Supporting Information

Application of Choline Chloride Based Deep Eutectic Solvents in the Synthesis of Hydrazones

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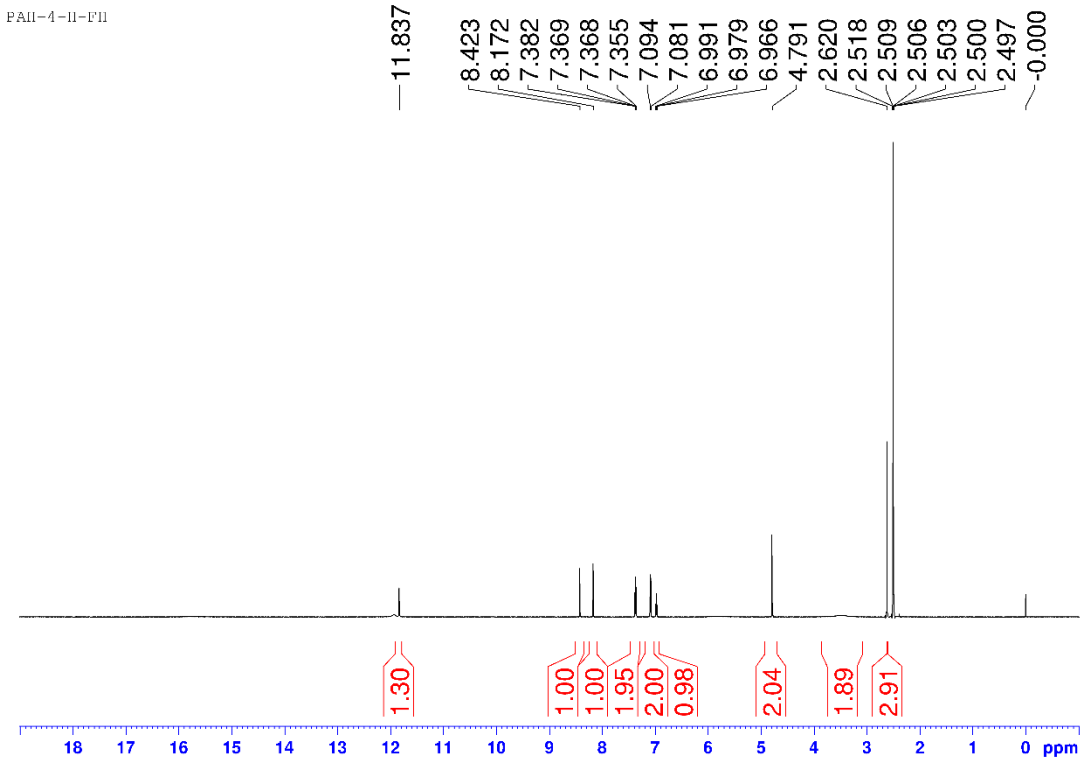
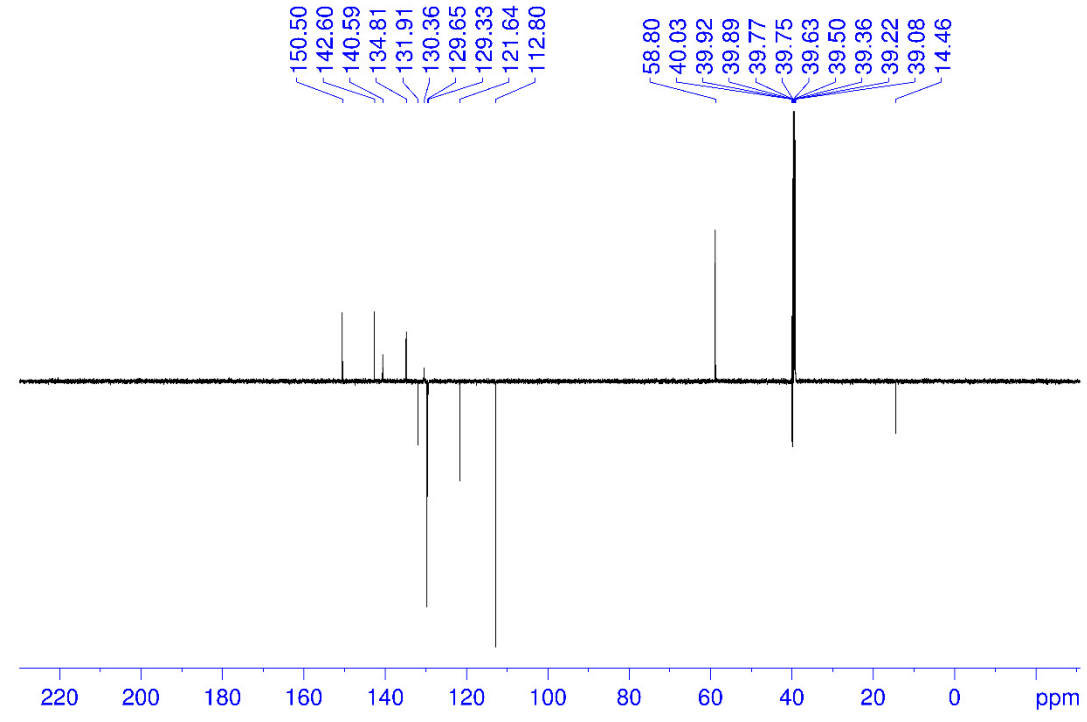
NMR spectra of compounds **1**–**14**



A



B

Figure S1. Compound **1** A) ^{1}H and B) ^{13}C (APT) NMR spectra (δ/ppm).

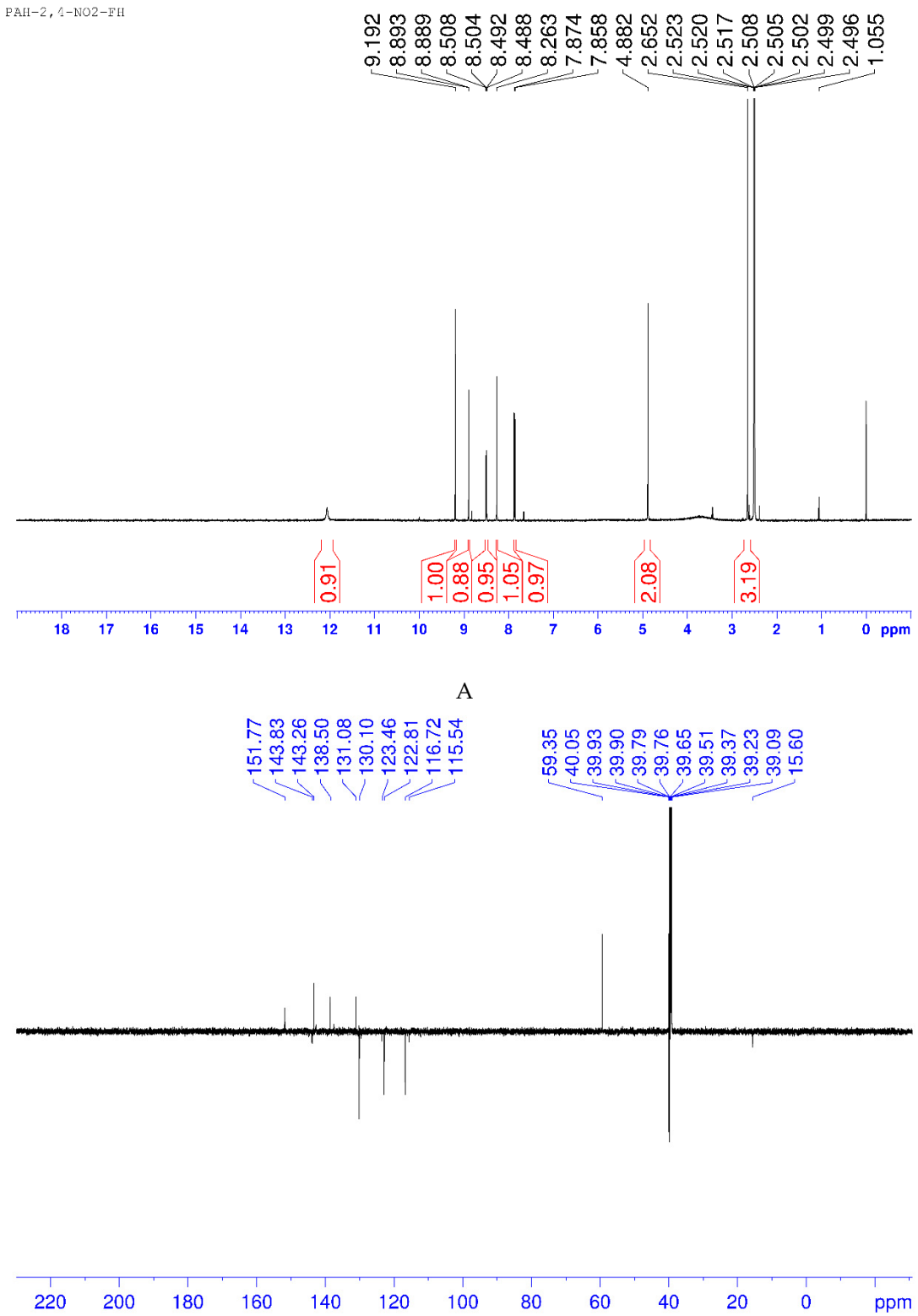


Figure S2. Compound **2** A) ^{1}H and B) ^{13}C (APT) NMR spectra (δ/ppm).

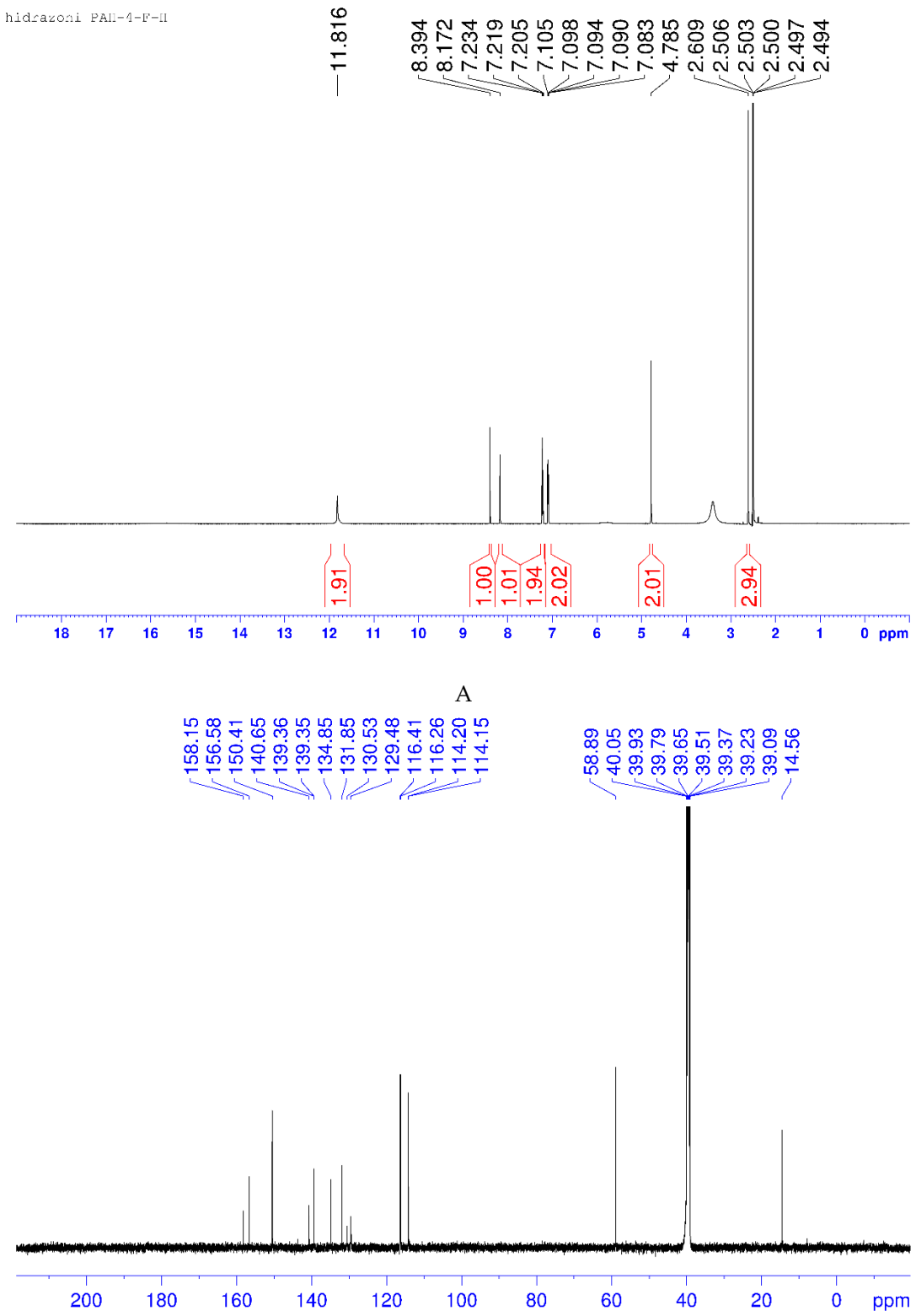
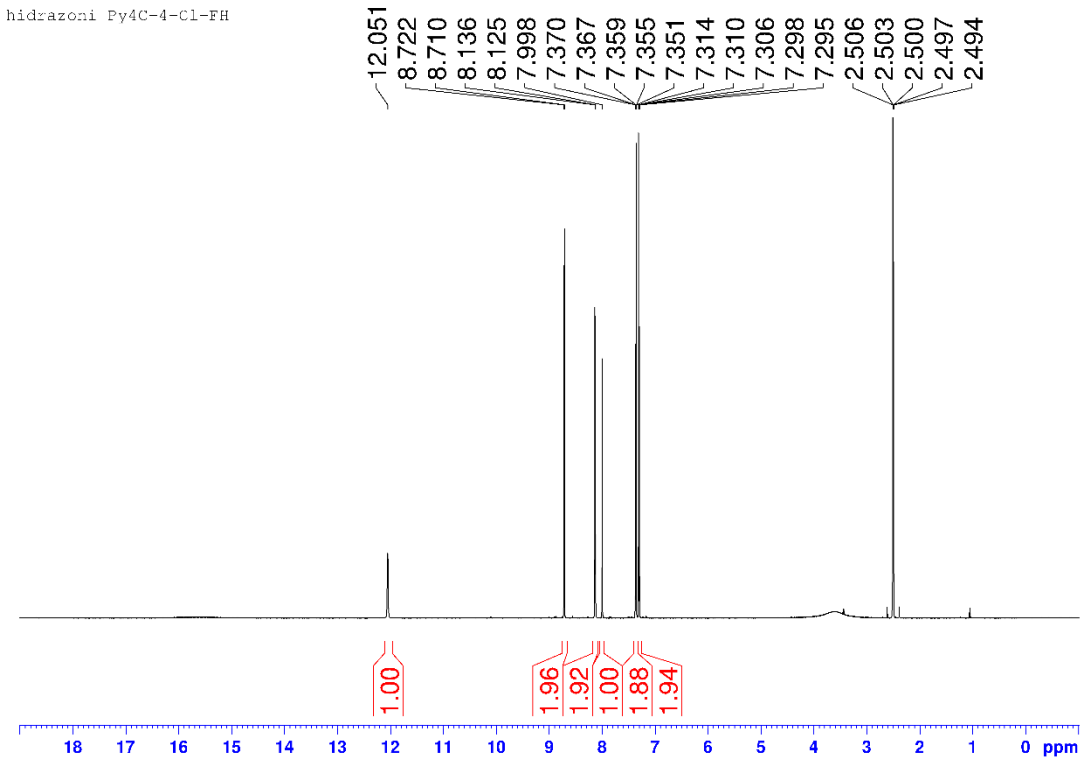
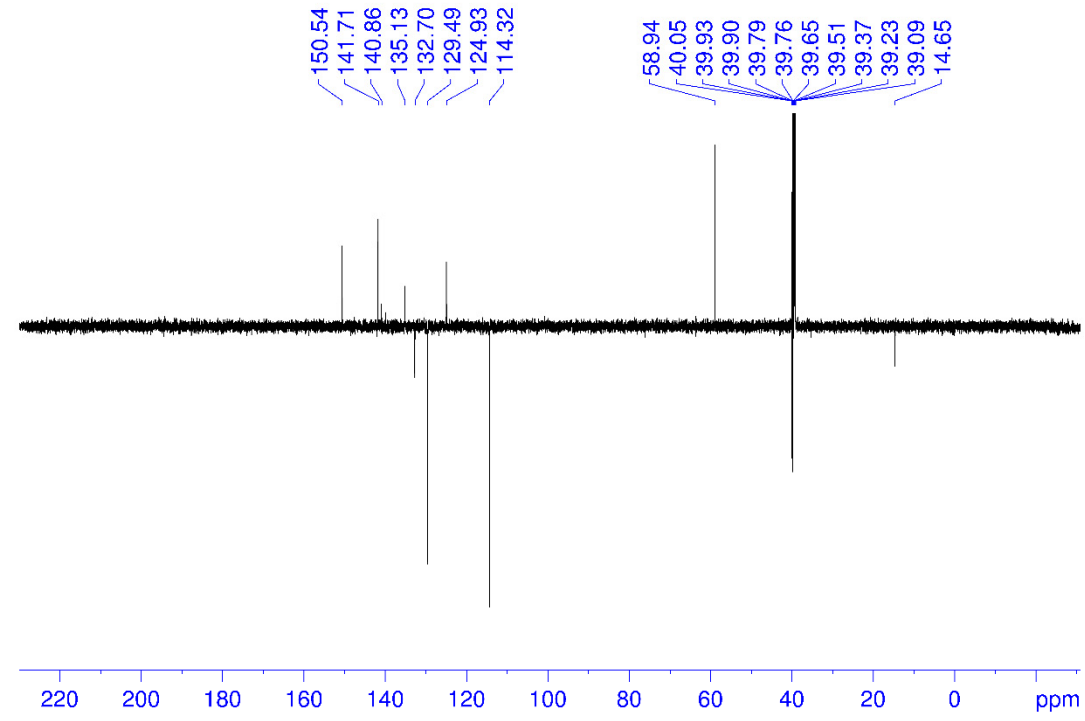


Figure S3. Compound **3** A) ^{1}H and B) $^{13}C\{^{1}H\}$ NMR spectra (δ/ppm).

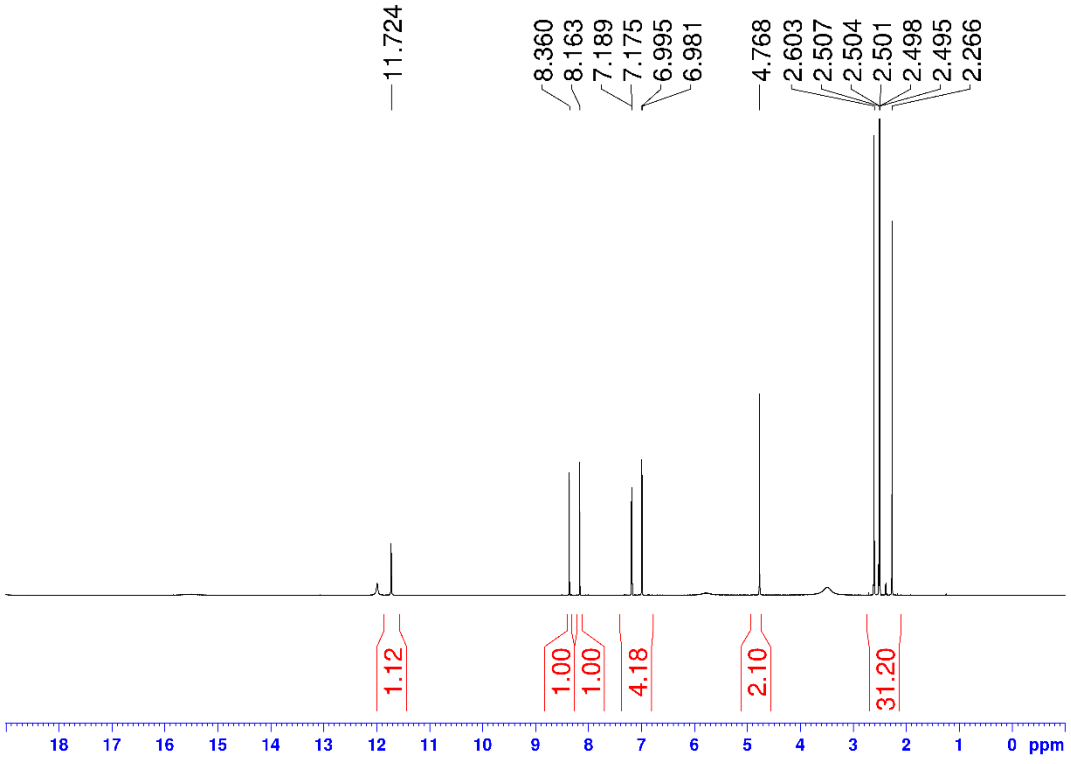


A

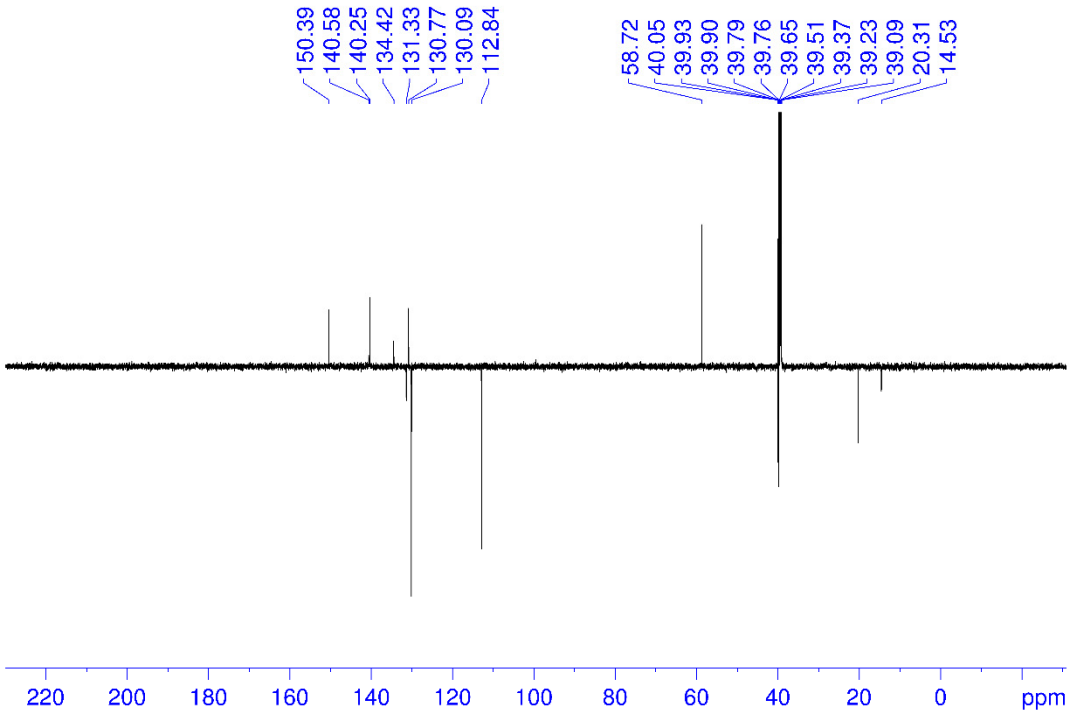


B

Figure S4. Compound **4** A) ^{1}H and B) ^{13}C (APT) NMR spectra (δ/ppm).



A



B

Figure S5. Compound **5** A) ^{1}H and B) ^{13}C (APT) NMR spectra (δ/ppm).

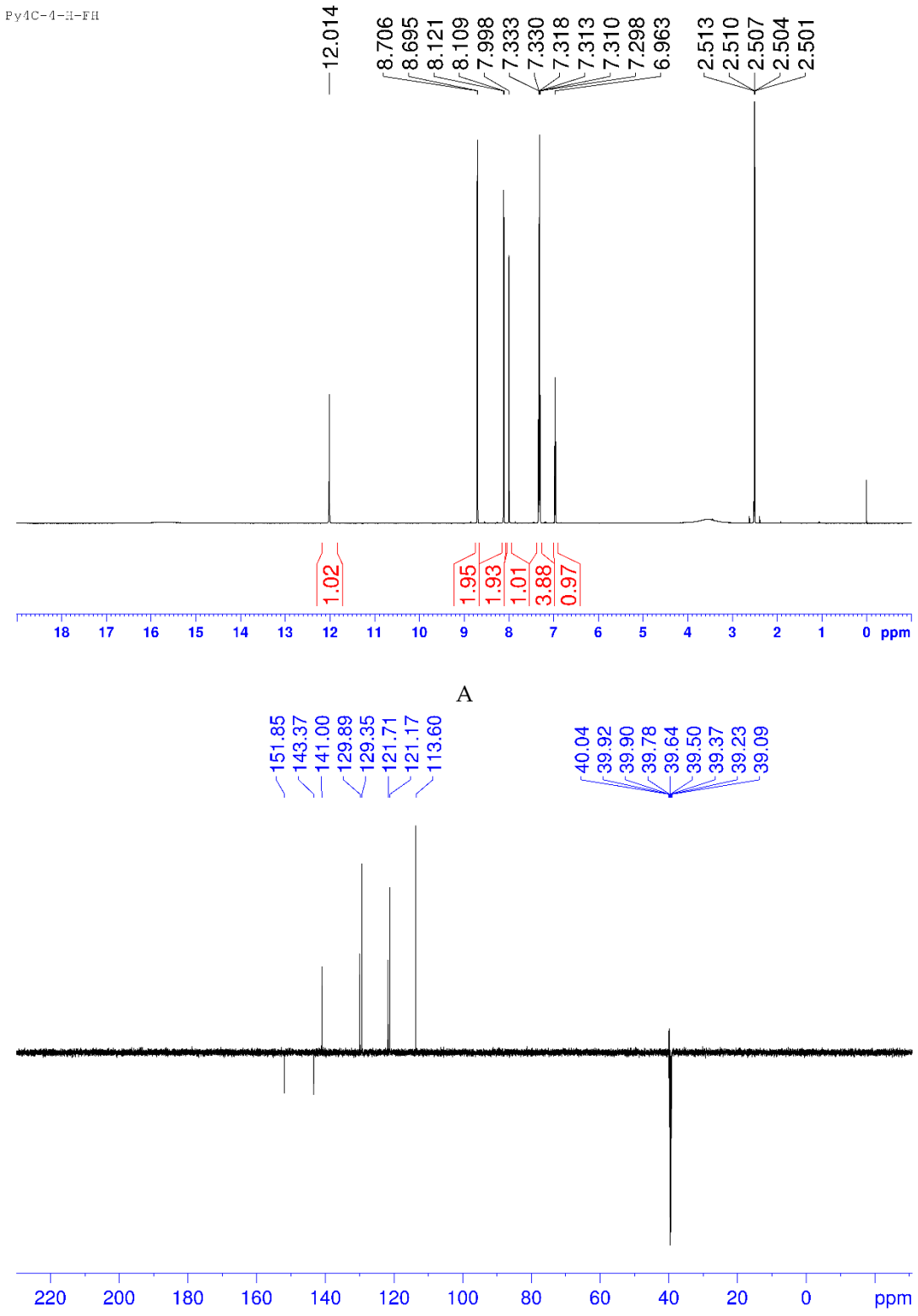
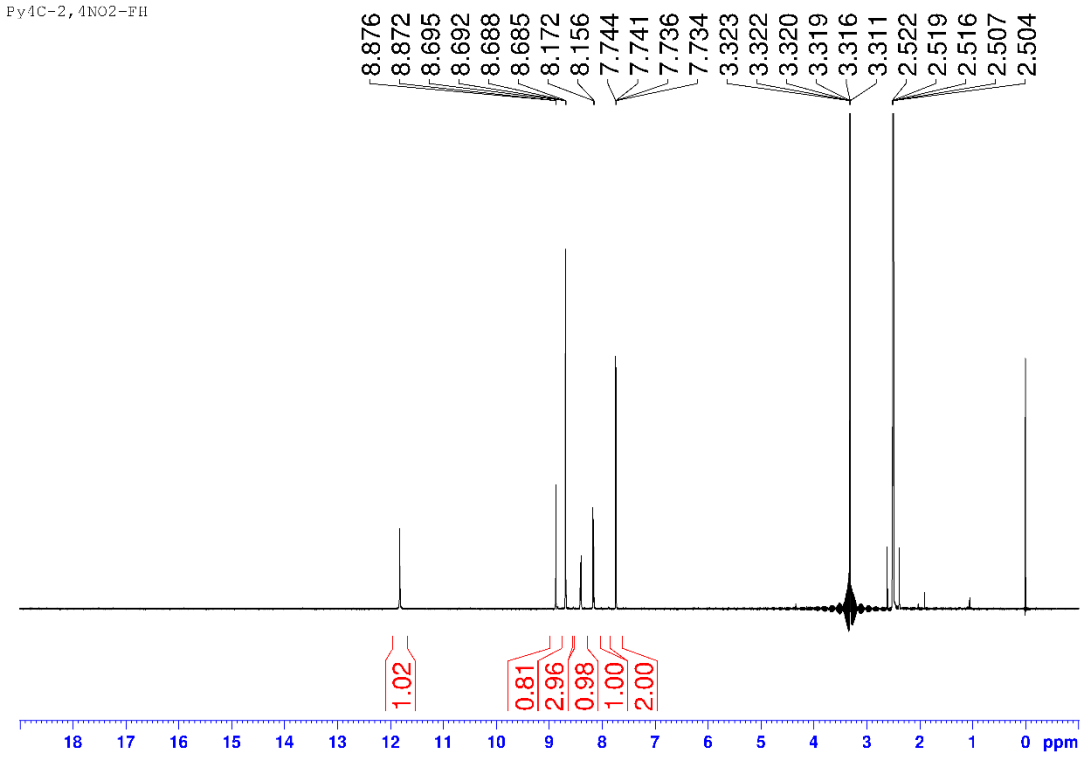
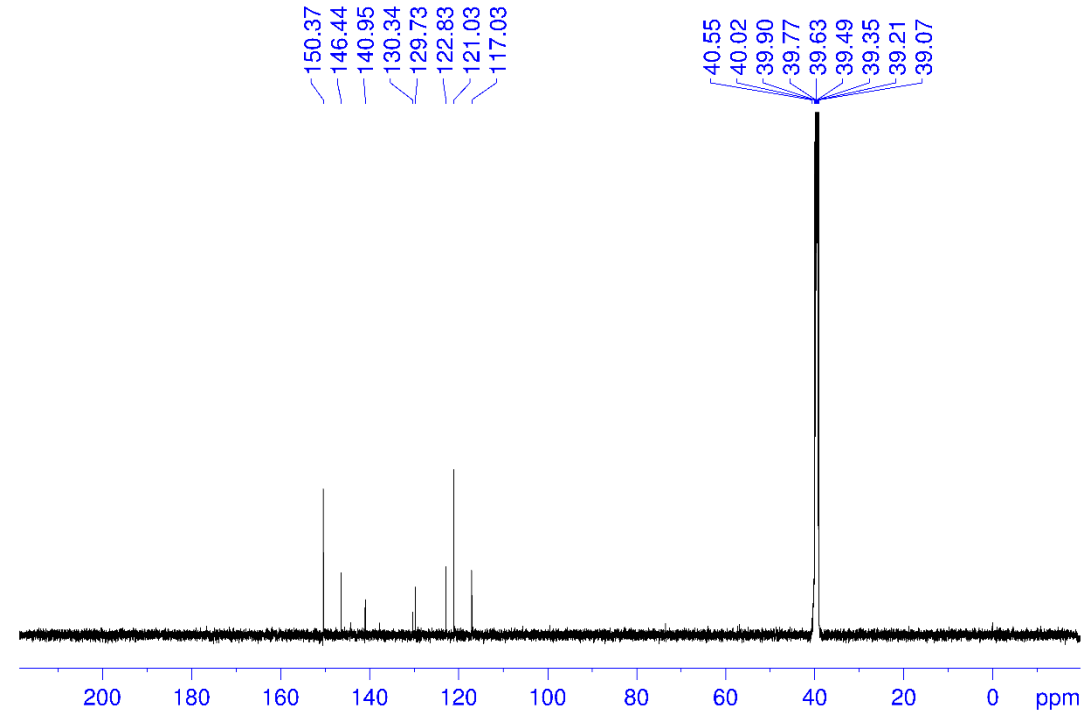


Figure S6. Compound **6** A) ^{1}H and B) ^{13}C (APT) NMR spectra (δ/ppm).

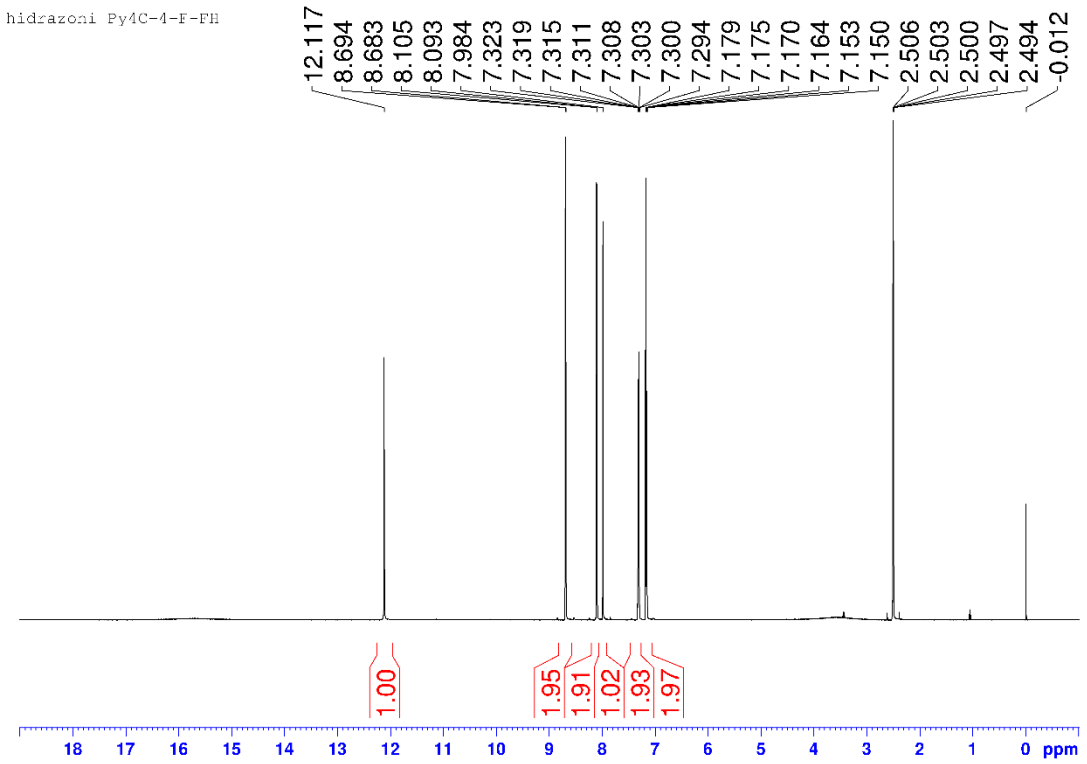


A

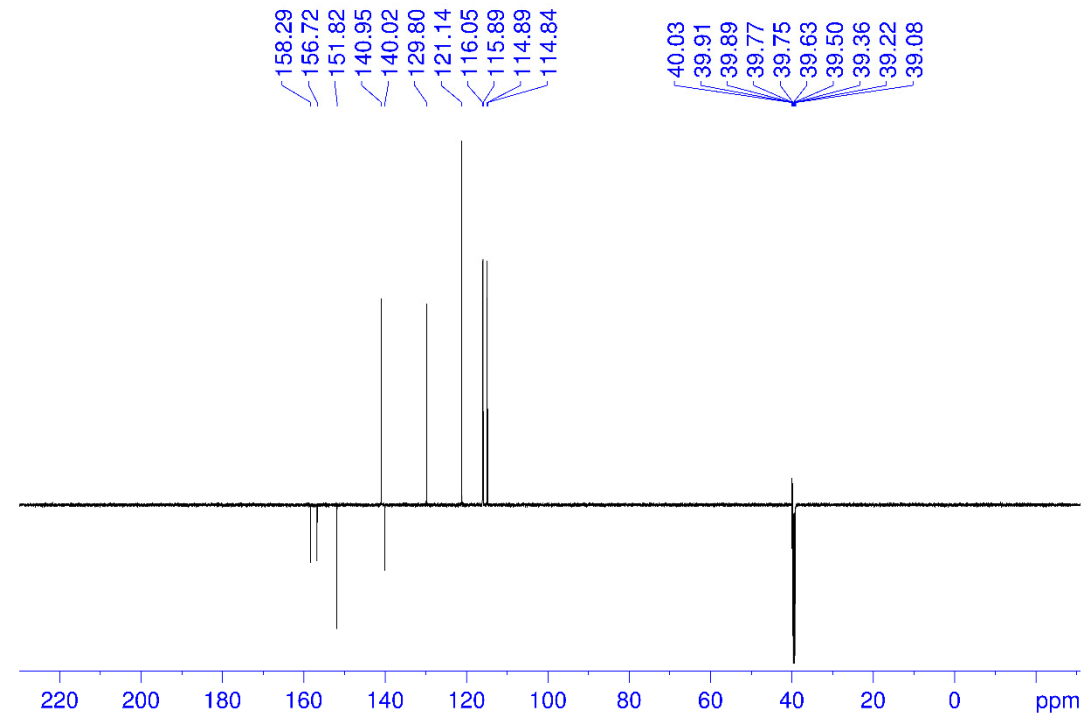


B

Figure S7. Compound **7** A) ^{1}H and B) $^{13}C\{^{1}H\}$ NMR spectra (δ/ppm).

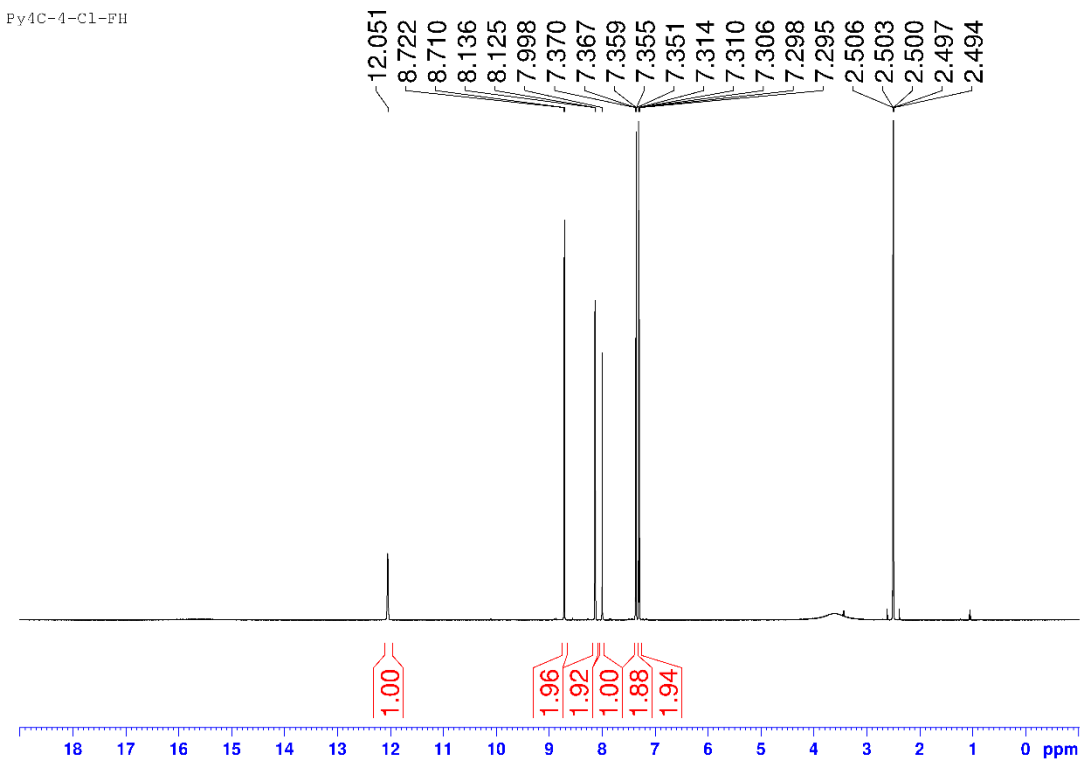


A

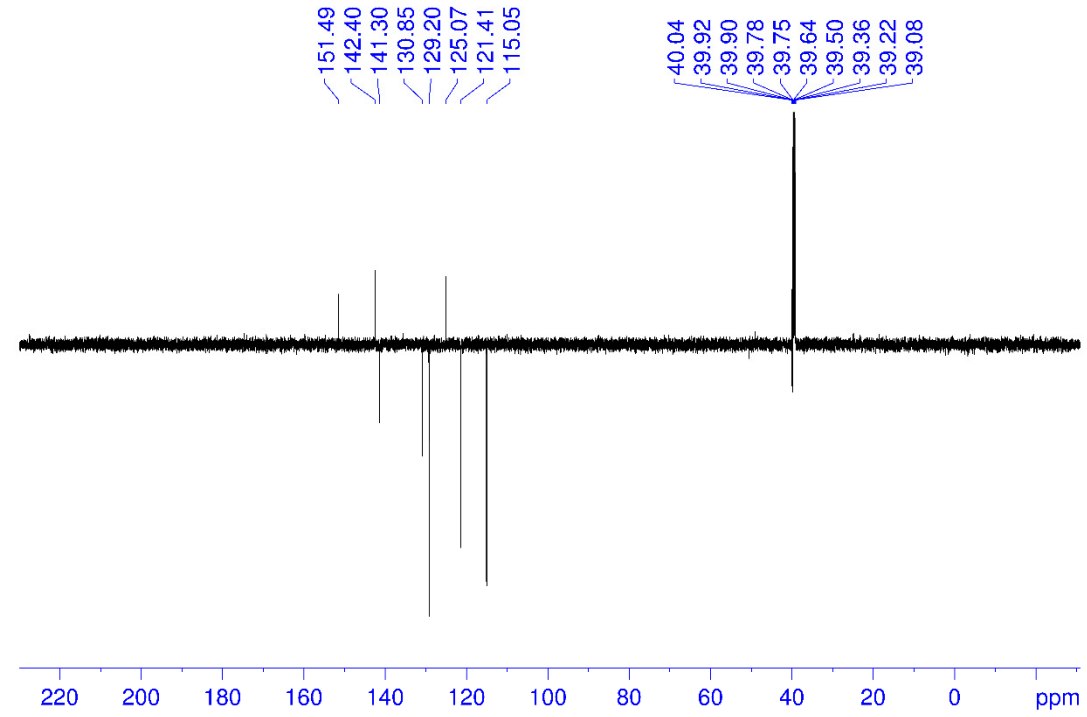


B

Figure S8. Compound **8** A) ^{1}H and B) ^{13}C (APT) NMR spectra (δ/ppm).

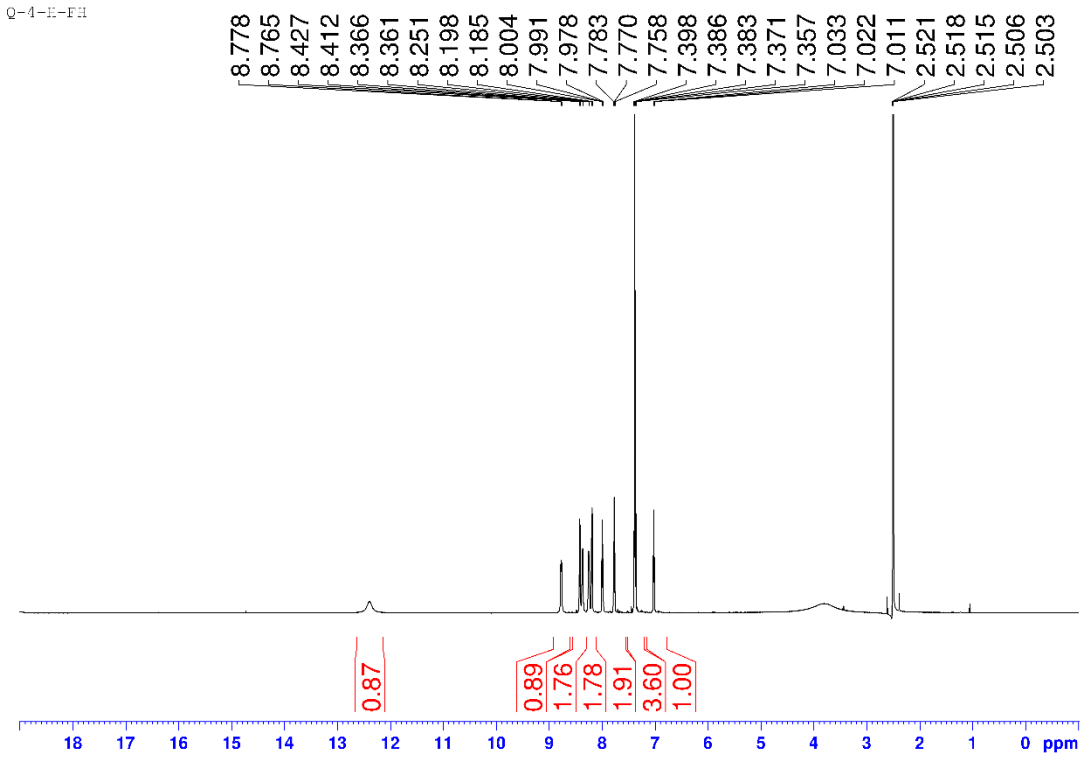


A

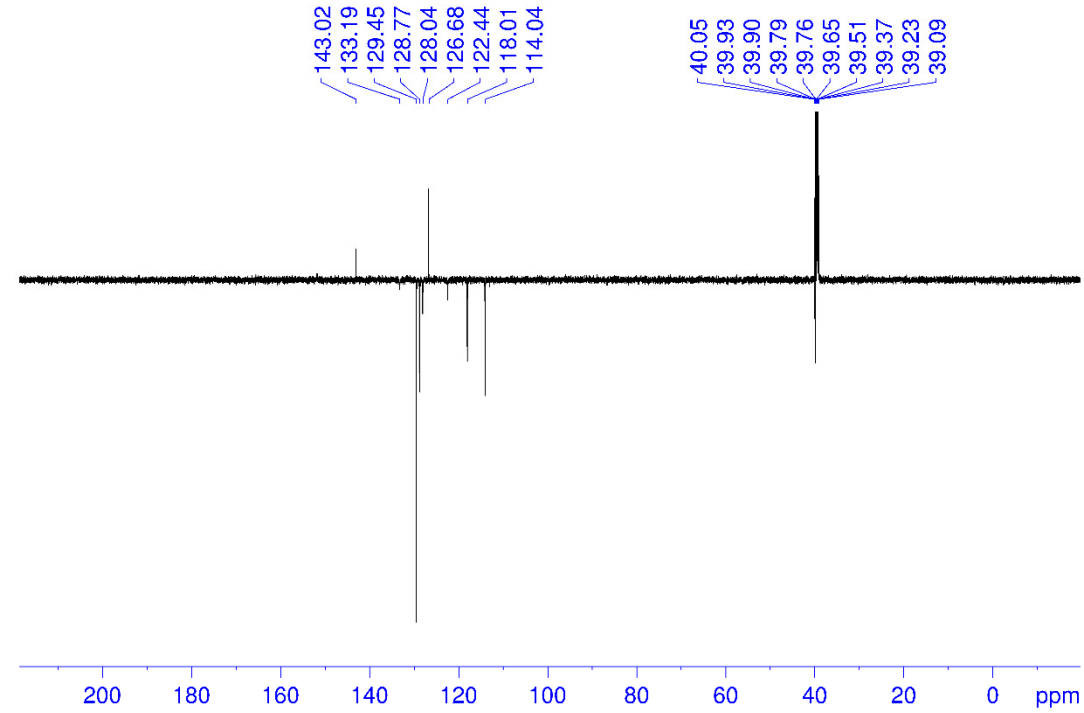


B

Figure S9. Compound **9** A) ^{1}H and B) ^{13}C (APT) NMR spectra (δ/ppm).



A



B

Figure S10. Compound **10** A) ^{1}H and B) ^{13}C (APT) NMR spectra (δ/ppm).

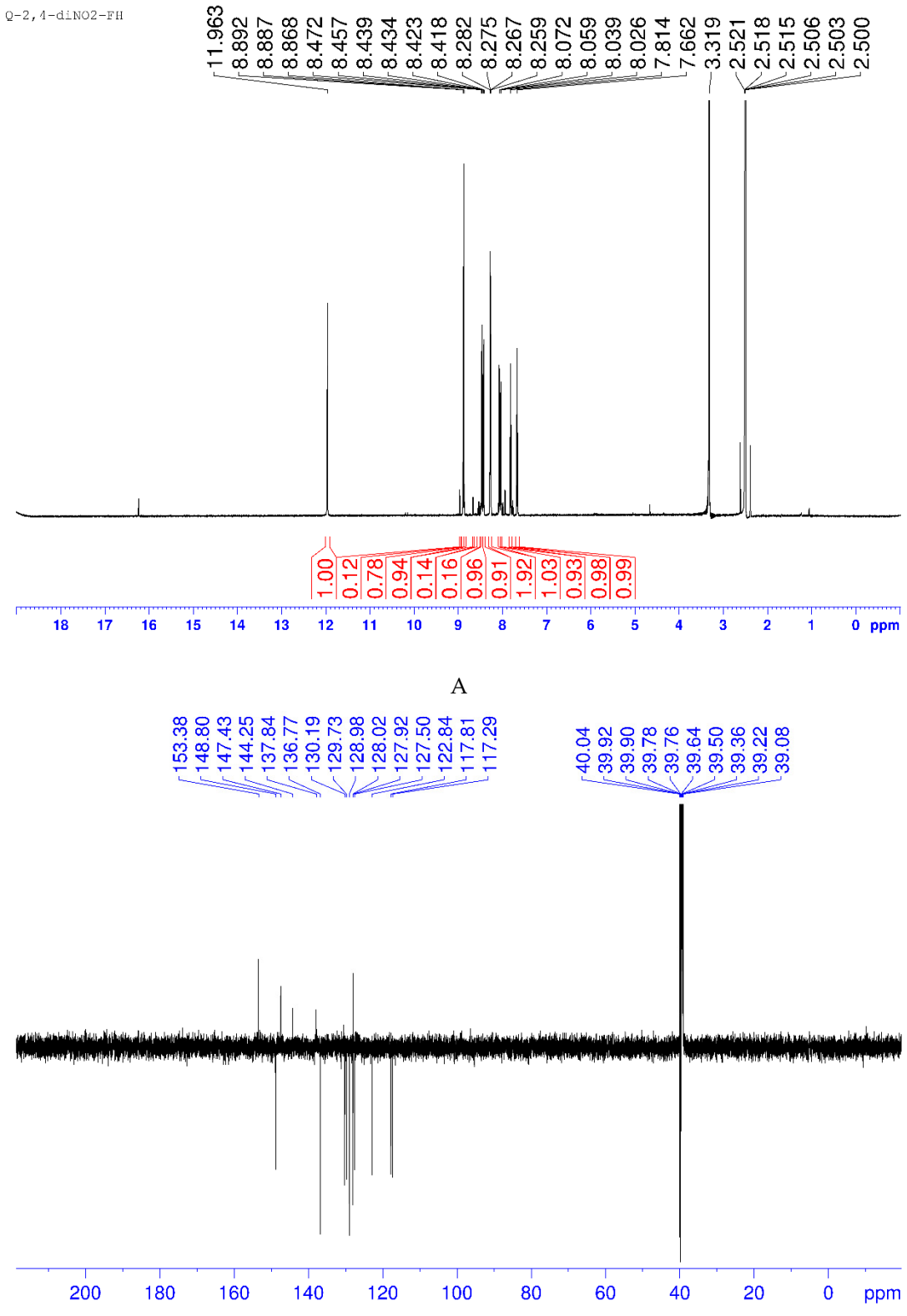


Figure S11. Compound **11** A) ^{1}H and B) ^{13}C (APT) NMR spectra (δ/ppm).

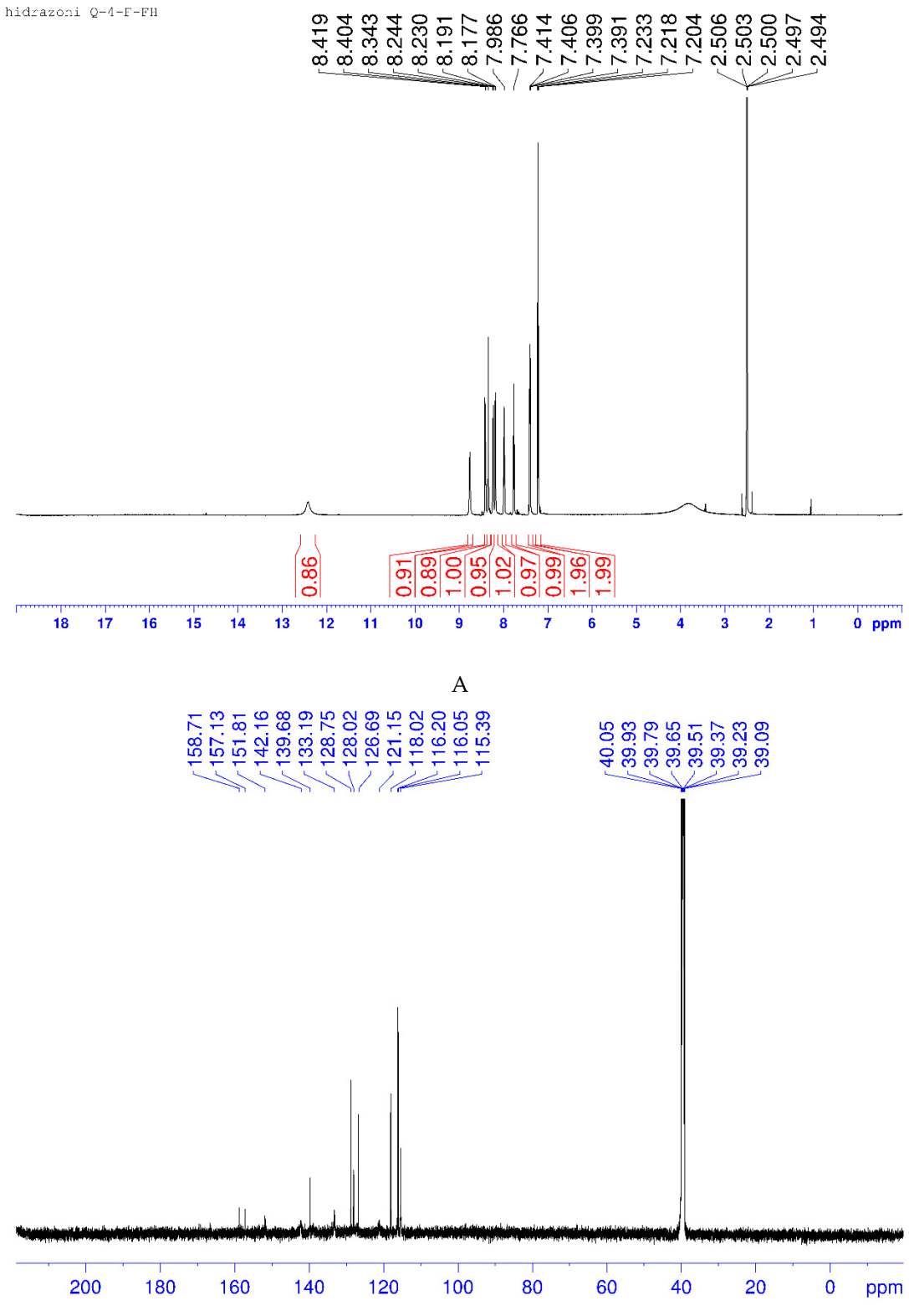


Figure S12. Compound **12** A) ^{1}H and B) $^{13}C\{^{1}H\}$ NMR spectra (δ/ppm).

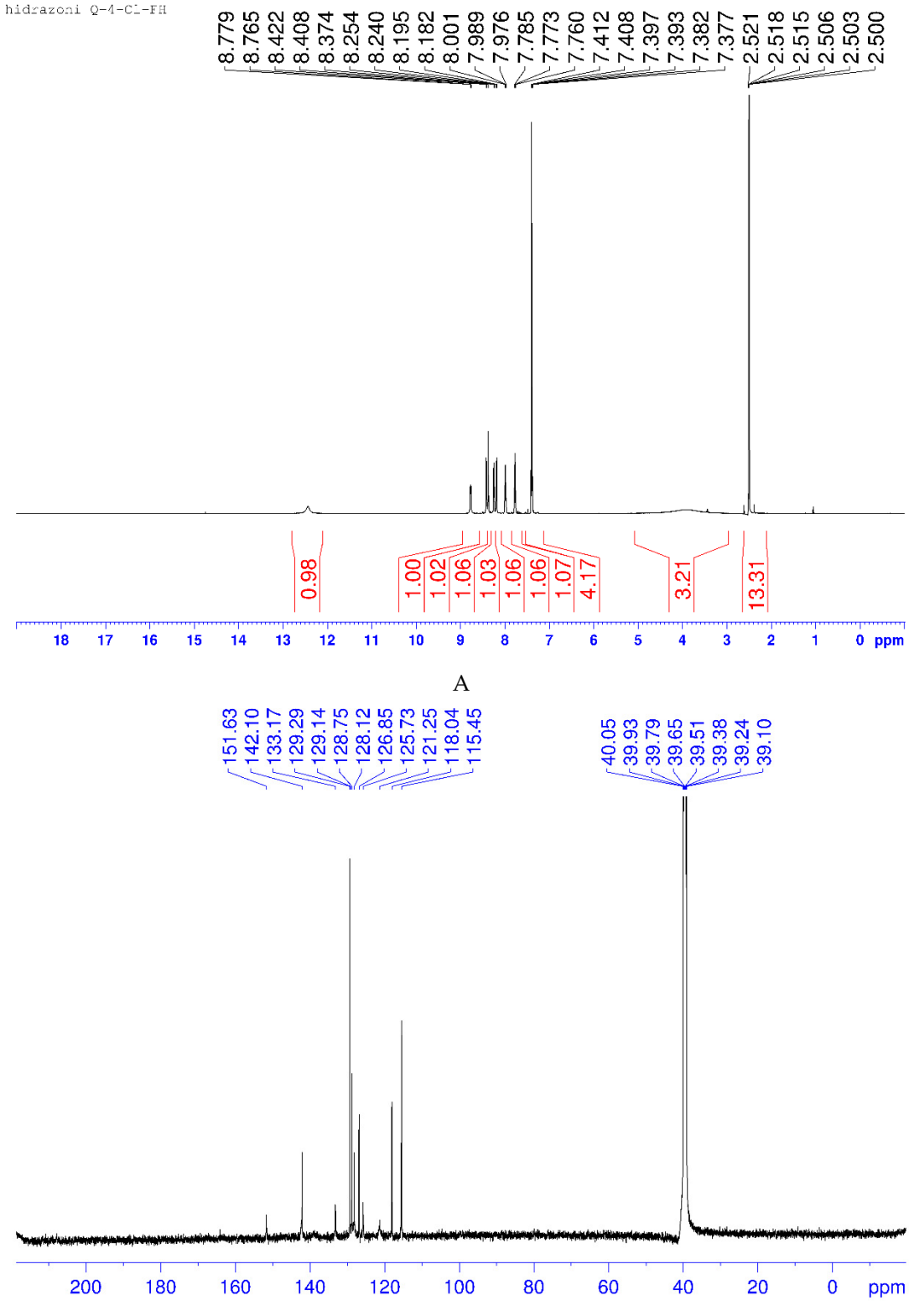
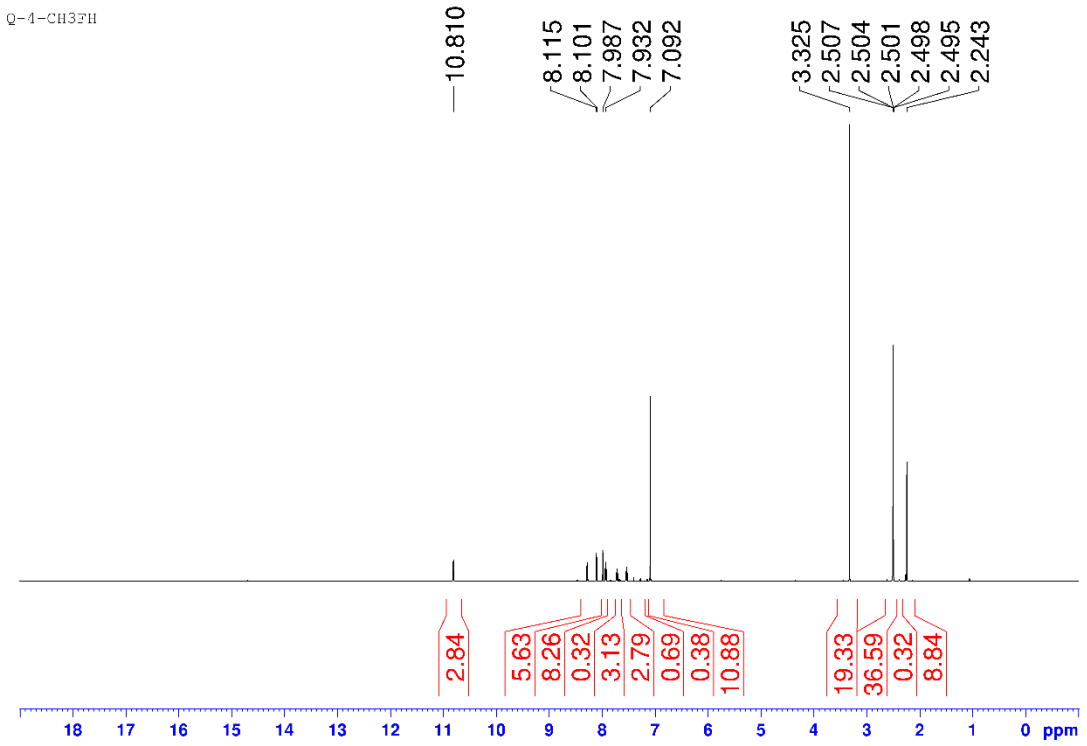
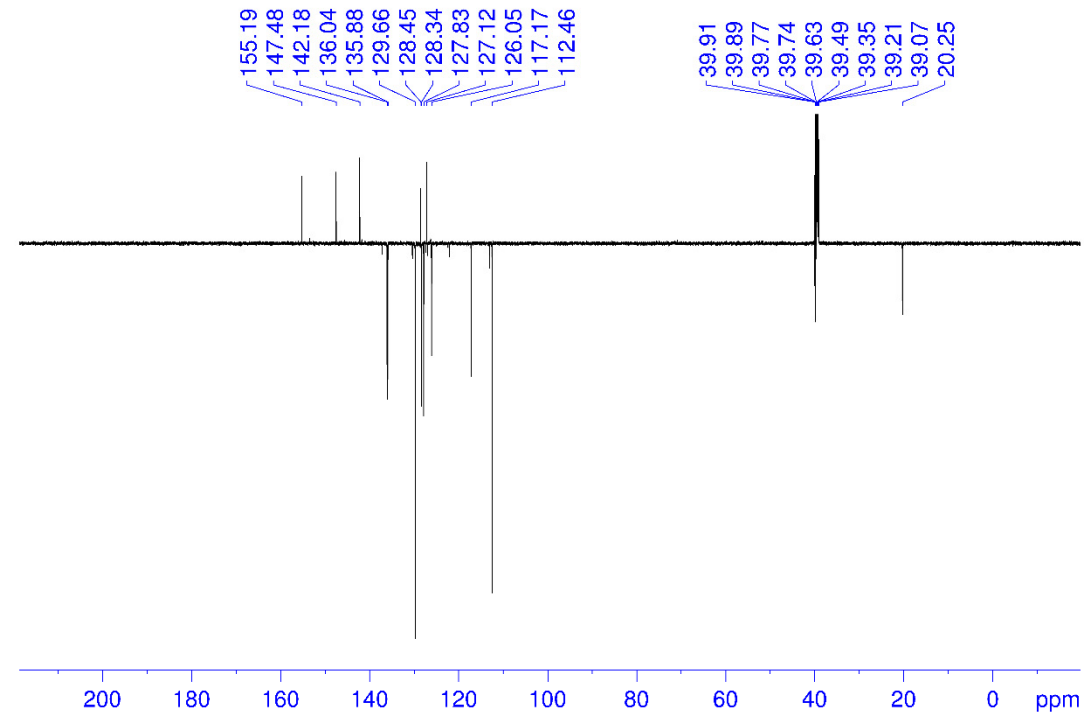


Figure S13. Compound **13** A) ^{1}H and B) $^{13}C\{^{1}H\}$ NMR spectra (δ/ppm).



A



B

Figure S14. Compound **14** A) ^{1}H and B) ^{13}C (APT) NMR spectra (δ/ppm).

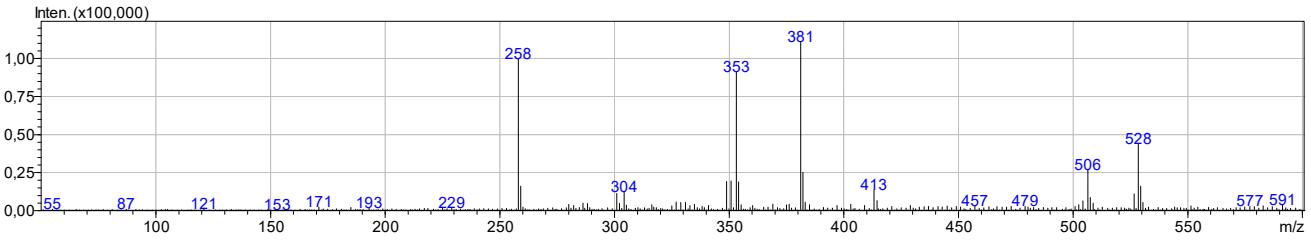


Figure S15. MS spectra of compound **1**

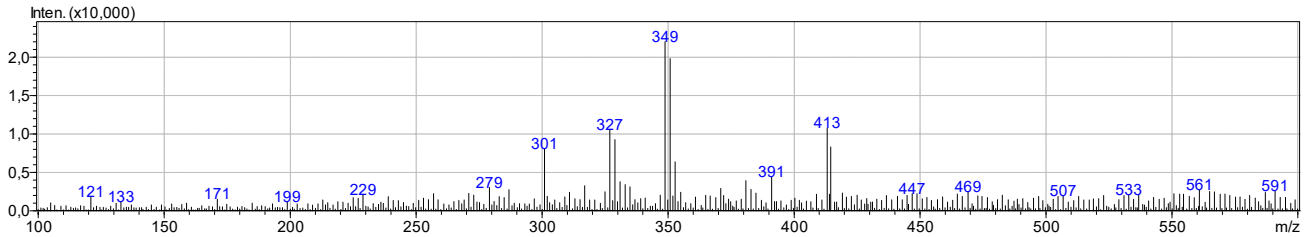


Figure S16. MS spectra of compound **2**

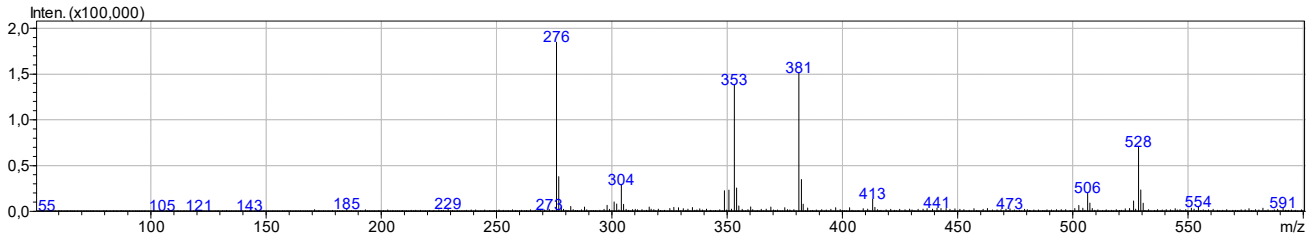


Figure S17. MS spectra of compound **3**

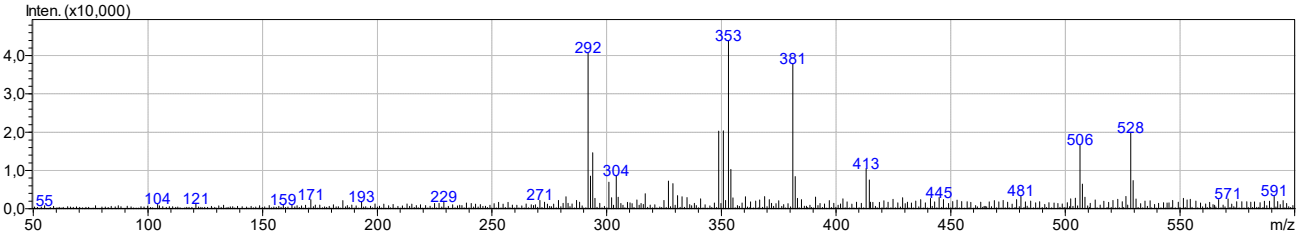


Figure S18. MS spectra of compound **4**

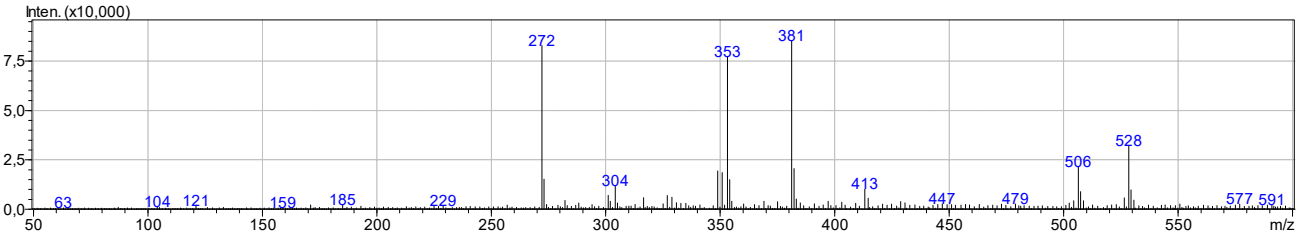


Figure S19. MS spectra of compound **5**

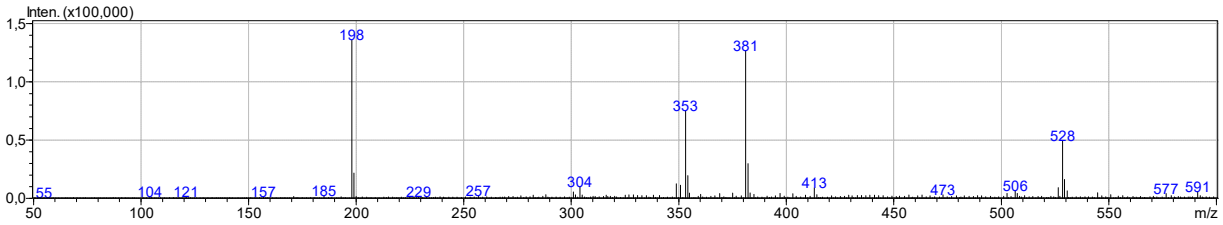


Figure S20. MS spectra of compound **6**

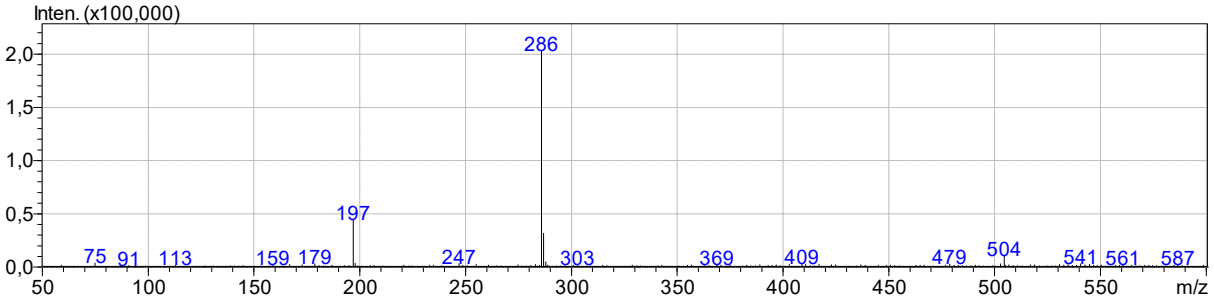


Figure S21. MS spectra of compound **7**

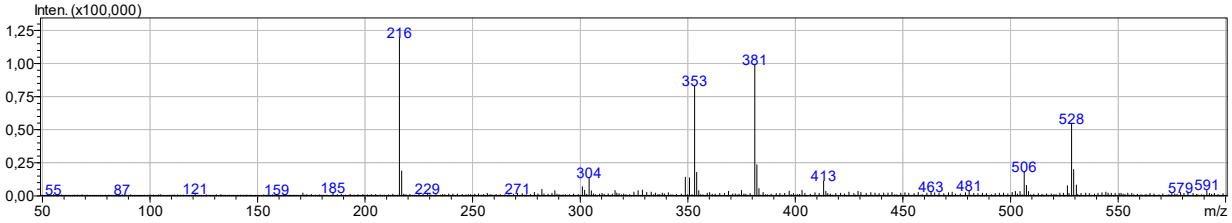


Figure S22. MS spectra of compound **8**

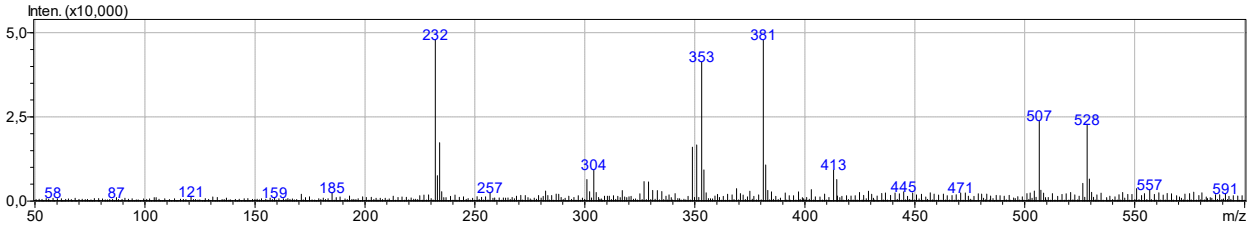


Figure S23. MS spectra of compound **9**

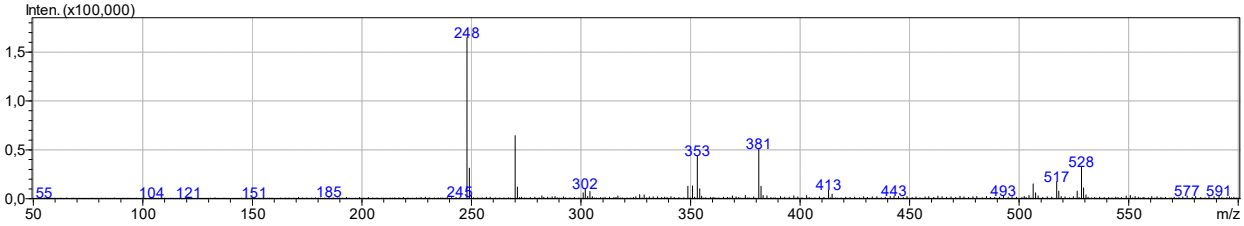


Figure S24. MS spectra of compound **10**

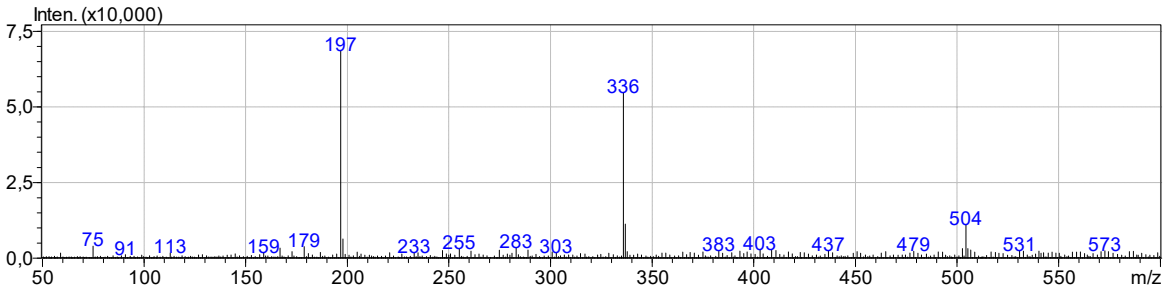


Figure S25. MS spectra of compound **11**

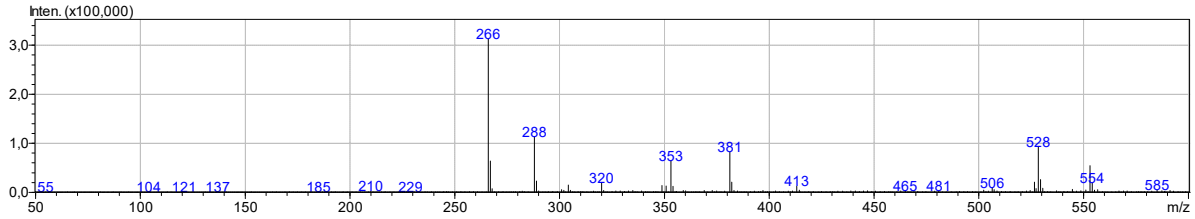


Figure S26. MS spectra of compound **12**

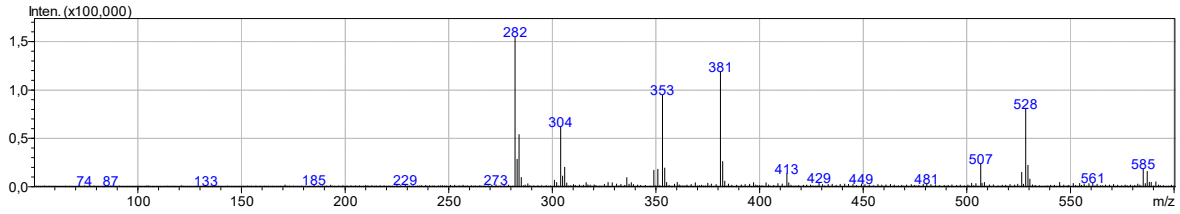


Figure S27. MS spectra of compound **13**

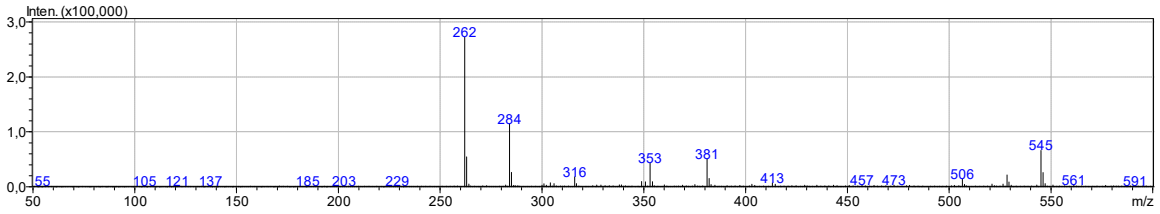


Figure S28. MS spectra of compound **14**

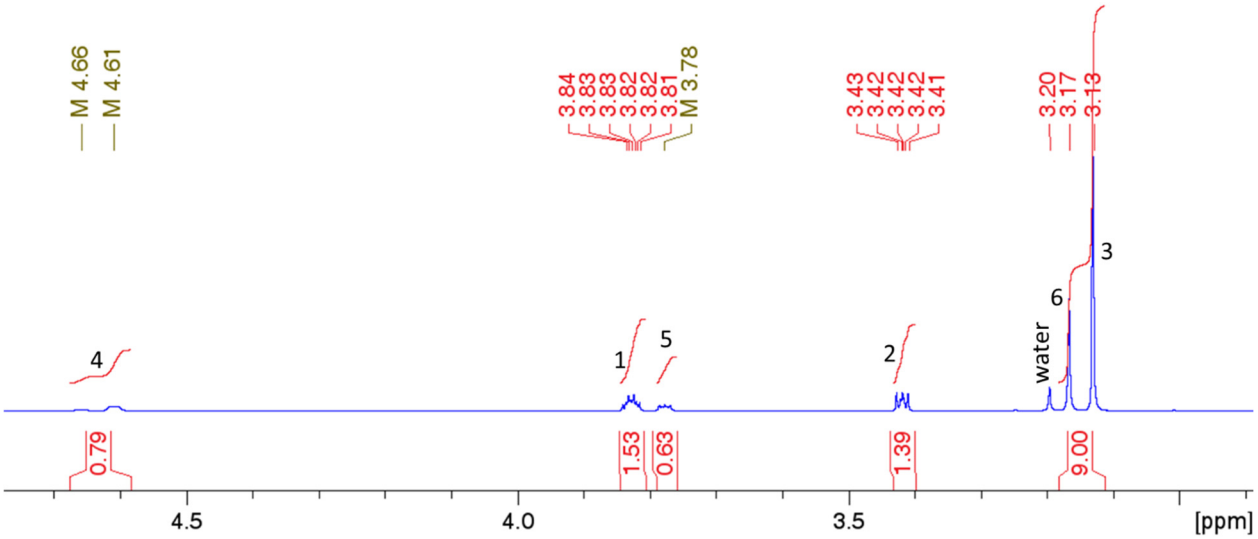


Figure S29. 600 MHz ^{1}H NMR spectra of oxalic acid: ChCl. Peaks marked in green were added manually. The esterification yield was calculated from the value of the integral as given in the equation above and is approximately 30% [68]

$$E\% = \frac{I_4}{I_4 + I_1} \times 100 = \frac{I_5}{I_5 + I_2} \times 100$$

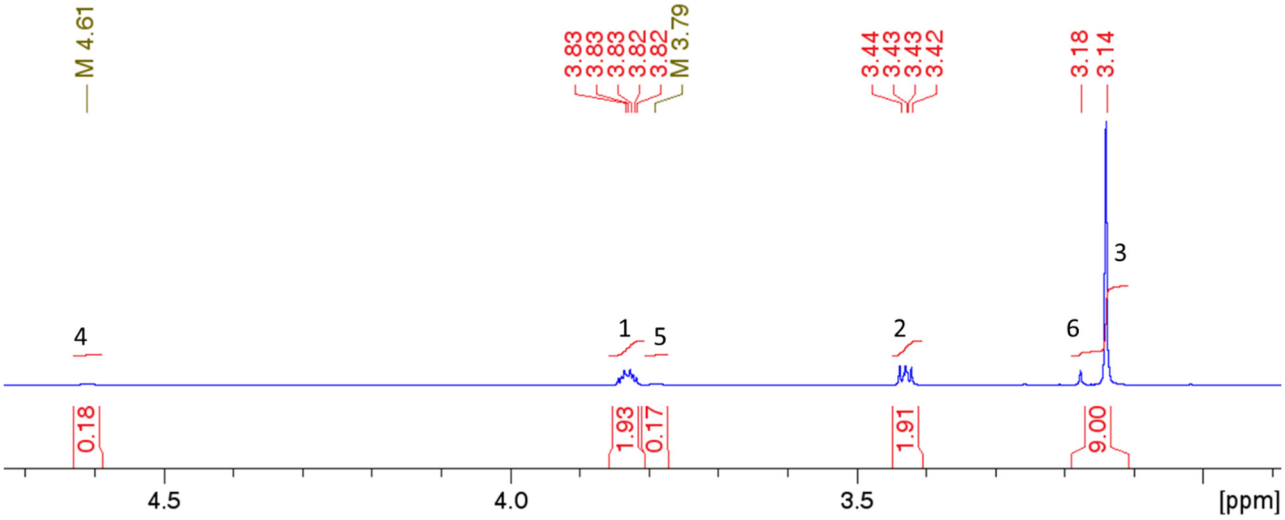


Figure S30. 600 MHz ^{1}H NMR spectra of oxalic acid: ChCl after the 1st repetition cycle. Peaks marked in green were added manually. The esterification yield was calculated from the value of the integral as given in the equation above and is approximately 8%. [68]