

1) Calculate the degree of unsaturation (dous) for each.

a) $C_{10}H_{16}$

b) $C_{17}H_{23}NO_3$

c) $C_{10}H_{16}O_2$

d) C_8H_8O

e) $C_5H_9NO_2$

f) $C_8H_{10}N_4O_2$

g) $C_7H_{10}Cl_2$

h) $C_8H_{10}ClNO$

i) $C_{27}H_{46}O$

j) $C_{20}H_{34}O_5$

k) $C_{14}H_9Cl_5$

l) $C_9H_{11}N$

m) $C_{14}H_{14}N_2O$

n) $C_{11}H_8ClBrO$

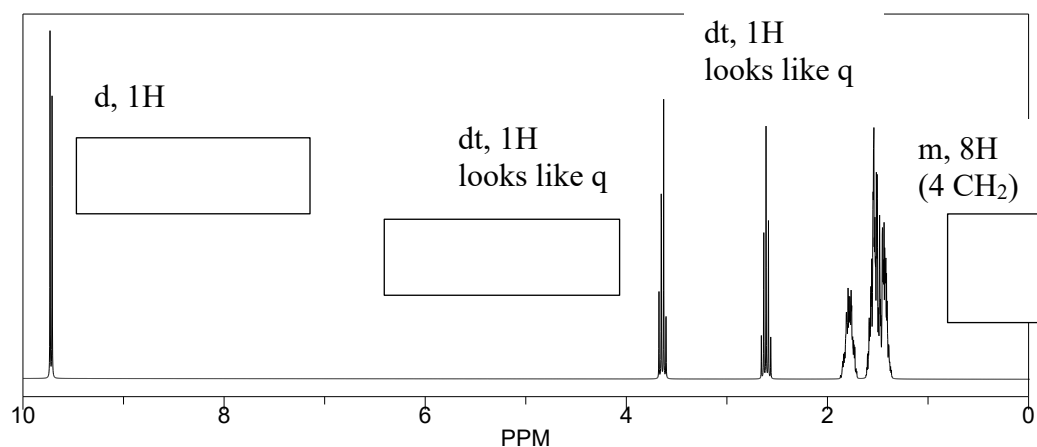
o) $C_5H_5Br_2NO$

p) $C_9H_{11}NO$

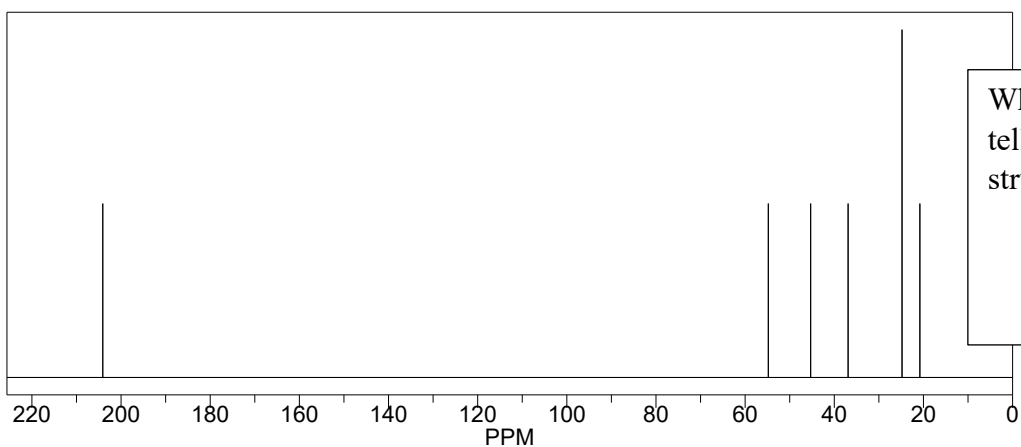
q) $C_8H_{10}BrIO$

$C_7H_{11}OCl$
 1H NMR

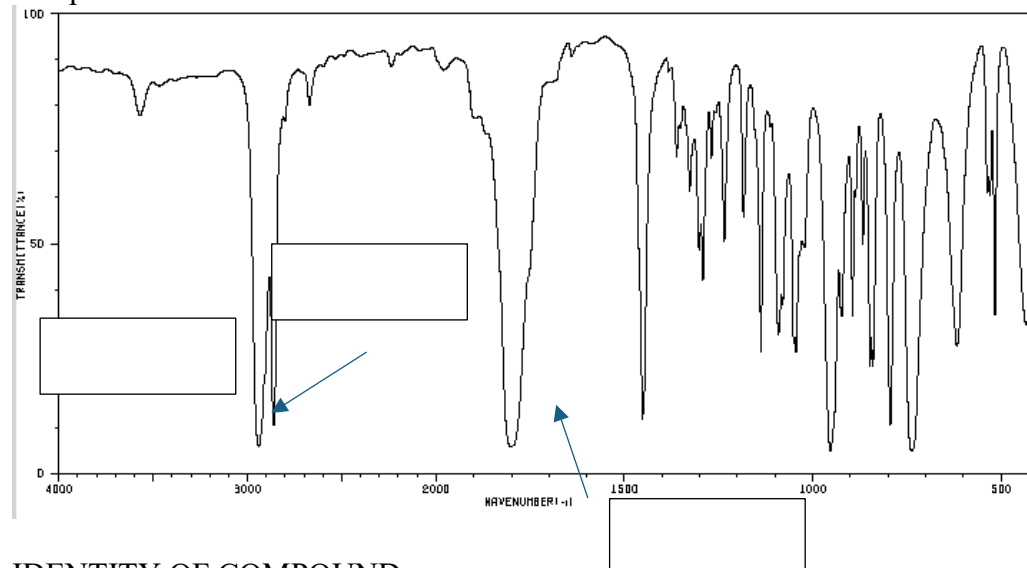
DOUS _____



^{13}C NMR



IR Spectrum

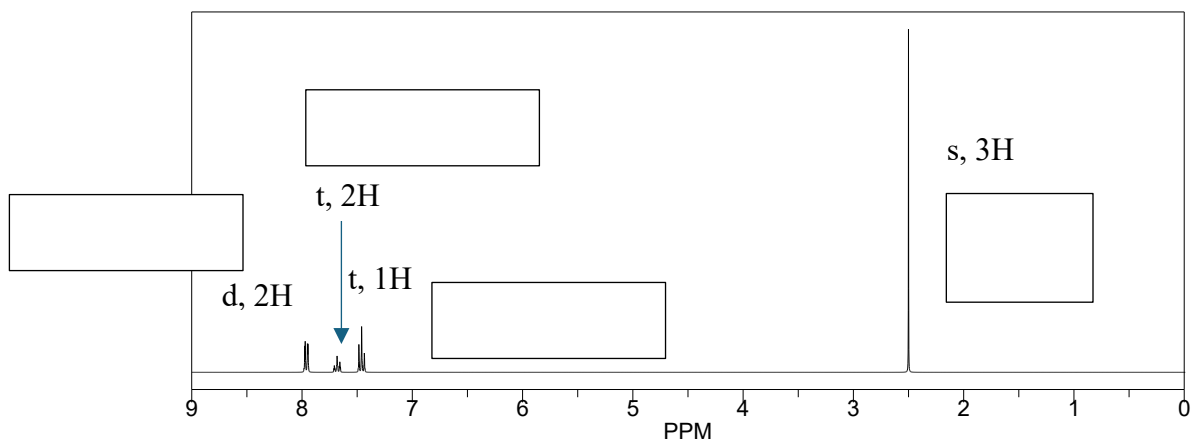


IDENTITY OF COMPOUND

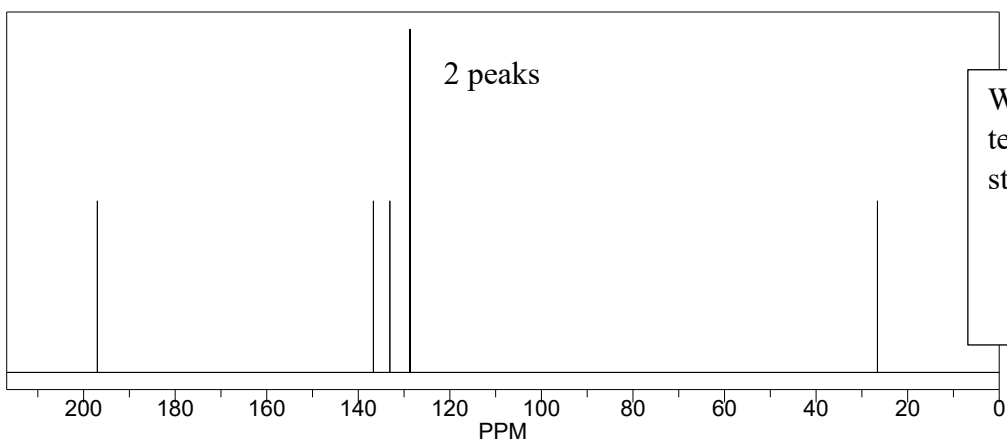
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C_8H_8O
 1H NMR

DOUS _____

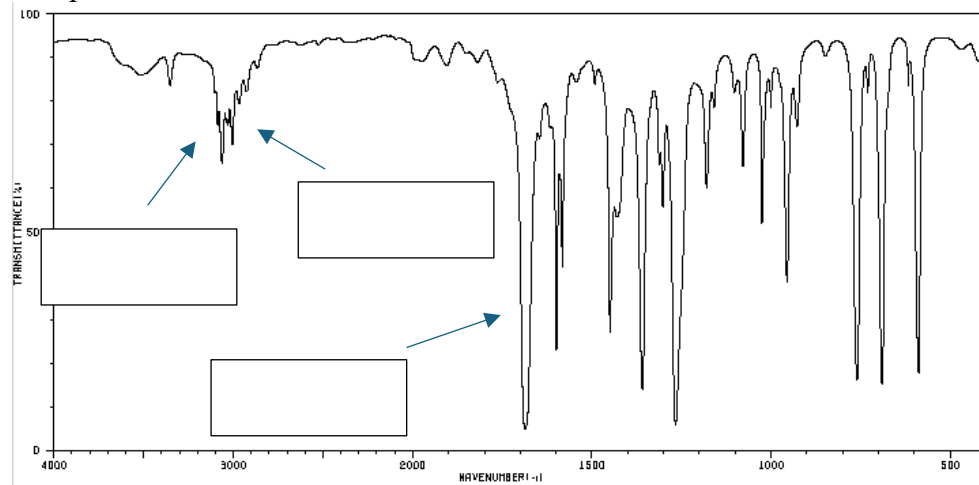


^{13}C NMR



What does the ^{13}C NMR tell you about the structure?

IR Spectrum



IDENTITY OF COMPOUND

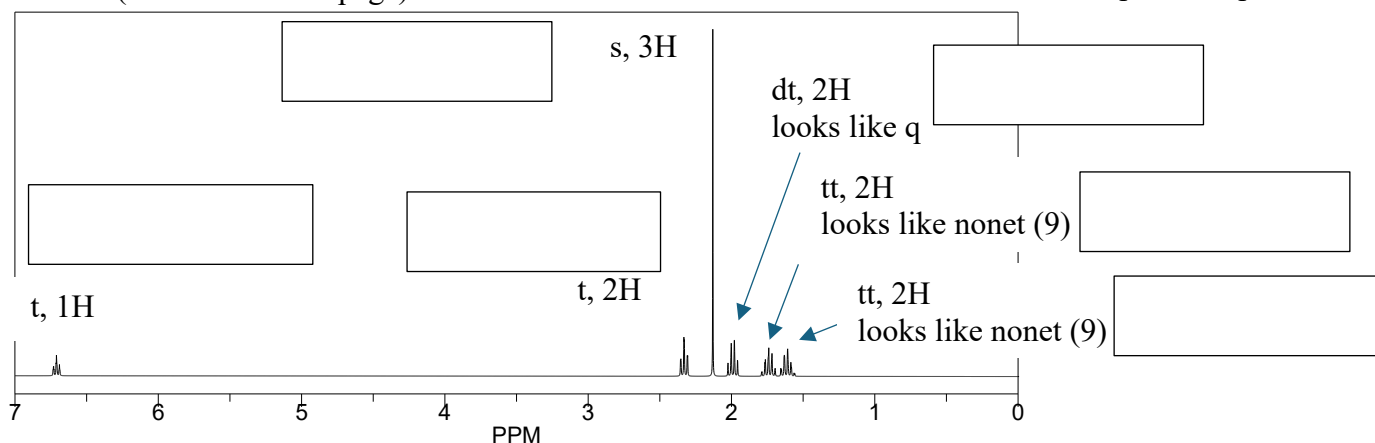
Empty box for the identity of the compound.

$C_8H_{12}O$

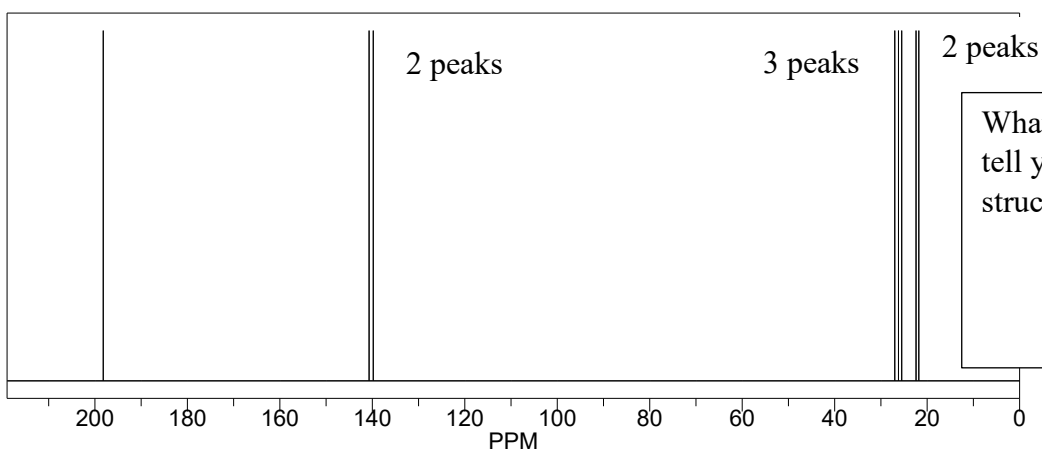
DOUS _____

1H NMR (see table on last page)

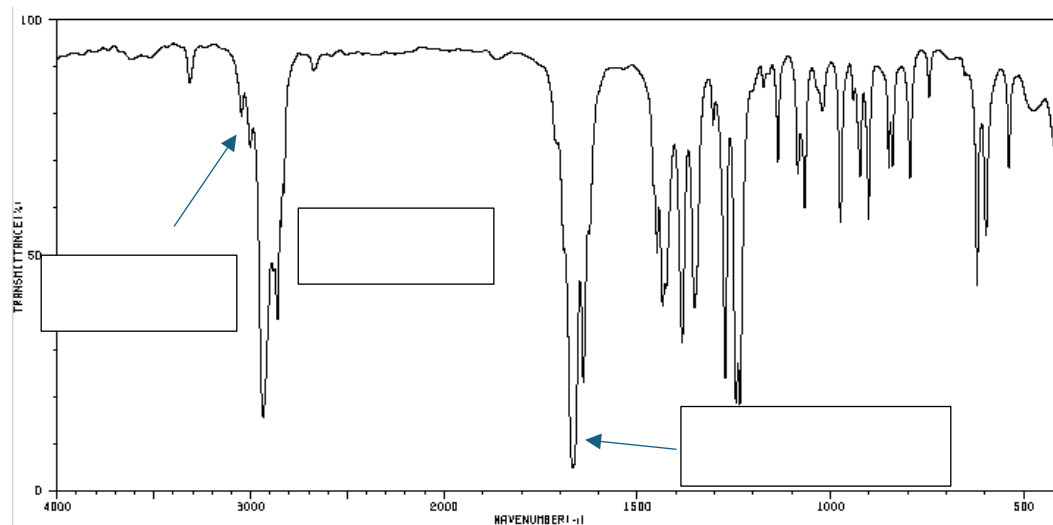
dt, doublet of triplet
tt, triplet of triplet



^{13}C NMR

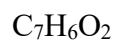


What does the ^{13}C NMR tell you about the structure?



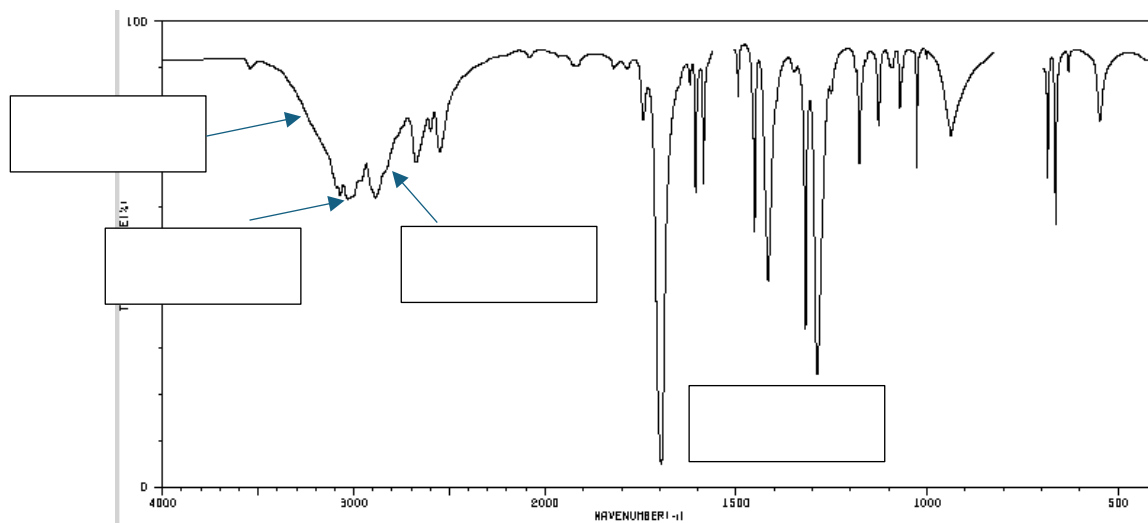
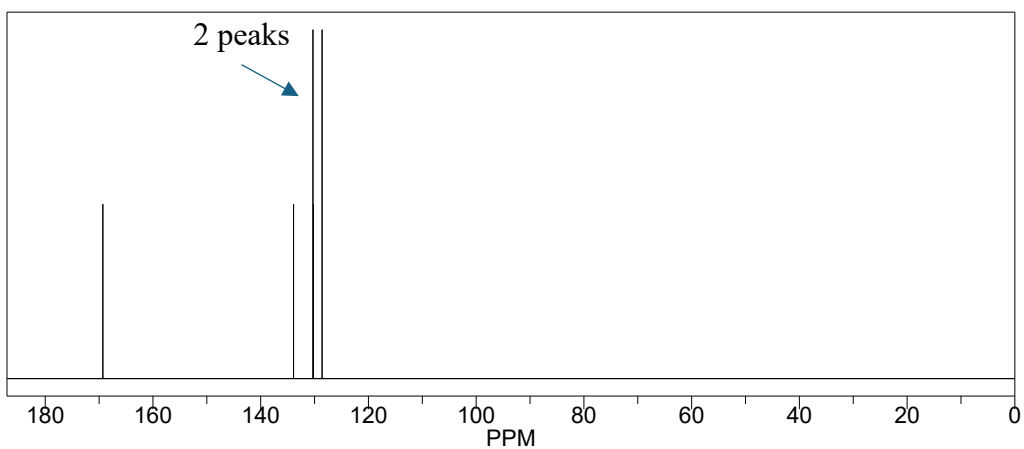
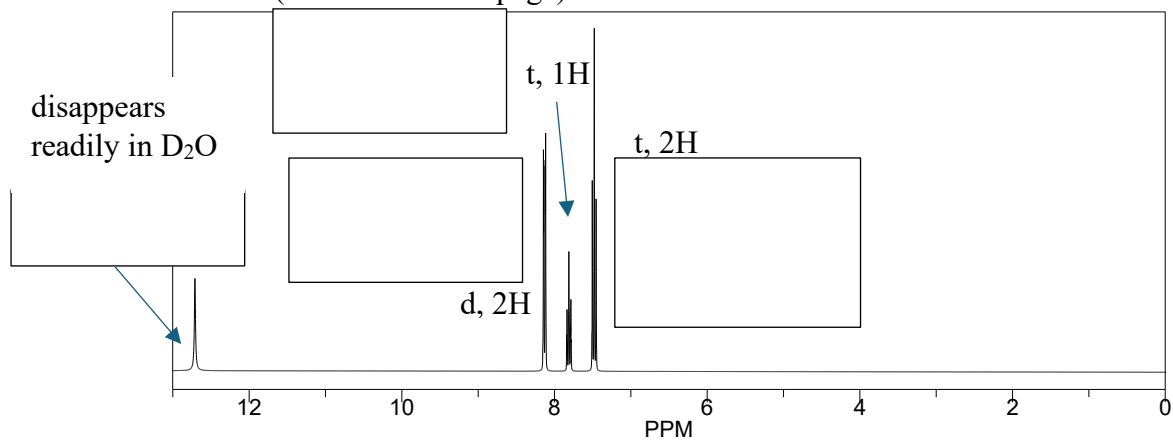
IDENTITY OF COMPOUND

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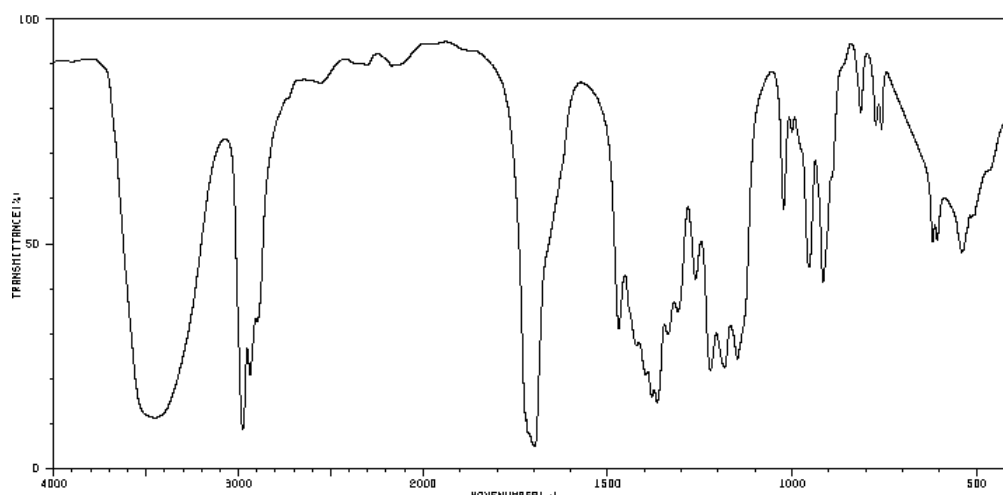
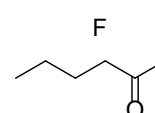
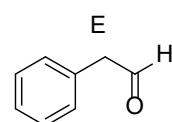
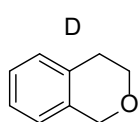
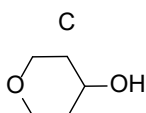
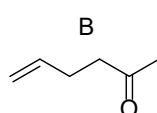
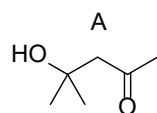
DOUS _____

1H NMR (see table on last page)



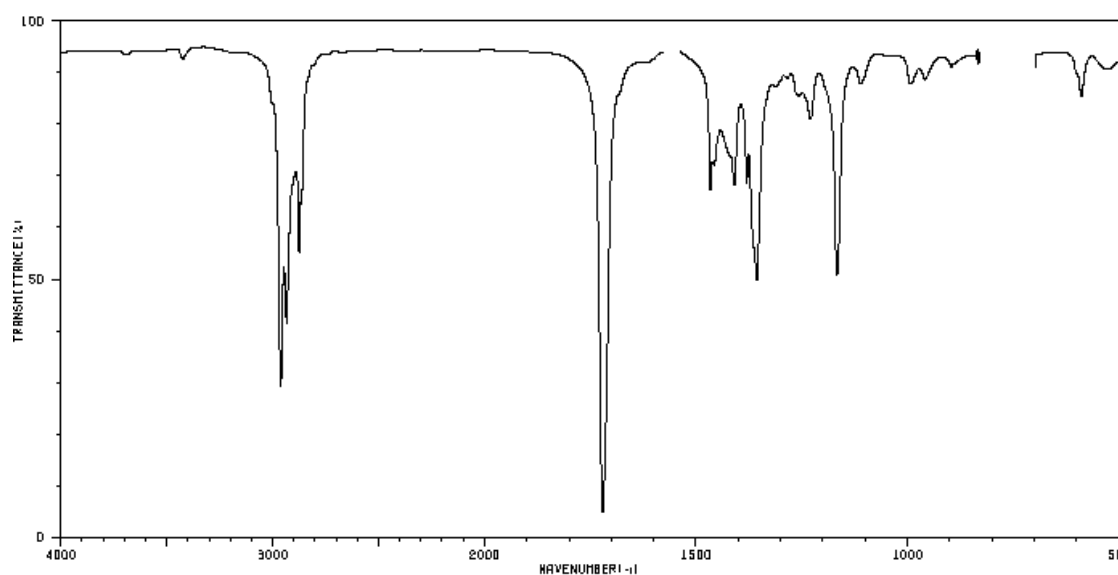
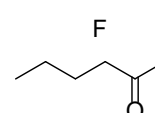
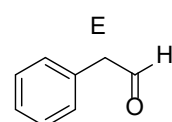
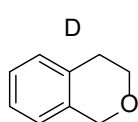
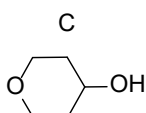
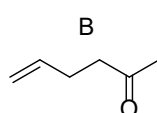
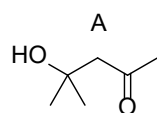
IDENTITY OF COMPOUND

2) MATCH a structure from the list below to the following IR and/or NMR spectra.



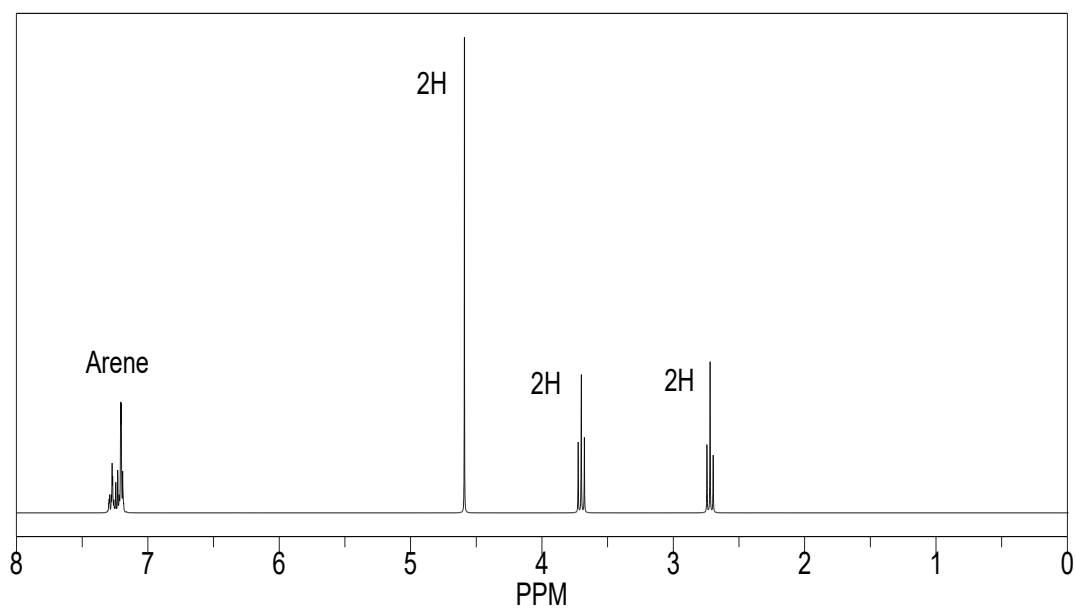
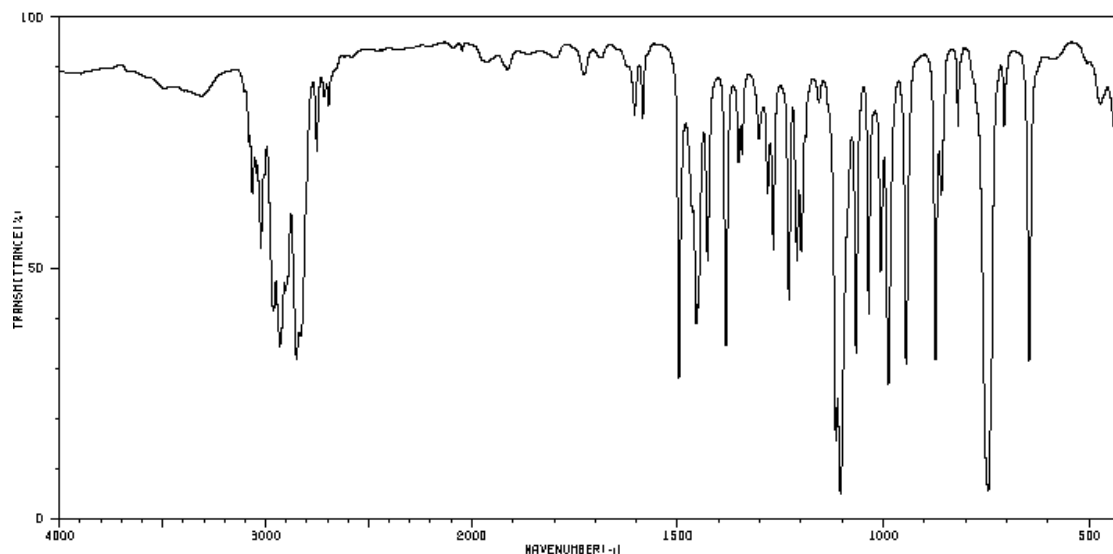
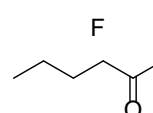
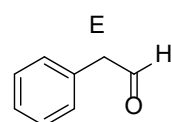
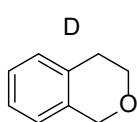
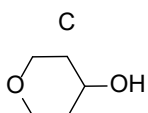
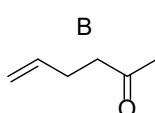
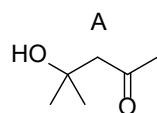
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3) MATCH a structure from the list below to the following IR and/or NMR spectra.



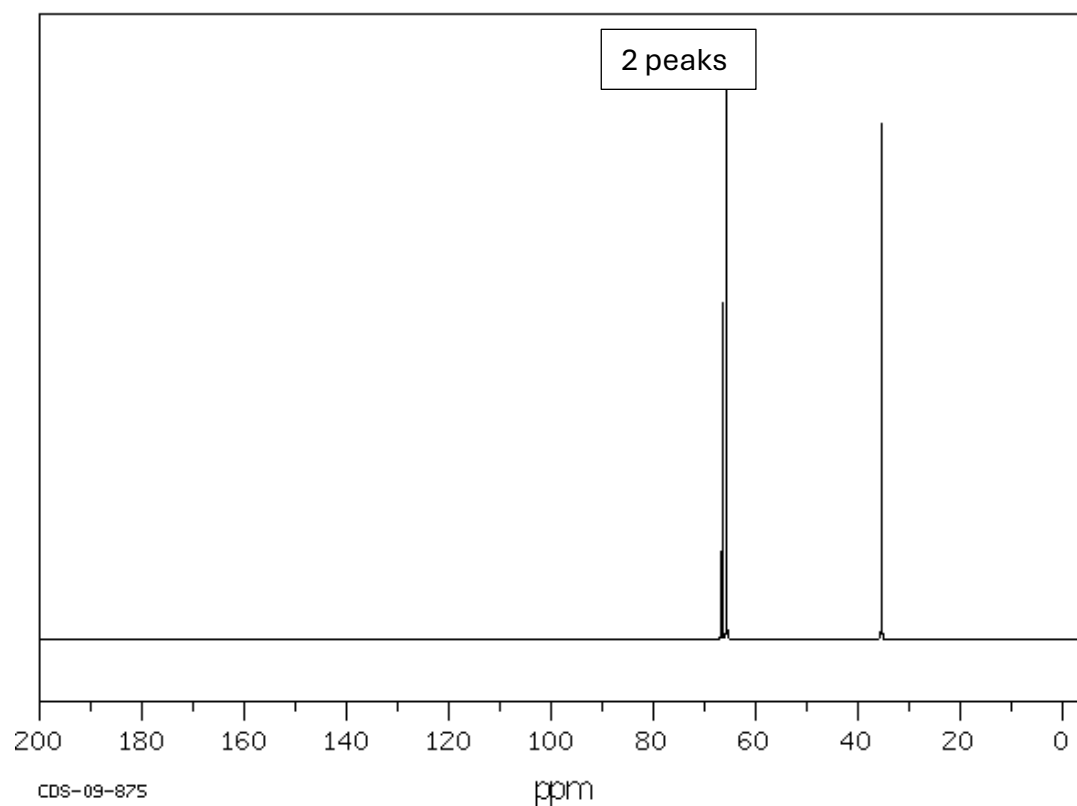
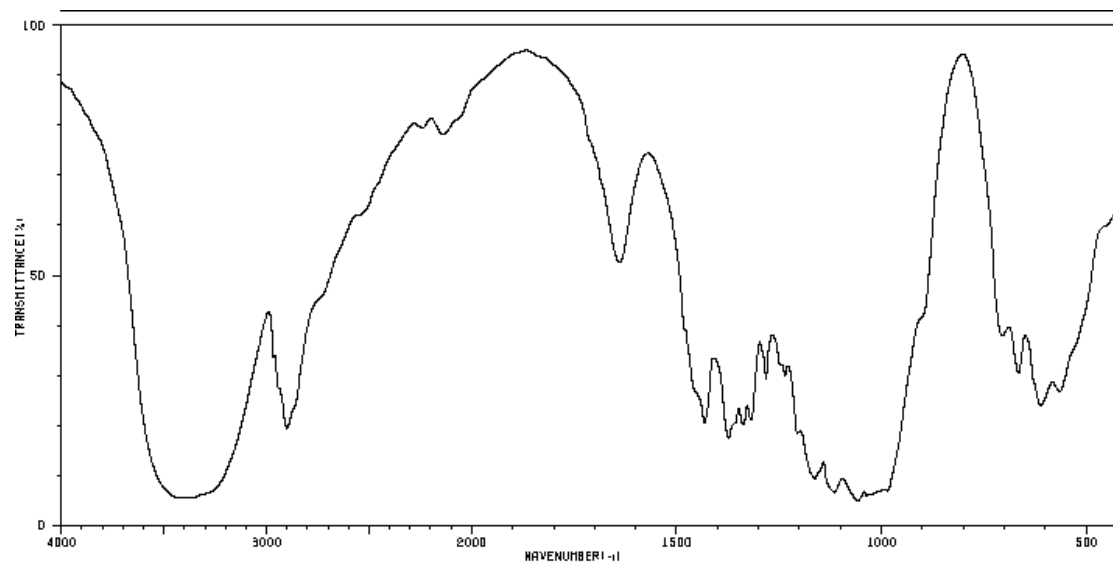
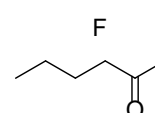
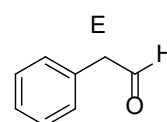
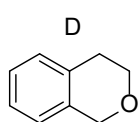
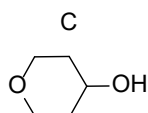
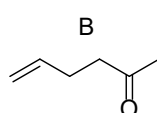
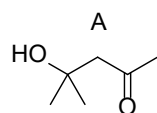
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4) MATCH a structure from the list below to the following IR and/or NMR spectra.



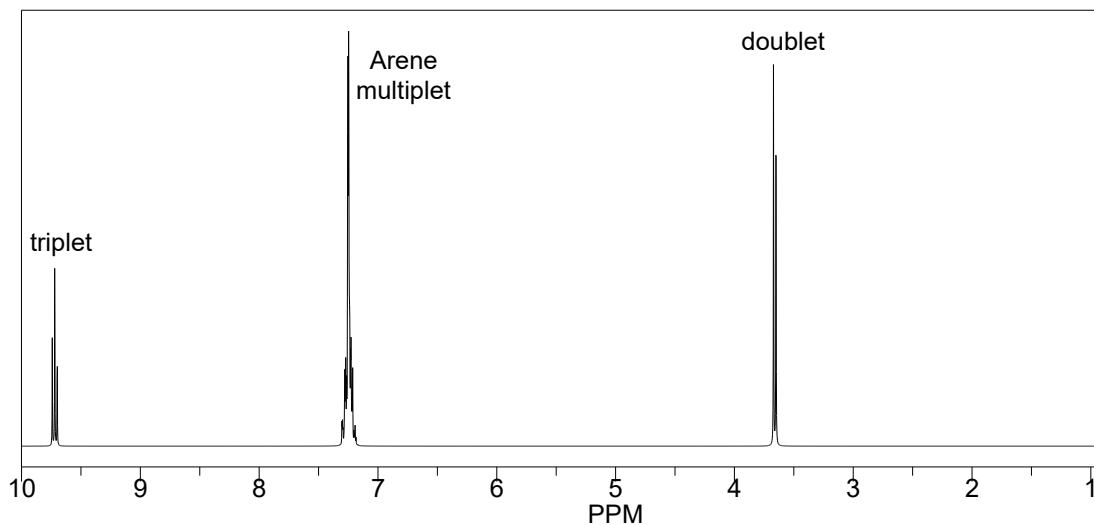
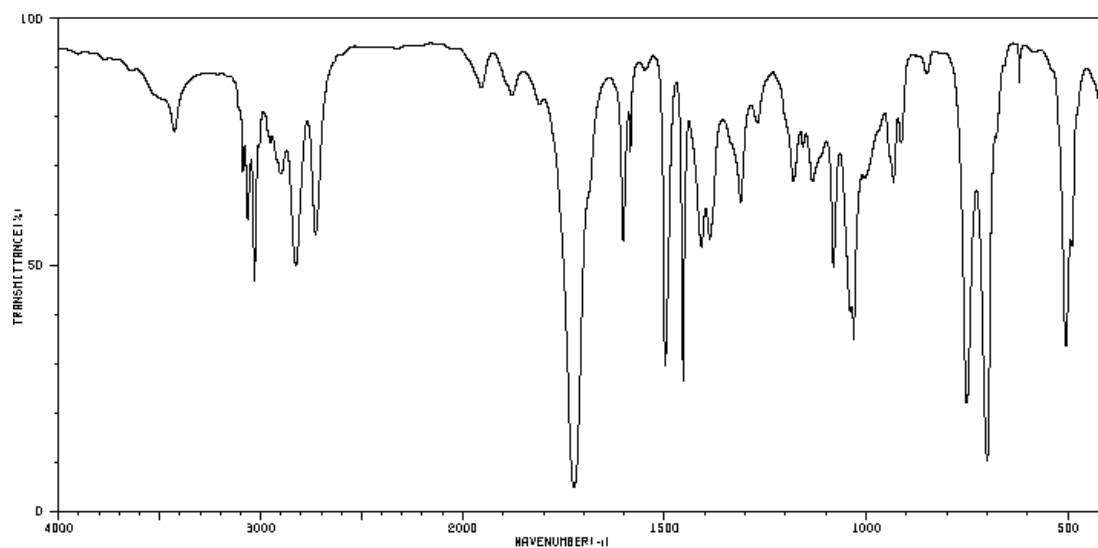
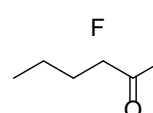
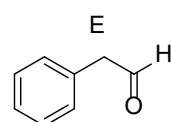
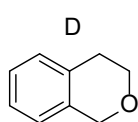
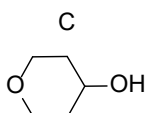
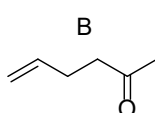
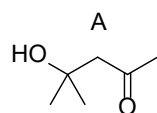
Letter
here

5) MATCH a structure from the list below to the following IR and/or NMR spectra.



Letter here

6) MATCH a structure from the list below to the following IR and/or NMR spectra.



Letter here

