

Infra Red Spectroscopy

Pre-lesson assignment – Textbook Pg 256-261

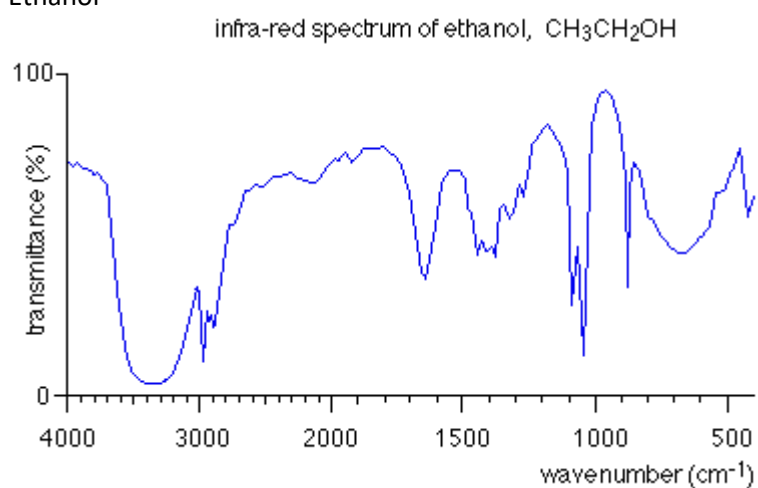
Define the following terms

- Wavenumber
- Fingerprint region
- Infrared Spectroscopy

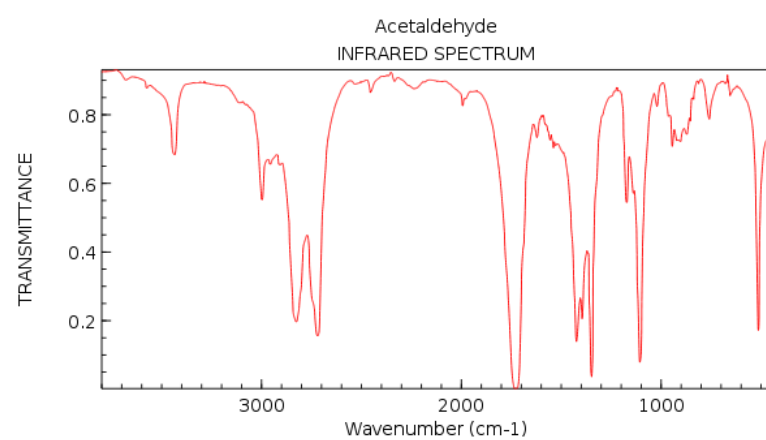
Make notes on mass spectrometry

Use the following questions as a guide

1. How does infrared radiation affect covalent bonds? Discuss
 - a. The way that the bonds can change.
 - b. Factors that affect how big these changes can be.
2. Explain how carbon dioxide can cause raised global temperatures in terms of IR radiation.
3. Explain how IR spectroscopy can be used to detect functional groups in an organic molecule. Use the three spectra below to help you.
 - a. Ethanol

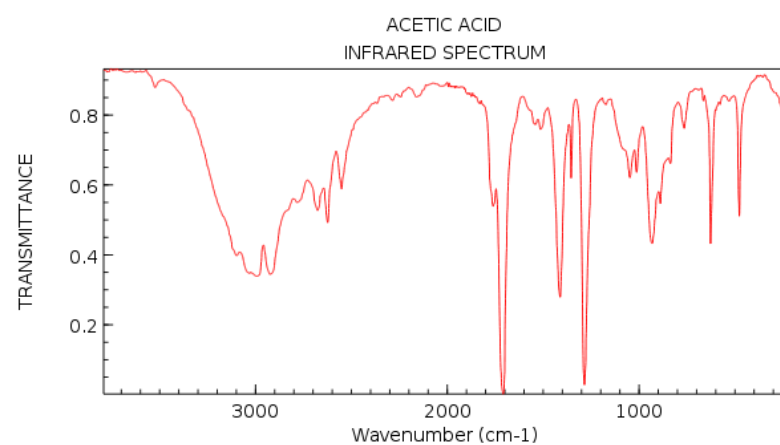


- b. Ethanal



NIST Chemistry WebBook (<http://webbook.nist.gov/chemistry>)

- c. Ethanoic acid



NIST Chemistry WebBook (<http://webbook.nist.gov/chemistry>)

Summary questions

You should now be able to do the summary questions on pages 255 and 261