

# Stereoconvergent route to chiral cyclohexenone building blocks: formal synthesis of (-)-dysidiolide

Gamal A. I. Moustafa, Yasumasa Kamada, Tetsuaki Tanaka and Takehiko Yoshimitsu\*

*Graduate School of Pharmaceutical Sciences, Osaka University*

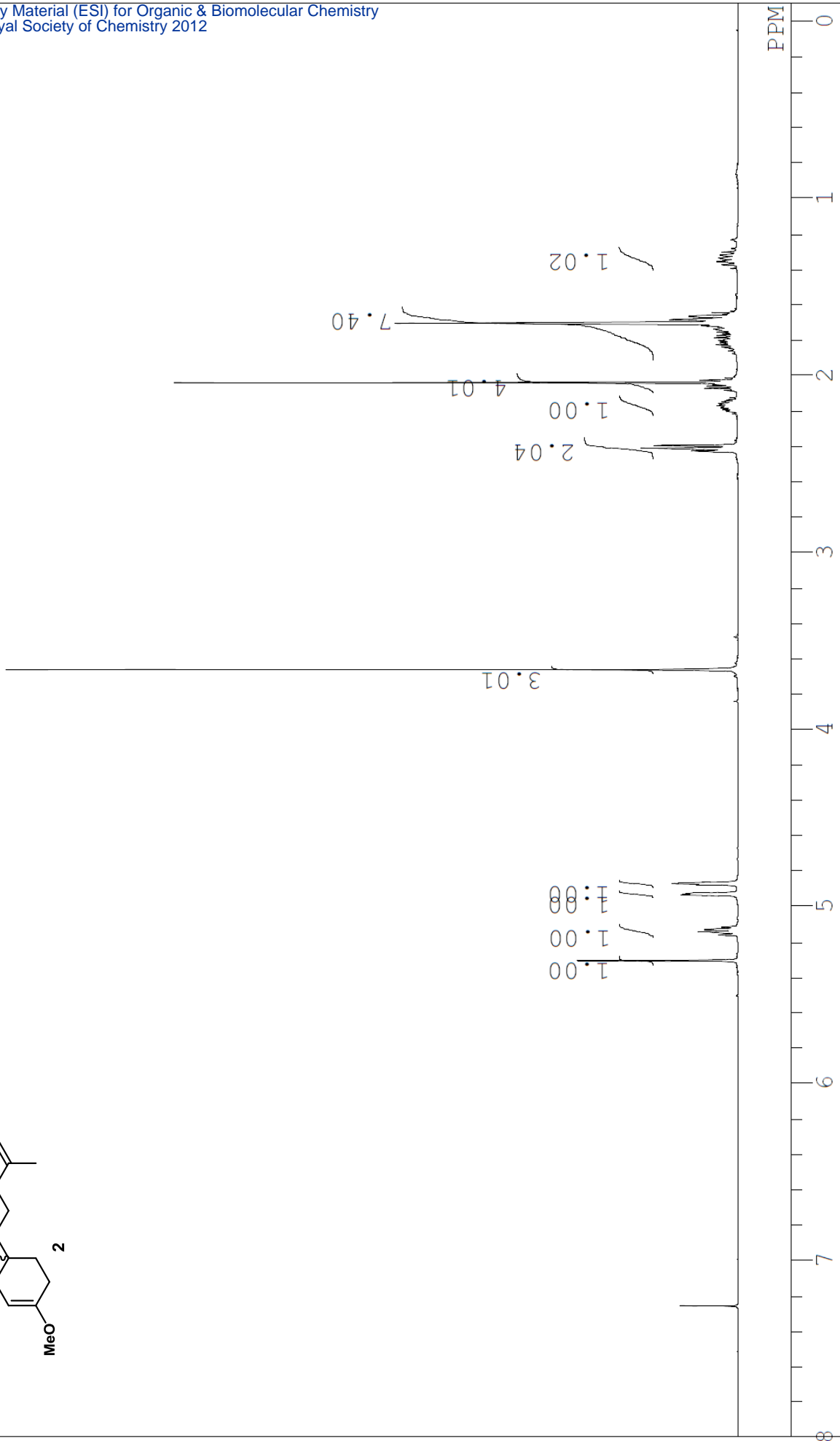
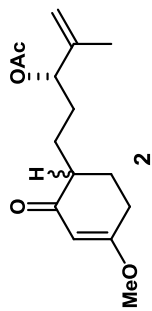
*1-6 Yamadaoka, Suita, Osaka 565-0871, Japan*

*yoshimit@phs.osaka-u.ac.jp*

## **Supplementary Information**

**Copies of  $^1\text{H}$  NMR/ $^{13}\text{C}$  NMR Spectra** ..... S2-S22

400 MHz, CDCl<sub>3</sub>



100 MHz, CDCl<sub>3</sub>

17.990  
18.105  
21.185  
21.204  
25.208  
25.284  
26.333  
26.429  
27.744  
27.782  
29.804  
30.090  
44.630  
44.802  
55.633

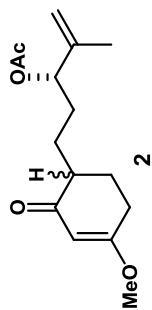
77.219  
77.277

101.771  
101.809  
112.821  
113.022

142.808  
142.846

170.315  
170.334  
177.466  
177.485

200.854  
200.921



PPM

0

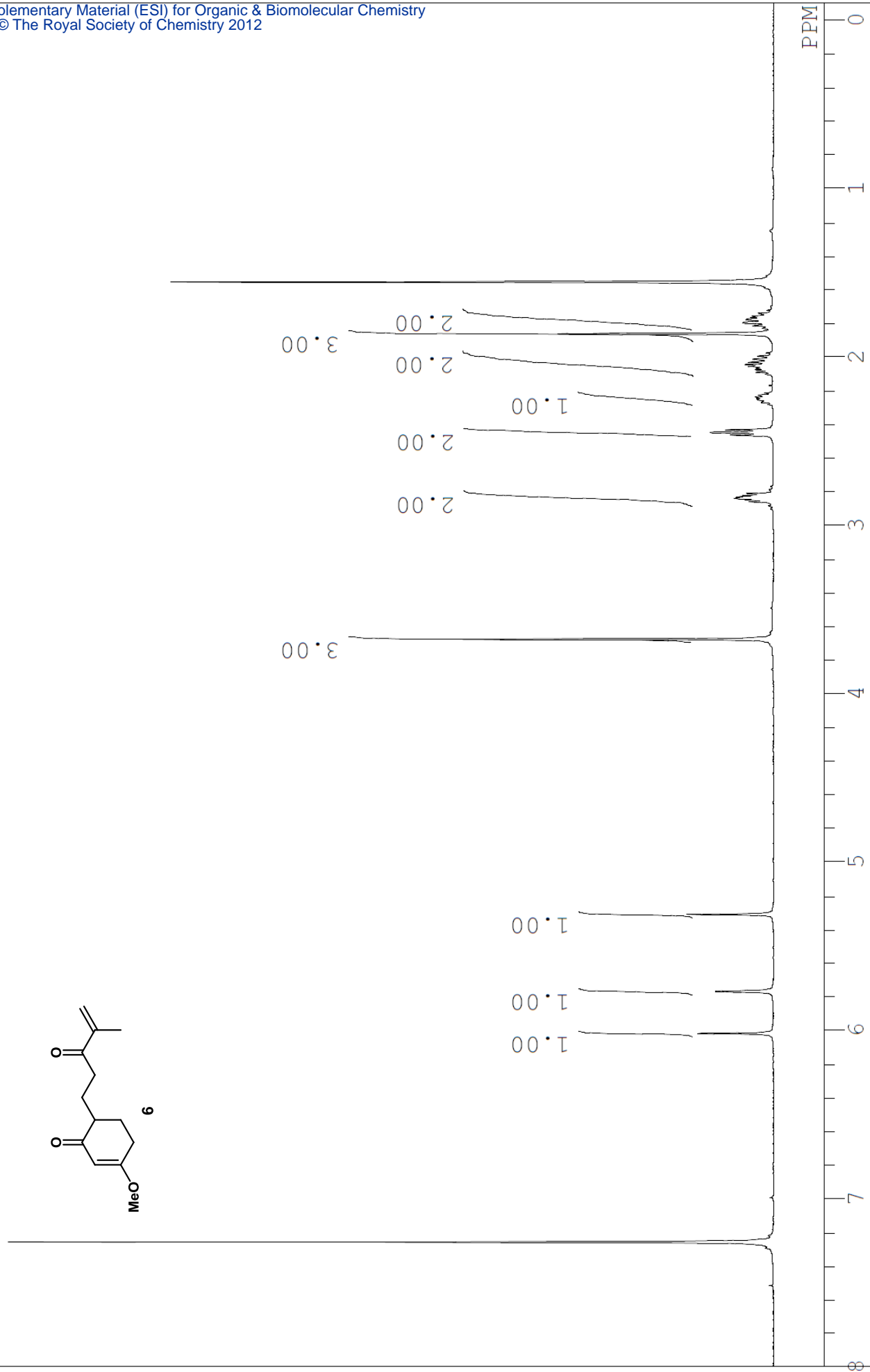
50

100

150

200

400 MHz, CDCl<sub>3</sub>



100 MHz, CDCl<sub>3</sub>

PPM

0

50

100

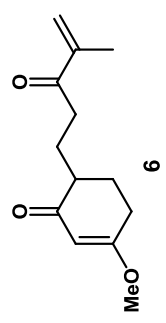
150

200

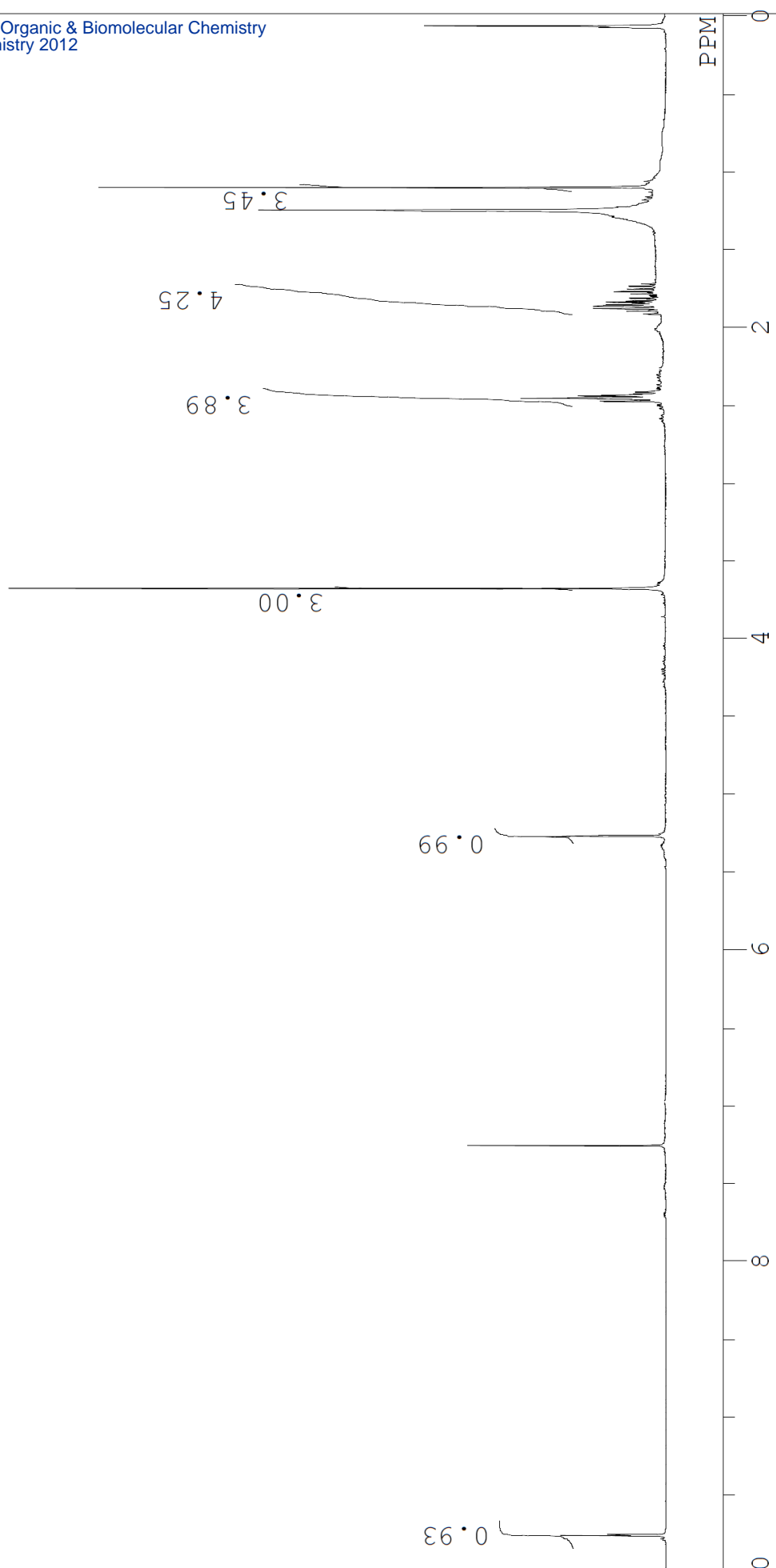
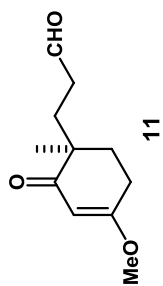
17.581  
24.770  
26.960  
27.724  
35.077  
44.341  
55.613

101.676  
124.908  
144.077

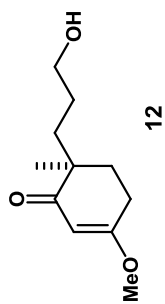
177.568  
201.967  
201.202



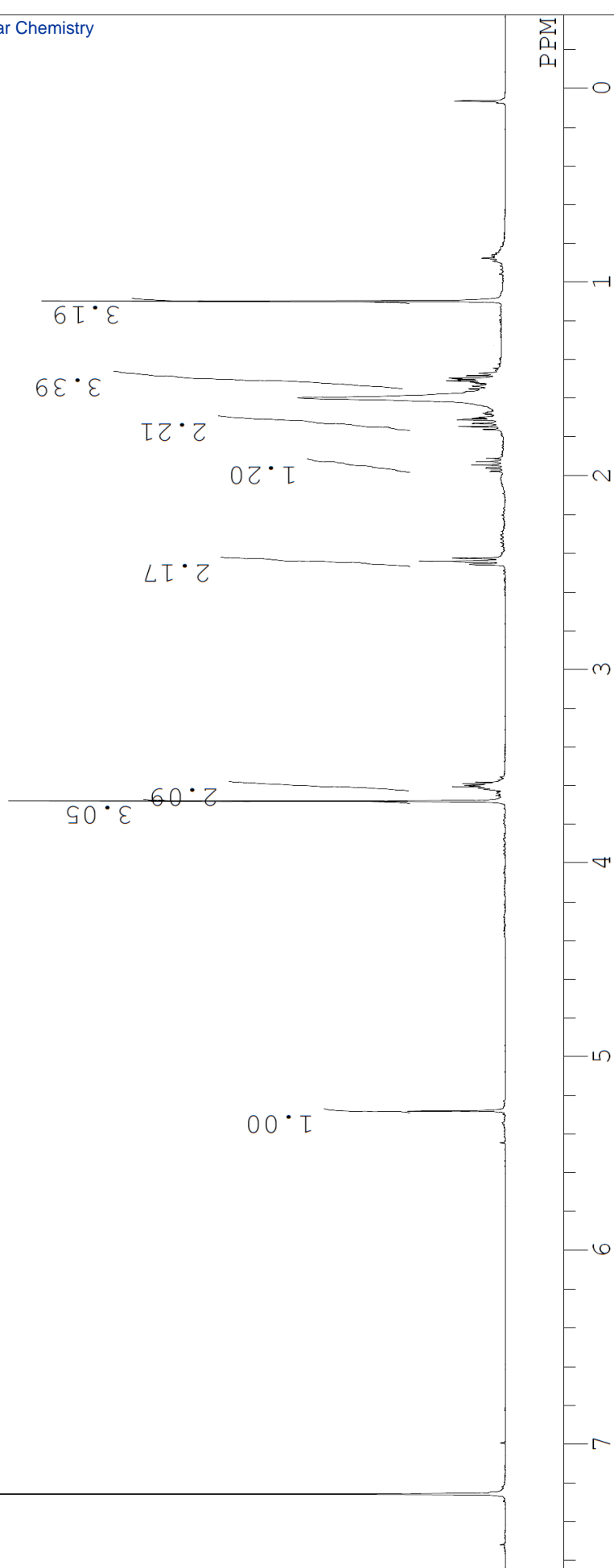
400 MHz, CDCl<sub>3</sub>



400 MHz, CDCl<sub>3</sub>



12



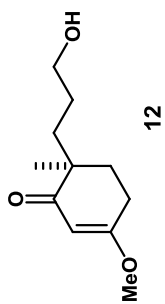
75 MHz, CDCl<sub>3</sub>

63.433  
55.594  
43.251  
33.002  
32.141  
27.180  
25.803  
22.342

100.978

176.402

204.147



PPM

0

50

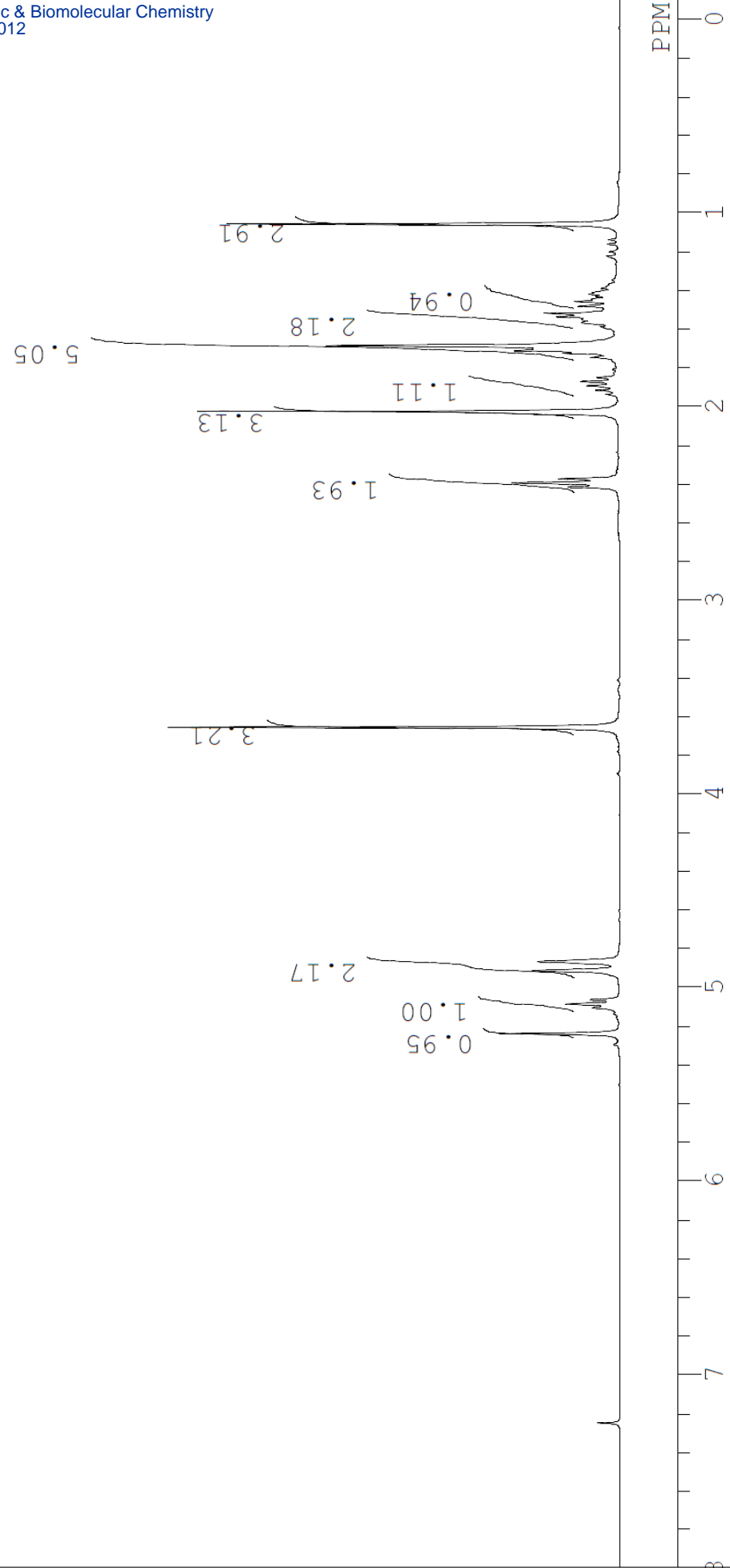
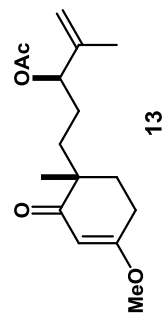
100

150

200



300 MHz, CDCl<sub>3</sub>



75 MHz, CDCl<sub>3</sub>

17.934  
21.233  
22.418  
25.717  
26.931  
32.036  
32.323  
42.869  
55.632

77.621

100.997

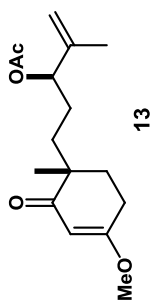
113.235

142.729

170.321

176.421

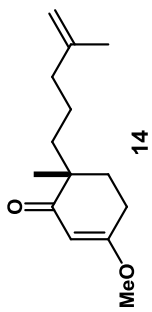
203.497



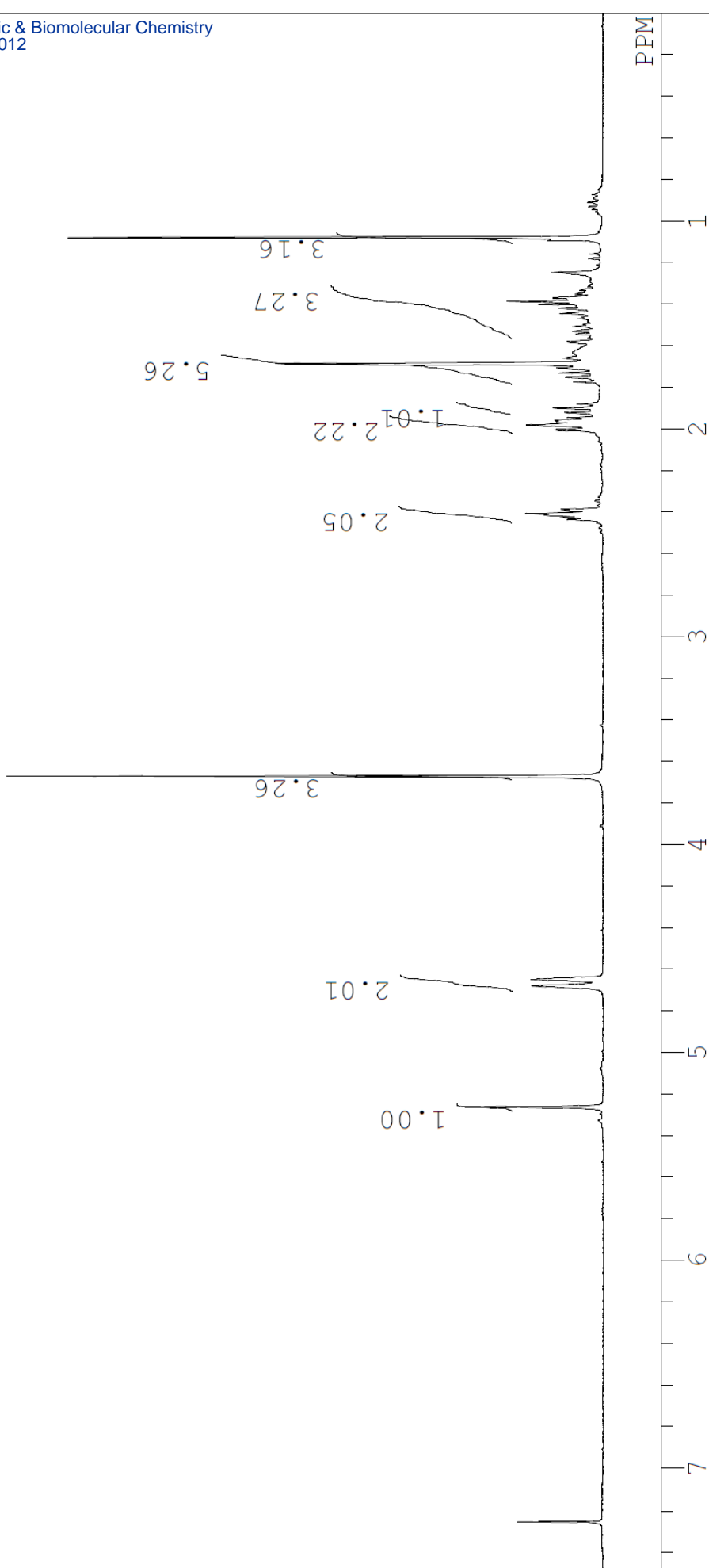
PPM

0  
50  
100  
150  
200

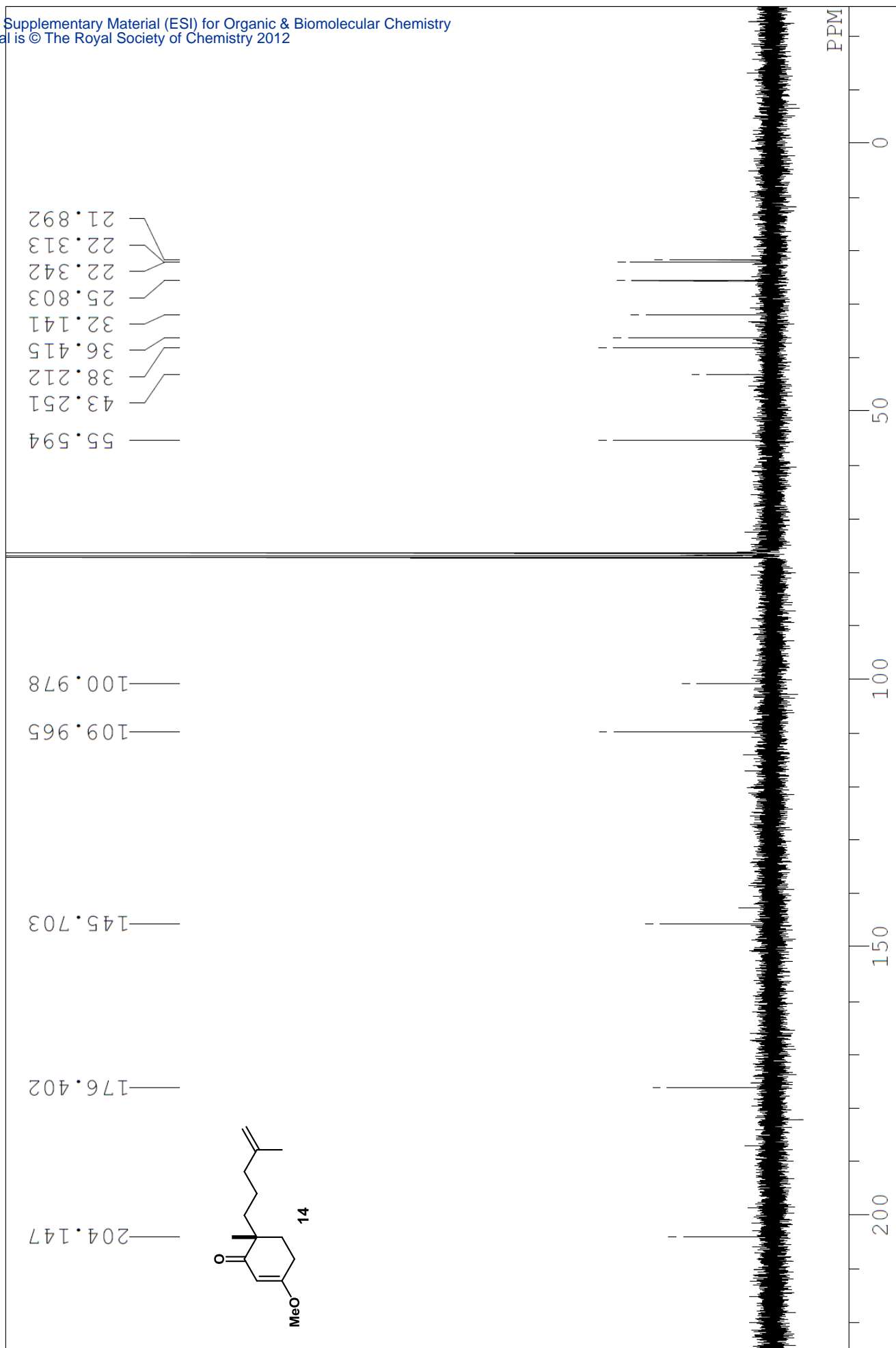
300 MHz, CDCl<sub>3</sub>



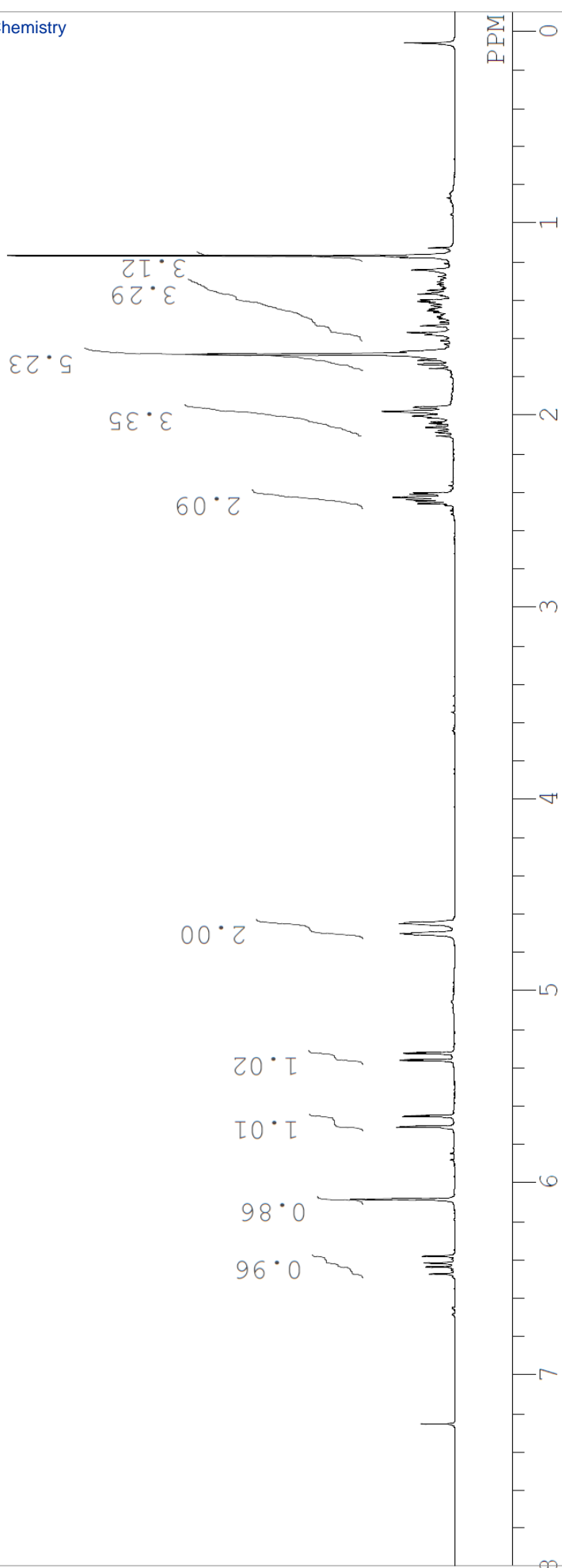
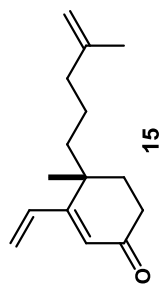
14



75 MHz, CDCl<sub>3</sub>



300 MHz, CDCl<sub>3</sub>



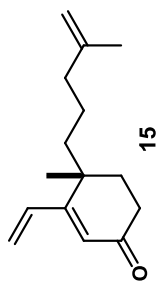
75 MHz, CDCl<sub>3</sub>

PPM

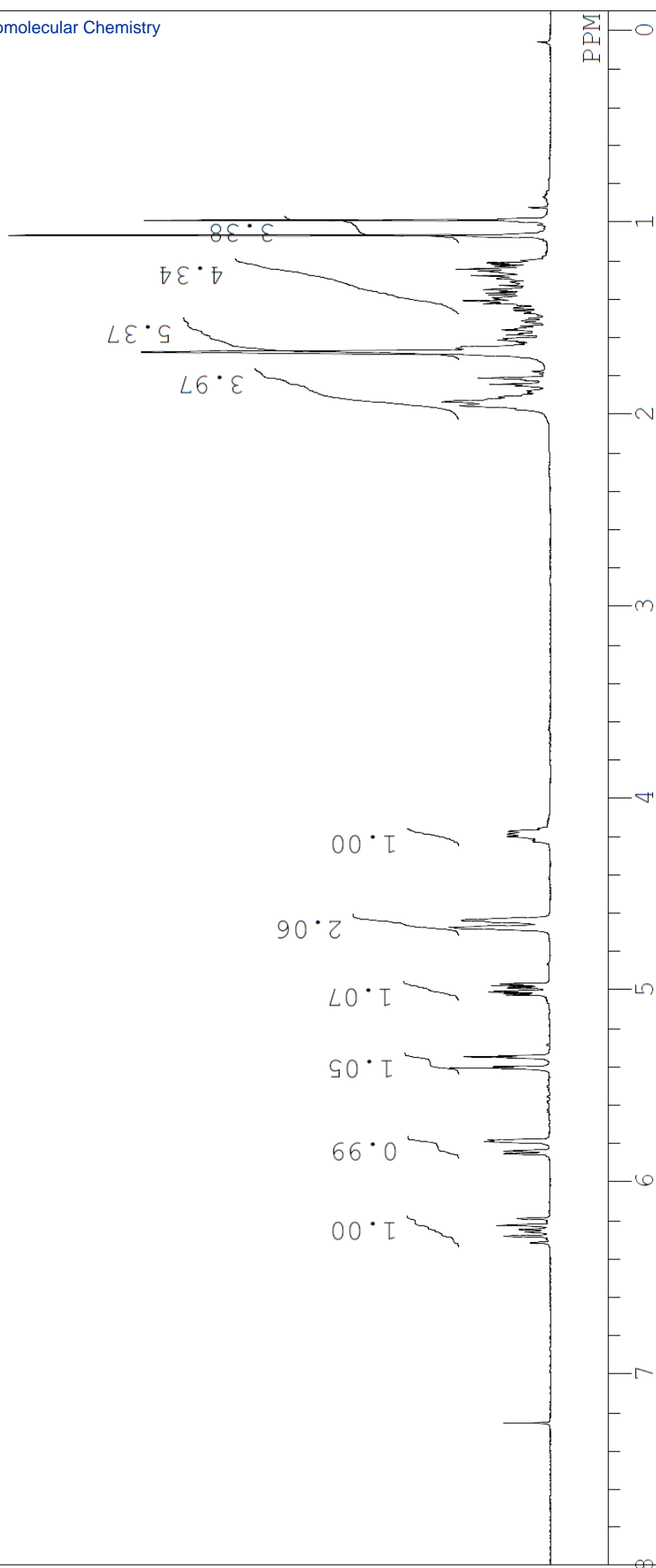
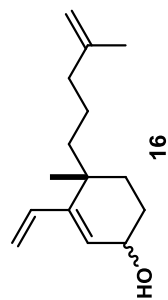
21.940  
22.256  
24.761  
33.413  
34.101  
37.486  
38.155  
38.691

110.281  
120.080  
123.436  
134.106  
145.263  
166.163

199.826



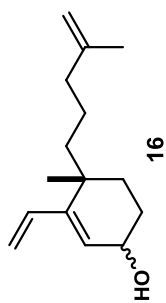
300 MHz, CDCl<sub>3</sub>



75 MHz, CDCl<sub>3</sub>

21.740  
22.017  
22.275  
25.851  
26.357  
28.241  
29.053  
30.296  
31.960  
36.377  
36.463  
38.346  
38.385  
39.341  
39.819  
65.575  
67.439

109.860  
109.946  
114.726  
115.023  
124.612  
126.601  
135.884  
145.789  
145.856  
145.961  
147.538



PPM

200

150

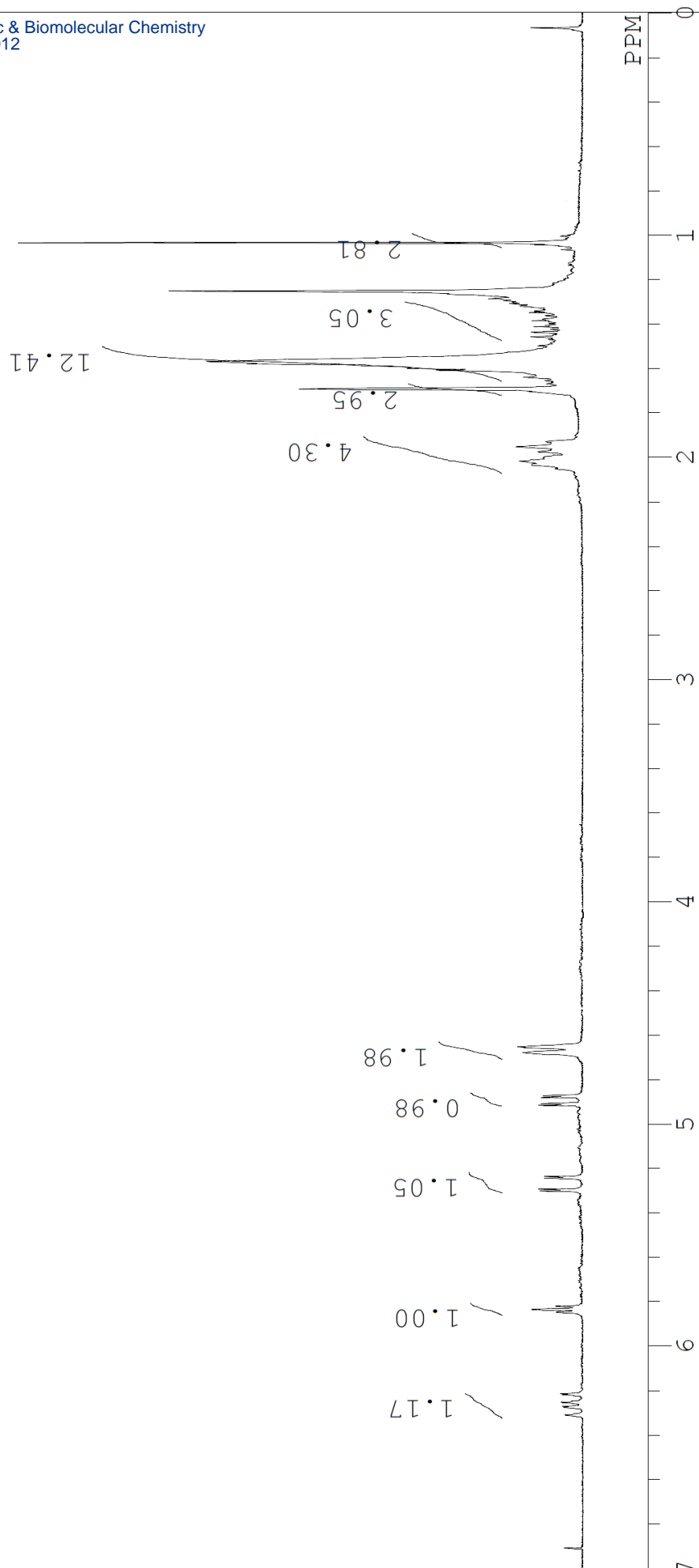
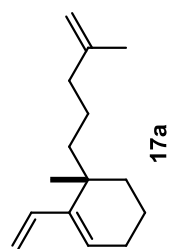
100

50

0



75 MHz, CDCl<sub>3</sub>

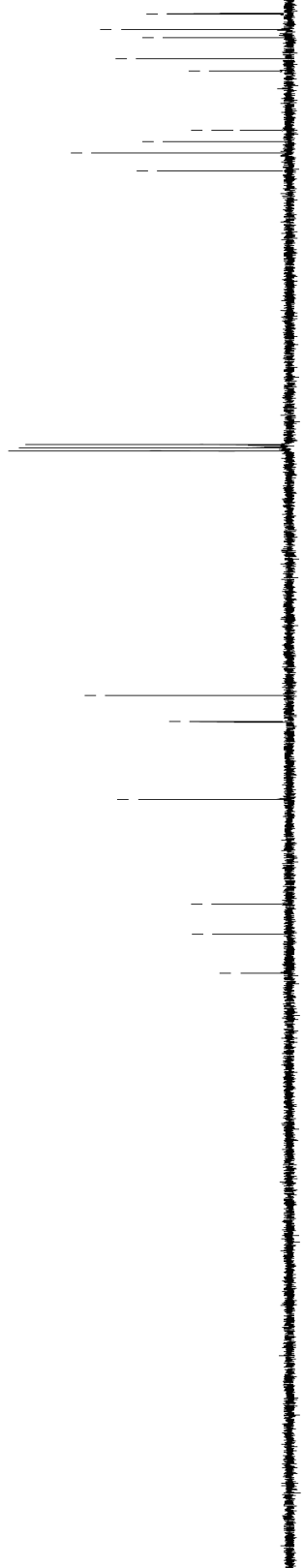
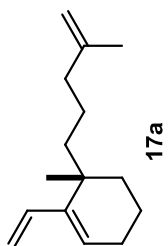


75 MHz, CDCl<sub>3</sub>

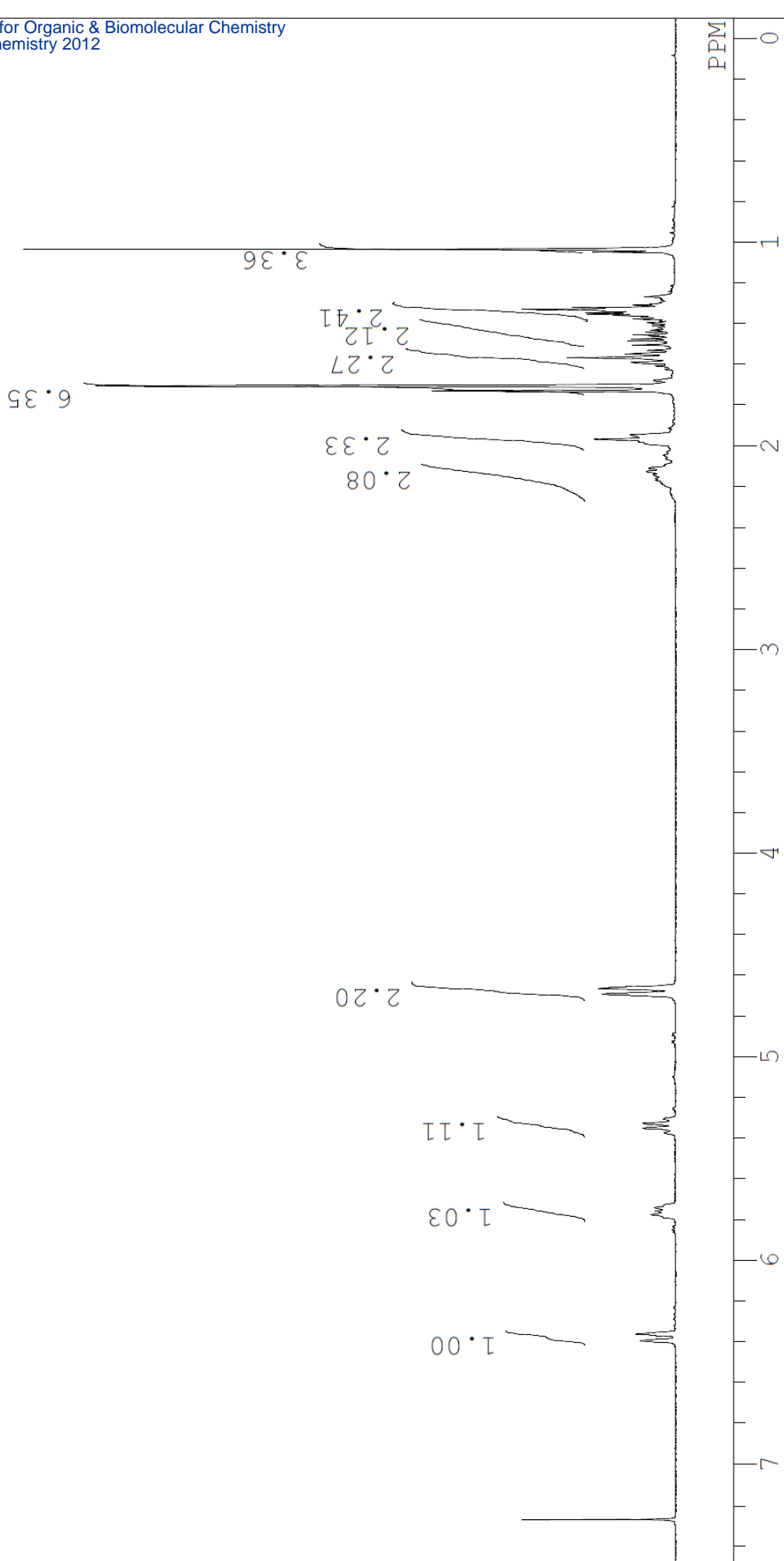
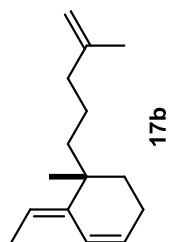
PPM

19.024  
21.835  
22.361  
26.090  
27.046  
35.057  
36.358  
38.471  
40.373

109.611  
112.919  
124.258  
137.098  
143.867  
146.276



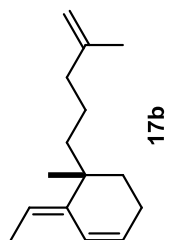
300 MHz, CDCl<sub>3</sub>



75 MHz, CDCl<sub>3</sub>

12.695  
21.845  
22.380  
22.906  
25.688  
34.627  
36.645  
38.126  
38.480

109.611  
117.556  
123.312  
127.480  
141.171  
146.305



PPM

0

50

100

150

200

300 MHz, CDCl<sub>3</sub>

