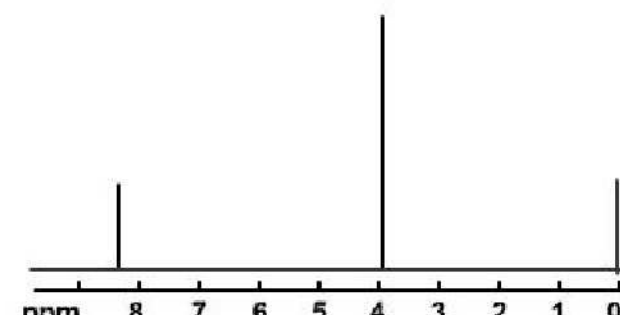
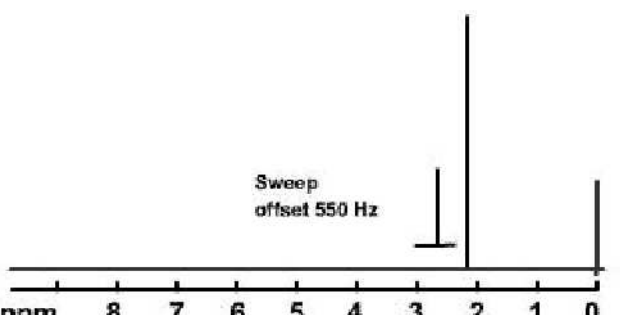
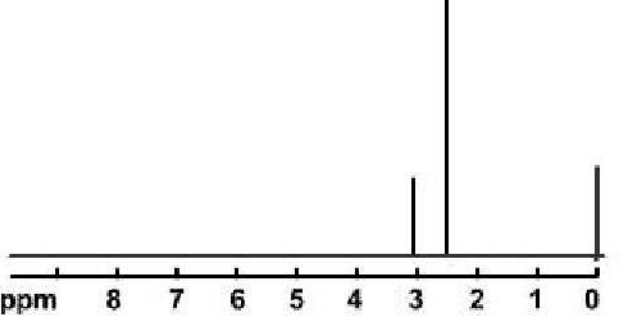
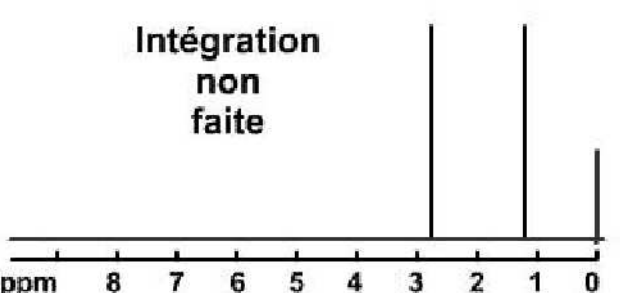
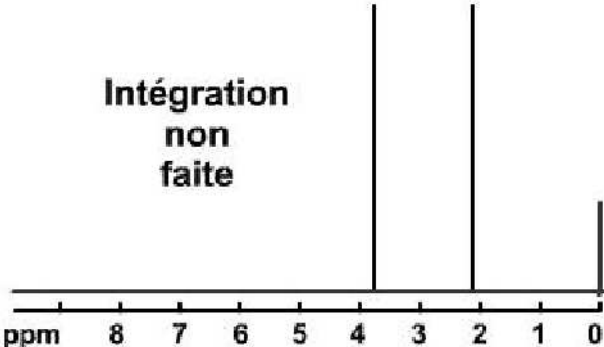
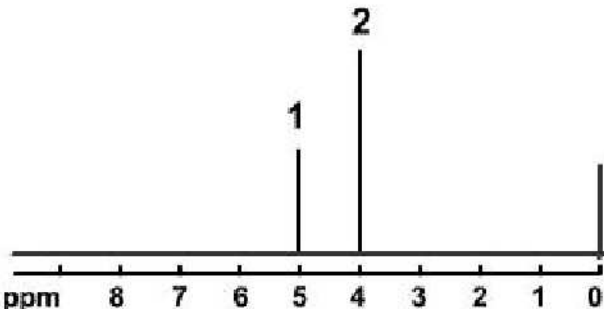
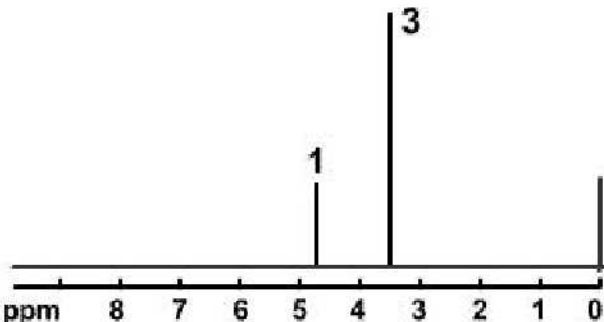
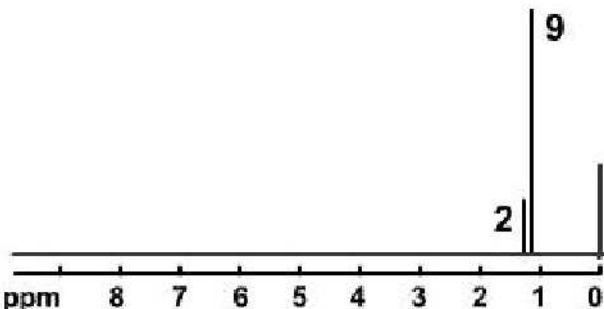
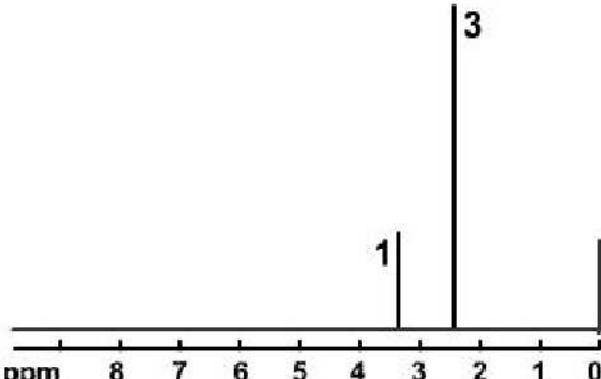
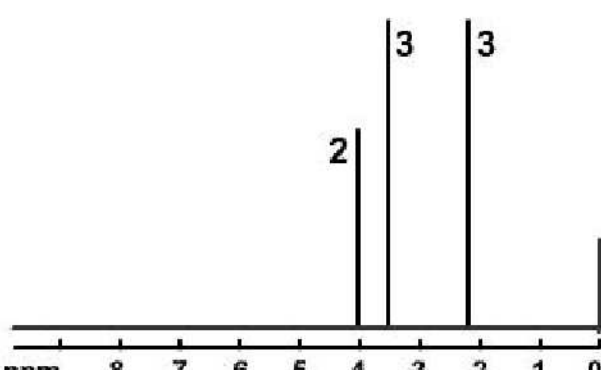
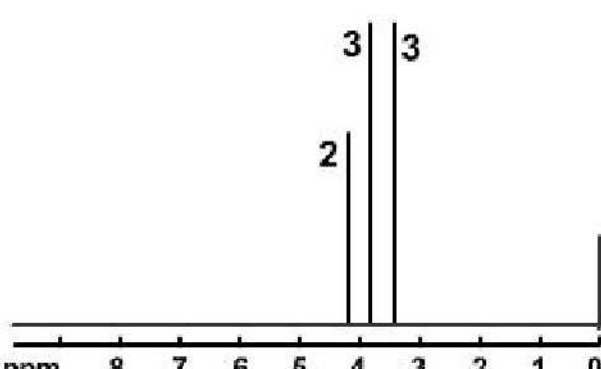
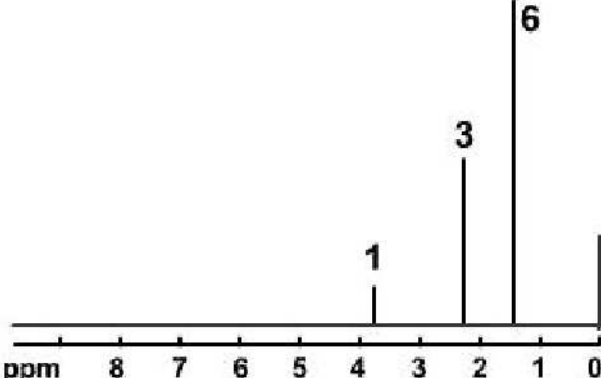


Module sur les Spectroscopies.  
 $^1\text{H}$  RMN  
Cahier d'exercices.



1	 <p>ppm 8 7 6 5 4 3 2 1 0</p>	$\text{C}_2\text{H}_4\text{O}_2$
2	 <p>Sweep offset 550 Hz</p> <p>ppm 8 7 6 5 4 3 2 1 0</p>	$\text{C}_2\text{H}_4\text{O}_2$
3	 <p>ppm 8 7 6 5 4 3 2 1 0</p>	$\text{C}_2\text{H}_8\text{N}_2$
4	 <p>Intégration non faite</p> <p>ppm 8 7 6 5 4 3 2 1 0</p>	$\text{C}_2\text{H}_8\text{N}_2$

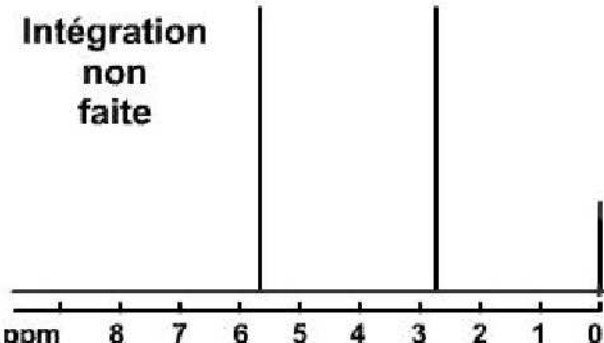
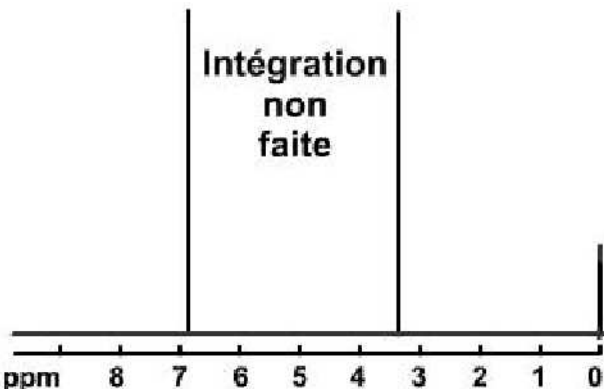
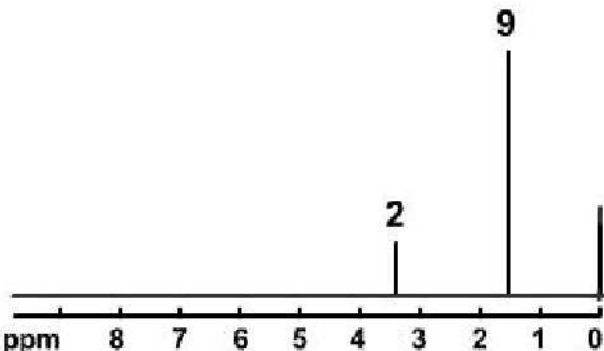
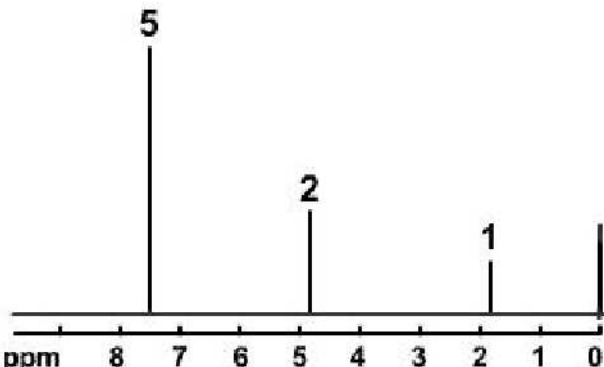
5	<p>Intégration non faite</p> 	$C_3H_6O_2$
6		$C_3H_6O_2$
7		$C_3H_8O_2$
8		$C_4H_{11}N$

9		$C_4H_4O$
10		$C_4H_8O_2$
11		$C_4H_8O_3$
12		$C_5H_{10}O_2$

13		$C_5H_{10}O_4$
14		$C_5H_{11}Br$
15		$C_5H_{12}O$
16		$C_5H_{12}O$

17		$C_5H_{13}N$
18		$C_5H_8O_3$
19		$C_5H_9O$
20		$C_6H_{10}O_4$

21		$C_6H_{11}O_2Cl$
22		$C_6H_{12}O$
23		$C_6H_{12}O_2$
24		$C_6H_{12}O_2$

25	<p>Intégration non faite</p> 	$C_6H_8$
26	<p>Intégration non faite</p> 	$C_6H_8N_2$
27		$C_7H_{11}O_2N$
28		$C_7H_8O$

29		$C_8H_{10}O$
30		$C_8H_{10}O_2$
31		$C_8H_{11}N$
32		$C_8H_{11}N$



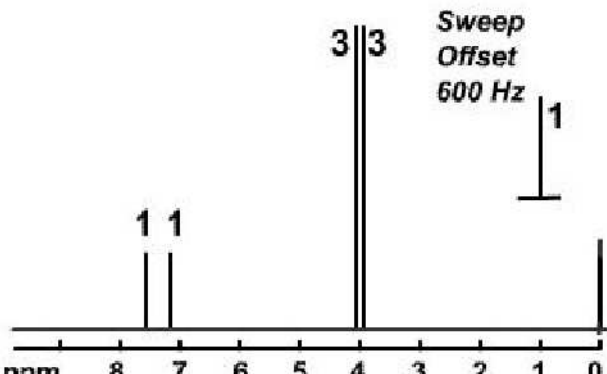
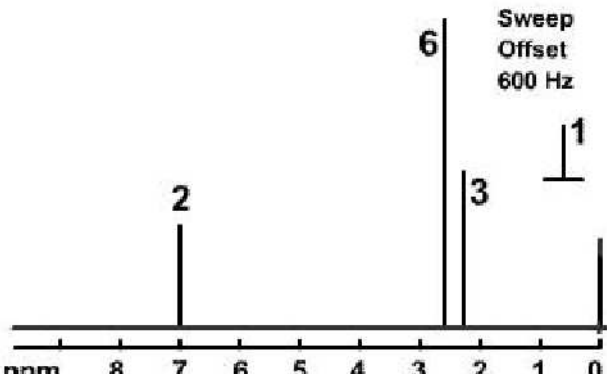
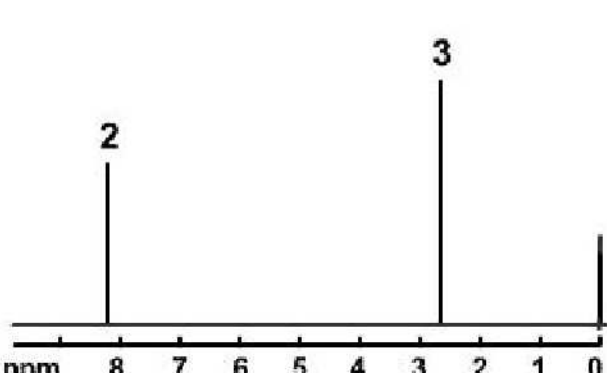
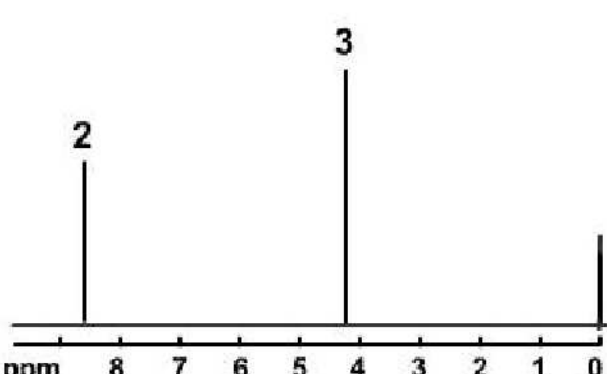
33		$C_8H_{11}N$
34		$C_8H_{18}O_2$
35		$C_8H_6O_2$
36		$C_8H_7N$

37		$C_8H_8O$
38		$C_8H_8O_2$
39		$C_8H_9O_2Br$
40		$C_8H_9OCl$

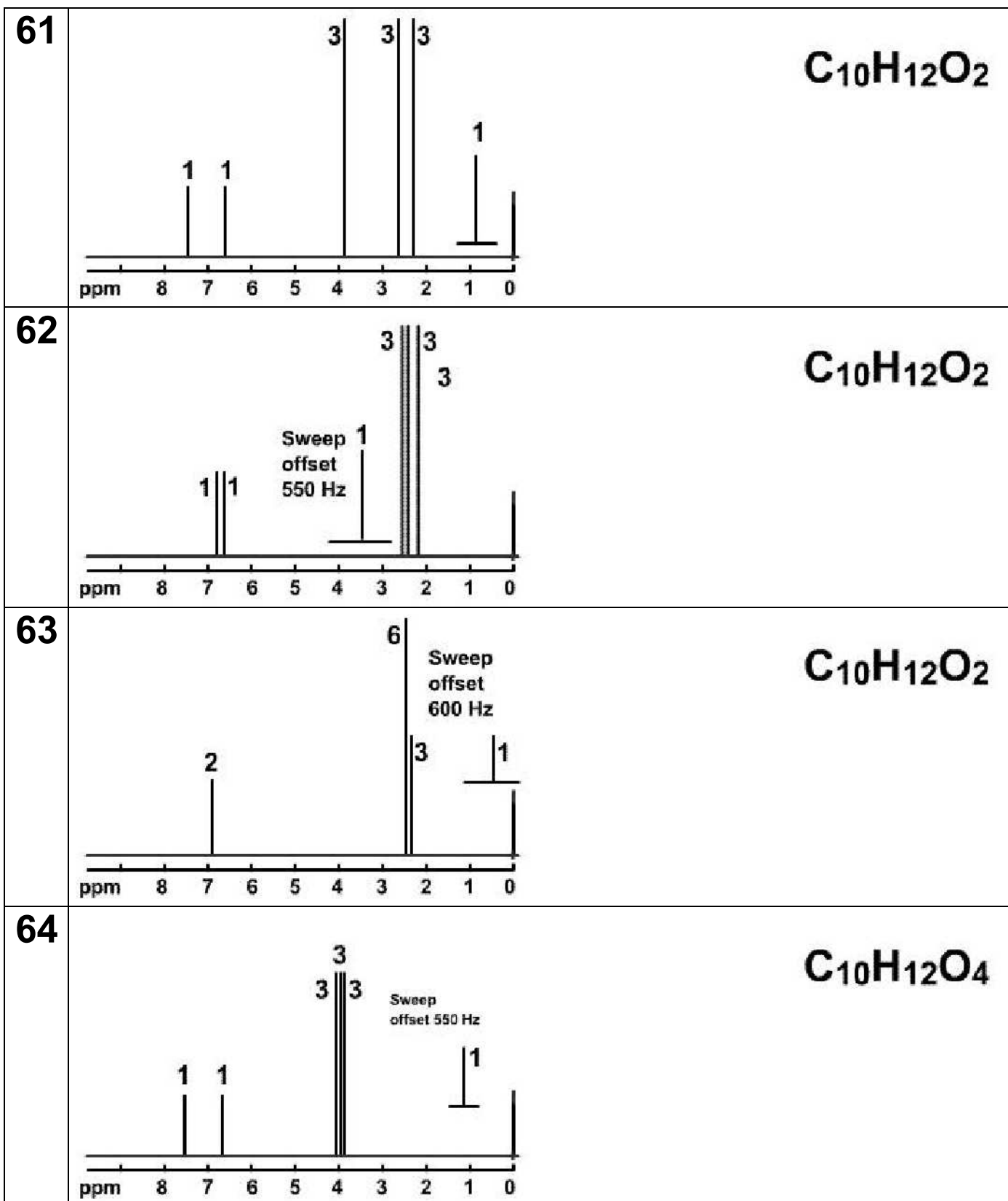
41		$C_9H_{10}O$
42		$C_9H_{10}O_2$
43		$C_9H_{10}O_2$
44		$C_9H_{10}O_2$

45		$C_9H_{10}O_3$
46		$C_9H_{12}$
47		$C_9H_{12}O$
48		$C_9H_{12}O$

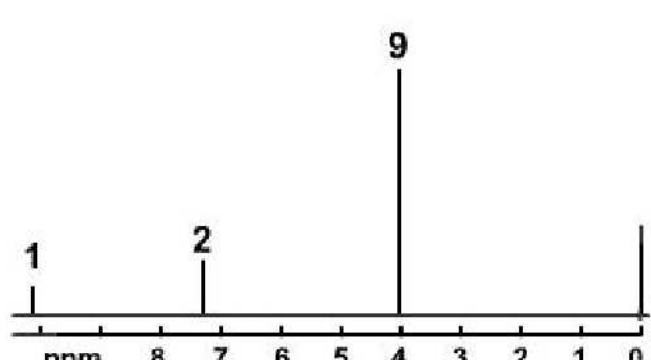
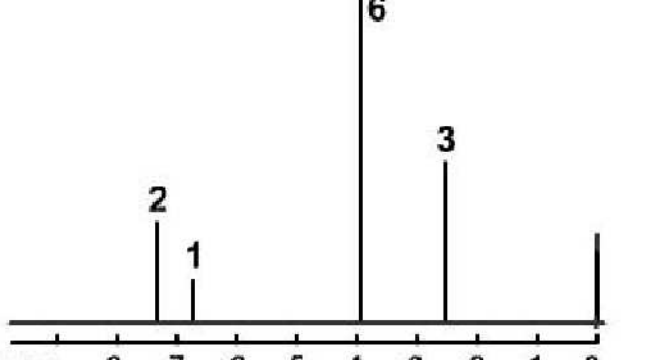
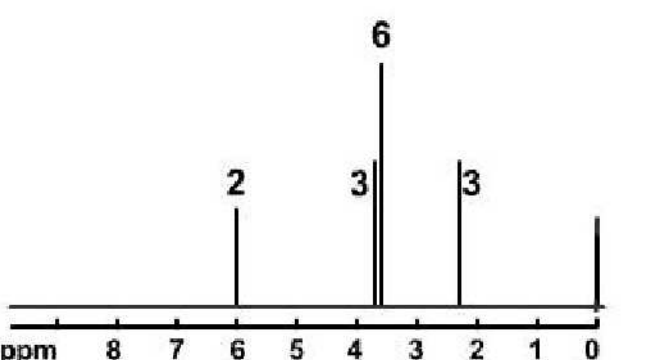
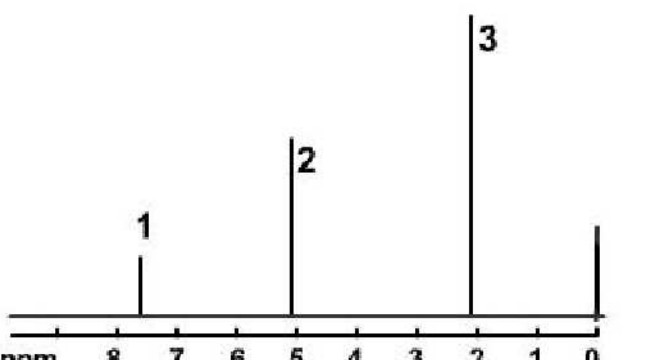
49		$C_9H_{12}O$
50		$C_9H_{13}N$
51		$C_9H_9N$
52		$C_9H_9O_2Br$

53	 <p>Sweep Offset 600 Hz</p>	$C_9H_9O_3Br$
54	 <p>Sweep Offset 600 Hz</p>	$C_{10}H_{10}O$
55		$C_{10}H_{10}O_2$
56		$C_{10}H_{10}O_4$

57		$C_{10}H_{11}Cl$
58		$C_{10}H_{11}N$
59		$C_{10}H_{11}ON$
60		$C_{10}H_{12}O$

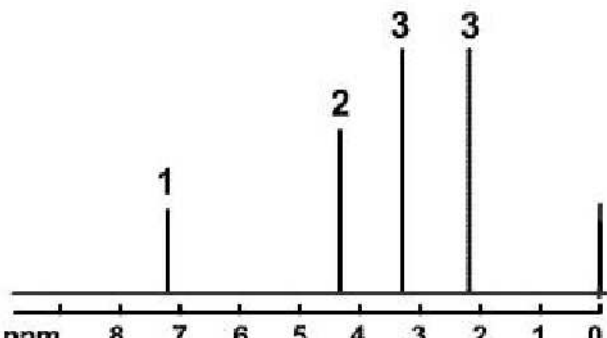
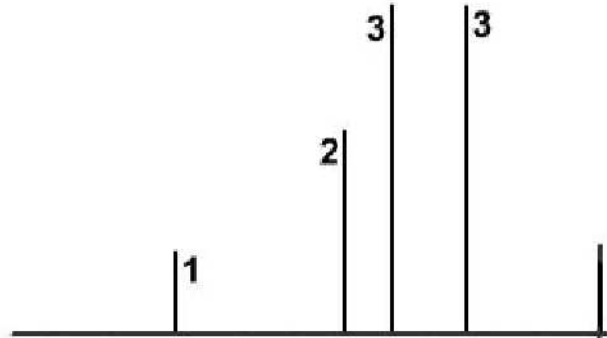
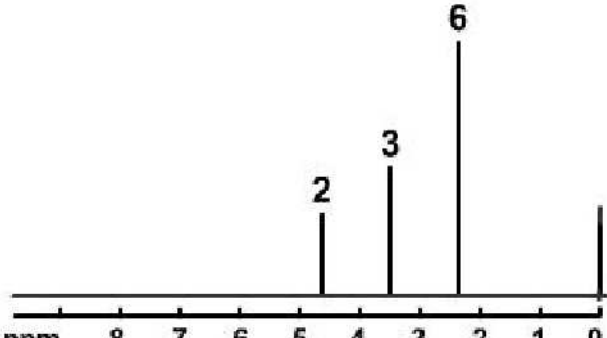
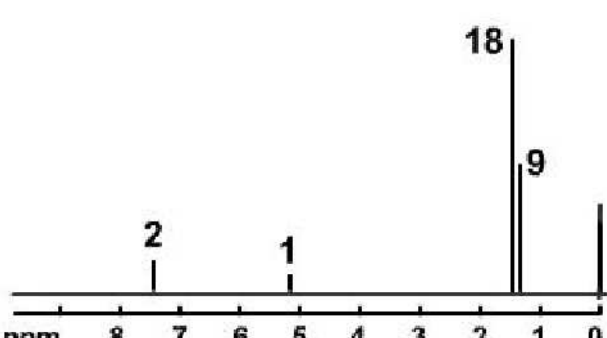




65		$C_{10}H_{12}O_4$
66		$C_{10}H_{12}O_4$
67		$C_{10}H_{12}O_4$
68		$C_{10}H_{12}O_5$

69		$C_{10}H_{13}Cl$
70		$C_{10}H_{14}O_2$
71		$C_{10}H_{14}O_4$
72		$C_{10}H_{18}O$

73		$C_{10}H_{19}O$
74	<p>Intégration non faite</p>	$C_{10}H_{20}$
75		$C_{12}H_{12}O_3$
76		$C_{12}H_{12}O_6$

77	 <p>1H NMR spectrum for <math>C_{12}H_{18}O_2</math>. The x-axis is labeled 'ppm' and ranges from 8 to 0. There are four signals: a singlet at ~7.2 ppm (integration 1), a singlet at ~4.2 ppm (integration 2), a singlet at ~3.2 ppm (integration 3), and a singlet at ~2.2 ppm (integration 3). A reference peak is at 0 ppm.</p>	$C_{12}H_{18}O_2$
78	 <p>1H NMR spectrum for <math>C_{12}H_{18}O_2</math>. The x-axis is labeled 'ppm' and ranges from 8 to 0. There are four signals: a singlet at ~7.2 ppm (integration 1), a singlet at ~4.2 ppm (integration 2), a singlet at ~3.2 ppm (integration 3), and a singlet at ~2.2 ppm (integration 3). A reference peak is at 0 ppm.</p>	$C_{12}H_{18}O_2$
79	 <p>1H NMR spectrum for <math>C_{14}H_{22}O_2</math>. The x-axis is labeled 'ppm' and ranges from 8 to 0. There are three signals: a singlet at ~4.5 ppm (integration 2), a singlet at ~3.5 ppm (integration 3), and a singlet at ~2.2 ppm (integration 6). A reference peak is at 0 ppm.</p>	$C_{14}H_{22}O_2$
80	 <p>1H NMR spectrum for <math>C_{18}H_{30}O</math>. The x-axis is labeled 'ppm' and ranges from 8 to 0. There are four signals: a singlet at ~7.5 ppm (integration 2), a singlet at ~5.2 ppm (integration 1), a singlet at ~1.8 ppm (integration 18), and a singlet at ~1.2 ppm (integration 9). A reference peak is at 0 ppm.</p>	$C_{18}H_{30}O$