

Name \_\_\_\_\_ Lab Partner \_\_\_\_\_  
TA Name \_\_\_\_\_ Lab Section \_\_\_\_\_ Date \_\_\_\_\_

## Experiment 2 Infrared Spectroscopy ('IR')

1. Record the number of your unknown \_\_\_\_\_

2. Prepare a spectrum of your unknown and attach the spectrum to this report form.

3. Record the characteristic absorption bands for your unknown

4. Circle the functional group listed below which is suggested as a candidate for identification by a major band in the spectrum of your unknown.

alcohols

benzyl alcohol  
2-pentanol

aldehydes/ketones

acetophenone  
2-chlorobenzaldehyde  
4-methyl-2-pentanone

hydrocarbons

toluene  
n-hexane  
1-hexyne  
cyclohexene

Amines/phenols

Aniline  
o-cresol  
di-n-propylamine

5. Compare the spectrum of your compound with the spectra of the compounds in the functional group that you have circled. Reference spectra may be found in the lecture text or the laboratory manual. Identifying other major peaks may help you isolate the compound. Write the name of the compound you believe your unknown to be.