

## Guidelines for Notebook Writing

I have noticed with all the new students that it might be helpful to give you some explicit guidelines for preparing a proper lab notebook page. I have attached an actual procedure from my own lab notebook on azaspiracid. Please notice the following:

1. All the reagents / solvents get listed on the far left.
2. Record g (or mg), mmol, equiv and molecular weight for each reagent (no need for solvents to record molecular weight or grams - just mL / L).
3. For neat liquids, you need to record both g / mg AND mL / L (See section with making DEAD reagent). Make sure to put density on far right along with MW.
4. For solution, you need to record mL / L AND mmol as well as denote molarity on the right (with solvent that makes it a solution).
5. I personally NEVER draw the product of the reaction until the reaction is complete. It makes it easier to record a reaction that gives an unexpected product.
6. When drawing TLC's, make sure to include 3 lanes minimum. The left lane(s) is starting material(s). There should be a middle "mixed" spot lane which has both your reaction and starting reagents spotted and a far right lane which is the reaction. Denote clearly the solvent system you used to elute the compound as well as how you stained it (e.g. Molly, MnO<sub>4</sub>, UV etc).

Some specific rules to follow:

1. Write your lab procedure AS YOU ARE DOING THE EXPERIMENT. NOT BEFORE / NOT AFTER!!!! This is a "fireable" offense in industry as the notebook is a binding legal document.
2. You need to write a procedure EVERY TIME you do an experiment. Do NOT simply say - "See page 36 for procedure". There may be small thing you change (reaction time, slightly more concentrated etc) which could have a significant impact on the experiment and it would be impossible to reproduce if you simple write "See page 36 for procedure" as it would be different!
3. Leave the first 10 pages blank in your notebook for making a table of contents - then actually make a table of contents! (this is a huge time saver when hunting for a procedure).
4. Date your notebook (it is critical for patent issues and industry takes dating labbooks very seriously for patent reasons).

Other tips:

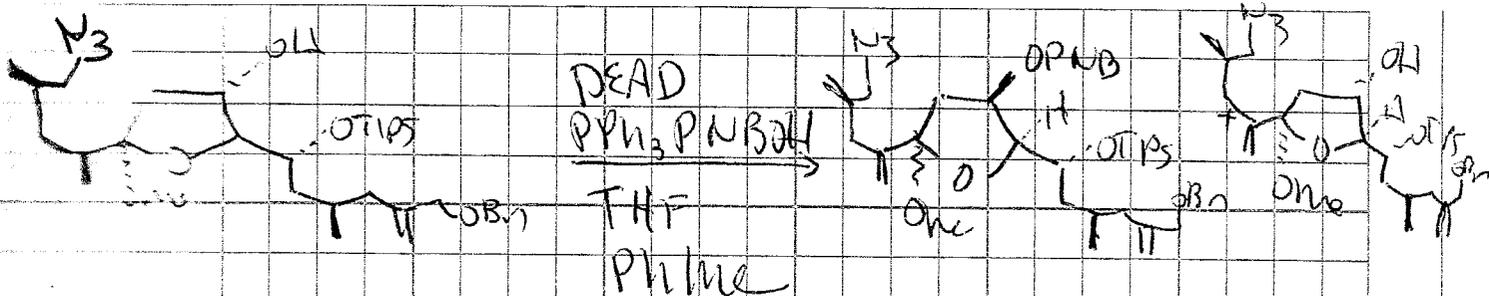
1. When recording reaction times, I often write the start time out on the far right so I can accurately remember how long a reaction went for. Notice I draw a line under the time. This is because I put the line in when I write "stir @ rt for \_\_\_\_"

when I start to do that part and I add the time when I finish.

2. Record your fraction numbers when you report products as I did - it helps to both keep you organized and makes it easier for future people to follow your work.

3. Never take your labbook home - no exceptions. It is the property of OSU.

6/11<sup>12</sup>/08



SM	5.2g	8.22mmol		632mw
PPh <sub>3</sub>	2.613g	9.96mmol (1.21equiv)		262.3mw
PNBOH	1.654g	9.90mmol (1.20equiv)		167mw
DEAD	9.8mL	9.8mmol		1m in PhMe
THF	82mL			

making DEAD solution

DEAD	1.6mL	1.77g	10mmol	174.2mw, 1.16bd
PhMe	8.4mL			

SM in THF @ rt add PPh<sub>3</sub> (let dissolve)  
 then PNBOH followed by syringe pump  
 add. tion of DEAD solution over 7 min 11:20  
 st. @ A for 2h

Wash CO<sub>2</sub> sat'd q. conc  
 dil EDTAc (NaCl) sat'd, & conc for PhMe  
 THF ex 3x EDTAc, dried, fill conc

SiO <sub>2</sub>	5-20% EDTAc		
F5-15	1.55g	F16-17	486mg
F18-23	535mg		
F25-49	1.08g	20% EDTAc	next

500mL  
 F5-15  
 F18-23  
 F25-49  
 5m mix Ph