

One-pot Iridium Catalyzed C–H Borylation/ Sonogashira Cross-Coupling: Access to Borylated Aryl Alkynes

Supporting Information

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Table of Contents

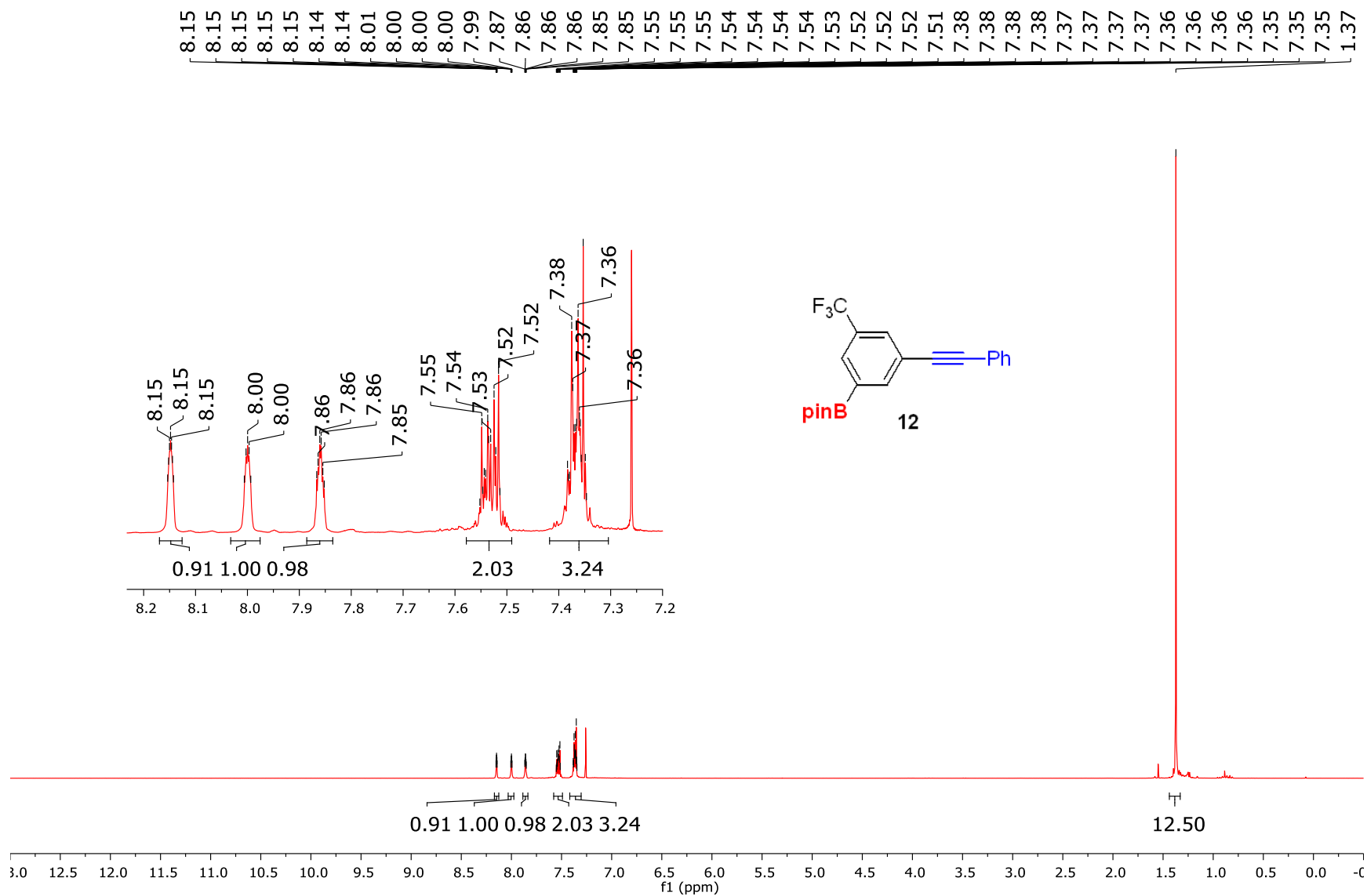
NMR spectrums of compounds reported in Table 1

Entry 1: ¹ H NMR of 12 (CDCl ₃ , 300 MHz)	S4
Entry 1: ¹³ C NMR of 12 (CDCl ₃ , 126 MHz)	S5
Entry 1: ¹¹ B NMR of 12 (C ₆ D ₆ , 96 MHz).....	S6
Entry 2: ¹ H NMR of 13 (CDCl ₃ , 500 MHz)	S7
Entry 2: ¹³ C NMR of 13 (CDCl ₃ , 126 MHz)	S8
Entry 2: ¹¹ B NMR of 13 (CDCl ₃ , 160 MHz)	S9
Entry 3: ¹ H NMR of 14 (CDCl ₃ , 300 MHz)	S10
Entry 3: ¹³ C NMR of 14 (CDCl ₃ , 126 MHz)	S11
Entry 3: ¹¹ B NMR of 14 (CDCl ₃ , 160 MHz)	S12

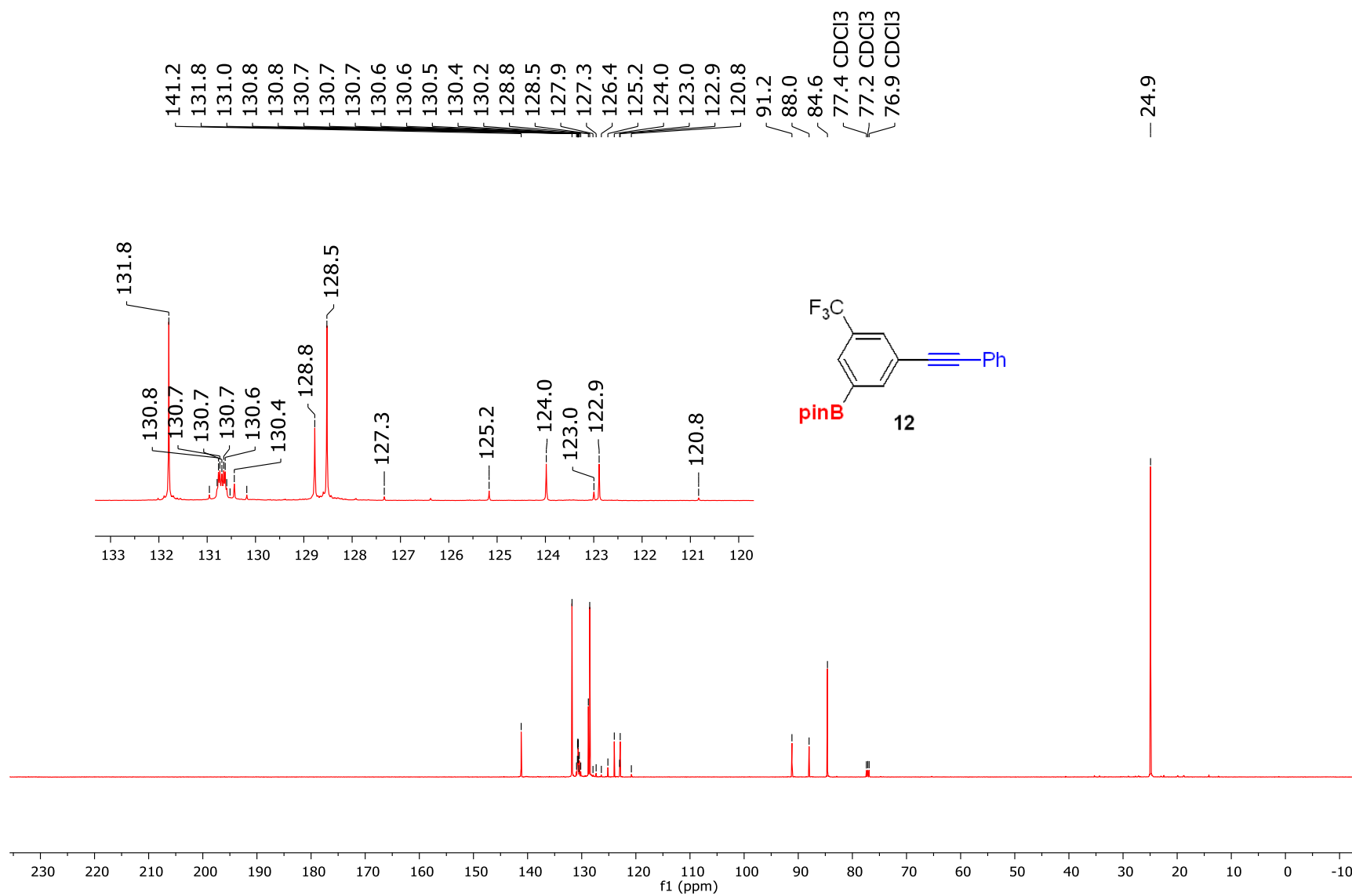
Entry 4: ^1H NMR of 15 (CDCl_3 , 300 MHz)	S13
Entry 4: ^{13}C NMR of 15 (CDCl_3 , 75 MHz)	S14
Entry 4: ^{11}B NMR of 15 (C_6D_6 , 96 MHz).....	S15
Entry 5: ^1H NMR of 16 (CDCl_3 , 500 MHz)	S16
Entry 5: ^{13}C NMR of 16 (CDCl_3 , 126 MHz)	S17
Entry 5: ^{11}B NMR of 16 ($(\text{CD}_3)_2\text{CO}$, 96 MHz)	S18
Entry 6: ^1H NMR of 17 (C_6D_6 , 300 MHz).....	S19
Entry 6: ^{13}C NMR of 17 (C_6D_6 , 75 MHz).....	S20
Entry 6: ^{11}B NMR of 17 (C_6D_6 , 96 MHz).....	S21
Entry 7: ^1H NMR of 18 (CDCl_3 , 300 MHz)	S22
Entry 7: ^{13}C NMR of 18 (CDCl_3 , 75 MHz)	S23
Entry 7: ^{11}B NMR of 18 (CDCl_3 , 160 MHz)	S24
Entry 8: ^1H NMR of 19 (CDCl_3 , 300 MHz)	S25
Entry 8: ^{13}C NMR of 19 (CDCl_3 , 75 MHz)	S26
Entry 8: ^{11}B NMR of 19 (CDCl_3 , 160 MHz)	S27
Entry 9: ^1H NMR of 20 (CDCl_3 , 500 MHz)	S28
Entry 9: ^{13}C NMR of 20 (CDCl_3 , 126 MHz)	S29
Entry 9: ^{11}B NMR of 20 (CDCl_3 , 160 MHz)	S30
Entry 10: ^1H NMR of 21 (CDCl_3 , 500 MHz)	S31
Entry 10: ^{13}C NMR of 21 (CDCl_3 , 126 MHz)	S32
Entry 10: ^{11}B NMR of 21 (CDCl_3 , 160 MHz)	S33

Entry 11: ^1H NMR of 22 (CDCl_3 , 500 MHz)	S34
Entry 11: ^{13}C NMR of 22 (CDCl_3 , 126 MHz)	S35
Entry 11: ^{11}B NMR of 22 ($(\text{CD}_3)_2\text{CO}$, 96 MHz)	S36
Entry 12: ^1H NMR of 23 (CDCl_3 , 500 MHz)	S37
Entry 12: ^{13}C NMR of 23 (CDCl_3 , 126 MHz)	S38
Entry 12: ^{11}B NMR of 23 (CDCl_3 , 160 MHz)	S39
Entry 13: ^1H NMR of 24 (CDCl_3 , 500 MHz)	S40
Entry 13: ^{13}C NMR of 24 (CDCl_3 , 126 MHz)	S41
Entry 13: ^{11}B NMR of 24 ($(\text{CD}_3)_2\text{CO}$, 96 MHz)	S42
Entry 14: ^1H NMR of 25 (CDCl_3 , 500 MHz)	S43
Entry 14: ^{13}C NMR of 25 (CDCl_3 , 126 MHz)	S44
Entry 14: ^{11}B NMR of 25 (CDCl_3 , 160 MHz)	S45

Entry 1: ^1H NMR of 12 (CDCl_3 , 300 MHz)

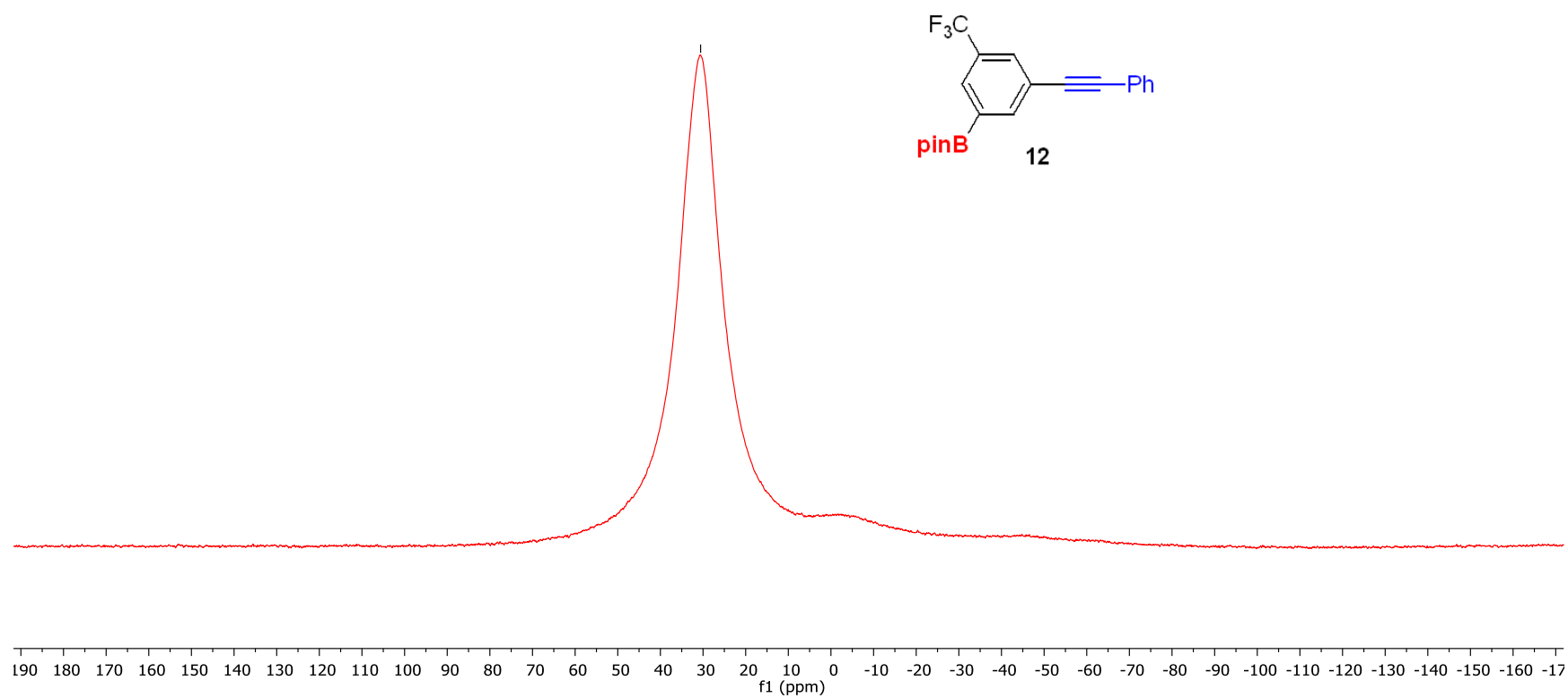


Entry 1: ^{13}C NMR of 12 (CDCl_3 , 126 MHz)

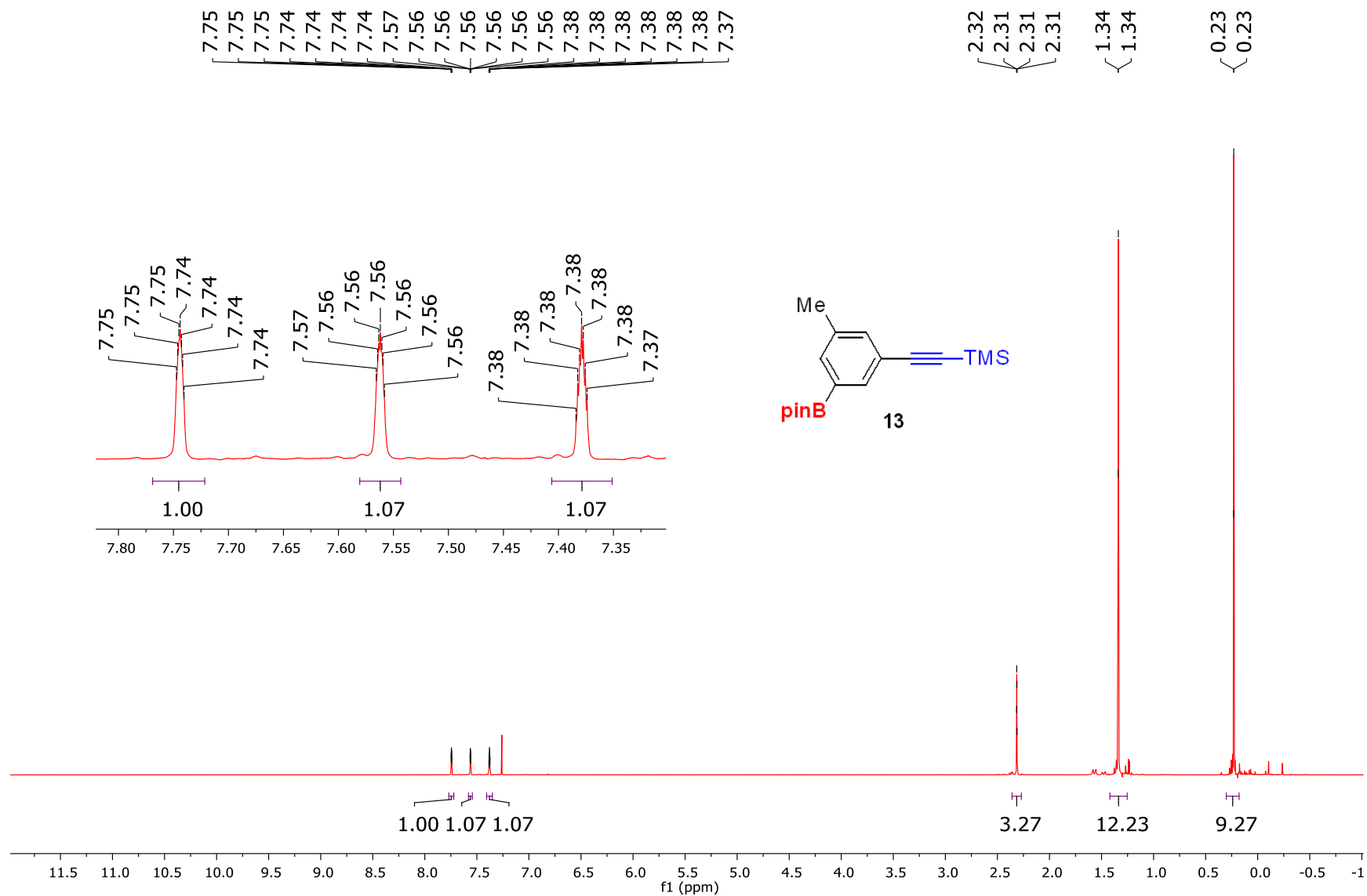


Entry 1: ^{11}B NMR of 12 (C_6D_6 , 96 MHz)

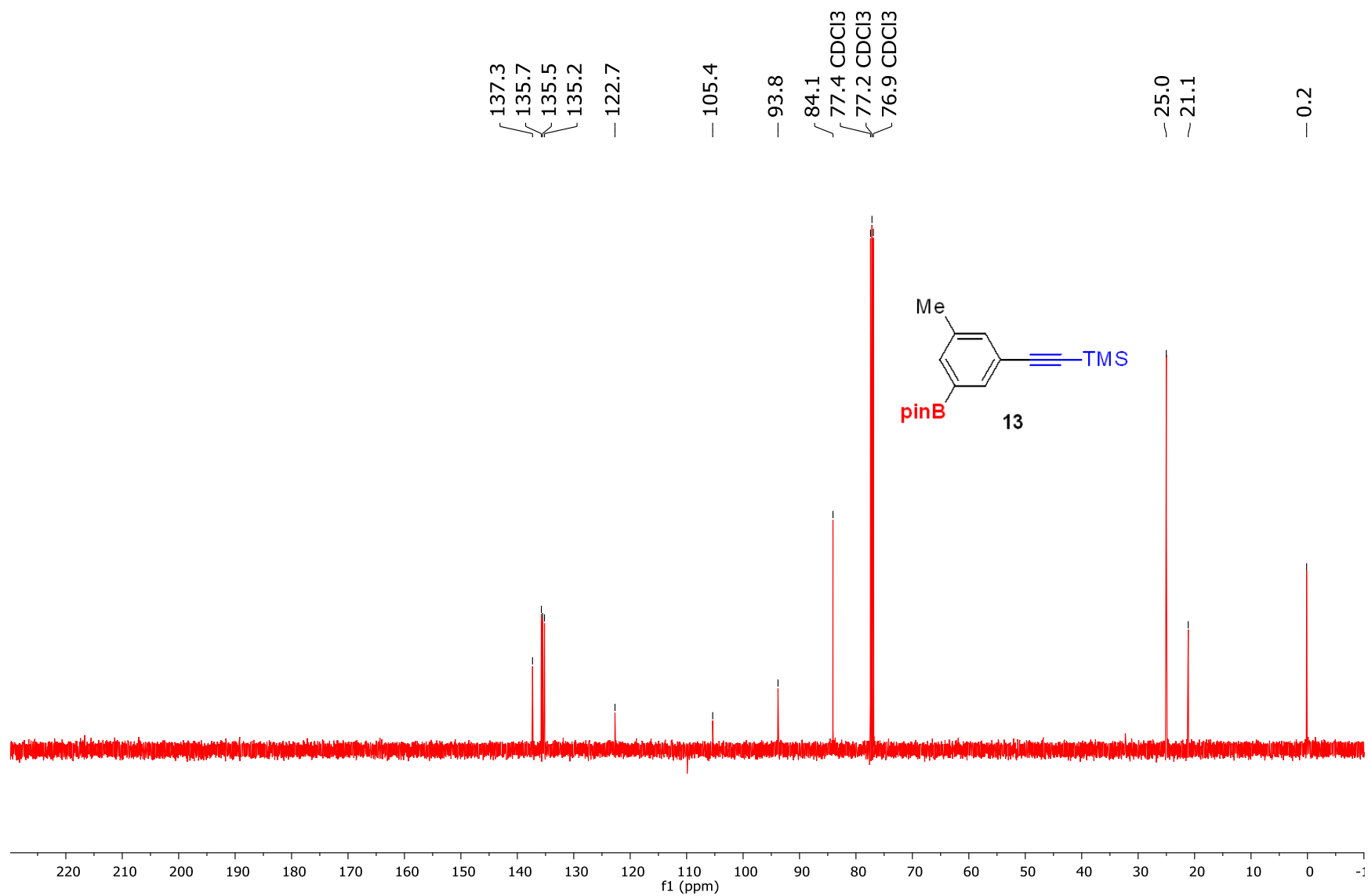
— 30.6



Entry 2: ^1H NMR of 13 (CDCl_3 , 500 MHz)

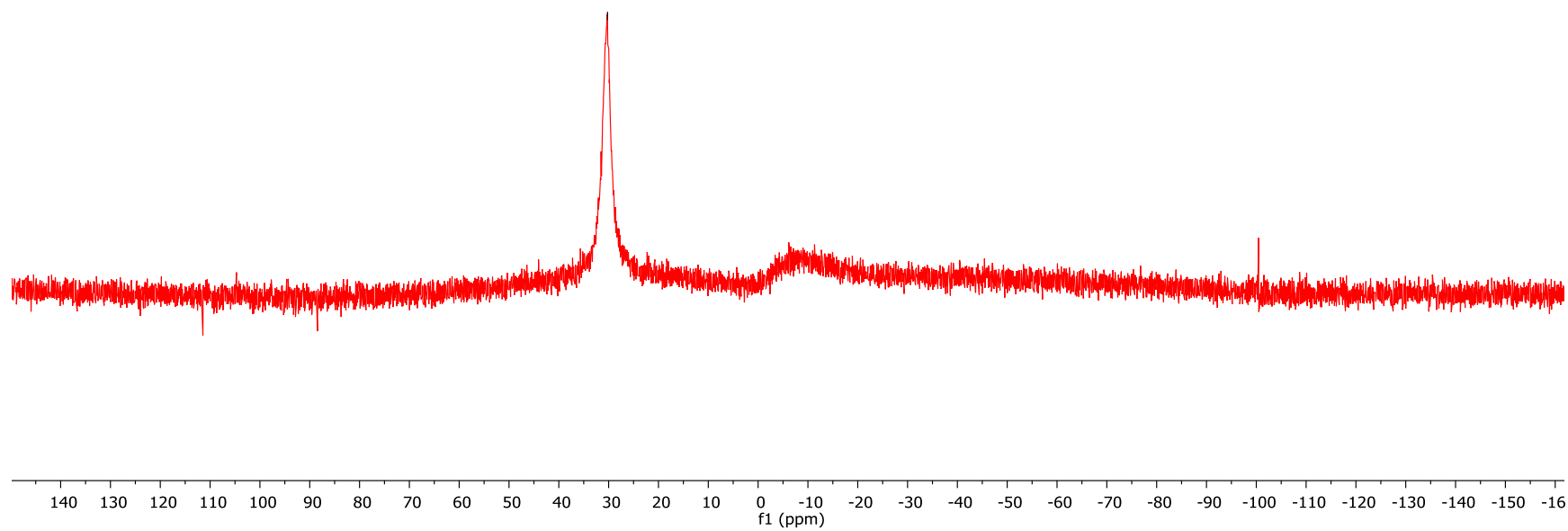
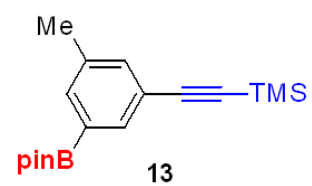


Entry 2: ^{13}C NMR of 13 (CDCl_3 , 126 MHz)

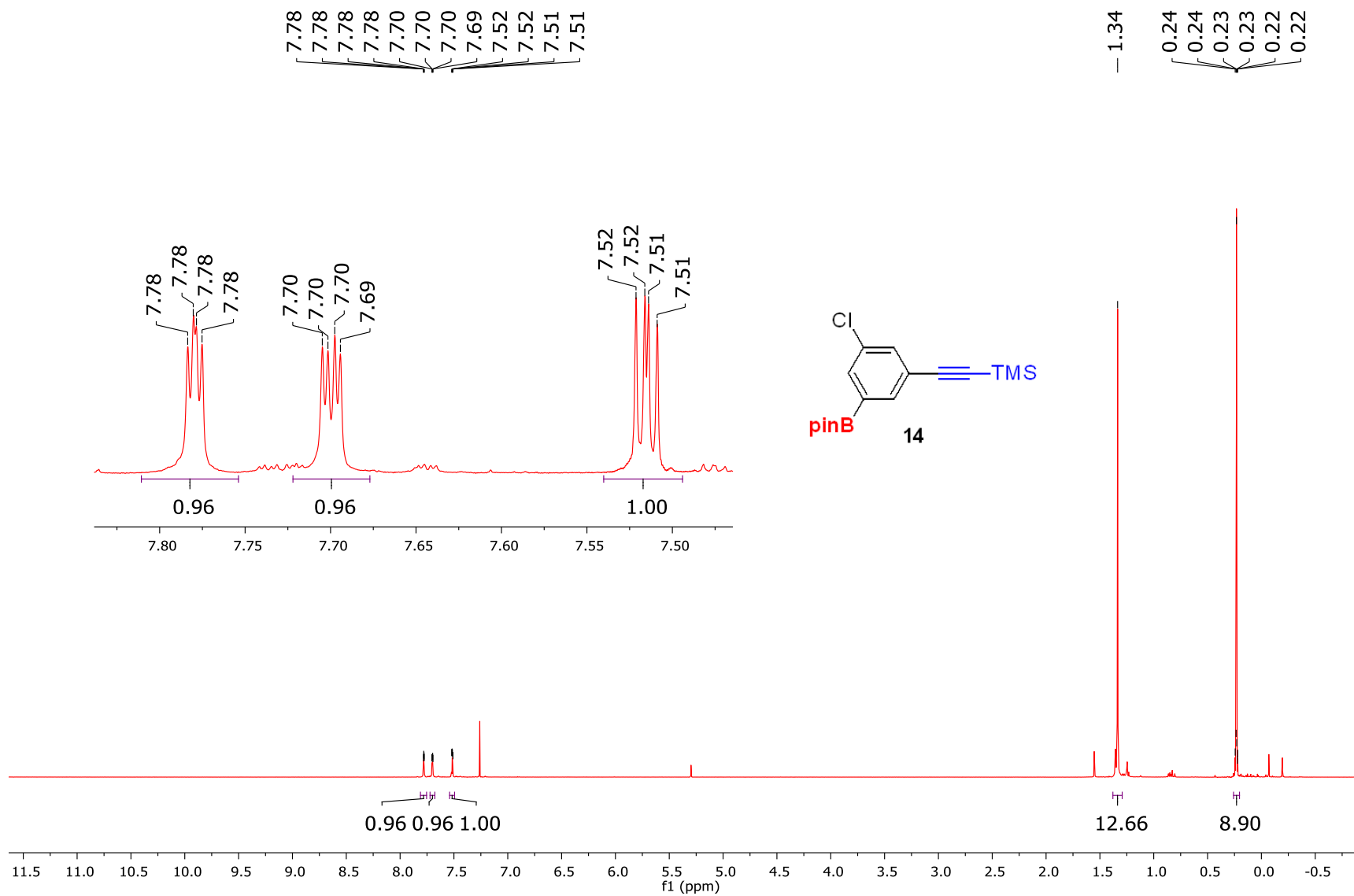


Entry 2: ^{11}B NMR of 13 (CDCl_3 , 160 MHz)

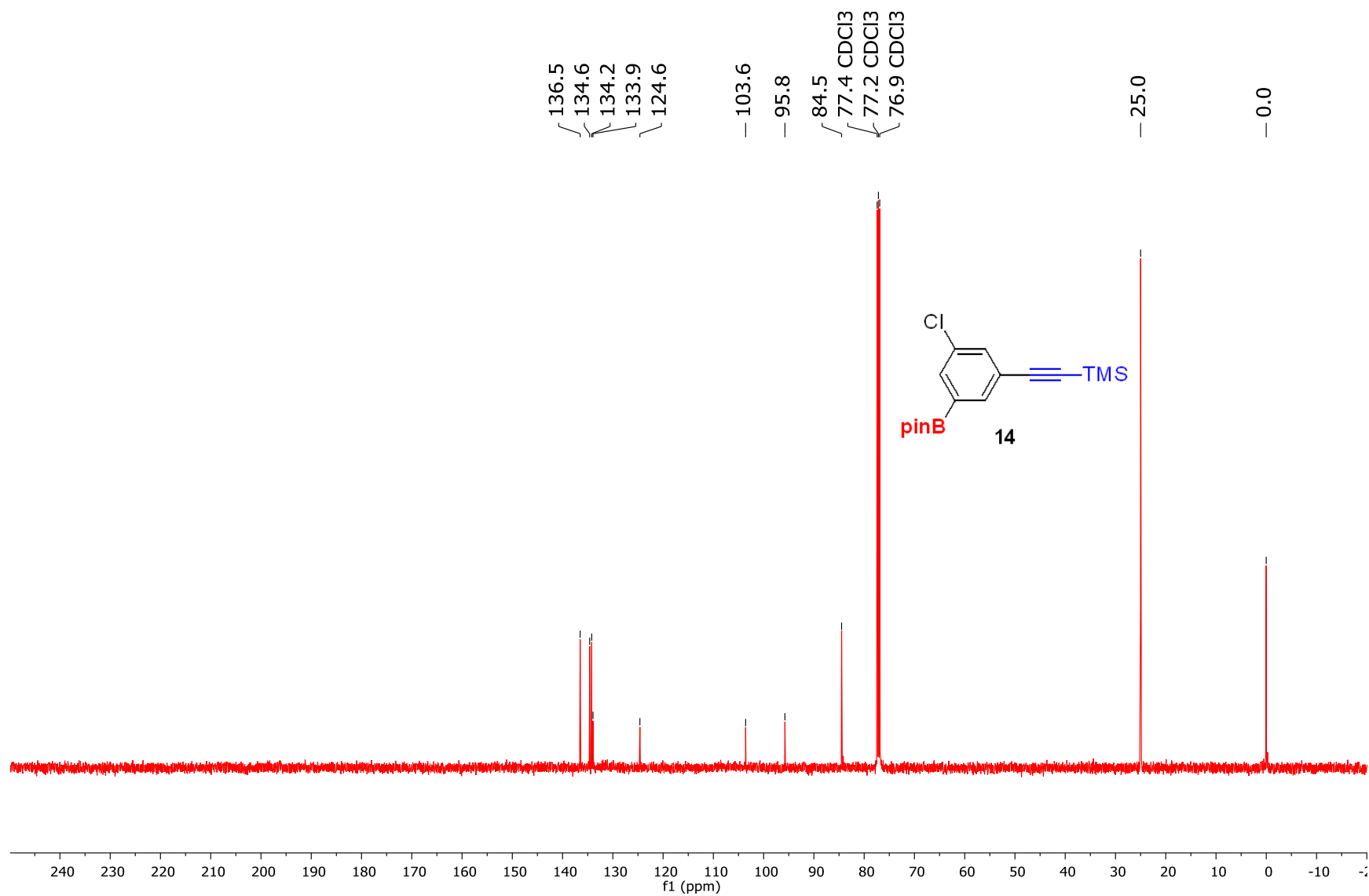
— 30.2



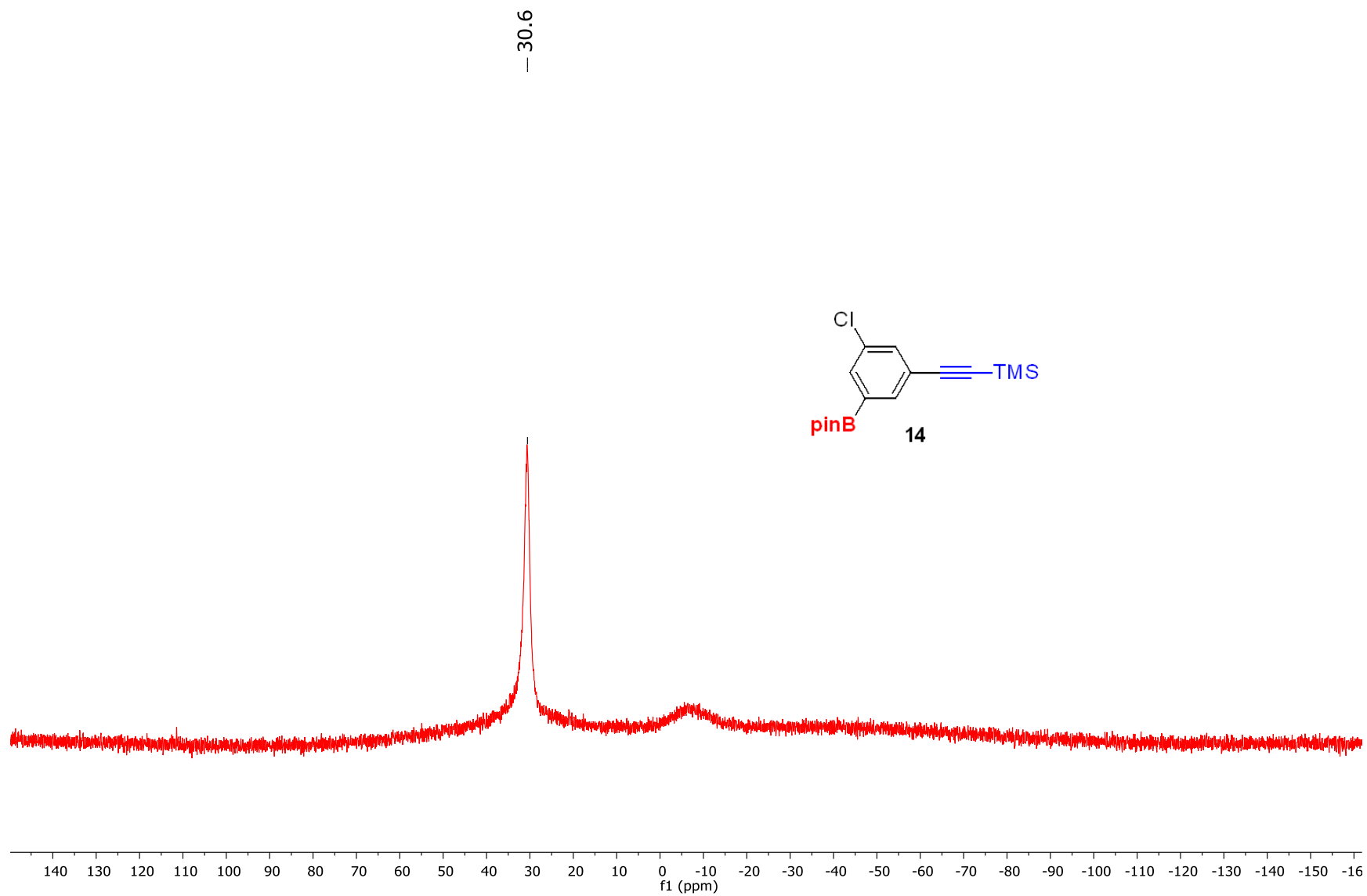
Entry 3: ^1H NMR of 14 (CDCl_3 , 300 MHz)



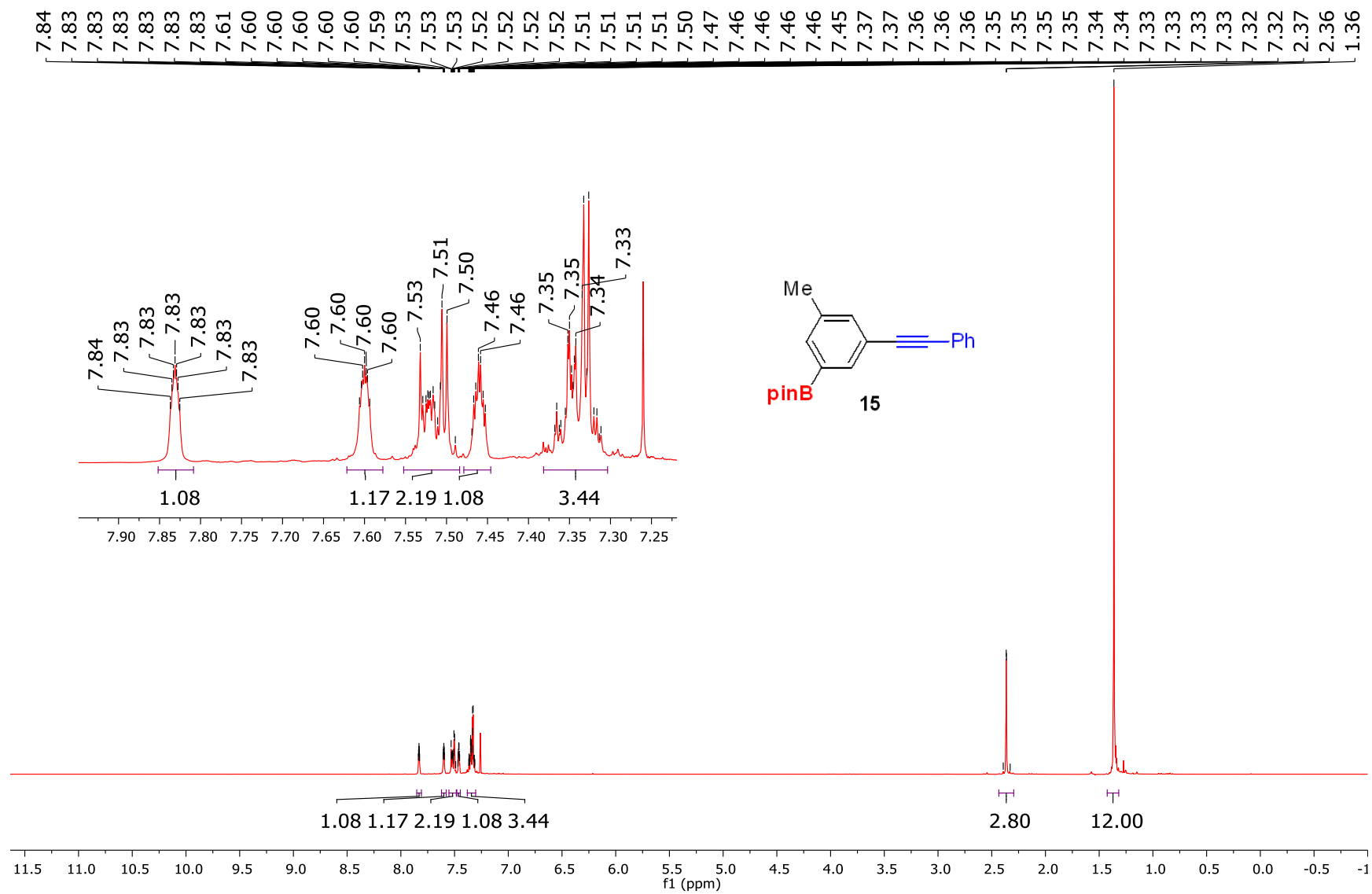
Entry 3: ^{13}C NMR of 14 (CDCl_3 , 126 MHz)



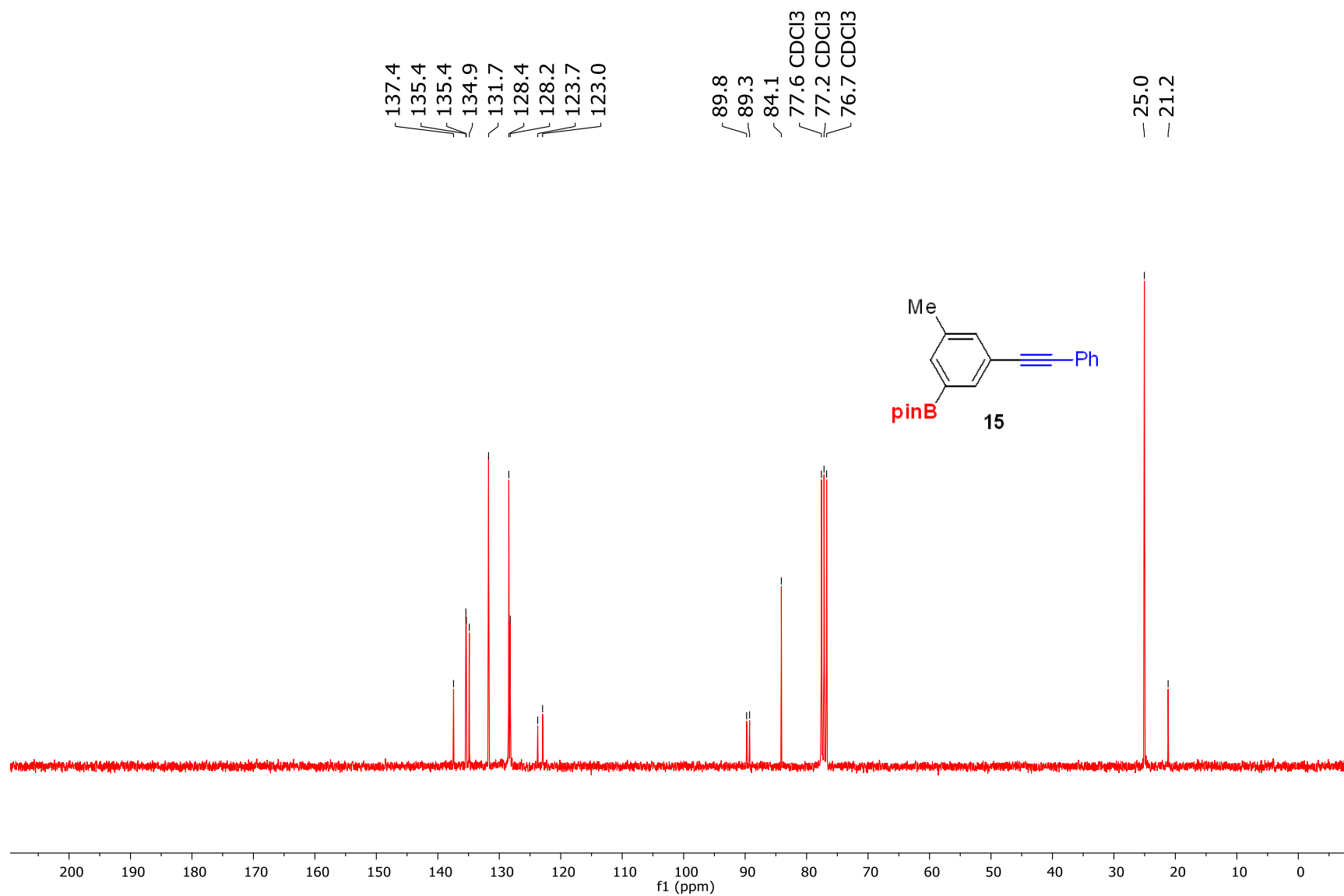
Entry 3: ^{11}B NMR of 14 (CDCl_3 , 160 MHz)



Entry 4: ^1H NMR of 15 (CDCl_3 , 300 MHz)

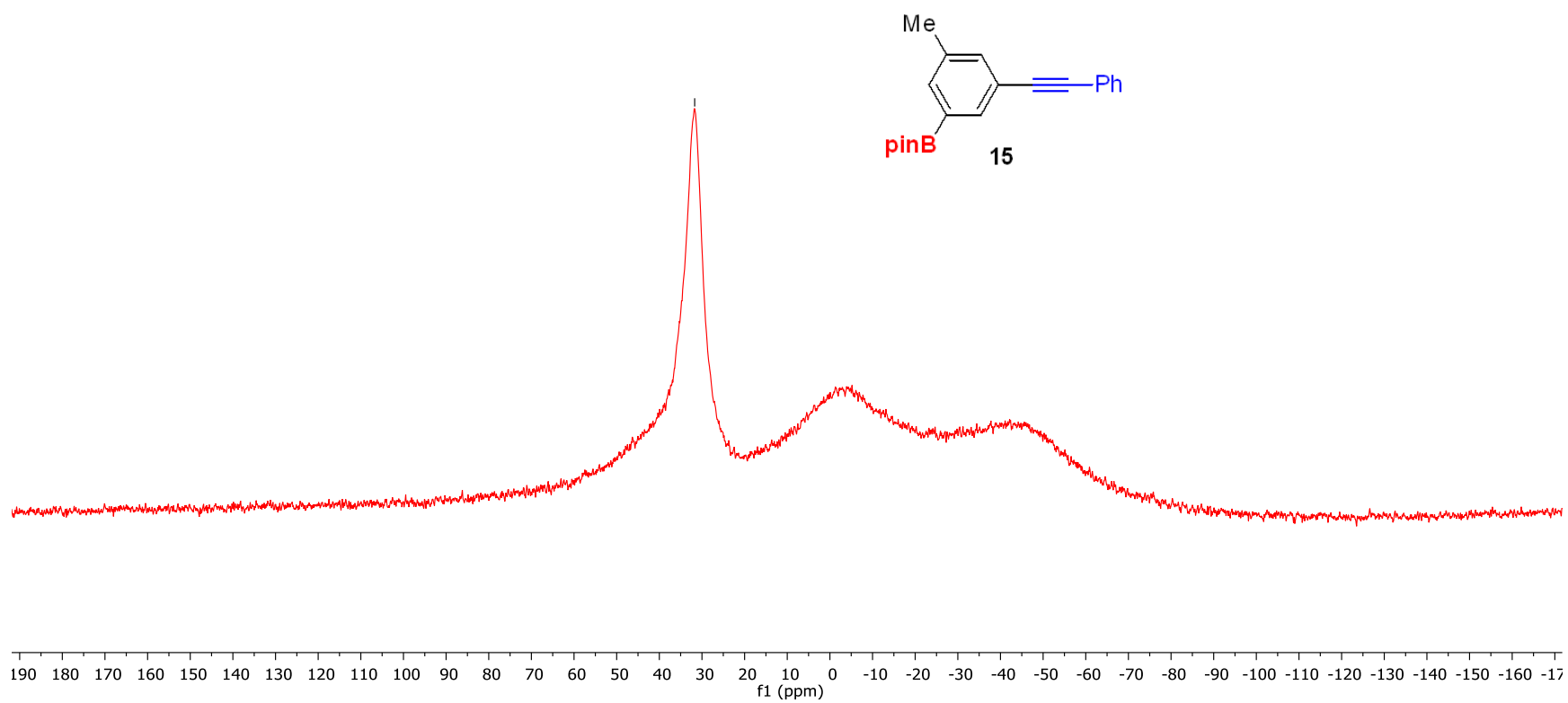


Entry 4: ^{13}C NMR of 15 (CDCl_3 , 75 MHz)

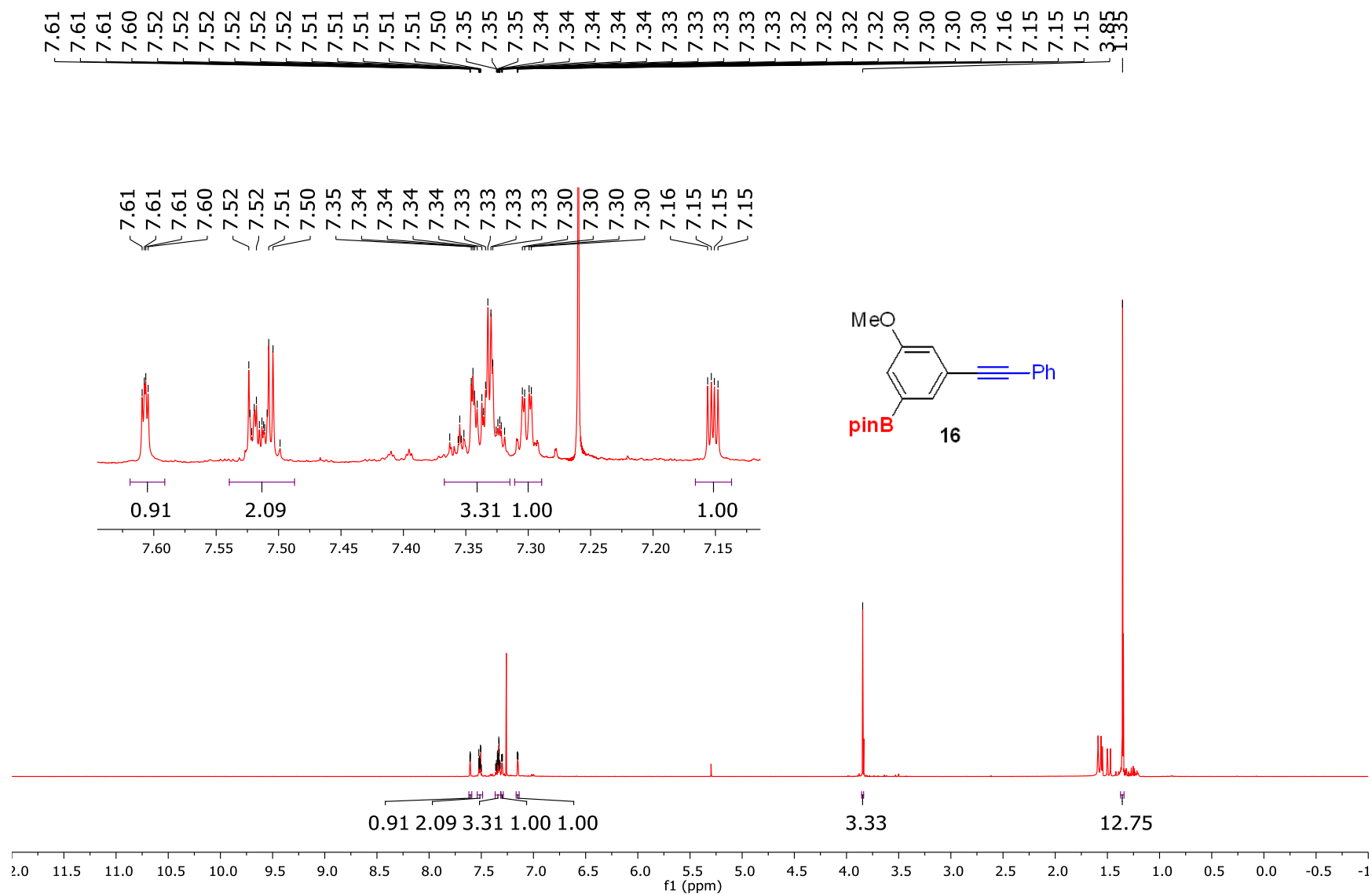


Entry 4: ^{11}B NMR of 15 (C_6D_6 , 96 MHz)

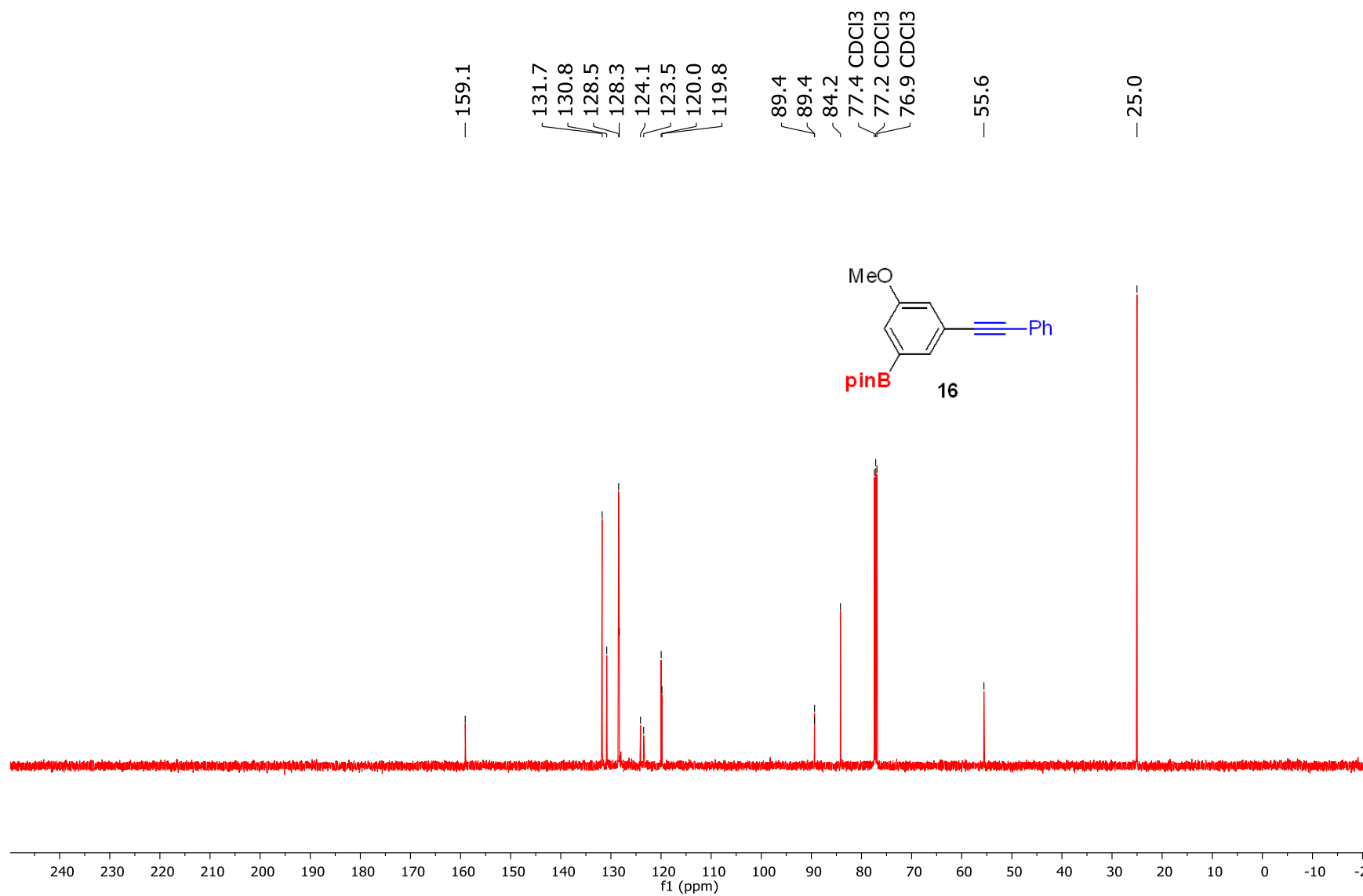
— 31.7



Entry 5: ^1H NMR of 16 (CDCl_3 , 500 MHz)

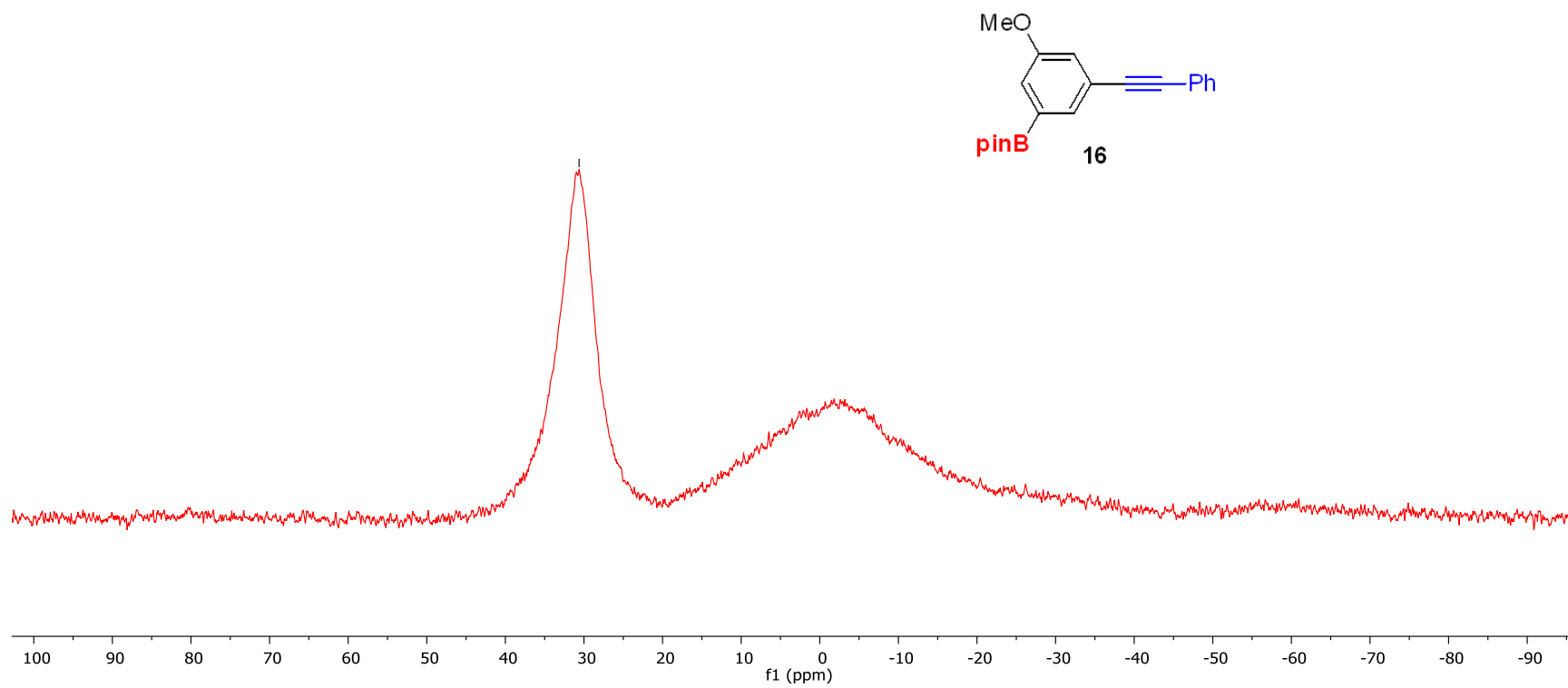


Entry 5: ^{13}C NMR of 16 (CDCl_3 , 126 MHz)

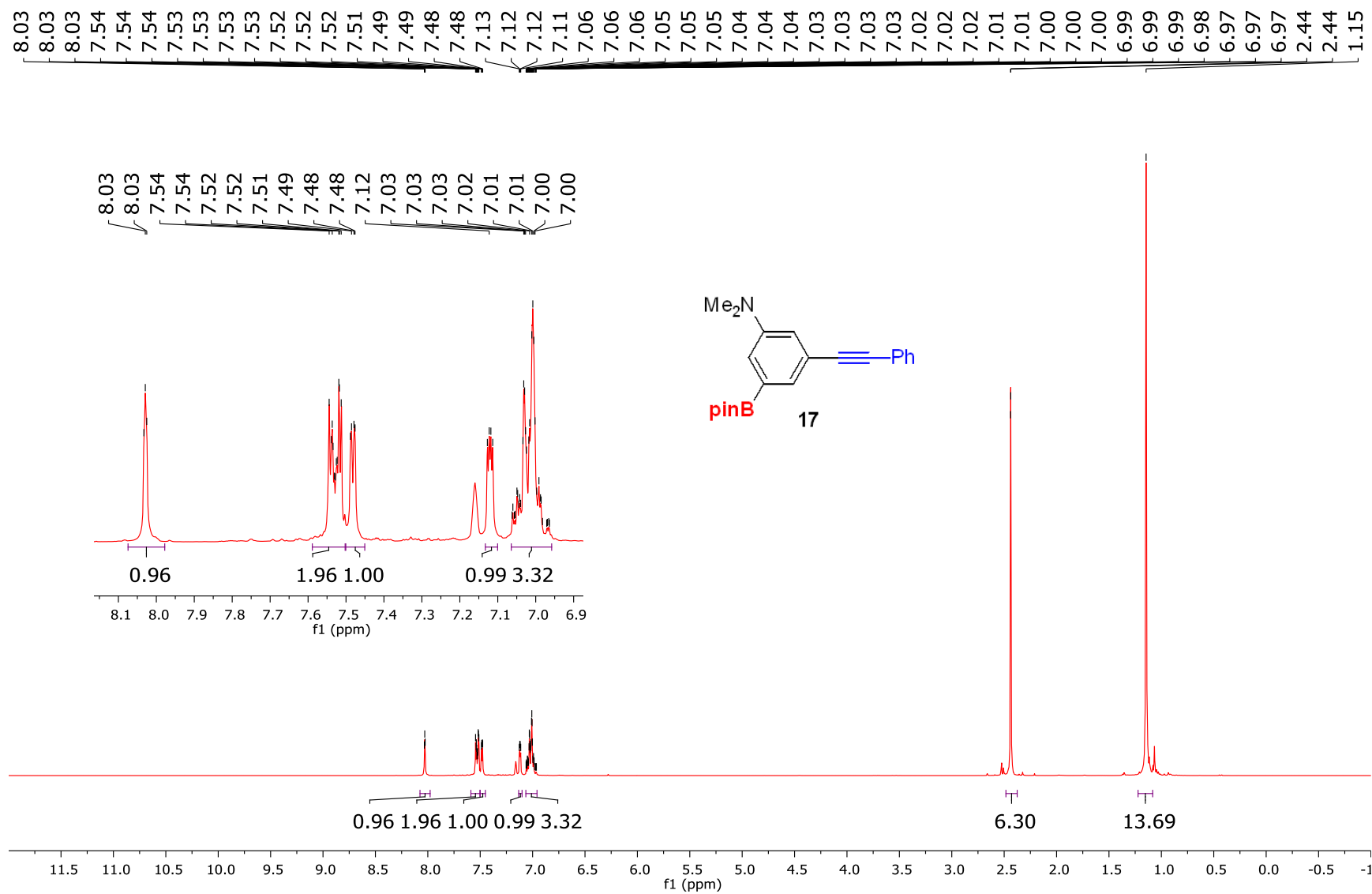


Entry 5: ^{11}B NMR of 16 ($(\text{CD}_3)_2\text{CO}$, 96 MHz)

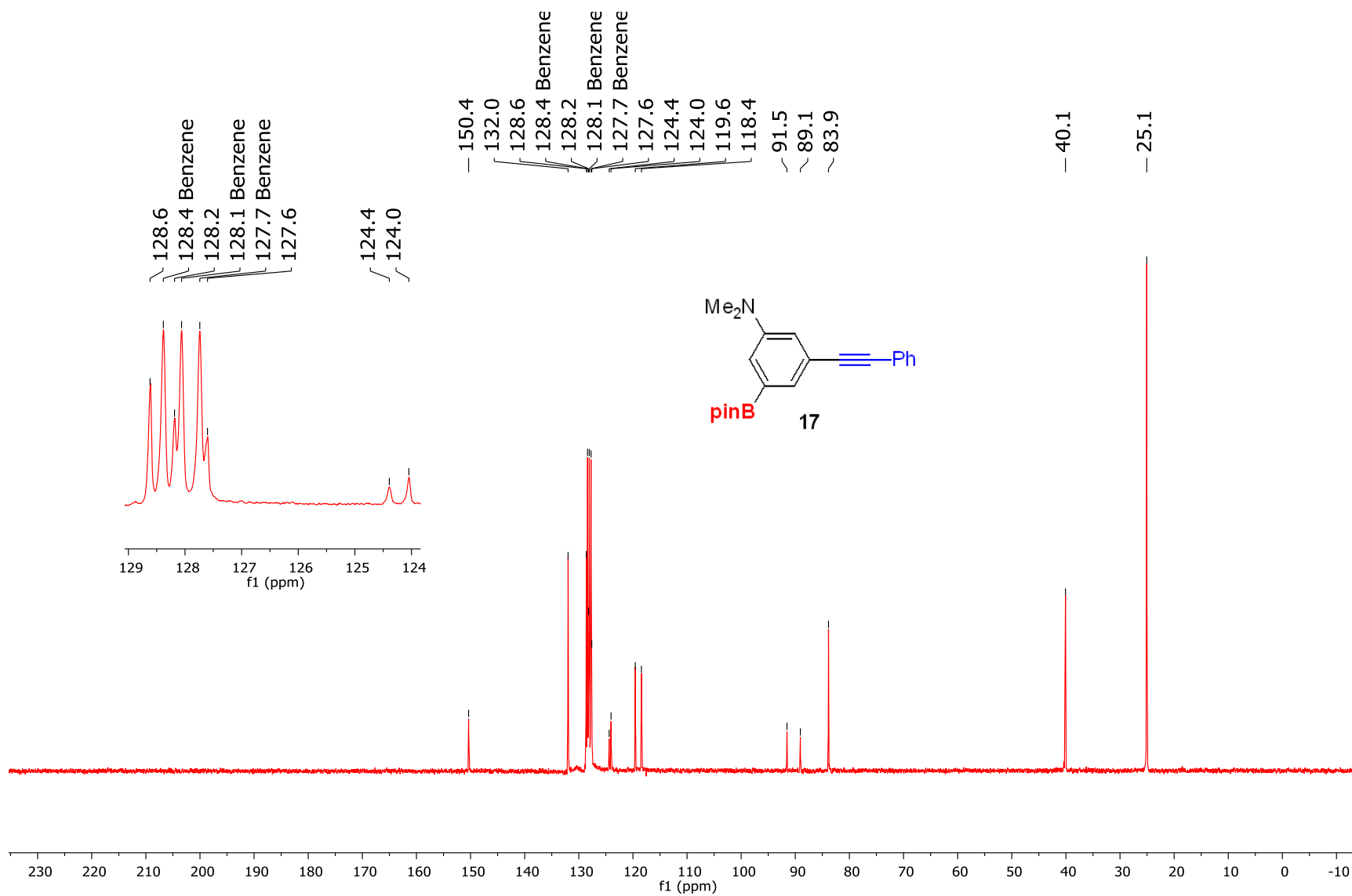
— 30.6



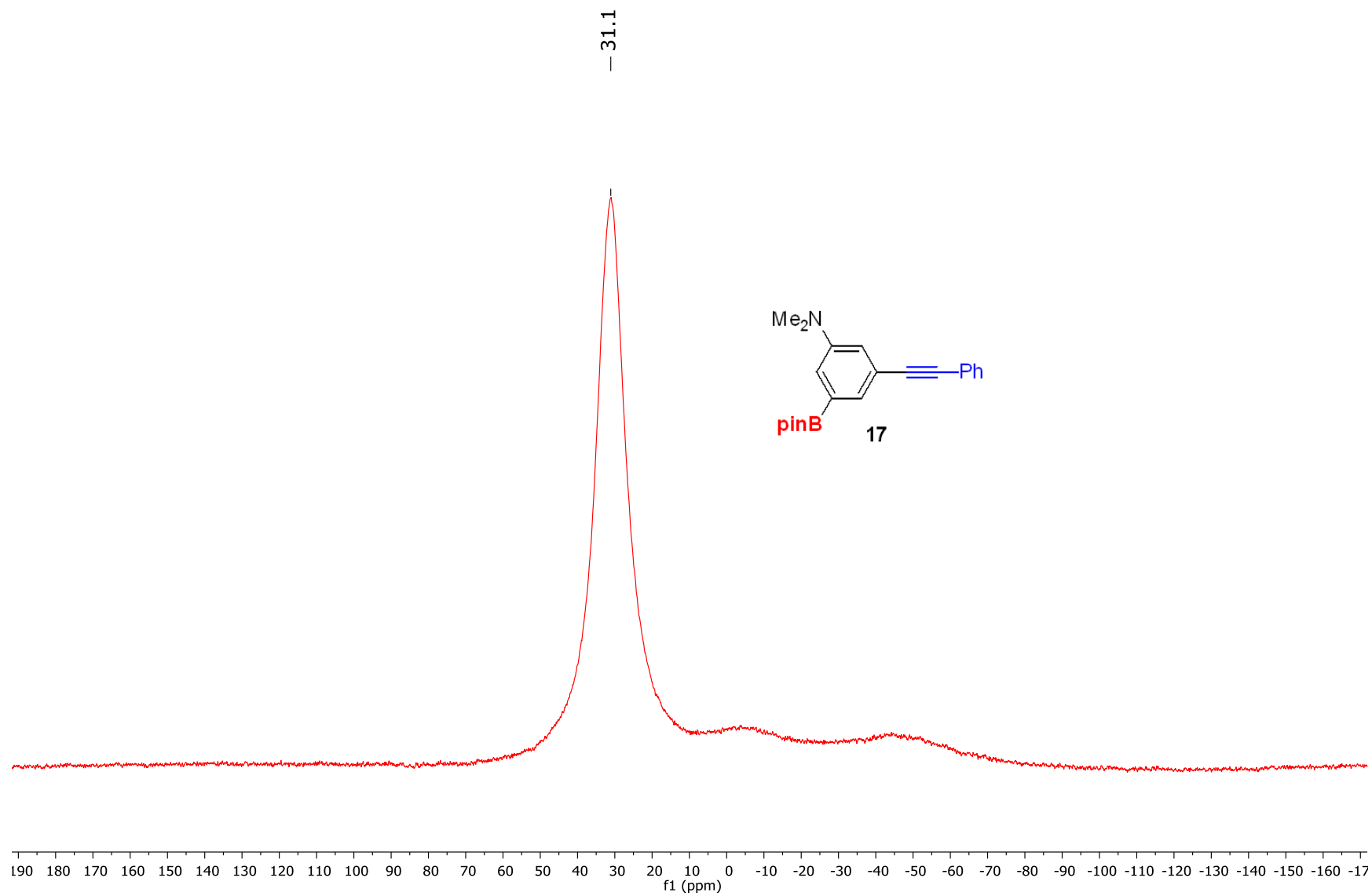
Entry 6: ^1H NMR of 17 (C_6D_6 , 300 MHz)



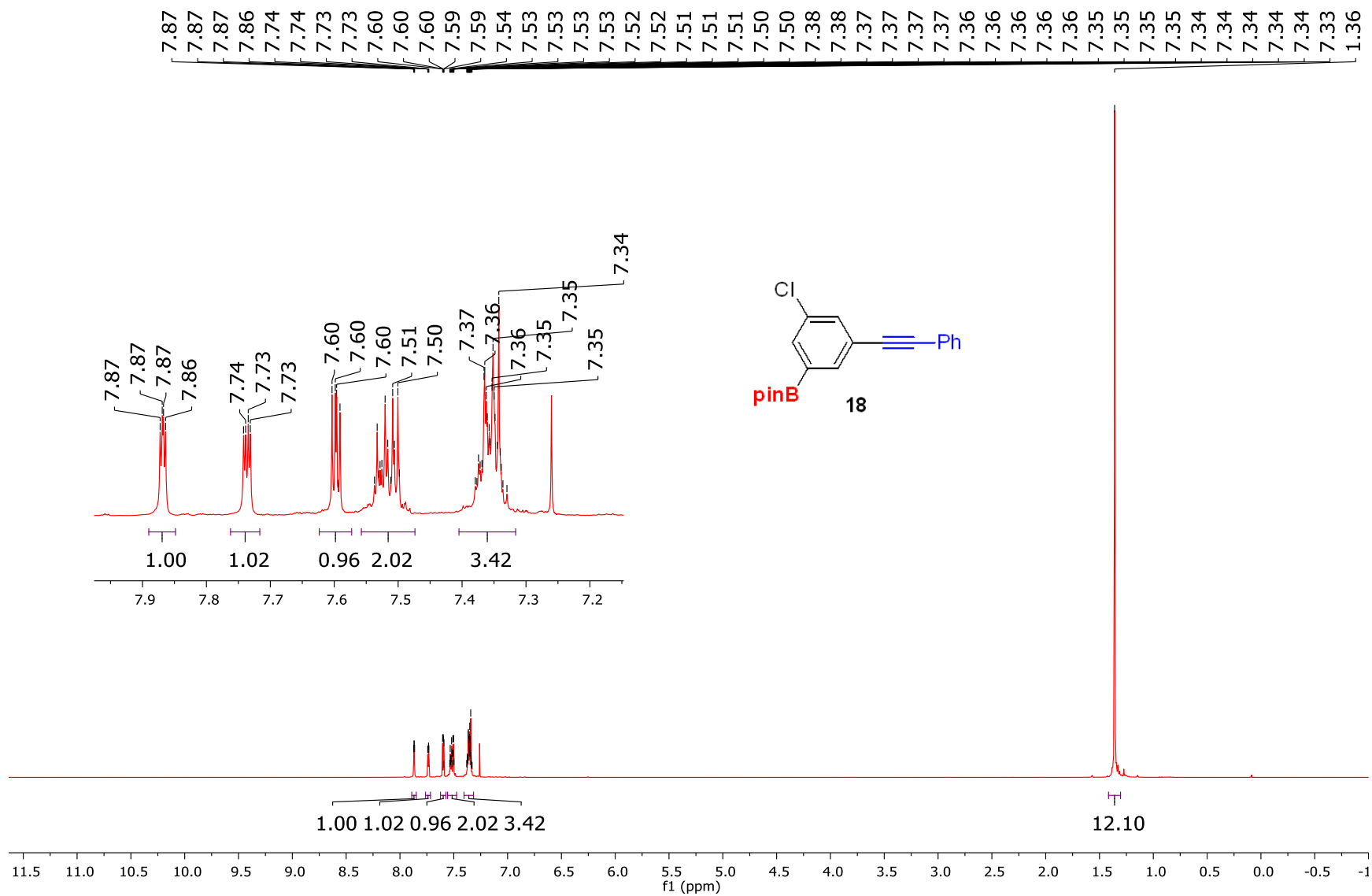
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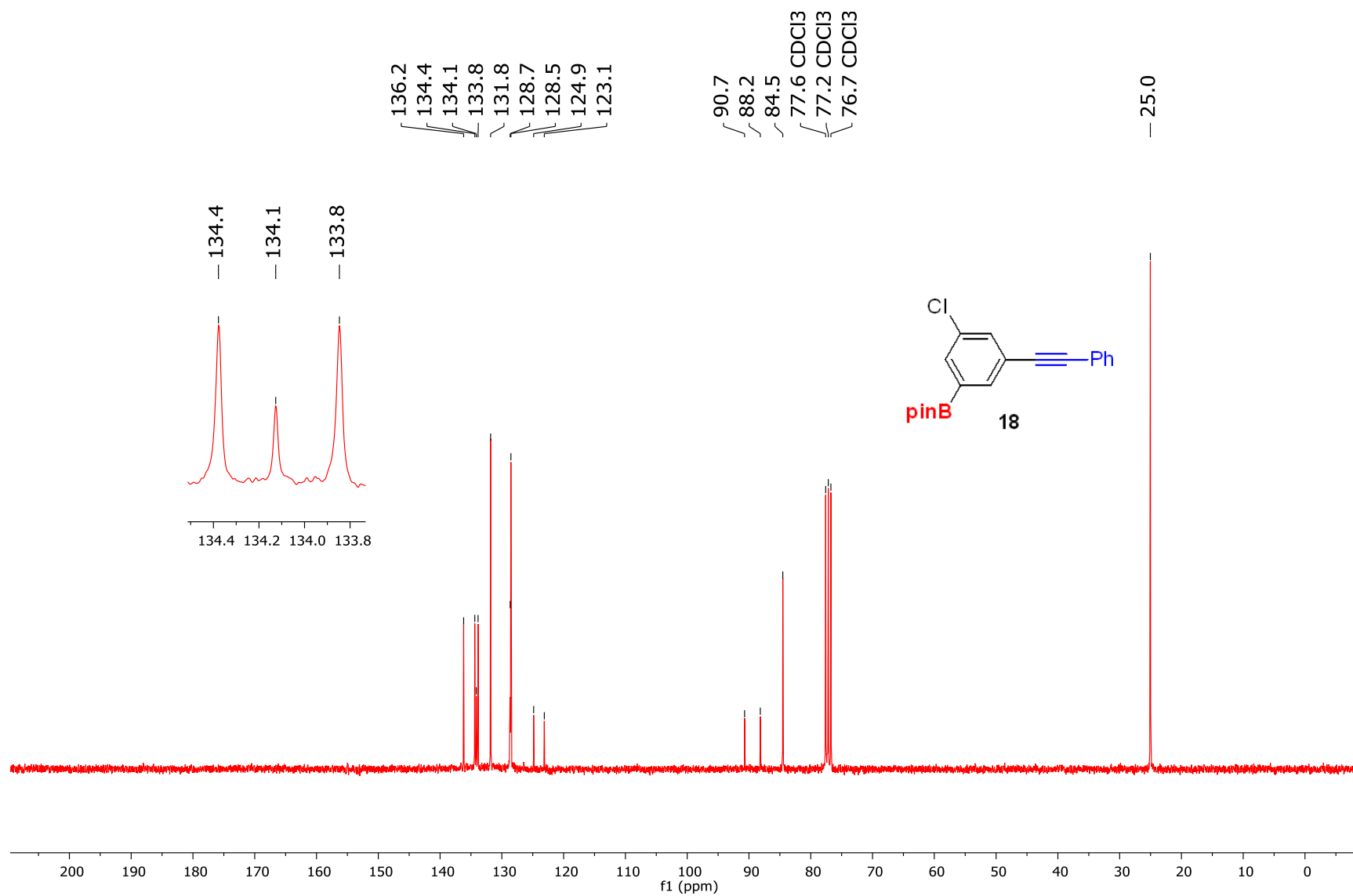
Entry 6: ^{11}B NMR of 17 (C_6D_6 , 96 MHz)



Entry 7: ^1H NMR of 18 (CDCl_3 , 300 MHz)

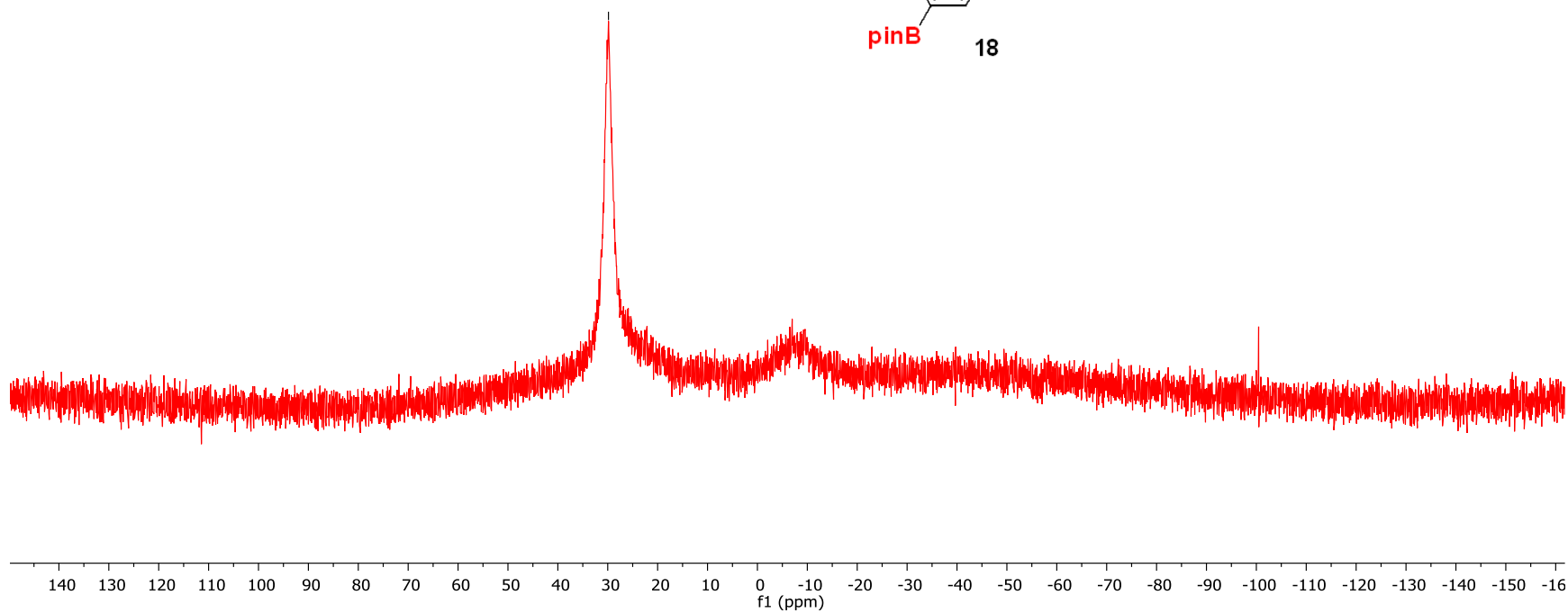
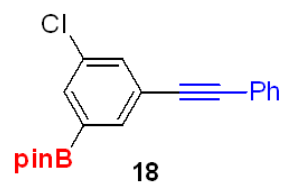


Entry 7: ^{13}C NMR of 18 (CDCl_3 , 75 MHz)

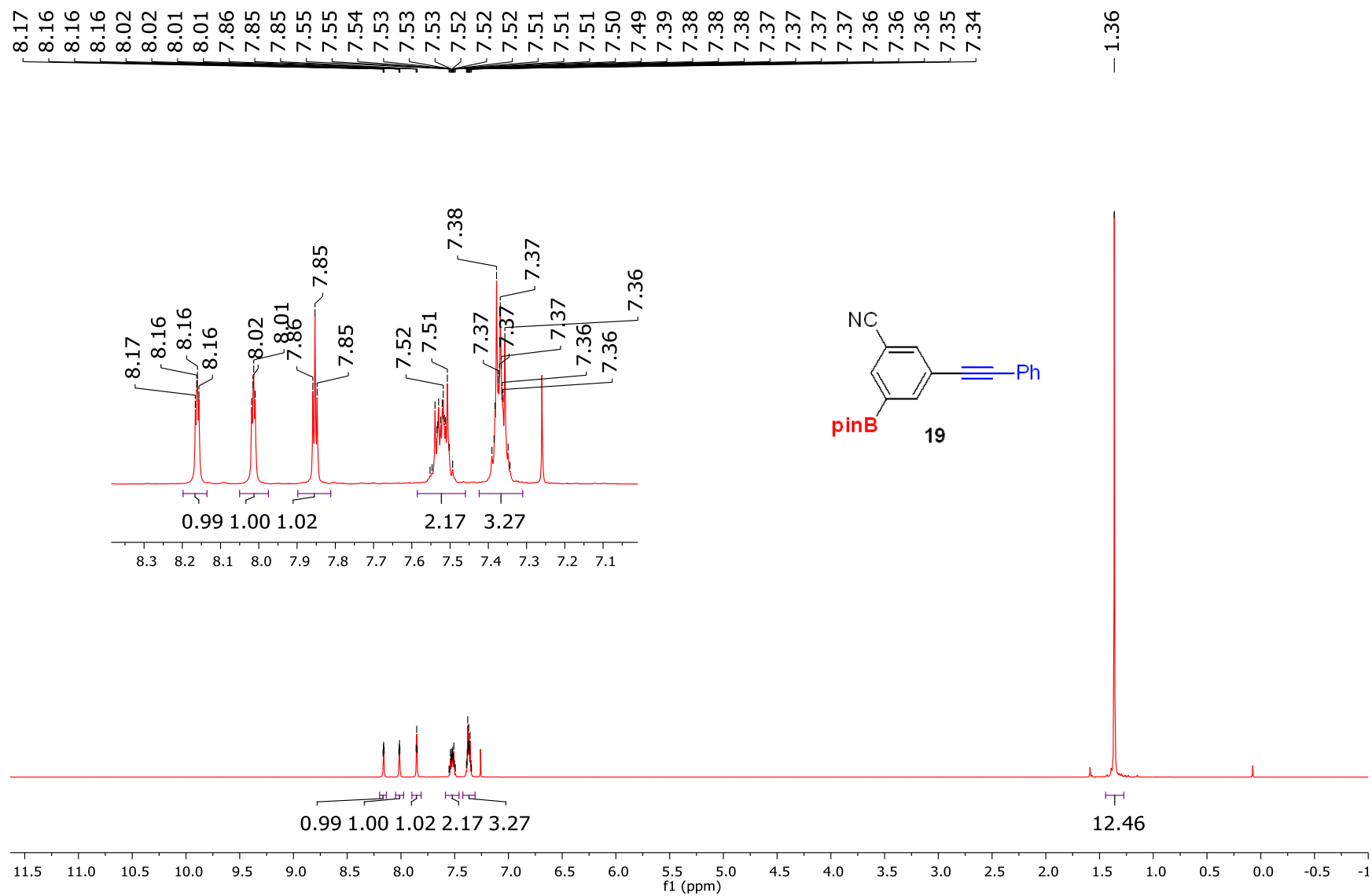


Entry 7: ^{11}B NMR of 18 (CDCl_3 , 160 MHz)

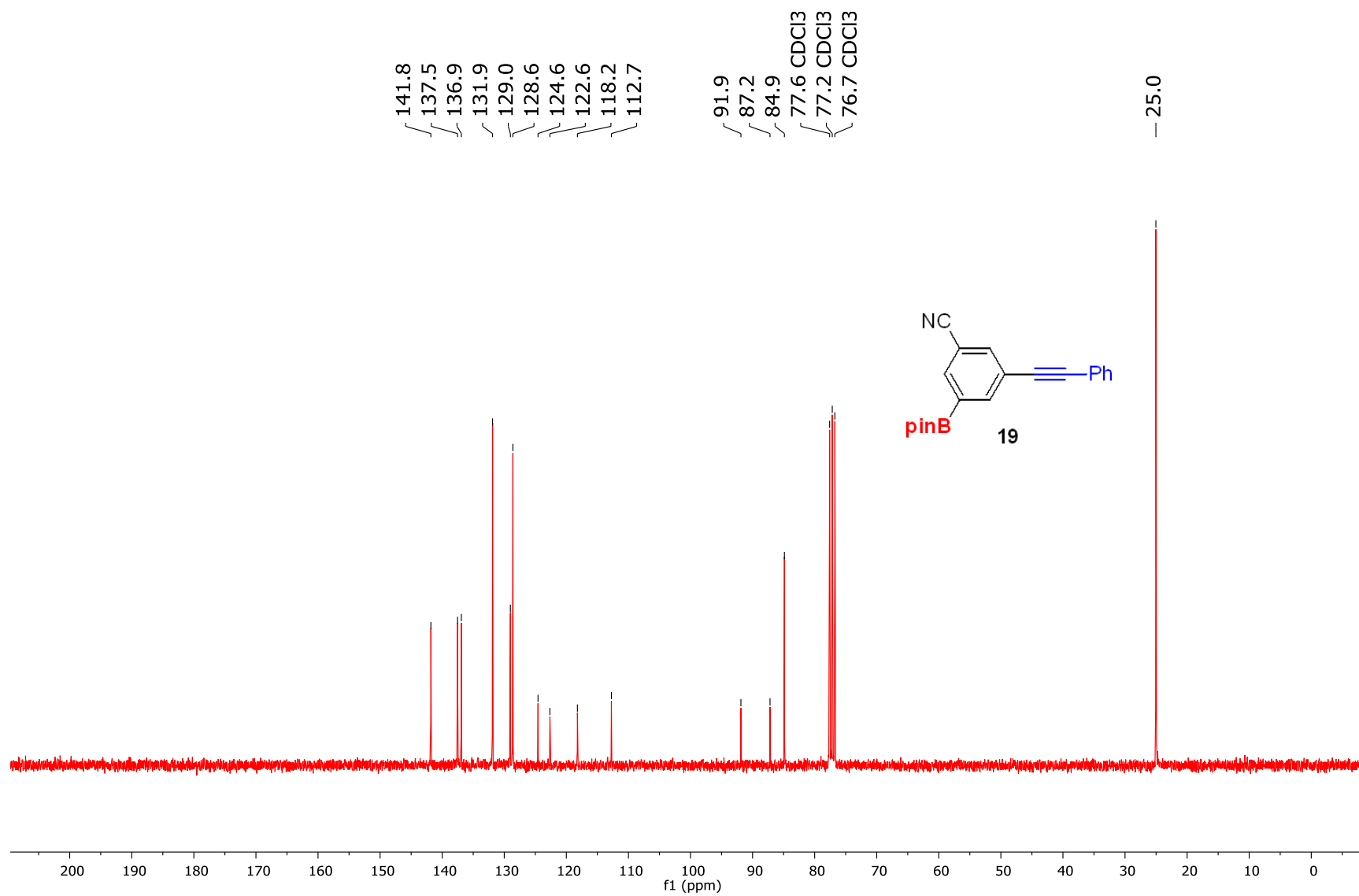
— 29.9



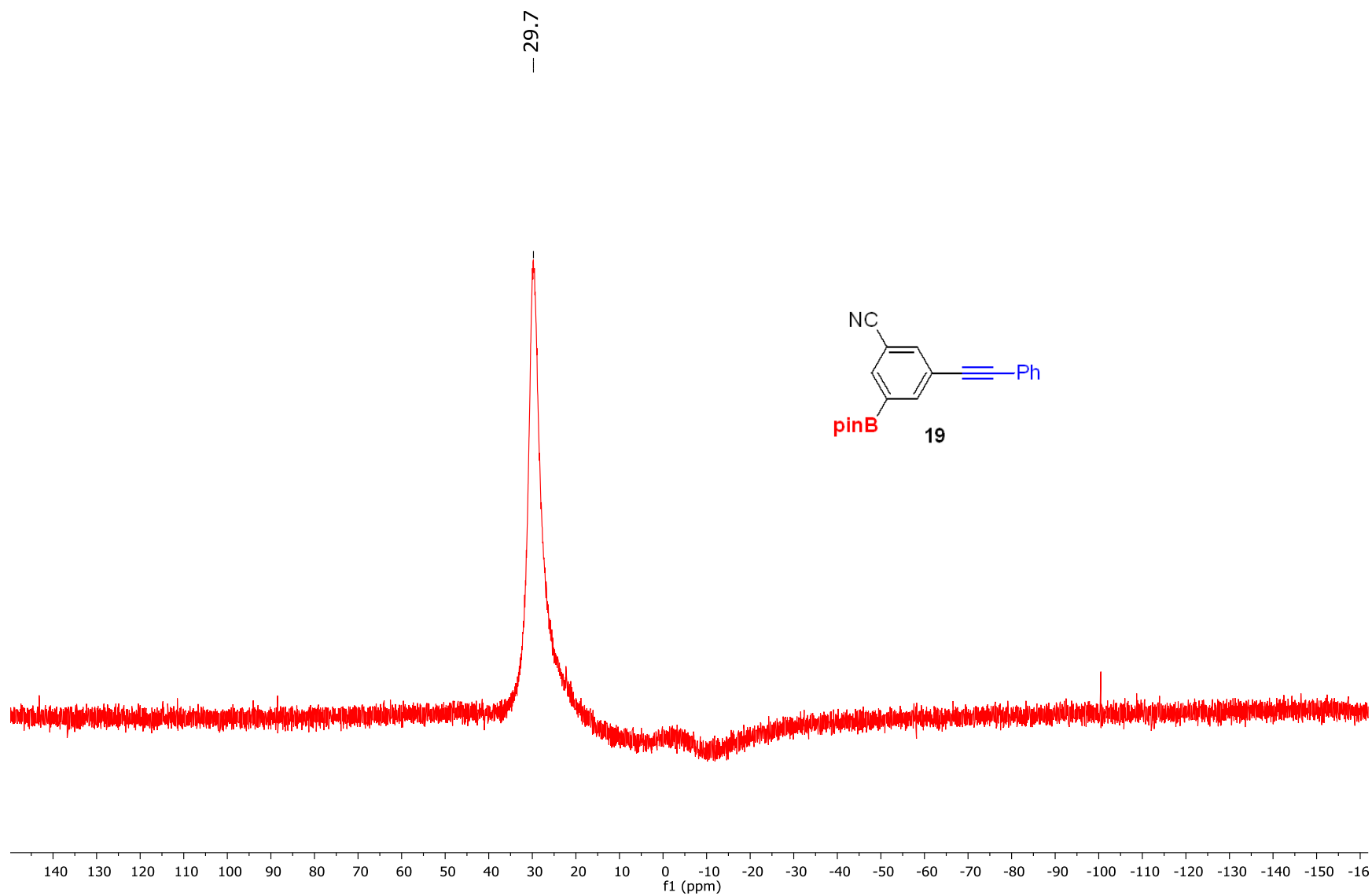
Entry 8: ^1H NMR of 19 (CDCl_3 , 300 MHz)



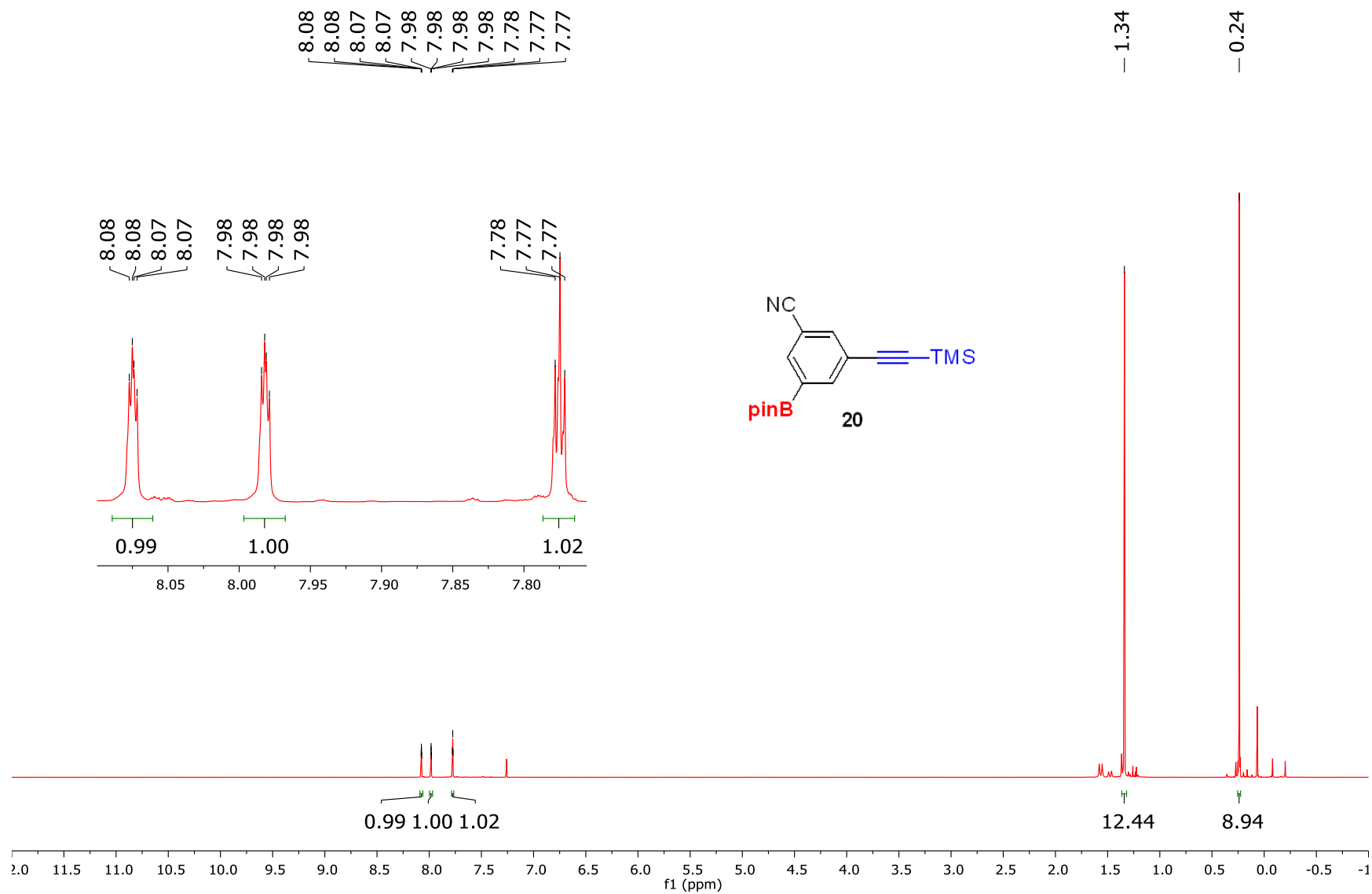
Entry 8: ^{13}C NMR of 19 (CDCl_3 , 75 MHz)



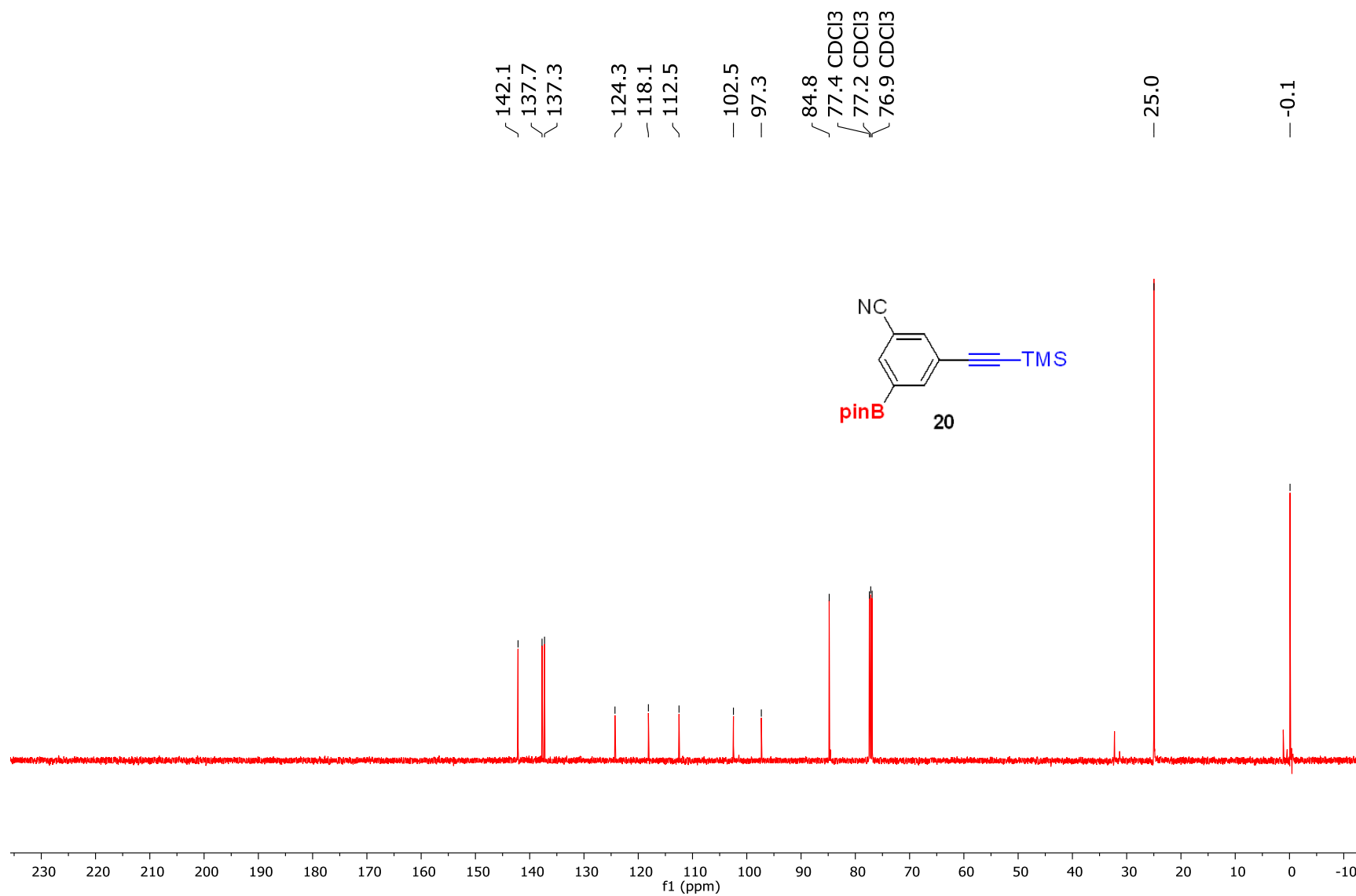
Entry 8: ^{11}B NMR of 19 (CDCl_3 , 160 MHz)



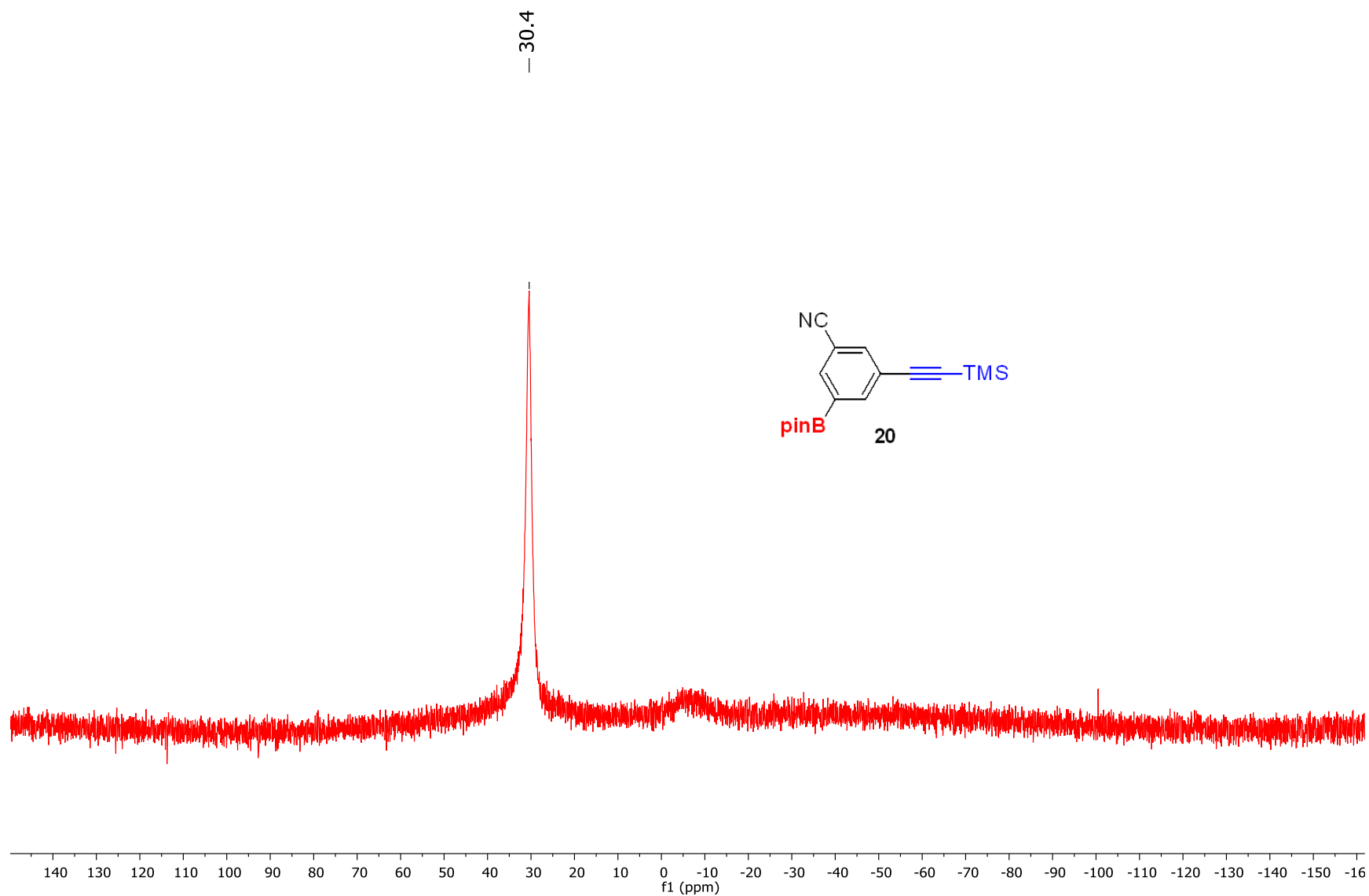
Entry 9: ^1H NMR of 20 (CDCl_3 , 500 MHz)



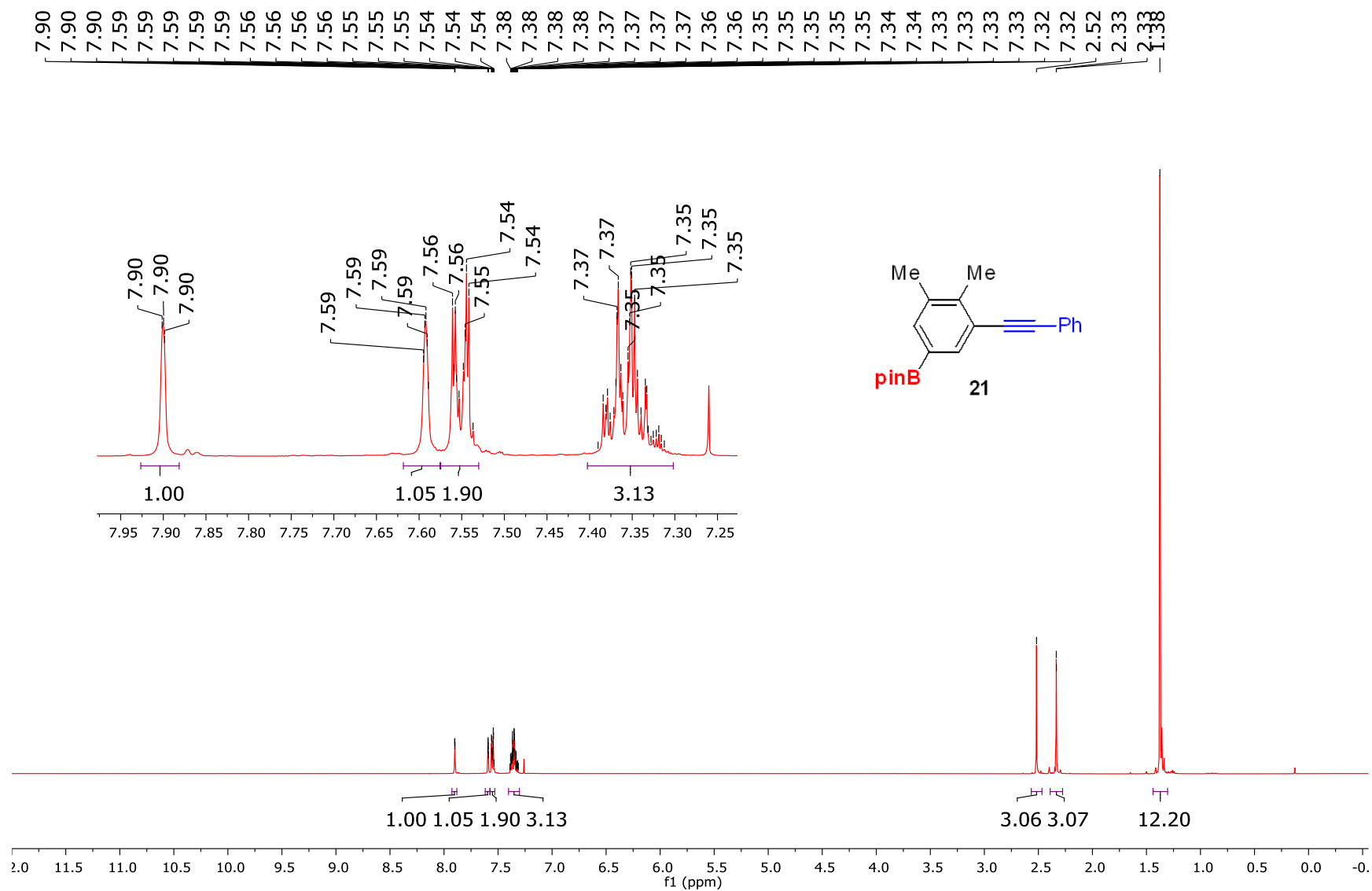
Entry 9: ^{13}C NMR of 20 (CDCl_3 , 126 MHz)



Entry 9: ^{11}B NMR of 20 (CDCl_3 , 160 MHz)

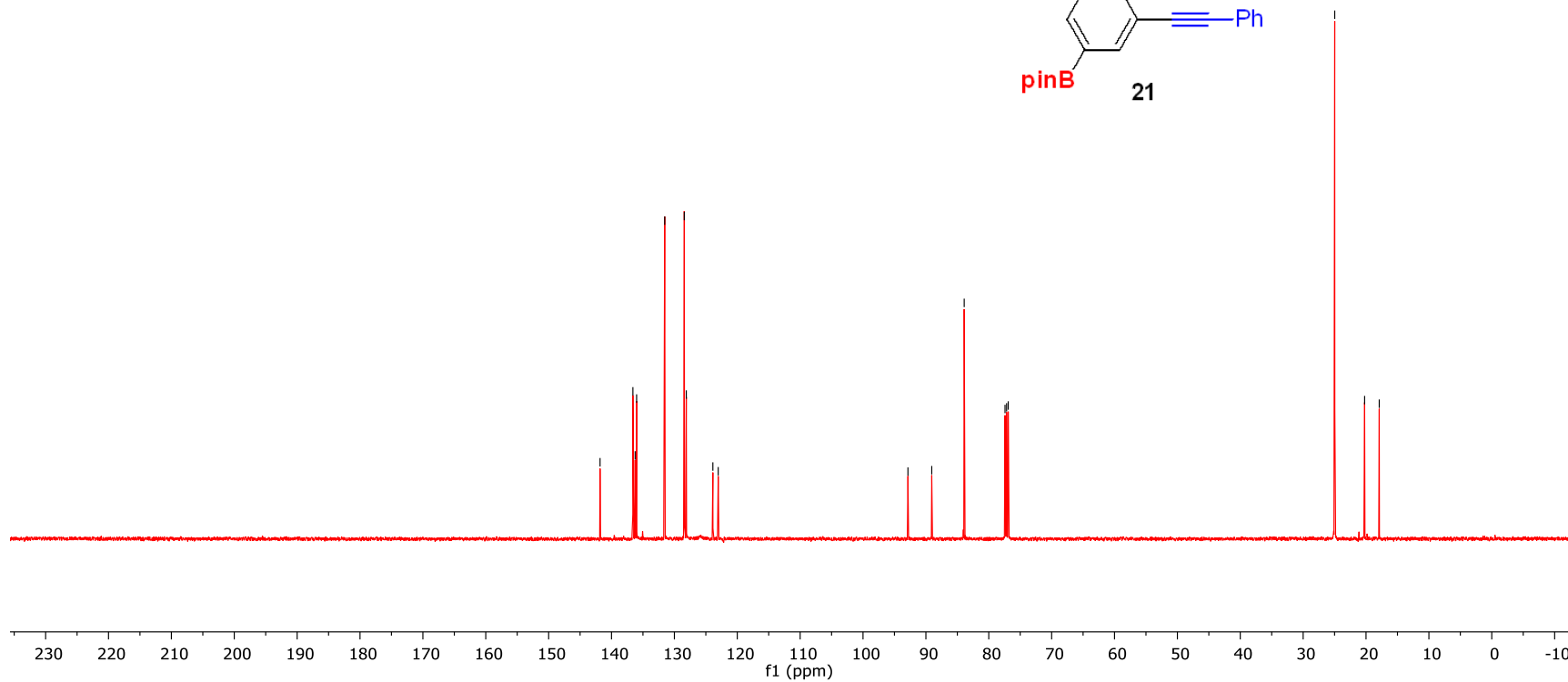
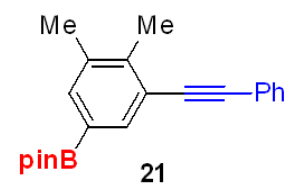


Entry 10: ^1H NMR of 21 (CDCl_3 , 500 MHz)



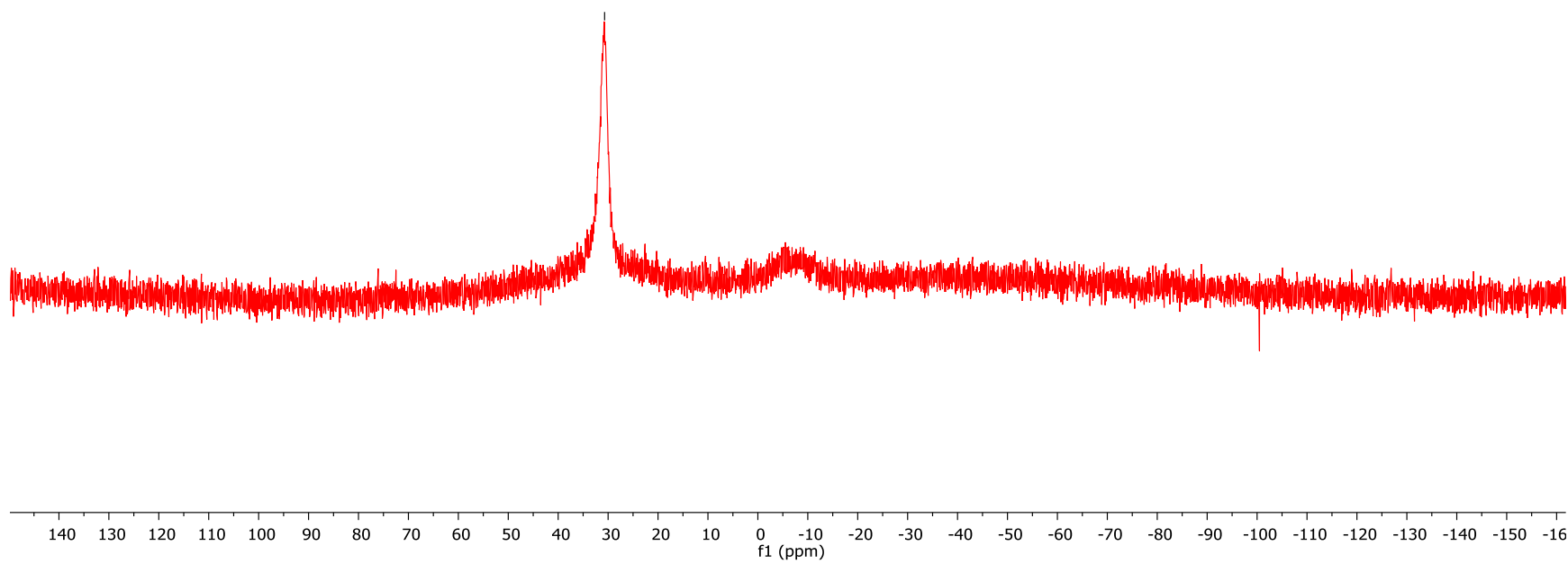
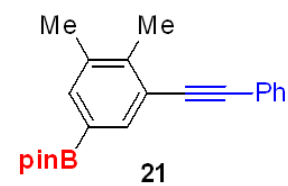
Entry 10: ^{13}C NMR of 21 (CDCl_3 , 126 MHz)

^{13}C NMR chemical shifts (ppm):
 141.8, 136.6, 136.2, 136.0, 131.5, 128.4, 128.1, 123.9, 123.0
 92.9, 89.1, 83.9, 77.4 CDCl_3 , 77.2 CDCl_3 , 76.9 CDCl_3
 25.0, 20.2, 17.9

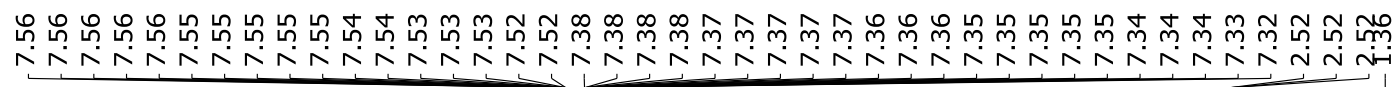


Entry 10: ^{11}B NMR of 21 (CDCl_3 , 160 MHz)

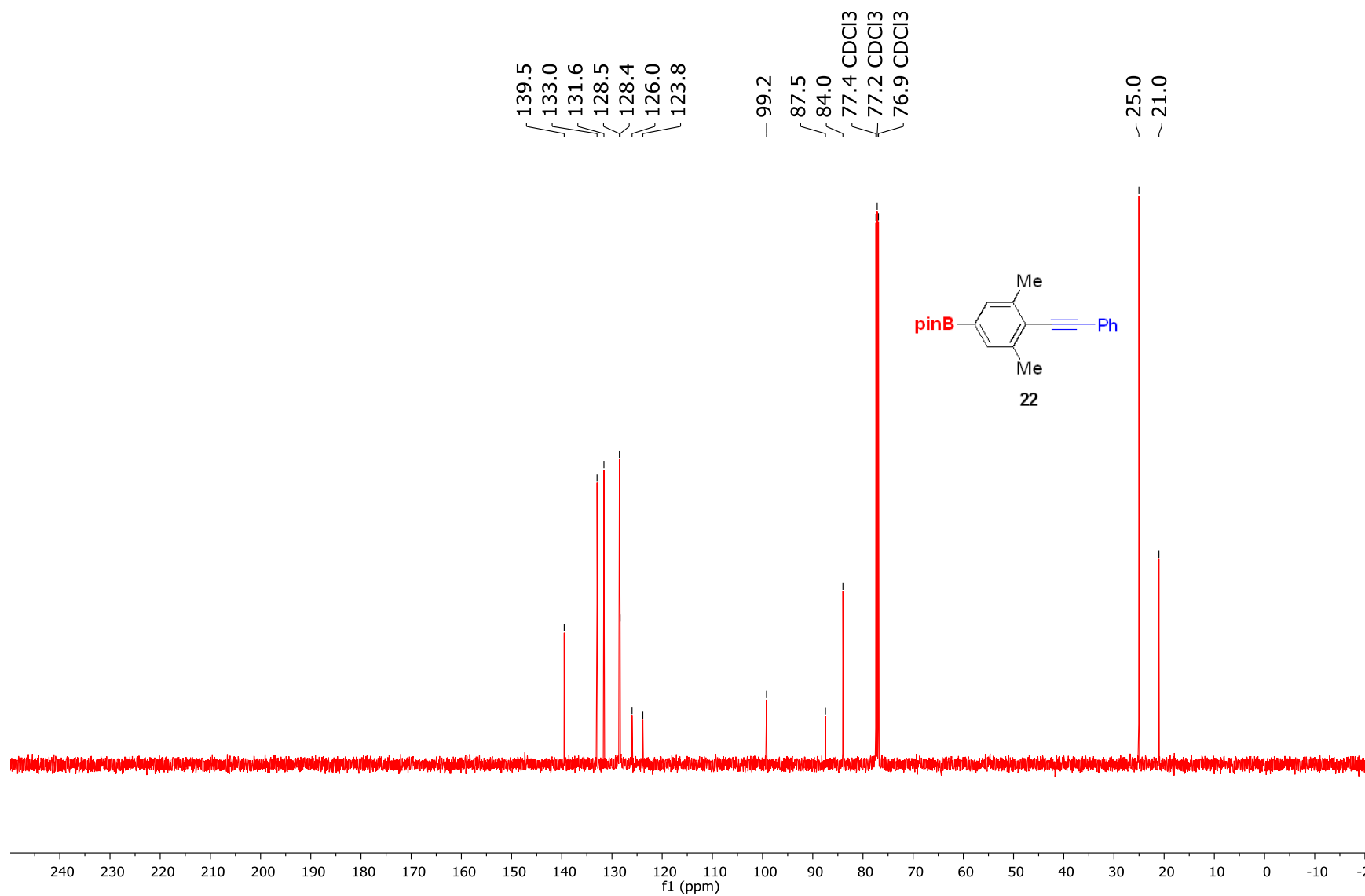
— 30.7



Entry 11: ¹H NMR of 22 (CDCl₃, 500 MHz)

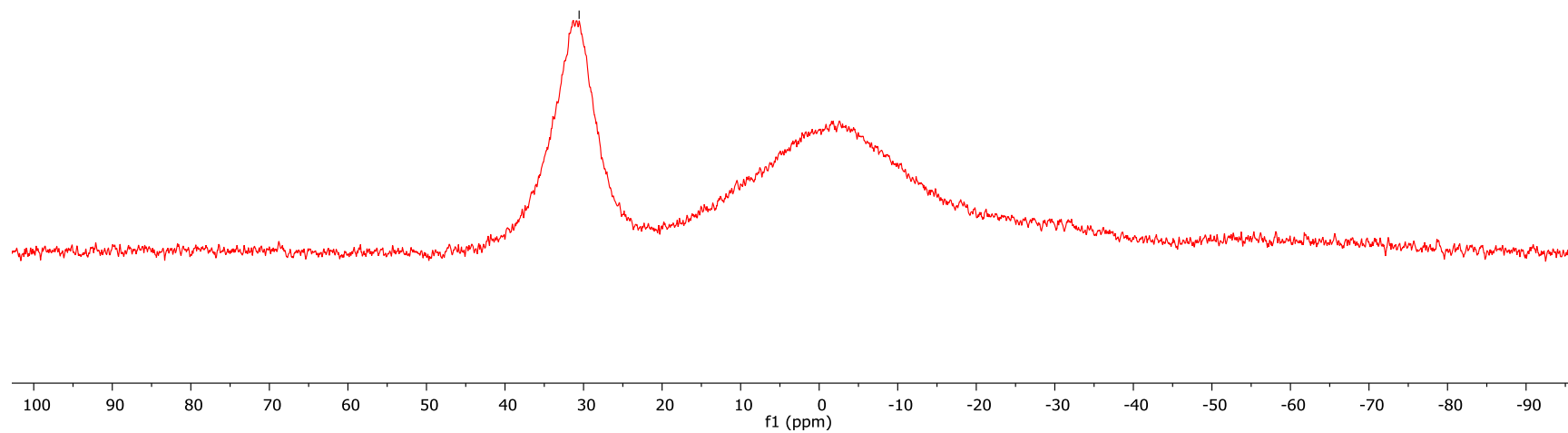
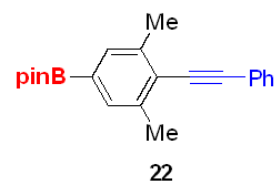


Entry 11: ^{13}C NMR of 22 (CDCl_3 , 126 MHz)

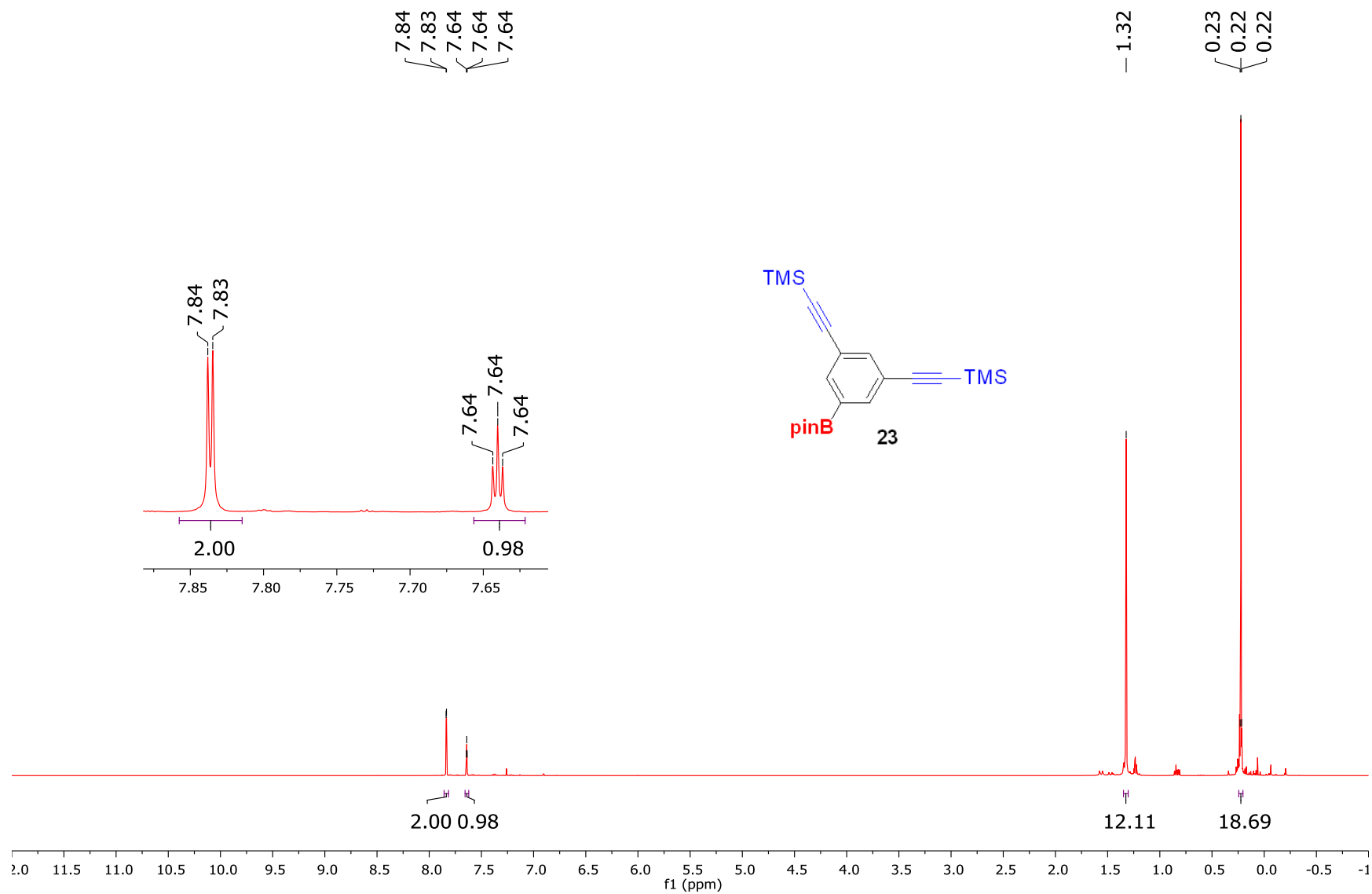


Entry 11: ^{11}B NMR of 22 ($(\text{CD}_3)_2\text{CO}$, 96 MHz)

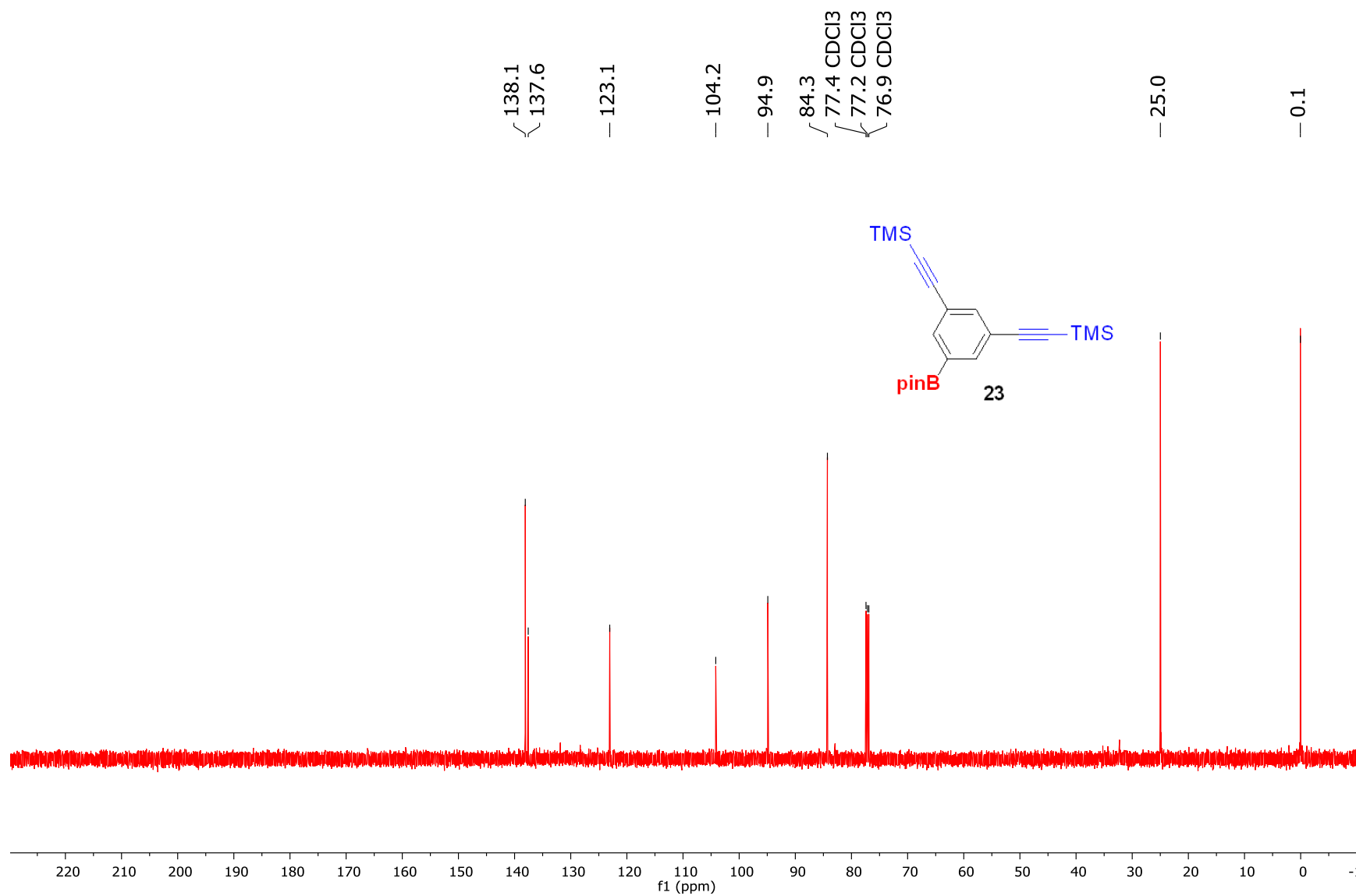
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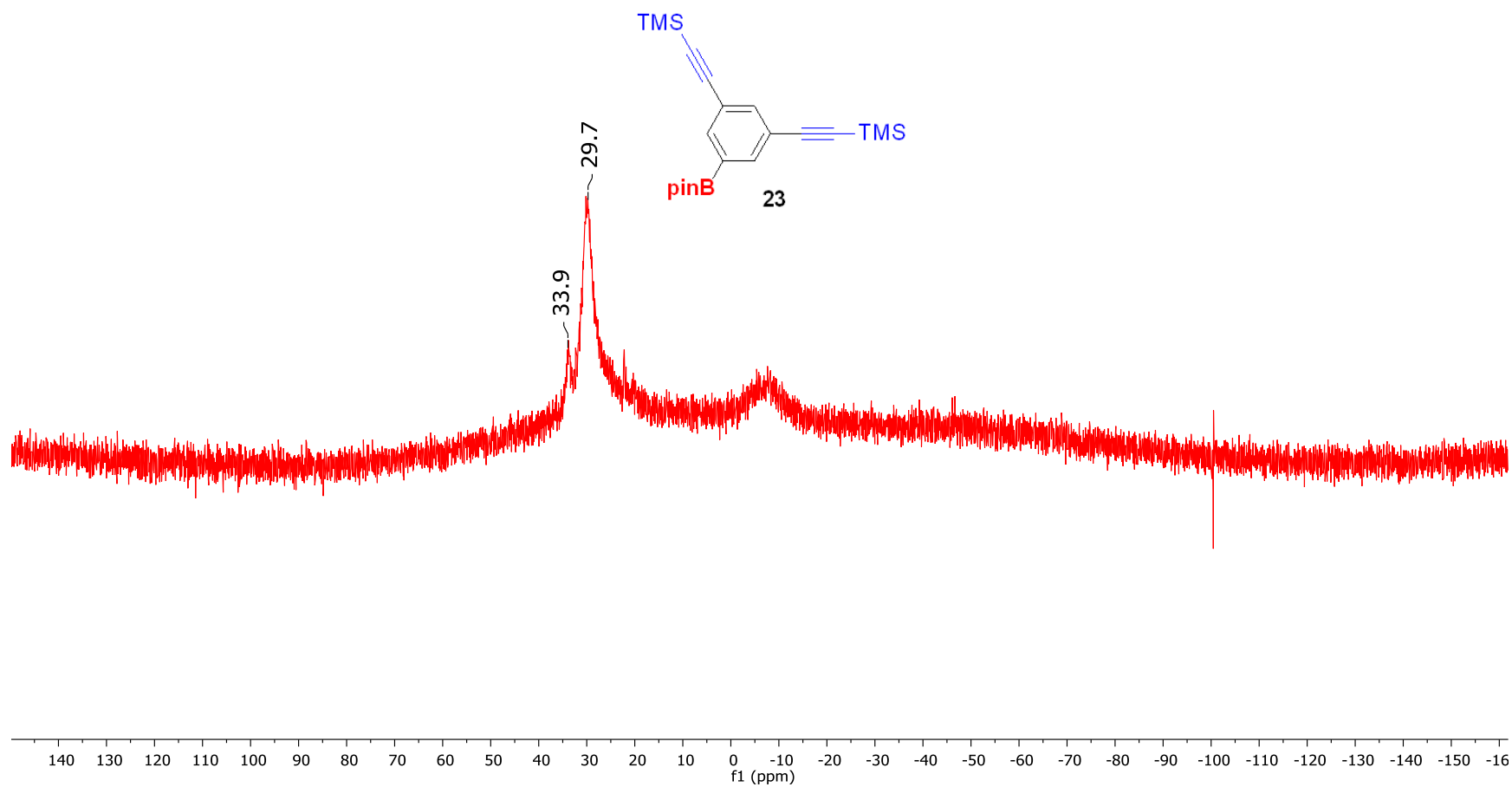
Entry 12: ^1H NMR of 23 (CDCl_3 , 500 MHz)



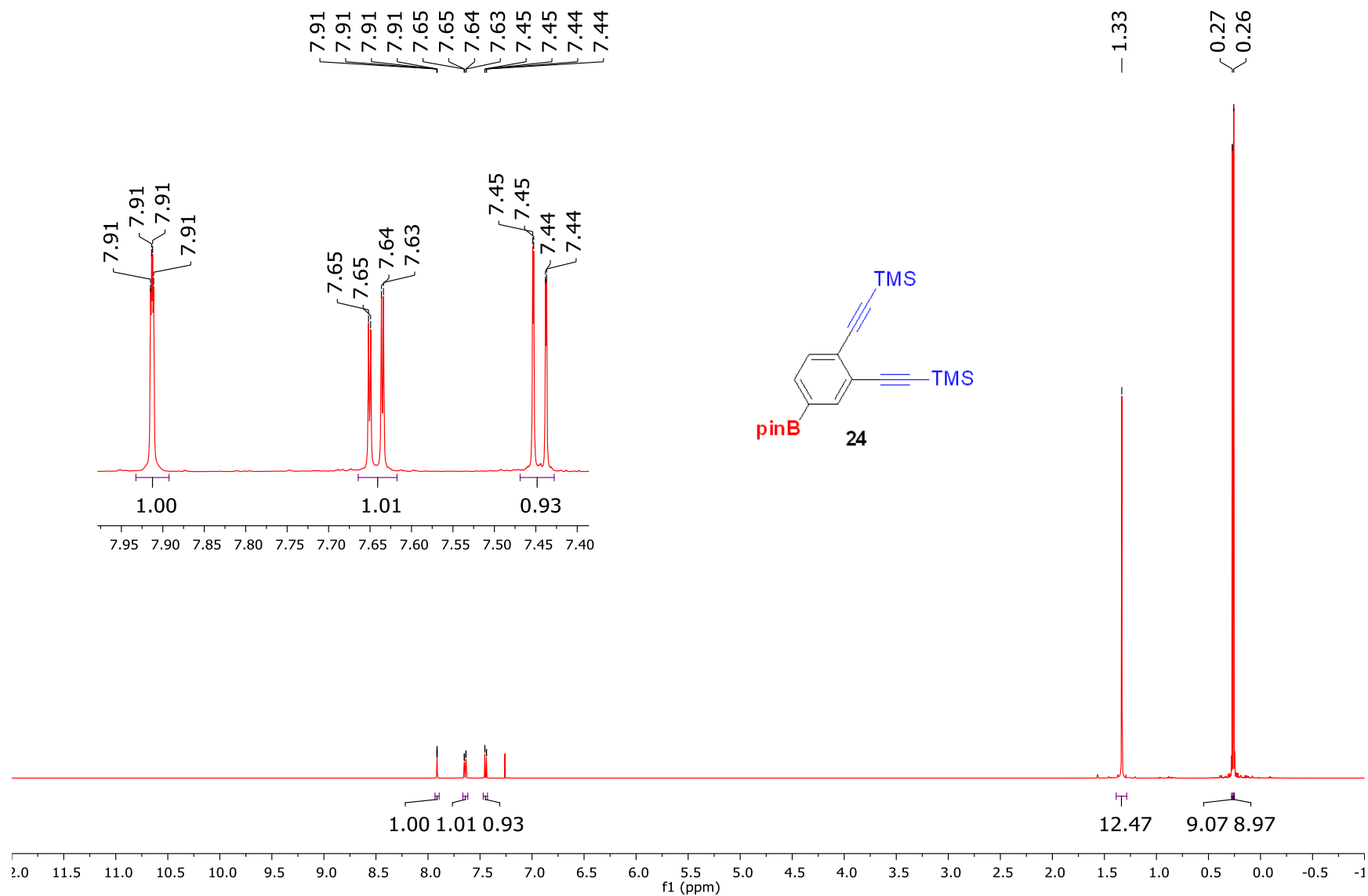
Entry 12: ^{13}C NMR of 23 (CDCl_3 , 126 MHz)



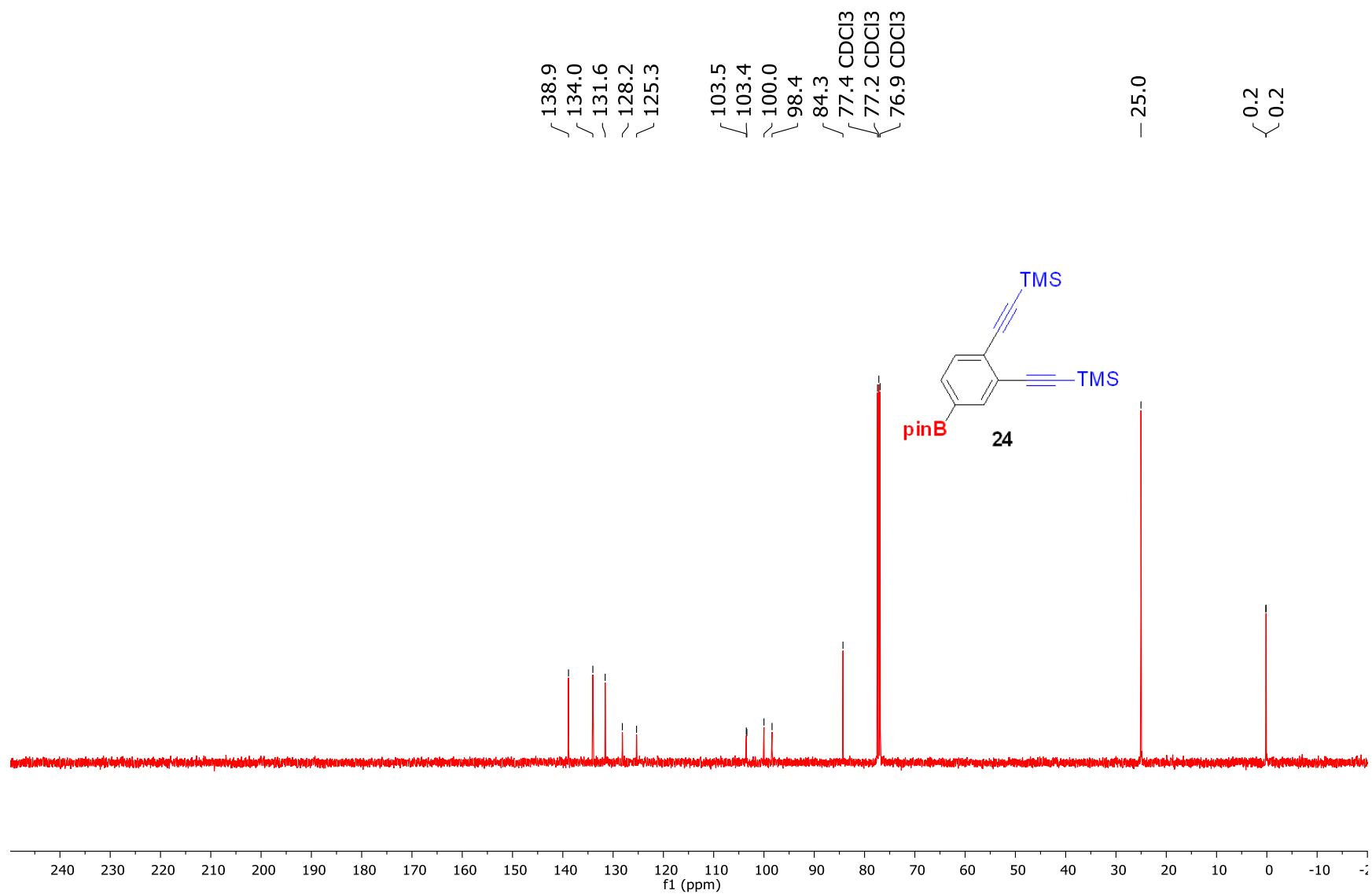
Entry 12: ^{11}B NMR of 23 (CDCl_3 , 160 MHz)



Entry 13: ^1H NMR of 24 (CDCl_3 , 500 MHz)

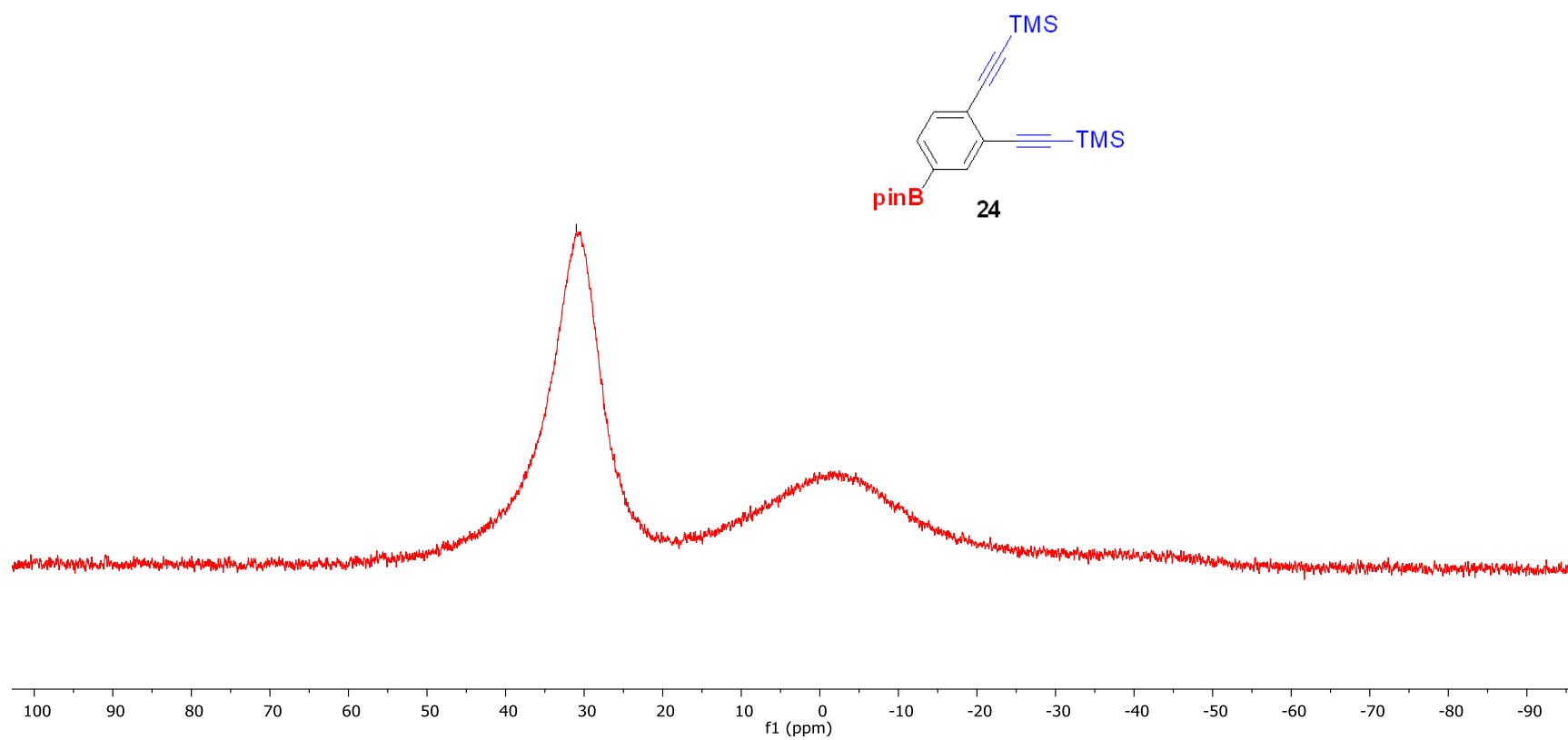


Entry 13: ^{13}C NMR of 24 (CDCl_3 , 126 MHz)

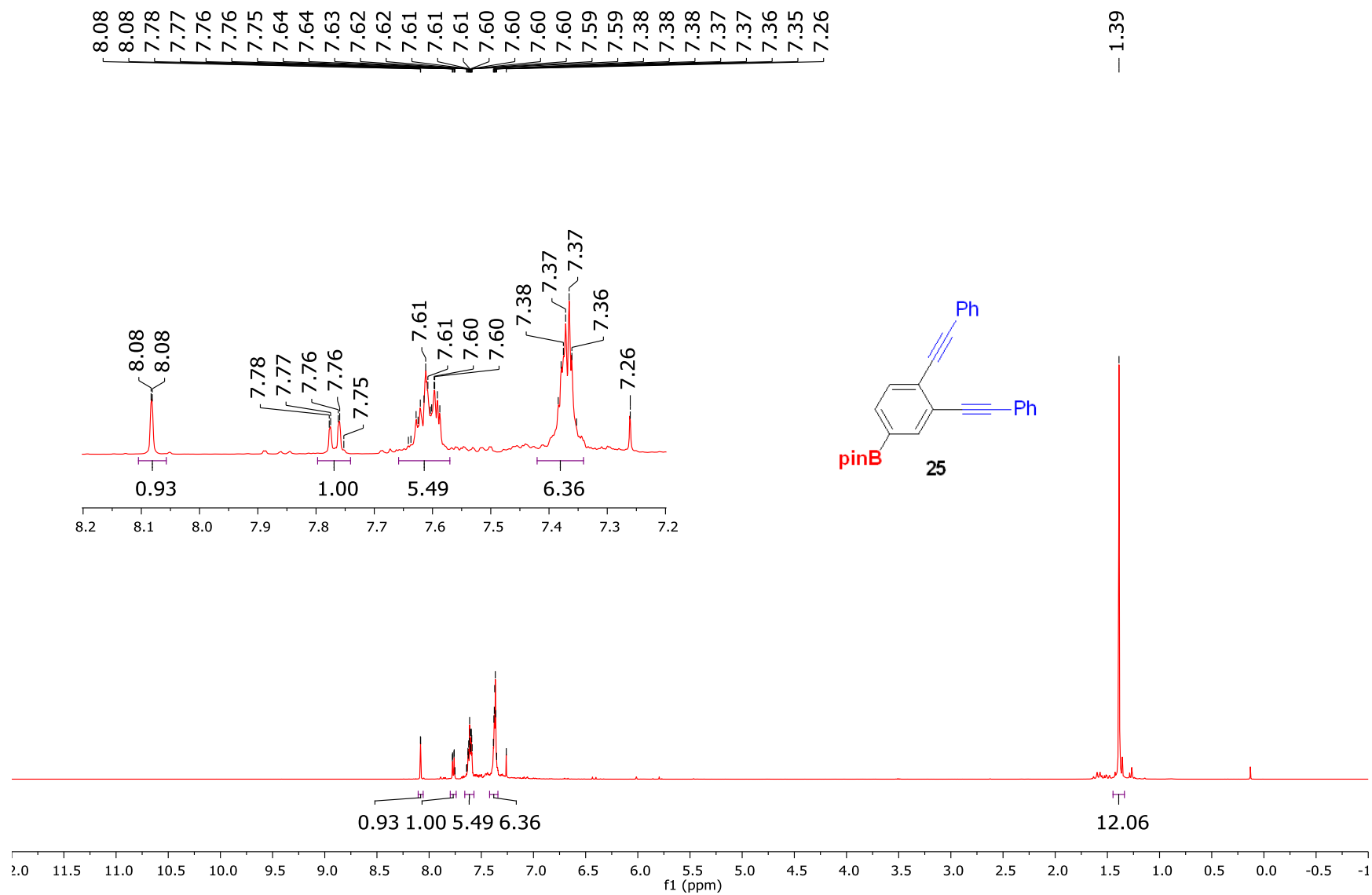


Entry 13: ^{11}B NMR of 24 ($(\text{CD}_3)_2\text{CO}$, 96 MHz)

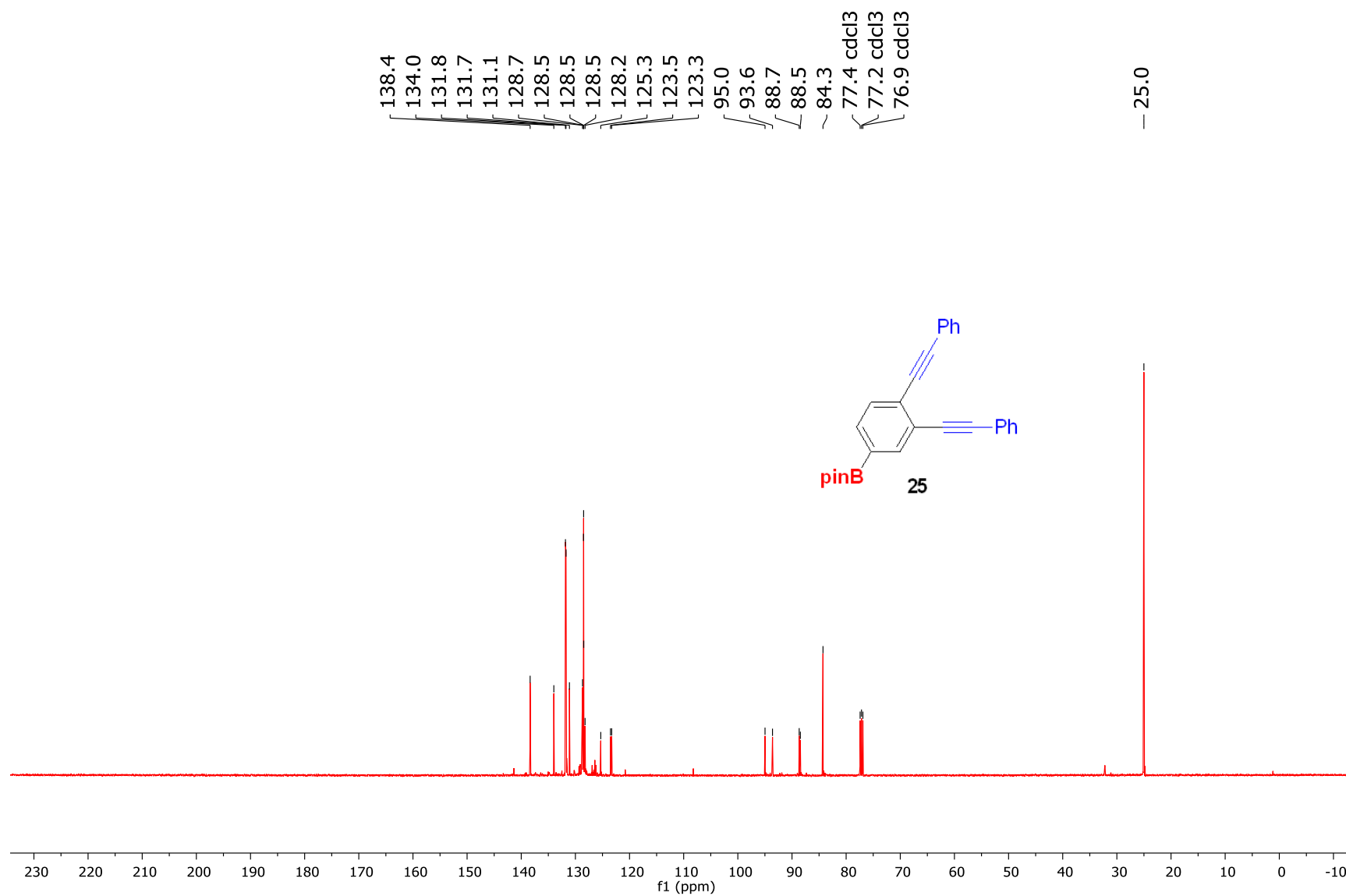
— 31.0



Entry 14: ^1H NMR of 25 (CDCl_3 , 500 MHz)



Entry 14: ^{13}C NMR of 25 (CDCl_3 , 126 MHz)



Entry 14: ^{11}B NMR of 25 (CDCl_3 , 160 MHz)

— 30.1

