Lab Notebooks

Purpose: The lab notebook is an important element of every researcher’s work. Whether you are working at a university or in industry, all the reaction setups and conditions, as well as the observations (and mistakes that do happen every now and then) over the course of an experiment must be recorded as accurately as possible. Don’t think of the lab notebook as an exercise in nice writing but as a tool for the efficient and retraceable recording of all data related to your work.

You will understand the importance of a well-kept record if you try to describe an experiment that you performed 2 months ago to your colleagues. Do you really remember all the quantities of reagents in your reaction and the particular temperature that you chose?

Often, an experiment does not work as expected the first time. The notebook will help you to recall the things that you changed during the "second" run. It also allows you to easily compare the conditions and results over multiple experiments which may reveals interesting trends and leads to further improvements of the reaction.

Here are the rules for the course: You will be required to keep a lab notebook this semester which will be checked by the TA on a regular basis. The quality of your notebook will be part of your grade for the course.

Use a bound notebook, by which I mean a notebook that has the pages stitched together, not a notebook spiral bound with wire. Leave your notebooks in the lab and not take them home, so you may find it convenient to use one of the carbon (or carbonless) copy notebooks. You may tear out the copy and take it home with you leaving the original in the lab.

Leave the first couple of pages blank so that you will be able to put in a table of contents at the end of the course.

Always make your entries in pen, never in pencil. If you make an error cross through it once and right the correction either over or next to the original notation. Ideally you will write a brief explanation next to any large changes you make.

Use every page. Use both sides of every page. Do not skip pages.

You need to record the date, a brief title or description, experimental details, and your results. Gels should be photographed or otherwise documented and taped into your notebook.

Your goal is to keep an accurate record of what you have done in the lab, which means you are to record what you actually did, this may not be the same as the written procedure we provide for you. Anyone should be able to pick up your lab notebook and reproduce your experiments.

Neatness is important, your writing needs to be legible and a neat notebook is easier to read and understand. Ultimately, however, it is more important to have all of the important information present than for your notebook to be a work of art.

During the first couple of weeks the TA will look over your notebooks and make comments to improve your recordkeeping. Take the advice of your TA. A well kept notebook will not only improve your grade but will make it much easier to write up your reports.