

# ORGANIC CHEMISTRY 1

## FORMAT OF LABORATORY REPORT

Your laboratory report should be divided into the following sections each written as paragraph and double-spaced. Your report must be NO LONGER than 2 pages.

**I. Introduction** A brief statement of the purpose of the experiment. This is also a good place to show relevant structures and chemical equations. (i.e. what did you want to do and how?)

**II. Experimental Procedure** Write a summary of the experimental procedure. Be particular about reporting the amounts of materials used and any modifications made to the original procedure. Avoid simply copying the original procedure. Do not itemize.

**III. Results and Discussion** This section is the most important. Include observations such as appearance of the reaction, color of product, etc. If the experiment was a preparative one, you should also report your percent yield.

Briefly, discuss if the results were what you expected; suggest explanations if they weren't.

**Show all of your calculations!** Graphs should be done **on graph paper or excel**.

**Note:** Our lab manual contains a "Data Report Sheet" for each experiment. You must include this sheet at the back of your report. The discussion part comes from your understanding of the concepts involved in the experiment. Were your results what you expected? If, not, can you suggest reasons why not? If you took a melting point of a compound you synthesized, what is the true, or "literature" melting point? How well does your melting point compare? What does your melting point indicate about the purity of your compound? Assume that your reader is not entirely familiar with the experiment, so you need to explain clearly.

**IV. Conclusions** Your overall evaluation of your results. This is a good place to mention any modifications to the procedure which you feel might improve the outcome of the experiment. Indicate if objectives were met based on your results. (Revisit your introduction, where you state your goals).

You should type your report in 12 point font, using **one side** of the paper only. Use **complete sentences**. Try your best to avoid spelling and grammatical errors. Write your report in **impersonal form**. The words "I" or "we" should **not** appear in your report. The following examples show some incorrect phrases and how they can be revised to avoid the personal form:

**INCORRECT:** I added 10 g of NaCl to ... **CORRECT:** Ten grams of NaCl were added to...

**INCORRECT:** You told me that ... **CORRECT:** The instructor indicated that ...

**INCORRECT:** We determined that ... **CORRECT:** It was determined that.....