

Literature Searching

Reaxys is one of the largest document repositories in chemical science and provides various different means to find literature on chemistry related topics. This document showcases two examples for searching documents and chemical information in Reaxys.

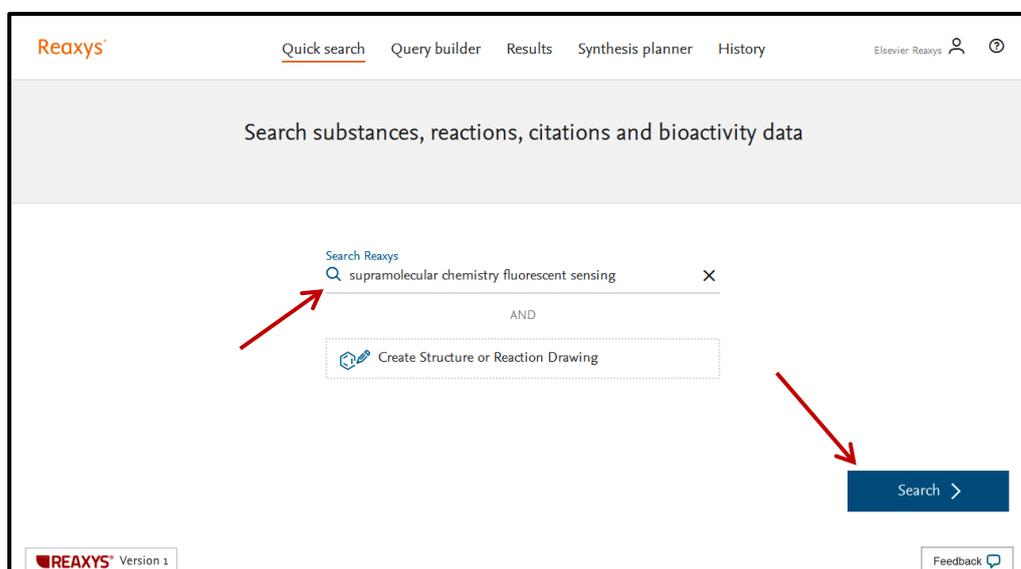
In the workflows we show examples that include:

- How to use the quick search feature
- How to work with and interpret the results preview
- How to narrow initial answers using various filter options
- How to get to citing articles via Scopus

❖ Finding documents discussing fluorescent sensors

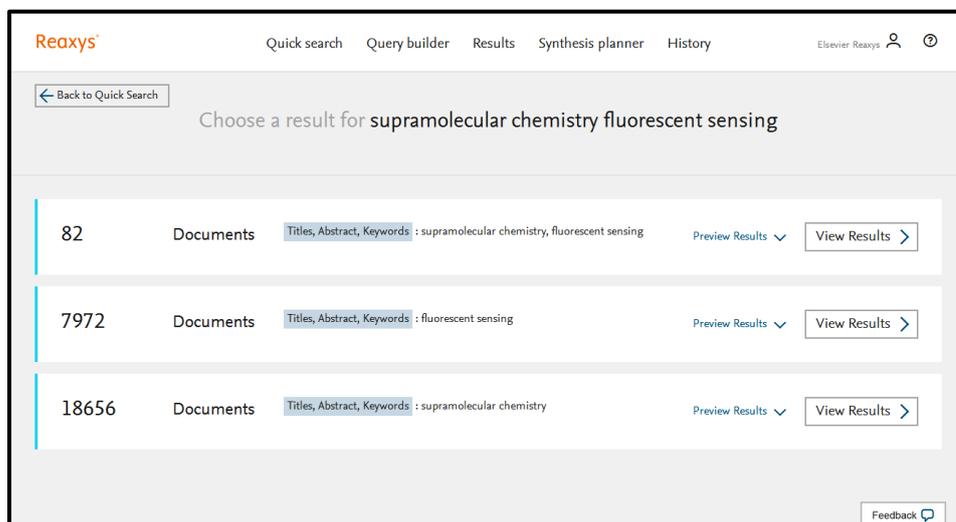
Fluorescent molecular sensors can be applied in many disciplines, including medical diagnostics, physiological imaging, biochemical and chemical analysis or monitoring systems. In this case I would like to know more about published literature on the topic “supramolecular chemistry fluorescent sensing” and to see whether there is a review article of interest to me.

1. On the Reaxys home page click the **Search Reaxys** field and type **supramolecular chemistry fluorescent sensing**
 - a. Click **Search**



Reaxys analyzes the query input and returns three result sets in a Results Preview:

- The first set is the result of a query that considers all query terms, while the second and third sets search for parts of the query.
- From the list of result sets you can now select the one which best fits your needs, without reformulating your query.



Reaxys Quick search Query builder Results Synthesis planner History Elsevier Reaxys

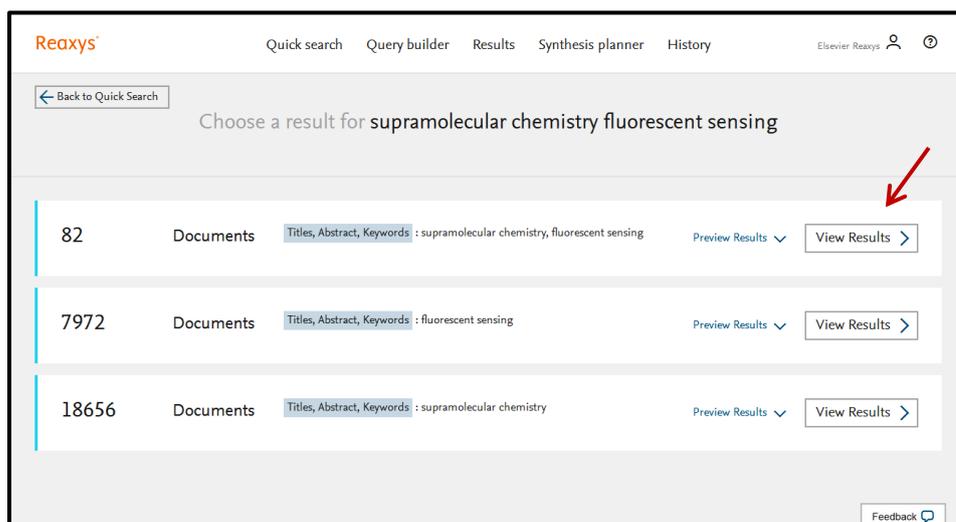
← Back to Quick Search

Choose a result for **supramolecular chemistry fluorescent sensing**

82	Documents	Titles, Abstract, Keywords : supramolecular chemistry, fluorescent sensing	Preview Results	View Results >
7972	Documents	Titles, Abstract, Keywords : fluorescent sensing	Preview Results	View Results >
18656	Documents	Titles, Abstract, Keywords : supramolecular chemistry	Preview Results	View Results >

Feedback

2. Click **View Results** for the first set of results to retrieve the 82 documents:



Reaxys Quick search Query builder Results Synthesis planner History Elsevier Reaxys

← Back to Quick Search

Choose a result for **supramolecular chemistry fluorescent sensing**

82	Documents	Titles, Abstract, Keywords : supramolecular chemistry, fluorescent sensing	Preview Results	View Results >
7972	Documents	Titles, Abstract, Keywords : fluorescent sensing	Preview Results	View Results >
18656	Documents	Titles, Abstract, Keywords : supramolecular chemistry	Preview Results	View Results >

Feedback

3. In the Filters and Analysis Panel, collapse **Index Terms (List)** and **Publication Year**

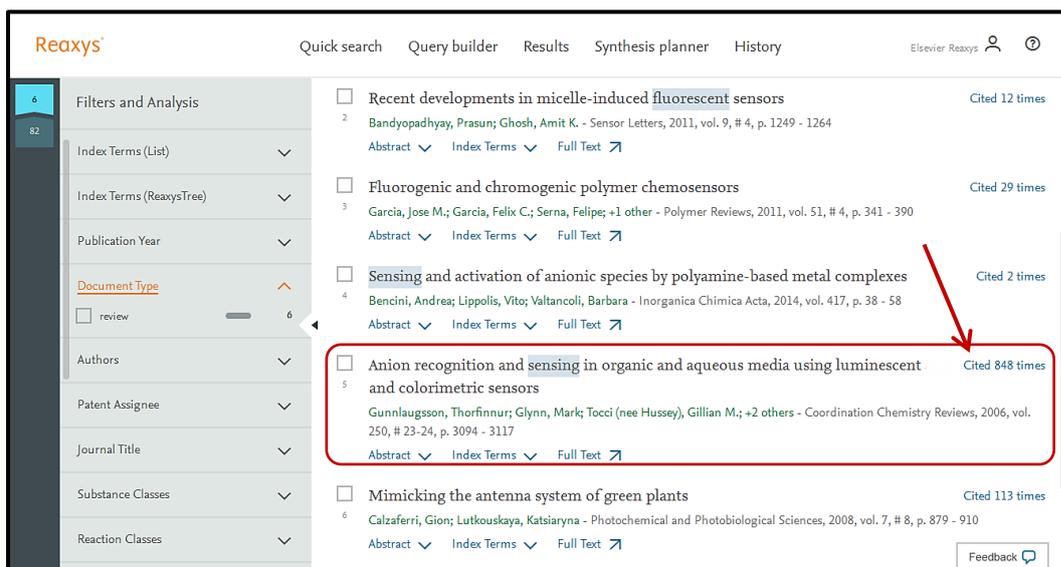
4. In the Document Type filter, notice there are 6 *review* articles

- a. Check the box for **review**
- b. Click **Apply**

One of the reviews is cited many times and looks interesting to me.

- Click 'Cited # times' to open Scopus with the documents that cite this article.
- Click 'Abstract' to view the document's abstract.
- Click 'Index Terms' to view the index terms that were assigned to this article.
- Click 'Full Text' will direct you to the publisher's website for viewing the full text article.

Please Note: depending on the article or patent, further options may be presented: Substances, Reactions, Front Page Information



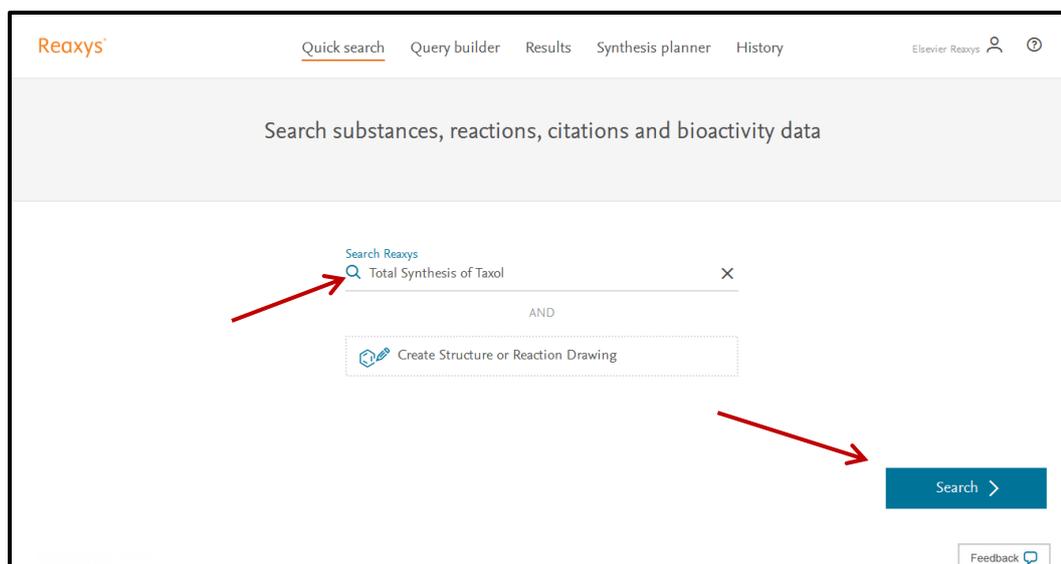
The screenshot displays the Reaxys search results page. On the left, there is a sidebar with filters and analysis options, including 'Index Terms (List)', 'Index Terms (ReaxysTree)', 'Publication Year', 'Document Type' (with a 'review' filter selected), 'Authors', 'Patent Assignee', 'Journal Title', 'Substance Classes', and 'Reaction Classes'. The main area shows a list of search results. The result 'Anion recognition and sensing in organic and aqueous media using luminescent and colorimetric sensors' is highlighted with a red box, and a red arrow points to its citation count 'Cited 848 times'. Other results include 'Recent developments in micelle-induced fluorescent sensors' (Cited 12 times), 'Fluorogenic and chromogenic polymer chemosensors' (Cited 29 times), 'Sensing and activation of anionic species by polyamine-based metal complexes' (Cited 2 times), and 'Mimicking the antenna system of green plants' (Cited 113 times). The top navigation bar includes 'Quick search', 'Query builder', 'Results', 'Synthesis planner', and 'History'. The bottom right corner has a 'Feedback' button.

❖ Total Synthesis of Taxol

Taxol is a complex molecule used as a drug to treat ovarian, breast, lung, pancreatic and other cancers. Its total synthesis is challenging, but nevertheless very interesting to learn. What is known about the total synthesis of taxol and who worked on it and when?

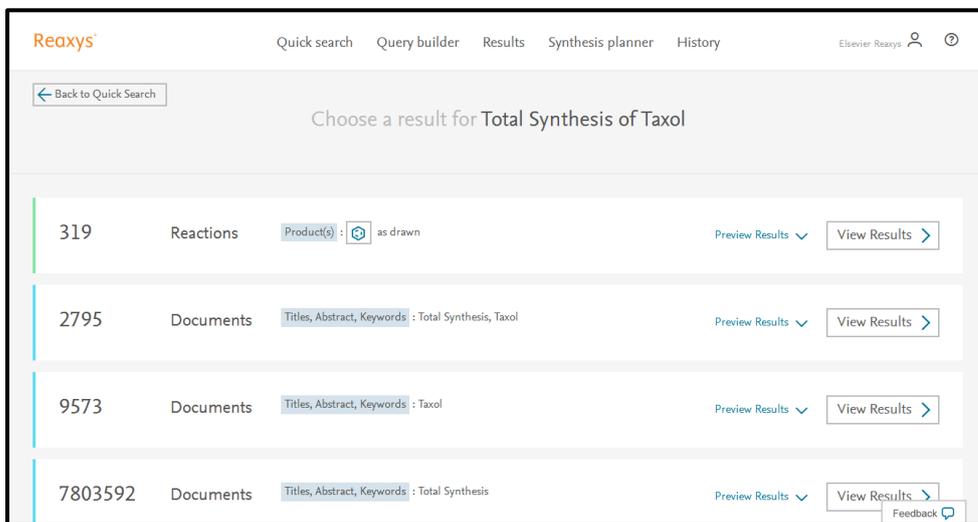
You can start to answer questions like this in Reaxys either through Reaction Records (draw the structure of taxol and specify the substance be a product), or through Substance Records (find the Substance Record for taxol and browse through the preparations listed), or through Document Records (where simple keyword searches relating to substances/reactions can directly give important records). In this case, we shall illustrate how to approach this question through Document Records.

1. On the Reaxys home page click the **Search Reaxys** field and type **total synthesis of taxol**
 - a. Click **Search**



Reaxys analyzes the query input and returns four result sets in a Results Preview:

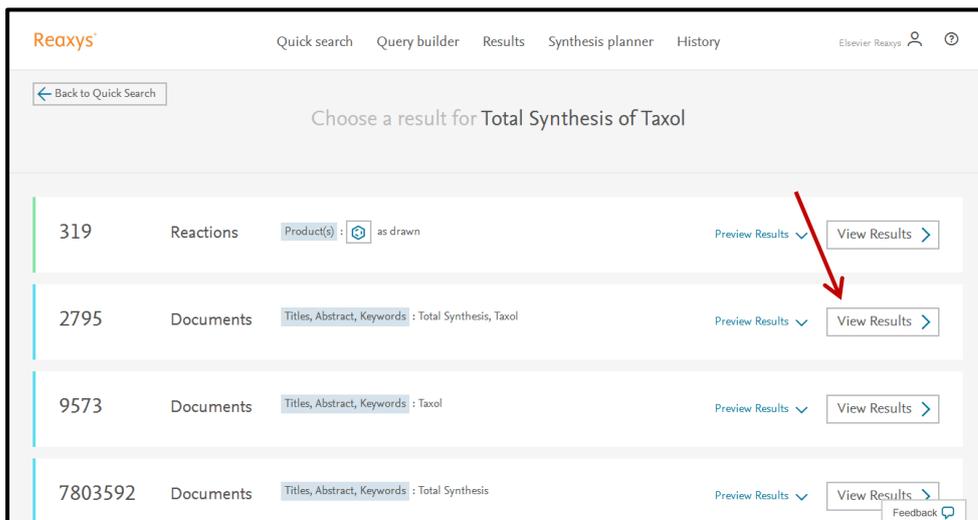
- The 319 Reactions set is the result of looking at reaction records.
- The three Documents sets are results of looking at document records with a different combination of the original search terms.



The screenshot shows the Reaxys interface with the search results for 'Total Synthesis of Taxol'. The results are displayed in a list format with the following details:

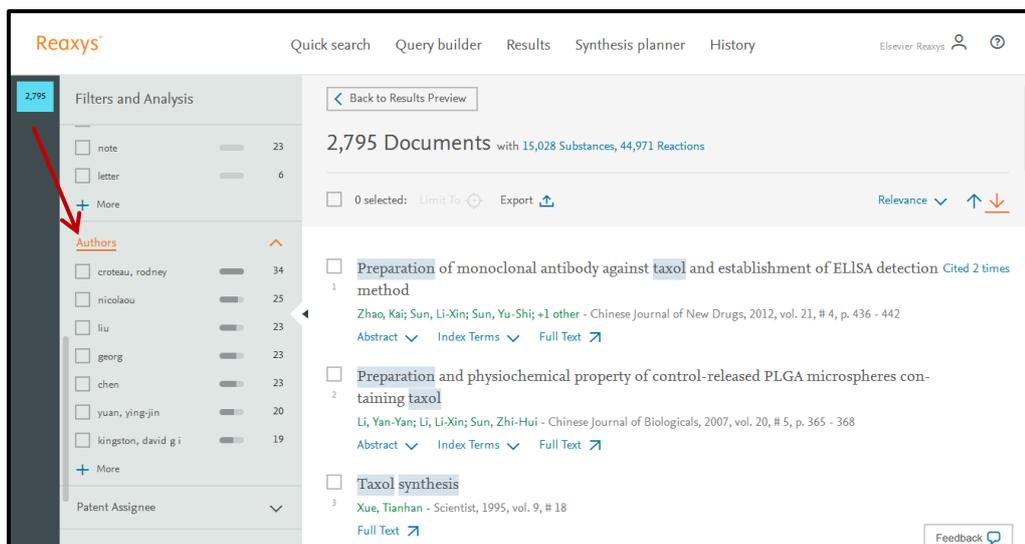
Count	Category	Search Criteria	Preview Results	View Results
319	Reactions	Product(s) : as drawn	Preview Results	View Results
2795	Documents	Titles, Abstract, Keywords : Total Synthesis, Taxol	Preview Results	View Results
9573	Documents	Titles, Abstract, Keywords : Taxol	Preview Results	View Results
7803592	Documents	Titles, Abstract, Keywords : Total Synthesis	Preview Results	View Results

2. Click **View Results** for the second set of results which will display documents that discuss total synthesis of taxol.

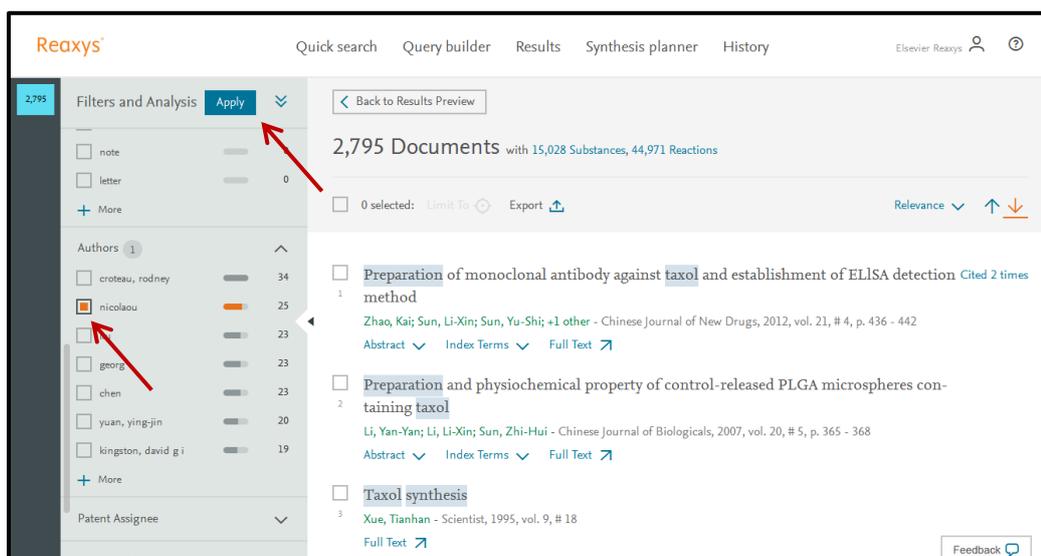


This screenshot is identical to the previous one, but with a red arrow pointing to the 'View Results' button for the second result set (2795 Documents).

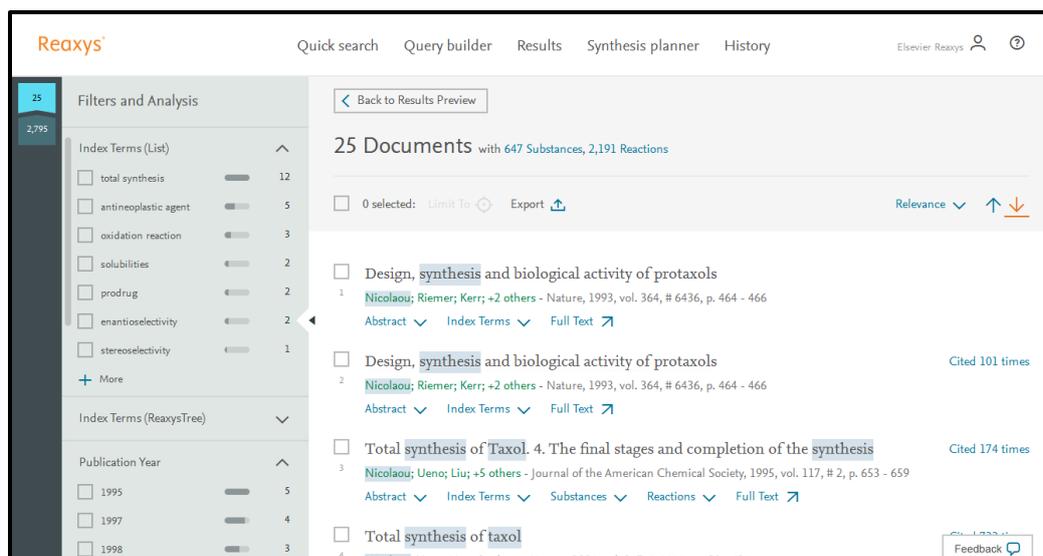
3. In the Filters and Analysis Panel, scroll down to the **Authors** field and **expand** it
 - By looking at the author filter I see that Nicolaou is one of the top publishing authors on this topic.



4. Check the box for **nicolaou**
 - a. Click **Apply**



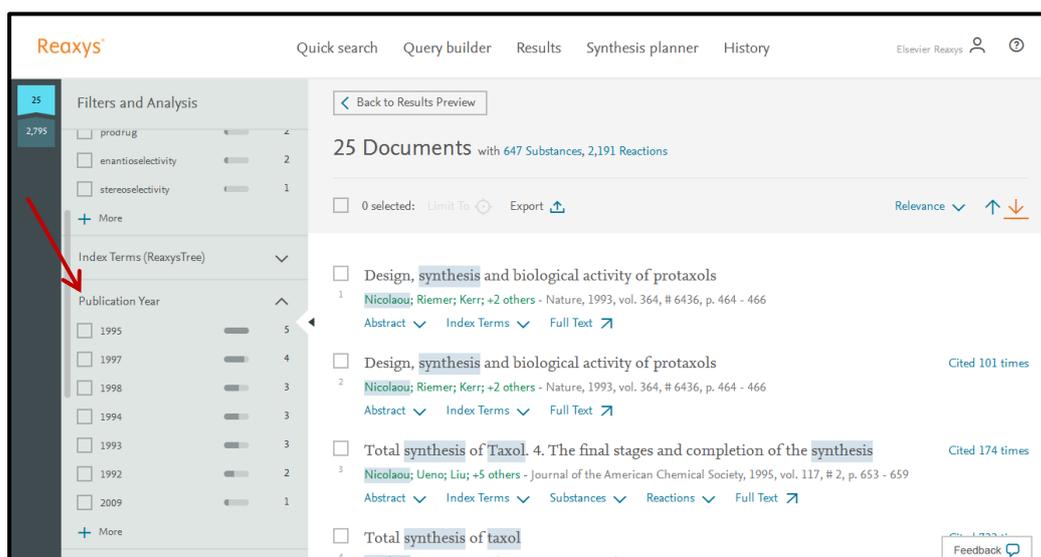
The Results list is now filtered to the 25 Documents by **Nicolaou**



The screenshot shows the Reaxys interface with the following details:

- Navigation:** Quick search, Query builder, Results, Synthesis planner, History.
- Filters and Analysis:**
 - Index Terms (List): total synthesis (12), antineoplastic agent (5), oxidation reaction (3), solubilities (2), prodrug (2), enantioselectivity (2), stereoselectivity (1).
 - Index Terms (ReaxysTree): collapsed.
 - Publication Year: 1995 (5), 1997 (4), 1998 (3).
- Results:** 25 Documents with 647 Substances, 2,191 Reactions.
 - 0 selected. Limit To, Export.
 - Relevance sorting options.
 - Document 1: Design, synthesis and biological activity of protaxols. Nicolaou; Riemer; Kerr; +2 others - Nature, 1993, vol. 364, # 6436, p. 464 - 466. Cited 101 times.
 - Document 2: Design, synthesis and biological activity of protaxols. Nicolaou; Riemer; Kerr; +2 others - Nature, 1993, vol. 364, # 6436, p. 464 - 466. Cited 101 times.
 - Document 3: Total synthesis of Taxol. 4. The final stages and completion of the synthesis. Nicolaou; Ueno; Liu; +5 others - Journal of the American Chemical Society, 1995, vol. 117, # 2, p. 653 - 659. Cited 174 times.
 - Document 4: Total synthesis of taxol.

5. **Scroll** down to **Publication Year**, which shows that most of the work was done between 1993-1998:



This screenshot shows the same search results as above, but with the 'Publication Year' filter expanded. A red arrow points to the expanded list of years:

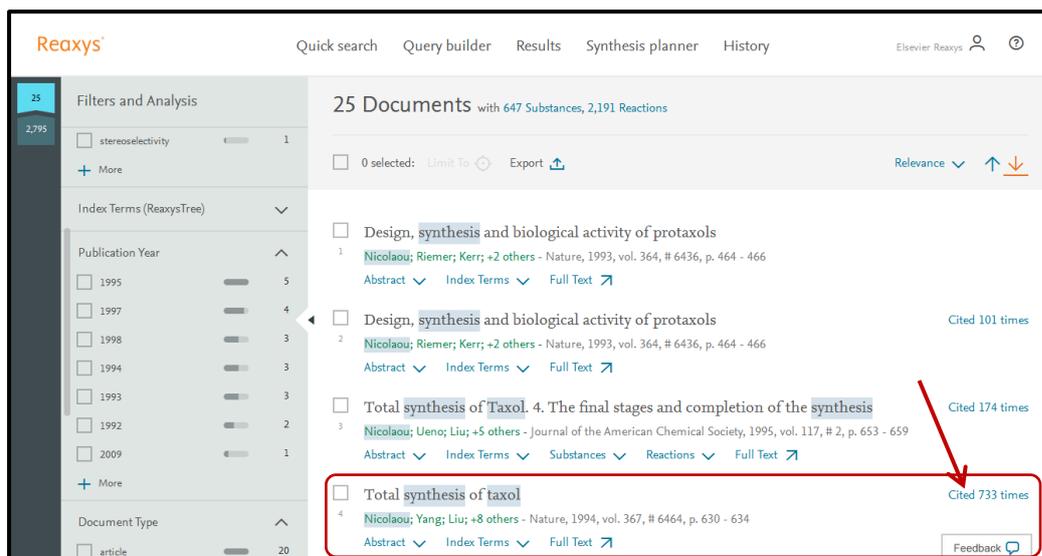
- 1995: 5 results
- 1997: 4 results
- 1998: 3 results
- 1994: 3 results
- 1993: 3 results
- 1992: 2 results
- 2009: 1 result

The document list on the right remains the same, showing the same 25 documents filtered by the author Nicolaou.

Viewing the filtered list of 25 documents, there is one which is cited 733 times. This is a good starting document to evaluate the **total synthesis of taxol**:

- Click 'Cited # times' to open Scopus with the documents that cite this article.
- Click 'Abstract' to view the document's abstract.
- Click 'Index Terms' to view the index terms that were assigned to this article.
- Click 'Full Text' will direct you to the publisher's website for viewing the full text article.

Please Note: depending on the article or patent, further options may be presented: Substances, Reactions, Front Page Information



The screenshot shows the Reaxys search results interface. On the left, there are filters for 'Filters and Analysis' (stereoselectivity: 1), 'Index Terms (ReaxysTree)', 'Publication Year' (1995: 5, 1997: 4, 1998: 3, 1994: 3, 1993: 3, 1992: 2, 2009: 1), and 'Document Type' (article: 20). The main area displays '25 Documents with 647 Substances, 2,191 Reactions'. A list of documents is shown, with the following entries:

- 1. Design, synthesis and biological activity of protaxols. Nicolau; Riemer; Kerr; +2 others - Nature, 1993, vol. 364, # 6436, p. 464 - 466. Cited 101 times.
- 2. Design, synthesis and biological activity of protaxols. Nicolau; Riemer; Kerr; +2 others - Nature, 1993, vol. 364, # 6436, p. 464 - 466. Cited 174 times.
- 3. Total synthesis of Taxol. 4. The final stages and completion of the synthesis. Nicolau; Ueno; Liu; +5 others - Journal of the American Chemical Society, 1995, vol. 117, # 2, p. 653 - 659. Cited 733 times.
- 4. Total synthesis of taxol. Nicolau; Yang; Liu; +8 others - Nature, 1994, vol. 367, # 6464, p. 630 - 634. Cited 733 times.

The fourth document is highlighted with a red box, and a red arrow points to the 'Cited 733 times' text.