Writing an Organic Chemistry Lab Report

Components of a Laboratory Notebook

The following components should be contained for each experiment, along with any additional material required by your instructor.

- Title and date
- Introduction (purpose, reaction)
- Physical data (including calculations)
- Procedure outline
- Data and observations
- Discussion of results (conclusions)

Prelab

Title and Date

Give the title of the experiment and the date on which it is done.

Introduction

In a sentence or two, state the purpose of the experiment. If the experiment is a preparative experiment, the introduction also includes the balanced equation for the reaction.

In organic chem, there are different types of experiments: technique and preparative. A technique experiment is one in which you are performing a technique for the first time and studying its details, for example, distillation and extraction. A preparative experiment is one in which a compound is synthesized from other reagents.

Physical Data

List the molecular weight, melting point, boiling point, density, solubility, and hazards of all pertinent chemicals used in the experiment. You can find this information in the CRC Handbook of Chemistry and Physics. (We have this book at school, and a CD-ROM version as well.) Or, you can find the information on the Internet (see: Hazard and Physical Data for Compounds page). Chemfinder.com is an excellent site to find this data. The physical data are most conveniently presented in tabular form, although in a preparative experiment you may put the amounts of reactants and products under the balanced equations for the reaction.

<u>Calculate</u> the amounts of reactants (or compounds to be purified) in moles and grams or mL (as applicable). In a preparative experiment, calculate the limiting reagent and the theoretical yield of the product. Be sure to include your calculations for these values.

Procedure.

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RS Peters

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