

Chemistry 118B Formal Write-up Guide

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The write-up should be no more than 3 pages; typed, single-spaced (2 pages should be plenty). You need to include the following sections, and try to be succinct (a great report provides the same info and explanation as an average report, but uses fewer words).

Purpose: 1-2 sentences on what you hoped to accomplish and learn from the experiment.

Procedure: Simply refer to the pages from the Manual and the Text for the actual procedures. HOWEVER, you must briefly describe each test you performed on the unknown in terms of the chemical reaction (drawn out in full) and how the results indicate a particular functional group. For example, the chromic acid test for alcohols draw out the actual chemical reaction, and explain how the end result (i.e. color change or lack of color change) confirms the presence of an alcohol and the type. The relevant chemical reactions can be found in the course text books.

Results: Provide the results of each test, including the IR analysis. Probably the easiest way to present this is in some form of a table, but that is left up to you. **State which unknown you used.**

Discussion: Explain what the result of each test indicates, and provide the potential compounds from the list in your manual that match your data and could possibly be in your unknown. Provide all logic you used to narrow down to those candidates. As an example, in Lab B you have 2 compounds in your unknown, and each of the two compounds will have a different single functional group (for example, you will NOT have two different alcohols). You should be able to narrow down to no more than 3 potential candidates for each of the 2 compounds in your unknown. Most people will only have two candidates for each, or even actually know the actual identity of one or both. In any case, you need to justify your choices based on your results. **DON'T FORGET TO STATE WHICH UNKNOWN YOU USED.**

Conclusion: State the potential candidates for the unknown compounds, and summarize the lab (what did you learn, did you fulfill the Purpose, etc.). Probably about five sentences will be sufficient.

Of the above sections, the Results and Discussion sections will comprise the majority of the points for this lab so please concentrate on them. Proper grammar and spelling will also be worth points, so please remember to spell check. Also, please staple the data report sheet for the lab to the back of the report so that your original data can be confirmed.