

Infrared Spectroscopy (IR) Worksheet

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 absorption band in the spectrum of your unknown.

<i>alcohols</i>	<i>aldehydes/ketones</i>
benzyl alcohol	acetophenone
2-pentanol	2-chlorobenzaldehyde
	4-methyl-2-pentanone
<i>hydrocarbons</i>	<i>amines/phenols</i>
toluene	aniline
n-hexane	o-cresol
1-hexyne	di-n-propylamine
cyclohexene	
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.