

SciFinder Scholar™ Orientation Questions ANSWER KEY

Answers to the questions can be found in the following places:

- 1) Your notes
- 2) The following website: <http://www.cas.org/products/sfacad/index.html>
- 3) Searching in SciFinder Scholar

For the following questions: Note searches were done on 9-25-07, due to the daily updating of SciFinder Scholar research results may vary when done in the future.

1. How many databases are covered in SciFinder Scholar? Name them.

**CAplus - CAS REGISTRY - CASREACT - CHEMCATS
CHEMLIST - MEDLINE**

2. What bibliographic database(s) is/are covered in SciFinder Scholar?

CAplus - MEDLINE

3. What SciFinder Scholar database(s) contain(s) regulated chemicals information?

CHEMLIST

4. What do the following acronyms stand for? **(Select references that were found containing the concept)**

Explore Literature – Research Topic – enter each abbreviation

Select Topic Candidates containing the concept and note the hit term highlighting

UV-LED: ultraviolet light emitting diode/device

RP-HPLC: reverse(d) phase high performance liquid chromatography

LC-MS: liquid chromatography – mass spectrometry

5. Determine the following information for the following compound: **Sildenafil citrate**

Locate Substances – substance identifier = sildenafil citrate

Click on microscope to review substance record

Most common name (as seen on TV commercials): - review Other names = **Viagra**

RN: find the Registry Number = **171599-83-0**

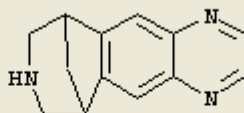
Formula: locate the chemical formula = **C₂₂ H₃₀ N₆ O₄ S . C₆ H₈ O₇**

6. In the 'Journal of Cell Science', who authored the article titled?
 "Vesicle-associated membrane protein 7 is expressed in intestinal ER"?
 Locate Literature – Bibliographic Information
 Type in Journal name = journal of cell science
 Type in words from title

Siddiqi, Shadab A.; Mahan, James; Siddiqi, Shahzad; Gorelick, Fred S.; Mansbach, Charles M., II. **Vesicle-associated membrane protein 7 is expressed in intestinal ER.** *Journal of Cell Science* (2006), 119(5), 943-950. CODEN: JNCSAI
 ISSN:0021-9533. CAN 144:464767 AN 2006:314485 CAPLUS

7. Do an exact structure search on **Varenicline**:
 What is the structure?
 Locate Substance Identifier = varenicline
 Click on Microscope icon or view substance answer

Registry Number: 249296-44-4



Formula: C13 H13 N3

CA Index Name: 6,10-Methano-6H-pyrazino[2,3-h][3]benzazepine, 7,8,9,10-tetrahydro-

Other Names: CP 526555; Champix; Chantix; Varenicline

Click on References icon – select references associated with and select – biological study
 Click OK

Retrieve references related to 'biological study'. How many are there? **63**

Select Analyze/Refine; Select Analyze – Analyze by Company
 What company has done most of the research in the above area? **Pfizer**



8. Via functional group searching, retrieve references converting a primary alcohol to a sulfonamide.

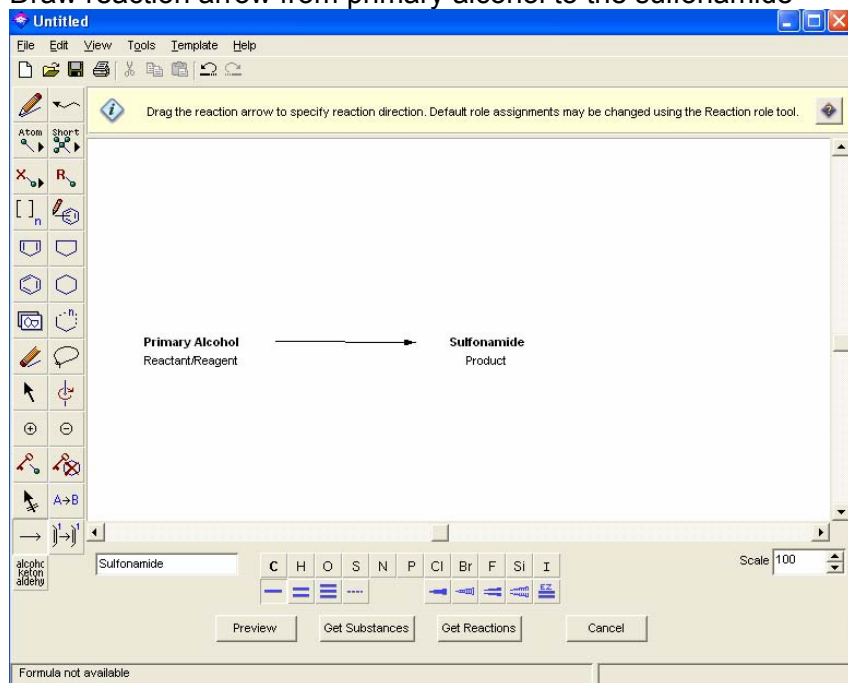
Requirements: Single step reaction
Minimum yield of 75

Explore Reactions – Use Reaction Functional Group List

First select Primary Alcohol and click on left side of drawing window

Second select Sulfonamide and click on right side of drawing window

Draw reaction arrow from primary alcohol to the sulfonamide

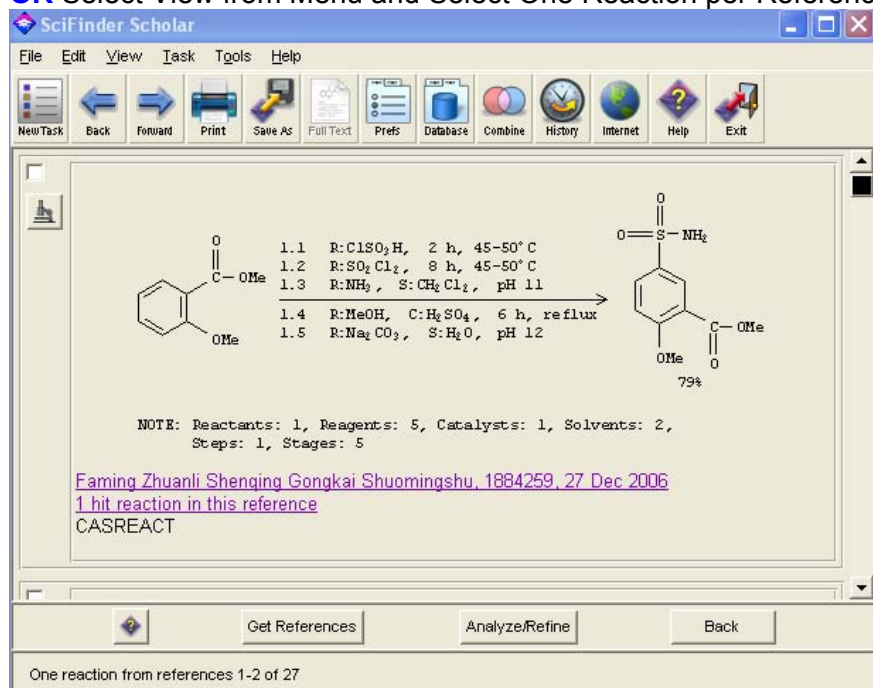


Click Get Reactions – Refine by one Reaction step – click OK

Refine Reactions by Product Yield of 75 minimum

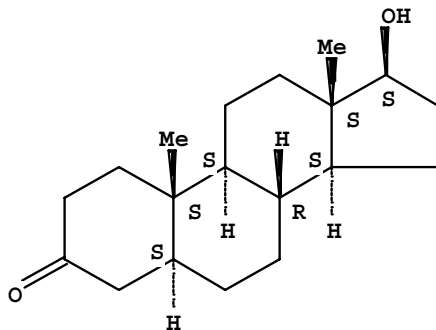
Get References

OR Select View from Menu and Select One Reaction per Reference



How many references did you retrieve? **84 reactions that had 27 references**

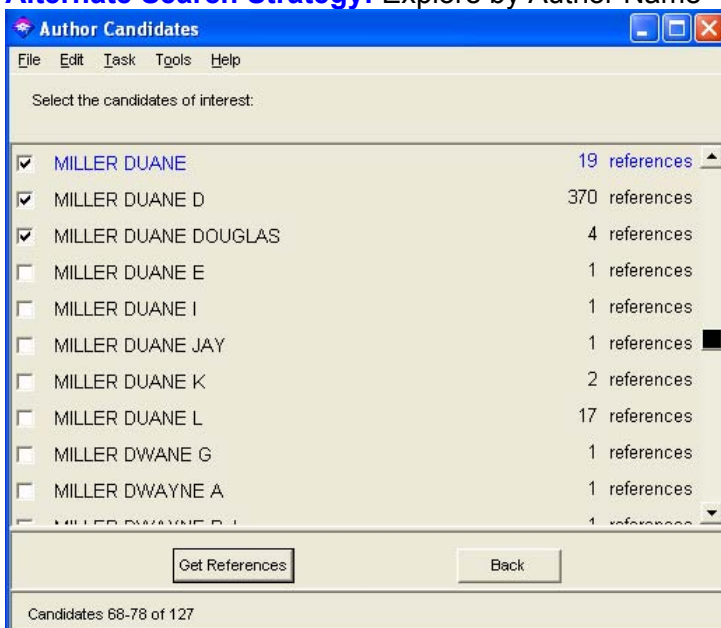
9. Retrieve the IR Spectrum of the following compound referenced in Dr. Duane Miller's patent on 'SARMs and their therapeutic use'. (DO NOT ATTEMPT TO DRAW THE STRUCTURE).
RN 521-18-6



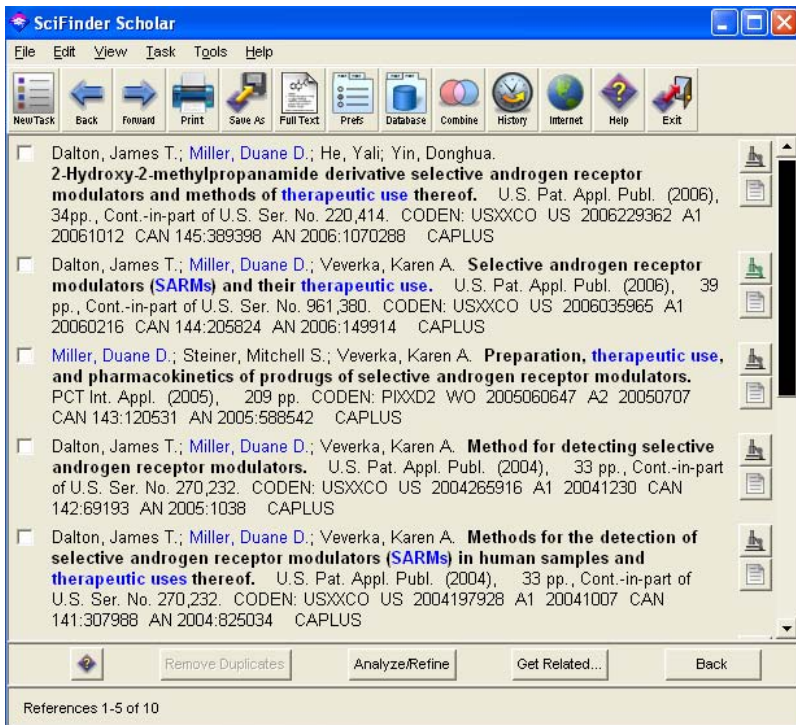
Use Locate Substance Identifier and enter Registry Number = 521-18-6
Click on Microscope icon – Click on Experimental Properties hyperlink
Select IR Absorption Spectrum – Spectrum ID is located in lower left quadrant

What is the Spectrum ID? **NIDA3770**

Alternate Search Strategy: Explore by Author Name – Duane Miller – select as shown

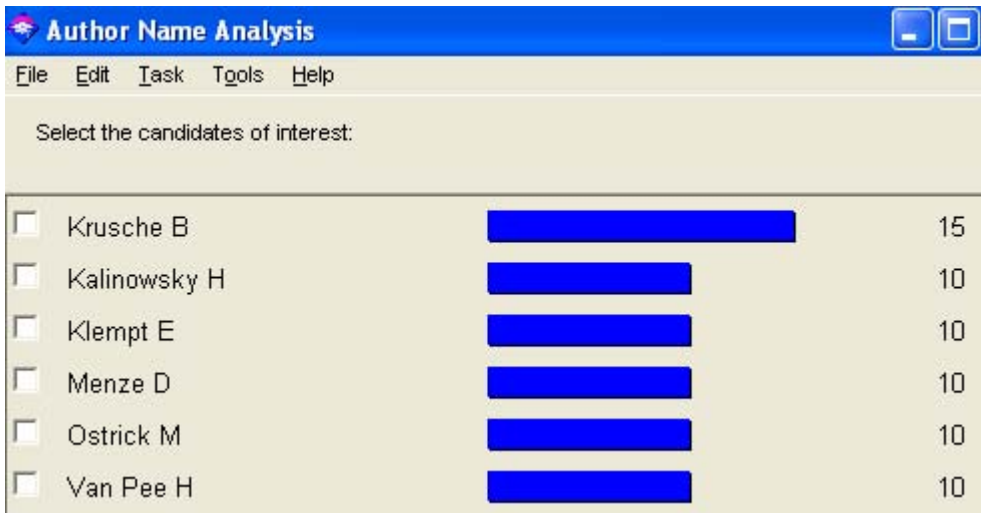


Get References; then Analyze/Refine – Refine by Document Type = patent you get 73 references then Analyze/Refine – Refine by Research Topic – enter title = 10 references
Review references and select the Selective androgen receptor modulators (SARMs) and their therapeutic use' (see below)
Click Microscope and Click on Get Related - Substances - select substance structure like above
Click on Microscope icon – Click on Experimental Properties hyperlink
Select IR Absorption Spectrum – Spectrum ID is located in lower left quadrant



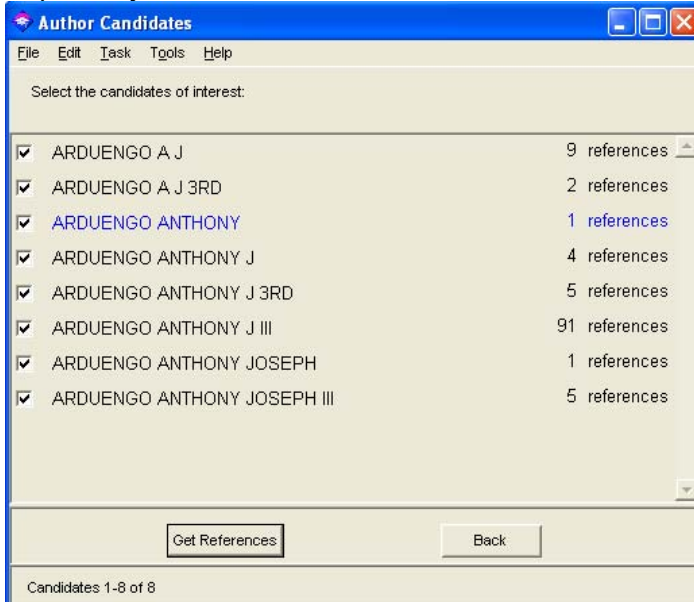
10. In the past five years, what person has done most of the research on *MESONS IN PHOTOPRODUCTION*? (Select the Topic Candidates with references where the two concepts are closely associated with one another)

Explore Research Topic – mesons in photoproduction - Select the Topic Candidates with references where the two concepts are closely associated with one another
Remember to remove duplicates – then limit to past five years = 144 references
Refine by Document Type - Publication year 2002-
Then Analyze/Refine – Analyze by Author name = **B Krusche**



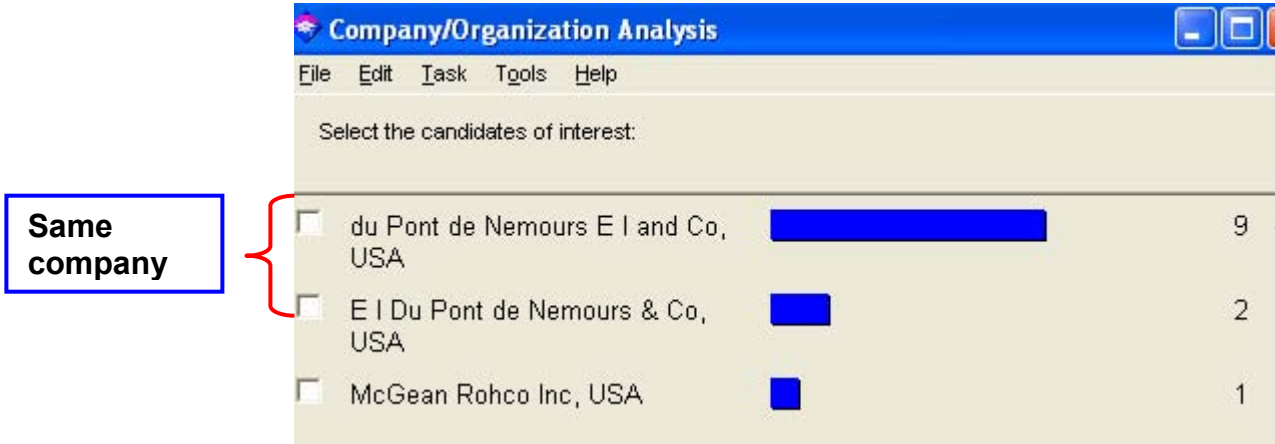
11. How many patents does Dr. Anthony Arduengo have? (Keep in mind that there could be several variations of the name.) **12 patents**

Explore by author name



Analyze/Refine – Refine by Document Type – patents
Analyze/Refine – Analyze by Company/Organization

From what companies? 2 companies – see below



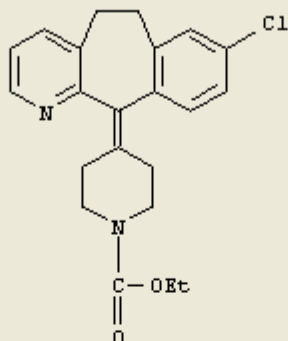
12. What is the structure of Claritin? What is its Registry Number?

Locate by Substance Identifier = Claritin

Click on Microscope icon

OR Review substance answer set that was displayed

Registry Number: 79794-75-5



Formula: C₂₂ H₂₃ Cl N₂ O₂

CA Index Name: 1-Piperidinecarboxylic acid, 4-(8-chloro-5,6-dihydro-11H-benzo[5,6]cyclohepta[1,2-b]pyridin-11-ylidene)-, ethyl ester

Other Names: 11H-Benzo[5,6]cyclohepta[1,2-b]pyridine, 1-piperidinecarboxylic acid deriv.; Alavert; Anhissen; Bonalerg; Civeran; Claratyne; Claritin; Claritine; Clarityn; Clarityne; Cronopen; Flonidan; Fristamin; Histaloran; Klaritin; Lertamine; Lisino; Loracert; Loradex; Loranox; Lorastine; Loratadine; Loratidine; Loratyne; Lorfast; Lowadina; Optimin; Polaratyne; Pylor; Restamine; Sch 29851; Sensibit; Sohotin; Tadine; Velodan; Zeos

13. What is the title of Eastman Chemical's most recent publication in the journal 'Modern Paint and Coatings'?

Explore by Company Name/Organization = Eastman Chemical

Remove Duplicates

Analyze/Refine – Analyze by Journal Name = Modern Paint and Coatings

Click sort alphabetically before clicking OK = 12 references

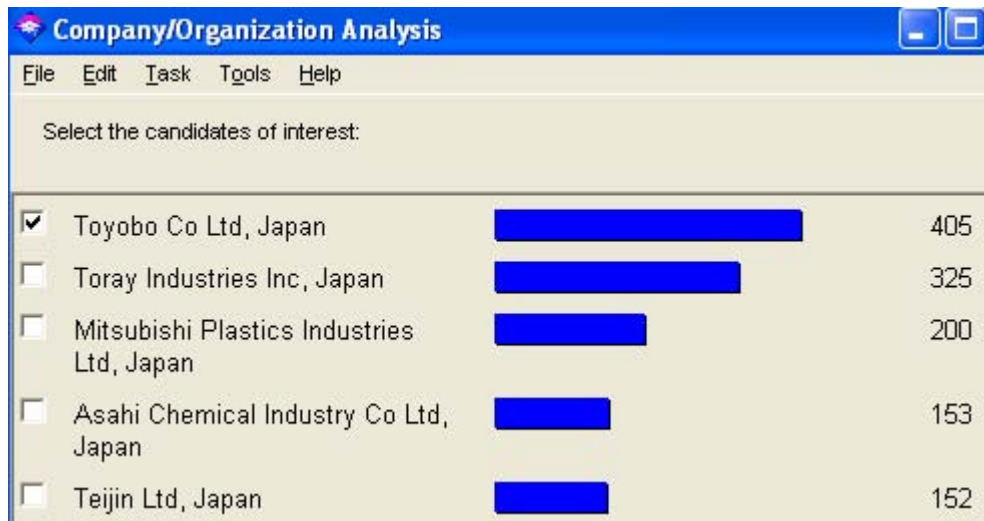
Select the most recent = 1998 reference pictured below

Bassett, Jimmy G. **Solvents for high-solids coatings in the 21st century.** [Modern Paint and Coatings](#) (1998), 88(10), 42, 44, 46, 48, 50. CODEN: MPCODM ISSN:0098-7786. CAN 130:39789 AN 1998:677756 CAPLUS

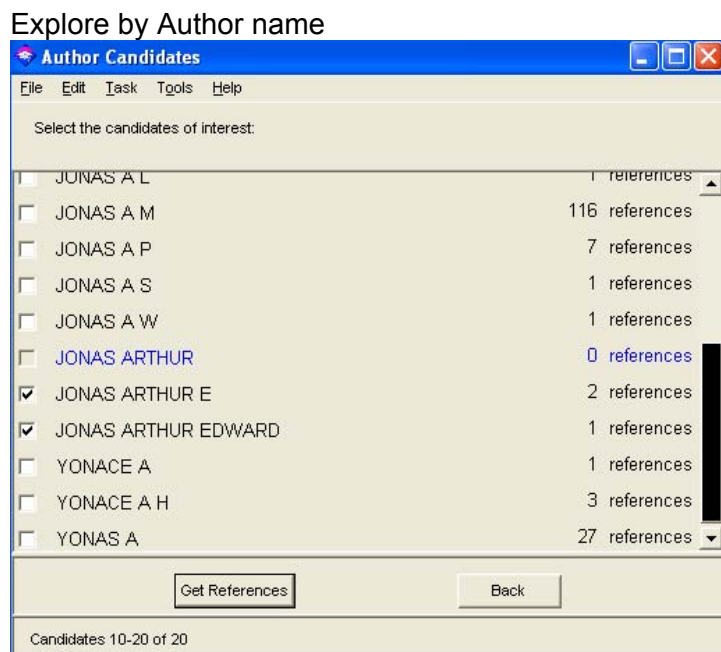
14. What company has the most patents in the area of heat shrinkable film? **(Choose the Topic Candidates for references that are found containing the concept.)** How many?

Explore Research Topic = heat shrinkable file
Analyze/Refine – Refine by Document Type – patents
Analyze/Refine – Analyze by Company name

Toyobo Co Ltd – 405 patents



15. Where did Dr. Arthur Jonas receive his PhD? In what year?



Click Get References = 3; Review list and select last reference – see below

University of Tennessee in 1971

Photoelectron spectroscopy of the tetrafluoro and tetramethyl compounds of the Group IV elements. Jonas, Arthur Edward. Univ. Tennessee, Knoxville, TN, USA. Avail. Univ. Microfilms, Ann Arbor, Mich., Order No. 72-15,532. (1971), 129 pp. From: Diss. Abstr. Int. B 1972, 32(11), 6275. Dissertation written in English. CAN 77:107190 AN 1972:507190 CAPLUS

16. In what year and in what journal was the Coca Cola article “Differentiation of synthetic and natural caffeine” published?

Explore by Research Topic – type title as given; Select Topic Candidate as entered = one reference – Click on Microscope icon to see complete bibliographic information where Coca-Cola Export Co. appears – see below

Journal of Agricultural and Food Chemistry in 1961

Differentiation of synthetic and natural caffeine. Allen, Albert B. Coca-Cola Export Co., Atlanta, GA, Journal of Agricultural and Food Chemistry (1961), 9 294-5. CODEN: JAFCAU ISSN: 0021-8561. Journal language unavailable. CAN 56:25318 AN 1962:25318 CAPLUS

17. Run a search on 'water soluble polymers in detergents'. What company has most of the patents? **(Select the Topic Candidates with references associated with two concepts present anywhere in the reference.)**

Explore by Research Topic - water soluble polymers in detergents

Select the Topic Candidates with references associated with two concepts present anywhere in the reference; then Remove Duplicates

Analyze/Refine – Refine by Document Type = patents

Analyze/Refine – Analyze by Company

Kao Corporation

