

GUIDELINES FOR IR REPORTS

Part 1 – Known Compounds

Pick two of the known compounds we did; use ethylbenzene and 2-butanone. Make a table of IR assignments (be aware that you will most likely not be able to assign all of the peaks in the spectrum).

Part 2 – Unknown compound

What is the chemical formula for your known?

What do you think is the chemical identity of the unknown?

Make a table of stretching frequencies and attempt to assign as many peaks as possible (be aware that you will most likely not be able to assign all of the peaks).

Suggest at least one other compound that has the same chemical formula as your unknown and explain why your compound CANNOT be one of these; what peaks are missing from or present in your spectrum that would rule out this compound?

(If you need help with this last question, there are several internet databases that will give you a list of possible compounds from a chemical formula; one of these is the Combined Chemical Dictionary, which is part of CHEMnetBASE. To access this database, go to the library's main page. From there, go to "electronic resources," choose "chemistry" under "science and technology", and then "CHEMnetBASE" from the "subject databases" list. Lastly, choose the "combined chemical dictionary" and search by molecular formula.)

The due date for the reports will be April 11, 2007