Supporting Information: Spectra Compilation

Vicinal Bisheterocyclizations of Alkynes via Nucleophilic Interception of a Catalytic Platinum Carbene

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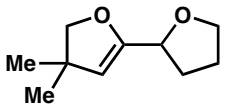
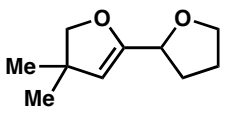
emferr@mail.colostate.edu



5

^{1}H NMR

(400 MHz, C_6D_6)



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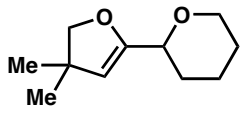
^{13}C NMR
(100 MHz, C_6D_6)



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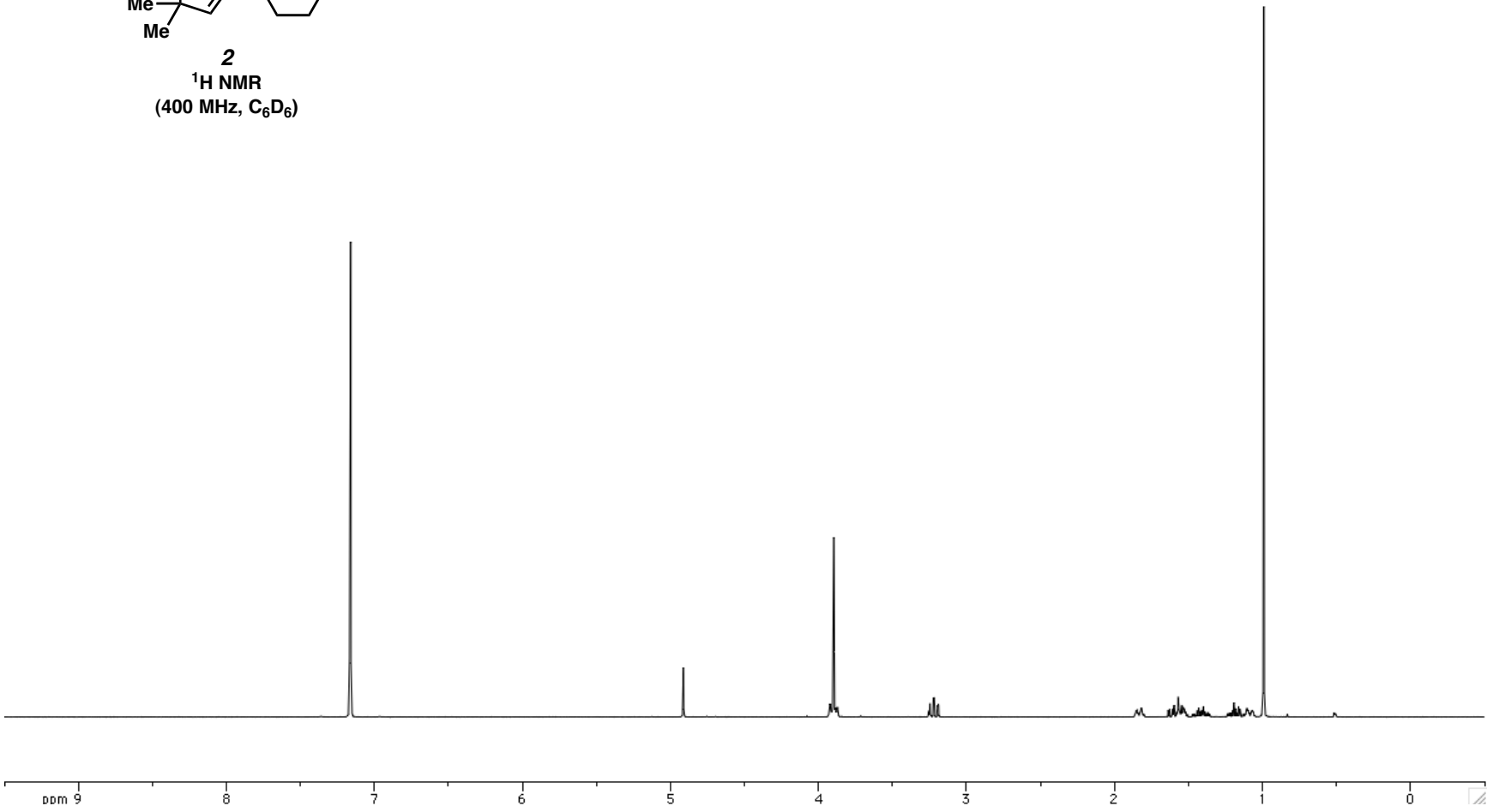
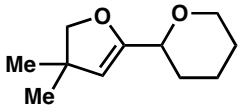
(400 MHz, C_6D_6)





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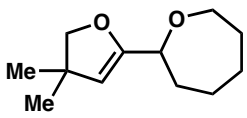
(100 MHz, C_6D_6)



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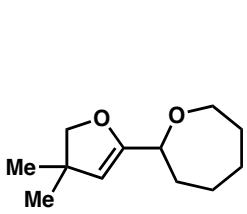
(400 MHz, C_6D_6)



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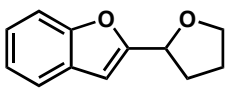
(100 MHz, C_6D_6)



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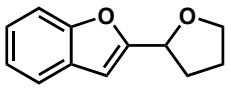
(400 MHz, C_6D_6)



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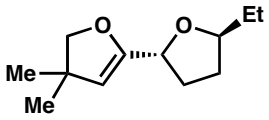
(100 MHz, C_6D_6)



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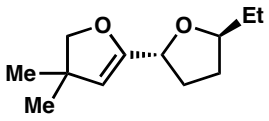
^{1}H NMR
(400 MHz, C_6D_6)



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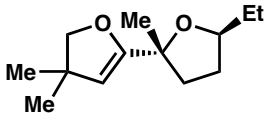
(100 MHz, C_6D_6)



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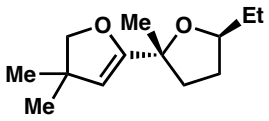
(400 MHz, C_6D_6)



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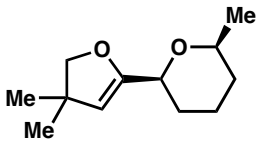
(100 MHz, C_6D_6)



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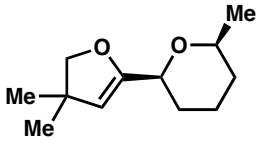
^{1}H NMR

(400 MHz, C_6D_6)



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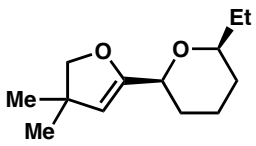
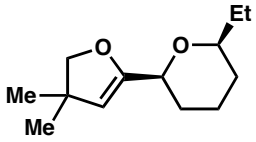
(100 MHz, C_6D_6)



11

^{1}H NMR

(400 MHz, C_6D_6)



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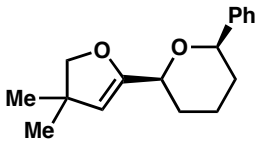
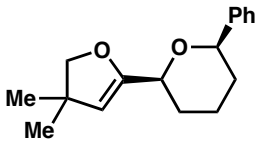
(100 MHz, C_6D_6)



12
^{1}H NMR
(400 MHz, C_6D_6)



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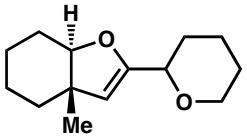
(100 MHz, C_6D_6)



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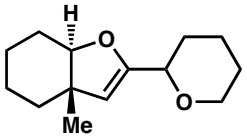
(400 MHz, C_6D_6)



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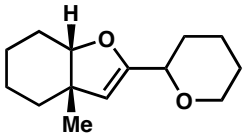
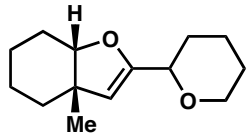
(100 MHz, C_6D_6)



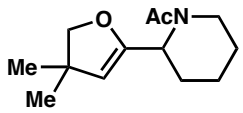
14
^{1}H NMR
(400 MHz, C_6D_6)



14

^{13}C NMR

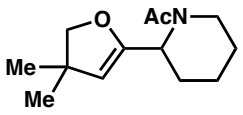
(100 MHz, C_6D_6)



15

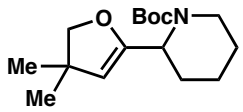
^{1}H NMR

(300 MHz, C_6D_6, 70 °C)



15

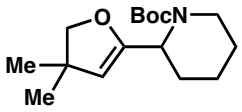
^{13}C NMR
(100 MHz, C_6D_6)



16

^{1}H NMR

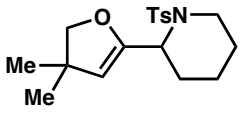
(300 MHz, C_6D_6, 70 °C)



16

^{13}C NMR

(100 MHz, C_6D_6)



17
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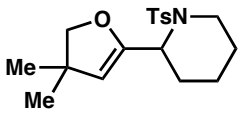
(400 MHz, C_6D_6)



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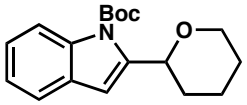
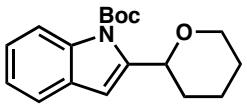
(100 MHz, C_6D_6)



18
^{1}H NMR
(400 MHz, $CDCl_3$)



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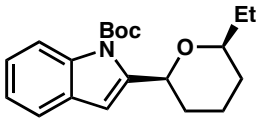
(100 MHz, $CDCl_3$)



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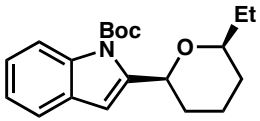
(400 MHz, $CDCl_3$)



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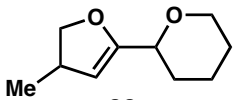
(100 MHz, $CDCl_3$)



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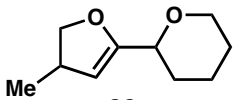
^{1}H NMR

(400 MHz, C_6D_6)



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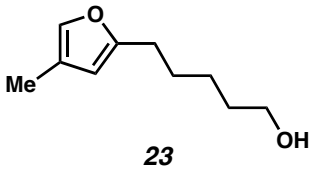
(100 MHz, C_6D_6)



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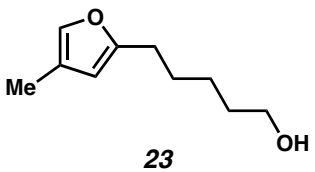
(400 MHz, $CDCl_3$)



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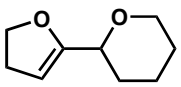
(100 MHz, $CDCl_3$)



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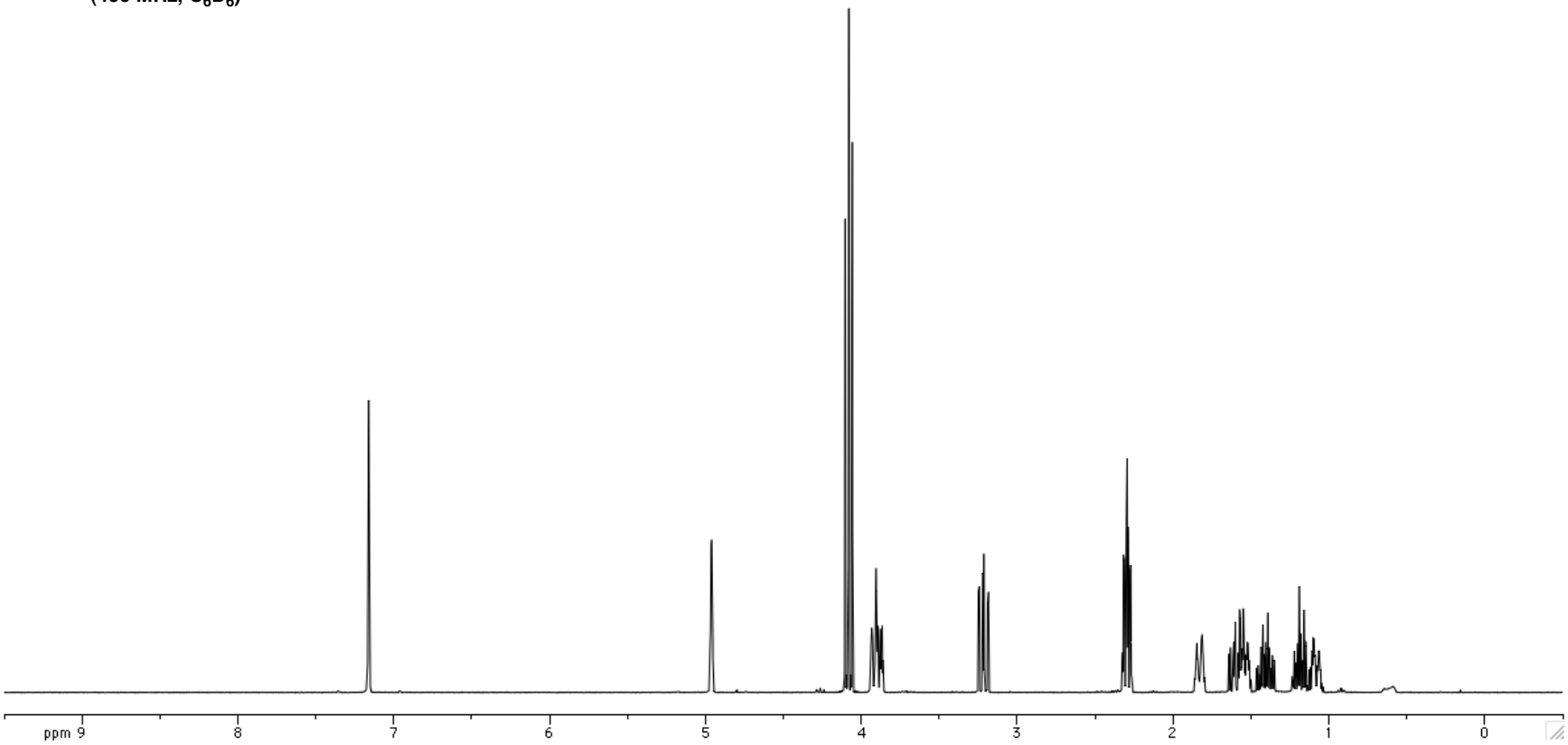
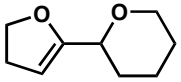
(400 MHz, C_6D_6)





24
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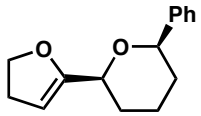
(100 MHz, C_6D_6)



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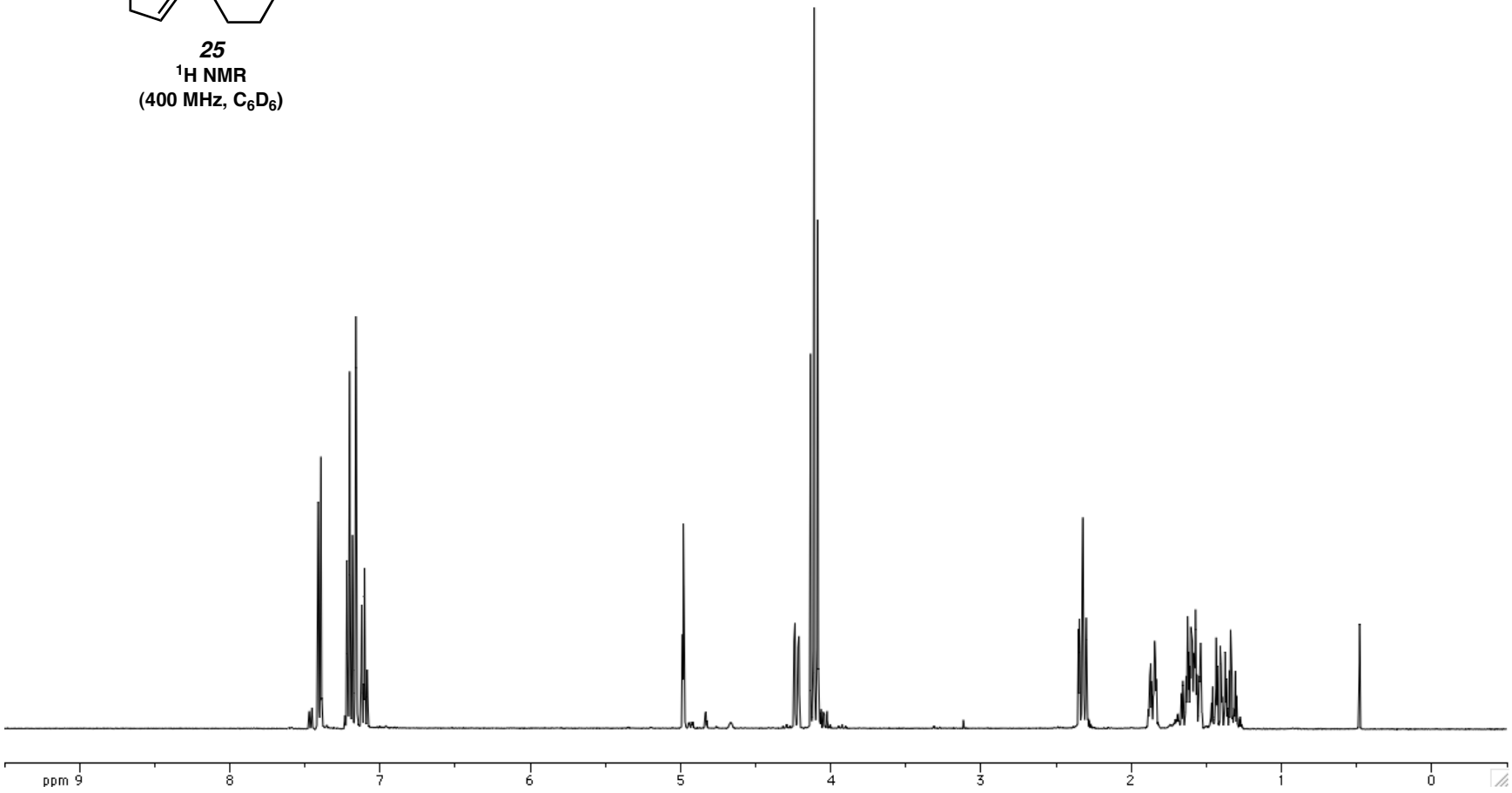
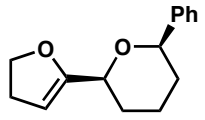
(400 MHz, C_6D_6)





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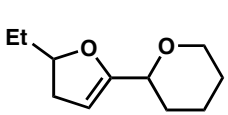

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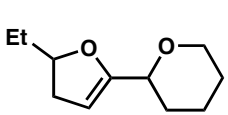
(400 MHz, C_6D_6)



26

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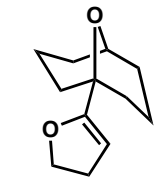
(100 MHz, C_6D_6)



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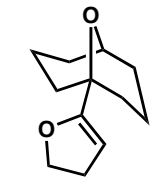

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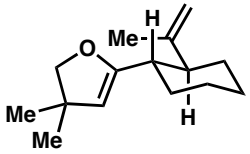
(100 MHz, C_6D_6)



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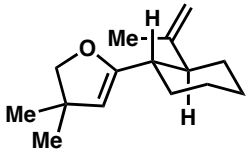
(400 MHz, C_6D_6)



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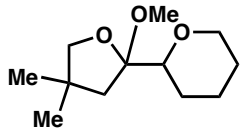
(100 MHz, C_6D_6)



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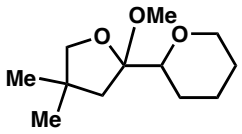
(400 MHz, C_6D_6)



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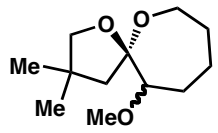
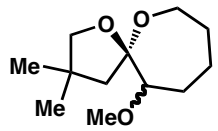
(100 MHz, C_6D_6)



4

^{1}H NMR
(400 MHz, C_6D_6)



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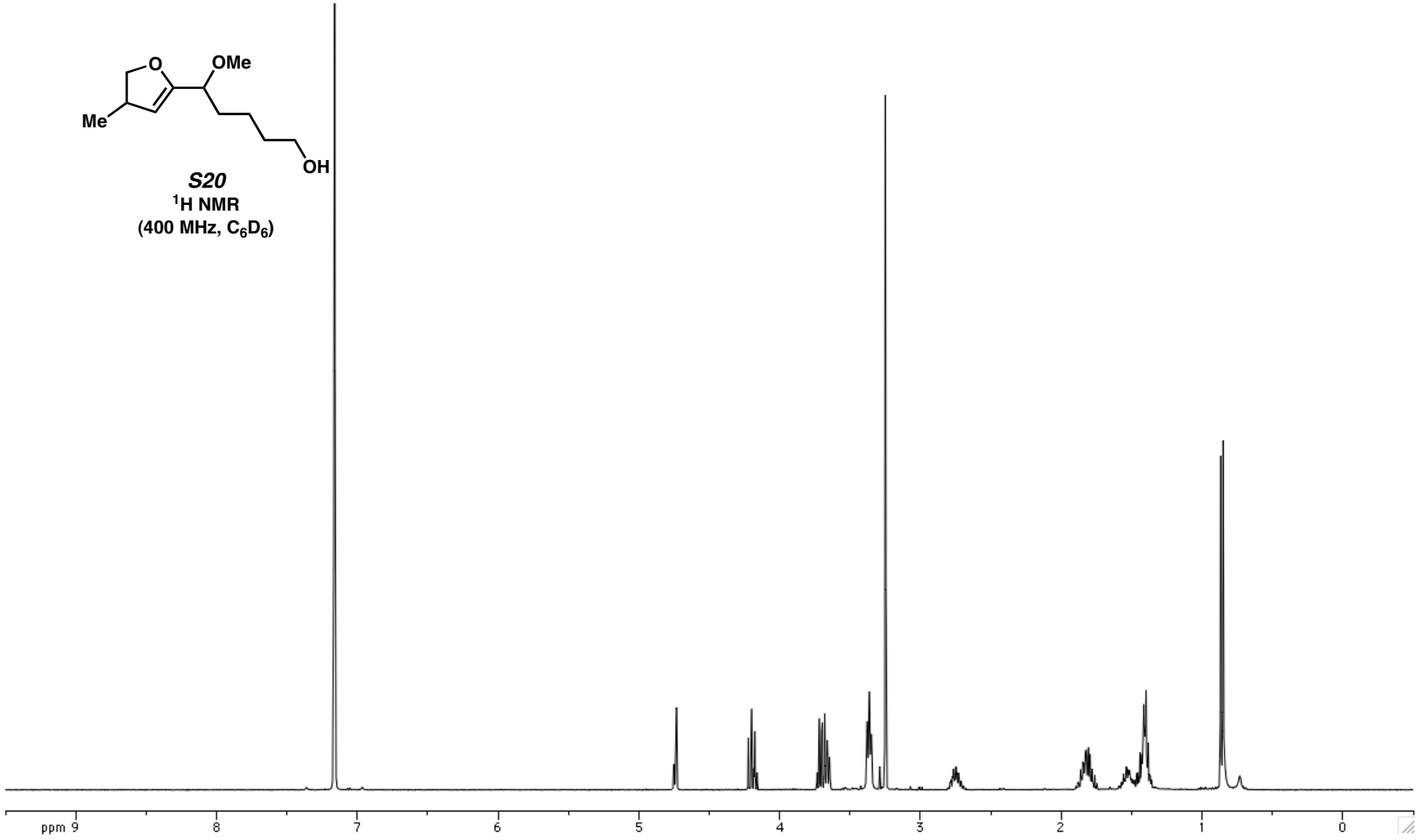
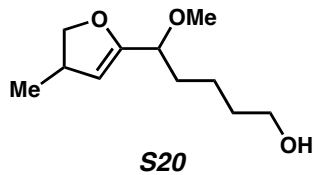
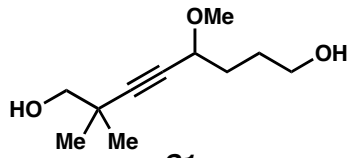
^{13}C NMR
(100 MHz, C_6D_6)


O
OMe
Me
OH
S20
1H NMR
(400 MHz, C6D6)
ppm 9
8
7
6
5
4
3
2
1
0



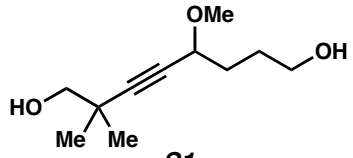
S20
^{13}C NMR
(100 MHz, C_6D_6)



S1

^{1}H NMR

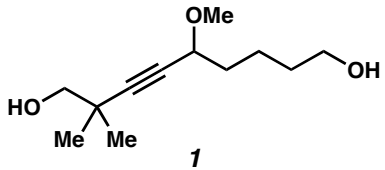
(400 MHz, $CDCl_3$)



S1

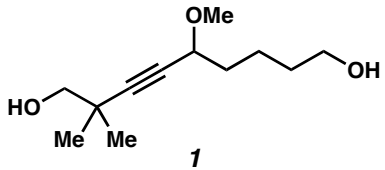
^{13}C NMR

(100 MHz, $CDCl_3$)



1

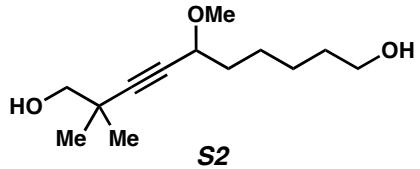
^{1}H NMR
(400 MHz, $CDCl_3$)



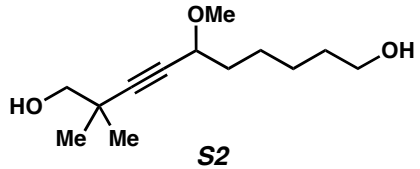
1

^{13}C NMR

(100 MHz, $CDCl_3$)



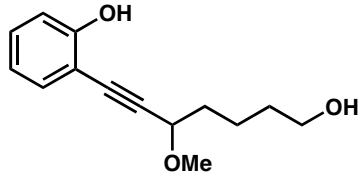
S2
^{1}H NMR
(400 MHz, $CDCl_3$)



S2

^{13}C NMR

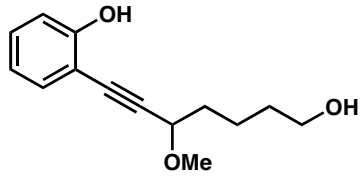
(100 MHz, $CDCl_3$)



S3

^{1}H NMR

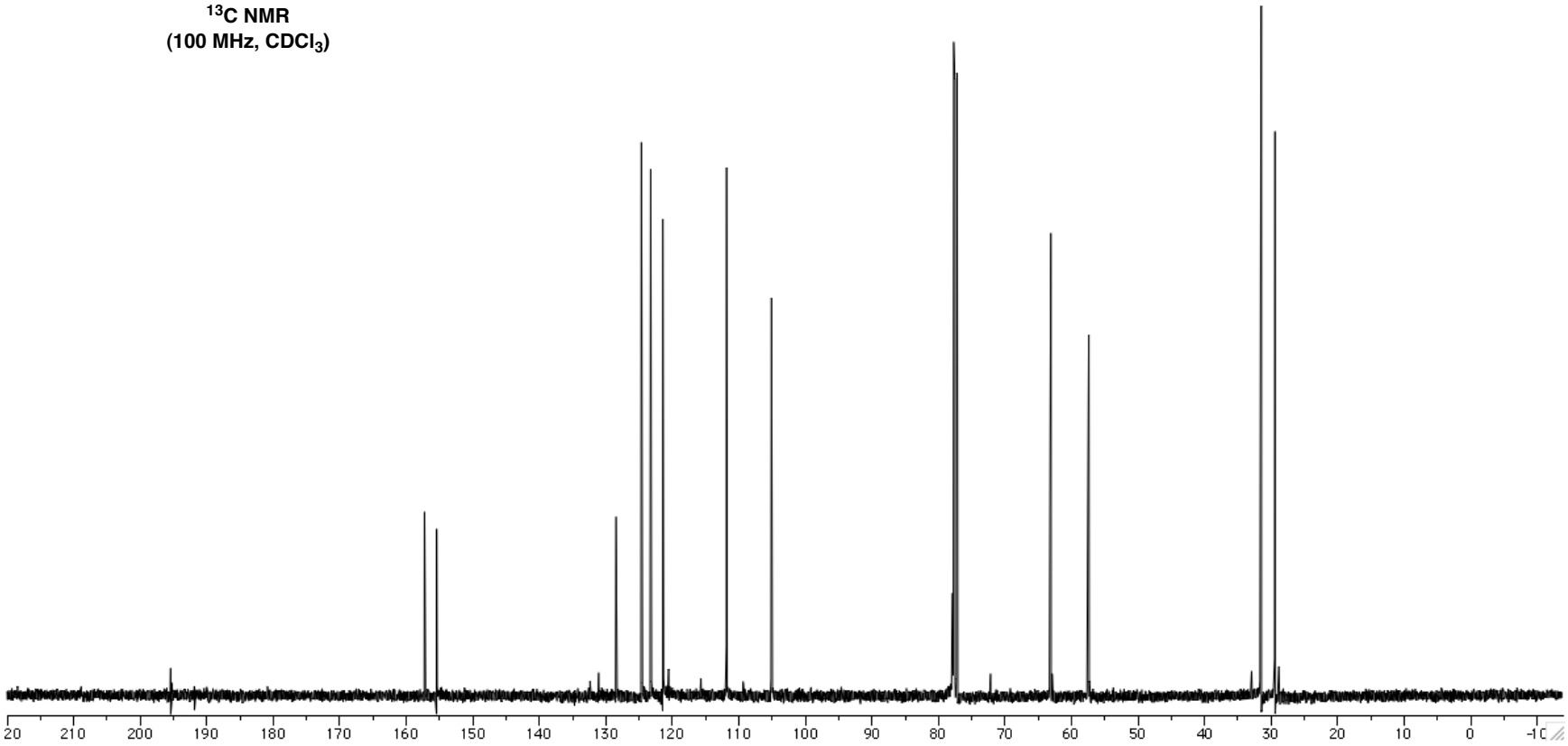
(400 MHz, $CDCl_3$)

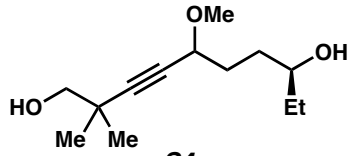


S3

^{13}C NMR

(100 MHz, $CDCl_3$)

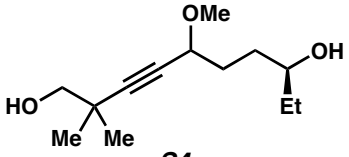




S4

^{1}H NMR

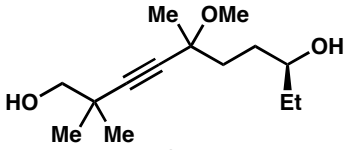
(400 MHz, $CDCl_3$)



S4

^{13}C NMR

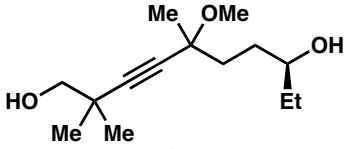
(100 MHz, $CDCl_3$)



S5

^{1}H NMR

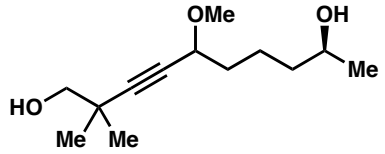
(400 MHz, $CDCl_3$)



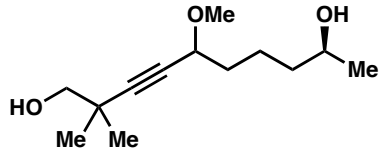
S5

^{13}C NMR

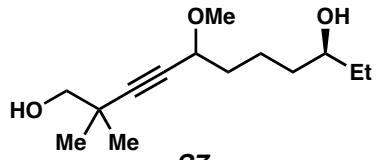
(100 MHz, $CDCl_3$)



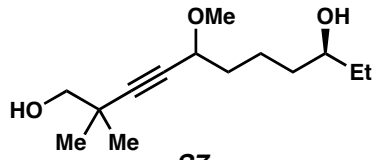
S6
^{1}H NMR
(400 MHz, $CDCl_3$)



S6
^{13}C NMR
(100 MHz, $CDCl_3$)



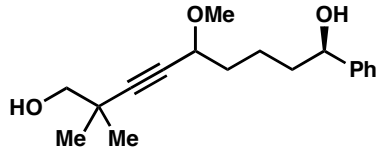
S7
^{1}H NMR
(400 MHz, $CDCl_3$)



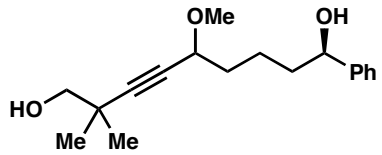
S7

^{13}C NMR

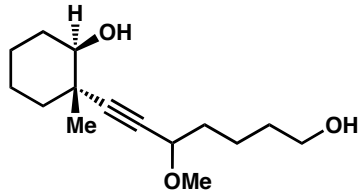
(100 MHz, $CDCl_3$)



S8
^{1}H NMR
(400 MHz, $CDCl_3$)



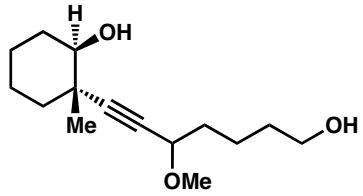
S8
^{13}C NMR
(100 MHz, $CDCl_3$)



S9

^{1}H NMR

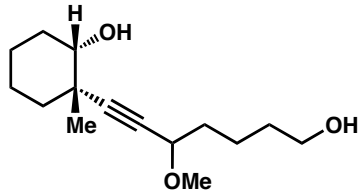
(400 MHz, $CDCl_3$)



S9

^{13}C NMR

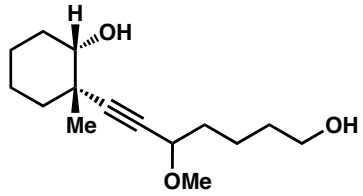
(100 MHz, $CDCl_3$)



S10

^{1}H NMR

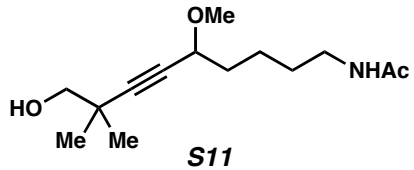
(400 MHz, $CDCl_3$)



S10

^{13}C NMR

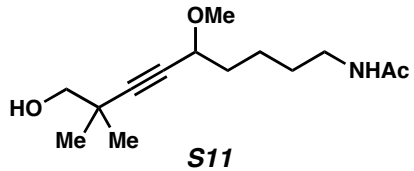
(100 MHz, $CDCl_3$)



S11

^{1}H NMR

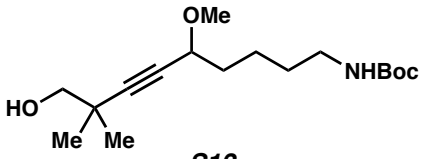
(400 MHz, $CDCl_3$)



S11

^{13}C NMR

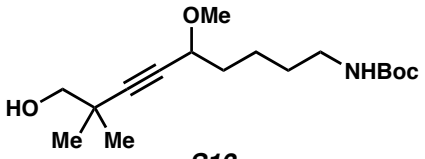
(100 MHz, $CDCl_3$)



S12

^{1}H NMR

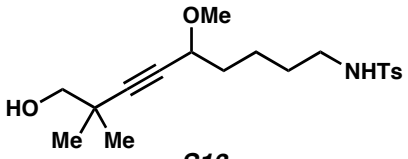
(400 MHz, $CDCl_3$)



S12

^{13}C NMR

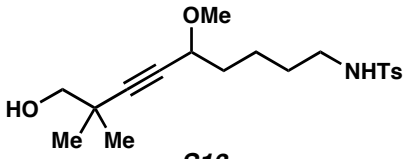
(100 MHz, $CDCl_3$)



S13

^{1}H NMR

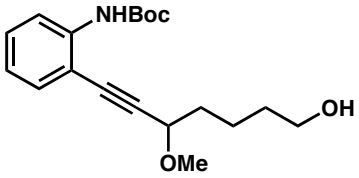
(400 MHz, $CDCl_3$)



S13

^{13}C NMR

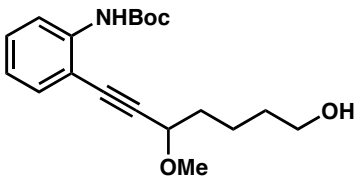
(100 MHz, $CDCl_3$)



S14

^{1}H NMR

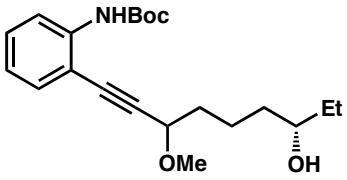
(400 MHz, $CDCl_3$)



S14

^{13}C NMR

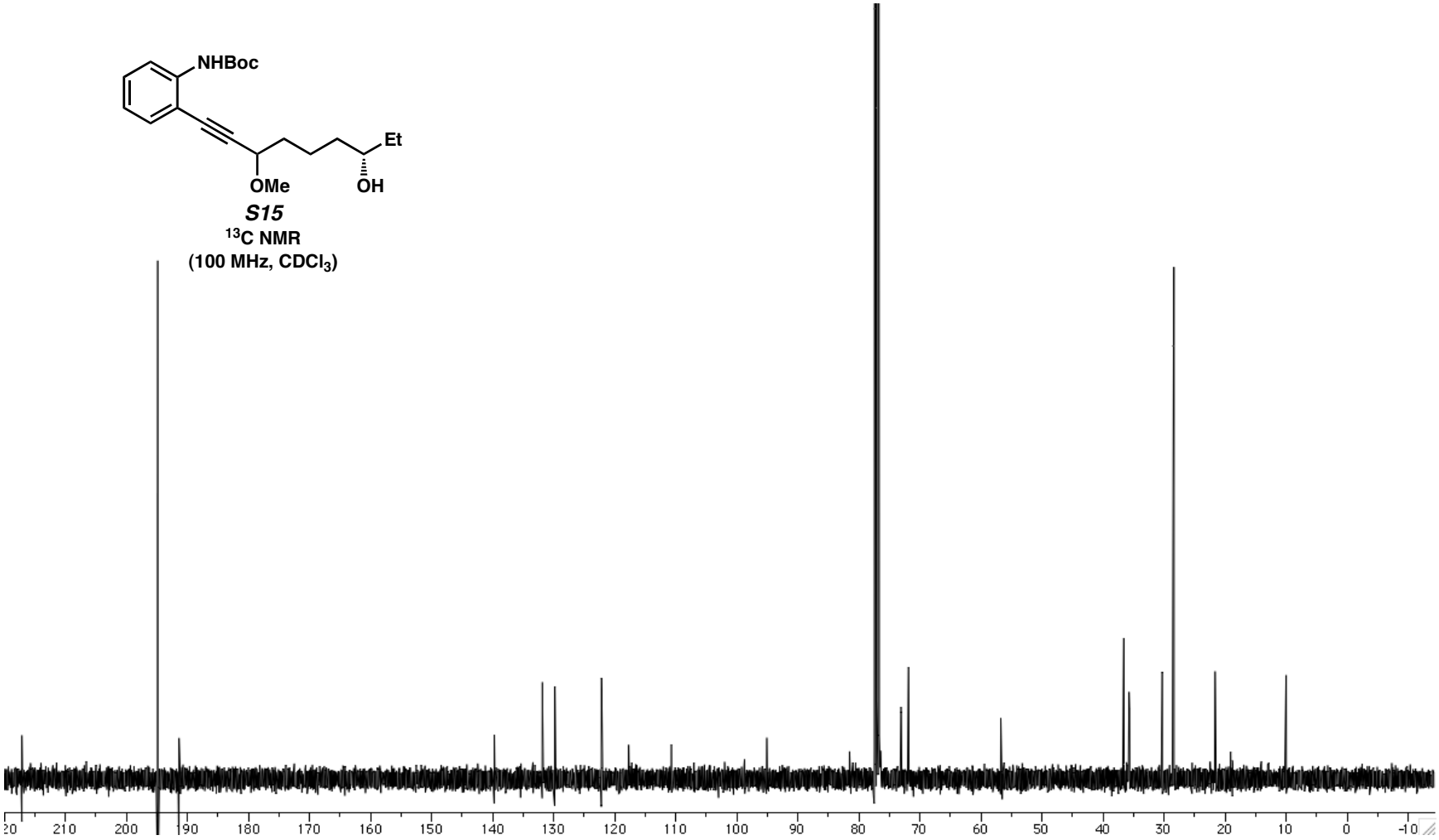
(100 MHz, $CDCl_3$)

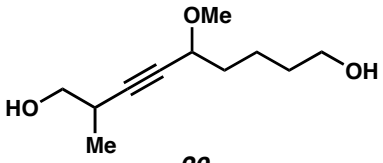


S15

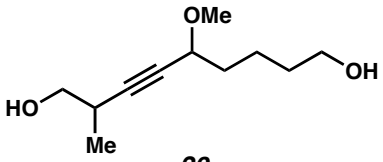
^{1}H NMR

(400 MHz, $CDCl_3$)


NHBoc
Et
OMe
OH
S15
13C NMR
(100 MHz, CDCl3)
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
-10



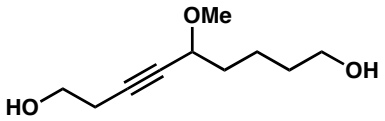
20
^{1}H NMR
(400 MHz, $CDCl_3$)



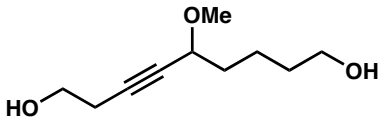
20

^{13}C NMR

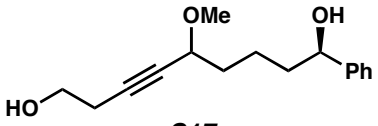
(100 MHz, $CDCl_3$)



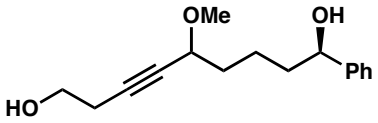
S16
^{1}H NMR
(400 MHz, $CDCl_3$)



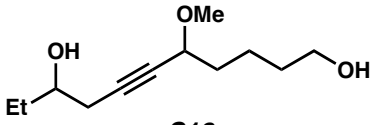
S16
^{13}C NMR
(100 MHz, $CDCl_3$)



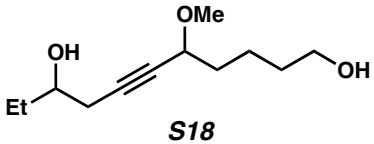
S17
^{1}H NMR
(400 MHz, $CDCl_3$)



S17
^{13}C NMR
(100 MHz, $CDCl_3$)



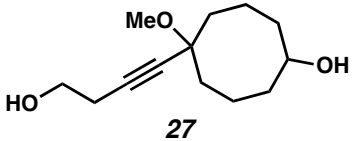
S18
^{1}H NMR
(400 MHz, $CDCl_3$)



S18

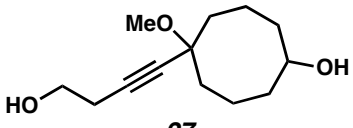
^{13}C NMR

(100 MHz, $CDCl_3$)



27

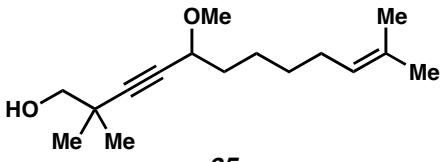
^{1}H NMR
(400 MHz, $CDCl_3$)



27

^{13}C NMR

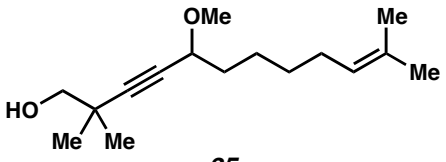
(100 MHz, $CDCl_3$)



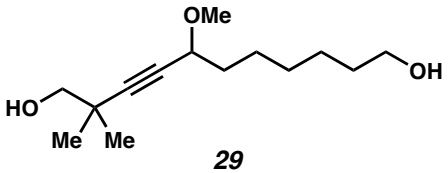
35

^{1}H NMR

(400 MHz, $CDCl_3$)



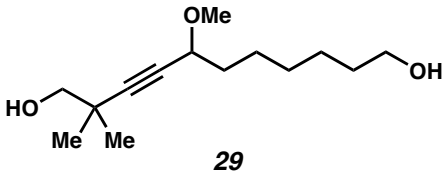
35
^{13}C NMR
(100 MHz, $CDCl_3$)



29

^{1}H NMR

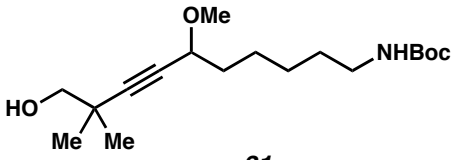
(400 MHz, $CDCl_3$)



29

^{13}C NMR

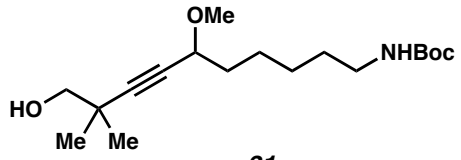
(100 MHz, $CDCl_3$)



31

^{1}H NMR

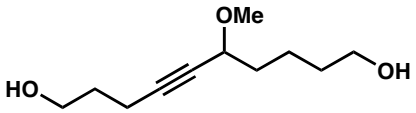
(400 MHz, $CDCl_3$)



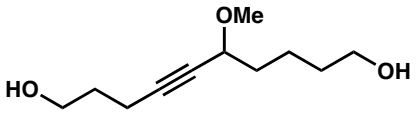
31

^{13}C NMR

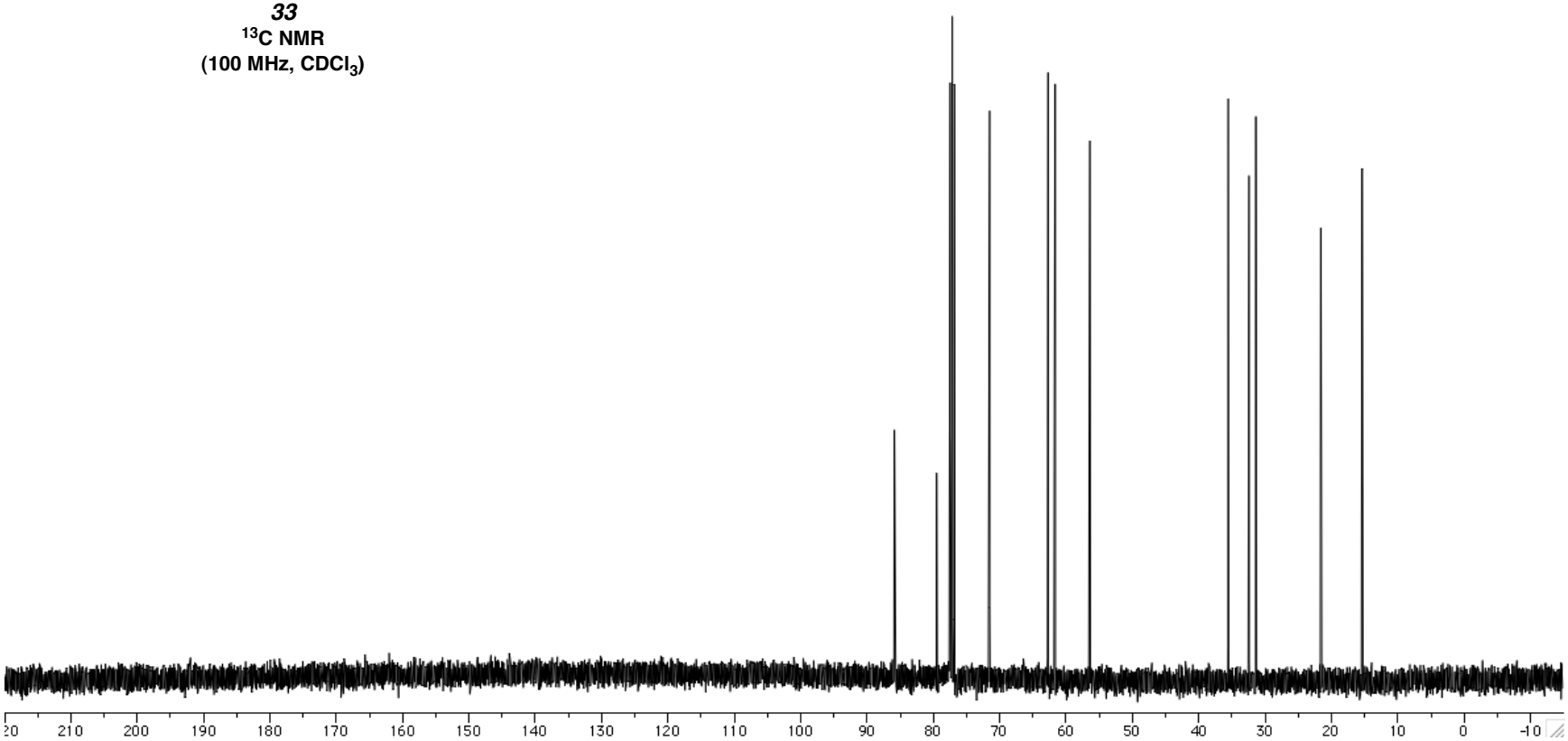
(100 MHz, $CDCl_3$)

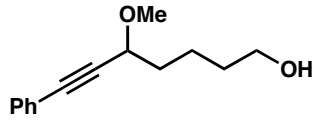


33
^{1}H NMR
(400 MHz, $CDCl_3$)



33
^{13}C NMR
(100 MHz, $CDCl_3$)

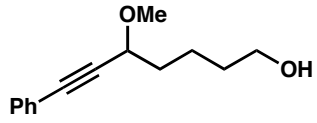




i

^{1}H NMR

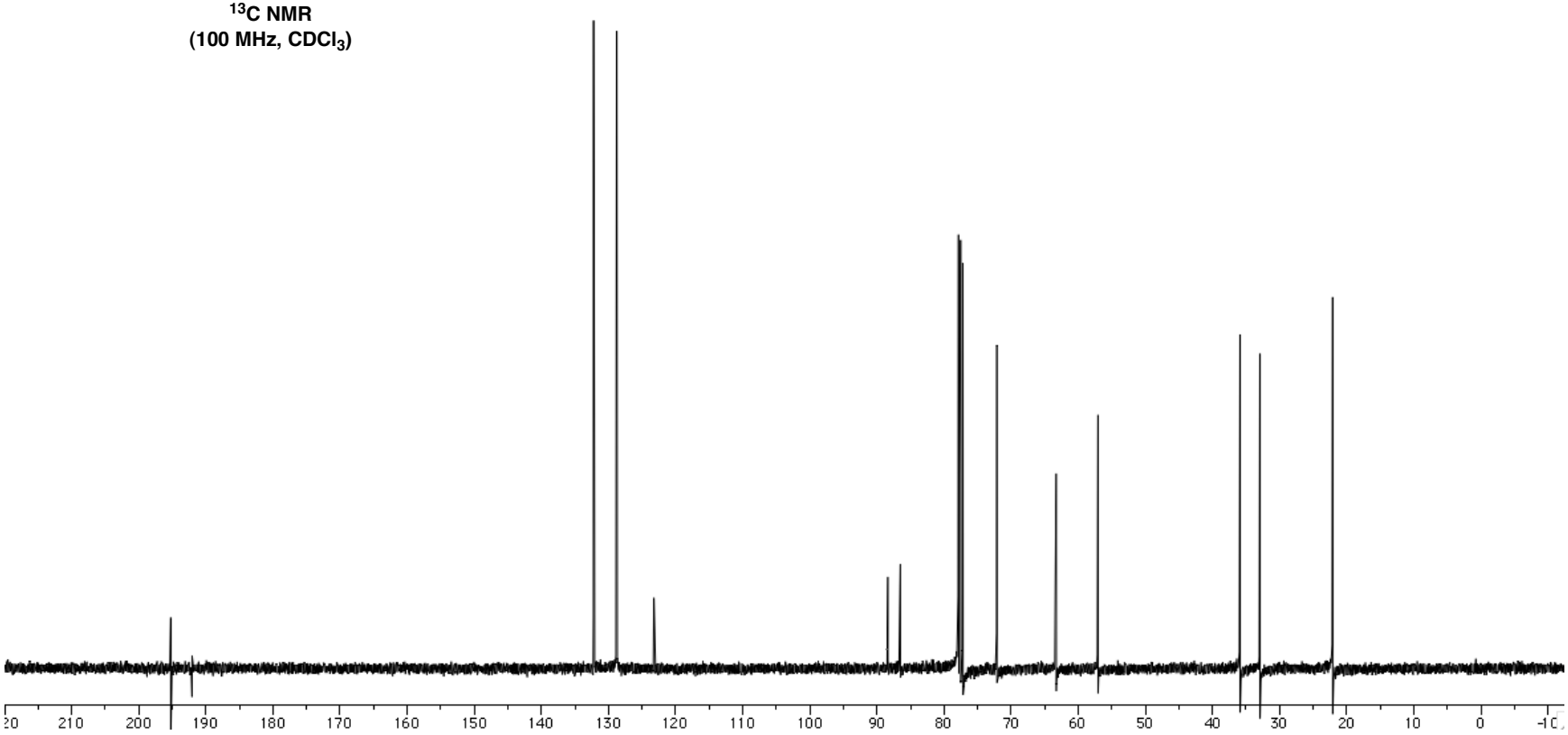
(400 MHz, $CDCl_3$)

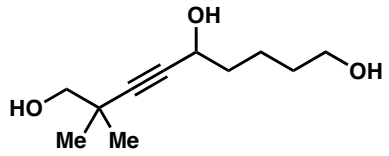


i

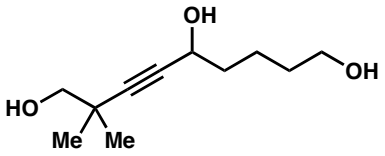
^{13}C NMR

(100 MHz, $CDCl_3$)





S19
^{1}H NMR
(400 MHz, $CDCl_3$)



S19
^{13}C NMR
(100 MHz, $CDCl_3$)