

Up the learning curve in the capillary separations lab.

Snoop through the lab to find where things are/what things are

Find location of various types of chemicals, reference materials, supplies

Learn how to properly use variable pipetters, Mr. Wiggles, sonicator, water bath, syringe filters

Learn how to use: pH meter (calibrate it), balance (especially for small amounts – 1 mg!), Barnstead water system. Barnstead water is used for nearly all water needs in the lab Practice cutting a capillary, make and clean windows, shave ends Practice on short – trash pieces

Learn how to treat a new and working open capillary using the hand pumps.

Learn how to use computer software/control equipment/perform a run/save data/backup data/print

Learn how to make injections/do a run

Make buffers

Learn how to keep a useful notebook, look at prior examples

Prepare samples. Practice using cheap ‘dummy’ solutions for small quantity practice before using expensive reagents

When removing items from the refrig or freezer, first remove individual sample containers from large container, immediately return larger contain. Allow small container to warm to room temp before removing top. Promptly recover and return to frig/freezer when finished

Learn how to use N2 tank and bomb

Also: check out various web site on CE. My home page will have a links page which may be a start. We have some reference books and materials in the lab. Others are available in the library. Read past, relevant published papers from the group. If you remove any materials from the lab, you should sign them out and return them right away. I also have a video tape that might be useful.

Be sure the lab door is closed and locked when you leave.

If you have **ANY** questions, on procedures, waste disposal, **ANYTHING**, it is your responsibility to ask. The quality of our data and your safety depend upon this.

Prepare solutions. – divide and conquer!

Acid, base, buffer stock, etc.

1.0 M NaOH (store in plastic), 0.1 M NaOH (make daily), 0.1 M HCl
1 M Na₂HPO₄, 1 M NaH₂PO₄. Prepare 250 mL of each

when needed: prepare 0.1 M phosphate of correct pH. Dilute to 5 mM pH 6.8 for polymer preparation. See 2011 Research plan book.

1 M pH 8.5 tris buffer is stock. Prepare 250 mL. Dilute to 20 mM when needed.

Always check each others calculations. Be sure you know how and when to use quantitative methods in preparing solutions. Make sure you know the proper way to use variable pipetters.

Derivatize a capillary for polymer attachment.

Make a polymer filled capillary.

Condition a polymer filled capillary.

Prepare a carbon series sample.

Run a carbon series.

Start your portion of the project.

Treat a new capillary for open tube runs.

Prepare analyte stocks, - one analyte per solution.

Prepare running analyte solutions.