



STN[®]: Formulation Searching

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Today's presenters are...



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The applications of formulation information are widespread

- Support significant scientific and marketing gains
- Allow for product life extension
- Required research prior to generic marketing
- Integral for agricultural and cosmetic research
- Provide an important part of pharmaceutical R&D

Goals for this seminar

- Provide an overview of the types of formulation searching available on STN®
- Provide search examples
- Show how STN tools can help identify literature
- Provide insight into using STN analysis tools to help elucidate relevant literature

Strategies to identify formulations

- Text Searching
 - Use *online thesauri* in indexed databases
 - Use to also develop free text query and identification of specific and broad formulation terms
- Structure Searching
 - Perform a *FAMILY structure search* to retrieve stereo-isomers, radio-labeled products, salts and mixtures
- Chemical Name and CAS Registry Number® Searching
 - Perform a search by *chemical name*
 - Perform a *Component Registry Number search* to find salt forms and derivatives
- Combination search types
 - A combination of search types can help you focus on substances having a defined function

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STN offers several tools to search formulations

- INDEX command
 - Find important databases with ease
- Clusters
 - Search in multiple databases
- Thesauri
 - Gain insight and precision
- STN® Viewer™
 - Focus on term availability, location and occurrence
- STN® AnaVist™, Version 2.0
 - Analyze search results to gain insight

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STN provides many sources of formulation information

- ADISINSIGHT
- BIOSIS®
- CABA
- CAPIusSM
- CROPU
- DDFU
- DRUGU
- EMBASE
- IMSPATENTS
- IPA
- MEDLINE®
- PASCAL
- PHAR
- PHIN
- PROMT
- TOXCENTERSM
- WPINDEX
- Many more...

The formulation cluster can help to identify important databases

=> D CLUSTER FORMULATION

CLUSTER NAME	CLUSTER DEFINITION
FORMULATIONS	ADISINSIGHT BIOSIS CABA CAPLUS CROPU DDFU DRUGU EMBASE IMSPATENTS IPA MEDLINE PASCAL PHAR PHIN PROMT SCISEARCH TOXCENTER WPIDS WPINDEX Formulations Information Cluster

A database may be more closely examined by reviewing the Database Summary Sheet or more generally with the command:
=> **HELP CONTENT EMBASE**

INDEX the Formulations cluster to identify databases to search

```
=> INDEX FORMULATIONS; SET PLURALS ON PERM; SET ABB ON PERM

=> S FRAGRANCE
      1 FILE ADISINSIGHT
    2655 FILE BIOSIS
    1458 FILE CABA
   14994 FILE CAPLUS
     117 FILE CROPU
      34 FILE DDFU
      60 FILE DRUGU
    1860 FILE EMBASE
     599 FILE IPA
    1256 FILE MEDLINE
    1582 FILE PASCAL
      1 FILE PHAR
     134 FILE PHIN
   60707 FILE PROMT
    2644 FILE SCISEARCH
    4325 FILE TOXCENTER
   18673 FILE WPIDS
   18673 FILE WPINDEX

    18 FILES HAVE ONE OR MORE ANSWERS,    19 FILES SEARCHED IN STNINDEX
L6  QUE FRAGRANCE
```

The SET commands for plurals and abbreviations are set on for all searches in this seminar.

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The databases in an INDEX query may be ranked according to the number of hits

```
=> D RANK

F1      60707 PROMT
F2      18673 WPIDS
F3      18673 WPINDEX
F4      14994 CAPLUS
F5      4325 TOXCENTER
F6      2655 BIOSIS
F7      2644 SCISEARCH
F8      1860 EMBASE
F9      1582 PASCAL
F10     1458 CABA
F11     1256 MEDLINE
F12     599 IPA
F13     134 PHIN
F14     117 CROPU
F15     60 DRUGU
F16     34 DDFU
F17     1 ADISINSIGHT
F18     1 PHAR
```

A number of factors can contribute to your decision to use a certain database; including number of hits, types of documents covered in a database, and full text versus indexing.

Since Cplus (HCplus) has a robust thesaurus, the search will begin in this database.

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Search Question 1:

Find US patent documents pertaining to formulations of room deodorizers containing one or more of geraniol (106-24-1), citronellal (106-23-0) or citronellol (106-22-9).

When the subject is unfamiliar, where do you start?

- Think of what you do know
 - Products that fit the description
 - Companies known to work in the area
 - Keywords known in the area
- Use EXPAND to find keywords
- SEARCH on found areas of interest
- Perform an ANALYZE to learn terms
- Select relevant terms
- Combine concepts and perform the search

The search is started by EXPANDING on terms of interest

=> FILE HCAPLUS; E FRAGRANCE/CT

E#	FREQUENCY	AT	TERM
E1	1	7	FRAGOSPHERA PURPUREA/CT
E2	1		FRAGRAEA FRAGRANS/CT
E3	0	2	--> FRAGRANCE/CT
E4	0	1	FRAGRANS/CT
E5	0	1	FRAGRANT/CT
E6	0	3	FRAGRANT SUBSTANCES/CT
E7	0	1	FRAGRANTISSIMA/CT
E8	0	1	FRAGRANTISSIMUM/CT
E9	0	15	FRAGUM/CT
E10	1	13	FRAGUM FRAGUM/CT
E11	3	13	FRAGUM UNEDO/CT
E12	1	13	FRAGUM WHITLEYI/CT

HCAplus is used for this search, as it allows for zero search term charges.

A frequency of zero and an Associated Term (AT) of 2 is indicative that fragrance is not a preferred term.

Expanding on fragrance identifies that Odor and Odorous substances is the preferred term.

=> E E3+ALL

E13	0	-->	Fragrance/CT
E14	30613	USE	Odor and Odorous substances/CT
***** END *****			

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EXPAND on the preferred term to provide suggested related terms

=> E E14+ALL

E15	3267	BT1	Physical and chemical properties/CT
E16	30613	-->	Odor and Odorous substances/CT
HNTE Valid heading during volume 76 (1972) to present.			
E17	450	OLD	Odorous substances/CT
E18	1757	OLD	Odors/CT
E19		UF	Aroma/CT
E20		UF	Fragrance/CT
E21		UF	Fragrant substances/CT
E22		UF	Odiferous compds./CT
E23		UF	Odor/CT
E24		UF	Osmophore/CT
E25		UF	Smell/CT
E26		UF	Smell (odor)/CT
E27	863	RT	Air fresheners/CT
E28	3520	RT	Cosmetics and personal care products/CT
E29	7187	RT	Deodorization/CT
E30	2019	RT	Essences/CT
E34	12822	RT	Perfumes/CT
***** END *****			

Essences and perfumes may be additional terms to search.

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Use relationship codes to control associated term retrieval in thesauri

Code	Description of Relationship Code
ALL	All associated terms, except no LT terms
MAX	All associated terms, including LT terms
BT	Broader terms
HIE	Hierarchy terms (BT, NT)
HNTE	History Note
KT	Keyword term (terms containing a keyword)
LT	Linking term (index heading modifying information)
NEW	New terms (replace OLD)
NOTE	Notes
NT	Narrower term
OLD	Old term (replaced by New term)
PFT	Preferred term (OLD, NEW, USE, UF)
RT	Related term
RTCS	Related Chemical substance term
STD	Standard term (BT, HNTE, NOTE, NT, RT, RTCS)
UF	Used for (non-preferred synonym)
USE	Use (preferred synonym)

- Use **+ALL** to retrieve all associated terms
- Use **+MAX** to also retrieve linking terms
- Relationship codes can be stacked – PFT, NT
- In cases where greater than 999 associated terms exist, apply a narrower code – NT1

Use **DELETE SELECT** to delete E-numbers.

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The History Note provides insight into the time coverage of a search term

=> E AIR FRESHENERS/CT 5

E#	FREQUENCY	AT	TERM
---	-----	--	----
E44	0	2	AIR FILTRATION APPARATUS/
E45	0	2	AIR FLOTATION/CT
E46	863	7	--> AIR FRESHENERS/CT
E47	0	2	AIR FRESHENERS DEODORANTS
E48	0	2	AIR HEATERS/CT

Air Fresheners is only valid from 1997; if older records are desired, the OLD controlled term must be searched as well.

=> E E46+ALL

E56	863	-->	Air fresheners/CT
			HNTE Valid heading during volume 126 (1997) to present.
E57			OLD Deodorants (L) air fresheners/CT
E58			UF Air fresheners deodorants/CT
E59			UF Room air fresheners/CT
E60			UF Room deodorants/CT
E61	50709		RT Antibacterial agents/CT
E62	30613		RT Odor and Odorous substance
***** END *****			

The OLD and UF terms may be additional terms to search.

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EXPAND on the name of a known producer in the area to gain insight to additional terms

=> E INTERNATIONAL FLAVORS AND FRAGRANCES/CO

E#	FREQUENCY	AT	TERM
E63	1	--	INTERNATIONAL FLAVOR FRAGRANCE I F F NEDERLAND N V/CO
E64	1		INTERNATIONAL FLAVOR FRAGRANCE INC/CO
E65	13	2 -->	INTERNATIONAL FLAVORS AND FRAGRANCES/CO
E66	2	2	INTERNATIONAL FLAVORS AND FRAGRANCES CANADA LTD/CO
E67	6	2	INTERNATIONAL FLAVORS AND FRAGRANCES I F F NEDERLAND N V/CO
E68	1		INTERNATIONAL FLAVORS AND FRAGRANCES IFF R D/CO
E69	754	15	INTERNATIONAL FLAVORS AND FRAGRANCES INC/CO
E70	1		INTERNATIONAL FLAVORS AND FRAGRANCES INC IFF/CO
E71	1		INTERNATIONAL FLAVORS
E72	1		INTERNATIONAL FLAVORS
E73	2		INTERNATIONAL FLAVORS NEDERLAND N V/CO
E74	2		INTERNATIONAL FLAVORS

Expand in the Company Name thesaurus (/CO).

The company name thesaurus includes name variations as well as joint ventures.

EXPAND on a preferred company name to provide a listing of company names identified in CPlus

=> E E69+ALL

E75	0		CNUM CAS1004204/CO
E76	754	-->	INTERNATIONAL FLAVORS AND FRAGRANCES INC/CO
E77	12	RT1	A BOAKE ROBERTS AND CO LTD/CO
E78	68	RT1	A BOAKE ROBERTS CO LTD/CO
E79	29	RT1	BUSH BOAKE ALLEN INC/CO
E80	132	RT1	BUSH BOAKE ALLEN LTD/CO
E81	56	RT1	INT FLAVORS AND FRAGRANCES
E82	13	RT1	INTERNATIONAL FLAVORS AND
E83	2	RT1	INTERNATIONAL FLAVORS AND
E84	6	RT1	INTERNATIONAL FLAVORS AND NEDERLAND N V/CO
E85	6	RT1	INTERNATIONAL FLAVORS FRAGRANCES I F F NEDERLAND N V/CO
E86	175	RT1	INTERNATIONAL FLAVORS FRAGRANCES INC/CO
E87	37	RT1	N V POLAK SCHWARZ S ESSEN
E88	7	RT1	STAFFORD ALLEN AND SONS
E89	31	RT1	STAFFORD ALLEN SONS LTD/CO
***** END *****			
=> S E69+ALL			
L1	1326	"INTERNATIONAL FLAVORS AND FRAGRANCES INC"+ALL/CO (15 TERMS)	

A listing of the company names are provided by expanding on the target company E-number, E69+ALL.

All the names listed are quickly searched with the command of S E69+ALL.

The Company Name Thesaurus searched all the identified names

=> D L1 2, 1104, 1301, 1303, 1304 TI CS

L1 ANSWER 2 OF 1326 HCAPLUS COPYRIGHT 2008 ACS on STN
 TI Use of 1,2-dihydroperillaldehyde in flavor applications
 PA International Flavors & Fragrances, Inc., USA

L1 ANSWER 1104 OF 1326 HCAPLUS COPYRIGHT 2008 ACS on STN
 TI Separating isomers of chlorobenzylpyridine
 PA Bush Boake Allen Ltd.

All the identified names from the search recall records.

L1 ANSWER 1301 OF 1326 HCAPLUS COPYRIGHT 2008 ACS on STN
 TI 2-Alkoxy (or alkenyloxy)-5-nitroanilines and their salts
 PA N. V. Polak & Schwarz's Essencfabrieken

L1 ANSWER 1303 OF 1326 HCAPLUS COPYRIGHT 2008 ACS on STN
 TI Insecticidal preparations
 PA Stafford Allen & Sons Ltd.

L1 ANSWER 1304 OF 1326 HCAPLUS COPYRIGHT 2008 ACS on STN
 TI 2-Alkoxy-5-nitroaniline and 2-alkoxy-4-nitroaniline (sweetening agents)
 PA N. V. Polak & Schwarz's Essencfabrieken

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Evaluate one or more fields from the answer set with the ANALYZE command

=> ANA L1 CT IPC RN

L2 ANALYZE L1 1- CT IPC RN : 10305 TE

An ANALYZE on controlled terms (CT), patent classifications (IPC) and on CAS Registry Numbers (RN) may prove interesting and provide additional information to consider.

=> D L2 CT TOP 20

L2 ANALYZE L1 1- CT IPC RN : 10305 TE

TERM #	# OCC	# DOC	% DOC	CT	IPC	RN
20	382	368	27.75	FLAVORING MATERIALS		
21	364	324	24.43	PERFUMES AND ESSENCE		
27	325	289	21.79	PERFUMES		
30	309	229	17.27	DETERGENTS		
35	265	263	19.83	ODOR AND ODOROUS SU		
54	186	173	13.05	COSMETICS		
57	172	171	12.90	SOAPS		
73	137	54	4.07	OILS		
111	90	30	2.26	ESSENTIAL OILS		
...						
211	48	44	3.32	FOOD		
235	44	44	3.32	COLOGNES		

Essential Oils and Perfumes may be additional terms to search.

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Use patent classification codes to narrow a search result

=> D L2 IPC TOP 12

=> the IPC codes may be useful for narrowing an answer set if too many answers are retrieved \$

L2 ANALYZE L1 1- CT IPC RN : 10305 TERMS

TERM #	# OCC	# DOC	% DOC	CT	IPC	RN
1	5088	602	45.40	C11B0009-00		
2	3396	389	29.34	A23L0001-226		
3	2140	317	23.91	C11D0003-50		
4	1717	281	21.19	C07C0045-00		
5	1334	159	11.99	C07C0067-00		
6	1198	226	17.04	A24B0015-00		
7	1065	143	10.78	A61Q0013-00		
8	993	195	14.71	C07C0049-00		
9	834	419	31.60	A61K0007-46		
10	678	94	7.09	A23G0004-00		
11	645	152	11.46	A61K0008-30		
12	580	81	6.11	A23G0004-06		

Ending a line of text with a dollar sign (\$) allows for commentary within a search, without searching the text. The dollar sign will not show in the final transcript.

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Use the DISPLAY command to obtain precision in an analyzed answer set

=> D L2 RN TOP 15 WITH "106"

L2 ANALYZE L1 1- CT IPC RN : 10305 TERMS

TERM #	# OCC	# DOC	% DOC	CT	IPC	RN
242	43	42	3.17	106-24-1	(Geraniol)	
339	29	28	2.11	106-22-9	(Citronellol)	
437	22	22	1.66	106-25-2		
618	15	15	1.13	106-31-0		
686	13	13	0.98	106-23-0	(Citronellal)	
913	9	9	0.68	106-95-6		
1122	7	7	0.53	106-44-5		
1123	7	7	0.53	106-99-0		
1269	6	6	0.45	106-26-3		
1270	6	6	0.45	106-32-1		
1505	5	5	0.38	106-02-5		
1506	5	5	0.38	106-30-9		
1507	5	5	0.38	106-94-5		
1625	5	4	0.30	106-72-9		
1770	4	4	0.30	106-27-4		

The substance names in parenthesis were added for this session, they are not in the original ANALYZE display.

The display of an ANALYZEd set may be achieved by a number of different commands to fit the search needs. Since all the RN's of the target substances begin with 106, the DISPLAY command can help elucidate the substances.

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Substances are selected from the analyzed table and searched

```
=> SELECT L2 242 339 686
E90 THROUGH E92 ASSIGNED
=> S E90-E92
    9910 106-24-1
      148 106-24-1D
    9828 106-24-1/RN
    4879 106-22-9
      91 106-22-9D
    4822 106-22-9/RN
    3347 106-23-0
      29 106-23-0D
    3324 106-23-0/RN
L3      13189 (106-24-1/RN OR 106-22-9/RN OR 106-23-0/RN)
=> S CITRONELLAL OR CITRONELLOL OR GERANIOL
L4      14016 CITRONELLAL OR CITRONELLOL OR GERANIOL
=> S L3 OR L4
L5      16413 L3 OR L4
```

Derivatives are also searched, an important feature when doing formulation searching.

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Use the E-numbers from previous expands to SEARCH the concepts

```
=> S E56+PFT
L6      1450 "AIR FRESHENERS"+PFT/CT (5 TERMS)
=> S E16
L7      30672 "ODOR AND ODOROUS SUBSTANCES"/CT
=> S L6 OR L7
L8      31833 L6 OR L7
=> S L8 AND L5
L9      1734 L8 AND L5
=> S L9 AND P/DT
        6143790 P/DT
L10     384 L9 AND P/DT
=>
Launching STN Viewer
=>
710 records sent to STN Viewer
L15     131 Answers not represented in STN Viewer
FIL STNGUIDE
```

SEARCH Air Fresheners (E56) with the new and old terms to increase precision.

Recall, L5 is the answer set containing the substance search.

Limit the answer set to patent document type (/DT).

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STN Viewer may be entered in a number of ways

STN Viewer may be entered by clicking on the L-number or by using the Select Discover! Wizard.

The screenshot shows the STN software interface with a search results window titled "Select Discover! Wizard". The search history lists several L-numbers and their corresponding terms. The "Evaluate with STN Viewer" option is highlighted in the bottom right of the wizard. In the main STN window, a menu is open, and the "Evaluate with STN Viewer" option is also highlighted.

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Filters in STN Viewer provide a means to narrow an answer set and make subsets

The screenshot shows the STN Viewer web interface. A filter is applied to the results, showing only US documents. The filter is set to "Country/Kind Code" and is currently set to "US - B1 (95)". The results list shows several documents, with the first one highlighted: "Air and fabric freshener".

The answer set is filtered to have only US documents.

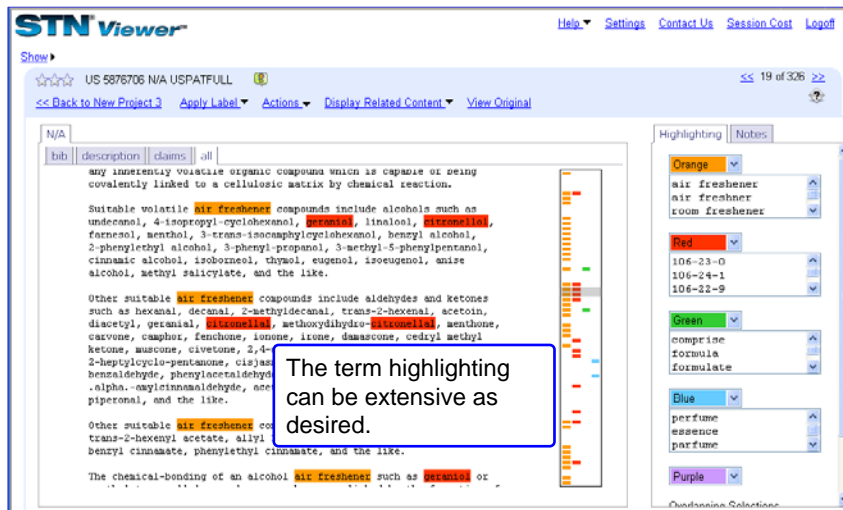
The titles are links to more information.

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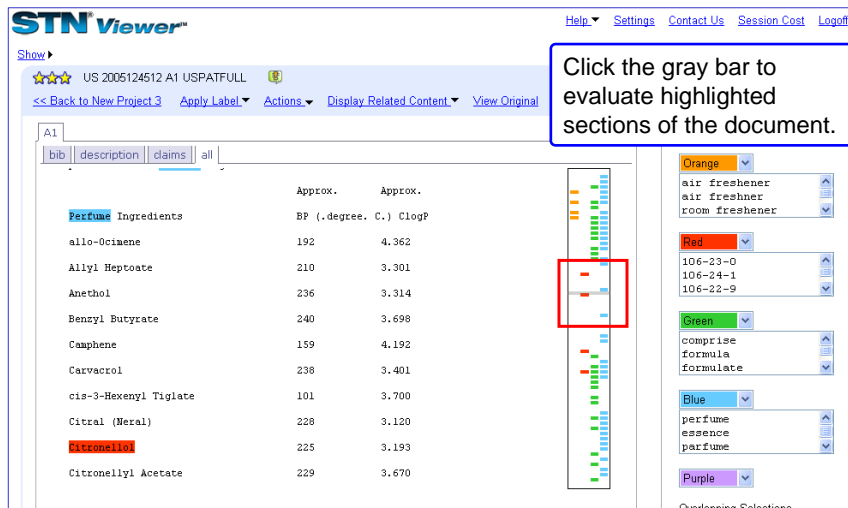
26

Term highlighting may be controlled to assist search and review needs



The screenshot shows the STN Viewer interface for document US 5876706 N/A USPATFULL. The document text includes several highlighted terms such as "air freshener", "citronellol", and "citronellyl acetate". A vertical highlighting map on the right side of the text indicates the locations of these terms. A callout box with a blue border and white background contains the text: "The term highlighting can be extensive as desired."

The Highlighting map in STN Viewer quickly shows where terms of interest are located



The screenshot shows the STN Viewer interface for document US 2005124512 A1 USPATFULL. The document content is a table of ingredients. A vertical highlighting map on the right side of the table indicates the locations of highlighted terms. A callout box with a blue border and white background contains the text: "Click the gray bar to evaluate highlighted sections of the document."

	Approx.	Approx.
Perfume Ingredients	BP (.degree. C.)	ClogP
allo-Ocimene	192	4.362
Allyl Heptoate	210	3.301
Anethol	236	3.314
Benzyl Butyrate	240	3.698
Camphene	159	4.192
Carvacrol	238	3.401
cis-3-Hexenyl Tiglate	101	3.700
Citral (Neral)	228	3.120
Citronellol	225	3.193
Citronellyl Acetate	229	3.670

The Highlighting map in STN Viewer quickly shows where terms of interest are located

STN Viewer brings the formulation data front and center for review.

bib	description	claims	all
Tetrahydro	32	--	--
Linalool			
Methyl nonyl	--	7	15
acetaldehyde			
Ethyl-2-methyl	--	1	1.5
pentanoate			
Iso E Super	--	3	2
Ionone beta	--	1.5	2
Habanolide	--	3	3
geraniol	--	15	12

[0073] In other embodiments, the air freshening composition can be dispersed in a manner that provides it with a more consistent release profile. The air freshening composition can be sprayed into the air. Any suitable type of article can be used to spray the air freshening

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Results of interest may be selected for document retrieval

STN Viewer allows for many customized aspects, such as labels and ratings. Please see the STN Viewer tutorials at www.cas.org for more information.

Filter by:	Labels
<input checked="" type="checkbox"/>	Air and fabric freshener US 2005124512 A1 US PATFULL <i>air Freshener, citronellal or citronellol</i>
<input checked="" type="checkbox"/>	Air freshener US 2004223943 A1 US PATFULL <i>air Freshener, geraniol</i>
<input type="checkbox"/>	Air freshener dispenser device with taper candle feature US 5876706 N/A US PATFULL
<input type="checkbox"/>	Air freshener taper candle product US 5956034 N/A US PATFULL

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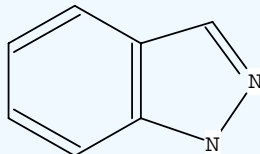
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A more comprehensive search on this subject can be achieved

- Add more terms found the in controlled terminology index (thesaurus)
- Add terms and search in the Basic Index
- Search additional databases

Search Question 2:

What formulations are reported for anti-inflammatory agents for nasal or ocular delivery having the following base structure:



Search Strategy

- Step 1. Use the thesaurus to identify appropriate terms for drug delivery through nose and eyes
- Step 2. Use the thesaurus to identify appropriate terms for anti-inflammatory agents
- Step 3. Perform a substructure search
- Step 4. Combine searches

The CPlus thesaurus contains a heading useful for drug delivery

=> E DRUG DELIVERY SYSTEMS/CT

E#	FREQUENCY	AT	TERM
E1	0	2	DRUG DELIVERY MICELLES/
E2	0	2	DRUG DELIVERY SYSTEM CR
E3	175247	19	--> DRUG DELIVERY SYSTEMS/CT
E4	0	7	DRUG DELIVERY SYSTEMS (L) ADJUVANTS/CT
E5	0	10	DRUG DELIVERY SYSTEMS (L) AEROSOLS/CT
E6	0	9	DRUG DELIVERY SYSTEMS (L) AEROSOLS, INHALANTS/CT
E7	0	8	DRUG DELIVERY SYSTEMS (L) AEROSOLS, POWDERS/CT
E8	0	6	DRUG DELIVERY SYSTEMS (L) AQ./CT
E9	0	5	DRUG DELIVERY SYSTEMS (L) BEADS/CT
E10	0	2	DRUG DELIVERY SYSTEMS (L) BEADS, SUSTAINED-RELEASE/CT
E11	0	6	DRUG DELIVERY SYSTEMS (L) BIOADHESIVE/CT
E12	0	5	DRUG DELIVERY SYSTEMS (L) BOLUS/CT

EXPAND on Drug Delivery Systems will retrieve 19 associated terms.

Use +MAX to provide find associated terms as well as linking terms

=> E E3+MAX

```

E32      2206   BT1 Health products/CT
E33      175247 --> Drug delivery systems/CT
                    HNTE Valid heading during volume 126 (1997) to
                    present.
E34      48096   OLD Drug deliver
E35      48096   OLD Pharmaceutic
E36      48096   OLD Pharmaceutic
E37      48096   OLD Pharmaceutic
E38      48096   UF Delivery sys
E39      48096   UF Delivery sys
E40      48096   UF Dosage forms
E41      48096   UF Dosage forms

          . . .
E53      . . .   LT Drug delivery systems (L) aerosols, inhalants/CT
          . . .
E146     . . .   LT Drug delivery systems (L) nasal/CT
E147     . . .   LT Drug delivery systems (L) nasal sprays/CT
          . . .
E152     . . .   LT Drug delivery systems (L) ophthalmic/CT
          . . .
    
```

The linked terms help to provide a more focused search. With over 100 linked terms for the Drug Delivery Systems indexing term, it proves valuable to pick out the necessary terms. The OLD and UF terms may prove useful as well.

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SEARCH the E-numbers for the terms of interest

=> S E52, E53, E103, E146, E147, E166, E179, E18, E79, E90, E122, E152, E180, E191

```

L2      15740 ("DRUG DELIVERY SYSTEMS (L) AEROSOLS"/CT OR "DRUG DELIVERY
                    SYSTEMS (L) AEROSOLS, INHALANTS"/CT OR "DRUG DELIVERY
                    SYSTEMS (L) INHALANTS"/CT OR "DRUG DELIVERY SYSTEMS (L)
                    NASAL"/CT OR "DRUG DELIVERY SYSTEMS (L) NASAL SPRAYS"/CT OR
                    "DRUG DELIVERY SYSTEMS (L) POWDERS, NASAL"/CT OR "DRUG
                    DELIVERY SYSTEMS (L) SOLNS.,NASAL"/CT OR "DRUG DELIVERY
                    SYSTEMS (L) SPRAYS"/CT),("DRUG DELIVERY SYSTEMS (L)
                    EMULSIONS, OPTHALMIC"/CT OR "DRUG DELIVERY SYSTEMS (L)
                    GELS, OPTHALMIC"/CT OR "DRUG DELIVERY SYSTEMS (L)
                    LIPOSOMES, OPTHALMIC"/CT OR "DRUG DELIVERY SYSTEMS (L)
                    OPTHALMIC"/CT OR "DRUG DELIVERY SYSTEMS (L) SOLNS., OPHTH
                    ALMIC"/CT OR "DRUG DELIVERY SYSTEMS (L) SUSPENSIONS,
                    OPTHALMIC"/CT)
    
```

The nearly 16K answers we retrieve is a fraction of the 175K that would have been retrieved if the linking terms were not used.

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Explore the second term of interest in HCAplus

=> E ANTI-INFLAM/CT

E#	FREQUENCY	AT	TERM
E212	4906	165	ANTI-INFECTIVE AGENTS
E213	0	2	ANTI-INFECTIVE AGENTS
E214	0	-->	ANTI-INFLAM/CT
E215	0	1	ANTI-INFLAMMATION/CT
E216	0	2	ANTI-INFLAMMATION DRUGS/CT
E217	0	1	ANTI-INFLAMMATORY/CT
E218	54830	67	ANTI-INFLAMMATORY AGENTS/CT
E219	0	2	ANTI-INFLAMMATORY AGENTS (L) NONSTEROIDAL/CT
E220	0	6	ANTI-INFLAMMATORY AGENTS (L) TOPICAL/CT
E221	0	2	ANTI-INFLAMMATORY ANALGESICS/CT
E222	0	2	ANTI-INFLAMMATORY CYTOKINES/CT
E223	0	2	ANTI-INFLAMMATORY DRUGS/CT

Anti-inflammatory aspects are quite extensive. Start with the +ALL Relationship Code to see the terms.

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Relationship codes help extract and search terms

=> E E218+ALL

E236	2206	BT2	Health products/CT
E237	28192	BT1	Drugs/CT
E238	54830	-->	Anti-inflammatory agents/CT
			HNTE Valid heading during volume 126 (1997) to present
E239	20368	OLD	Inflammation inhibitors/CT
E240	3840	OLD	Inflammation inhibitors and Antiarthritics/CT
E241		UF	Anti-Inflammation drugs/CT
E242		UF	Anti-inflammatory
E243		UF	Anti-inflammatory
E244		UF	Antiinflammation
E245		UF	Antiinflammation
E246		UF	Antiinflammatory/CT
E247		UF	Antiinflammatory agent/CT
E248		UF	Antiinflammatory drug/CT
E249		UF	Antiinflammatory drugs/CT
E250		UF	Antiphlogistics/CT
E251		UF	Inflammation-inhibiting substances/CT

The OLD terms are of interest to provide a more comprehensive search earlier than 1997.

=> S E218+PFT

L3 79041 "ANTI-INFLAMMATORY AGENTS"+PFT/CT (14 TERMS)

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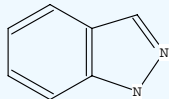
38

Use a structure search to refine a text search

```
=> S L2 AND L3
L4      2031 L2 AND L3
=>
Uploading q:\My Documents\STN Express 8.3\Qu
=> D L5

=> S L5 SSS FUL
REGISTRY INITIATED
CANDIDATE STRUCTURE SEARCH COMPLETED - 910570 T
L7      67602 SEA SSS FUL L5
L8      8706 L7
=> S L8 AND L4
L9      33 L8 AND L4
=> D L9 1- BIB ABS HITSTR
```

Recall L2 is the drug delivery concept and L3 is the anti-inflammatory concept.



A structure search initiated in HCAplus will search in REGISTRY and then bring the information back to HCAplus to provide an answer set of literature on the substances.

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A more comprehensive search on this subject can be achieved

- Use more terms found in controlled terminology
- Use the terms in the Basic Index
- Use additional databases
- Look in the full text to find specific formulation data

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Extend the Search Question:

Provide a report on the different structures of the substances as well as the literature retrieved from the search.

Transfer the RN's to REGISTRY to reinstate the structure search

```
=> FILE REG
=> TRANSFER RN L9 1-
L10      TRANSFER L9 1- RN :
L11      5147 L10
=> S L7 AND L11
L12      189 L7 AND L11
=> The L-number hyperlink was used to save for R-Group analysis $
=> S L12 NOT (AYS OR CCS OR IDS OR MAN OR PMS OR TIS)/CI
      936399 AYS/CI
      1839658 CCS/CI
      259713 IDS/CI
      60156757 MAN/CI
      1208953 PMS/CI
      525608 TIS/CI
L13      189 L12 NOT (AYS OR CCS OR IDS OR MAN OR PMS OR TIS)/CI
```

Transferring and searching the RN's from the HCAplus search and combining the answer set with the full file structure set will reinstate the structure search results to perform an R-Group Analysis.

When R-Group Analysis is selected, some substance types are recommended for removal.

HIT RN helps to bring only the desired substances back into REGISTRY

```
=> SELECT L9 1- HIT RN
E1 THROUGH E189 ASSIGNED

=> FILE REG

=> D SEL

=> S E1-E189
```

Hit substances are retrieved using the HIT RN term with the SELECT command.

The command TRA L9 1- HIT RN could be used as well.

```
L10      189  (109889-09-0/BI OR 132-69-4/BI OR 20187-55-7/BI OR 2942-
42-9/BI OR 637022-00-5/BI OR •••
```

```
=> The L-number hyperlink was used to save for R-Group analysis $
```

```
=> S L10 NOT (AYS OR CCS OR IDS OR MAN OR PMS OR TIS)/CI
936399 AYS/CI
1839658 CCS/CI
259713 IDS/CI
60156757 MAN/CI
1208953 PMS/CI
525608 TIS/CI
```

```
L11      189 L10 NOT (AYS OR CCS OR IDS OR MAN OR PMS OR TIS)/CI
```

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A Save for R-Group Analysis is a click away

The screenshot shows the STN software interface. The main window displays search results for 'L11 189 L10 NOT (AYS OR CCS OR IDS OR MAN OR PMS OR TIS)/CI'. A 'Select Discover! Wizard' dialog box is open, showing a search history list. The 'Save for R-group Analysis' option is highlighted in the wizard. The 'Save Group data' option is highlighted in the search results window.

The R-group Analysis may be created by the use of the L-number hyperlink, the Select Discover! Wizard, or a file pull down menu.

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The R-Group Analysis is performed online

1. Your answer set may contain substance types not suitable for use with the R-group Analysis Table Tool. Select the substance types to be **excluded** from the R-group file, then click Next.

Click Cancel to return to STN.

199 answers have been retrieved.

- Multicomponent substances
- Alloys (recommended)
- Coordination compounds (recommended)
- Incompletely defined substances (recommended)
- Manually registered substances (recommended)
- Polymers (recommended)
- Tabular inorganic substances (recommended)

Note: Excluding substance classes will result in additional search term charges. To prevent additional search term charges uncheck all the options.

< Back Next > Cancel

2. To save answers, enter a file name and an answer range, then click Save. Click Cancel to return to STN.

File name: EYES AND NOSE ANTI-INFLAM DD 1.rgp Browse

Save to: C:\Documents and Settings\jpb84\Desktop

Save all answers

Select range: 1-10
Example: 2,5,7,9
1,4

Display answers online in IDE format

< Back Save Cancel

1. The unsuitable substance types are removed from the answer set
2. A file name and where the file is saved to are selected. The display in IDE format may be unselected.
3. The Analysis progression is provided

nose and eye anti inflamm dd.rgp - Answer 13

Receiving

Bytes: 2199

Total Bytes: 124520

Cancel

3.

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Once the desired transcript is selected, the base structure may be generated or uploaded

R₁₁
R-group
Analysis

R-group Analysis Table Tool

File Structure Template Content Cover Page Header/Footer Fields

Define the common structure upon which to conduct an R-group analysis of the answer set:

- Use the largest common structure Define Structure
- Use a saved structure query file
- Use structure skeleton, ignore bonds

Include these R-groups in the Table:

- R1
- R2
- R3
- R4
- R5
- R6

Preview R-group

Include only answers in which the R-group is attached by the following atom(s): H,N

Rename R1 as OK

R2

R3

R4

R-groups may be renamed, or excluded.

Answer 1 of 187 View

Answer 2 of 187 View

Answer 3 of 187 View

Answer 4 of 187 View

Select All Deselect All

Save Template Finish < Back Next > Cancel

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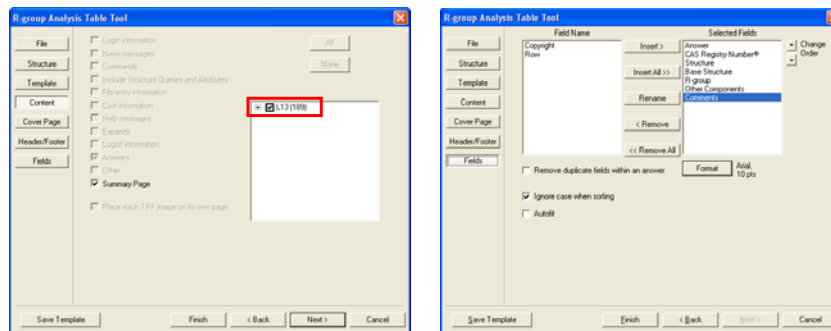
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The R-group Analysis Table is created offline



The L-number and answers desired in the analysis are selected. The L-number may be expanded and certain answers excluded. The fields desired in the report are then selected.

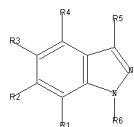


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The R-Group table can provide the entire structure and all the R-Groups



The content of the table is decided upon by the fields selected.

Answer	CAS Registry Number®	Structure	Base Structure	R1	R2	R3	R4	R5	R6	Other Component
L13 1 OF 189 REGISTRY	913003-68-6 REGISTRY			H	C	H		H		
L13 2 OF 189 REGISTRY	913003-67-6 REGISTRY			H	C	H		H		
L13 3 OF 189 REGISTRY	913003-66-4 REGISTRY			H						

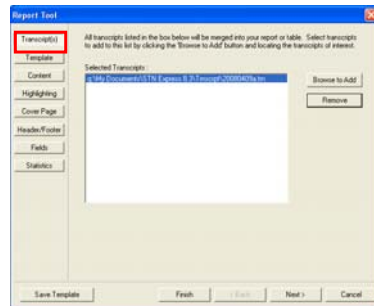
There is no extra charge for using the tables and reports offline in STN Express®.

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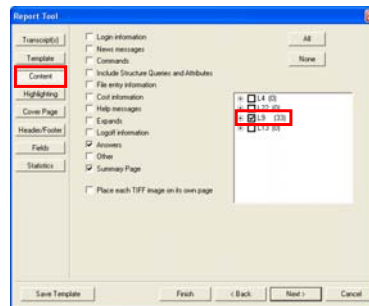
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A Custom Report quickly produces a report on the findings



Choose the transcript with the information.



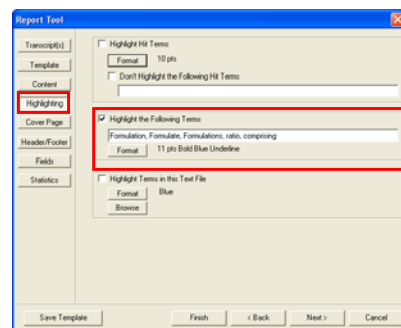
Choose the answer set in the transcript with the desired information.

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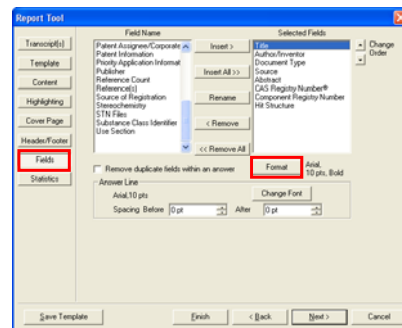
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The Highlighting tool highlights terms not in the original search



Enter the text to be highlighted and choose the format to best fit your needs.



Choose the fields and format for the report. Field headers may be removed and text centered by changing the format for each field.

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Summary

- Formulation searching can involve many different types of searching
 - Structure
 - Text
 - Chemical Name
 - CAS Registry numbers
- All types of searches are valuable
 - Combine search types together
 - Utilize additional tools in STN

Summary

- Tools provided in STN Express can save time and money
 - STN Viewer can help relate patent data to other databases
 - Refine using filters without searching
 - Make subsets of information using filters
 - Post processing provides a means to quickly and efficiently provide tables and reports
 - R-Group Analysis Report
 - Custom Reports

Additional resources

- Short one hour e-Seminars
 - CAS e-Seminars (<http://casevents.webex.com>)
 - FIZ-K e-Seminars (http://www.stninternational.de/training_center/seminars.html)
- STN Viewer Tutorials
- STN Virtual Workshops
 - Live interactive training
 - Users can practice STN searches in a virtual setting
- Instructor-led STN Workshops
- “CAS Happy Hour”

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The screenshot displays the CAS STN website's training page. At the top, the CAS logo is visible with the tagline 'A Division of the American Chemical Society'. A navigation menu includes 'Home', 'About CAS', 'Our Expertise', 'Solutions', 'Products & Services', 'Support & Training', and 'News & Events'. The main content area is titled 'STN e-Seminars and Training' and lists various resources: e-Seminars, Instructor-Led Training, Self-Directed Learning, and Additional Training Resources. A section for 'e-Seminars' describes them as interactive, web-based sessions. Another section for 'Instructor-Led Training' mentions workshops, user updates, and patent forums. A text box on the left side of the page contains the instruction: 'Please visit www.cas.org for more training information on STN.'

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Questions and answers...

2008 Schedule

May 27	<i>Searching Formulations on STN</i>
June 12	<i>Searching Formulations on STN</i> (rebroadcast)
June 24	<i>Highlights from the 2008 STN Patent Forum</i>
July 10	<i>Highlights from the 2008 STN Patent Forum</i> (rebroadcast)
July 29	<i>Revealing the Mysteries of MARPAT</i>
August 14	<i>Revealing the Mysteries of MARPAT</i> (rebroadcast)
August 26	<i>Finding Licensing Information on STN</i>
September 11	<i>Finding Licensing Information on STN</i> (rebroadcast)
September 30	<i>Sequence Motif Searching</i>
October 9	<i>Sequence Motif Searching</i> (rebroadcast)
October 28	<i>What's New in STN Express?</i>
November 13	<i>What's New in STN Express?</i> (rebroadcast)
November 25	<i>Polymers in Scientific Literature</i>
December 11	<i>Polymers in Scientific Literature</i> (rebroadcast)
December 16	<i>Dealing with Large Answer Sets</i>

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Additional Questions?