CH 311-313
Organic Chemistry Research Guide -2007
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Literature Research Projects:

Prepare an annotated bibliography describing your research on a well known pharmaceutical.
Deconstruct a Chemistry research article.
Do a literature search on a named reaction.

Annotated Bibliography entries are composed of three sections:
Citation completed in correct ACS format.
Summary section, 2-3 sentences: What did the resource say about your topic?
Evaluation section, 2-3 sentences: What did you learn from this information?

RefWorks:

Use RefWorks to collect your resources for your assignments and create your bibliography in ACS citation style. This program allows you to import citations from databases, store in folders and incorporate them into your work. The final result is only as good as the information you input. You are responsible for the journal abbreviations, proper pagination, etc. in your final document.

Reference Resources:

Use the online **Credo Reference** for quick access to definitions. Make note of key terms you might not have considered. Stat Ref Health is a collection of electronic, full text medical textbooks. These resources are found on the library page under Quick Reference.

Print reference materials help you become familiar with a topic, find critical pieces of information, and develop additional search terms. Check these:

McGraw-Hill Encyclopedia of Science and Technology REF Q121 .M3 2007
Encyclopedia of Physical Science and Technology REF Q123 .M33 2002
Chemical Technology and the Environment REF QD4 .C54 2007
MacMillan Encyclopedia of Chemistry REF QD5 .M33 1997
Van Nostrand's Encyclopedia of Chemistry REF QD4 .V36 2005
Hawley's Condensed Chemical Dictionary REF QD5 .C5 2001

CRC Handbook of Chemistry and Physics REF QD65 .C72 2006-07
Lang's Handbook of Chemistry REF QD65 .L36 2005
Dean's Handbook of Organic Chemistry REF QD251.3 .G65 2004
March's Advanced Organic Chemistry REF QD251.2 .M37 2007
Greene's Protective Groups in Organic Synthesis REF QD262 .G665 2007
Vogel's Textbook of Practical Organic Chemistry REF QD261 .V63 1989
Strategic Applications of Named Reactions in Organic Synthesis REF QD262 .K87 2005
Comprehensive Organic Transformations REF QD262 .L355 1999

Nomenclature of Organic Compounds REF QD291 .F6 2001
Named Organic Reactions REF QD291 .L3513 2005
Name Reactions: A Collection of Detailed Reaction Mechanisms REF QD291 .L5 2003
Name Reactions and Reagents in Organic Synthesis REF QD291 .M86 2005
Vocabulary and Concepts of Organic Chemistry REF QD291 .V63 2005
Handbook of Data on Common Organic Compounds REF QD257.7 .H35 1995

The Merck Index: an Encyclopedia of Chemicals, Drugs, and Biologicals REF RS51 .M4 2007
Physicians Desk Reference REF RS 75 .P5 and electronic access through ALiCat
Pharmacodynamic Basis of Herbal Medicine REF RM 666 .H33 E23 2002
Drug Facts and Comparisons REF RM300 .D78 2000

Periodicals:

- Most projects benefit from using several science databases to locate material. Once you identify a journal title, go to **Augustana's Periodicals** on the Library page to find library location and dates.
- If we don't own a journal, articles can also be requested through interlibrary loan by selecting that button on the Library screen and entering your request. You can also request articles by using the ILL button in the databases.
- Check these databases first:
    - ACS Journals Online
    - Science Direct
    - General Science Abstracts
    - Academic Search Premier
    - Clinical Pharmacology

Components of a Research Article: **Research articles generally have: IMRAD –**

- **Introduction** – supply sufficient background to understand results of the present paper, describe study area, provide rationale, and state purpose clearly and briefly.
- **Methods & Materials** – describe experimental design in enough detail for others to replicate and explain method in chronological order.
- **Results** – provide overall view of experiment and present the data (representative, not endlessly repetitive).
- **And Discussion** – Discuss, don't repeat the results, state conclusions and evidence to support each conclusion clearly, and explain the significance of the experiment.

Final Thoughts:

Research is a non-linear, recursive process. Be creative in your research process and keep careful notes as you work. It's easier to record as you go than to recreate later.

If you are having trouble, ask a librarian. You can stop by the reference desk or call us at -7206. A librarian is available Sunday – Thursday evenings until 10 p.m.