

Infrared Spectroscopy (IR) assignment

Purpose:

For this lab grade, you must watch the following YouTube video in order to learn about infrared spectroscopy. This video is an hour long, and gives you a detailed analysis on what IR is. Briefly, IR spectroscopy is used to identify functional groups in compounds. Functional groups include C=O double bonds, O—H single bonds, C=C double bonds, etc. IR detects these different types of bonds and provides a signal that you must interpret. Before you watch the video, I want you to refresh yourself on all of the functional groups that we went over in class (from Chapter 2.3) and figure out what type of atom-to-atom bonds are in each type of functional group.

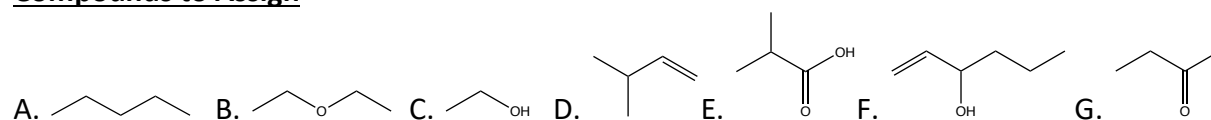
YouTube video

IR Infrared Spectroscopy Review – 15 Practice Problems – Signal, Shape, Intensity, Functional Groups
- The Organic Chemistry Tutor

https://www.youtube.com/watch?v=_Xi5ZVbbfI

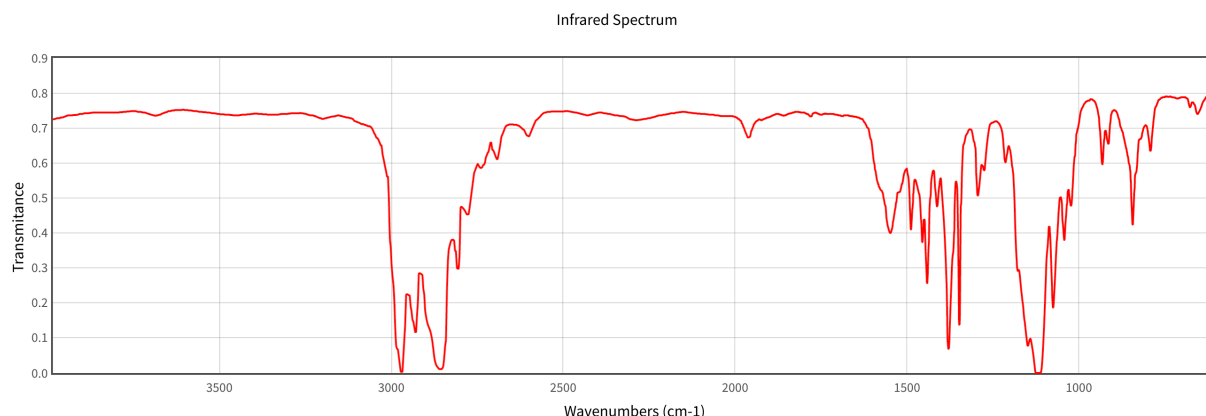
After you watch this video, I want you to write a paragraph (at least 4-5 sentences) about your key takeaways from the video and how this technique could be helpful to an organic chemist making new compounds. Then match the following compounds (A-G) to their respective IR spectra (1-7). You can write and match in a word document and then upload it to the correct Assignment in D2L.

Compounds to Assign

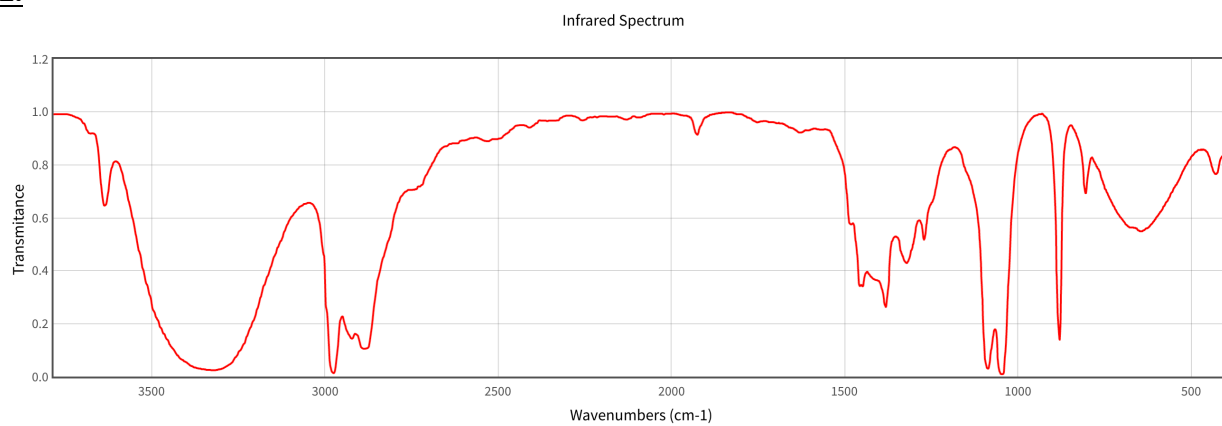


IR Spectrums

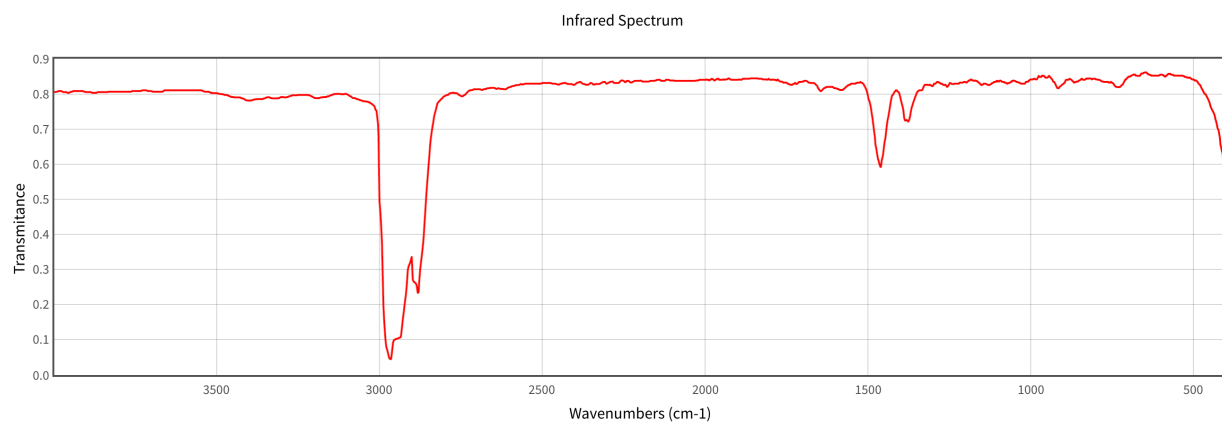
1.



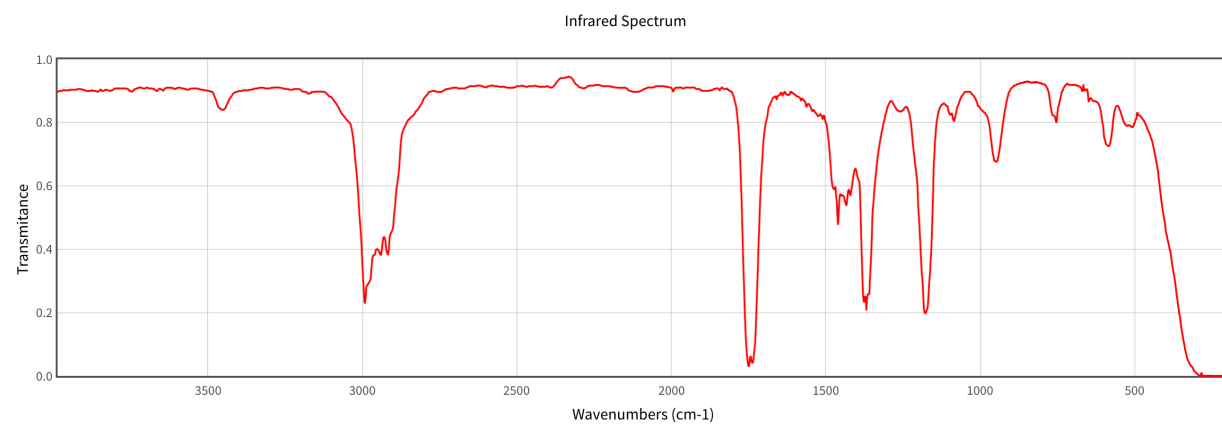
2.



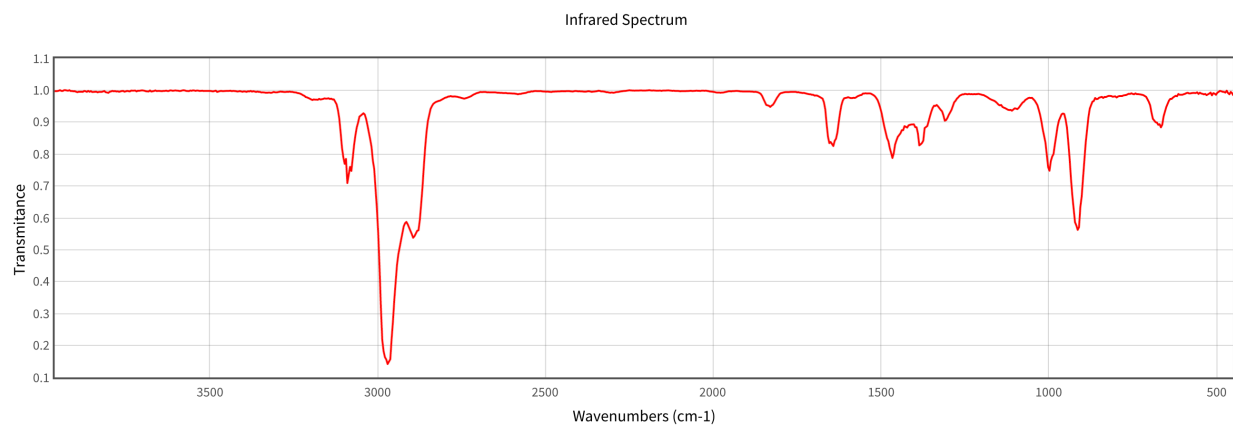
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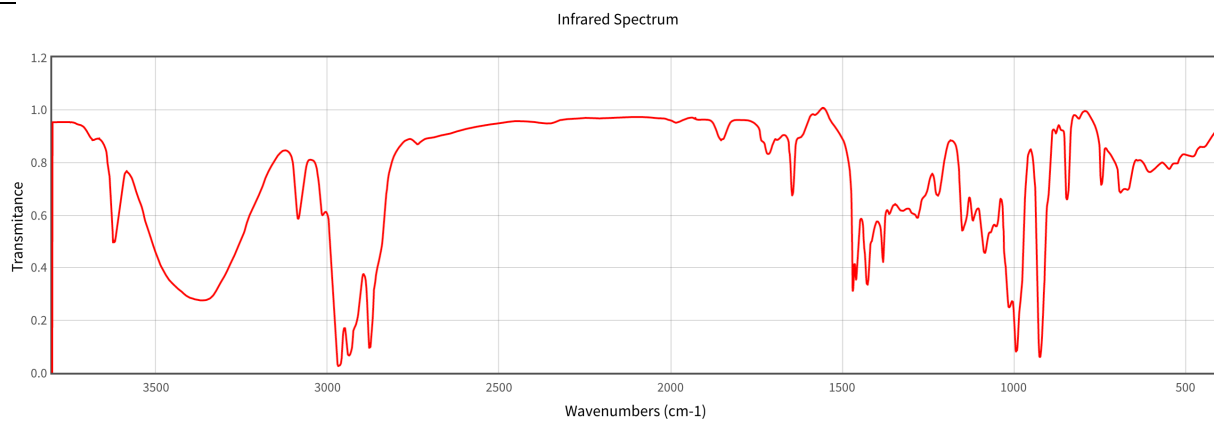
4.



5.



6.



7.

