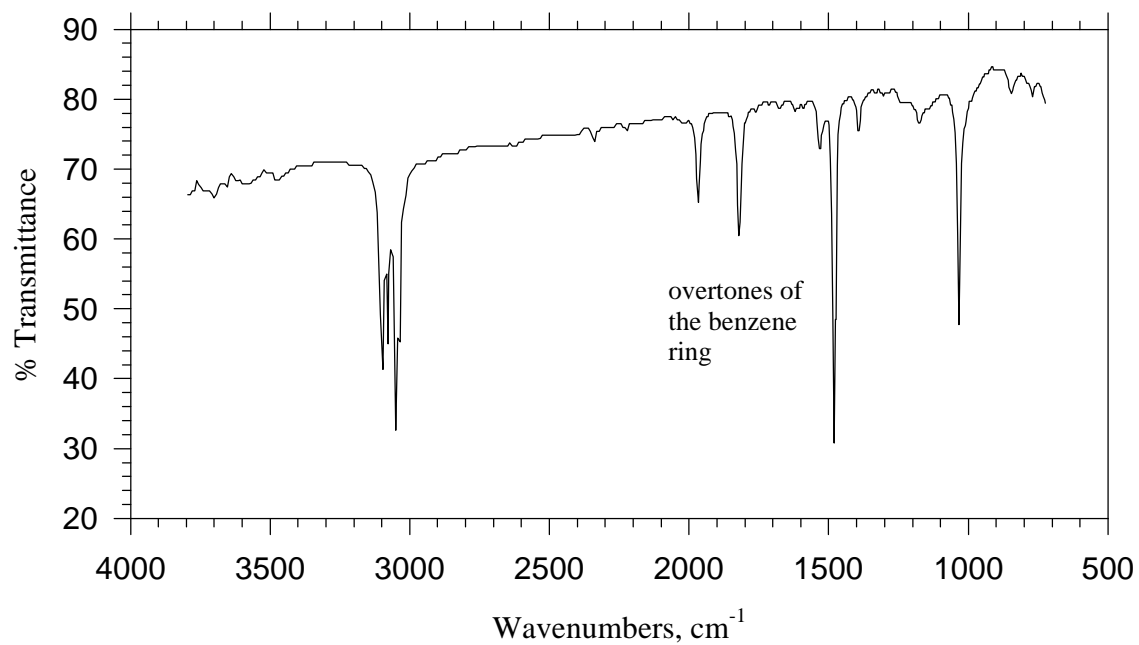


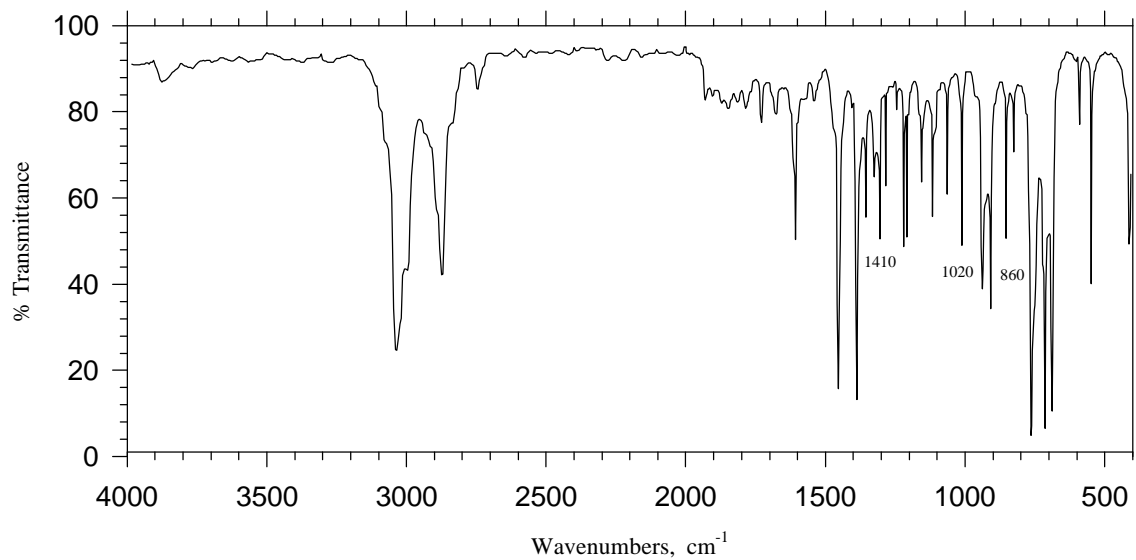
## Table of Spectra

<b>Figure 5.</b>	Nujol	
<b>Figure 6.</b>	N-Decane	
<b>Figure 7.</b>	Benzene	
<b>Figure 8.</b>	Indene	
<b>Figure 9.</b>	1-Heptene	
		<b>Figure 10.</b> <i>trans</i> -4-Octene
<b>Figure 11.</b>	<i>ortho</i> -Xylene	
<b>Figure 12.</b>	<i>meta</i> -Xylene	
<b>Figure 13.</b>	Phenylacetylene	
<b>Figure 14.</b>	Butanal	
<b>Figure 15.</b>	Benzaldehyde	
<b>Figure 16.</b>	Chloroform	
<b>Figure 17.</b>	Tri- <i>t</i> -butylmethanol	
<b>Figure 18.</b>	Butylamine	
<b>Figure 19.</b>	Benzamide	
<b>Figure 20.</b>	Diethylamine	
<b>Figure 21.</b>	N-Methyl acetamide	
<b>Figure 22.</b>	Triethylamine	
<b>Figure 23.</b>	N,N-Dimethyl acetamide	
<b>Figure 24.</b>	<i>n</i> -Hexanol, vapor and liquid	
<b>Figure 25.</b>	Phenol, vapor and liquid	
<b>Figure 26.</b>	Hexanoic acid, vapor and liquid	
<b>Figure 27.</b>	Decanoic acid	
<b>Figure 28.</b>	4-Chloro-2-nitrophenol	
<b>Figure 29.</b>	Benzoic acid	
<b>Figure 30.</b>	Benzoic acid	
<b>Figure 31.</b>	<i>trans</i> -2-Phenyl-1-cyanoethene	
<b>Figure 32.</b>	Diethyl acetylenedicarboxylate	
<b>Figure 33.</b>	Methyl acetate	
<b>Figure 34.</b>	Ethyl <i>n</i> -hexanoate, vapor and liquid	
<b>Figure 35.</b>	5-Hexene-2-one	
<b>Figure 36.</b>	Propionic anhydride	
<b>Figure 37.</b>	Benzoic anhydride	
<b>Figure 38.</b>	3-Methylpimelic acid anhydride	
<b>Figure 39.</b>	2,5-Dihydrofuran	
<b>Figure 40.</b>	2,5-Dimethoxy-2,5-dihydrofuran	
<b>Figure 41.</b>	2,3-Dihydrofuran	
<b>Figure 42.</b>	Sodium benzoate	
<b>Figure 43.</b>	5-Methyl-3-hexene-2-one	
<b>Figure 44.</b>	3-Nonen-2-one	
<b>Figure 45.</b>	Ethyl vinyl ketone	
<b>Figure 46.</b>	3-Penten-2-one	
<b>Figure 47.</b>	Benzyl 4-hydroxyphenyl ketone	
<b>Figure 48.</b>	Perfluorohydrocarbon oil	
<b>Figure 49.</b>	Quartz	

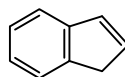


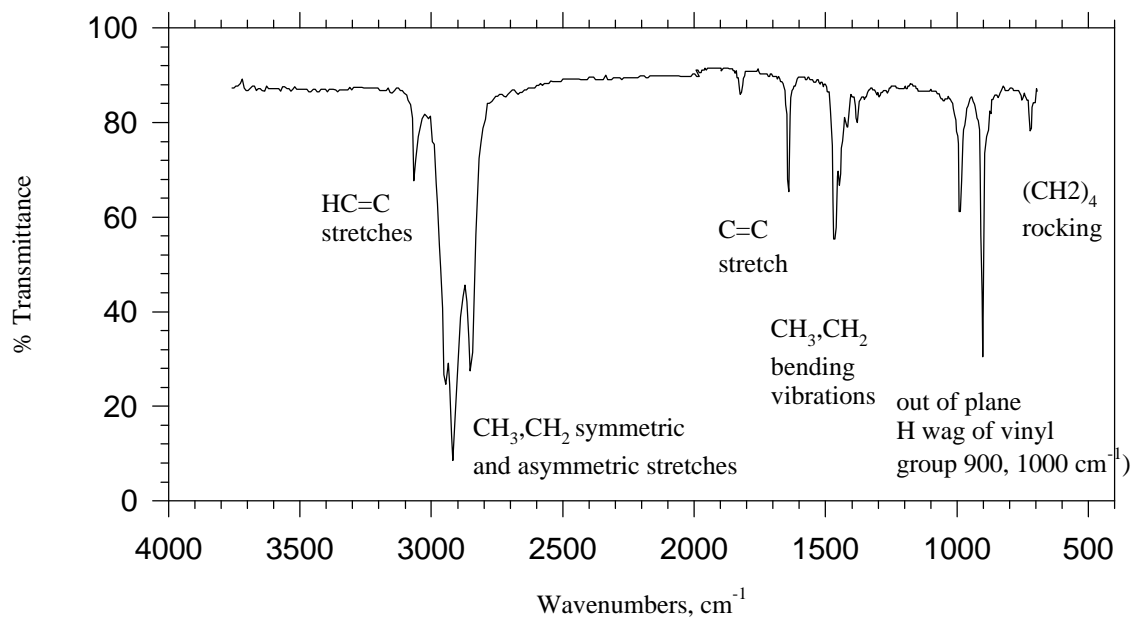


**Figure 7.** Benzene, neat, thin film:

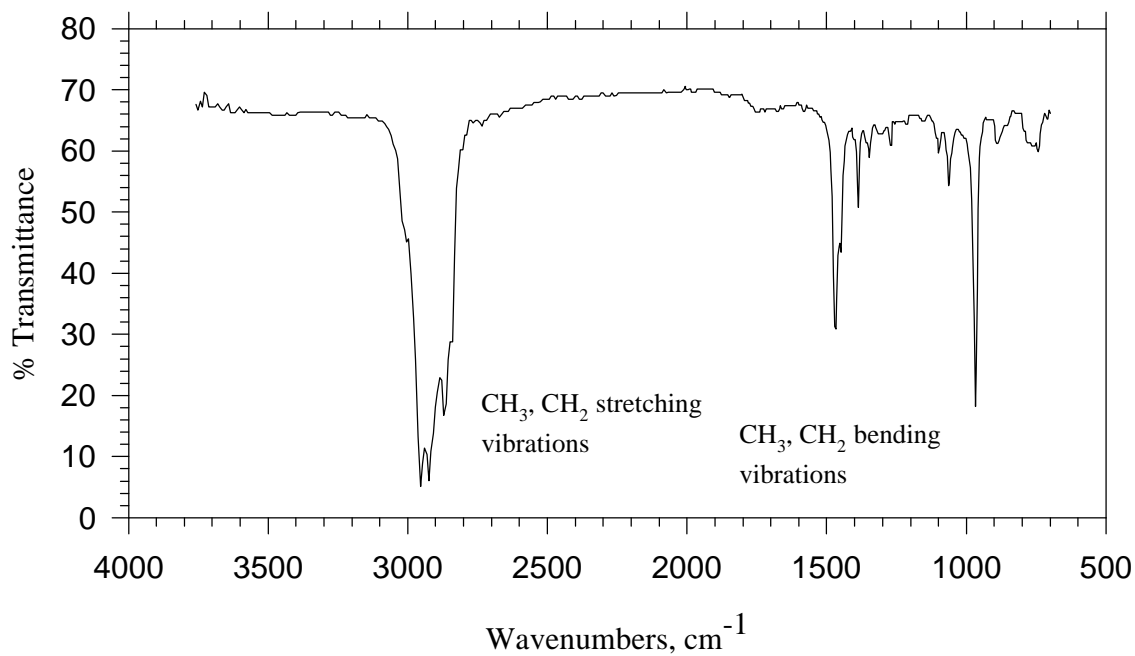


**Figure 8.** Indene; neat; 0.05 mm cell:

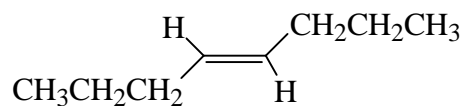


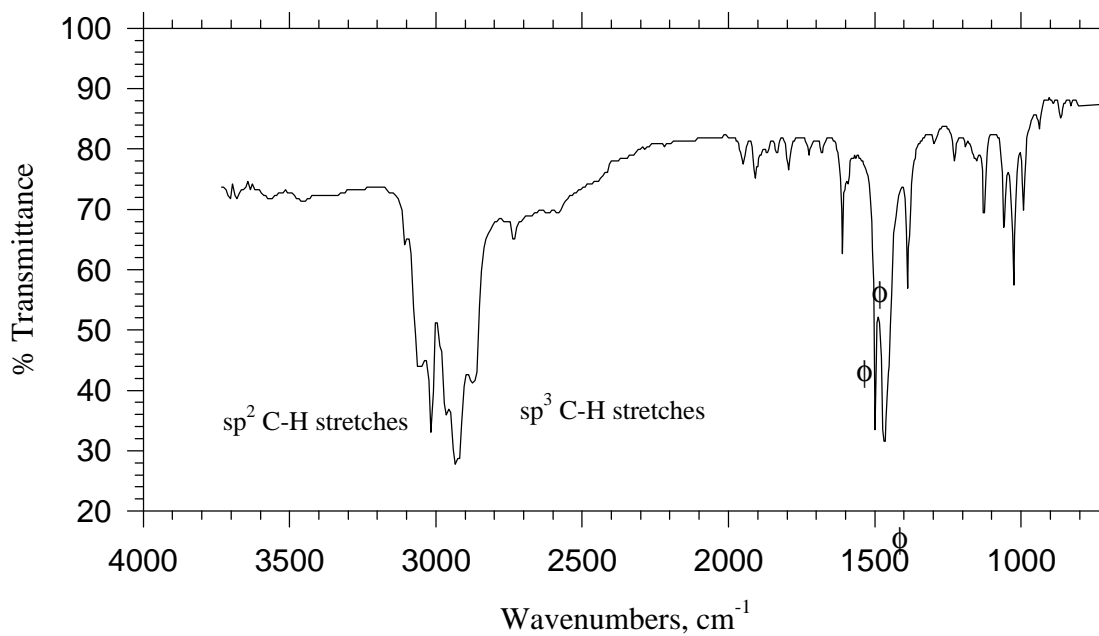


**Figure 9.** 1-Heptene; neat sample, thin film:  $\text{H}_2\text{C}=\text{CH}-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3$

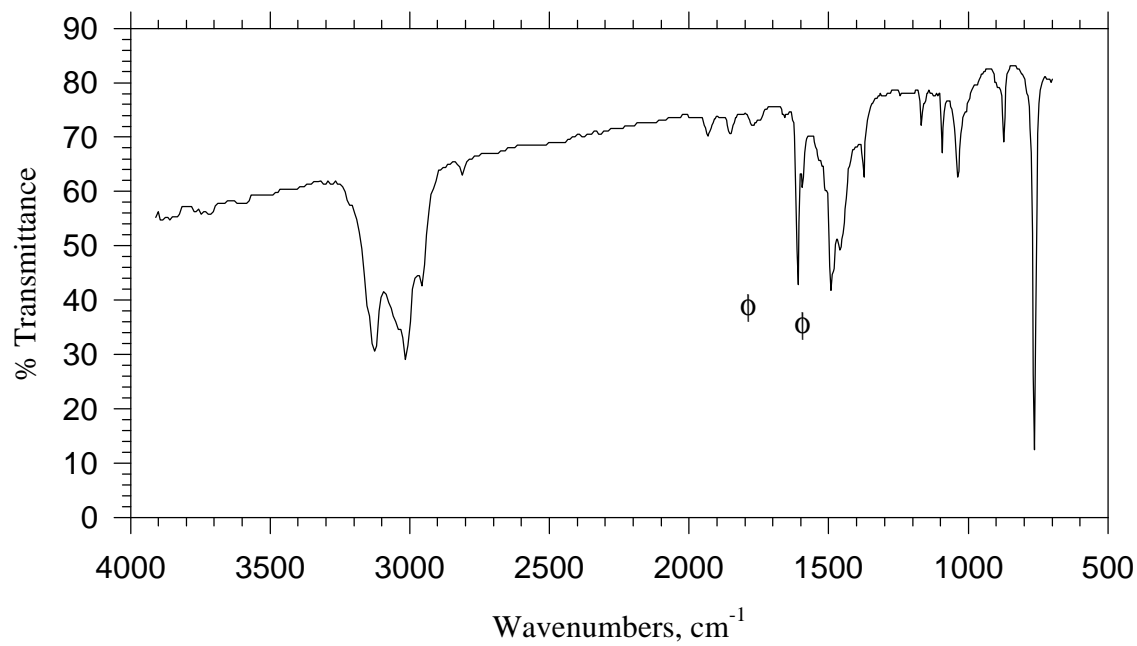
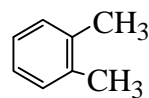


**Figure 10.** *trans*-4-Octene, neat liquid, thin film:

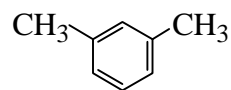


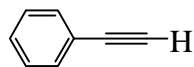
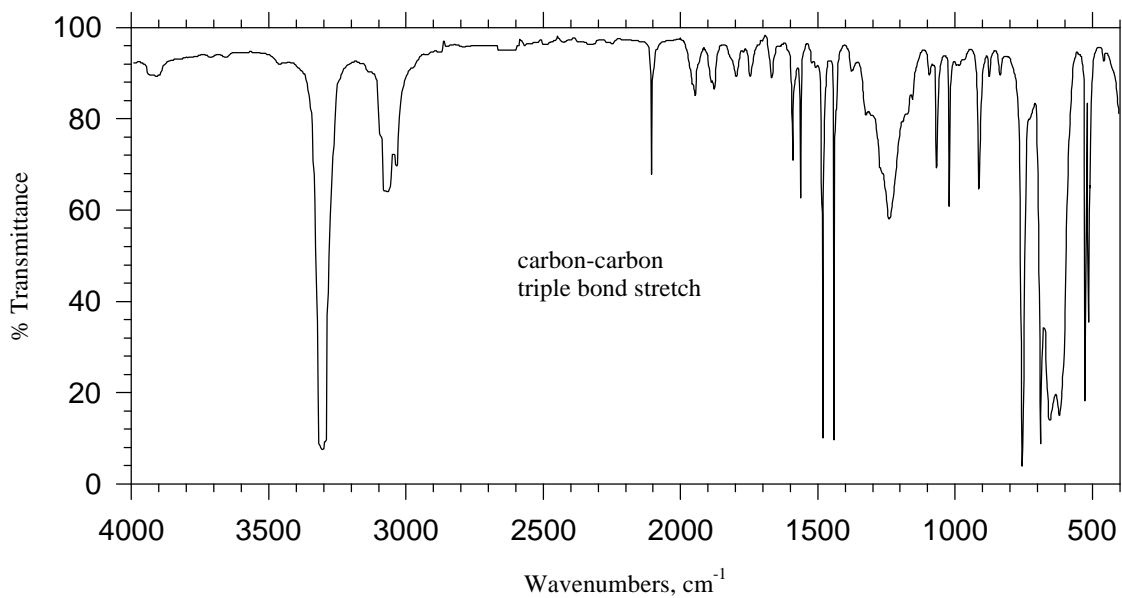


**Figure 11.** *ortho*-Xylene, neat, thin film:

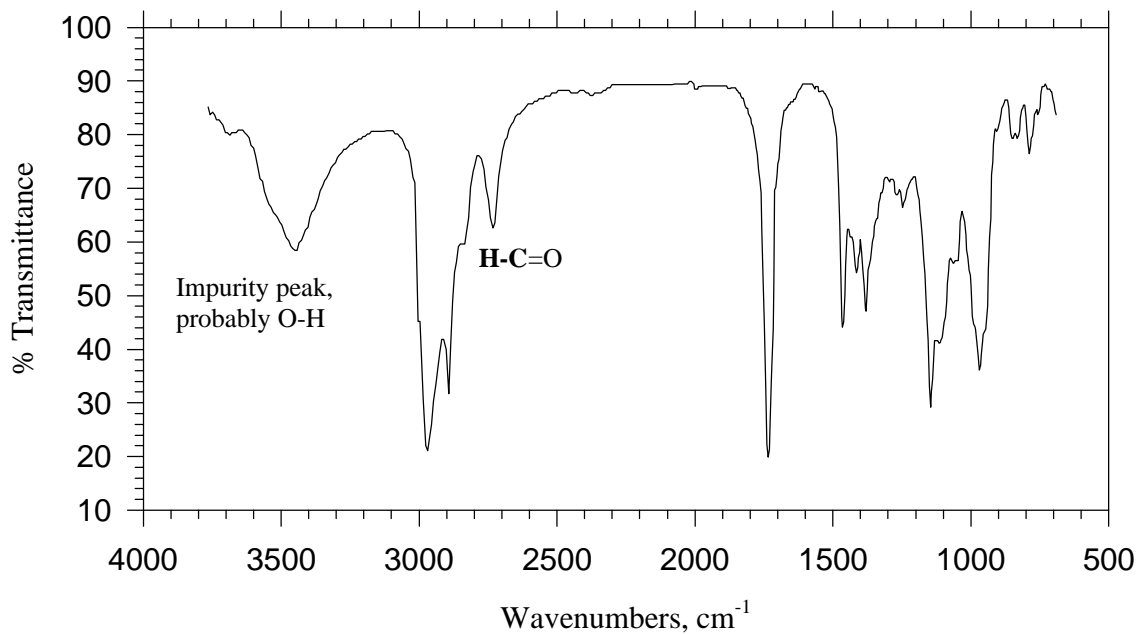


**Figure 12.** *meta*-Xylene, neat, thin film:

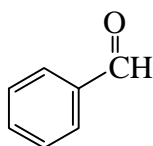
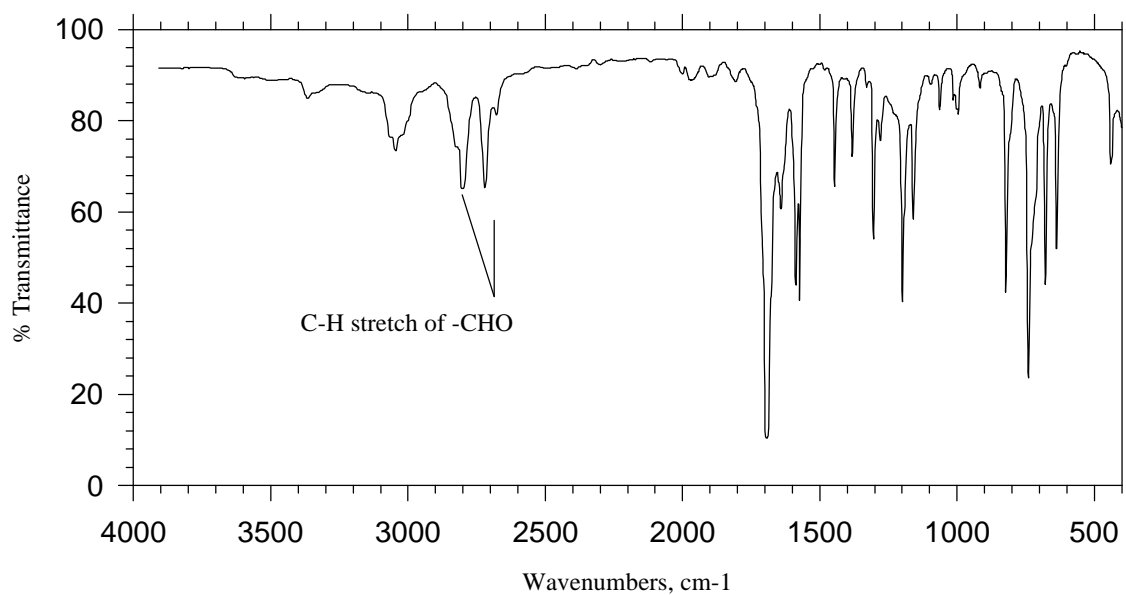




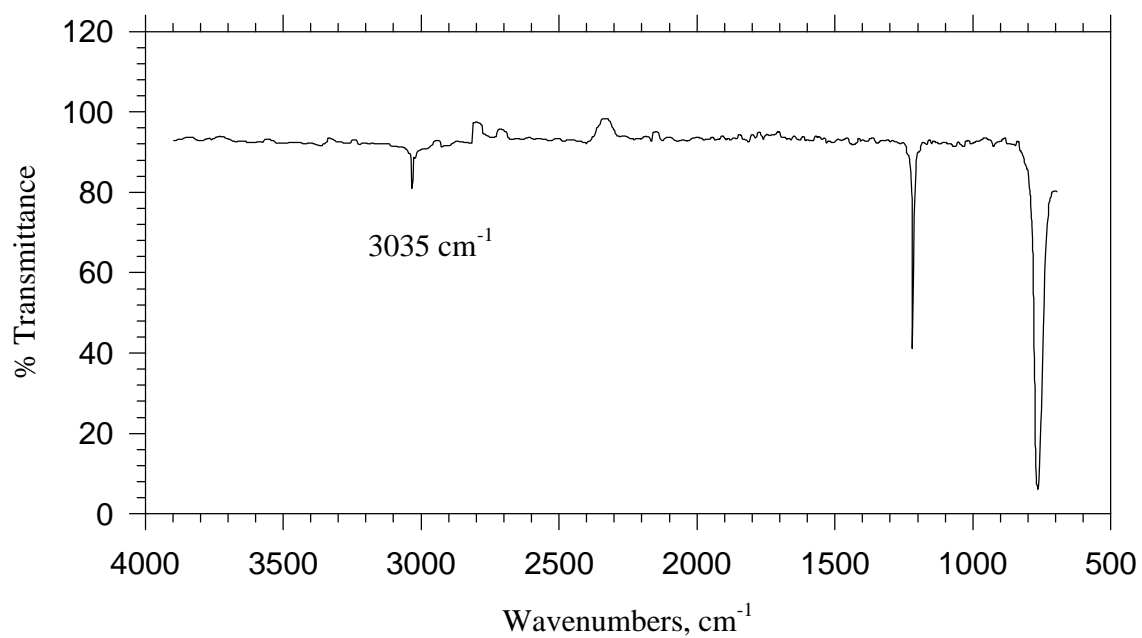
**Figure 13.** Phenylacetylene, neat liquid; thin film:



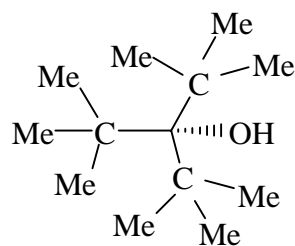
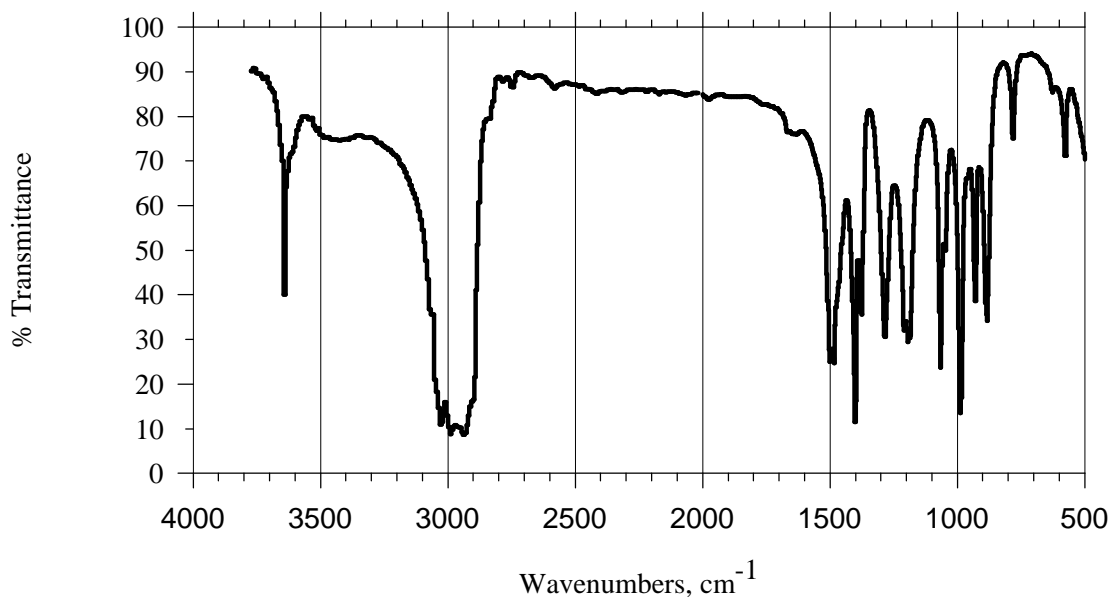
**Figure 14.** Butanal, neat liquid, thin film:  $\text{CH}_3\text{CH}_2\text{CH}_2\text{CHO}$



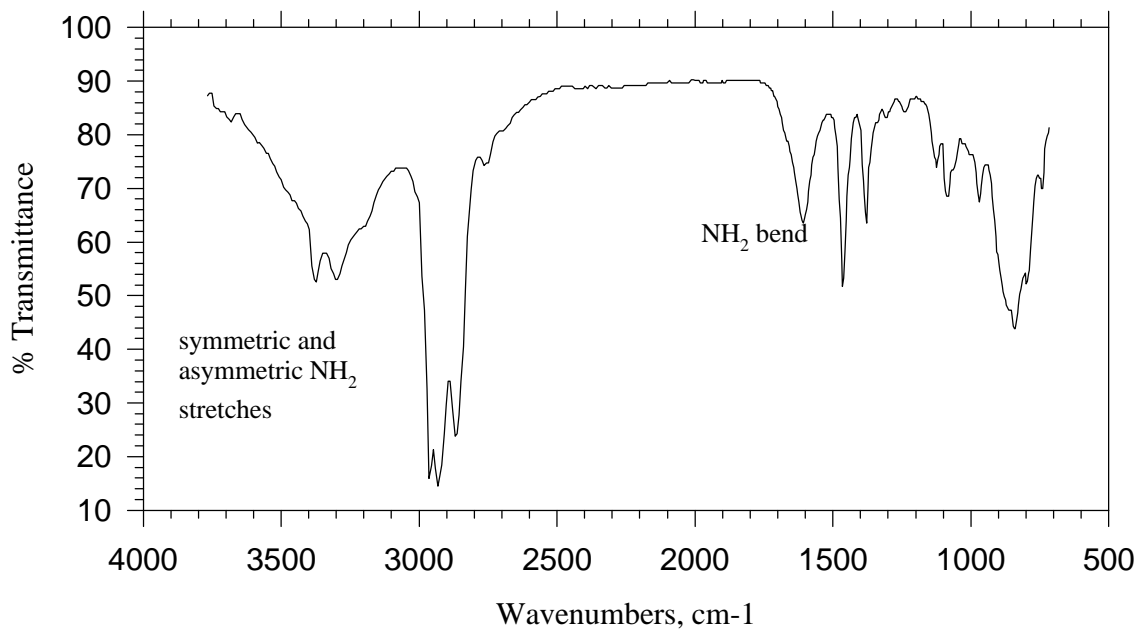
**Figure 15.** Benzaldehyde, neat, thin film:



**Figure 16.** Chloroform, thin film: CHCl<sub>3</sub>

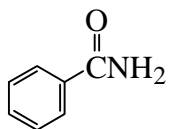
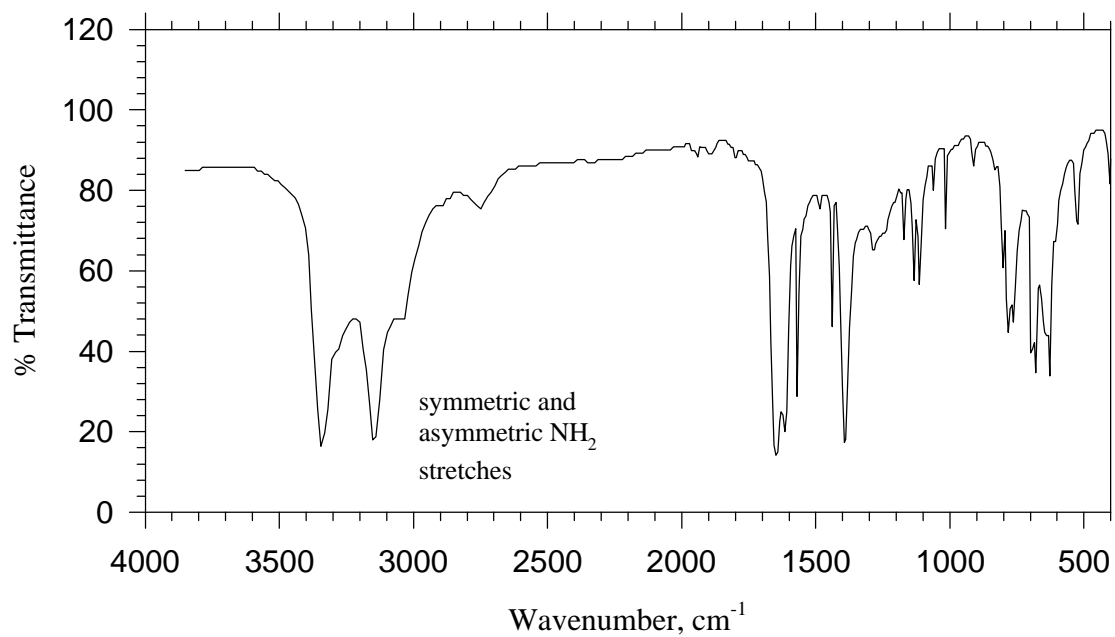


**Figure 17.** Tri-t-butylmethanol, KBr pellet:

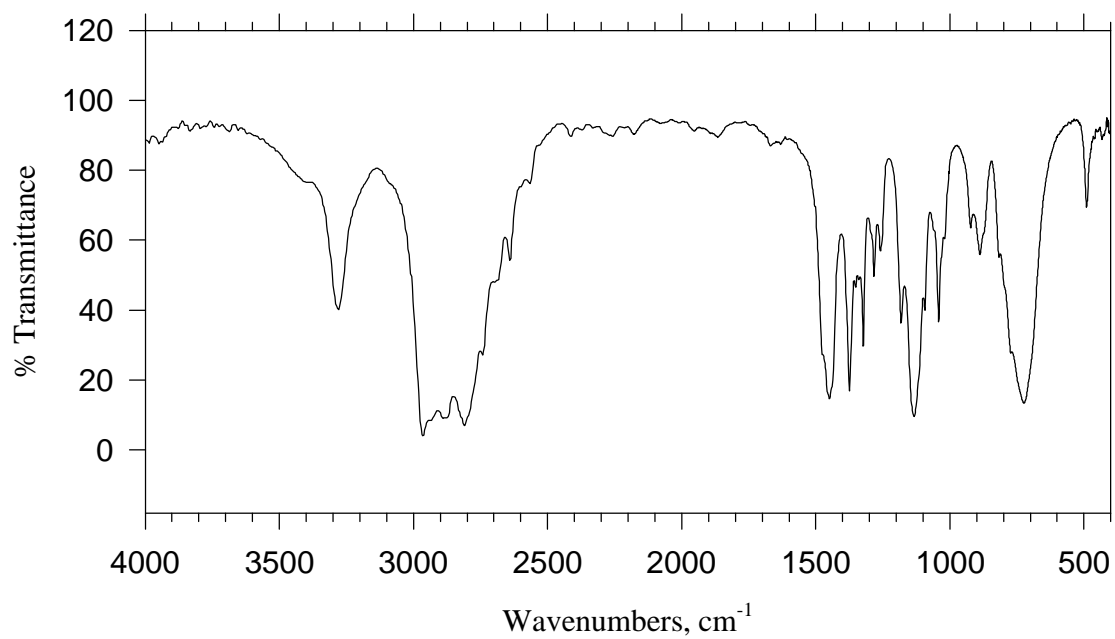


**Figure 18.** Butylamine, neat liquid; thin film:  $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{NH}_2$

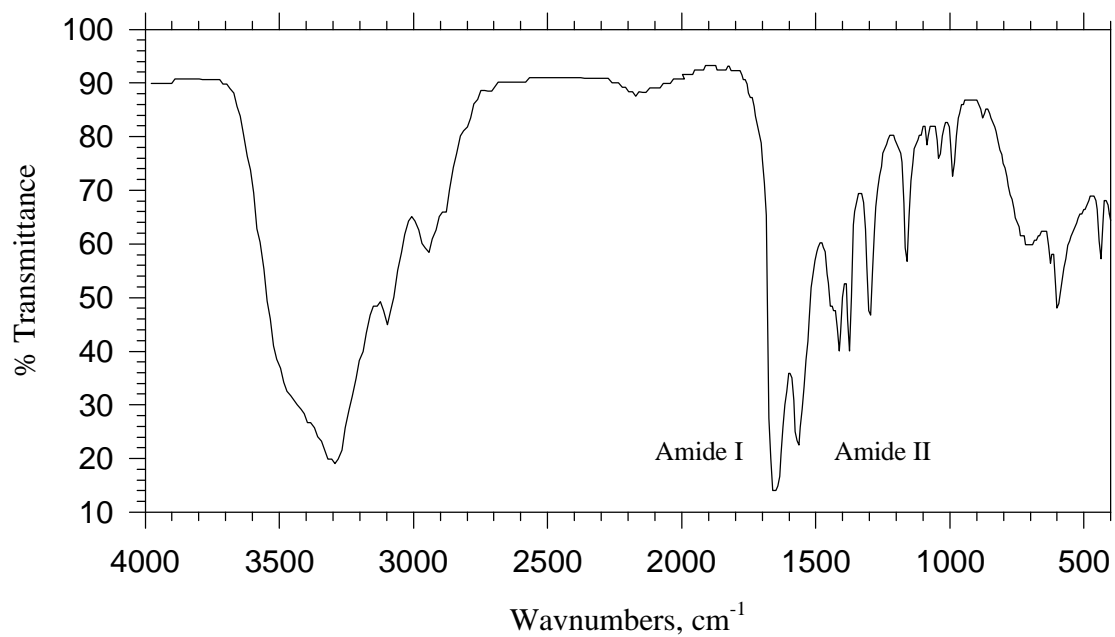




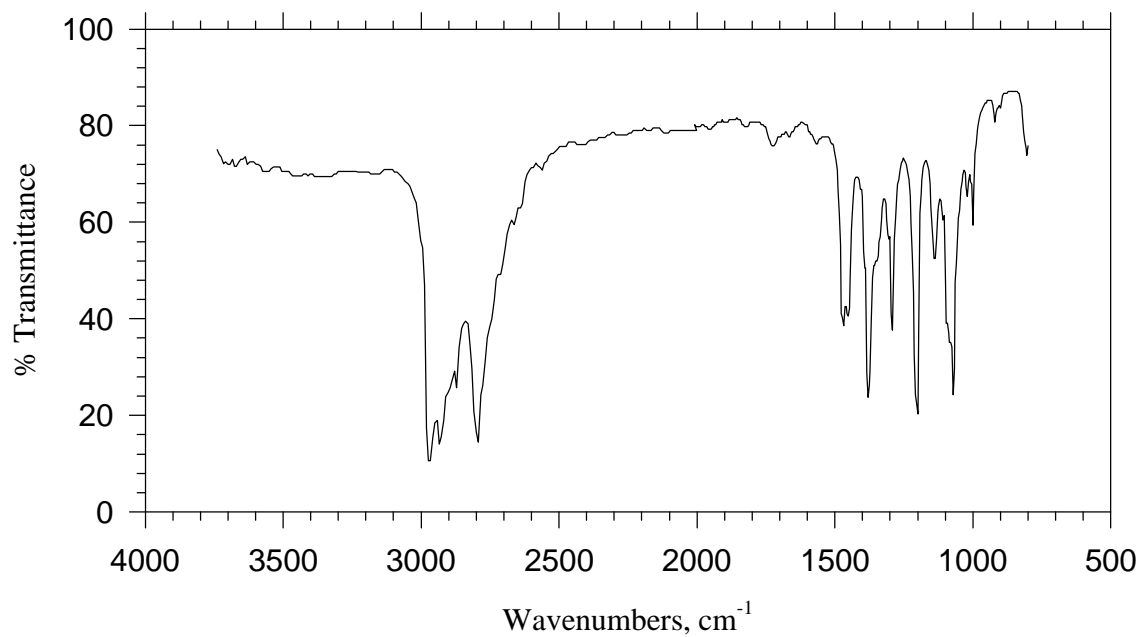
**Figure 19.** Benzamide, KBr pellet:



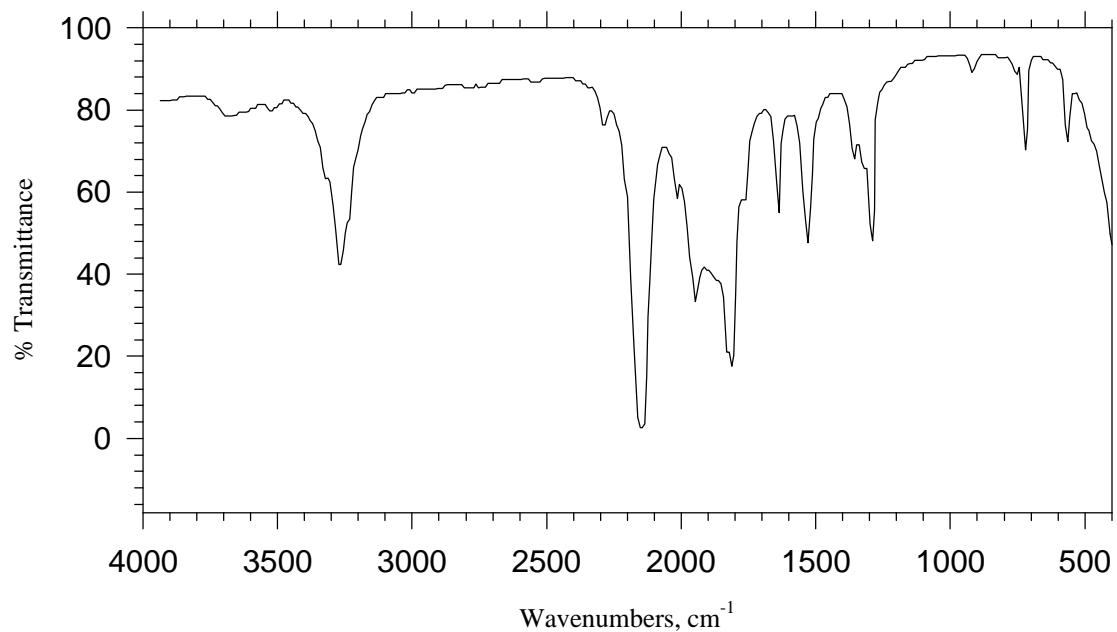
**Figure 20.** Diethylamine, neat liquid; thin film:  $\text{CH}_3\text{CH}_2\text{NHCH}_2\text{CH}_3$



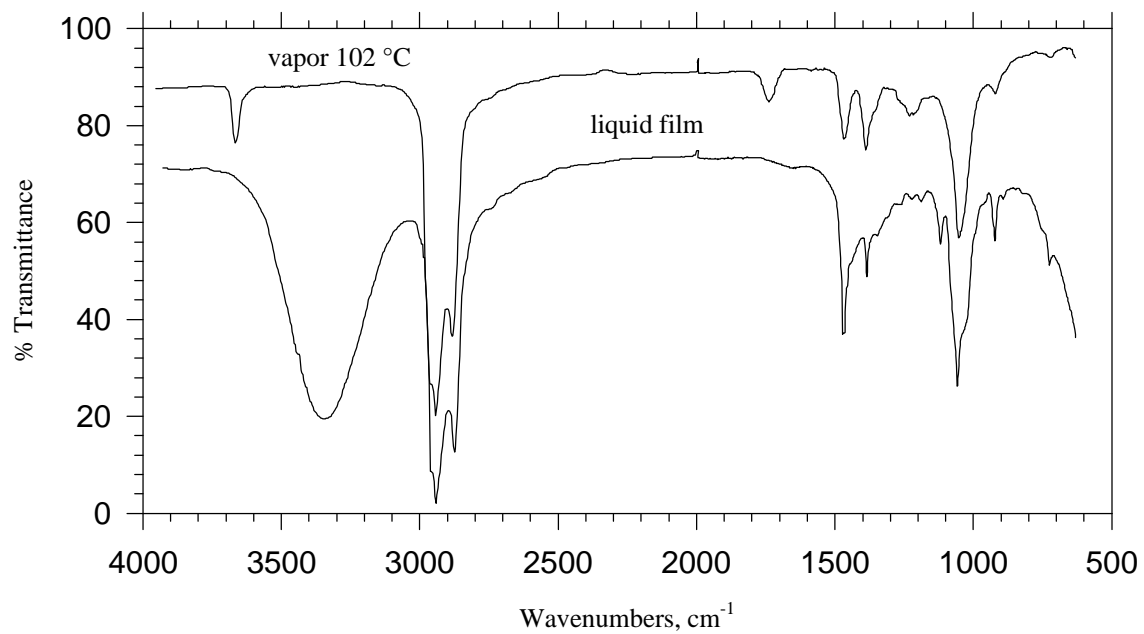
**Figure 21.** N-Methyl acetamide, neat liquid; thin film:  $\text{CH}_3\text{CONHCH}_3$



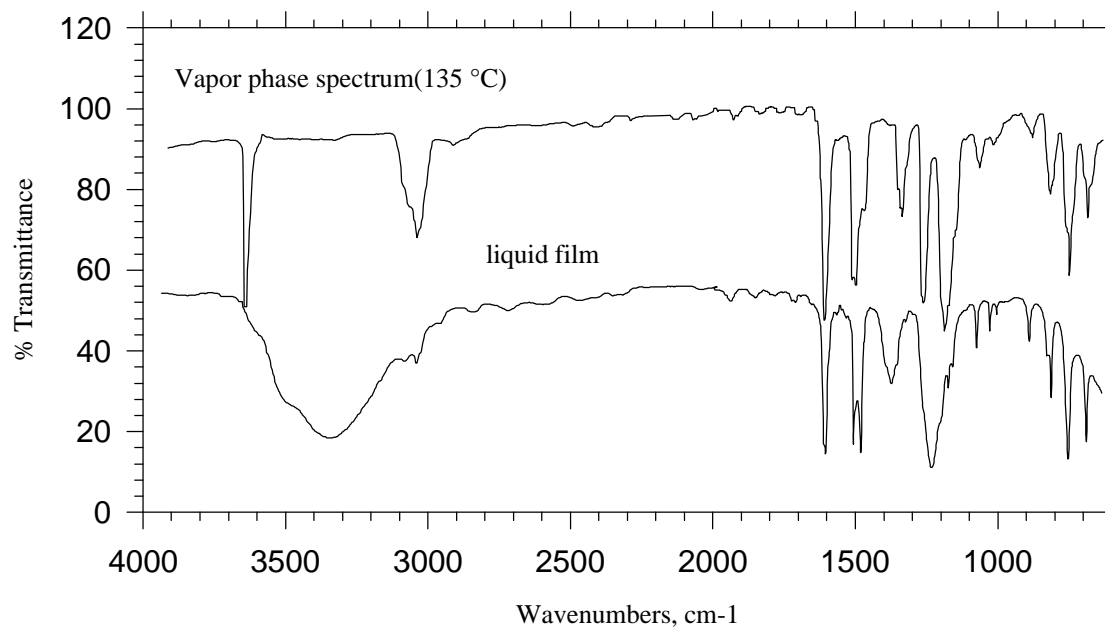
**Figure 22.** Triethylamine, neat liquid; thin film:  $(\text{CH}_3\text{CH}_2)_3\text{N}$



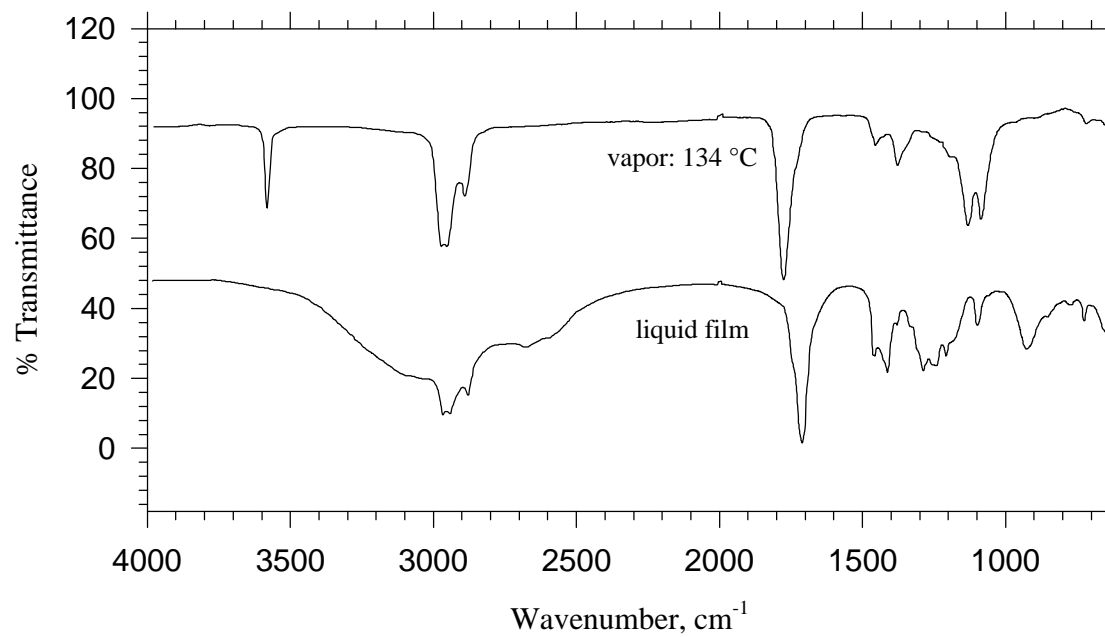
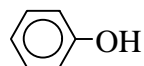
**Figure 23.** N,N-Dimethylacetamide, neat liquid; thin film:  $\text{CH}_3\text{CON}(\text{CH}_3)_2$



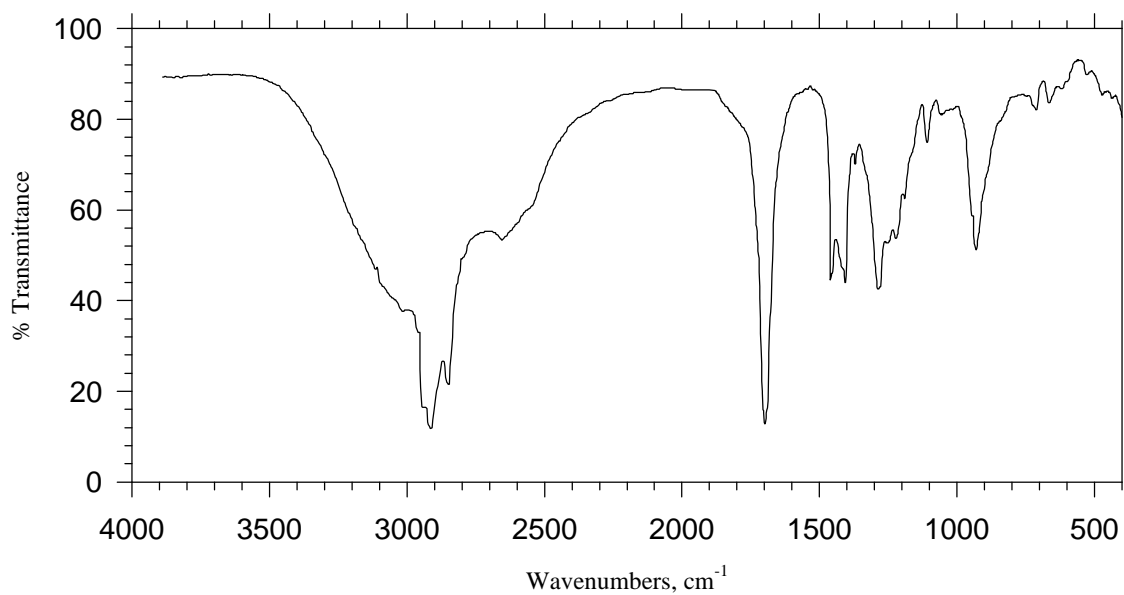
**Figure 24.** The liquid and vapor spectra of n-hexanol.



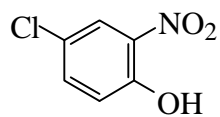
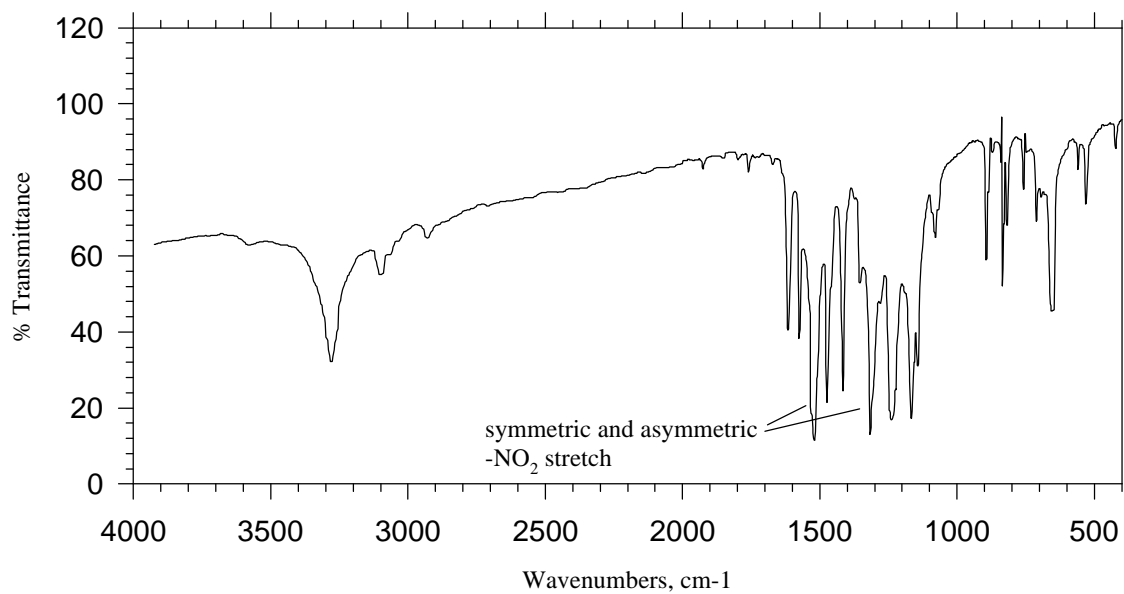
**Figure 25.** The liquid and vapor spectra of phenol.



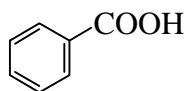
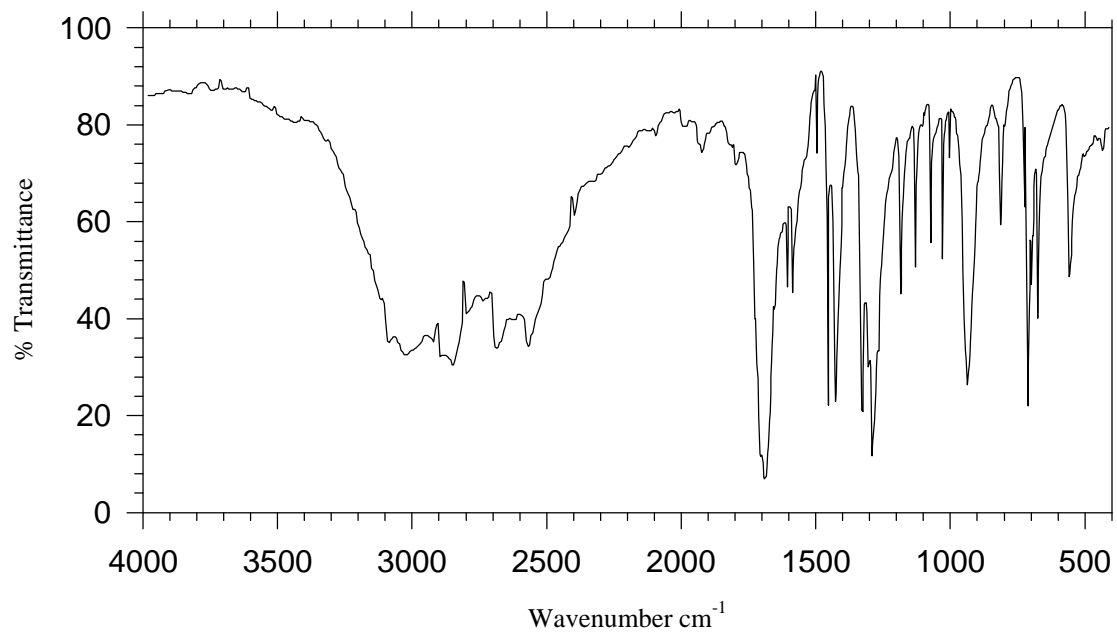
**Figure 26.** The liquid and vapor spectra of hexanoic acid.



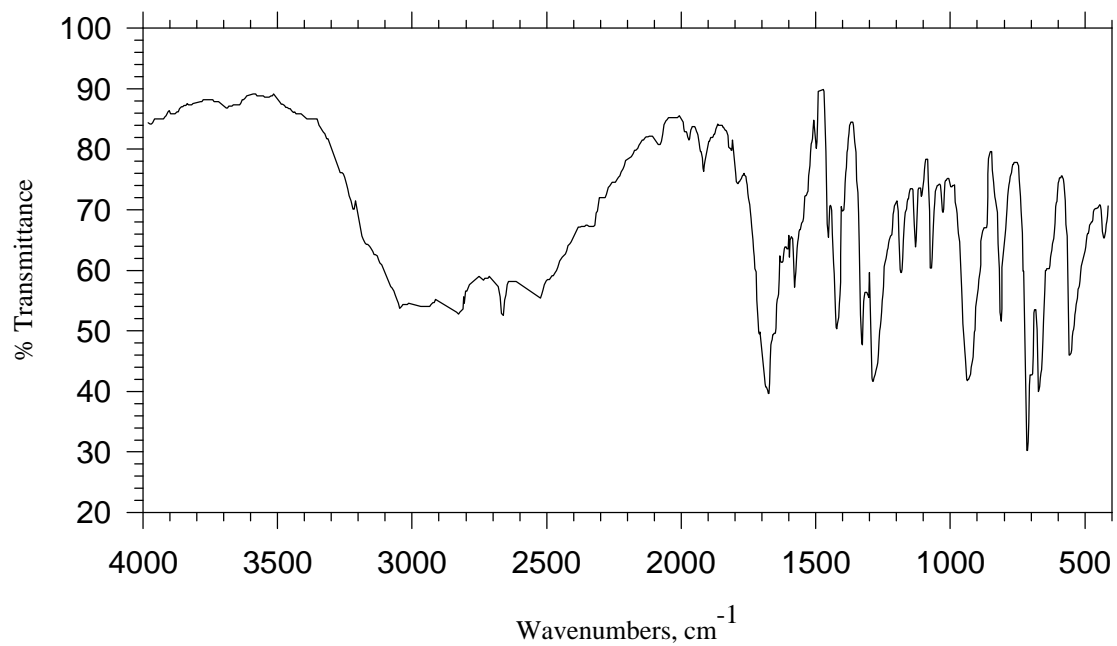
**Figure 27.** Decanoic acid, neat liquid, thin film:  $\text{CH}_3(\text{CH}_2)_8\text{CO}_2\text{H}$



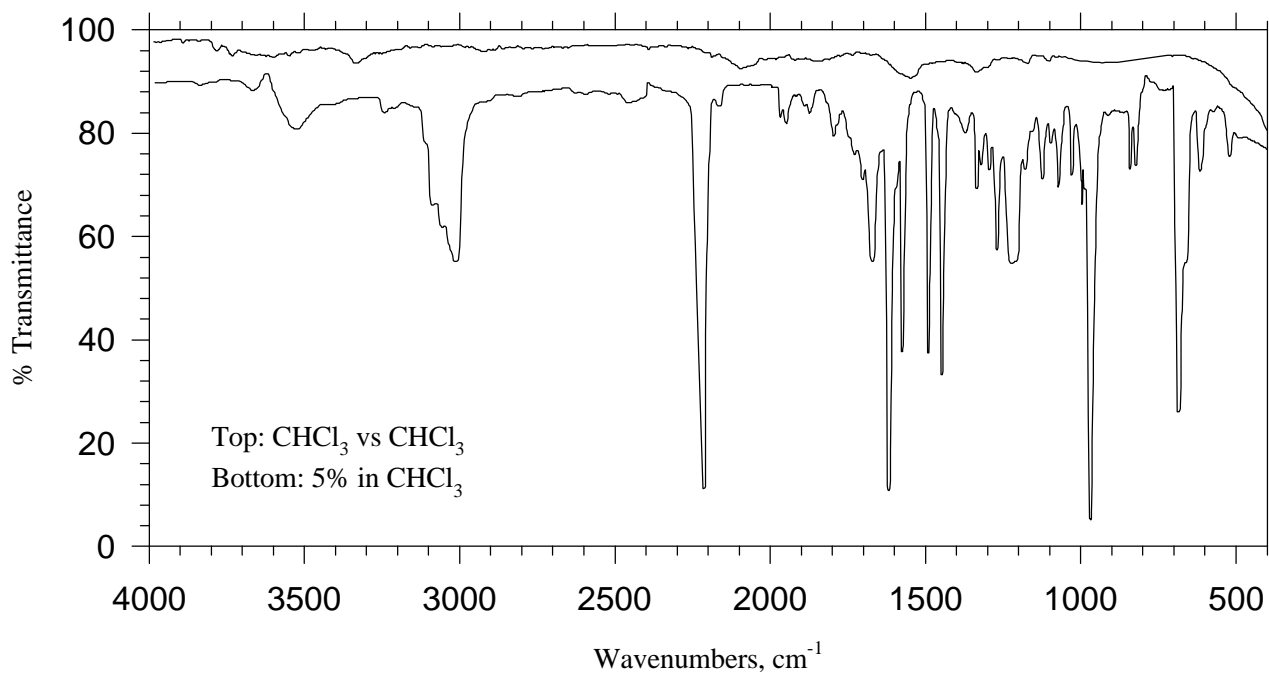
**Figure 28.** 4-Chloro-2-nitrophenol, KBr pellet:



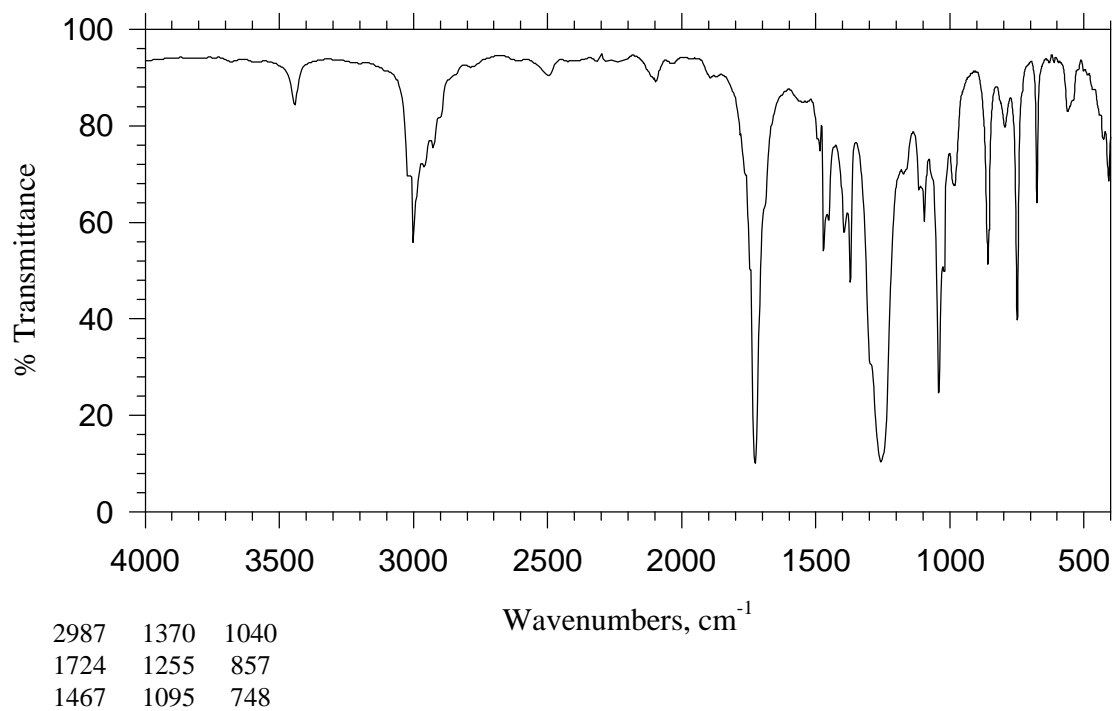
**Figure 29.** Benzoic acid; KBr disk:



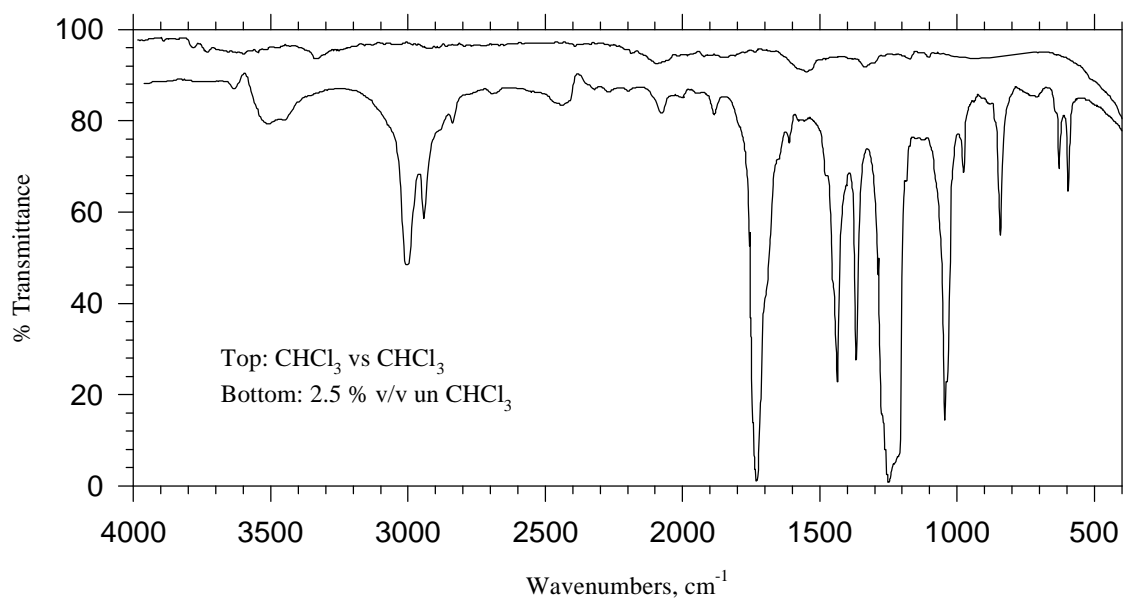
**Figure 30.** Benzoic acid, KBr; band distortions and broadening caused by poor grinding, compare to Figure 29.



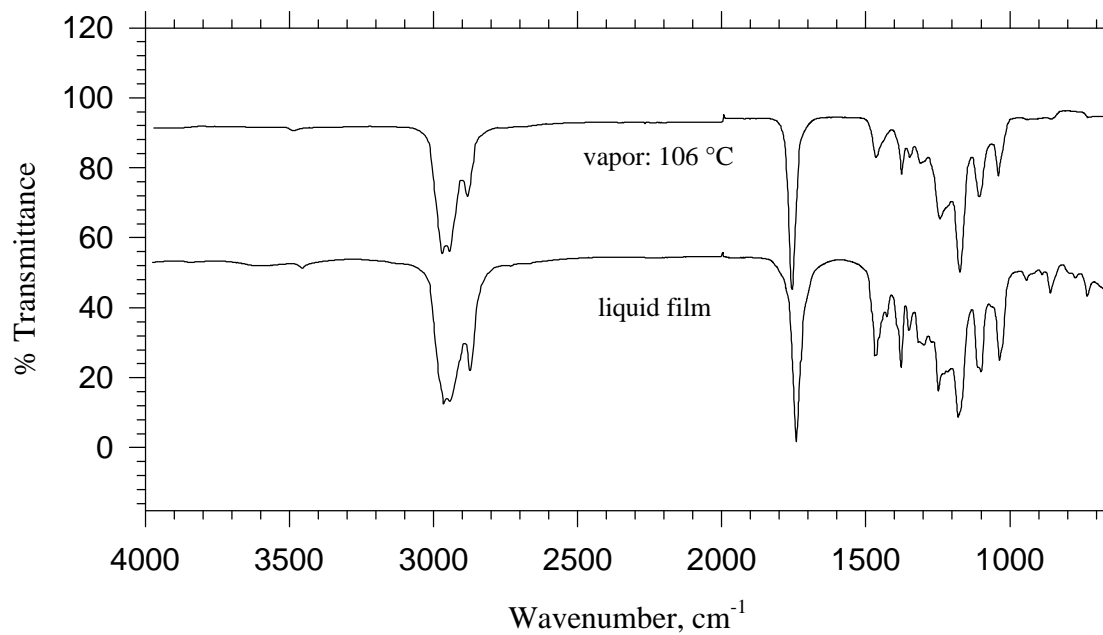
**Figure 31.** *trans*-2-Phenyl-1-cyanoethene, in  $\text{CHCl}_3$  solution:  $\text{Ph-CH=CH-CN}$



**Figure 32.** Diethyl acetylenedicarboxylate; neat liquid:  $\text{C}_2\text{H}_5\text{OCO-C}\equiv\text{C-CO}_2\text{CH}_2\text{CH}_3$

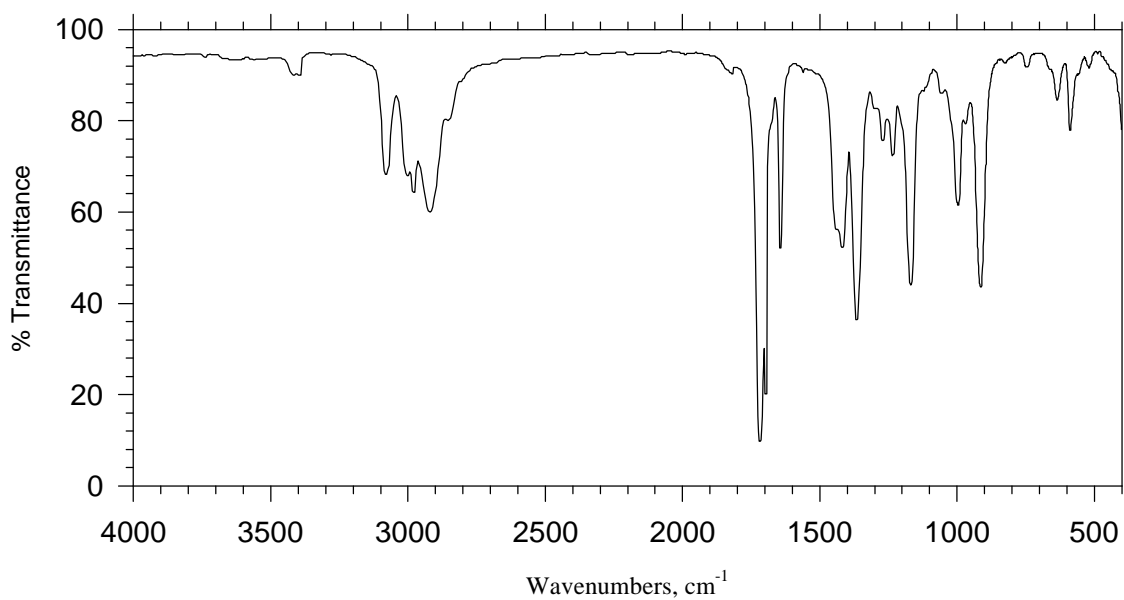


**Figure 33.** Methyl acetate in 0.1 mm NaCl cells:  $\text{CH}_3\text{CO}_2\text{CH}_3$

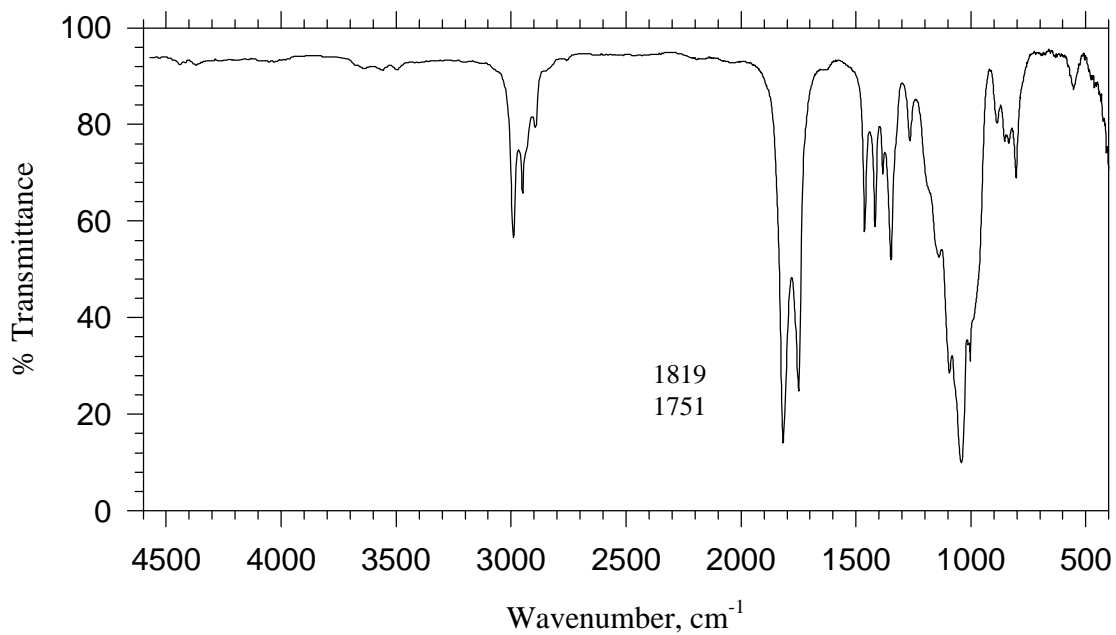


**Figure 34.** Vapor and liquid spectra of ethyl n-hexanoate:  $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CO}_2\text{CH}_2\text{CH}_3$

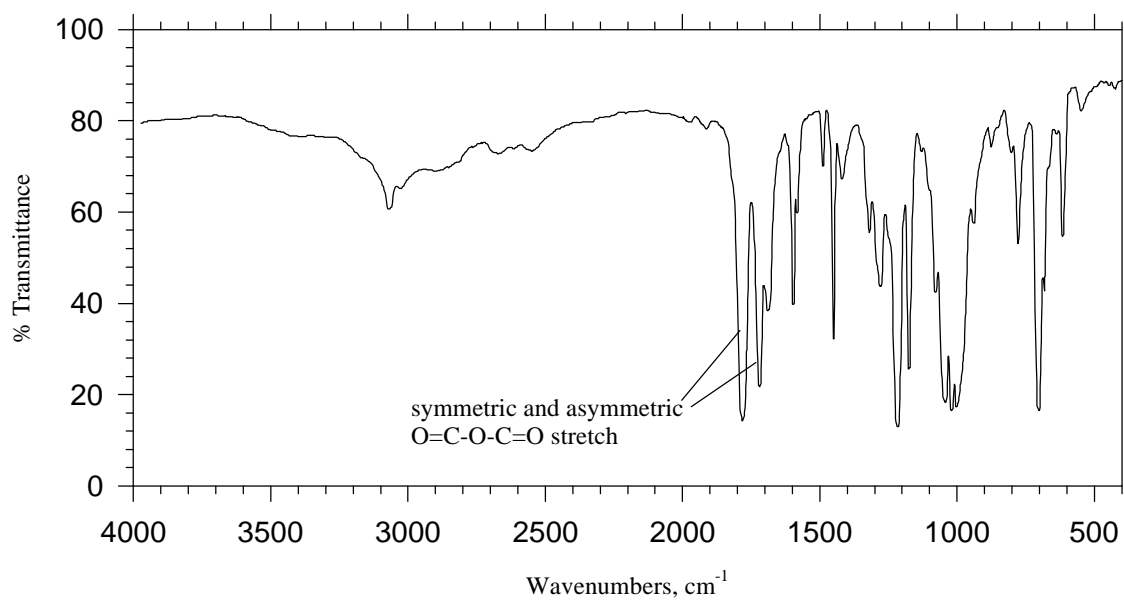




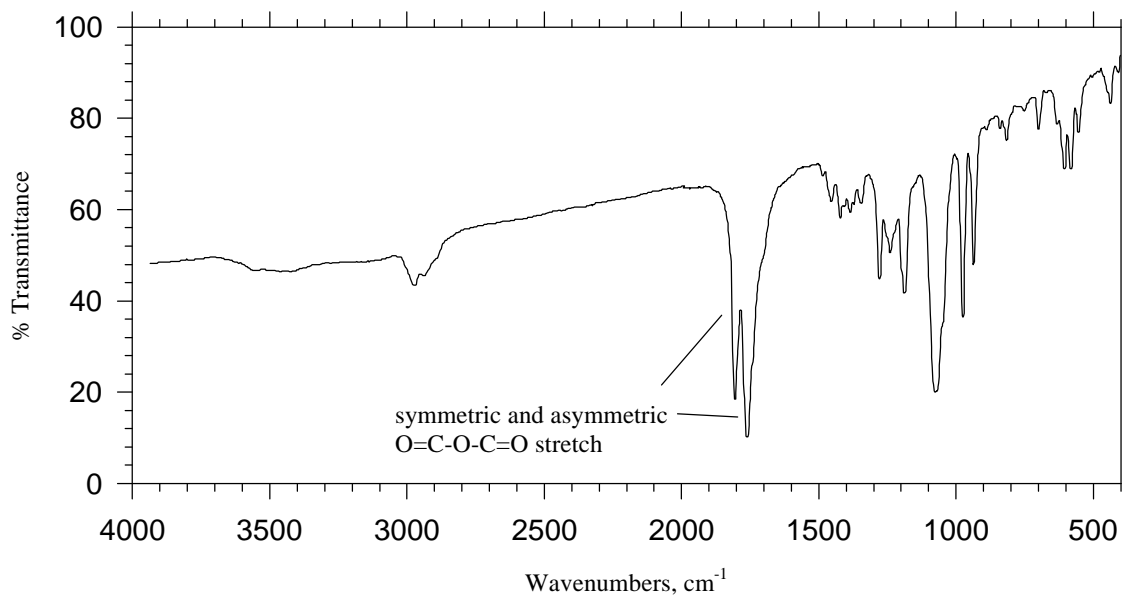
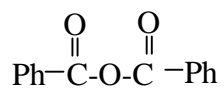
**Figure 35.** 5-Hexene-2-one, neat liquid:  $\text{CH}_2=\text{CH}_2\text{CH}_2\text{CH}_2\text{COCH}_3$



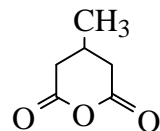
**Figure 36.** Propionic anhydride, neat liquid:  $\text{CH}_3\text{CH}_2\text{CO}_2\text{COCH}_2\text{CH}_3$

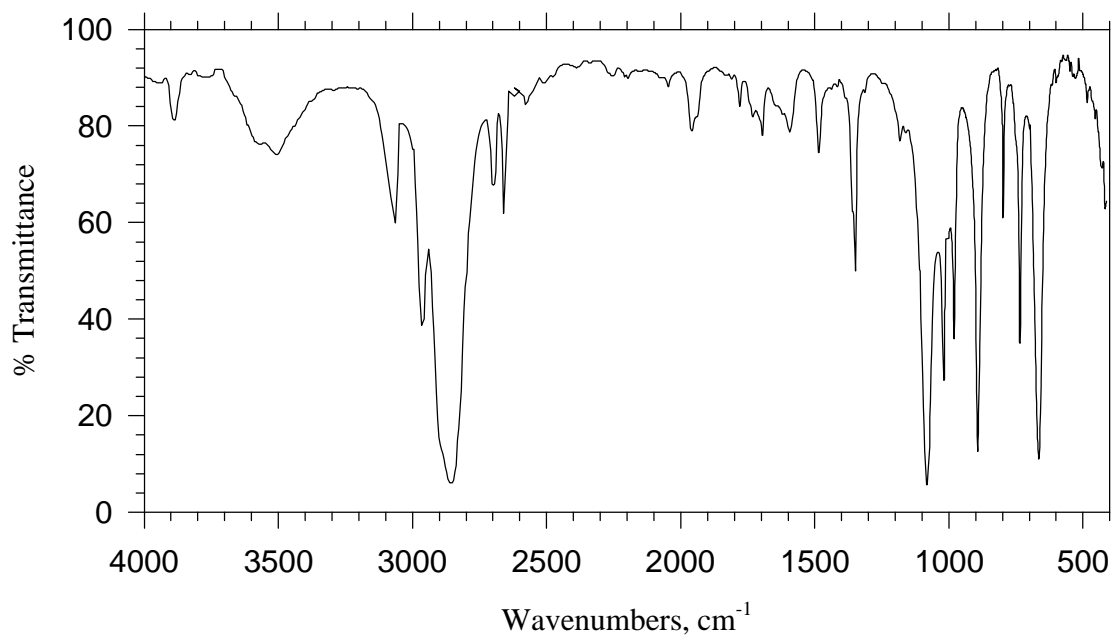


**Figure 37.** Benzoic anhydride, KBr pellet:

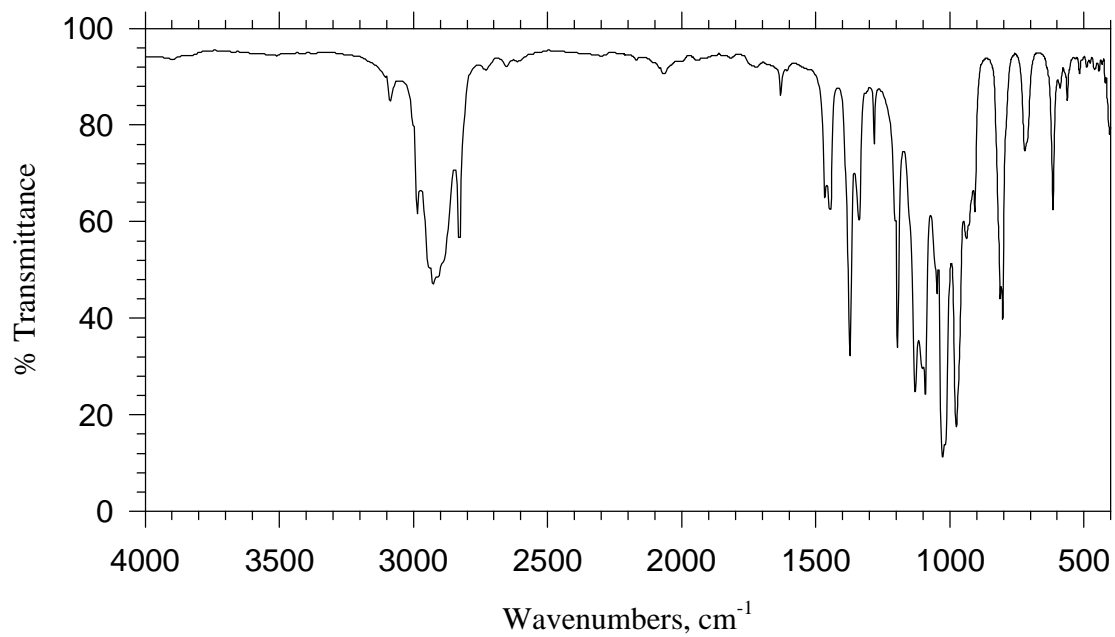


**Figure 38.** 3-Methylpimelic acid anhydride, KBr pellet:

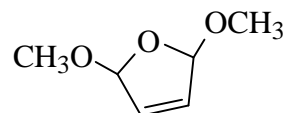


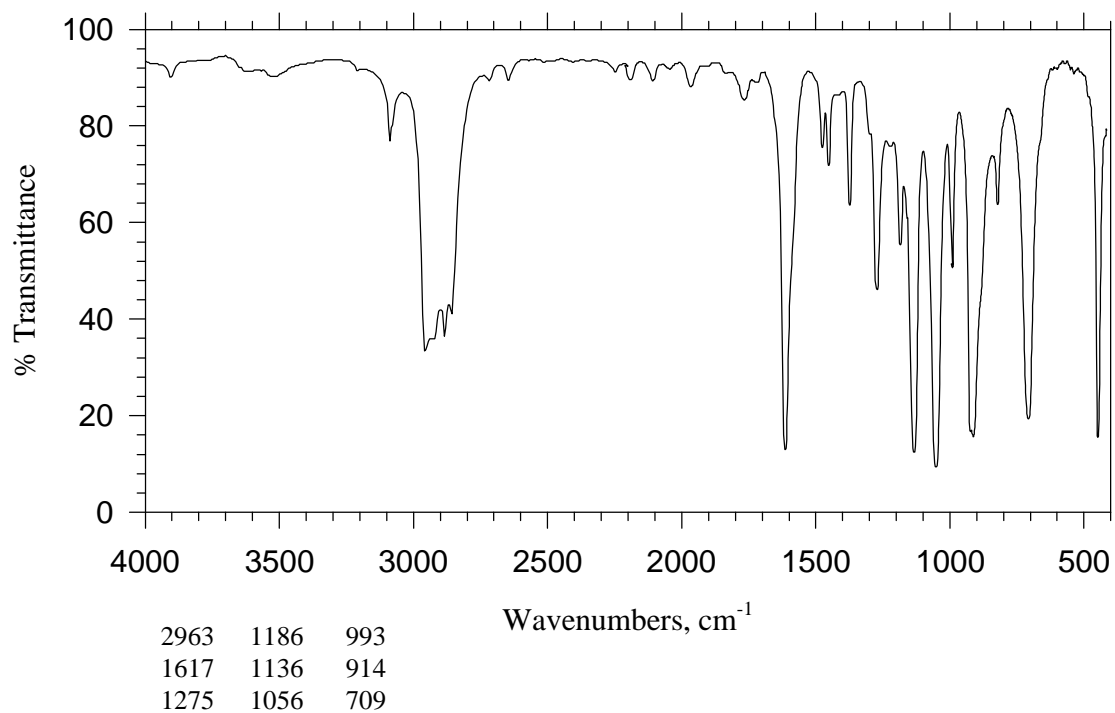


**Figure 39.** 2,5-Dihydrofuran, neat liquid:

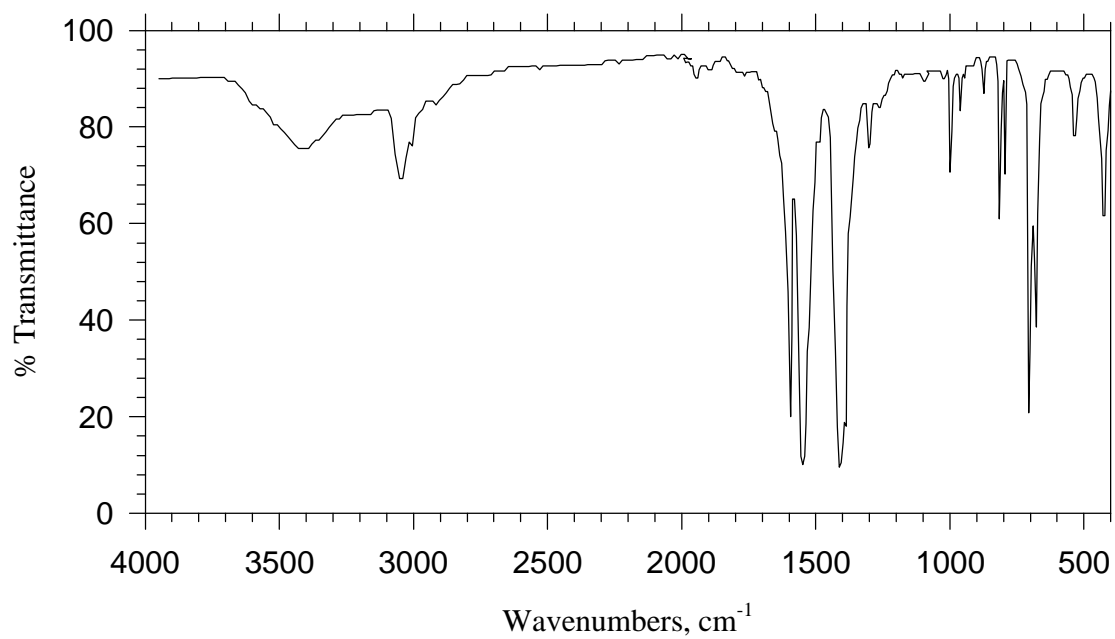


**Figure 40.** 2,5-Dimethoxy-2,5-dihydrofuran, neat liquid:

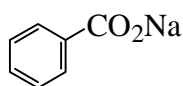


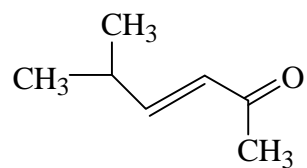
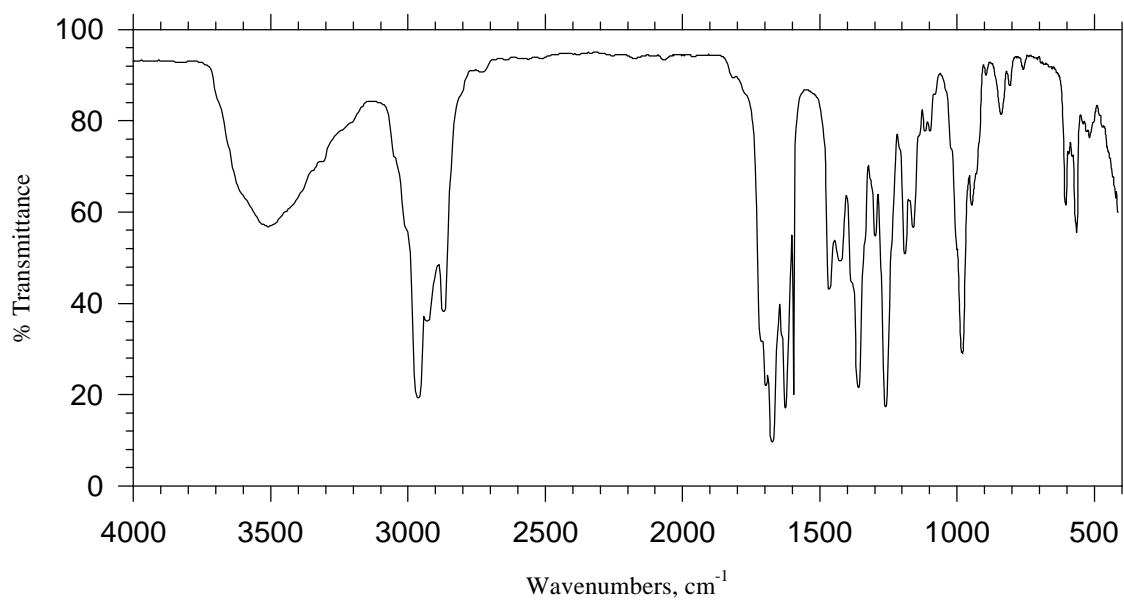


**Figure 41.** 2,3-Dihydrofuran, neat liquid:

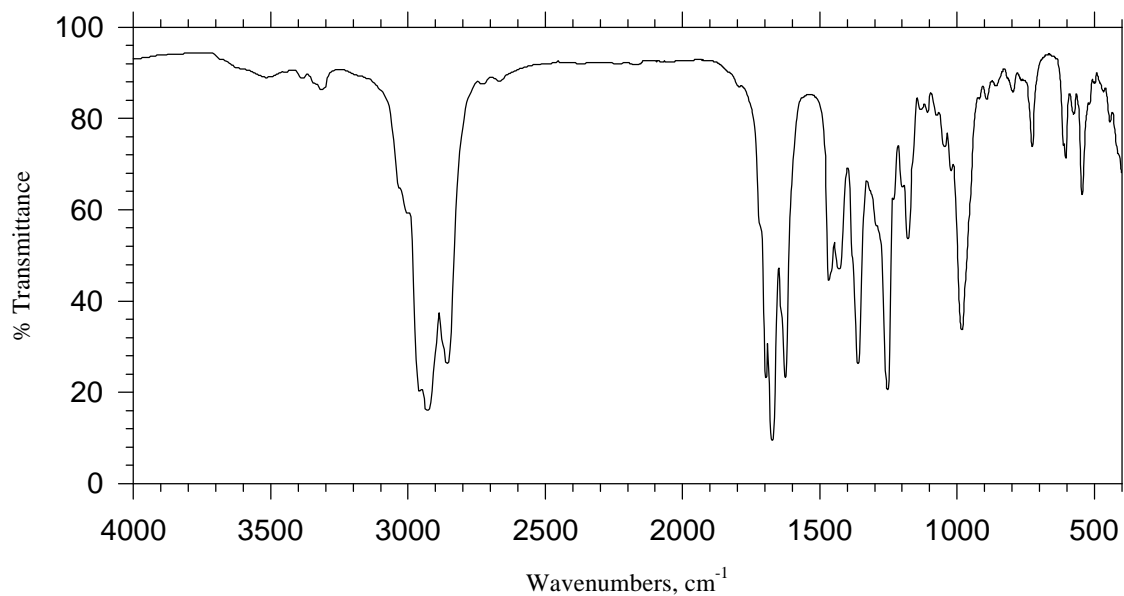


**Figure 42.** Sodium benzoate, KBr pellet:

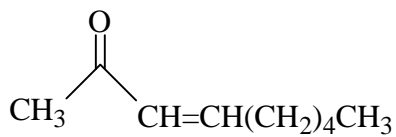




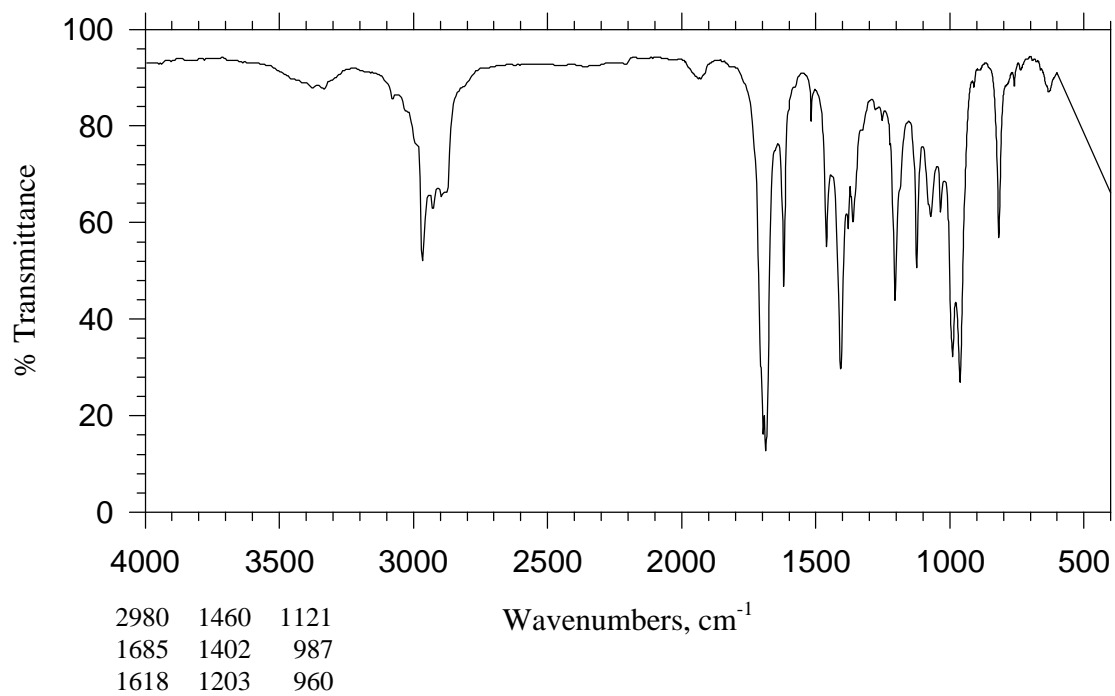
**Figure 43.** 5-Methyl-3-hexene-2-one, tech. grade, 80%; neat, thin film:



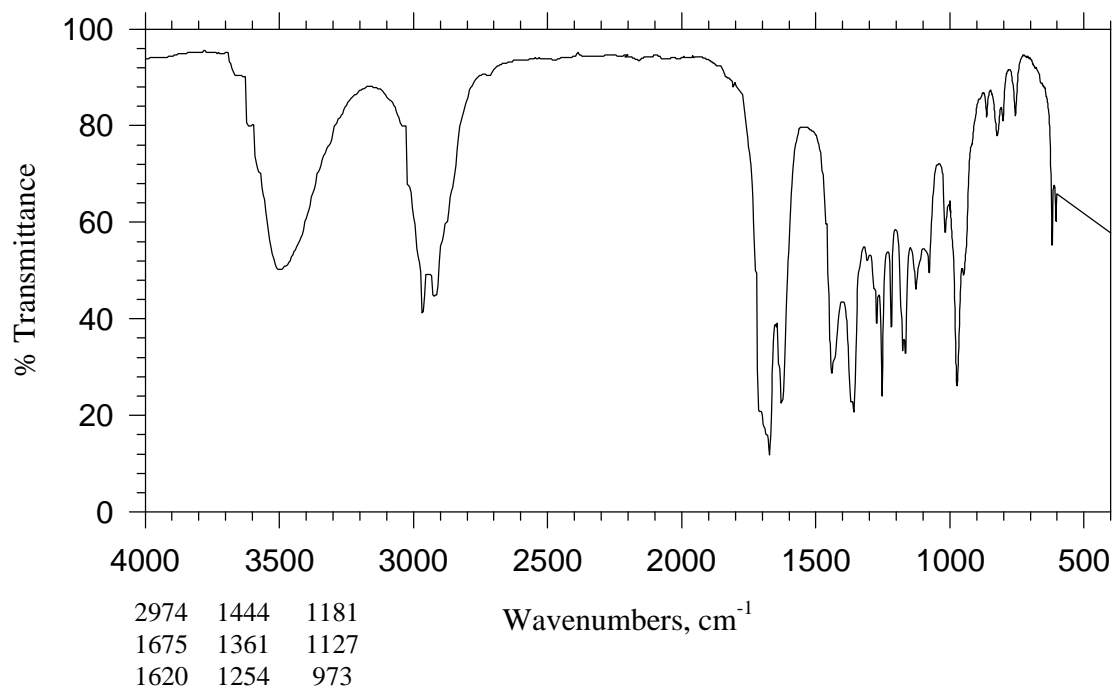
2930 1361 982  
 1677 1253 606  
 1467 1167 547



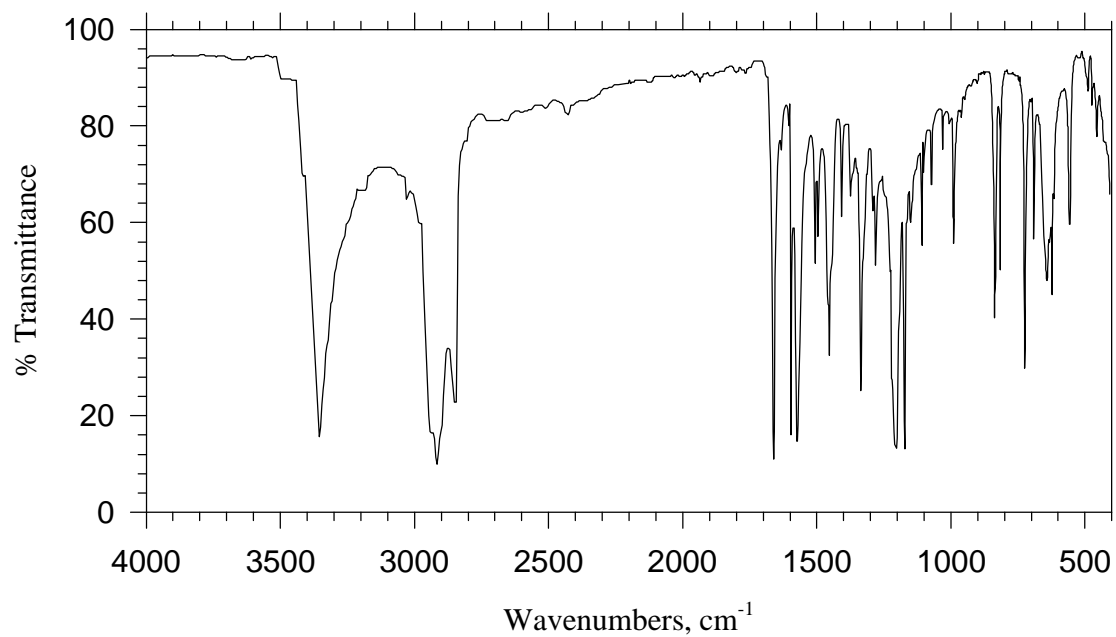
**Figure 44.** 3-Nonen-2-one, 95%; neat liquid, thin film:



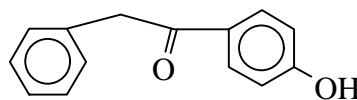
**Figure 45.** Ethyl vinyl ketone, neat liquid:  $\text{CH}_3\text{CH}_2\text{COCH}=\text{CH}_2$



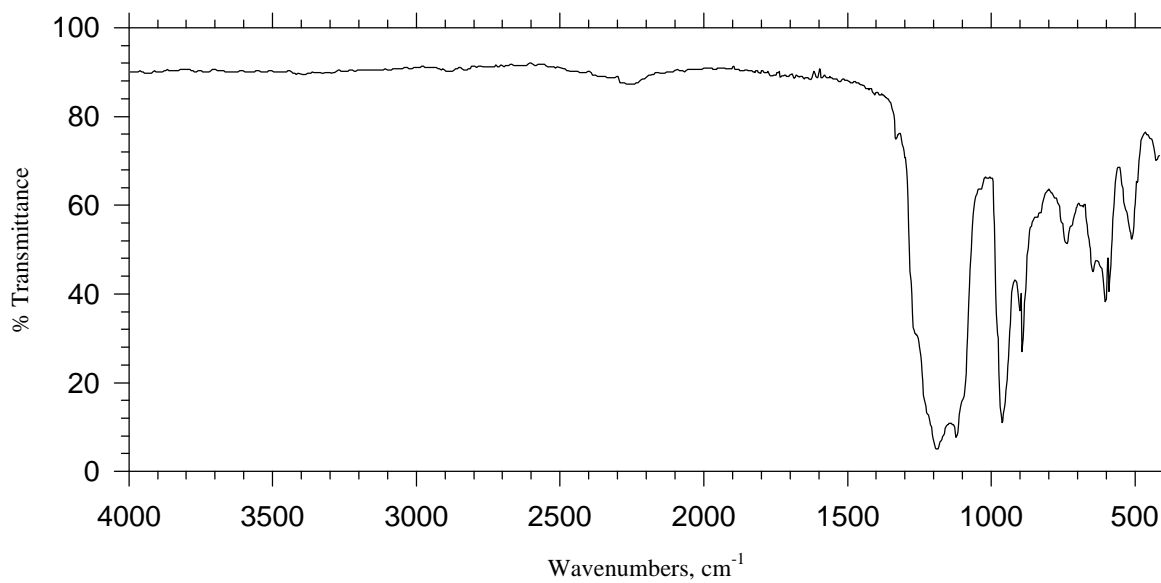
**Figure 46.** 3-Penten-2-one, neat liquid:  $\text{CH}_3\text{CH}=\text{CHCOCH}_3$



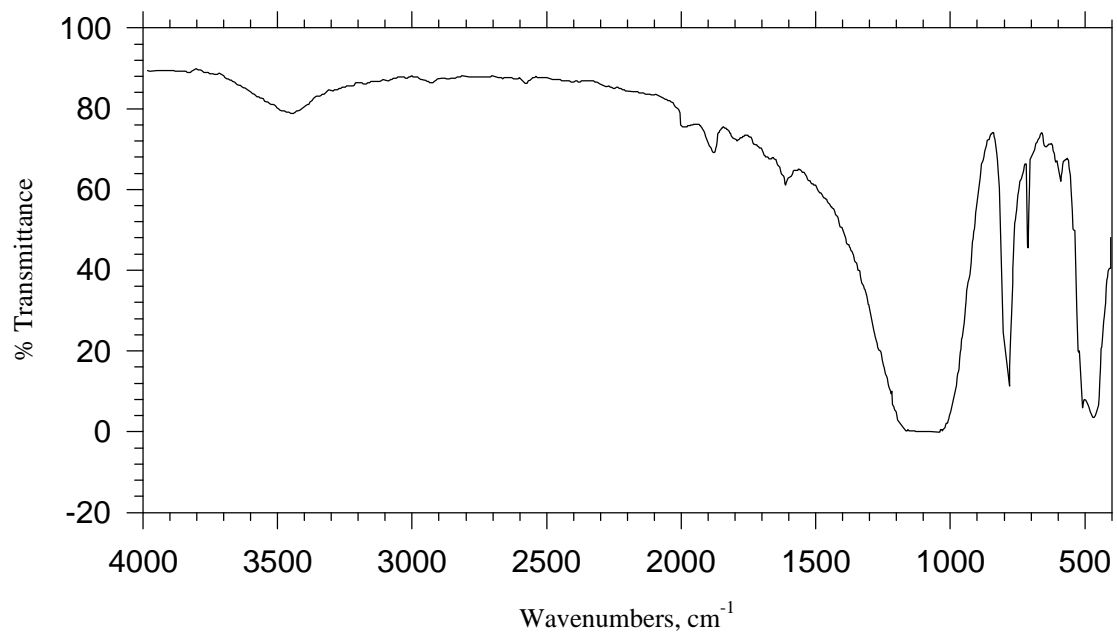
3368	1338	995
1666	1230	841
1578	1168	728



**Figure 47.** Benzyl 4-hydroxyphenyl ketone, Nujol mull:



**Figure 48.** Perfluorohydrocarbon oil; thin film



**Figure 49.** Quartz; KBr pellet.