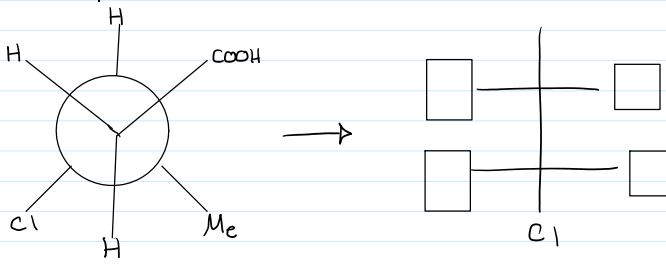
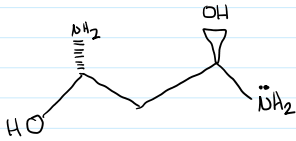


- ① Convert the following molecule to a fisher projection and provide its IUPAC name, then determine whether it is D/L enantiomer.



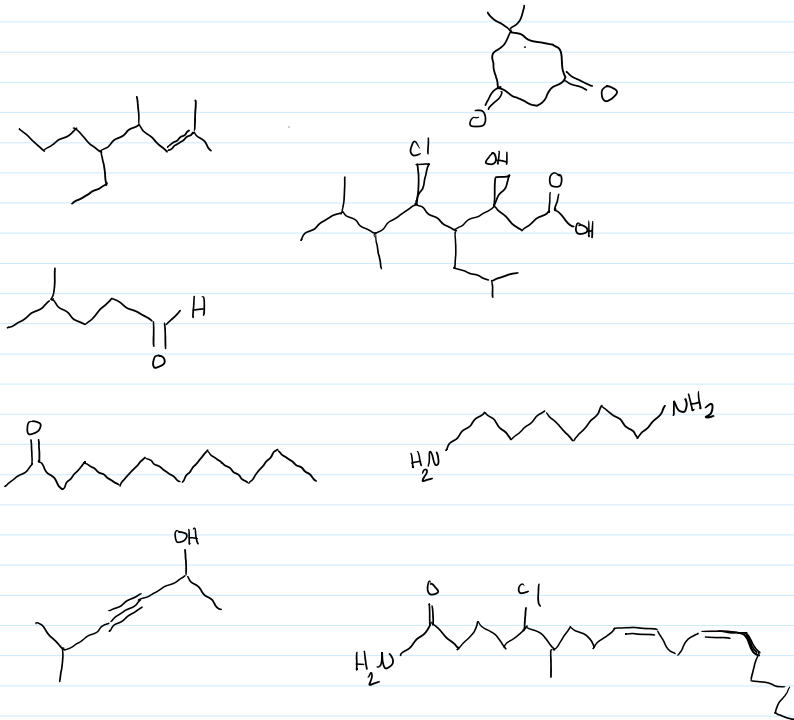
- ② Consider the compound



- 1) how many stereoisomers could exist for this compound?

- ③ Consider the following molecules

a) provide the IUPAC name for each



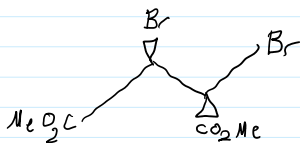
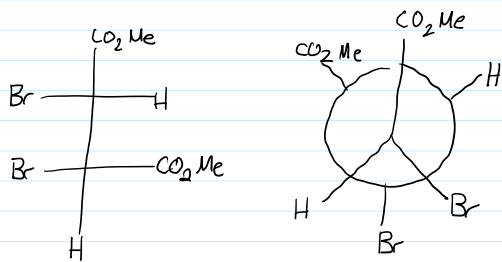
- ④ For the following IUPAC names, draw the structure.

3-ethylpent-2-ene

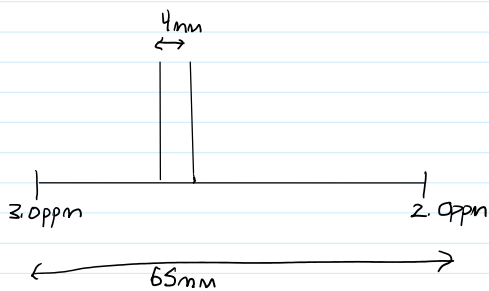
Butan-2(R)-ol

3(S)-methyl-pentan-2(R)-ol

- ⑤ Given the following molecules
- star (*) all chiral centers
 - Determine R/S stereochemistry
 - determine the stereo relationship between
 - A & B _____
 - B & C _____



- ⑥ Given a 400MHz ¹H NMR, calculate the J value for the following signal

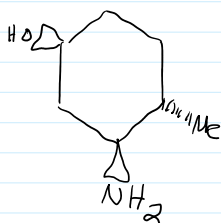
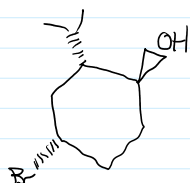


- ⑦ Given the following molecule



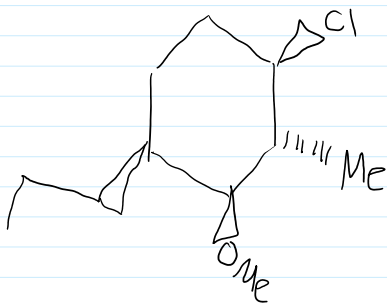
- name the molecule
- Draw the Pascal's triangle for indicated hydrogen

- ⑧ Give the most stable chair conformation for the following compounds

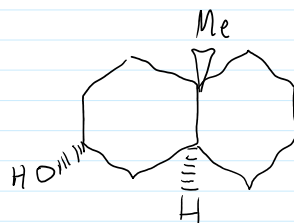
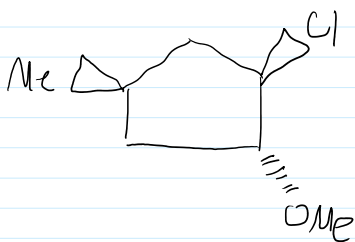


b) choose 1 of the chairs and perform a chair flip.

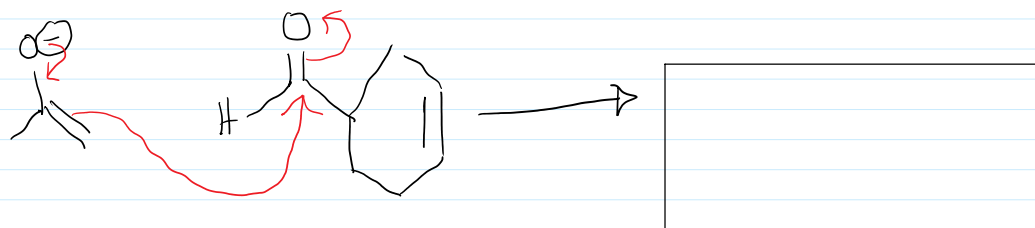
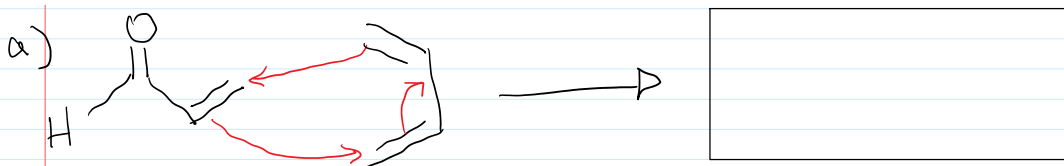
9) Draw the following molecule in its chair conformation then perform a chair flip on the molecule.



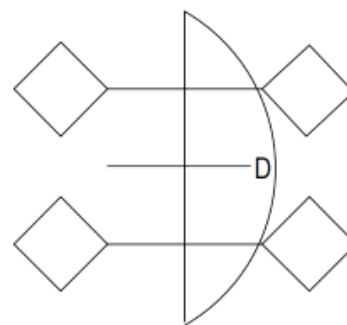
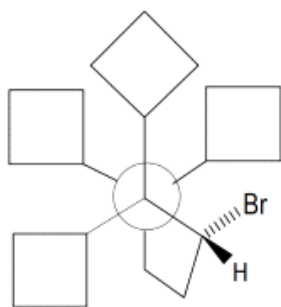
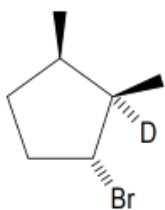
10) Draw the following structures in their 3D perspectives... AKA chair conformation (challenge question)



11) Draw the product of the following 2 molecules reacting with one another (follow the arrows)

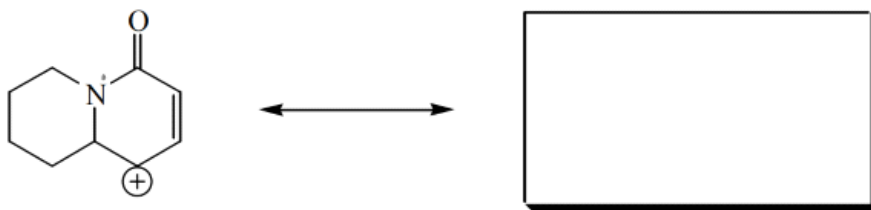


12) Perform the following transformations and fill in the missing atoms in correct boxes.

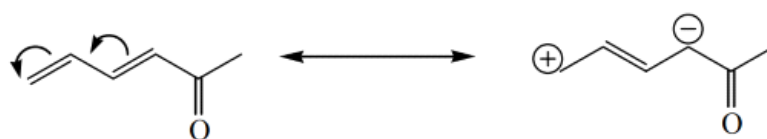


13. Answer the following questions from one of the final reviews on the canvas page

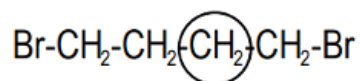
(2) 4) Complete the box.



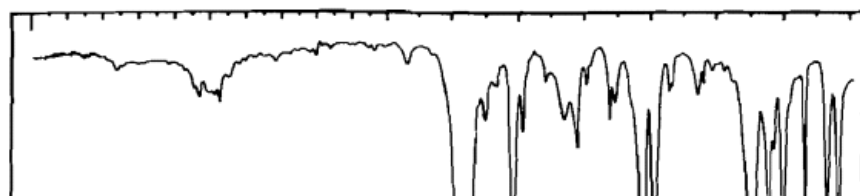
(3) 5) Criticize the following. Suggestions?



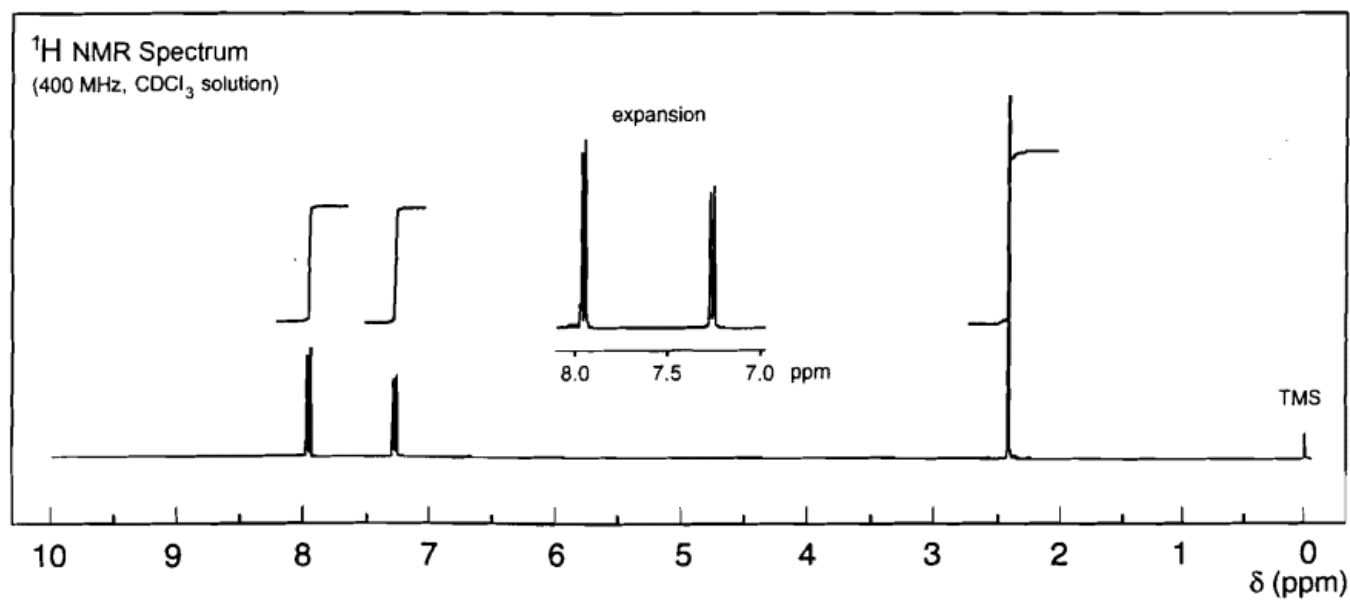
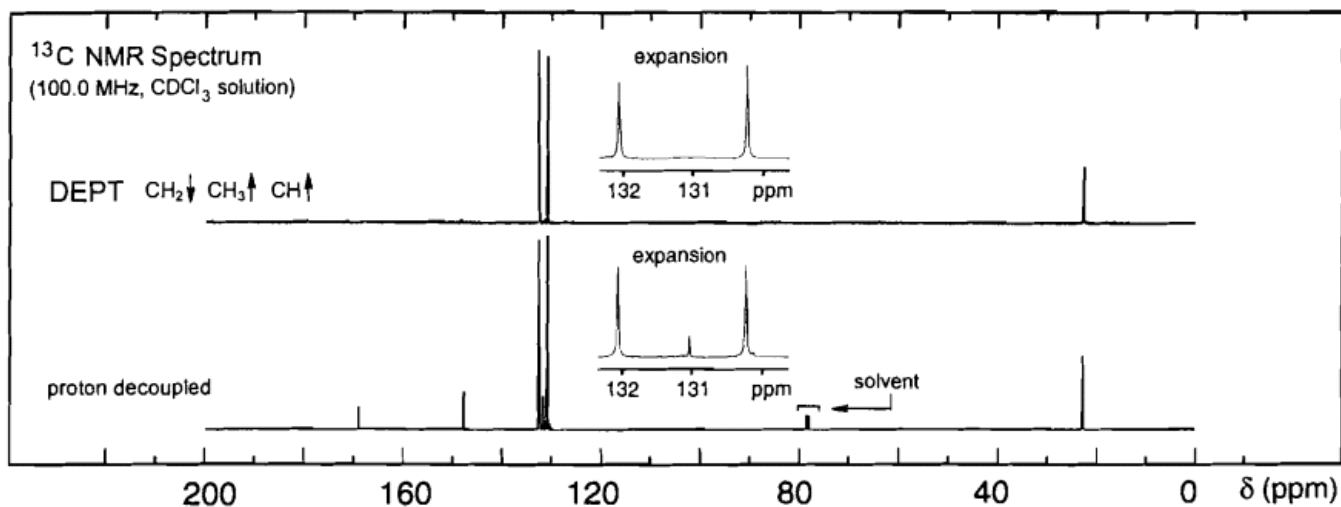
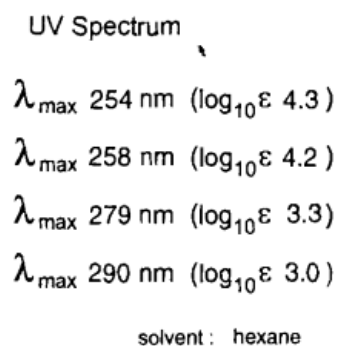
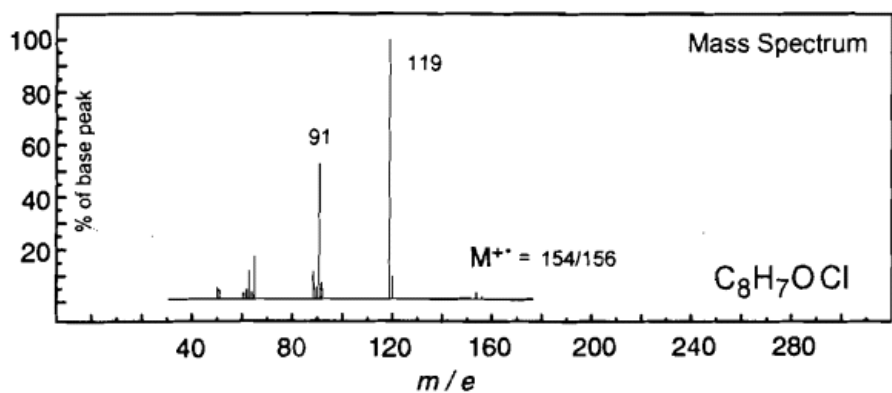
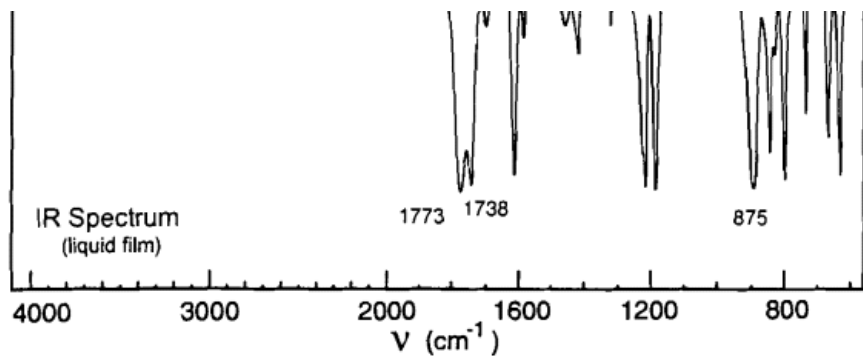
(3) 7) Using a Pascal's triangle approach, draw the circled H atoms as they would appear in a ^1H NMR spectrum.



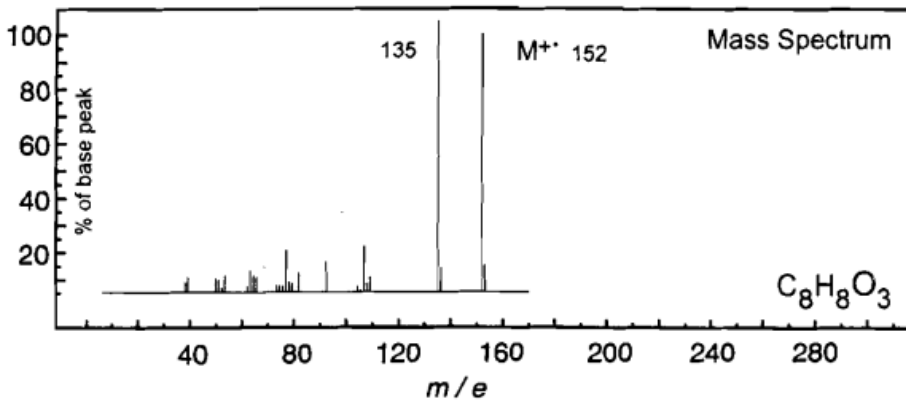
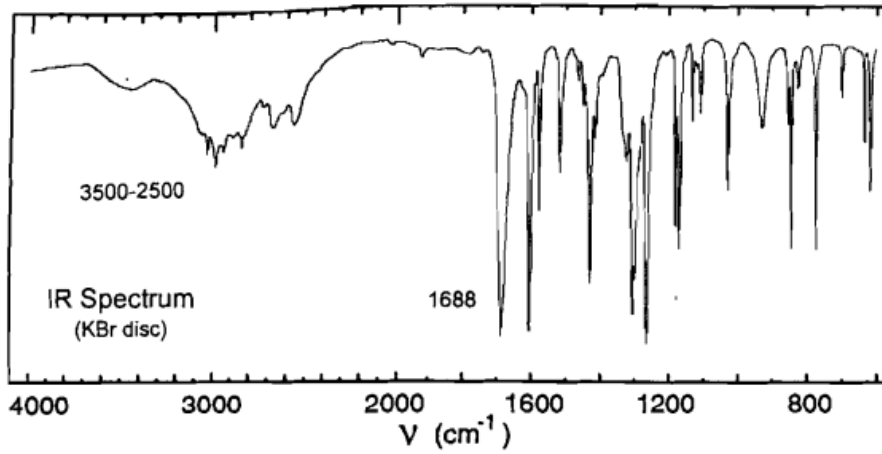
Answer the full meal deal questions interpret ALL information



Problem 102



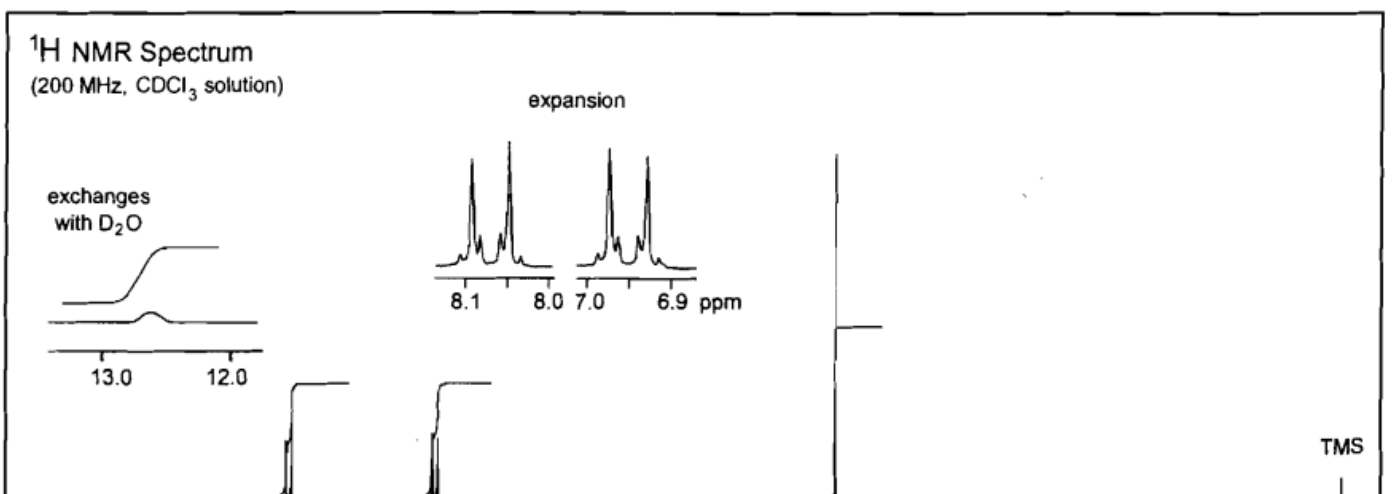
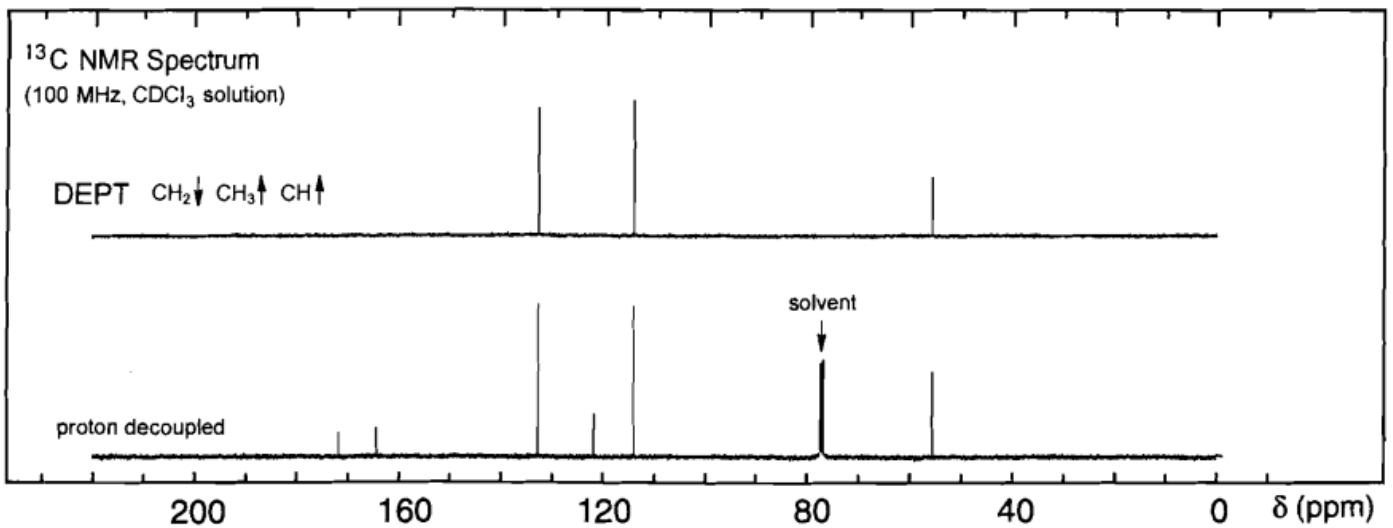
Problem 103

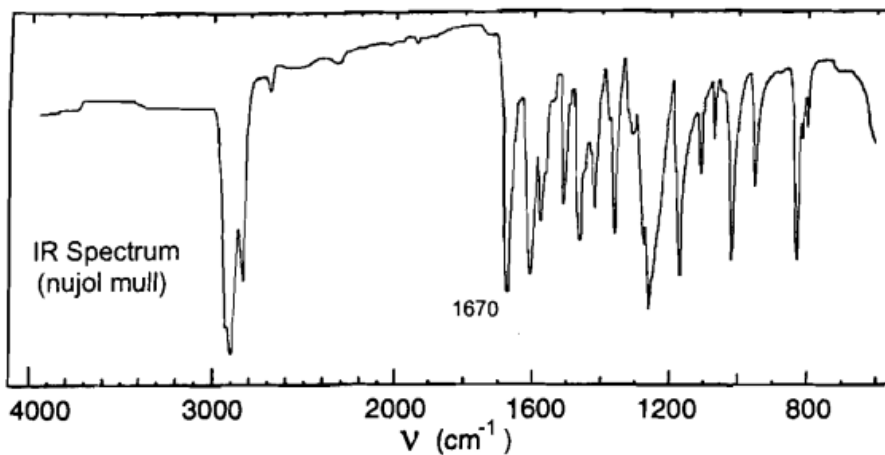
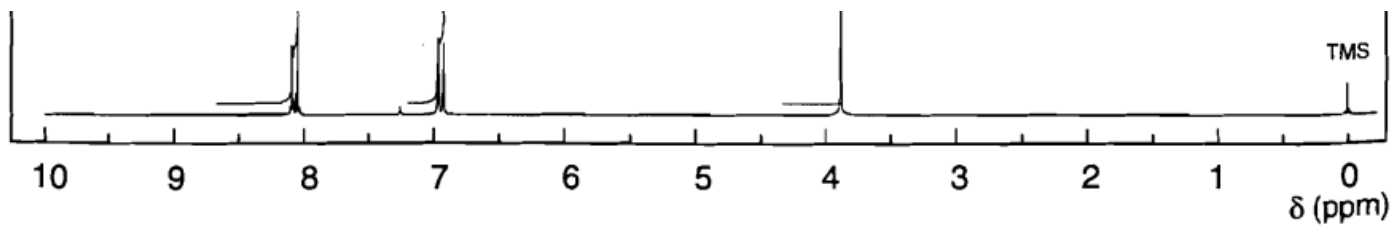


UV Spectrum

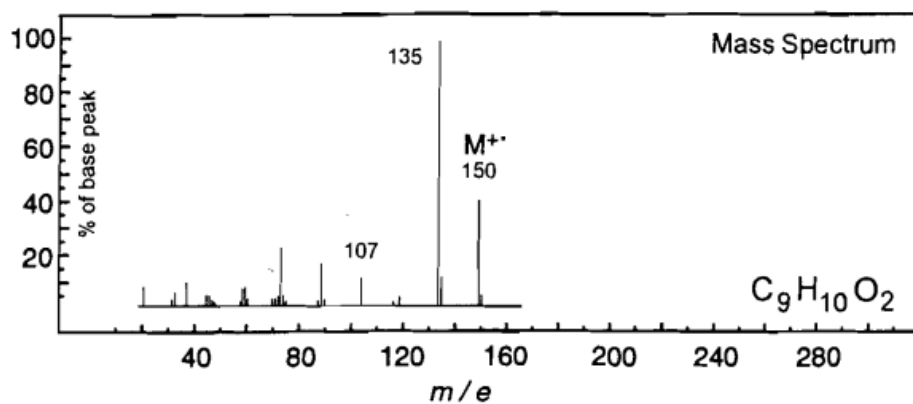
λ_{max} 224 nm ($\log_{10} \epsilon$ 3.4)

solvent: methanol

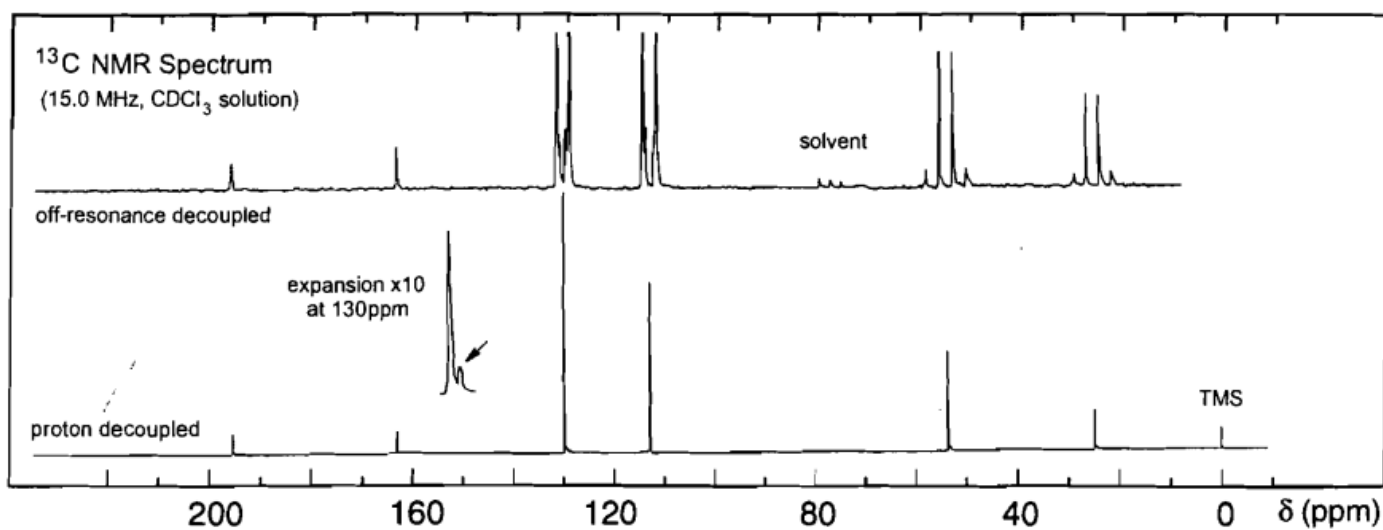




Problem 105



UV Spectrum
 λ_{max} 270 ($\log_{10} \epsilon$ 4.2)
 solvent : methanol



^1H NMR Spectrum
 (100 MHz, CDCl_3 solution)

3H

3H

