SciFinder

Setting up your account

- Use the Quicksearch box on the Barnard Library website to do a search for SciFinder, or use the link on the Chemistry Research Guide.
- To register, click on “Register to access Scifinder”. Use your Columbia UNI followed by “@columbia.edu”.
- After you have registered, access SciFinder by clicking on “Access Scifinder Web” or go directly to scifinder.cas.org.

Searching substances by drawing a structure

Sample search:

- Make sure the lines connect at the vertices.
- Then add the letters directly on the vertices. C is the default.
- Use “Get substances that match your query” on the lower right to find exact matches, substructures or similar substances.
- You can import structures from ChemBioDraw, as long as the file is saved in ChemBioDraw as an MDL Molfile (*.mol).

Searching by substance name

Sample search: ammonium persulfate

- To search for a substance by name, click on “Substance Identifier” at lower left.
- To find articles about the substance, click on “Get References” above the diagram of the structure.
- When viewing an article abstract, click on “Link to Other Sources” to retrieve the full text.
- Go back in your search history using the links at the top.
- To search for a keyword or topic within the list of references, use the “Refine” tab on the left.
- To export references to EndNote, click on “Export” at top right. Barnard Library Guide to EndNote.
Hands-on Exercise:

1. Search for this structure:

   ![Structure Image]

2. What is the CAS number? ______________

3. Write down three names by which you could search for references on this substance:
   a. ______________________________________
   b. ______________________________________
   c. ______________________________________

4. How many references are there in SciFinder on the preparation of this substance? ______

5. Refine your results to find an article on its preparation via asymmetric epoxidation using the Jacobsen method. What is the principle author’s name? ____________________

6. Find the NMR and optical rotation data for this substance.

Using SciFinder to search for references on a topic

- Specify only two or three concepts at one time. You can refine your search later with additional terms.
- Include prepositions and articles to connect the concepts.
- SciFinder automatically searches related terms and substance names. It also considers alternate spellings and word endings. Boolean operators are not used and there are no truncation symbols, or proximity operators.
- In the results sets,
  - “As entered” means the entered terms are found exactly as you have entered them.
  - “Closely associated with one another” means within the same sentence or title.
  - “Present anywhere within a reference” means the terms might be widely separated.
  - “Containing the concept” means the entered terms, synonymous terms, or similar terms are found within the record.

Other ways to find articles

- Use the Chemistry Research Guide on the Barnard Library website.
- Web of Science and Google Scholar are probably the most useful.

E-Journals at Columbia

- You can search directly for an e-journal subscribed to by the Columbia Libraries system by going to CLIO – Catalog – E-Journal Titles.