Supplementary Material

Synthesis of platencin core structures via twist-brendane

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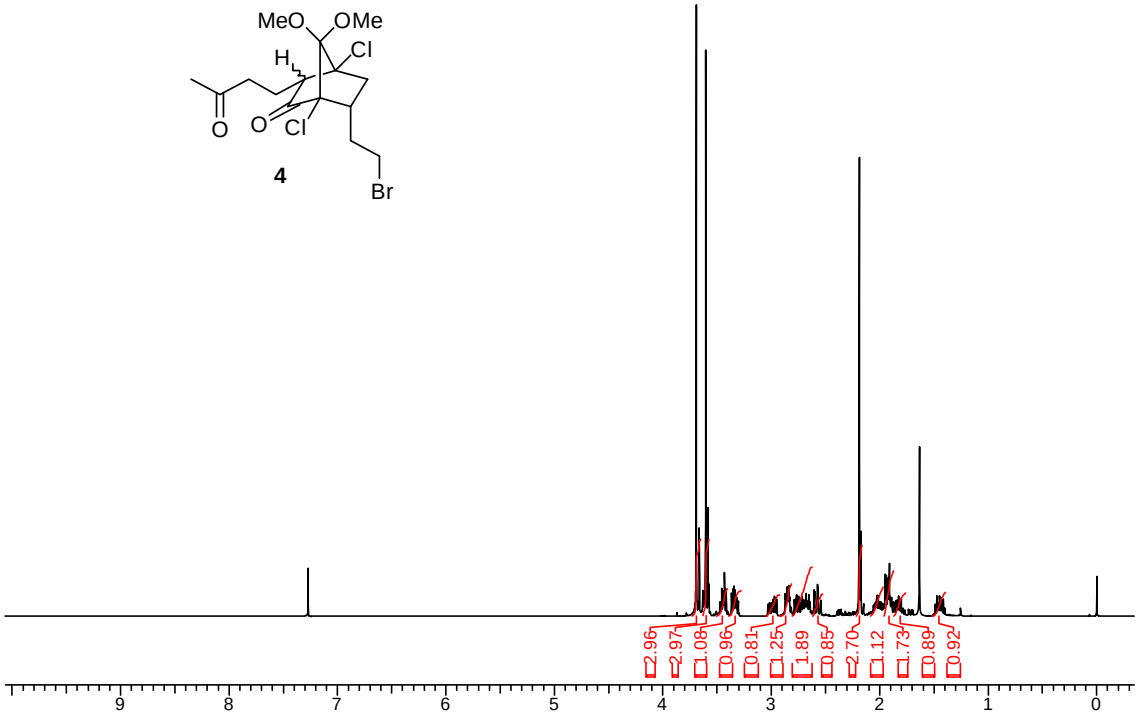
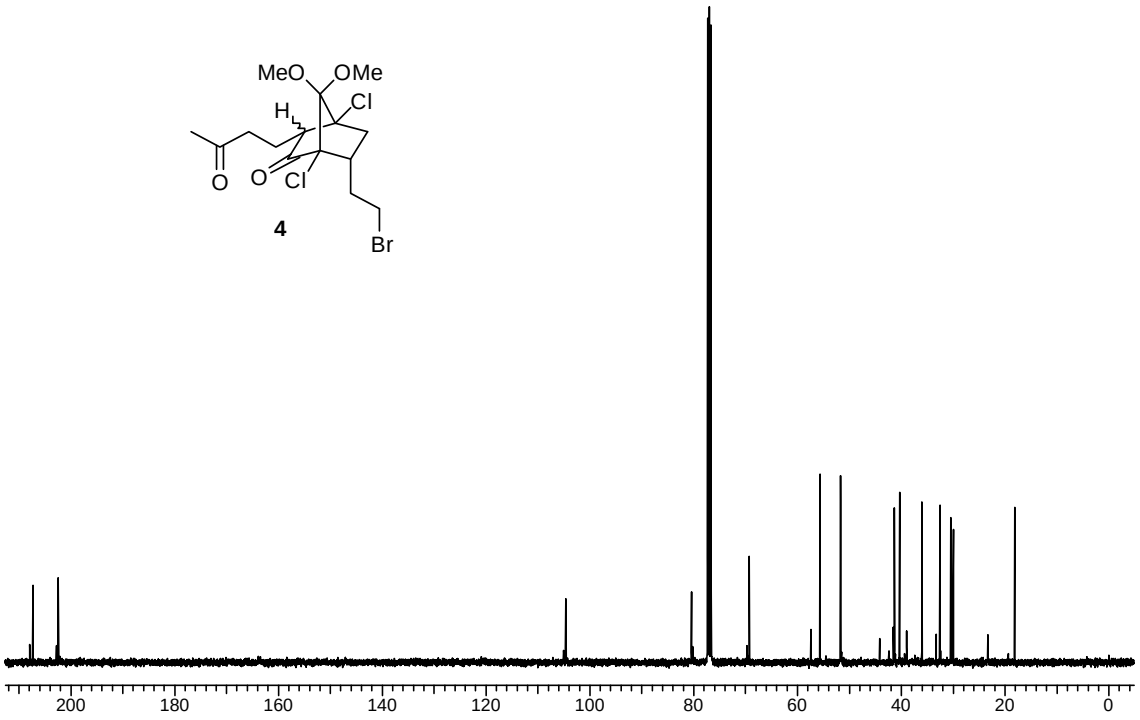
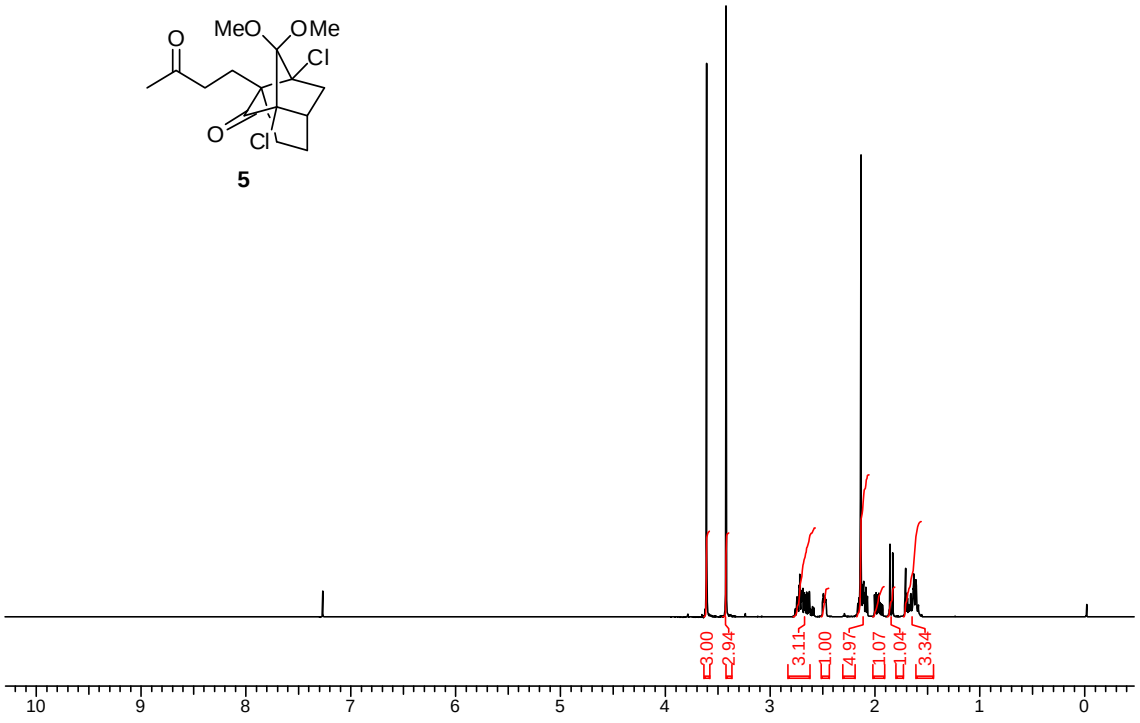
Copies of ^{1}H NMR, ^{13}C NMR spectra:

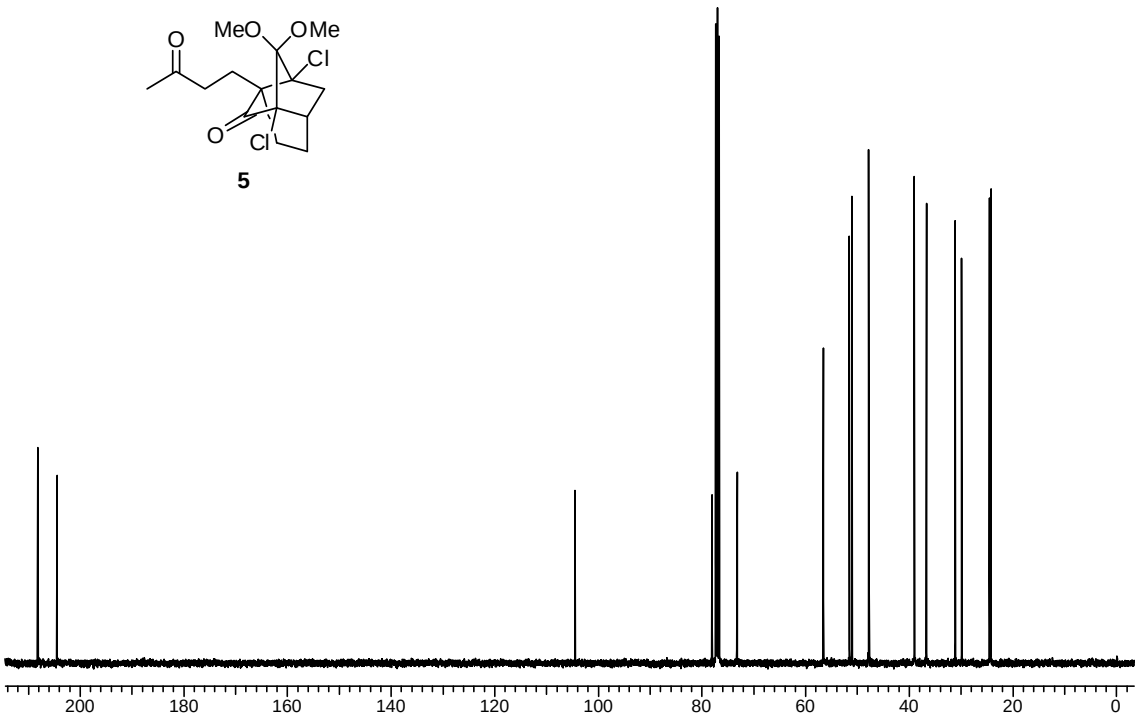
^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **4** in $CDCl_3$:



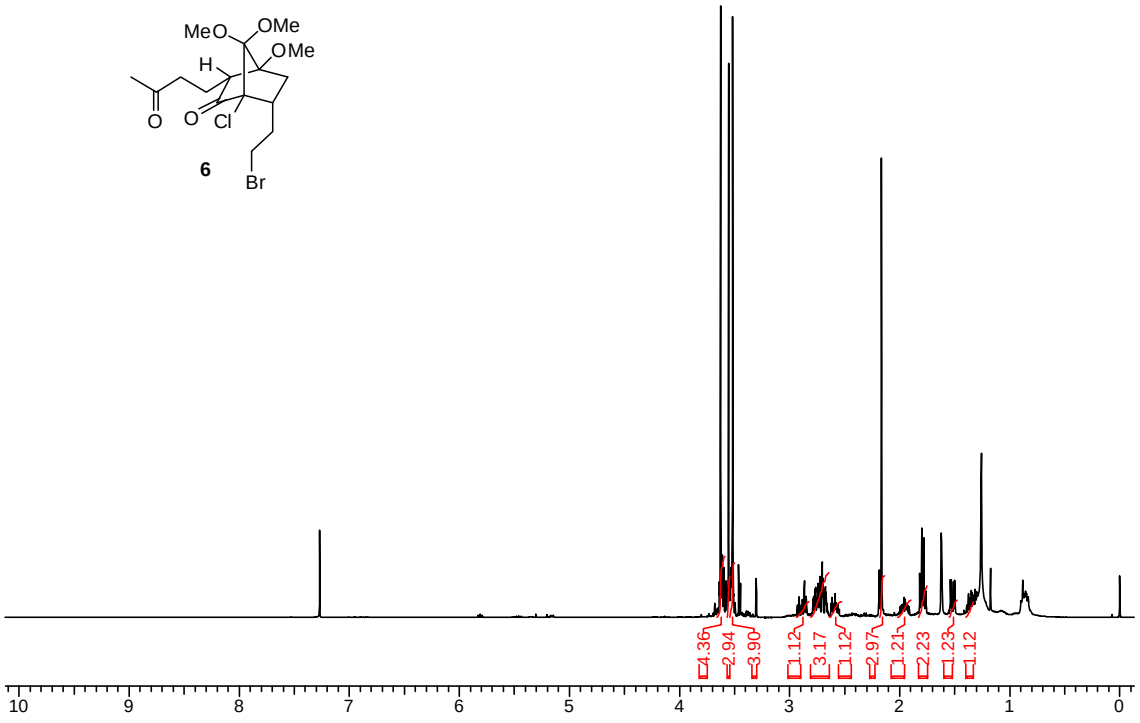


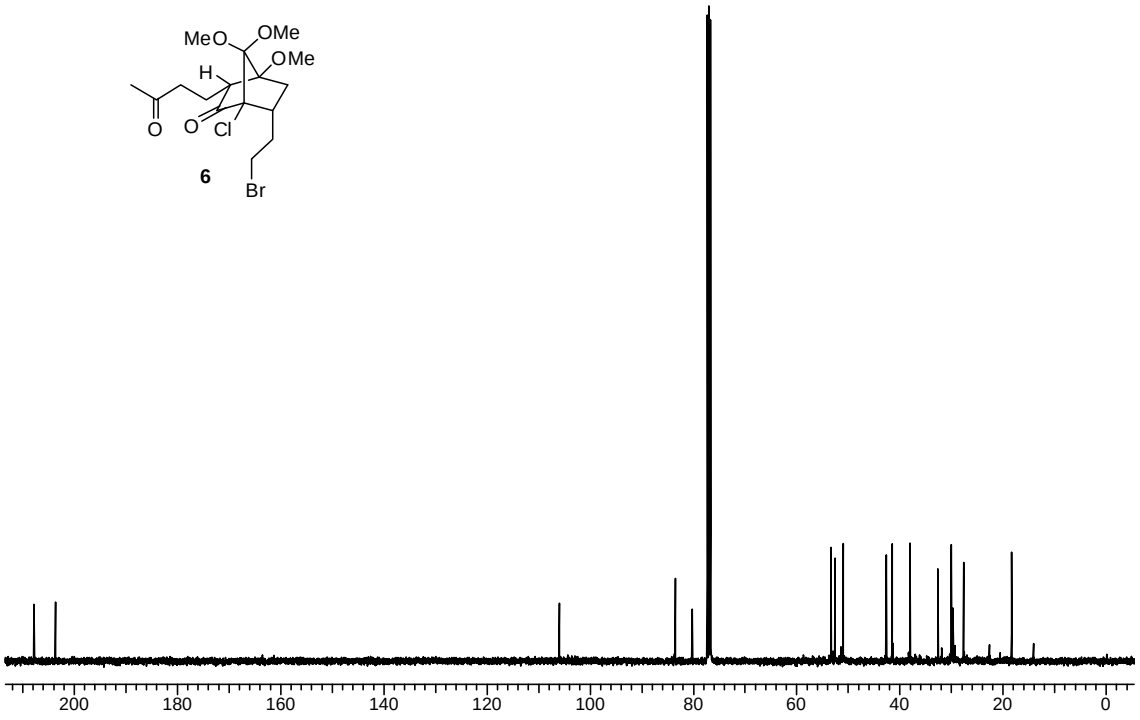
^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **5** in $CDCl_3$:



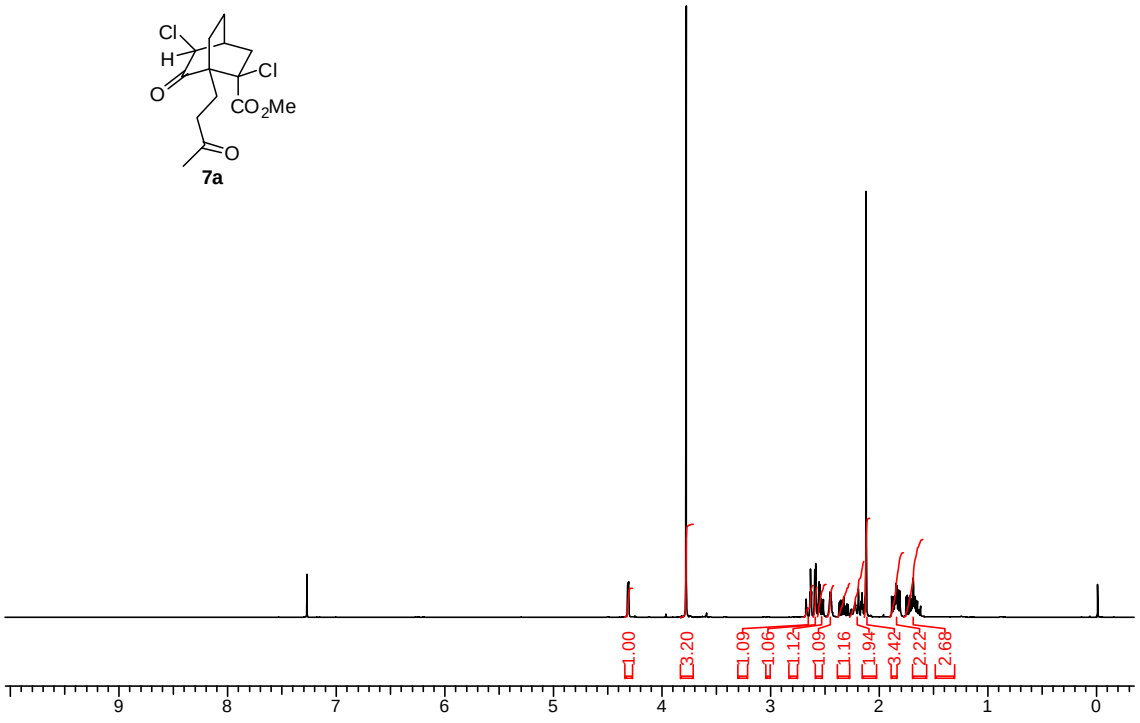


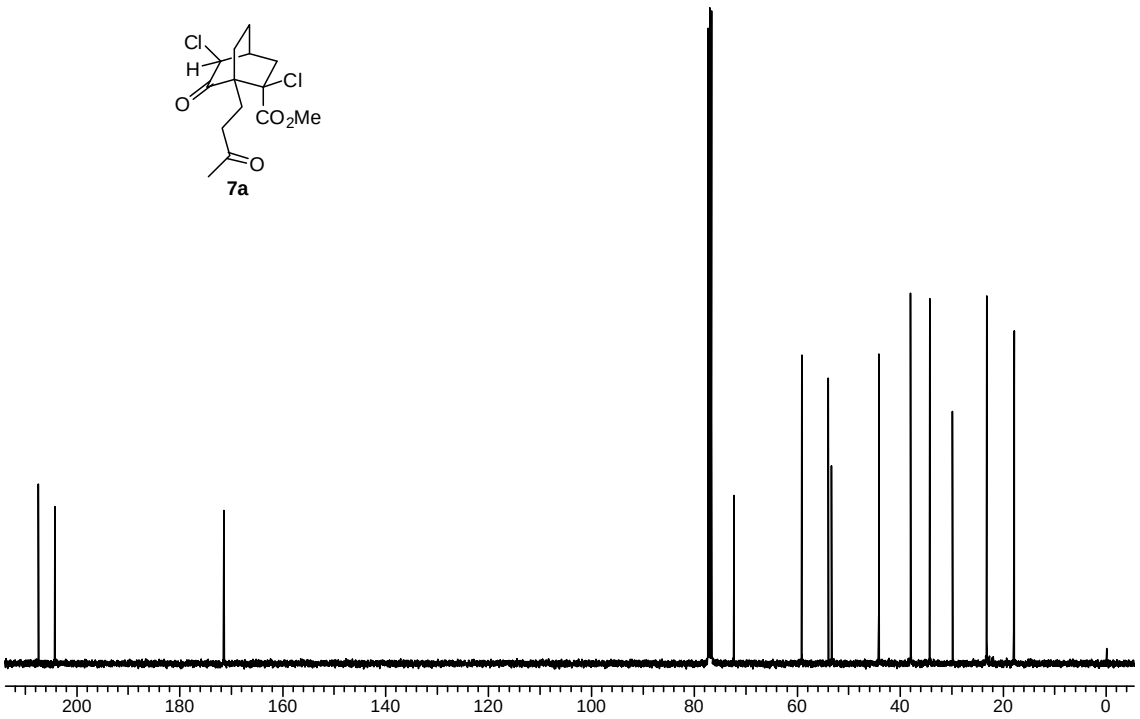
^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **6** in $CDCl_3$:



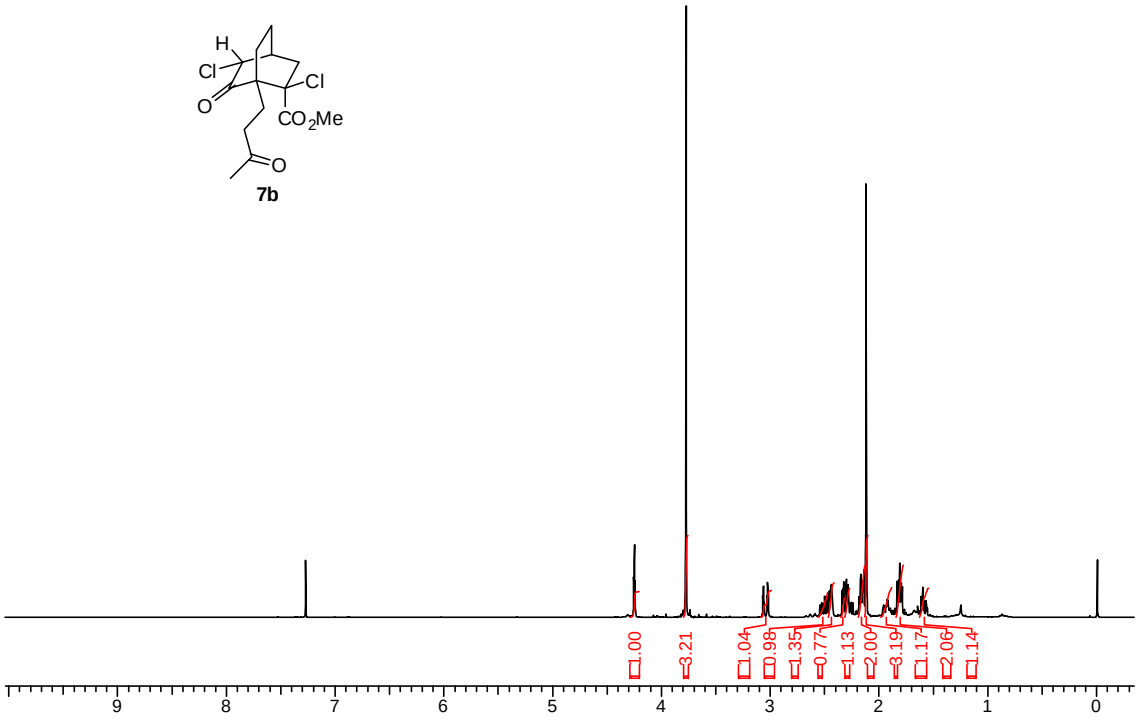


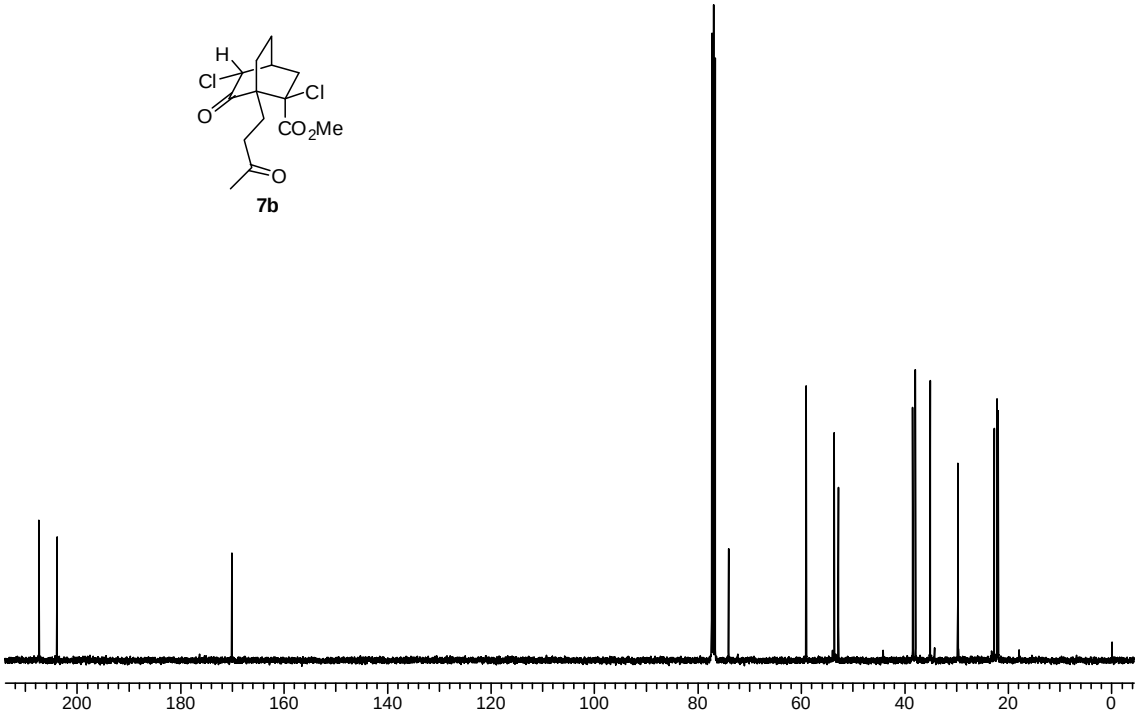
^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **7a** in $CDCl_3$:



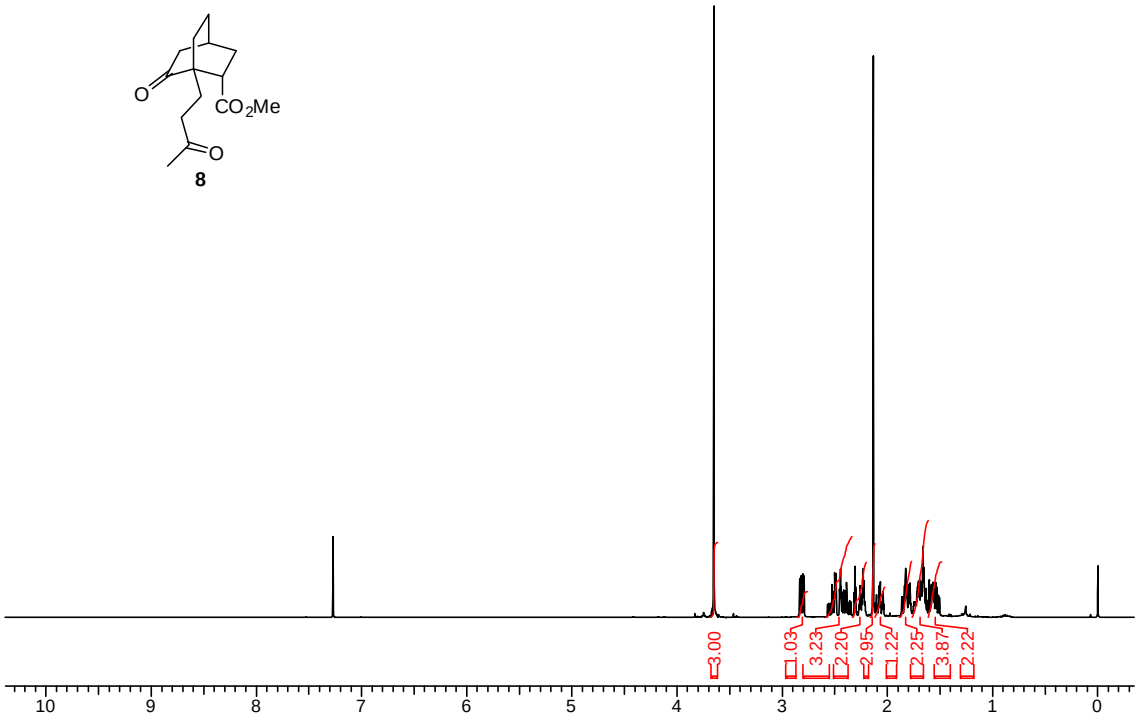


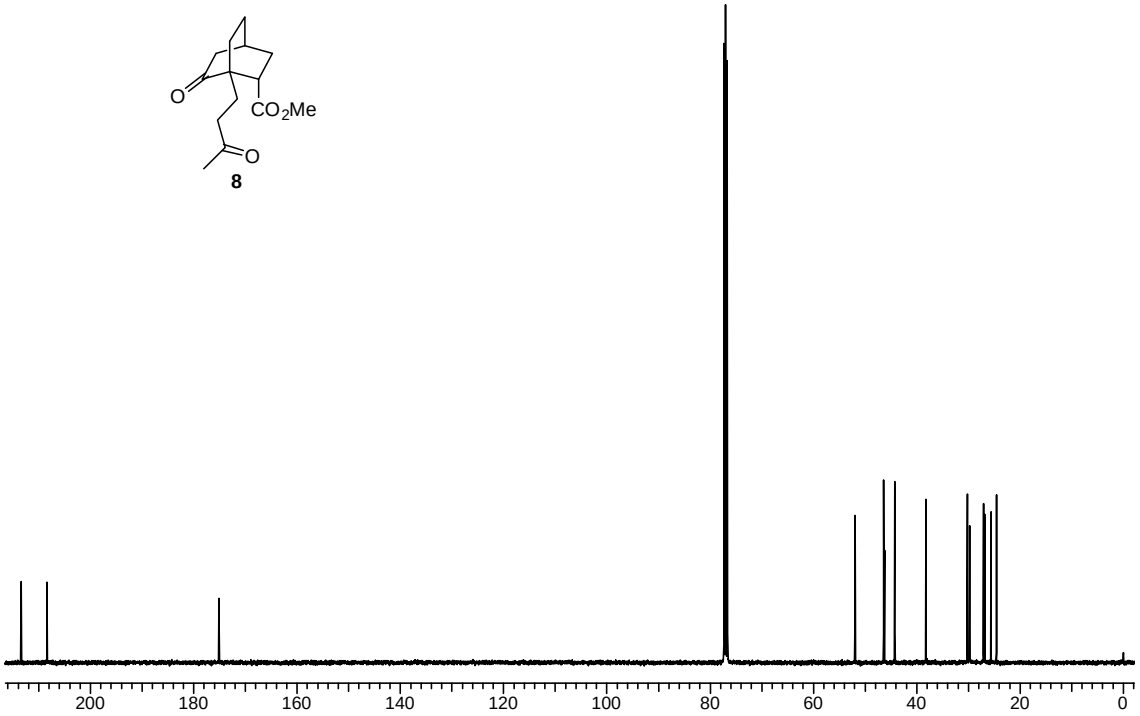
^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **7b** in $CDCl_3$:



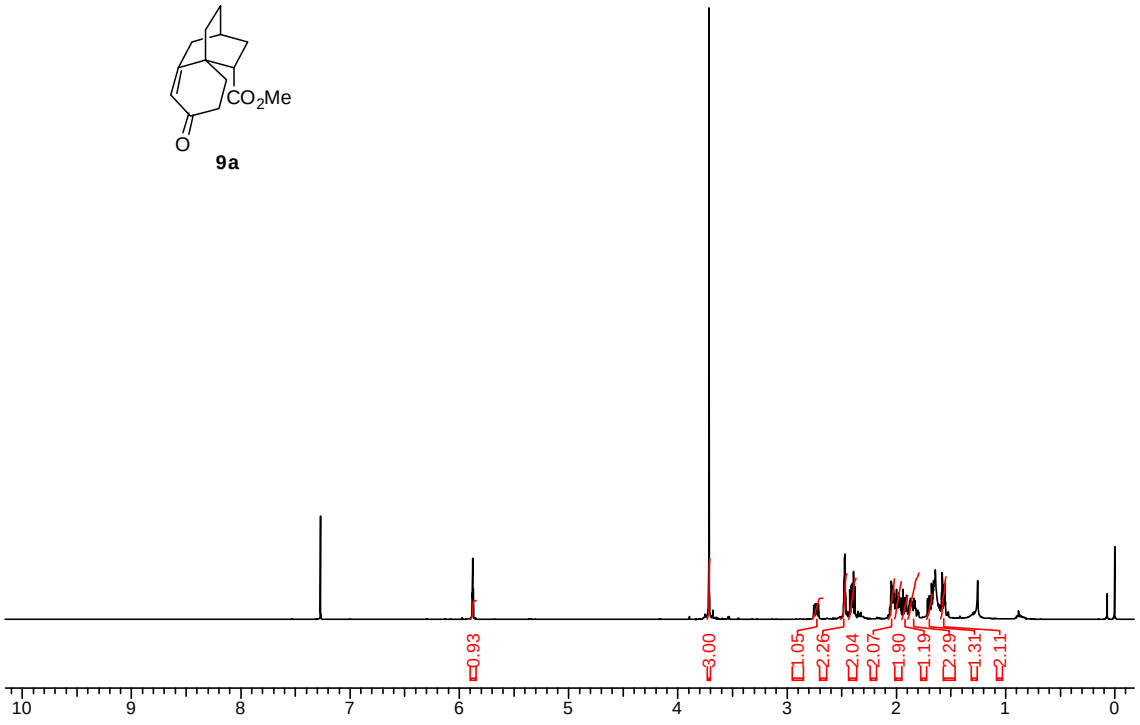


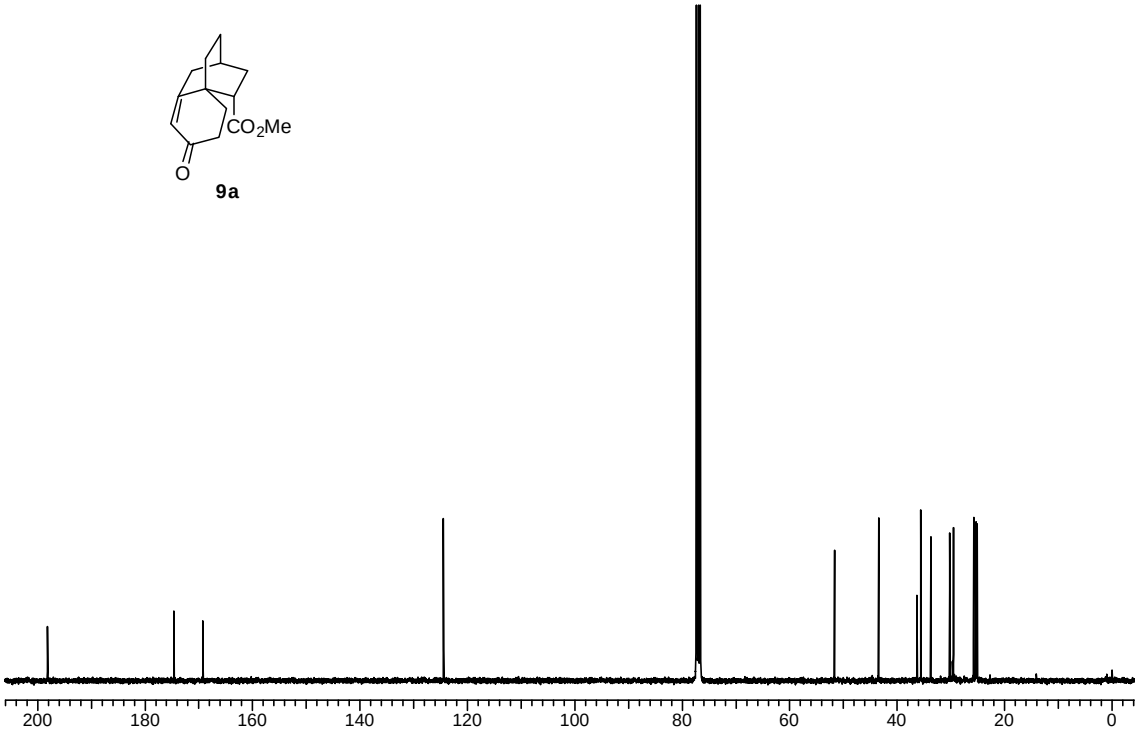
^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **8** in $CDCl_3$:



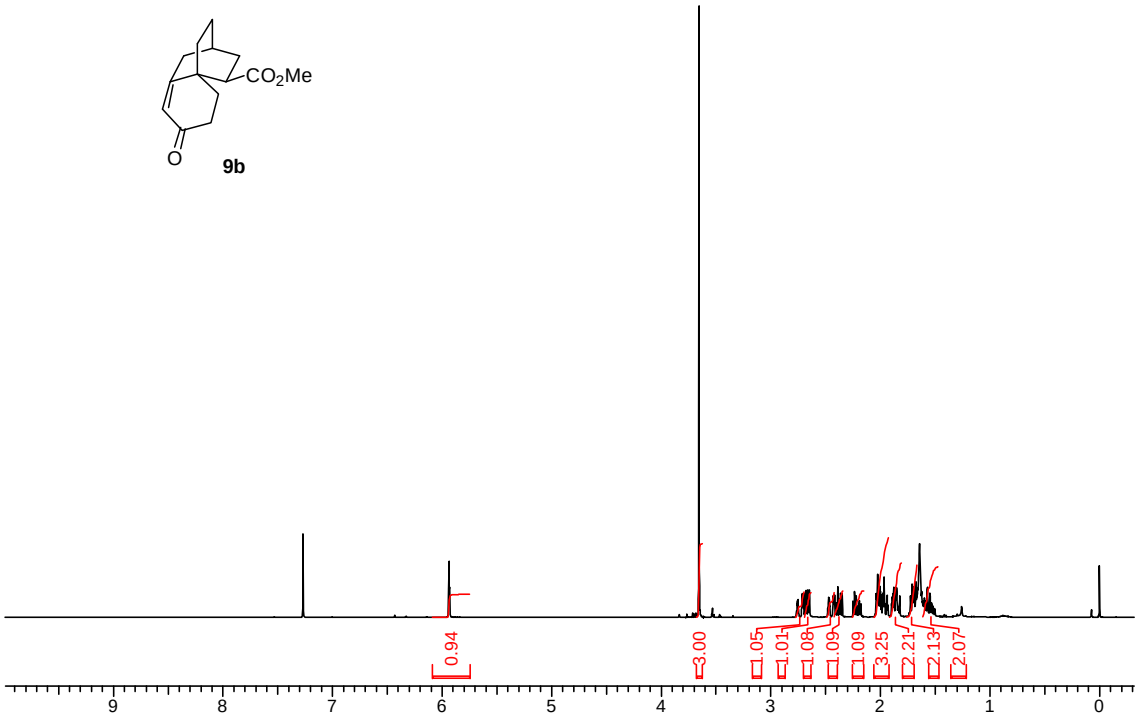


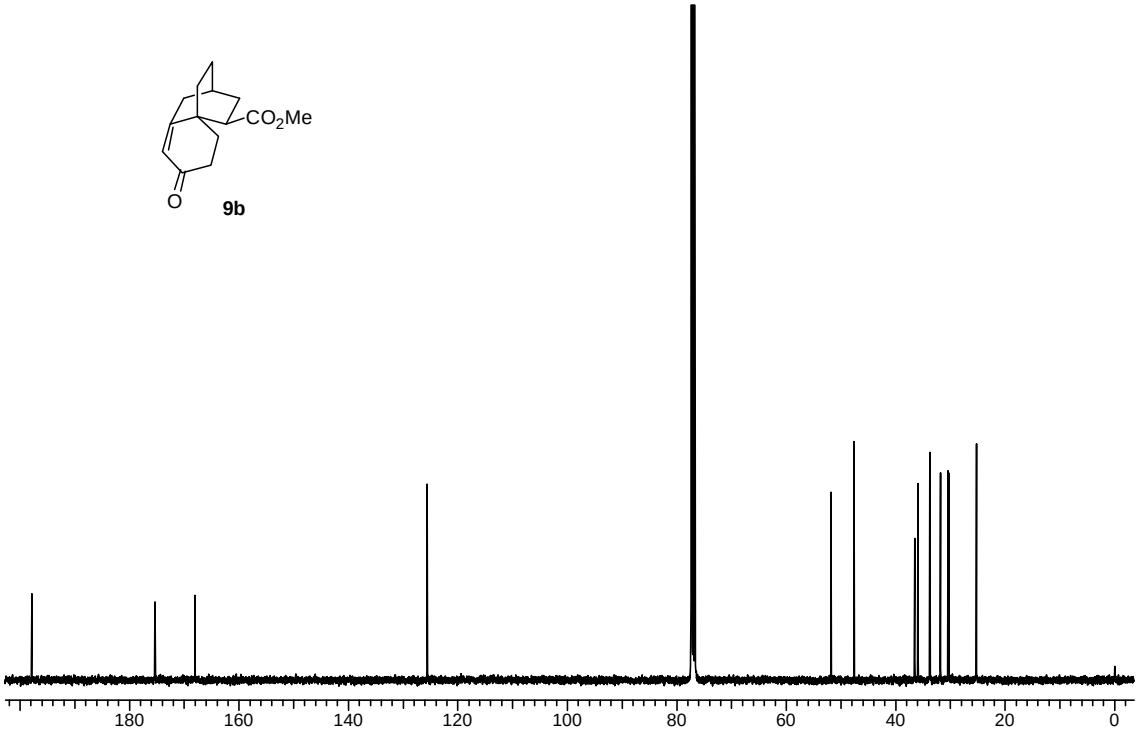
^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **9a** in $CDCl_3$:



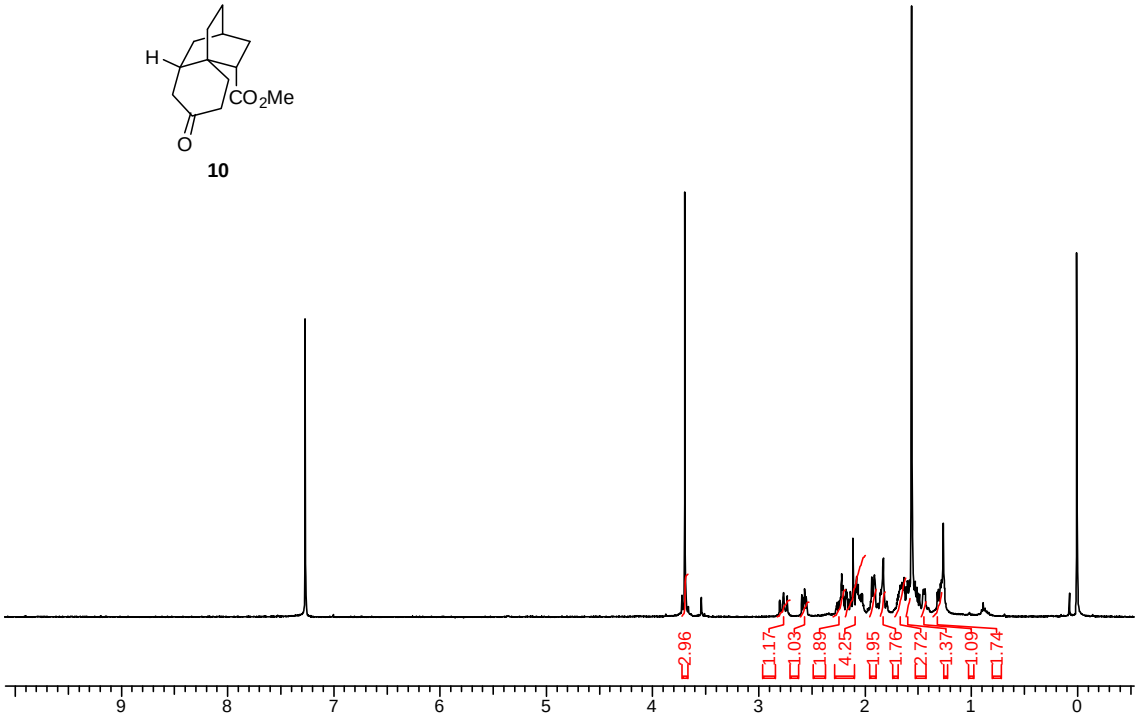


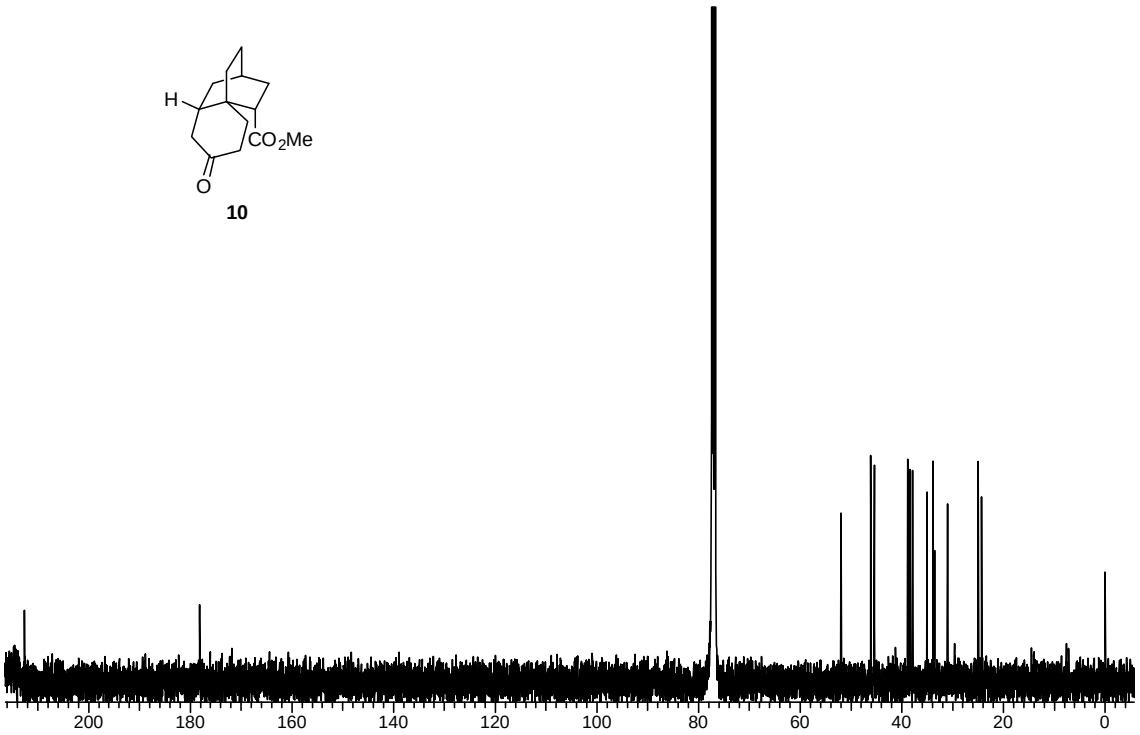
^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **9b** in $CDCl_3$:



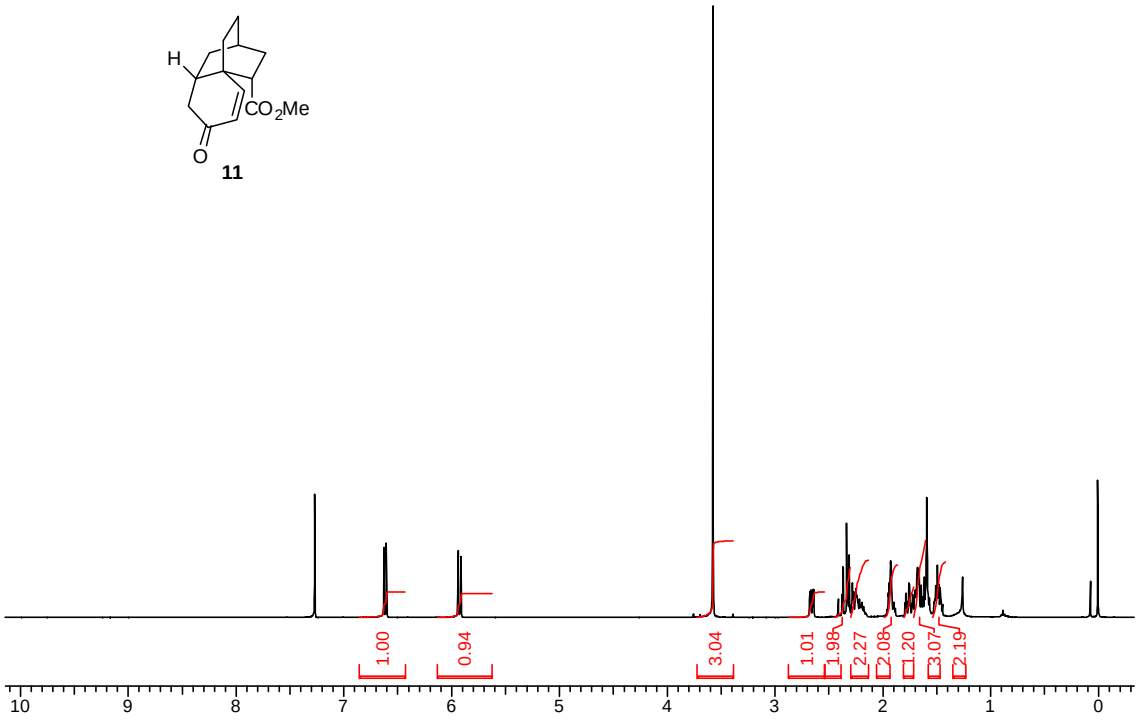


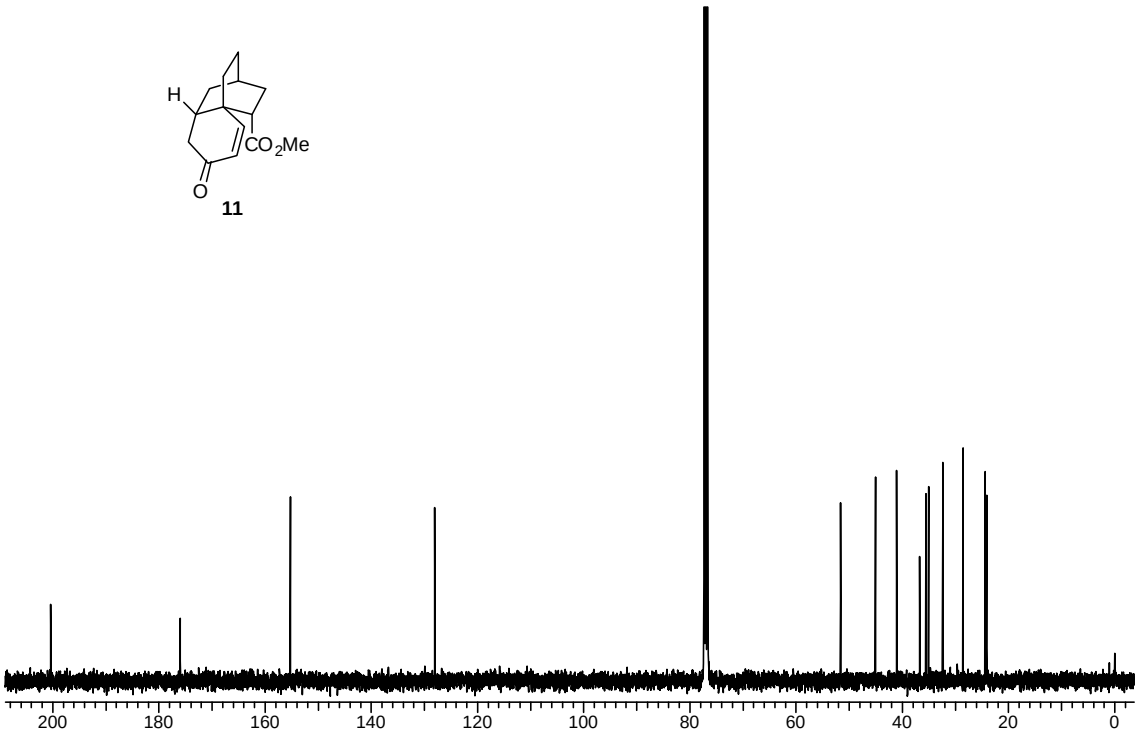
^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **10** in $CDCl_3$:



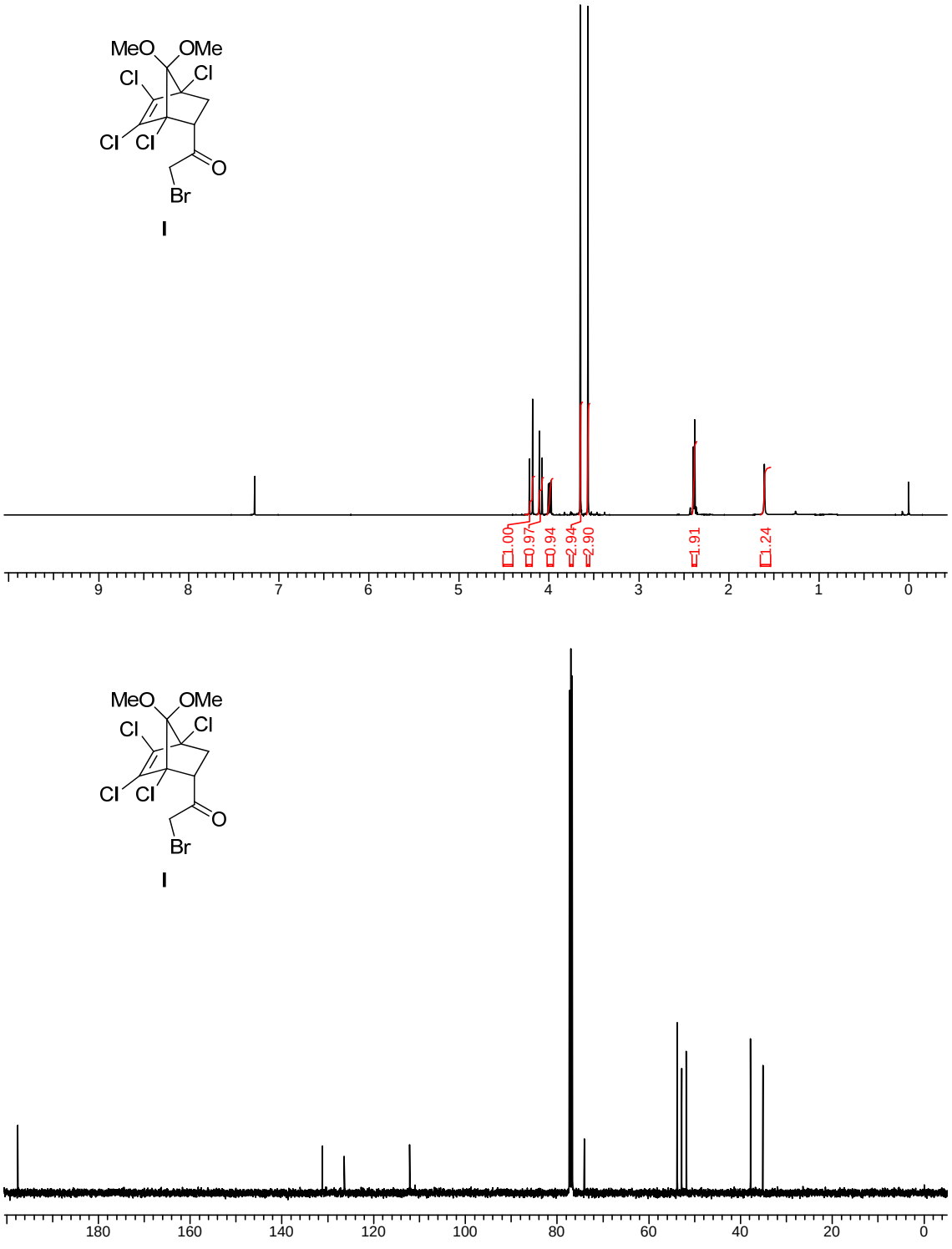


^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **11** in $CDCl_3$:

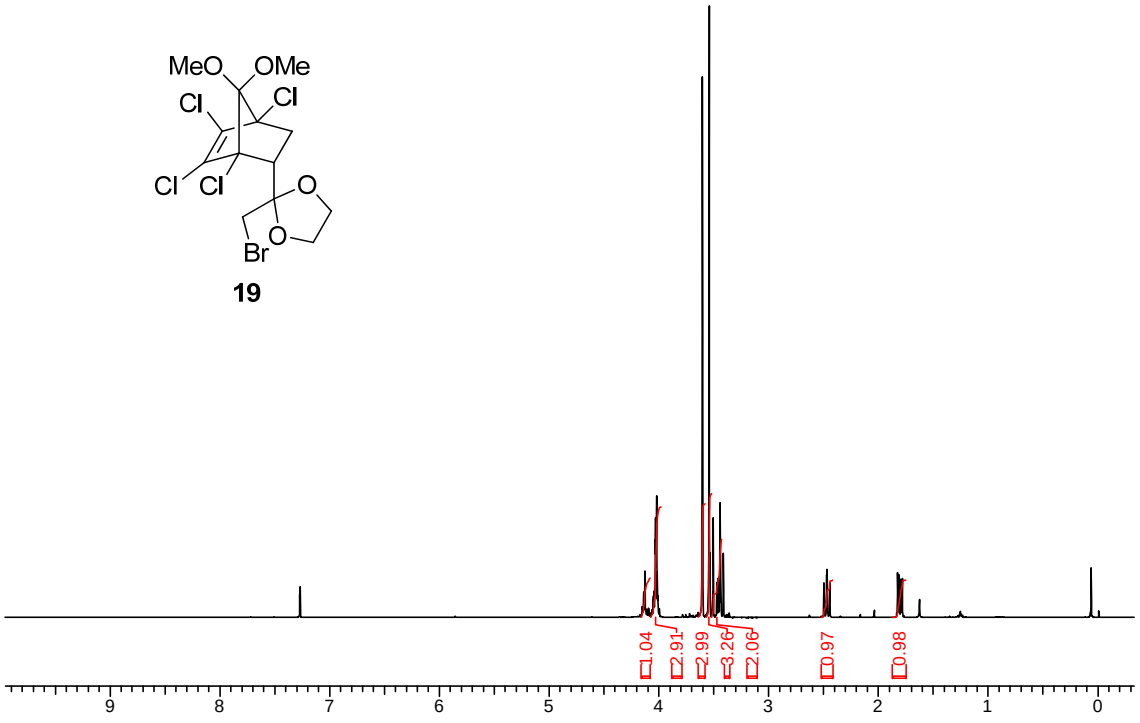


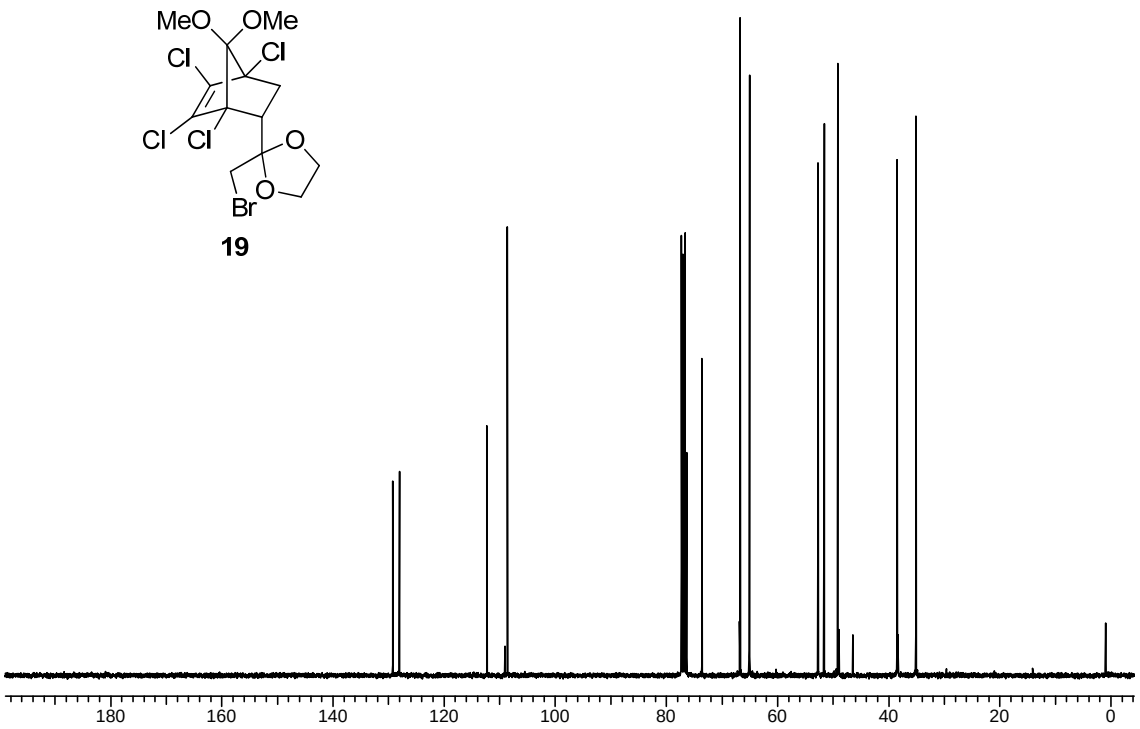


^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **intermediate I** in $CDCl_3$:

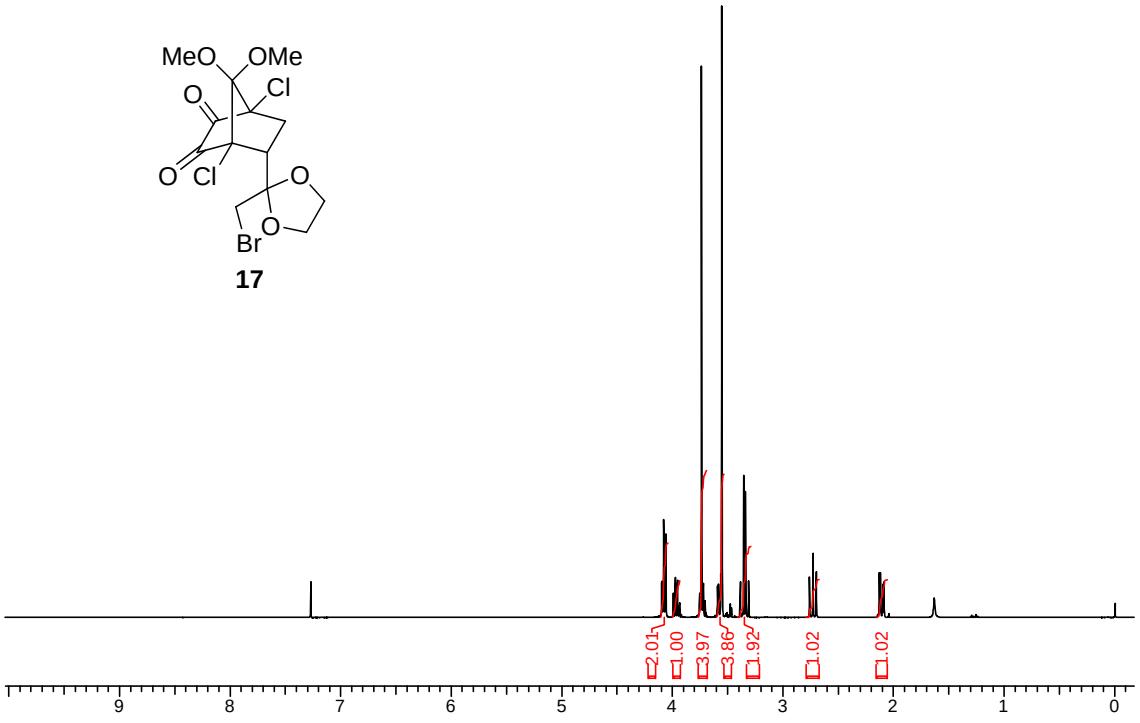


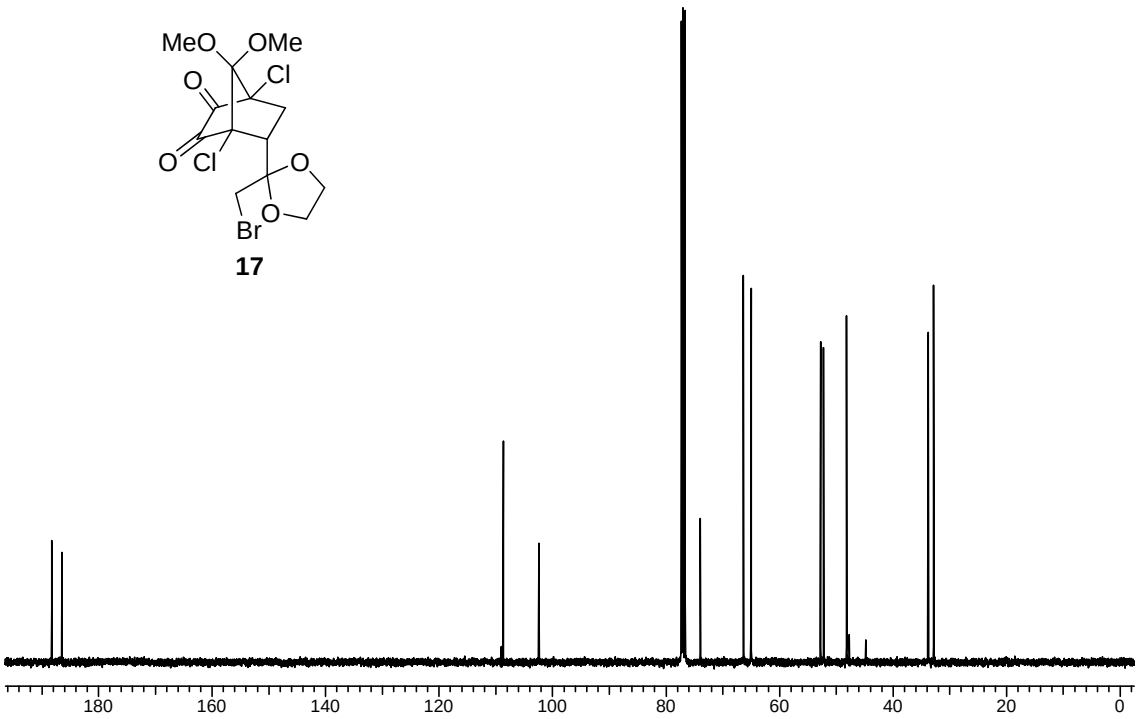
^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **19** in $CDCl_3$:



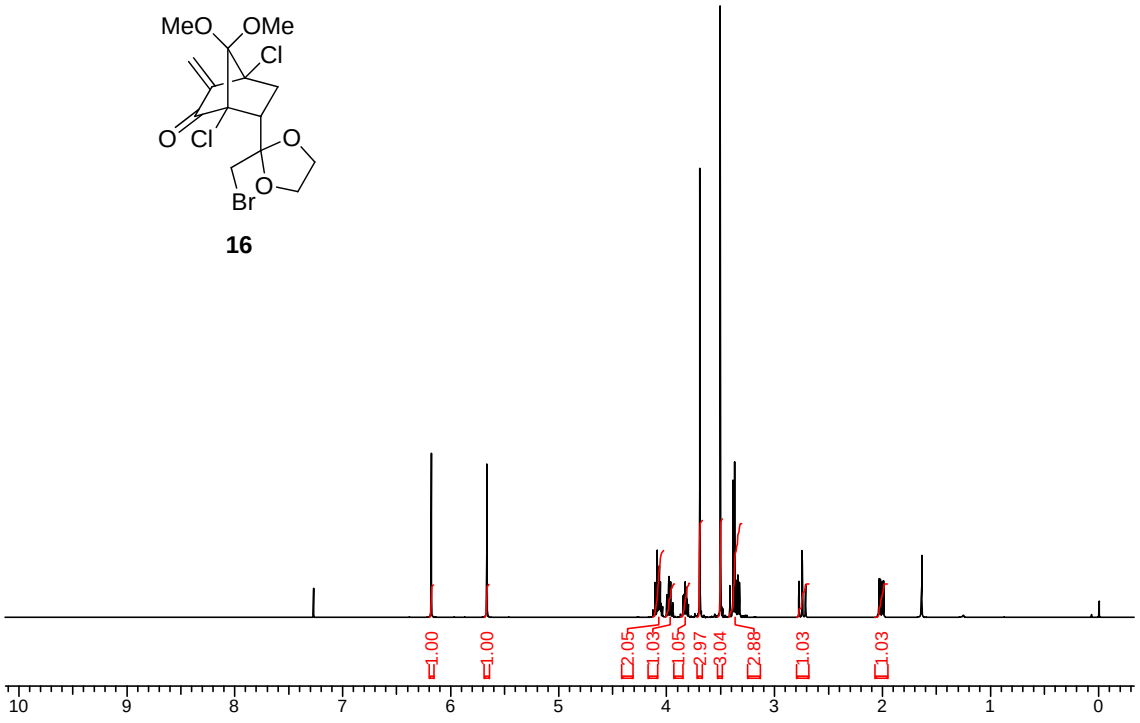


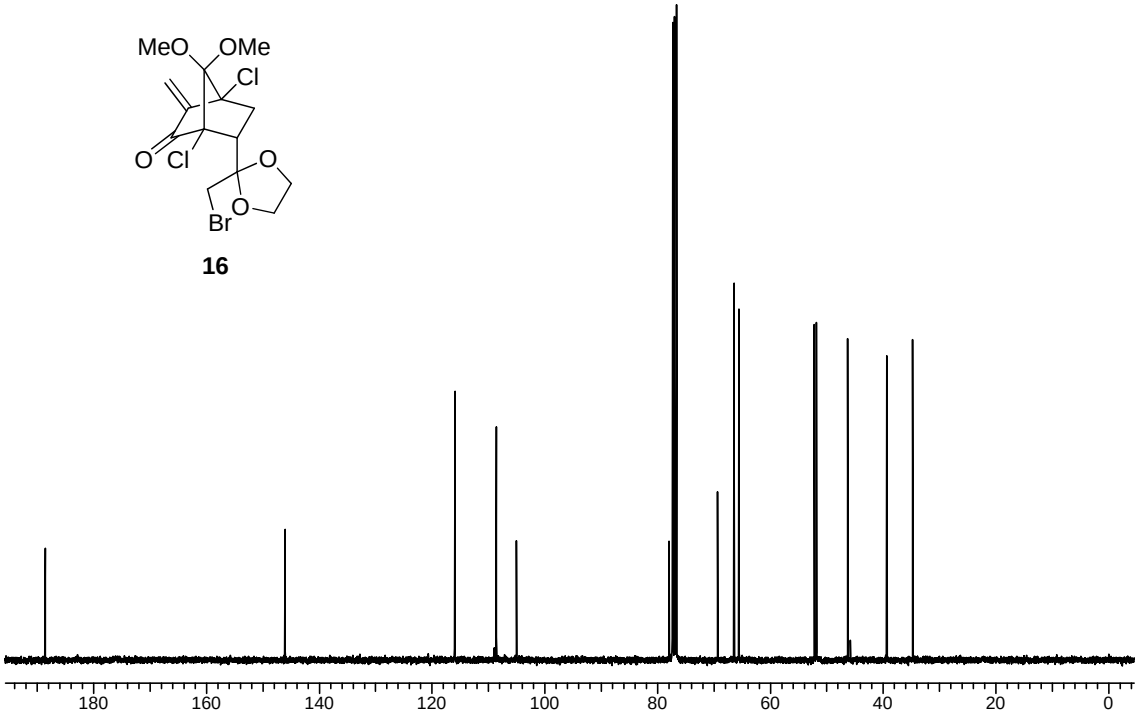
^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **17** in $CDCl_3$:



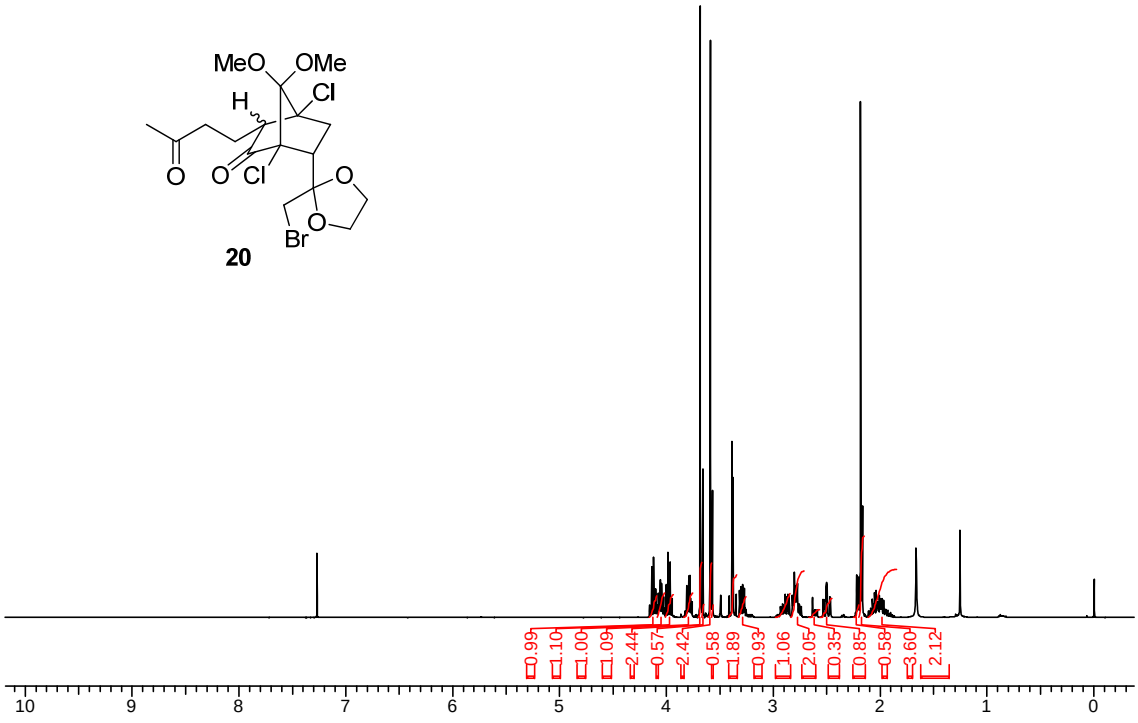


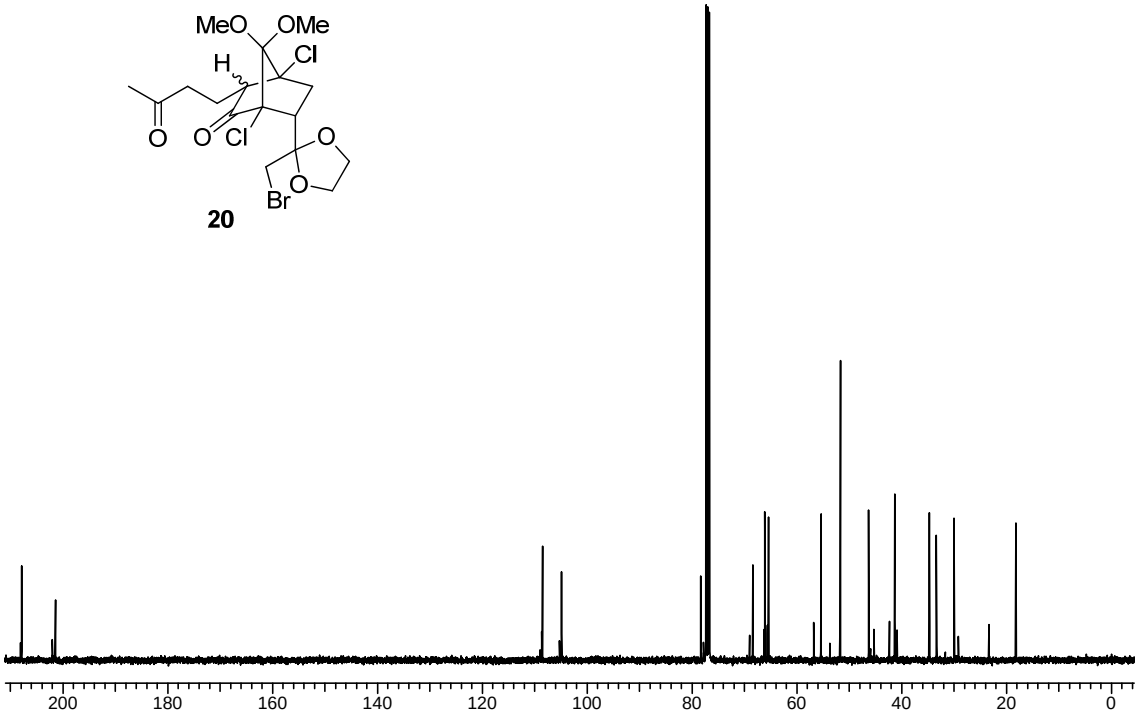
^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **16** in $CDCl_3$:



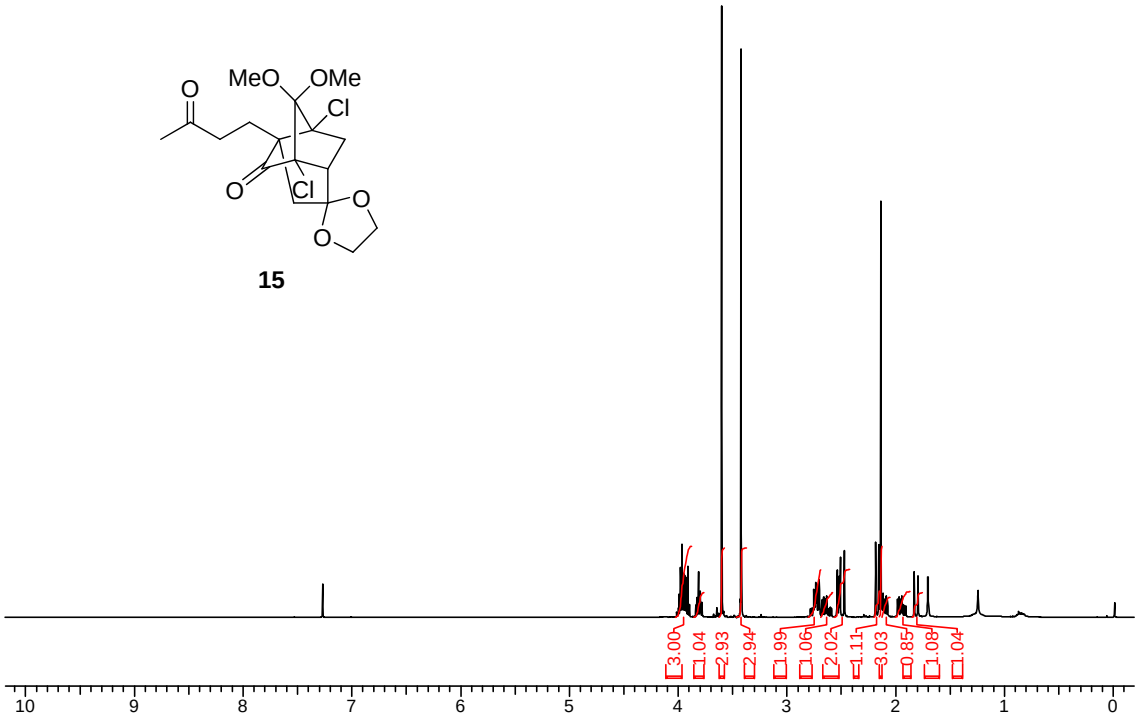


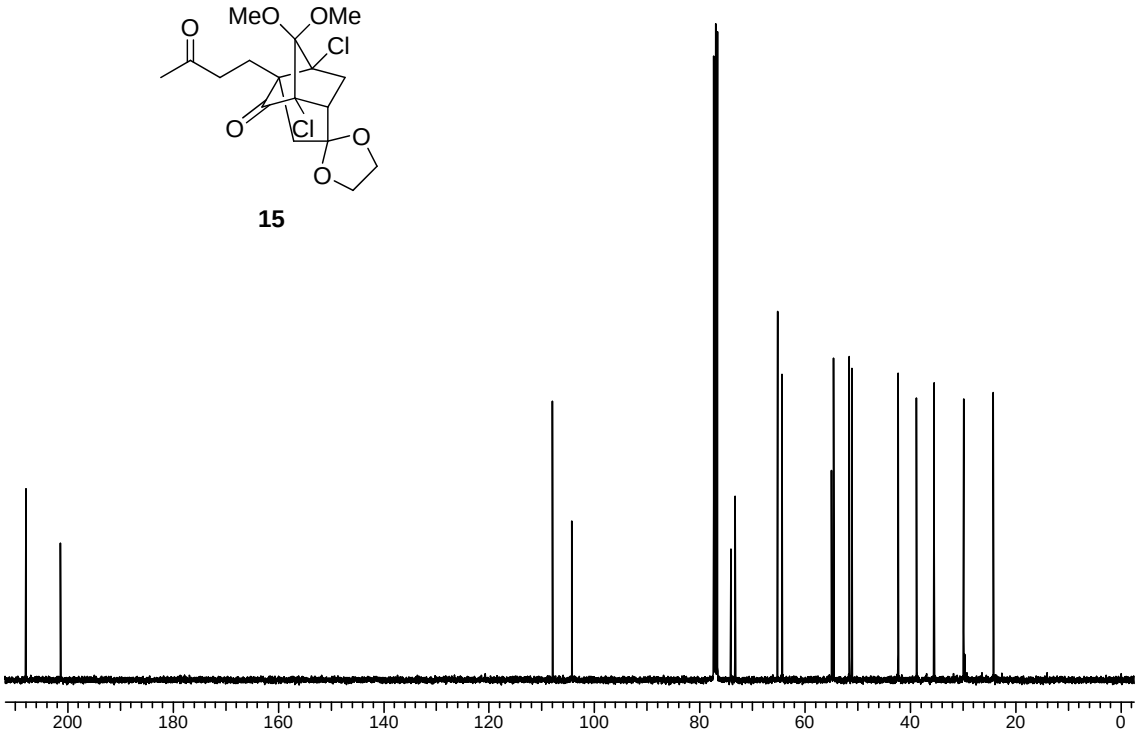
^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **20** in $CDCl_3$:



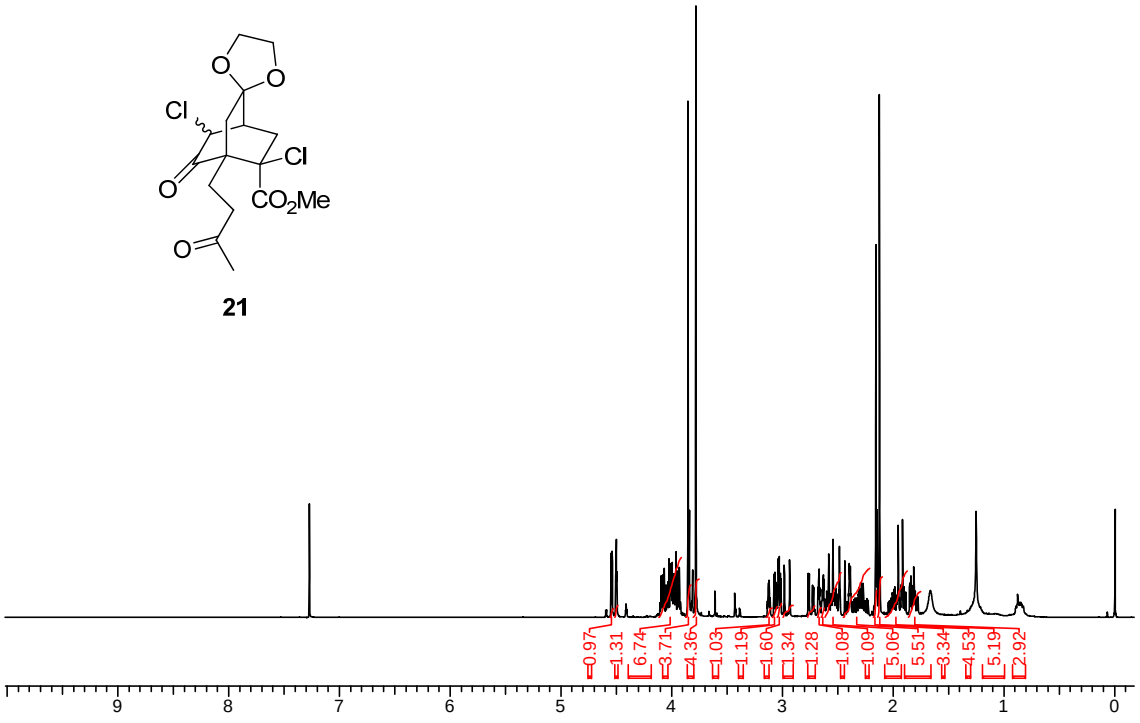


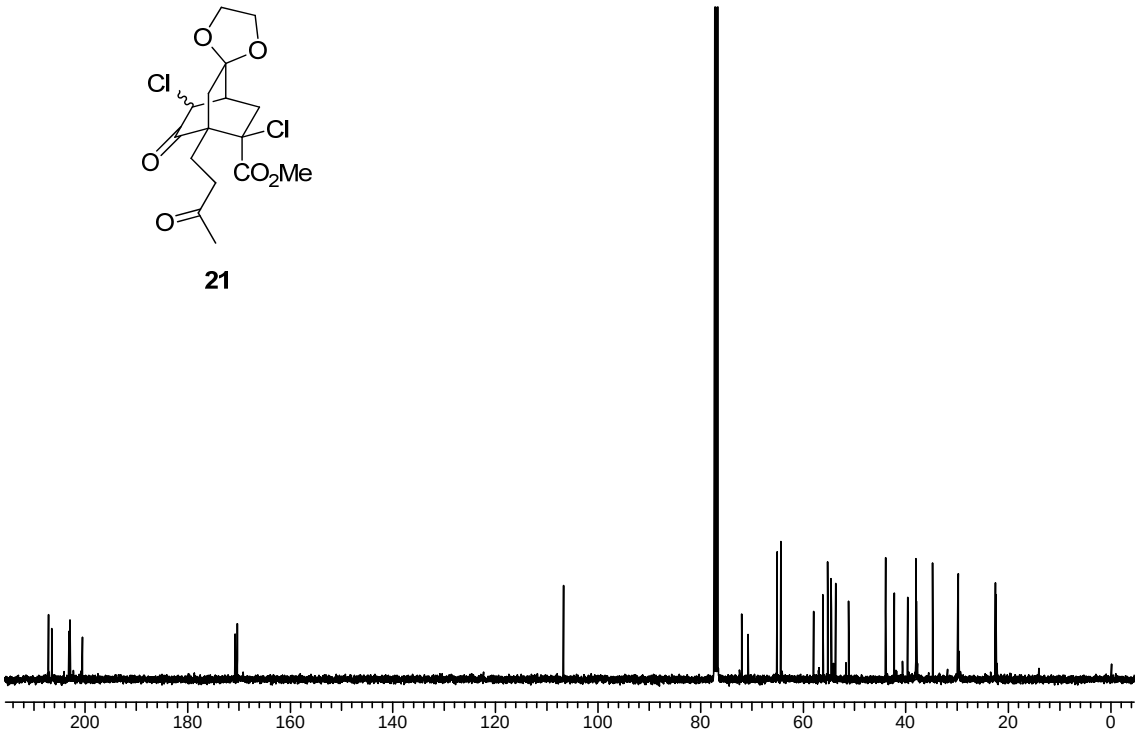
^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **15** in $CDCl_3$:



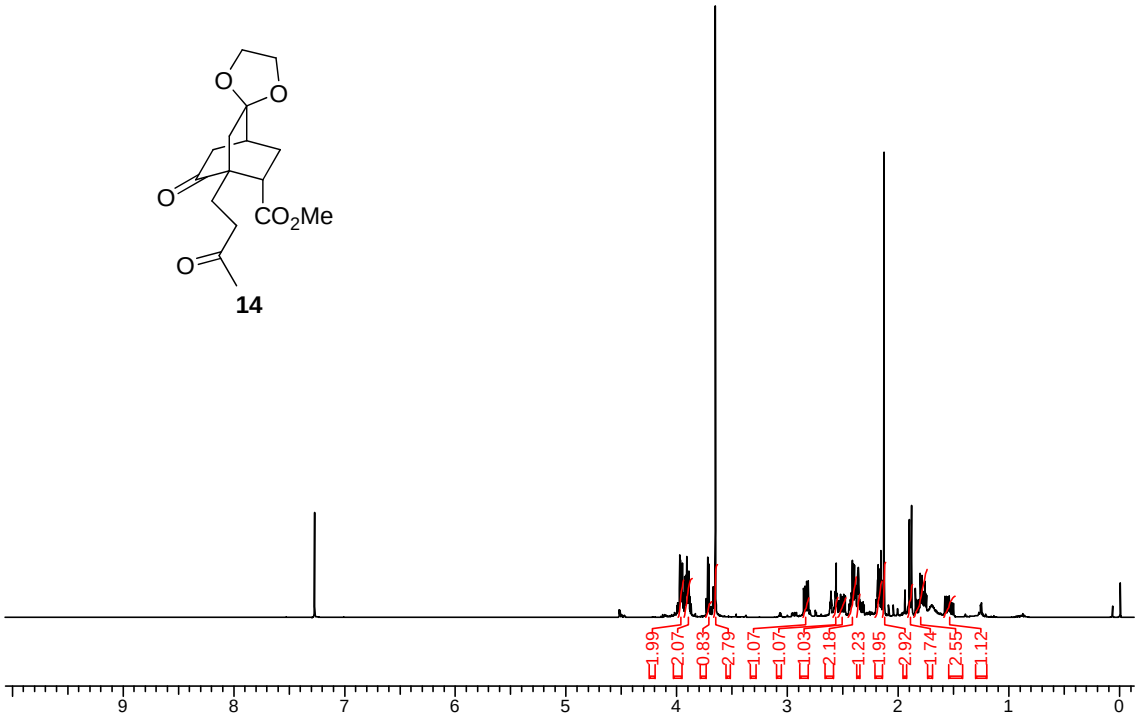


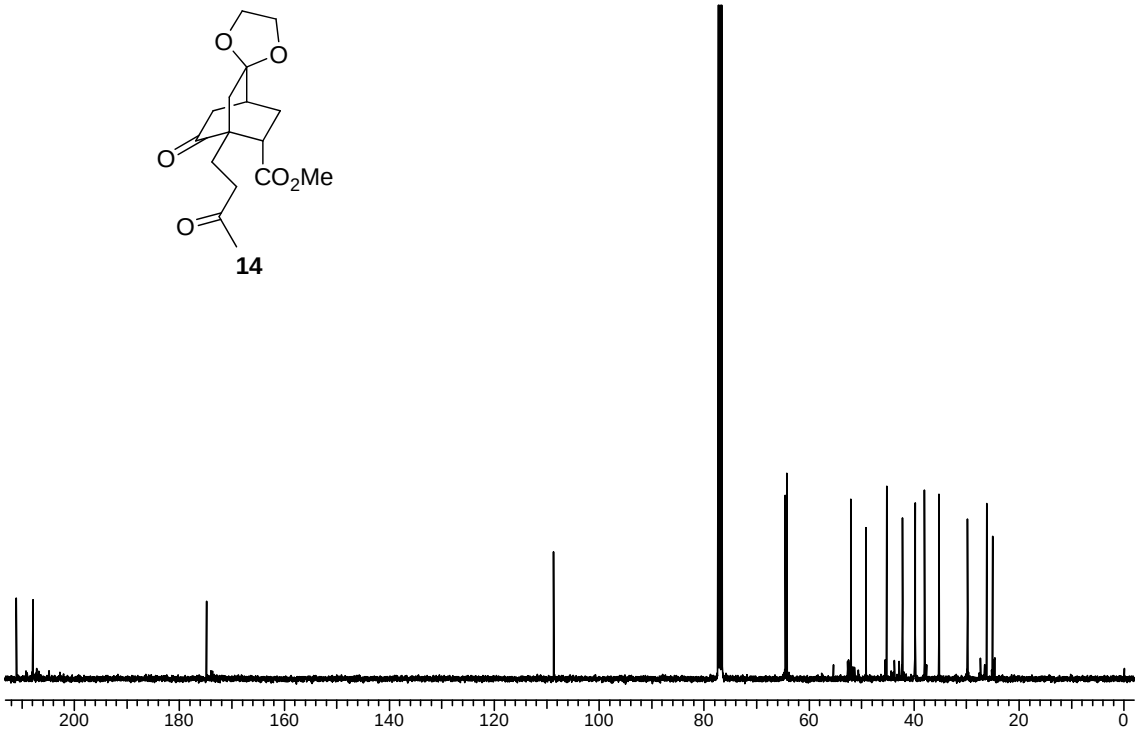
^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **21** in $CDCl_3$:



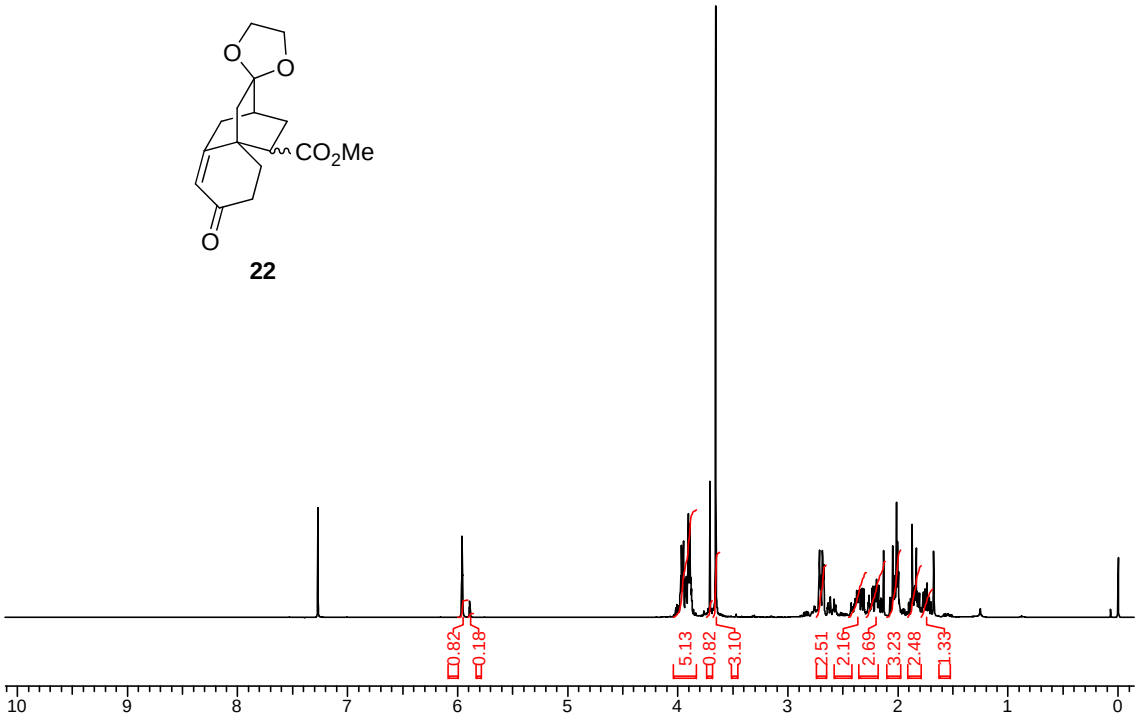


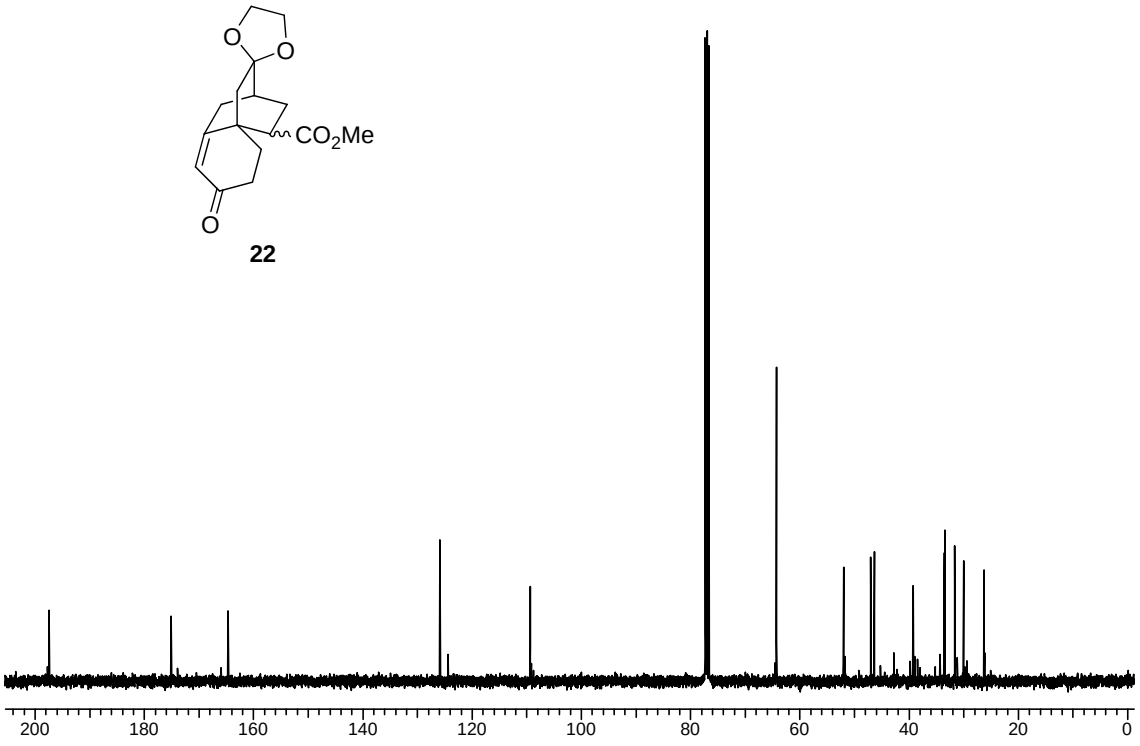
^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **14** in $CDCl_3$:



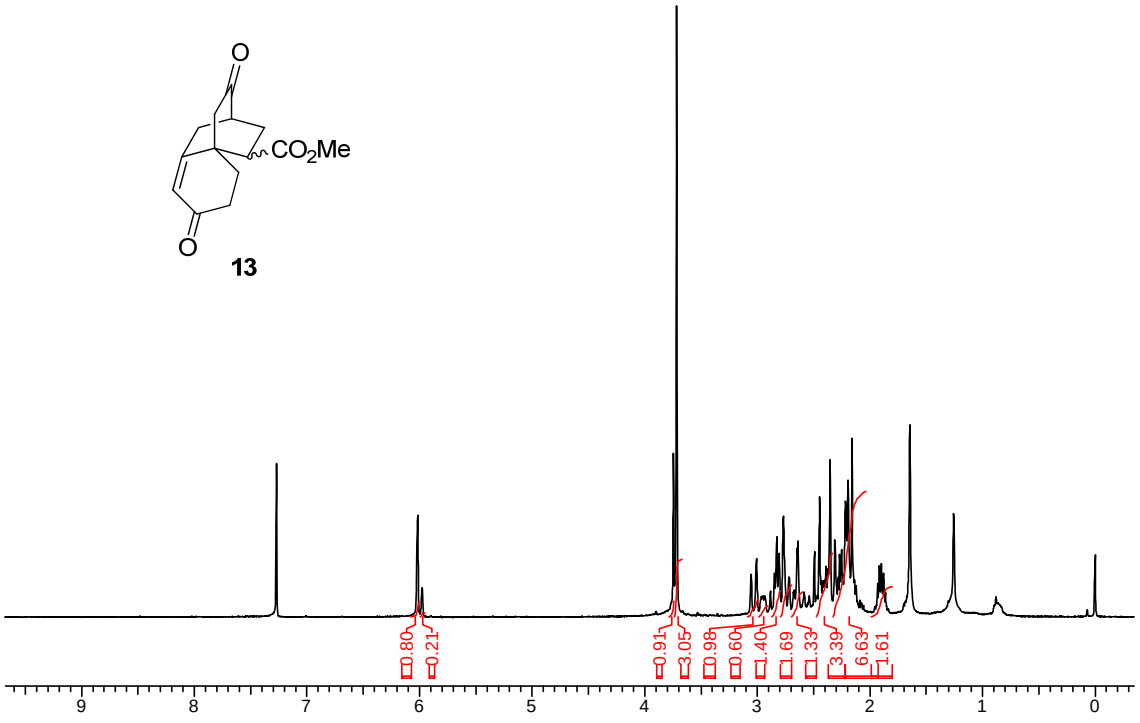


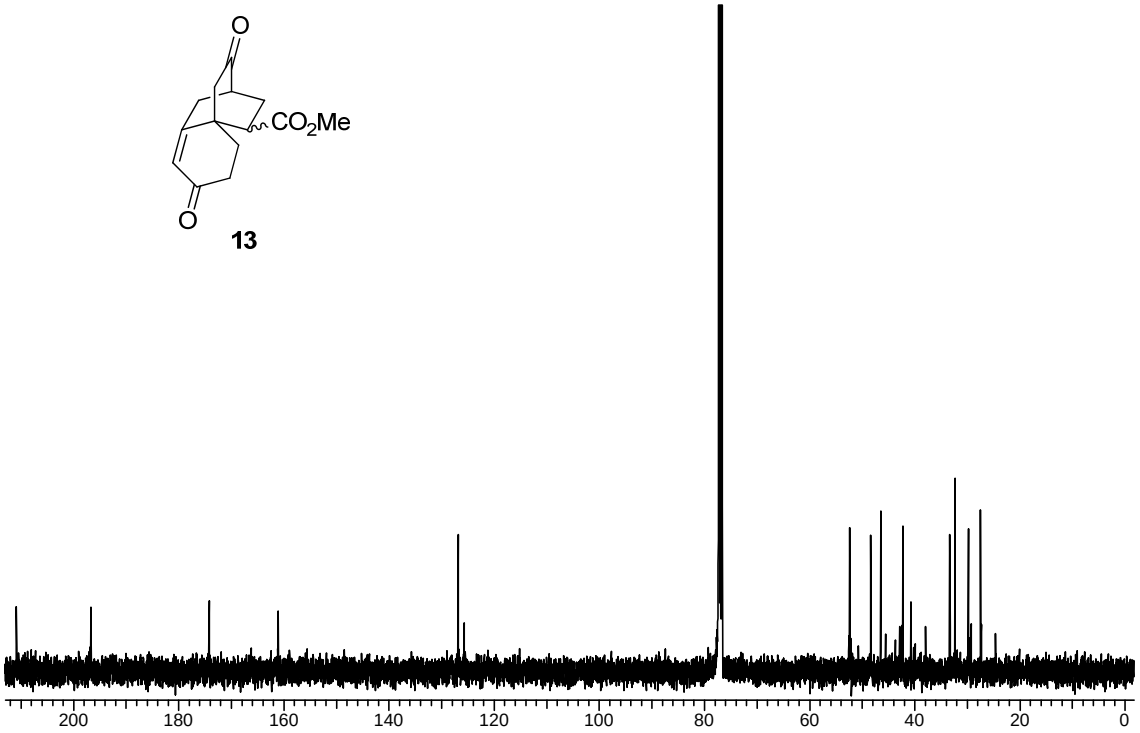
^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **22** in $CDCl_3$:



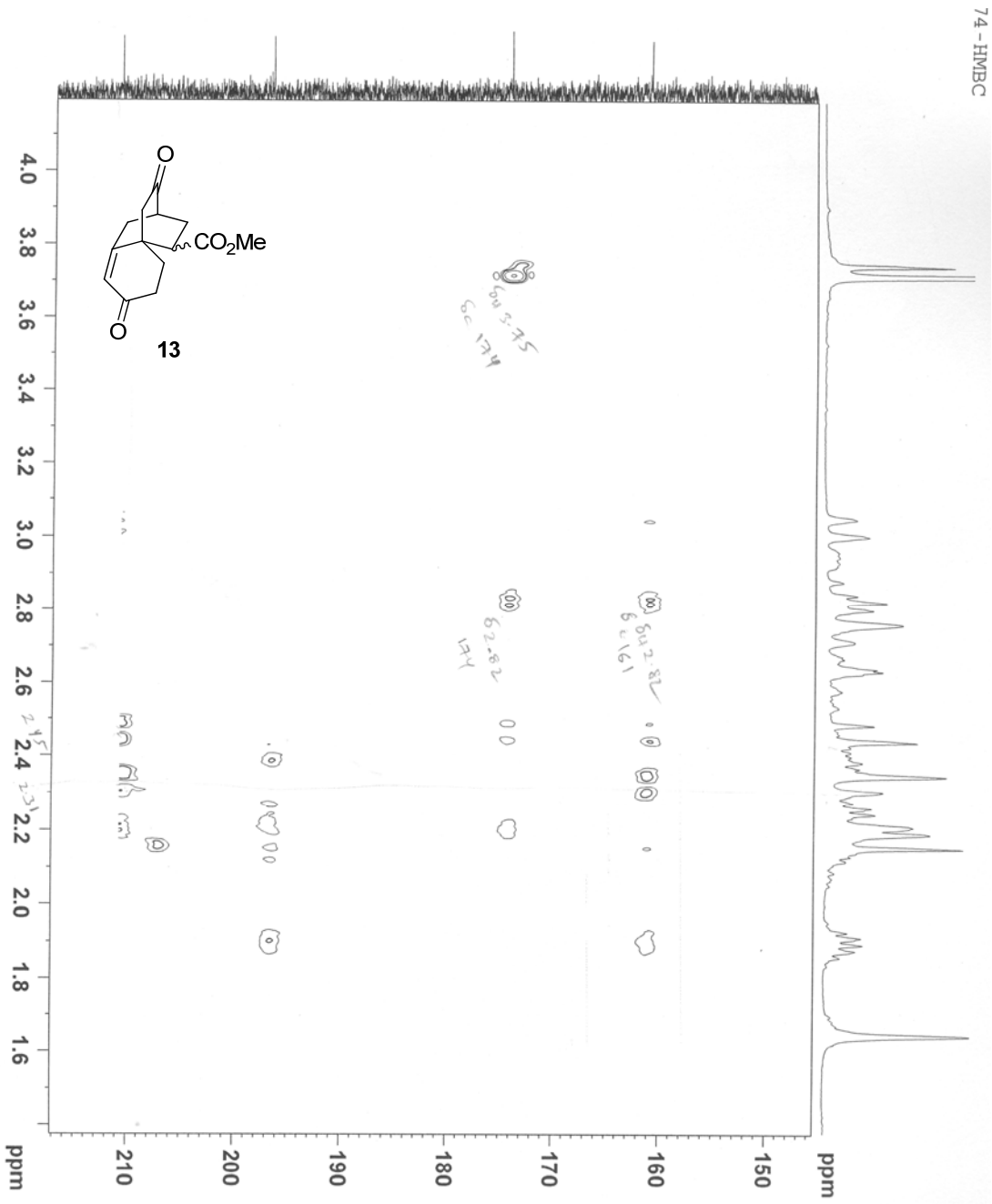


^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **13** in $CDCl_3$:

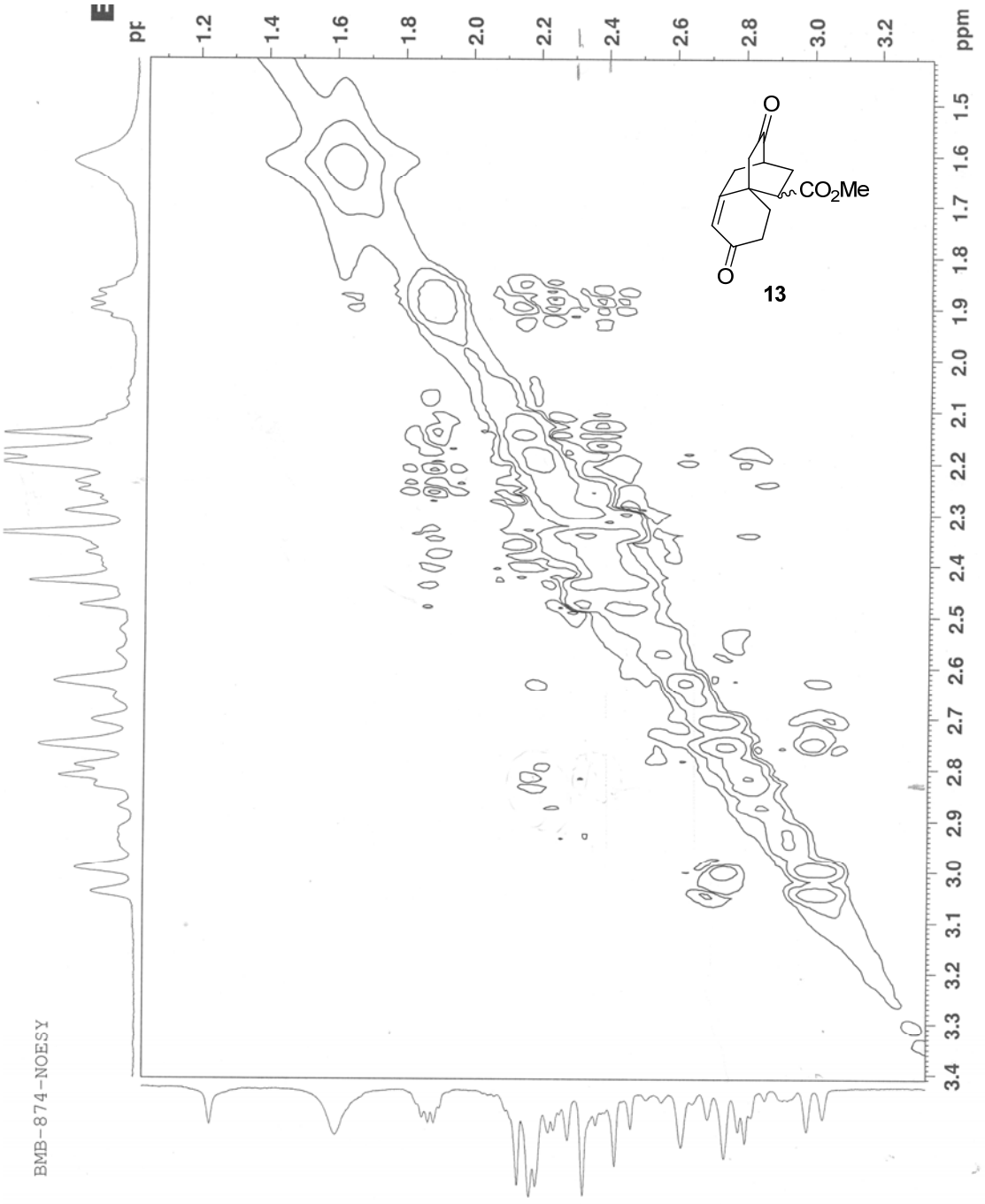




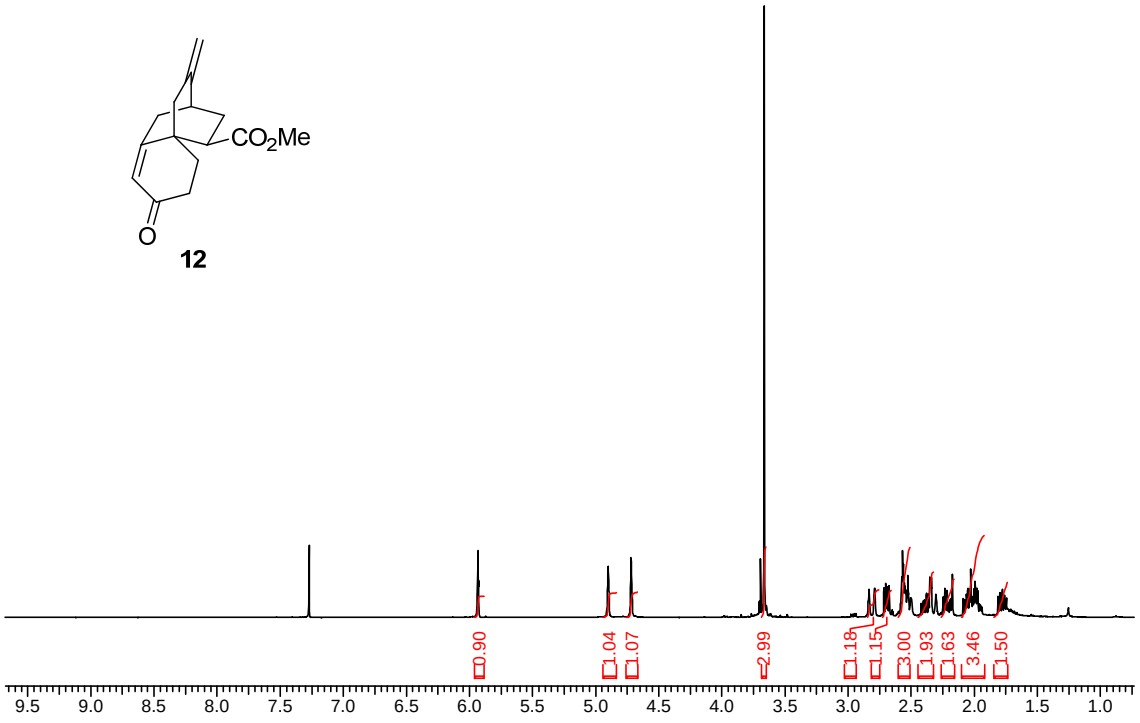
2D NMR (HMBC) of **13** in $CDCl_3$:

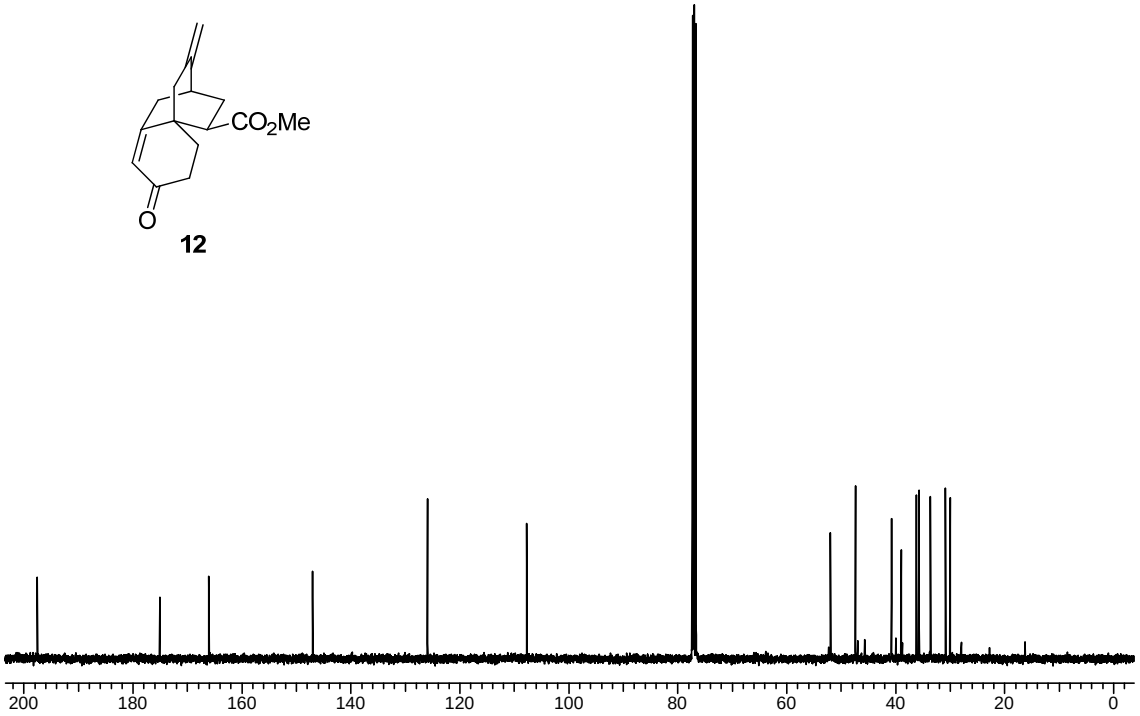


2D NMR (NOESY) of **13** in $CDCl_3$:



^{1}H NMR (400 MHz) and ^{13}C NMR (100 MHz) of **12** in $CDCl_3$:





Crystal data and structure refinement of compound 5.

Identification code	exp_2301
Empirical formula	$C_{14}H_{14}Cl_2O_4$
Formula weight	317.15
Temperature/K	566(2)
Crystal system	monoclinic
Space group	$P2_1/c$
a/Å	12.6163(3)
b/Å	6.8536(2)
c/Å	18.5114(5)
α/°	90.00
β/°	102.480(3)
γ/°	90.00
Volume/Å^3	1562.82(8)
Z	4
ρ_{calc}mg/mm^3	1.348
m/mm^{-1}	3.830
F(000)	656.0
Crystal size/mm^3	0.23 × 0.21 × 0.20
2θ range for data collection	7.18 to 142.78°
Index ranges	$-15 \leq h \leq 13$, $-8 \leq k \leq 5$, $-21 \leq l \leq 22$
Reflections collected	7014
Independent reflections	2977[R(int) = 0.0280]
Data/restraints/parameters	2977/0/193
Goodness-of-fit on F^2	0.968
Final R indexes [I>=2σ (I)]	$R_1 = 0.0459$, $wR_2 = 0.1264$
Final R indexes [all data]	$R_1 = 0.0573$, $wR_2 = 0.1460$
Largest diff. peak/hole / e Å^{-3}	0.18/-0.41
CCDC No.	1406581

Crystal data and structure refinement of compound 11.

Identification code	exp_4309
Empirical formula	$C_{14}H_{18}O_3$
Formula weight	234.28
Temperature/K	373(2)
Crystal system	monoclinic
Space group	$P2_1/c$
a/Å	7.3271(3)
b/Å	12.0579(8)
c/Å	14.1446(8)
α/°	90.00
β/°	92.433(5)
γ/°	90.00
Volume/Å^3	1248.54(12)
Z	4
ρ_{calc}mg/mm^3	1.246
m/mm^{-1}	0.086
F(000)	504.0
Crystal size/mm^3	0.23 × 0.21 × 0.20
2Θ range for data collection	6.52 to 58°
Index ranges	$-9 \le h \le 9$, $-15 \le k \le 15$, $-17 \le l \le 17$
Reflections collected	7899
Independent reflections	2929[R(int) = 0.0264]
Data/restraints/parameters	2929/0/166
Goodness-of-fit on F^2	1.068
Final R indexes [I>=2σ (I)]	R_1 = 0.0637, wR_2 = 0.1644
Final R indexes [all data]	R_1 = 0.1025, wR_2 = 0.1875
Largest diff. peak/hole / e Å^{-3}	0.14/-0.16
CCDC No.	1406582

