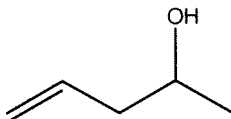
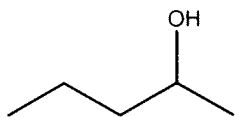


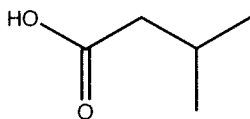
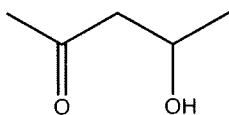
Part II: Functional Group Differentiation

3) For each of the following pairs of similar compounds, briefly and specifically explain how you could differentiate the two compounds using IR spectroscopy.

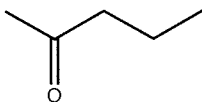
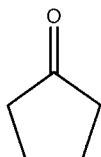
A)



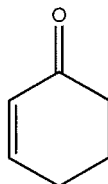
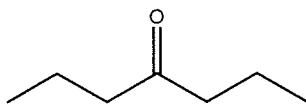
B)



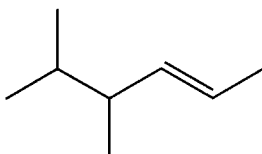
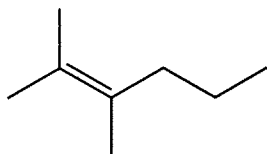
C)



D)



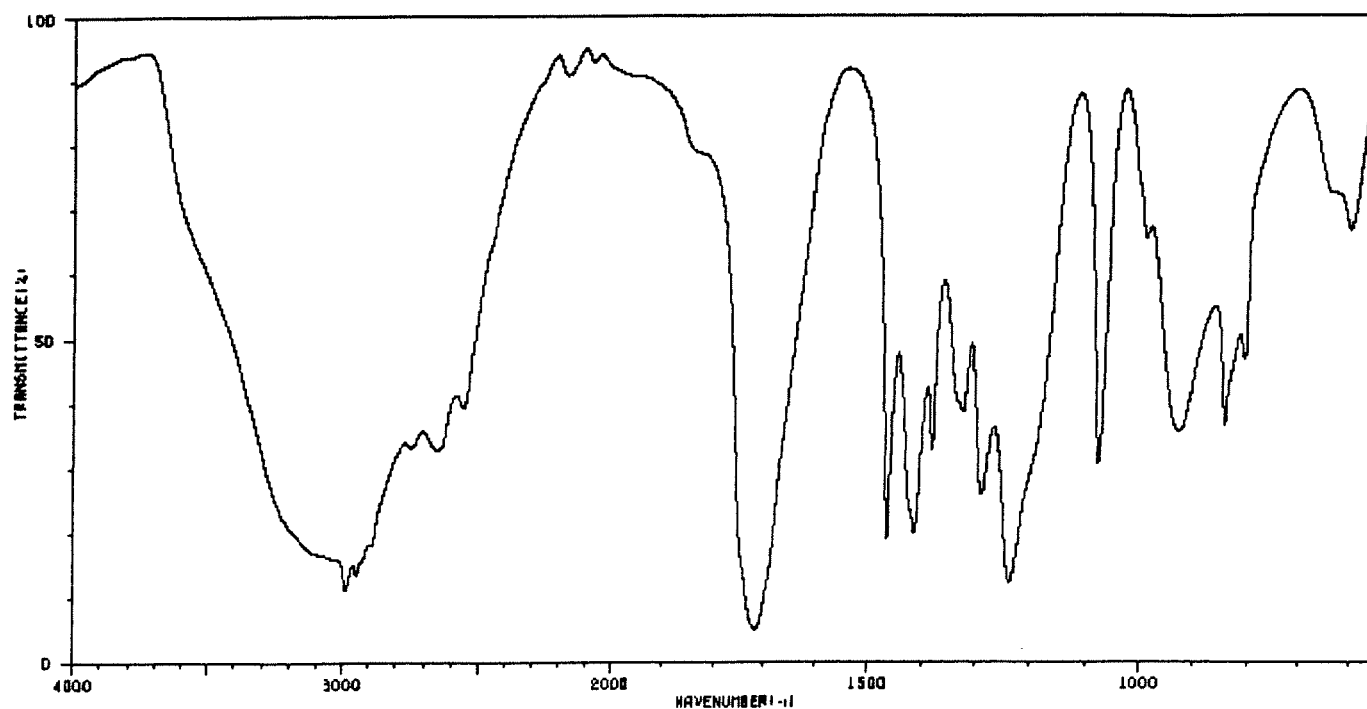
E)



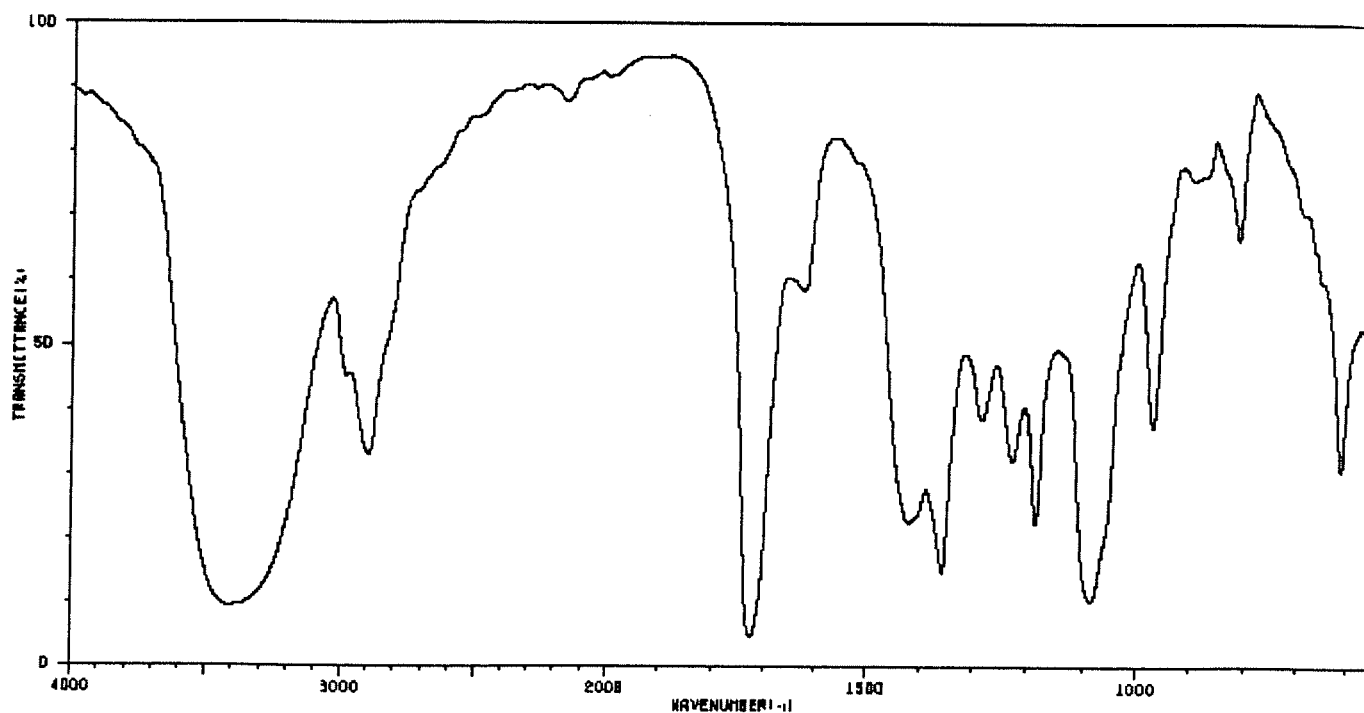
Part III: Predicting Structures

- 4) The following compounds all have the same formula, $C_3H_6O_2$. Assign the diagnostic peaks and important supporting peaks. Predict a reasonable structure for each compound based on the formula and spectrum.

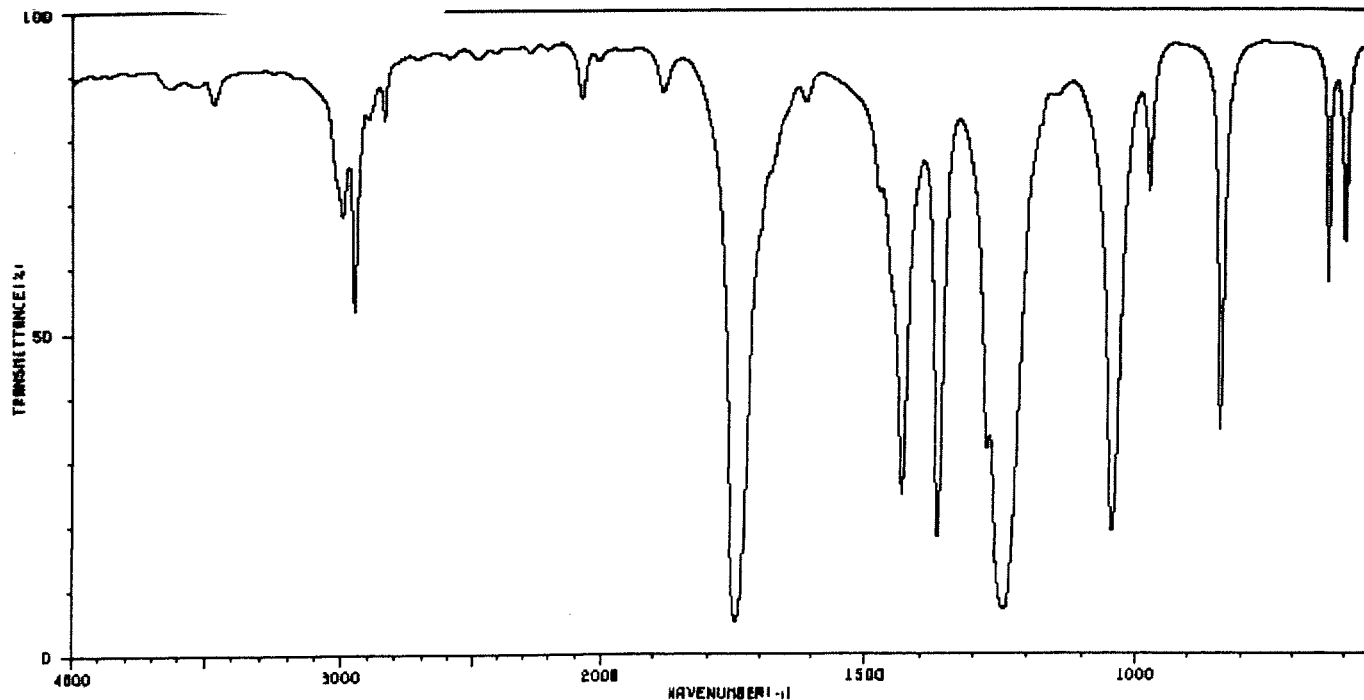
A)



B)



C)



- 5) The following compound has the formula, $C_8H_8O_2$
Assign the diagnostic peaks and important supporting peaks. Predict a reasonable structure for the compound based on the formula and spectrum.

