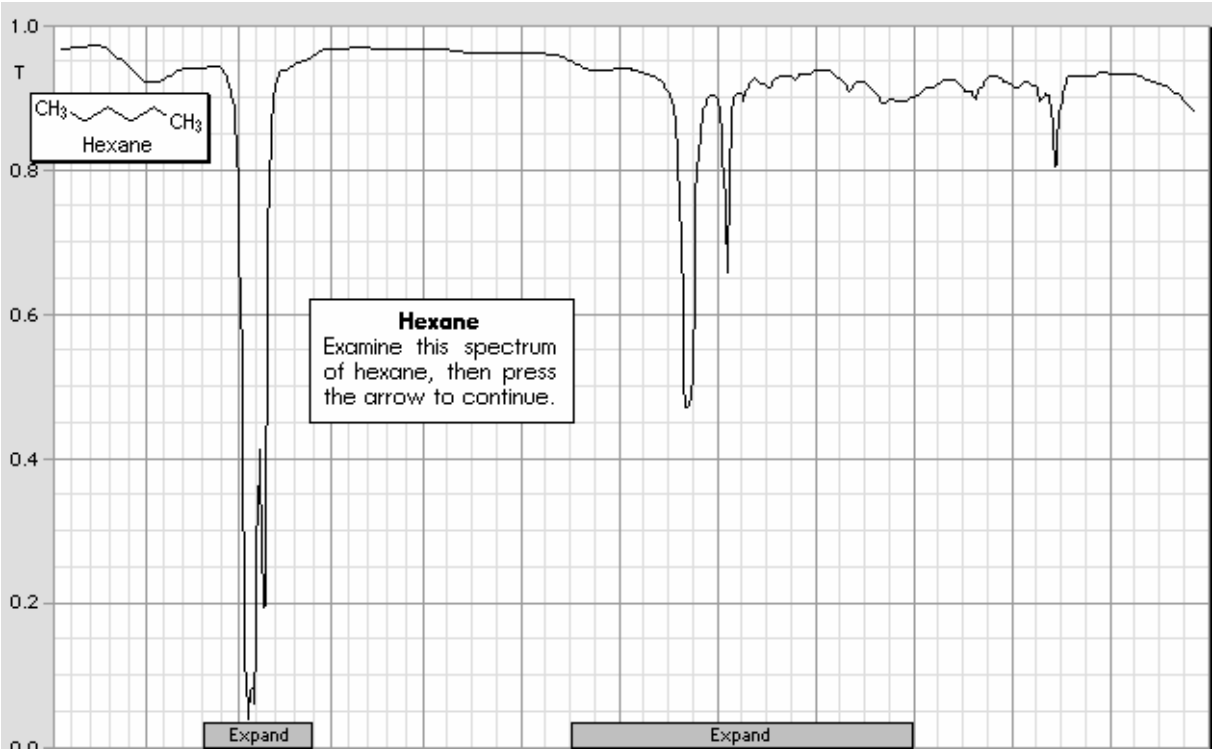
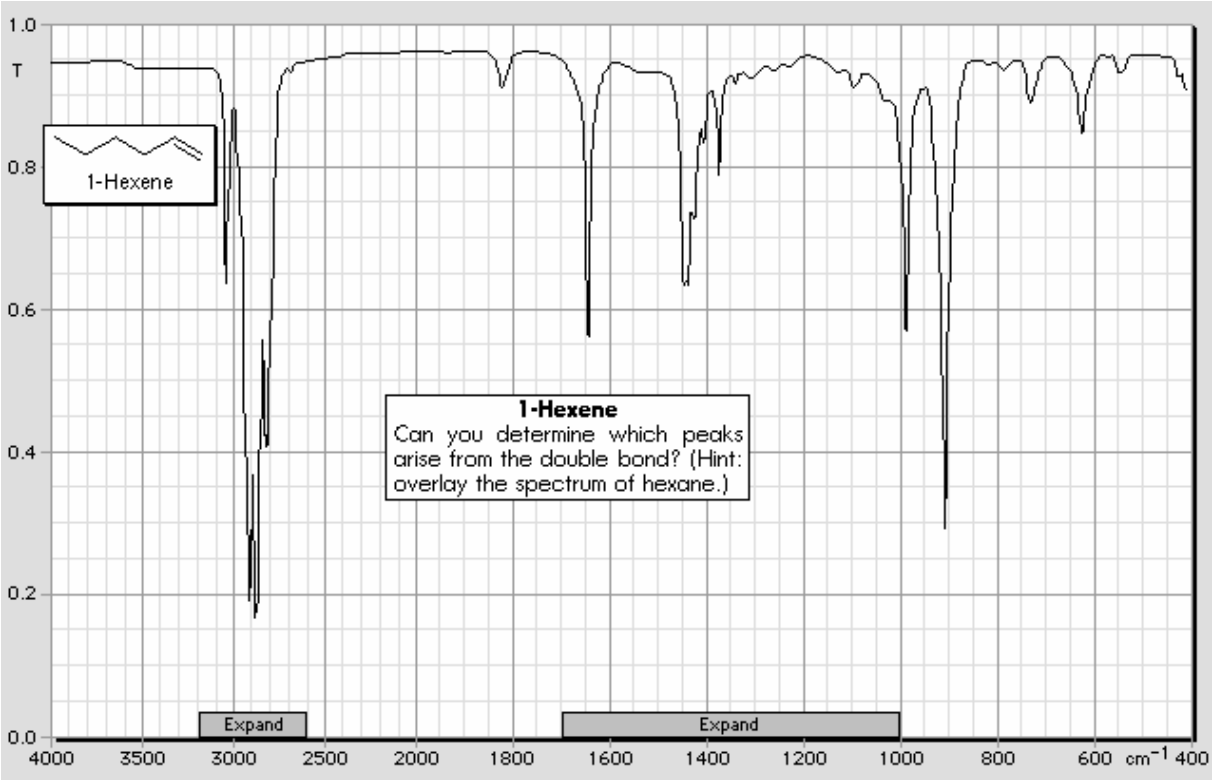
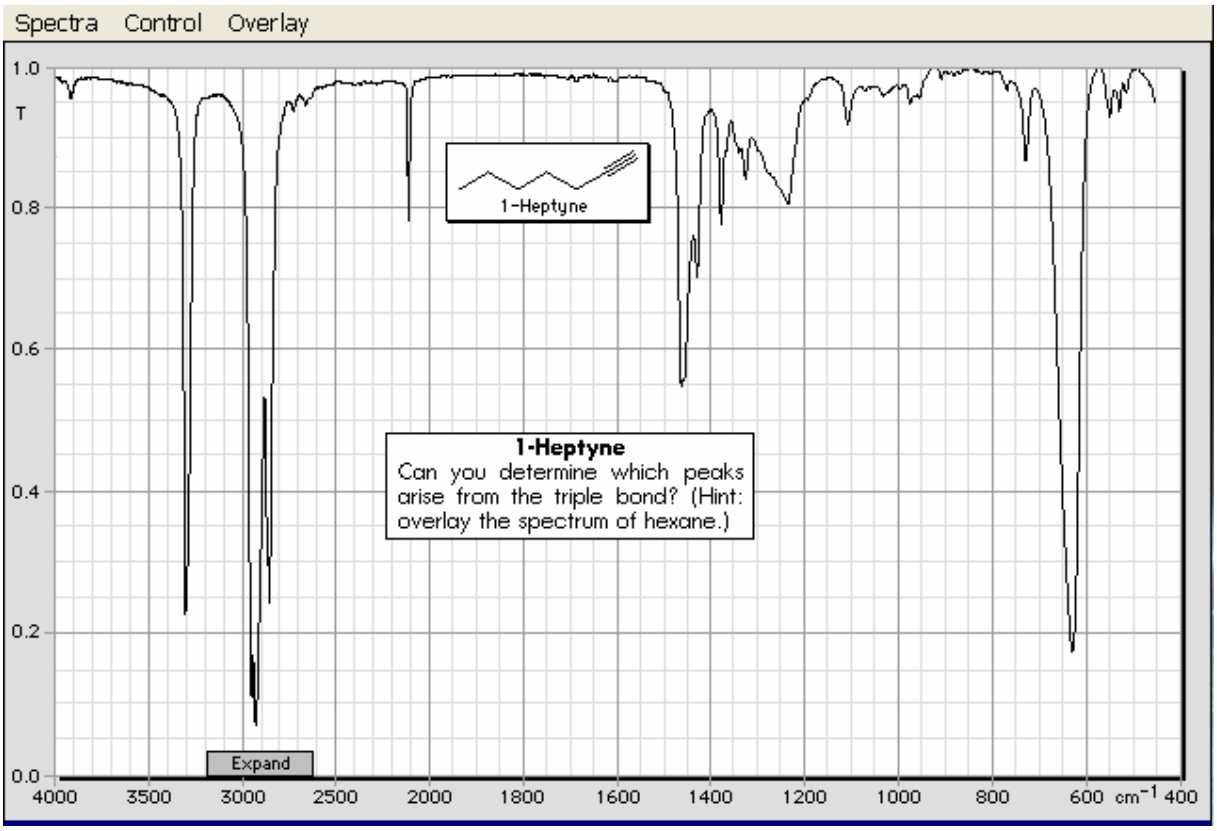
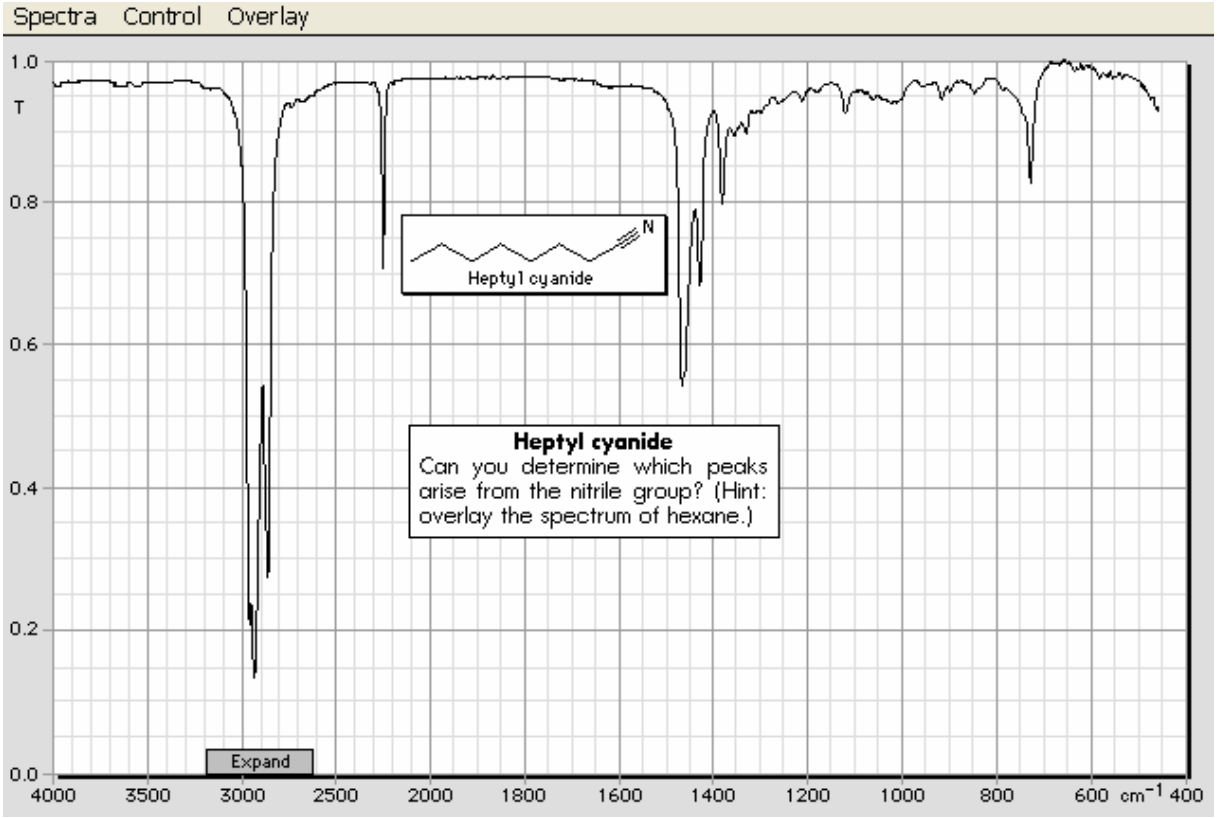
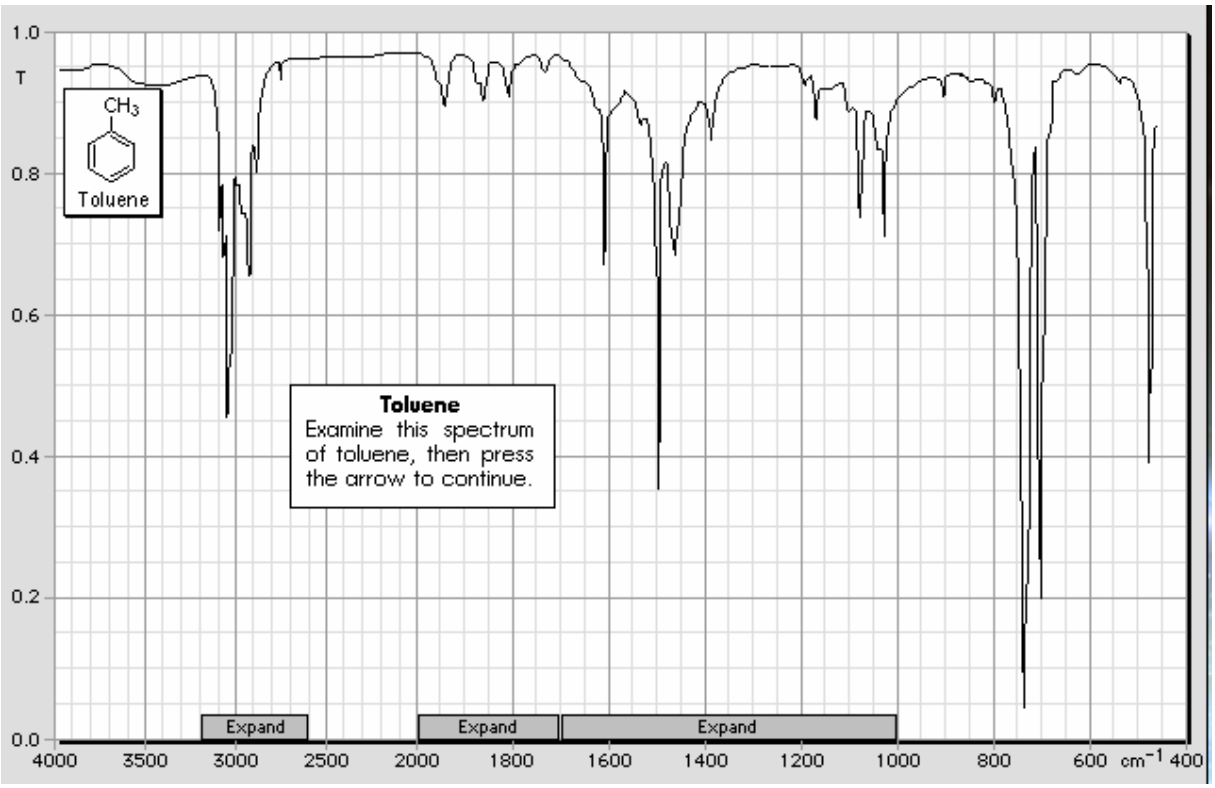
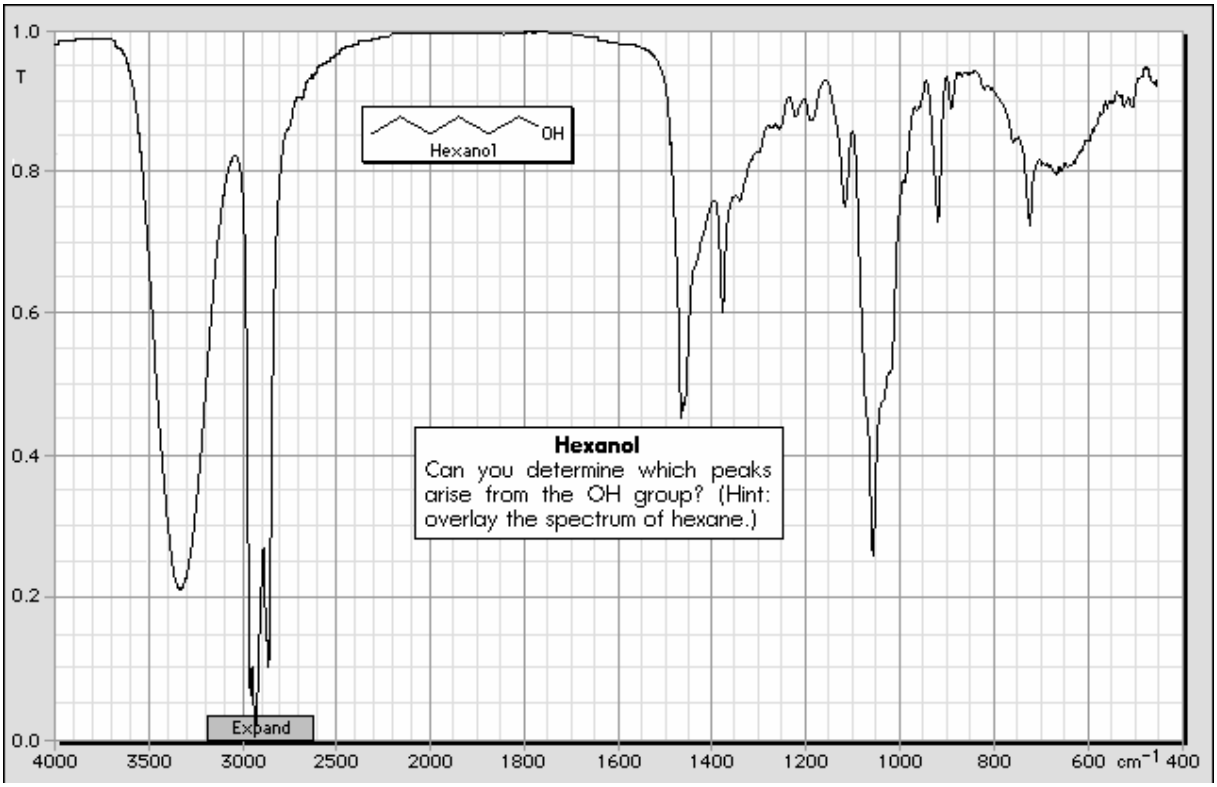

1.0
T
0.8
0.6
0.4
0.2
0.0
CH3
CH3
Hexane
Hexane
Examine this spectrum of hexane, then press the arrow to continue.
Expand
Expand

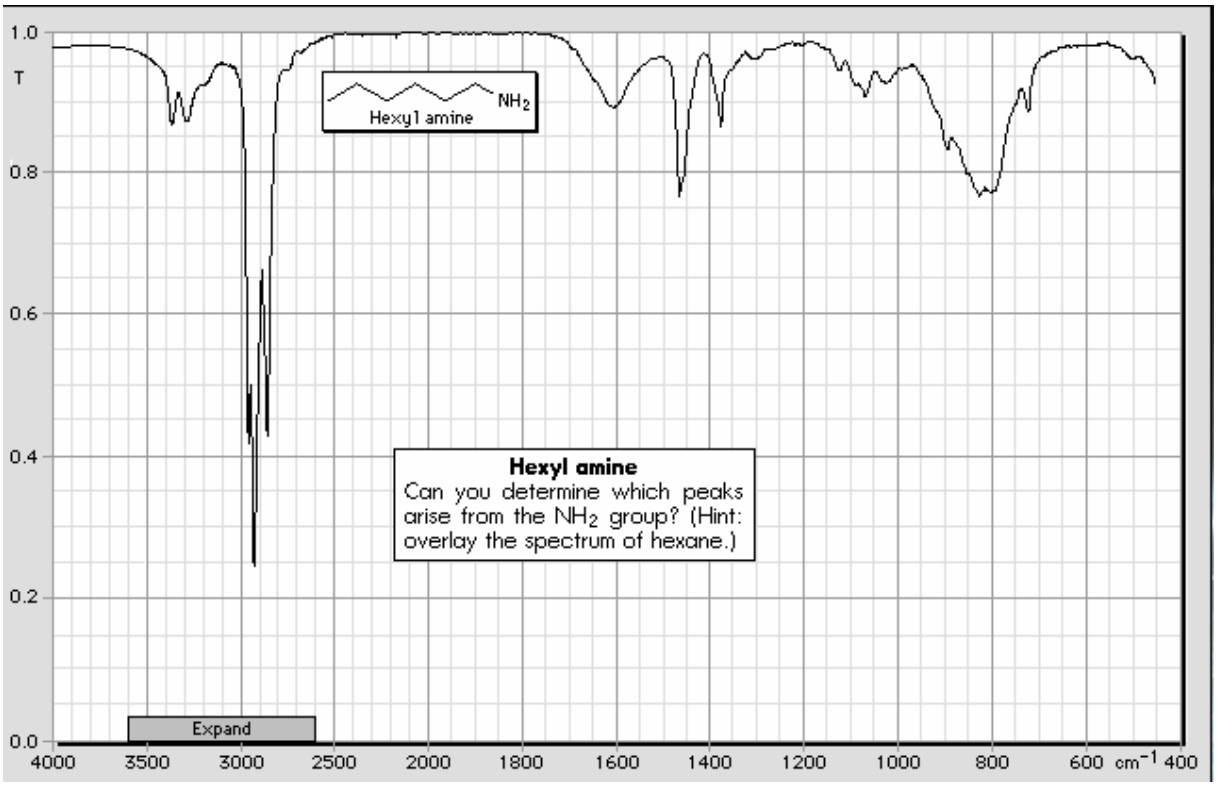

1.0
T
0.8
0.6
0.4
0.2
0.0
1-Hexene
1-Hexene
Can you determine which peaks arise from the double bond? (Hint: overlay the spectrum of hexane.)
Expand
Expand
4000
3500
3000
2500
2000
1800
1600
1400
1200
1000
800
600
cm-1
400

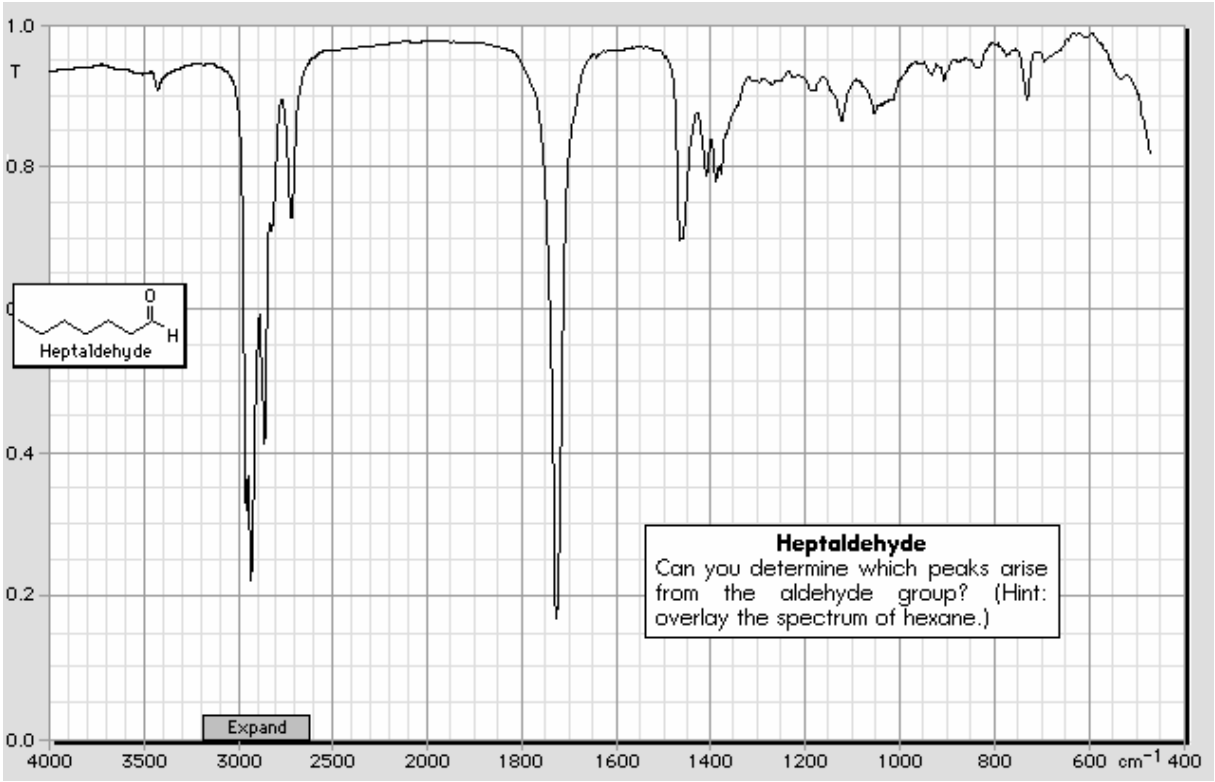

Spectra Control Overlay
1.0
T
0.8
0.6
0.4
0.2
0.0
1-Heptyne
1-Heptyne
Can you determine which peaks arise from the triple bond? (Hint: overlay the spectrum of hexane.)
Expand
4000 3500 3000 2500 2000 1800 1600 1400 1200 1000 800 600 cm-1 400

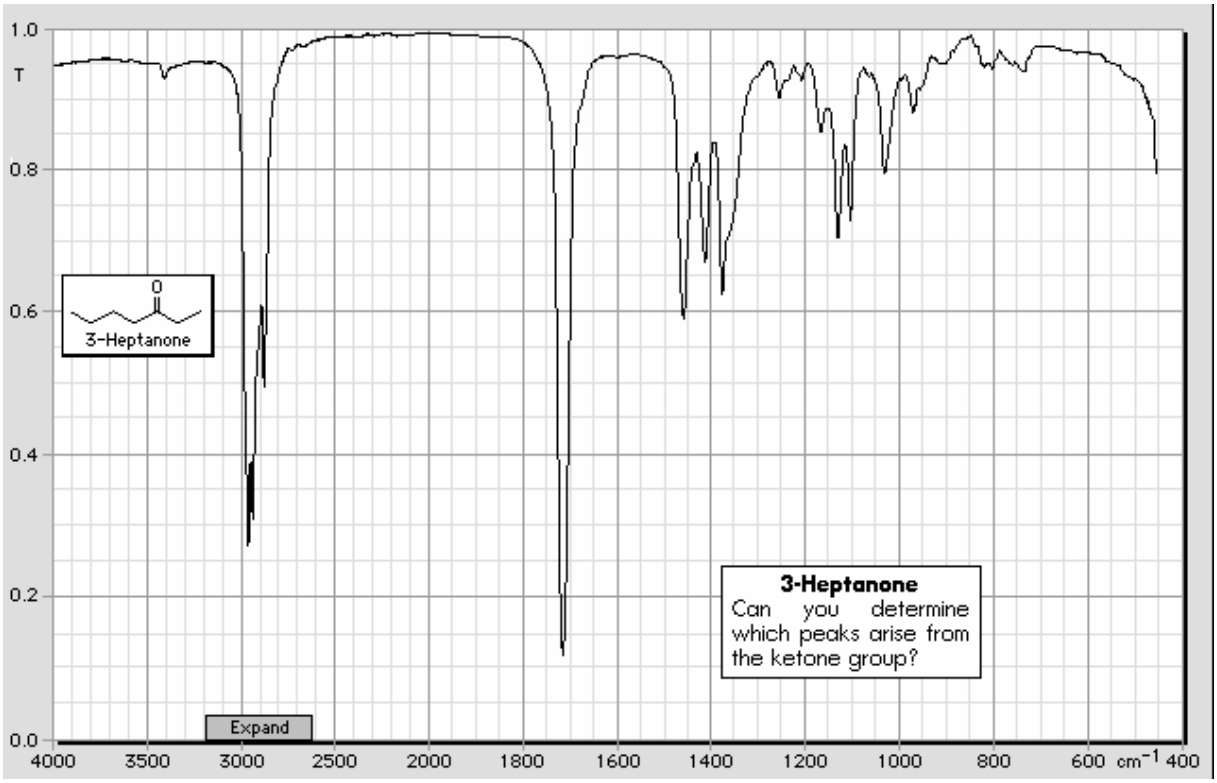

Spectra Control Overlay
1.0
T
0.8
0.6
0.4
0.2
0.0
N
Heptyl cyanide
Heptyl cyanide
Can you determine which peaks arise from the nitrile group? (Hint: overlay the spectrum of hexane.)
Expand
4000 3500 3000 2500 2000 1800 1600 1400 1200 1000 800 600 cm-1 400

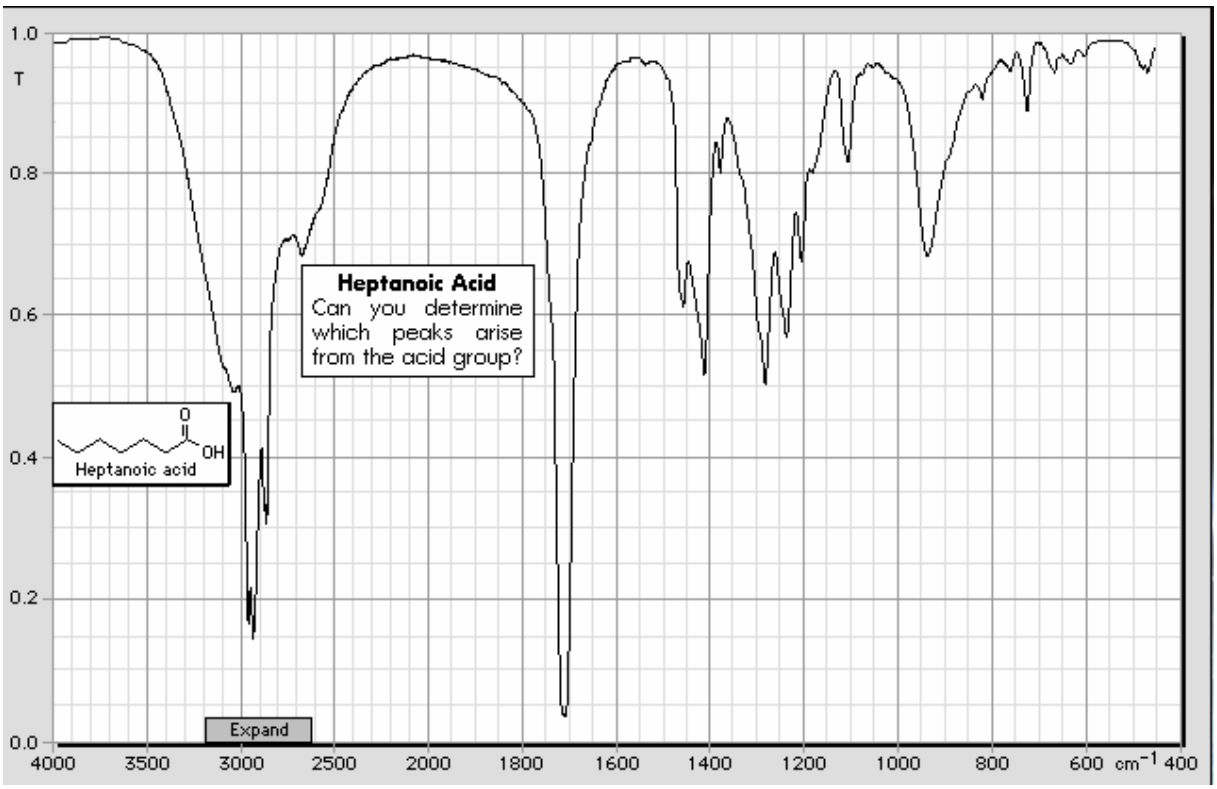

1.0
T
0.8
0.6
0.4
0.2
0.0
CH3
Toluene
Toluene
Examine this spectrum of toluene, then press the arrow to continue.
Expand
Expand
Expand
4000
3500
3000
2500
2000
1800
1600
1400
1200
1000
800
600
cm-1
400

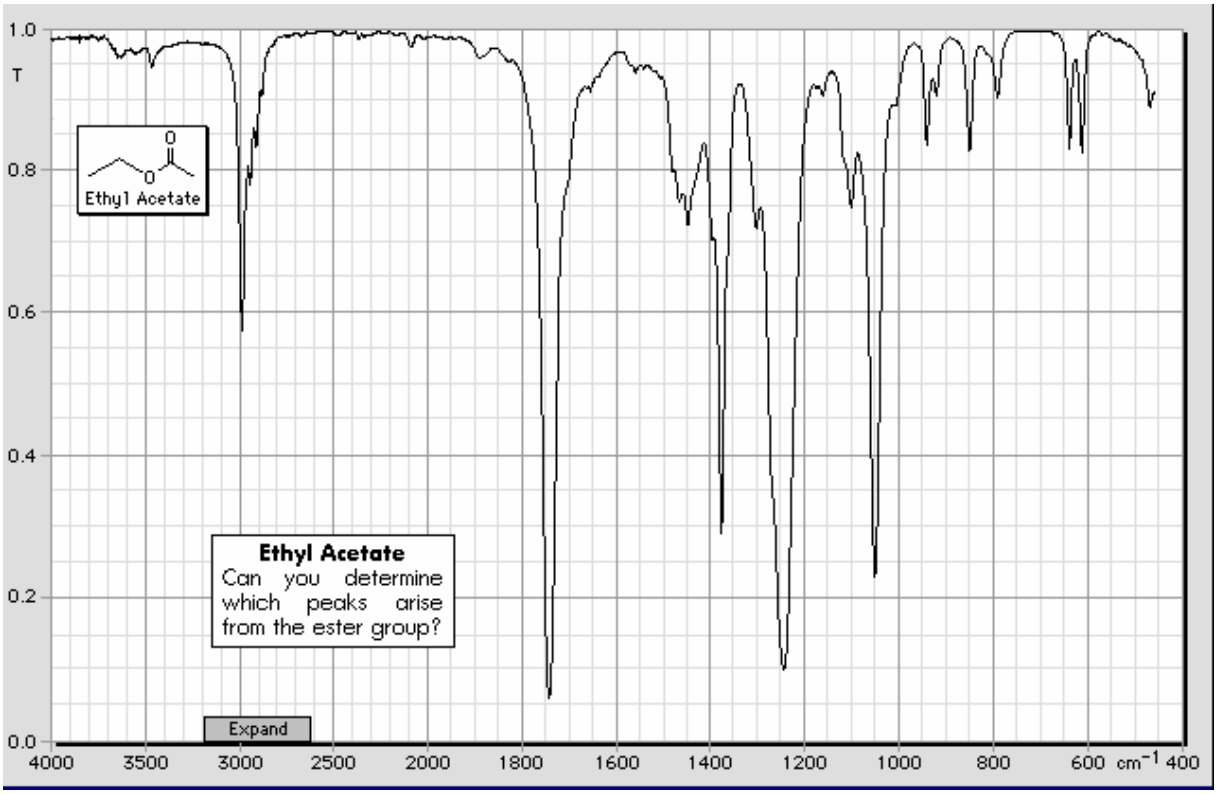

1.0
T
0.8
0.6
0.4
0.2
0.0
OH
Hexanol
Hexanol
Can you determine which peaks arise from the OH group? (Hint: overlay the spectrum of hexane.)
Expand
4000
3500
3000
2500
2000
1800
1600
1400
1200
1000
800
600
cm-1
400

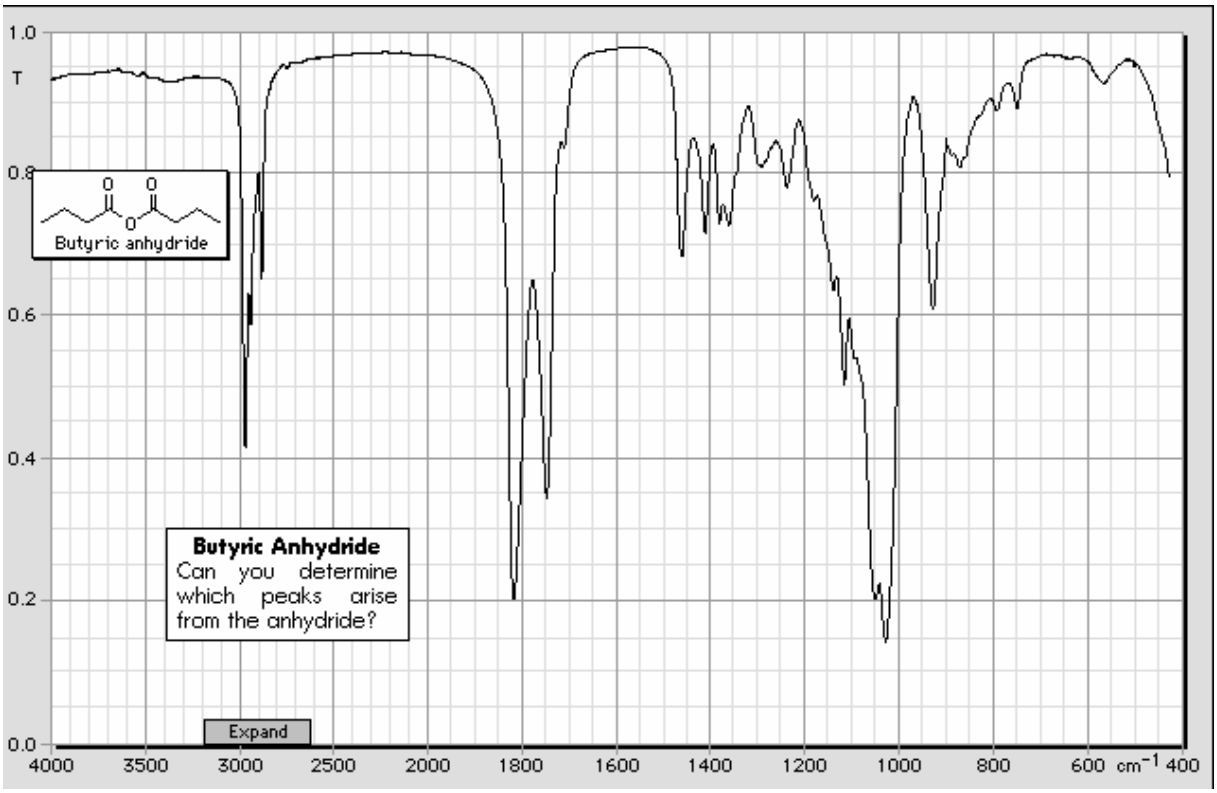

1.0
T
0.8
0.6
0.4
0.2
0.0
NH2
Hexyl amine
Hexyl amine
Can you determine which peaks arise from the NH2 group? (Hint: overlay the spectrum of hexane.)
Expand
4000
3500
3000
2500
2000
1800
1600
1400
1200
1000
800
600
cm-1
400


1.0
T
0.8
0.4
0.2
0.0
O
H
Heptaldehyde
Heptaldehyde
Can you determine which peaks arise from the aldehyde group? (Hint: overlay the spectrum of hexane.)
Expand
4000
3500
3000
2500
2000
1800
1600
1400
1200
1000
800
600
cm-1
400


1.0
T
0.8
0.6
0.4
0.2
0.0
O
3-Heptanone
3-Heptanone
Can you determine which peaks arise from the ketone group?
Expand
4000
3500
3000
2500
2000
1800
1600
1400
1200
1000
800
600
cm-1
400


1.0
T
0.8
0.6
0.4
0.2
0.0
O
OH
Heptanoic acid
Heptanoic Acid
Can you determine which peaks arise from the acid group?
Expand
4000
3500
3000
2500
2000
1800
1600
1400
1200
1000
800
600
cm-1
400


1.0
T
0.8
0.6
0.4
0.2
0.0
Ethyl Acetate
Ethyl Acetate
Can you determine which peaks arise from the ester group?
Expand
4000
3500
3000
2500
2000
1800
1600
1400
1200
1000
800
600
cm-1
400


1.0
T
0.8
0.6
0.4
0.2
0.0
Butyric anhydride
Butyric Anhydride
Can you determine which peaks arise from the anhydride?
Expand
4000
3500
3000
2500
2000
1800
1600
1400
1200
1000
800
600
cm-1
400