

# AN INTRODUCTION TO CHEMICAL LITERATURE

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Students pursuing any course of study must be aware of sources of information. This assignment directs you to the library's chemistry shelves. **For questions on library use, ask the librarians.** If you have questions, ask them! They are there to help you.

**Purpose.** The purpose of this assignment is to introduce you to the chemical literature and show you what is happening in chemistry now. Your paper must be written in standard English. Typed papers are preferred; otherwise they must be legible.

Date due: one week.

## DIRECTIONS

1. **Merlin on-line catalog.** Look in the subject file and find **chemistry**. Notice the subheadings and various fields of chemistry. Find a "physical chemistry" book by \_\_\_\_\_ . Write its call number.
2. **Stacks.** Locate the Chemistry shelves in the stacks, QD in the Library of Congress system. The subdivisions of chemistry include

organic,  
inorganic,  
physical,  
analytical.

From an inspection of titles and numbers, match the above divisions with numbers. Write down the title and classification number of an inorganic chemistry book and an analytical chemistry book.

- a) Find in an advanced inorganic text (Huckel, Emelus, Gould, Cotton and Wilkinson, Durant, etc.) a principle, rule, process, law, term, theory, man or woman, or chemical substance with which you are unfamiliar. Write a summary of the principle, etc. Cite your reference as follows: Author, Title, publisher and city, year, page; for example;

Gould, E.S., Inorganic Reactions and Structure (Revised Ed.) Holt, Rinehart and Winston, New York, 1962, p. 308.

- b) In a history of chemistry book, select a man or a woman with whose contributions you are unfamiliar. Relate some of these contributions. Cite the references.
- c) Find physical chemistry textbooks such as the one you own. Examine several of these, and make a list of three ( title, author, publisher, date ).

### 3. Reference Section

- a) Find the chemical dictionaries and encyclopedia in the reference section. Select an element in the periodic table which you recognize by name only. Read the description of the element and record its name, symbol, atomic weight, main mineral source, one compound and its use. Cite the reference.
- b) Handbooks. Find the CRC Handbook of Chemistry and Physics. Examine it, and describe some of the information it contains.
- c) Find Bennett's The Chemical Formulary. Find how to prepare some familiar substance such as toothpaste, shoe polish, etc. Cite the reference.

### 4. Periodicals.

- A) Beginning students in chemistry will find readable, interesting, and useful articles in Journal of Chemical Education, Chemistry and Scientific American. Skim an article from one. Cite the reference in this form: Kolb, Doris, J. Chem. Educ., 54, 543 (1977). This refers to volume 54, page 543. The author is Doris Kolb.
- B) Locate and examine several other chemistry journals such as Journal of the American Chemical Society, Journal of Chemical Physics, Journal of Physical Chemistry, Journal of Organic Chemistry, Environmental Science and Technology. List the title of one article from each of the journals you examine.

### 5. Chemical Abstracts

Chemical Abstracts is a service which allows you to become aware of articles published anywhere in the world. Older printed copies (abstracts and indexes) are available in Walters 181. Examine them to see what kind of information they contain.

Ask a reference librarian about the use of Chemical Abstracts on-line (STN Easy). Find the reference to a **recent article** on any topic approved by your instructor.

You may also access a trial and help file for Chemical Abstracts at

<http://stneasy.cas.org>