of Compound 5



<sup>1</sup>H-NMR spectrum of Compound 5

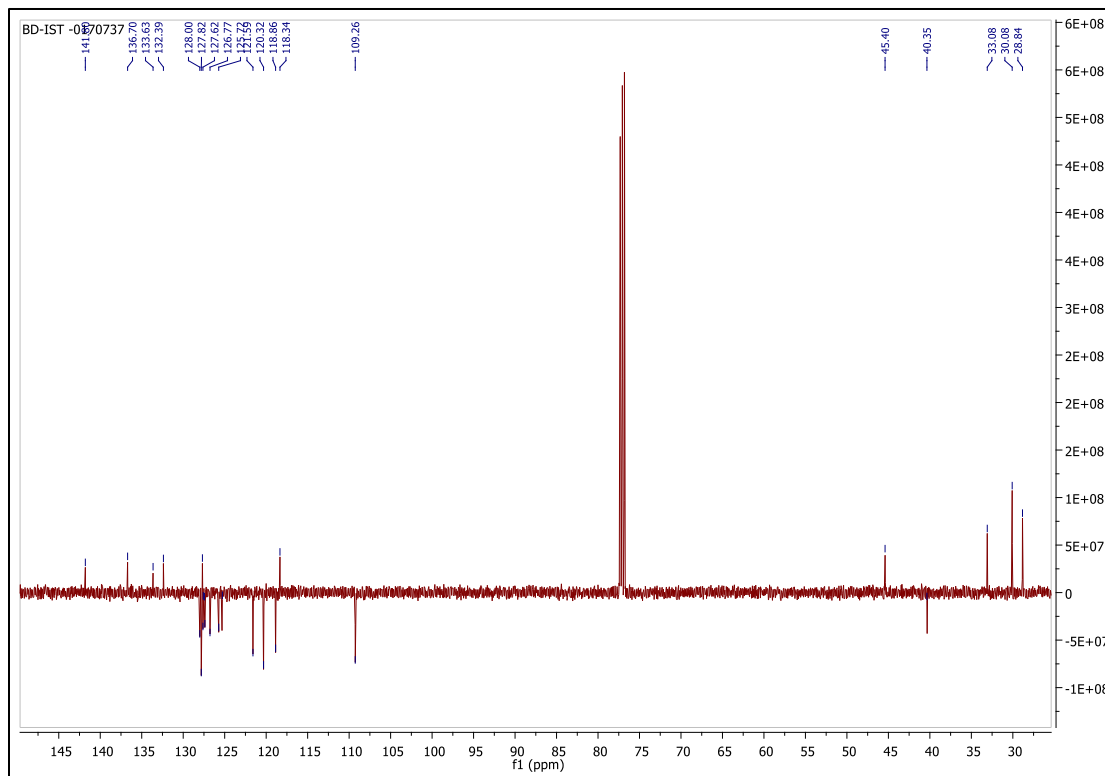


<sup>13</sup>C NMR spectrum of Compound 5

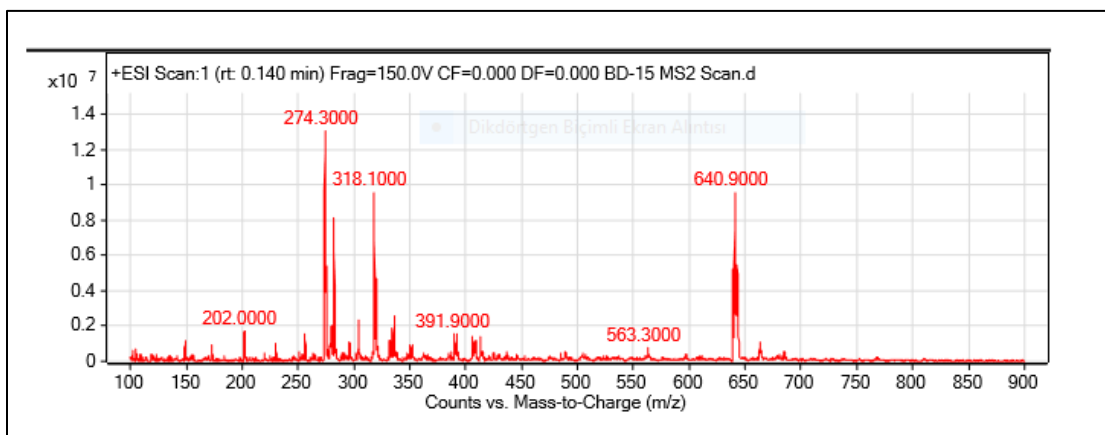


LCMS Spectrum of Compound 5

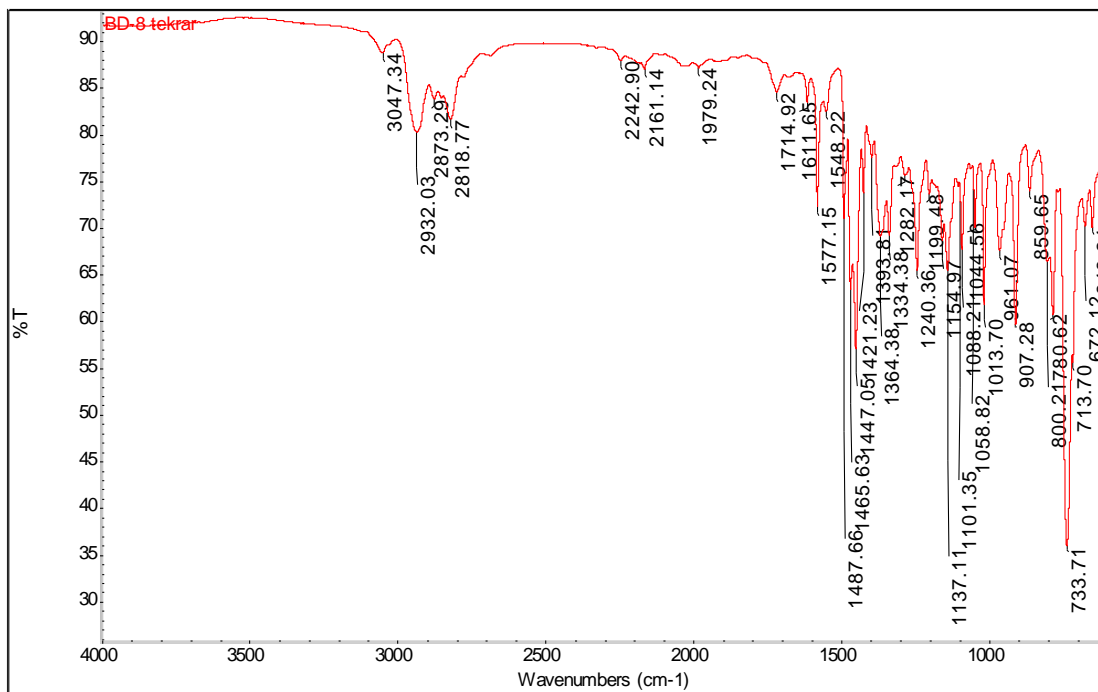




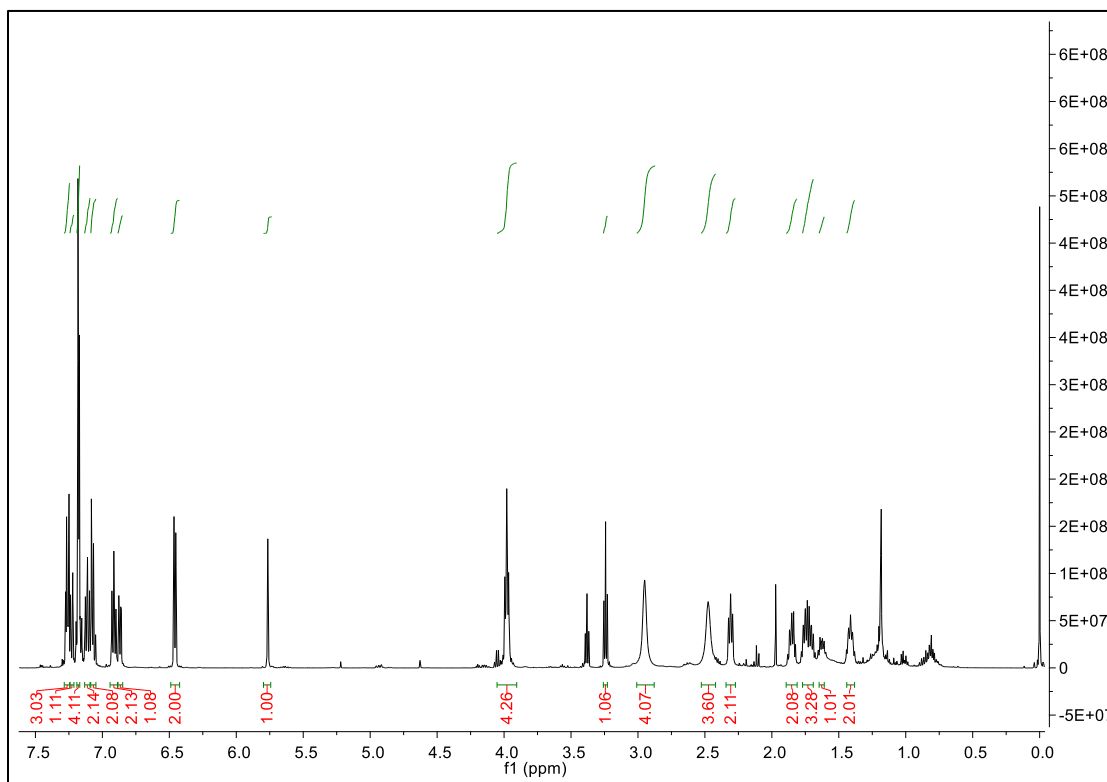
APT spectrum of Compound 6



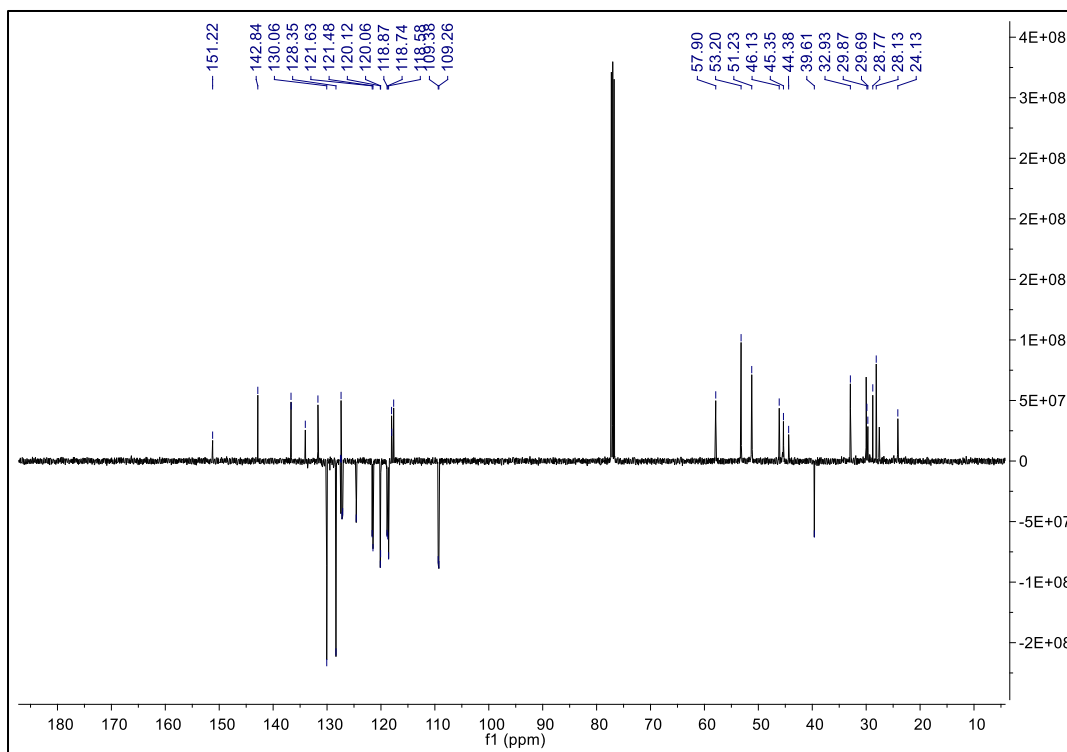
LCMS Spectrum of Compound 6



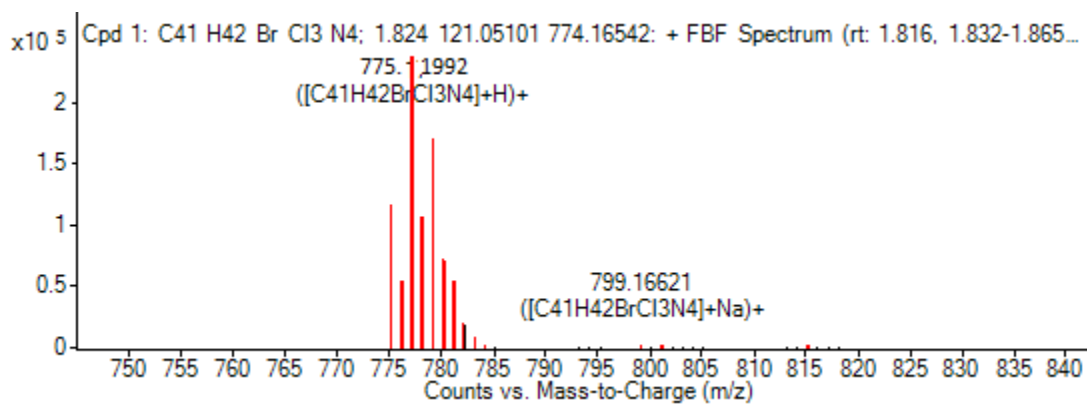
IR Spectrum of Compound 11



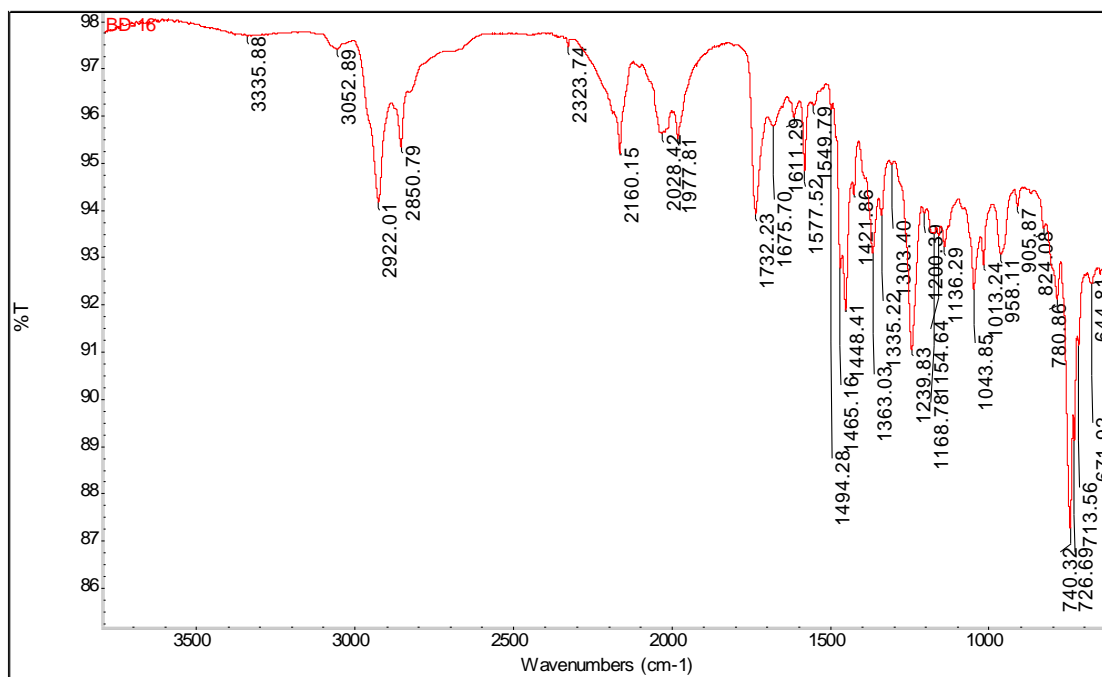
<sup>1</sup>H-NMR spectrum of Compound 11



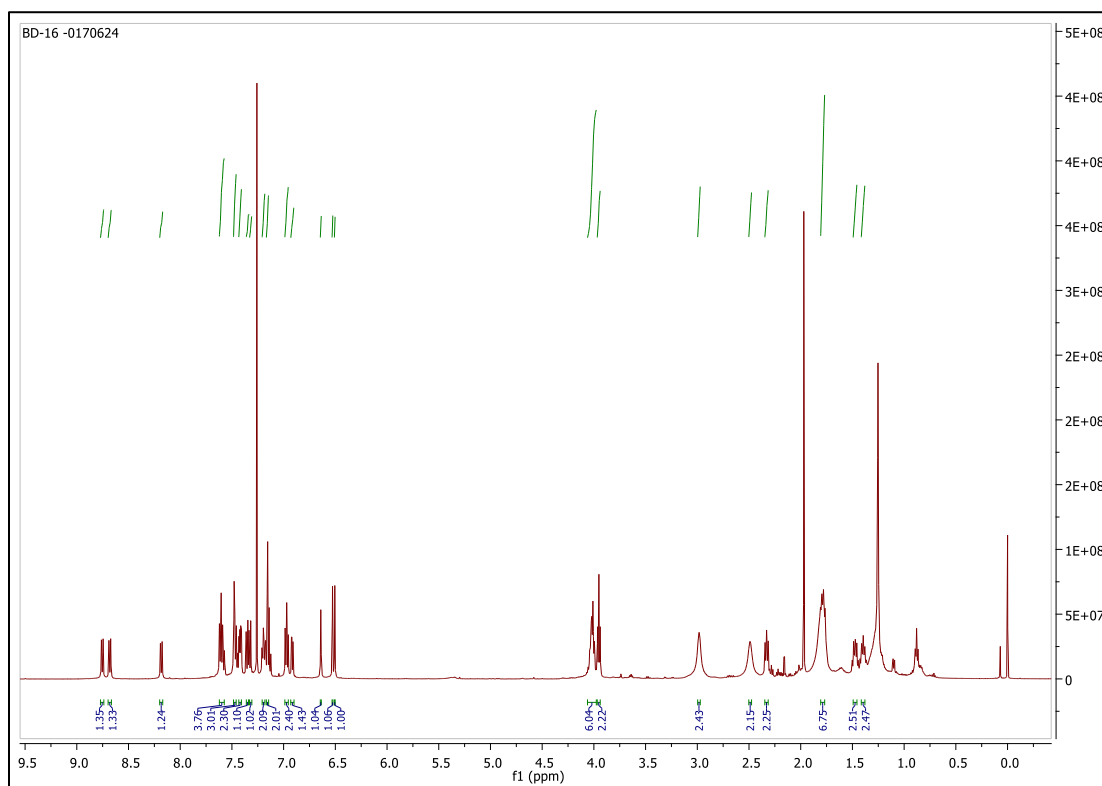
APT spectrum of Compound 11



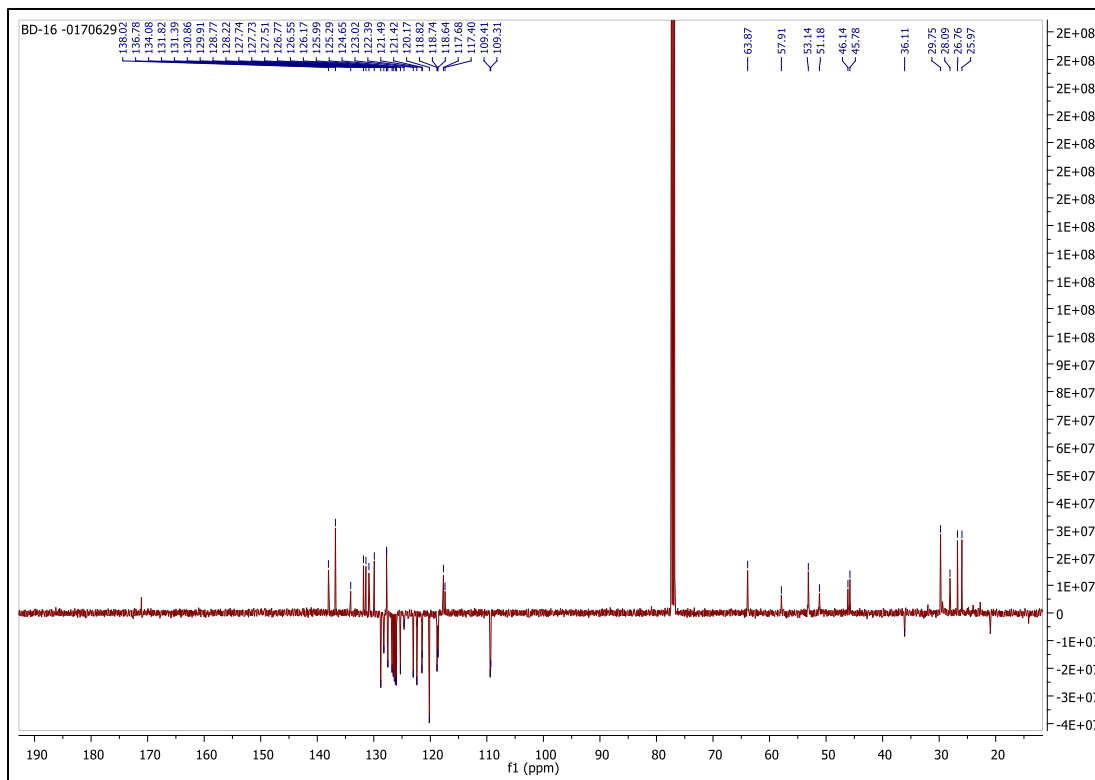
QToF spectrum of Compound 11



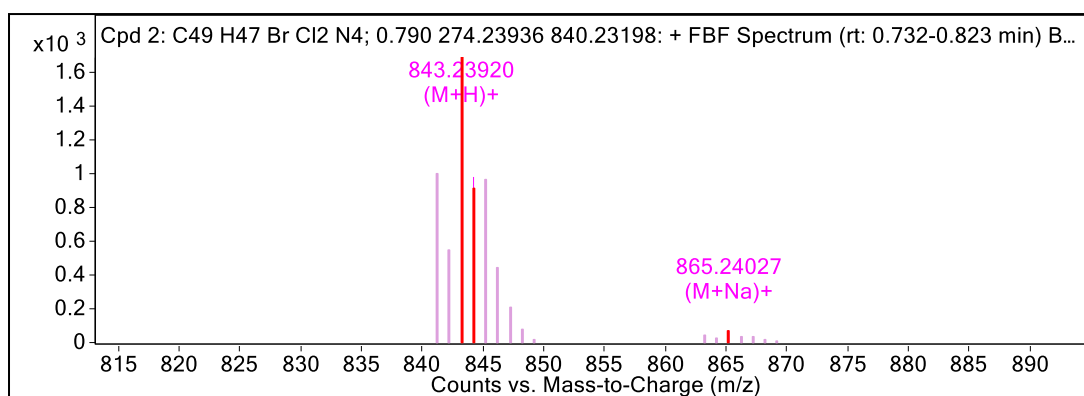
IR spectrum of Compound 12



<sup>1</sup>H-NMR spectrum of Compound 12

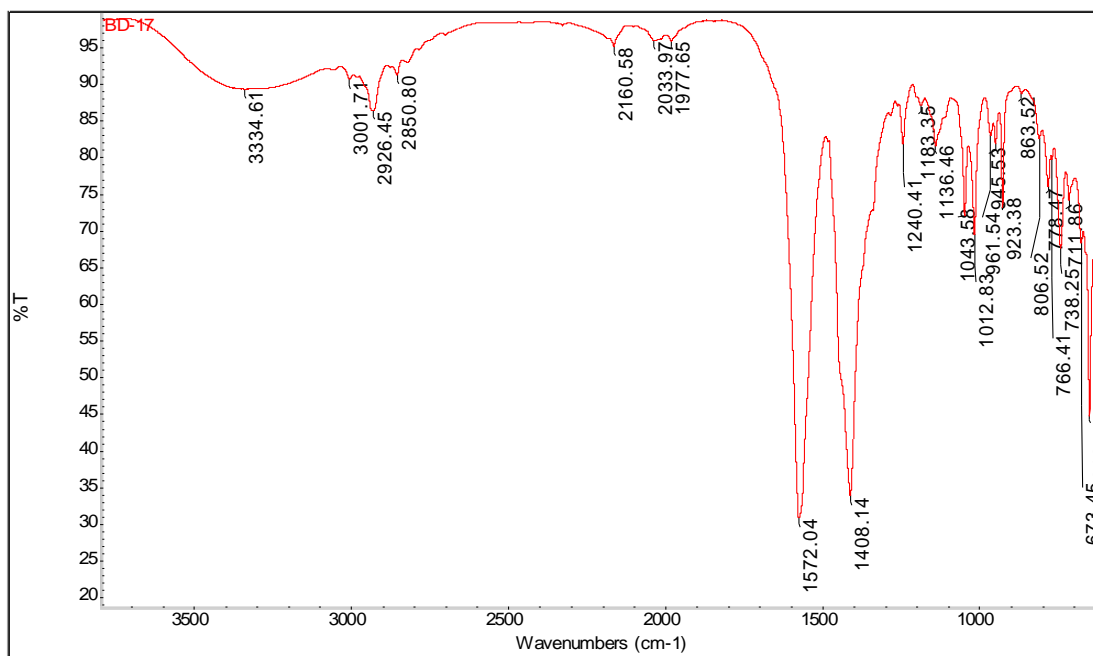


APT spectrum of Compound 12

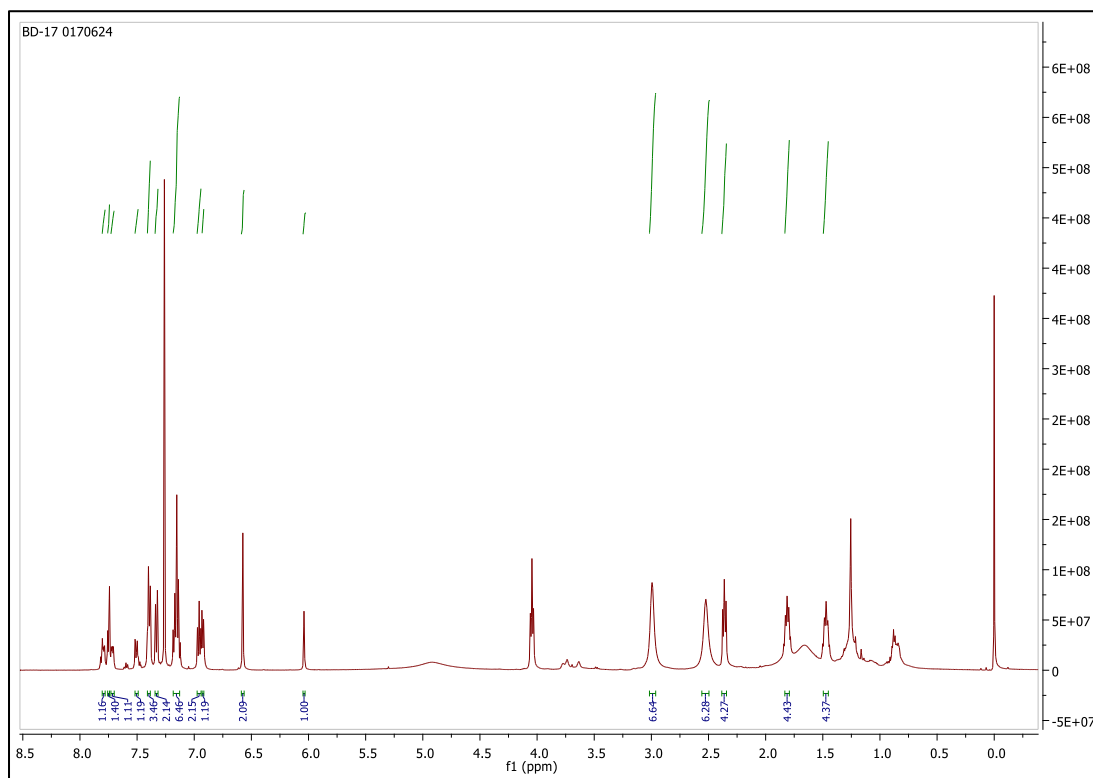


QToF Spectrum of Compound 12

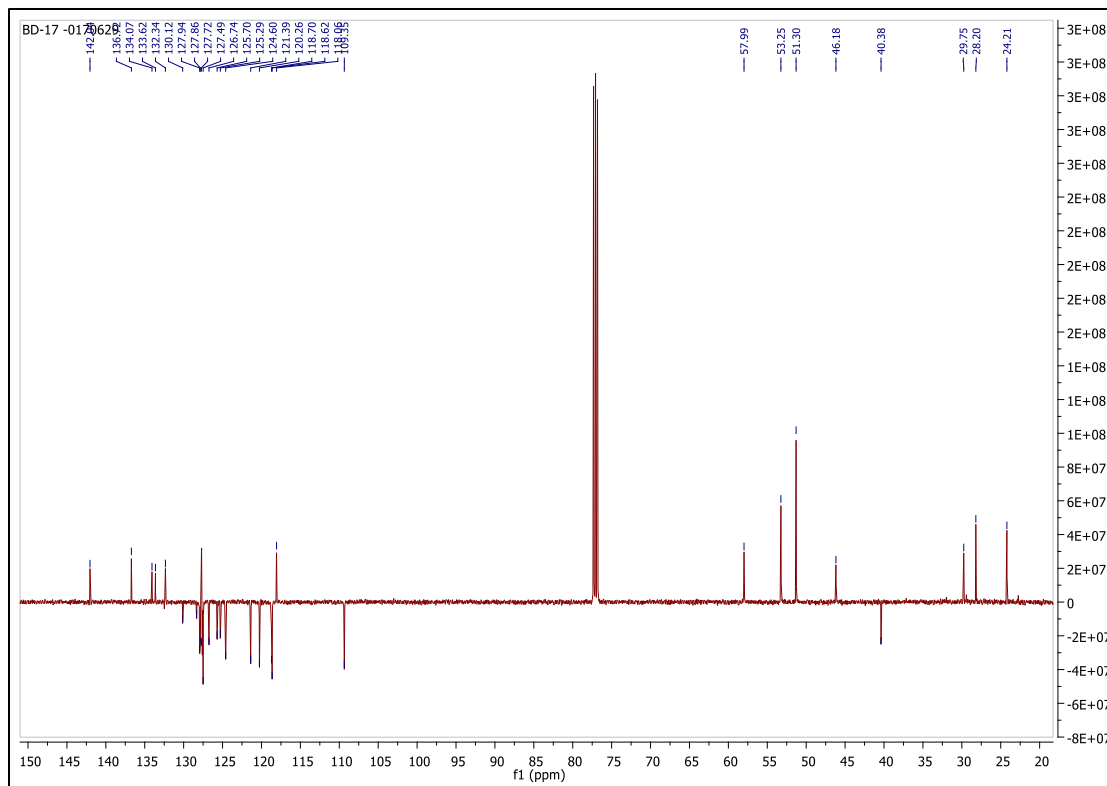




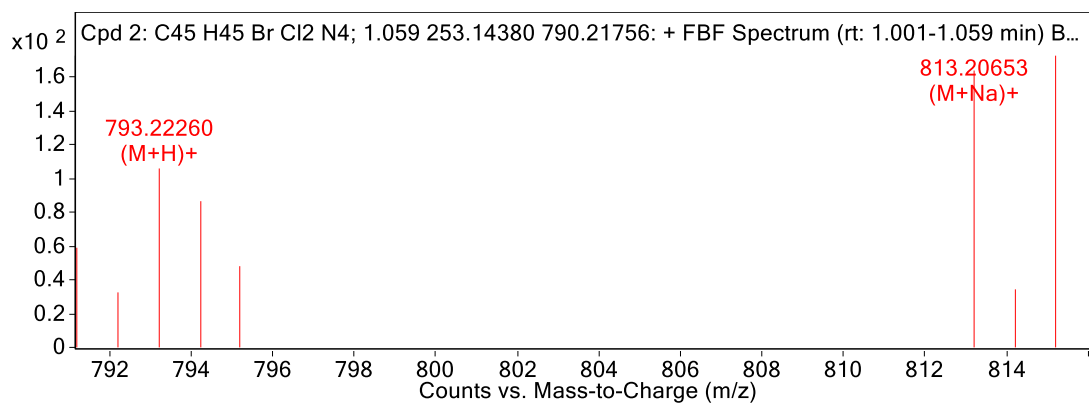
IR spectrum of Compound 13



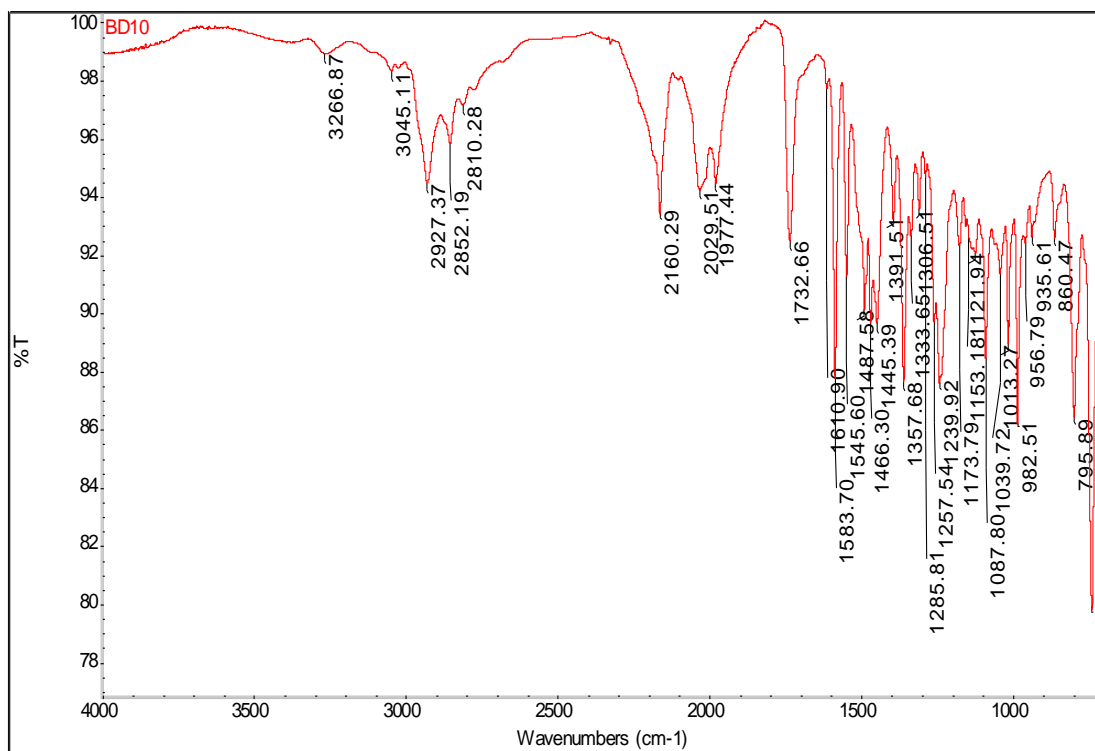
<sup>1</sup>H-NMR spectrum of Compound 13



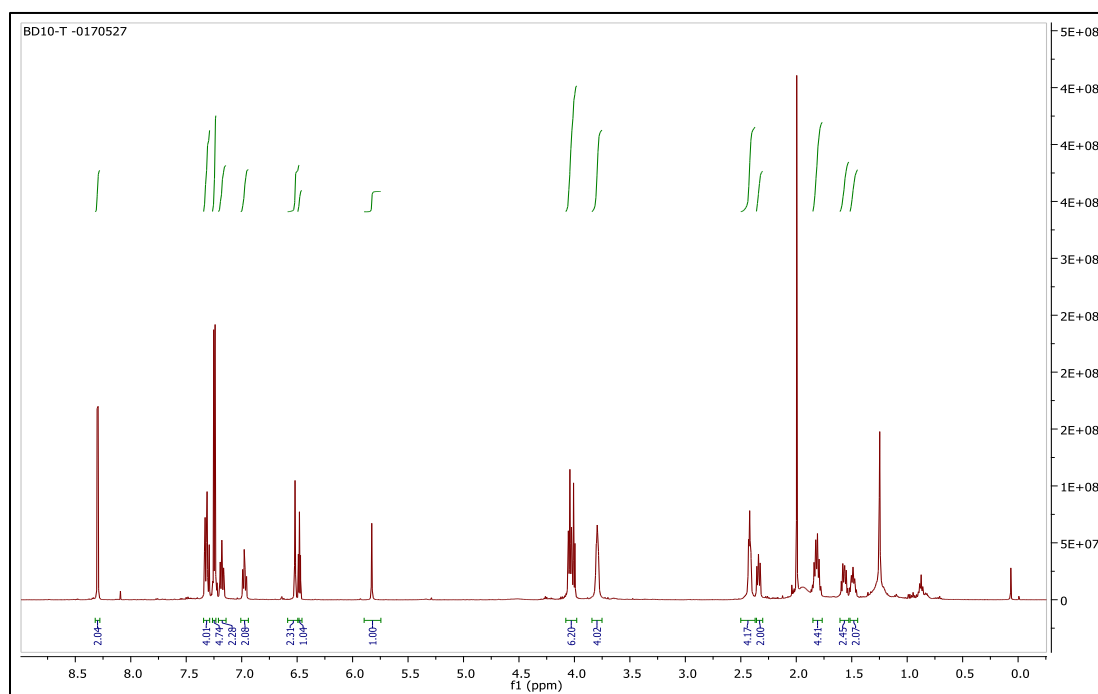
APT spectrum of Compound 13



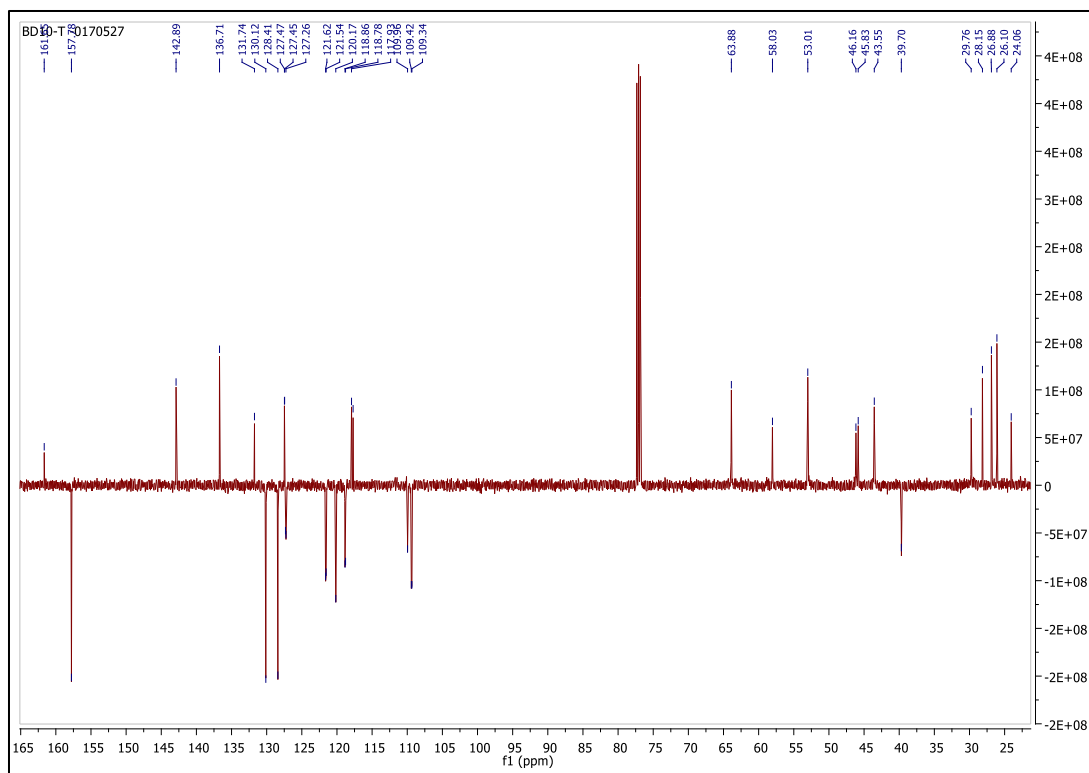
QToF Spectrum of Compound 13



IR spectrum of Compound 14

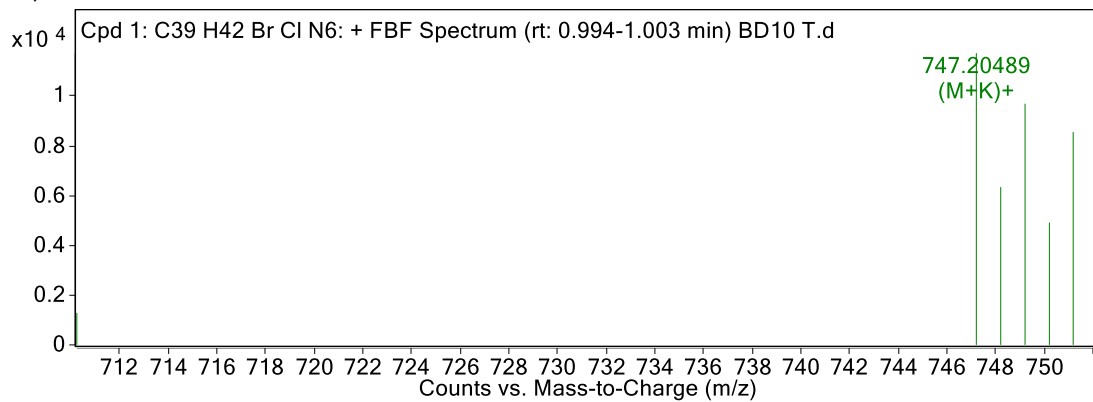


<sup>1</sup>H-NMR spectrum of Compound 14

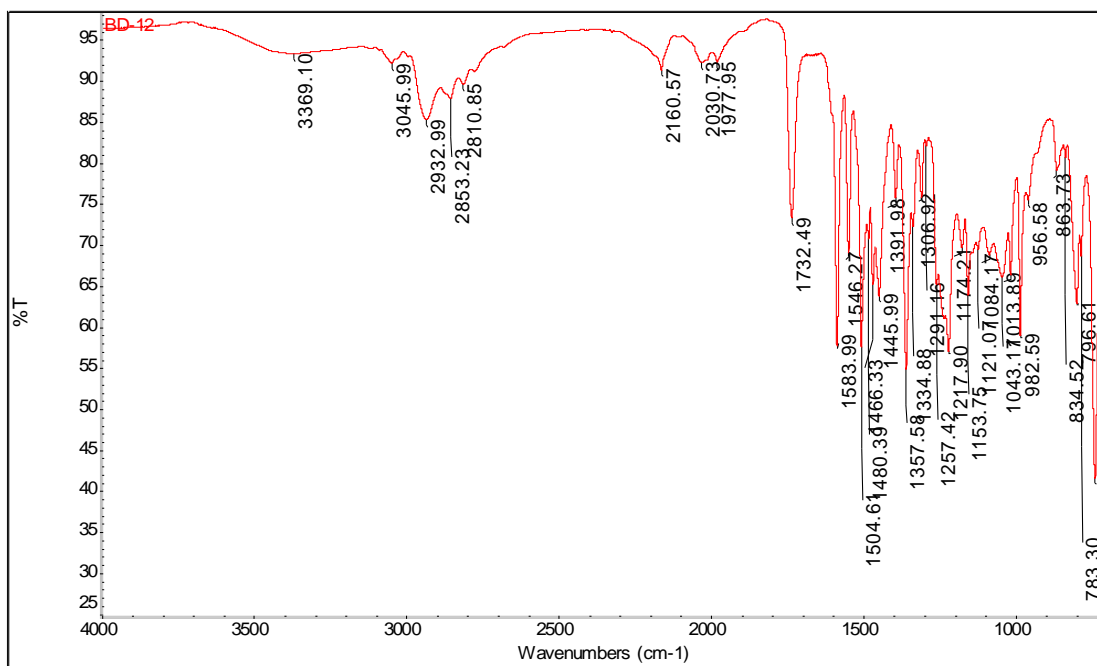


APT spectrum of Compound 14

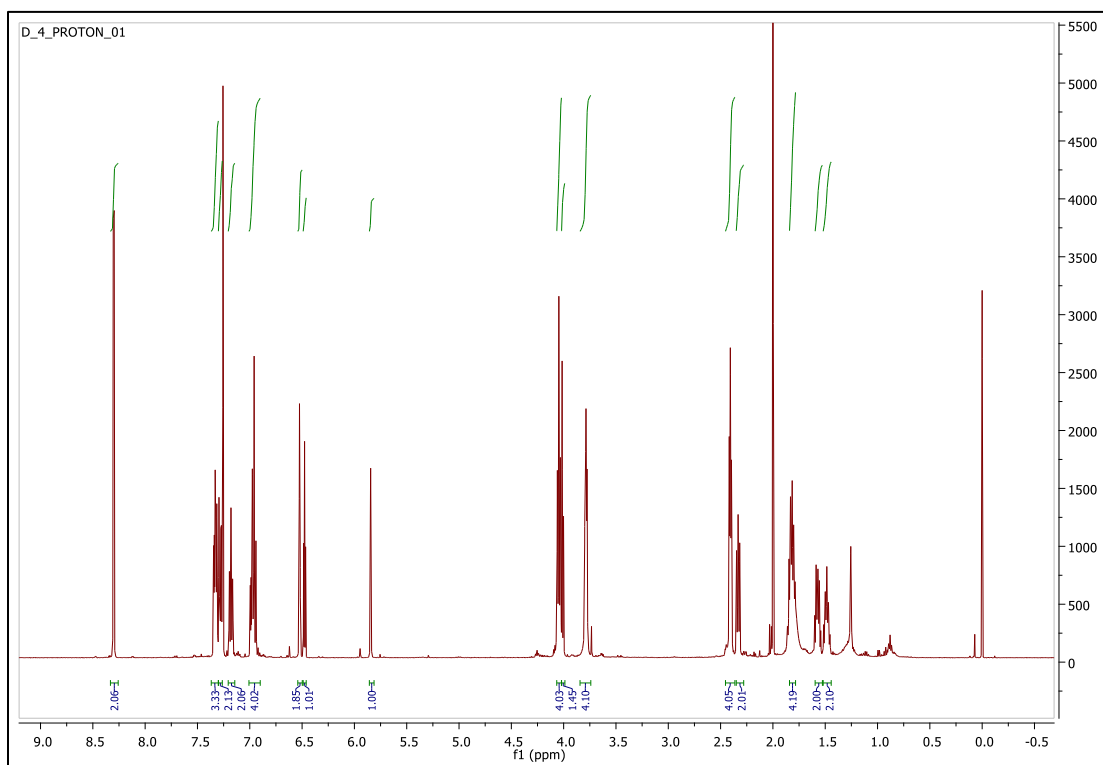
## MS Spectrum



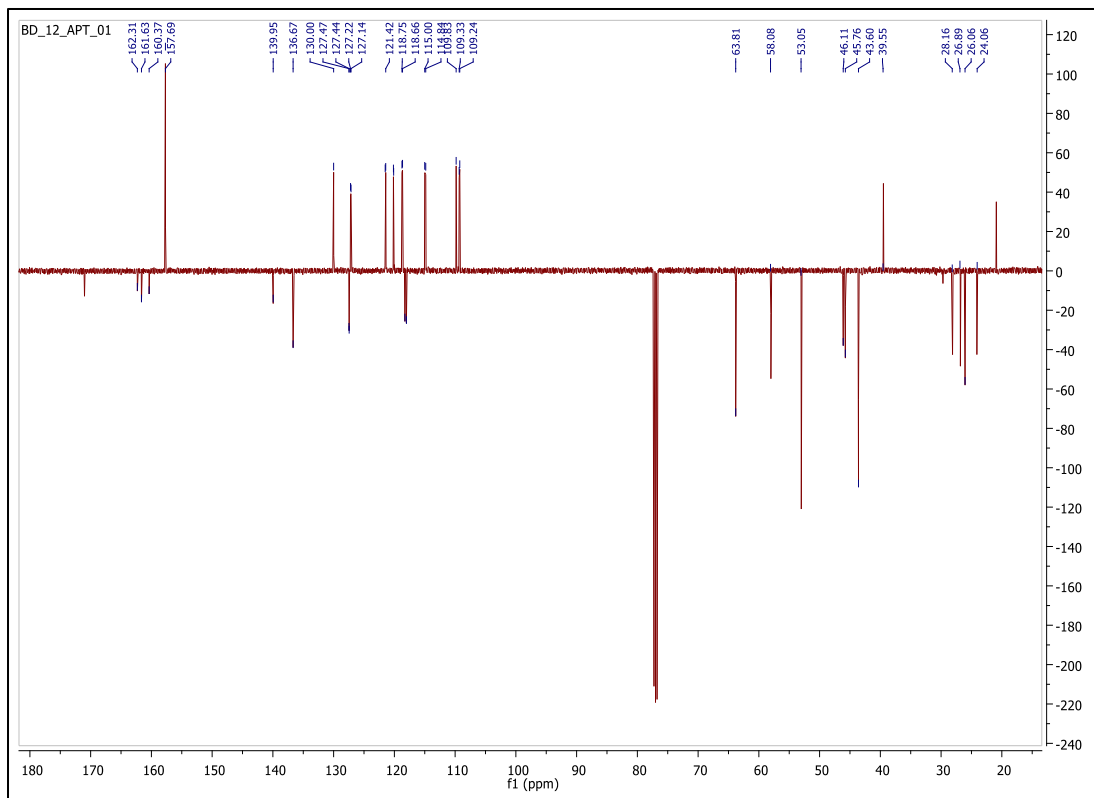
QToF Spectrum of Compound 14



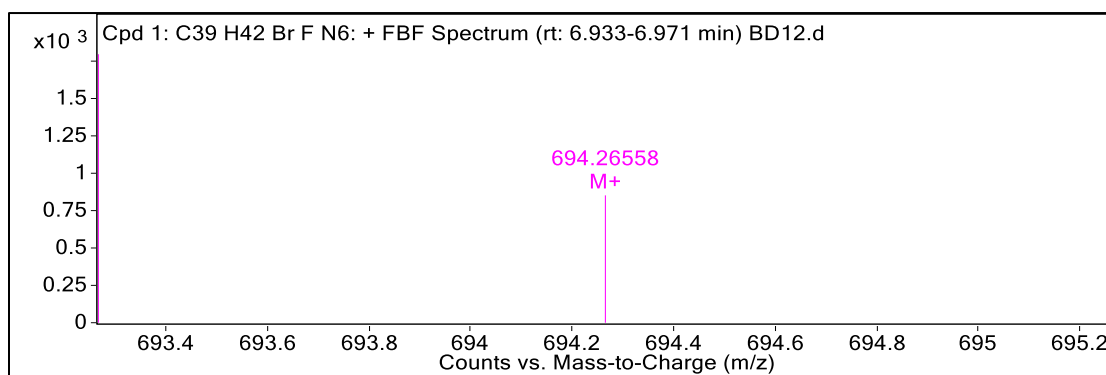
IR spectrum of Compound 15



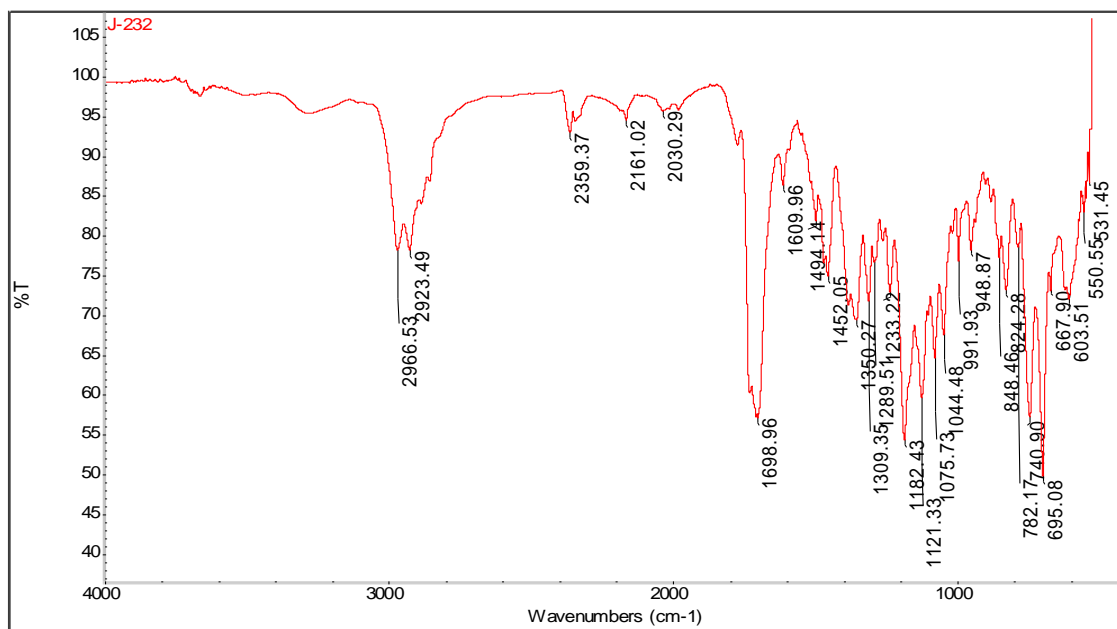
<sup>1</sup>H-NMR spectrum of Compound 15



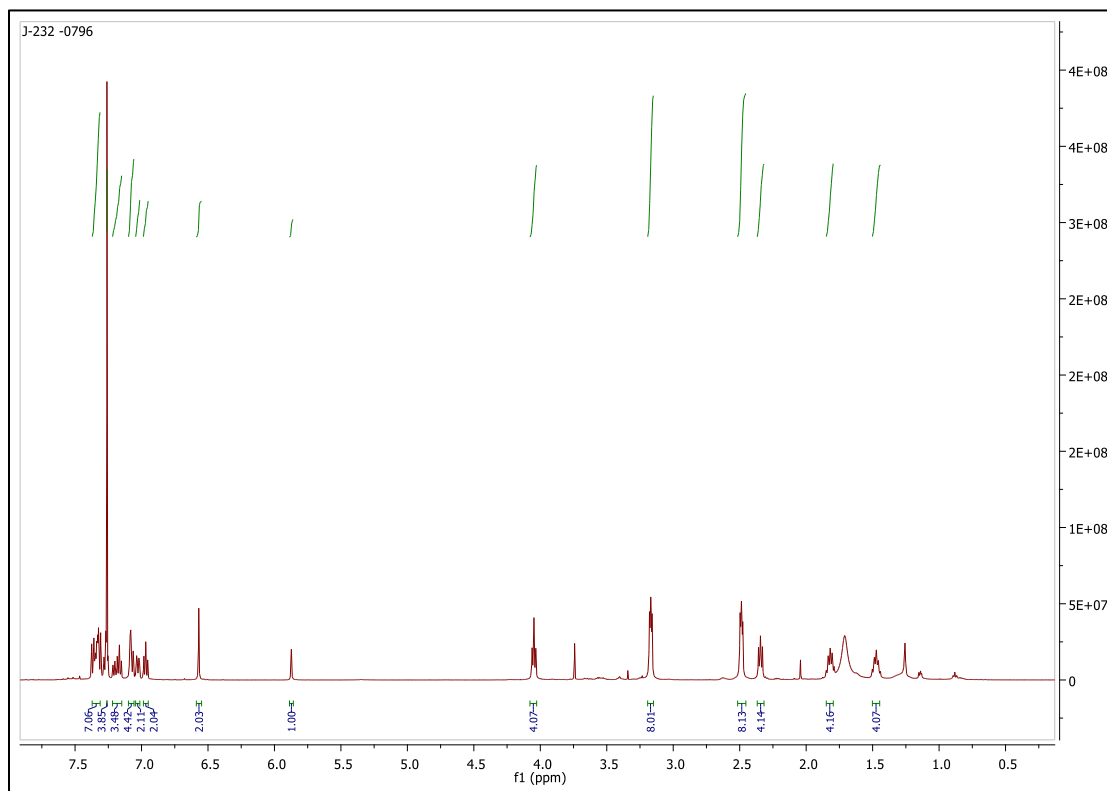
APT spectrum of Compound 15



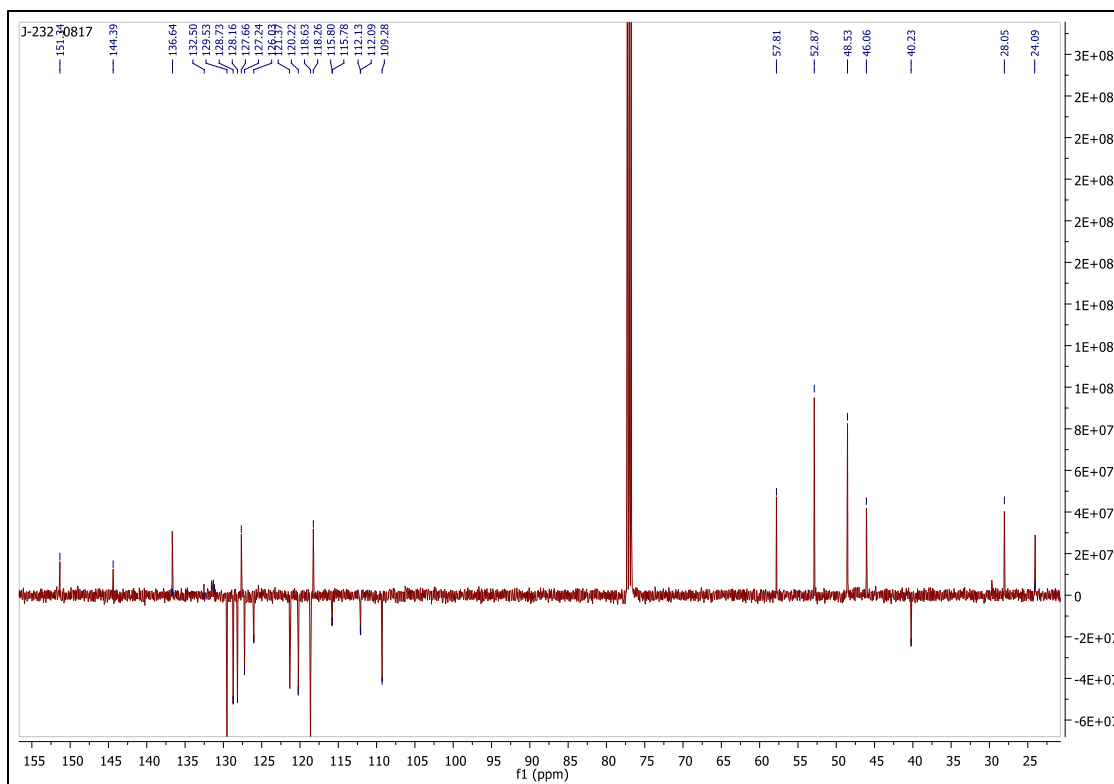
QToF Spectrum of Compound 15



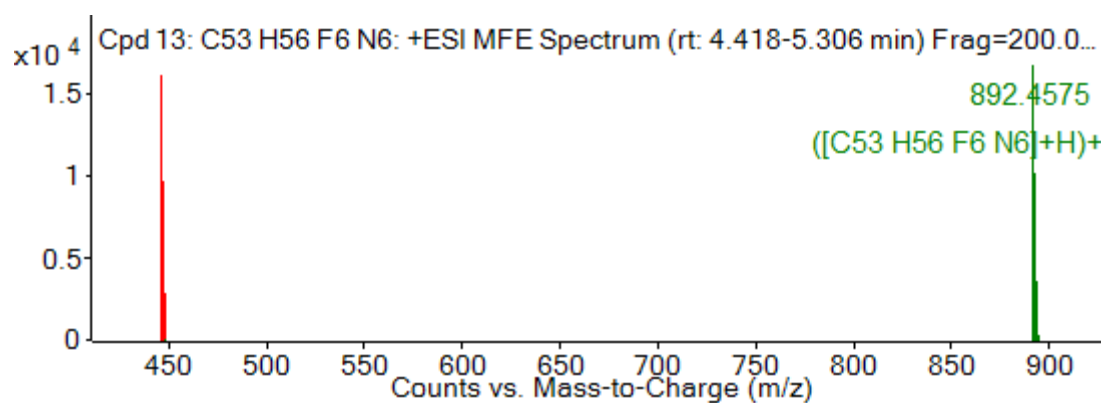
IR spectrum of Compound 17



<sup>1</sup>H-NMR spectrum of Compound 17



APT spectrum of Compound 17



QToF Spectrum of Compound 17