

Supplementary Materials

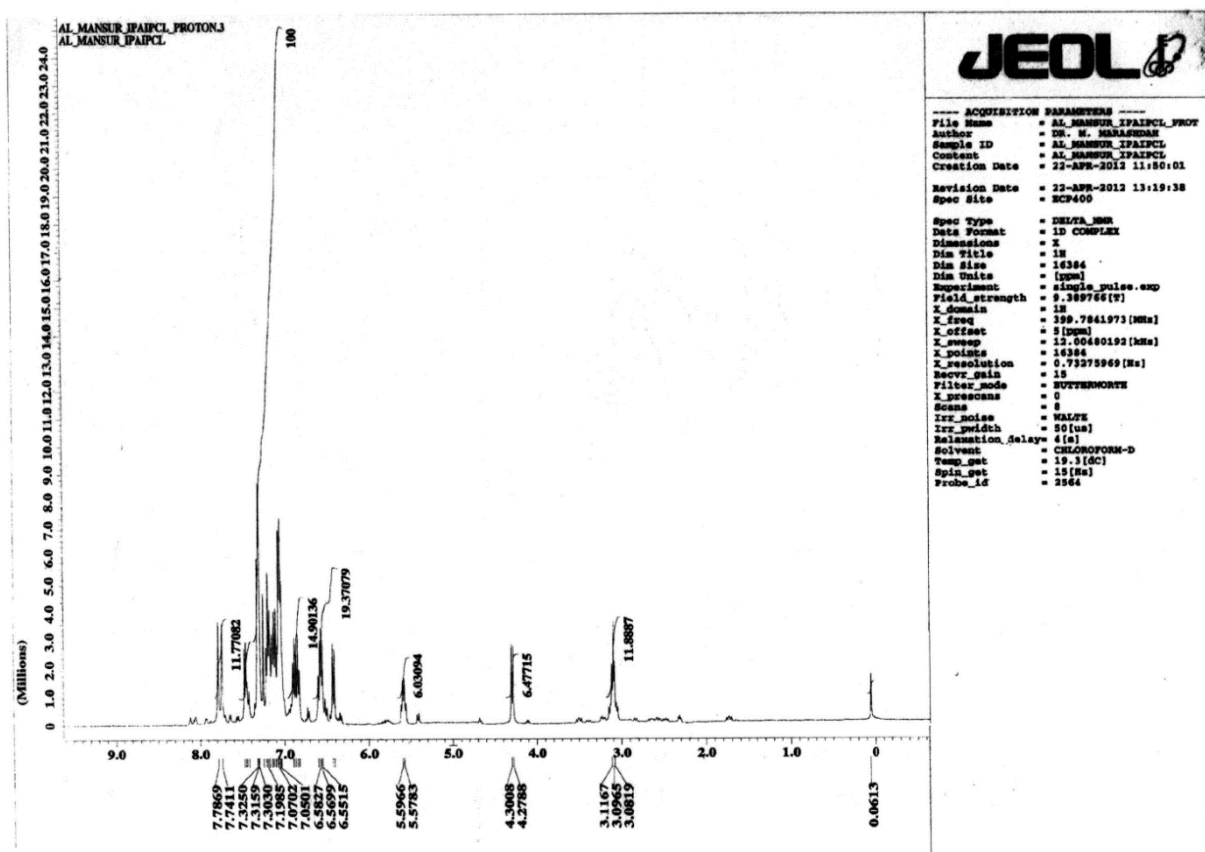
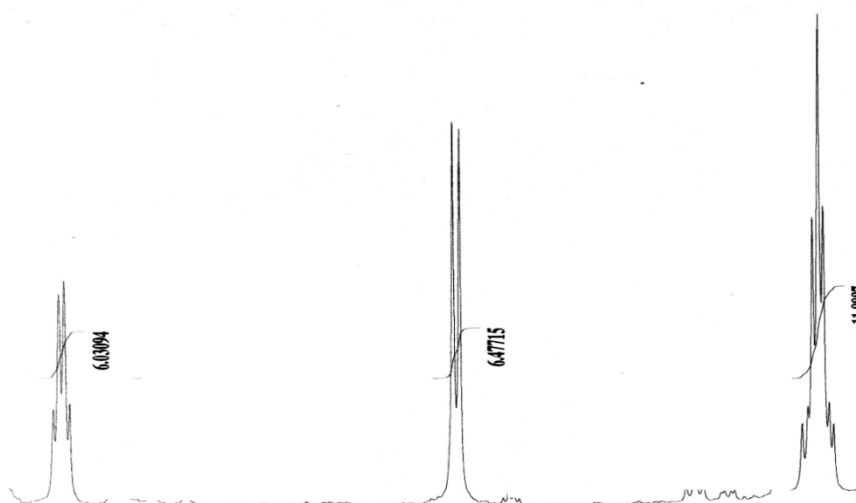
Table S1. Selected geometric parameters (Å, °).

S1A—C37A	1.748 (6)	O2—C27	1.220 (3)
S1A—O7A	1.518 (3)	O3—C26	1.225 (3)
S1A—C36A	1.769 (3)	O4—N3	1.222 (3)
S2—O6	1.471 (2)	O5—N3	1.216 (3)
S2—C35	1.735 (5)	N1—C8	1.366 (3)
S2—C34	1.727 (6)	N1—C1	1.385 (3)
S1B—C36B	1.75 (3)	N2—C7	1.473 (3)
S1B—C37B	1.68 (3)	N2—C11	1.459 (3)
S1B—O7B	1.49 (3)	N3—C4	1.456 (3)
O1—C8	1.216 (3)		
C36A—S1A—C37A	99.2 (2)	N1—C1—C2	128.3 (2)
O7A—S1A—C37A	104.8 (2)	N3—C4—C5	118.7 (2)
O7A—S1A—C36A	107.06 (17)	N3—C4—C3	118.1 (2)
O6—S2—C35	110.2 (2)	N2—C7—C8	107.08 (17)
C34—S2—C35	97.3 (3)	N2—C7—C6	112.92 (17)
O6—S2—C34	107.1 (3)	N2—C7—C9	103.96 (16)
C36B—S1B—C37B	108.4 (19)	N1—C8—C7	107.15 (18)
O7B—S1B—C36B	110.9 (17)	O1—C8—N1	125.5 (2)
O7B—S1B—C37B	117 (2)	O1—C8—C7	127.2 (2)
C1—N1—C8	112.46 (18)	N2—C11—C12	112.29 (18)
C7—N2—C11	105.40 (17)	N2—C11—C10	107.19 (16)
O4—N3—C4	118.7 (2)	O3—C26—C10	125.82 (19)
O4—N3—O5	122.7 (2)	O3—C26—C25	126.1 (2)
O5—N3—C4	118.5 (2)	O2—C27—C28	120.8 (2)
N1—C1—C6	109.51 (19)	O2—C27—C9	121.1 (2)

Table S2. Hydrogen-bond geometry (Å, °).

<i>D</i>—H$\cdots$<i>A</i>	<i>D</i>—H	H$\cdots$<i>A</i>	<i>D</i>$\cdots$<i>A</i>	<i>D</i>—H$\cdots$<i>A</i>
N1—H1N1$\cdots$O7Aⁱ	0.84 (3)	1.97 (3)	2.779 (3)	162 (3)
N2—H1N2$\cdots$O3ⁱⁱ	0.86 (3)	2.26 (3)	3.120 (2)	176 (2)
C3—H3A$\cdots$O2ⁱⁱⁱ	0.9300	2.6000	3.235 (3)	126.00
C9—H9A$\cdots$O3	0.9800	2.4800	2.992 (3)	112.00
C11—H11A$\cdots$O1	0.9800	2.5000	3.083 (3)	118.00
C12—H12B$\cdots$O5ⁱⁱ	0.9700	2.4800	3.247 (3)	136.00
C20—H20A$\cdots$O1	0.9300	2.4300	3.241 (3)	145.00
C25—H25A$\cdots$O6^{iv}	0.9300	1.9000	2.800 (3)	161.00
C31—H31A$\cdots$O7A^v	0.9300	2.4900	3.364 (4)	156.00
C37A—H37C$\cdots$O4^{vi}	0.9600	2.4300	3.202 (6)	138.00

Symmetry codes: (i) $x+1, y, z$; (ii) $-x+1, -y+1, -z$; (iii) $-x+2, -y+1, -z$; (iv) $x, y, z-1$; (v) $x+1/2, -y+1/2, z-1/2$; (vi) $x-1/2, -y+3/2, z+1/2$.

Figure S1. ^1H -NMR spectrum of **5a**.Figure S2. Expanded ^1H -NMR spectrum of **5a**.

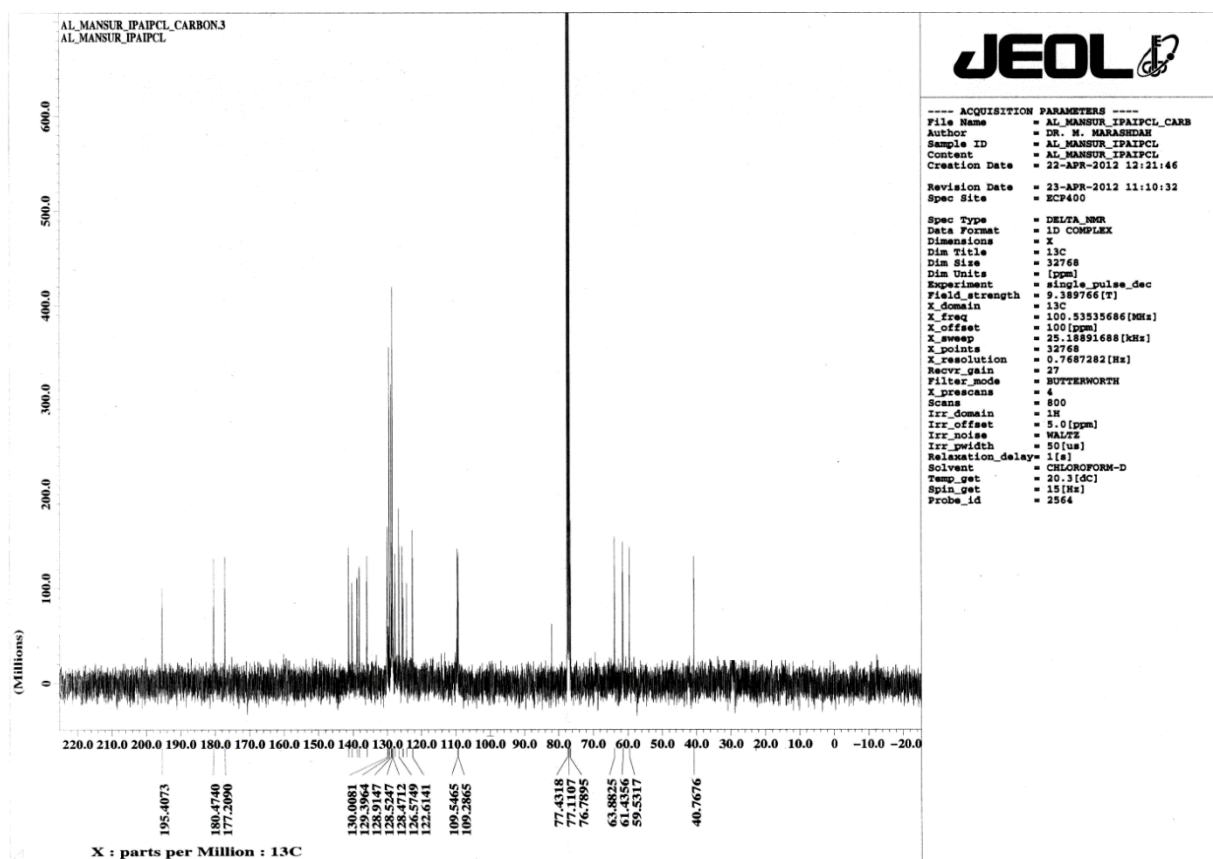
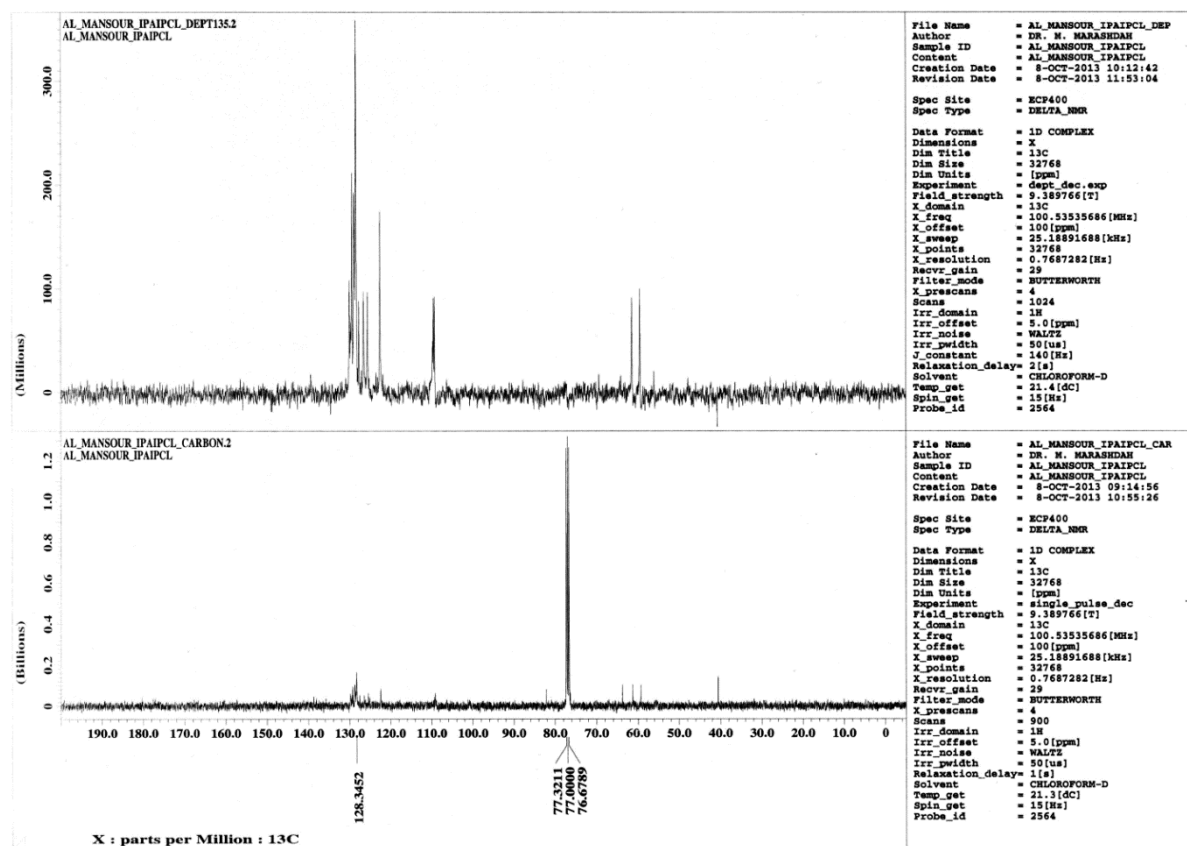
Figure S3. ^{13}C -NMR spectrum of 5a.

Figure S4. DEPT-135 spectrum of 5a.

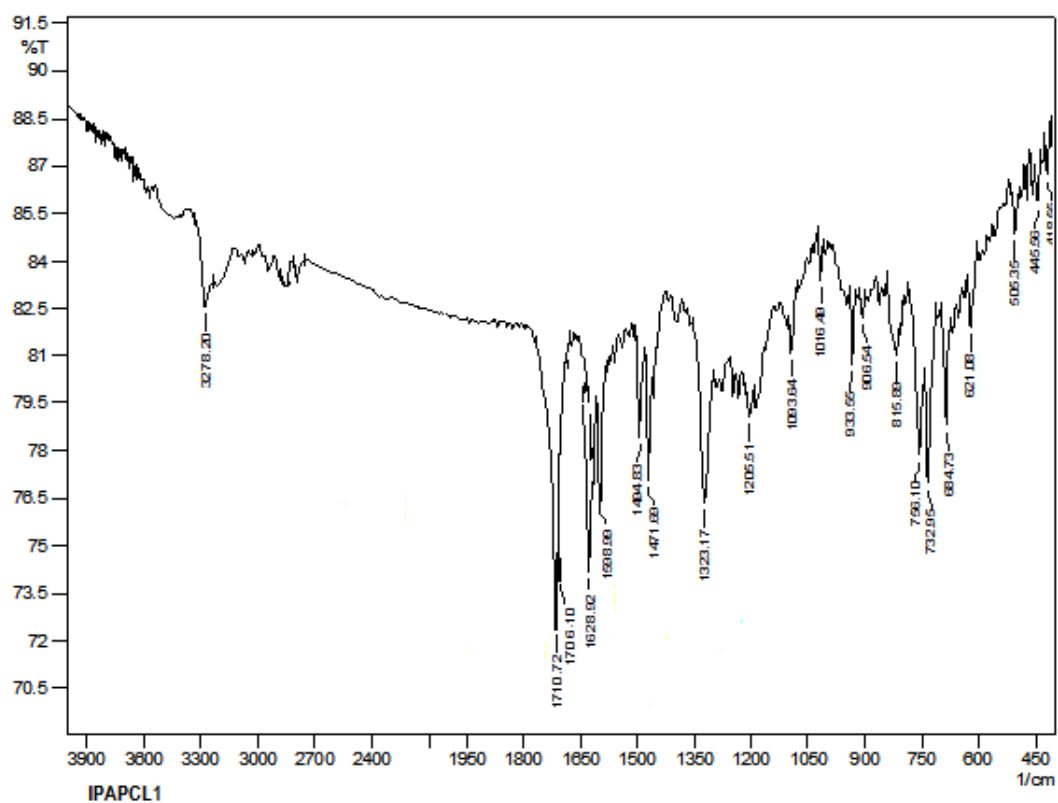


Figure S5. IR spectrum of 5a.

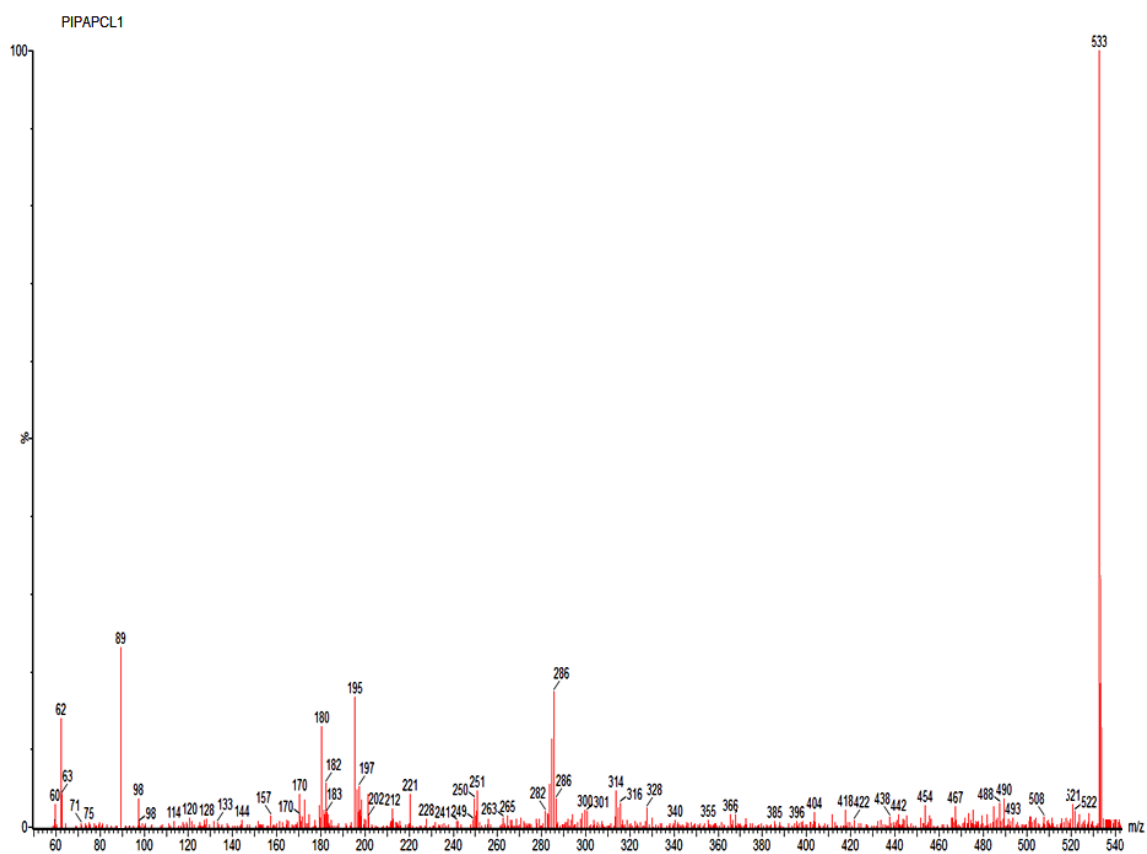
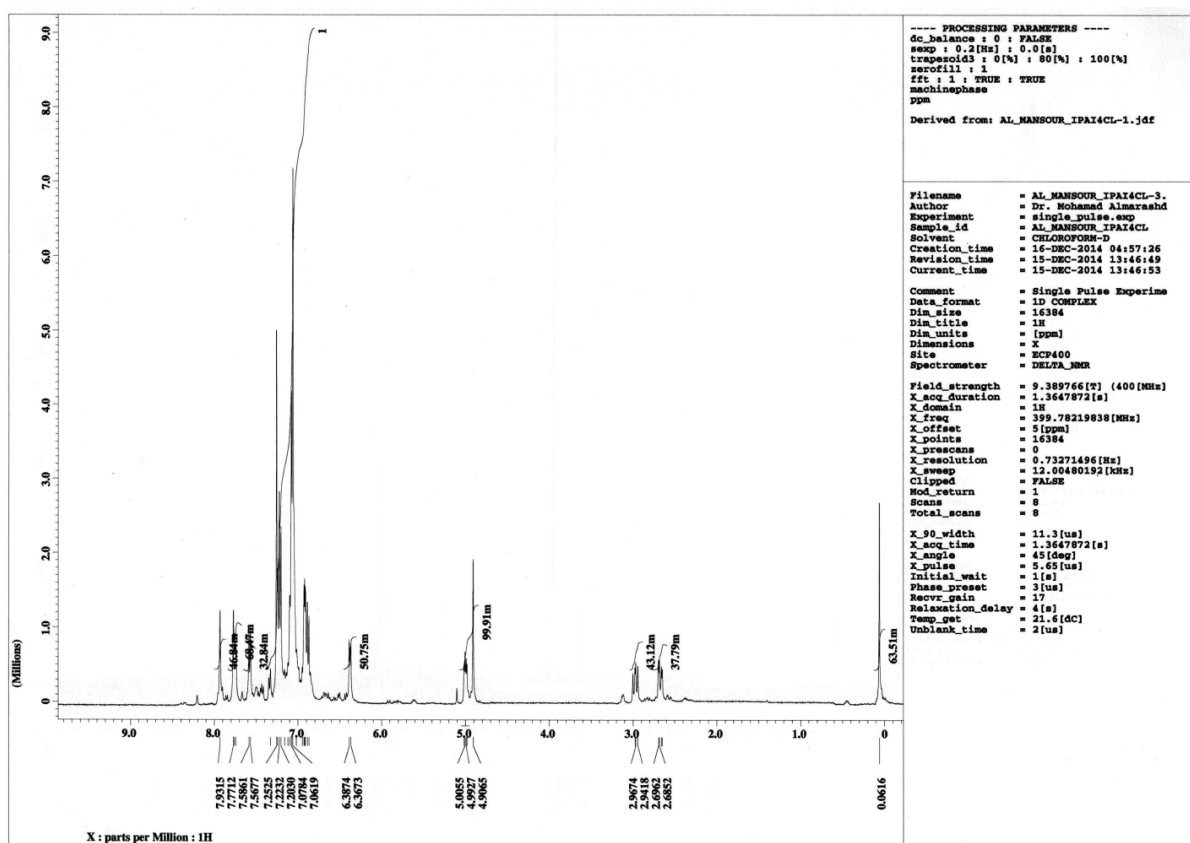
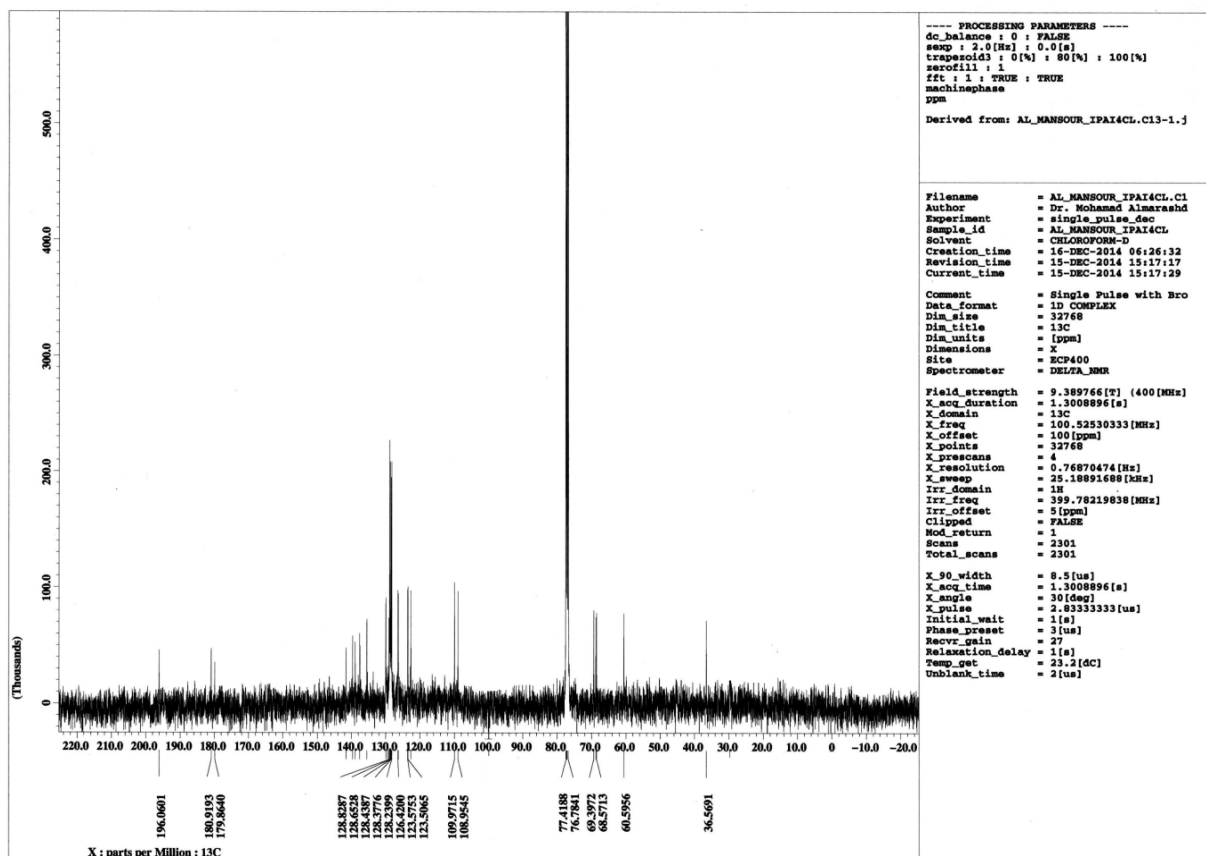


Figure S6. Mass spectrum of 5a.

Figure S7. ^1H -NMR spectrum of 6a.Figure S8. ^{13}C -NMR spectrum of 6a.

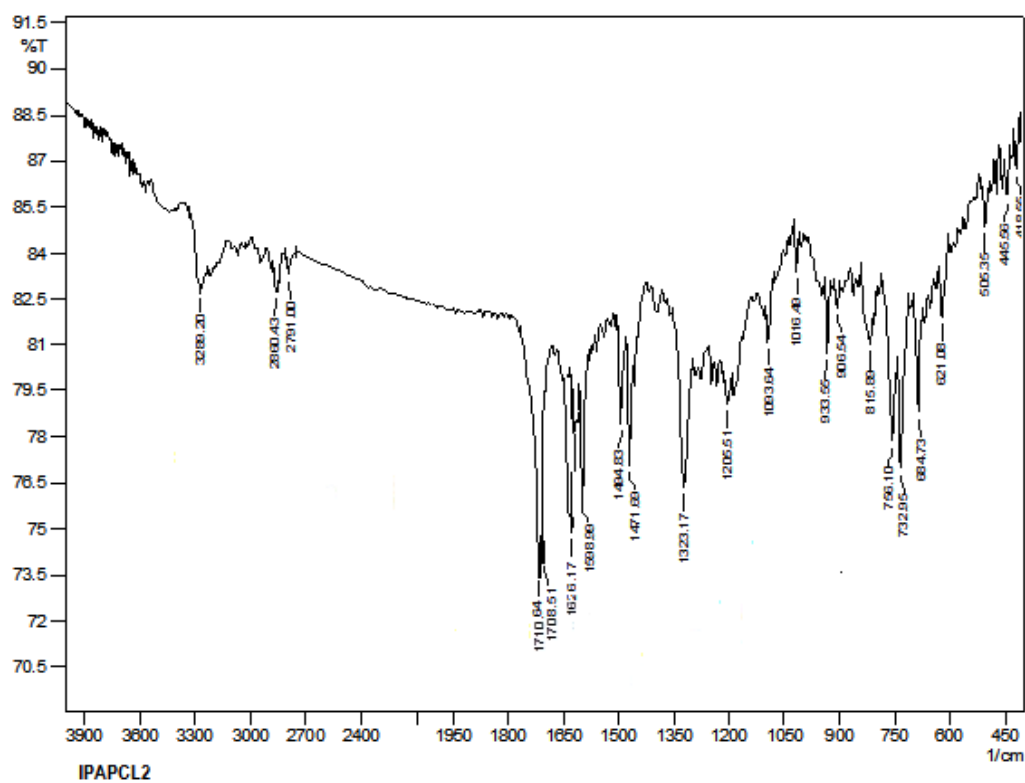


Figure S9. IR spectrum of 6a.

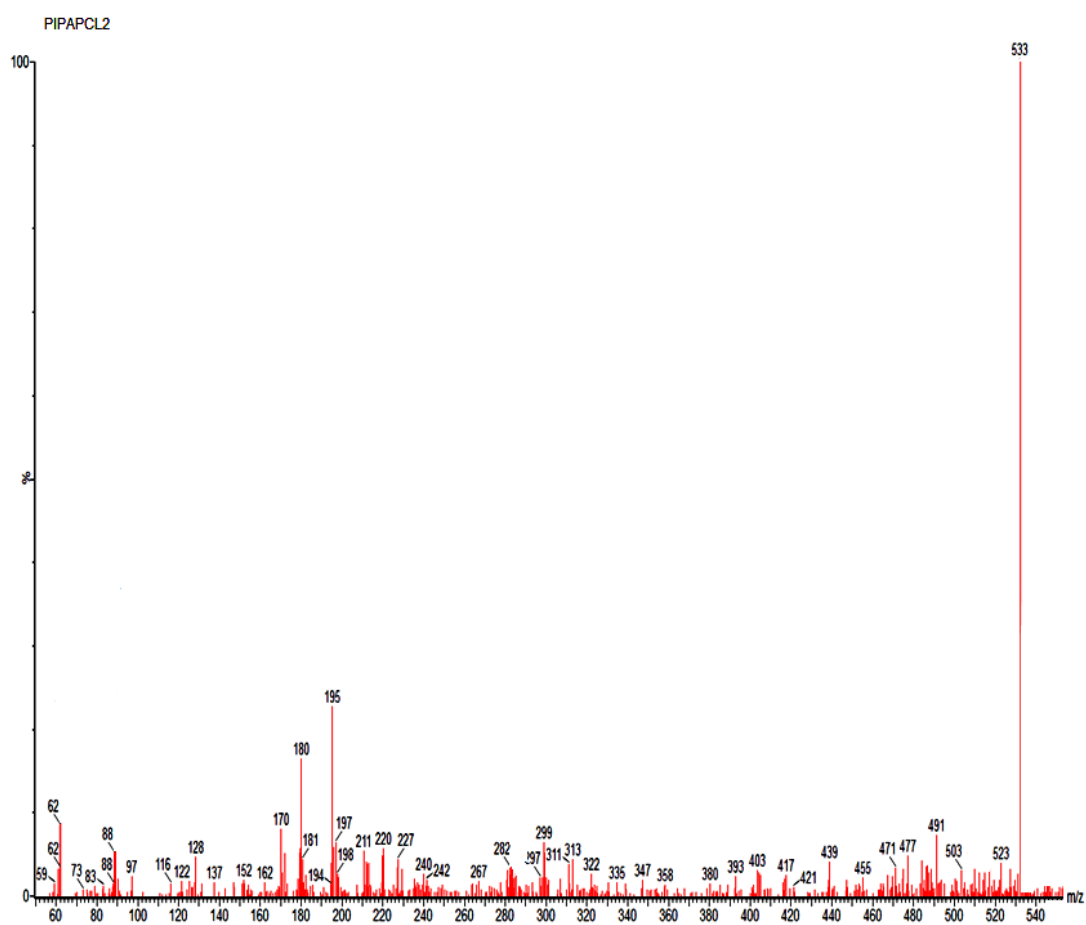
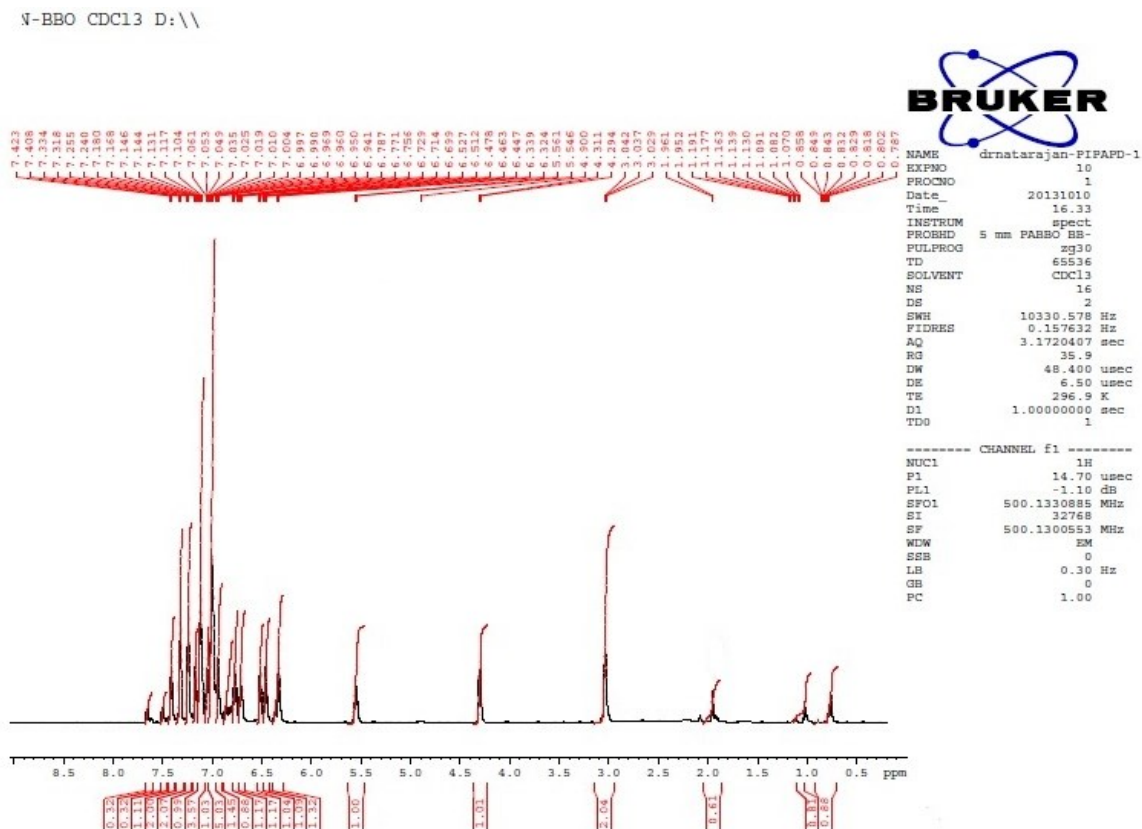
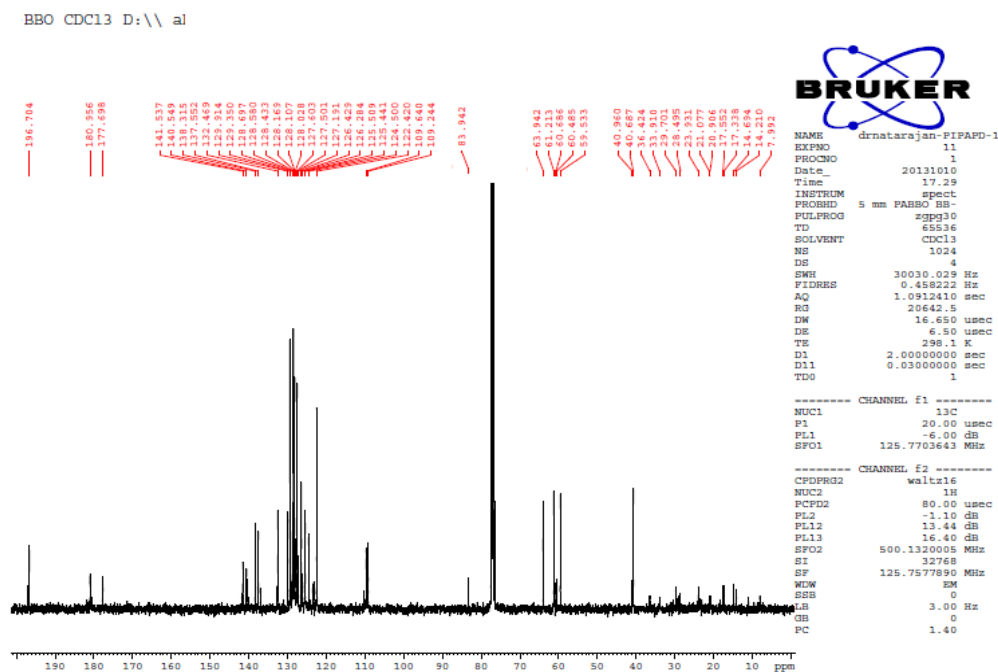


Figure S10. Mass spectrum of 6a.

Figure S11. ¹H-NMR spectrum of 5b.Figure S12. ¹³C-NMR spectrum of 5b.

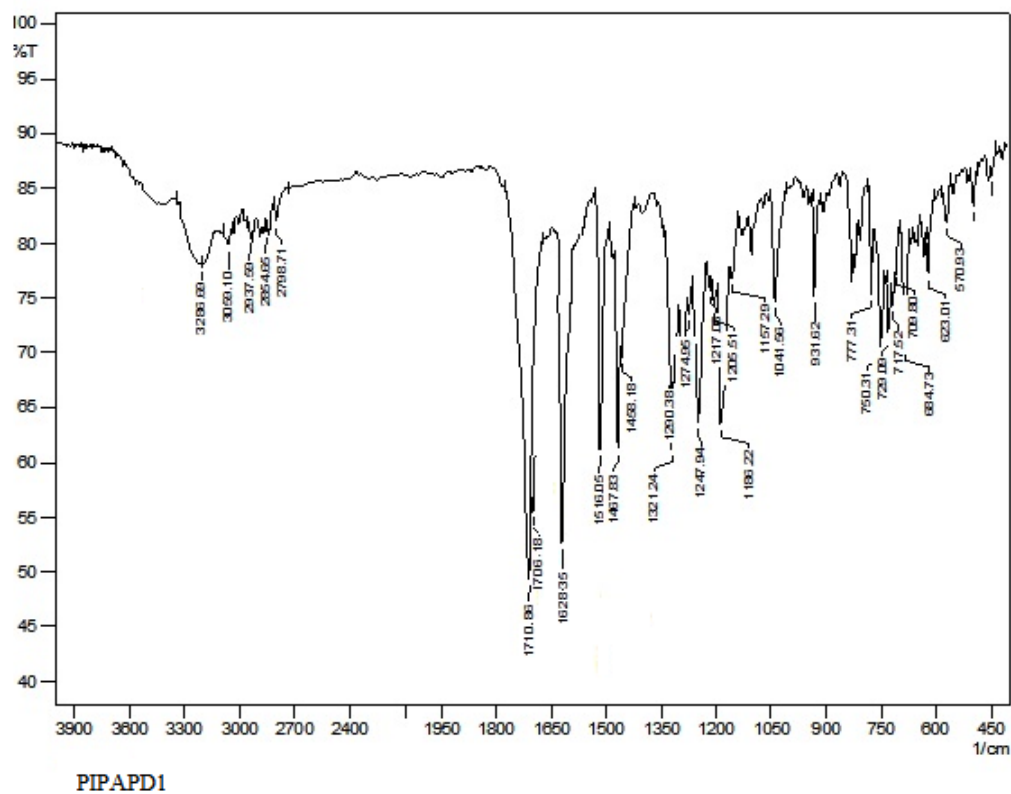


Figure S13. IR spectrum of 5b.

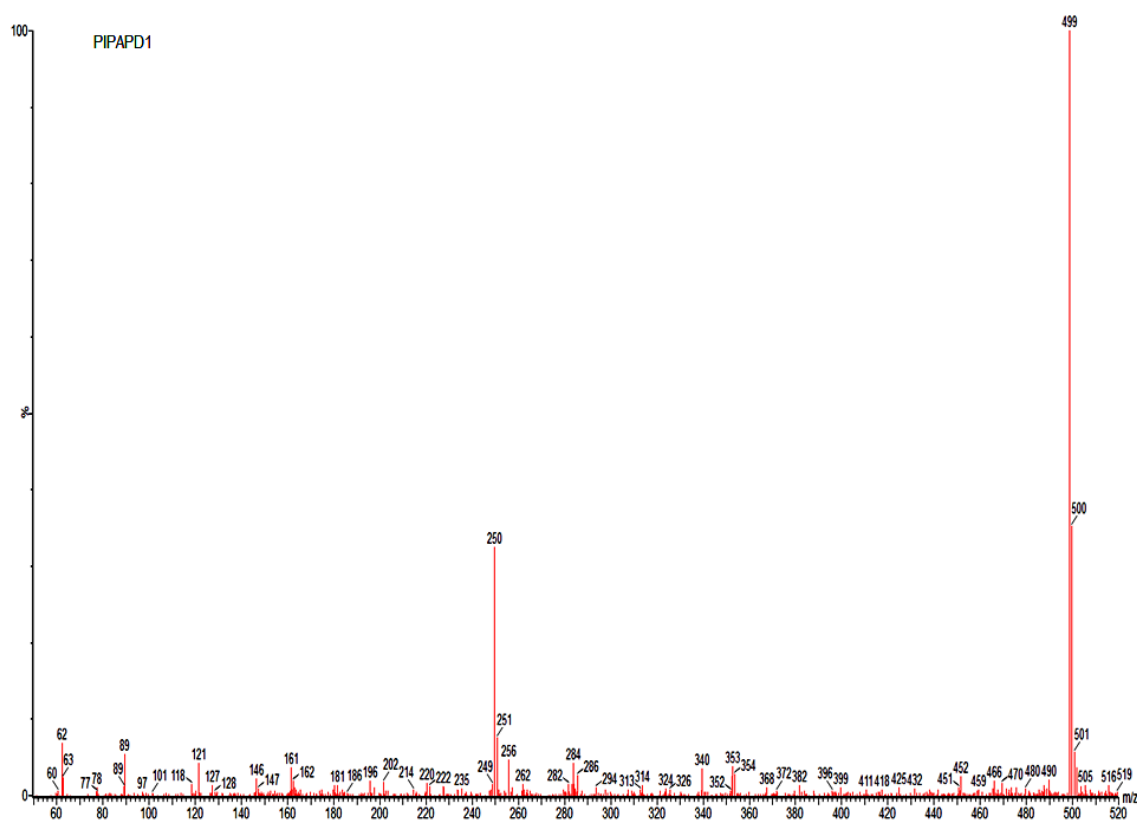
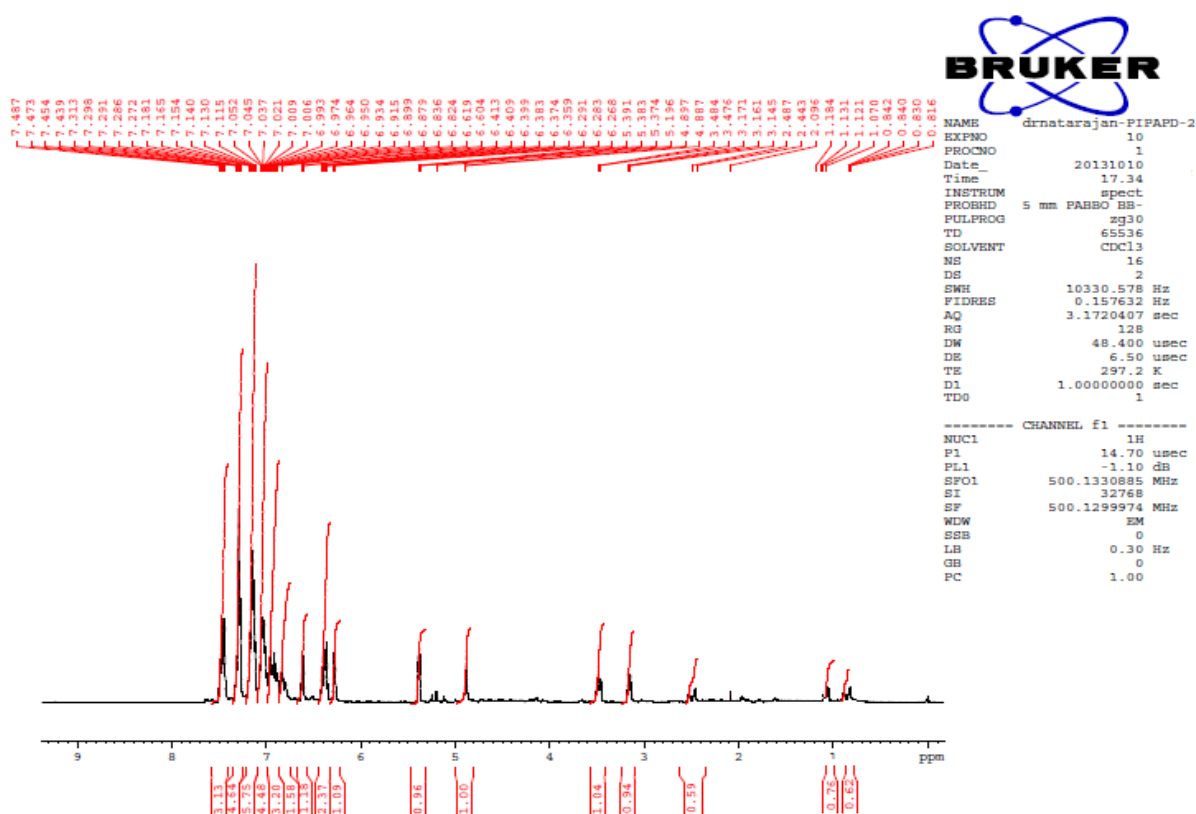
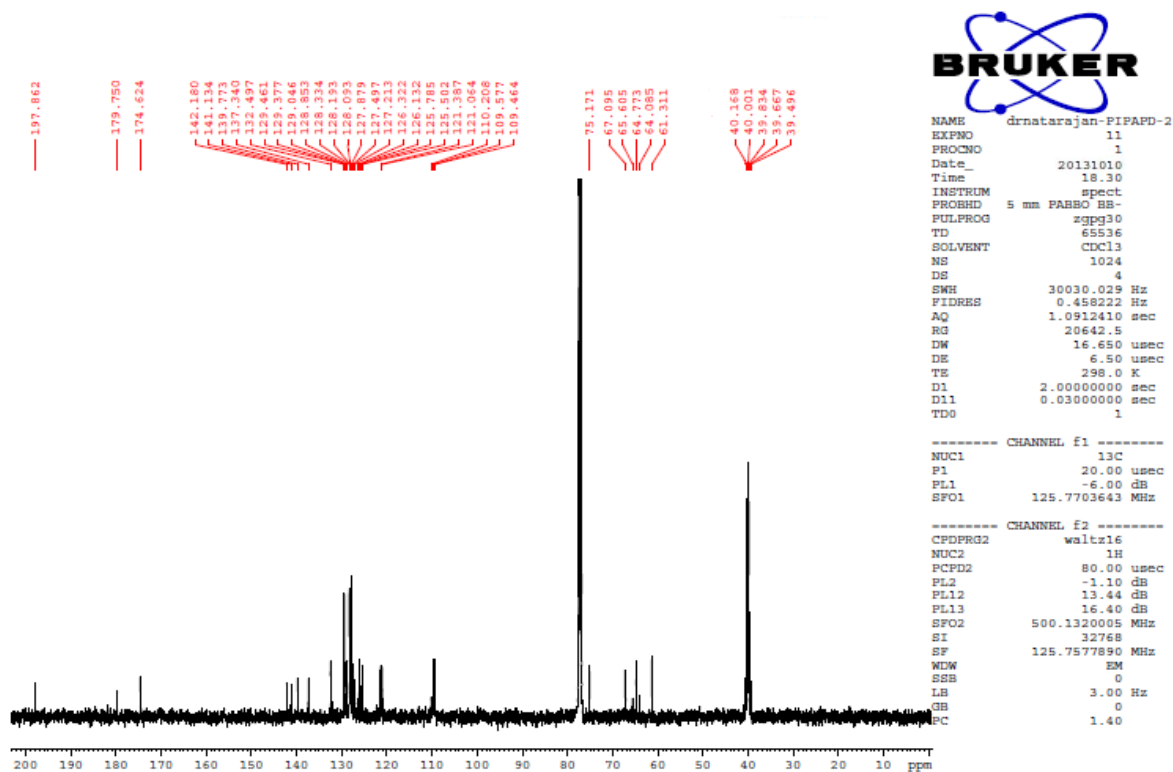
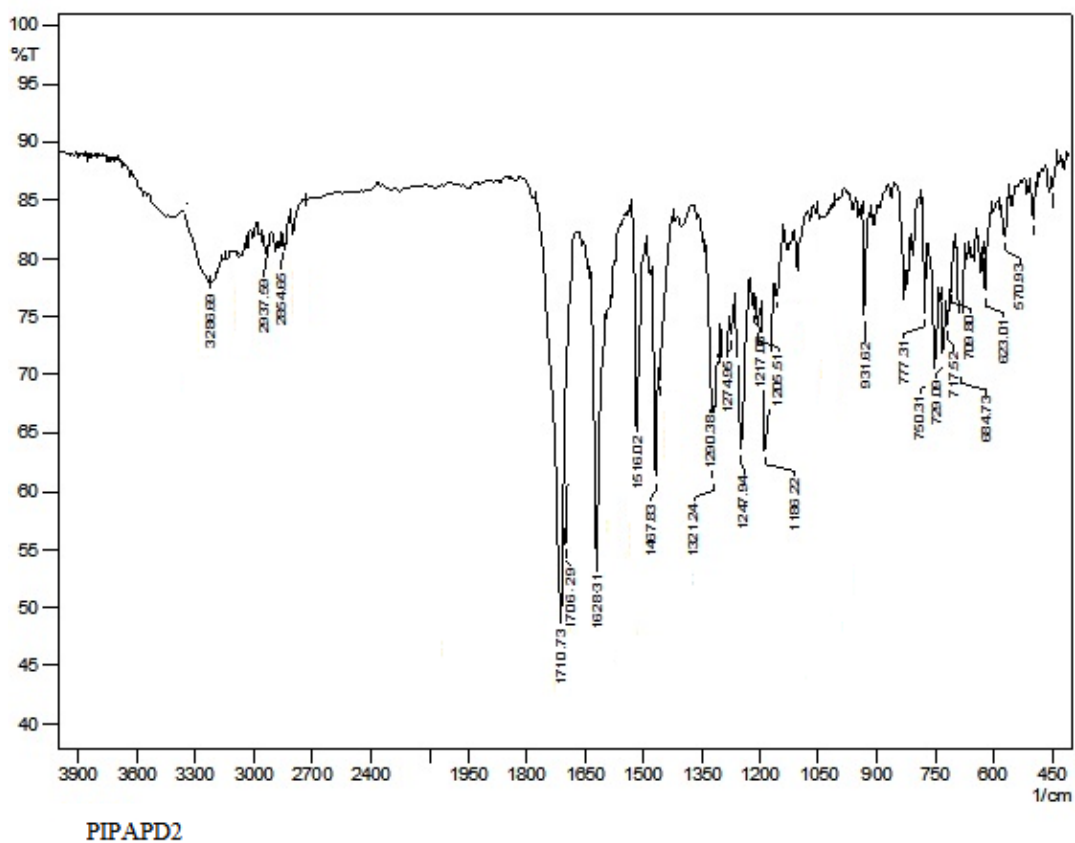
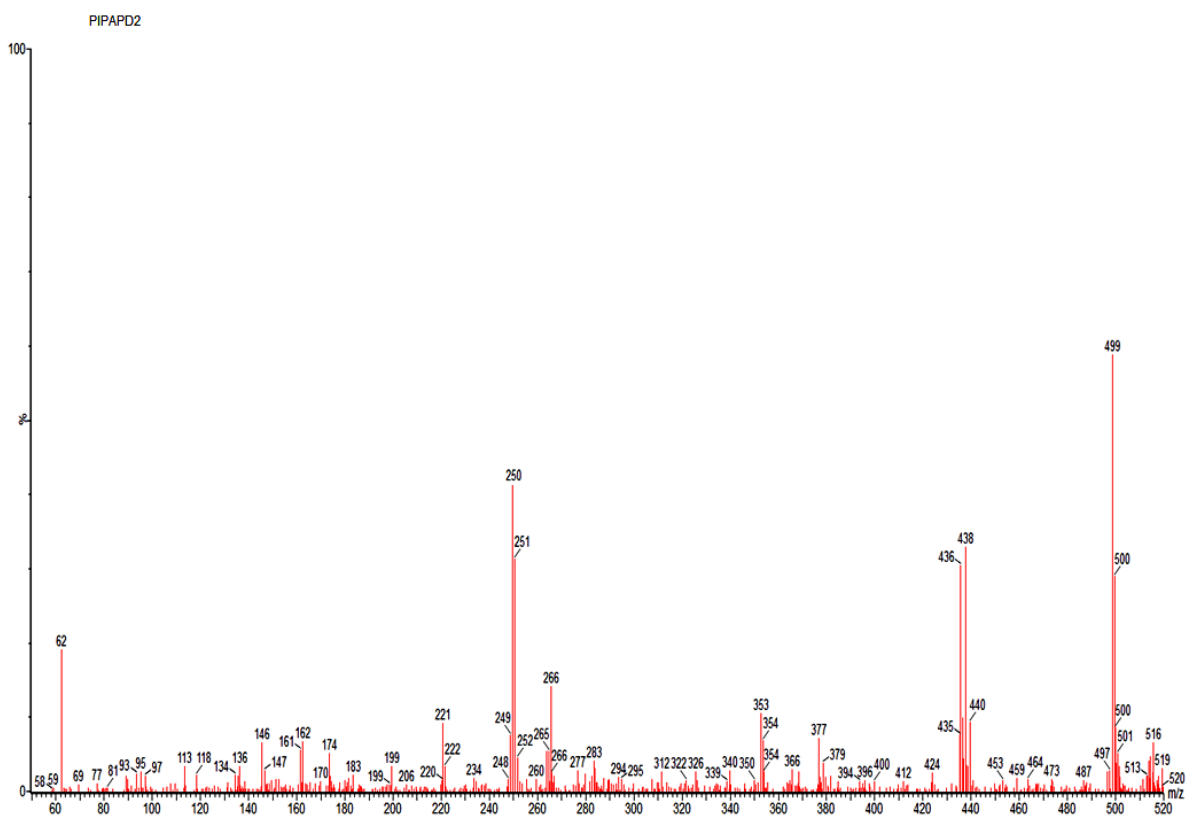
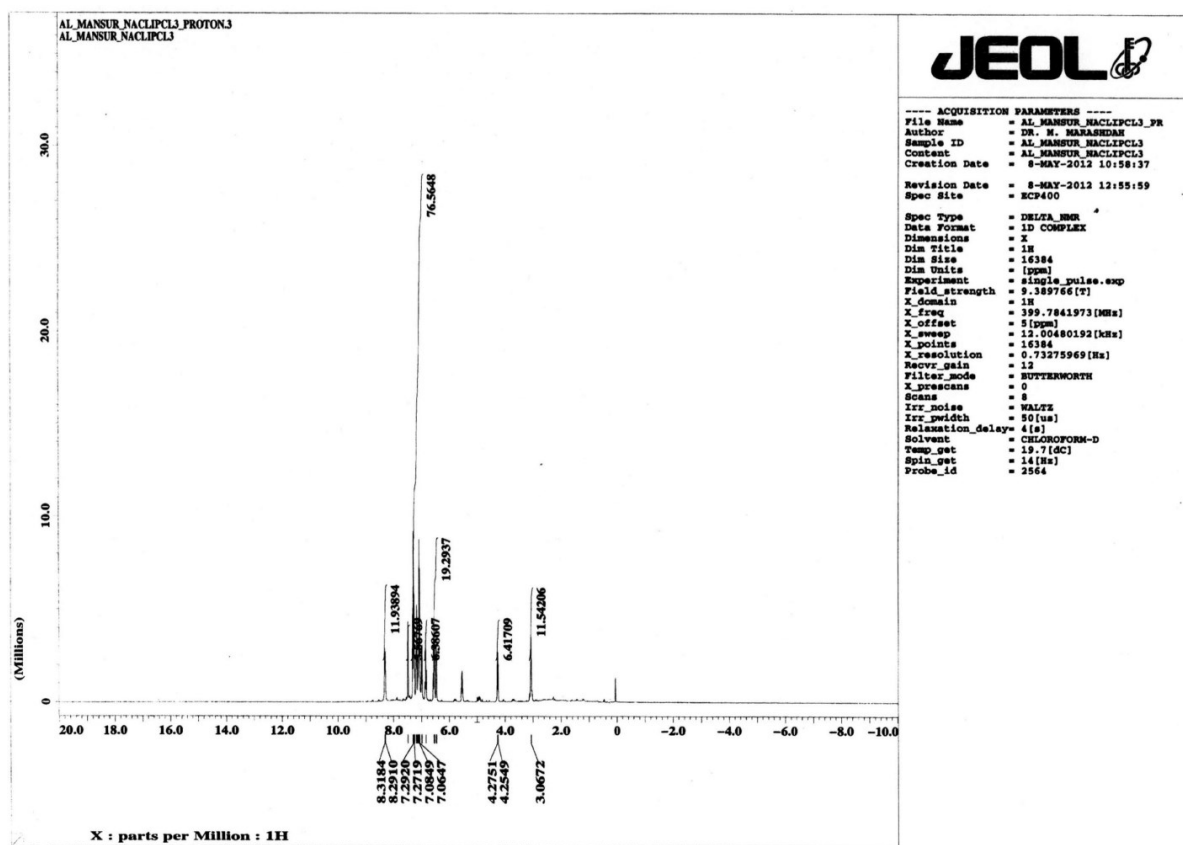
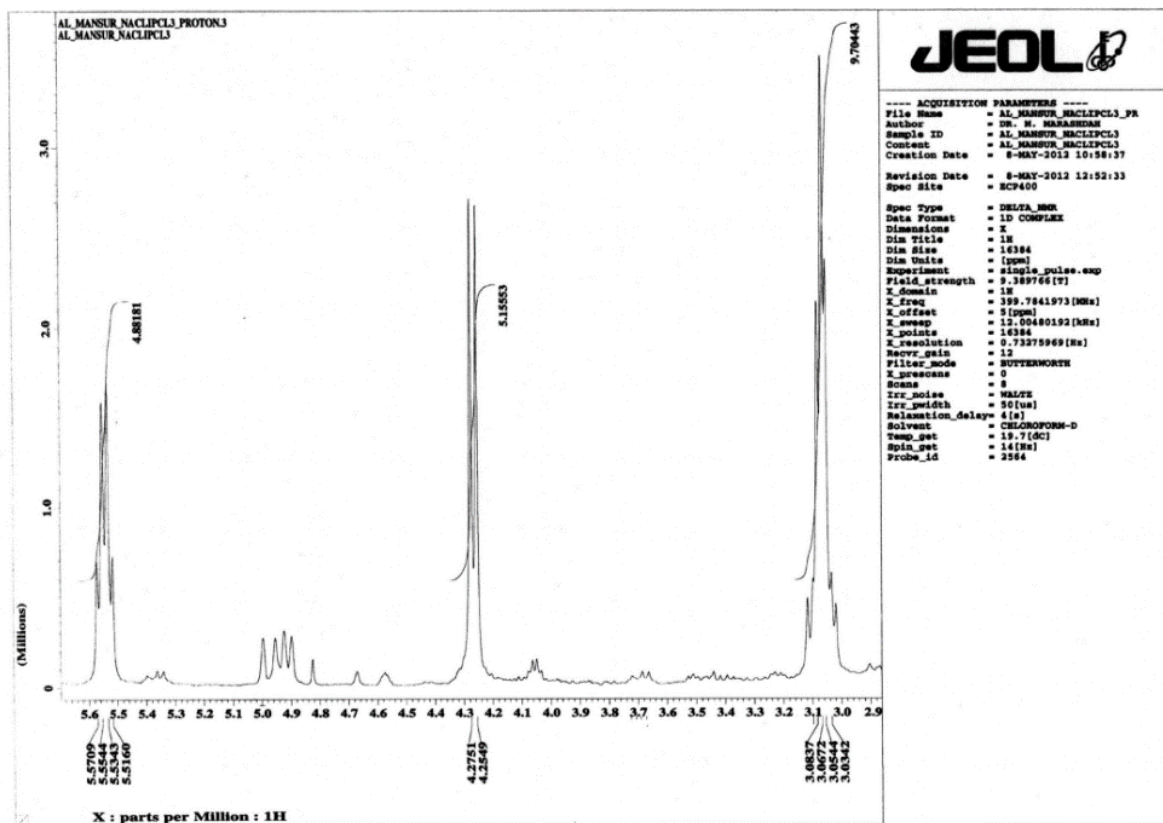


Figure S14. Mass spectrum of 5b.

N-BBO CDCl₃ D:\Figure S15. ¹H-NMR spectrum of 6b.BBO CDCl₃ D:\ alFigure S16. ¹³C-NMR spectrum of 6b.

Figure S17. IR spectrum of **6b**.Figure S18. Mass spectrum of **6b**.

Figure S19. ^1H -NMR spectrum of 5c.Figure S20. Expanded ^1H -NMR spectrum of 5c.

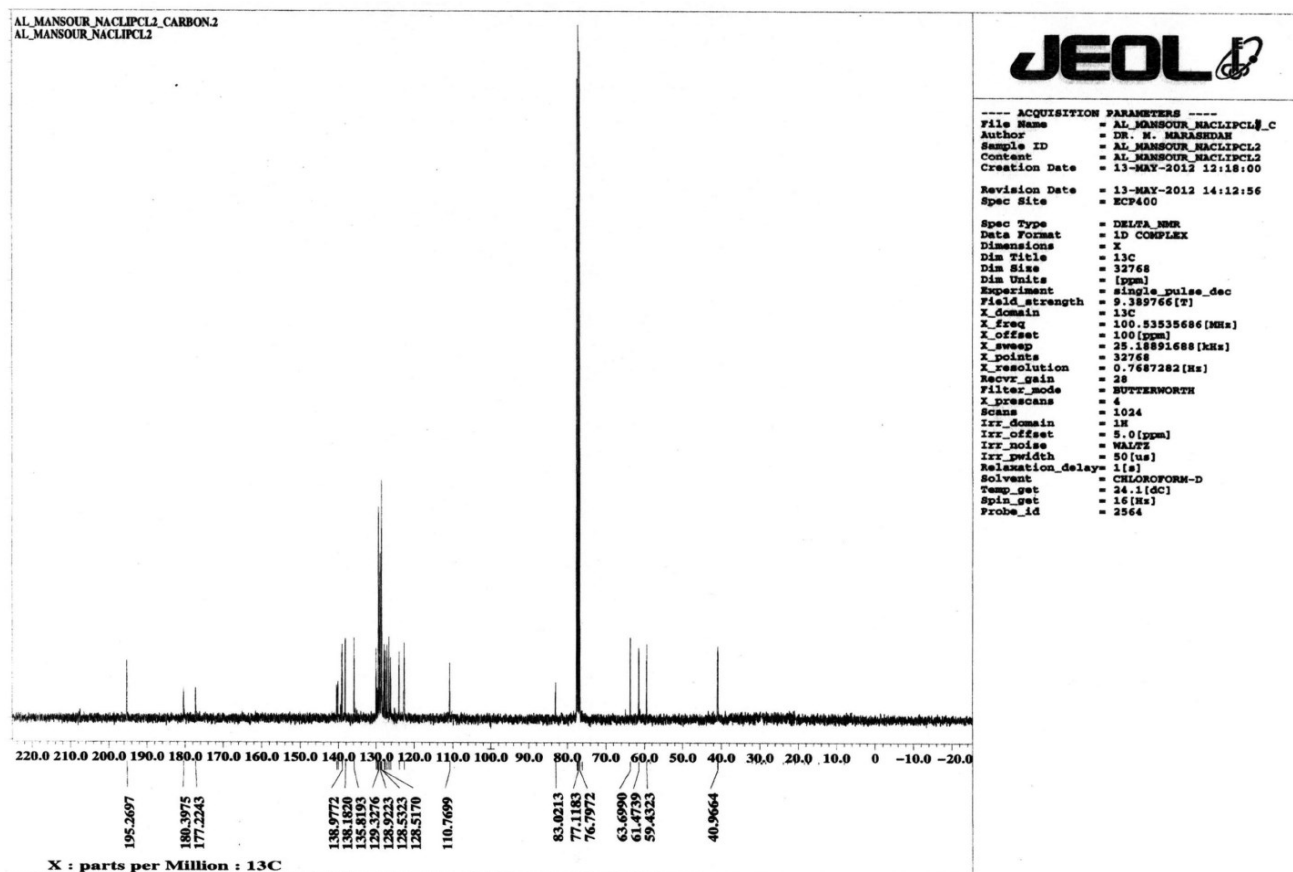
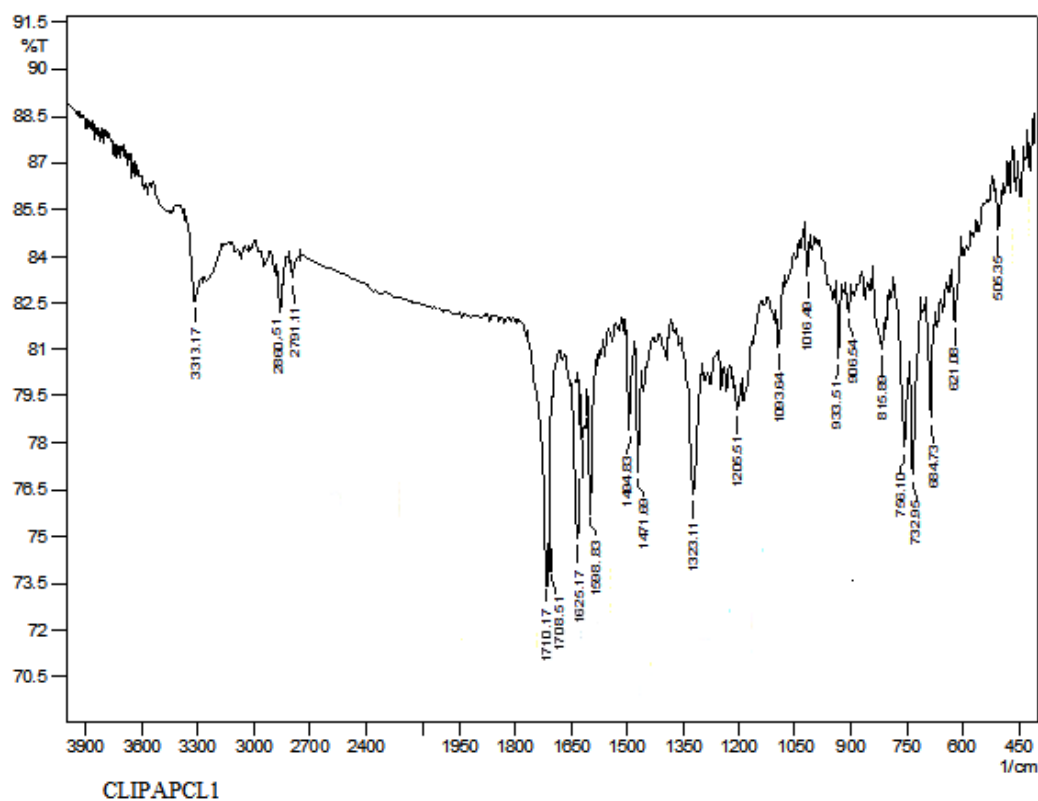
Figure S21. ^{13}C -NMR spectrum of 5c.

Figure S22. IR spectrum of 5c.

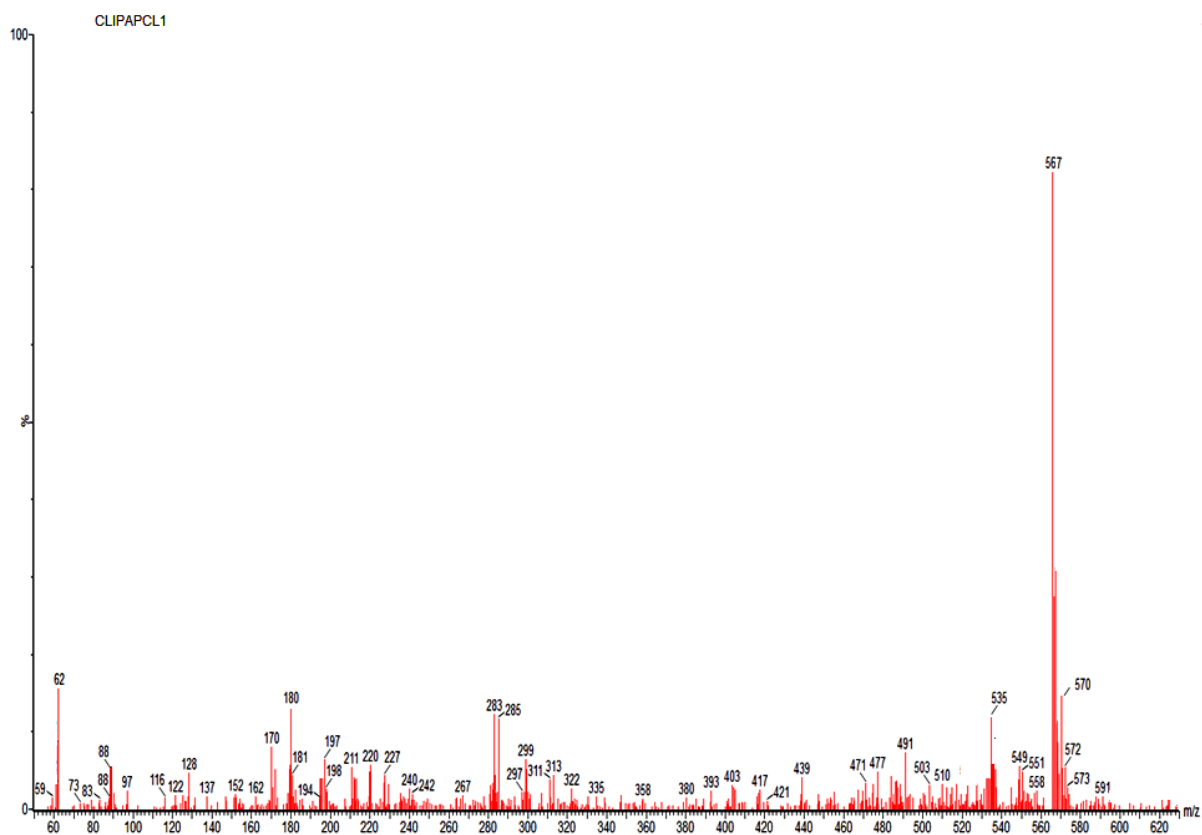
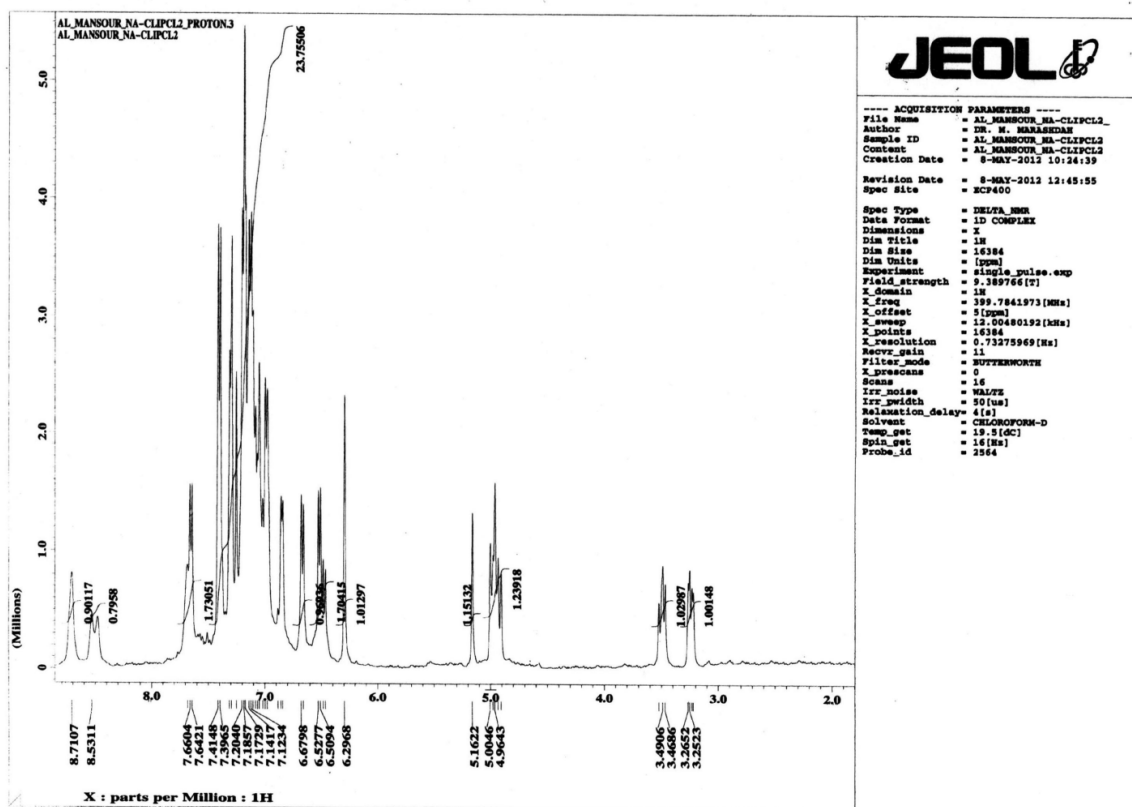
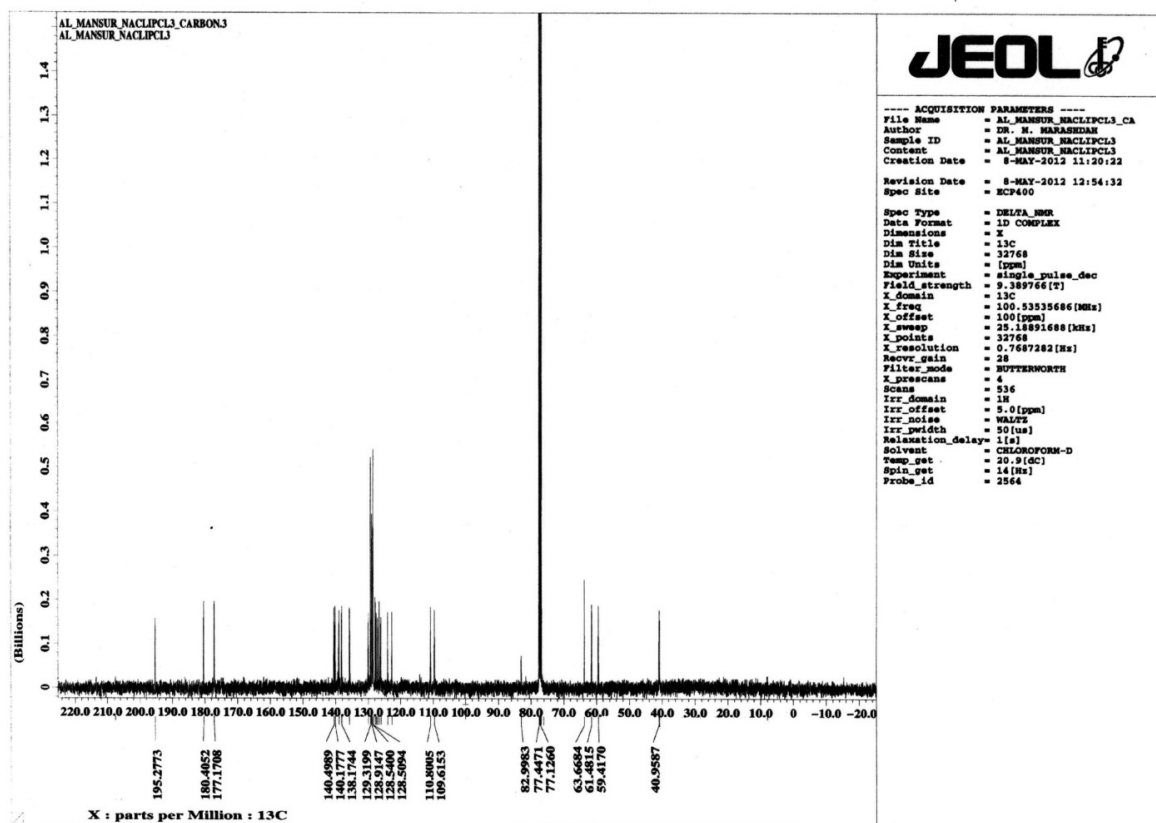
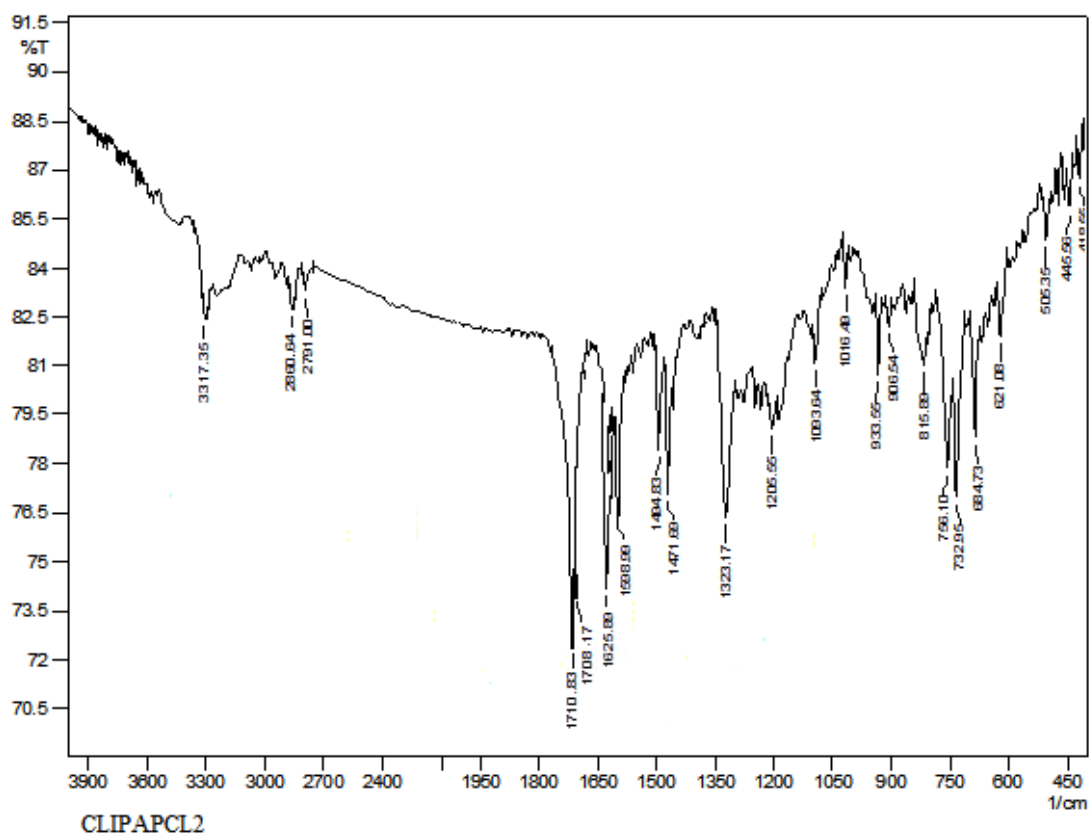


Figure S23. Mass spectrum of 5c.

Figure S24. ^1H -NMR spectrum of 6c.

Figure S25. ^{13}C -NMR spectrum of **6c**.Figure S26. IR spectrum of **6c**.

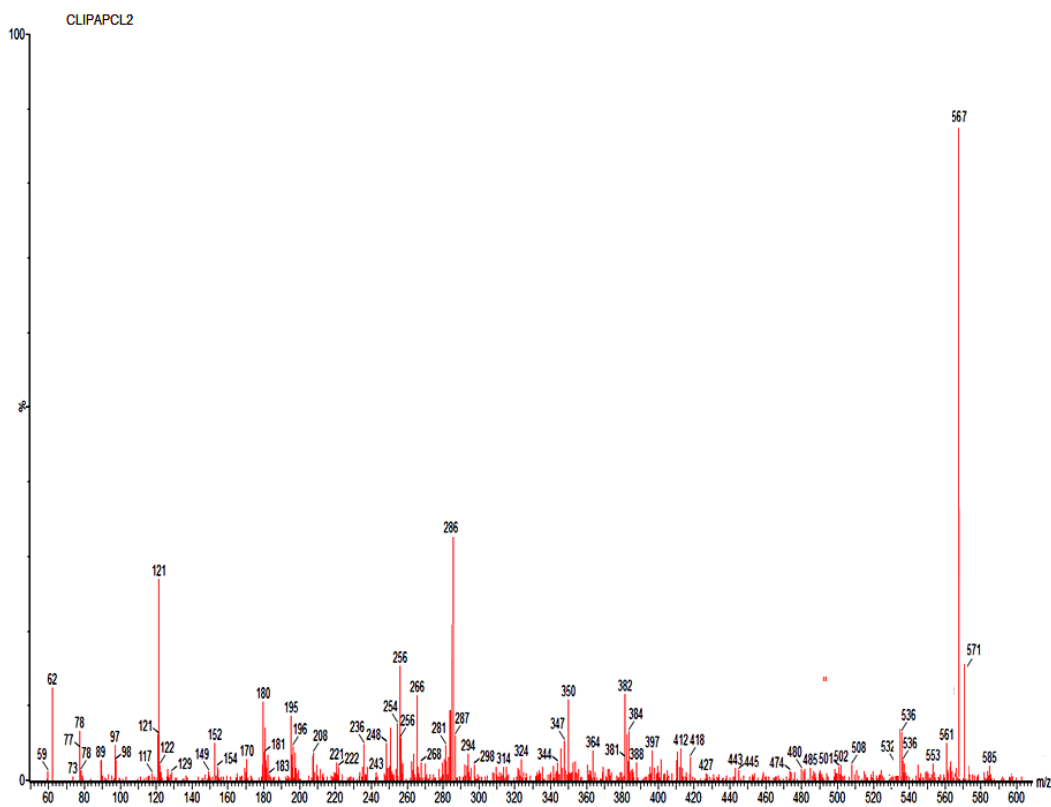
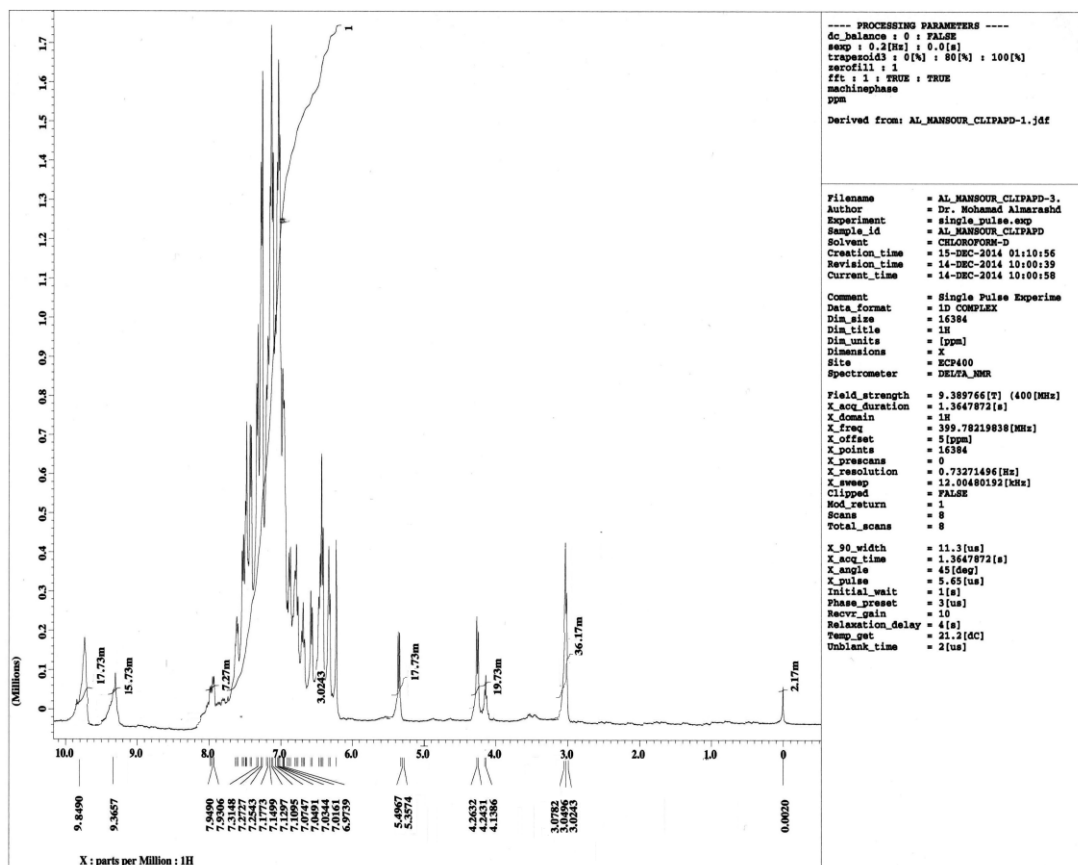


Figure S27. Mass spectrum of 6c.

Figure S28. ¹H-NMR spectrum of 5d.

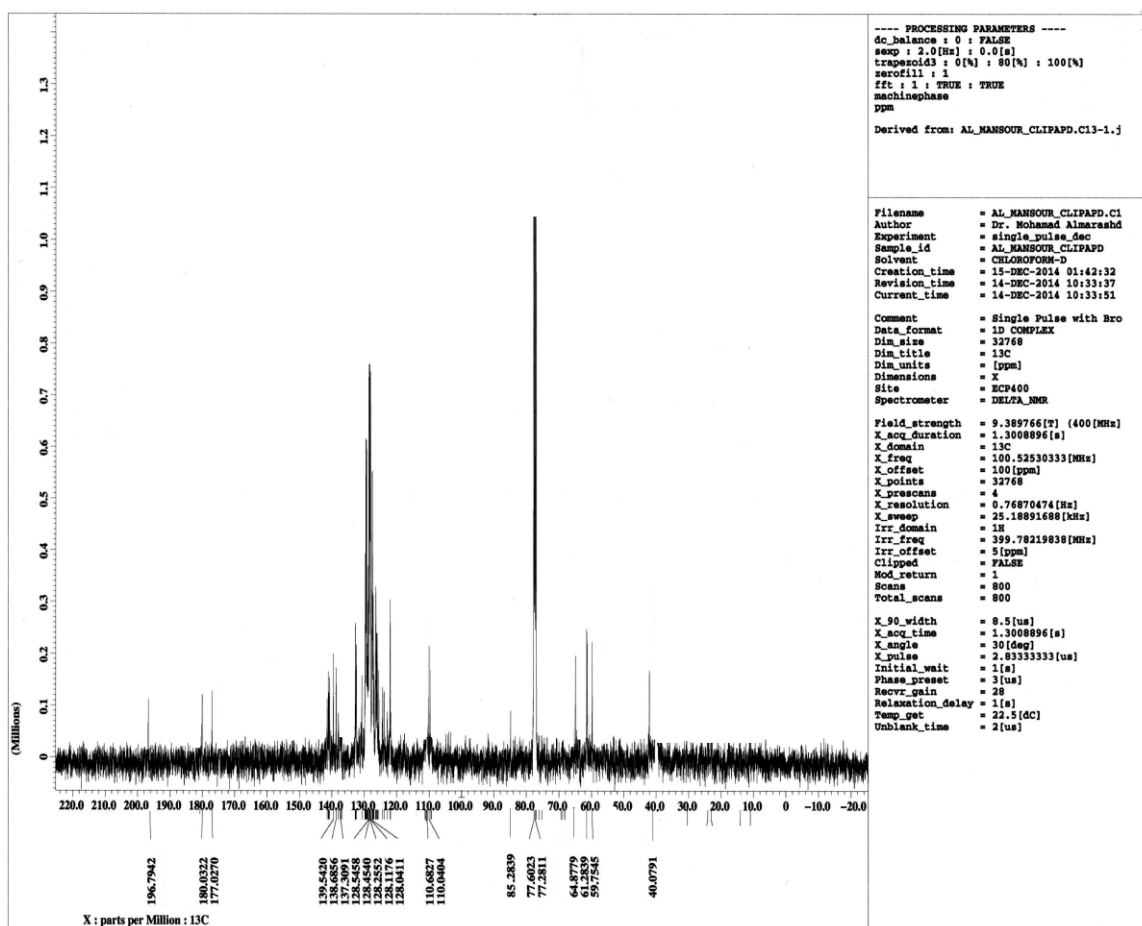
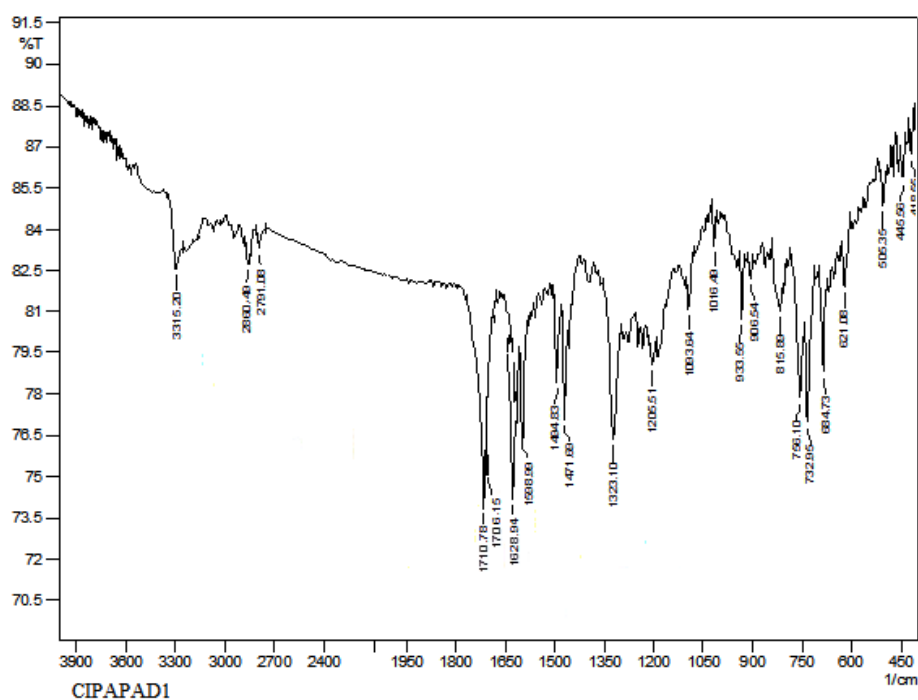
Figure S29. ^{13}C -NMR spectrum of 5d.

Figure S30. IR spectrum of 5d.

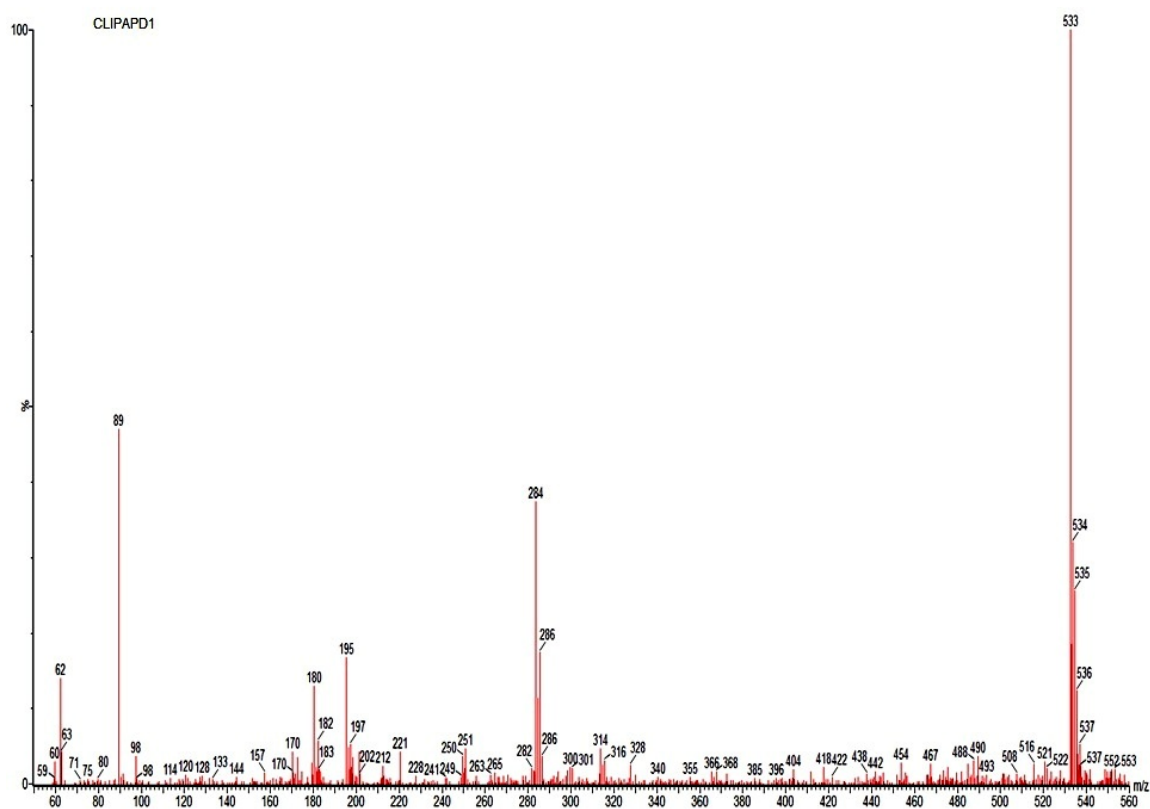
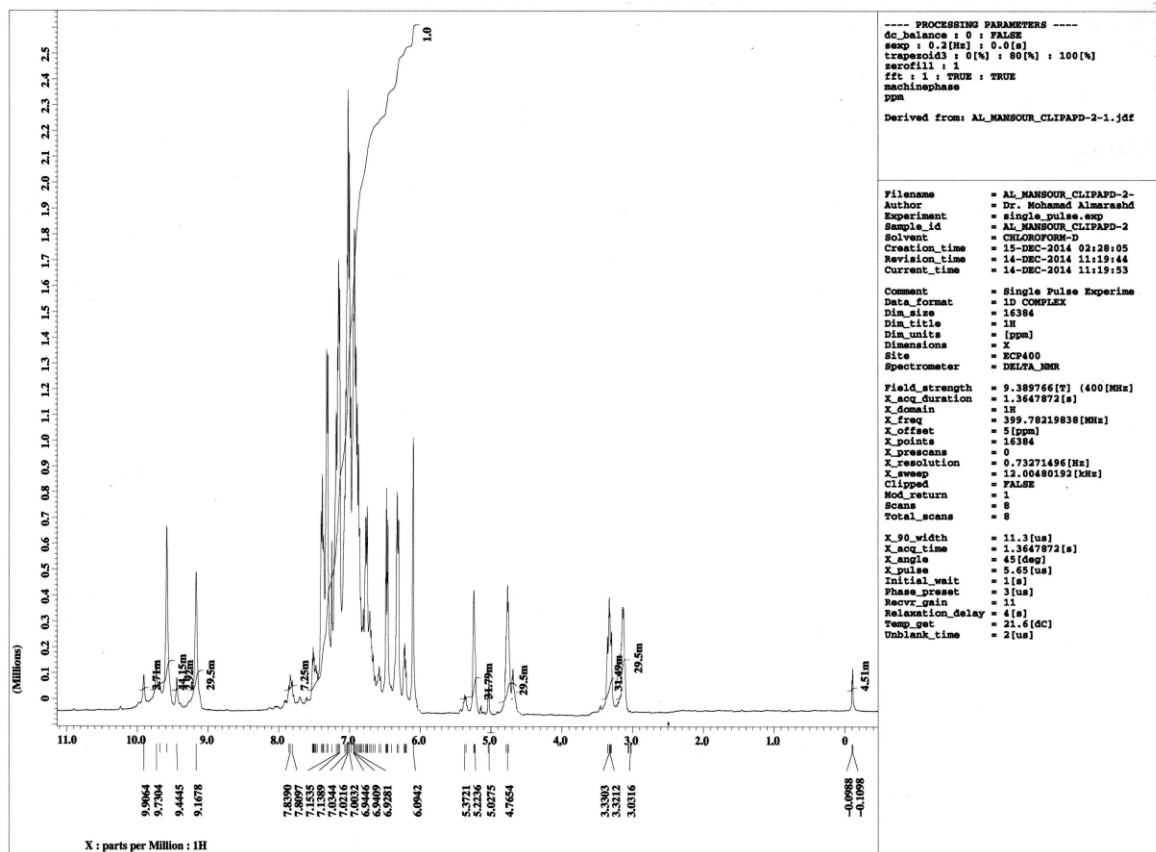


Figure S31. Mass spectrum of 5d.

Figure S32. ^1H -NMR spectrum of 6d.

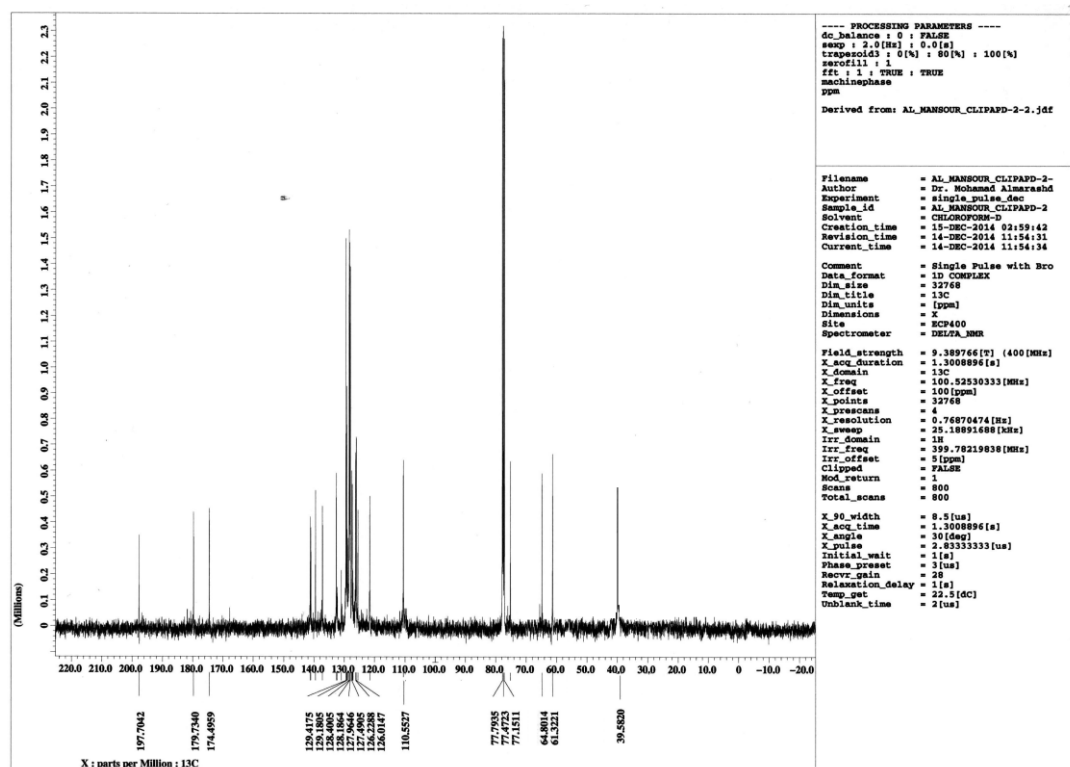
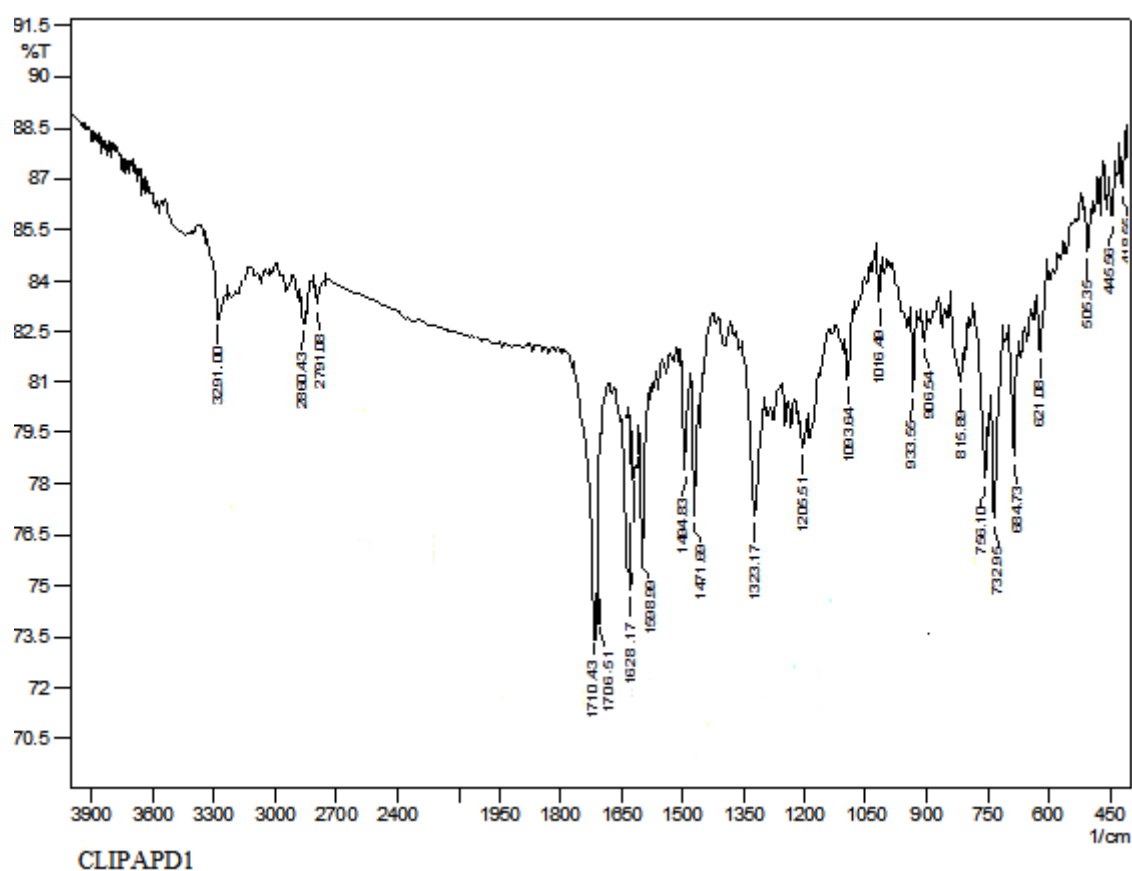
Figure S33. ^{13}C -NMR spectrum of 6d.

Figure S34. IR spectrum of 6d.

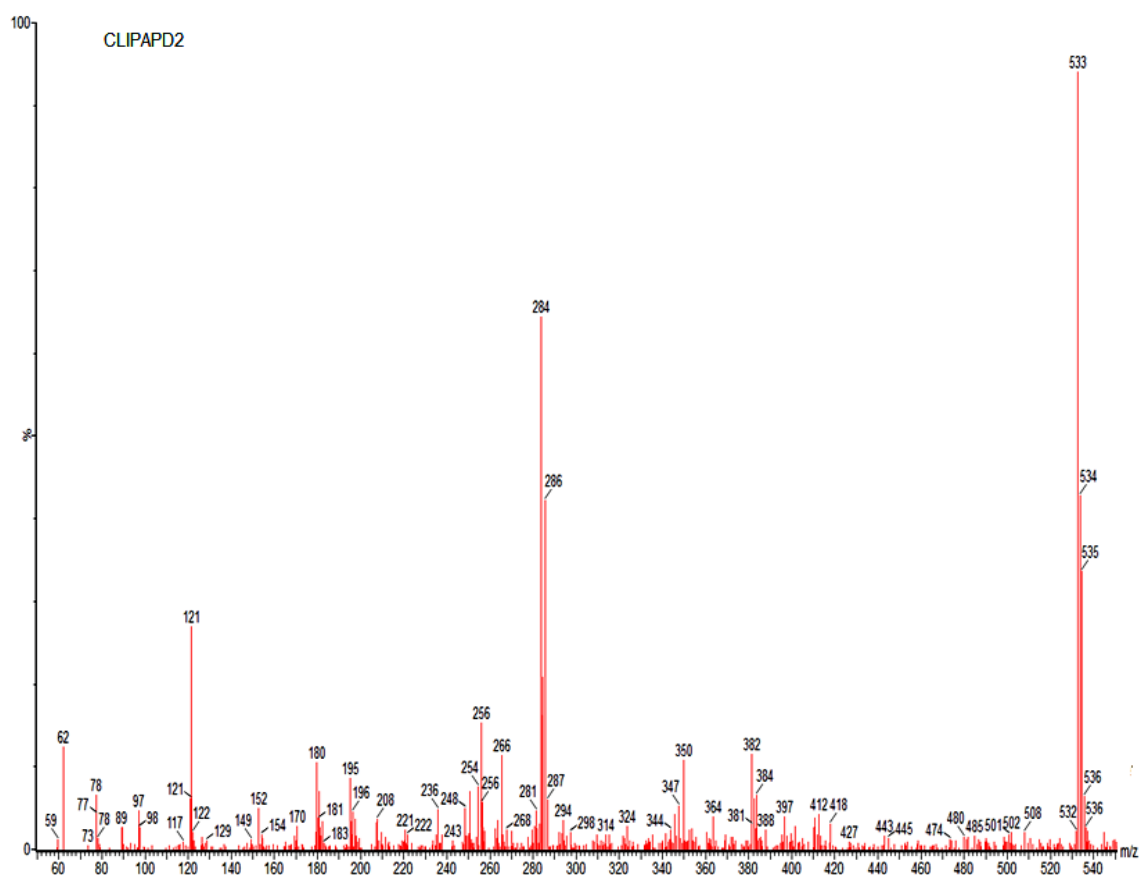
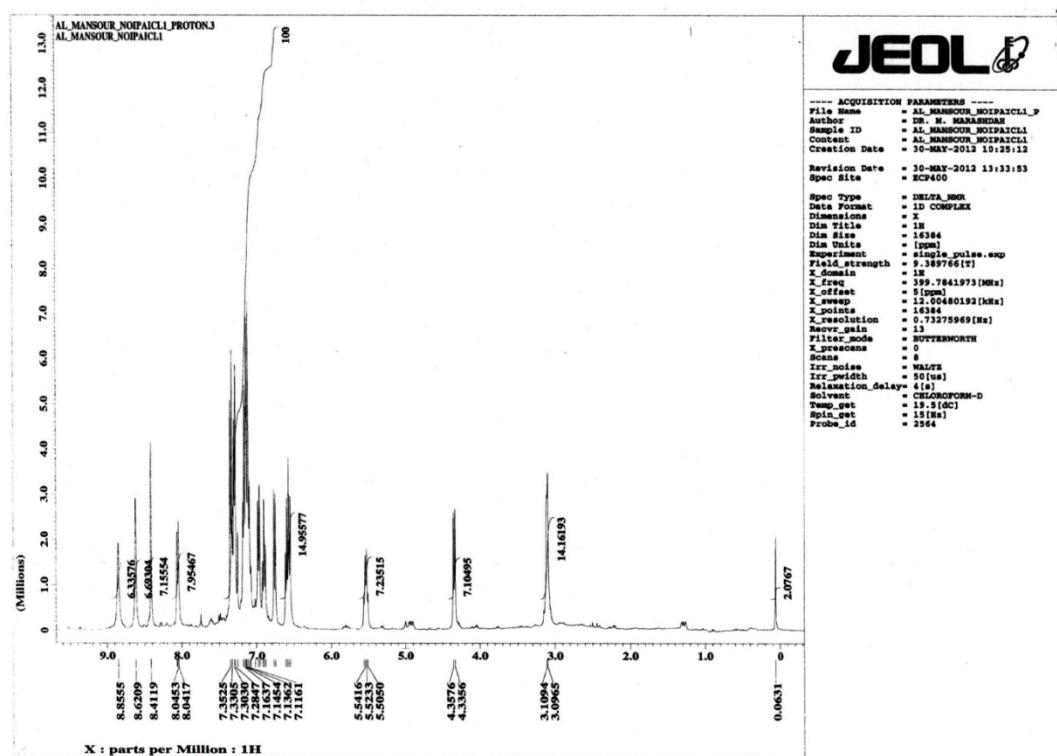
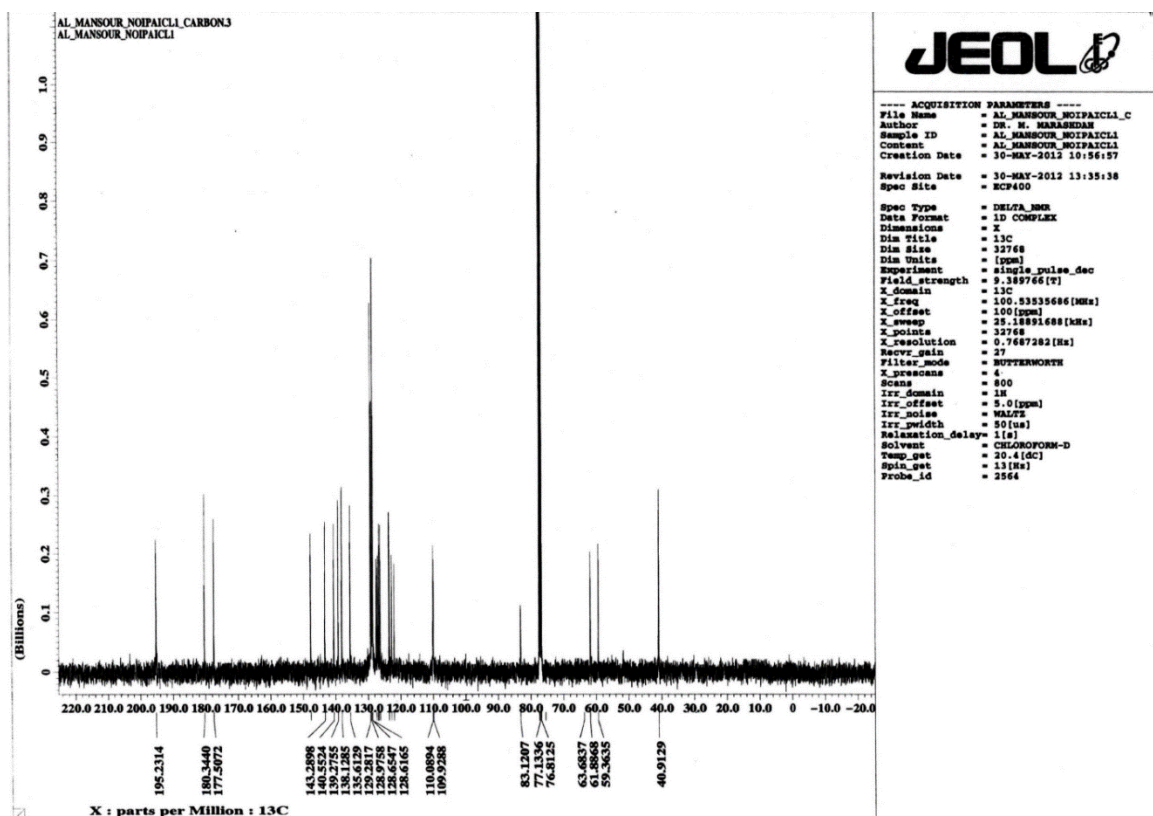
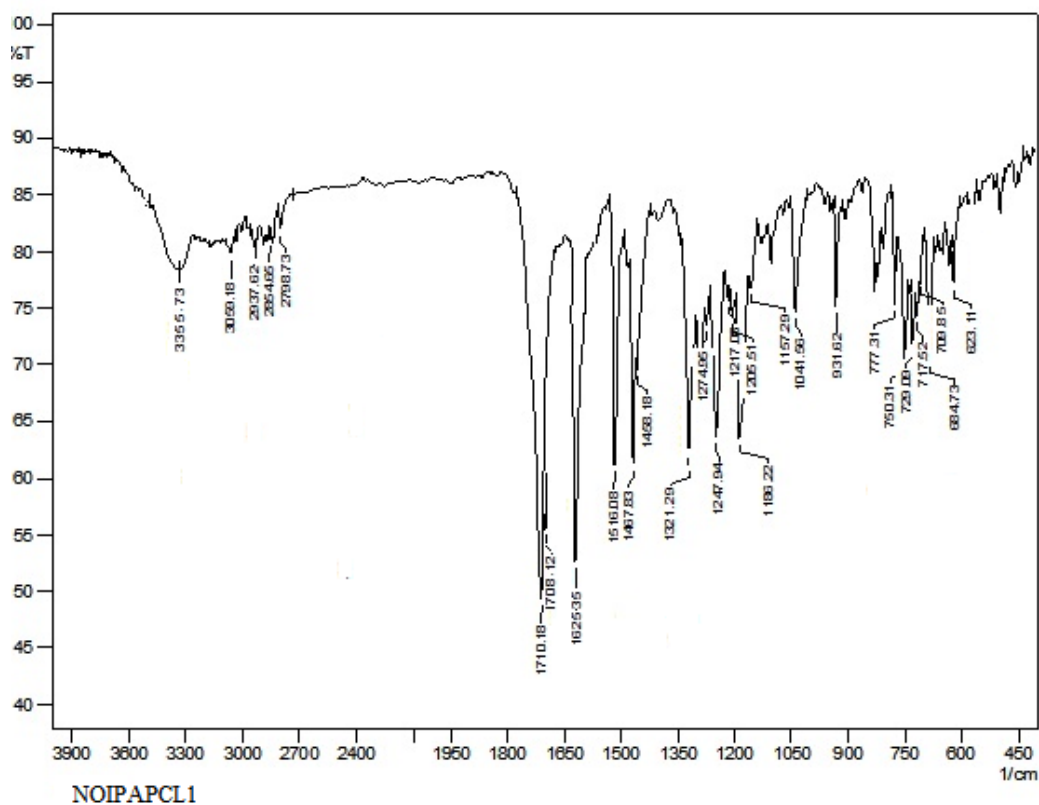


Figure S35. Mass spectrum of 6d.

Figure S36. ¹H-NMR spectrum of 5e.

Figure S37. ^{13}C -NMR spectrum of **5e**.Figure S38. IR spectrum of **5e**.

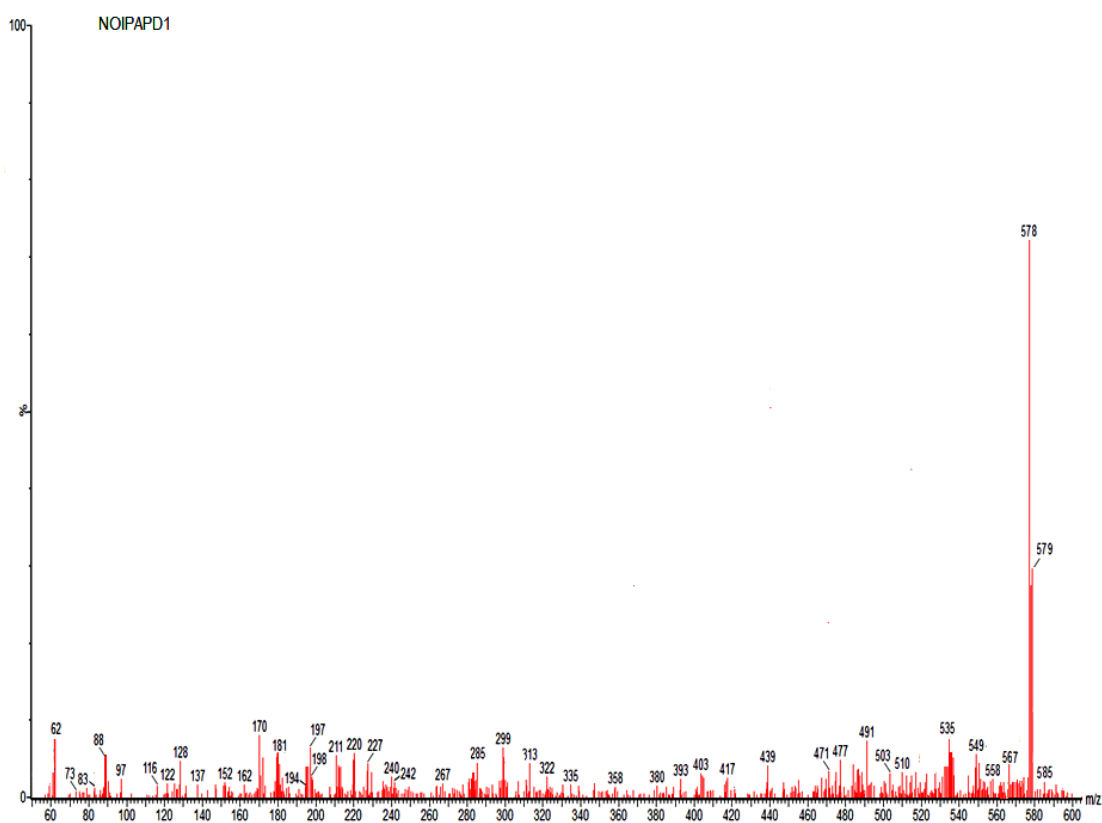
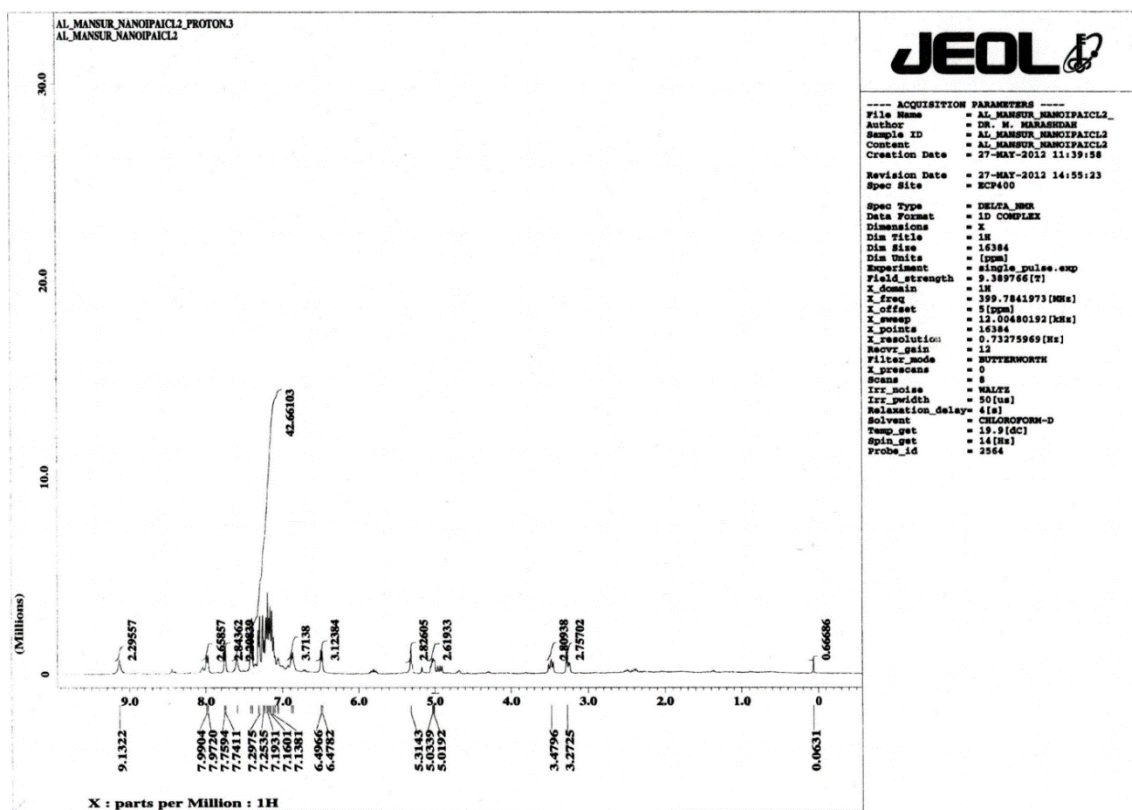


Figure S39. Mass spectrum of 5e.

Figure S40. ¹H-NMR spectrum of 6e.

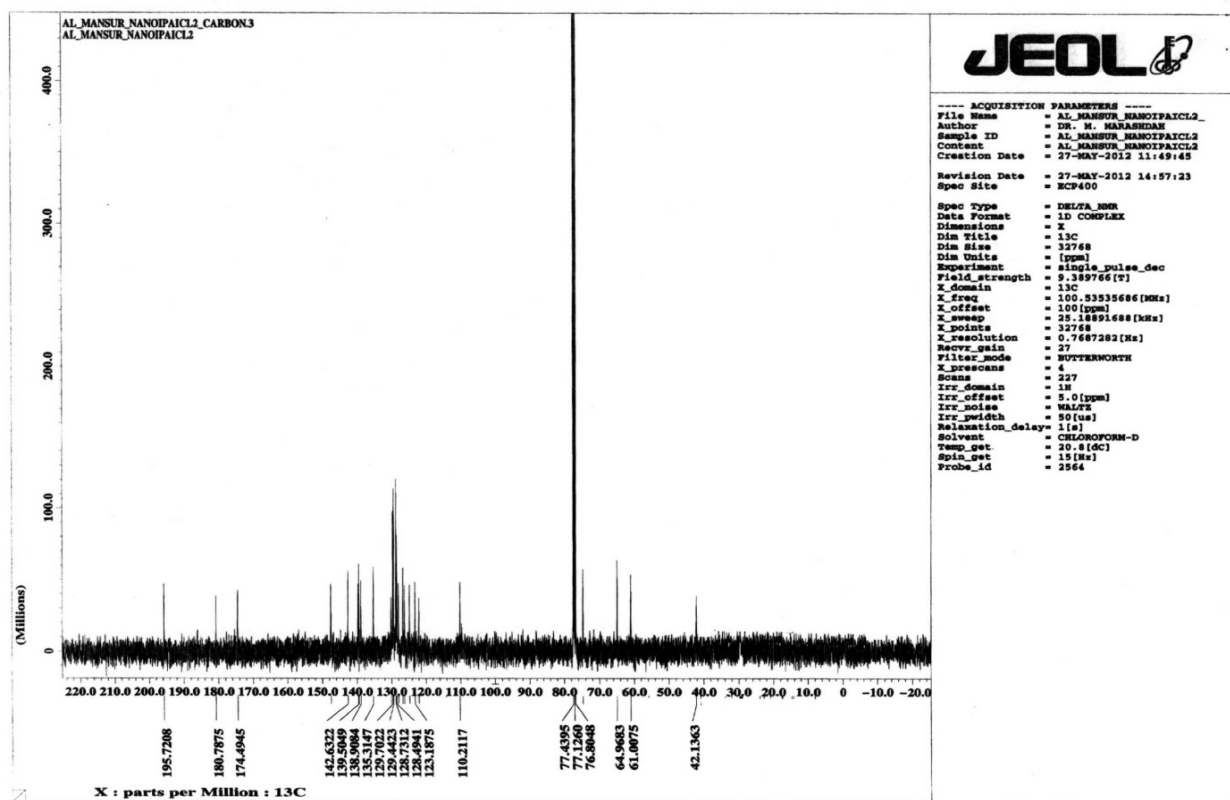
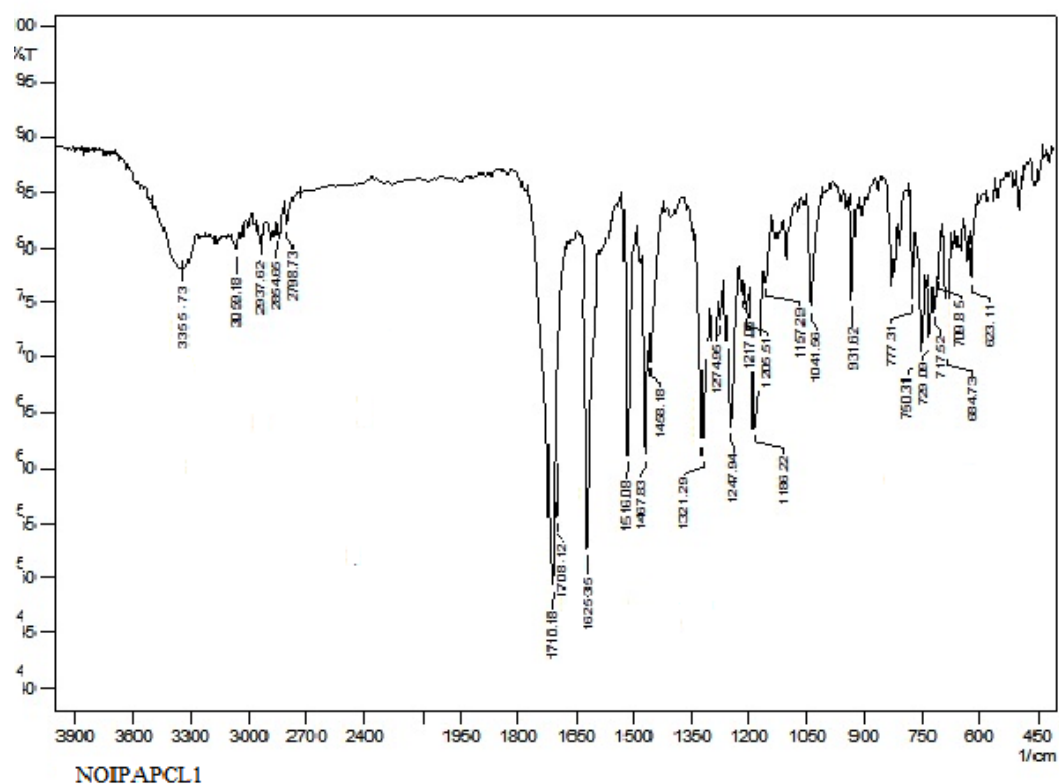
Figure S41. ^{13}C -NMR spectrum of 6e.

Figure S42. IR spectrum of 6e.

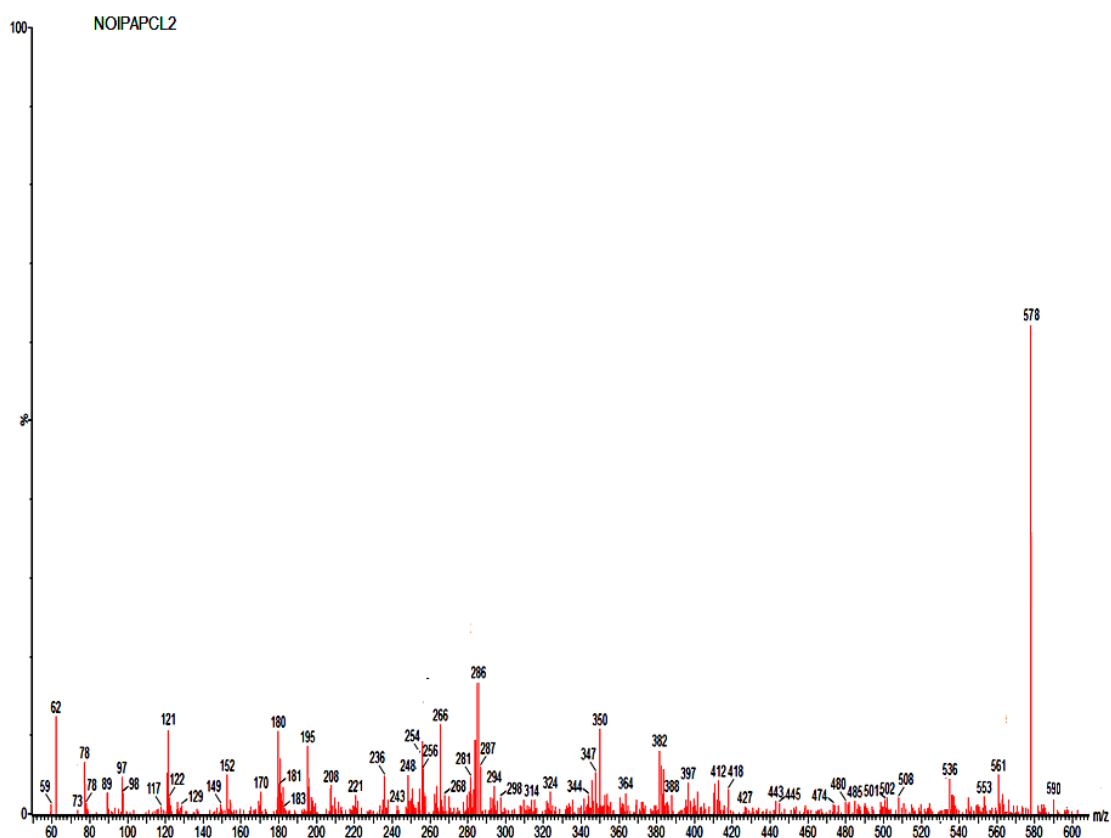
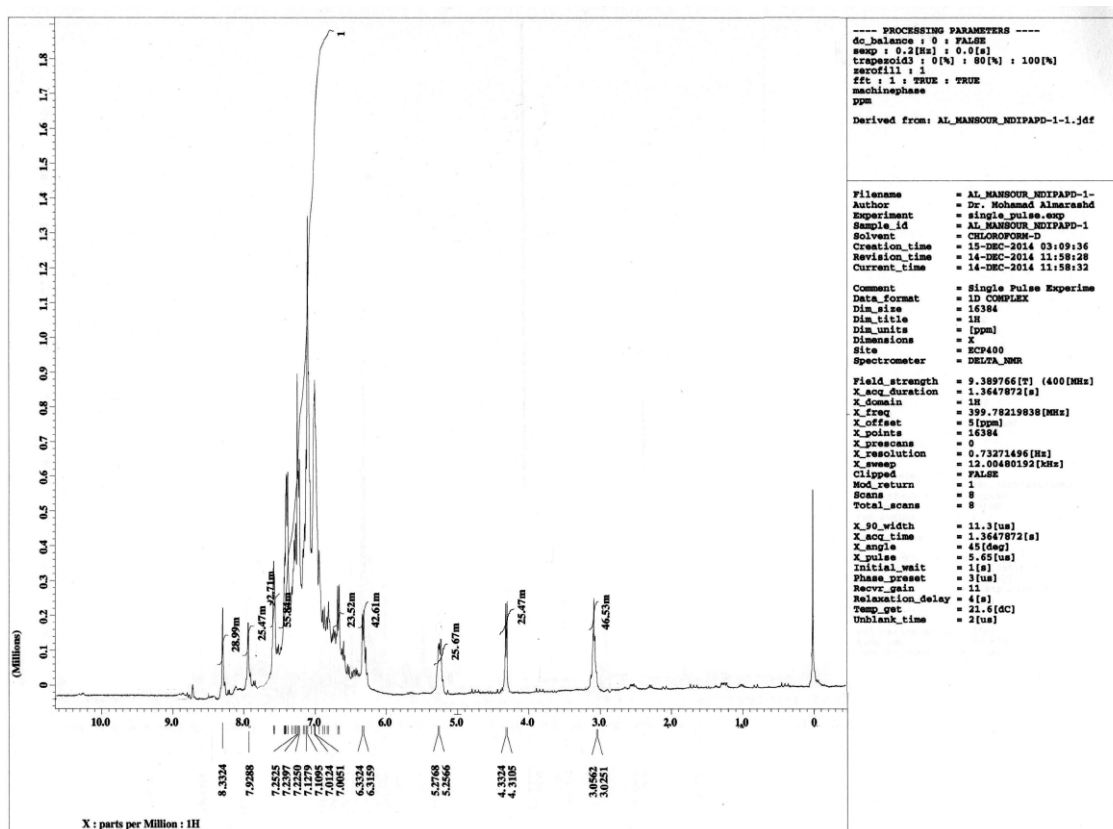
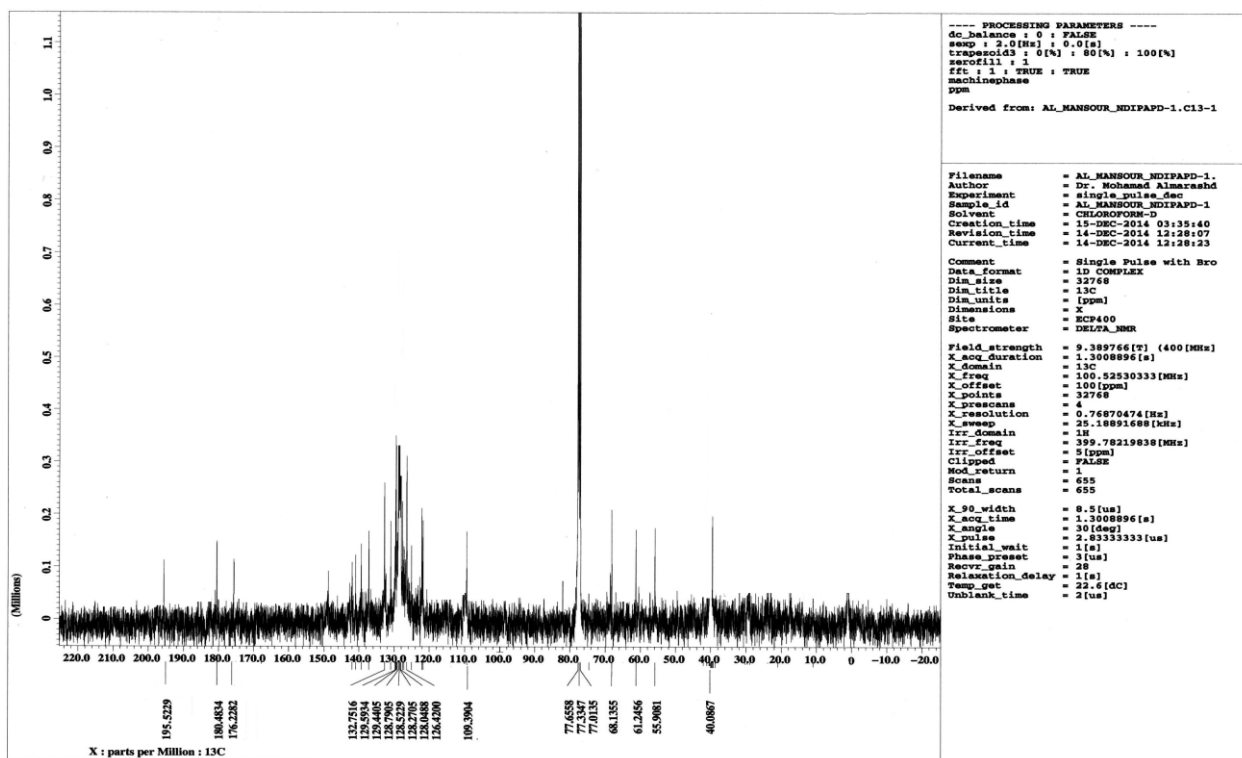
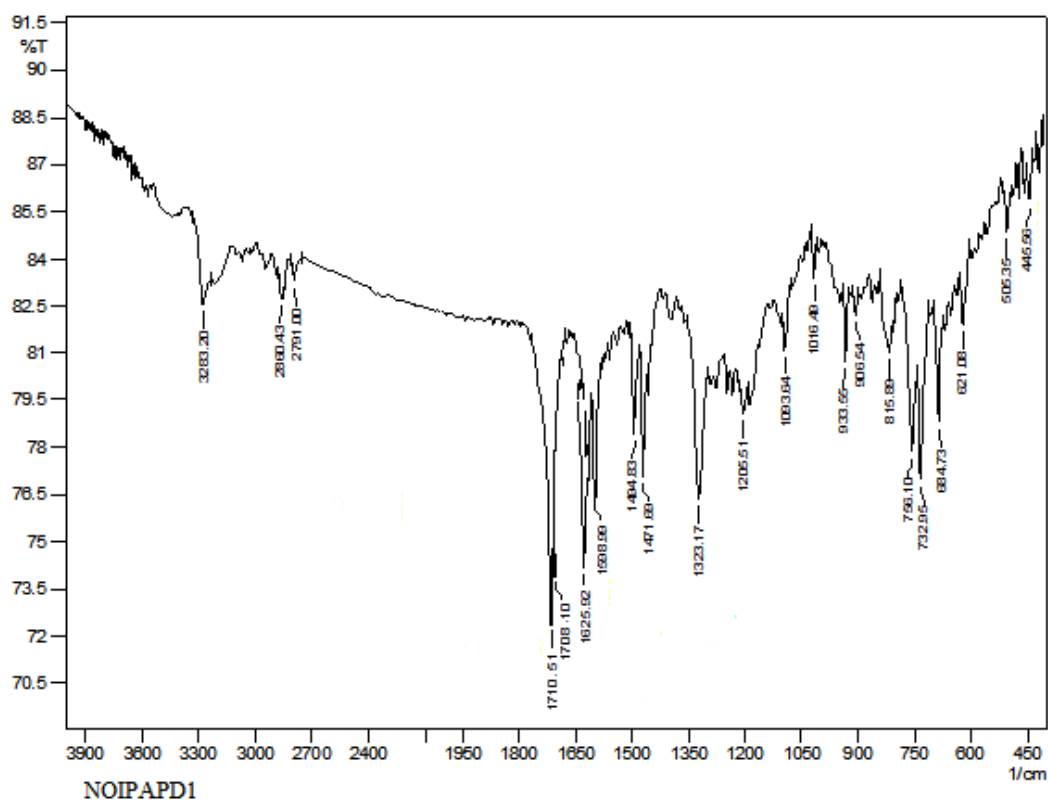


Figure S43. Mass spectrum of 6e.

Figure S44. ^1H -NMR spectrum of 5f.

Figure S45. ^{13}C -NMR spectrum of **5f**.Figure S46. IR spectrum of **5f**.

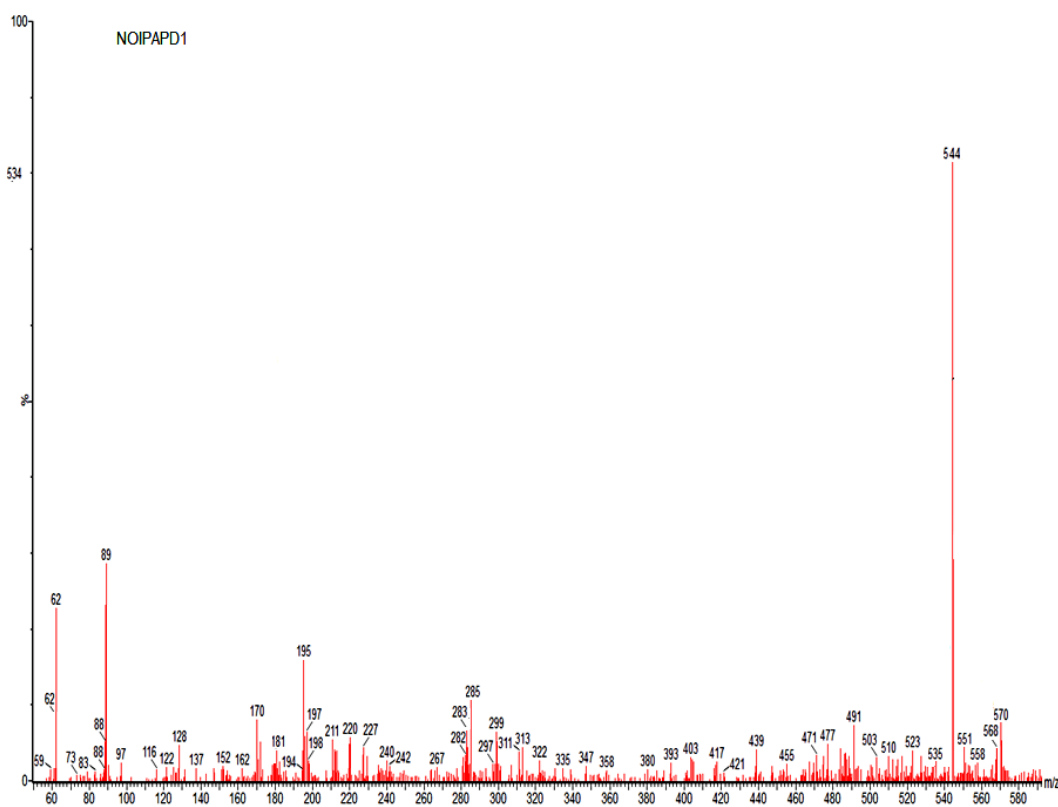
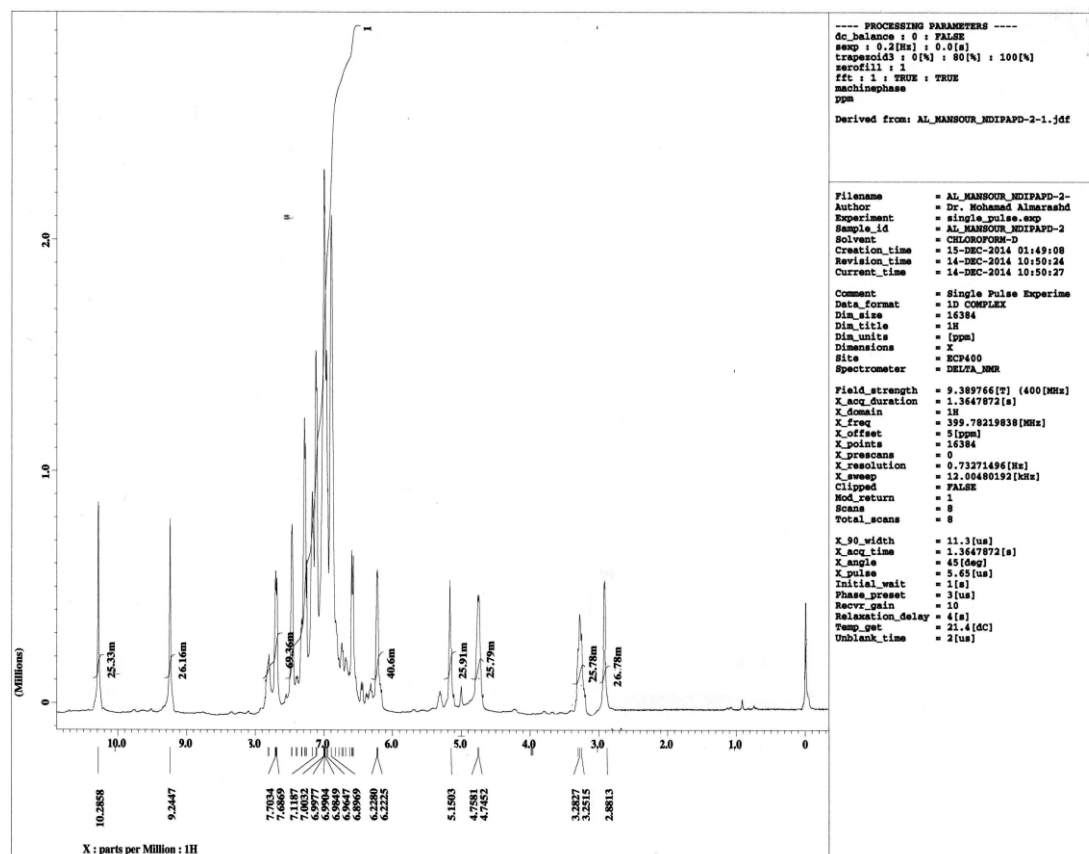
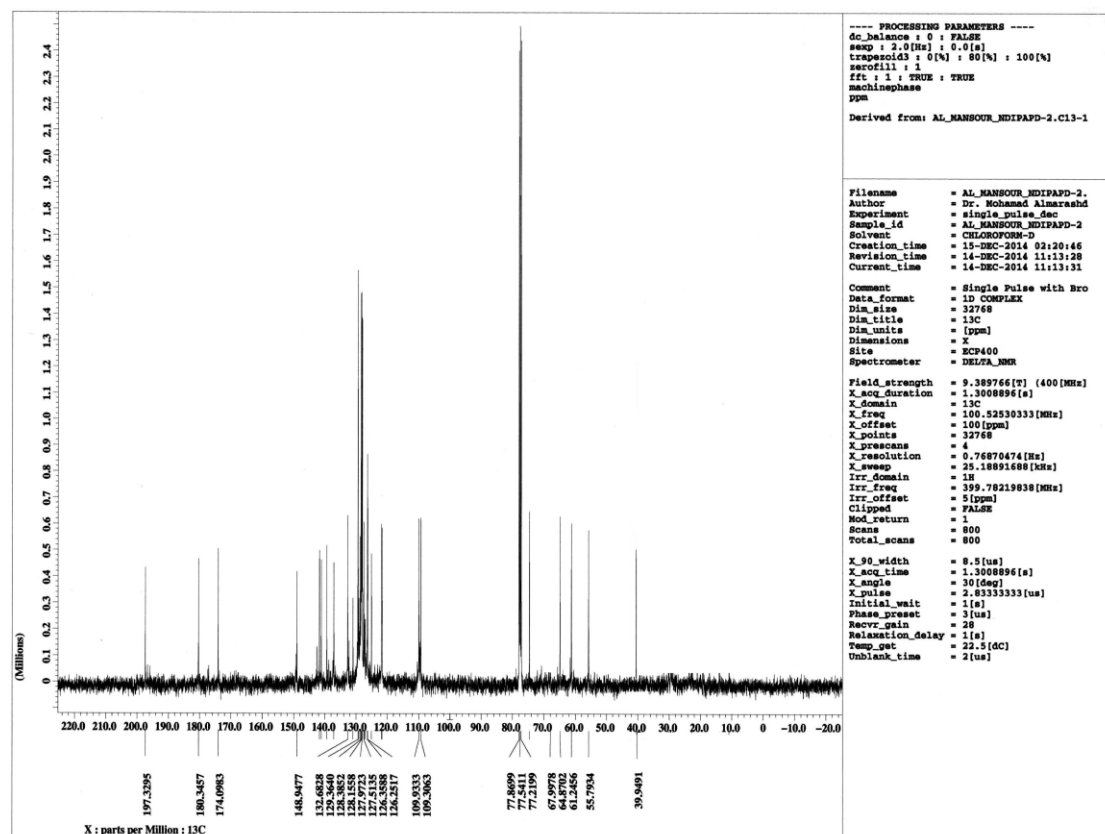
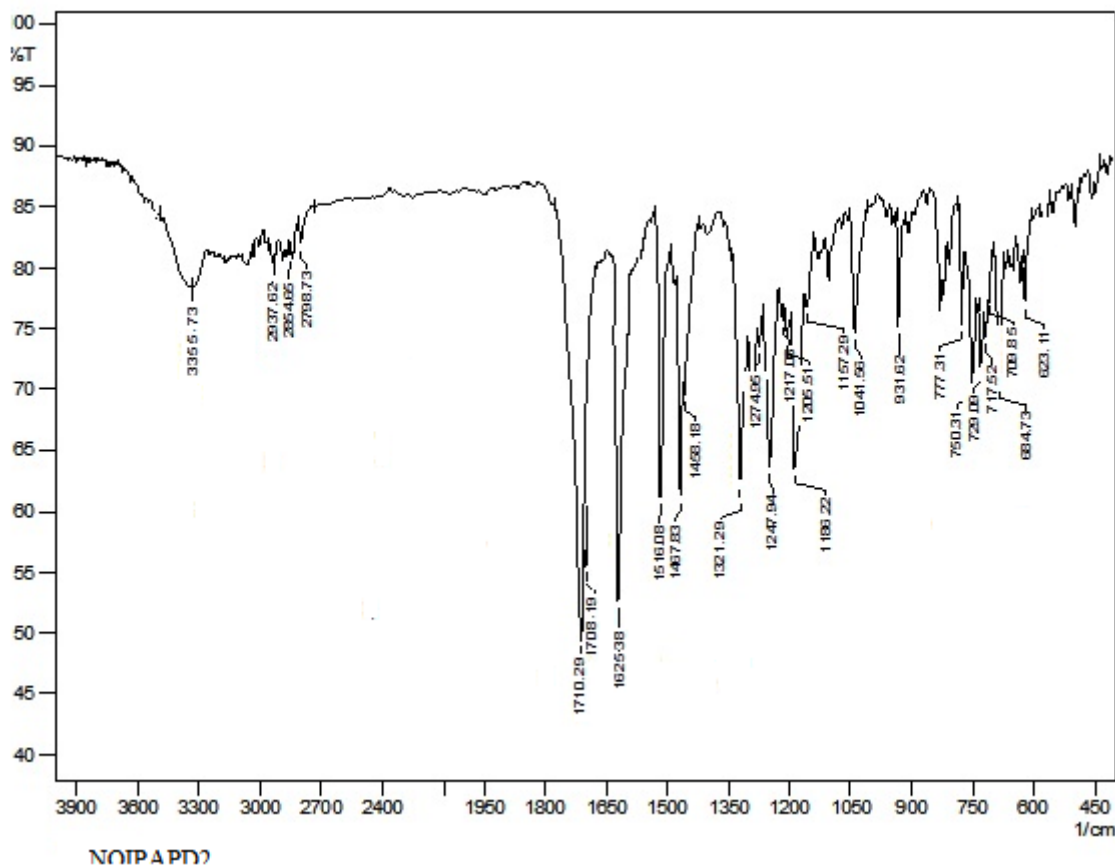


Figure S47. Mass spectrum of 5f.

Figure S48. ¹H-NMR spectrum of 6f.

Figure S49. ^{13}C -NMR spectrum of **6f**.Figure S50. IR spectrum of **6f**.

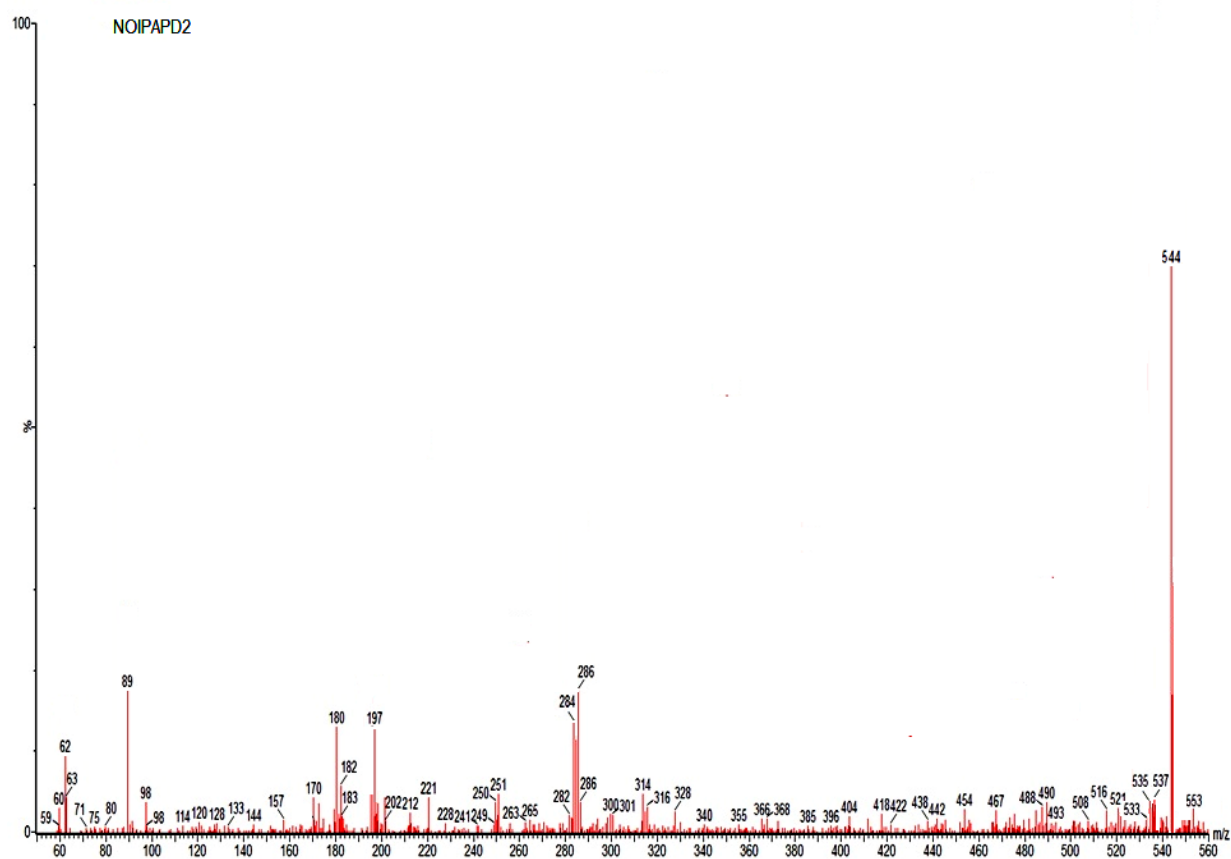


Figure S51. Mass spectrum of **6f**.