

Discussion

You should discuss EACH piece of data that you've collected and how it matches or does not match your proposed structure. For example, if you are proposing an aldehyde, you may want to say "The unknown showed a positive Tollens test, indicating that the unknown is an aldehyde." You should also discuss data that narrows your search; for example "The measured microboiling point of the unknown was approximately 103°C, indicating that the aldehyde was either trimethylacetaldehyde or 3-methylbutanal. Other possibilities had a microboiling point significantly higher than this one."). In the discussion you should also analyze your IR spectrum: indicate which important peaks match your unknown and which do not. Remember to indicate the correct vibrational frequency of the peak (e.g. "2980.4 cm⁻¹") as well as the identity of the peak (e.g. "Alkane C-H stretch"). **Please attach a copy of the IR spectrum to this report, and hand this discussion in with your data sheet from the lab manual.** I should be able to read your prose from start to finish and see a CLEAR progression of ideas that lead me to a single conclusion as to the identity of your unknown.