SUPPLEMENTARY MATERIAL

Synthesis of novel 3-deoxy-3-thio derivatives of D-glucosamine and their application as ligands for the enantioselective addition of diethylzinc to benzaldehyde.

Authors

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Content

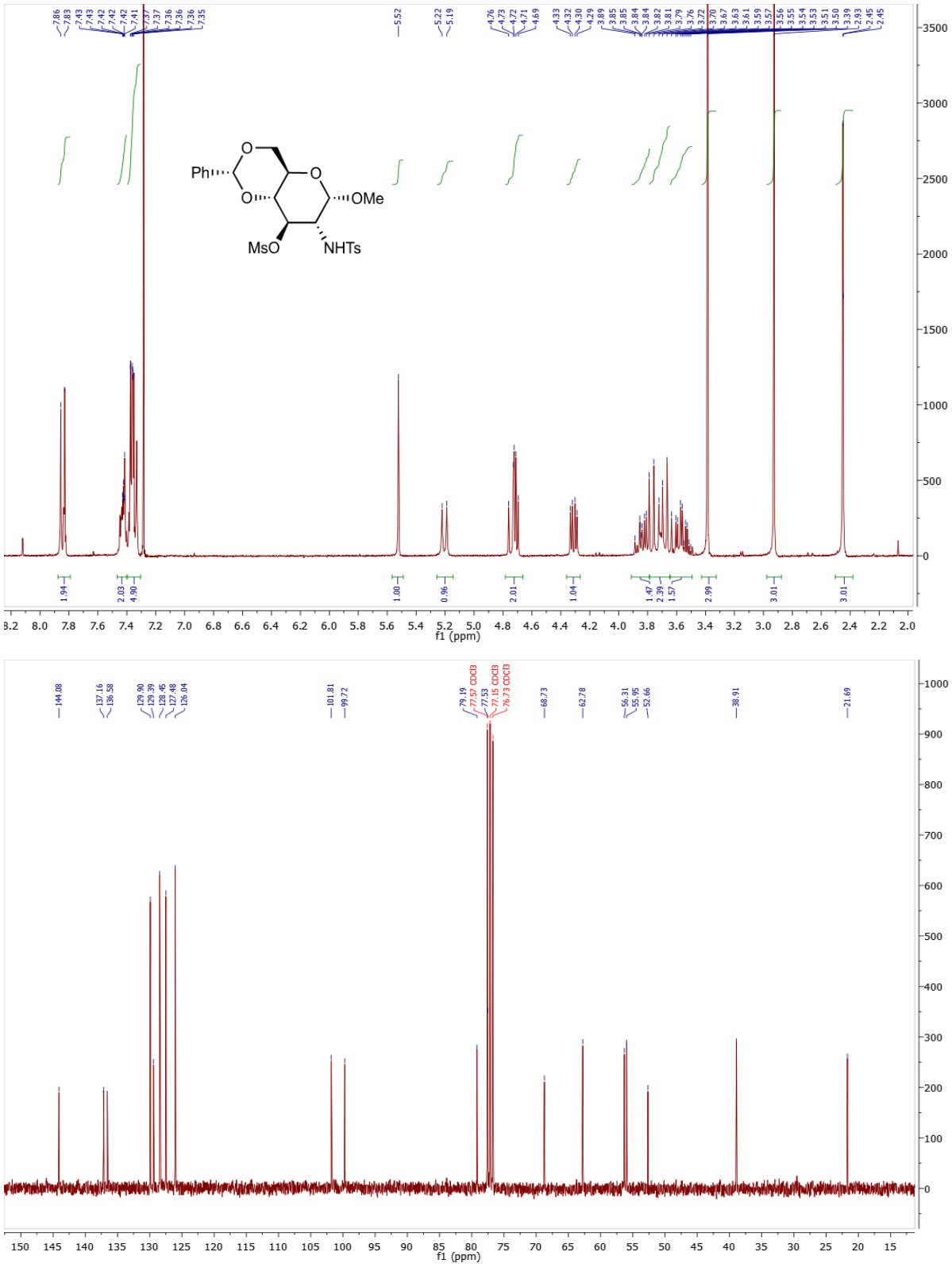

Fig. S1. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **6**

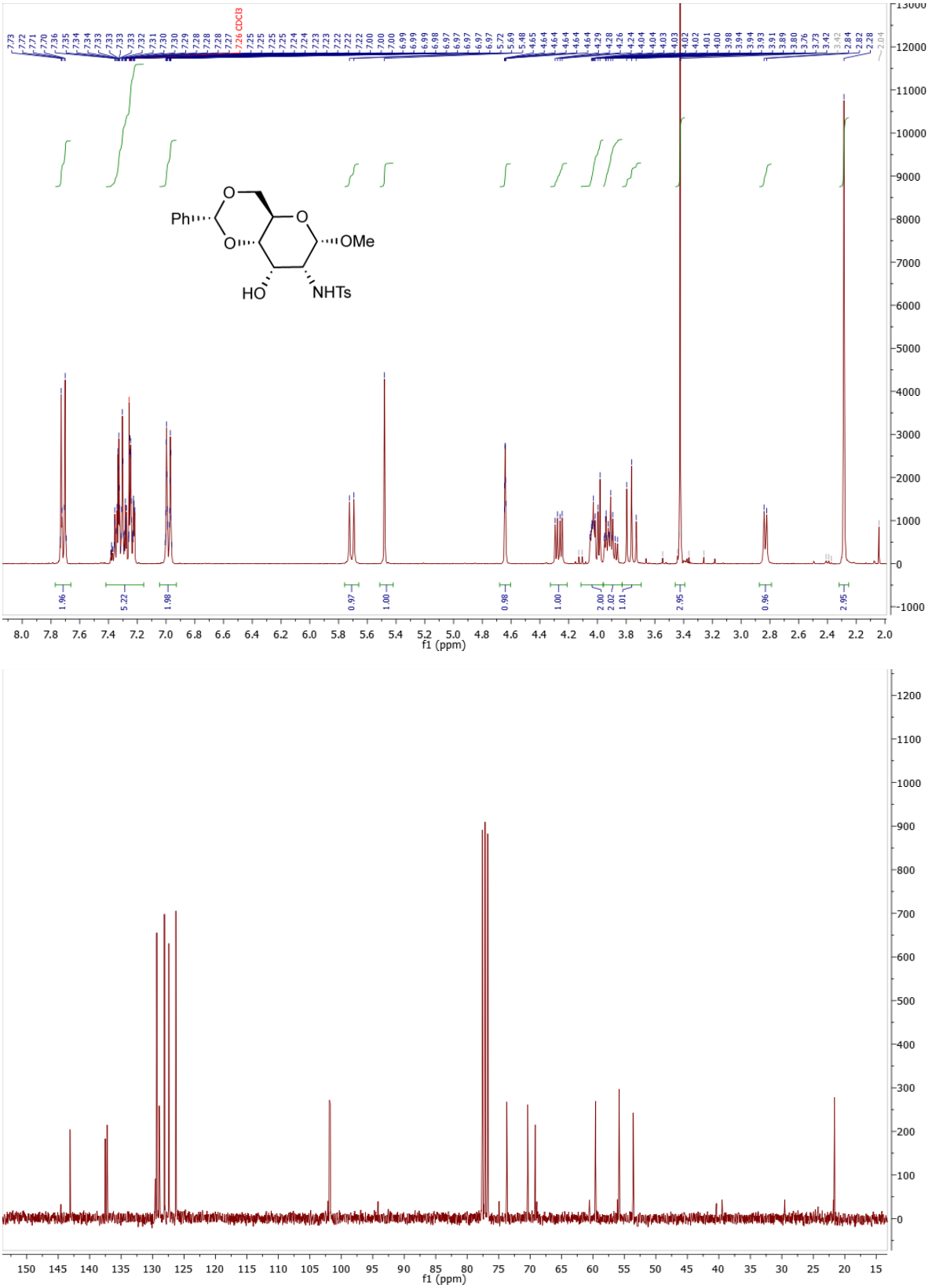

Fig. S2. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **7**

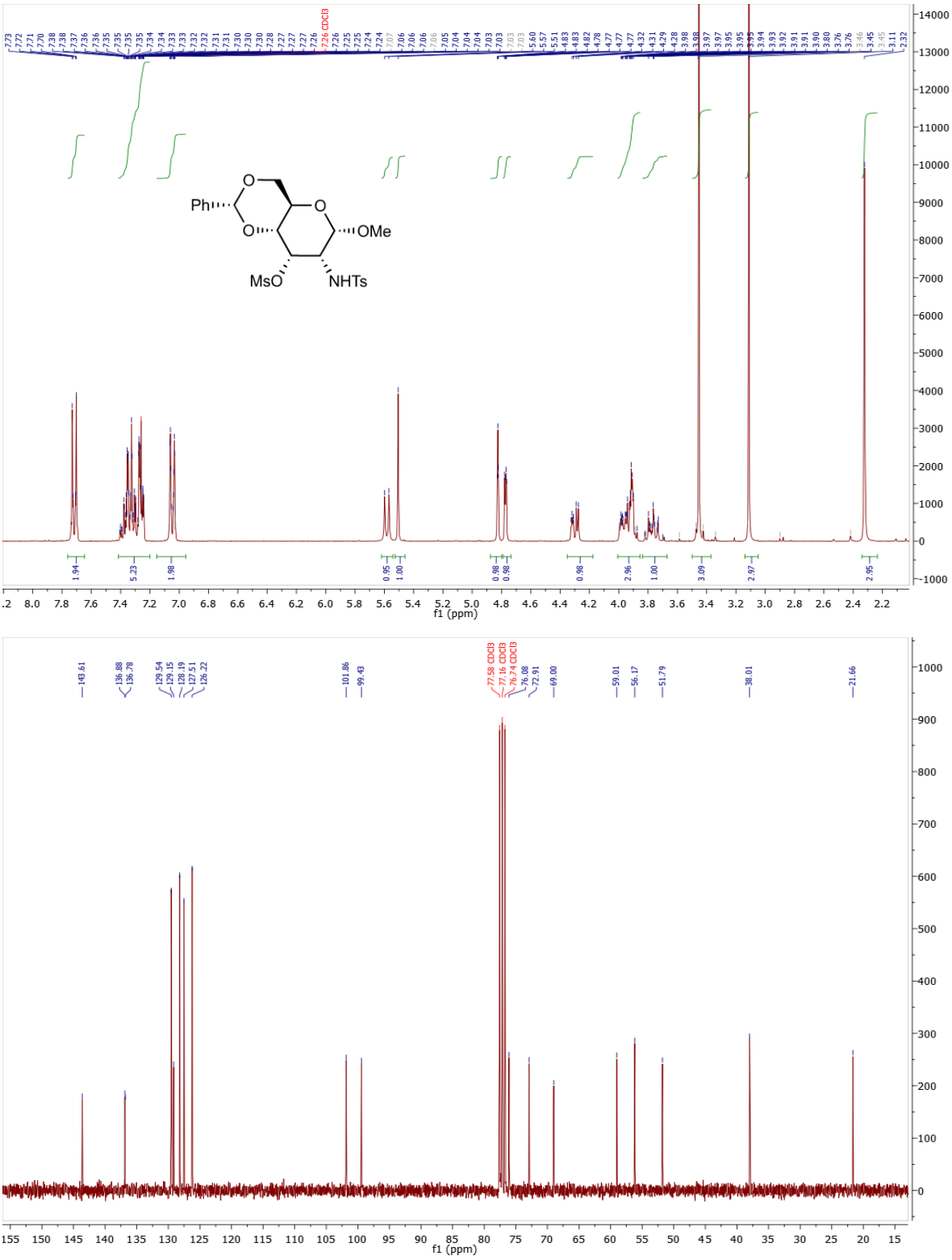

Fig. S3. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **8**

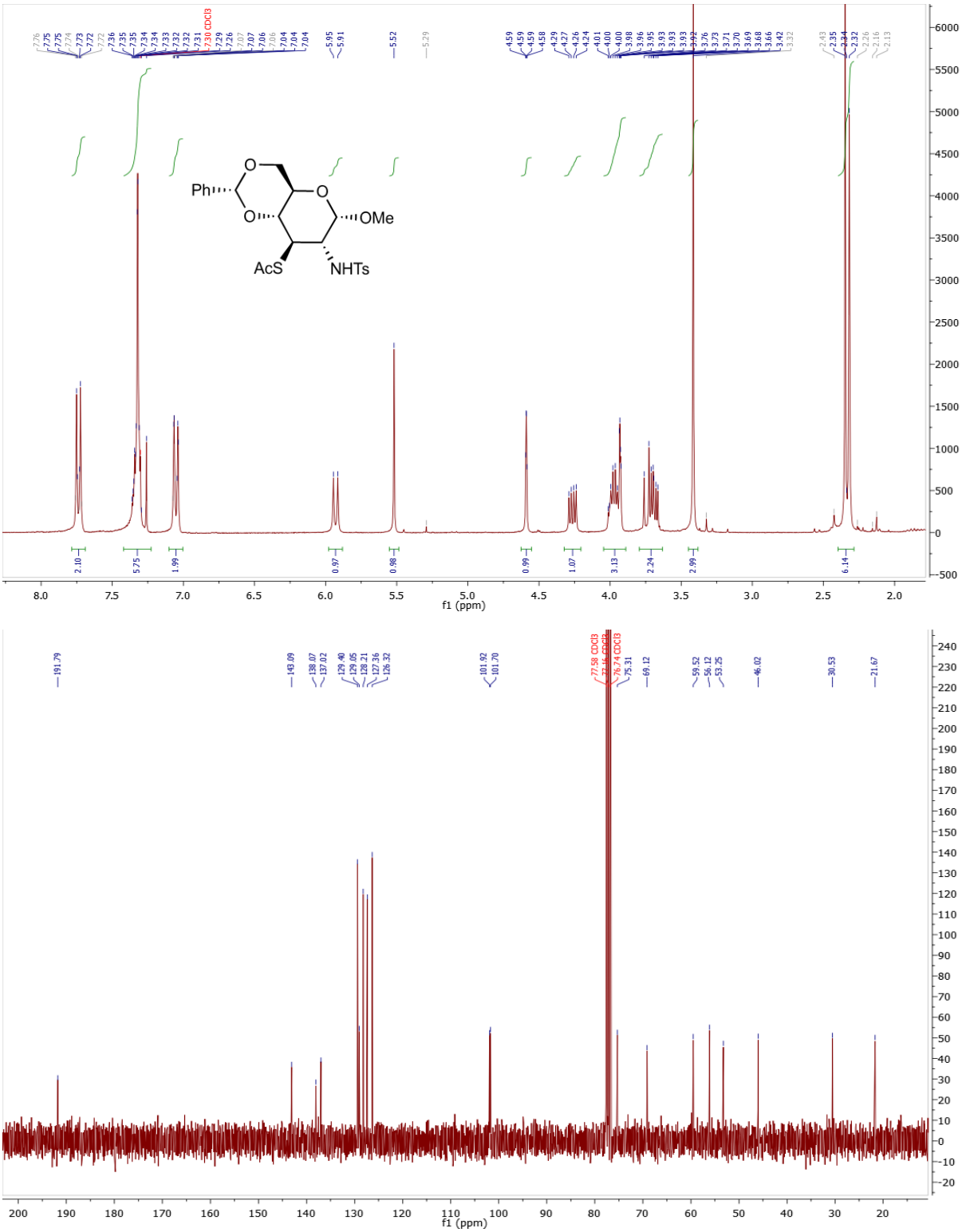

Fig. S4. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **9**

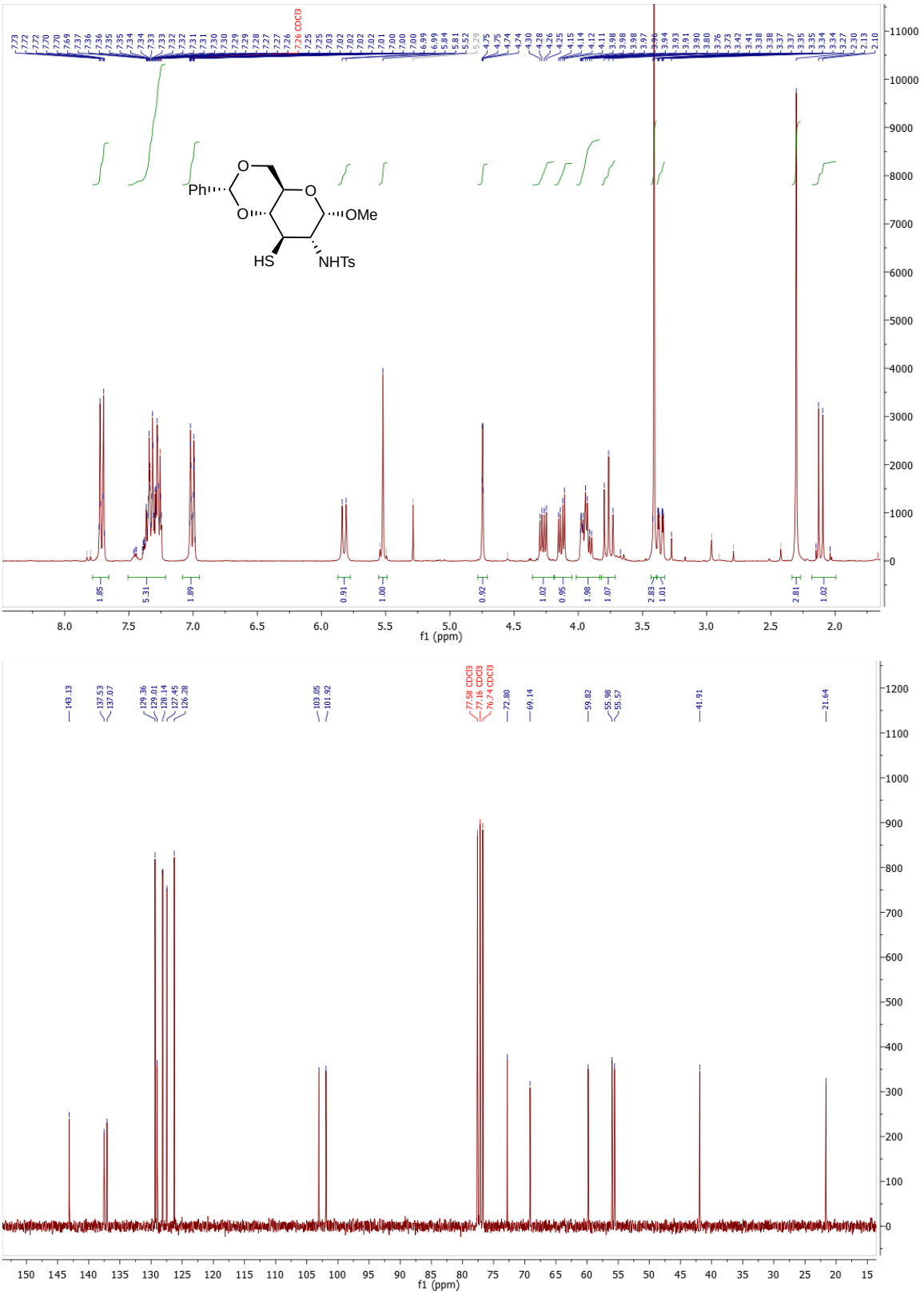

Fig. S5. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **10**

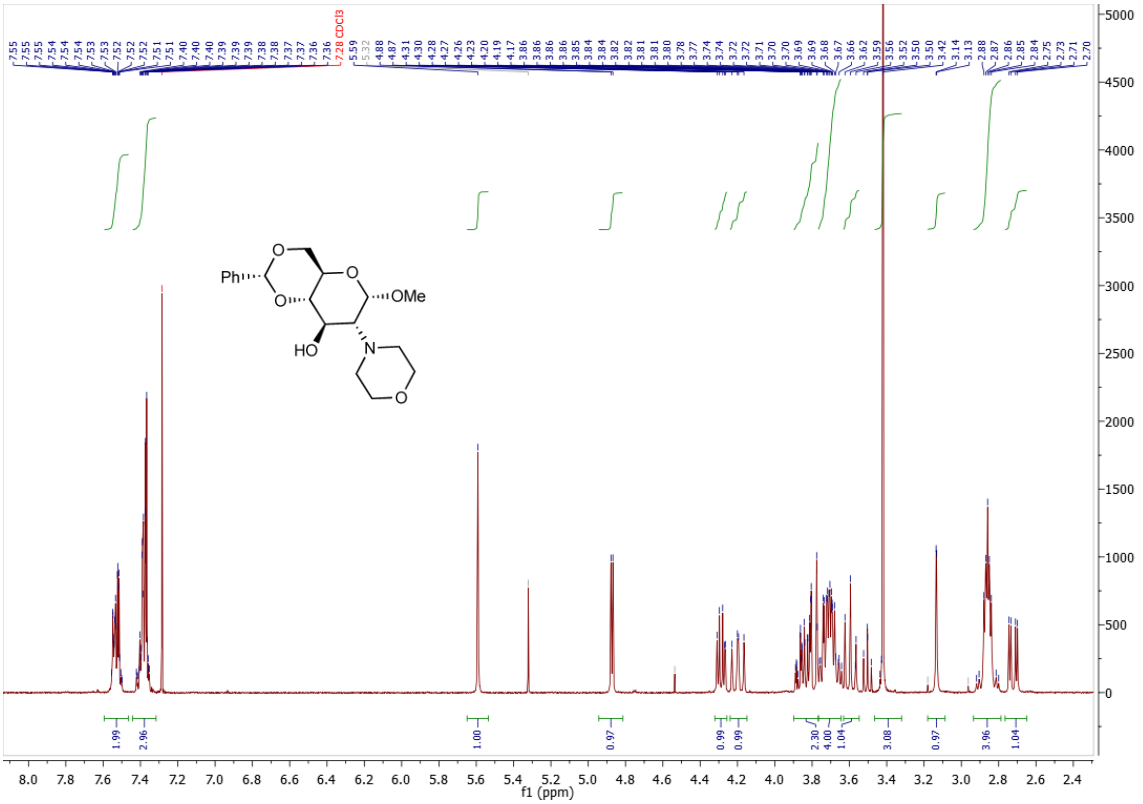

Fig. S6. ^{1}H NMR Spectrum of Compound **11**

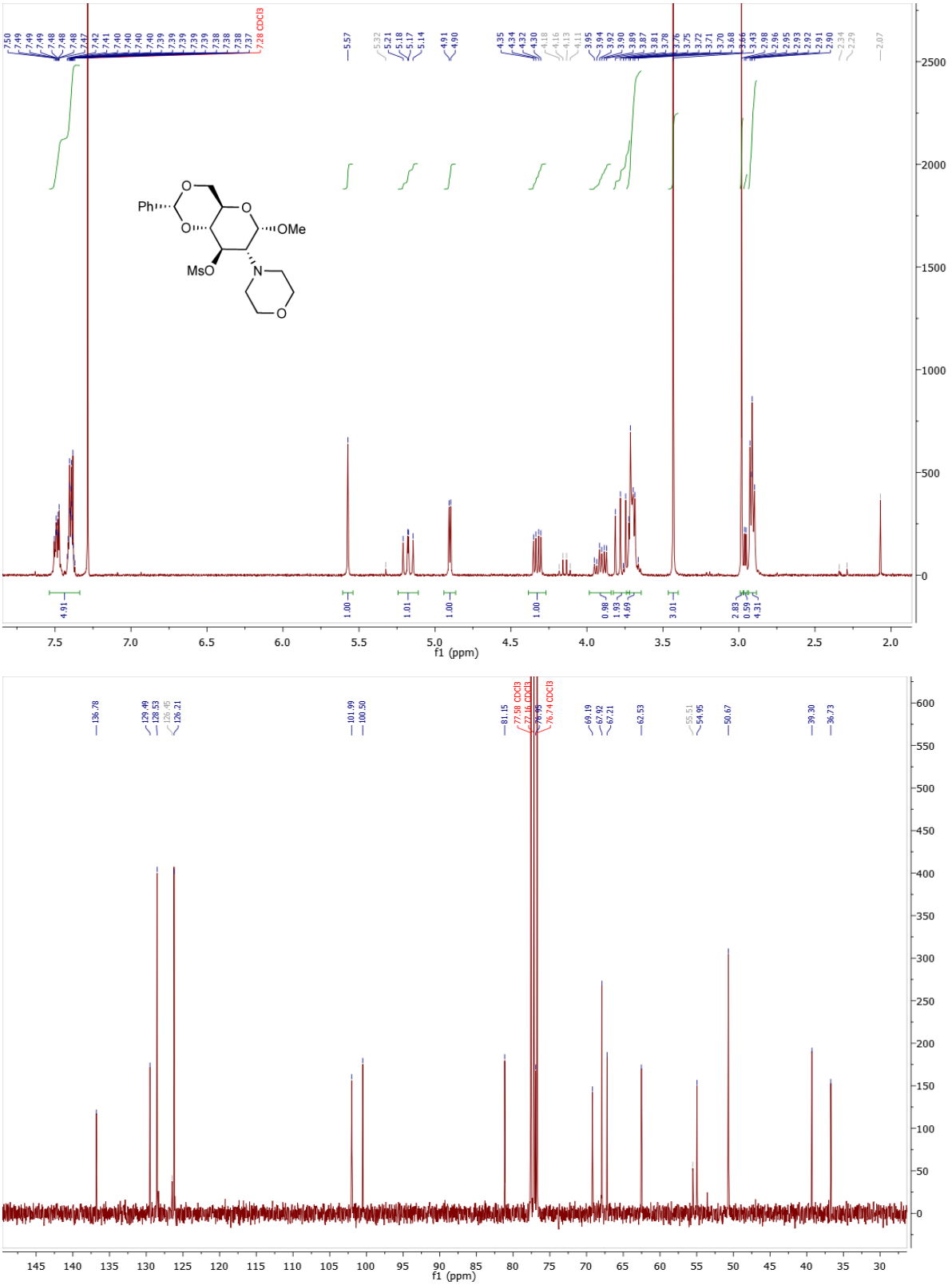

Fig. S7. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **12**

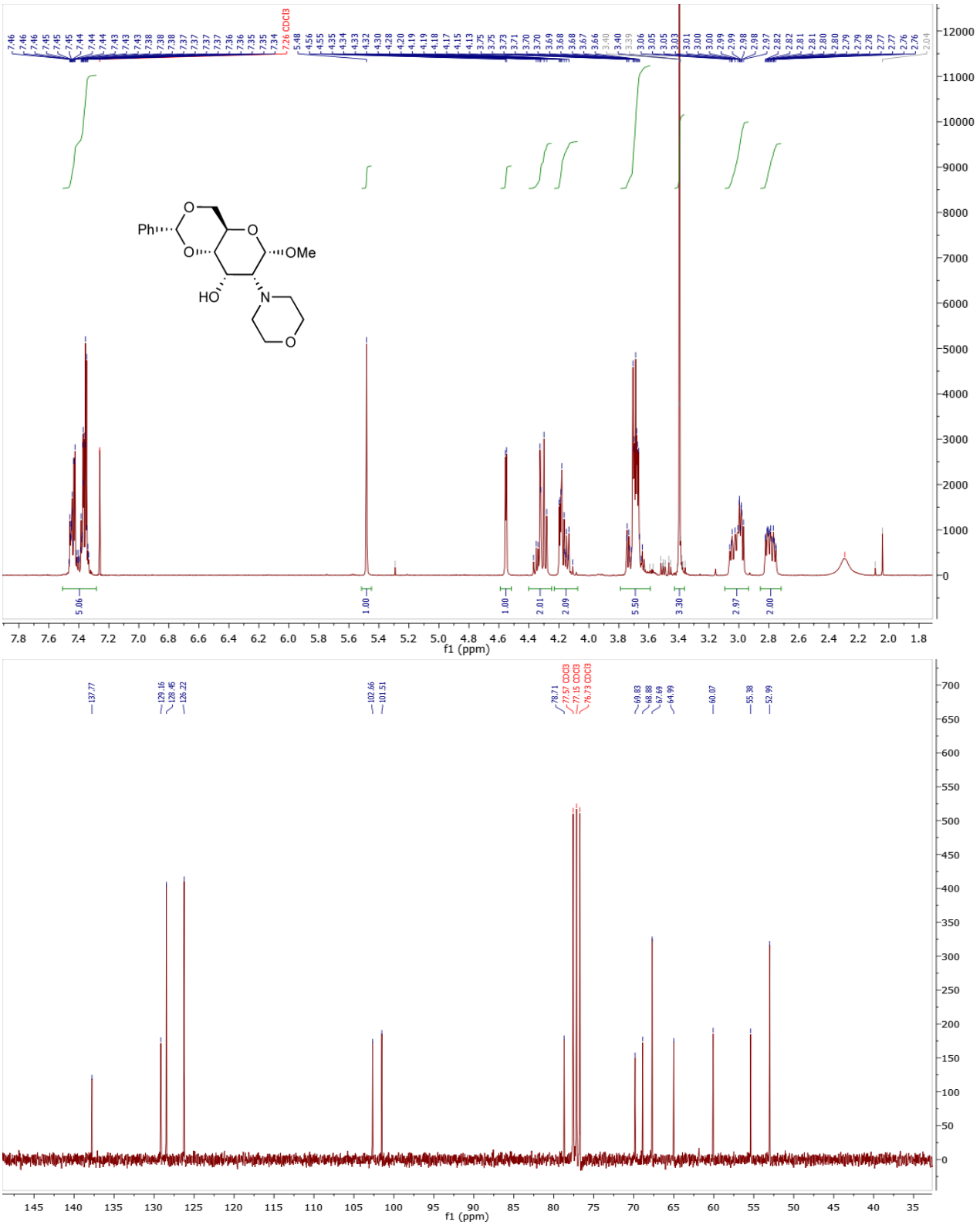

Fig. S8. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **13**

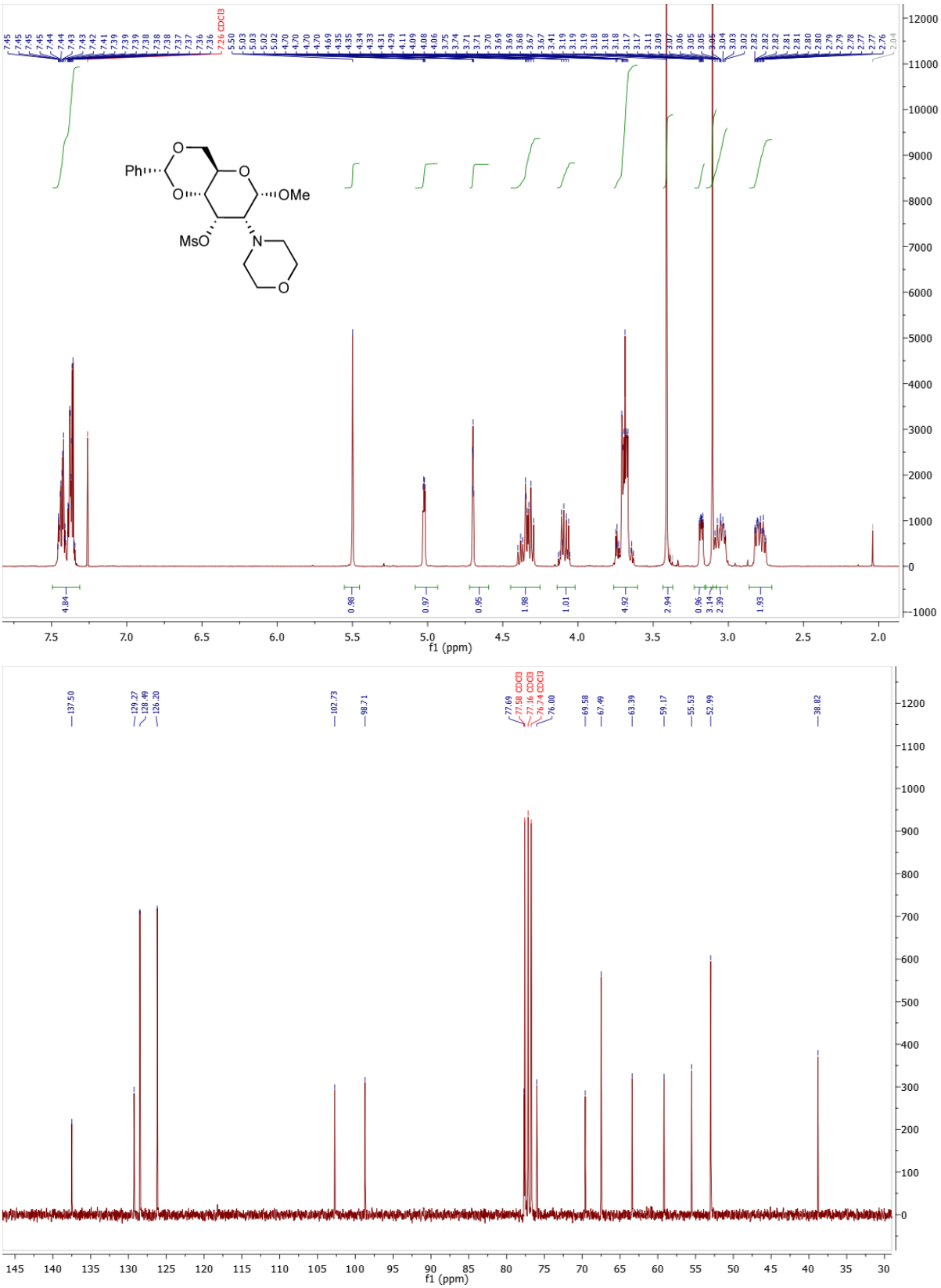

Fig. S9. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **14**

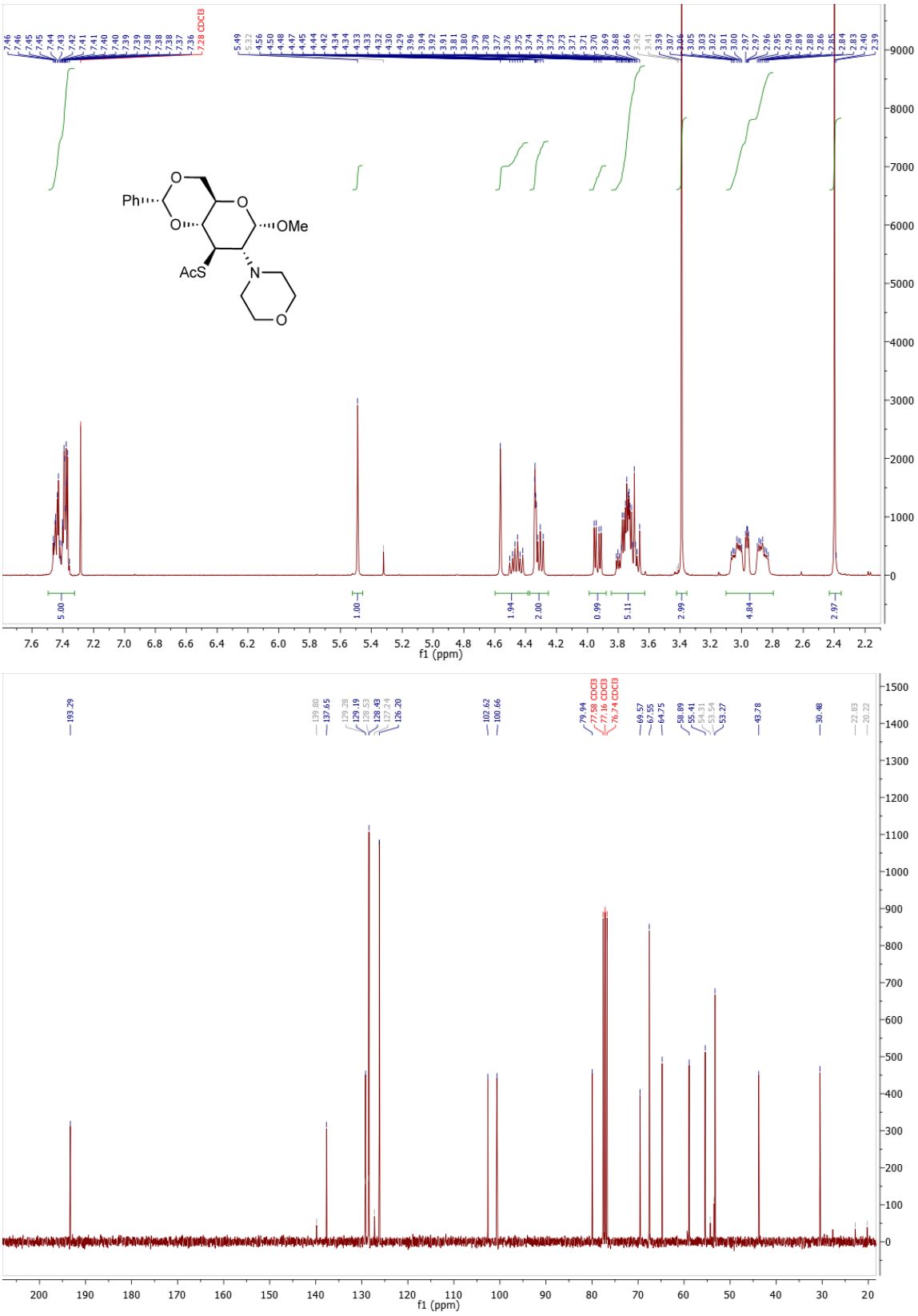

Fig. S10. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **15**

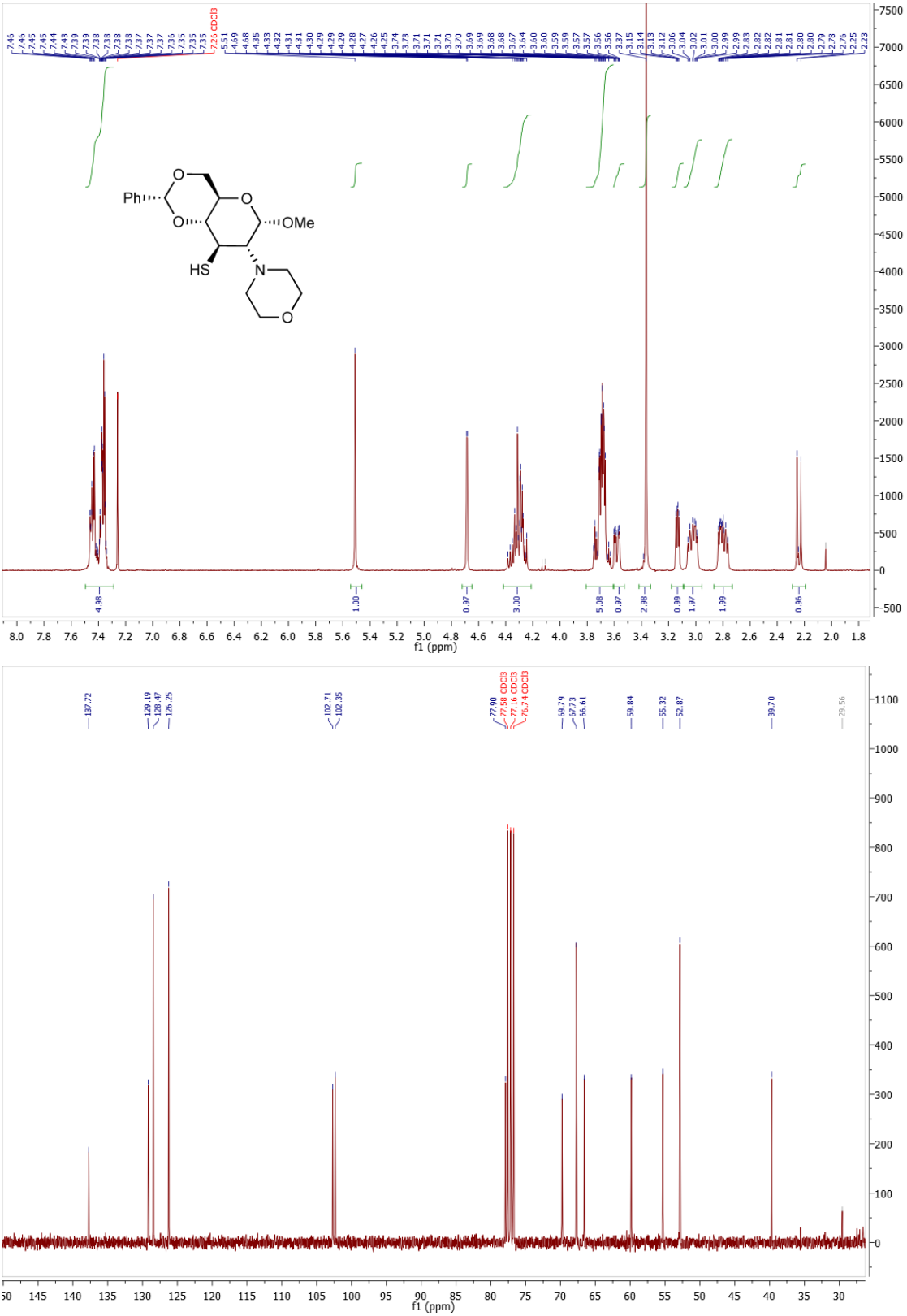

Fig. S11. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **16**

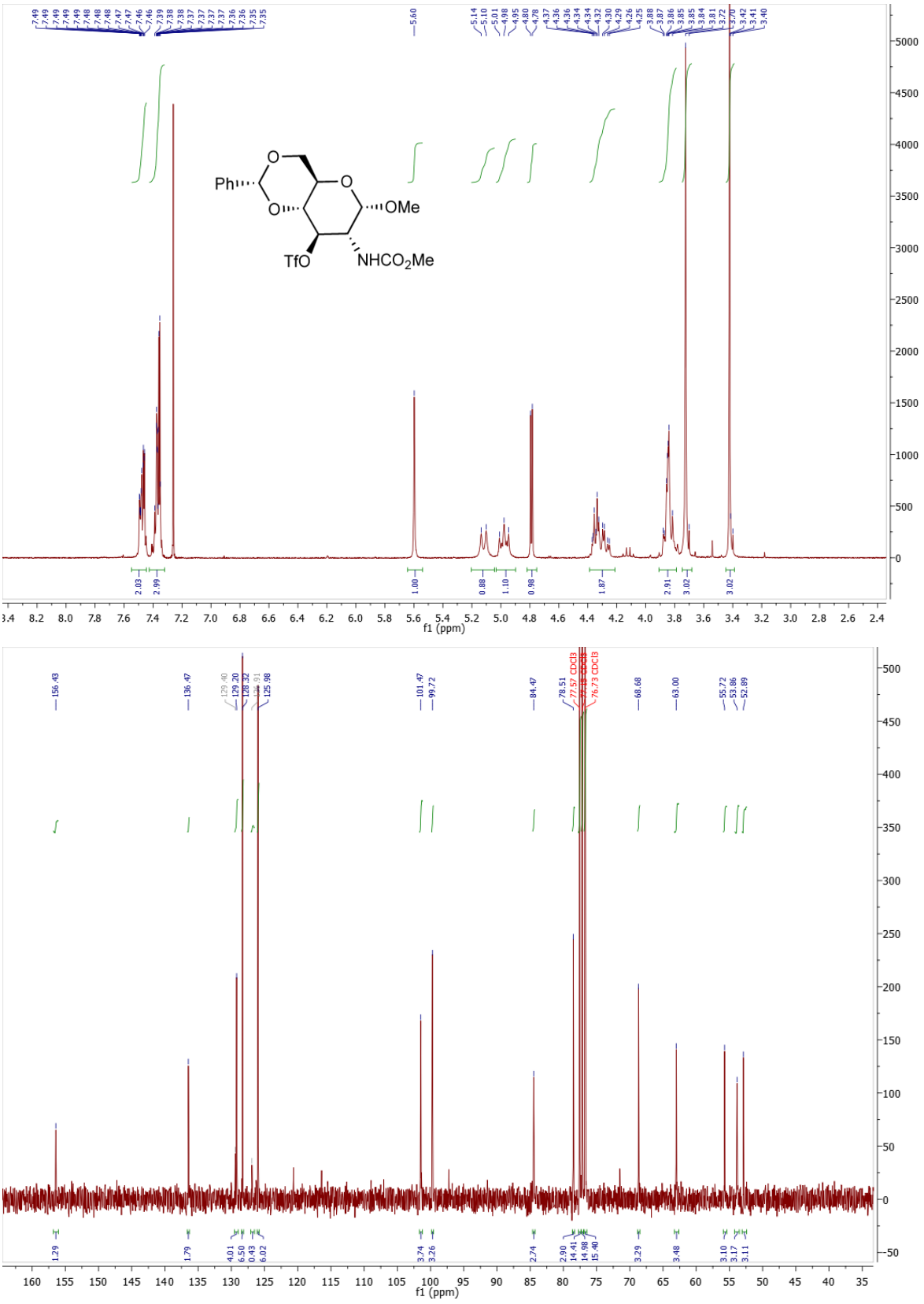

Fig. S12. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **18**

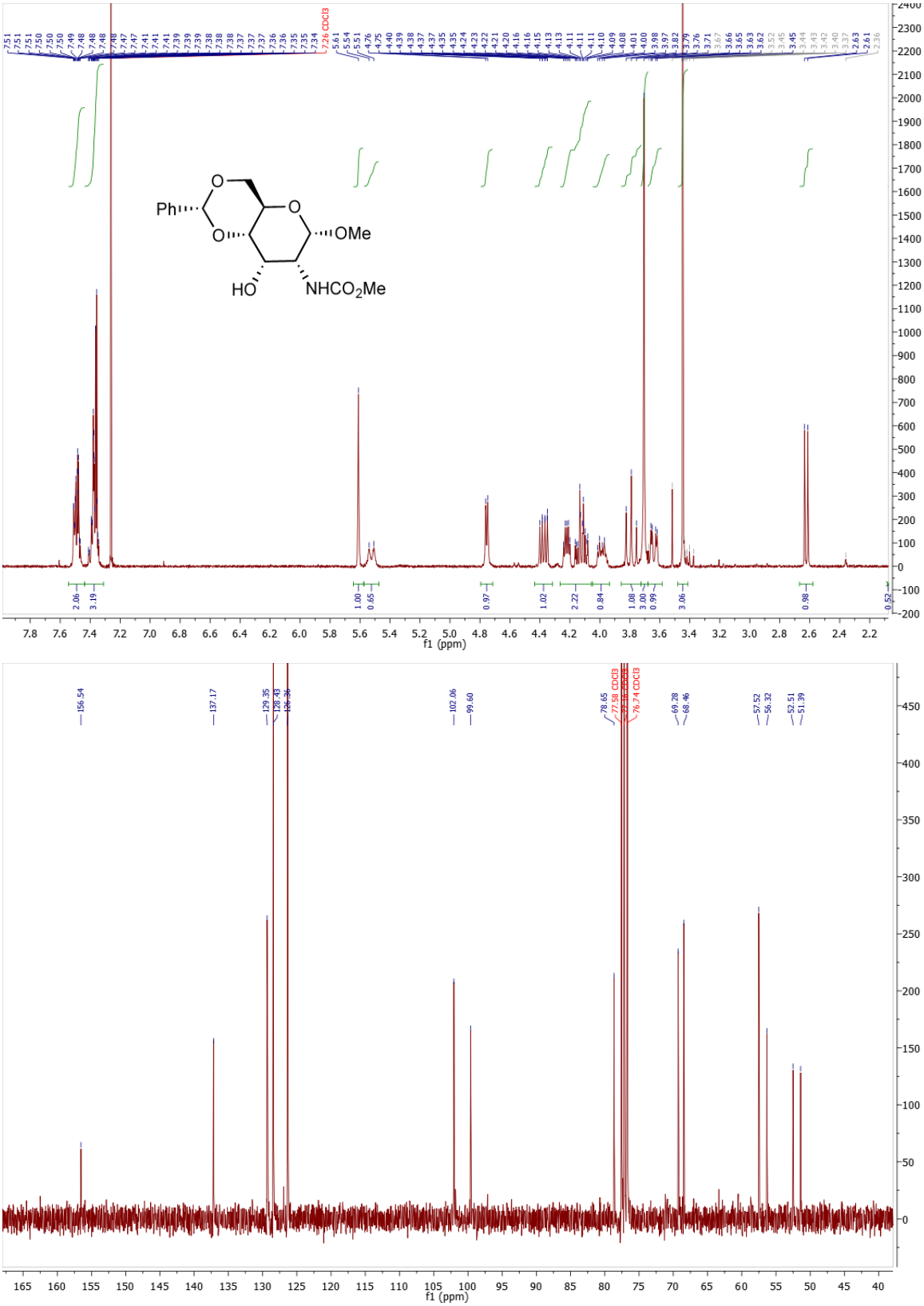

Fig. S13. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **19**

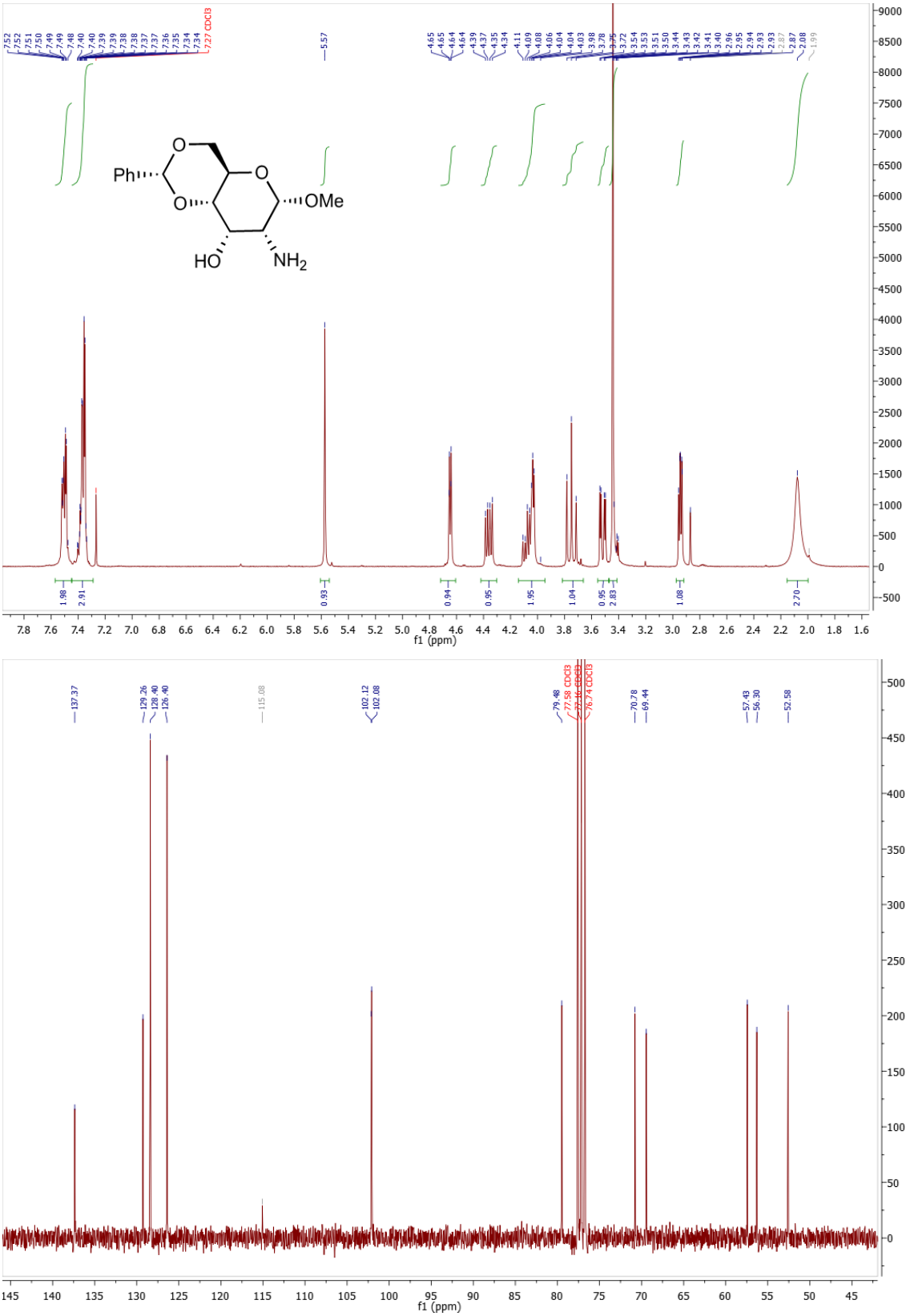

Fig. S14. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **20**

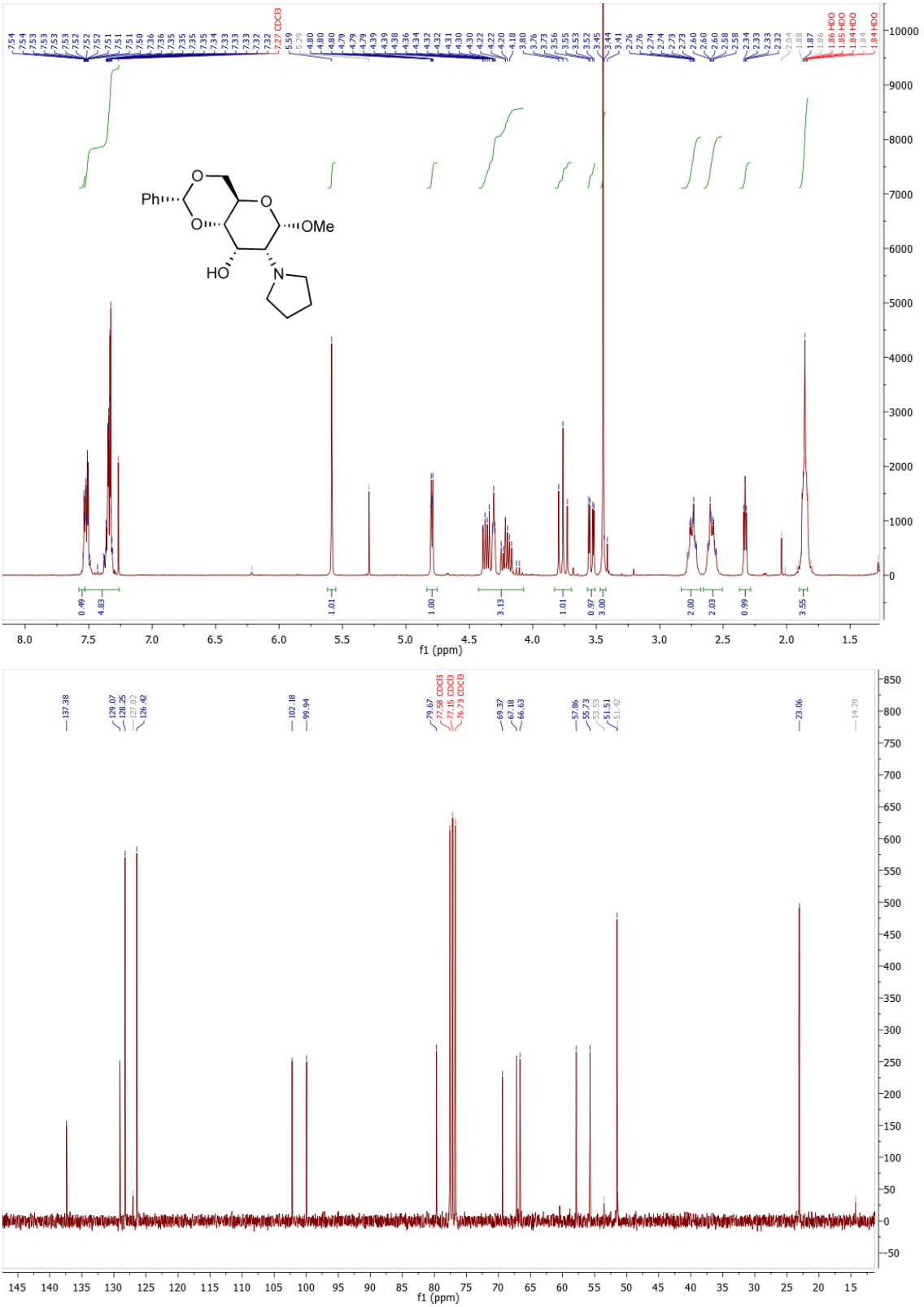

Fig. S15. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **21**

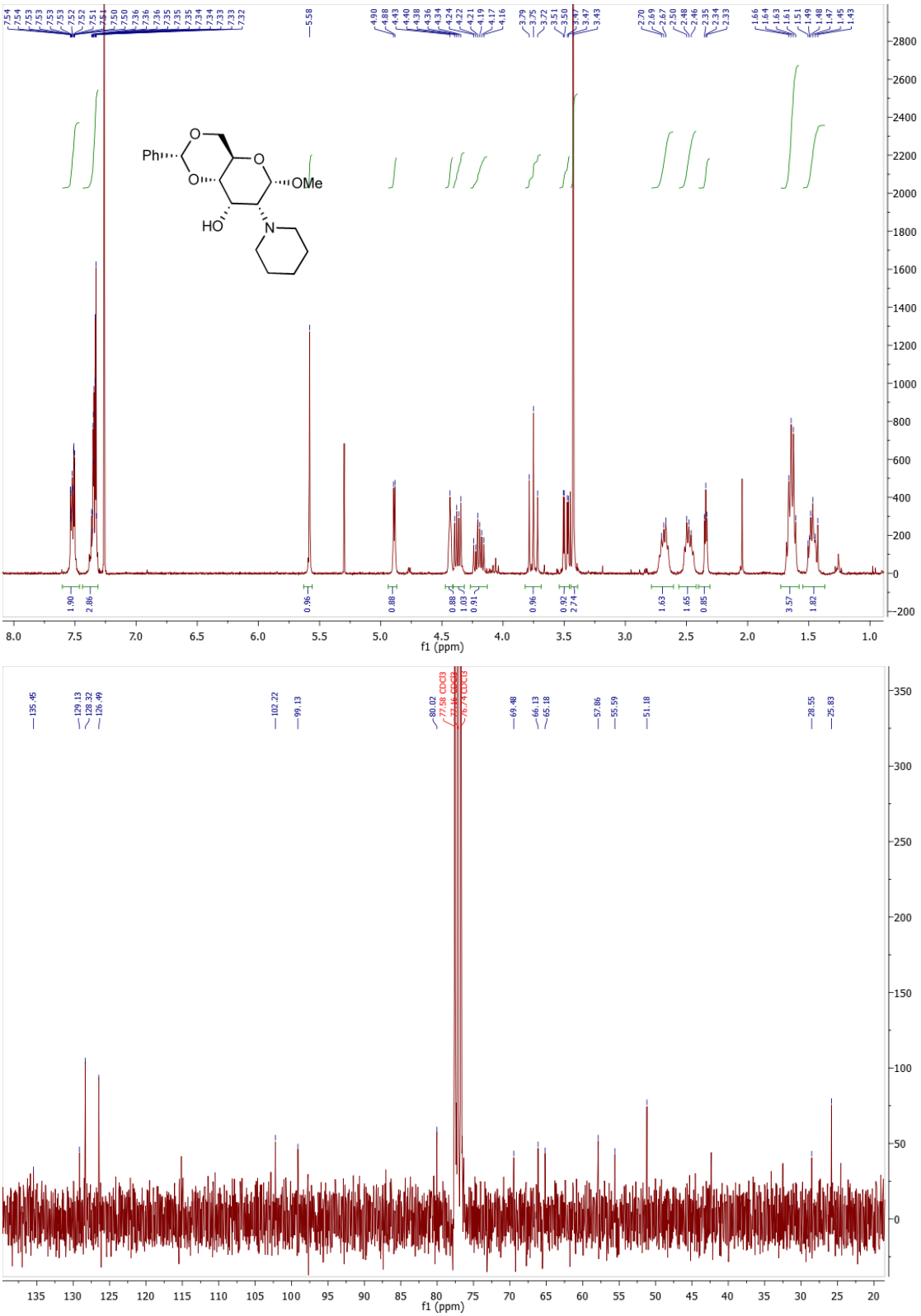

Fig. S16. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **22**

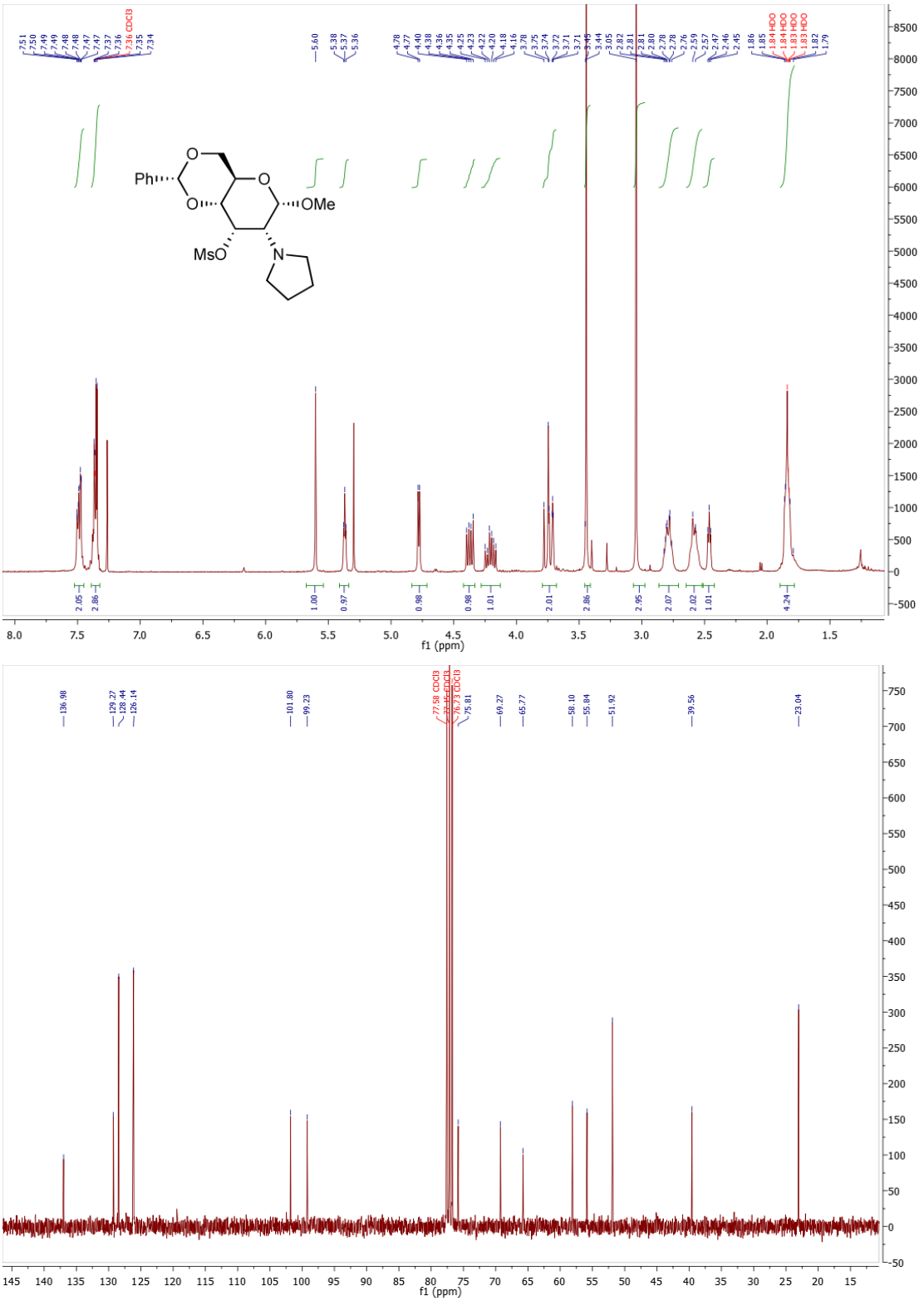

Fig. S17. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **23**

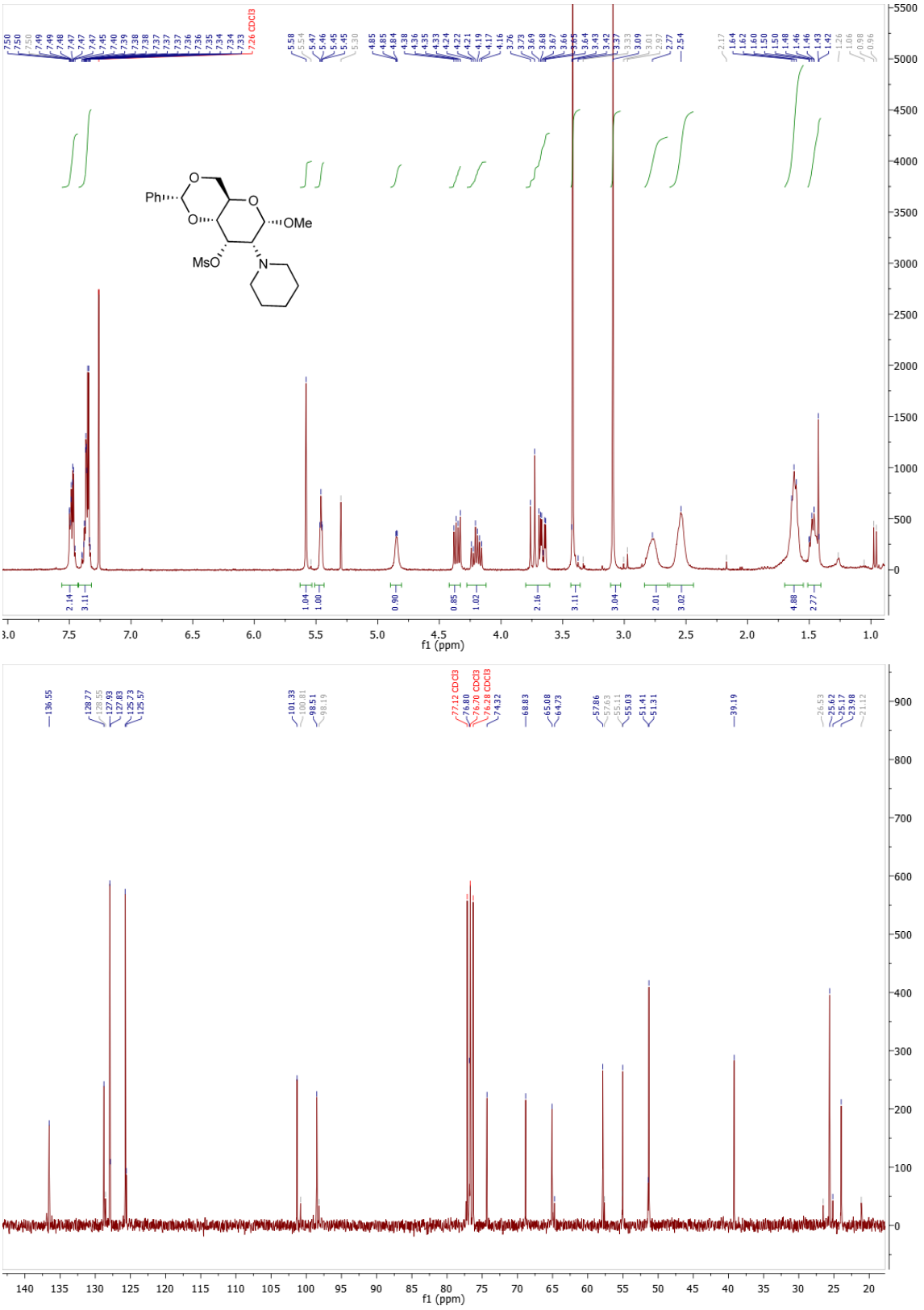

Fig. S18. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **24**

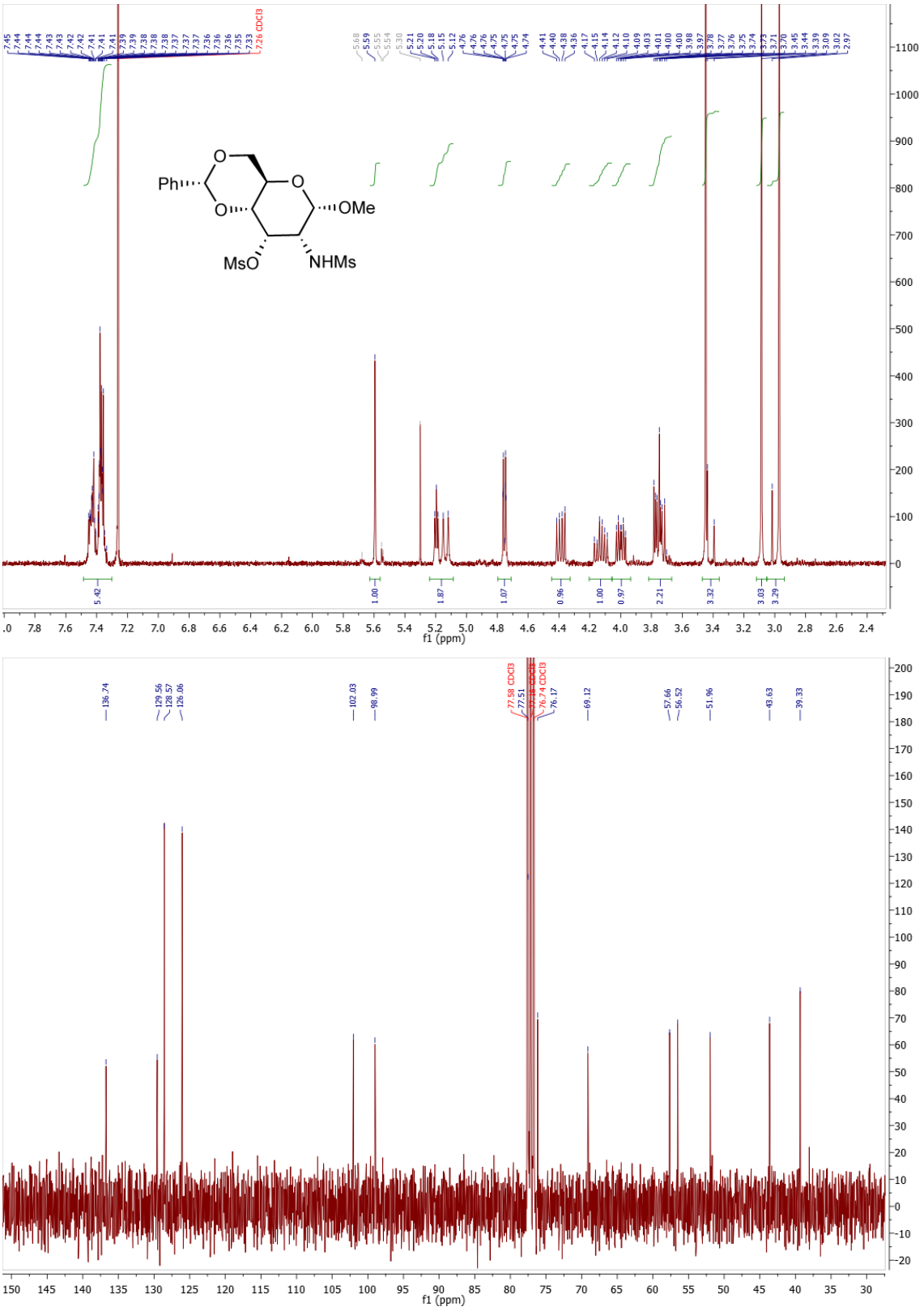

Fig. S19. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **25**

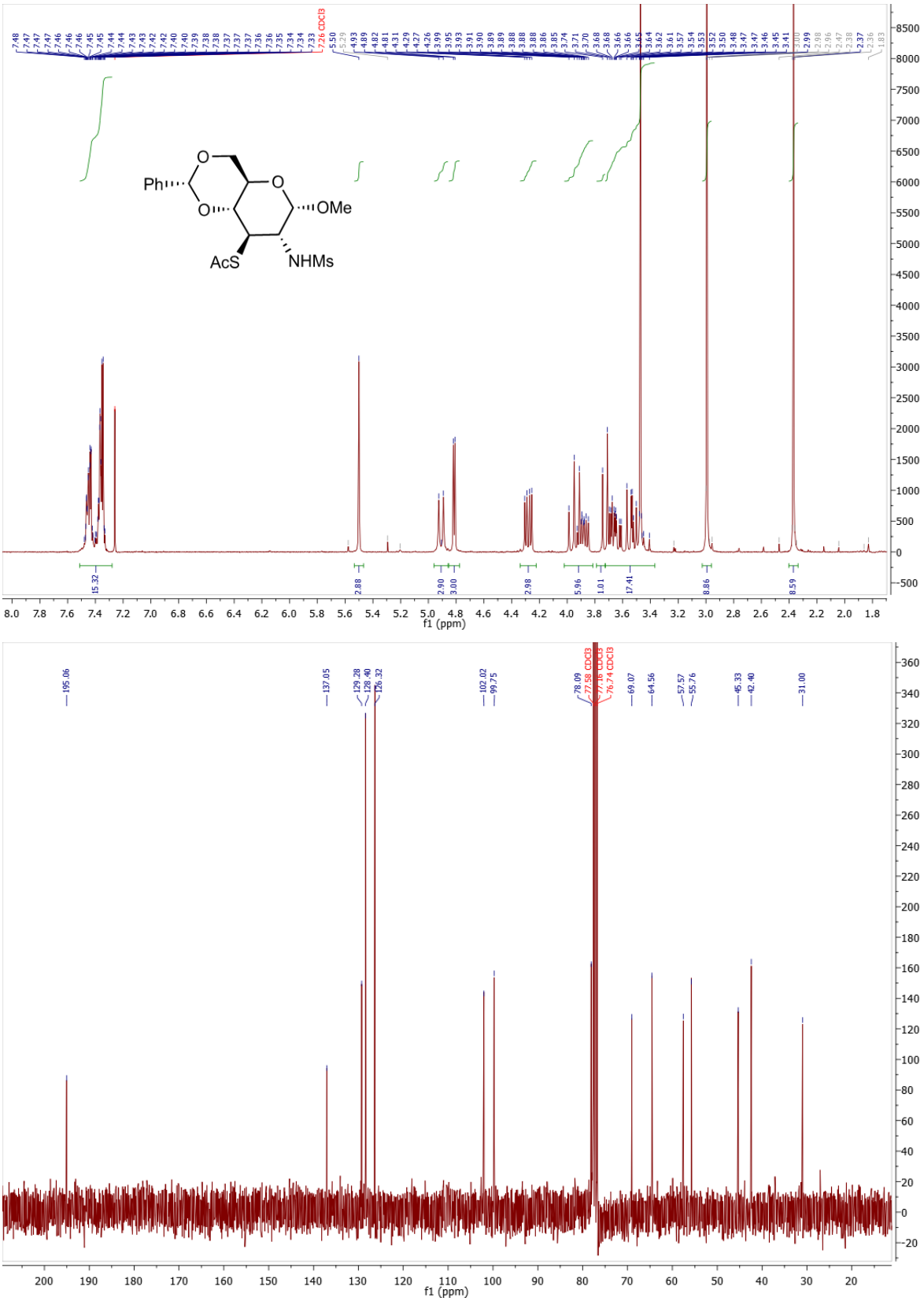

Fig. S20. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **26**

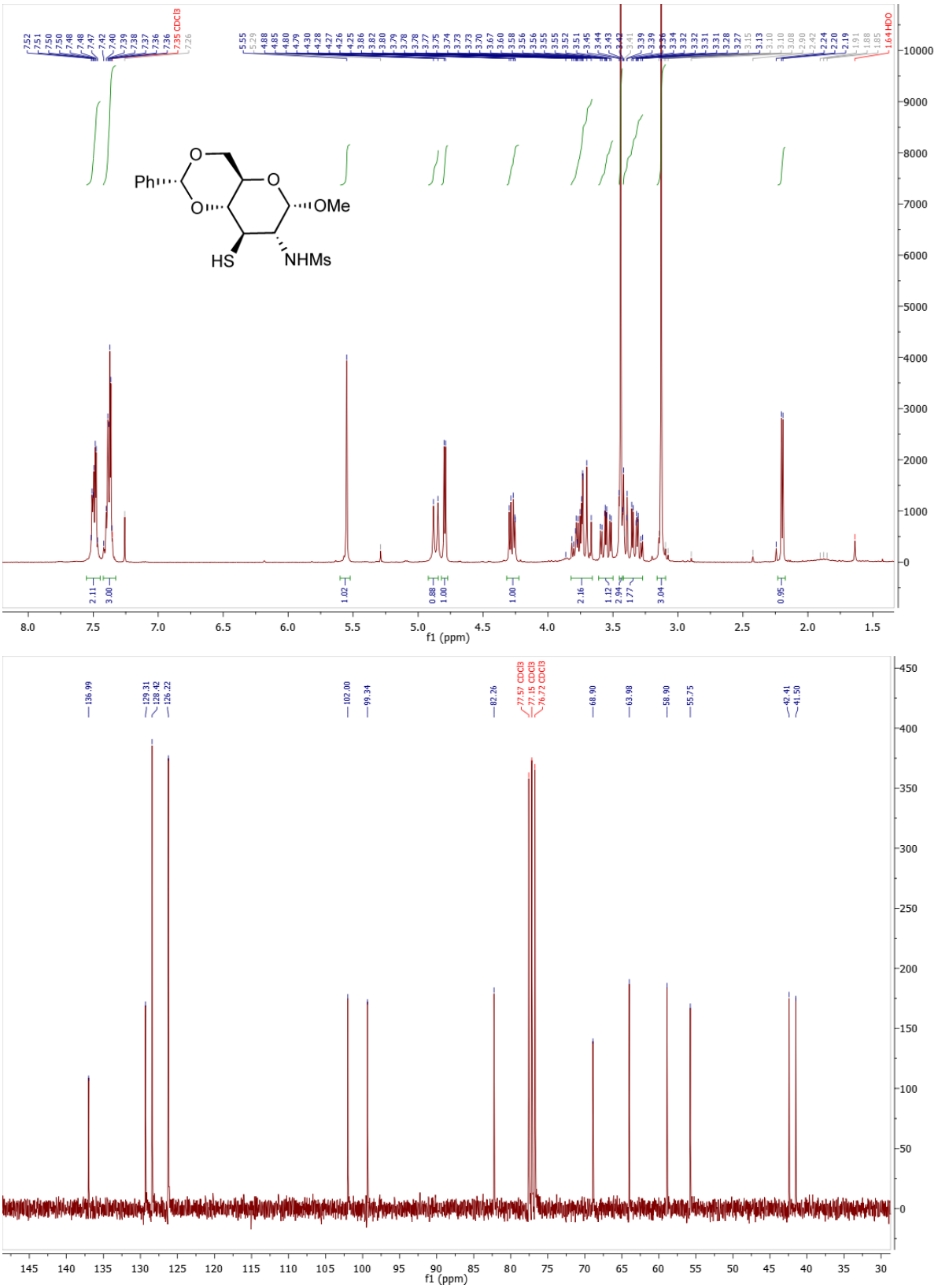

Fig. S21. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **27**

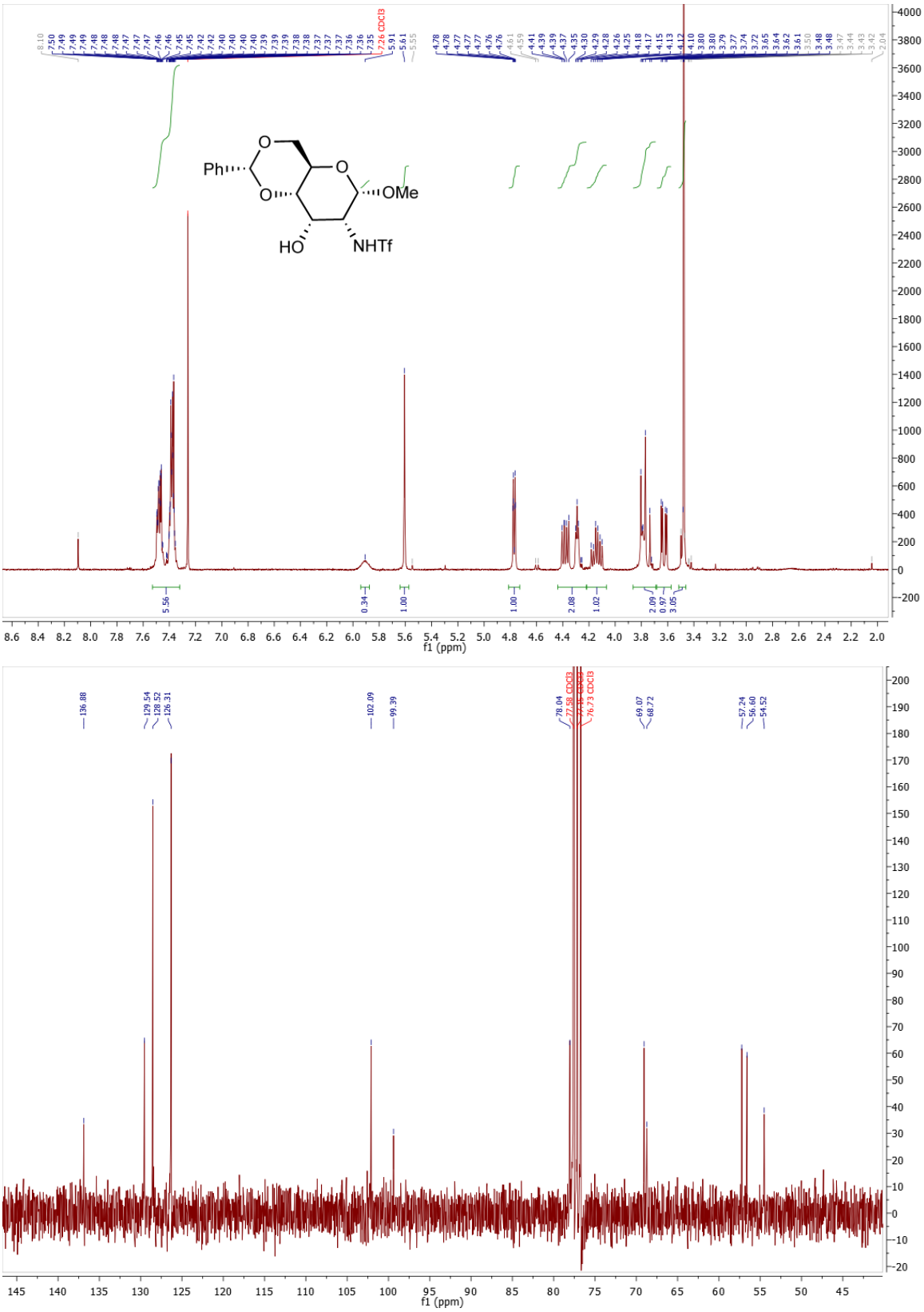

Fig. S22. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **28**

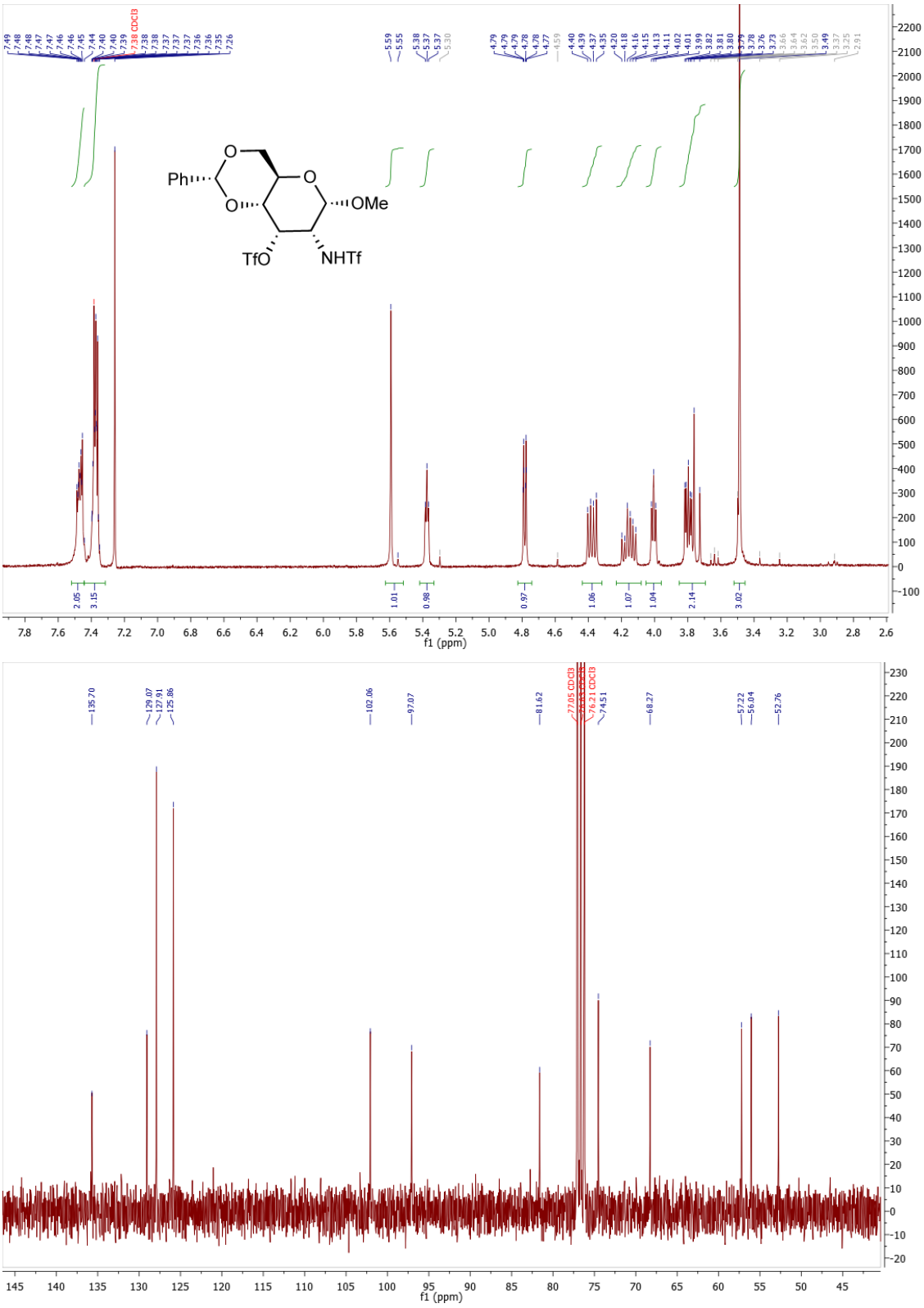

Fig. S23. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **29**

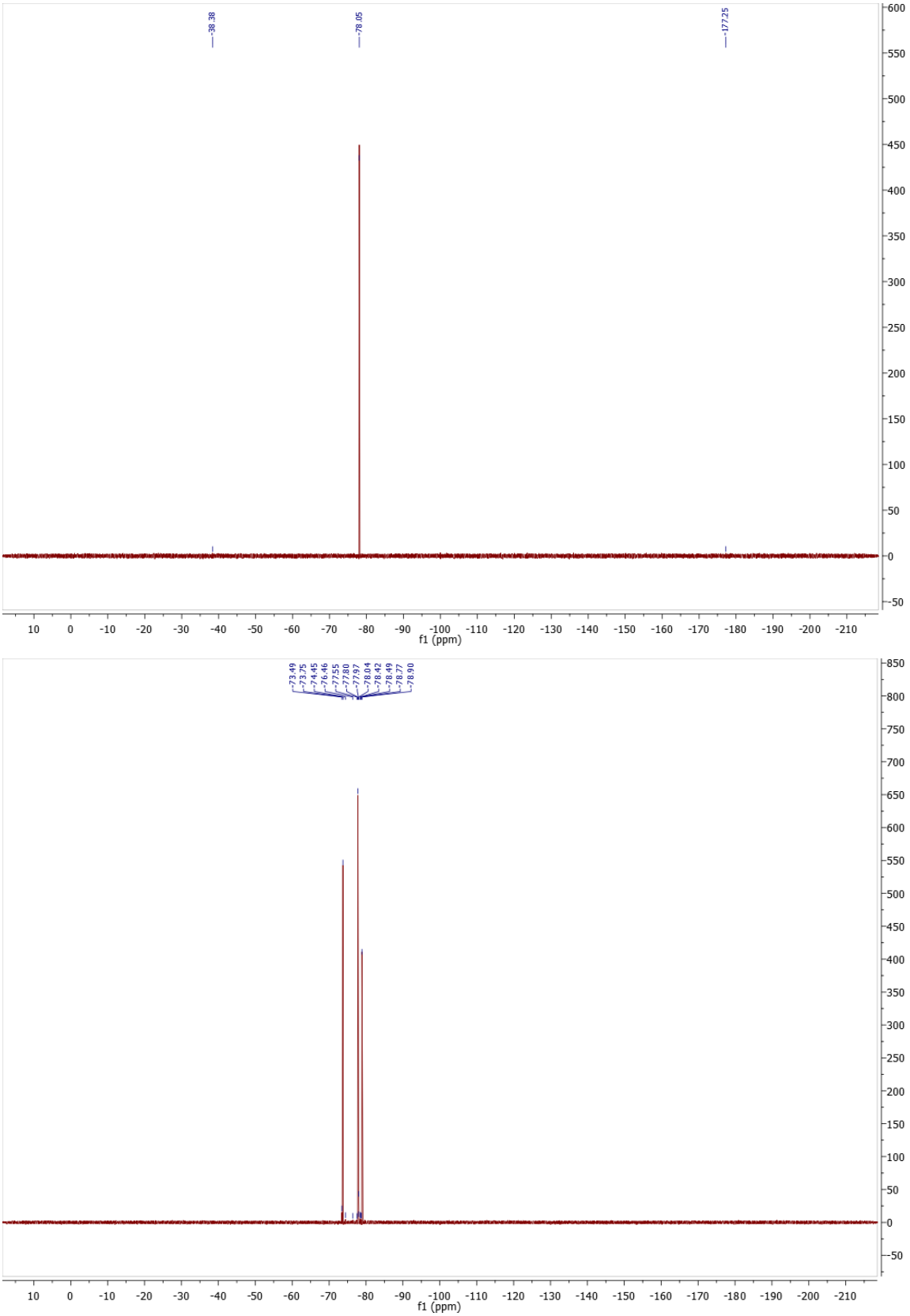

Fig. S24. ^{19}F NMR Spectrum of Compound **28 & 29**

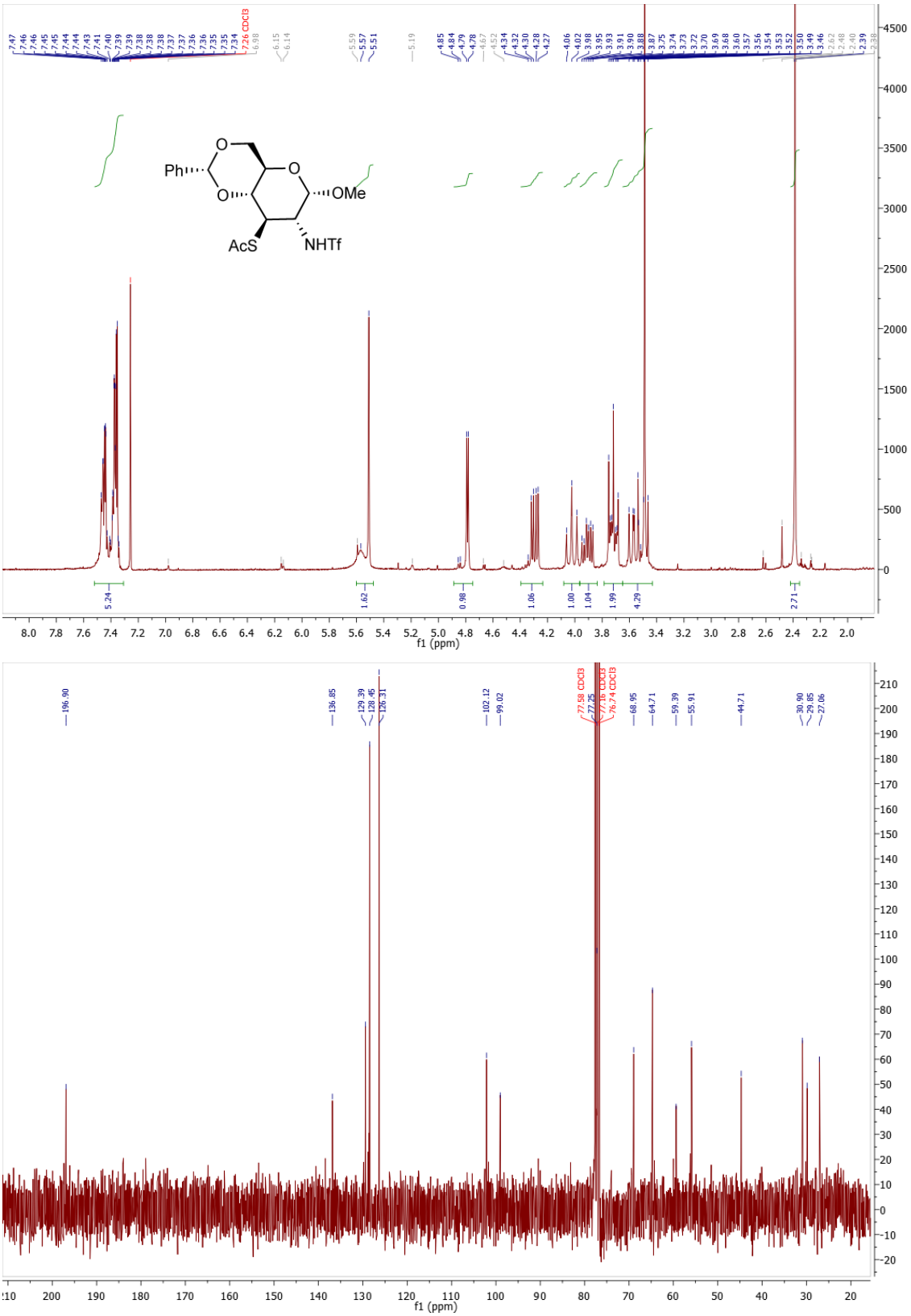

Fig. S25. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **30**

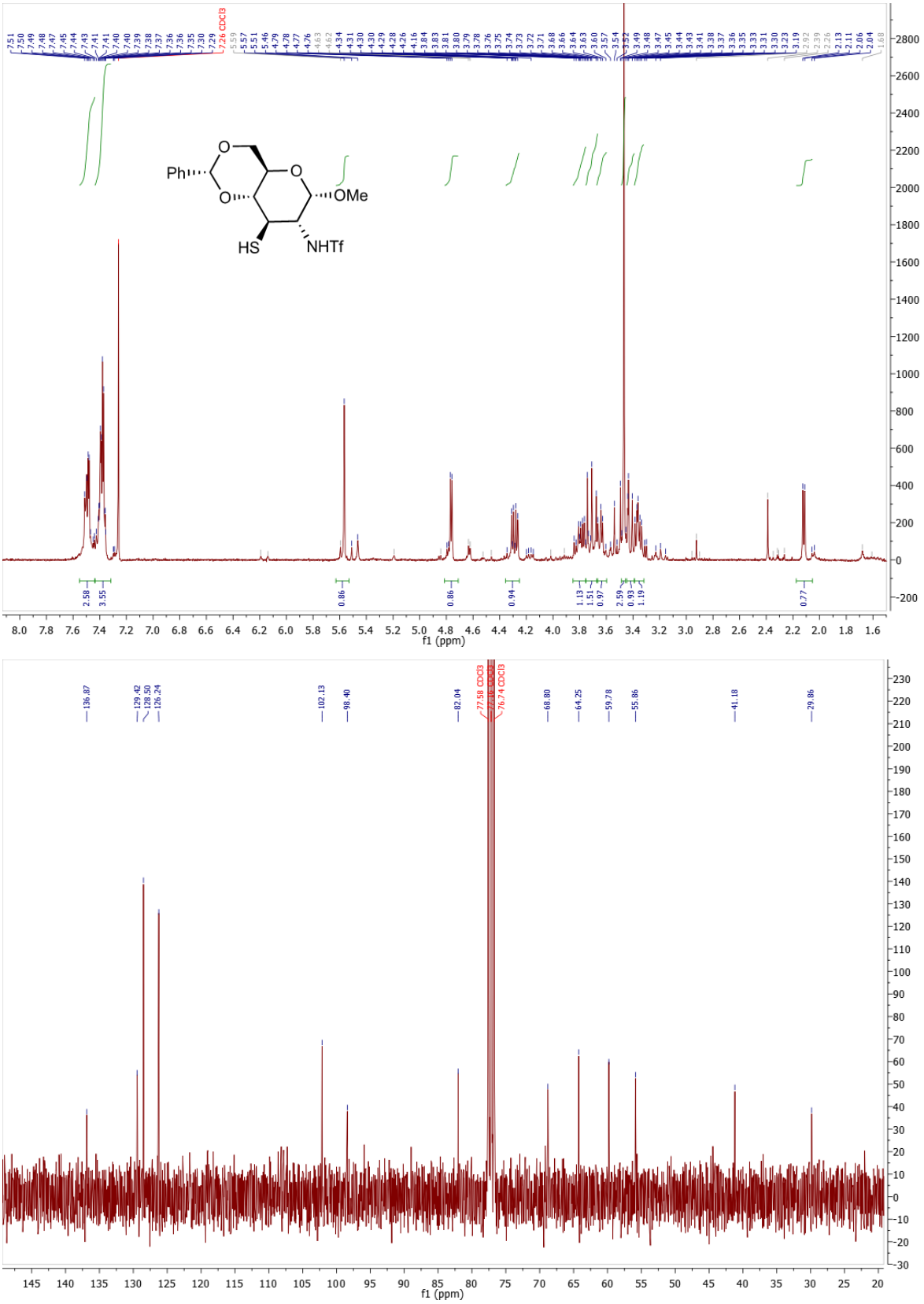

Fig. S26. ^{1}H NMR and ^{13}C NMR Spectrum of Compound **31**

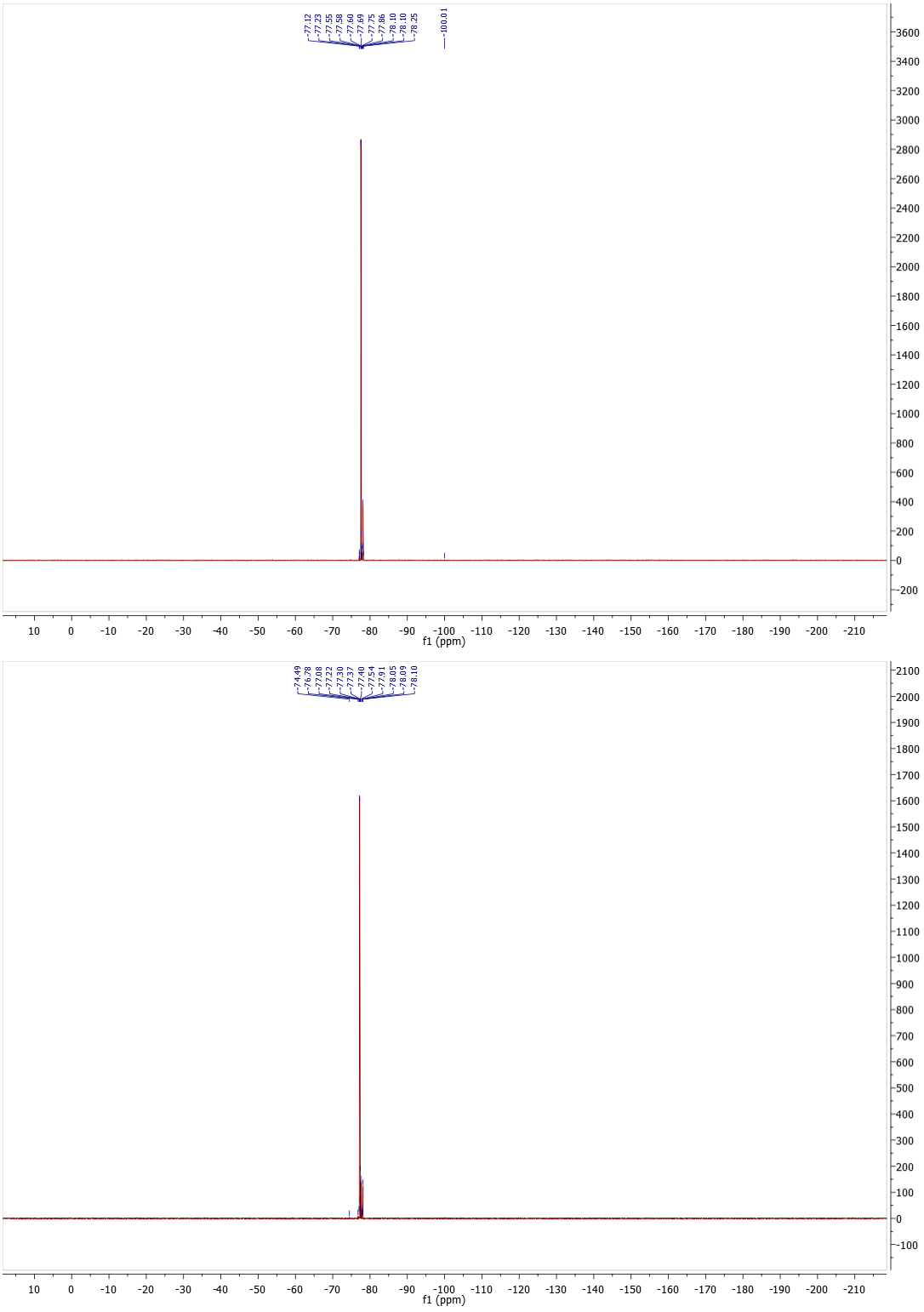

Fig. S27. ^{19}F NMR Spectrum of Compound **30 & 31**