

Supplementary Information

New anti-ovarian cancer quinolone derivatives acting by modulating microRNA processing machinery

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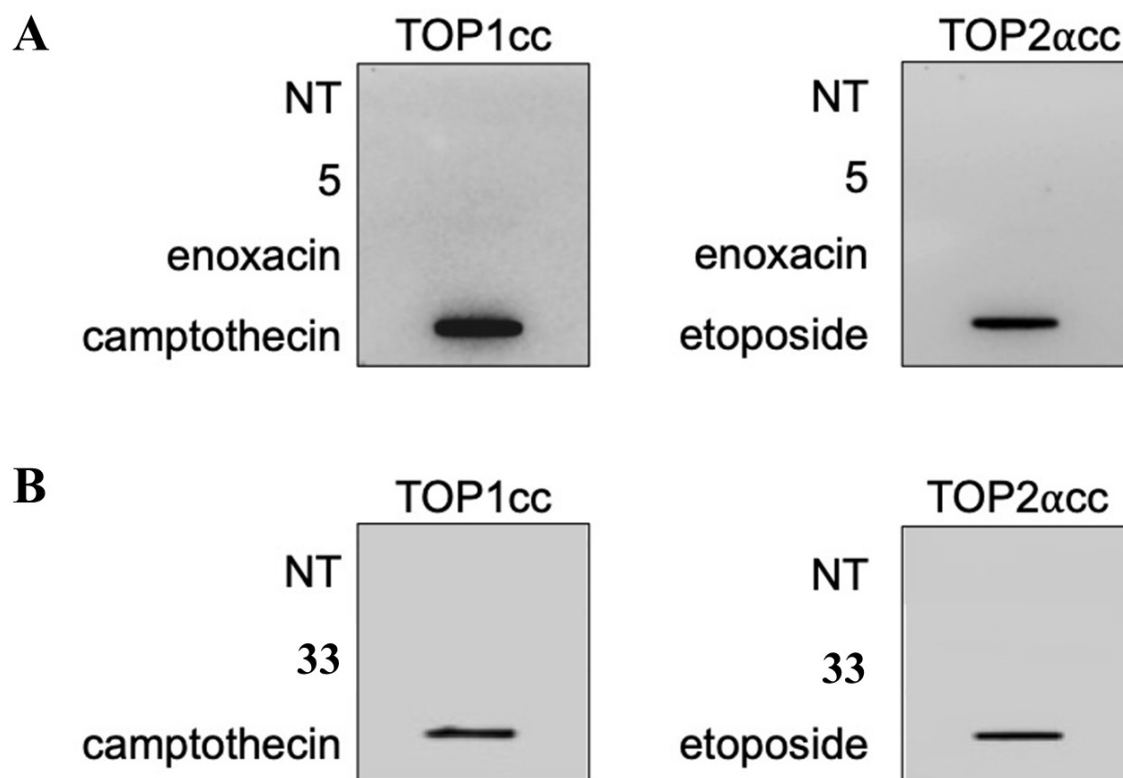


Figure S1. hTop1 and hTop2α cleavage assay of compounds **5** and **33**

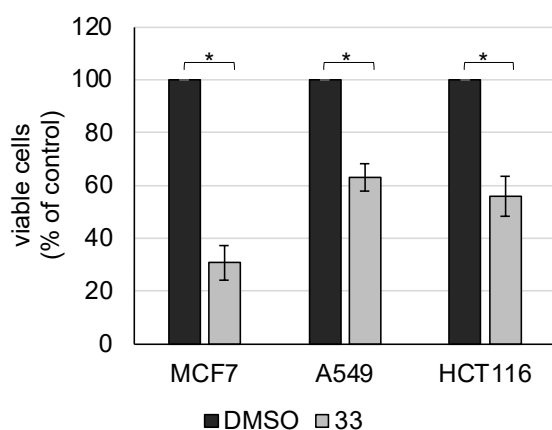


Figure S2. **33** inhibits the proliferation of MCF-7, A549 and HCT-116 cell lines. Graph showing the number of viable cells of a culture of MCF-7, A549 and HCT-116 cell lines treated with **33** (30 μM) for 72 hours. The number of viable cells is expressed as percentage respect to DMSO condition set to a value of 100%. Error Bars represent SE of at least three independent experiments. p-values were calculated using paired two-tailed Student's t-test (* p < 0.05).

Figure S3. ^1H NMR spectrum of compound **11**.

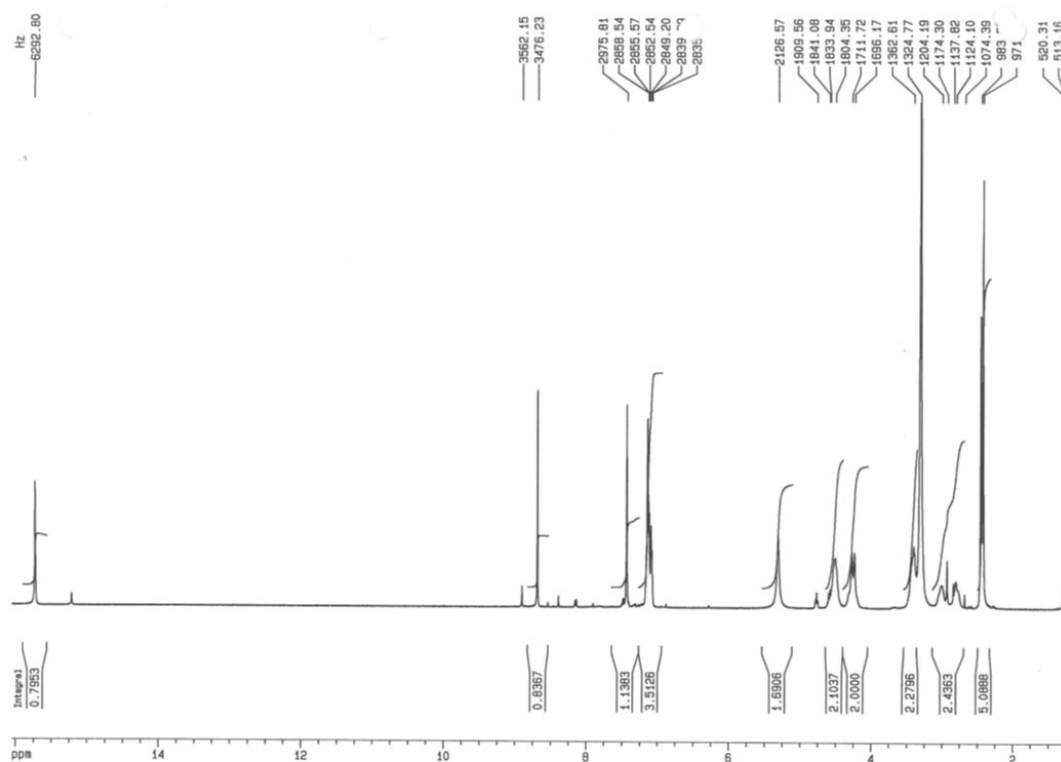


Figure S4. ^{13}C NMR spectrum of compound **11**

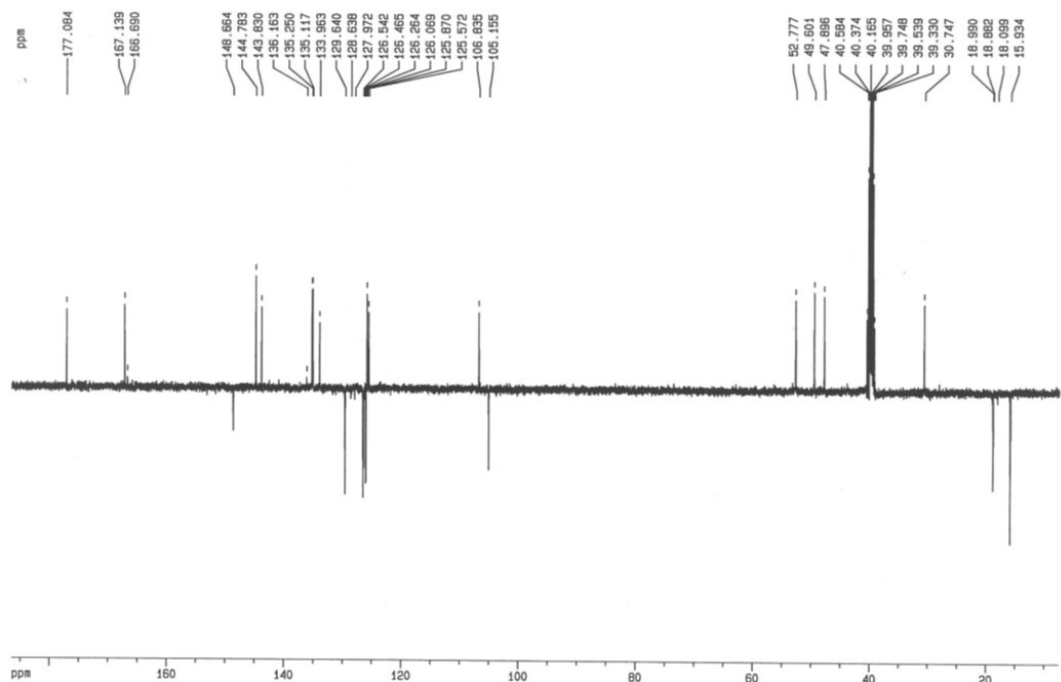


Figure S5. ^1H NMR spectrum of compound **12**.

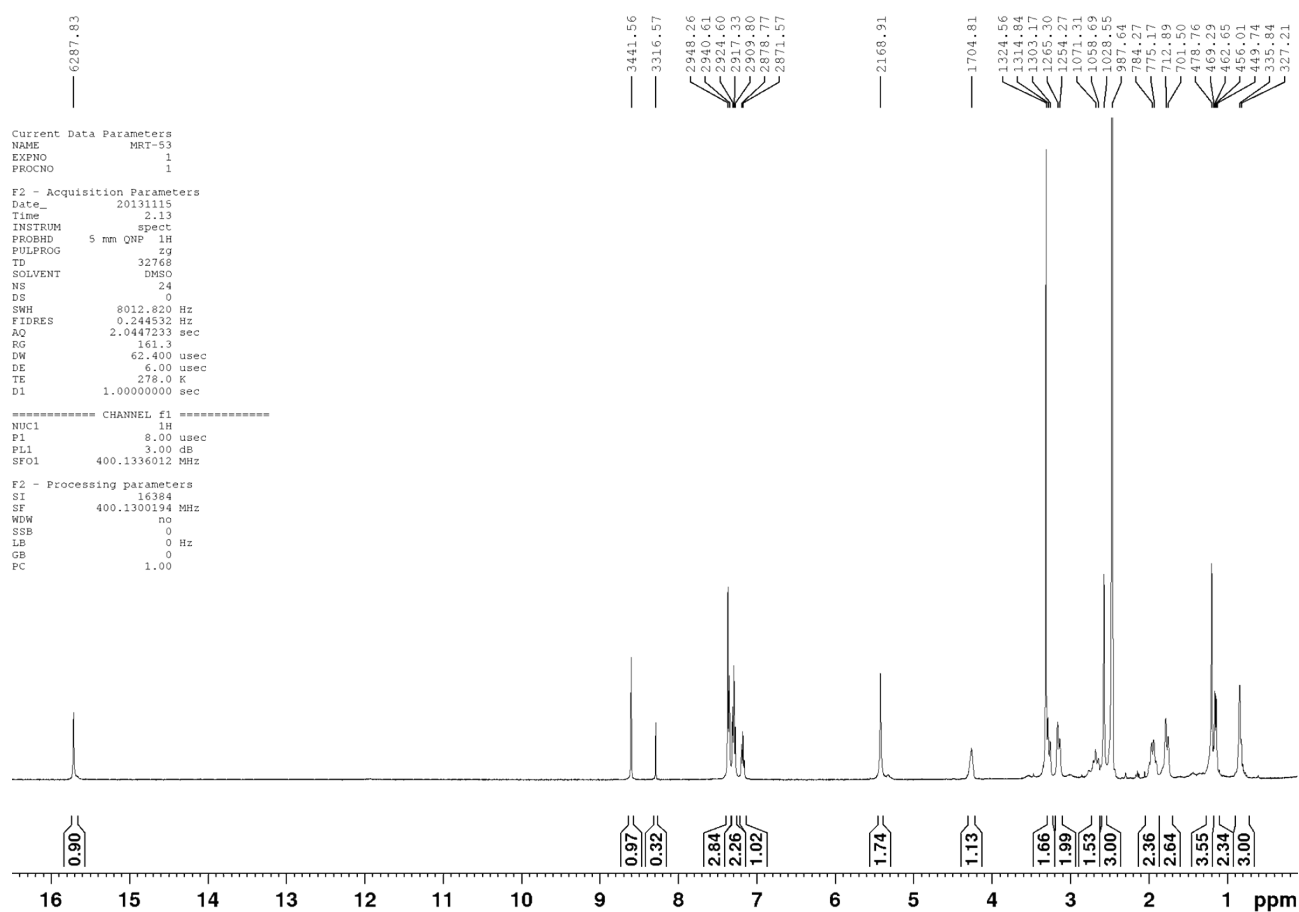


Figure S6. ^{13}C NMR spectrum of compound **12**.

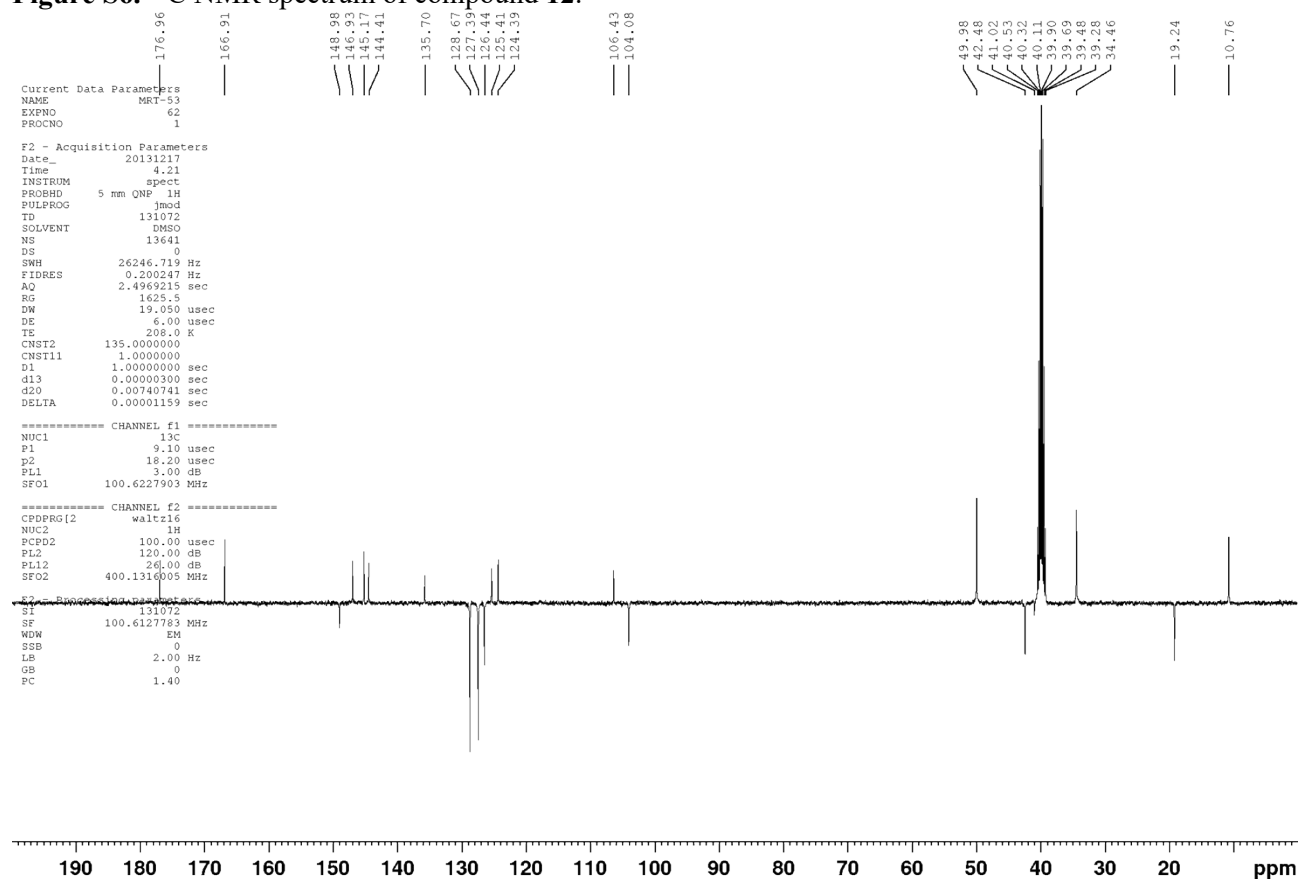


Figure S7. ^1H NMR spectrum of compound **13**.

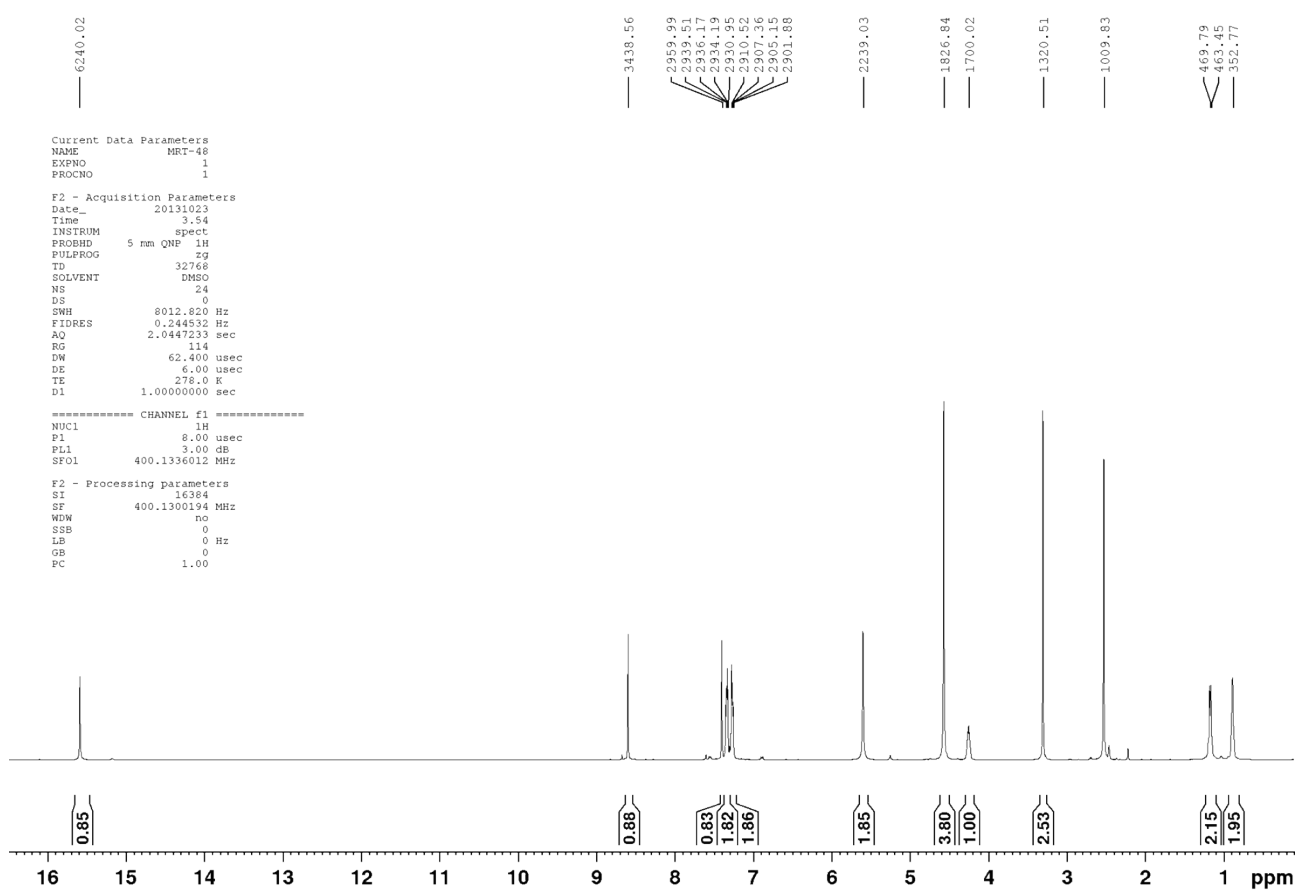


Figure S8. ^{13}C NMR spectrum of compound **13**.

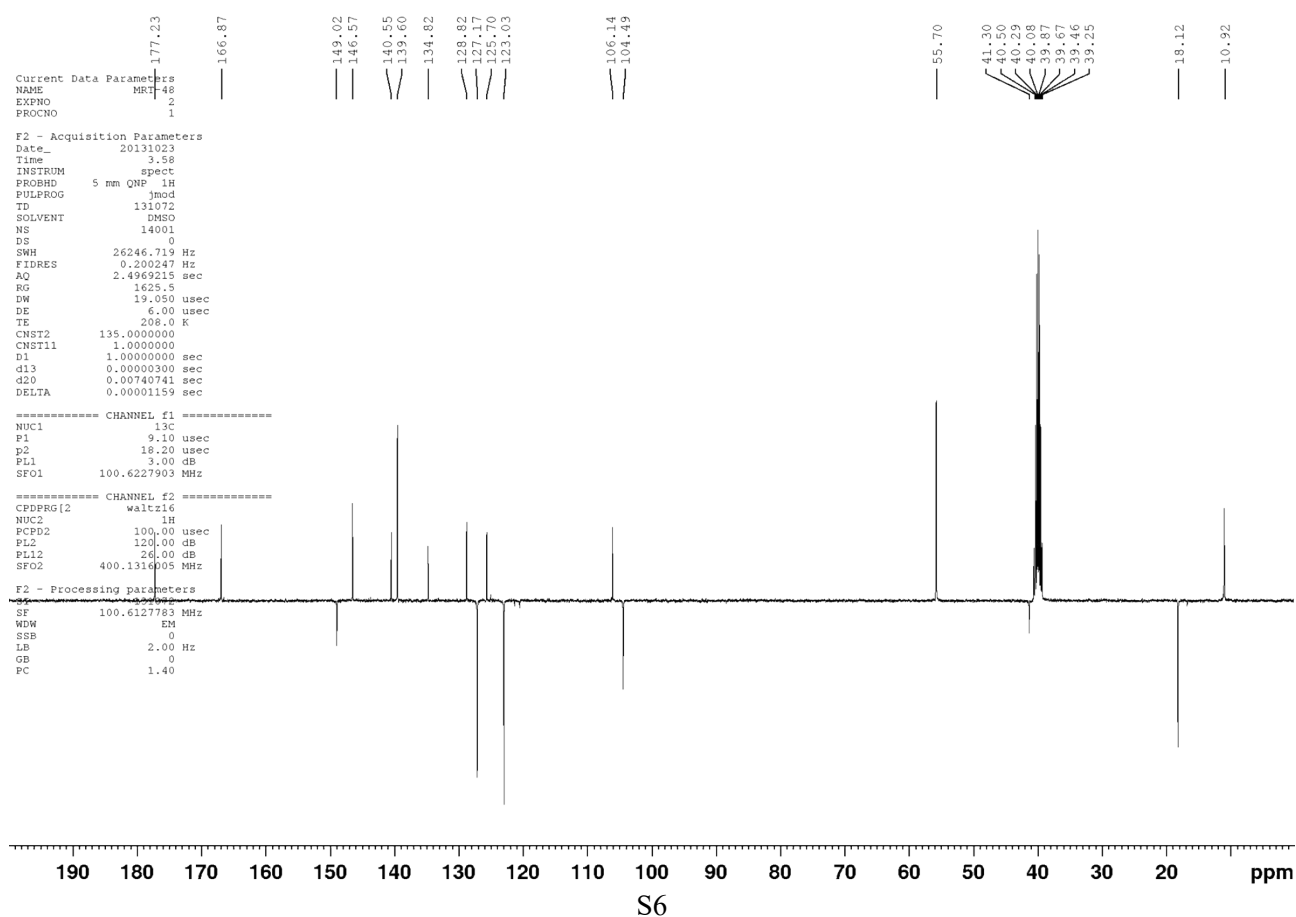


Figure S9. ^1H NMR spectrum of compound **14**.

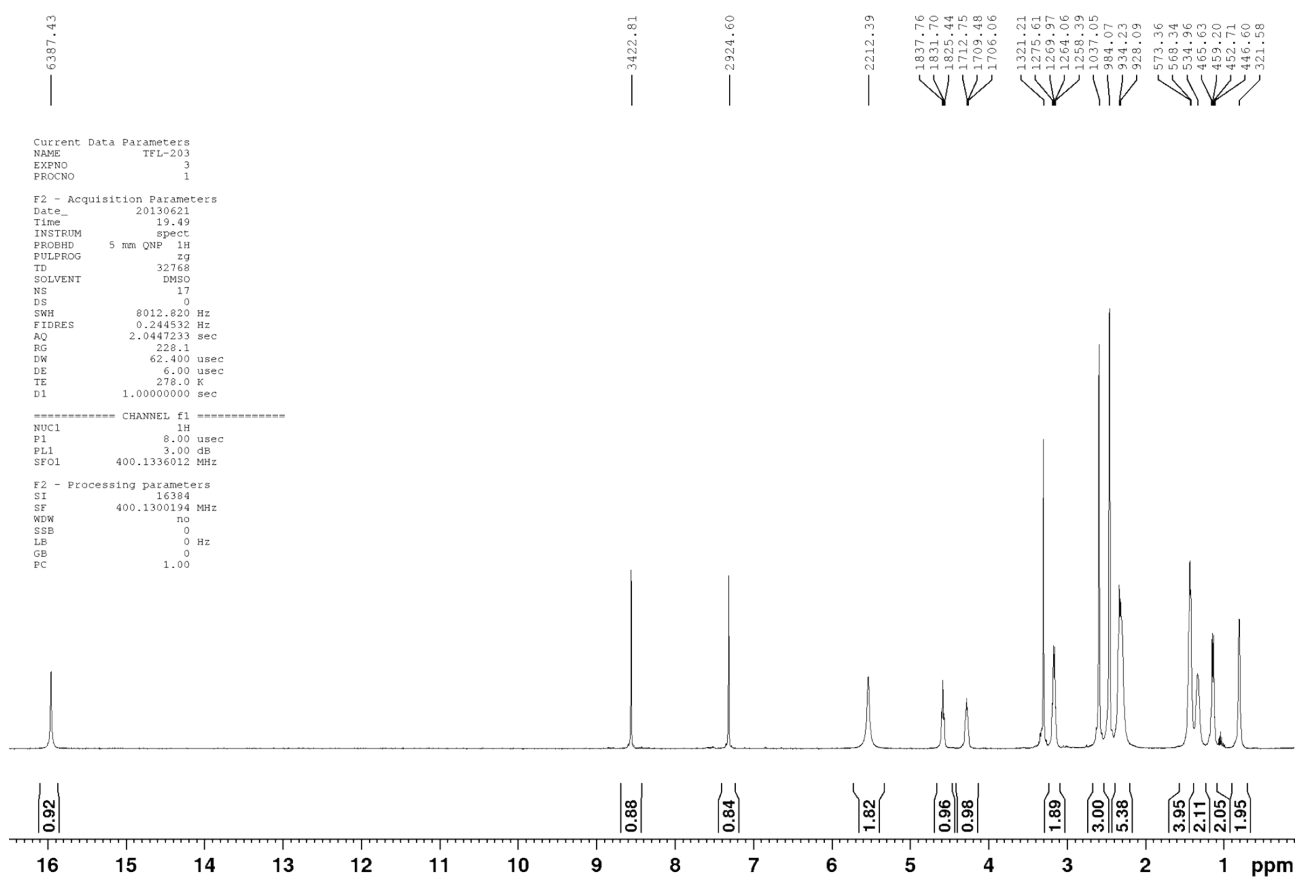


Figure S10. ^{13}C NMR spectrum of compound **14**.

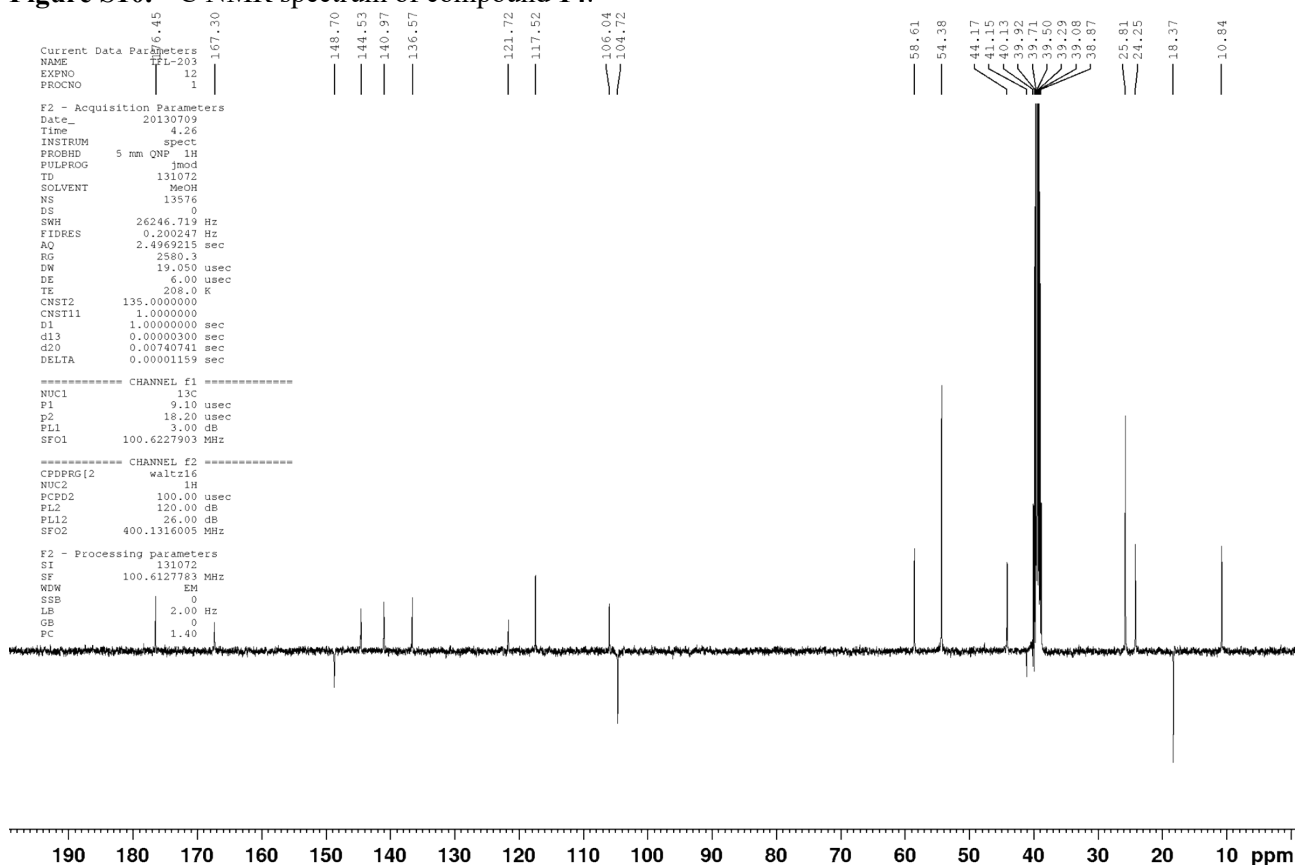


Figure S11. ^1H NMR spectrum of compound **15**.

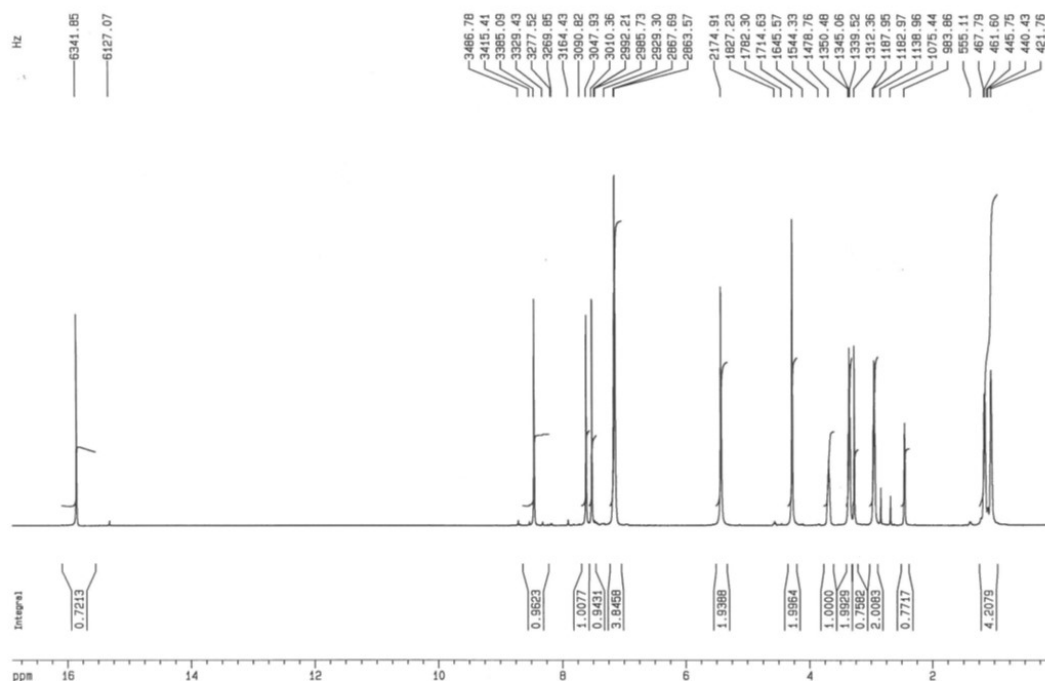


Figure S12. ^{13}C NMR spectrum of compound **15**.

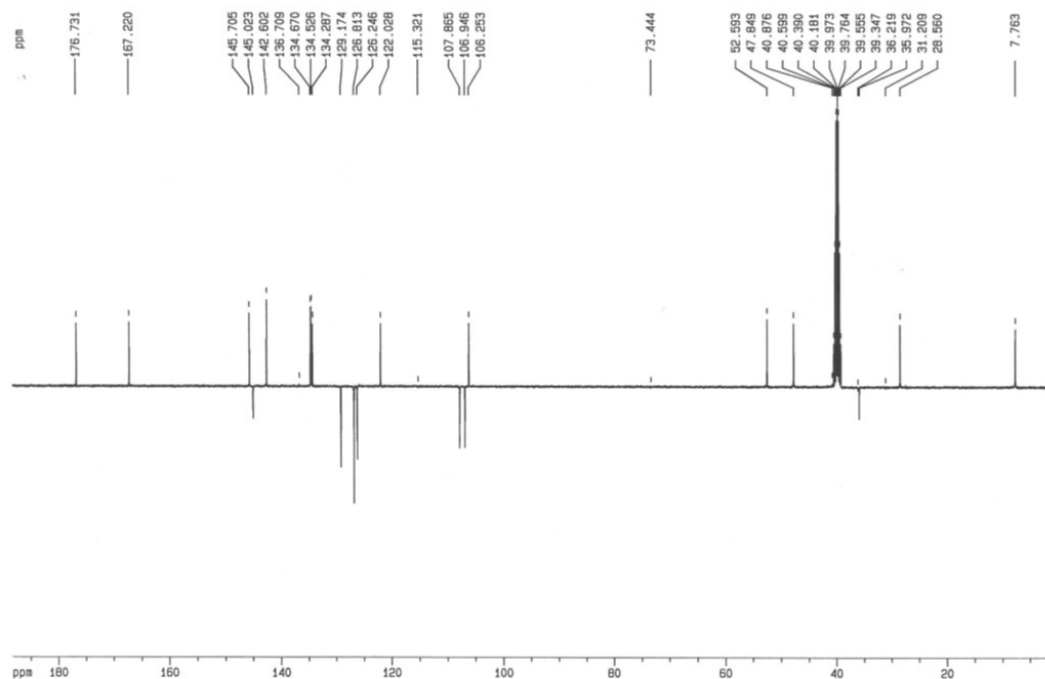


Figure S13. ^1H NMR spectrum of compound **16**.

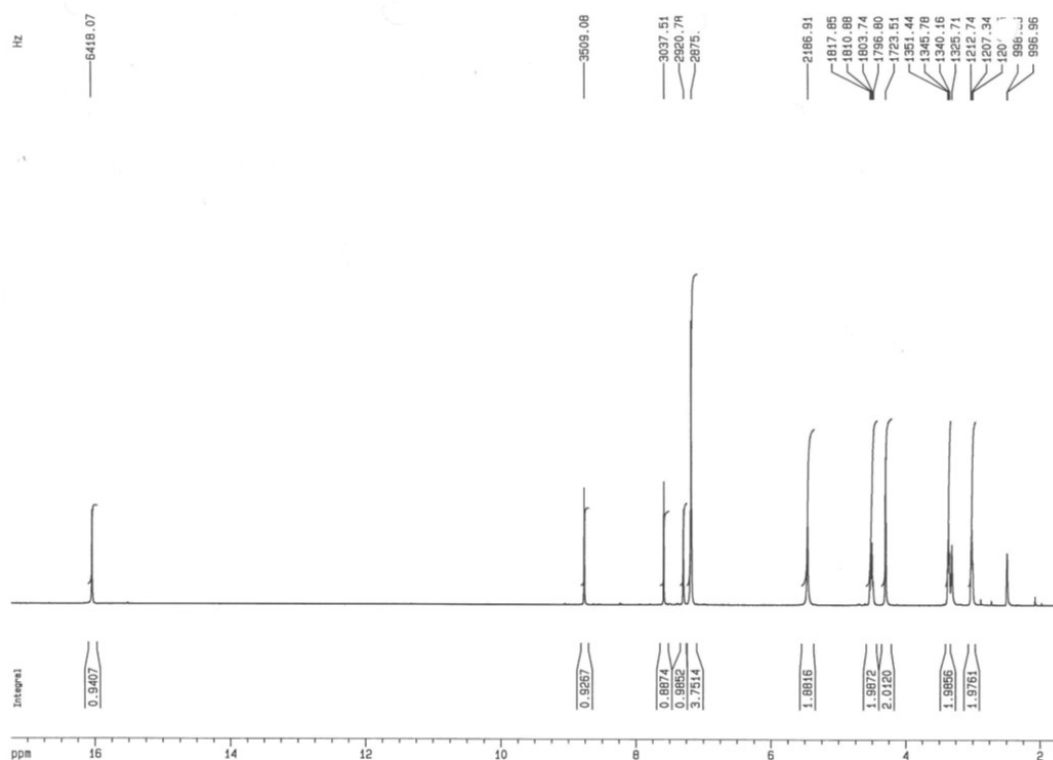


Figure S14. ^{13}C NMR spectrum of compound **16**.

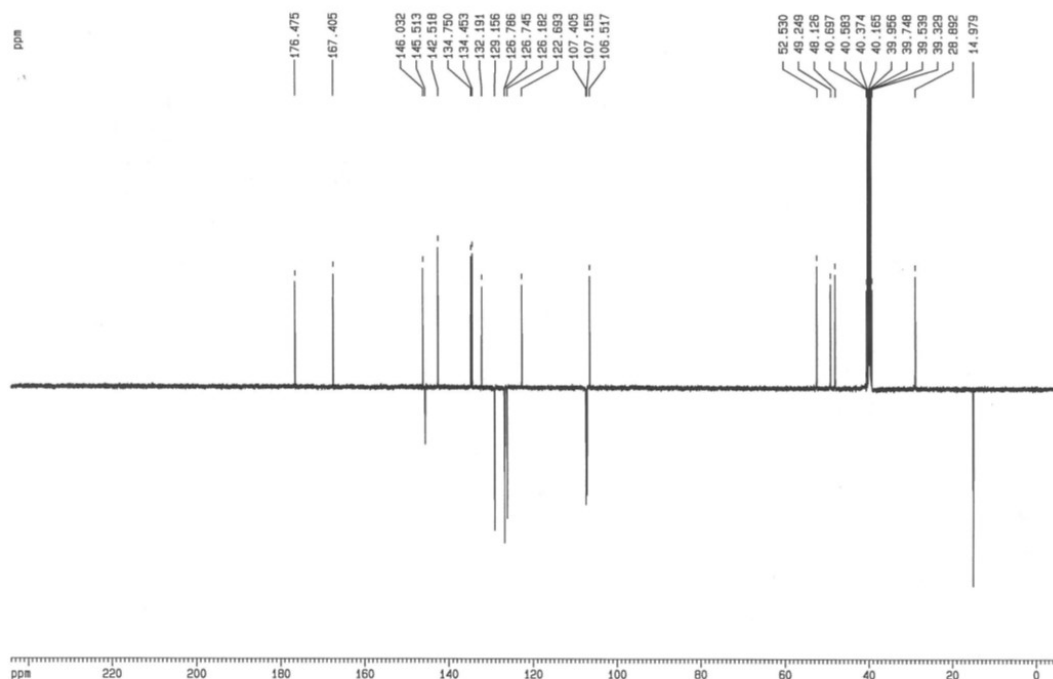


Figure S15. ^1H NMR spectrum of compound **17**.

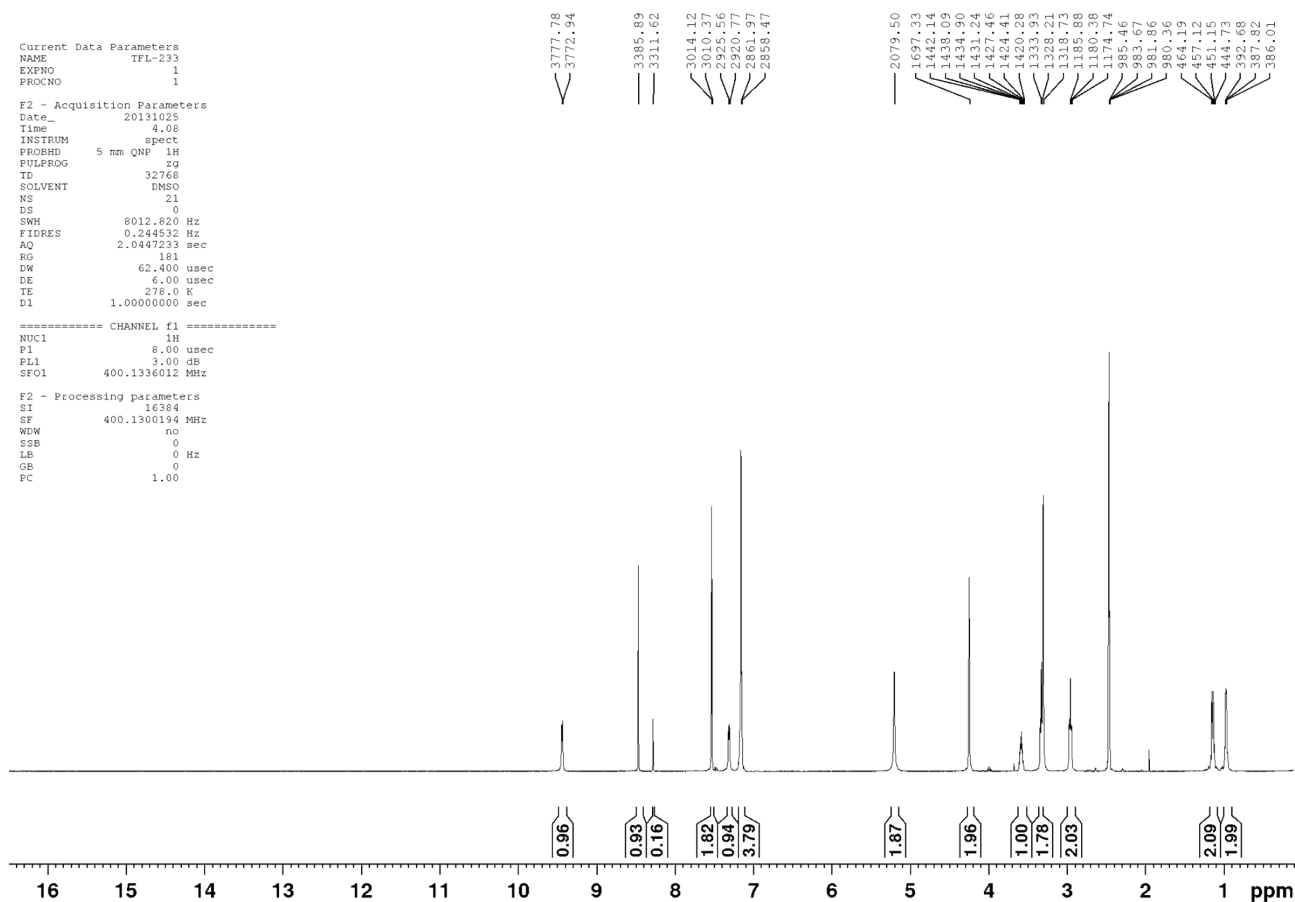


Figure S16. ^{13}C NMR spectrum of compound **17**.

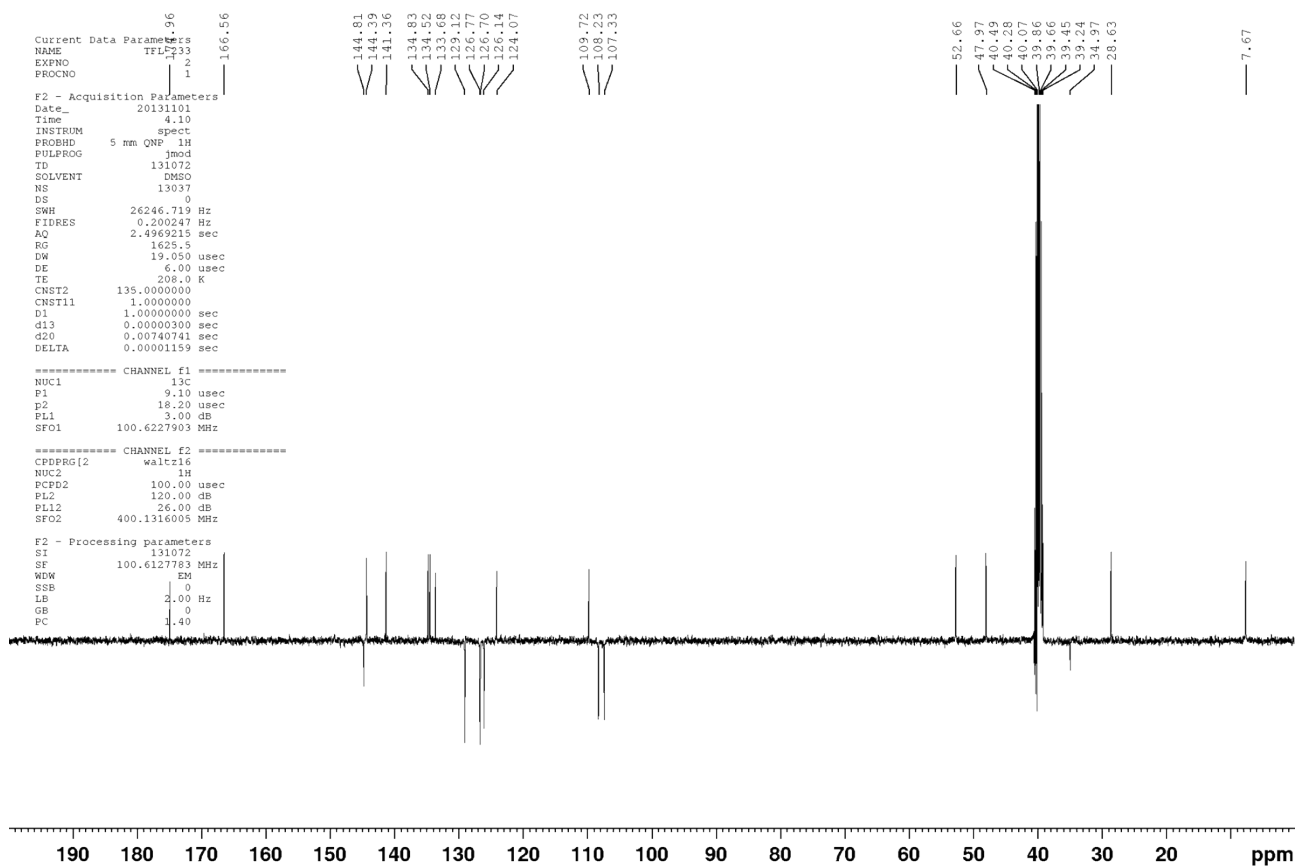


Figure S17. ^1H NMR spectrum of compound **18**.

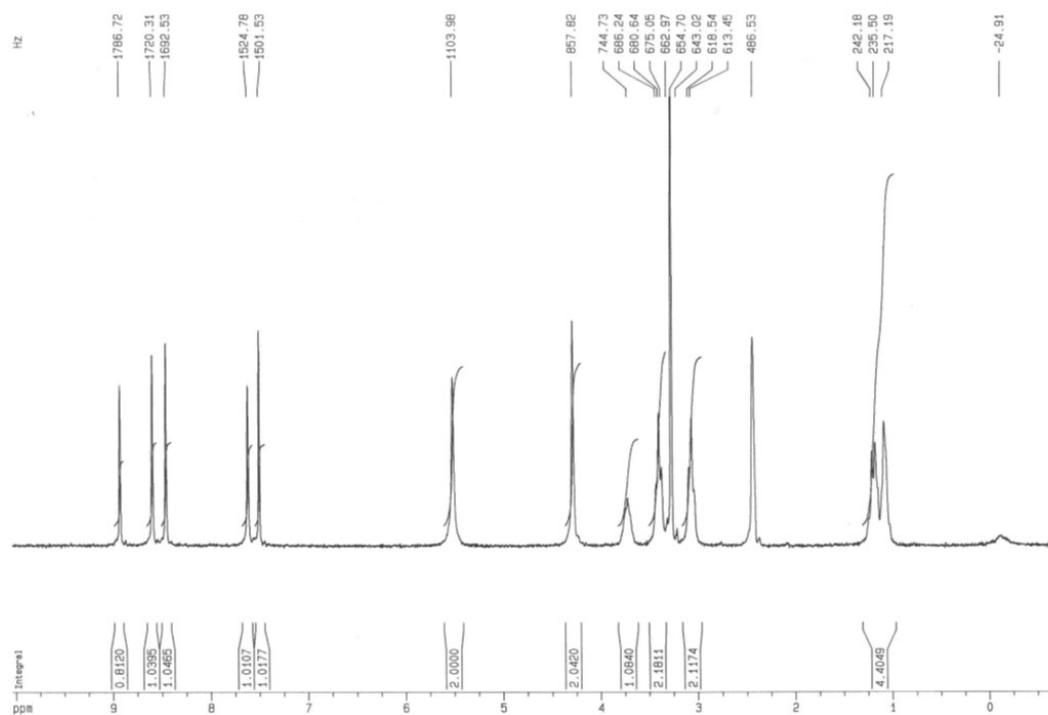


Figure S18. ^{13}C NMR spectrum of compound **18**.

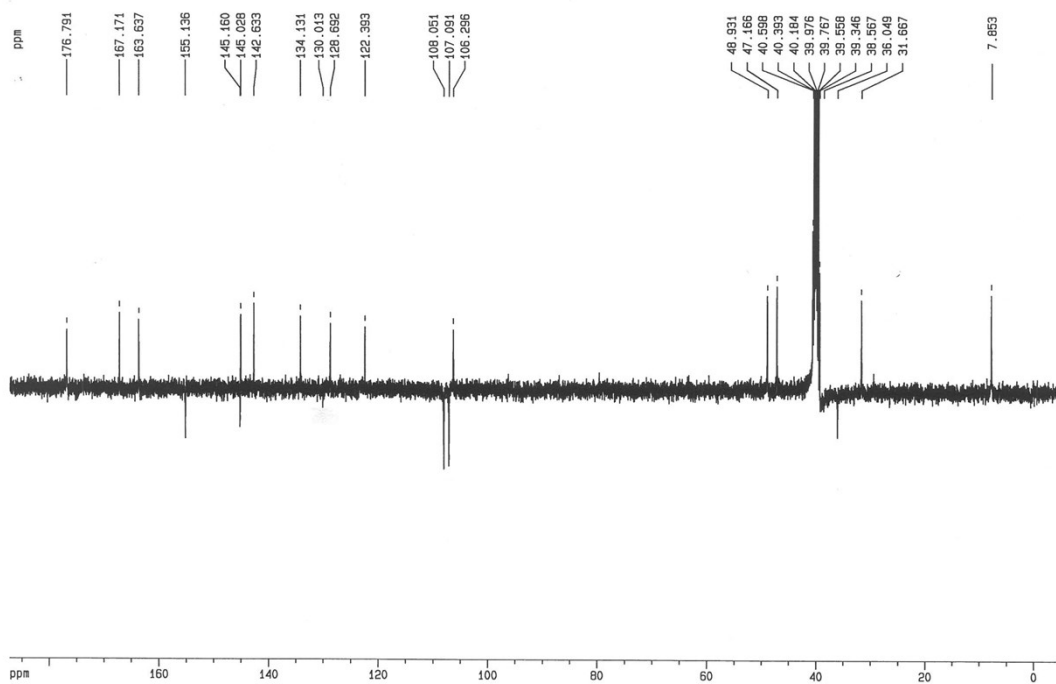


Figure S19. ^1H NMR spectrum of compound **19**.

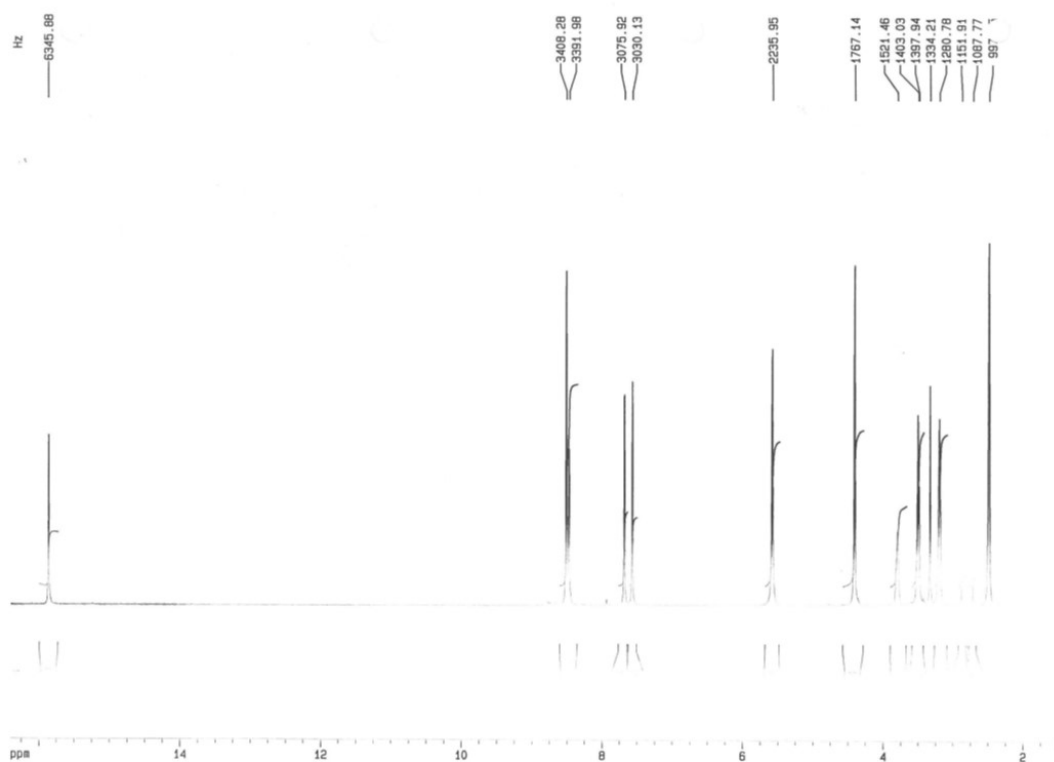


Figure S20. ^{13}C NMR spectrum of compound **19**.

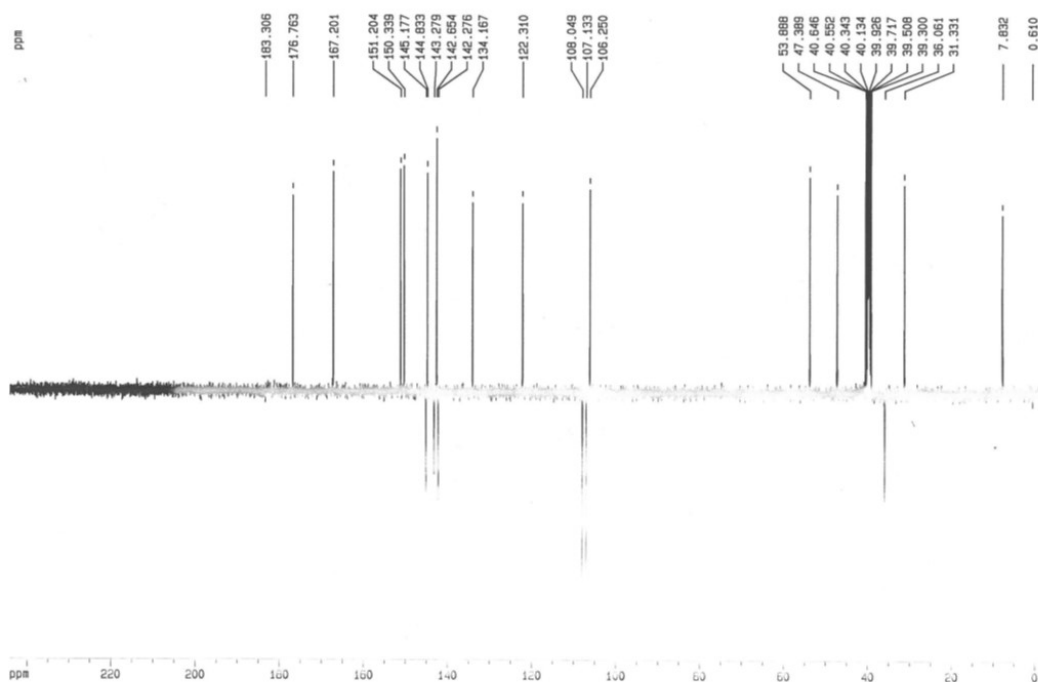


Figure S21. ^1H NMR spectrum of compound **20**.

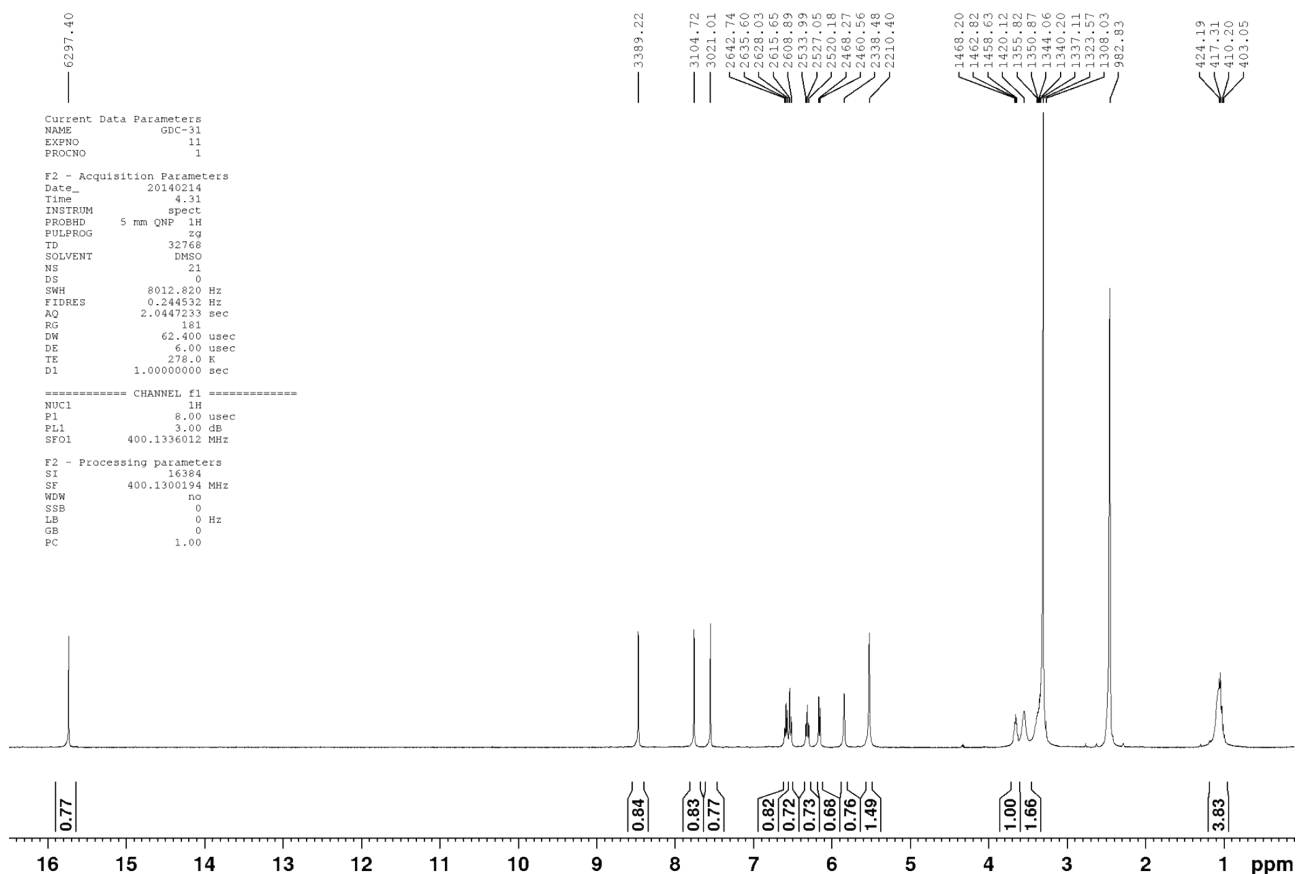


Figure S22. ^{13}C NMR spectrum of compound **20**.

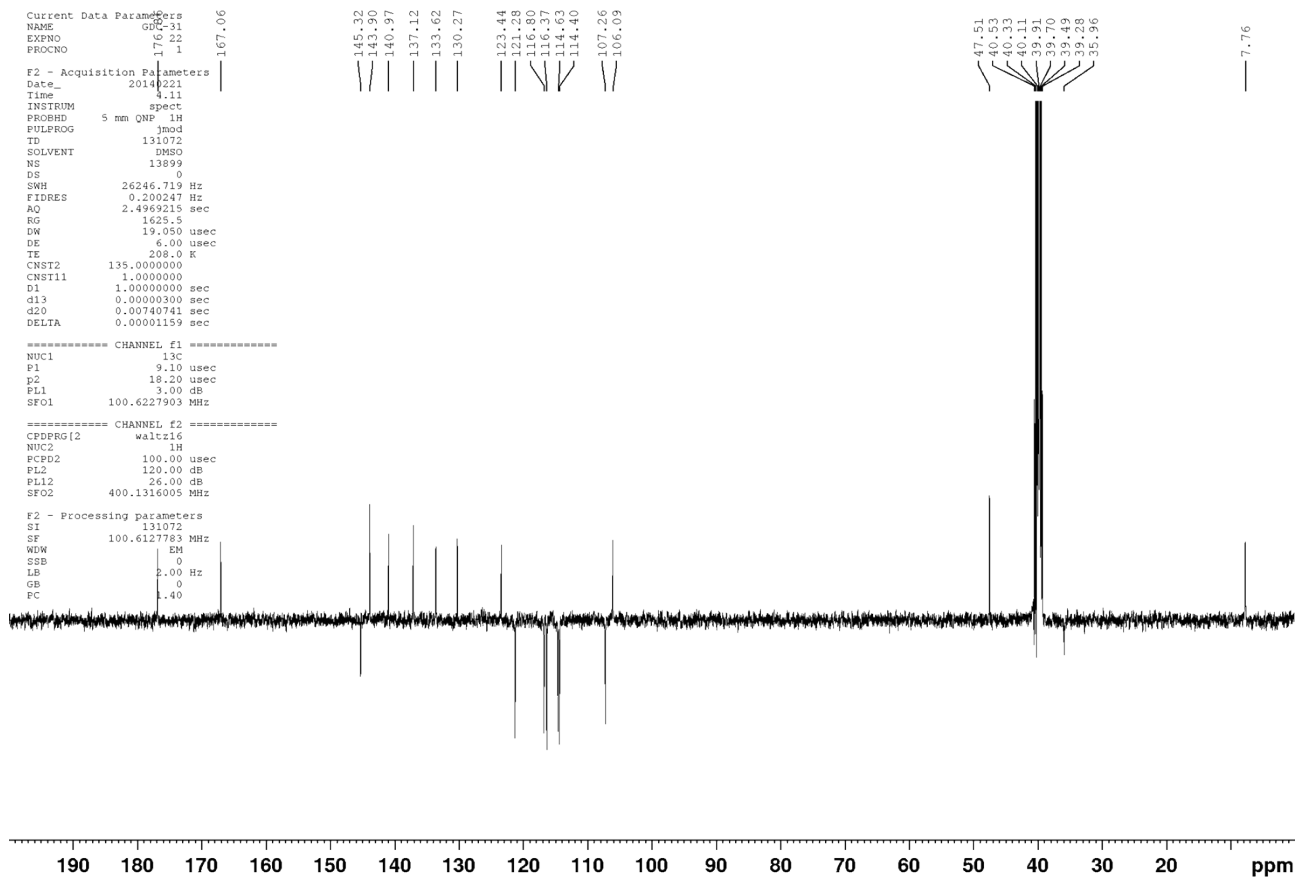


Figure S23. ^1H NMR spectrum of compound **21**.

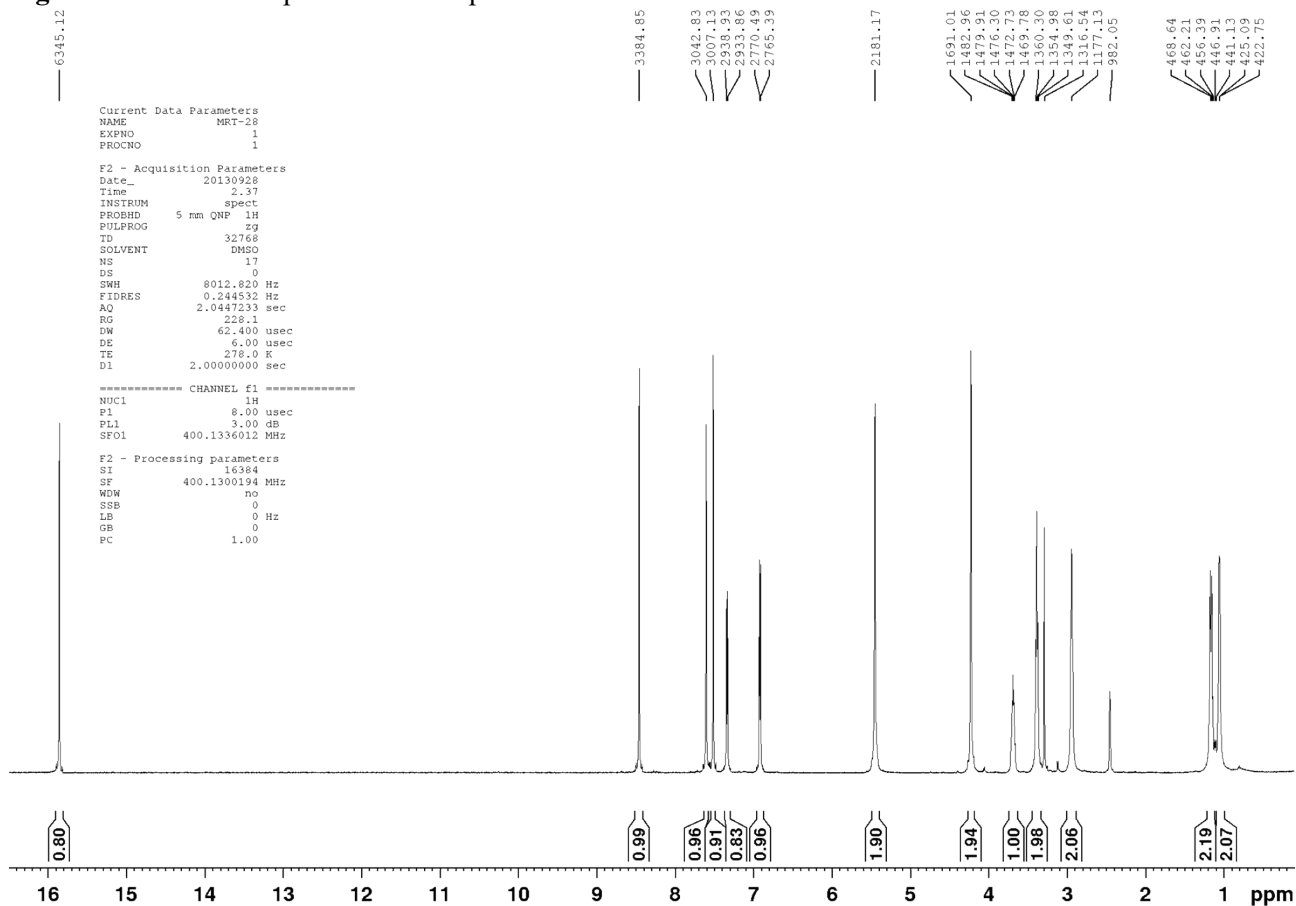


Figure S24. ^{13}C NMR spectrum of compound **21**.

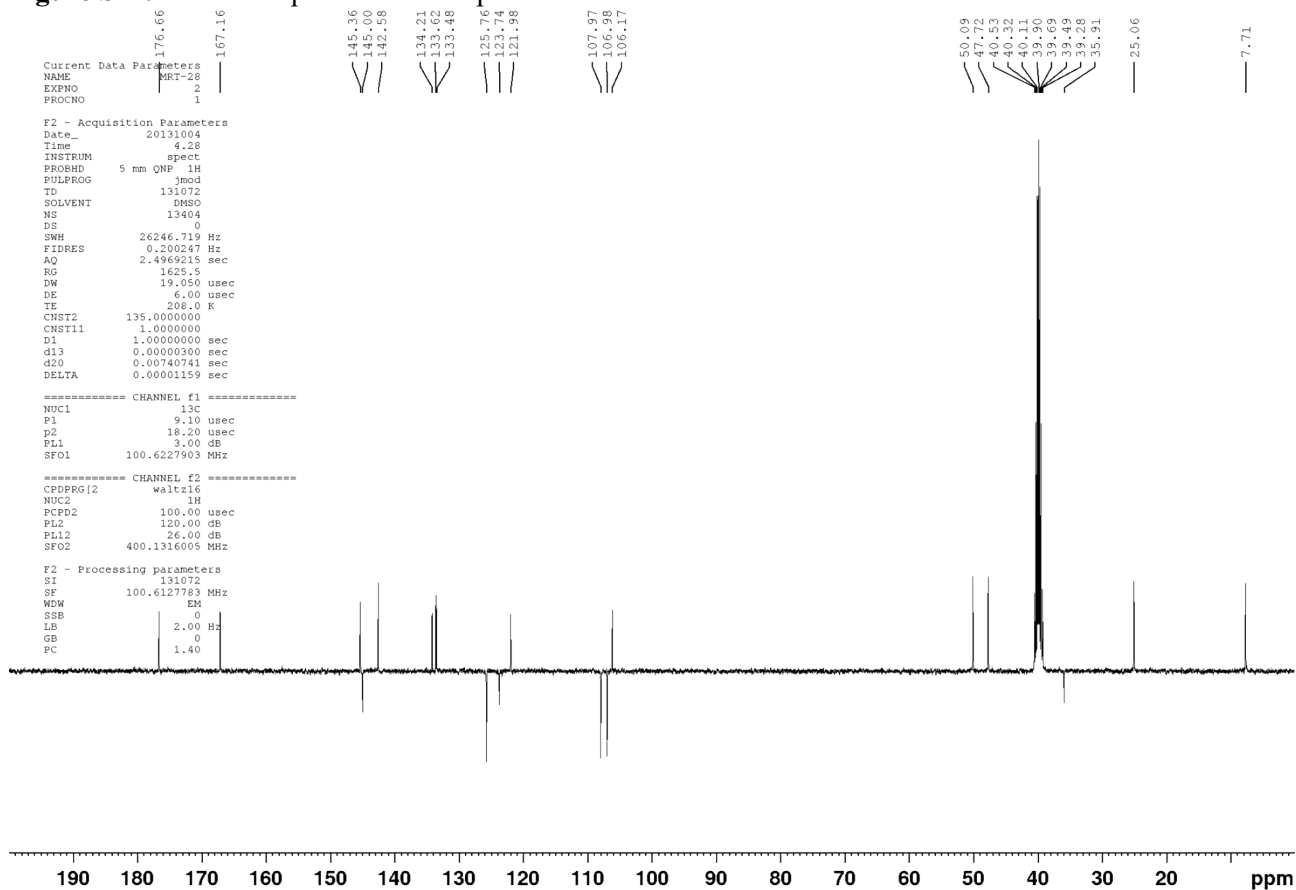


Figure S25. ^1H NMR spectrum of compound **22**.

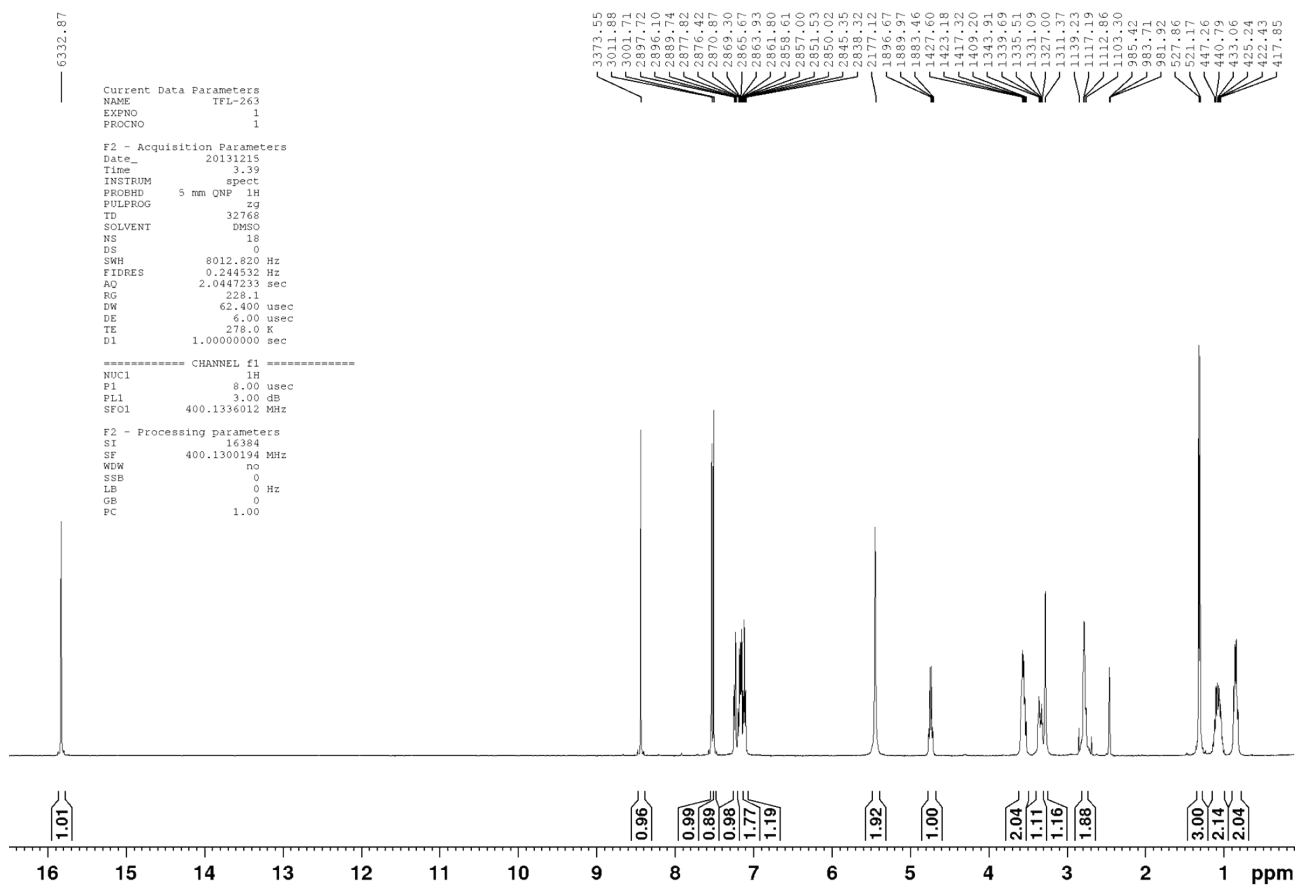
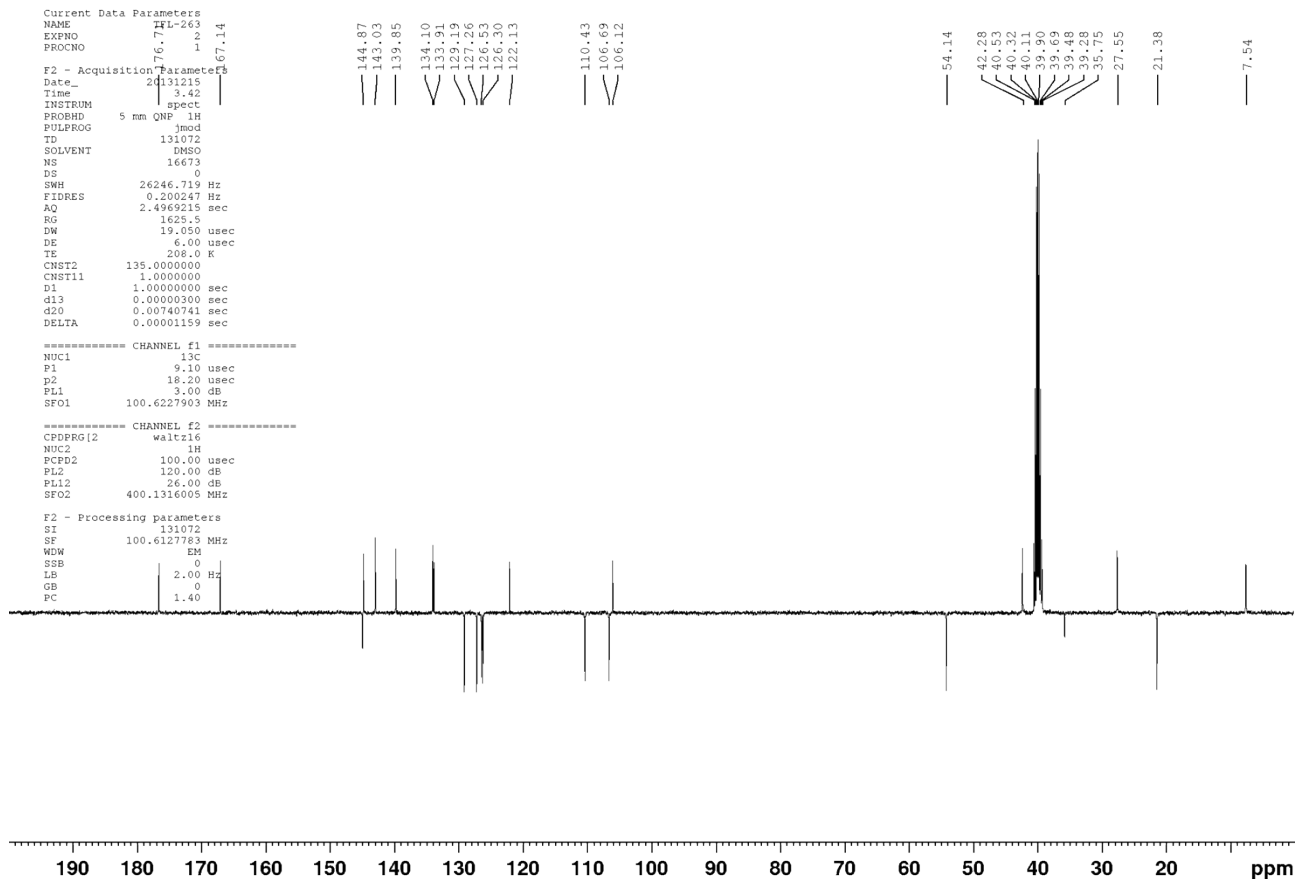


Figure S26. ^{13}C NMR spectrum of compound **22**.



324.5

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PROCNO 1

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DE 6.00 usec
TE 278.0 K
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PL1 3.00 dB
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F2 - Processing parameters
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WDW no
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GB 0
PC 1.00

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0.78, 0.97, 1.00, 0.89, 3.96, 1.95, 0.96, 1.00, 0.99, 1.00, 2.05, 1.07, 1.05, 1.06, 2.11, 2.11

Current Data Parameters

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PROCNO	1

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FDRES	0.200247 Hz
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DE	6.00 usec
TE	298.0 K
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CNST11	1.0000000
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p2	18.20 usec
PL1	3.00 dB
FO1	100.6227903 MHz

===== CHANNEL f2 =====

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PL12	26.00 dB
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F2 - Processing parameters

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Figure S29. ^1H NMR spectrum of compound **24**.

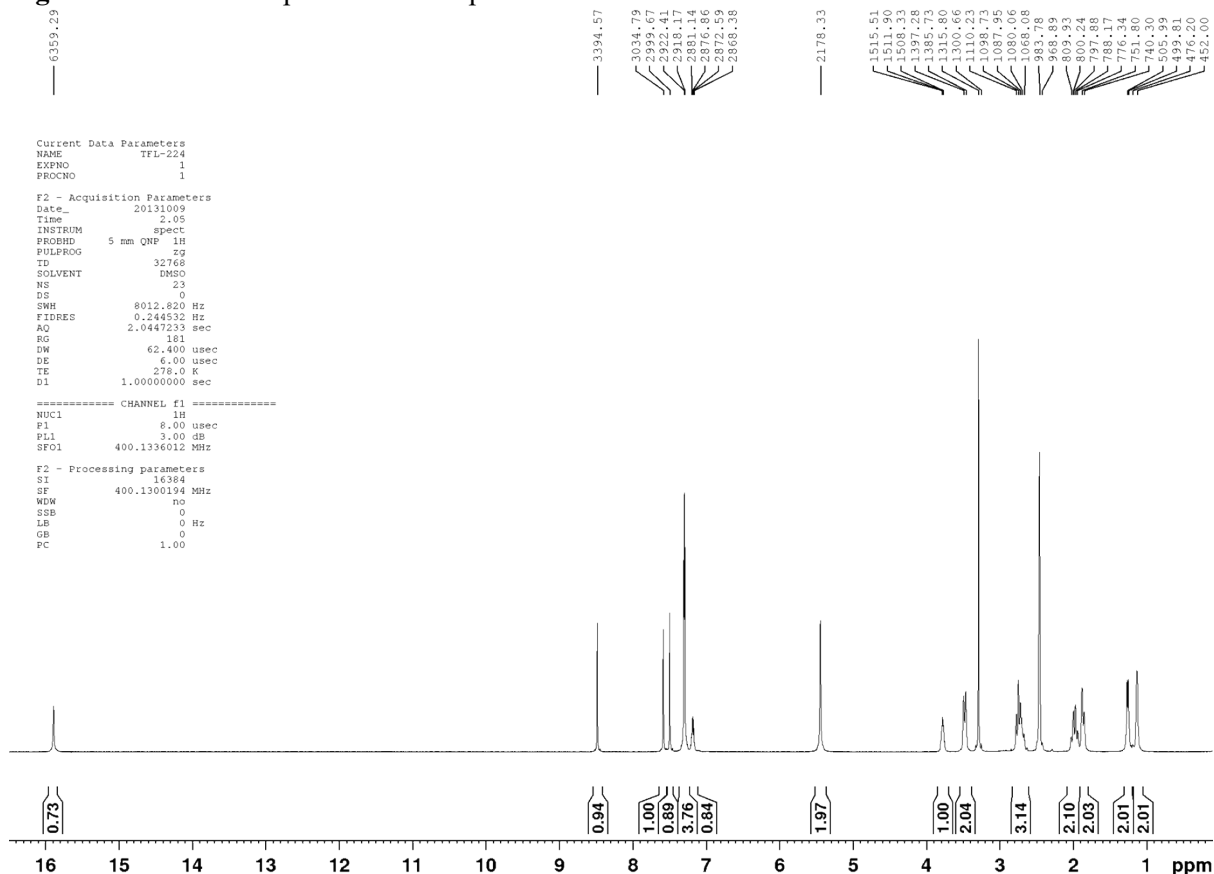


Figure S30. ^{13}C NMR spectrum of compound **24**.

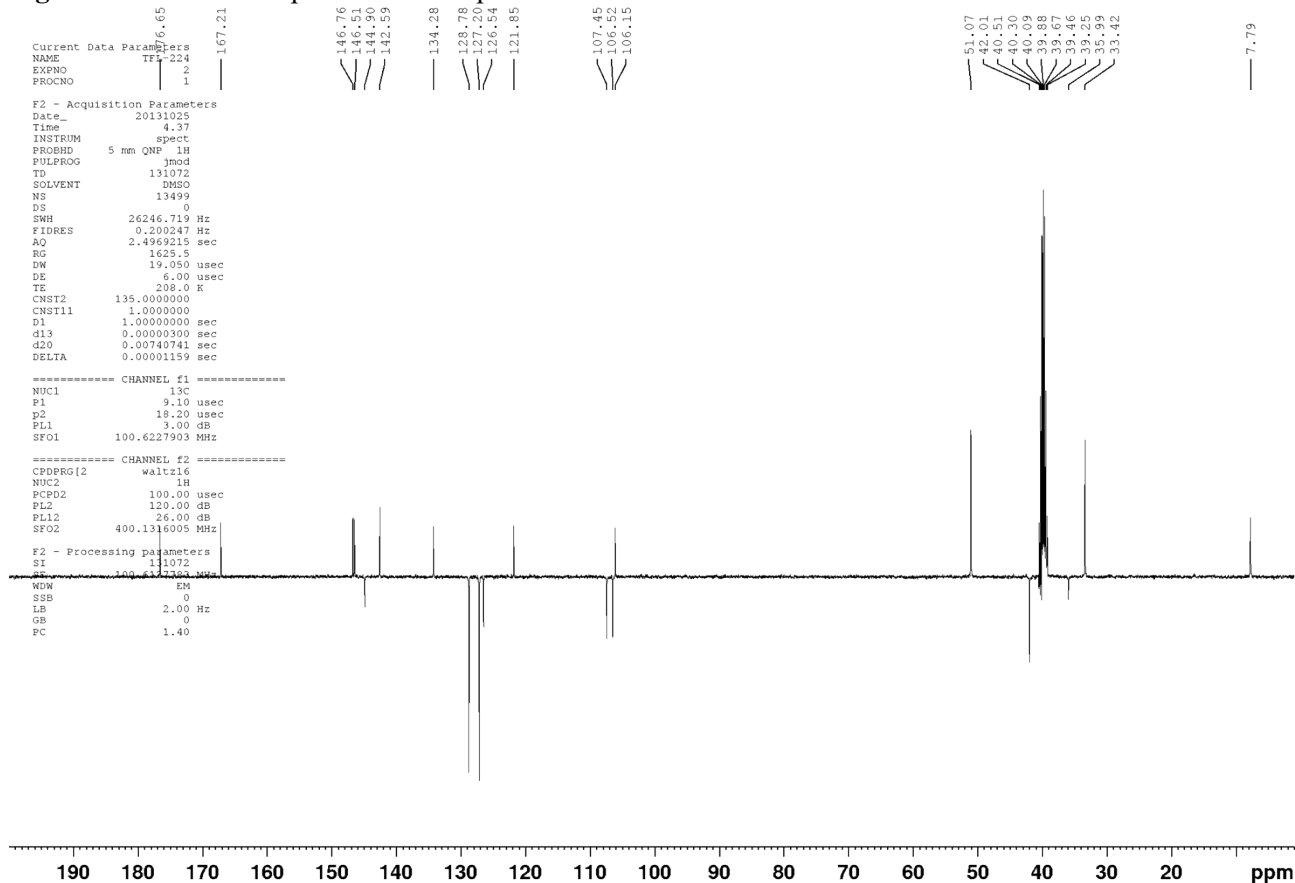


Figure S31. ^1H NMR spectrum of compound **25**.

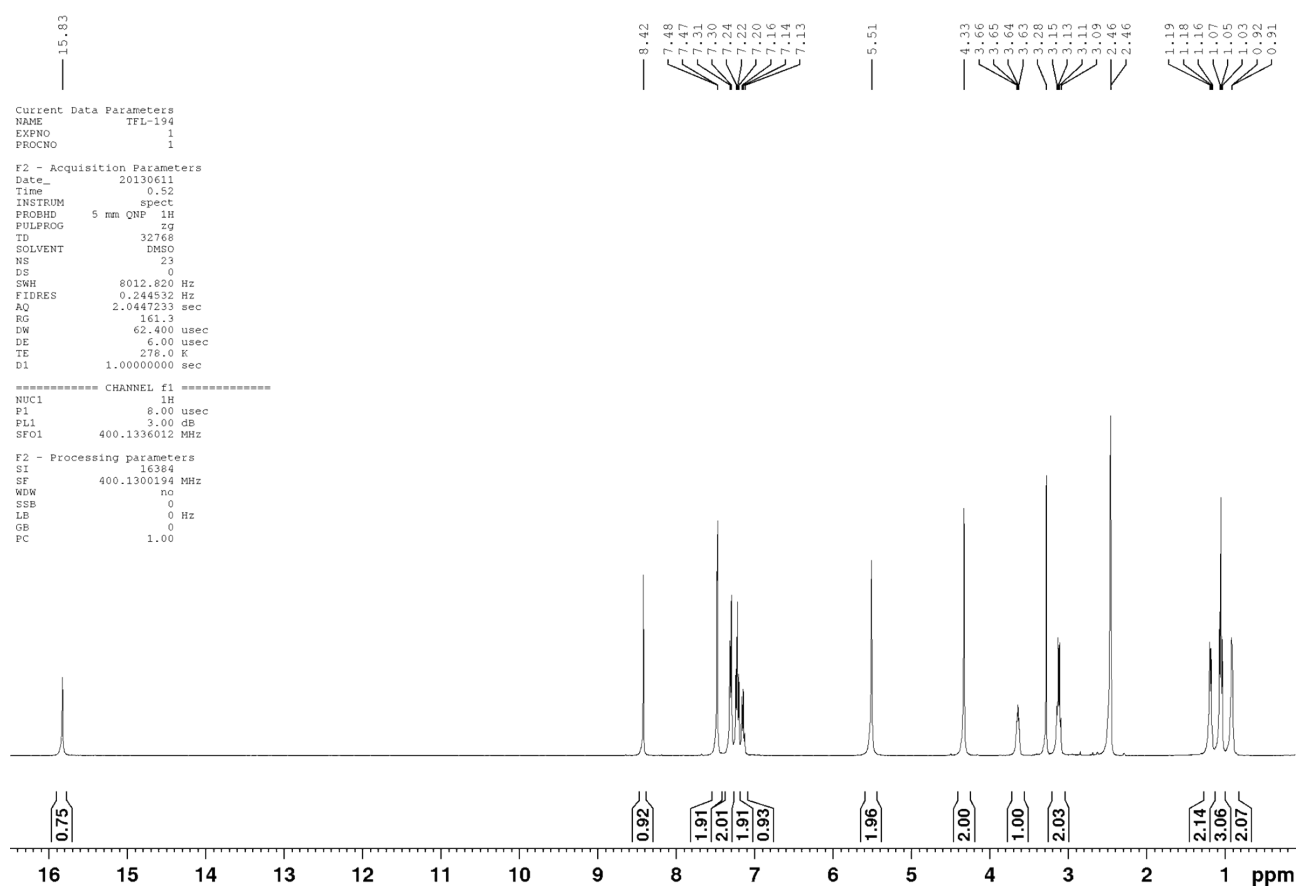


Figure S32. ^{13}C NMR spectrum of compound **25**.

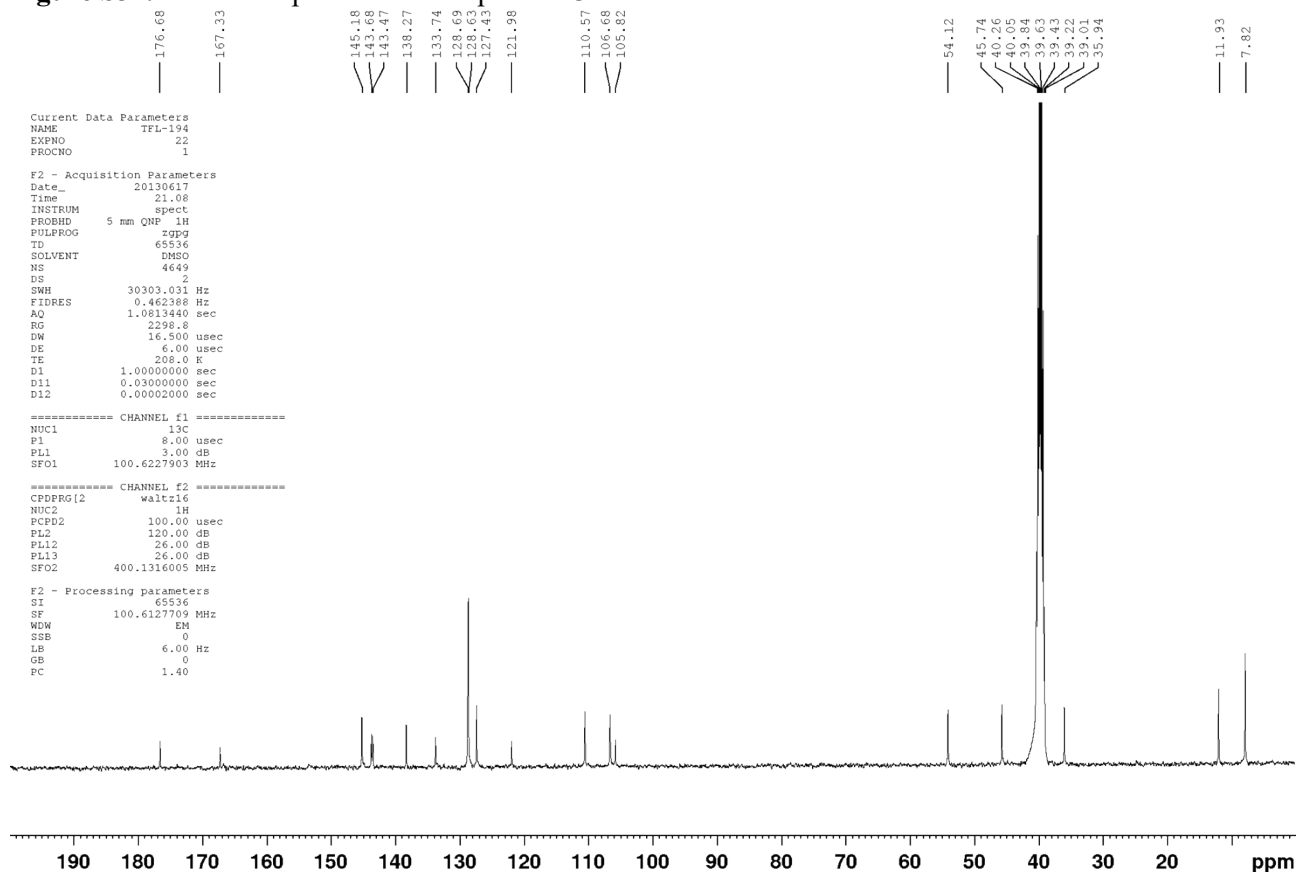


Figure S33. ^1H NMR spectrum of compound **26**.

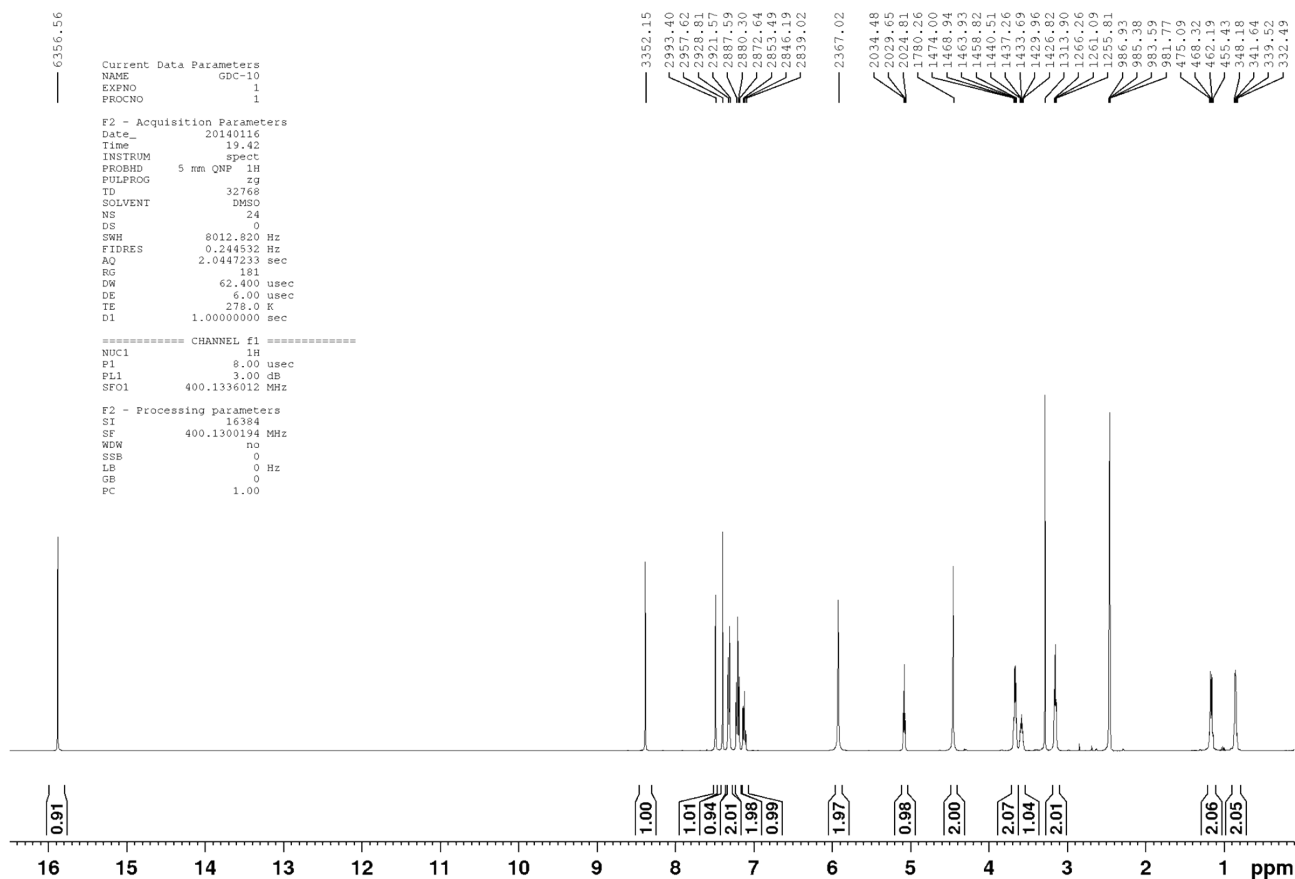


Figure S34. ^{13}C NMR spectrum of compound **26**.

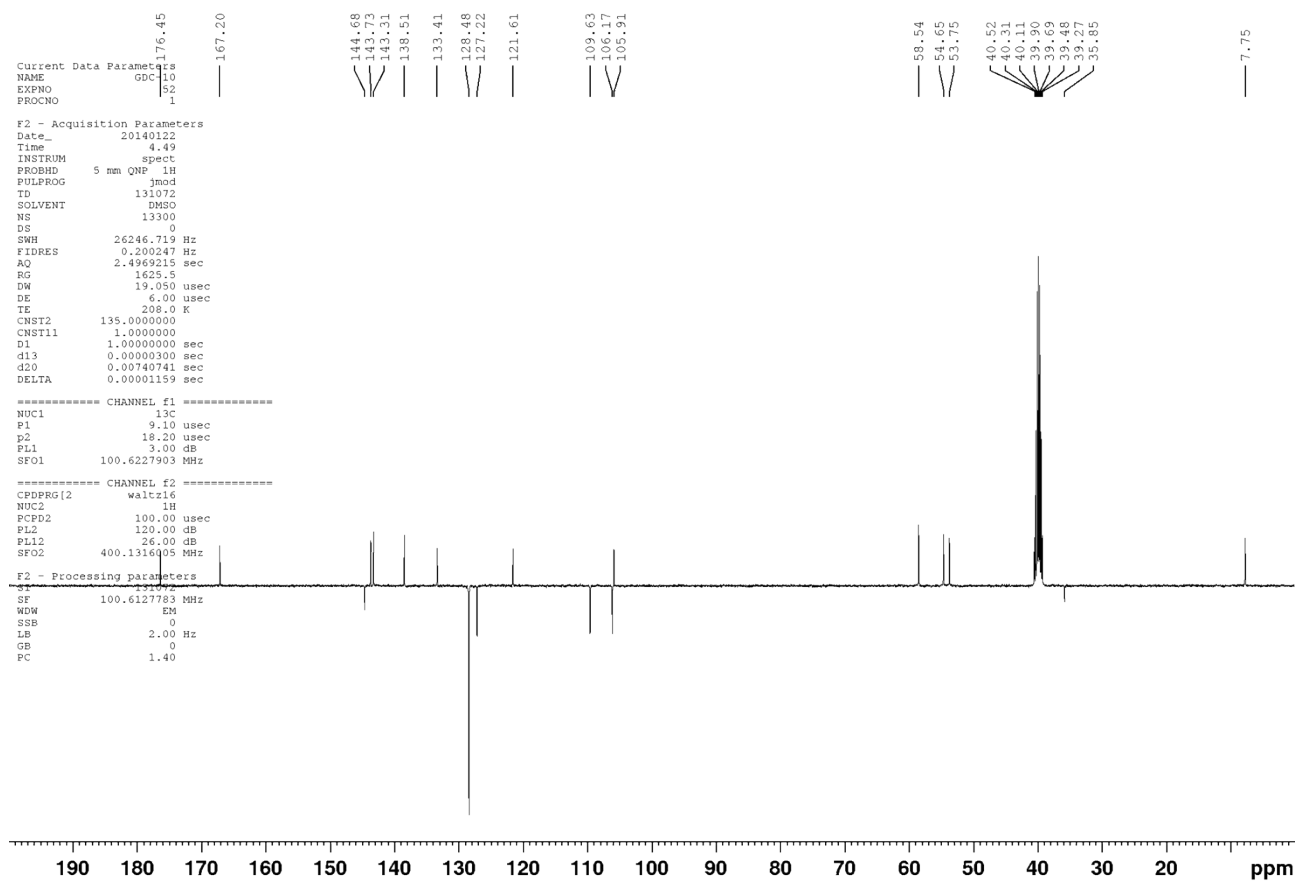


Figure S35. ^1H NMR spectrum of compound **27**.

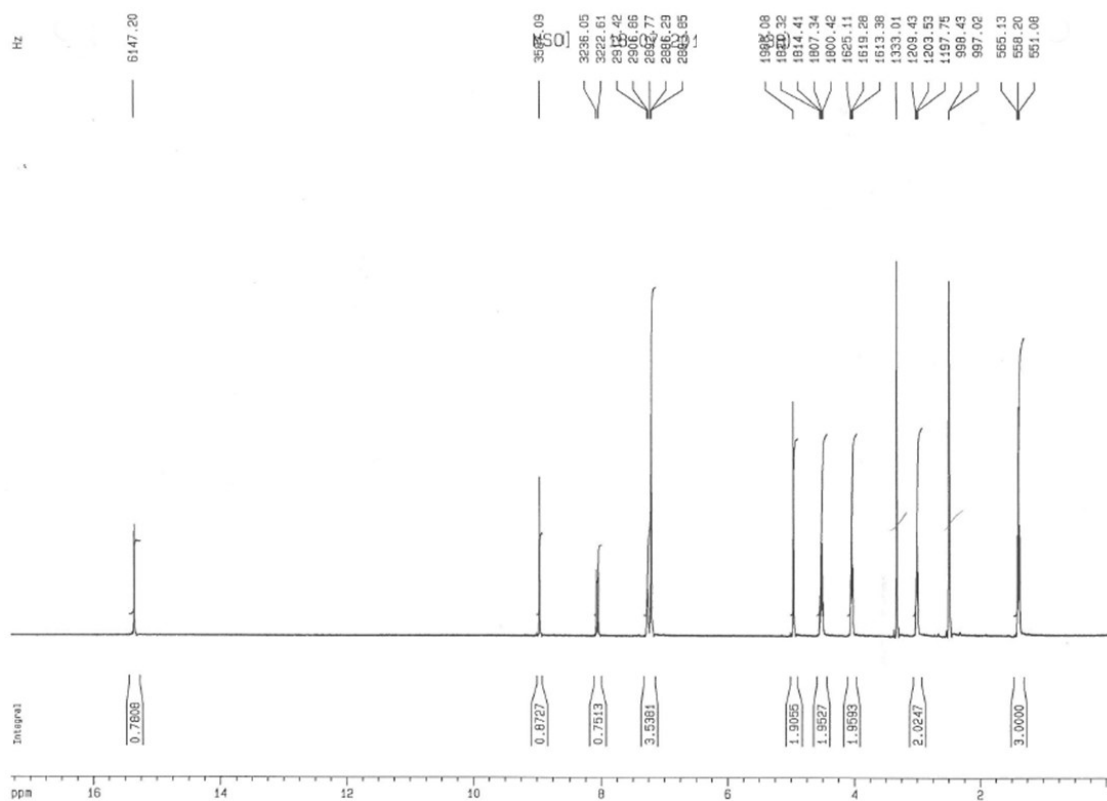


Figure S36. ^{13}C NMR spectrum of compound **27**.

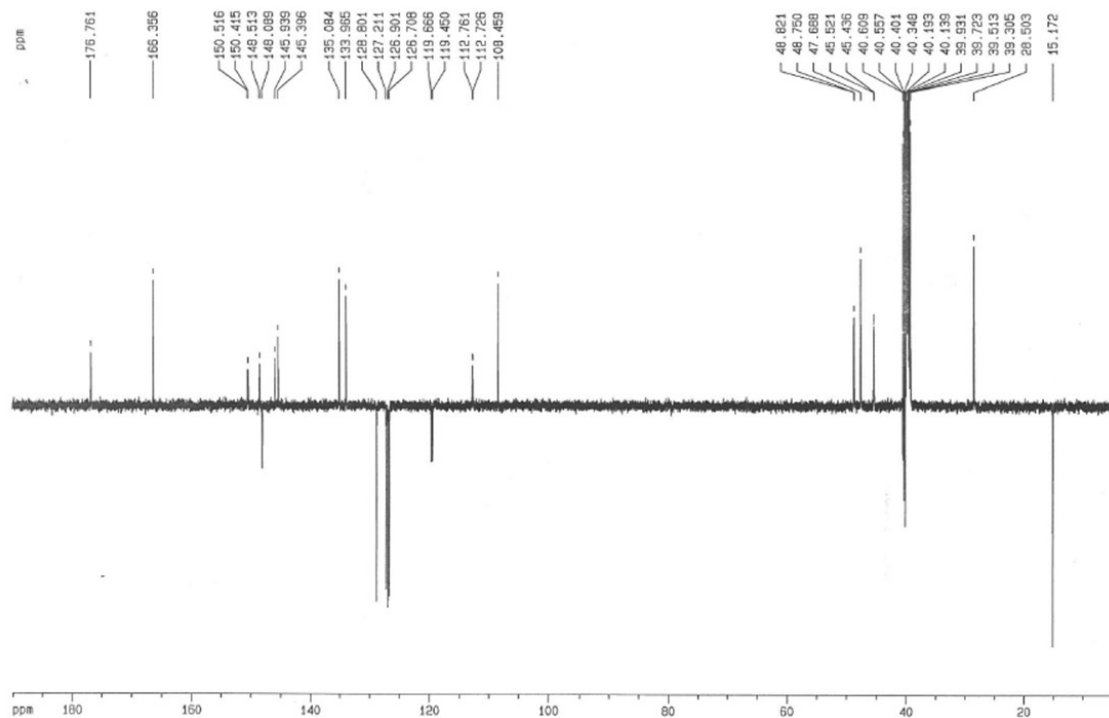


Figure S37. ^1H NMR spectrum of compound **28**.

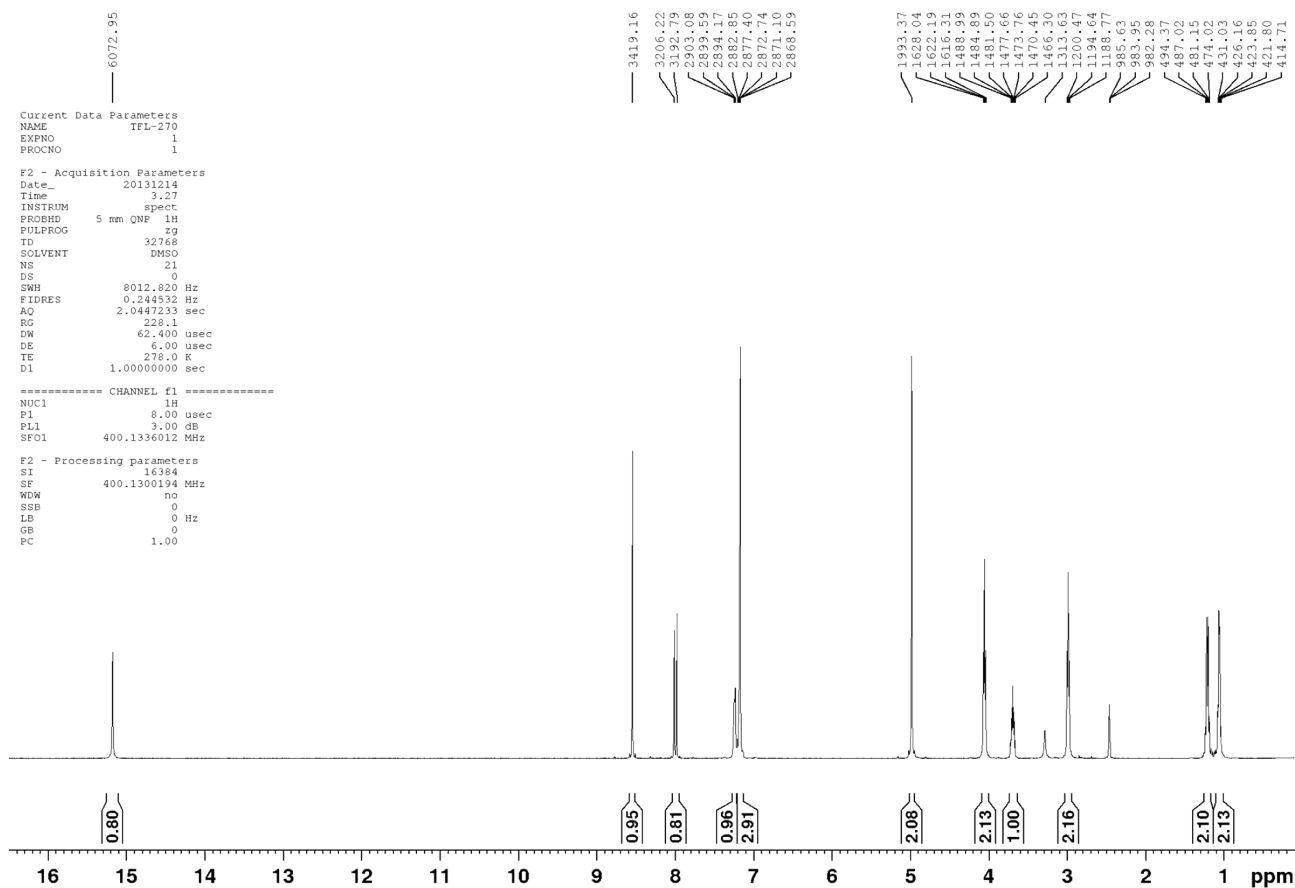


Figure S38. ^{13}C NMR spectrum of compound **28**.

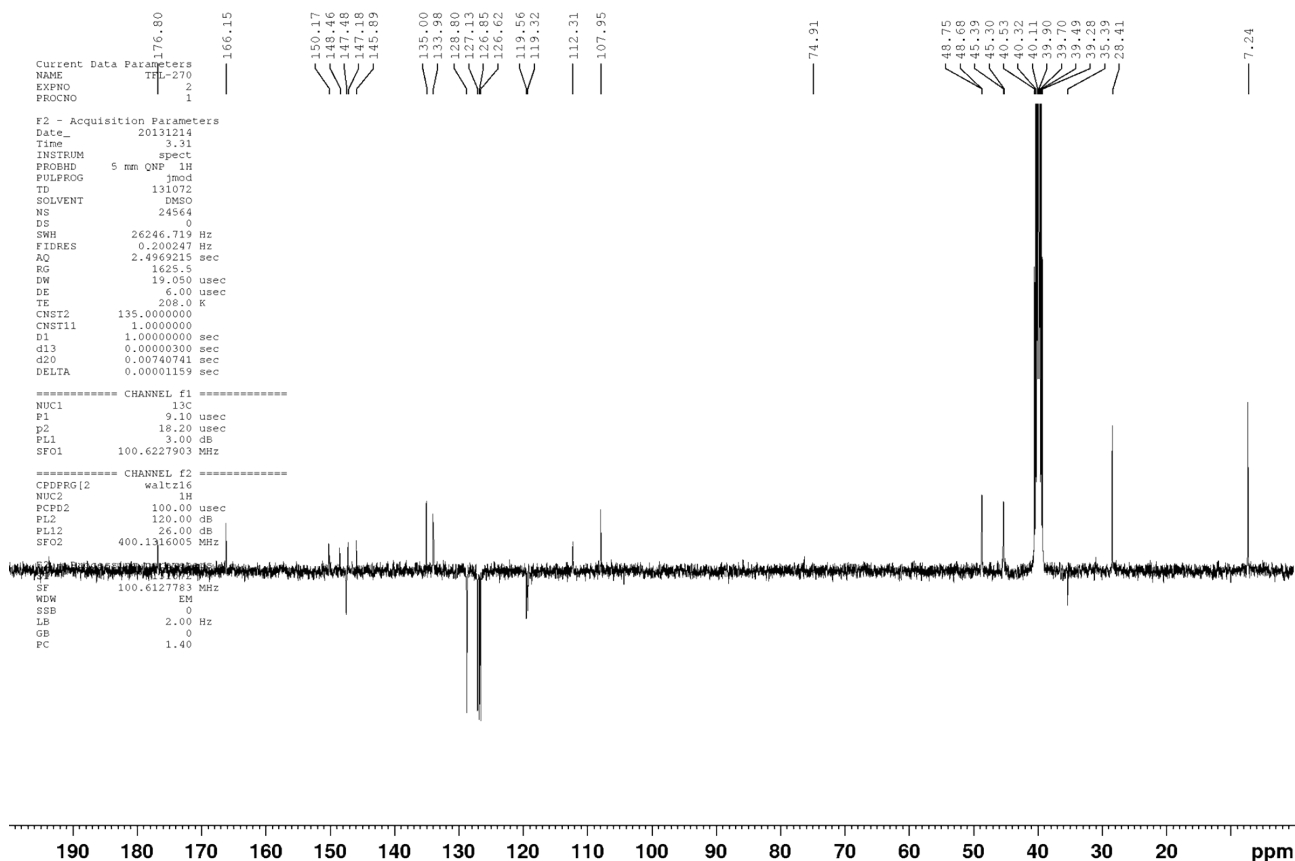


Figure S39. ^1H NMR spectrum of compound **29**.

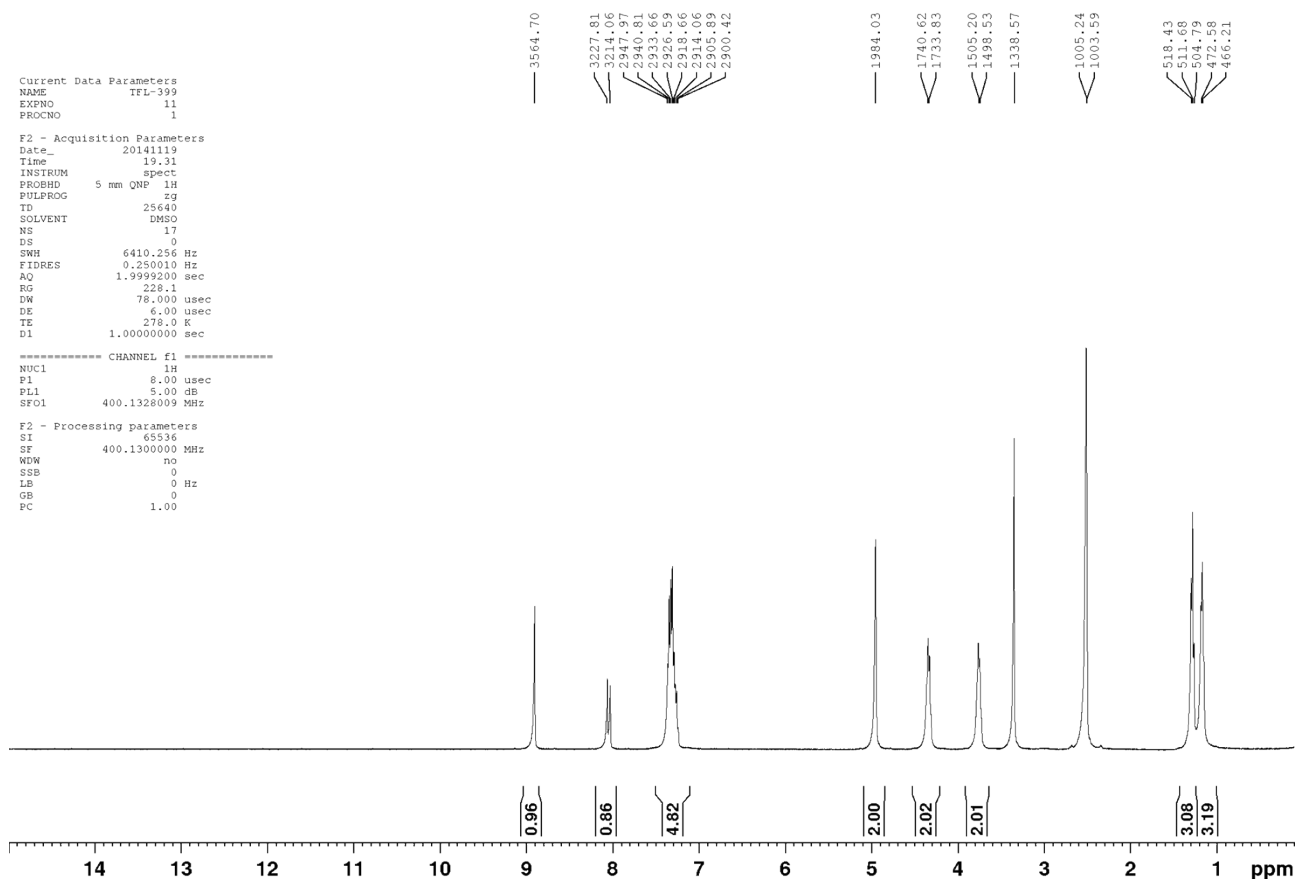


Figure S40. ^{13}C NMR spectrum of compound **29**.

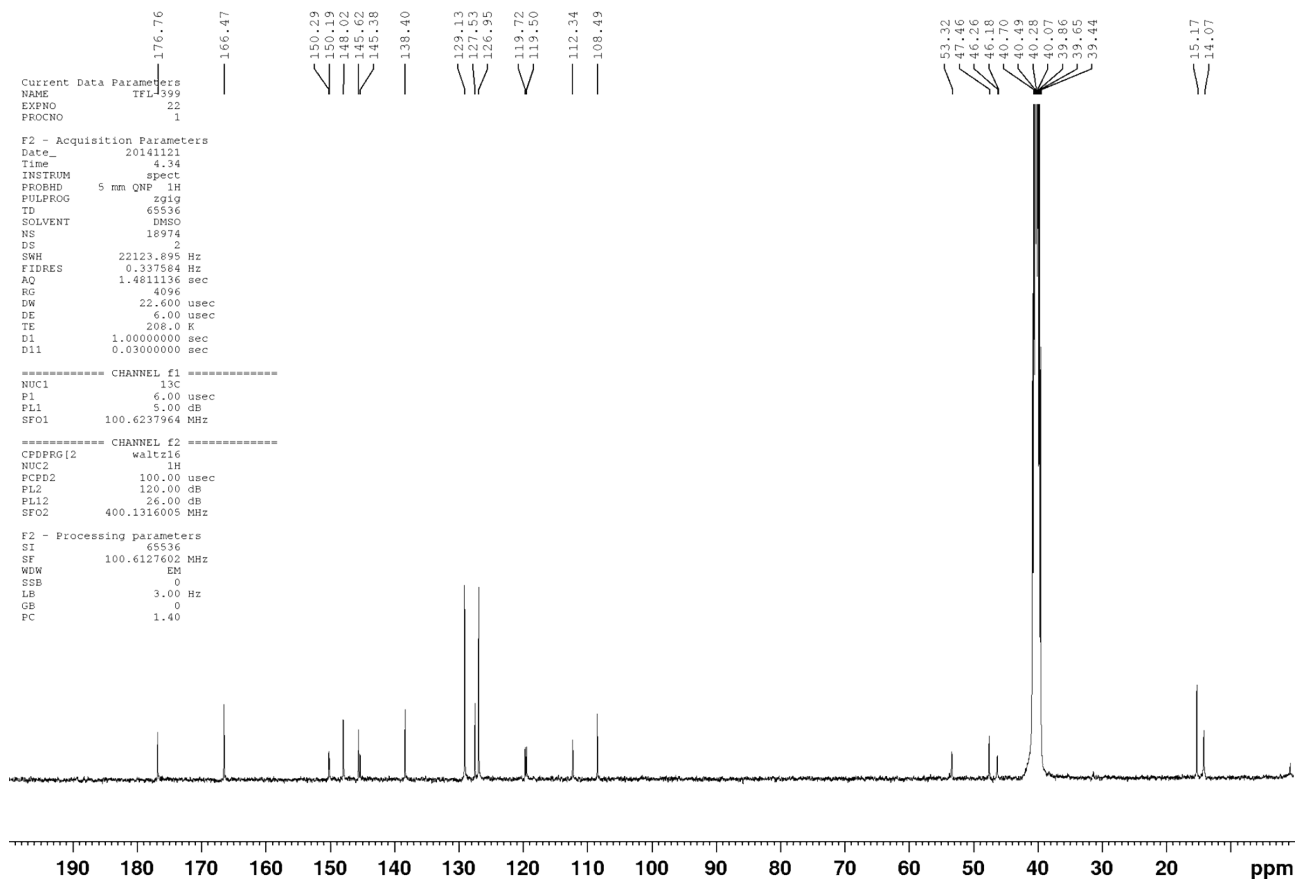


Figure S41. ^1H NMR spectrum of compound **30**.

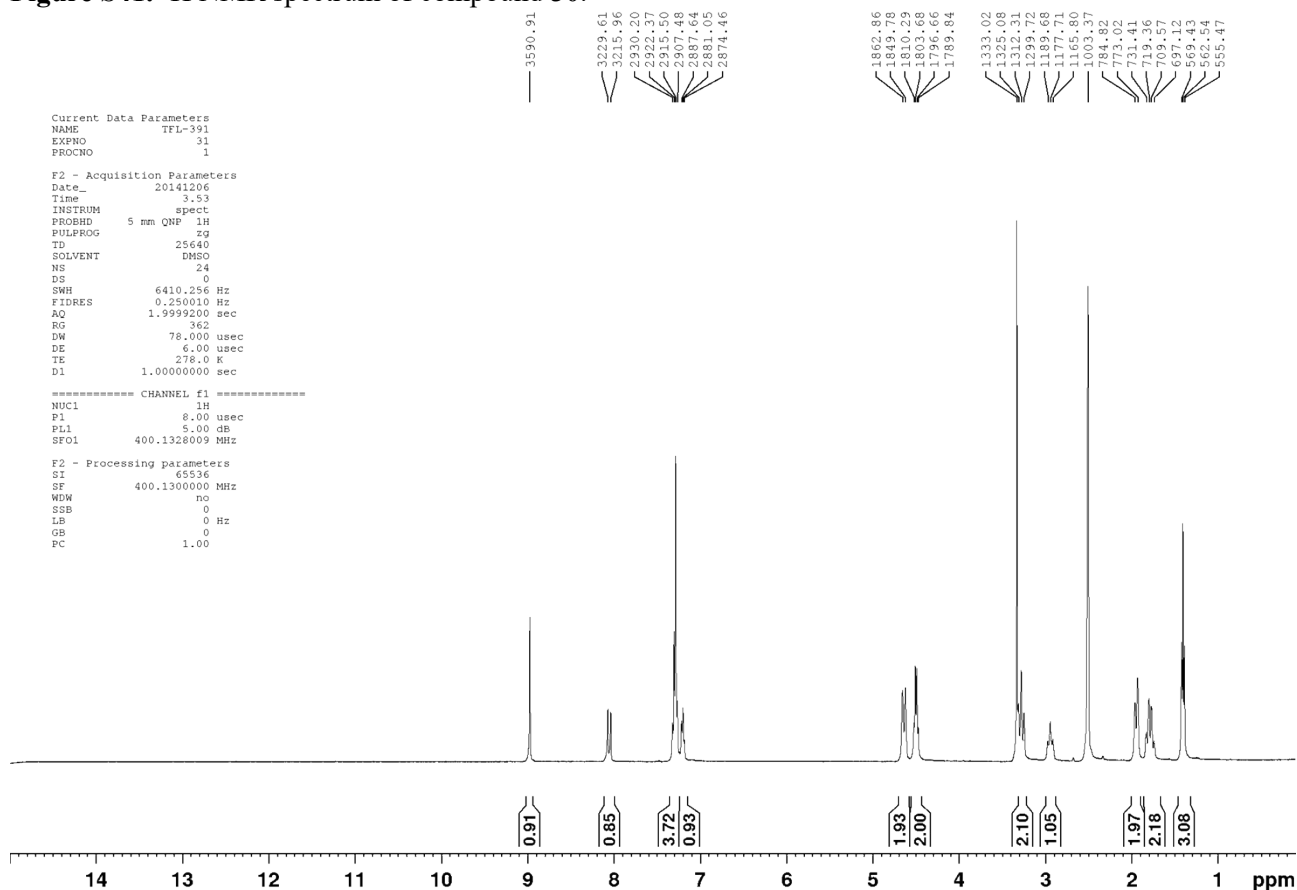


Figure S42. ^{13}C NMR spectrum of compound **30**.

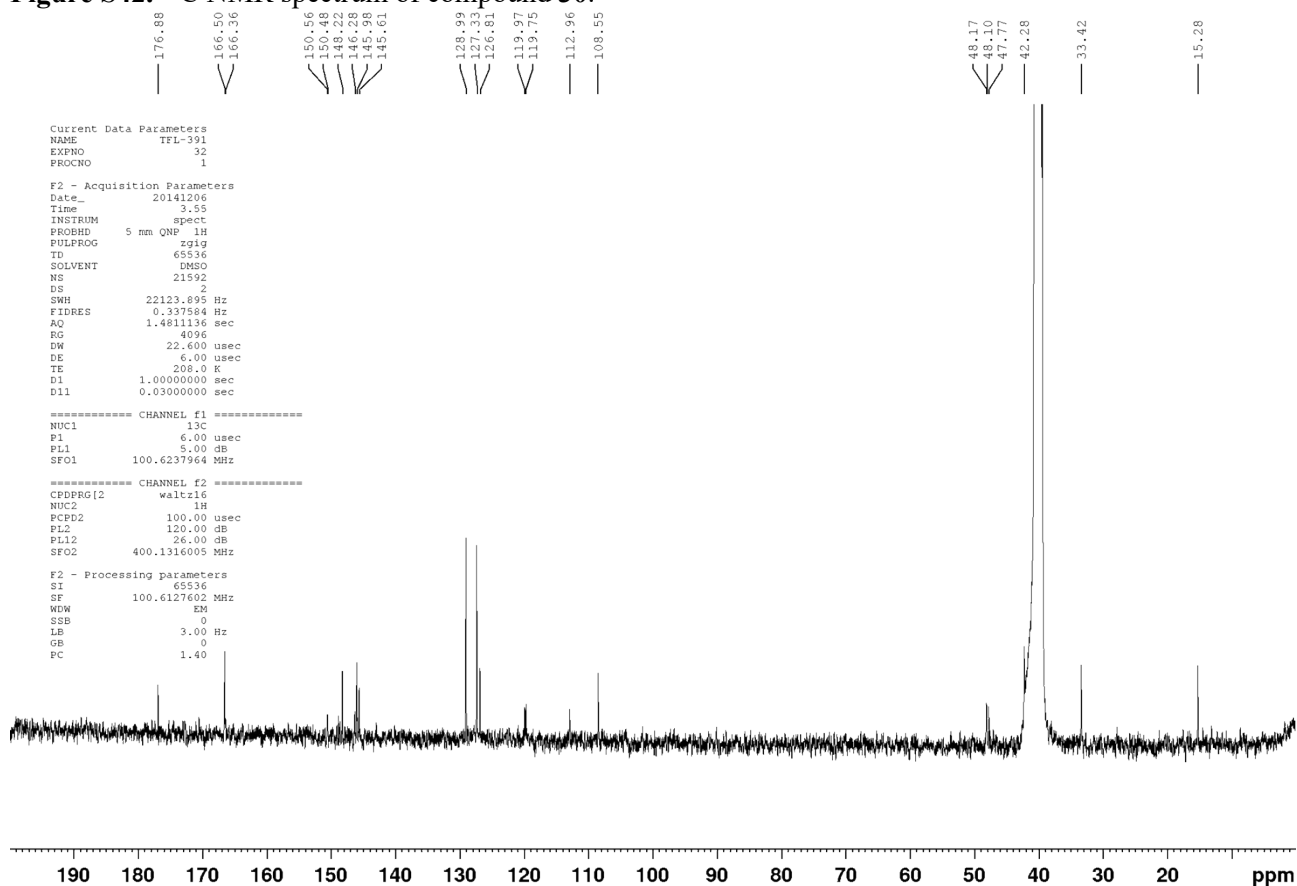


Figure S43. ^1H NMR spectrum of compound **31**.

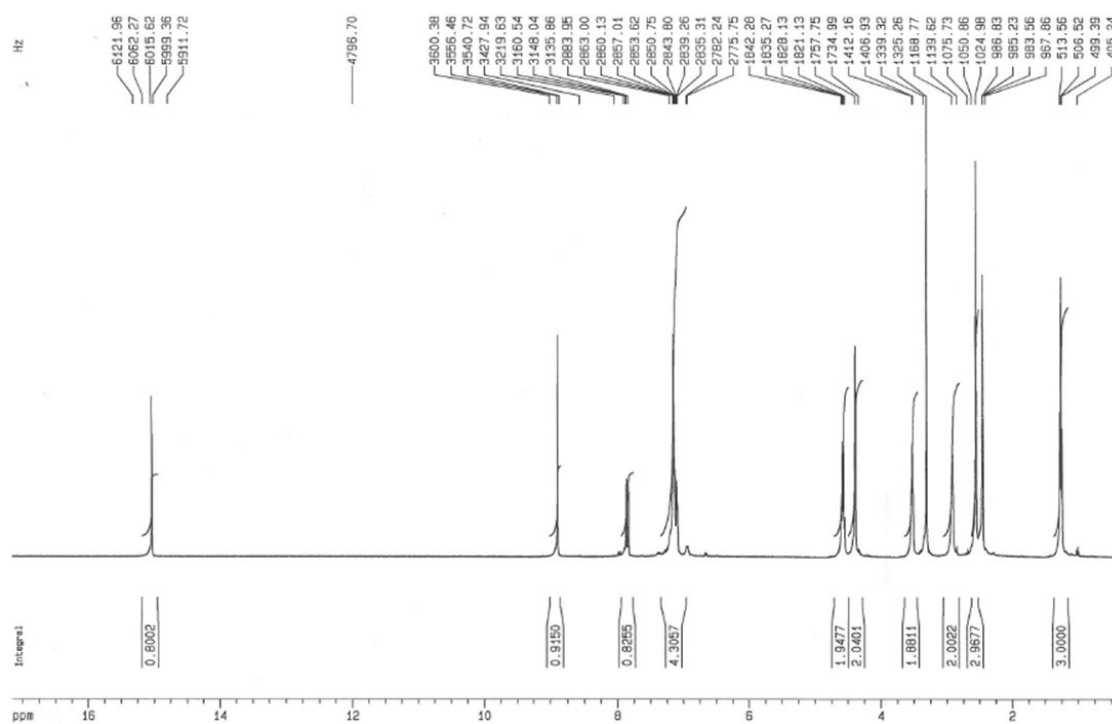


Figure S44. ^{13}C NMR spectrum of compound **31**.

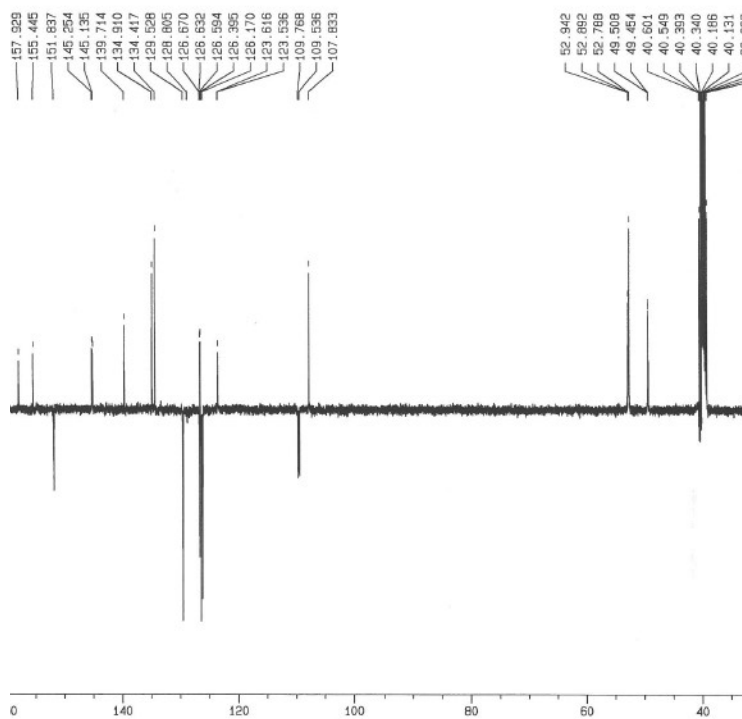


Figure S45. ^1H NMR spectrum of compound **32**.

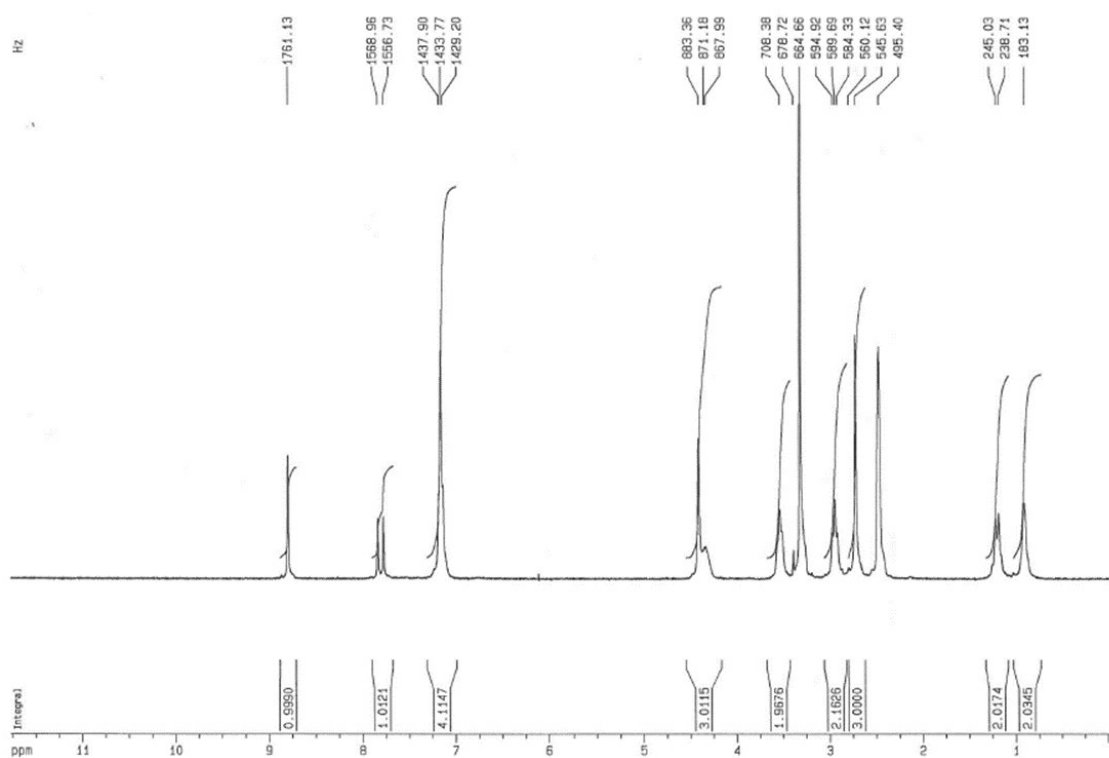
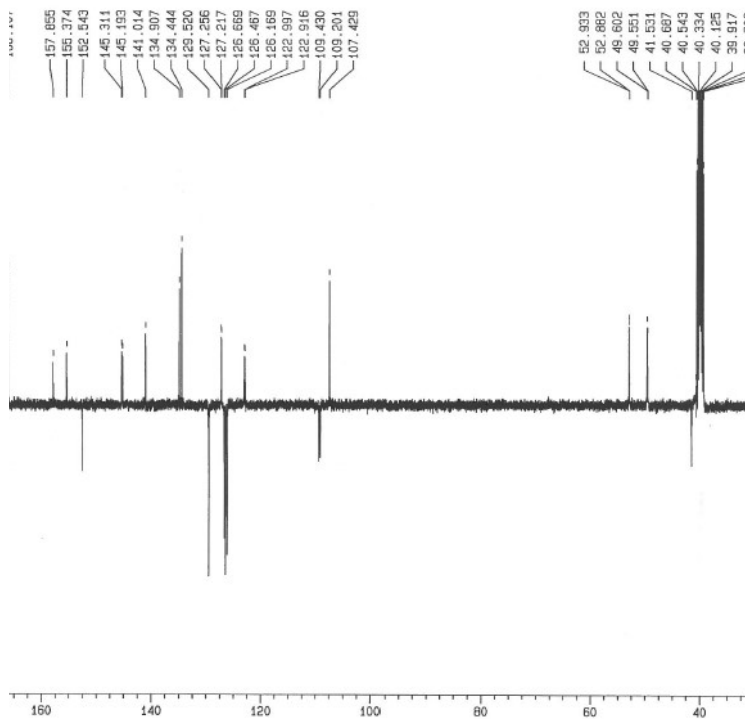


Figure S46. ^{13}C NMR spectrum of compound **32**.



Chemical shifts (ppm) listed on the right side of the spectrum:

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- 15.083.92
- 14.961.90
- 14.824.27
- 14.750.14
- 14.627.08
- 14.500.00
- 14.375.00
- 14.250.00
- 14.125.00
- 14.000.00
- 13.875.00
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ppm

176.674

166.367

154.264

151.792

149.274

144.922

144.923

139.645

134.541

133.654

129.001

127.002

126.845

126.515

118.321

118.245

111.492

111.261

107.012

106.020

51.315

48.275

48.205

40.597

40.533

40.380

40.324

40.173

40.114

39.907

39.695

39.490

39.281

36.181

28.399

7.895

ppm