

Chemical Presentations

CHEM 12A

Each student will give a 15 minute presentation followed by a five minute question and answer period that will cover a topic in current chemical literature. The topic will only include a chemistry subject and will be referenced by at least three literature sources. The presentation will be worth 50 pts. and should involve overheads and/or chalk work. Good sources for topic material are the Journal of Chemical Review, Chemical and Engineering News, Scientific America, Science or Nature. The body of the talk should include the following:

1. Introduction-

- a) Explain why the topic is of interest and why it is important. Be specific in your explanation by using statistics and referenced sources. (i.e. A topic about a new anti-cancer drug. "In the last five years cancer has been responsible for 800,000 deaths in the United States...")

- b) Give background information and past history related to your topic. (i.e. Prostate cancer until the early 1990's was treated with three main classes of compounds...)

- c) Define any terminology or relate any necessary information that is pertinent to the understanding of your topic. (i.e. Most cancer drugs work by irreversible binding to a target enzyme. This means a drug through a covalent bond binds the active site of an enzyme destroying any activity it might have had.) Remember your audience and give as much information as your audience requires. Your talk will be directed toward your fellow classmates and any terminology that you did not understand will probably not be understood by your classmates. (i.e. Absolute stereo chemistry was defined by applying Mosher's method. Mosher's method is the use of a)

2. Body-

- a) Relate the new information about your topic (i.e. Recently a new class of drugs has been discovered that has a novel mechanism of action) When speaking of specific researchers give them credit by referring to their names and affiliate academic institutions.

- b) Use diagrams and graphs or any other presentation format that will help to convey an idea or information. Put references on the bottom of any slide or overhead that uses anybody else's research. (Authors, Journal, year, volume, page. i.e. Clark, B. J.; Smith, L. T. *J. Org. Chem.* **1998**, *60*, 430-431.
- c) Try to speak normally and at a normal pace.

3. Conclusion-

- a) Sum up the important aspects of your talk.
- b) Make a comment about what the future holds for your topic. (i.e. Cyclic peroxides will continue to be important anti-malaria compounds because of their unique mechanism. Right now Dr. Richardson's group is trying to synthesize one with the alcohol replaced with an amine.)
- c) Thank anybody who helped you with your talk that is there (except me) and thank your audience for listening. Invite questions.

4. Abstract-

- a) Each student will also submit a one paragraph abstract. This abstract will be a summary of the presentation and can contain any diagrams or structures that will aid the audience in understanding the material.
- b) The end of the abstract will contain three references.
- c) Copies are to be made for the entire class and handed out immediately preceding the talk.