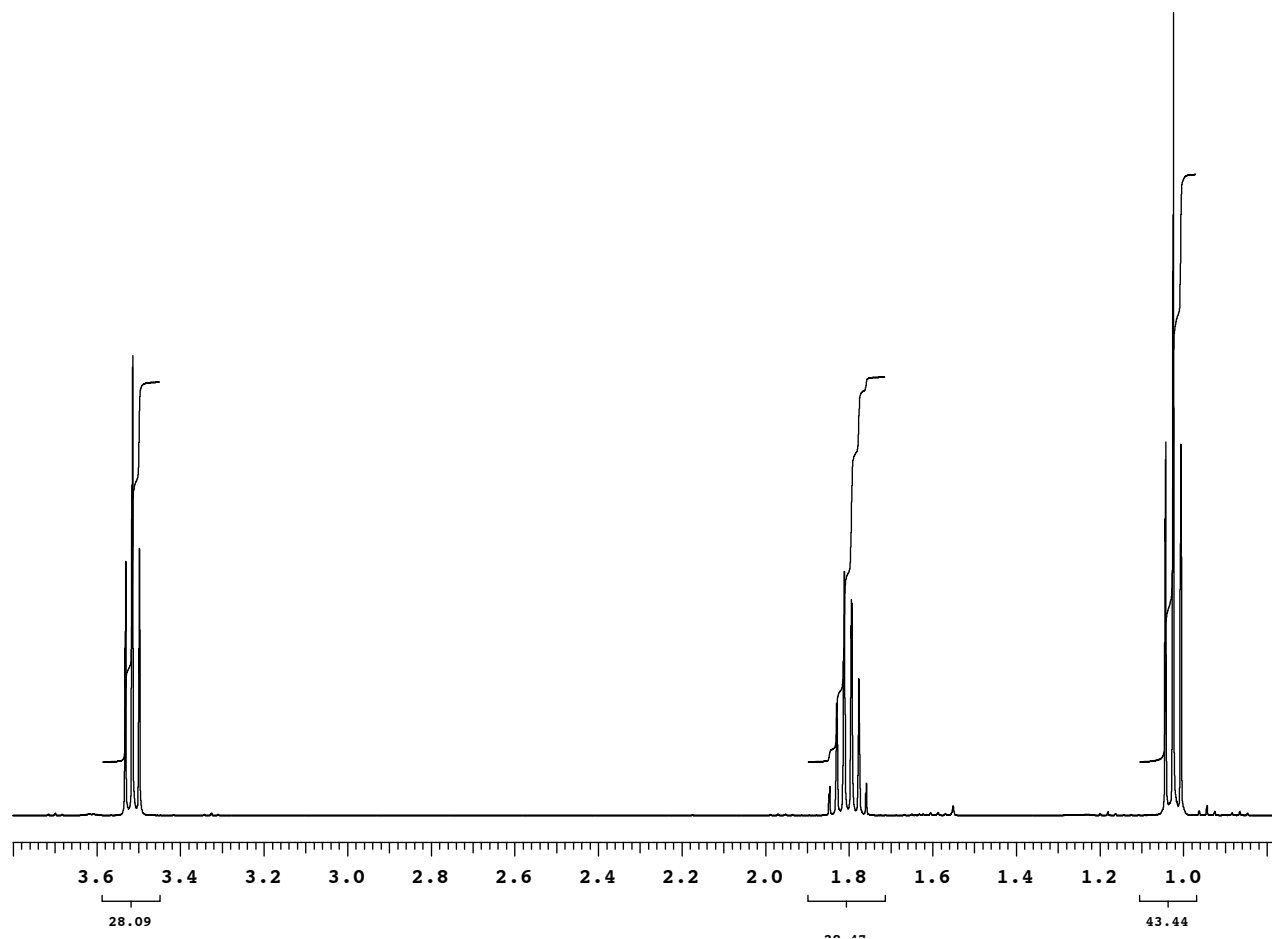
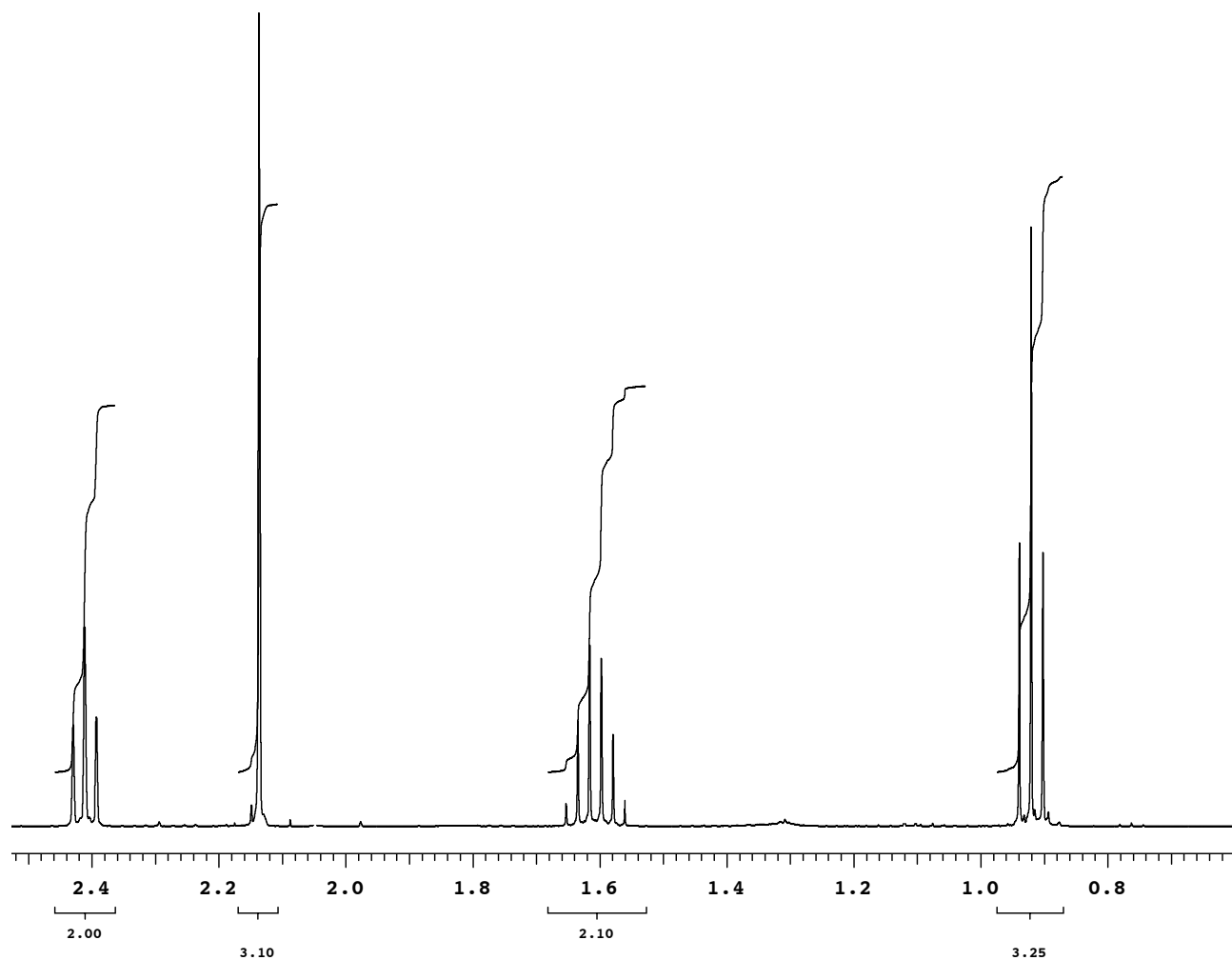
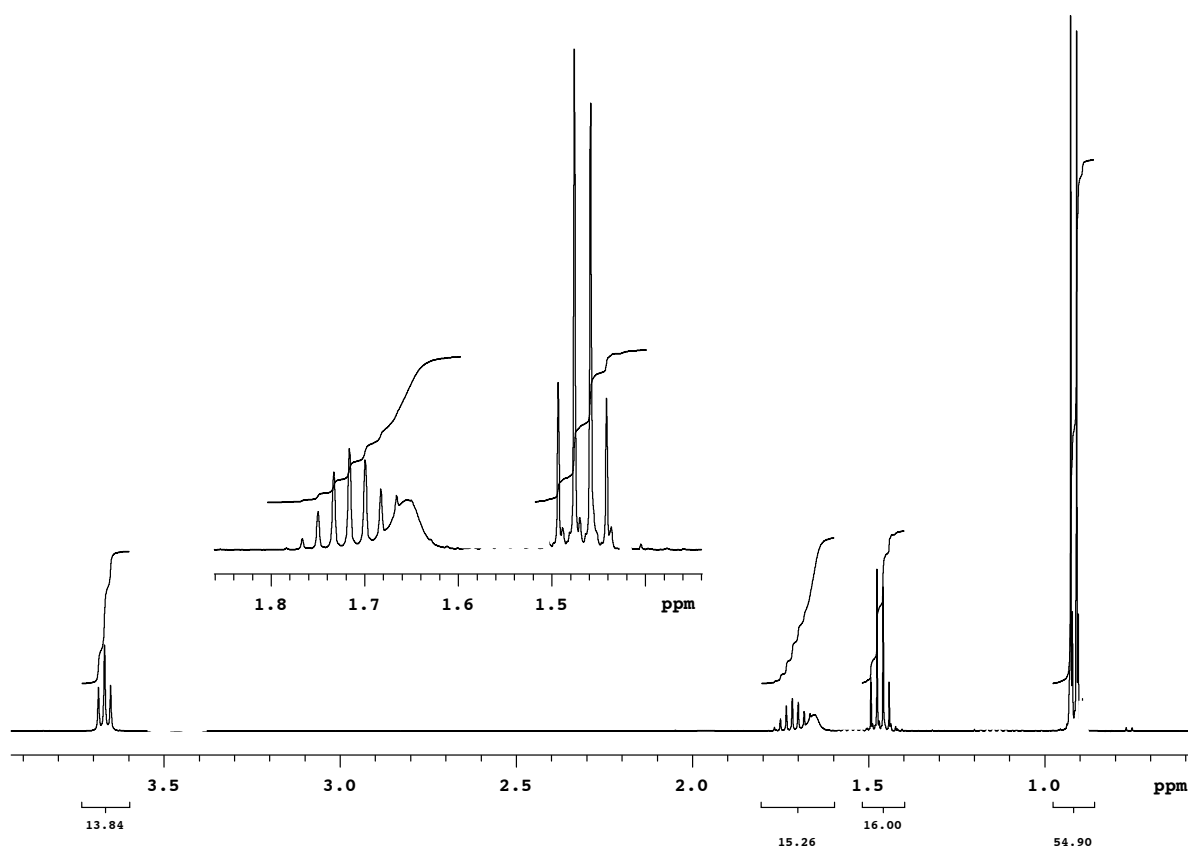


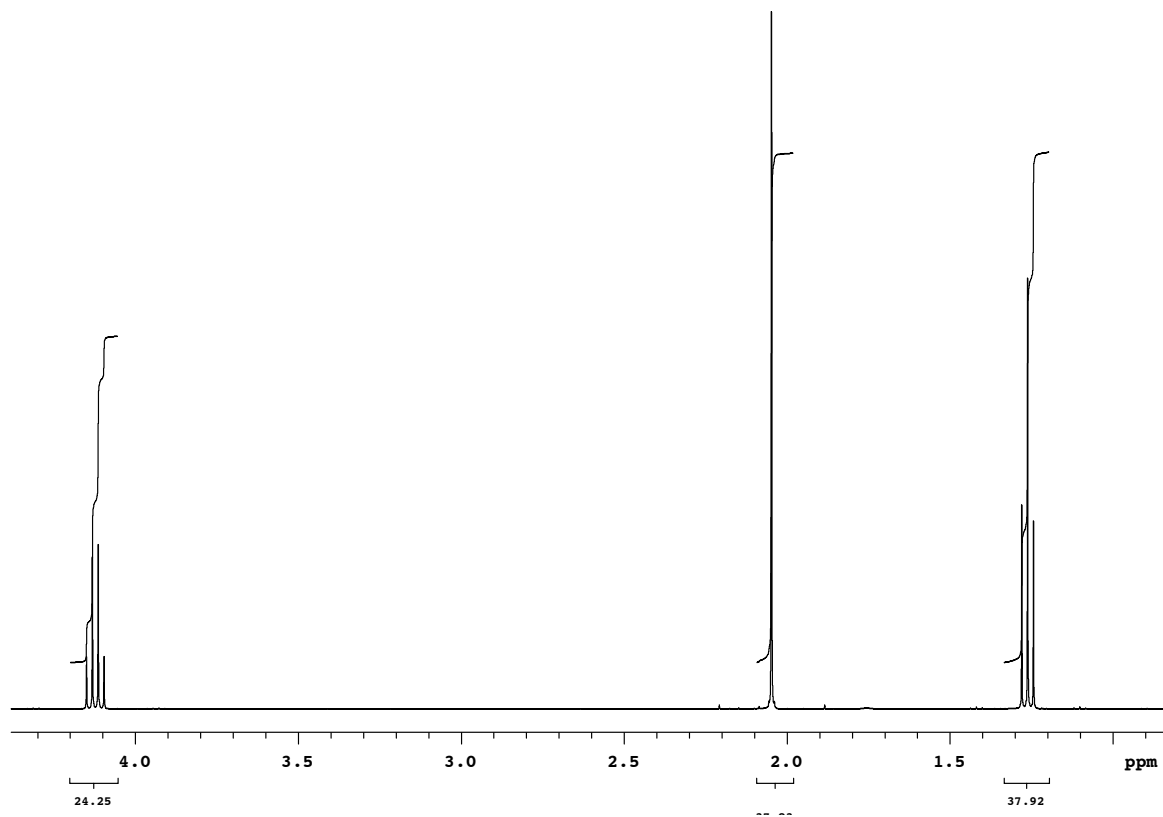
Jasperse Organic II NMR Problems

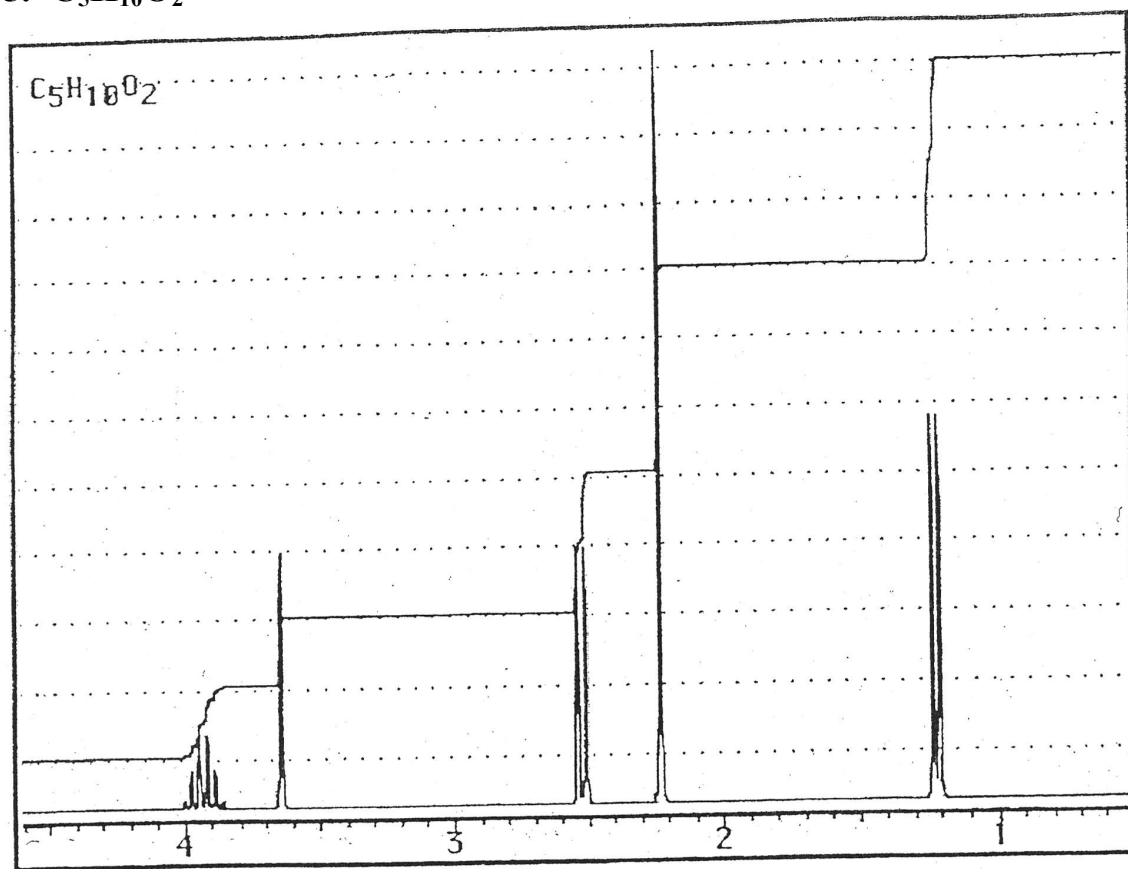
1. $\text{C}_3\text{H}_7\text{Cl}$

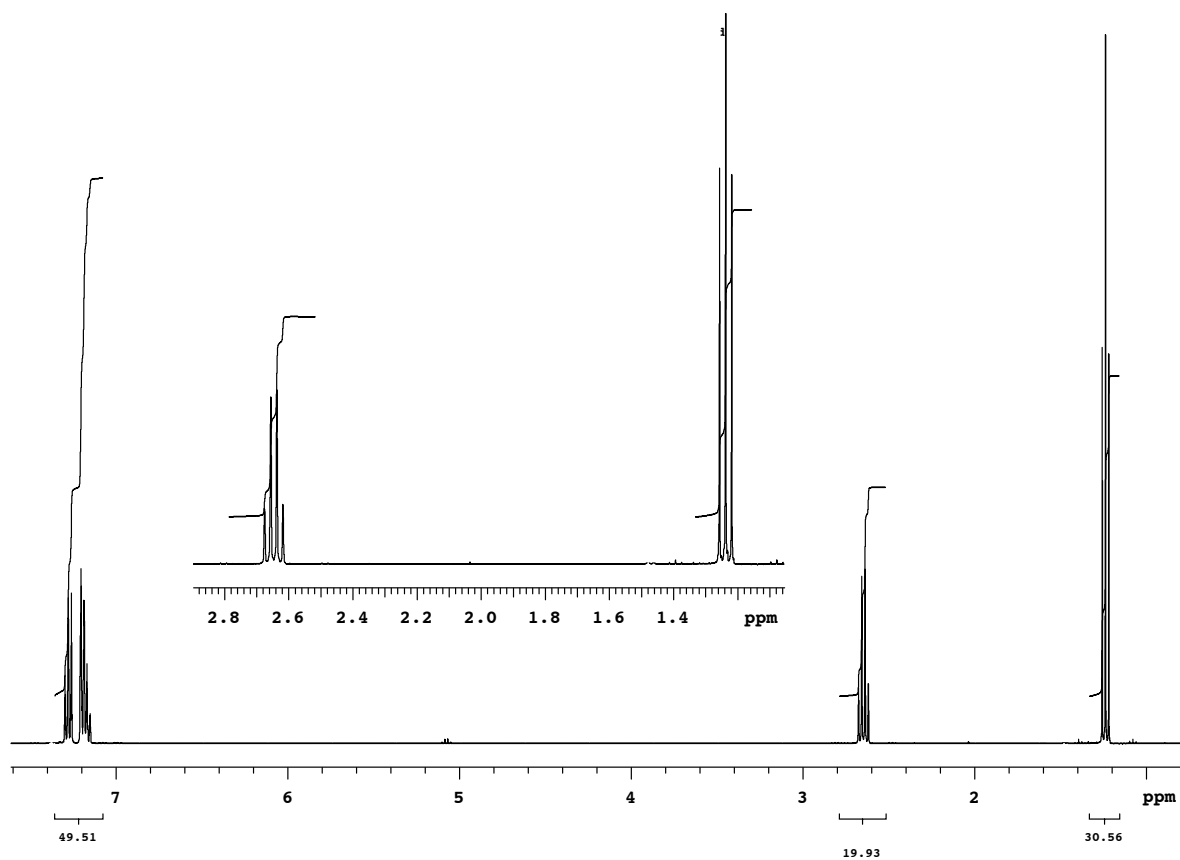


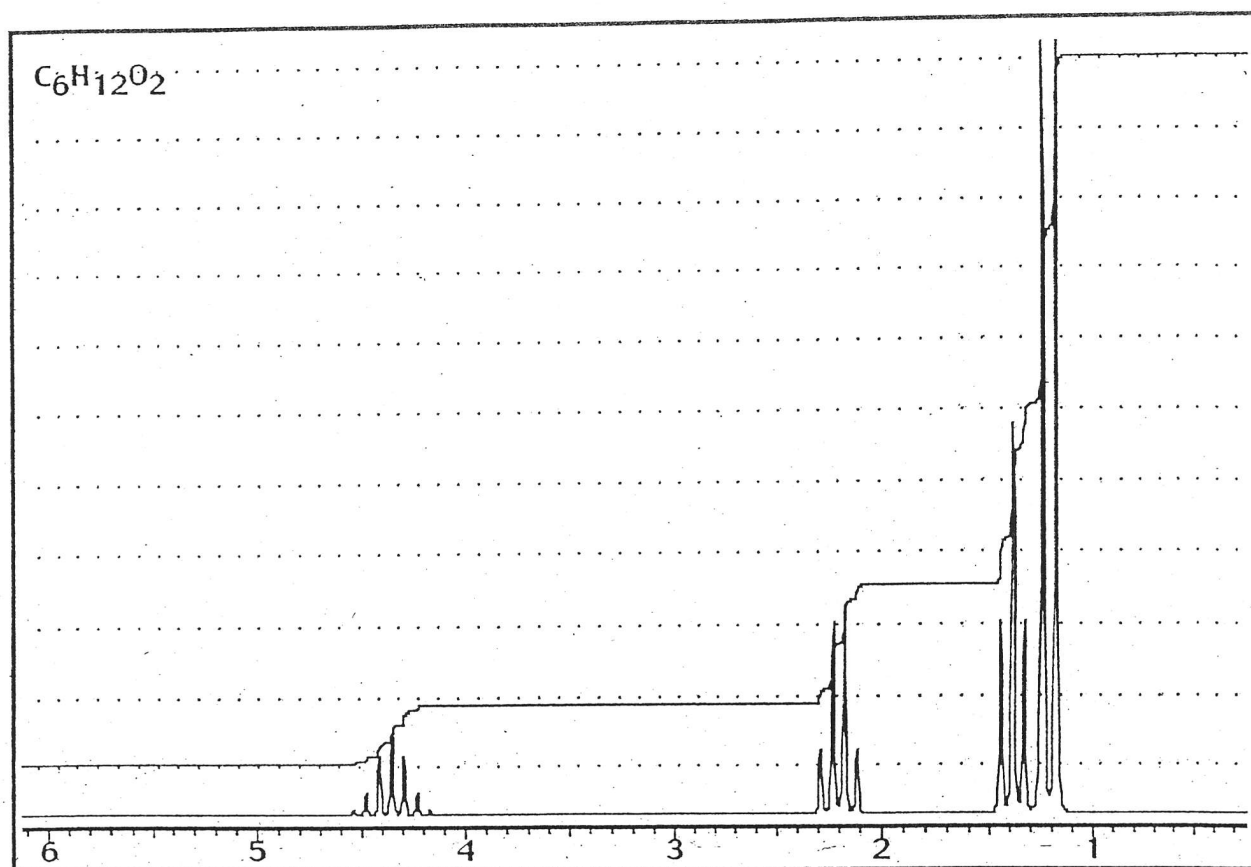
2. $\text{C}_5\text{H}_{10}\text{O}$ 

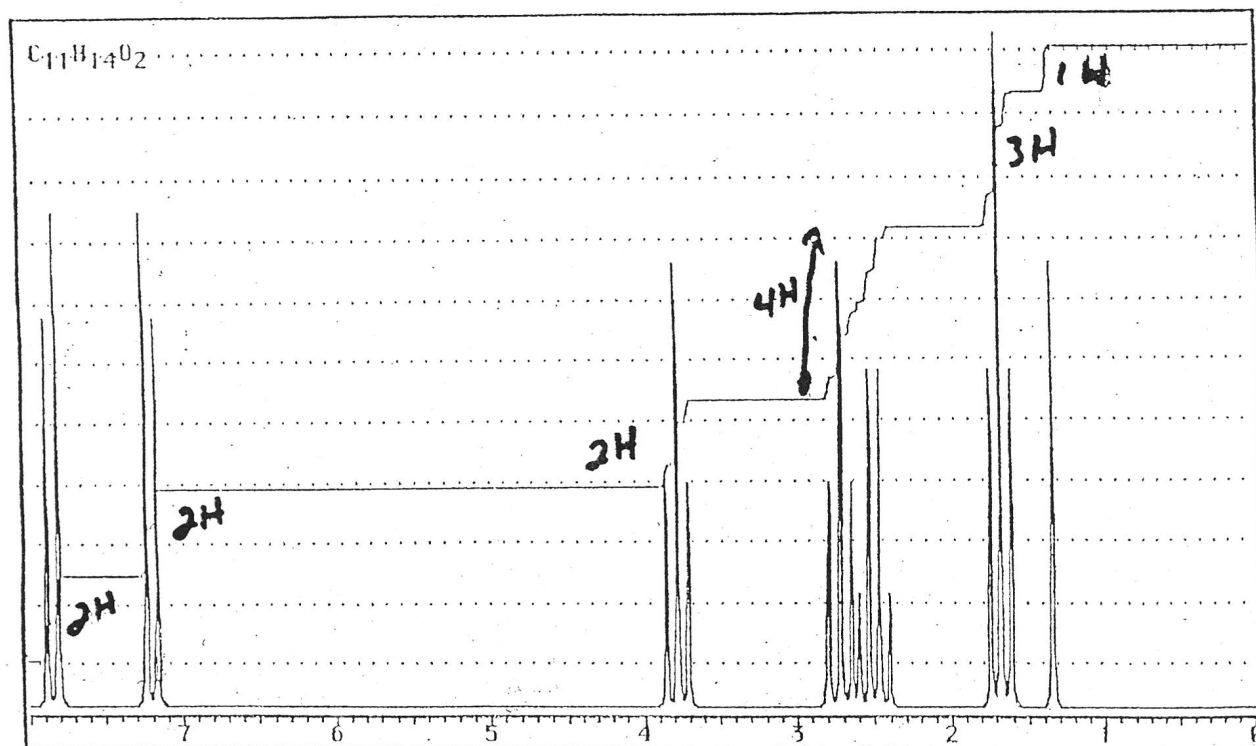
3. $\text{C}_5\text{H}_{12}\text{O}$ 

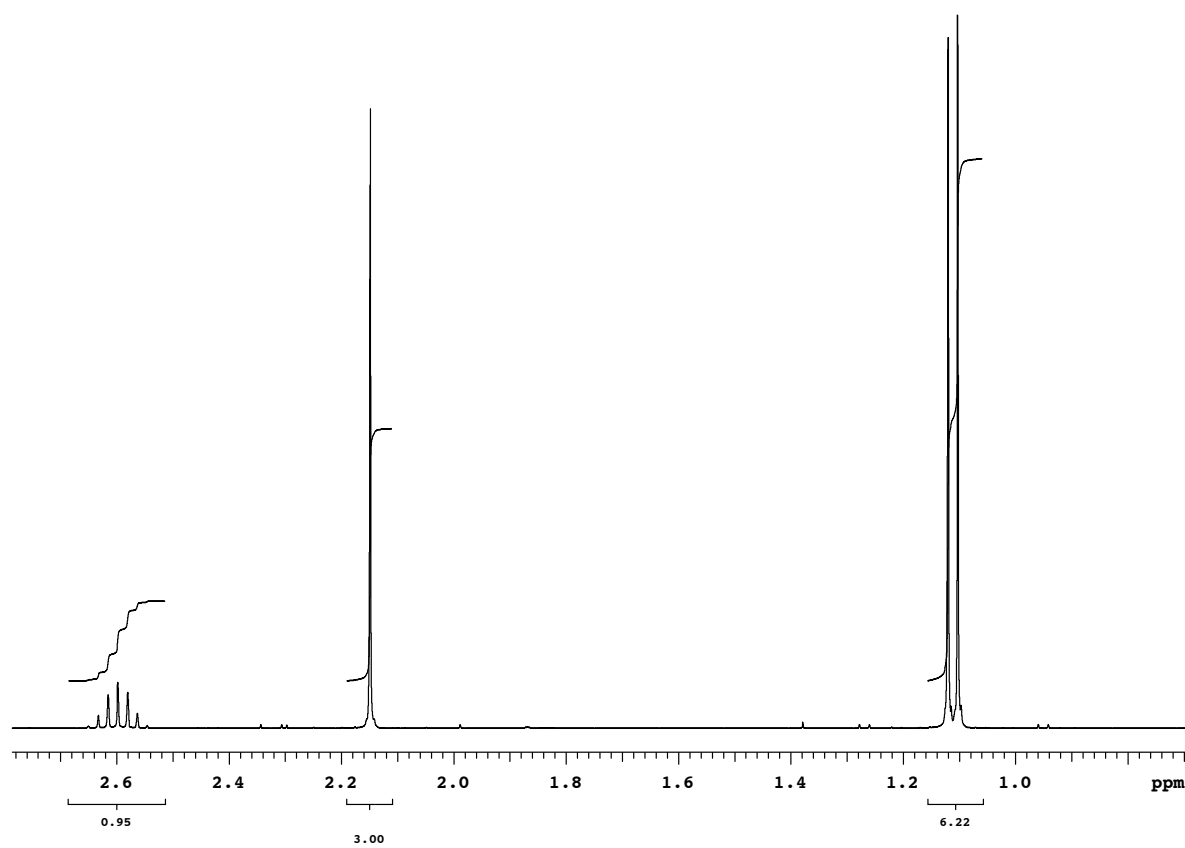
4. $\text{C}_4\text{H}_8\text{O}_2$ 

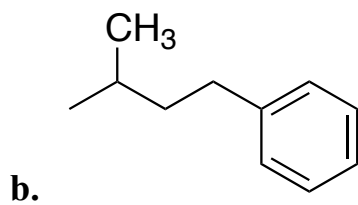
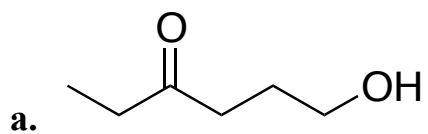
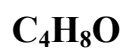
5. $C_5H_{10}O_2$ 

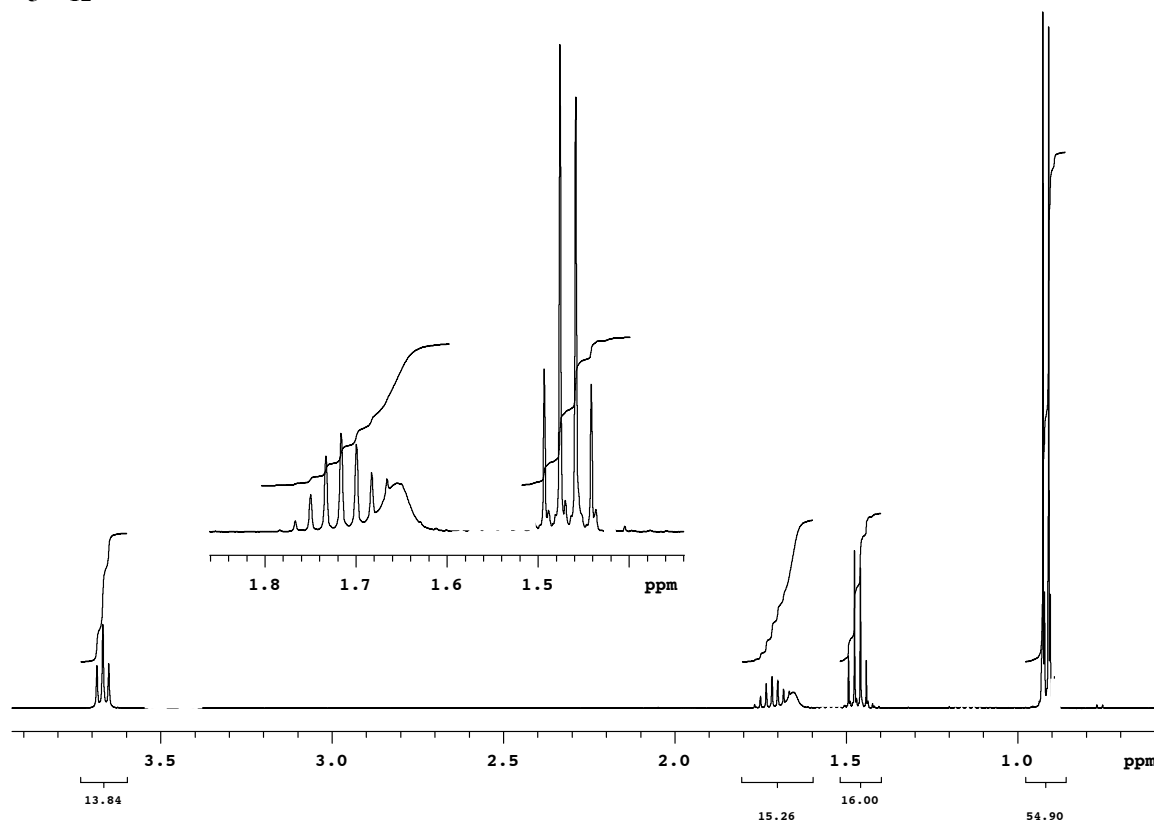
6. C_8H_{10} 

7. $\text{C}_6\text{H}_{12}\text{O}_2$ 

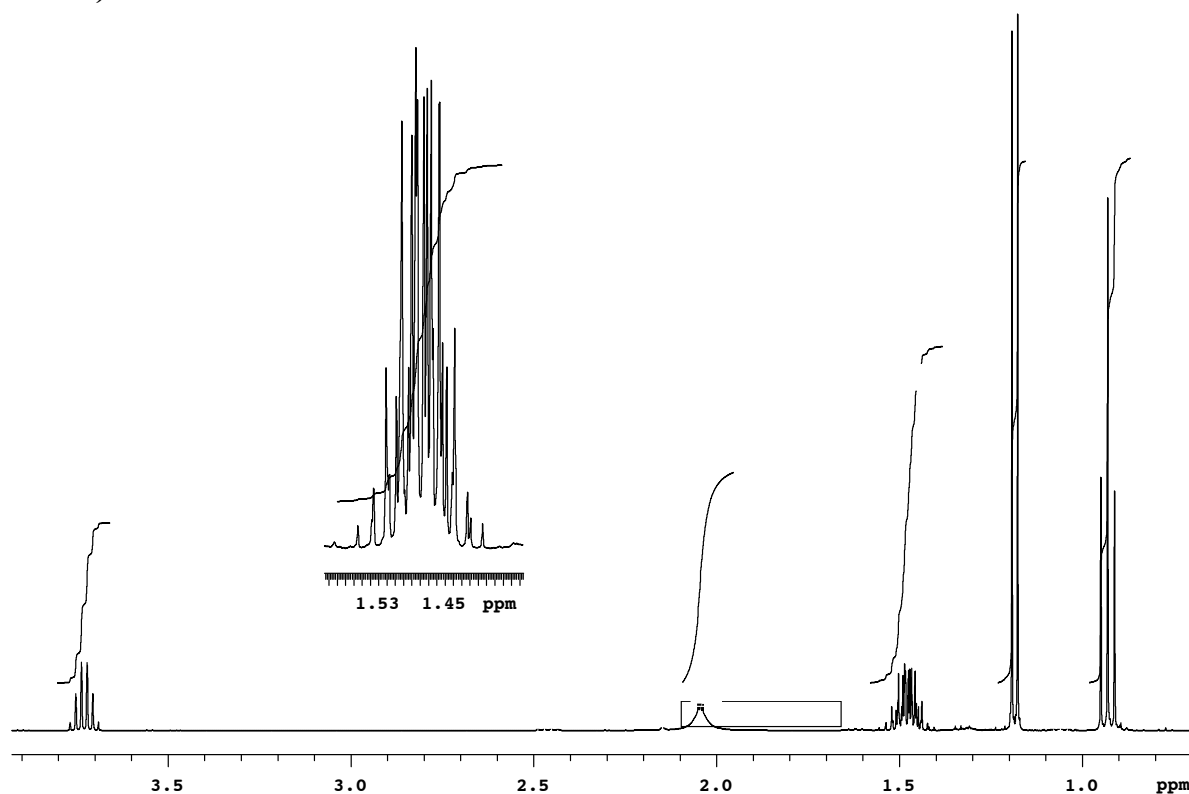
8. $C_{11}H_{14}O_2$ 

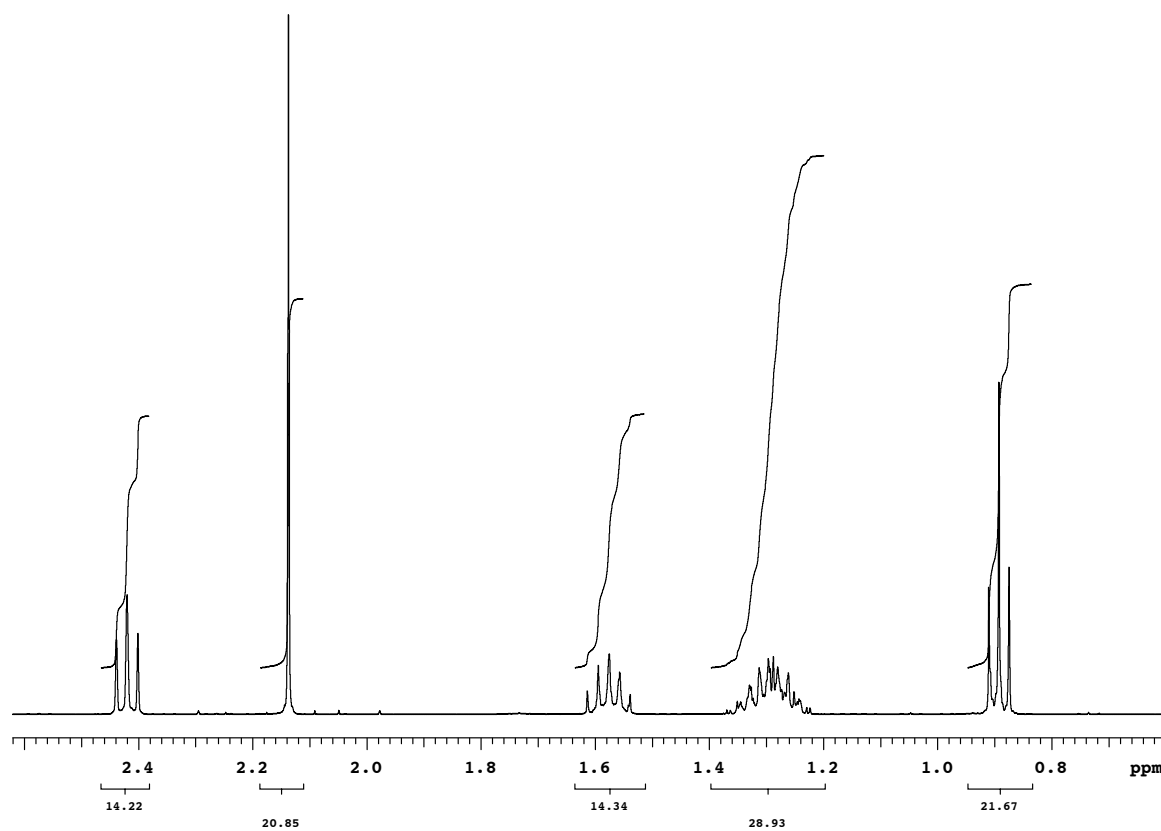
9. $\text{C}_5\text{H}_{10}\text{O}$ 

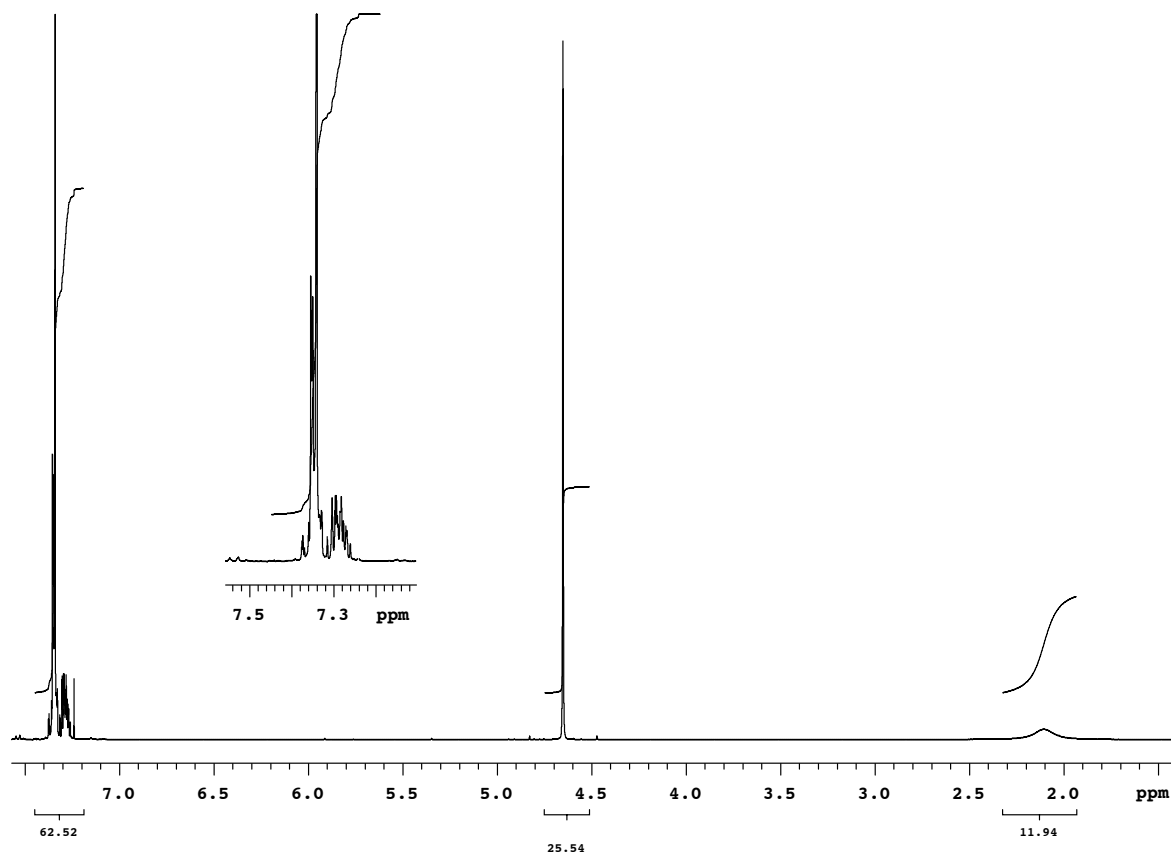
10. Predict the Spectrum for:**c. Identify the Structure from the Shorthand NMR (nongraphic)****1.05, triplet, 3H****2.13, singlet, 3H****2.47, quartet, 2H**

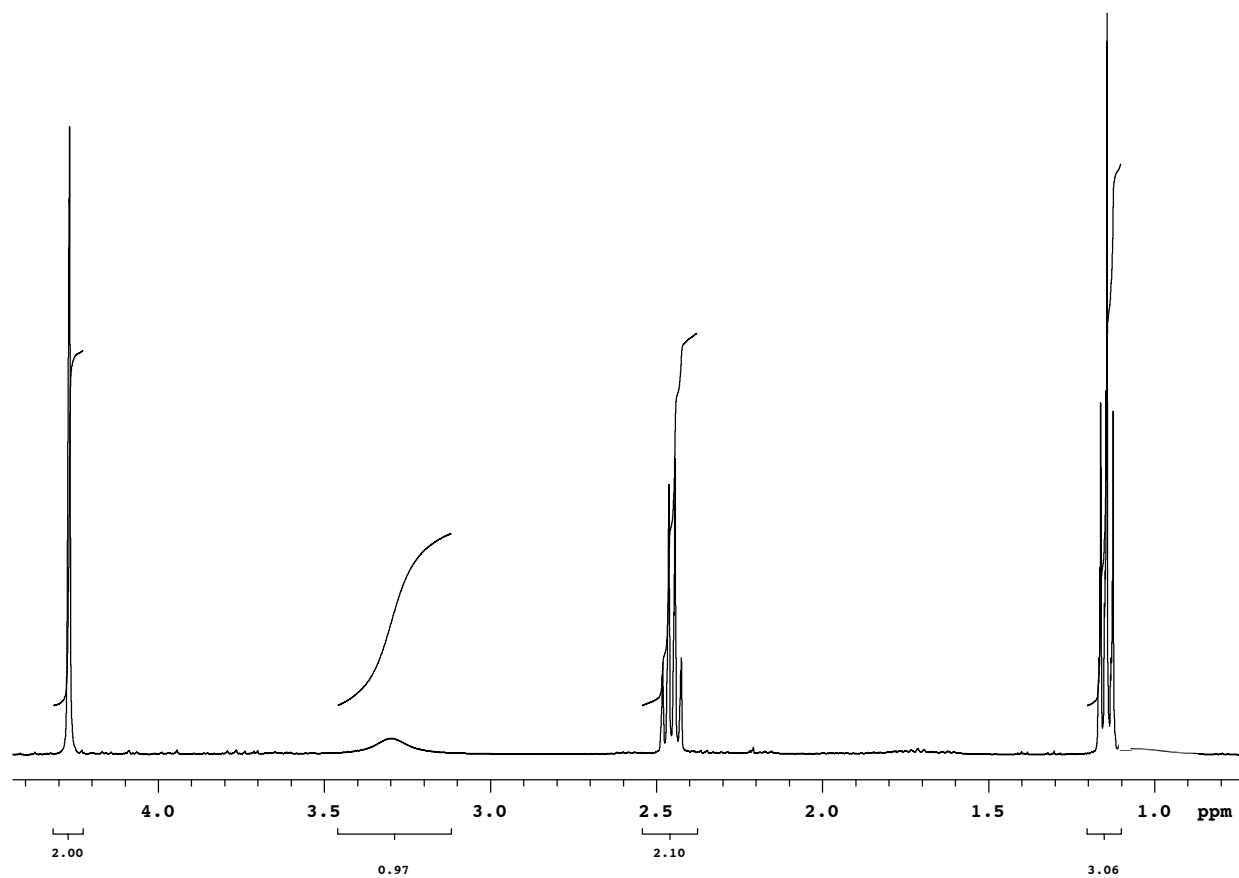
11.C₅H₁₂O

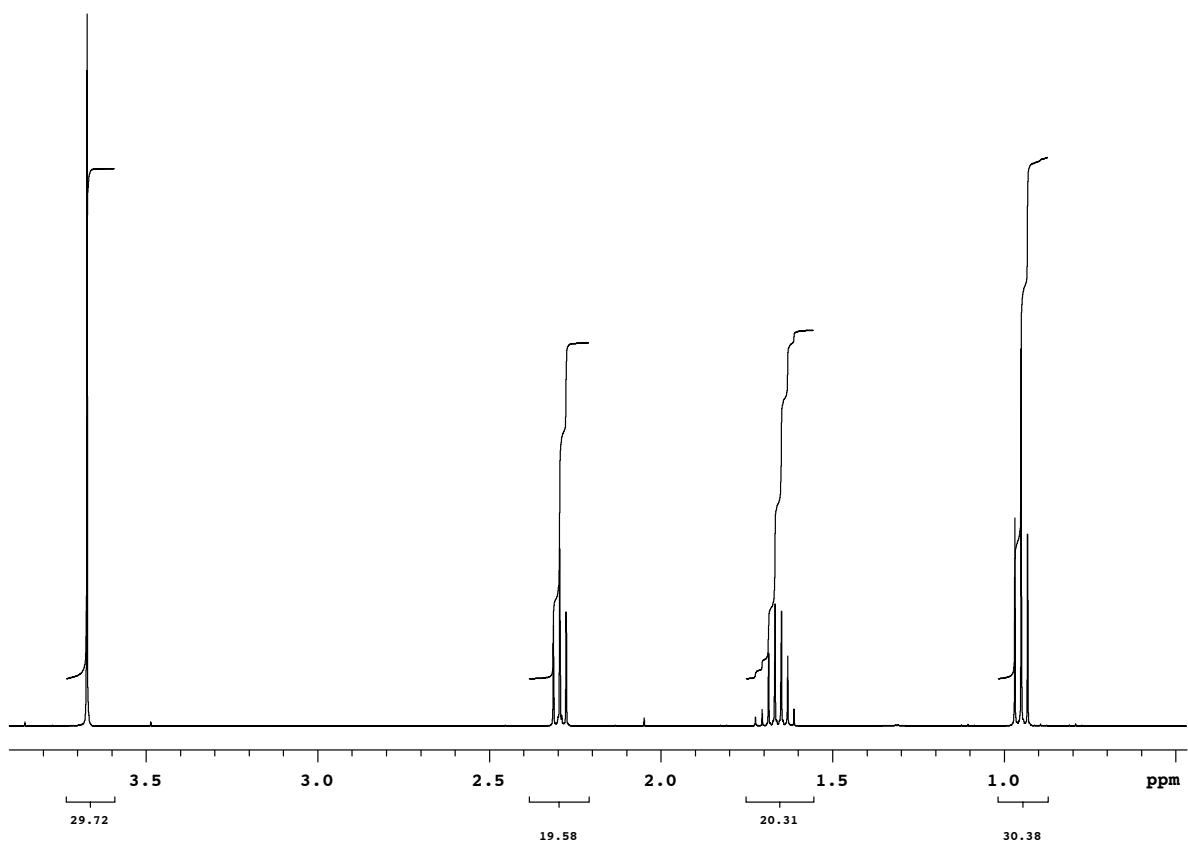
12. $\text{C}_4\text{H}_{10}\text{O}$ (somewhat contaminated. Ignore the non-integrated sets at 1.05 and 2.45).

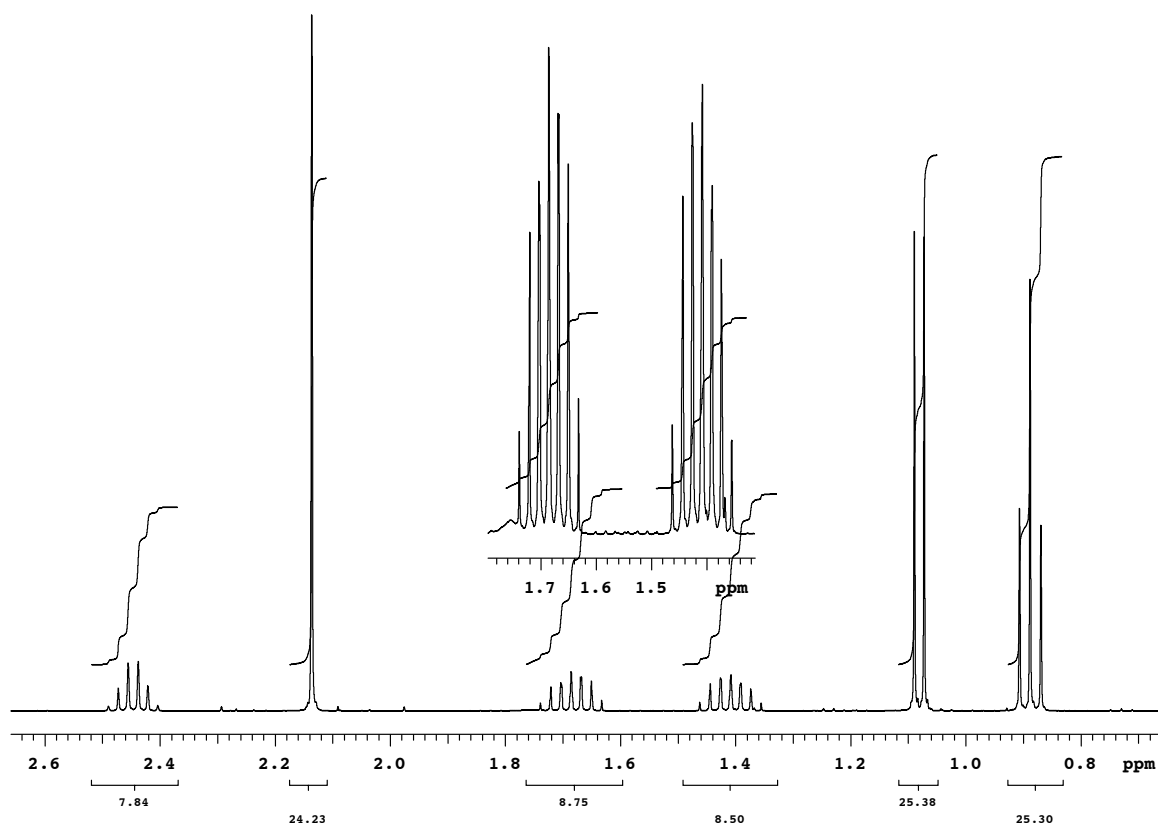


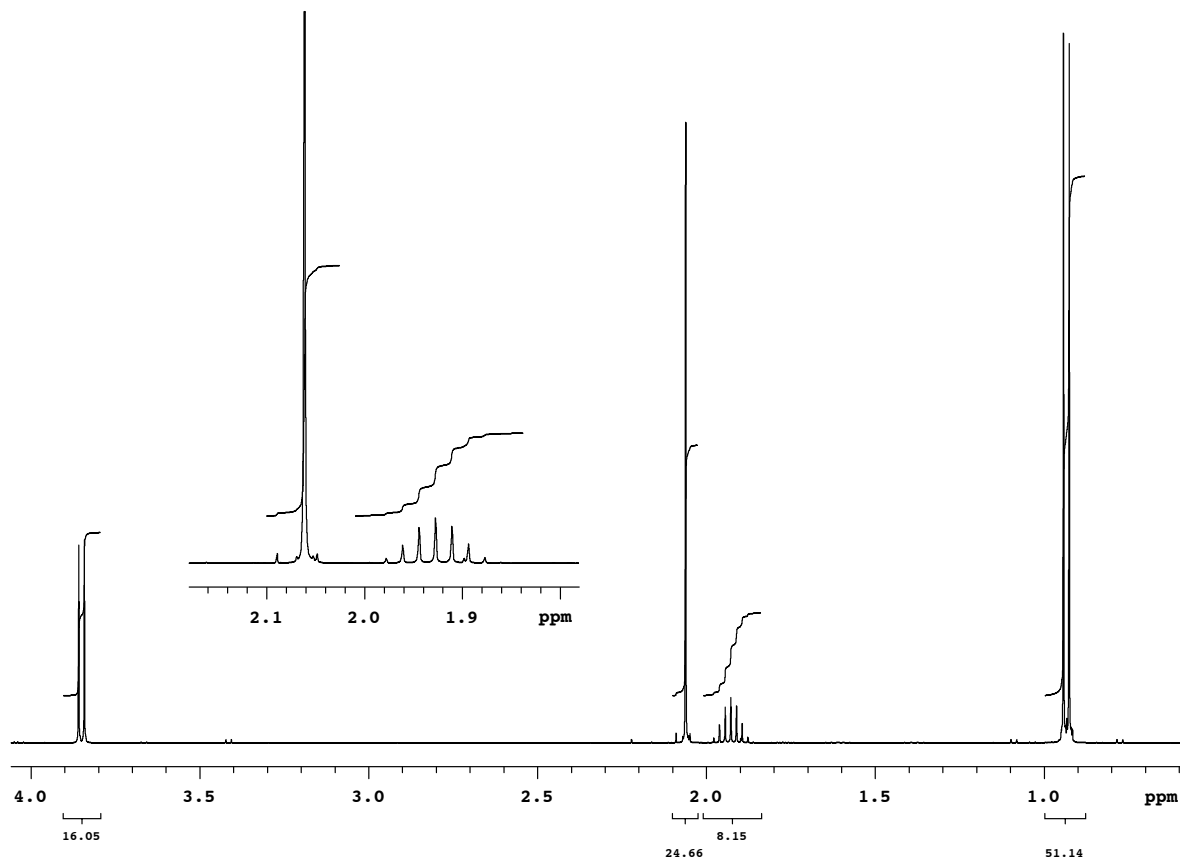
$^{13}\text{C}_7\text{H}_{14}\text{O}$ 

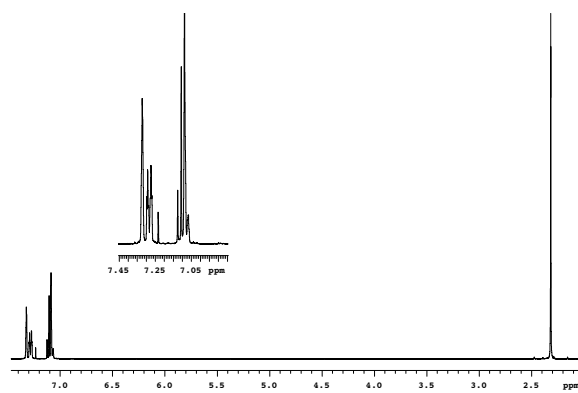
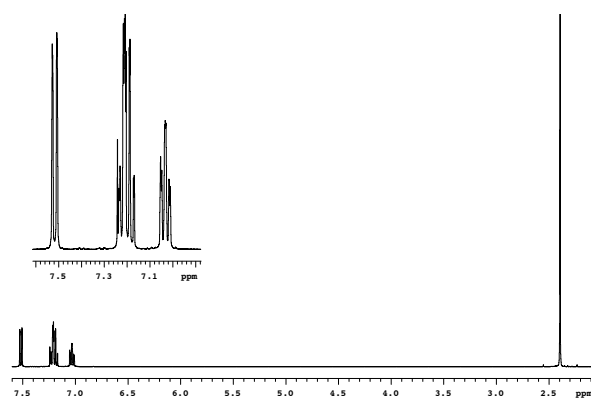
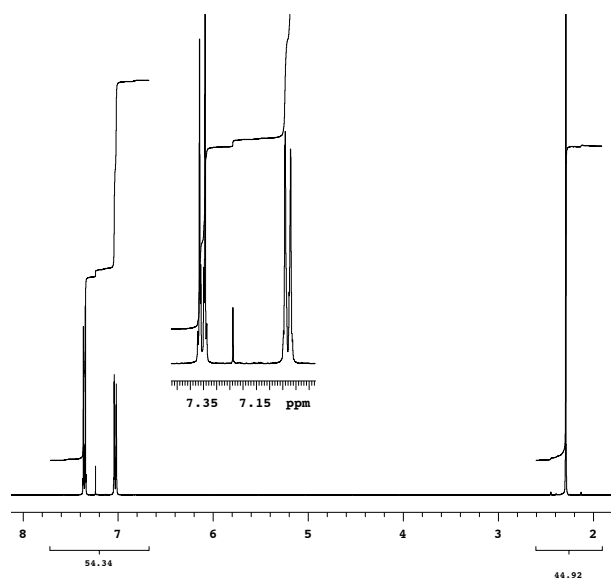
14. C₇H₈O

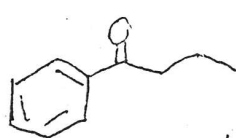
15. $\text{C}_4\text{H}_8\text{O}_2$ 

16.C₅H₁₀O₂

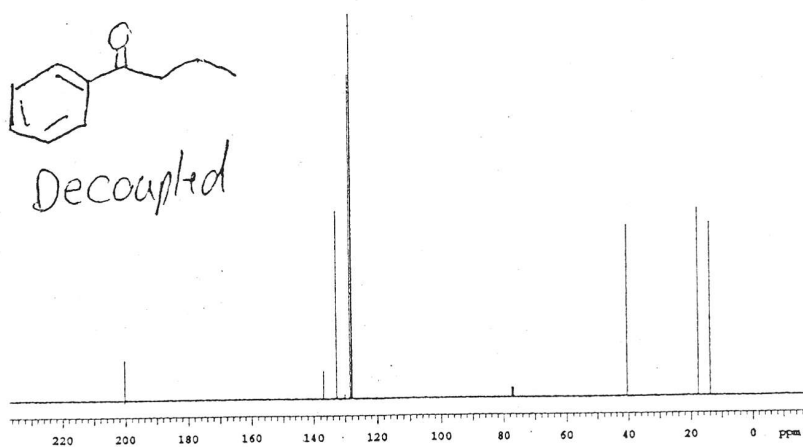
$17.C_6H_{12}O$ 

18.C₆H₁₂O₂

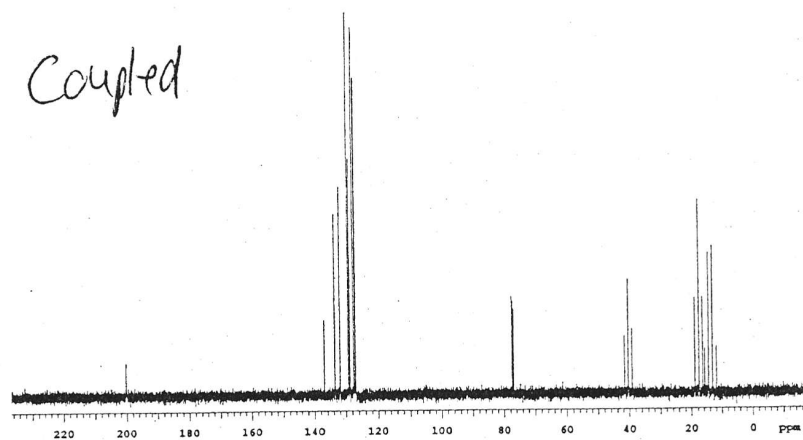
19.C₇H₇Br. Isomers of Bromotoluene

20.C₁₀H₁₂O Carbon NMR Spectra: Decoupled, Coupled, DEPT 135

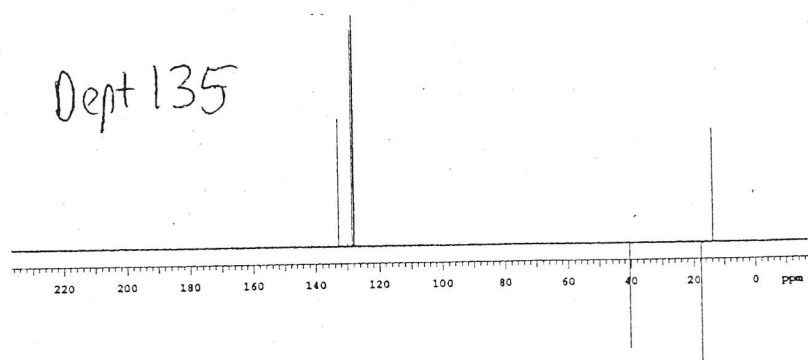
Decoupled



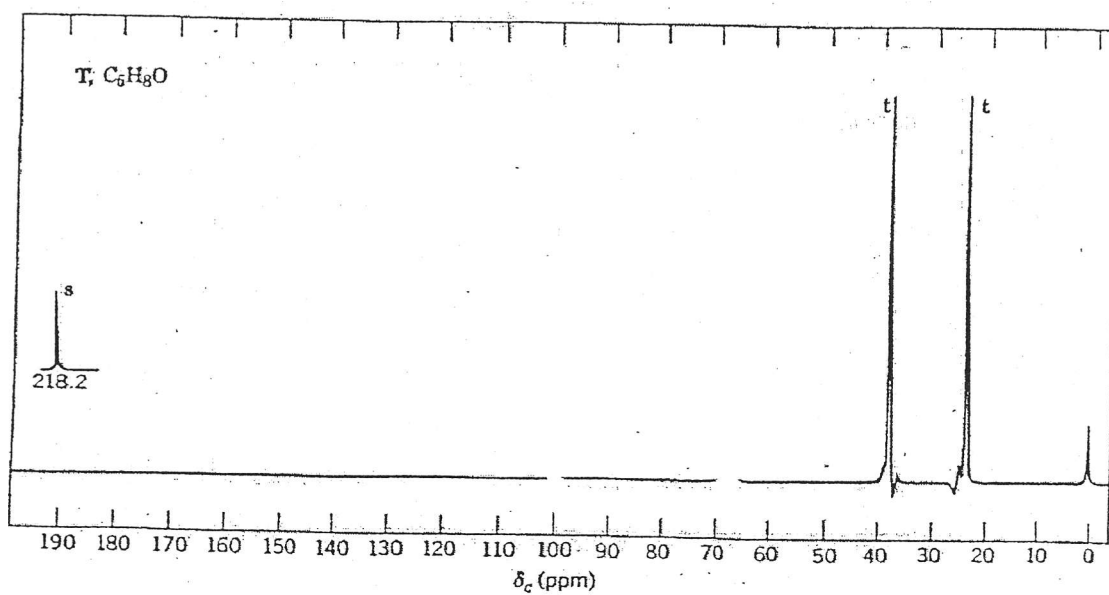
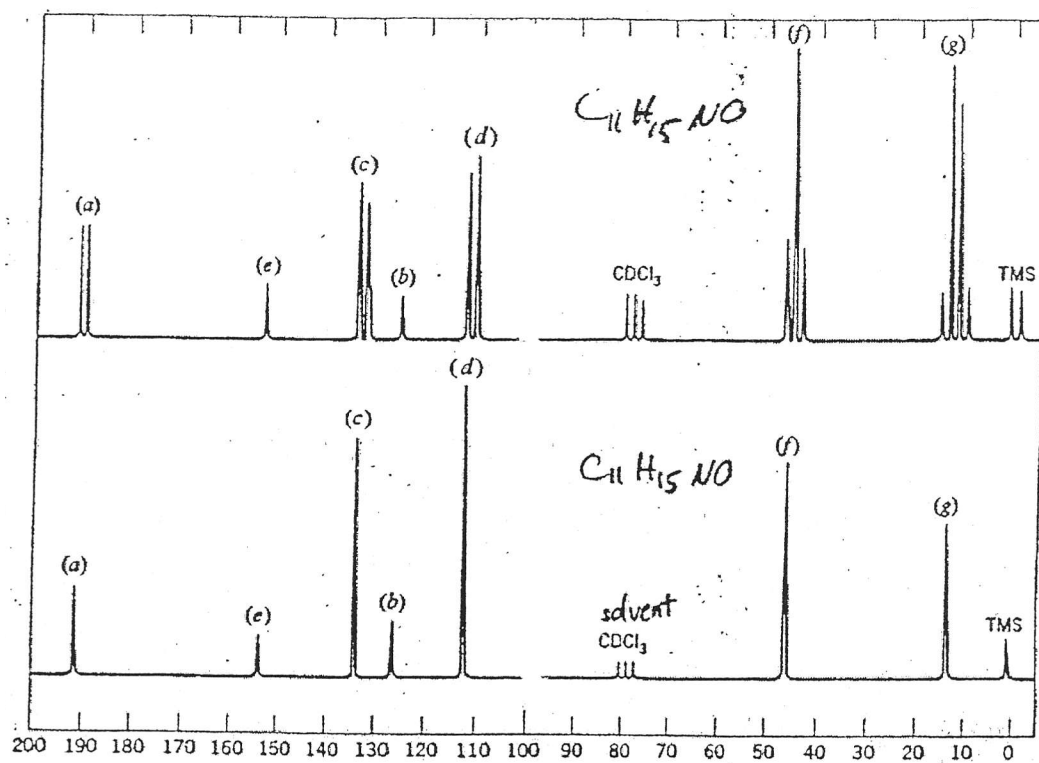
Coupled

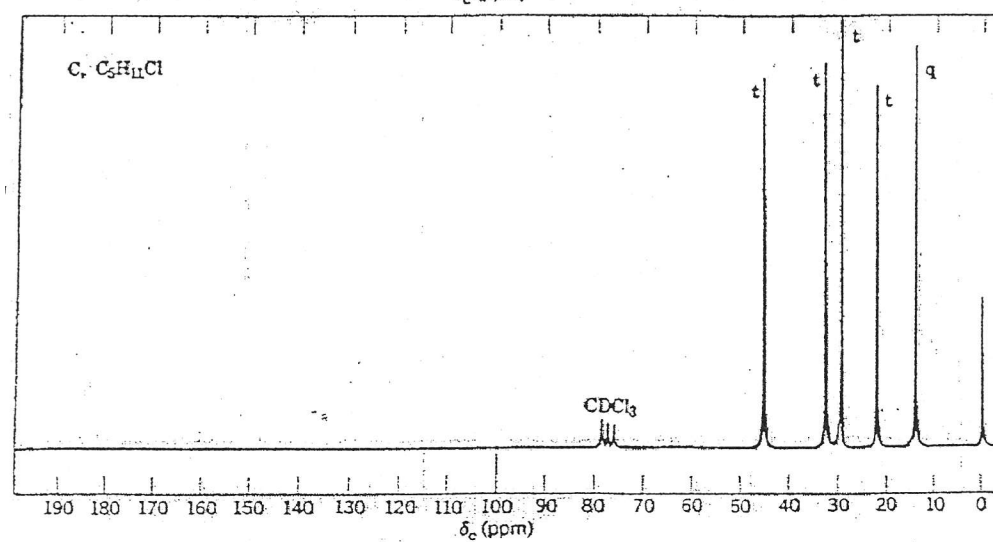
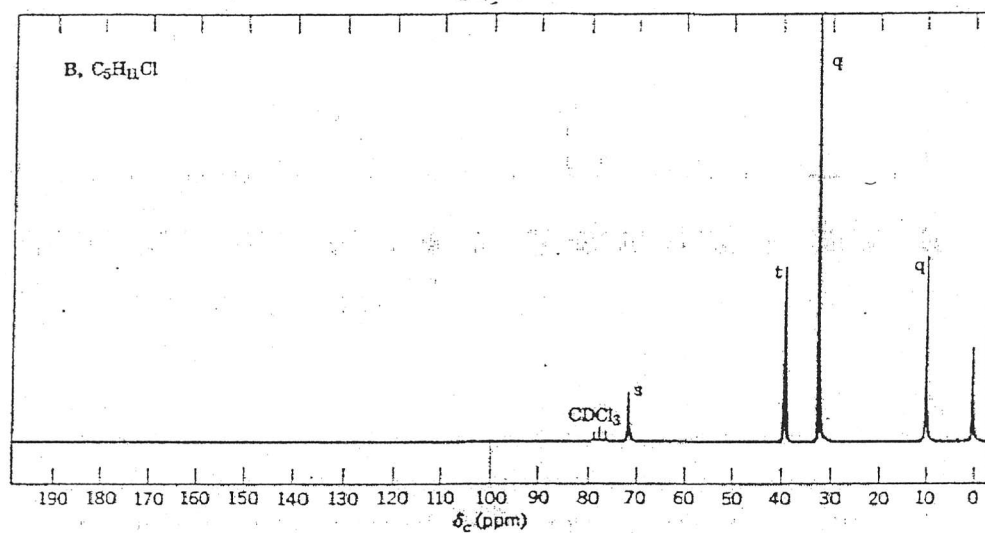
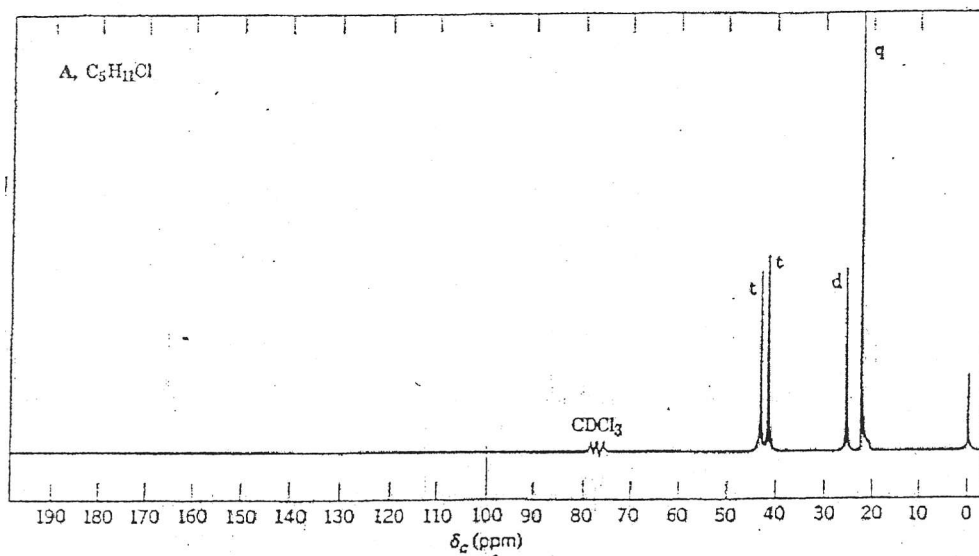


Dept 135

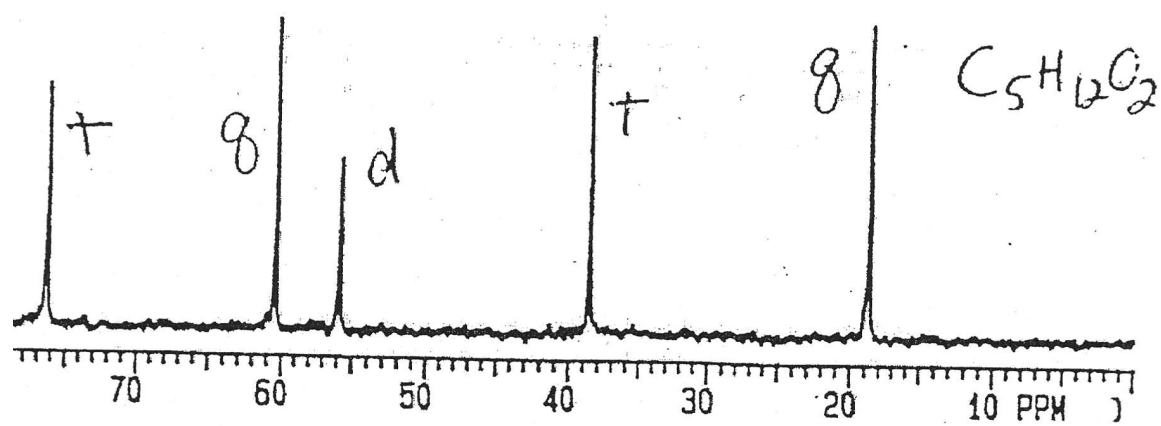
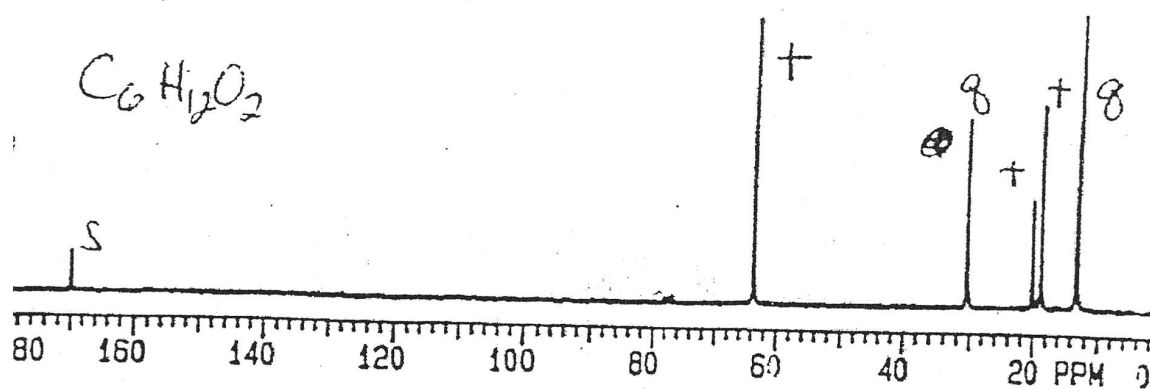


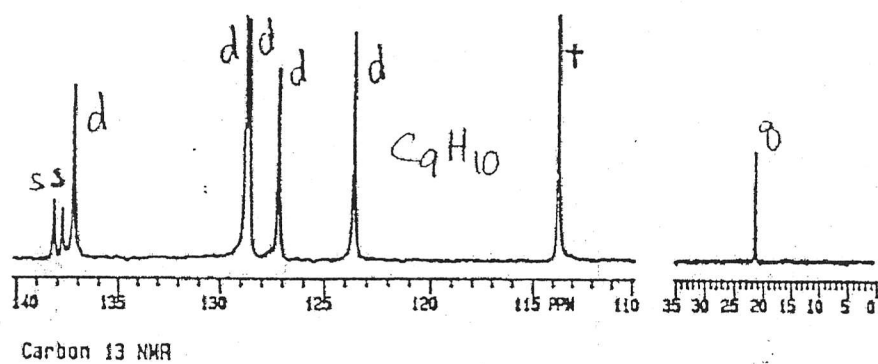
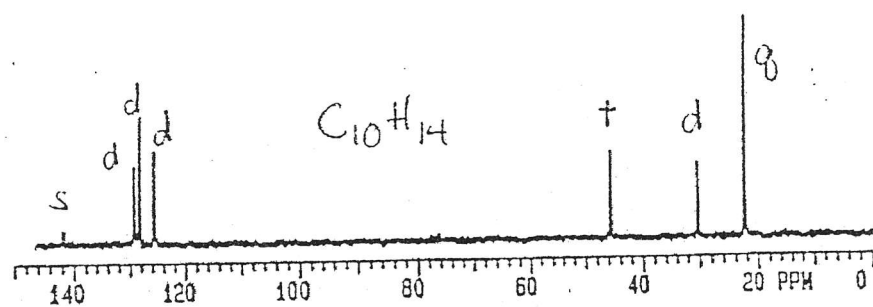
21. Carbon NMR Spectra Problems.



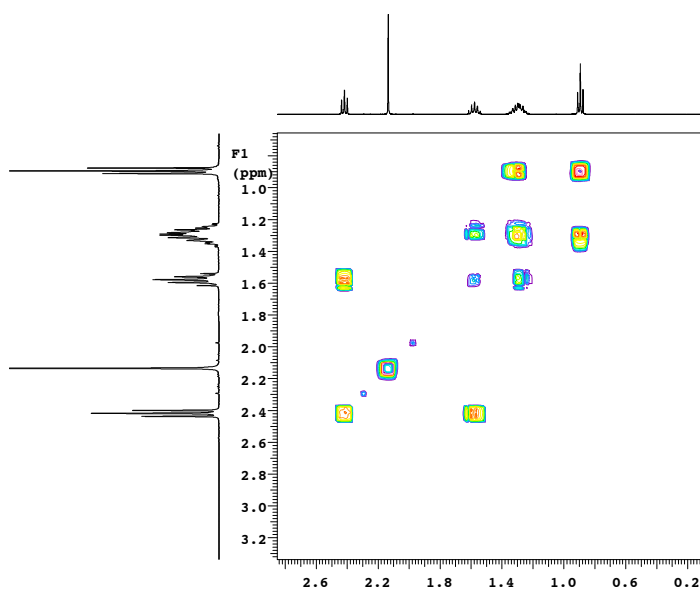
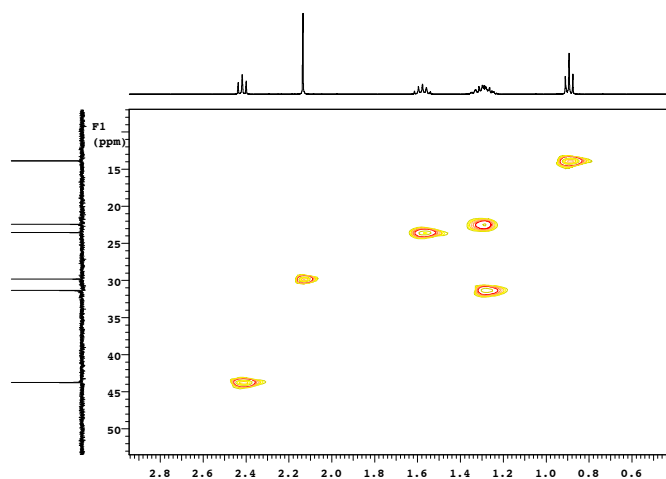
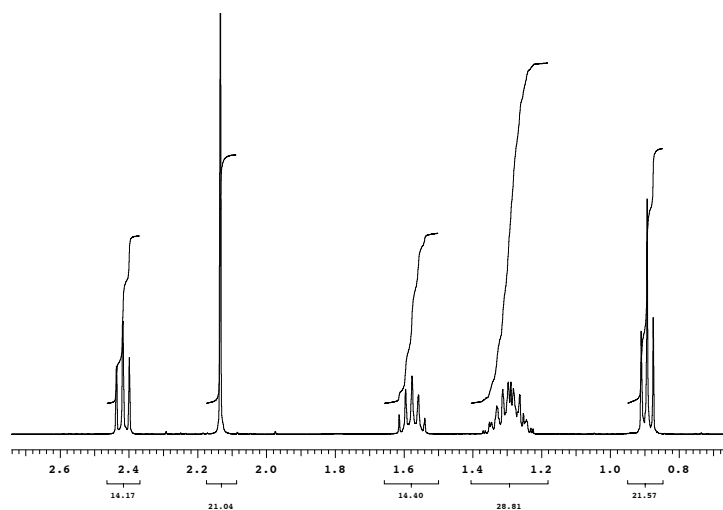
22. Carbon NMR Spectra Problems.

23. Carbon NMR Spectra Problems.

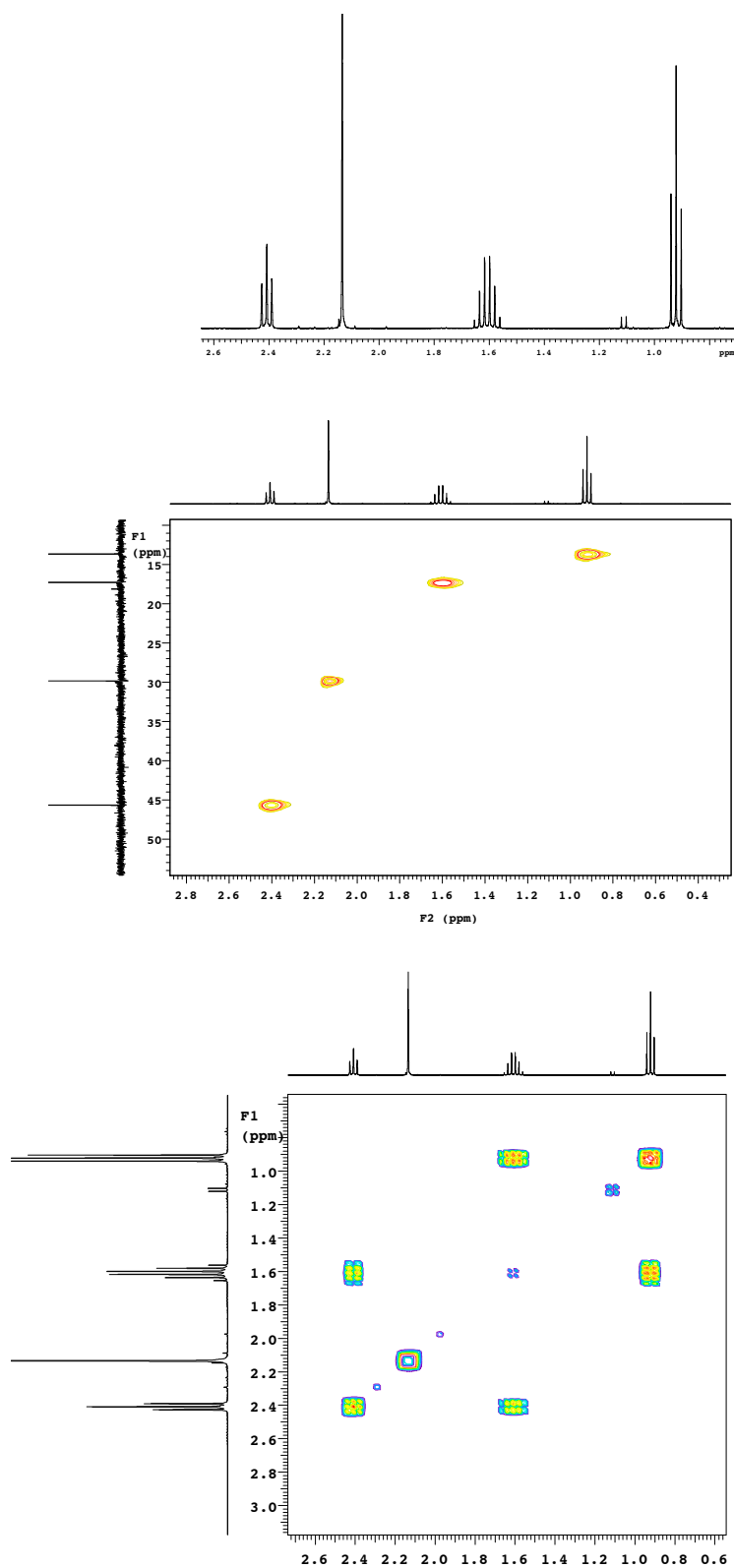


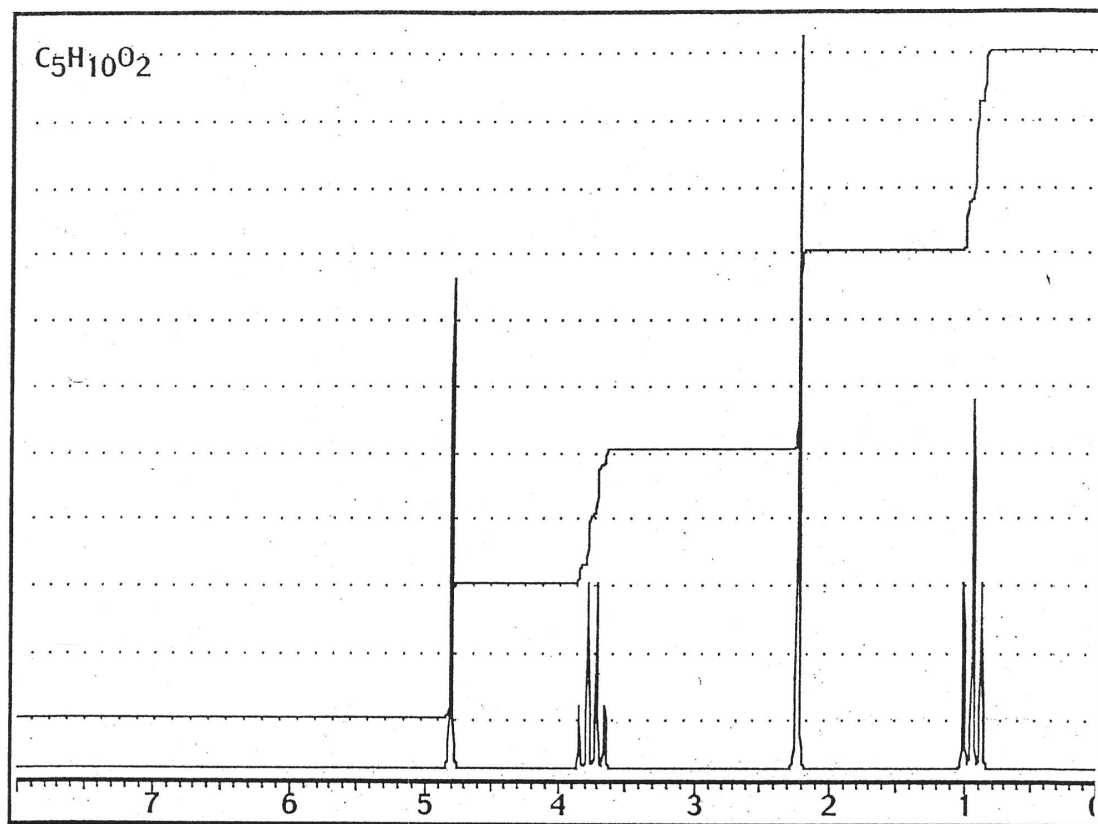
24. Carbon NMR Spectra Problems.

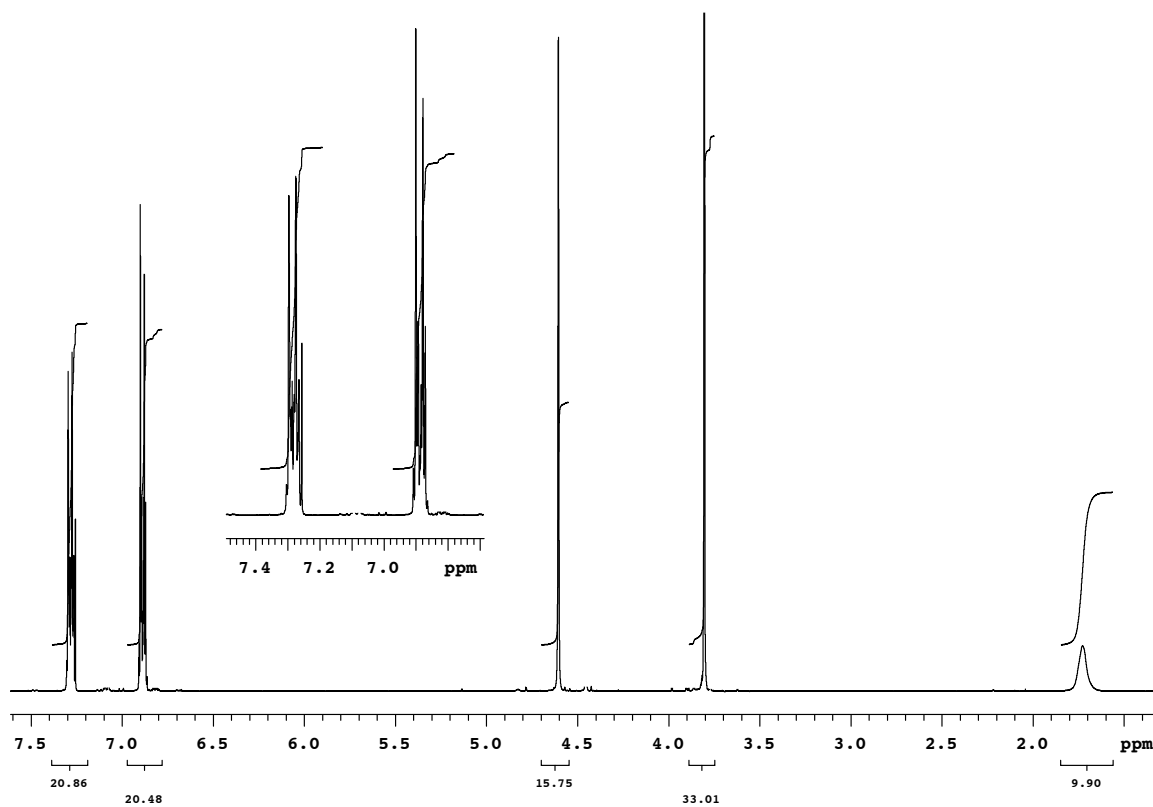
25. Carbon NMR: 2D Carbon-Hydrogen (HSQC) and 2D Hydrogen-Hydrogen (COSY) spectra. $C_7H_{14}O$

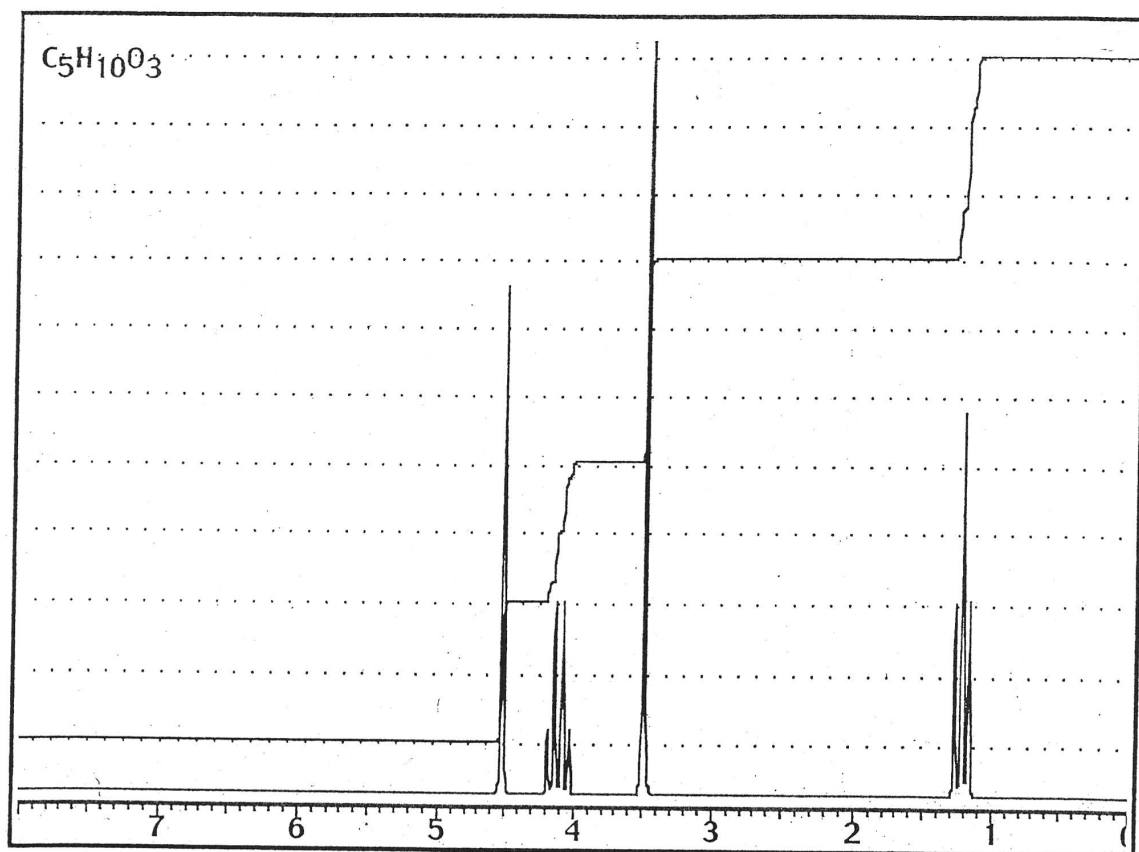


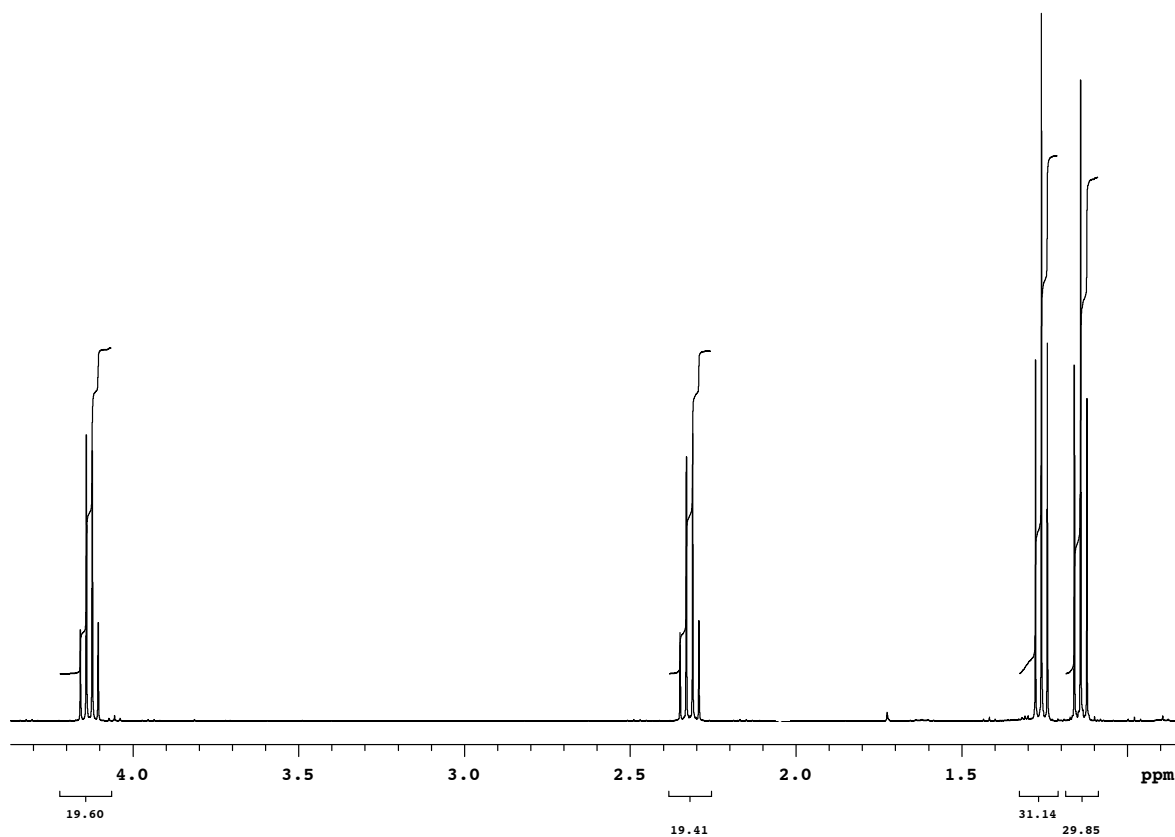
26. Carbon NMR: 2D Carbon-Hydrogen (HSQC) and 2D Hydrogen-Hydrogen (COSY) spectra. $C_5H_{10}O$

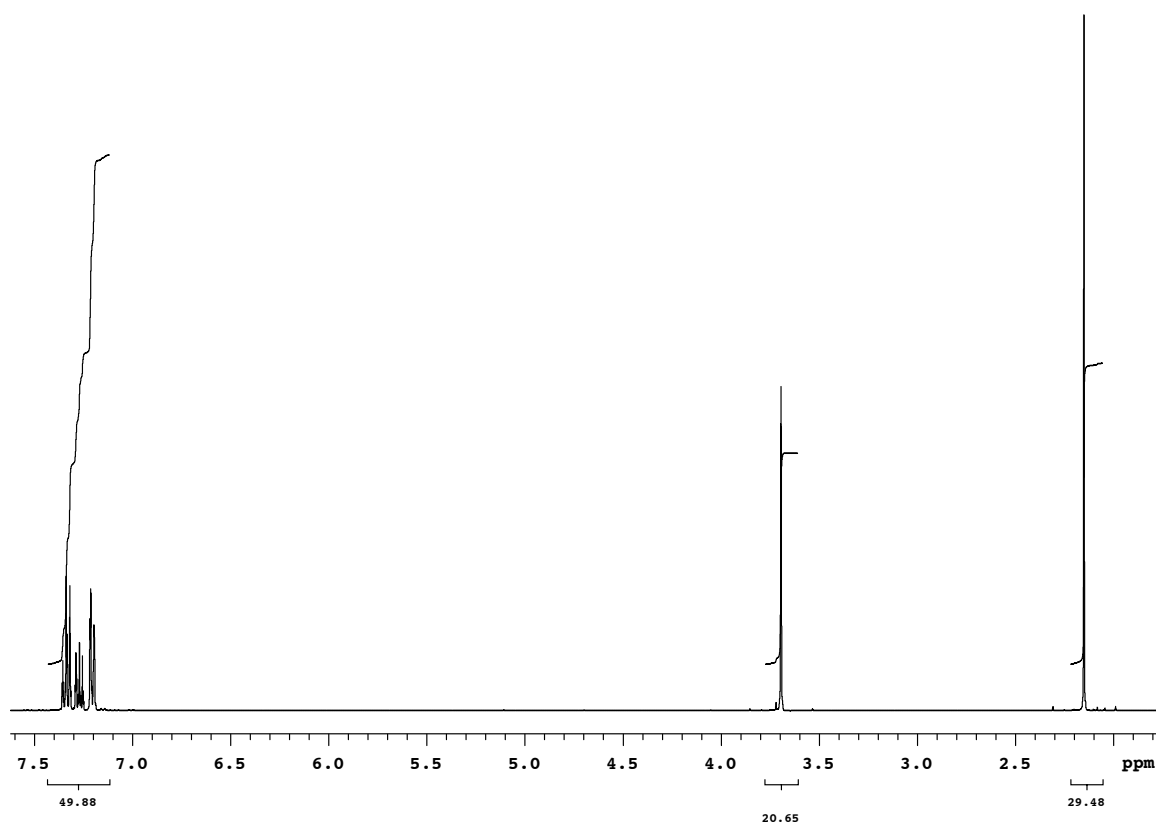


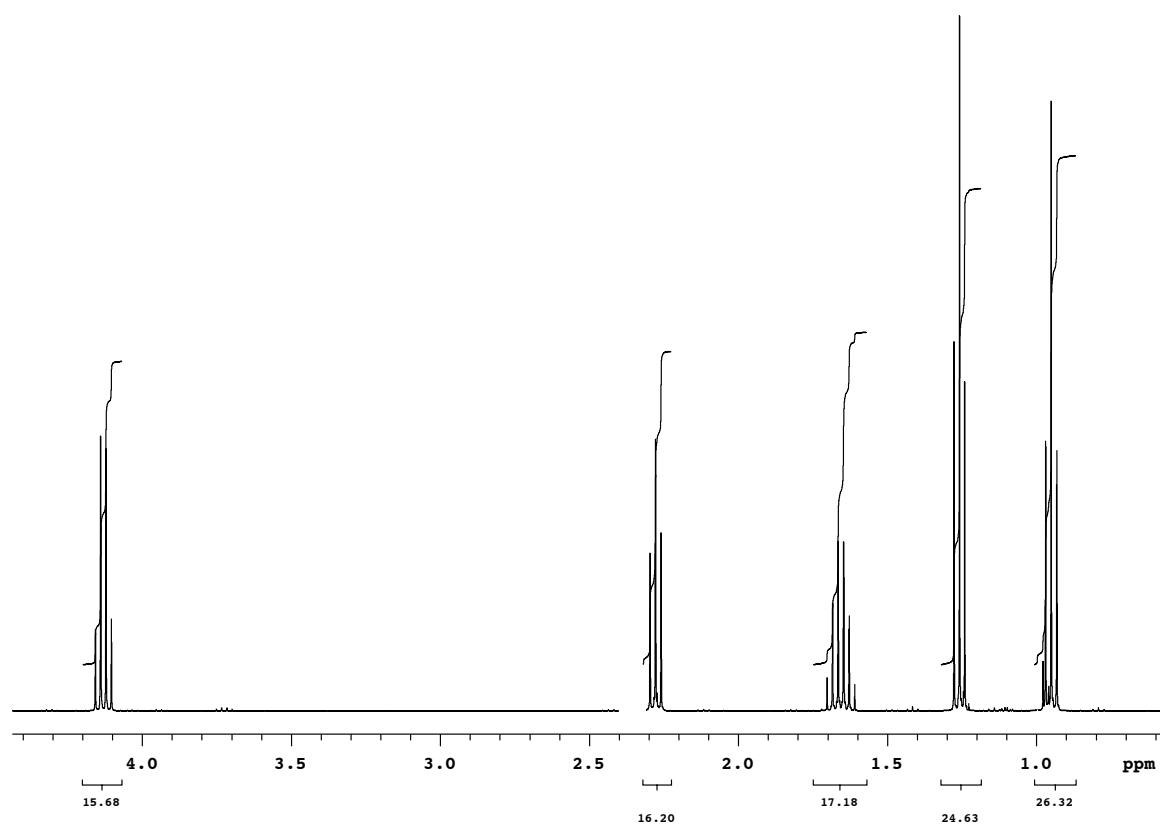
27. $\text{C}_5\text{H}_{10}\text{O}_2$ 

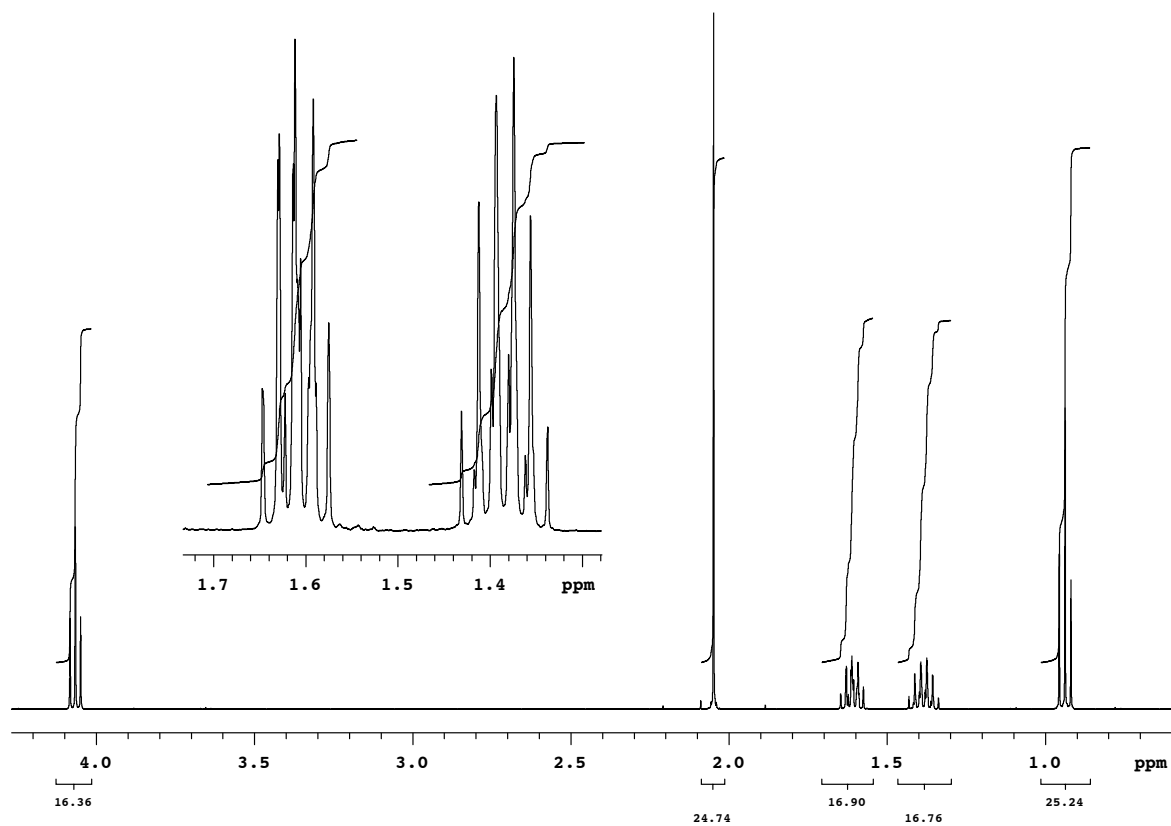
28.C₈H₁₀O₂

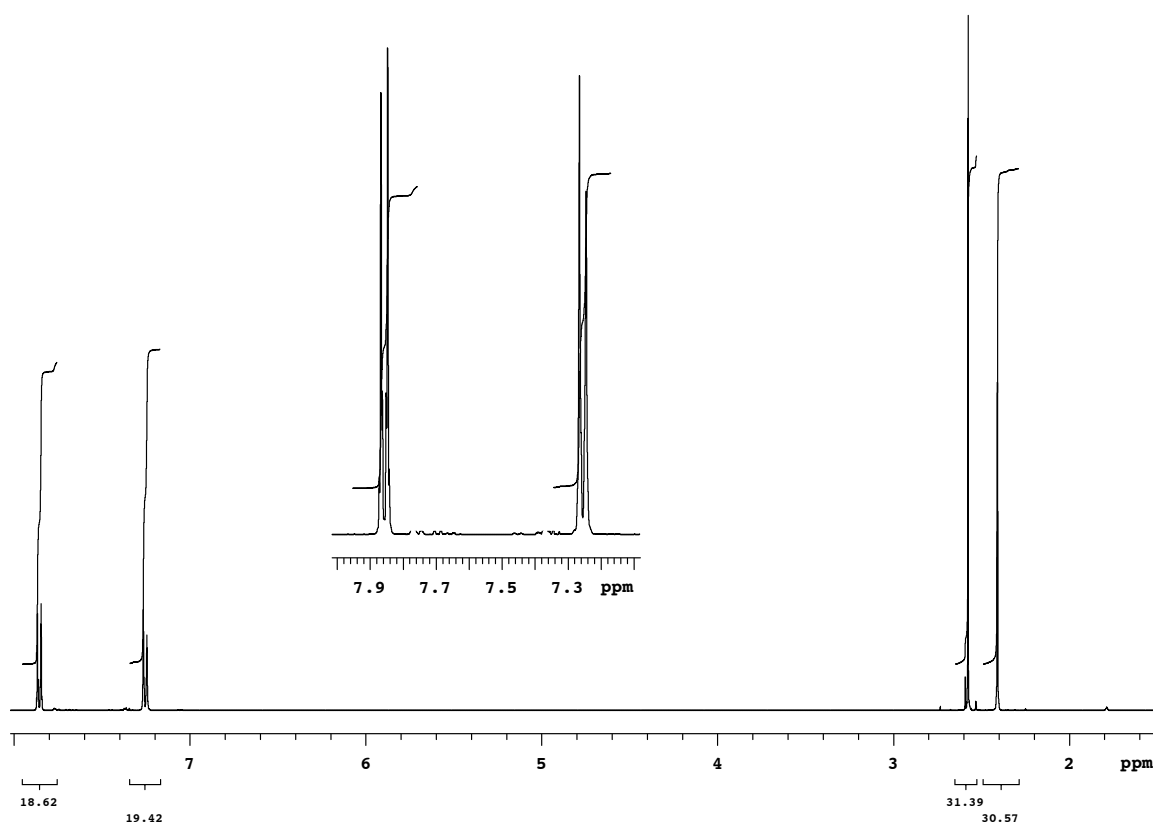
29. $\text{C}_5\text{H}_{10}\text{O}_3$ 

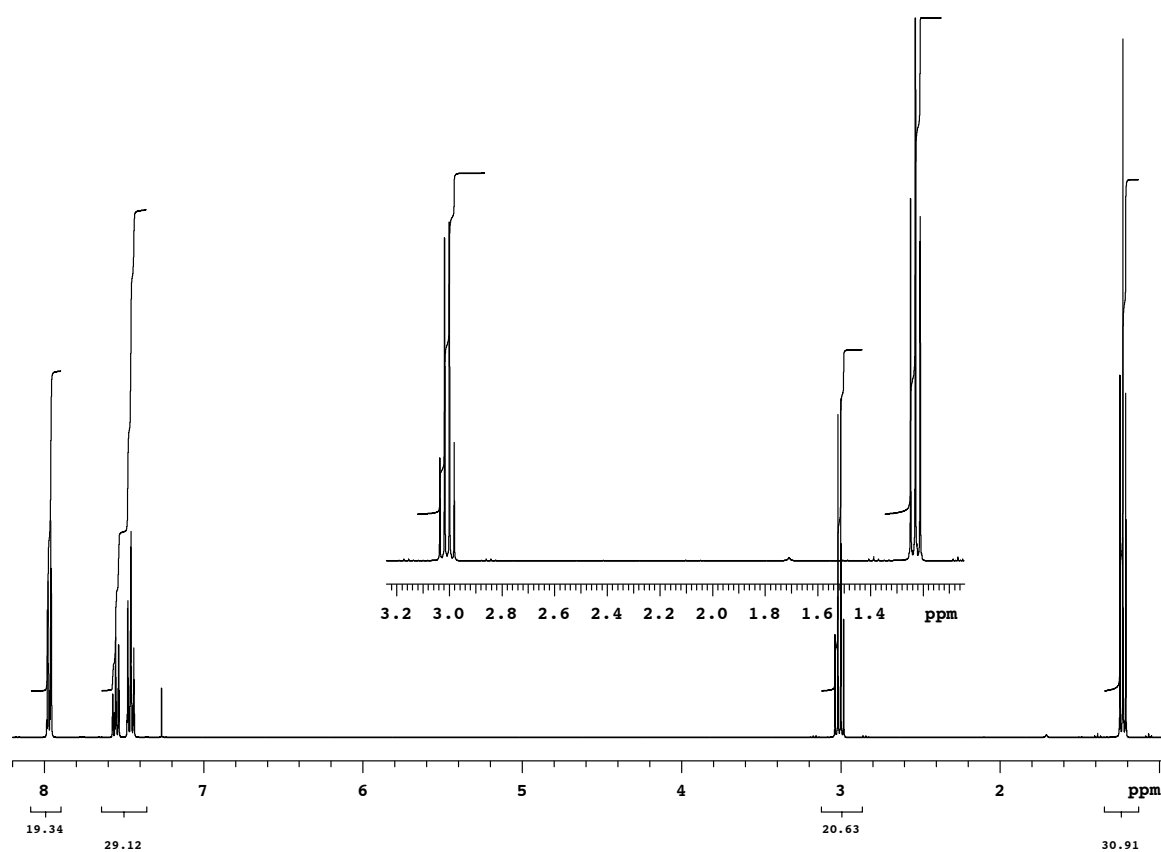
30.C₅H₁₀O₂

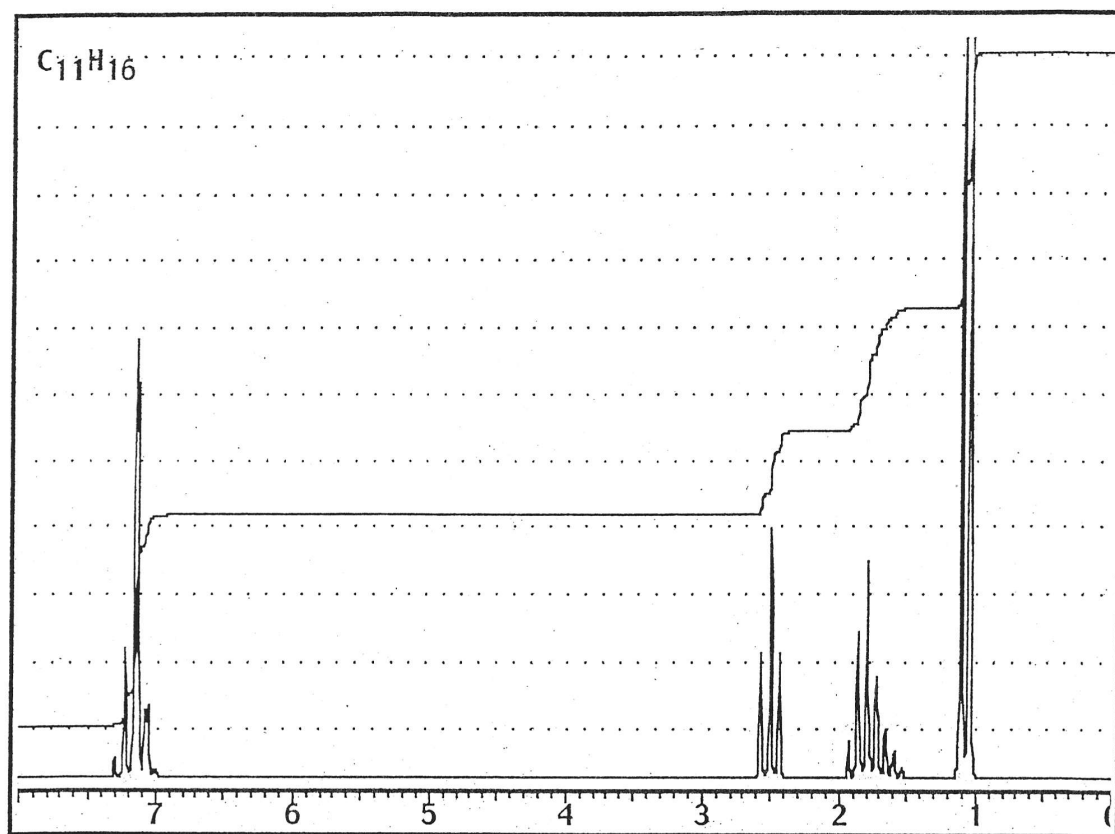
31.C₉H₁₀O

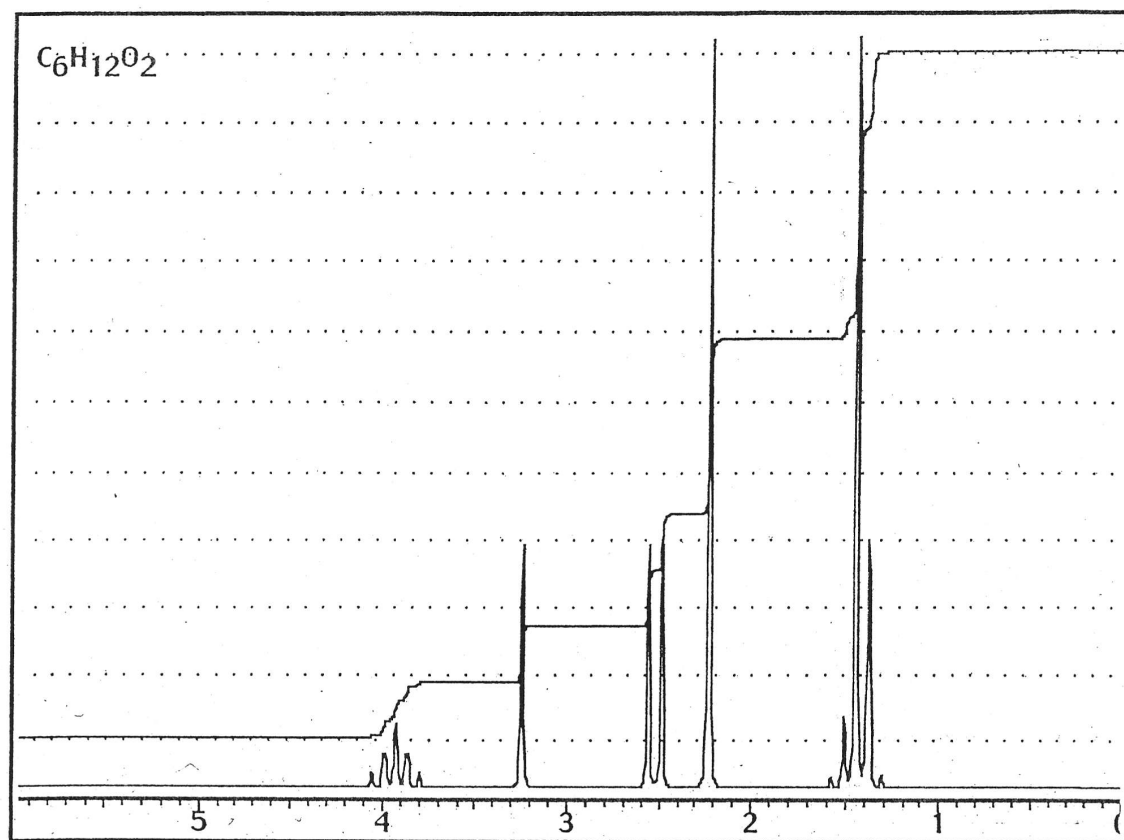
32.C₆H₁₂O₂

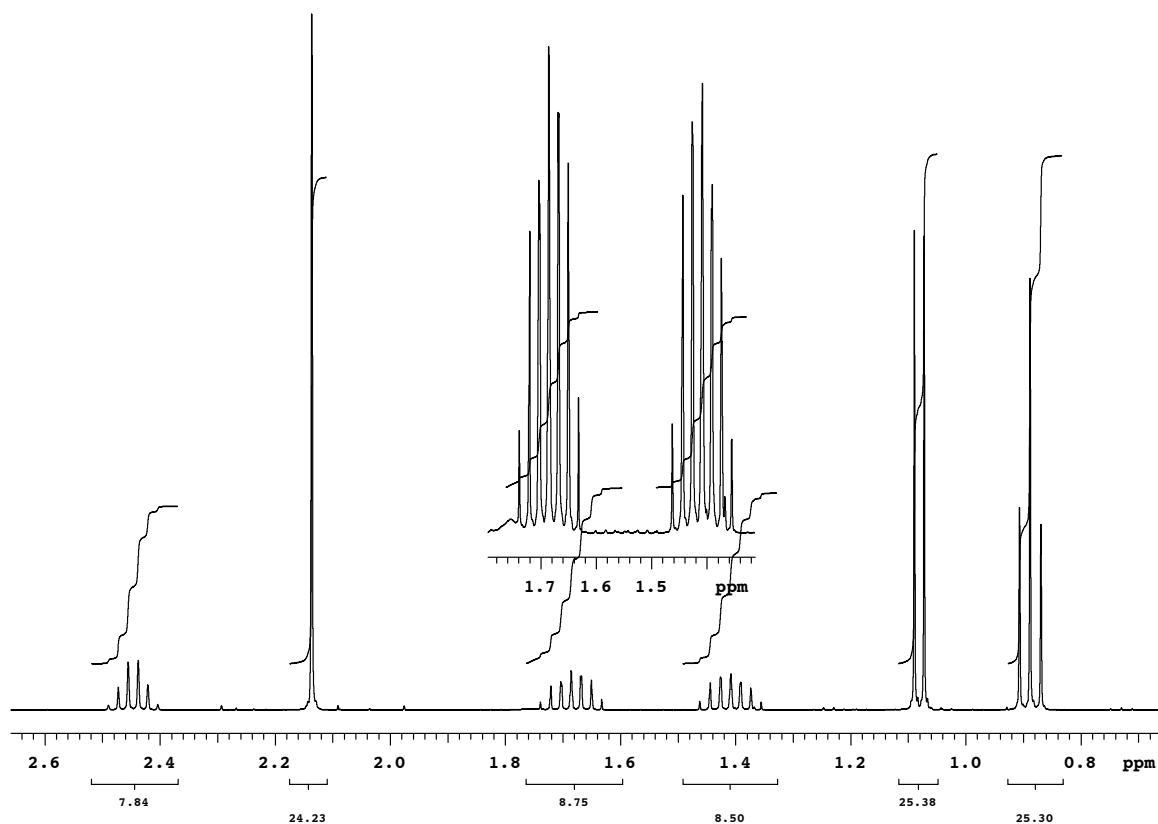
33.C₆H₁₂O₂

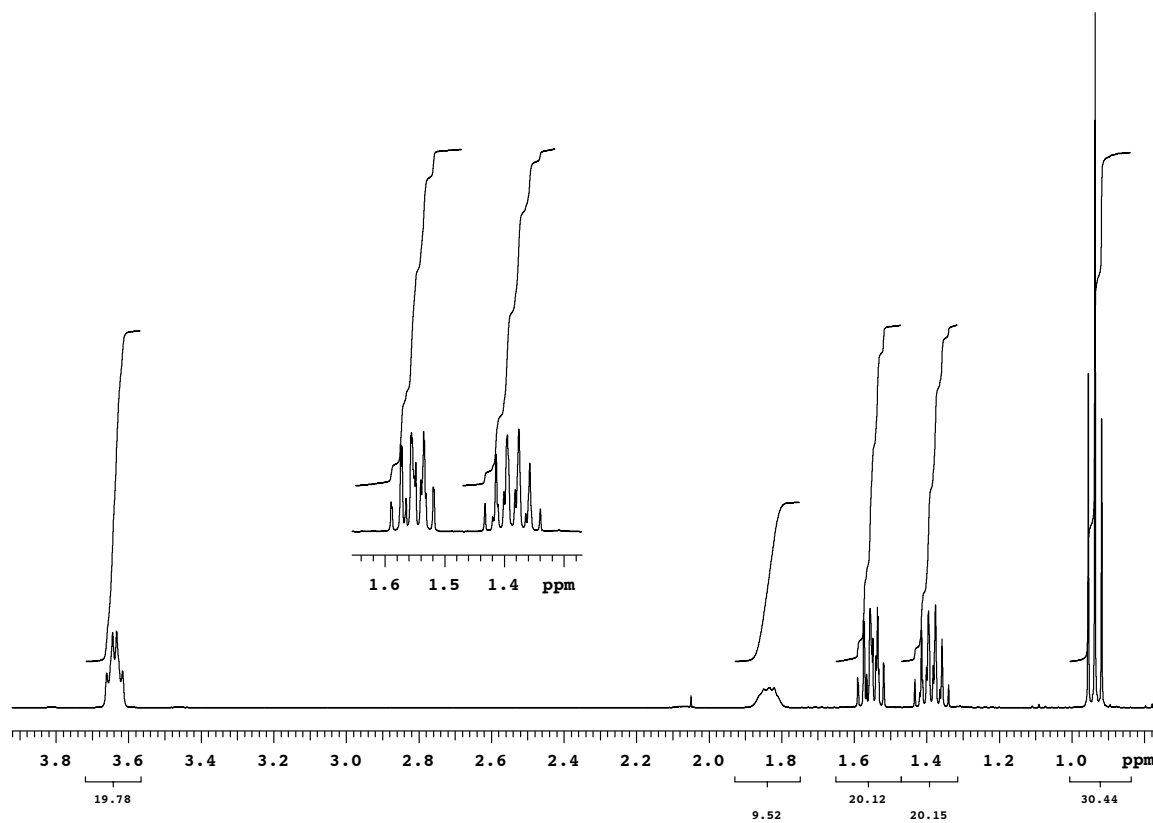
34.C₉H₁₀O

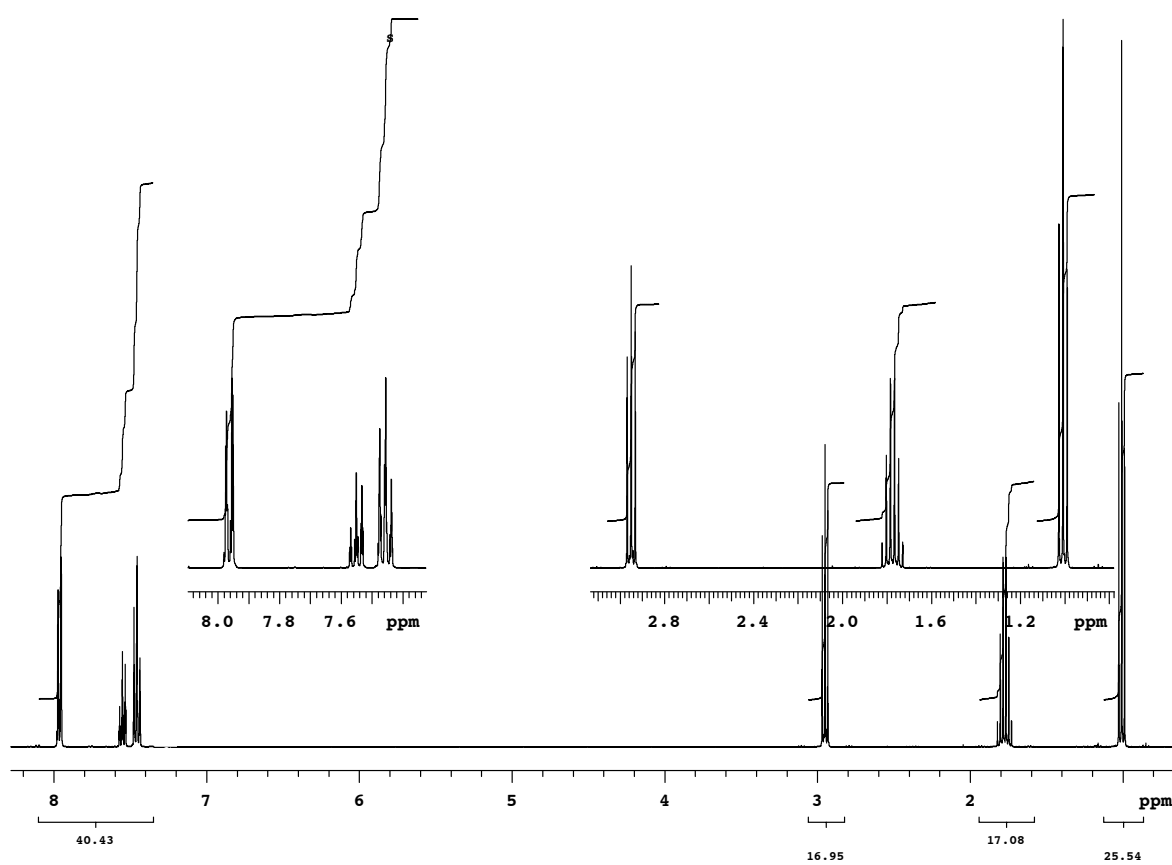
35.C₉H₁₀O

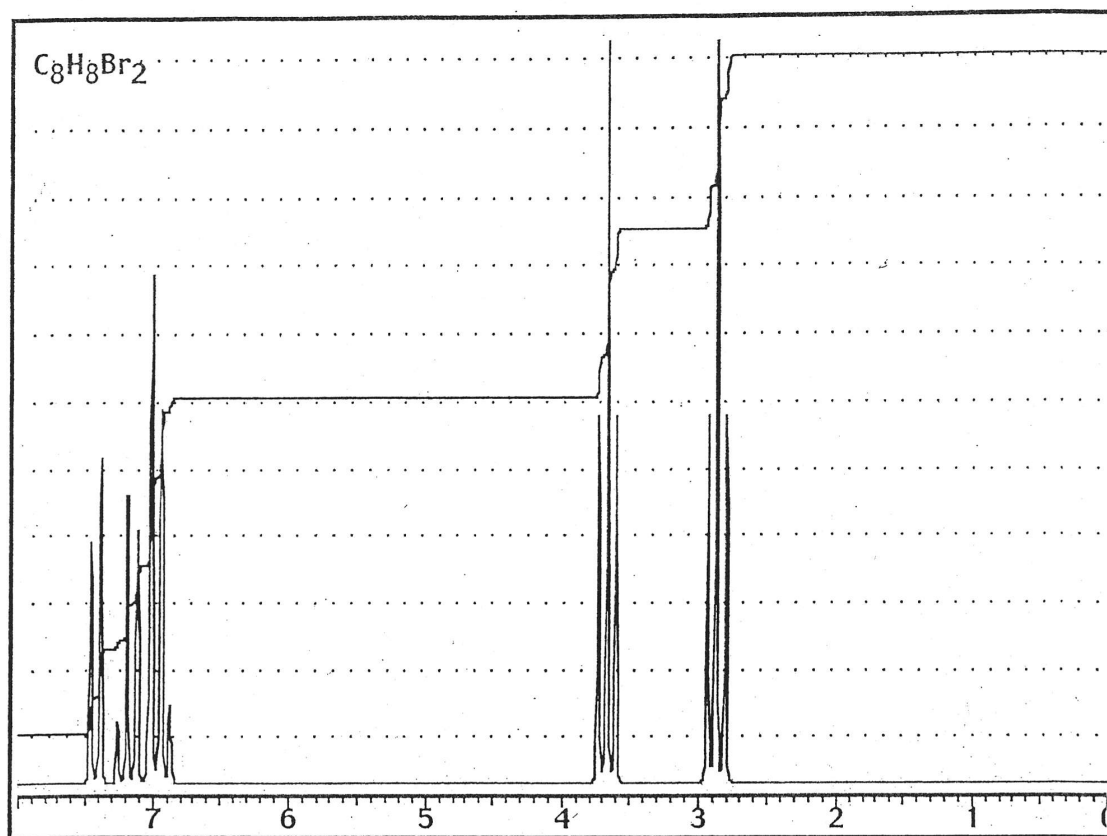
36. $C_{11}H_{16}$ 

37. $\text{C}_6\text{H}_{12}\text{O}_2$ 

38.C₆H₁₂O

39.C₄H₁₀O

40.C₁₀H₁₂O

41. $\text{C}_8\text{H}_8\text{Br}_2$ 

42. $\text{C}_{13}\text{H}_{18}\text{O}_2$ 