

Organic Chemistry Lab
Chemistry 267

Thurs 1:25-5:30

TA: Matt Chudomel

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Prelab:

Have your pre-lab completed in your lab notebook, (it's good lab practice to have everything written directly in your notebook) and ready to show me at the beginning of every lab meeting. This is for your benefit because as you will see, all labs will be easier if you have an idea (regardless how vague it may seem) of what you need to get done, and how it will be accomplished. You should be able to work directly from your pre-lab so make sure you are thorough and understand what you write.

I am always more than happy to help and answer questions regarding the procedure as long as you are prepared.

I will give a prelab talk to introduce the lab procedure, answer any questions, and address any problems that we can foresee. I keep these short and sweet.

Lab Report:

Title: Title of lab, your name, and date it is due.

Intro: Should be short, only a couple of sentences, and should state **what was done (techniques used, compounds synthesized)** and the **purpose** of performing the lab.

For example: Purposes should not include "to learn TLC". Instead the purpose should read...to determine purity with TLC and identify components of an unknown impure compound.

Experimental: A summary of **lab procedure** and **observations**. Include any **descriptions**, such as, amounts used, instrumentation utilized, etc.

(Imagine I am grading you on how well I can reproduce what you have reported solely by reading your experimental section)

Results: **Tables, graphs, and all calculations*** should be included. Any descriptions of experimental results should be in paragraph form.

**Calculations will include an example of how you got your values.

Discussion:

Here, you will present the **conclusions that you draw from YOUR data**, explanations of **what** and **why**. Pretend as if you are defending your case, showing your experimental evidence to prove your conclusions. Explain both the physical methods, why these methods are used (what do they do?) and how they work (what's the chemistry behind it?).

Also include a discussion of any **errors** that may have occurred. Troubleshooting is an important part of being a good experimentalist. Identify what could be improved for a clearer conclusion. Use chemistry here too, human error should NEVER be used as a reason for skewed results, (i.e. "I spilled stuff on the bench")! This section is usually the largest and most important, because it will show how well you understand the chemistry and the purpose, and will also reveal the take-home message of the assignment.

Questions: Make sure to answer in full descriptive sentences.

Reports for technique experiments (mp, TLC, recrystallization, extraction and distillation) are non-formal reports and are to be completed in your lab notebook and the copies turned in to your TA. All synthetic experiments (all others) are considered formal reports (see general handouts portion of course website). These postlab reports are to be typed.