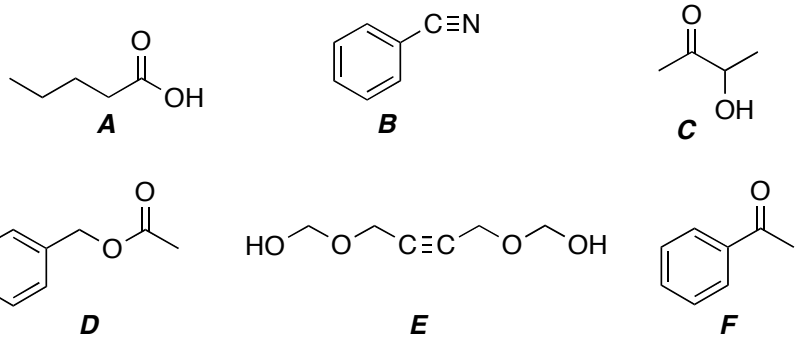
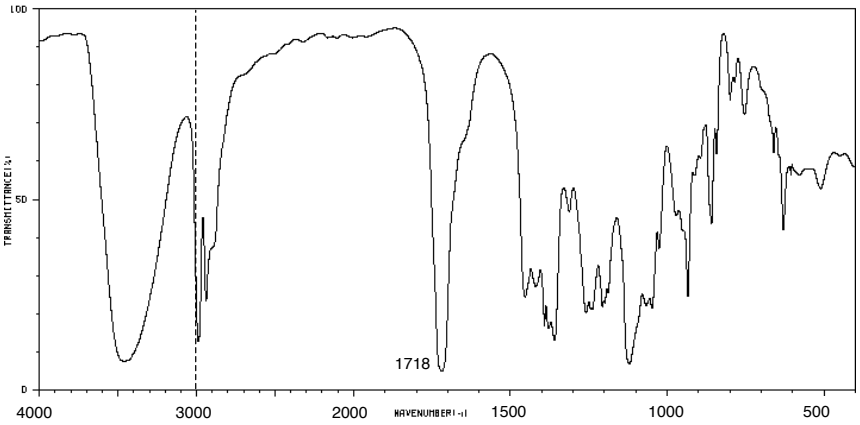
Chem 2061 Quiz 3 Name: _____
Fall 2005

Match the compounds ***A***-***F*** with their correct IR spectra on following pages.

On each spectrum, label any absorptions which correspond with the following types of vibrations:

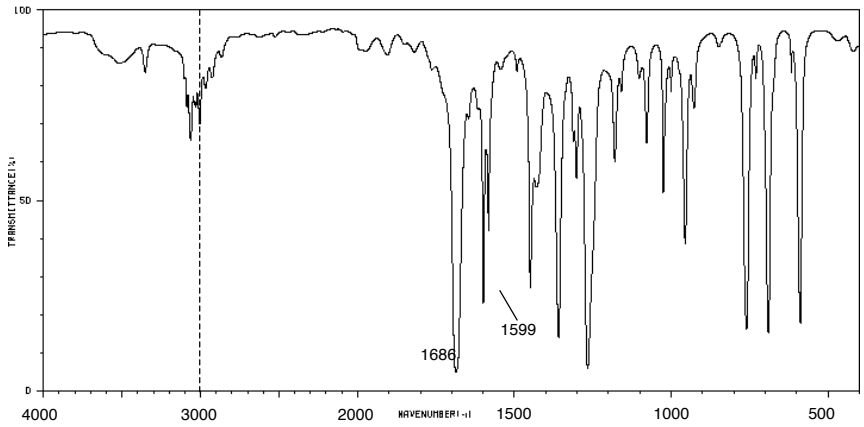
- sp^3, sp^2, sp, or aldehyde C–H stretch;
- isolated, conjugated, or aromatic C=C stretch;
- C≡C stretch;
- isolated, conjugated, amide, or ester C=O stretch;
- C≡N stretch;
- O–H stretch; or
- N–H stretch.





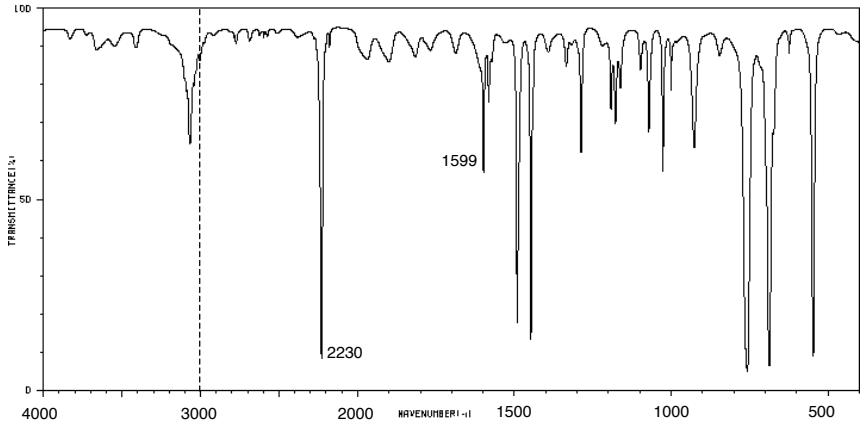
Compound: __*C*__

3200-3500: O–H str
2800-3000: sp^3 C–H str
1718: isolated C=O str



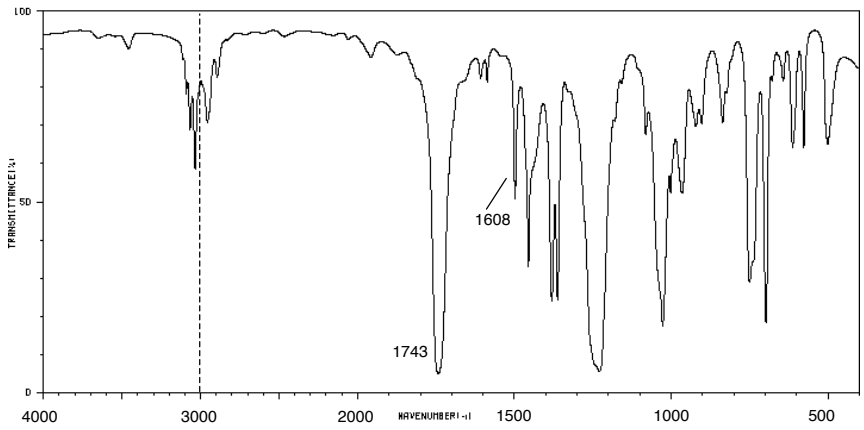
Compound: __*F*__

3100: sp^2 C–H str
2800-3000: sp^3 C–H str
1686: conjugated C=O str
1599: aromatic C=C str



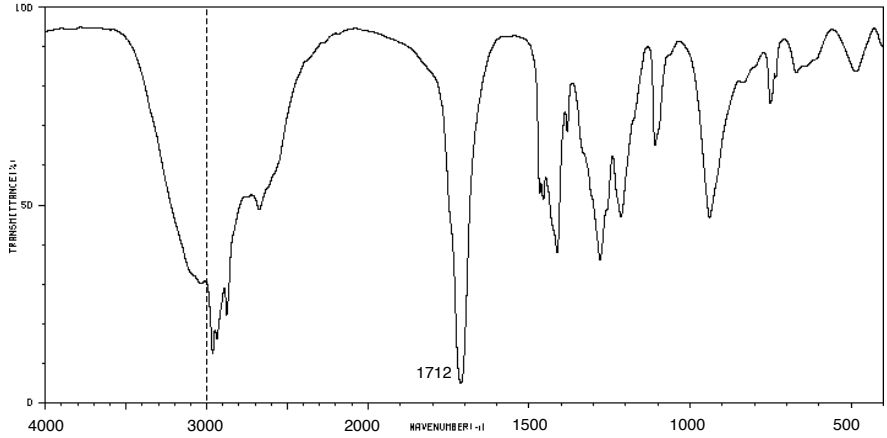
Compound: __*B*__

3100: sp^2 C–H str
2230: C≡N str
1599: aromatic C=C str



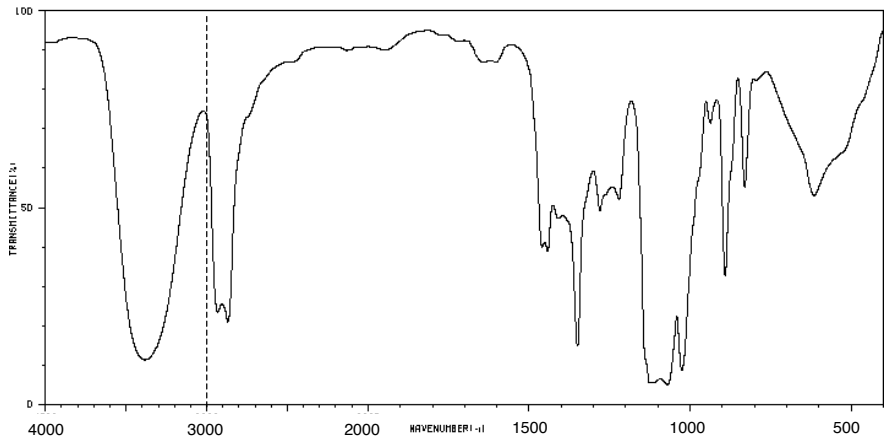
Compound: __*D*__

3000-3100: sp^2 C–H str
2800-3000: sp^3 C–H str
1743: ester C=O str
1608: aromatic C=C str



Compound: __*A*__

2500-3500: acid O–H str
2800-3000: sp^3 C–H str
1712: isolated C=O str



Compound: ___*E*___

3100-3500: O–H str
2800-3000: sp^3 C–H str
(no C≡C str because the bond is perfectly symmetrical and has no dipole)