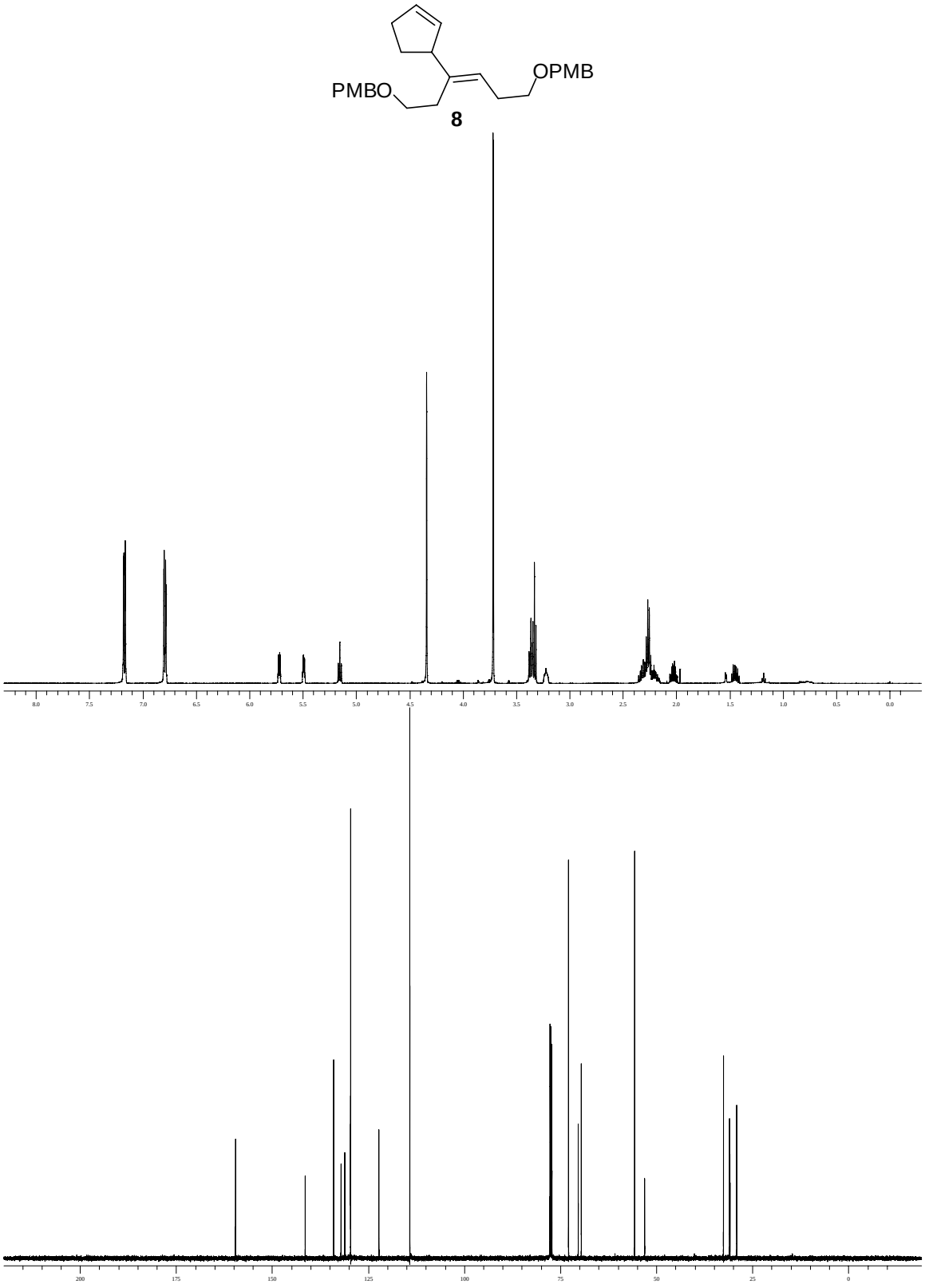
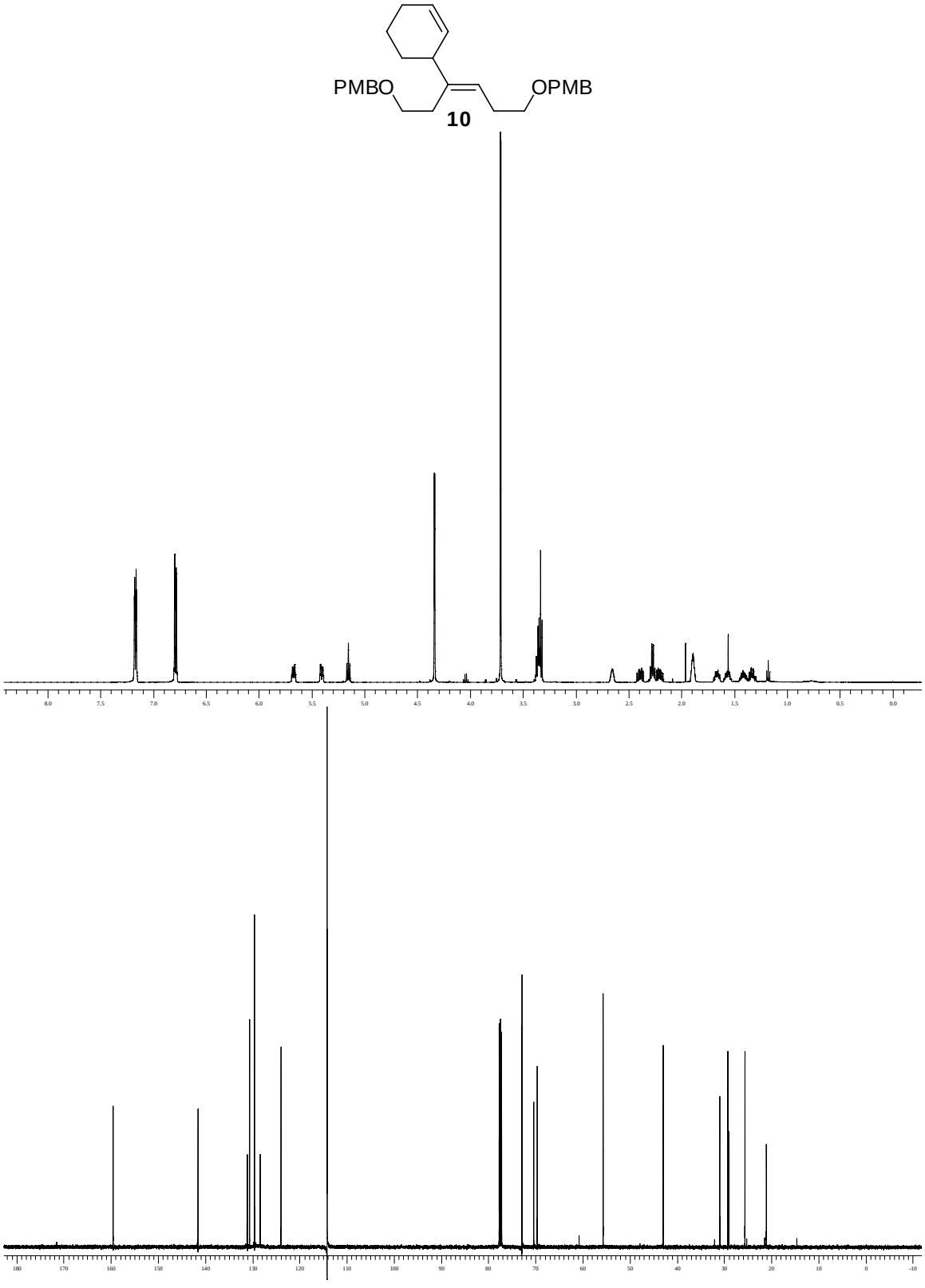
Synthesis of Substituted 1,4-Dienes by Direct Alkylation of Allylic Alcohols

SUPPORTING INFORMATION—2:

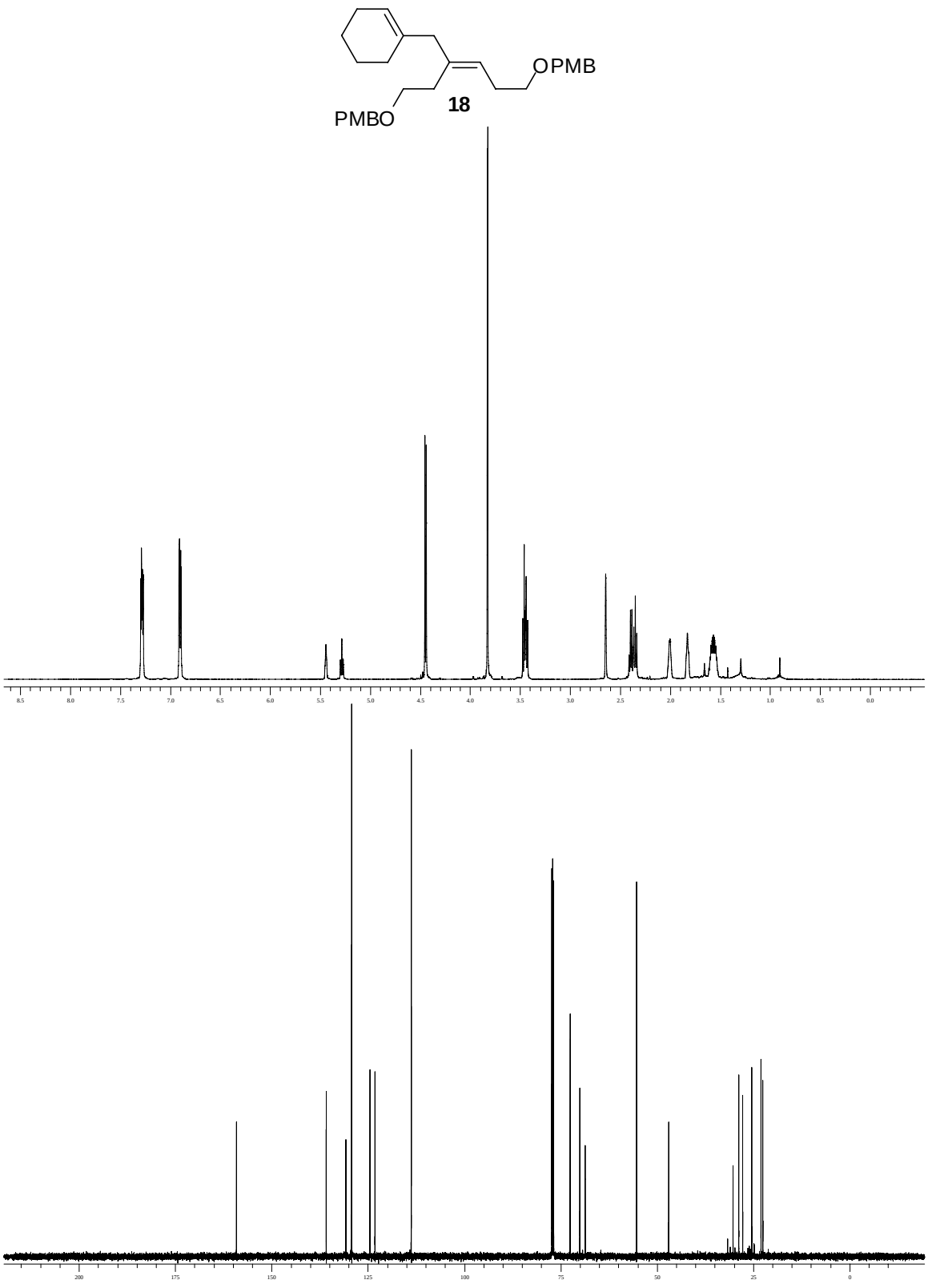
Spectral Data for Compounds 8-49



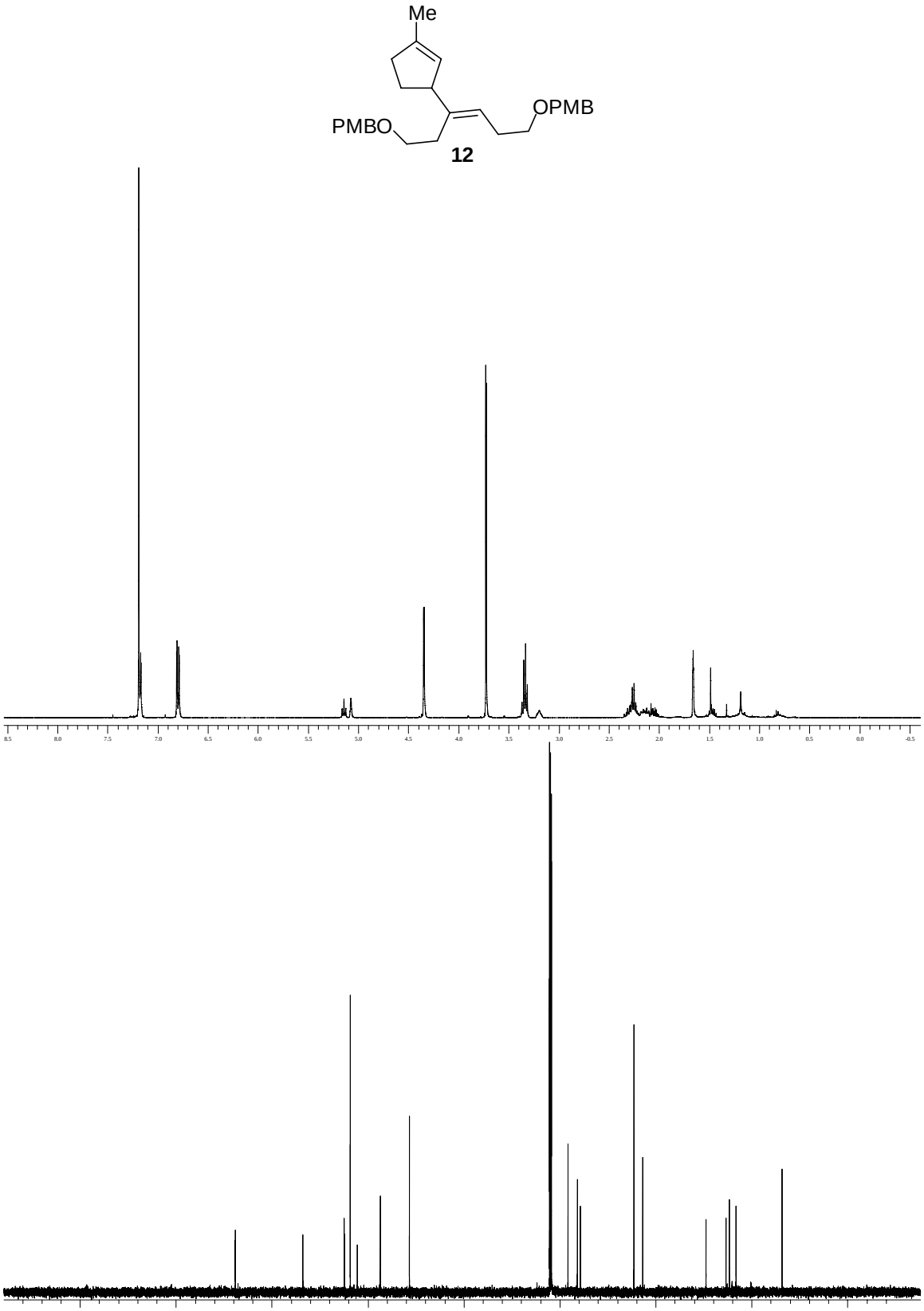
^{1}H NMR (500 MHz) and ^{13}C NMR (126 MHz) of compound **8** ($CDCl_3$)



^{1}H NMR (500 MHz) and ^{13}C NMR (126 MHz) of compound **10** ($CDCl_3$)

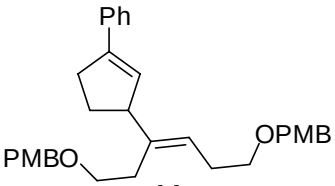


^{1}H NMR (500 MHz) and ^{13}C NMR (126 MHz) of compound **18** ($CDCl_3$)

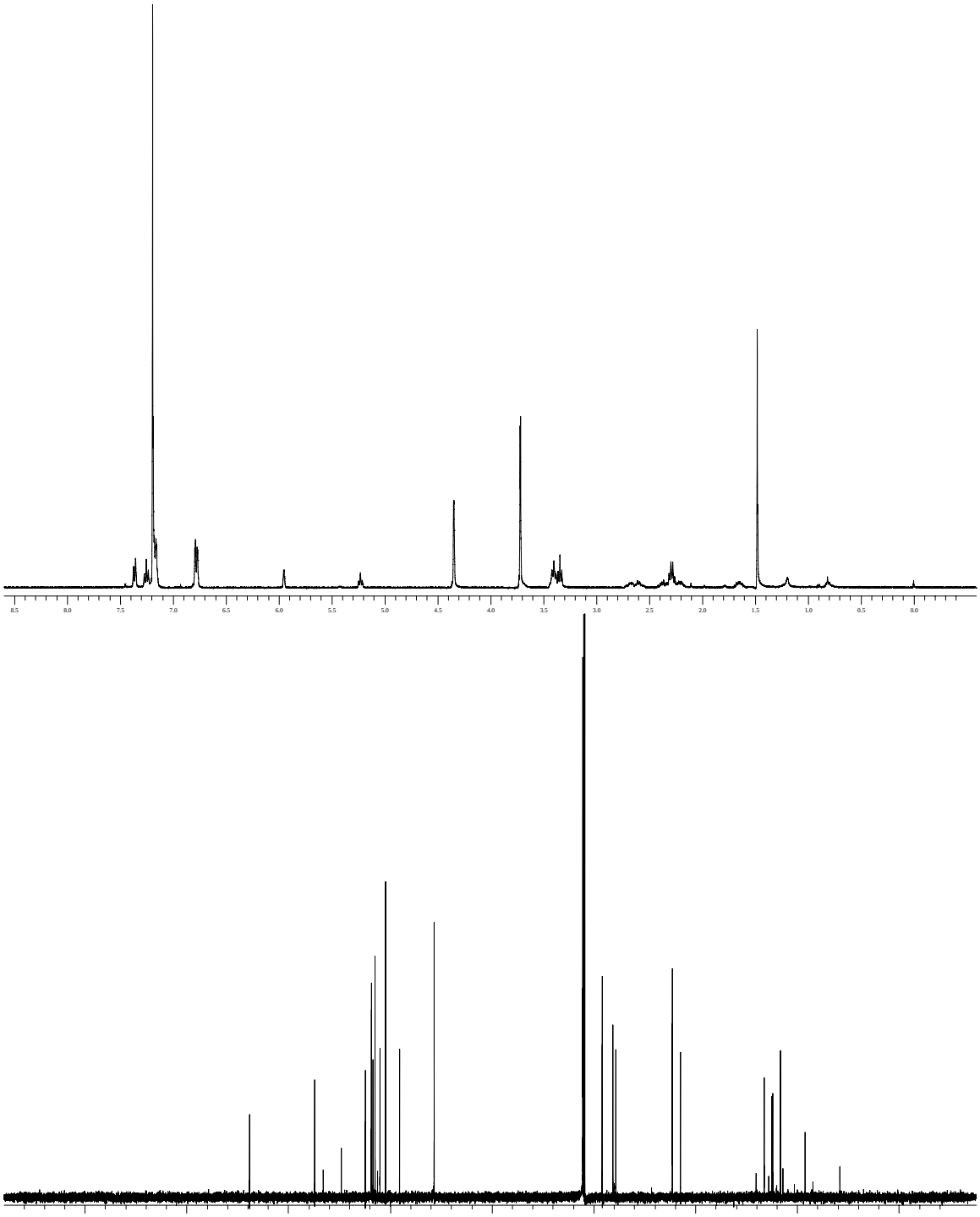


12

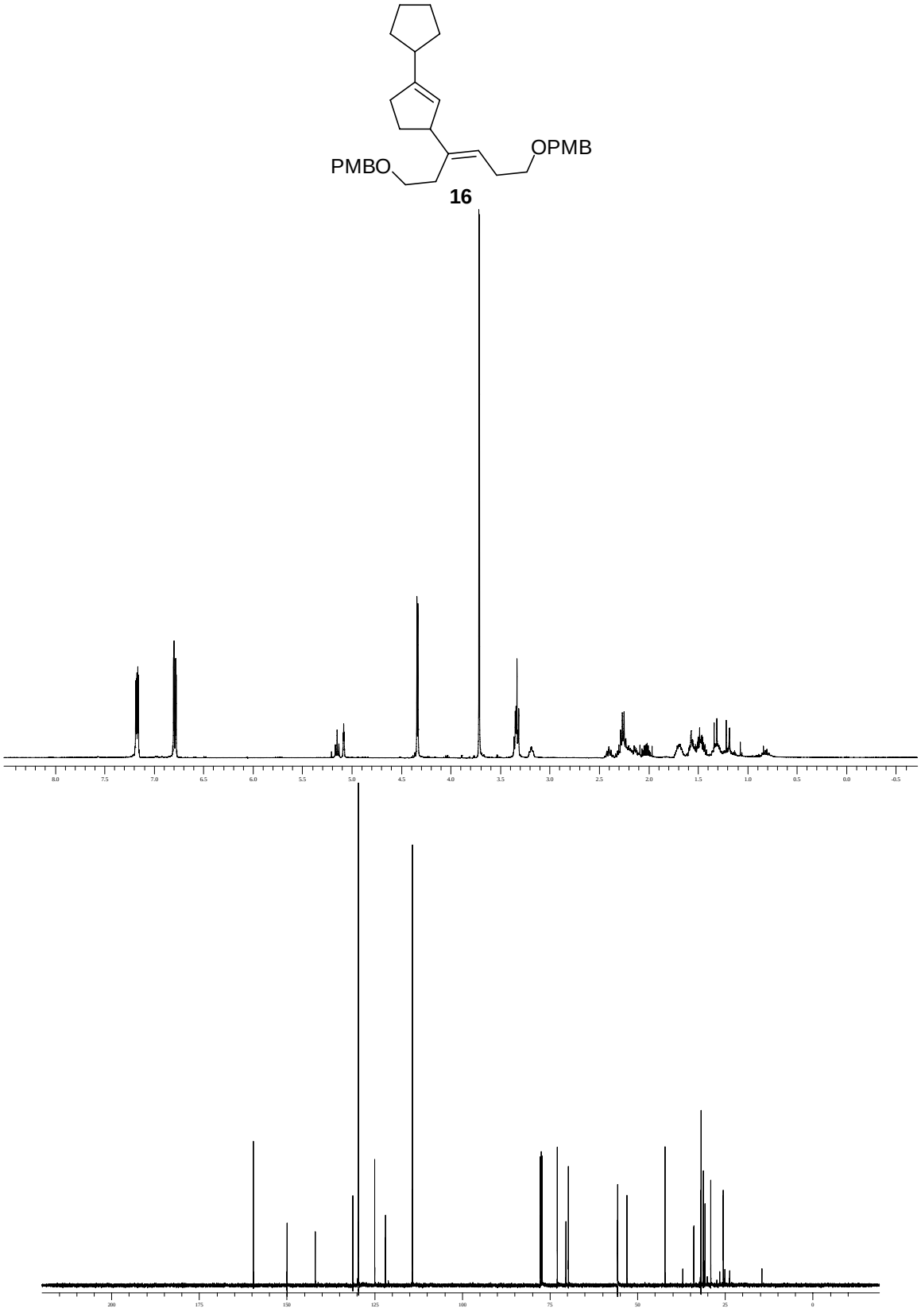
^{1}H NMR (500 MHz) and ^{13}C NMR (126 MHz) of compound **12** ($CDCl_3$)



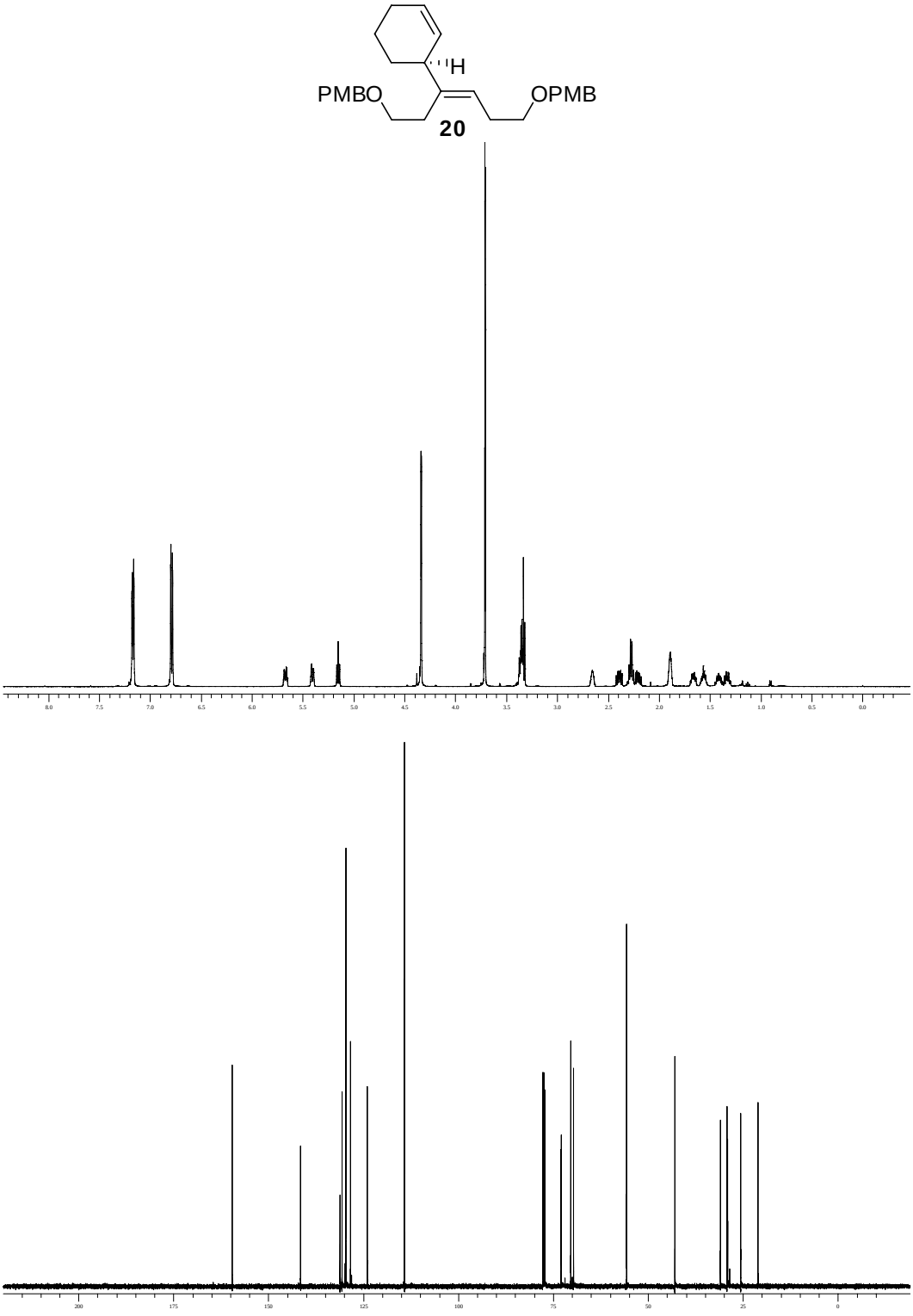
14



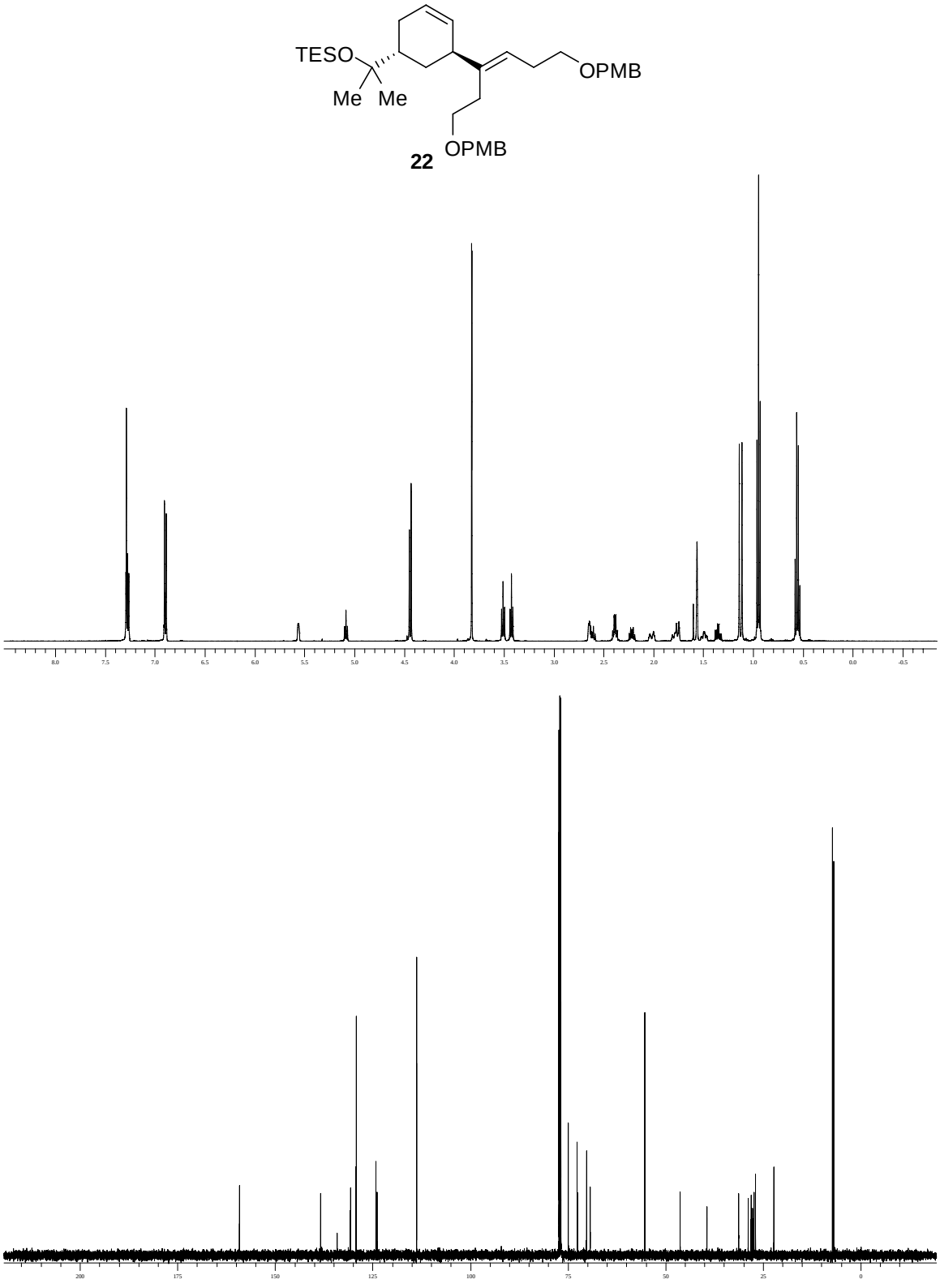
^{1}H NMR (400 MHz) and ^{13}C NMR (126 MHz) of compound **14** ($CDCl_3$)



^{1}H NMR (500 MHz) and ^{13}C NMR (126 MHz) of compound **16 (**$CDCl_3$)

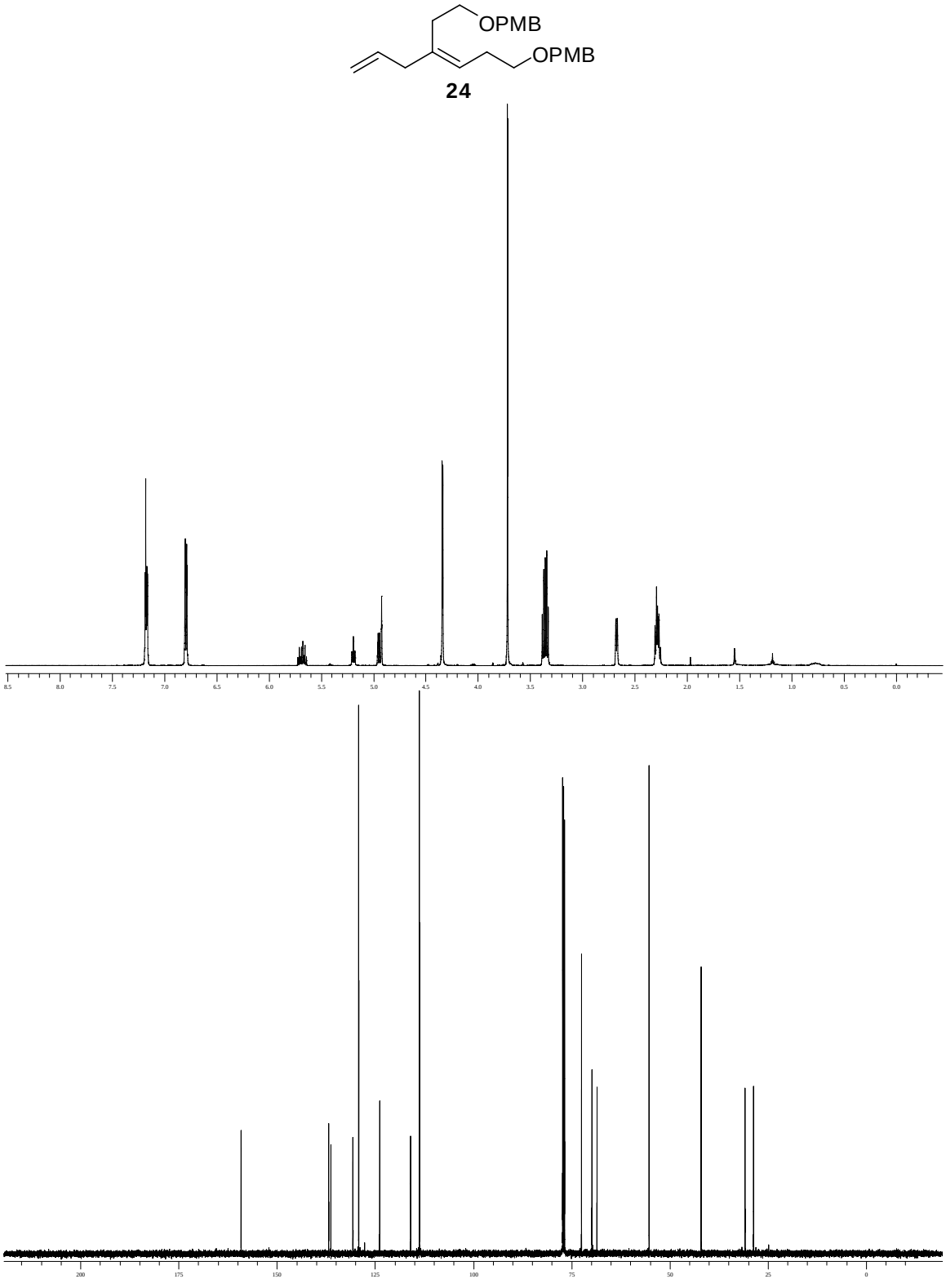


^{1}H NMR (500 MHz) and ^{13}C NMR (126 MHz) of compound **20** ($CDCl_3$)

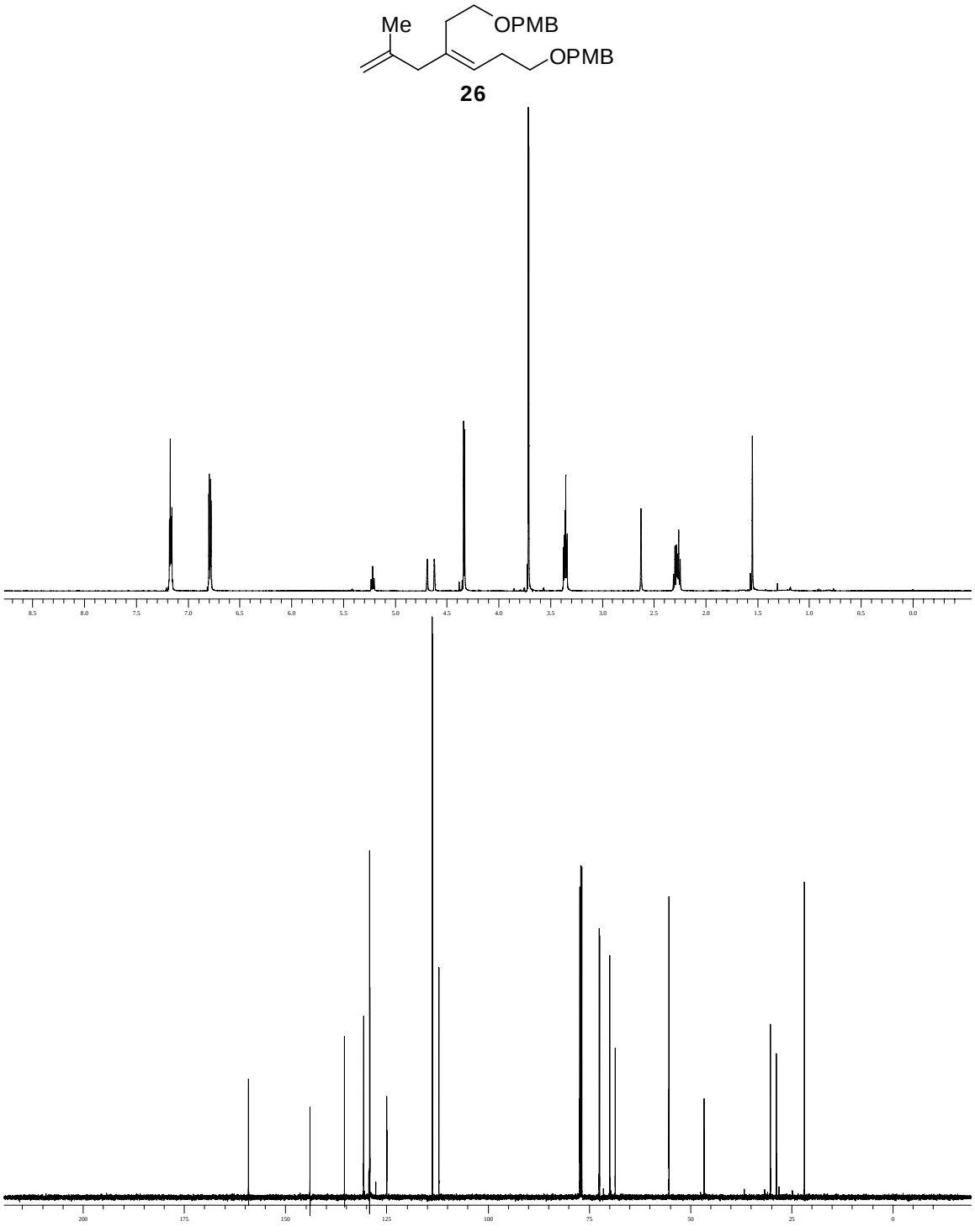


22

^{1}H NMR (500 MHz) and ^{13}C NMR (126 MHz) of compound **22** ($CDCl_3$)

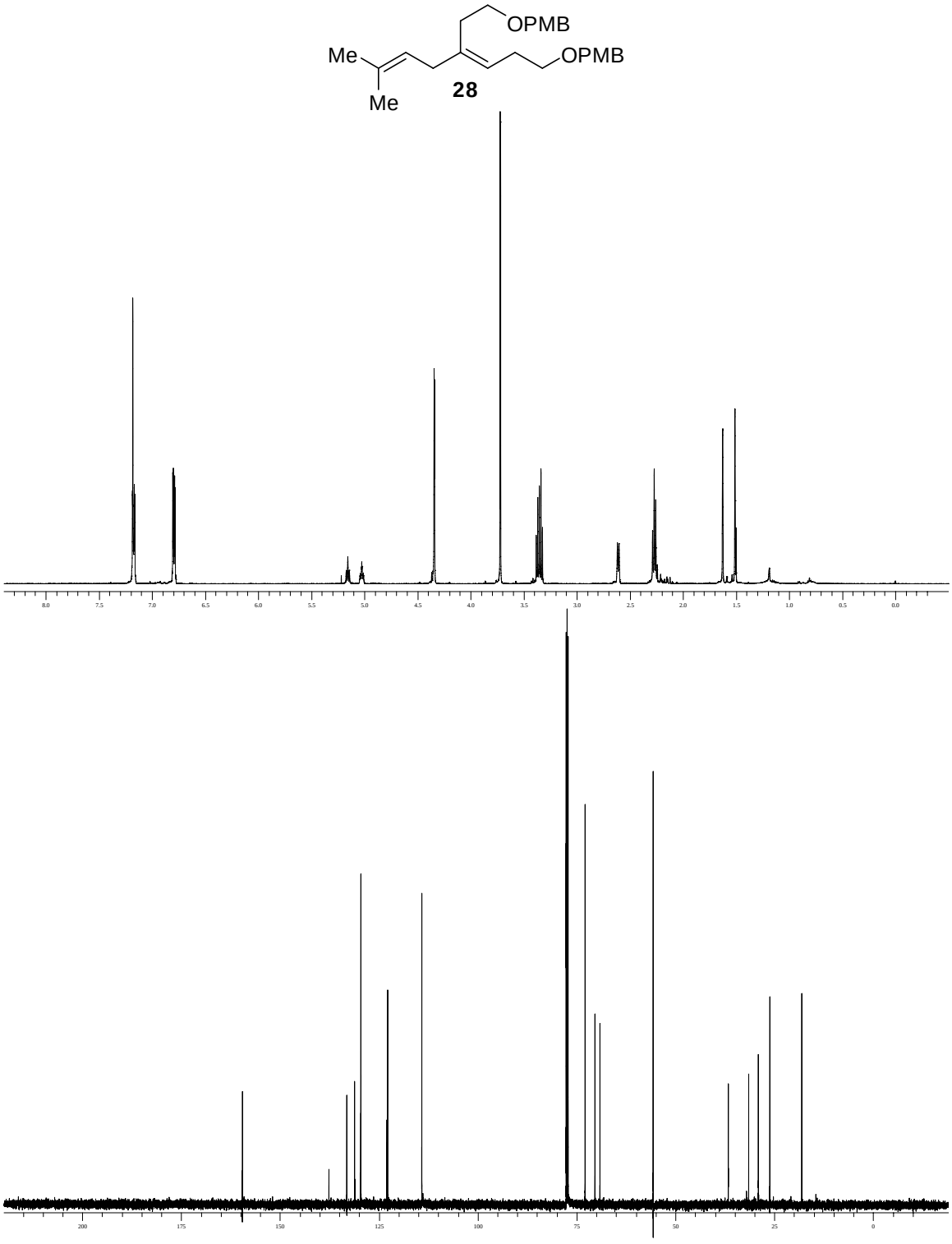


^{1}H NMR (500 MHz) and ^{13}C NMR (126 MHz) of compound **24** ($CDCl_3$)

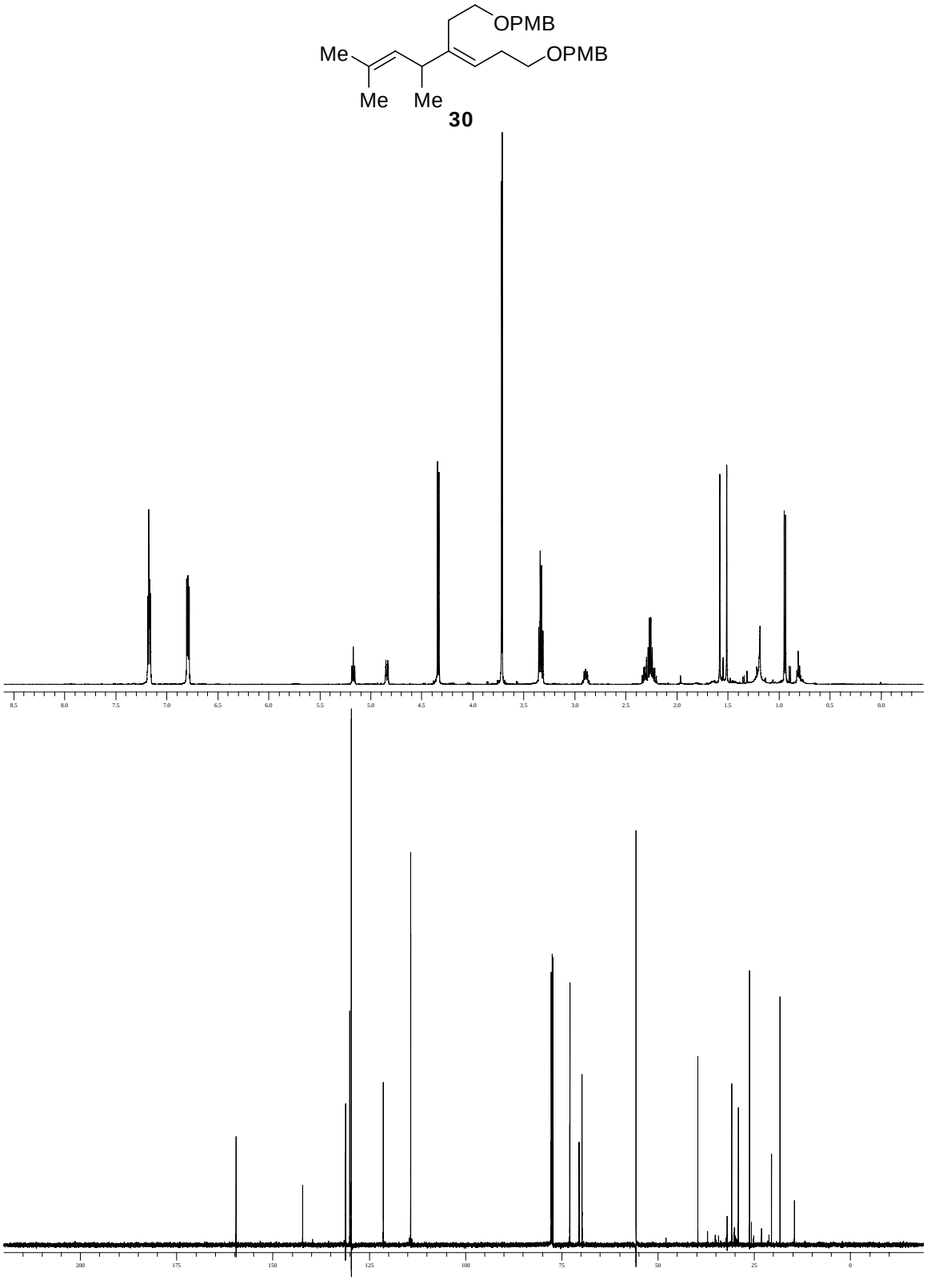


26

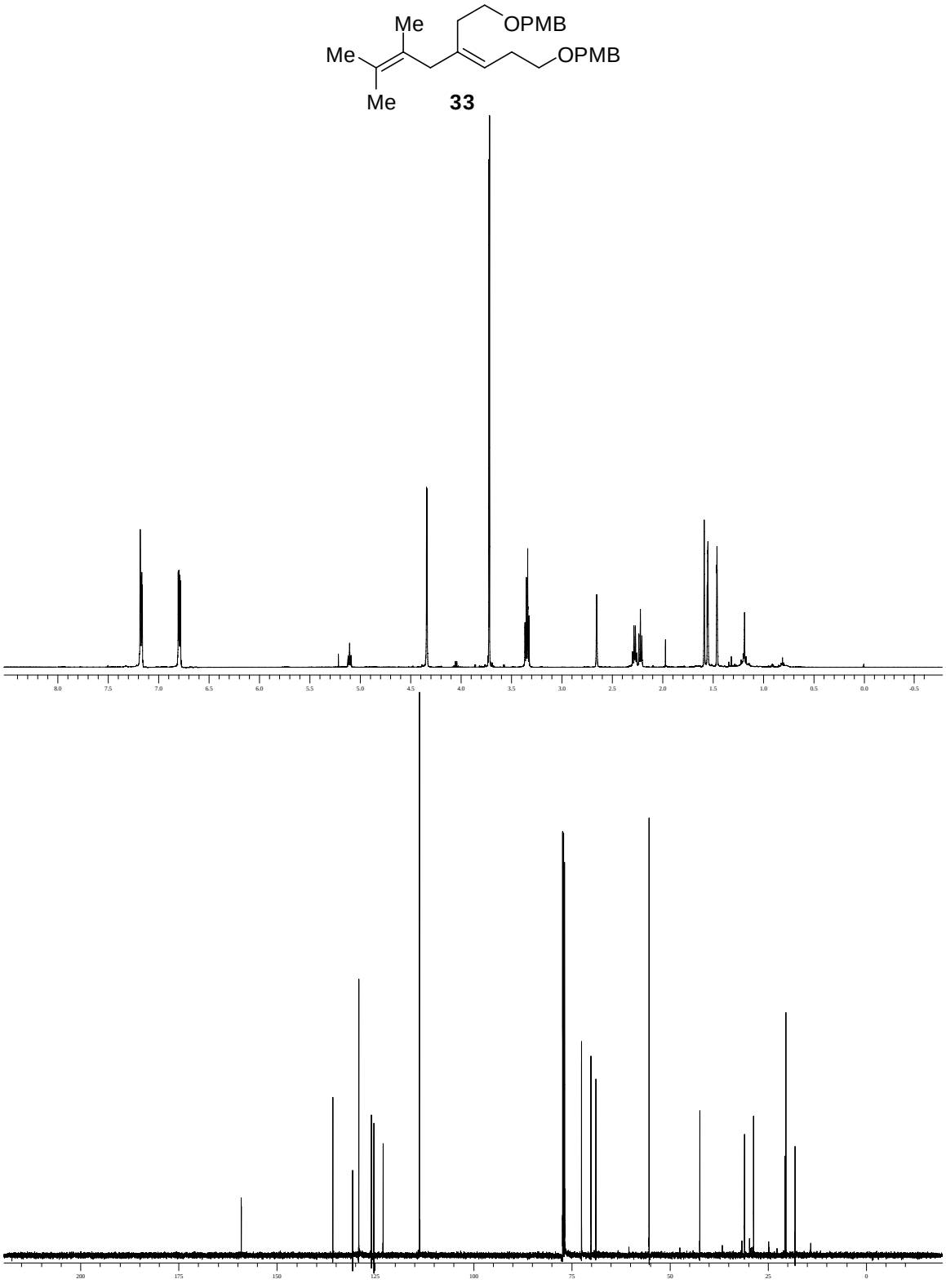
^{1}H NMR (500 MHz) and ^{13}C NMR (126 MHz) of compound **26** ($CDCl_3$)



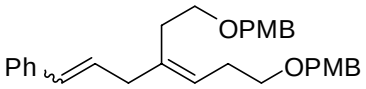
^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of compound **28** ($CDCl_3$)



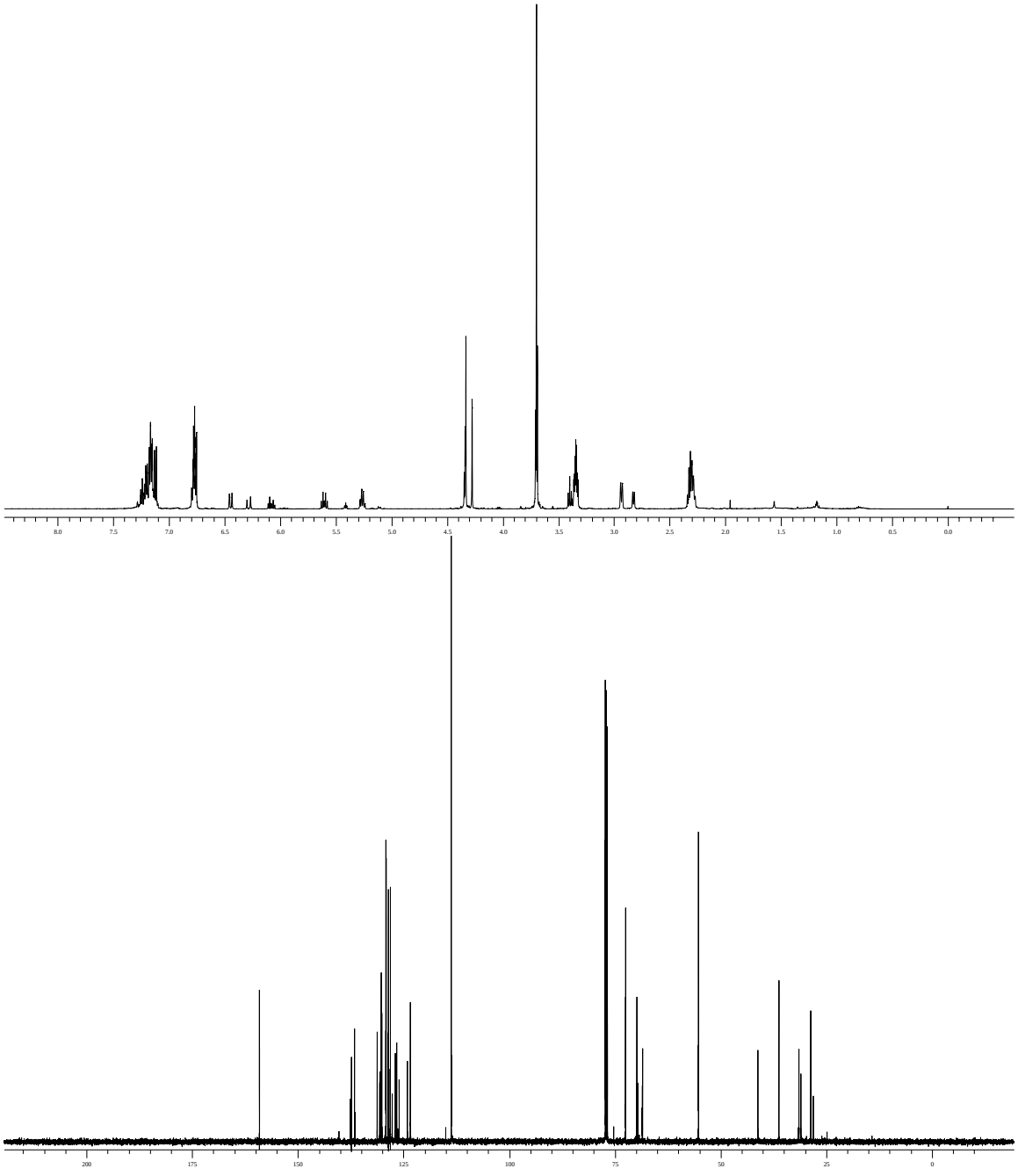
^{1}H NMR (500 MHz) and ^{13}C NMR (126 MHz) of compound **30** ($CDCl_3$)



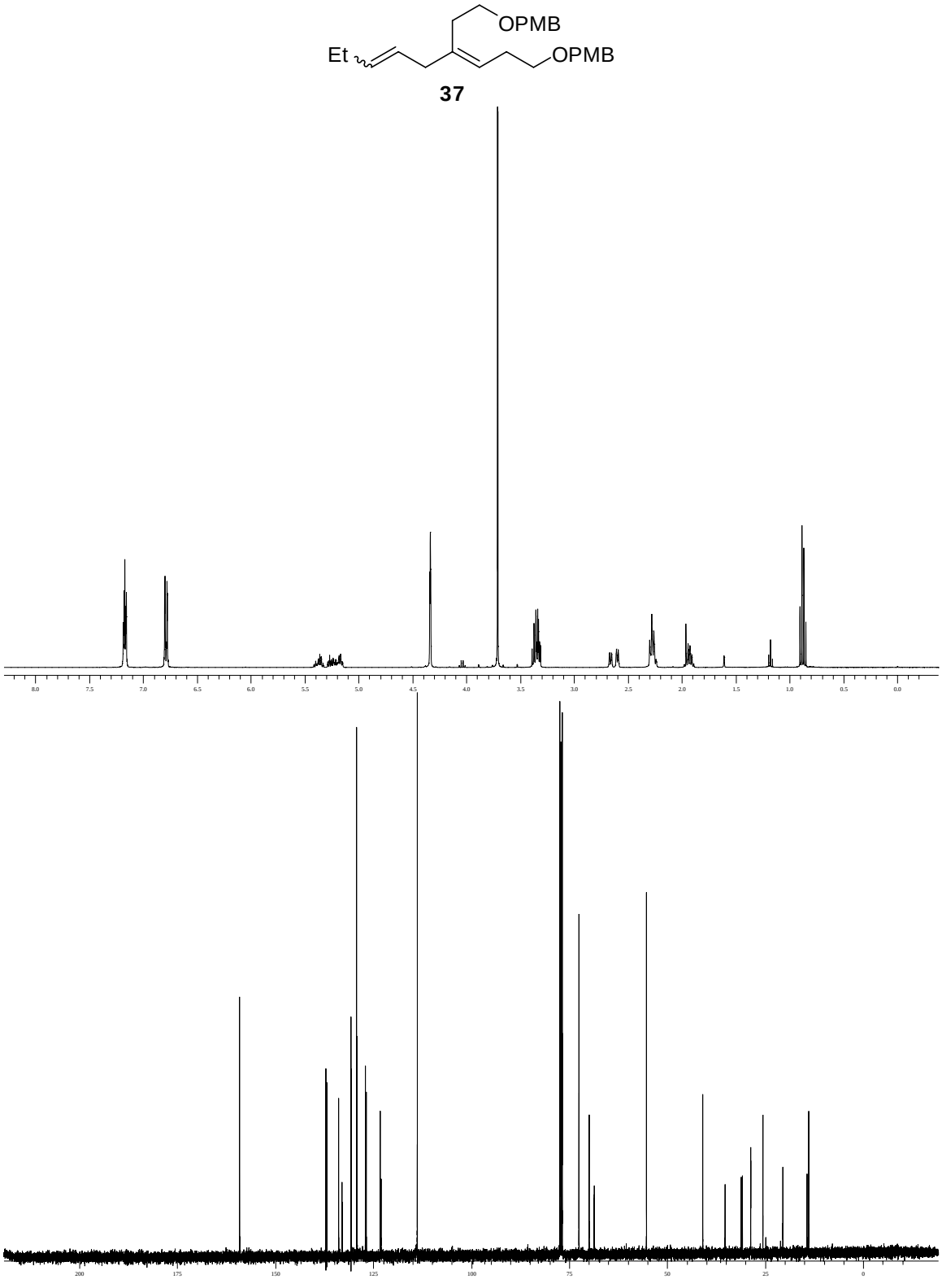
^{1}H NMR (500 MHz) and ^{13}C NMR (126 MHz) of compound **33** ($CDCl_3$)



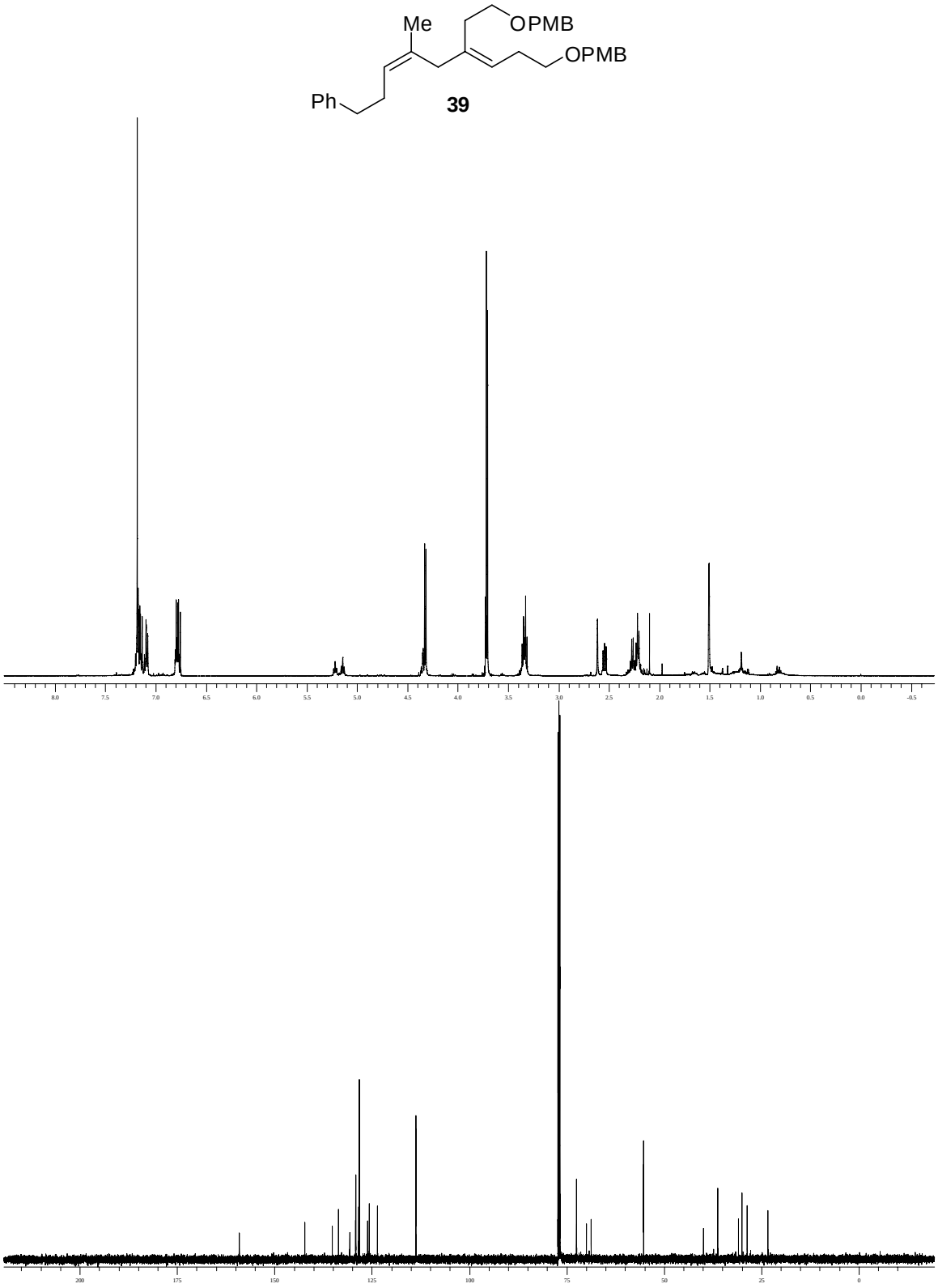
35



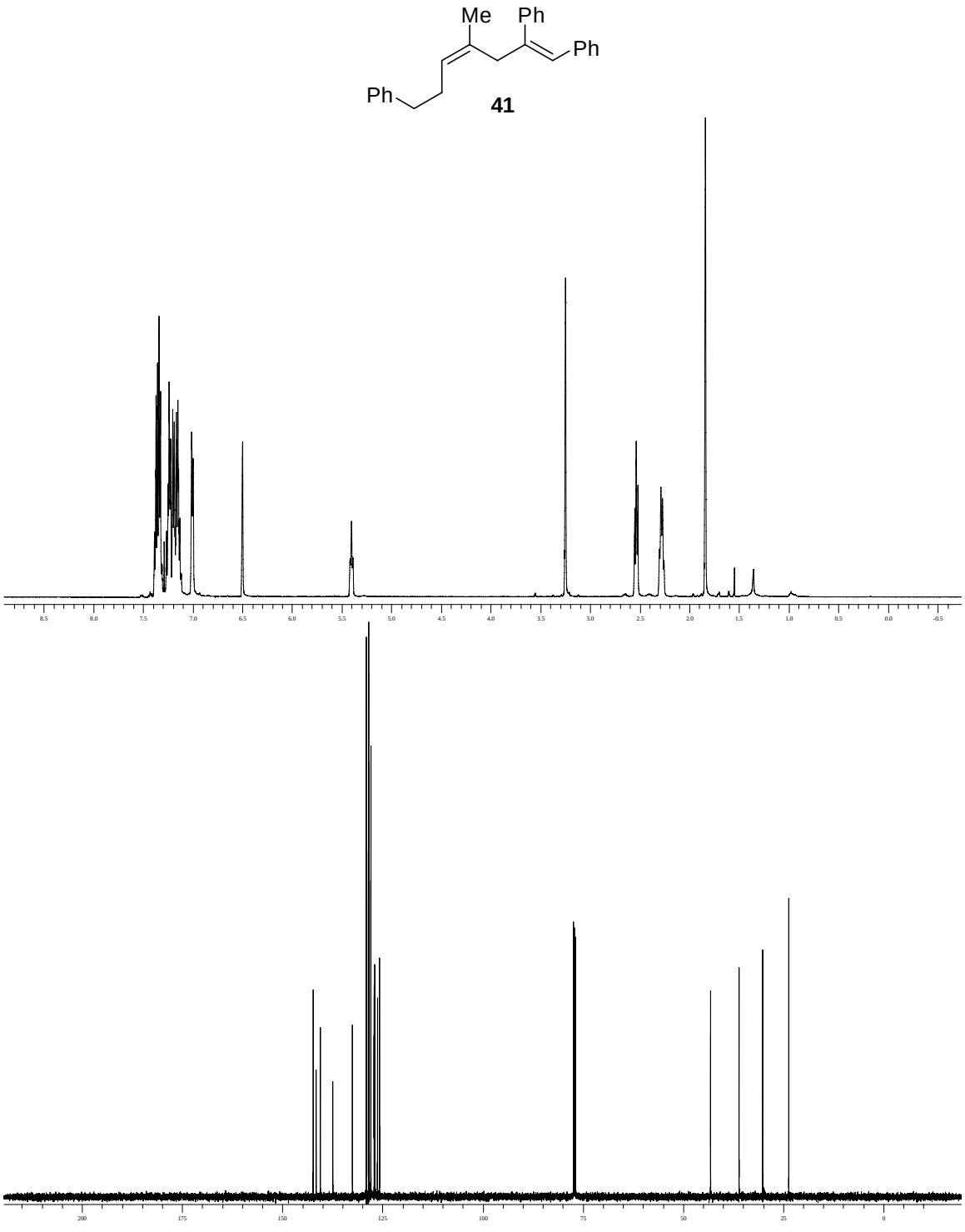
^{1}H NMR (500 MHz) and ^{13}C NMR (126 MHz) of compound **35** ($CDCl_3$)



^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of compound **37** ($CDCl_3$)

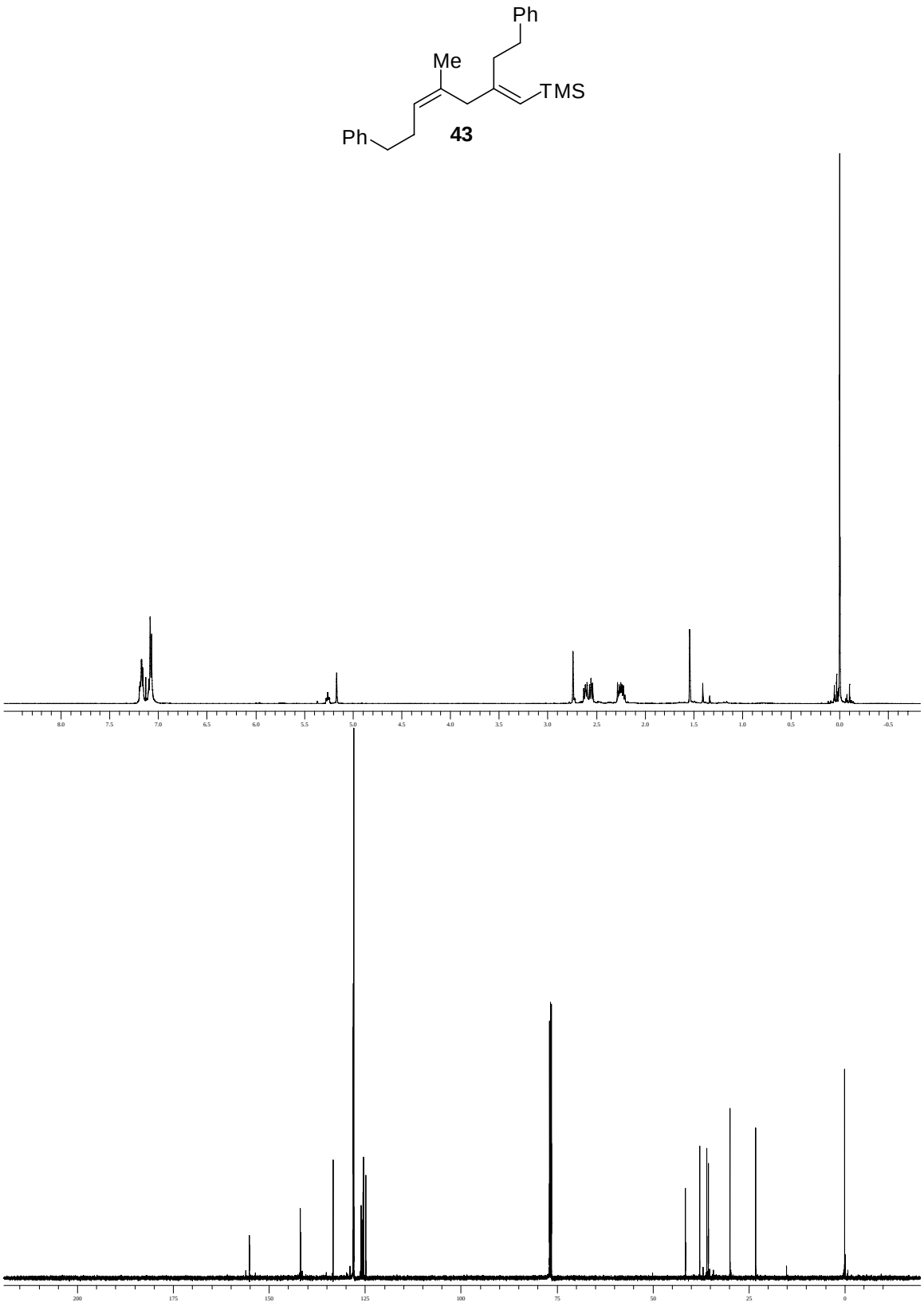


^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of compound **39** ($CDCl_3$)

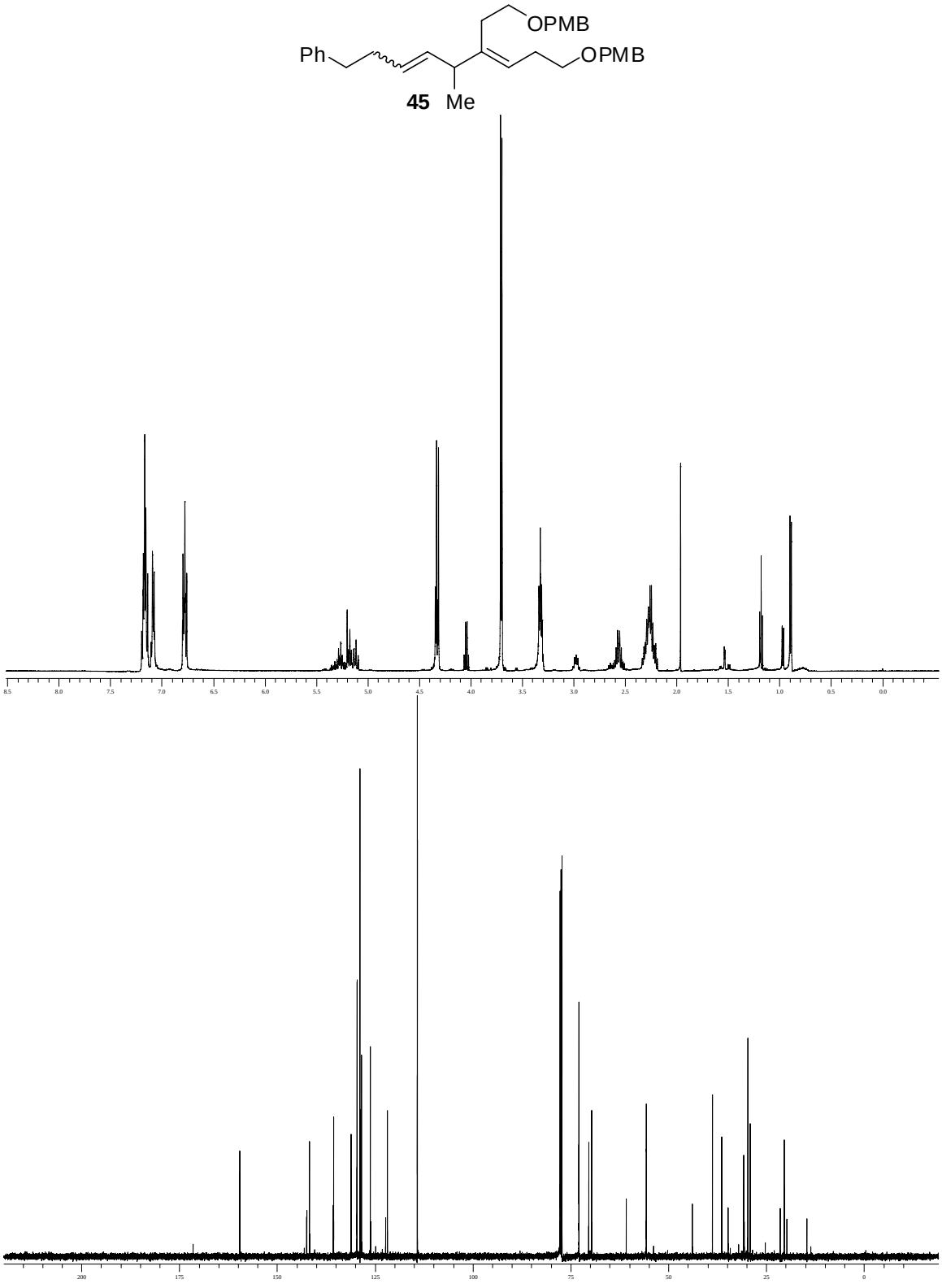


41

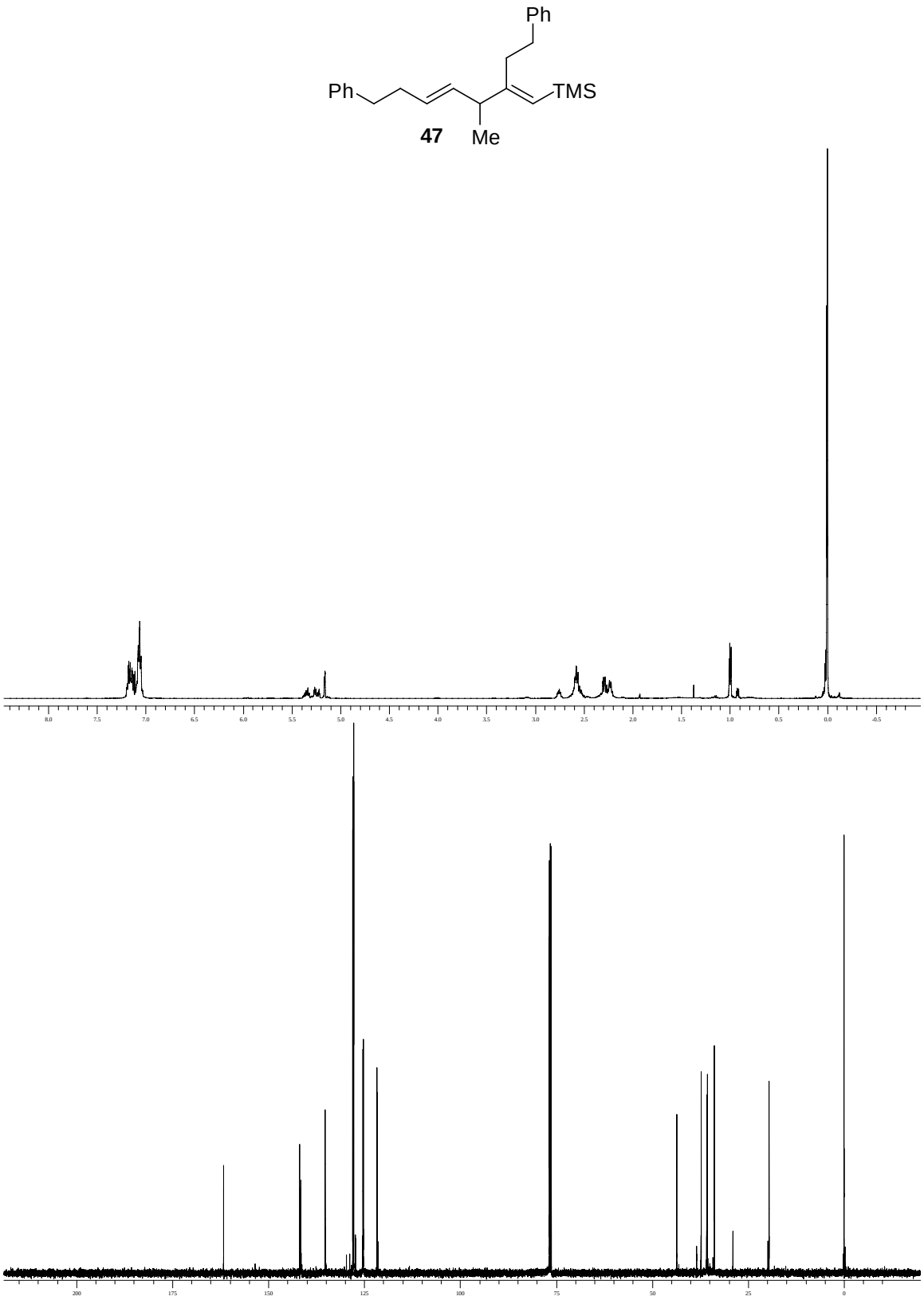
^{1}H NMR (500 MHz) and ^{13}C NMR (126 MHz) of compound **41** ($CDCl_3$)



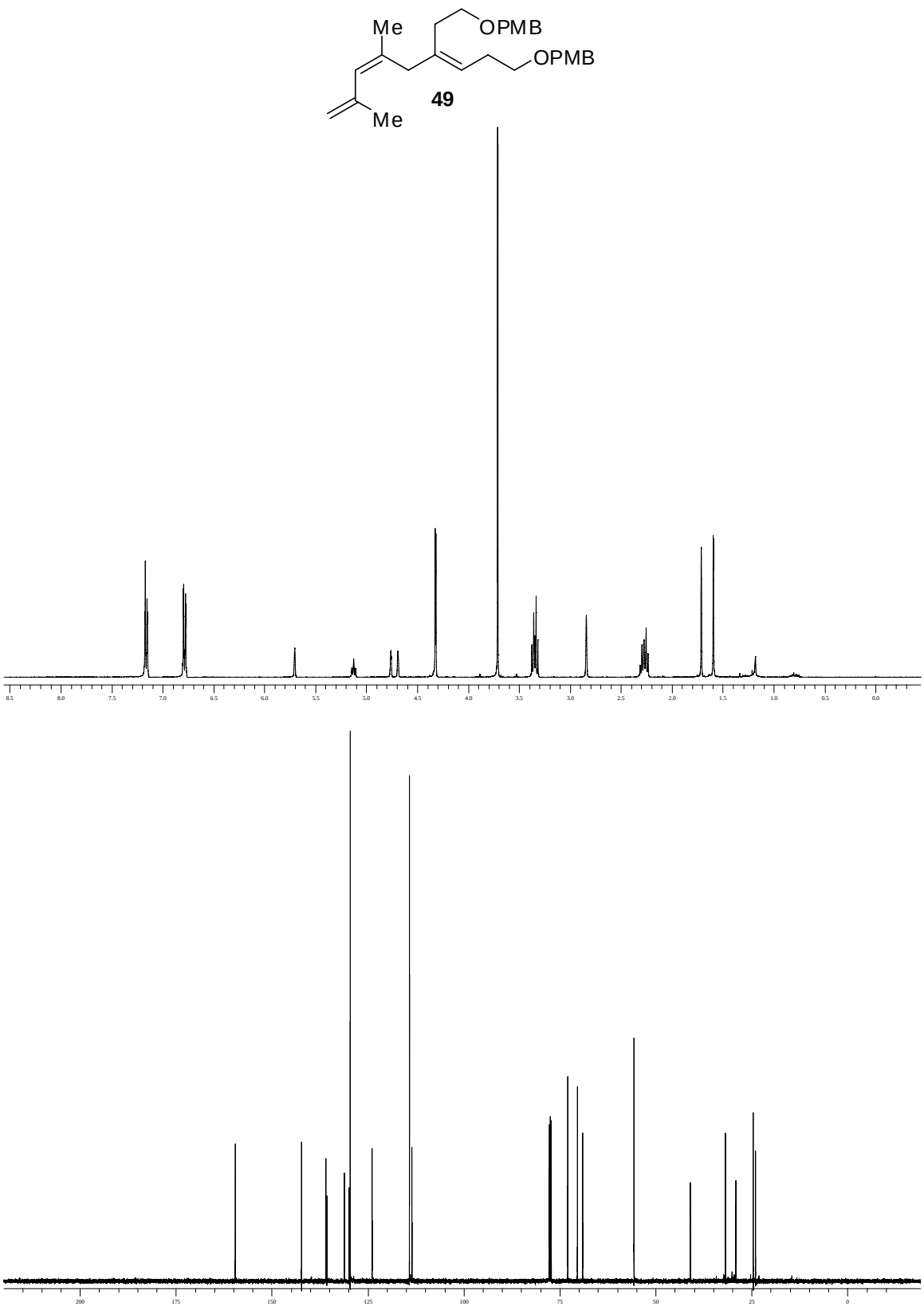
^{1}H NMR (500 MHz) and ^{13}C NMR (126 MHz) of compound **43** ($CDCl_3$)



^{1}H NMR (500 MHz) and ^{13}C NMR (126 MHz) of compound **45** ($CDCl_3$)



^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of compound **47** ($CDCl_3$)



49

^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of compound **49** ($CDCl_3$)