

SciFinder®: Reference Topic Searching: Best Practices

#1: Begin with two or three concepts

Although SciFinder can search as many as seven concepts simultaneously, it is often advantageous to begin your search with two or three concepts and then refine it with additional terms based on what you see in the results. If you use three concepts and retrieve a very large answer set, then consider running a new search and adding a fourth concept or using the Advanced Search limiters to immediately narrow your search criteria.

Alternatively, you can use Analyze and Refine to narrow a large answer set. See tip 3 below.

#2: Use prepositions to separate concepts

Since SciFinder looks for prepositions to identify the concepts in a research topic search, put a preposition between each concept in your query. A concept that is generally a phrase should be entered as a phrase (e.g., “acid rain”). For example, you could search:

- *Absorption **of** iron **in** humans*
- *Liquid chromatograph **for** pyrroloquinoline quinones*

The prepositions are not included as part of the search. The words “and” as well as “or” are not recommended for use in SciFinder.

#3: Use Analyze and Refine to increase search specificity

To focus search results, use the Analyze and Refine tools (and Categorize for Topic searches). These tools allow you to effectively narrow a search. The Sort capabilities, and Group for reaction answer sets, are also useful for focusing your answer set.

#4: Rely on automatic truncation and plurals

To make keyword searching faster and more convenient, SciFinder automatically searches the plural form of words as well as common suffixes and standardized abbreviations.

Examples: Search *clean* to retrieve *cleaning, cleaned, cleaner, cleans, and clean up*

Search *chromatography* to retrieve *chromatog., chromatograph, and chromatographic*

Search *mouse* to retrieve *mouse, mouses and mice*

Enter your search terms or phrases using the singular forms of the words. One exception to this rule is when you are using index terms in a search (see next tip for details). If the index term is pluralized, keep it as a plural in your search query.

#5: Take advantage of scientific indexing

A single concept can often be expressed in multiple ways. To create an effective keyword search, take advantage of standardized Concepts, also known as index terms, in SciFinder. CAS scientists apply scientific indexing (Concepts) to every bibliographic database record. You can use these index terms in your search to retrieve a more complete and relevant answer set.

To find index terms, conduct a preliminary keyword search. Then, scan the search results and display the Reference Details for a small number of relevant answers. Finally, select the relevant Concepts and revise your search to include these terms as synonyms. Be sure to spell the concept exactly as it appears in the indexing.

#6: Add your own synonyms

SciFinder automatically searches for common synonyms as well as standard abbreviations and British/American spellings. To be sure specific terms are included or treated as synonyms, you can easily add up to three synonyms for each concept in a search query. To begin, type the keyword of interest. Then enclose up to three synonyms, separated by commas, in one set of parentheses.

Example: *nanosponge (nanoporous material, nanostructured material)*

The option to include synonyms in your search query is particularly useful when you want words to be treated as synonyms, even though they are not ordinarily considered synonyms.

Example: *the analysis of pesticides in blackberry (blueberry, raspberry, strawberry)*

#7: Conduct multiple searches and combine the results

For some research projects, it can be useful to run the search several ways. You can save the first answer set and then combine those answers with the results of your next search of the same type (i.e., references can only be combined with references). After you run the second search, go to the References Toolbar, click Tools and then select Combine Answer Sets. You can combine two answer sets, remove one answer set from another one, or create an answer set that only contains records that are in both original answers sets (an intersection). The new combined answer set will become your active answer set.

Alternatively, save each answer set and then go to the Saved Searches tab. Click Saved Answer Sets, and select the answer sets you want to combine. Use the Combine button at the top of the page to create one, new answer set. The new answer set will become your active answer set.