



STN[®] Library and Information Science Training Program

SUGGESTED SOLUTIONS TO SKILLS PRACTICE PROBLEMS

note

The answers you will find in the Suggested Solutions provided may not exactly match your search results for the following reasons:

1. Most STN databases are updated with new records often, so the number of answers retrieved from a search and which answer is first, fifth, etc. can change daily.
2. Searching is an art and there are lots of different ways to go about a search that may be equally valid. Just because you did not do the search exactly as we did or choose the terms we chose, does not mean that you are wrong.

The solutions are intended to give you a general set of steps that we believe best address the search questions asked, and maybe even teach you a few new things along the way. Your professor or the STN Helpdesk can be of help if you have additional questions. Good luck!

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STN LIS Skills Practice Problems

STN[®] on the WebSM – LIS Training Program web login site:

<http://stnweb.cas.org/?USERTYPE=LIS>

1. In CAplusSM, perform keyword searches on the following questions. Use D SCAN to evaluate some answers and determine some additional terms that could be added to the search strategies to improve their comprehensiveness. Display the bibliographic information and abstract from three records from each search.
 - A. Find information on the flavor or aroma components of blackberries.
 - B. What has been determined about the amount of ammonia or ammonium salts that was released by the 1906 eruption of Vesuvius?
 - C. Locate publications and patents dealing with research that Angela Belcher has done on nanowires that involve a virus known as M13 bacteriophage. What product is being targeted to use this new technology?
 - D. Retrieve literature on genetic engineering applied to developing tomatoes with increased freeze protection. Note that freeze protection is also talked about using the terms “antifreeze protein.”
 - E. What kinds of materials have been used to adulterate saffron?
 - F. A recent law requires mattresses to resist an open flame for at least 30 minutes before igniting in order to reduce the number of deaths from house fires. Locate patents on this technology issued after 2006. Brainstorm synonyms for your search terms to be as comprehensive as possible.
2. How many patents about hydrogen fuel cells does Takahiro Kuriwa have?
 - Remember to review the article indexing to obtain additional search terms
 - Compare the results of at least two databases that contain patents (such as CAplus, USPAT2, LWPI, or USPATFULL)
 - Display three patent titles from each database
3. Find information in the MEDLINE[®] database on job stress in the dental profession.
 - Use various proximity operators to adjust the size and focus of your answer set
 - Use the appropriate no cost display format to evaluate and improve your answer set
 - Relevance rank the final answer set and display the titles of the five most relevant answers
4. Choose a company of interest to you and find a recent patent filed by this company.
 - Use the CAplus company name thesaurus and the Derwent Patent Assignee Codes (PACOs) in LWPI to identify variations on this company name and or subsidiaries
 - Using this information, perform a multfile patent search for this company in CAplus and LWPI
 - *No solution for this is provided as the answers will vary, but check your process against the Syngenta example in the workbook*
5. Find patents on golf ball covers held by Acushnet.
 - HINT: Search in at least three of the following databases: CAplus, LWPI, USPAT2, or EPFULL to compare your results

6. What is the structure of the drug sumatriptan?

- What other names is this drug known by? (HINT: Remember to start in CAS REGISTRYSM then cross over to CAplus to find relevant references)
- Are there any references discussing its preparation? (HINT: The preparation role (PREP) might be helpful here)
- If so, what are the names of some companies who have reported methods of preparing it?
- Have any of the companies received a patent for this?

7. Find articles on the Type 2 diabetes drug Byetta and its effect on weight loss.

- What other names is this drug known by?
- Search in both CAplus and MEDLINE (HINT: Remember to remove duplicates before displaying the first three answers from each database)

8. In 2005, a number of petroleum companies announced their intent to eliminate MTBE from gasoline due to drinking and ground water contamination concerns and continuing liability exposure.

- Find three journal review articles on this topic in CAplus (HINT: Use both left and right truncation (SLART) to enhance your search retrieval for water)

9. Choose a drug or chemical of your choice.

- Locate other names that the drug or chemical are known by, then search in relevant databases and find recent patents and journal articles
- *No solution for this is provided as the answers will vary, but check your search strategy against the multifile substance-based search in the workbook*

Search Question 1A: In CAPLUS, perform keyword searches on the following question. Use D SCAN to evaluate some answers and determine some additional terms that could be added to the search strategies to improve their comprehensiveness. Display the bibliographic information and abstract from three records from each search.

- Find information on the flavor or aroma components of blackberries

The following is an example of a search strategy for this question including search tips:

=> **FILE CAPLUS**

=> **E FLAVOR/CT**

Use EXPAND to see the terms near desired controlled term.

=> **E E3+ALL**

Remember your term should be in the third E# position. Use EXPAND to view all the associated terms.

=> **S E##-E##**

Search the desired E# to obtain your first answer set, such as:

L1 65421 (FLAVOR/CT OR FLAVORS/CT OR FLAVOUR/CT OR BITTERNESS/CT OR RANCIDITY/CT OR SALTINESS/CT OR SOURNESS/CT OR SWEETNESS/CT OR ESSENCES/CT OR "FLAVORING MATERIALS"/CT OR "ODOR AND ODOROUS SUBSTANCES"/CT OR OLFACTION/CT OR TASTE/CT)

=> **E AROMA/CT**

Repeat for other desired search concepts.

=> **E E88+ALL**

E98 0 --> Aroma/CT
E99 28691 USE Odor and Odorous substances/CT
***** END *****

There will be times that your desired answer is not a controlled term.

=> **S E99**

L2 28691 "ODOR AND ODOROUS SUBSTANCES"/CT

=> **E BLACKBERRY/CT**

=> **E E102+ALL**

=> **S E119-E120**

Search for both single and plural version of your terms.

L3 706 (BLACKBERRY/CT OR BLACKBERRIES/CT)

(Continued on next page)

=> **S L1 OR L2**

Combine the controlled term answer sets.

L4 65421 L1 OR L2

=> **S FLAVO? OR AROMA?**

To make sure that you have not missed any pertinent articles, use truncation to broaden your search.

L5 661294 FLAVO? OR AROMA?

=> **S L4 OR L5**

Searching both controlled terms in the CA Lexicon and the basic index increases search results.

L6 688512 L4 OR L5

=> **S L3 OR BLACKBERR?**

L7 1216 L3 OR BLACKBERR?

=> **S L6 AND L7**

L8 217 L6 AND L7

=> **FOCUS**

Using the FOCUS command brings the most relevant records to the top

PROCESSING COMPLETED FOR L8

L9 217 FOCUS L8 1-

=> **D SCAN**

Use D SCAN to evaluate your search results.

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

Remember to type 0 or END to exit a D SCAN.

=> **D TI 1-5**

Review the titles to the most recent answers.

=> **D L9 1-5 ALL**

Display the bibliographic information and abstract from three records of your choice.

Search Question 1B: In CAPlus, perform keyword searches on the following question. Use D SCAN to evaluate some answers and determine some additional terms that could be added to the search strategies to improve their comprehensiveness. Display the bibliographic information and abstract from three records from each search.

- What has been determined about the amount of ammonia or ammonium salts that was released by the 1906 eruption of Vesuvius?

The following is an example of a search strategy for this question including search tips:

=> **FILE CAPLUS**

=> **E AMMONIA**

=> **E AMMONIUM**

=> **S AMMONI? AND VESUVIUS**

L1 17 AMMONI? AND VESUVIUS

=> **D SCAN**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> **S (AMMONI? OR NH3? OR NH4?) AND VESUVIUS**

Addition of “NH3” and “NH4” to the search query results in gives more answers.

L2 39 (AMMONI? OR NH3? OR NH4?) AND VESUVIUS

=> **FOCUS L2**

FOCUS the answer set for the most relevant answers.

PROCESSING COMPLETED FOR L2

L3 39 FOCUS L3 1-

=> **D IBIB ABS 1-3**

Search Question 1C: In CPlus, perform keyword searches on the following question. Use D SCAN to evaluate some answers and determine some additional terms that could be added to the search strategies to improve their comprehensiveness. Display the bibliographic information and abstract from three records from each search.

- Locate publications and patents dealing with research that Angela Belcher has done on nanowires that involve a virus known as M13 bacteriophage. What product is being targeted to use this new technology?

The following is an example of a search strategy for this question including search tips:

=> **FILE CAPLUS**

=> **E BELCHER A/AU**

A good habit to develop is to always EXPAND on the author's name. One cannot be sure how the author's first name appears – either using initials or spelled out.

E1	1	BELCHENKO YURI I/AU
E2	1	BELCHER/AU
E3	2	--> BELCHER A/AU
E4	1	BELCHER A I/AU
E5	1	BELCHER A J/AU
E6	7	BELCHER A M/AU
E7	2	BELCHER A R/AU
E8	1	BELCHER A S B/AU
E9	1	BELCHER ABIGAIL K/AU
E10	1	BELCHER ALAN/AU
E11	1	BELCHER ALAN E/AU
E12	1	BELCHER ALBERT L/AU

=> **E**

EXPAND as many times as needed to ensure that you have found the various author name variations.

E13	1	BELCHER ALBERT N/AU
E14	1	BELCHER ALISON J/AU
E15	6	BELCHER ANGELA/AU
E16	68	BELCHER ANGELA M/AU
E17	2	BELCHER ANN R/AU
E18	2	BELCHER ANNABELLE M/AU
E19	1	BELCHER ANNE/AU
E20	1	BELCHER ANNE C/AU
E21	3	BELCHER ANNE M/AU
E22	1	BELCHER ANNE MCGREGOR/AU
E23	1	BELCHER ANTHONY/AU
E24	1	BELCHER ARNOLD L/AU

=> **S E3 OR E6 OR E15-E16**

L1	83	"BELCHER A"/AU OR "BELCHER A M"/AU OR ("BELCHER ANGELA"/AU OR "BELCHER ANGELA M"/AU)
----	----	--

(Continued on next page)

=> **E NANOWIRE**

=> **S E27-E31**

L2 13380 (NANOWIRE/BI OR NANOWIREA/BI OR NANOWIRED/BI OR
NANOWIREEE/BI OR NANOWIRES/BI)

=> **S L1 AND L2**

Combine your concepts.

L3 18 L1 AND L2

=> **S L3 AND M13 (10A) BACTERIOPHAGE**

L4 9 L3 AND M13 (10A) BACTERIOPHAGE

=> **D SCAN**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> **FOCUS**

PROCESSING COMPLETED FOR L4

L5 9 FOCUS L4 1-

=> **D L5 1-3 BIB ABS**

Display answers of your choice.

Search Question 1D: In CAPLUS, perform keyword searches on the following question. Use D SCAN to evaluate some answers and determine some additional terms that could be added to the search strategies to improve their comprehensiveness. Display the bibliographic information and abstract of three records from each search.

- Retrieve literature on genetic engineering applied to developing tomatoes with increased freeze protection. Note that freeze protection is also talked about using the terms “antifreeze protein.”

The following is an example of a search strategy for this question including search tips:

=> **FILE CAPLUS**

=> **S TOMATO AND FREEZING**

L1 657 TOMATO AND FREEZING

=> **D SCAN**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> **E ANTIFREEZE PROTEINS/CT**

=> **E E3+ALL**

```
E13      0 --> Antifreeze proteins/CT
E14      USE Proteins (L) antifreeze/CT
***** END *****
```

=> **E E14+ALL**

=> **S ANTIFREEZE (S) (PROTEIN? OR GENE OR THP OR THERMAL HYSTERESIS)**

Develop a free text query from the controlled indexing terms.

L2 1114 ANTIFREEZE (S) (PROTEIN? OR GENE OR THP OR THERMAL
HYSTERESIS)

=> **E TOMATO/CT**

```
E# FREQUENCY AT TERM
-- -
E25      0 2 TOMATILLO/CT
E26      0 1 TOMATIS/CT
E27     17246 9 --> TOMATO/CT
E28      0 3 TOMATO (L) CANNED/CT
```

(Continued on next page)

=> E E27+ALL

E37 72359 BT3 Food/CT
E38 0 BT2 Plant-derived food (non-CA heading)/CT
E39 16651 BT1 Vegetable/CT
E40 17246 --> Tomato/CT
HNT E Valid heading during volume 76 (1972) to present.
E41 6023 OLD Tomatoes/CT
E42 UF Lycopersicon lycopersicum/CT
E43 UF Solanum lycopersicum/CT
E44 1533 RT Tomato juice/CT
E45 692 RT Tomato products/CT
E46 RTCS Lycopene/CT
***** END *****

=> S E40-E46

L3 29273 (TOMATO/CT OR TOMATOES/CT OR "LYCOPERSICON
LYCOPERSICUM"/CT OR
"SOLANUM LYCOPERSICUM"/CT OR "TOMATO JUICE"/CT OR "TOMATO
PRODUCTS"/CT OR LYCOPENE/CT

=> S L2 AND L3

L4 3 L2 AND L3

=> D IBIB ABS HITIND 1-3

=> E STRESS, PLANT/CT

E#	FREQUENCY	AT	TERM
E47	0	5	STRESS, MICROBIAL (L) OSMOTIC/CT
E48	0	6	STRESS, MICROBIAL (L) TOXIC/CT
E49	18440	12	--> STRESS, PLANT/CT
E50	0	6	STRESS, PLANT (L) ACIDITY/CT

=> E E49+ALL

E59 0 BT2 Biological processes and phenomena (non-CA
heading)/CT
E60 21476 BT1 Stress, biological/CT
E61 18440 --> Stress, plant/CT
HNT E Valid heading during volume 116 (1992) to
present.
E62 8432 OLD Plant stress/CT
E63 2516 OLD Plant stress and adaptation/CT
E64 366 OLD Stresses (biological)/CT
E65 420 NT1 Hypoxia, plant/CT
E66 4477 RT Adaptation, plant/CT
E67 2665 RT Atmosphere (environmental)/CT
E68 885 RT Chlorosis (plant)/CT
E69 5240 RT Fatigue, biological/CT
E70 46119 RT Oxidative stress, biological/CT
***** END *****

(Continued on next page)

=> **S STRESS (S) PLANT (S) (FREEZING OR FROST)**

L5 929 STRESS (S) PLANT (S) (FREEZING OR FROST)

=> **S L5 AND (TOMATO OR L3)**

L6 38 L5 AND (TOMATO OR L3)

=> **S L6 AND (GENE OR GENETIC OR TRANSGENIC)**

L7 32 L6 AND (GENE OR GENETIC OR TRANSGENIC)

=> **S L7 NOT L4**

L8 32 L7 NOT L4

=> **D IBIB ABS HITIND 2**

Search Question 1E: In CAPLUS, perform keyword searches on the following question. Use D SCAN to evaluate some answers and determine some additional terms that could be added to the search strategies to improve their comprehensiveness. Display the bibliographic information and abstract from three records from each search.

- What kinds of materials have been used to adulterate saffron?

The following is an example of a search strategy for this question including search tips:

=> **FILE CAPLUS**

=> **SET ABB ON PERM** SET command used to retrieve abbreviations.

SET COMMAND COMPLETED

=> **SET PLURALS ON PERM** SET command used to retrieve plural versions of words.

SET COMMAND COMPLETED

=> **E SAFFRON**

E1 10 SAFFROL/BI
E2 8 SAFFROLE/BI
E3 1076 --> SAFFRON/BI
E4 1 SAFFRONED/BI

=> **S E3**

L1 1078 SAFFRON/BI
((SAFFRON OR SAFFRONS)/BI)

=> **S L1 AND ADULTERAT?**

L2 64 L1 AND ADULTERAT?

=> **D SCAN**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> **S (SAFFRON OR SAFRON) (L) (ADULTERAT? OR AUTHENTIC? OR GENUIN? OR FALSIF?)**

Use alternative terms and truncation to represent the “saffron” and “adulterate” concepts. (L) proximity operator is used for a more precise search.

L3 78 (SAFFRON OR SAFRON) (L) (ADULTERAT? OR AUTHENTIC? OR GENUIN? OR FALSIF?)

=> **FOCUS L3**

=> **D L4 IBIB ABS 1-3**

Search Question 1F: In CAPLUS, perform keyword searches on the following question. Use D SCAN to evaluate some answers and determine some additional terms that could be added to the search strategies to improve their comprehensiveness. Display the bibliographic information and abstract from three records from each search.

- A recent law requires mattresses to resist an open flame for at least 30 minutes before igniting in order to reduce the number of deaths from house fires. Locate patents on this technology issued after 2006. Brainstorm synonyms for your search terms to be as comprehensive as possible.

The following is an example of a search strategy for this question including search tips:

=> **FILE CAPLUS**

=> **E MATTRESS**

E2 1 MATTRE/BI
E3 838 --> MATTRESS/BI
E4 724 MATTRESSES/BI

=> **S E3-E4**

L1 1185 (MATTRESS/BI OR MATTRESSES/BI)

=> **S (FLAME? OR FIRE?) (2A) (RETARD? OR RESIST?)**

L2 67814 (FLAME? OR FIRE?) (2A) (RETARD? OR RESIST?)

=> **L1 AND L2**

L3 175 L1 AND L2

=> **D SCAN**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> **S BEDDING OR L1**

L4 5682 BEDDING OR L1

=> **S L4 AND L2**

L5 264 L4 AND L2

=> **S L5 AND PATENT/DT**

L6 200 L5 AND PATENT/DT

=> **S L6 AND PY>2006**

L7 32 L6 AND PY>2006

(Continued on next page)

=> **D SCAN**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> **FOCUS L7**

PROCESSING COMPLETED FOR L7

L8 32 FOCUS L7 1-

=> **D 1-3** Assumes default print format.

Search Question 2: How many patents about hydrogen fuel cells does Takahiro Kuriwa have?

- Remember to review the article indexing to obtain additional search terms
- Compare the results of at least two databases that contain patents (CAplus and USPATFULL should be included)
- Display three patent titles from each database

The following is an example of a search strategy for this question including search tips:

=> **FILE CAPLUS**

=> **E KURIIWA T/AU**

```
E1      2  KURIIWA KAZUKO/AU
E2      7  KURIIWA NOBUO/AU
E3      6 --> KURIIWA T/AU
E4     65  KURIIWA TAKAHIRO/AU
E5      2  KURIIWA YOSHIAKI/AU
```

=> **S E3-E4**

```
L1      71 ("KURIIWA T"/AU OR "KURIIWA TAKAHIRO"/AU)
```

=> **S (HYDROGEN FUEL CELL?)**

```
L2     1402 (HYDROGEN FUEL CELL?)
        (HYDROGEN(W)FUEL(W)CELL?)
```

=> **S L1 AND L2**

```
L3      1 L1 AND L2
```

=> **D SCAN**

=> **INDEX CAPLUS USPATFULL LWPI EPFULL**

Use the INDEX command to search multiple databases at one time.

```
INDEX 'CAPLUS, USPATFULL, LWPI, EPFULL' ENTERED ON
4 FILES IN THE FILE LIST IN STNINDEX
```

Enter SET DETAIL ON to see search term postings or to view search error messages that display as 0* with SET DETAIL OFF.

=> **SET DETAIL ON**

```
SET COMMAND COMPLETED
```

=> **S (FUEL CELL?) AND HYDROGEN AND (KURIIWA T?/AU)**

```
L4  QUE (FUEL CELL?) AND HYDROGEN AND (KURIIWA T?/AU)
```

(Continued on next page)

=> **FIL HITS**

=> **SET MSTEPS ON**

SET COMMAND COMPLETED

=> **S L4**

FILE 'CAPLUS'
L5 40 (FUEL CELL?) AND HYDROGEN AND (KURIIWA T?/AU)

FILE 'USPATFULL'
L6 14 (FUEL CELL?) AND HYDROGEN AND (KURIIWA T?/AU)

FILE 'EPFULL'
L7 3 (FUEL CELL?) AND HYDROGEN AND (KURIIWA T?/AU)

TOTAL FOR ALL FILES
L8 57 L4

=> **S L5 AND PATENT/DT**

Limit the answer set to patents only.

FILE 'CAPLUS'
L9 39 L5 AND PATENT/DT

FILE 'USPATFULL'
L10 14 L5 AND PATENT/DT

FILE 'EPFULL'
L11 3 L5 AND PATENT/DT

TOTAL FOR ALL FILES
L12 56 L5 AND PATENT/DT

=> **SET DUPORDER FILE**

SET COMMAND COMPLETED

=> **DUP REM L9 L10 L11**

DUPLICATE REMOVE removes duplicate answers from the selected databases.

L13 50 DUP REM L9 L10 L11 (6 DUPLICATES REMOVED)
ANSWERS '1-39' FROM FILE CAPLUS
ANSWERS '40-47' FROM FILE USPATFULL
ANSWERS '48-50' FROM FILE EPFULL

=> **D TI HIT 1**

=> **D TI 1-3 FROM EACH**

Search Question 3: Find information in the MEDLINE database on job stress in the dental profession.

- Use various proximity operators to adjust the size and focus of your answer set
 - Use the appropriate no cost display format to evaluate and improve your answer set
 - Relevance rank the final answer set and display the titles of the 5 most relevant answers
-

The following is an example of a search strategy for this question including search tips:

=> **FILE MEDLINE**

=> **S DENTAL OR DENTIST?**

L1 320684 DENTAL OR DENTIST?

=> **S JOB STRESS###**

Implied proximity operator.

L2 776 JOB STRESS###
(JOB(W)STRESS###)

=> **S L1 AND L2**

L3 14 L1 AND L2

=> **D TRIAL 1-6** **D TRIAL is the free display format in MEDLINE.**

=> **S (JOB? OR WORK OR OCCUPATION?) (2A) STRESS###**

L4 3913 (JOB? OR WORK OR OCCUPATION?) (2A) STRESS###

=> **S L1 AND L4**

L5 96 L1 AND L4

=> **FOCUS** **FOCUS sorts by most relevant answers.**

PROCESSING COMPLETED FOR L5

L6 96 FOCUS L5 1-

=> **D TI 1-5** **Displays titles of the first five references.**

Search Question 4: Choose a company of interest to you and find a recent patent filed by this company.

- Use the CAplus company name thesaurus and the Derwent Patent Assignee Codes (PACOs) in LWPI to identify variations on this company name and or subsidiaries
- Using this information, perform a multifile patent search for this company in CAplus and LWPI

No solution for this is provided as the answers will vary by company, but check your process against the Syngenta example in the workbook.

Search Question 5: Find patents on golf ball covers held by Acushnet.

- HINT: Search in at least three of the following databases: CAPLUS, LWPI, USPATFULL, or USPAT2 to compare your results

The following is an example of a search strategy for this question including search tips:

=> **FILE USPAT2** Try out your search strategy in a low cost database.

=> **S ACUSHNET/PA**

L1 410 ACUSHNET/PA

=> **S GOLF BALL COVER?** Implied proximity.

L2 573 GOLF BALL COVER?
(GOLF(W)BALL(W)COVER?)

=> **S (GOLF BALL) (4A) COVER?**

L3 863 (GOLF BALL) (4A) COVER?

=> **S L2 OR L3**

L4 863 L2 OR L3

=> **S L1 AND L4**

L5 305 L1 AND L4

=> **D SCAN**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> **D HIT 1**

=> **INDEX USPAT2 CAPLUS LWPI** INDEX conducts a multifile search.

INDEX 'USPAT2, CAPLUS, LWPI' ENTERED

3 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view search error messages that display as 0* with SET DETAIL OFF.

(Continued on next page)

=> **SET DETAIL ON**

SET COMMAND COMPLETED

=> **S ((GOLF BALL) (4A) COVER?) AND ACUSHNET/PA**

L6 QUE ((GOLF BALL) (4A) COVER?) AND ACUSHNET/PA

=> **D RANK**

F1 305 USPAT2

F2 136 CAPLUS

F3 4 LWPI

=> **SET MSTEPS ON**

SET COMMAND COMPLETED

=> **FIL HITS**

=> **S L6**

FILE 'USPAT2'

L7 305 ((GOLF BALL) (4A) COVER?) AND ACUSHNET/PA

FILE 'CAPLUS'

L8 136 ((GOLF BALL) (4A) COVER?) AND ACUSHNET/PA

FILE 'LWPI'

L9 4 ((GOLF BALL) (4A) COVER?) AND ACUSHNET/PA

TOTAL FOR ALL FILES

L10 445 L6

=> **D TI HIT 1 FROM EACH** **Review one record from each database.**

Search Question 6: What is the structure of the drug sumatriptan?

- What other names is this drug known by? (HINT: Remember to start in REGISTRY then cross over to CAplus to find relevant references)
 - Are there any references discussing its preparation? (HINT: The preparation role (PREP) might be helpful here)
 - If so, what are the names of some companies who have reported methods of preparing it?
 - Have any of the companies received a patent for this?
-

The following is an example of a search strategy for this question including search tips:

=> **FILE REGISTRY**

=> **E SUMATRIPTAN/CN**

E1 1 SUMATRA YELLOW X 1940/CN
E2 1 SUMATRANOSIDE/CN
E3 1 --> SUMATRIPTAN/CN
E4 1 SUMATRIPTAN HEMISUCCINATE/CN

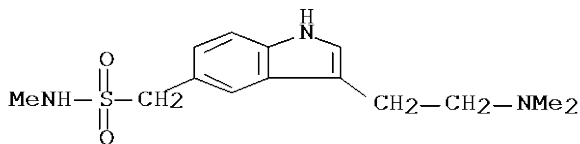
=> **S E3**

L1 1 SUMATRIPTAN/CN

=> **D DISPLAY the REGISTRY record to see structure and chemical names.**

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2012 ACS on STN
RN 103628-46-2 REGISTRY
ED Entered STN: 09 Aug 1986
CN 1H-Indole-5-methanesulfonamide, 3-[2-(dimethylamino)ethyl]-N-methyl-
(CA INDEX NAME)
OTHER NAMES:
CN 3-[2-(Dimethylamino)ethyl]-N-methyl-1H-indole-5-methanesulfonamide
CN GR 43175
CN GR 43175X
CN Sumatriptan
MF C14 H21 N3 O2 S
CI COM
SR CA
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR,
BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CBNB, CHEMCATS,
CHEMLIST, CIN, DDFU, DRUGU, EMBASE,
IMSPATENTS, IMSRESEARCH, IPA, MEDLINE, MRCK*, PATDPASPC,
PIRA, PS, RTECS*, SCISEARCH, TOXCENTER, USAN, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: WHO

(Continued on next page)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1071 REFERENCES IN FILE CA (1907 TO DATE)
 17 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 1076 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> **FILE CAPLUS**

=> **S L1/PREP**

Use the **PREP** role to find all types of preparations.

```

1076 L1
4425242 PREP/RL
L2    22 L1/PREP
      (L1 (L) PREP/RL)
  
```

=> **D L2 CS 1-10**

Use **CS** to **DISPLAY** the **CS (Corporate Source)** field.

```

L2 ANSWER 10 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN
PA Knoll Aktiengesellschaft, Germany
  
```

=> **ANALYZE**

ANALYZE is a useful command that allows for a statistical analysis of an answer set by up to 5 fields. Type the entire word at the arrow prompt, and then answer the prompts from STN:
L2 is the answer set that discusses preparations of sumatriptan.
1- Denotes that all of the answers will be analyzed.
CS indicates that the Corporate Source field will be analyzed.

```

ENTER ANSWER SET OR ANALYZE L# OR (L2):L2
ENTER ANSWER NUMBER OR RANGE (1-):1-
ENTER DISPLAY CODE (TI) OR ?:CS
L3    ANALYZE L2 1- CS : 25 TERMS
  
```

(Continued on next page)

=> D

L3 ANALYZE L2 1- CS : 25 TERMS

TERM # # OCC # DOC % DOC CS

1 2 2 9.09 ORGANIC CHEMICAL TECHNOLOGY RESEARCH GROUP
OF THE H
2 1 1 4.55 BIOCATALYTICS, INC., USA
3 1 1 4.55 CENT. RES. DIV., PFIZER INC., GROTON, CT,
06340, US
4 1 1 4.55 CENTRAL RESEARCH DIVISION, PFIZER INC.,
GROTON, CT,
5 1 1 4.55 CHIROGENIX CO., LTD., S. KOREA
6 1 1 4.55 COLLEGE OF MATERIAL SCIENCE AND CHEMICAL
ENGINEERIN
7 1 1 4.55 DYER, ALISON, MARGARET
8 1 1 4.55 FARMARC NEDERLAND B.V., NETH.
9 1 1 4.55 GLAXO GROUP LTD., UK
10 1 1 4.55 IMIDEX, S.A., SPAIN

15 MORE TERMS WITH AN OCCURRENCE COUNT OF 1

=> S L2 AND PATENT/DT Refine the answer set to contain only patents.

L4 15 L2 AND PATENT/DT

=> D TI 1-5

Search Question 7: Find articles on the Type 2 diabetes drug Byetta and its effect on weight loss.

- What other names is this drug known by?
- Search in both CAPLUS and MEDLINE. (HINT: Remember to remove duplicates before displaying the first three answers from each file)

The following is an example of a search strategy for this question including search tips:

=> **FILE REGISTRY**

=> **E BYETTA/CN**

E1 1 BYELYANKACIN/CN
E2 1 BYESUKAR/CN
E3 1 --> BYETTA/CN
E4 1 BYF 1047/CN

=> **S E3**

L1 1 BYETTA/CN

=> **D L1**

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2012 ACS on STN
RN 141758-74-9 REGISTRY
ED Entered STN: 12 Jun 1992
CN L-Serinamide, L-histidylglycyl-L- α -glutamylglycyl-L-threonyl-L-phenylalanyl-L-threonyl-L-seryl-L- α -aspartyl-L-leucyl-L-seryl-L-lysyl-L-glutamyl-L-methionyl-L- α -glutamyl-L- α -glutamyl-L- α -glutamyl-L-alanyl-L-valyl-L-arginyl-L-leucyl-L-phenylalanyl-L-isoleucyl-L- α -glutamyl-L-tryptophyl-L-leucyl-L-lysyl-L-asparaginylglycylglycyl-L-prolyl-L-seryl-L-serylglycyl-L-alanyl-L-prolyl-L-prolyl-L-prolyl- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Exendin 3 (Heloderma horridum), 2-glycine-3-L-glutamic acid-

CN Exendin 4 (Heloderma suspectum) (9CI)

OTHER NAMES:

CN 12: PN: WO0041546 FIGURE: 2 claimed protein

CN 1: PN: US20060171920 SEQID: 1 claimed protein

CN 2: PN: WO0066629 FIGURE: 2 unclaimed protein

CN 3: PN: WO0041548 PAGE: 65 unclaimed protein

CN 3: PN: WO2005019262 SEQID: 3 claimed protein

CN 476: PN: WO2004005342 PAGE: 46 claimed protein

CN 4: PN: DE102004043153 PAGE: 14/17 claimed protein

CN 7: PN: WO2005019262 SEQID: 3 claimed protein

CN AC 2993

CN AC 2993A

CN Byetta

CN Exenatide

CN Exenatide LAR

(Continued on next page)

FS PROTEIN SEQUENCE
DR 286014-72-0, 335149-21-8
MF C184 H282 N50 O60 S
CI COM, MAN
SR CA
LC STN Files: ADISINSIGHT, AGRICOLA, BIOSIS, CA, CAPLUS, CASREACT,
CHEMCATS, CIN, CSCHEM, EMBASE, IMSPATENTS, IMSRESEARCH, IPA, PATDPASPC,
PS, RTECS*, TOXCENTER, USAN, USPAT2, USPATFULL
(*File contains numerically searchable property data)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

257 REFERENCES IN FILE CA (1907 TO DATE)
12 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
261 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> **SEL CHEM L1** **Selects all the chemical names from REGISTRY.**

E13 THROUGH E29 ASSIGNED

=> **D SEL E13-E29** **Displays all the chemical names with assigned E-numbers.**

E13	1	AC 2993/BI
E14	1	AC 2993A/BI
E15	1	BYETTA/BI
E16	1	EXENATIDE LAR/BI
E17	1	EXENATIDE/BI
E18	1	EXENDIN 4 (HELODERMA SUSPECTUM)/BI
E19	1	1: PN: US20060171920 SEQID: 1 CLAIMED PROTEIN/BI
E20	1	12: PN: WO0041546 FIGURE: 2 CLAIMED PROTEIN/BI
E21	1	141758-74-9/BI
E22	1	2: PN: WO0066629 FIGURE: 2 UNCLAIMED PROTEIN/BI
E23	1	286014-72-0/BI
E24	1	3: PN: WO0041548 PAGE: 65 UNCLAIMED PROTEIN/BI
E25	1	3: PN: WO2005019262 SEQID: 3 CLAIMED PROTEIN/BI
E26	1	335149-21-8/BI
E27	1	4: PN: DE102004043153 PAGE: 14/17 CLAIMED PROTEIN/BI
E28	1	476: PN: WO2004005342 PAGE: 46 CLAIMED PROTEIN/BI
E29	1	7: PN: WO2005019262 SEQID: 3 CLAIMED PROTEIN/BI

=> **FILE CAPLUS MEDLINE**

=> **SET MSTEPS ON**

SET COMMAND COMPLETED

(Continued on next page)

=> S E13-E29

L2 323 FILE CAPLUS
L3 486 FILE MEDLINE

TOTAL FOR ALL FILES

L4 809 ("AC 2993"/BI OR "AC 2993A"/BI OR BYETTA/BI OR "EXENATIDE LAR"/BI OR EXENATIDE/BI OR "EXENDIN 4 (HELODERMA SUSPECTUM)"/BI OR "1: PN: US20060171920 SEQID: 1 CLAIMED PROTEIN"/BI OR "12: PN: WO0041546 FIGURE: 2 CLAIMED PROTEIN"/BI OR 141758-74-9/BI OR "2: PN: WO0066629 FIGURE: 2 UNCLAIMED PROTEIN"/BI OR 286014-72-0 /BI OR "3: PN: WO0041548 PAGE: 65 UNCLAIMED PROTEIN"/BI OR "3: PN: WO2005019262 SEQID: 3 CLAIMED PROTEIN"/BI OR 335149-21-8/BI OR "4: PN: DE102004043153 PAGE: 14/17 CLAIMED PROTEIN"/BI OR "476: PN: WO2004005342 PAGE: 46 CLAIMED PROTEIN"/BI OR "7: PN: WO2005019262 SEQID: 3 CLAIMED PROTEIN"/BI)

=> S WEIGHT LOSS

L5 54372 FILE CAPLUS
L6 38738 FILE MEDLINE

TOTAL FOR ALL FILES

L7 93110 WEIGHT LOSS

=> S L4 AND L7

L8 38 FILE CAPLUS
L9 62 FILE MEDLINE

TOTAL FOR ALL FILES

L10 100 L4 AND L7

=> SET DUPORDER FILE

SET COMMAND COMPLETED

=> DUP REM L8 L9

PROCESSING COMPLETED FOR L8

PROCESSING COMPLETED FOR L9

L11 78 DUP REM L8 L9 (**22 DUPLICATES REMOVED**)

22 duplicate answers are removed and records are sorted by designated file order.

ANSWERS '1-38' FROM FILE CAPLUS
ANSWERS '39-78' FROM FILE MEDLINE

=> D 1-3 FROM EACH **Displays 3 answers from each database.**

Search Question 8: In 2005, a number of petroleum companies announced their intent to eliminate MTBE from gasoline due to drinking and ground water contamination concerns and continuing liability exposure.

- Find three journal review articles on this topic in CAplus. (HINT: Use both left and right truncation (SLART) to enhance your search retrieval for water)

The following is an example of a search strategy for this question including search tips:

=> **FILE REGISTRY**

=> **E MTBE/CN**

E1 1 MTBA PROTEIN (SINORHIZOBIUM MELILOTI STRAIN 1021
GENE SMA1328)/CN
E2 1 MTBD/CN
E3 1 --> MTBE/CN
E4 1 MTBHQ/CN

=> **S E3**

L1 1 MTBE/CN

=> **D L1**

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
RN 1634-04-4 REGISTRY
ED Entered STN: 16 Nov 1984
CN Propane, 2-methoxy-2-methyl- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Ether, tert-butyl methyl (6CI, 7CI, 8CI)
OTHER NAMES:
CN 1,1-Dimethylethyl methyl ether
CN 2-Methoxy-2-methylpropane
CN 2-Methyl-2-methoxypropane
CN Methyl 1,1-dimethylethyl ether
CN Methyl tert-butyl ether
CN Methyl tertiary butyl ether
CN MTBE
CN t-Butyl methyl ether
CN tert-Butoxymethane
CN tert-Butyl methyl ether
MF C5 H12 O
CI COM

(Continued on next page)

LC STN Files: AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSNB, DDFU, DETHERM*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPAT, ENCOMPAT2, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, PIRA, RTECS*, SPECINFO, TOXCENTER, ULIDAT, USPAT2, USPATFULL

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

t-Bu-O-Me

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

7883 REFERENCES IN FILE CA (1907 TO DATE)

21 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

7917 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> **SEL CHEM L1**

E13 THROUGH E23 ASSIGNED

=> **D SEL E13-E23**

E13	1	METHYL TERT-BUTYL ETHER/BI
E14	1	METHYL TERTIARY BUTYL ETHER/BI
E15	1	METHYL 1,1-DIMETHYLETHYL ETHER/BI
E16	1	MTBE/BI
E17	1	T-BUTYL METHYL ETHER/BI
E18	1	TERT-BUTOXYMETHANE/BI
E19	1	TERT-BUTYL METHYL ETHER/BI
E20	1	1,1-DIMETHYLETHYL METHYL ETHER/BI
E21	1	1634-04-4/BI
E22	1	2-METHOXY-2-METHYLPROPANE/BI
E23	1	2-METHYL-2-METHOXYPROPANE/BI

=> **FILE CAPLUS**

CAplus supports SLART (simultaneous left and right truncation) and allows you to search for variations of water, i.e., groundwater and drinking-water.

=> **S E13-E23**

L2 8891 ("METHYL TERT-BUTYL ETHER"/BI OR "METHYL TERTIARY BUTYL ETHER"/BI OR "METHYL 1,1-DIMETHYLETHYL ETHER"/BI OR MTBE/BI OR "T-BUTYL METHYL ETHER"/BI OR TERT-BUTOXYMETHANE/BI OR "TERT-BUTYL METHYL ETHER"/BI OR "1,1-DIMETHYLETHYL METHYL ETHER"/BI OR 1634-04-4/BI OR 2-METHOXY-2-METHYLPROPANE/BI OR 2-METHYL-2-METHOXYPROPANE/BI)

=> **S ?WATER?**

L3 2853616 ?WATER?

(Continued on next page)

=> **S CONTAMINAT? OR POLLUTI?**

L4 618116 CONTAMINAT? OR POLLUTI?

=> **S L3 (5A) L4**

L5 169301 L3 (5A) L4

=> **S L2 AND L5**

L6 1170 L2 AND L5

=> **E A/DT**

When you Expand (E) on the Data Type (DT) field, you are able to locate the field name that covers review articles = General Review or GR.

**** START OF FIELD ****

E24 0 --> A/DT
E25 272590 B/DT
E26 11432 BIO/DT
E27 11432 BIOGRAPHY/DT
E28 272590 BOOK/DT
E29 43196 BOOK REVIEW/DT
E30 43196 BR/DT
E31 1156193 C/DT
E32 121 COMPUTER MAGNETIC DISK/DT
E33 120192 COMPUTER OPTICAL DISK/DT

=> **E**

E34 1156193 CONFERENCE/DT
E35 413714 D/DT
E36 413714 DISSERTATION/DT
E37 19750 ED/DT
E38 19750 EDITORIAL/DT
E39 13174 ER/DT
E40 13174 ERRATA/DT
E41 2044284 GENERAL REVIEW/DT
E42 2044284 GR/DT
E43 19934381 J/DT
E44 19934381 JOURNAL/DT
E45 23717 LE/DT

=> **S L6 AND GENERAL REVIEW/DT**

L7 109 L6 AND GENERAL REVIEW/DT

=> **S L7 AND PY=>2006 Limits articles published since 2005.**

2055867 PY=>2006
L8 4 L7 AND PY=>2006

=> **D SCAN**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> **D BIB ABS 1-4**

Search Question 9: Choose a drug or chemical of your choice.

- Locate other names that the drug or chemical are known by, then search in relevant databases and find recent patents and journal articles

No solution for this is provided as the answers will vary, but check your search strategy against the multifile substance based search in the workbook.