

1.1. The IR spectra

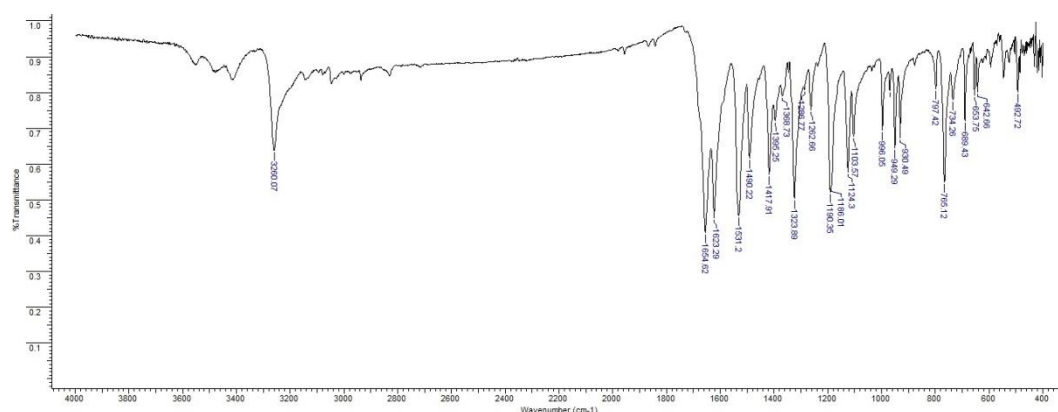


Figure S1. The IR spectrum for the compound **1a**.

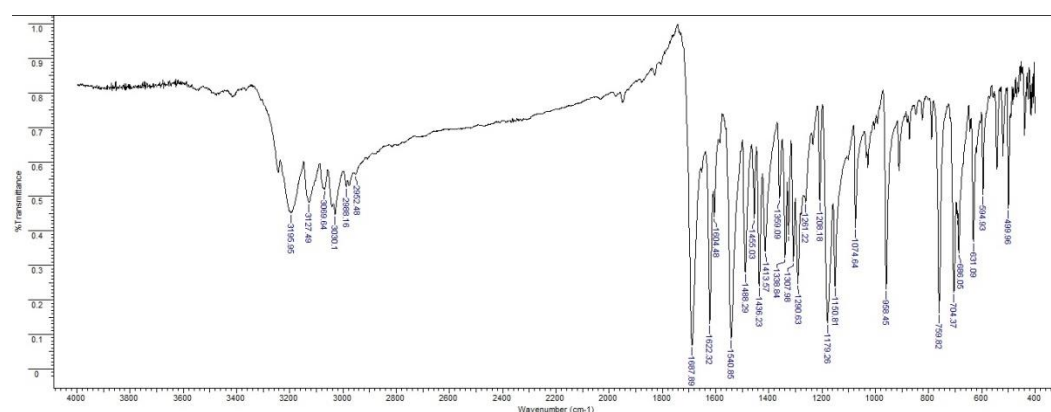


Figure S2. The IR spectrum for the compound **1b**.

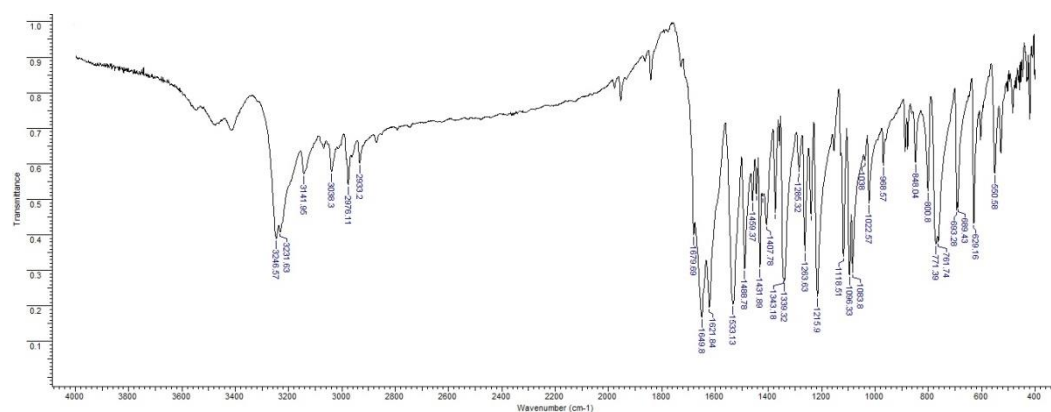


Figure S3. The IR spectrum for the compound **1c**.

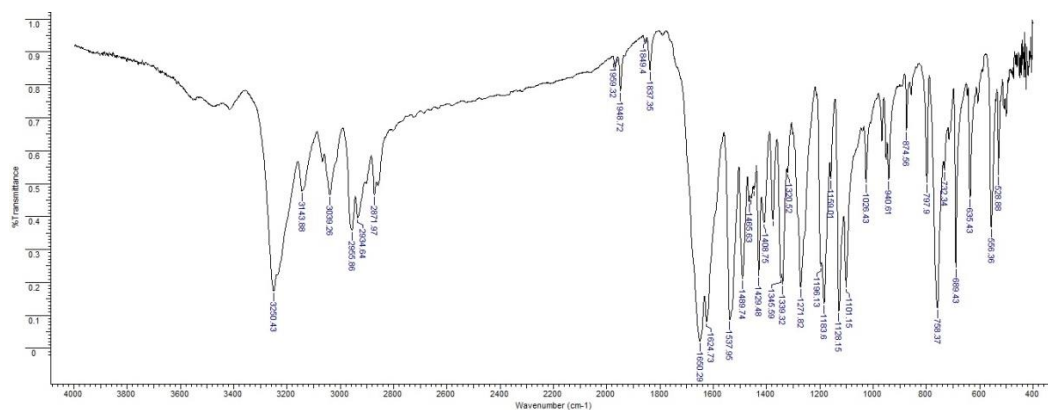


Figure S4. The IR spectrum for the compound 1d.

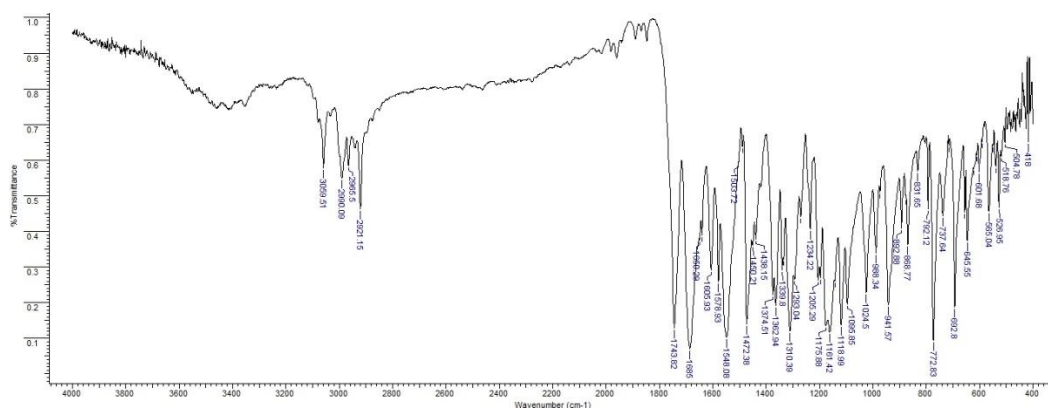


Figure S5. The IR spectrum for the compound 2a.

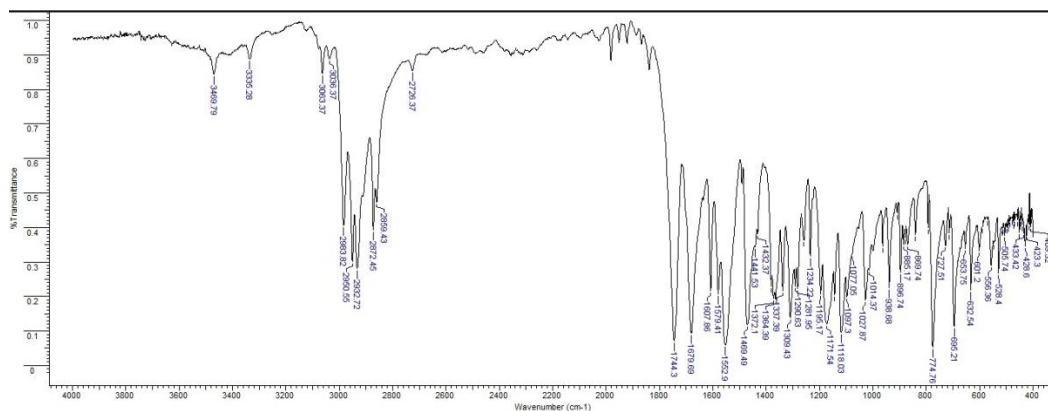


Figure S6. The IR spectrum for the compound 2b.

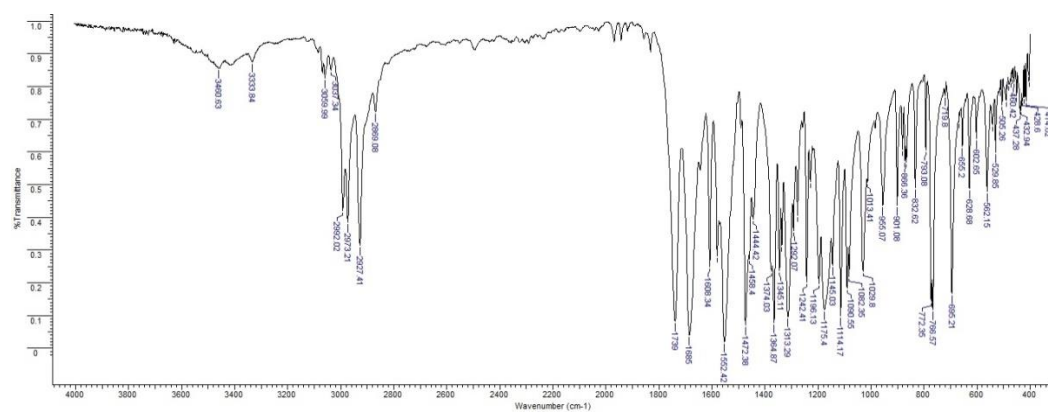


Figure S7. The IR spectrum for the compound 2c.

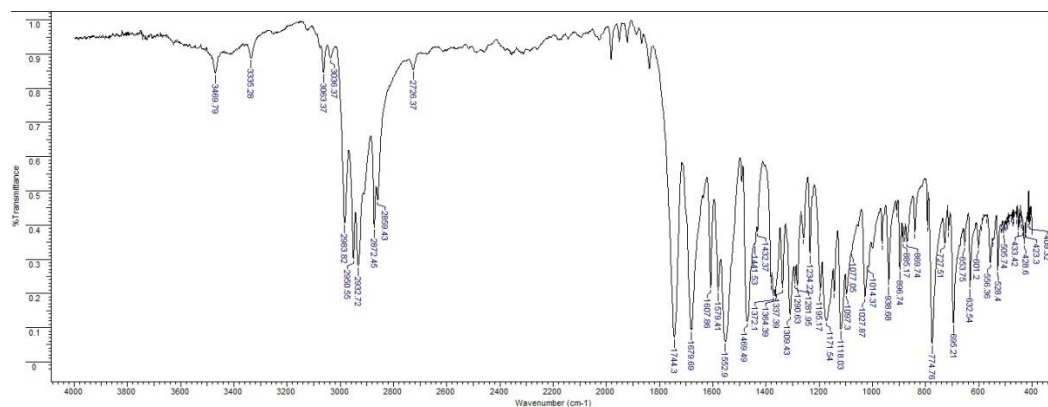


Figure S8. The IR spectrum for the compound 2d.

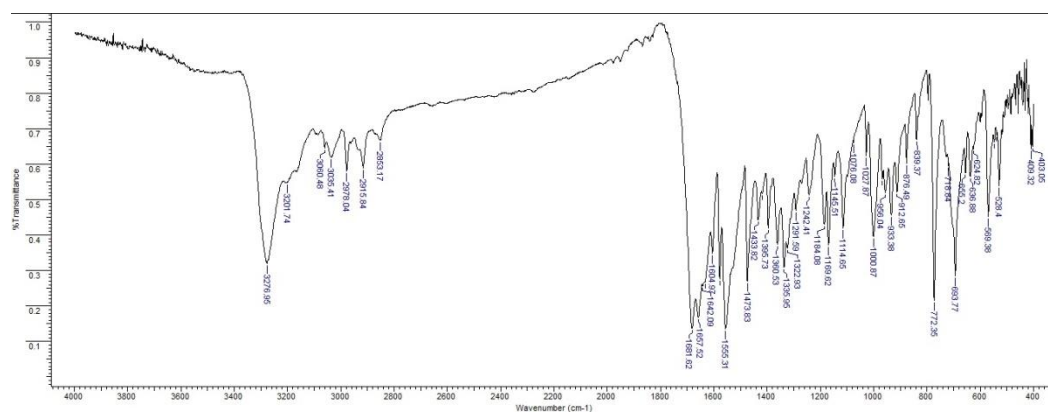


Figure S9. The IR spectrum for the compound 3a.

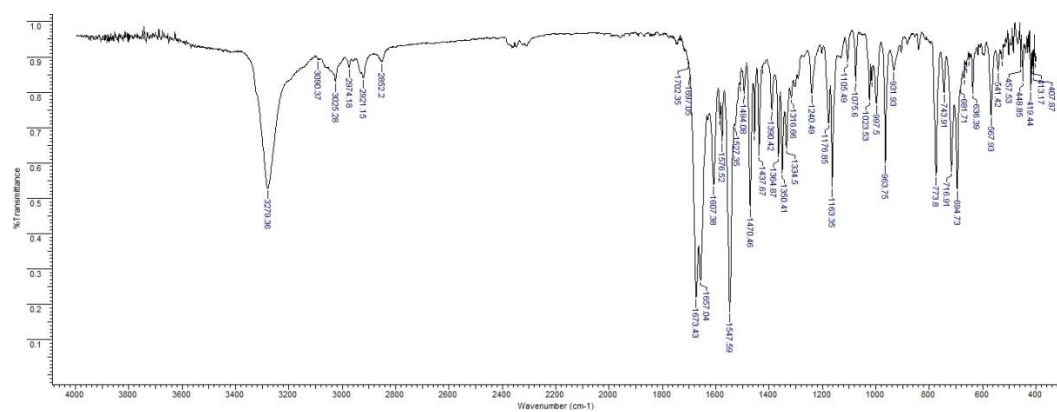


Figure S10. The IR spectrum for the compound 3b.

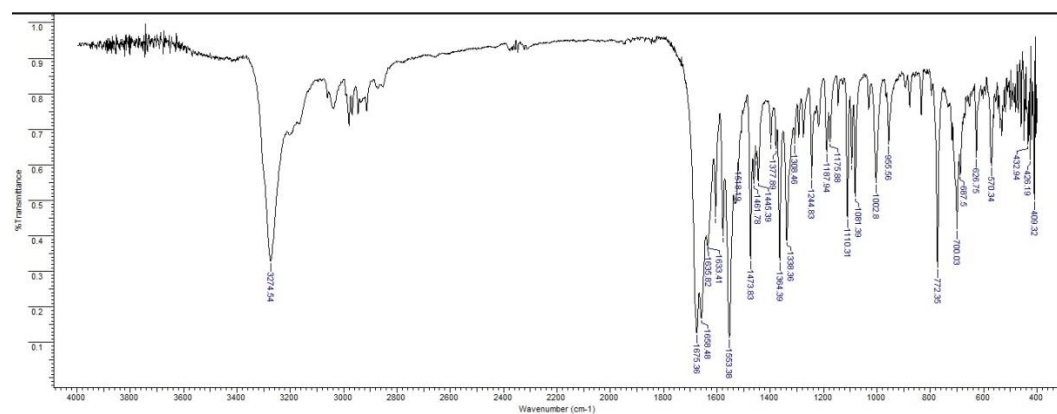


Figure S11. The IR spectrum for the compound 3c.

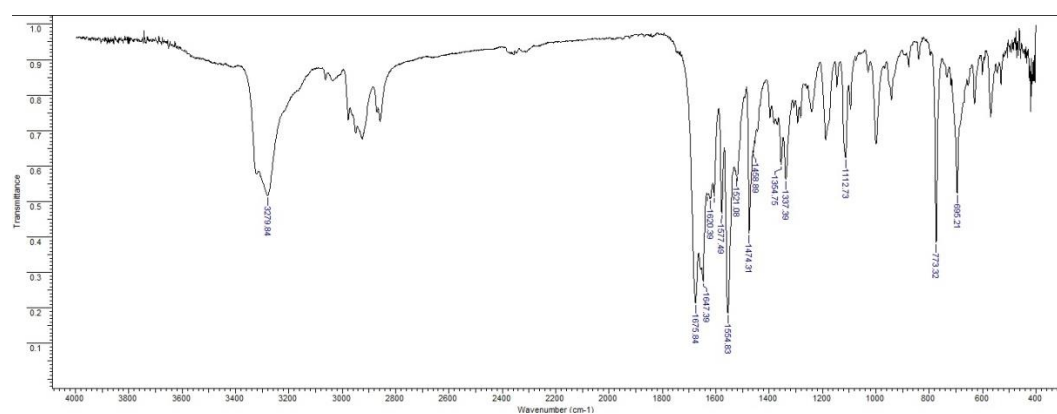
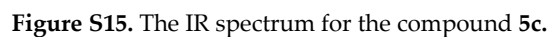
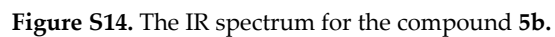
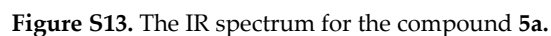
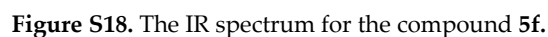
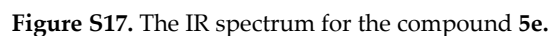
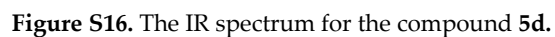


Figure S12. The IR spectrum for the compound 3d.





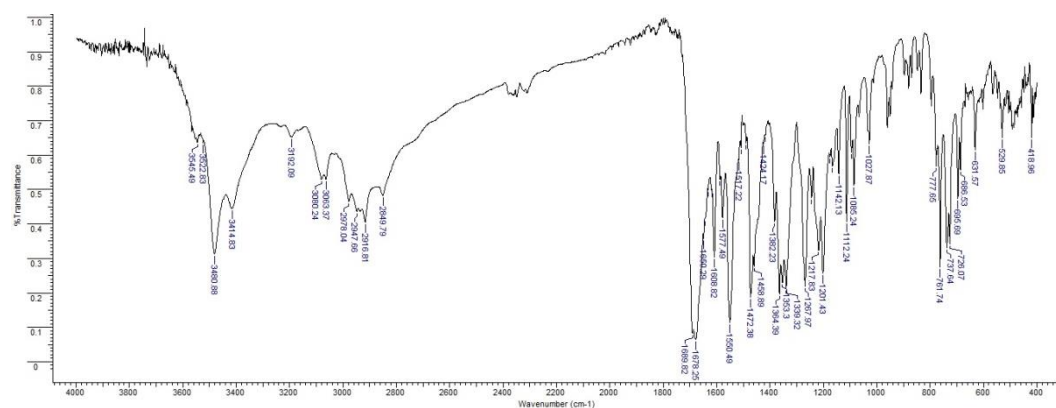


Figure S19. The IR spectrum for the compound 5g.

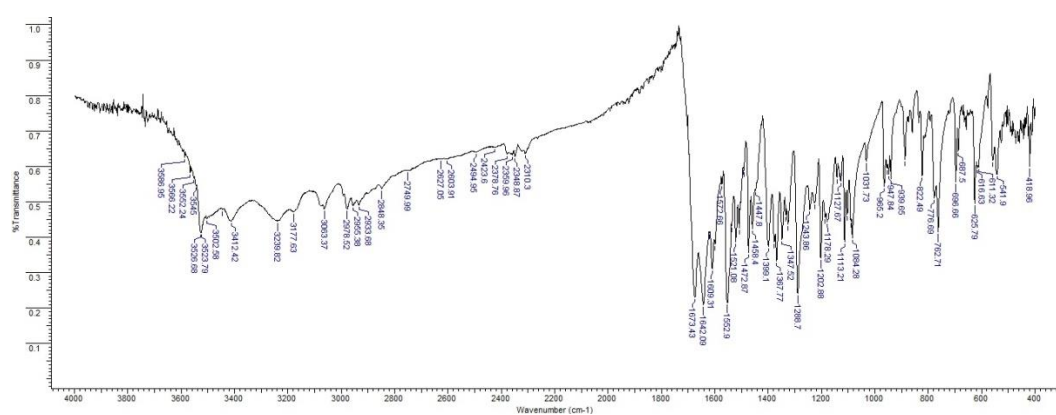


Figure S20. The IR spectrum for the compound 5h.

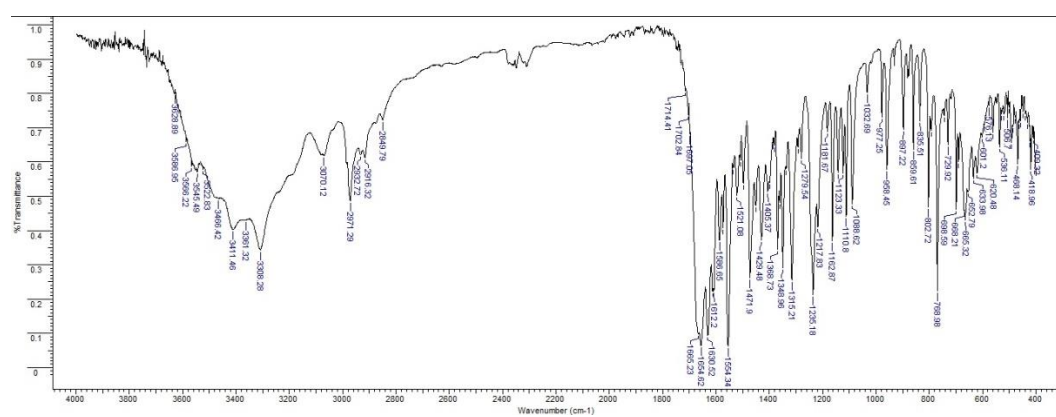


Figure S21. The IR spectrum for the compound 5i.

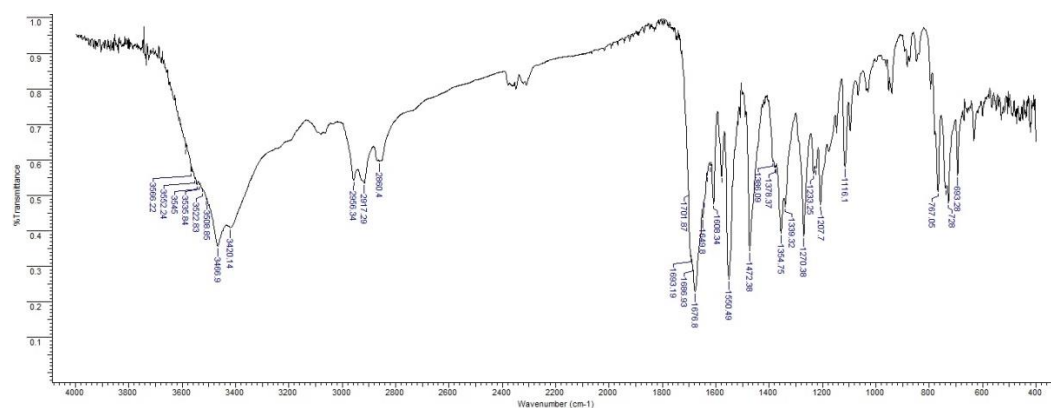


Figure S22. The IR spectrum for the compound 5j.

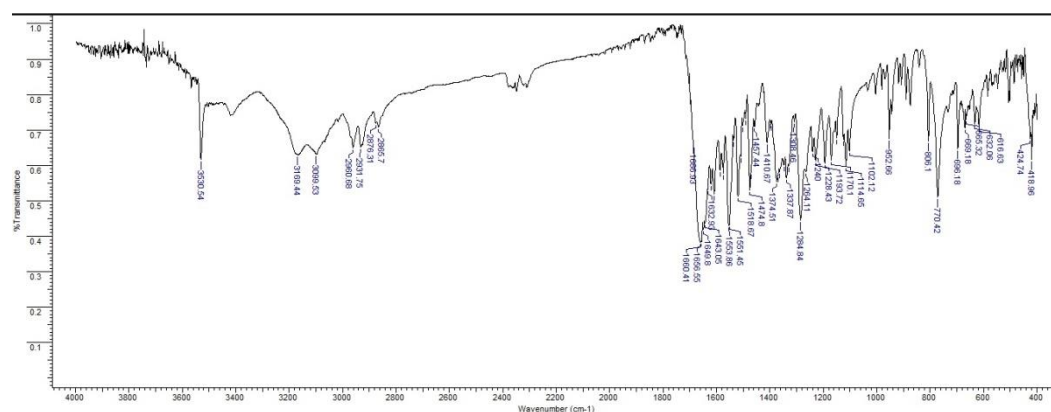


Figure S23. The IR spectrum for the compound 5k.

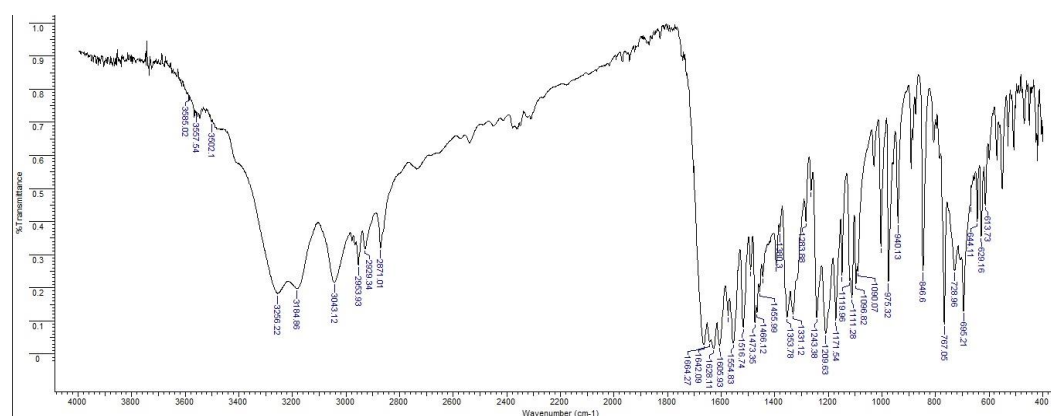


Figure S24. The IR spectrum for the compound 5l.

1.2. The MS spectra

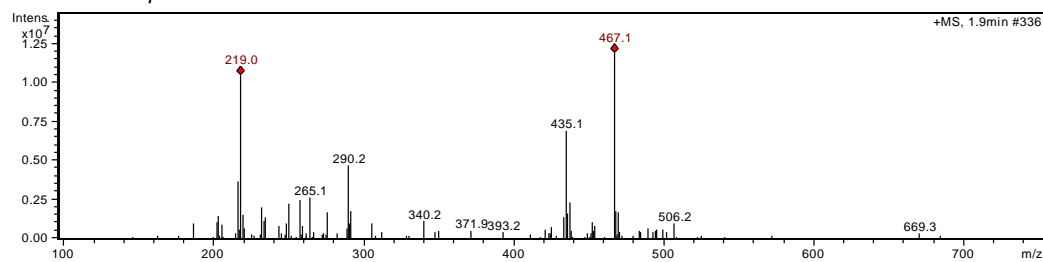


Figure S25. The MS spectrum for the compound 1a.

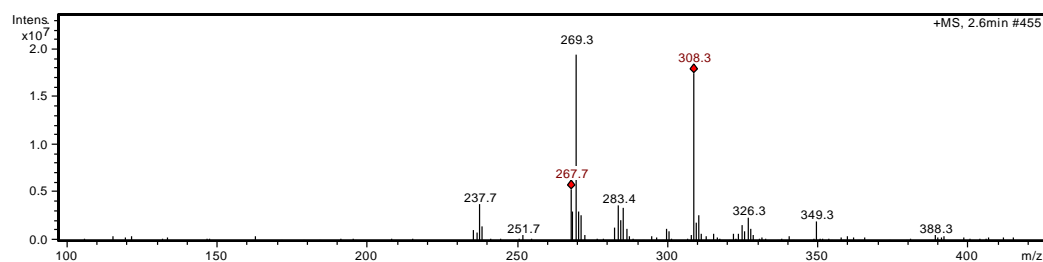


Figure S26. The MS spectrum for the compound 1b.

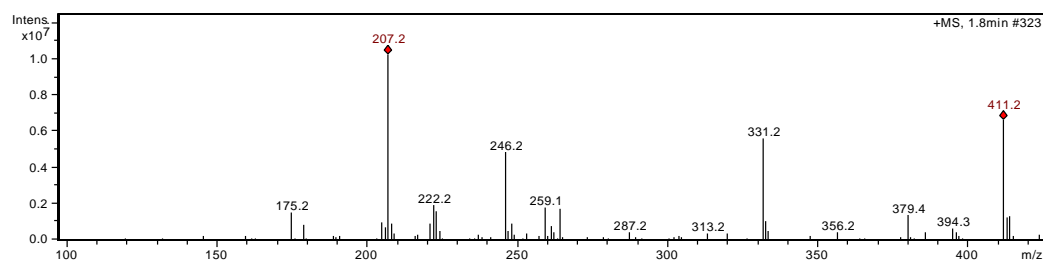


Figure S27. The MS spectrum for the compound 1c.

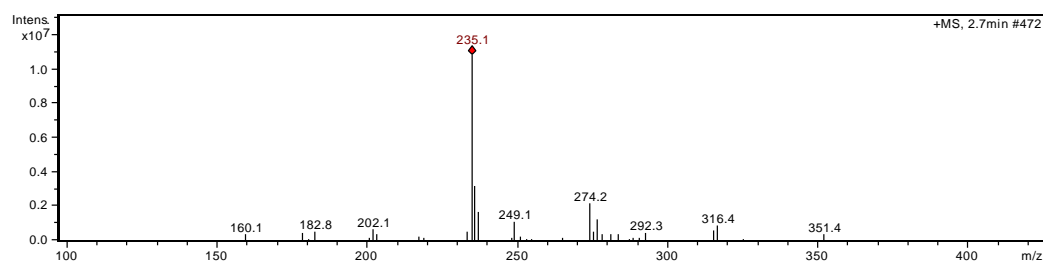


Figure S28. The MS spectrum for the compound 1d.

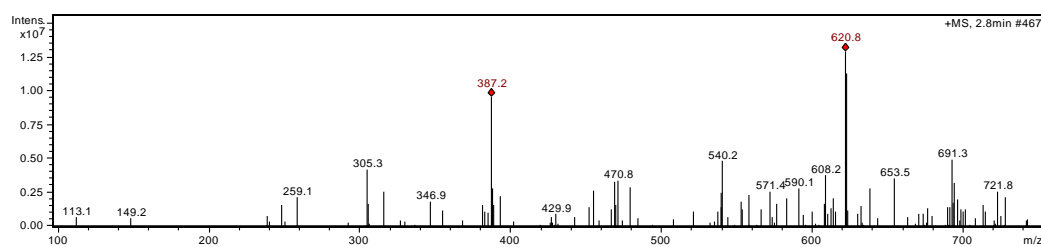


Figure S29. The MS spectrum for the compound 2a.

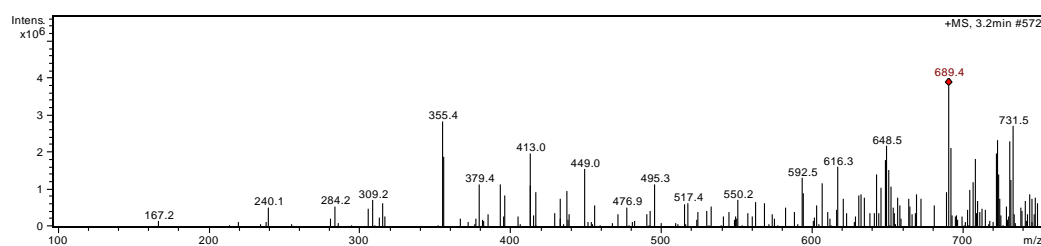


Figure S30. The MS spectrum for the compound 2b.

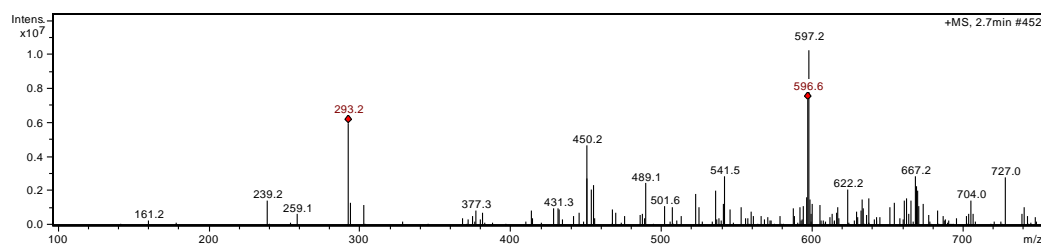


Figure S31. The MS spectrum for the compound 2c.

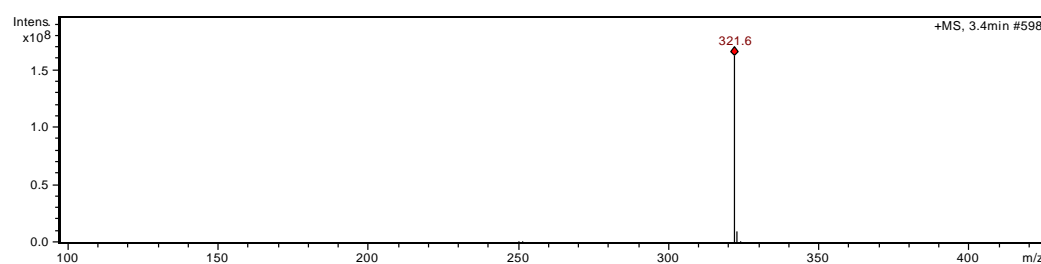


Figure S32. The MS spectrum for the compound 2d.

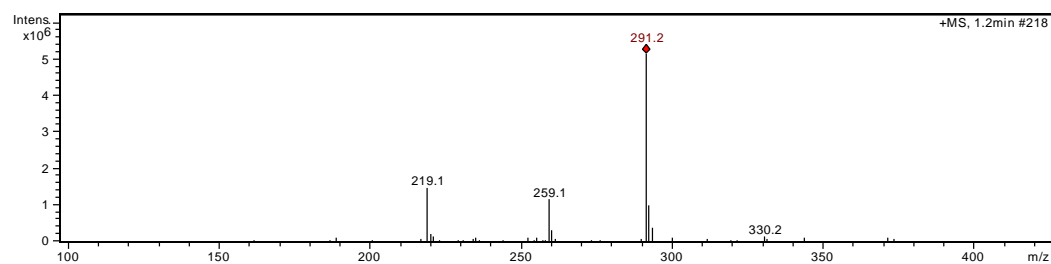


Figure S33. The MS spectrum for the compound 3a.

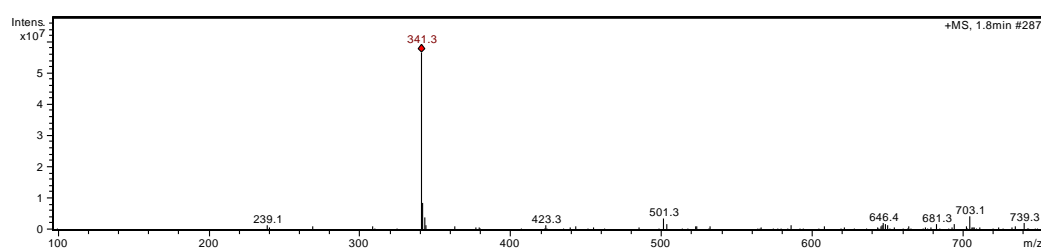


Figure S34. The MS spectrum for the compound 3b.

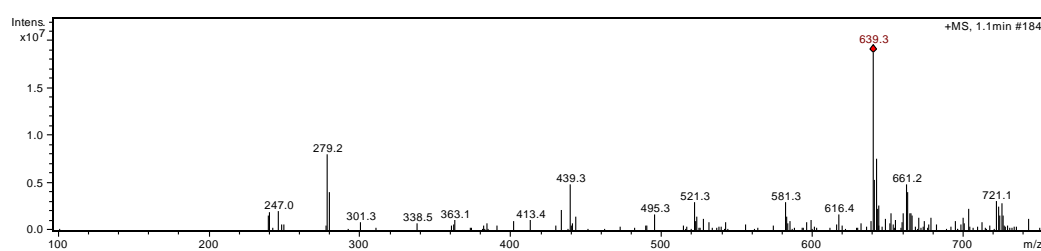


Figure S35. The MS spectrum for the compound 3c.

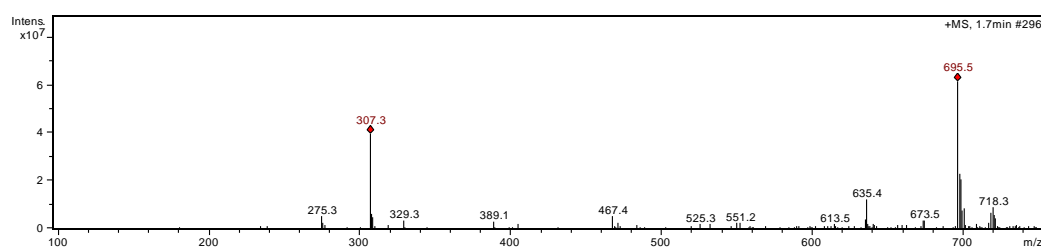


Figure S36. The MS spectrum for the compound 3d.

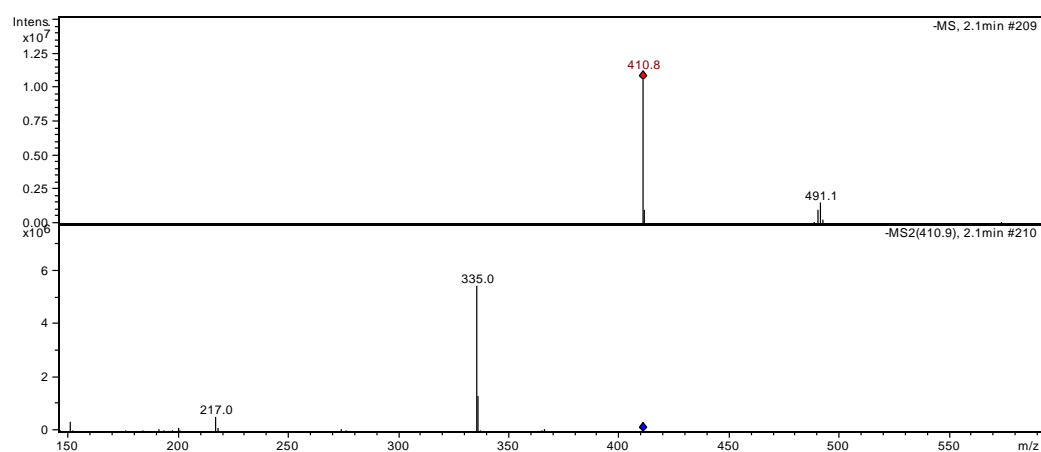


Figure S37. The MS spectrum for the compound 5a.

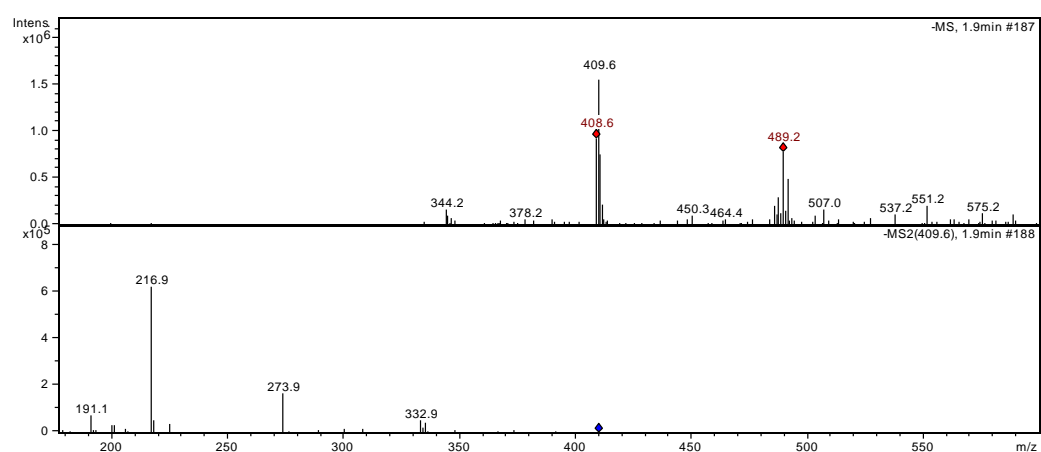


Figure S38. The MS spectrum for the compound 5b.

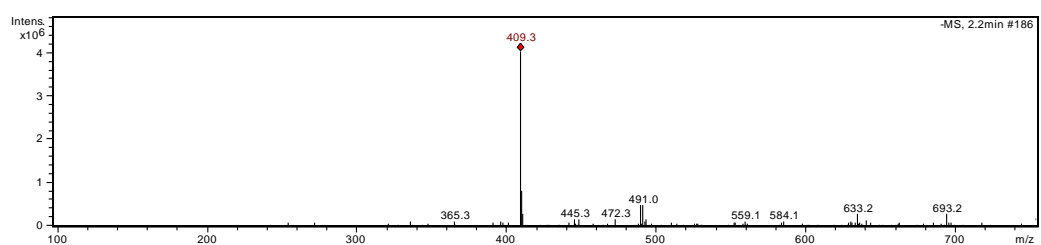


Figure S39. The MS spectrum for the compound 5c.

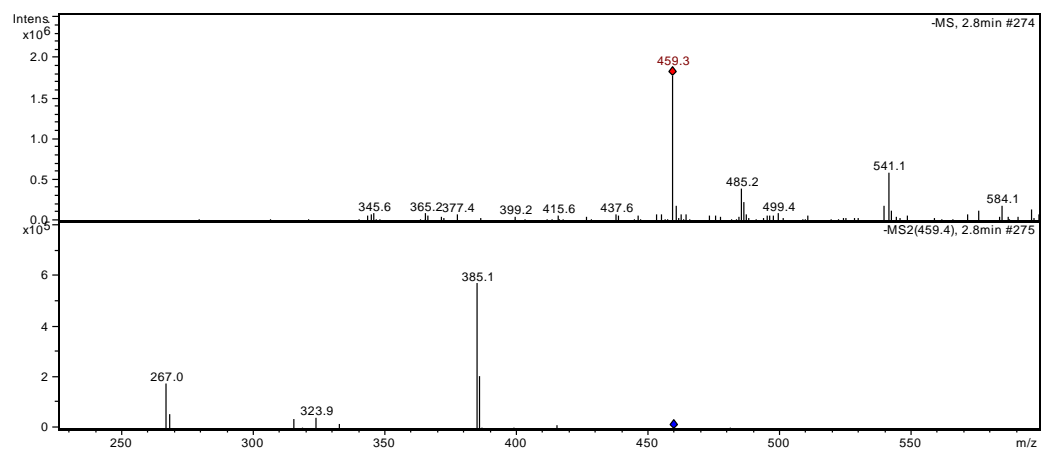


Figure S40. The MS spectrum for the compound 5d.

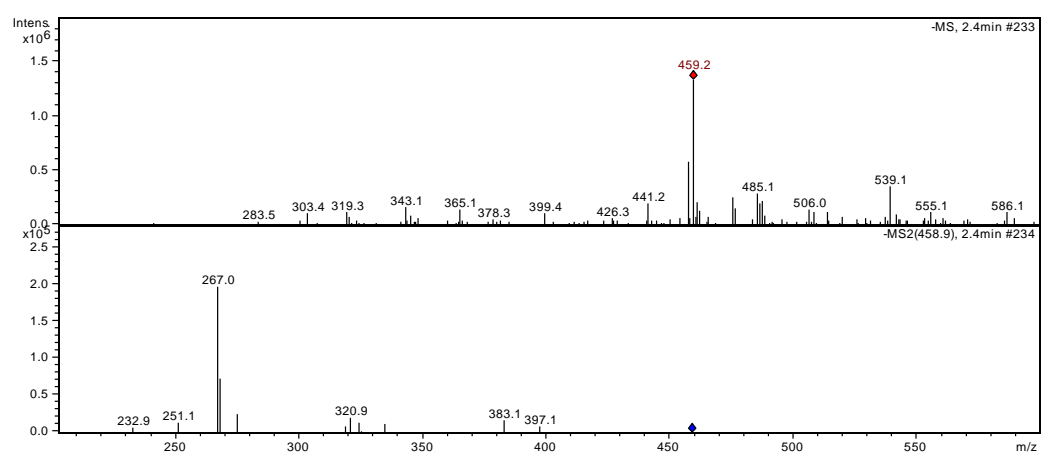


Figure S41. The MS spectrum for the compound 5e.

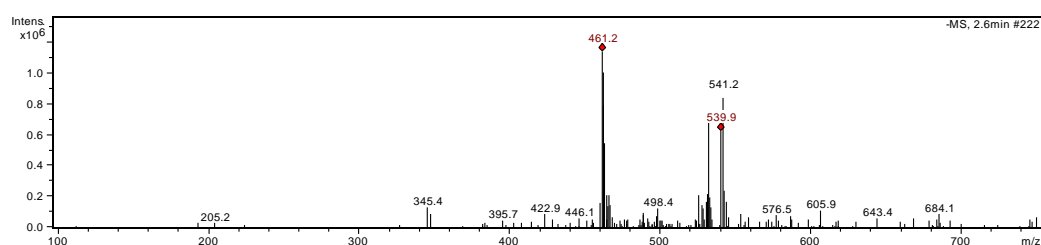


Figure S42. The MS spectrum for the compound 5f.

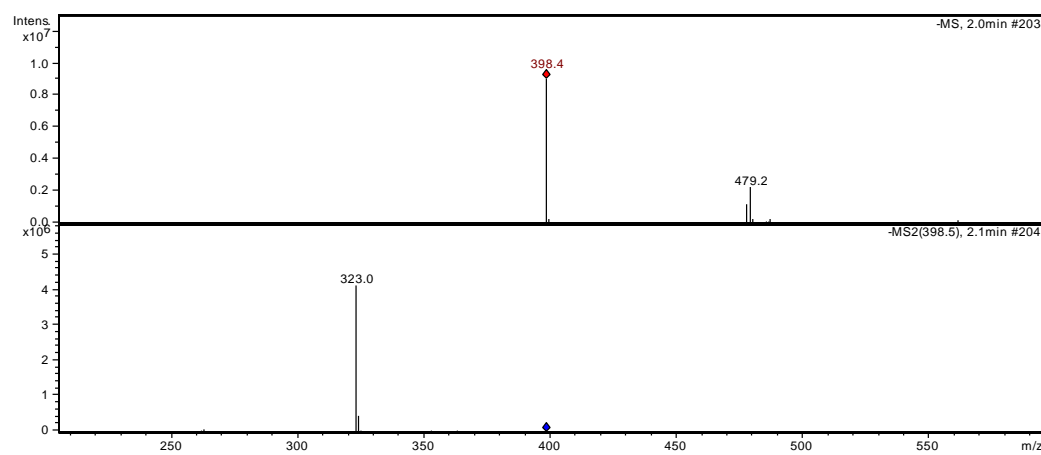


Figure S43. The MS spectrum for the compound 5g.

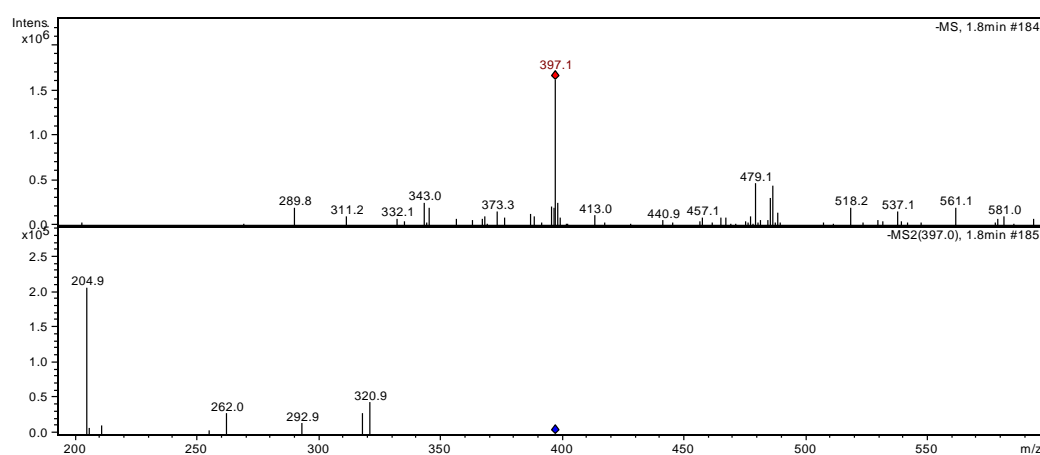


Figure S44. The MS spectrum for the compound 5h.

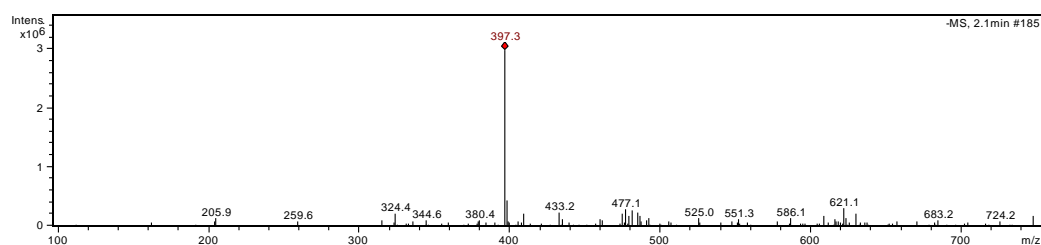


Figure S45. The MS spectrum for the compound 5i.

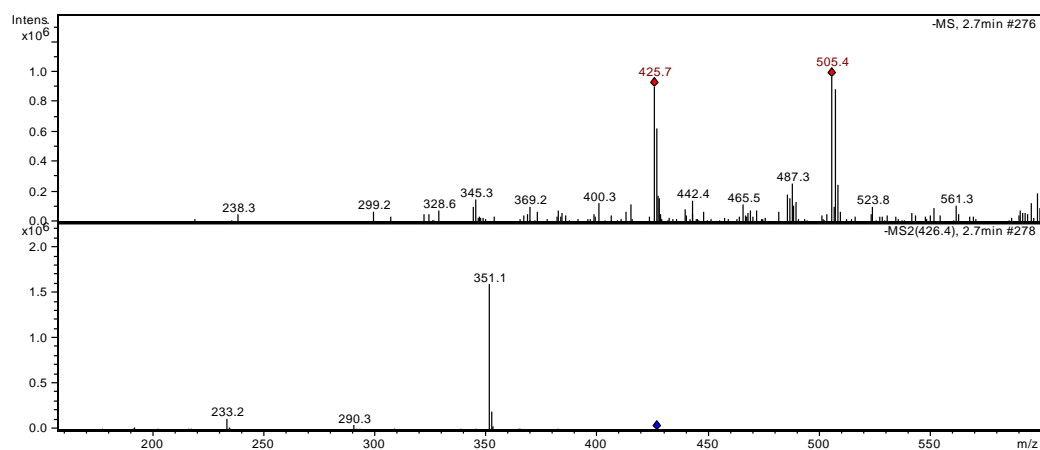


Figure S46. The MS spectrum for the compound 5j.

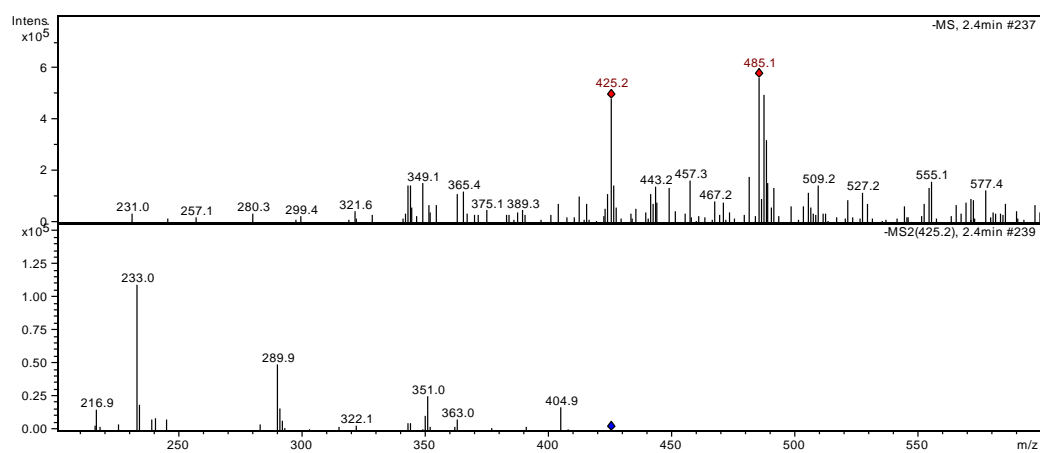


Figure S47. The MS spectrum for the compound 5k.

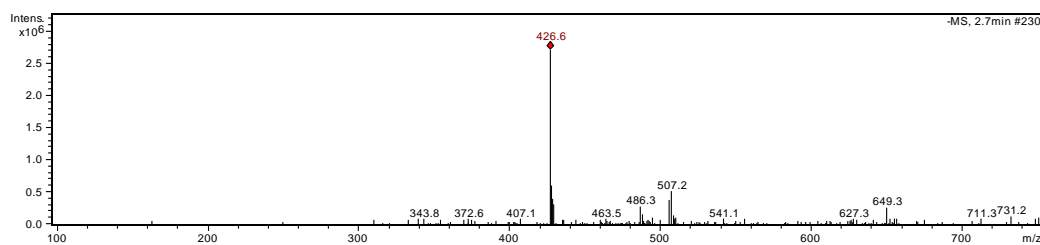


Figure S48. The MS spectrum for the compound 5l.

1.3. The ^1H -NMR spectrum

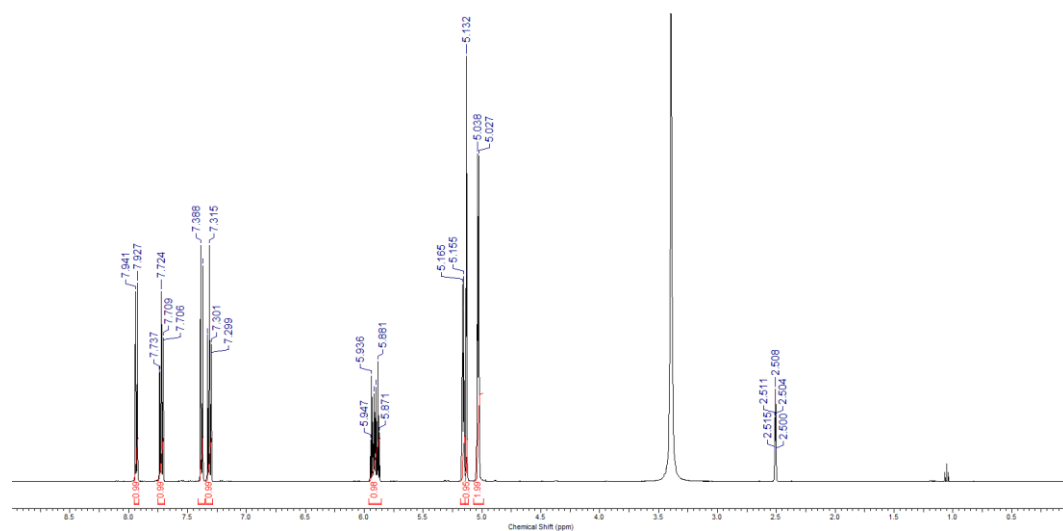


Figure S49. The ^1H -NMR spectrum for the compound 1a.

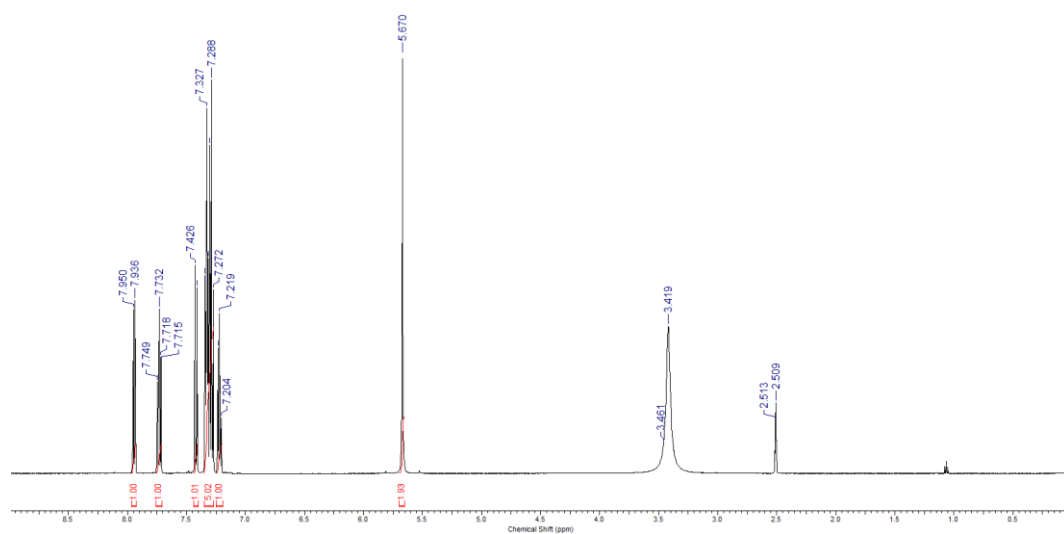


Figure S50. The ¹H-NMR spectrum for the compound 1b.

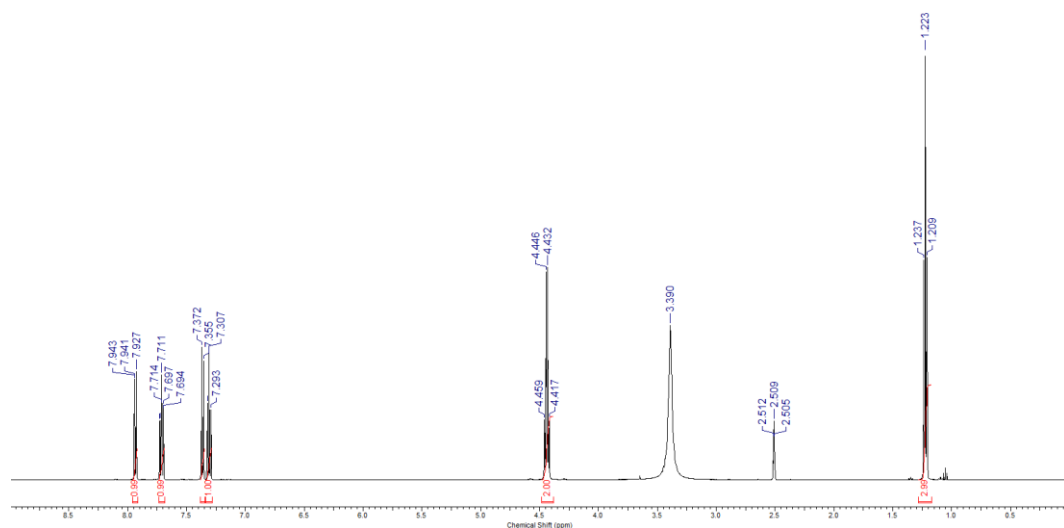


Figure S51. The ¹H-NMR spectrum for the compound 1c.

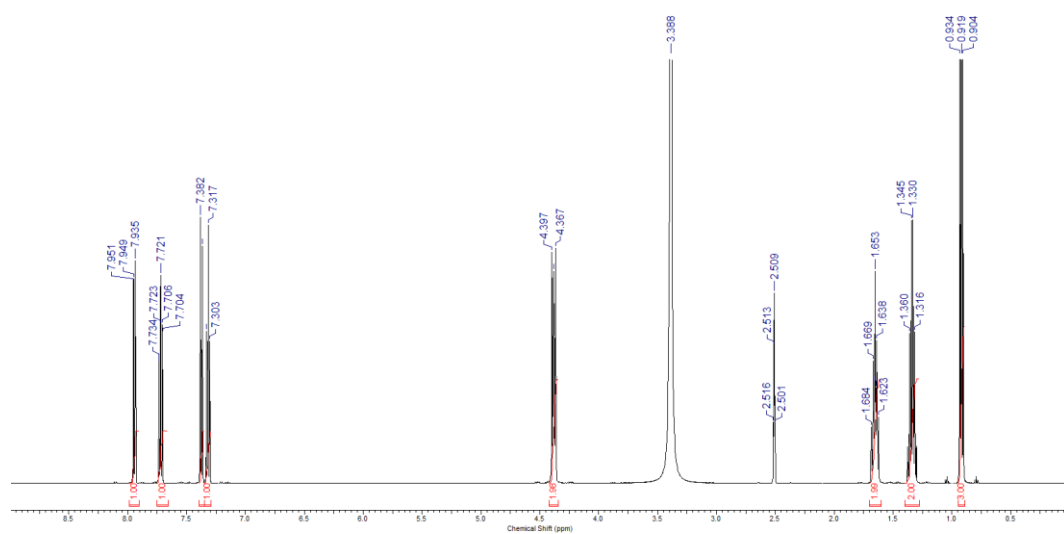


Figure S52. The ¹H-NMR spectrum for the compound 1d.

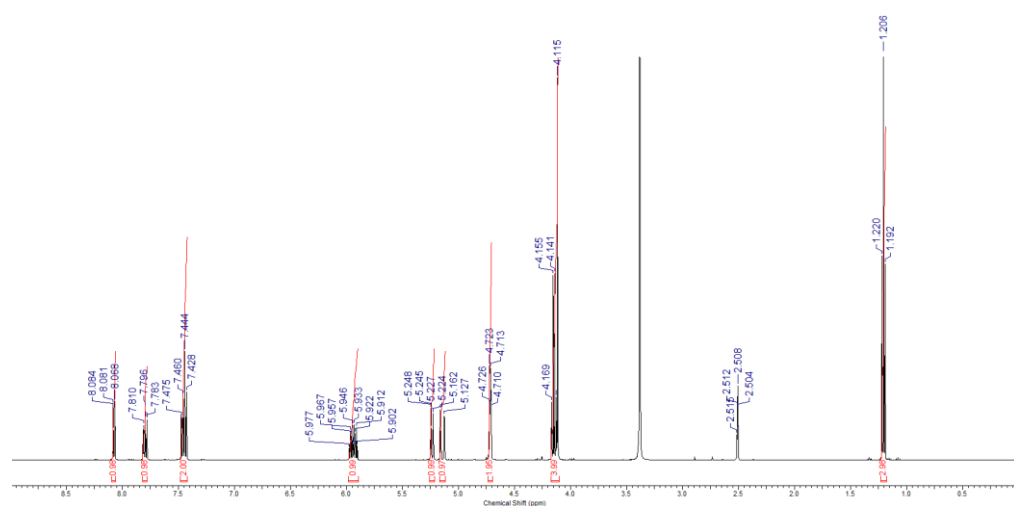


Figure S53. The ¹H-NMR spectrum for the compound 2a.

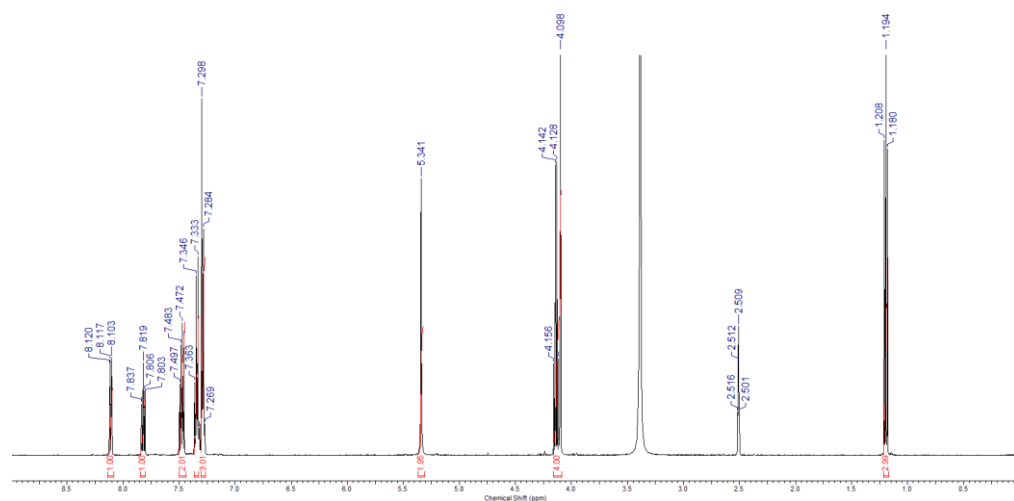


Figure S54. The ¹H-NMR spectrum for the compound 2b.

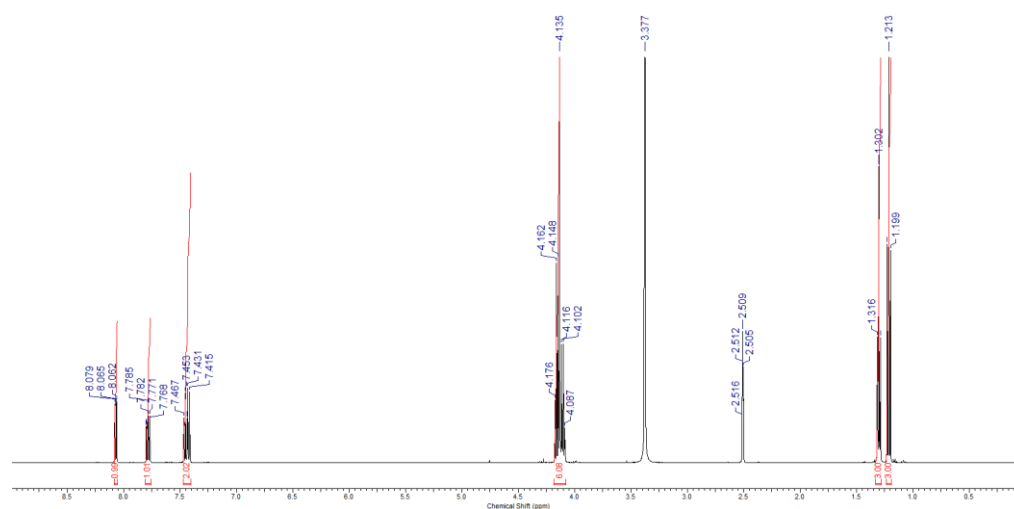


Figure S55. The ¹H-NMR spectrum for the compound 2c.

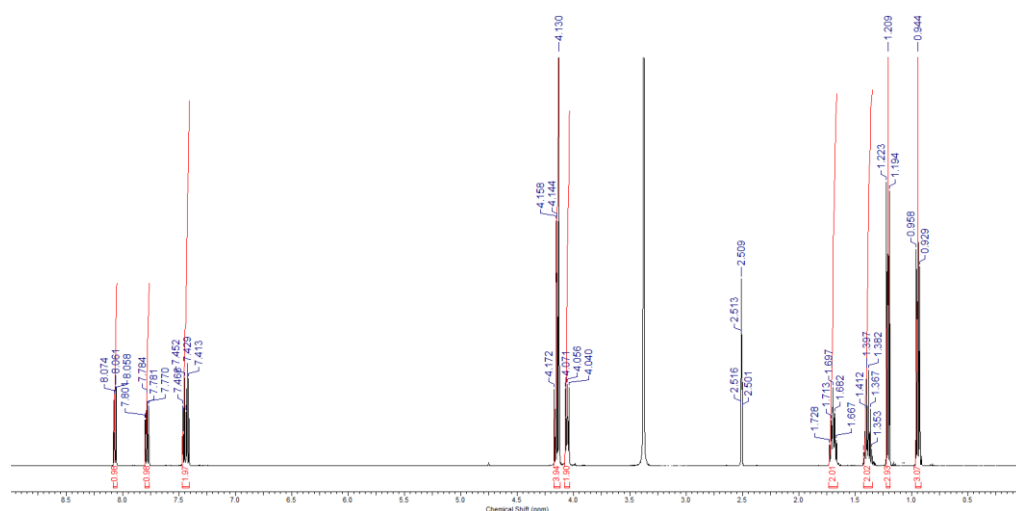


Figure S56. The ¹H-NMR spectrum for the compound 2d.

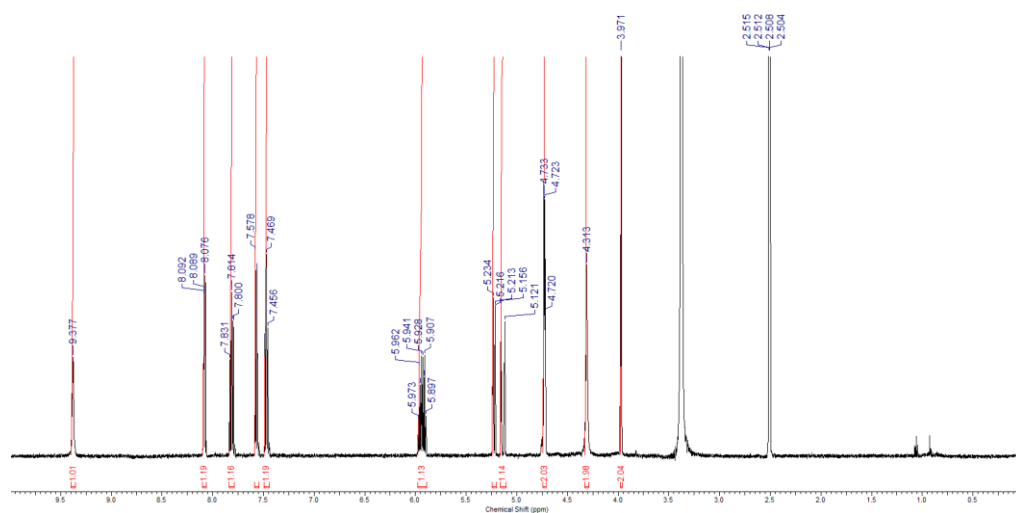


Figure S57. The ¹H-NMR spectrum for the compound 3a.

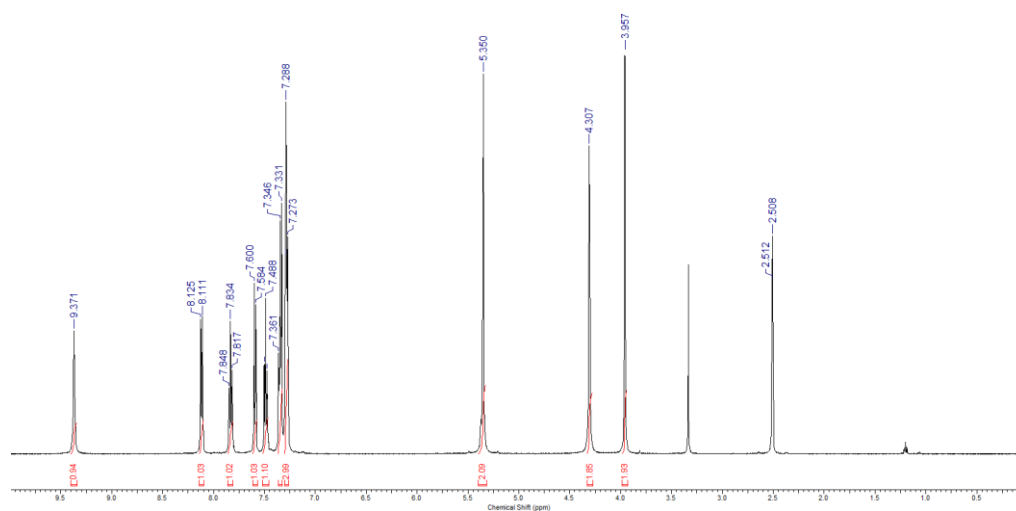


Figure S58. The ¹H-NMR spectrum for the compound 3b.

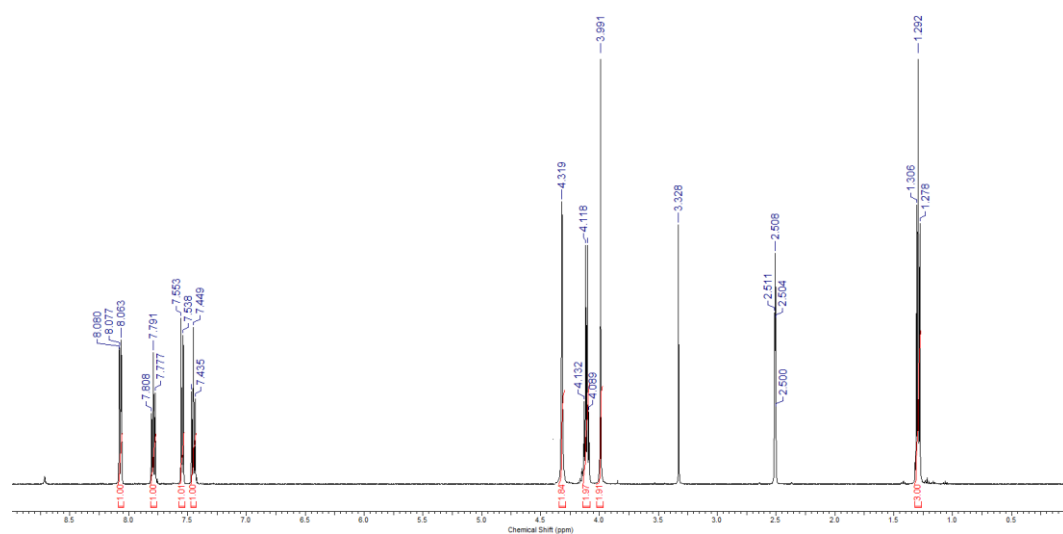


Figure S59. The ^1H -NMR spectrum for the compound **3c**.

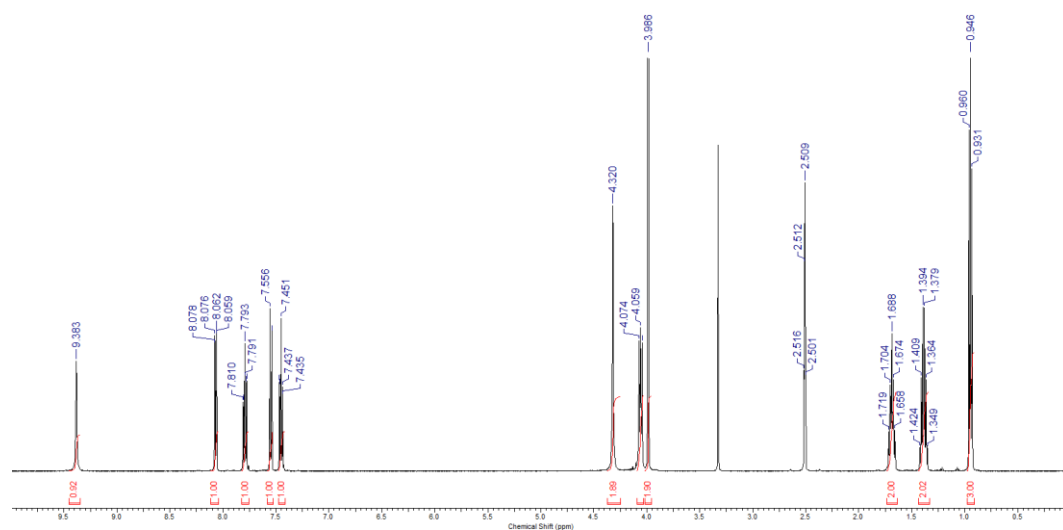


Figure S60. The ^1H -NMR spectrum for the compound **3d**.

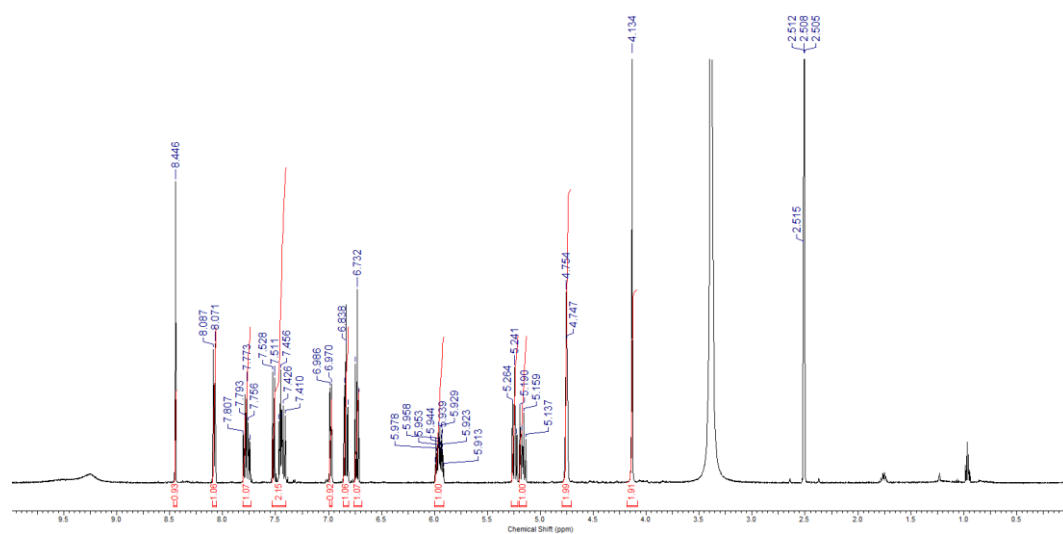


Figure S61. The ^1H -NMR spectrum for the compound **5a**.

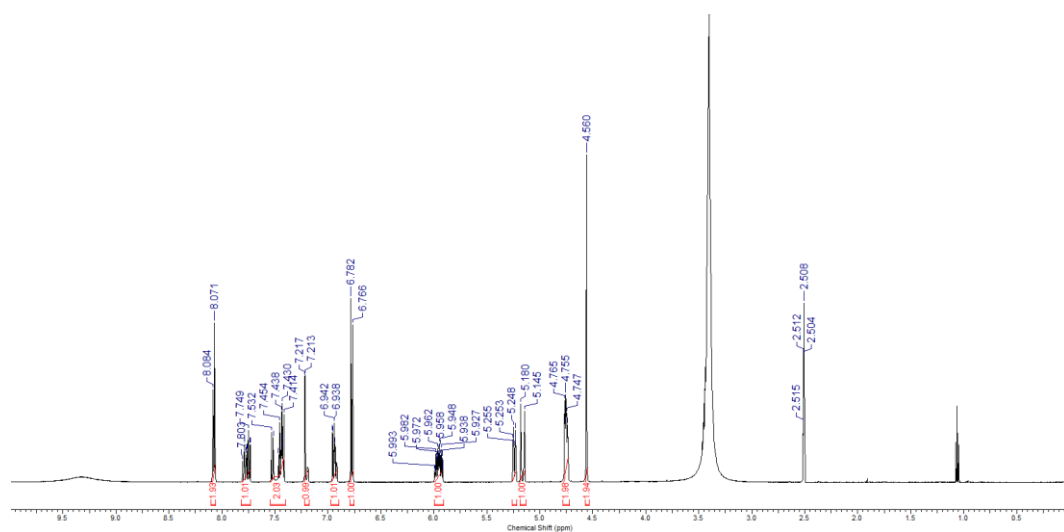


Figure S62. The ¹H-NMR spectrum for the compound 5b.

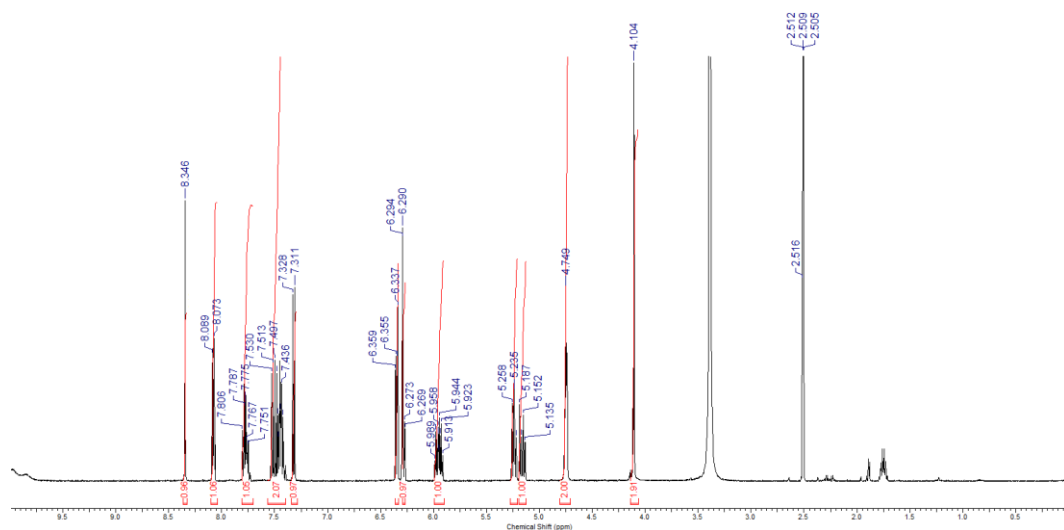


Figure S63. The ¹H-NMR spectrum for the compound 5c.

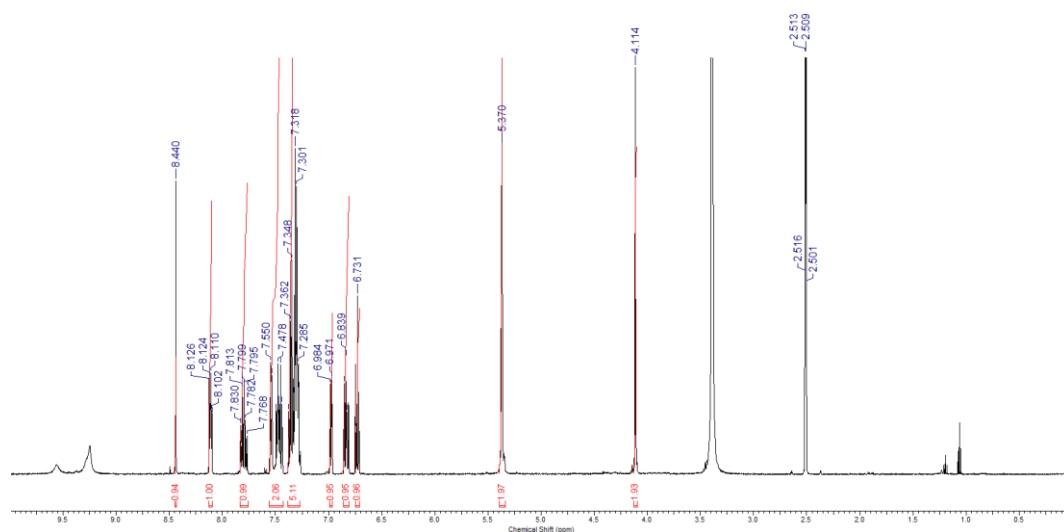


Figure S64. The ¹H-NMR spectrum for the compound 5d.

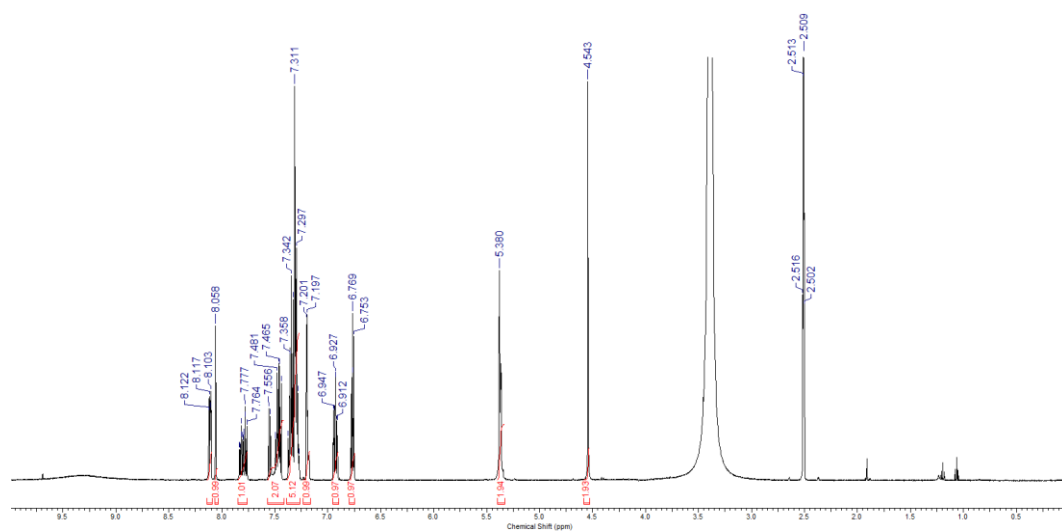


Figure S65. The ¹H-NMR spectrum for the compound 5e.

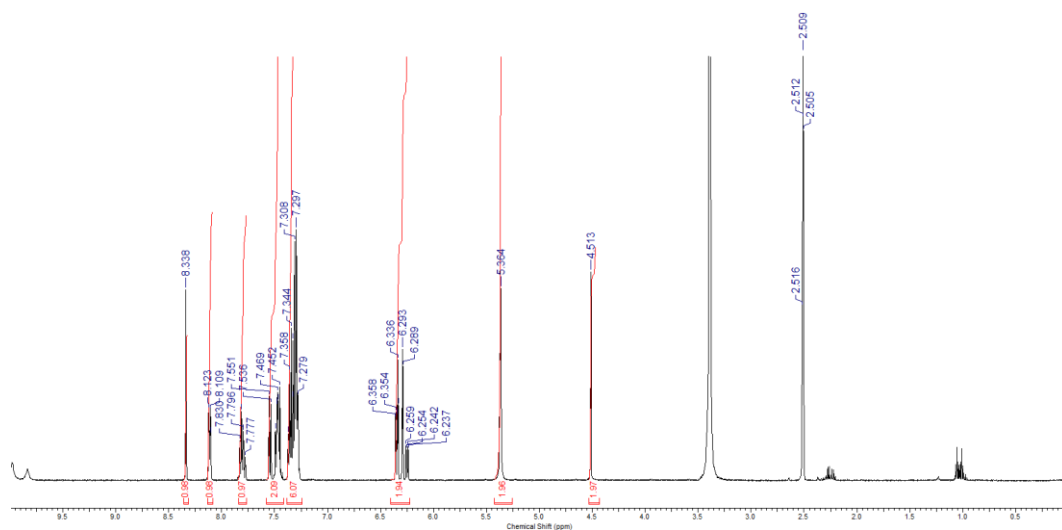


Figure S66. The ¹H-NMR spectrum for the compound 5f.

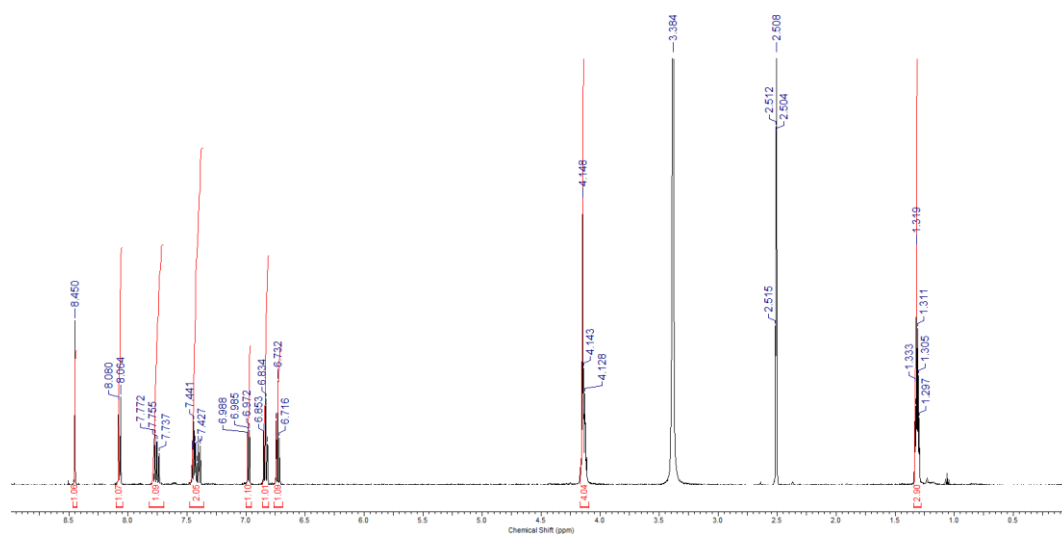


Figure S67. The ¹H-NMR spectrum for the compound 5g.

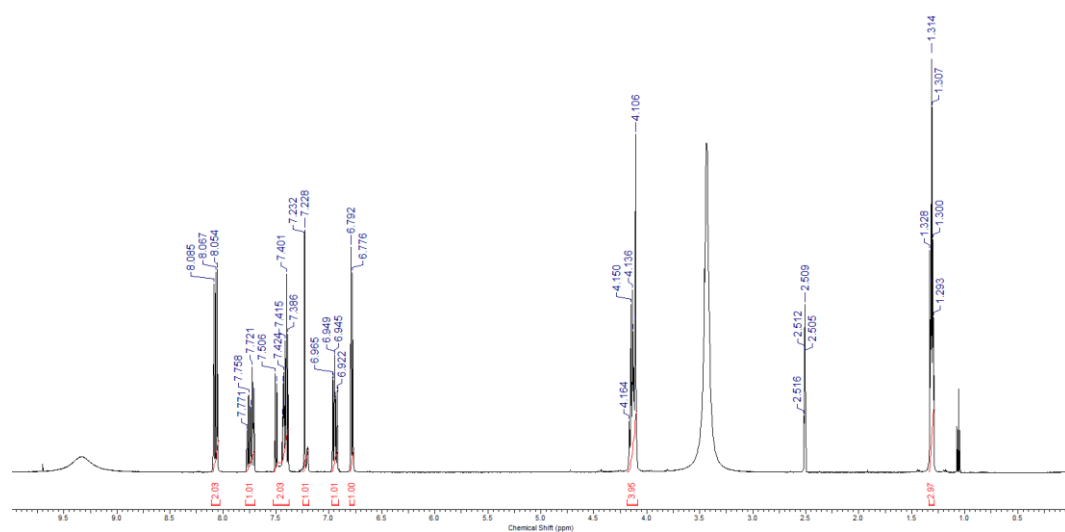


Figure S68. The ^1H -NMR spectrum for the compound **5h**.

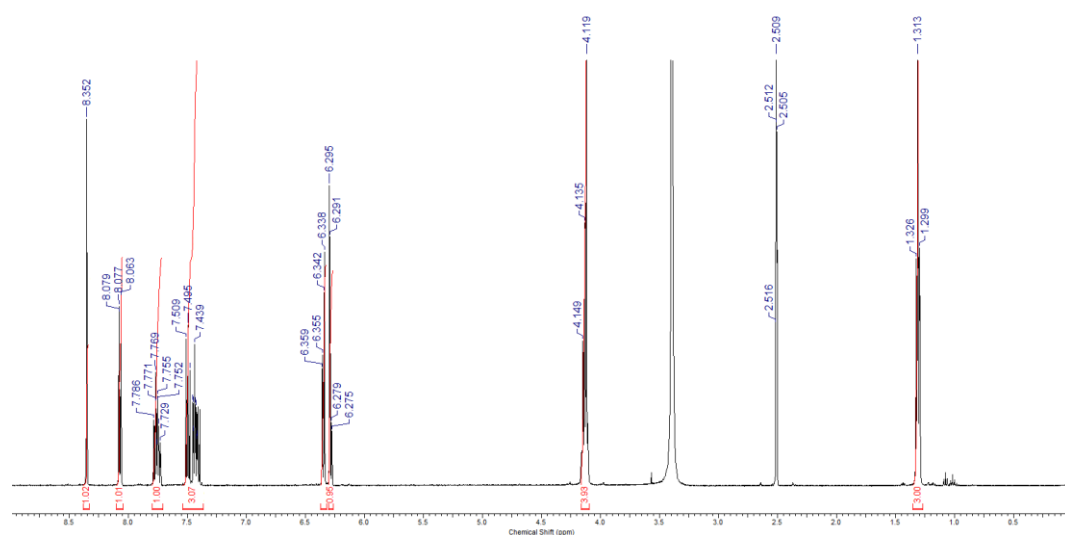


Figure S69. The ^1H -NMR spectrum for the compound **5i**.

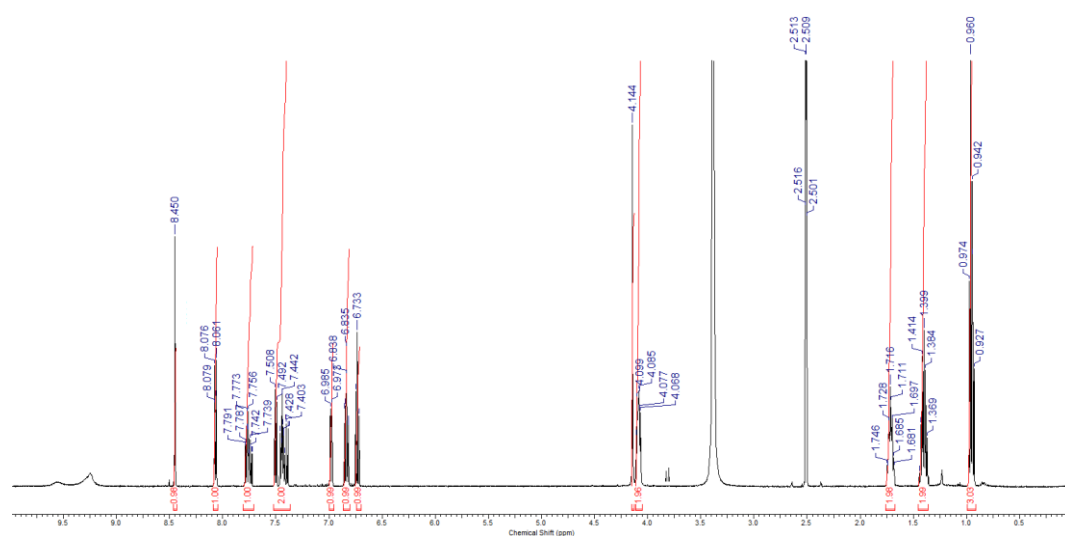


Figure S70. The ^1H -NMR spectrum for the compound **5j**.

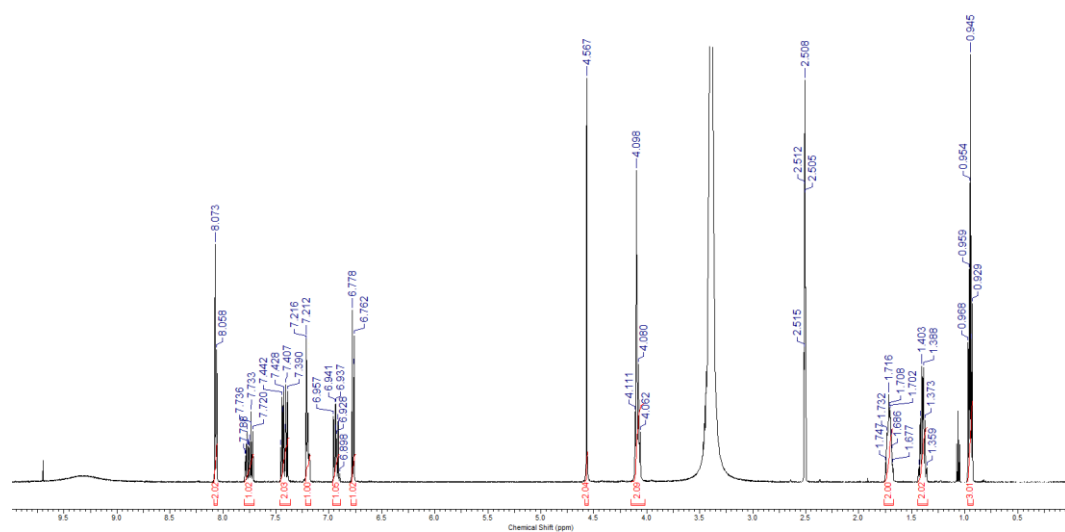


Figure S71. The ^1H -NMR spectrum for the compound 5k.

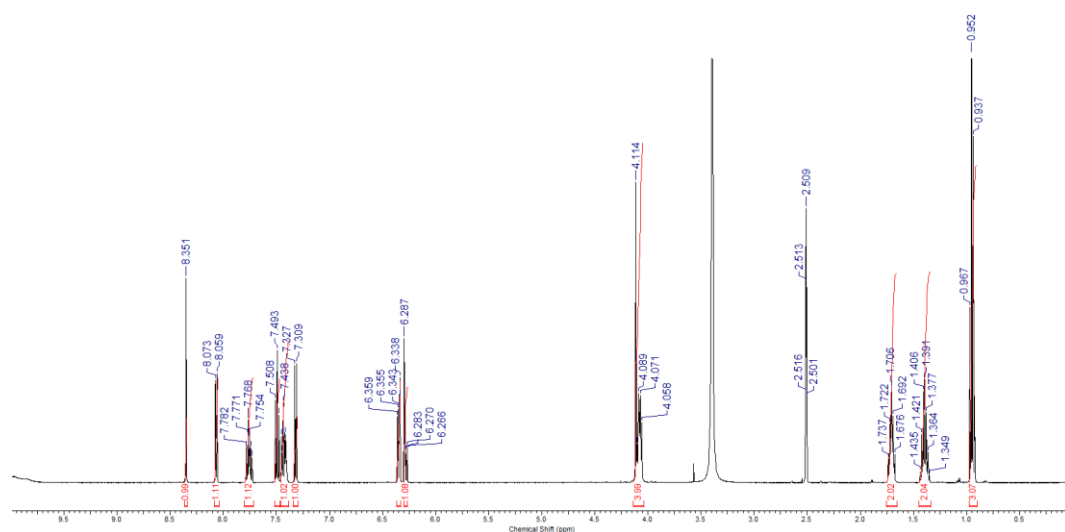


Figure S72. The ^1H -NMR spectrum for the compound 5l.

1.4. The ^{13}C -NMR spectra

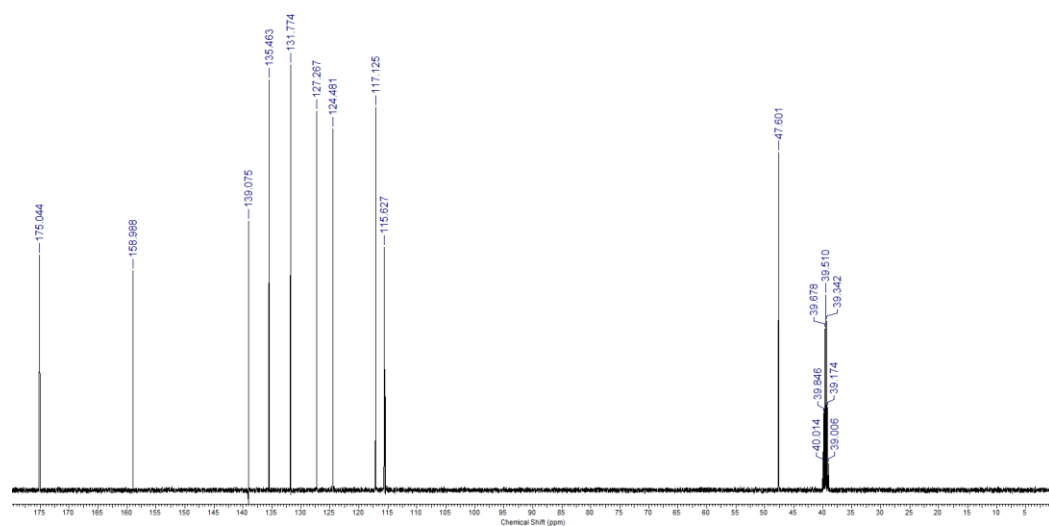


Figure S73. The ^{13}C -NMR spectrum for the compound 1a.

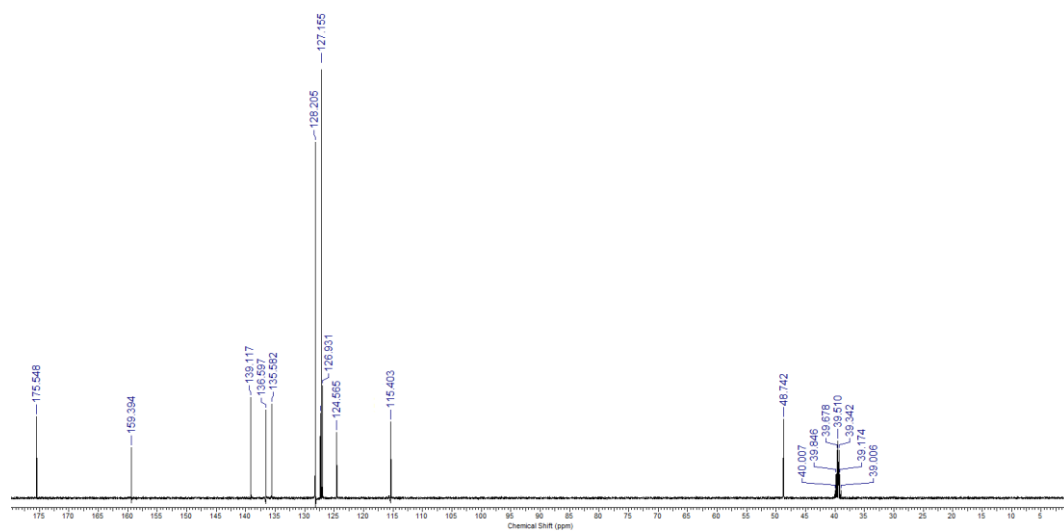


Figure S74. The ^{13}C -NMR spectrum for the compound 1b.

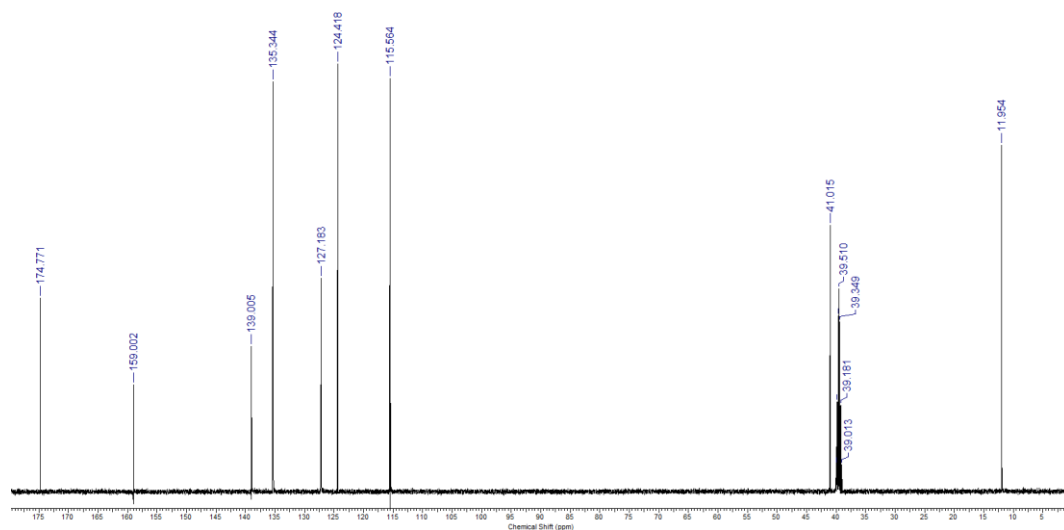


Figure S75. The ^{13}C -NMR spectrum for the compound 1c.

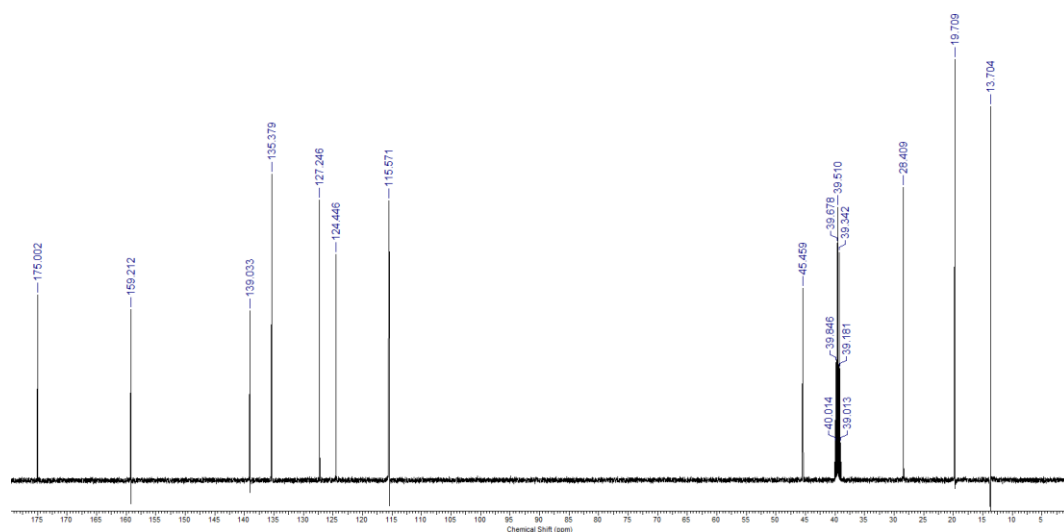


Figure S76. The ^{13}C -NMR spectrum for the compound 1d.

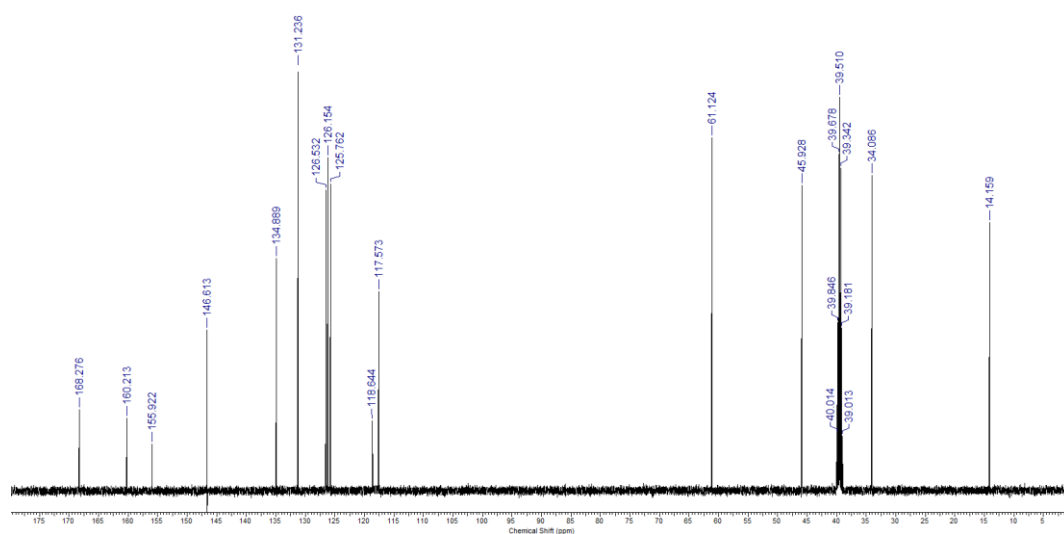


Figure S77. The ¹³C-NMR spectrum for the compound 2a.

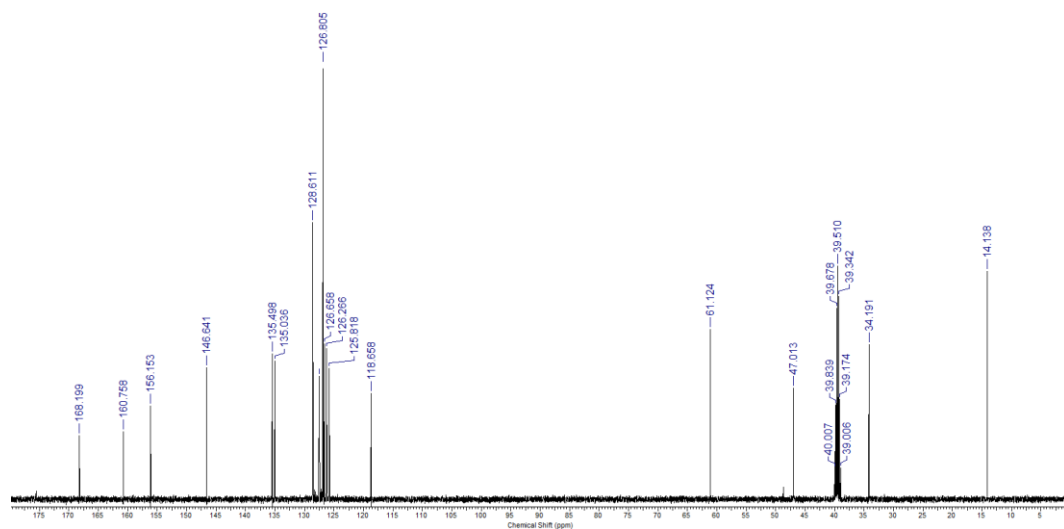


Figure S78. The ¹³C-NMR spectrum for the compound 2b.

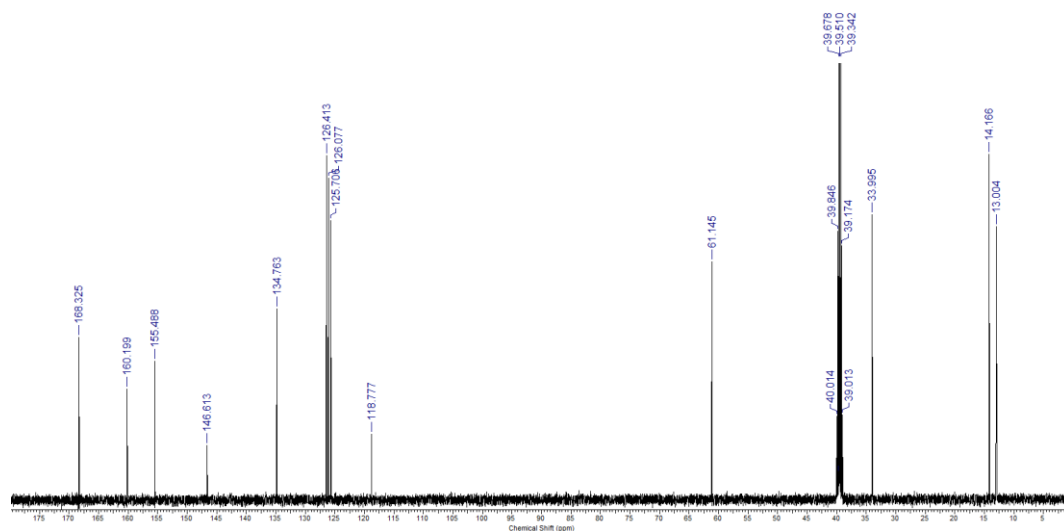


Figure S79. The ¹³C-NMR spectrum for the compound 2c.

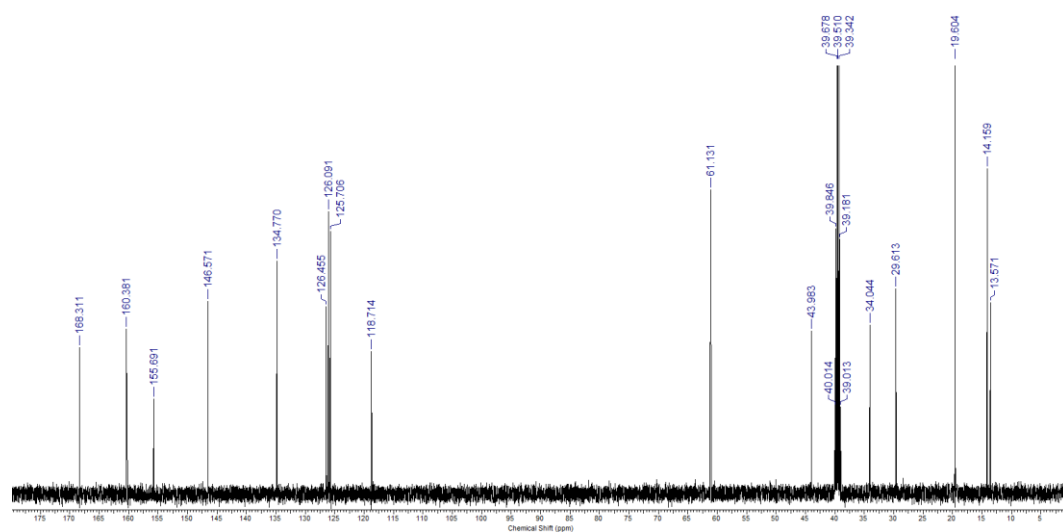


Figure S80. The ¹³C-NMR spectrum for the compound 2d.

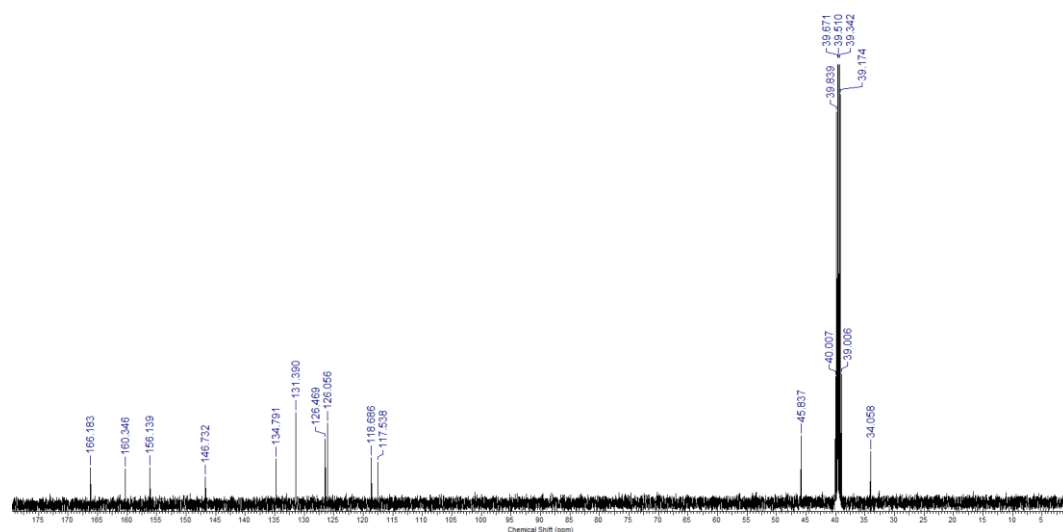


Figure S81. The ¹³C-NMR spectrum for the compound 3a.

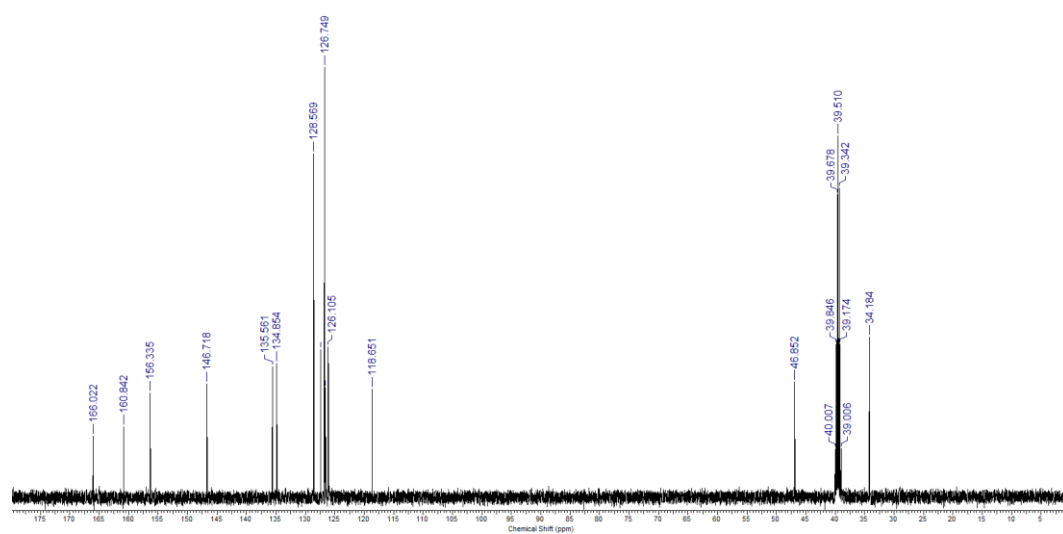


Figure S82. The ¹³C-NMR spectrum for the compound 3b.

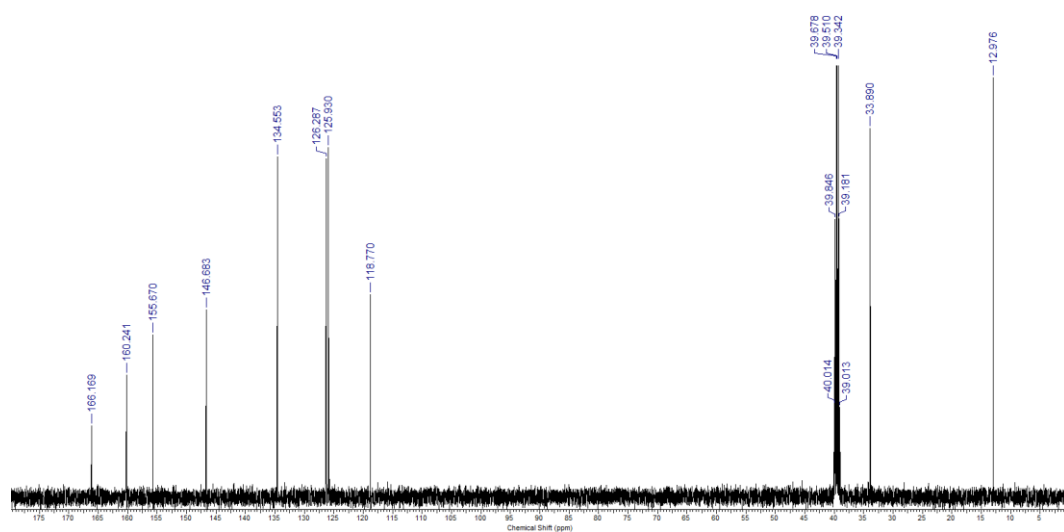


Figure S83. The ^{13}C -NMR spectrum for the compound 3c.

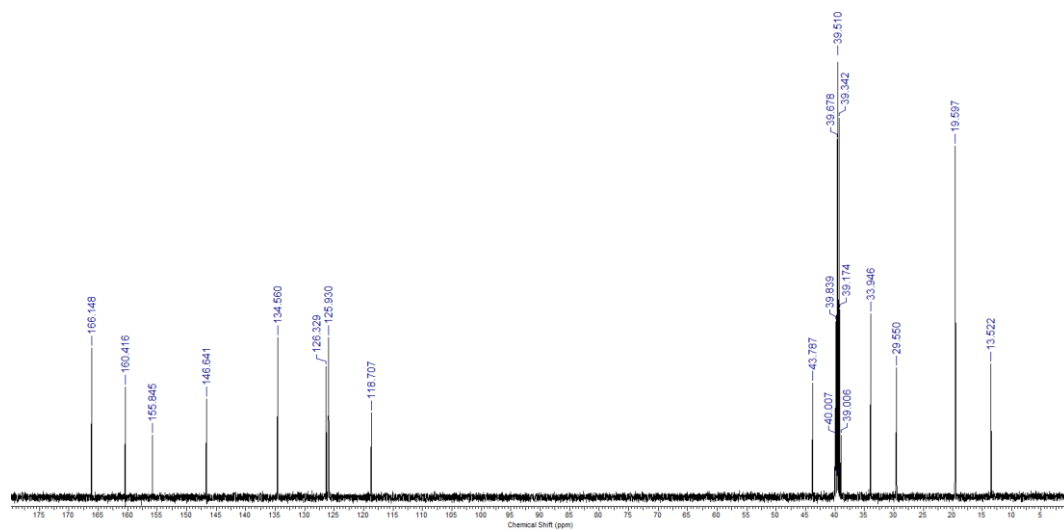


Figure S84. The ^{13}C -NMR spectrum for the compound 3d.

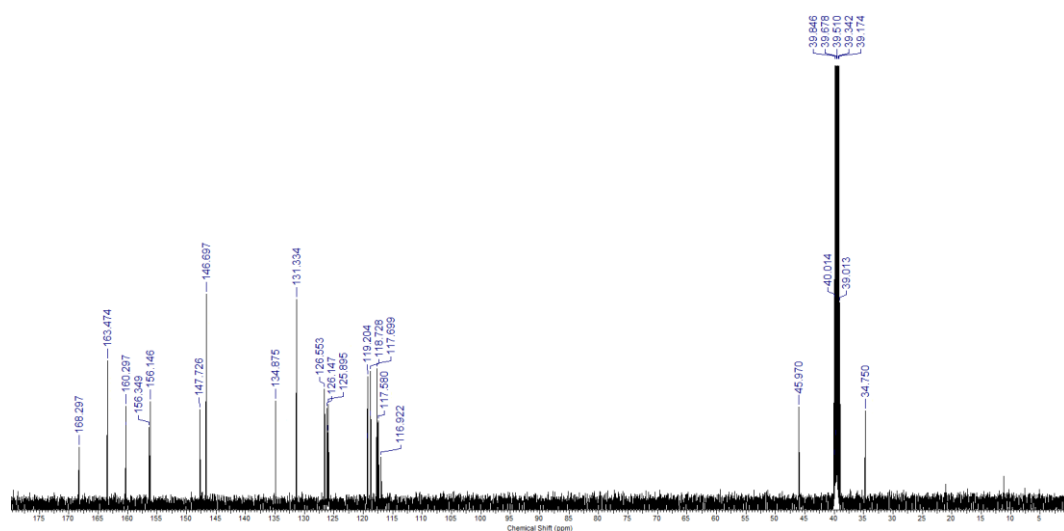


Figure S85. The ^{13}C -NMR spectrum for the compound 5a.

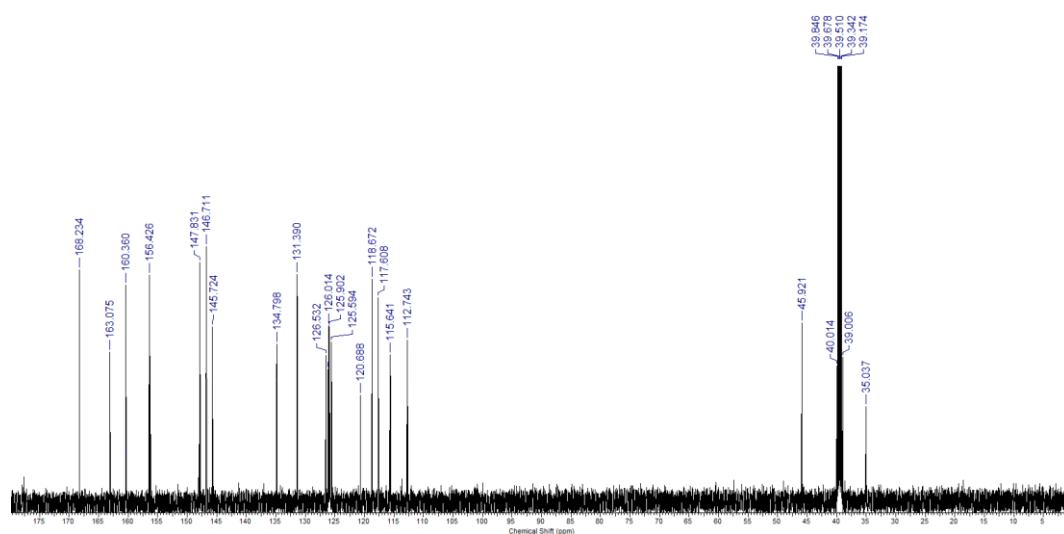


Figure S86. The ¹³C-NMR spectrum for the compound 5b.

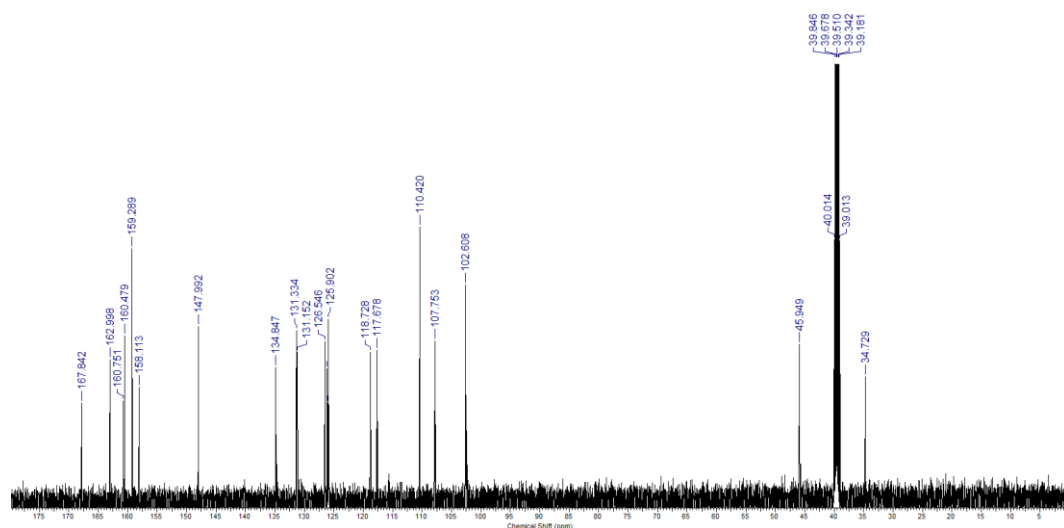


Figure S87. The ¹³C-NMR spectrum for the compound 5c.

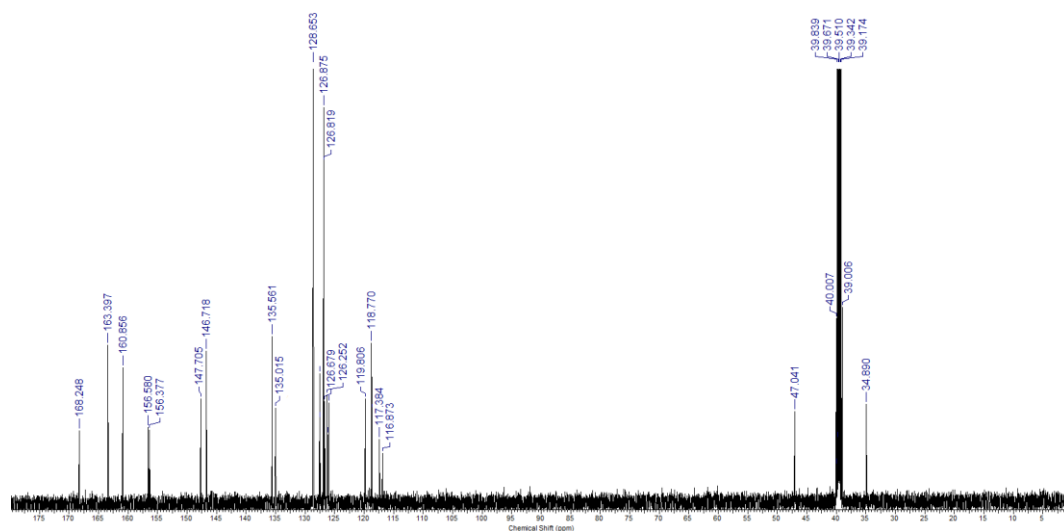


Figure S88. The ¹³C-NMR spectrum for the compound 5d.

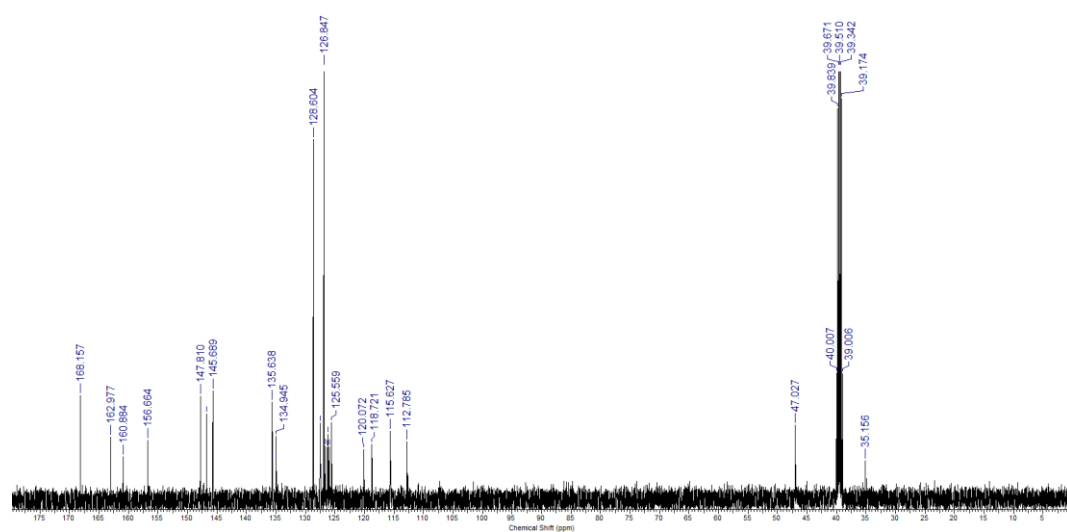


Figure S89. The ¹³C-NMR spectrum for the compound 5e.

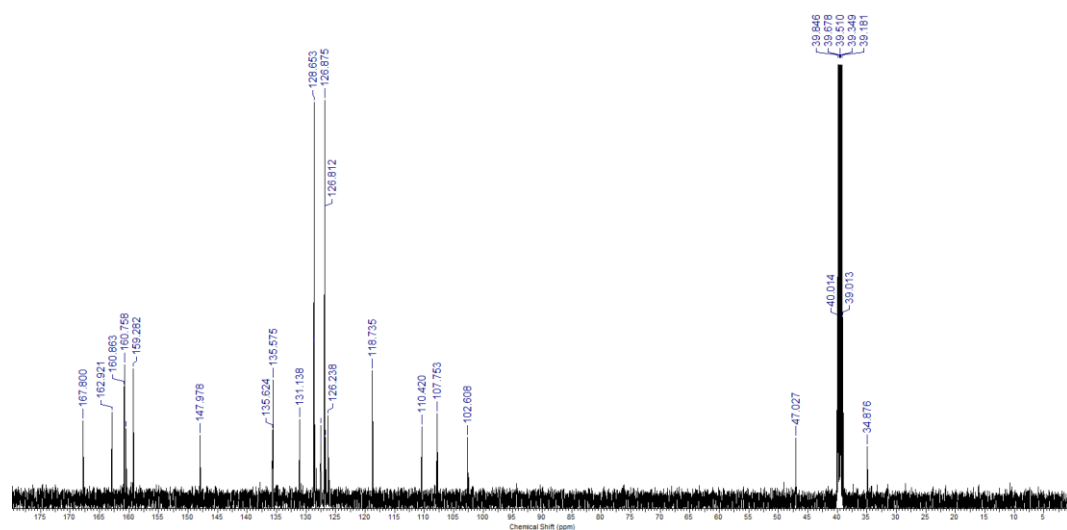


Figure S90. The ¹³C-NMR spectrum for the compound 5f.

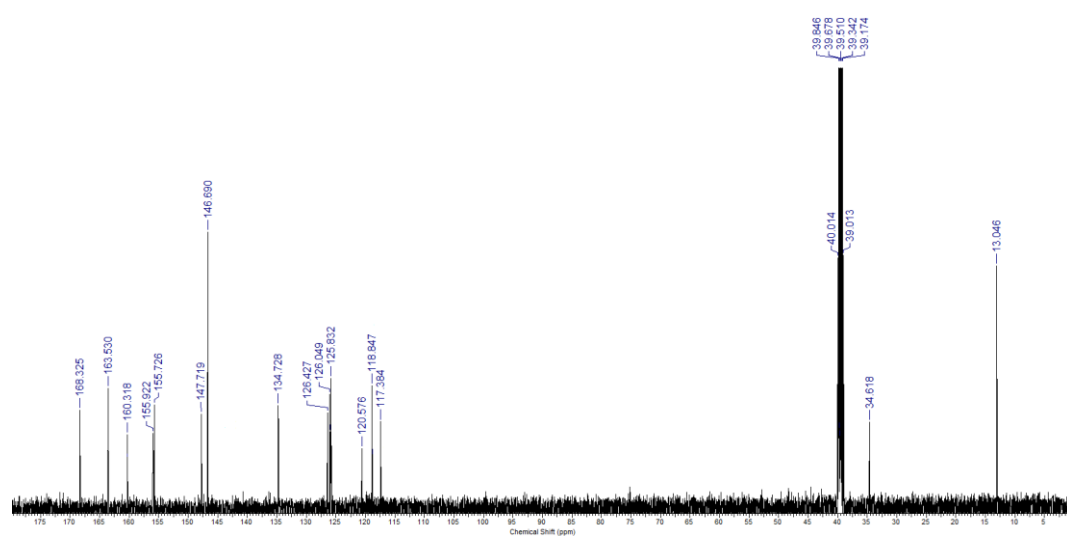
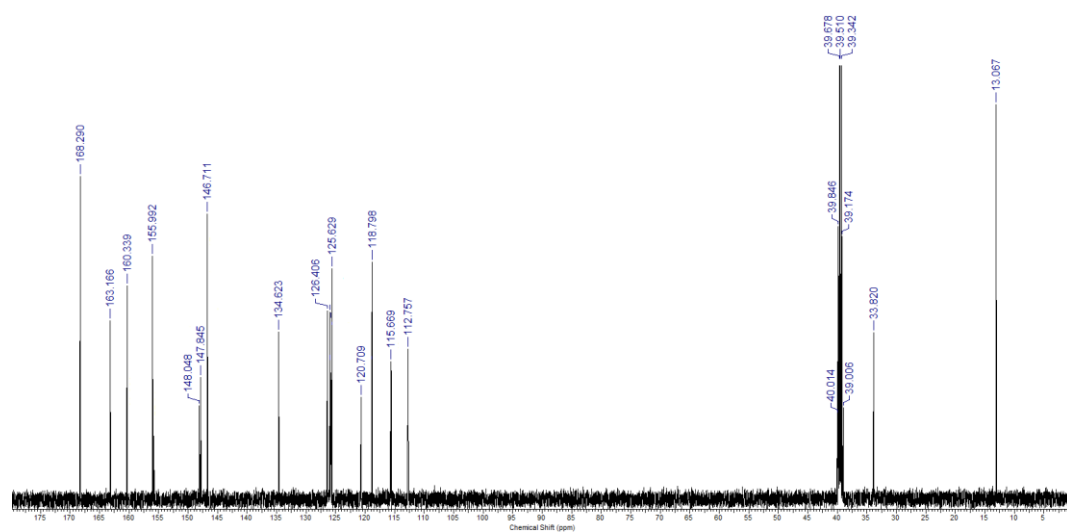
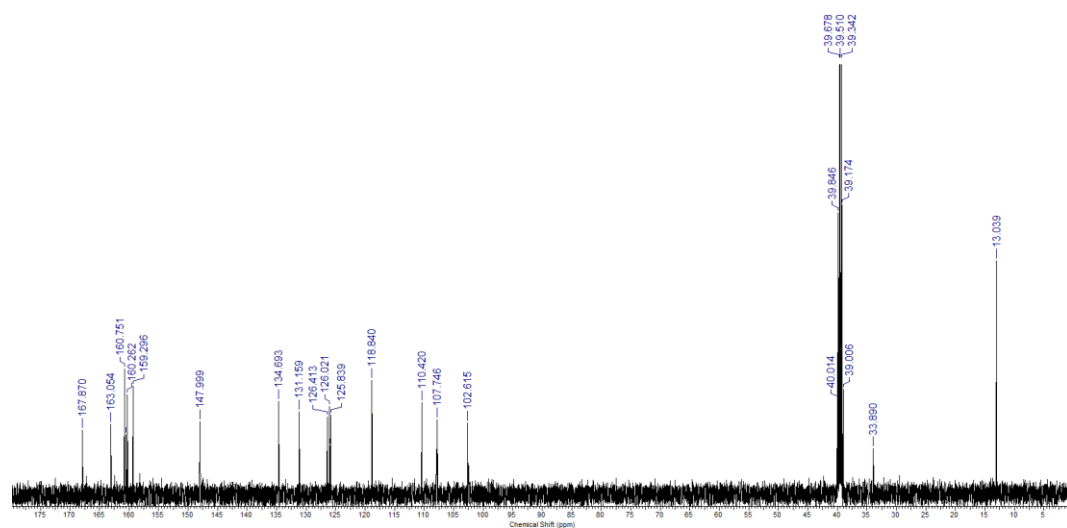
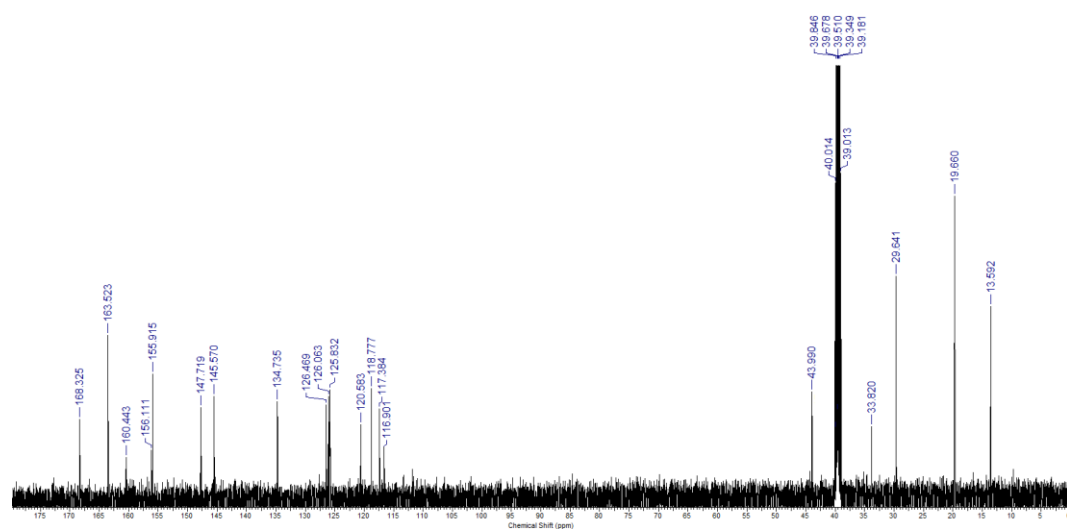


Figure S91. The ¹³C-NMR spectrum for the compound 5g.

Figure S92. The ¹³C-NMR spectrum for the compound 5h.Figure S93. The ¹³C-NMR spectrum for the compound 5i.Figure S94. The ¹³C-NMR spectrum for the compound 5j.

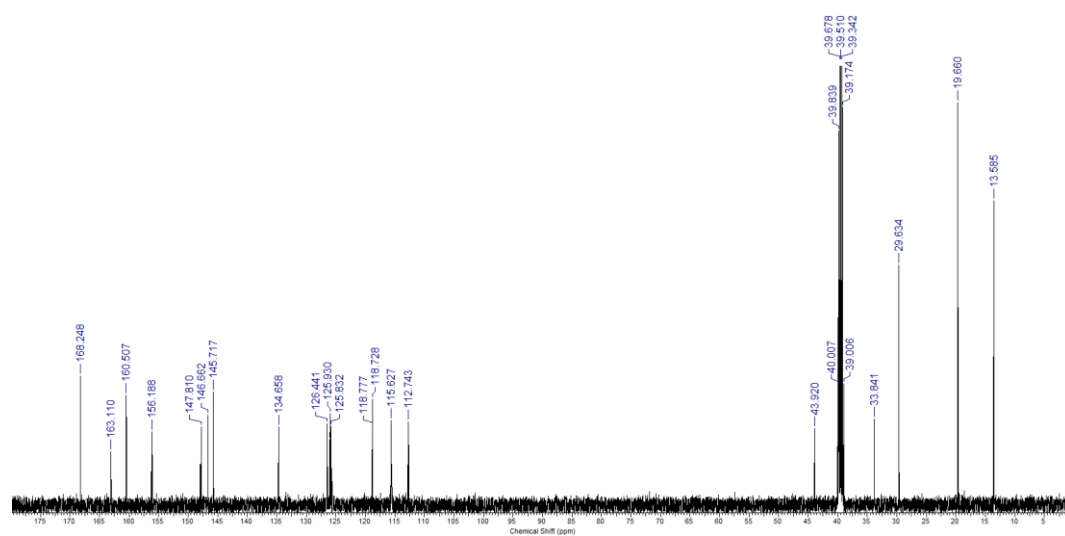


Figure S95. The ¹³C-NMR spectrum for the compound 5k.

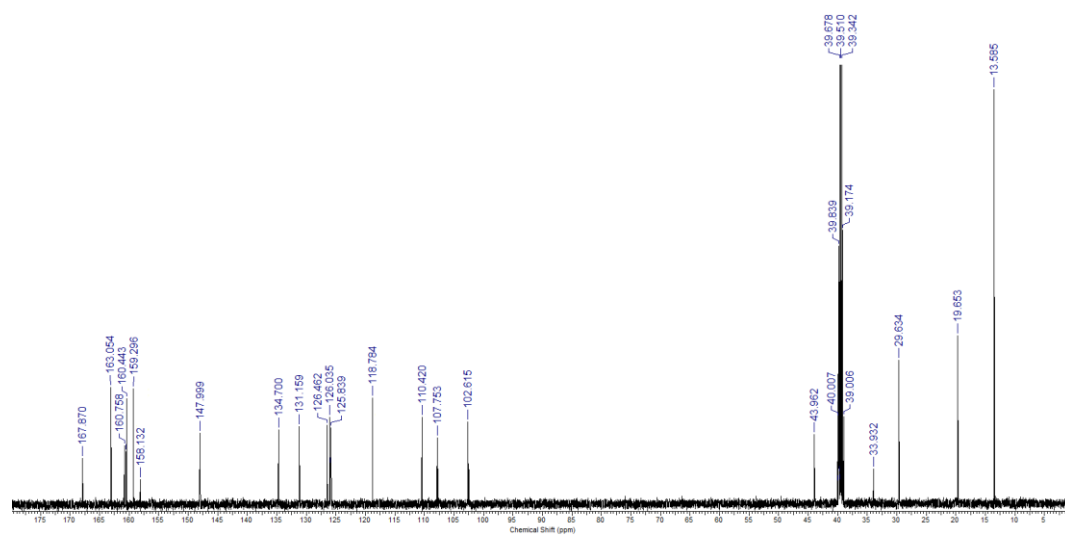
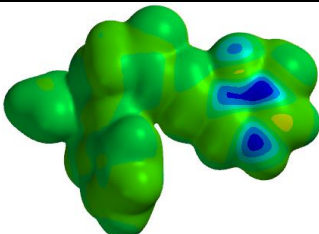
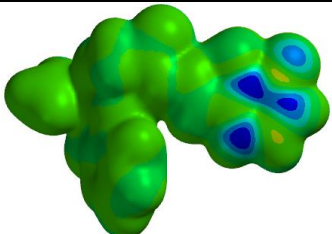
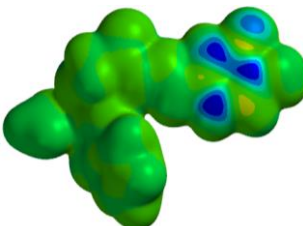
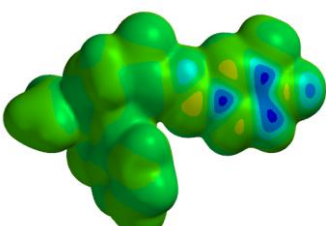
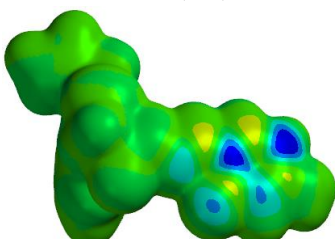
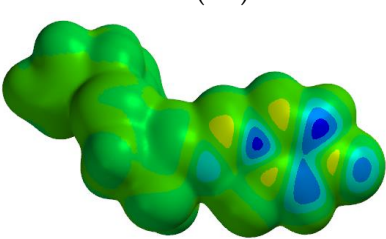
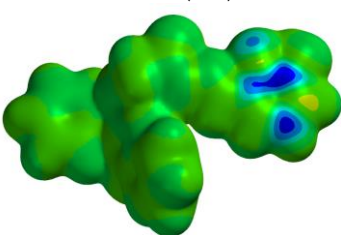
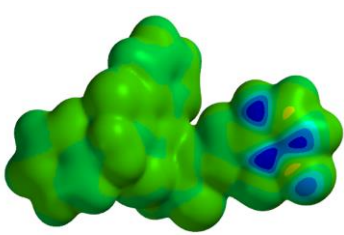
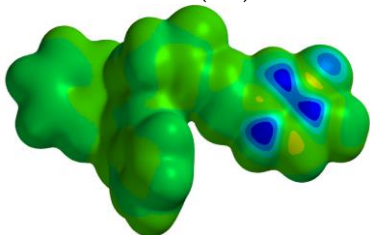
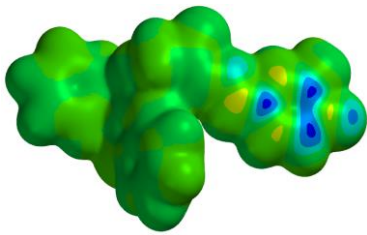
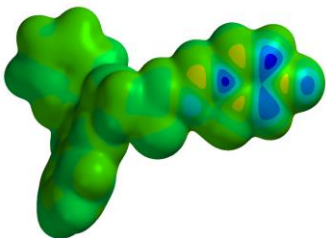
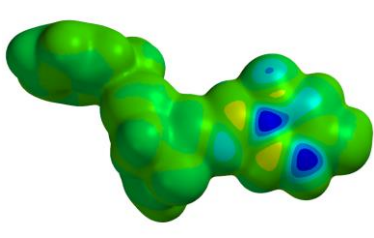
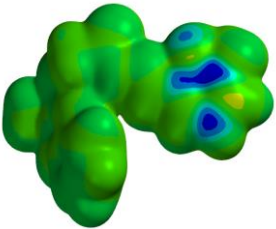
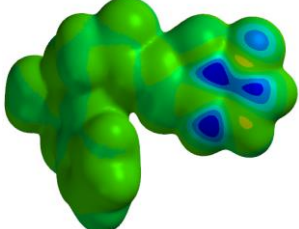
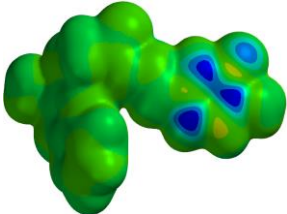
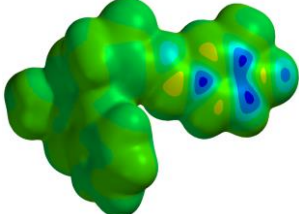
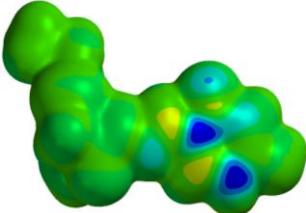
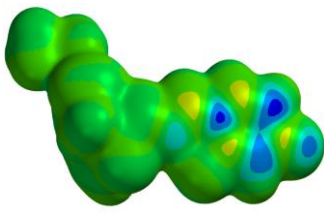
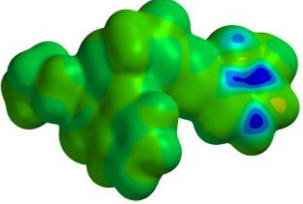
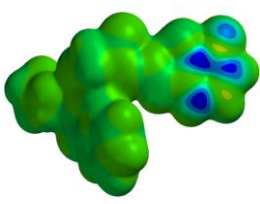
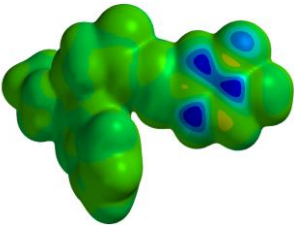
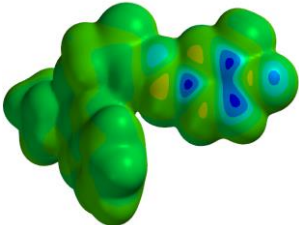
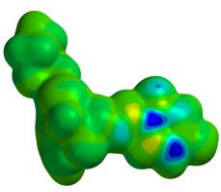
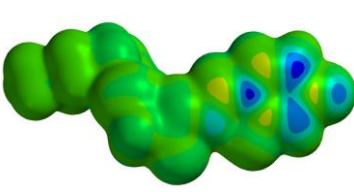


Figure S96. The ¹³C-NMR spectrum for the compound 5l.

2. Table

Table S1. Spin density map depending on the phenolic radical for the compounds **5a-l**.

Compound	Spin density map depending on the phenolic radical	
5a		
	Ortho (H1)	Meta (H2)
5b		
	Meta (H2)	Para (H3)
5c		
	Ortho (H1)	Para (H3)
5d		
	Ortho (H1)	Meta (H2)
5e		
	Meta (H2)	Para (H3)
5f		
	Ortho (H1)	Para (H3)

Compound	Spin density map depending on the phenolic radical	
5g		
	Ortho (H1)	Meta (H2)
5h		
	Meta (H2)	Para (H3)
5i		
	Ortho (H1)	Para (H3)
5j		
	Ortho (H1)	Meta (H2)
5k		
	Meta (H2)	Para (H3)
5l		
	Ortho (H1)	Para (H3)