How To Initiate a Literature Search

1. Look for **TERMINOLOGY** and identify **'KEY WORDS'**
i.e., what words have authors used to describe the topic of interest?
What key words have editors used to index the literature?
If you use a different terminology or spelling you will not find what your are looking for!

The SEARCH TRADEOFF → Use too many (or too general) 'KEY WORDS' and you will find large volumes of irrelevant references; use to few (or too restrictive and specific) and you will miss pertinent information.

- Some good ***SOURCES*** = =

McGraw-Hill Dictionary of Scientific & Technical Terms	- Ref. Q 123 . M34 . 1993
McGraw-Hill Encyclopedia of Science & Technology	- Ref. Q 121 . M3 . 1987
Encyclopedia of Physical Science & Technology	- Ref. Q 123 . E497 . 1987
Encyclopedia of Chemical Technology	- Ref. TP 9 . E698 . 1978
Encyclopedia of Material Science & Engineering	- Ref. TA 402 . E53 . 1986
Thesaurus of Metallurgical Terms	- Ref. TN 609 . T4 . 1984

2. Search **INDEXES** for appropriate references
Some good **SOURCES on IDA:** (the UI Library's computer system)
47 Applied Science & Technology Index = (1983 → present) Includes articles in chemistry, engineering, applied math, computing science, and energy journals.
40 UnCover = (1988 → present) Includes articles in 10,000+ scholarly journals in many subject areas. Also provides a table of contents service to these journals.
A good printed source (if you need more detailed information) :
Engineering Index - Index TA 1 . E52 (found on 1st floor of the library).

2a. Check if the UI Library owns the periodical the article is in. (If not, order from Interlibrary Loan).

3. Search **ABSTRACTS** for appropriate references
numerous abstracting services provide databases (both printed and computerized)

Some good ***SOURCES*** **= =**

CHEM ABSTRACTS = a weekly publication which indexes a large number of relevant technical journals and publishers.
6 month cumulative indexes are available; 5 year cumulative indexes are available.
84:P ##### P = patent, R = review, B = book
\==volume

METALS ABSTRACTS =
gives two numbers such as: 84-07 42-127
which describe the (volume #)-(issue #) *and* (section #)-(abstract #)

4. Once you find **1** pertinent article:
a) list the terminology & key words that author used; try using those terms in a new search.
b) evaluate the references used by this author; maybe they have done a similar search?

IMPORTANT RESOURCES:
Books (found in UI Library catalog)
Journal Articles (found in indexes above)
Patents { both U.S. and foreign } -- ask for science librarian help to find patents

Technical Society Monographs and Conference Proceedings (found in indexes above)

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