Reaxys (Beilstein) Assignment

• Preliminary Report Due: October 1st
• Final Report Due: November 7th
Reaxys (Beilstein) Assignment

- Preliminary Report Includes:
  1) Your name
  2) Your section number
  3) Your Beilstein assignment number (B=???)
  4) Reaxys registry number
  5) Name of compound
  6) May be handwritten
Reaxys (Beilstein) Assignment

• Final Report Includes:
  1) Your preliminary report
  3) A brief synthesis of the compound by the method used by the correct author
  4) May NOT be handwritten
Reaxys (Beilstein) Assignment

- Website: www.reaxys.com
- You must be using a computer on campus for it to work
- You do not have to register for it to work
Sci-Finder (Chemical Abstracts) Assignment

- Preliminary Report Due: October 1st
- Final Report Due: November 7th
Sci-Finder (Chemical Abstracts) 
Assignment

• Preliminary Report Includes:
  1) Your name
  2) Your section number
  3) Your Chemical Abstracts assignment number (C=???)
  4) CAS registry number
  5) Name of compound
  6) May be handwritten
Sci-Finder (Chemical Abstracts) Assignment

• Final Report Includes:
  1) Your preliminary report
  3) A diagram of the synthesis of the final product, continuing backwards until a purchasable compound is found, each step must be referenced
  4) Price, grade, and supplier for ALL reagents used in the synthesis
  5) Melting/boiling points of all organic intermediates, with references
  6) May NOT be handwritten
Sci-Finder (Chemical Abstracts) Assignment

- Website: scifinder.cas.org
- You must be using a computer on campus for it to work
- You must register and login for it to work
- Go through the MSU library website to do this http://er.lib.msu.edu/subject.cfm?cat=0&type=All&Subject=Chemistry
The Chemist’s Library

The Most Useful Reference Materials for the Chemist
Principle Reference Works

1) SciFinder Scholar (Chemical Abstracts)
2) Reaxys (Beilstein/Gmelin)
## SciFinder Scholar (Chemical Abstracts)

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
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</thead>
<tbody>
<tr>
<td>• Up-to-date</td>
<td>• Not error-checked</td>
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<tr>
<td>• Comprehensive</td>
<td>• Data is in original form</td>
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<tr>
<td>• Entirely in English</td>
<td></td>
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</table>
Reaxys (Beilstein/Gmelin)

Pros
• Critically Reviewed
• Listing is by Compound

Cons
• Not up-to-date
• Parts in German
Smaller Reference Works

1) Catalogs
2) Handbooks, Encyclopedias, and Journals
3) Websites
4) Search Engines
Catalogs

1) Aldrich
2) Eastman
3) Alfa-Aesar
4) Matheson Gas Data Book
Aldrich Catalog

1) 37,000+ Products. Organics, Inorganics, Elements, Polymers, Organometallics.
2) Arranged by ‘product name’
3) Includes physical properties, references to Aldrich Library of NMR or FT-IR spectra
4) Molecular Formula
5) CAS RN indexes
6) Online
http://www.sigmaaldrich.com/Brands/Aldrich.html
Alfa-Aesar

1) Includes physical properties
2) CAS RN indexes
3) MSDS’s embedded in description
4) Merck Index references
5) http://www.alfa.com/alf/index.htm
Eastman Catalog

Item descriptions include applications, MSDS, sales spec sheet, technical data sheets.

http://www.eastman.com/
Handbooks and Journals

1) Merck Index
2) Handbook of Chemistry and Physics (CRC)
3) Kirk-Othmer Encyclopedia of Chemical Technology
4) Ullmann’s Encyclopedia of Industrial Chemistry
5) Organic Solvents
6) Journal of Physical and Chemical Reference Data
7) Fieser and Fieser
8) Organic Syntheses
9) Combined Chemical Dictionary
Merck Index

1) 13th edition 2002
2) 4000+ drugs and pharmaceuticals
3) 2000+ organics/ reagents
4) 2000+ naturally occurring substances
5) 1000+ elements/inorganic compounds
6) 1000+ agricultural compounds/biological agents
7) Name, Formula, CAS RN, and Therapeutic Category and Biological Activity Indexes, Organic Name Reactions, Miscellaneous Useful Tables (Latin Terms, Greek Alphabet, etc.)
8) Merck Index Online http://products.camsoft.com/themerckindex.cfm
Handbook of Chemistry and Physics

1) Huge number of useful data tables for all of the divisions of chemistry

2) www.hbcpnetbase.com/
Websites

1) ChemINDEX
2) DIPPR
3) Solv-DB
4) BRENDA
5) NIST Critically Selected Stability Constants of Metal Complexes
6) NIST Webbook
7) Organic Syntheses
Search Engines

• 1) Google http://www.google.com
• 2) Yahoo http://search.yahoo.com
• 3) Lycos http://www.lycos.com/
Online Chemistry Sites

1) www.orgsyn.org
2) ChemINDEX chemindex.cambridgesoft.com/
3) www.chemfinder.com
4) dippr.byu.edu/
5) solvdb.ncms.org/index.html
6) www.brenda.uni-koeln.de/
7) www.syrres.com/esc/