At the end of this workshop, you will be able to

- Choose an STN database containing information on a topic of interest
- Perform a simple keyword search in any STN bibliographic database
- Use STN tools such as truncation and logic operators to maximize recall of relevant answers
- Refine search strategies
- Set up a single-file current awareness alert

Before you begin

This workshop is designed for individuals who want to learn how to search in bibliographic, word-searchable databases using STN command language. It is designed for both

- The new STN command line searcher
- The experienced command line searcher who wants to review basic commands and strategies for searching bibliographic databases

This workshop highlights the use of STN Express® with Discover!™ software.

Helpful HINT

To set up an STN account or obtain STN Express software, contact CAS Customer Service at help@cas.org
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OVERVIEW

In this section, you will

☐ Discover the range of information available through STN International SM

☐ Define terminology commonly used in online searching

☐ Identify the fields that comprise the Basic Index of bibliographic files
STN International Overview

STN International is a service that covers a broad range of information related to many scientific fields. It can be accessed

- Online, through STN Express with Discover!
- On the web, through STN® on the Web<sup>SM</sup>

A wide range of scientific and technical topics are covered:

- Biotechnology
- Chemistry
- Engineering
- Health and safety
- Government regulations
- Materials science
- Medicine
- Patents
- Scientific and technical business

This information is stored in more than 200 databases.
Terminology

A number of terms are used commonly in online searching.

Database

The information available through STN International is stored in >200 databases (files). There are several types of databases:

- Bibliographic
- Chemical structure
- Reaction
- Directory

Bibliographic databases are created by extracting pieces of information such as the title, author names, source, and abstract from a publication and compiling this information in a record.

Record

Bibliographic databases are comprised of numerous records, which correspond to individual publications, such as research papers or patent publications.
Illustration:

Template Assembled Cyclopeptides as Multimeric System for Integrin Targeting and Endocytosis

Didier Boturyn, Jean-Luc Coll, Elisabeth Garanger, Marie-Christine Favrot and Pascal Dumy

Contribution from the LEDSS, UMR CNRS 5616 and ICMG, FR-3907, Université Joseph Fourier, BP 51, 38041 Grenoble Cedex 9, France, and GRCP, INSERM U578, IFR-73, Domaine de la Merci, 38 790 La Tronche, France

Received January 6, 2004; E-mail: Pascal.Dumy@gt-proinbio.fr

Abstract: The αVβ3 integrin receptor plays an important role in human metastasis and tumor-induced angiogenesis. Cyclic peptide, cyclo[RGDFV](f = D-Phe) represents a selective αVβ3 integrin ligand that has been extensively used for research, therapy, and diagnosis of neoangiogenesis. We report here the modular synthesis and biological characterization of template assembled cyclopeptides as a multimeric system for targeting and endocytosis of cells expressing αVβ3 integrin. Template cyclopeptides were covalently linked to a cyclic peptides template labeled by different reporter groups. Binding propensity to the αVβ3 receptor and the associated good uptake property displayed by the multivalent molecules demonstrated the interest in the RAFT approach to design more sophisticated systems with hitherto unreported properties. These compounds offer an interesting perspective for the reevaluation of integrins as angiogenesis regulators (Hynes, R. O. Nature Med. 2001, 7, 865-871) as well as for the design of more sophisticated systems such as molecular conjugates.

AN 2004:293513 CAPLUS Full-text
DN 141:7426
ED Entered STN: 11 Apr 2004
TI Template Assembled Cyclopeptides as Multimeric System for Integrin Targeting and Endocytosis
AU Boturyn, Didier; Coll, Jean-Luc; Garanger, Elisabeth; Favrot, Marie-Christine; Dumy, Pascal
CS LEDSS, UMR CNRS, Grenoble, 38041, Fr.
SO Journal of the American Chemical Society (2004), 126(18), 5730-5739
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
CC 34-3 (Amino Acids, Peptides, and Proteins)
Section cross-reference(s): 1, 15
AB The αVβ3 integrin receptor plays an important role in human metastasis and tumor-induced angiogenesis. Cyclic peptide, cyclo[RGDFV](f = D-Phe) represents a selective αVβ3 integrin ligand that has been extensively used for research, therapy, and diagnosis of neoangiogenesis. Here, the authors report the modular synthesis and biology.

●
●
Indexes

Each database record is organized in a series of indexes (fields), which are labeled with identifying codes.

In addition to information such as titles, authors, and abstract text from the original document, many database producers also add indexing terms that highlight the key concepts covered in the document.

Indexing terms typically are controlled terminology. This means that regardless of the jargon used in the original research paper, the term used by the database producer is constant. The assignment of uniform indexing terms allows searchers to locate documents on a particular topic.

Illustration:

Indexes include TI for title, AU for author, and CS for corporate source.

The highlighted indexes are examples of different types of "indexing terms" used in CAplus:
- CC = category code
- ST = supplementary terms
- IT = index terms

AN 2001:752414  CAPLUS
TI Spin, Charge, and Lattice States in Layered Magnetoresistive Oxides
CS Materials Science Division, Argonne National Laboratory, Argonne, IL, 60439, USA
SO Journal of Physical Chemistry B (2001), 105(44), 10731-10745
CODEN: JPCBFK; ISSN: 1089-5647
PB American Chemical Society
DT Journal; General Review
LA English
CC 76-0 (Electric Phenomena)
AB A review. Colossal magnetoresistive materials are perovskite-related mixed-valent (Mn3+/Mn4+) manganese oxides that exhibit both spontaneous (at a Curie transition) and magnetic field-induced insulator-metal transitions. In this article, we discuss how a particular class of these manganite materials, naturally layered manganites La2-2xSr1+2xMn2O7, has allowed us to expl. probe many of these tightly coupled phenomena.
ST review spin charge lattice state layered magnetoresistive oxide
IT Crystal structure
    Electric charge
    Electron spin
    Giant magnetoresistance
    Magnetoresistors
    (spin, charge, and lattice states in layered magnetoresistive oxides)
IT Oxides (inorganic), properties
    RL: PRP (Properties)
    (spin, charge, and lattice states in layered magnetoresistive oxides)
IT 1310-98-1, Manganite 59707-46-9, Lanthanum manganese strontium oxide
    RL: PRP (Properties)
    (spin, charge, and lattice states in layered magnetoresistive oxides)
RE.CNT 94 THERE ARE 94 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Abrikosov, A; Phys Rev B 2000, V61, P7770 CAPLUS
(2) Akimoto, T; Phys Rev B 1999, V59, PR14153 CAPLUS
Basic Index

To facilitate searching, many files are constructed so that several indexes are merged into a single index called the Basic Index (default index). The Basic Index is where you will typically search for technical words pertaining to subjects of interest.

The indexes making up the Basic Index are database-dependent.

CAplus Basic Index

The CAplus database covers worldwide literature from all areas of chemistry, biochemistry, life sciences, chemical engineering, and related sciences.

In the CAplus database, the Basic Index is made up of single words from the following indexes:

- Title
- Abstract
- Supplementary Terms
- Indexing Terms

```
AN   2004:293513  CAPLUS  Full-text
DN   141:7426
ED   Entered STN: 11 Apr 2004
TI   Template Assembled Cyclopeptides as Multimeric System for Integrin Targeting and Endocytosis
AU   Boturyn, Didier; Coll, Jean-Luc; Garanger, Elisabeth; Favrot, Marie-Christine; Dumy, Pascal
CS   LEDSS, UMR CNRS, Grenoble, 38041, Fr.
SO   Journal of the American Chemical Society (2004), 126(18), 5730-5739
      CODEN: JACSAT; ISSN: 0002-7863
PB   American Chemical Society
DT   Journal
LA   English
CC   34-3 (Amino Acids, Peptides, and Proteins)
     Section cross-reference(s): 1, 15
AB   The αVβ3 integrin receptor plays an important role in human metastasis and tumor-induced angiogenesis. Cyclic peptide, cyclo[RGDfV] (f = D-Phe), represents a selective αVβ3 integrin ligand that has been extensively used for research, therapy, and diagnosis of neoangiogenesis. Here, the authors report the modular synthesis and biol. characterization of template assembled cyclopeptides as a multimeric system for targeting and endocytosis of cells expressing αVβ3
```

(continued on next page)
integrin. Cyclo(RGDfK) was cleanly assembled in a multivalent mode by chemoselective oxime bond formation to a cyclodecapeptides template labeled by different reporter groups. Binding propensity to the αVβ3 receptor and the assocd. good uptake property displayed by the multivalent mols. demonstrated the interest in the RAFT mol. to design new multimeric system with hitherto unreported properties. These peptides offer an interesting perspective for the reevaluation of integrins as angiogenesis regulators (R. Hynes et al., Nature Med. 2003, 9, 918-921) as well as for the design of more sophisticated systems as mol. conjugate vectors.

ST cyclic multimeric peptide prepn integrin receptor binding endocytosis; RGD peptide fluorescein labeled template assembled synthesis cyclization

IT Peptides, preparation
RGD peptides

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(cyclic; prepn. and biol. activity of template-assembled RGD cyclopeptides as multimeric system for integrin targeting and endocytosis of cells expressing αVβ3 integrin)

IT Angiogenesis
(neovascularization; prepn. of template-assembled RGD cyclopeptides as potential agents for diagnosis of neoangiogenesis)

IT Solid phase synthesis
(peptide; prepn. and biol. activity of template-assembled RGD cyclopeptides as multimeric system for integrin targeting and endocytosis of cells expressing αVβ3 integrin)

IT Human
(prepn. of template-assembled RGD cyclopeptides as potential agents for diagnosis of neoangiogenesis)

IT Integrins
RL: BSU (Biological study, unclassified); BIOL (Biological study)

(αVβ3; prepn. and biol. activity of template-assembled RGD cyclopeptides as multimeric system for integrin targeting and endocytosis of cells expressing αVβ3 integrin)

IT 137813-35-5
RL: BSU (Biological study, unclassified); BIOL (Biological study)

(prepn. and biol. activity of template-assembled RGD cyclopeptides as multimeric system for integrin targeting and endocytosis of cells expressing αVβ3 integrin)


RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn. and biol. activity of template-assembled RGD cyclopeptides as multimeric system for integrin targeting and endocytosis of cells expressing αVβ3 integrin)

IT 58-85-5, Biotin 108-30-5, Succinic anhydride, reactions 3326-32-7, FITC (isomer I) 47375-34-8 80366-85-4 280578-04-3 388633-54-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. and biol. activity of template-assembled RGD cyclopeptides as multimeric system for integrin targeting and endocytosis of cells expressing αVβ3 integrin)

RE.CNT 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Arap, W; Science 1998, V279, P377 CAPLUS
(2) Arnon, R; FASEB J 1992, V6, P3265 CAPLUS
(3) Bitan, G; Biochemistry 1999, V38, P3414 CAPLUS
(4) Boturyn, D; Tetrahedron Lett 2001, V42, P2787 CAPLUS
(5) Brooks, P; Science 1994, V264, P569 CAPLUS

●

●

●
The BIOSIS database contains information on life sciences including biological and biomedical areas.

| AN | 2004:304177 BIOSIS Full-text |
| DN | PREV200400306814 |
| TI | Template assembled cyclopeptides as multimeric system for integrin targeting and endocytosis. |
| AU | Boturyn, Didier; Coll, Jean-Luc; Garanger, Elisabeth; Favrot, Marie-Christine; Dumy, Pascal [Reprint Author] |
| CS | UMR 5616LEDSS, CNRS, BP 53, F-38041, Grenoble, 9, France Pascal.Dumy@ujf-grenoble.fr |
| DT | Article |
| LA | English |
| ED | Entered STN: 7 Jul 2004 Last Updated on STN: 7 Jul 2004 |
| AB | The alphavbeta3 integrin receptor plays an important role in human metastasis and tumor-induced angiogenesis. c(-RGDfV-) peptide represents a selective alphavbeta3 integrin ligand that has been extensively used for research, therapy, and diagnosis of neoangiogenesis. We report here the modular synthesis and biological characterization of template assembled cyclopeptides as a multimeric system for targeting and endocytosis of cells expressing alphavbeta3 integrin. c(-RGDFK-) was cleanly assembled in a multivalent mode by chemoselective oxime bond formation to a cyclodecapeptides template labeled by different reporter groups. Binding propensity to the alphavbeta3 receptor and the associated good uptake property displayed by the multivalent molecules demonstrated the interest in the RAFT molecule to design new multimeric system with hitherto unreported properties. These compounds offer an interesting perspective for the reevaluation of integrins as angiogenesis regulators (Hynes, R. O. Nature Med. 2003, 9, 918-921) as well as for the design of more sophisticated systems such as molecular conjugate vectors. |
| CC | Biochemistry studies - General 10060 Biochemistry studies - Proteins, peptides and amino acids 10064 |
| IT | Major Concepts Biochemistry and Molecular Biophysics |
| IT | Chemicals & Biochemicals alpha-v-beta-3 integrin receptor; c[-RGDFV-] peptide; alpha-v-beta-3 integrin receptor ligand, assembly; cyclodecapeptides; cyclopeptides: template assembled; integrin |
| IT | Methods & Equipment chemoselective oxime bond formation: laboratory techniques |
| IT | Miscellaneous Descriptors angiogenesis: tumor-induced; binding propensity; endocytosis; integrin targeting; metastasis; neoangiogenesis |
| RN | 153-87-7Q (integrin) 60791-49-3Q (integrin) |

The highlighted words make up the Basic Index of BIOSIS.
Database Summary Sheets

STN Database Summary Sheets are produced for every file on STN. The DBSS offers a handy guide to the information you need to use the file. Each Sheet describes file content, sources of the file, file data, and producer. Search fields are defined and a search example for each field is shown. Display fields and formats are also given. A sample record is included in each DBSS to allow you to see the way information is presented in a record.

For more information visit:

http://www.cas.org/ONLINE/DBSS/dbsslist.html

Helpful HINT

Database Summary Sheets are easily accessed in STN Express with Discover! From the Web menu
BASIC KEYWORD SEARCHING

In this section, you will learn to

- Identify a technology-relevant database
- Use STN commands and STN tools such as logic operators and truncation to build a search query
- Search a database using keywords describing technology areas of interest
- Display results
Keyword Searching

Keyword searching is the technique used when a research interest is concept-based, rather than related to a specific chemical substance. The most common form of keyword searching is free-text searching in the Basic Index.

Search Question: What has been reported on fluorescent green dyes for the coloring of paper?

Search Strategy
To retrieve references by using a keyword search

Step 1 Determine your search question.
Step 2 Identify a relevant database.
Step 3 Build an initial search query.
Step 4 Conduct a preliminary search.
Step 5 Evaluate answers.
Step 6 Adjust the search strategy.
Step 7 Display answer(s).
Step 1: Determine Your Search Question

Although general concepts will be known at the beginning of a search, one consideration that should be made is whether the intent of the search is for general information on a subject area or for a specific aspect of a topic. The degree of specificity influences how the search query is built.

Information Statements

- General
  - Dyes
  - Paper dyes
  - Green paper dyes
  - Fluorescent green paper dyes

- Specific

Step 2: Identify a Relevant Database

>200 databases of scientific and technical information are available on STN. Information about the databases can be found in the following resources:

- CAS Catalog: [http://www.cas.org/catalog.pdf](http://www.cas.org/catalog.pdf)
- STN Database Summary Sheets: [www.cas.org/ONLINE/DBSS/dbsslist.html](http://www.cas.org/ONLINE/DBSS/dbsslist.html)
**Illustration: Online Database Summary Sheet**

A partial capture of a database summary sheet is shown below

<table>
<thead>
<tr>
<th>STN</th>
<th>STN Database Summary Sheet</th>
</tr>
</thead>
</table>

**PAPERCHEM2**

PAPERCHEM2 (Elsevier Engineering Information, Inc. File) is a bibliographic database that contains international patent and journal literature pertaining to pulp and paper technology. Information on hemicellulose, carbohydrates, lignin, wood extractives, engineering and processes, graphic arts, corrosion, packaging, and more is included.

Nearly 1,000 periodicals in more than 20 languages are screened, as well as patent gazettes from six major countries. Entries from these periodicals are indexed using keywords from the Thesaurus of Pulp and Paper.

The records contain bibliographic, indexing information, and abstracts.

This database is available in STN Easy. Customers may reach STN Easy in the following ways:

- In Europe: [http://stneasy-fit-kalsruhe.de](http://stneasy-fit-kalsruhe.de)
- In Japan: [http://stneasy-japan.cas.org](http://stneasy-japan.cas.org)
- In North America and elsewhere: [http://stneasy.cas.org](http://stneasy.cas.org)

**Subject Coverage**

International patent and journal literature related to pulp and paper technology, including:

- Carbohydrates
- Chemistry of Cellulose
- Corrosion
- Corrugated and Particle Board
- Engineering and Process Control
Using the CAS web site, do the following:

- Locate the PAPERCHEM2 database summary sheet.

- What subjects does the database cover?

- What indexes make up the Basic Index?

- How often is the file updated? When did it begin?
Step 3: Build a Search Query

Building a search query requires that you

A. Identify the main concepts
B. Choose a set of search terms
C. Link search terms with logic operators

A. Identify the main concepts

Worksheet

Directions: Recall that you are to find information on green paper dyes. Write each concept from this statement in a separate column of the worksheet.

<table>
<thead>
<tr>
<th>Concept 1</th>
<th>Concept 2</th>
<th>Concept 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B. Choose search terms

Choosing search terms for a concept involves identifying synonyms for that concept. Keep in mind that different terminology, including acronyms, may be used by others within a discipline. Add synonyms under the associated main concepts in the Worksheet above.
C. Link search terms with logic operators

Logic operators are used between terms to specify search precision.

**OR**
- Connects synonyms
- Retrieves answers that mention any of the synonymous terms

**AND**
- Connects different concepts
- Retrieves answers that mention all of the concepts

**Helpful HINT**
Use parentheses to enclose synonyms, e.g. (DOG OR CANINE)

**Worksheet**

*Directions: Use logic operators to begin building search queries from the word strings below.*

<table>
<thead>
<tr>
<th>PAPER _________ DYE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAPER __________ PULP __________ DYE __________ COLOR</td>
</tr>
</tbody>
</table>
Step 4: Conduct a Preliminary Search

At this point, you are ready to take a first look into the selected database. The preliminary search will help you decide if your search strategy will achieve the desired results.

Three Basic Commands are used sequentially in the preliminary search. They are used in all keyword searching.

<table>
<thead>
<tr>
<th>Use this command</th>
<th>When you want to</th>
<th>Format Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>FILE</td>
<td>Enter a file</td>
<td>=&gt; FILE PAPERCHEM2</td>
</tr>
<tr>
<td>E (EXPAND)</td>
<td>Verify a term is in the database</td>
<td>=&gt; E PAPER</td>
</tr>
<tr>
<td>S (SEARCH)</td>
<td>Search for records containing a term(s) and create an answer set (L#) of those records</td>
<td>=&gt; S PAPER</td>
</tr>
</tbody>
</table>

Command line format

The general format for entering a command on STN is

=> Command Instructions <Enter>

Illustration:

=> FILE CAPLUS <ENTER>

Web Resource

Additional information about using STN commands is given in

http://www.cas.org/training/stncommands/index.html
Enter the database

The **FILE command** is used to enter a file.

```=> FILE PAPERCHEM2
FILE 'PAPERCHEM2' ENTERED AT 09:37:03 ON 13 SEP 2004
Paperchem2 compilation and indexing (C) 2004
Elsevier Engineering Information Inc. All rights reserved.
FILE COVERS 1967 TO 6 Sep 2004 (20040906/ED)
```

Verify search terms

The **EXPAND command (E)** is used to verify that a term of interest is in the database. EXPAND is useful in keyword searching to

- Determine a term’s searchability
- Identify alternate word forms

EXPAND results in an alphanumeric list of terms adjacent to the requested term. It is like opening up a dictionary.

```=> E DYE
E1       1     DYCOTILEDONEOUS/BI
E2       7     DYCRILO/BI
E3      16030 -- DYE/BI
E4      170     DYEABILITY/BI
E5       31     DYEABLE/BI
E6       26     DYEBATH/BI
E7        3     DYEABATHS/BI
E8       2     DYEABOR/BI
E9      899     DYE/BI
E10      10     DYEHOUSE/BI
E11       2     DYEHOUSES/BI
E12     1966     DYEING/BI
```

Upon file entry, a file banner appears. File coverage and updates are noted.

The term you typed appears at E3.

The second column gives postings — the number of records containing a term of interest.
<table>
<thead>
<tr>
<th>E13</th>
<th>69</th>
<th>DYEINGS/BI</th>
</tr>
</thead>
<tbody>
<tr>
<td>E14</td>
<td>1</td>
<td>DYELIKE/BI</td>
</tr>
<tr>
<td>E15</td>
<td>4</td>
<td>DYLELINE/BI</td>
</tr>
<tr>
<td>E16</td>
<td>11</td>
<td>DYER/BI</td>
</tr>
<tr>
<td>E17</td>
<td>9</td>
<td>DYERA/BI</td>
</tr>
<tr>
<td>E18</td>
<td>12</td>
<td>DYERS/BI</td>
</tr>
<tr>
<td>E19</td>
<td>6880</td>
<td>DYES/BI</td>
</tr>
<tr>
<td>E20</td>
<td>1</td>
<td>DYESHEET/BI</td>
</tr>
<tr>
<td>E21</td>
<td>1</td>
<td>DYESTSTUFF/BI</td>
</tr>
<tr>
<td>E22</td>
<td>183</td>
<td>DYESTUFF/BI</td>
</tr>
<tr>
<td>E23</td>
<td>201</td>
<td>DYESTUFFS/BI</td>
</tr>
<tr>
<td>E24</td>
<td>1</td>
<td>DYEWOOD/BI</td>
</tr>
</tbody>
</table>

To continue expanding a list, type E.

<table>
<thead>
<tr>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
</tr>
<tr>
<td>E2</td>
</tr>
<tr>
<td>E3</td>
</tr>
<tr>
<td>E4</td>
</tr>
<tr>
<td>E5</td>
</tr>
<tr>
<td>E6</td>
</tr>
<tr>
<td>E7</td>
</tr>
<tr>
<td>E8</td>
</tr>
<tr>
<td>E9</td>
</tr>
<tr>
<td>E10</td>
</tr>
<tr>
<td>E11</td>
</tr>
<tr>
<td>E12</td>
</tr>
</tbody>
</table>

Check for both American and British spellings.

<table>
<thead>
<tr>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
</tr>
<tr>
<td>E2</td>
</tr>
<tr>
<td>E3</td>
</tr>
<tr>
<td>E4</td>
</tr>
<tr>
<td>E5</td>
</tr>
<tr>
<td>E6</td>
</tr>
<tr>
<td>E7</td>
</tr>
<tr>
<td>E8</td>
</tr>
<tr>
<td>E9</td>
</tr>
<tr>
<td>E10</td>
</tr>
<tr>
<td>E11</td>
</tr>
<tr>
<td>E12</td>
</tr>
</tbody>
</table>

Note: There are other words in the EXPAND lists that could be used as search terms as well.
Create search terms

The EXPAND listing indicated a number of word forms for the search terms. Search retrieval will be enhanced by including these word forms. Various word forms can be taken into account using truncation symbols.

**Truncation symbols**

**Truncation symbols (wild cards)** can be used to allow for various forms of a word:

- Singular and plural word forms
- Prefixes and suffixes
- Spelling variations within a word (e.g., British/American spellings)

<table>
<thead>
<tr>
<th>Truncation symbol</th>
<th>Definition</th>
<th>Example</th>
<th>Retrieval possibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>?</td>
<td>Zero to any number of characters at the end of a term</td>
<td>GROW?</td>
<td>GROW, GROWL, GROWING, GROWTH</td>
</tr>
<tr>
<td>#</td>
<td>Zero or one character at the end of a term</td>
<td>GROW##</td>
<td>GROW, GROWS, GROWTH</td>
</tr>
<tr>
<td>!</td>
<td>Exactly one character within a term or at the end of a term</td>
<td>T!!TH</td>
<td>TEETH, TOOTH, TRUTH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AMIN!</td>
<td>AMINE, AMINO</td>
</tr>
</tbody>
</table>

**note**

- Some databases (e.g., CAplus) allow left-truncation using the ? symbol.
- Truncation symbols may be combined within the same term.
- Multiple uses of # and ! are allowed.
**Worksheet**

*Directions: Use truncation symbols to create search terms that would retrieve the following groups of words.*

<table>
<thead>
<tr>
<th>Group of Words</th>
<th>Search Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper or papers</td>
<td>PAPER# AND (DYE? OR COLOR? OR COLOUR?)</td>
</tr>
<tr>
<td>Dye, dyes, dyeing, dyestuff, dyestuffs</td>
<td></td>
</tr>
<tr>
<td>Color or colour</td>
<td></td>
</tr>
</tbody>
</table>

**Run the search**

The **SEARCH command (S)** is used to retrieve records containing your search terms.

```
=> S PAPER# AND (DYE? OR COLOR? OR COLOUR?)
  236096 PAPER#
  19595 DYE?
  32162 COLOR?
  834 COLOUR?
L1  27981 PAPER# AND (DYE? OR COLOR? OR COLOUR?)
```

27981 records contain both concepts. Records are placed in an answer set labeled L1. Answers are arranged from newest to oldest.
Step 5: Evaluate Answers

The **DISPLAY command** (D) is used to view record(s). The DISPLAY command requires three pieces of information:

- Answer set L-number
- Answer number(s)
- Format

No-cost display formats are useful in keyword searching to

- Verify that your search query is retrieving the types of information you want
- Identify additional, file-specific terminology to enhance your results

No-cost formats allow you to view a portion of the record for free. Indexes displayed are database-dependent. There are two no-cost formats:

- D TRIAL, for most STN databases
- D SCAN, for CAplus and BIOSIS

**Using the D TRIAL format**

All databases have a default format that displays when the display command is typed. You may need to specify certain information on the command line to override the defaults.

<table>
<thead>
<tr>
<th>The default setting for</th>
<th>Is the following:</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answer set L-number</td>
<td>Last L-number created</td>
<td>Use D HIS if you are interested in an answer set created earlier</td>
</tr>
<tr>
<td>Answer number(s)</td>
<td>First answer</td>
<td>Answer number input options include 1–5 to see the first five answers 1, 5 to see answers 1 and 5</td>
</tr>
<tr>
<td>Format</td>
<td>BIB</td>
<td>Use the TRIAL format to evaluate answers</td>
</tr>
</tbody>
</table>
Studying on dyeing of jute pulp to make coloured paper

Pulps; Jute; Dyeing; Raw Materials; Colored Papers; Paper Boards; Kraft Papers; Brightness; Pulping; ENGLISH

Ultraviolet microscopic study on lignin distribution in the fiber cell wall of BCTMP

Bleaching; Synthetic Fiber Papers; Ozone; Optical Properties; KOREAN

On capillary and SLIT die rheometry (Part II)

Coated Papers; Color; Rheology; Capillaries; Dies; Kaolin; Pigment; ENGLISH

Transparetly beautiful

Translucent Papers; Transparent Papers; Colored Papers; Lasers; Paper Boards; Product Design; Marketing; ENGLISH

Two-Color Thermal Recording Sheet

COATINGS; COLOR PRINTING; GAA; JAPANESE; PATENTS; PRINTING; PRINTING PAPERS; SENSITIZED PAPERS; SMEARING; SPECIALTY PAPERS; THERMAL PAPERS; THERMOGRAPHIC PAPERS

Thermal Transfer Recording Sheet

COATINGS; DULL FINISHES; DYE TRANSFER PROCESS; ENGLISH; FINISHES; GAA; HEAT TRANSFER PRINTING; HYDROCARBONS; OLEFINS; PABD; PATENTS; PLASTICS; PRINTING; SPECIALTY PAPERS; SYNTHETIC POLYMERS; THERMOPLASTICS; TRANSFER PAPERS; TRANSFER PRINTING; UNITED STATES
Step 6: Adjust the Search Strategy

Online searches evolve differently depending on the subject matter and the choices a searcher makes. Generally, when manipulating your search strategy, you may broaden your search for some concepts and narrow it for others.

Aspects to consider now:

- Are the answers you see in the evaluation step the kinds of answers you want?
- Are a large proportion of the answers relevant?
- Are the number of answers acceptable?

Which Direction Should You Take?

**Broaden** the search strategy and make it more comprehensive
- Apply truncation to terms
- Use more alternate terms
- Logic operators

**Narrow** the search strategy and make it more precise
- Choose more specific terms
- Add another concept
- Logic operators
Add alternate terminology

Worksheet

Directions: Review the previous D TRIAL displays. Identify alternate terms for each concept. Write them under the associated column.

Use the additional terms to write a more comprehensive search query.

<table>
<thead>
<tr>
<th>Paper</th>
<th>Dye or color</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

New query:

Search the new query:

=> S (PAPER# OR PULP# OR FIBER#)

236096 PAPER#
106940 PULP#
73040 FIBER#
L2 307488 (PAPER# OR PULP# OR FIBER#)

=> S (DYE? OR COLOR? OR COLOUR? OR PIGMENT#)

19595 DYE?
32162 COLOR?
834 COLOUR?
11391 PIGMENT#
L3 53946 (DYE? OR COLOR? OR COLOUR? OR PIGMENT#)

=> S L2 AND L3

L4 36593 L2 AND L3

*L-numbers may be combined with other search terms or other L-numbers via the SEARCH command.*
For more efficient and flexible searching in STN files, develop separate queries for each concept.

The preceding searches could have been combined into one. The answer set is the same:

```plaintext
=> S (PAPER# OR PULP# OR FIBER#) AND (DYE? OR COLOR? OR COLOUR? OR PIGMENT#)

236096 PAPER#
106940 PULP#
73040 FIBER#
19595 DYE?
32162 COLOR?
834 COLOUR?
11391 PIGMENT#
L5 36593 (PAPER# OR PULP# OR FIBER#) AND (DYE? OR COLOR? OR COLOUR? OR PIGMENT#)
```

Add another concept

### Worksheet

Directions: Adjust your search strategy so that the results focus on fluorescent paper dyes.

New query:
Add another concept to the search query:

=> S L5 AND (FLUORES? OR VIVID OR BRIGHT?)

1767 FLUORES?
64 VIVID
11486 BRIGHT?
L6 2669 L5 AND (FLUORES? OR VIVID OR BRIGHT?)

Worksheet

Directions: Sharpen the results further to focus on green fluorescent dyes.

New query:

=> S L6 AND GREEN

3754 GREEN
56 GREENS
3791 GREEN
(GREEN OR GREENS)
L7 62 L6 AND GREEN

=> D TRI 1-

YOU HAVE REQUESTED DATA FROM 62 ANSWERS - CONTINUE? Y/(N): Y

L7 ANSWER 1 OF 62 PAPERCHEM2 COPYRIGHT 2004 ELSEVIER ENGINEERING INFORMATION INC. on STN
TI Preparation of specialized paper
CT Paper; Cellulose Derivatives; Transition Metals; Bleached Pulps; Fluorescence; Fluoresceins; Kaolin; Ph; ENGLISH

L7 ANSWER 2 OF 62 PAPERCHEM2 COPYRIGHT 2004 ELSEVIER ENGINEERING INFORMATION INC. on STN

(continued on next page)
Step 7: Display answers in more detail

Answers may be displayed in predefined formats or custom field displays.

To specify the answers you would like to see, type:

- Answer set L-number
- Answer number(s)
- Format

<table>
<thead>
<tr>
<th>The default setting for</th>
<th>Is the following:</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answer set L-number</td>
<td>Last L-number created</td>
<td>Use D HIS if you are interested in an answer set created earlier</td>
</tr>
<tr>
<td>Answer number(s)</td>
<td>First answer</td>
<td>Answer number input options include 1–5 to see the first five answers 1, 5 to see answers 1 and 5</td>
</tr>
<tr>
<td>Format</td>
<td>Bibliographic information (BIB)</td>
<td>IBIB — Bibliographic information with field codes written out ABS — Abstract ALL — Full record</td>
</tr>
</tbody>
</table>
HELPFUL HINT

For information about pre-defined display formats within a file, type

=> HELP FORMAT

=> DISPLAY

ENTER (L7), L# OR ?: L7
ENTER ANSWER NUMBER OR RANGE (1): 9
ENTER DISPLAY FORMAT (BIB): IALL

L7  ANSWER 9 OF 107  PAPERCHEM2 COPYRIGHT 2004 ELSEVIER ENGINEERING INFORMATION INC. on STN

ACCESSION NUMBER: 2000:6768  PAPERCHEM2
SYSTEM NUMBER: 000630638
DOCUMENT NUMBER: UNPUBLISHED
TITLE: Studies on the dyeing of Hanji by natural dye-stuffs (I) – with a focus on the color tone of yellow color series

AUTHOR(S): Jeon, Cheol (Won Kwang Univ); Jin, Yeong-Mun

DOCUMENT TYPE: Journal
FILE SEGMENT: PAPERCHEM
LANGUAGE: Chinese

ABSTRACT: Yellow dye-stuffs in natural plant were extracted from a gardenia, saffron, safflower, amur tree and pagoda. And then they were used to color Korean handmade paper (Hanji) on using a mordant. The results of the degree of discoloration are as follows. 1. As for a gardenia(Gardenia jasminodes Ellis for. grandiflora Makino), the effects of coloring were outstanding in the acid area. But for the preservation, it might be desirable that used a lye in a dye-stuff obtained at 40±5 °C. 2. As for saffron(Curcuma longa L.), when used alum as a mordant, it was colored to a medium yellow color with green color. But easily discolorated and was not desirable. And, it didn't fit in a dye-stuff of Hanji. 3. For safflower(Carthamus tinctorius L.), when pH was in the low acid it was colored to the cleaner yellow color. It was the distinction of discoloration that the degree of brightness's increase was low. 4. For amur cork-tree(Phellodendron amurense Rupr.), the effects of yellow coloring were great in the areas of acidity and alkali. But, when used alum, the degree of the discoloration was high and was not effective. 5. For pagoda tree (Styphnolobium Japonica L.), using a calcium hydroxide as a mordant, enabled the more than average yellow to be gained. The degree of discoloration was good.

CONTROLLED TERM: Acidity; CHINESE; Discoloration; Dyeing; Gardenia; Pagoda tree; Paper; pH; Saffron Tree
Helpful HINT

In many cases, the individual indexes may be displayed independently from the rest of the STN record using the display fields:

=> D L8 5 TI LA

For a list of all individual display fields type:

=> HELP DFIELDS
## Review: Online Search Strategy

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Determine your search question.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2</td>
<td>Identify a relevant database.</td>
</tr>
<tr>
<td></td>
<td>• CAS Catalog</td>
</tr>
<tr>
<td></td>
<td>• Database summary sheets</td>
</tr>
<tr>
<td>Step 3</td>
<td>Build a search query.</td>
</tr>
<tr>
<td></td>
<td>• Main concepts and synonyms</td>
</tr>
<tr>
<td></td>
<td>• Logic operators (AND, OR)</td>
</tr>
<tr>
<td>Step 4</td>
<td>Conduct a preliminary search.</td>
</tr>
<tr>
<td></td>
<td>=&gt; FILE PAPERCHEM2</td>
</tr>
<tr>
<td></td>
<td>=&gt; E PAPER</td>
</tr>
<tr>
<td></td>
<td>=&gt; S PAPER# AND DYE?</td>
</tr>
<tr>
<td></td>
<td>✷ Truncation symbols</td>
</tr>
<tr>
<td>Step 5</td>
<td>Evaluate answers.</td>
</tr>
<tr>
<td></td>
<td>=&gt; D L# n TRIAL</td>
</tr>
<tr>
<td></td>
<td>=&gt; D SCAN</td>
</tr>
<tr>
<td>Step 6</td>
<td>Adjust the search strategy.</td>
</tr>
<tr>
<td></td>
<td>• Alternate search terms</td>
</tr>
<tr>
<td></td>
<td>• File-specific terminology</td>
</tr>
<tr>
<td>Step 7</td>
<td>Display answers.</td>
</tr>
<tr>
<td></td>
<td>=&gt; D L# n format(s)</td>
</tr>
</tbody>
</table>
1. Use the FROSTI (Food Science and Technology) file to locate information on tamper-resistant packaging for milk.

<table>
<thead>
<tr>
<th>Concept 1</th>
<th>Concept 2</th>
<th>Concept 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>tamper</td>
<td>package</td>
<td>milk</td>
</tr>
<tr>
<td>tampering</td>
<td>packages</td>
<td>dairy</td>
</tr>
<tr>
<td></td>
<td>packaging</td>
<td></td>
</tr>
<tr>
<td></td>
<td>container</td>
<td></td>
</tr>
<tr>
<td></td>
<td>containers</td>
<td></td>
</tr>
</tbody>
</table>

a) Use D TRIAL to preview several answers.

b) Use what you learn from D TRIAL displays to modify your query.

c) Display the titles of the first 5 answers.

d) Display the BIB and ABS information for two answers of interest.
2. Find information on flavor or aroma components of blackberries in the FSTA (Food Science and Technology Abstracts) file. Use D TRIAL to evaluate your answers, adjust your search strategy as needed, and display several answers in the answer format of your choice.

3. Search the JICST-Eplus file (Japanese Information Center of Science and Technology and Medicine in Japan) to find information on the use of ultrasonic waves in detection devices used at train crossings. Display titles and company names for the first 10 answers.

   HINT Use the display format TI CS.

4. Find information on flame-retardant materials used to insulate electric cables in the COMPENDEX (Computerized Engineering Index and EI Engineering Meetings) file. Display the bibliographic and abstract information for the fifth answer.

   HINT Use either the BIB or IBIB answer formats for bibliographic information.
In this section, you will learn to

- Use proximity operators to control the proximity of search terms in answers
- Relevance rank an answer set
- Sort an answer set
- Refine search results using specialized indexes
Adjusting Search Strategies to Increase Result Precision

Search Question: Locate records in the CAplus file on the preparation and manufacture of skin substitutes.

Conduct a preliminary search

=> FILE CAPLUS

=> S SKIN AND SUBSTITUTE# AND (PREPAR? OR MANUF?)

L1 1702 SKIN AND SUBSTITUTE# AND (PREPAR? OR MANUF?)

=> D SCAN

L1 1702 ANSWERS CAPLUS COPYRIGHT 2004 ACS on STN
IC ICM C07C065-28
    ICS C07C069-76; C07C235-06; C07C235-42; C07C047-575; C07D213-79; C07D213-80; A61K031-085; A61K031-11; A61K031-165; A61K031-44
CC 25-1 (Benzene, Its Derivatives, and Condensed)
    Section cross-reference(s): 1
TI Preparation of adamantyl-substituted stilbenes as dermatological agents
ST adamantyl stilbene prepn dermatol agent
IT Antiproliferative agents
    Antitumor agents
    Skin preparations (pharmaceutical)
        (adamantyl-substituted stilbenes)
IT Skin preparations (pharmaceutical)
    (prepn. of adamantyl-substituted stilbenes as dermatol. agents)
RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
    (prepn. of adamantyl-substituted stilbenes as dermatol. agents)

This answer is not relevant. Although the terms "skin" and "substituted" appear in the record, the answer has nothing to do with "skin substitutes."
Sharpening Search Strategies

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of adamantyl-substituted stilbenes as dermatol. agents)

IT 1603-41-4, 2-Amino-5-methylpyridine 3970-21-6 5292-43-3, tert-Butyl bromoacetate 5552-44-3, Diethyl 2,5-pyridinedicarboxylate 14295-52-4 24850-33-7, Allyltributyltin 71441-08-2 104224-68-2 135077-79-1
RL: RCT (Reactant)

(prepn. of adamantyl-substituted stilbenes as dermatol. agents)

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

(prepn. of adamantyl-substituted stilbenes as dermatol. agents)

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

L1 1702 ANSWERS CAPPLUS COPYRIGHT 2004 ACS on STN
CC 17-7 (Food and Feed Chemistry)
TI Preparation of shark fin substitute with gelatin and sodium alginate
ST shark fin substitute gelatin alginate
IT Shark
    (fin, substitutes for, manuf. of, with gelatin and sodium alginate)
IT Gelatins, biological studies
RL: BIOL (Biological study)
    (shark fin substitute manuf. with alginate and)
IT Fin (anatomical)
    (shark, substitutes for, contg. alginate and gelatin)
IT Hydration, biological
    (re-, of shark fin substitutes, alginate and calcium chloride and gelatin effects on)
IT 9005-38-3, Sodium alginate
RL: BIOL (Biological study)
    (shark fin substitute manuf. with gelatin and)
IT 10043-52-4, Calcium chloride, biological studies
RL: BIOL (Biological study)
    (shark fin substitute quality response to alginate and gelatin and concn. of)

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

(continued on next page)
This answer is very relevant. Note that the terms “skin” and “artificial” are close together.
**Proximity Operators**

Proximity operators are used to specify the desired proximity of search terms with respect to one another within records. The assumption is that the closer the terms are in the record, the more directly related they are to each other.

**AND**
- Search terms are in the same record

**L**
- Search terms are in the same information unit

**P**
- Definition varies with the field and database

**S**
- Definition varies with the field and database

**A**
- Terms are adjacent in any order

**W**
- Terms are adjacent in input order

To exit SCAN mode, type 0 or END.
Some proximity operators work differently in different STN files. Consult the file-specific HELP messages for details:

=> HELP (S)

**Search the query with more precise proximity:**

Number qualifiers can be used with proximity operators.

For example, the (2A) operator retrieves terms within 2 words or less of each other, in any order.

=> S (SKIN OR DERMAL) (2A) (SUBSTITUTE# OR ARTIFICIAL) AND (PREPN# OR PREPARATION# OR MANUF?)

L2 349 (SKIN OR DERMAL) (2A) (SUBSTITUTE# OR ARTIFICIAL) AND (PREPN# OR PREPARATION# OR MANUF?)

=> D SCAN

L2 349 ANSWERS CAPLUS COPYRIGHT 2004 ACS on STN
IC ICM A61L027-00
ICS A61F002-00
CC 63-7 (Pharmaceuticals)
TI **Artificial skin**
ST **artificial skin** polymer
IT **Artificial skin**
   (polymer **artificial skin**)
IT 29406-75-5DP, hydrolyzed 52734-28-8DP, Triallylisocyanurate-vinyl acetate copolymer, hydrolyzed
RL: DEV (Device component use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
   (**artificial skin**)  
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1): 1

(continued on next page)
Manufacture of prosthetic skin with polymeric films and bioabsorbable substances

Textiles
(skin substitute manuf. from polymeric film and chem.-treated)

Gelatins, biological studies
Rubber, silicone, biological studies
RL: BIOL ( Biological study)
(skin substitute manuf. with)

Skin
(artificial, manuf. of, polymeric film and fabrics for)

Collagens, biological studies
RL: BIOL ( Biological study)
(atelo-, skin substitute manuf. with)

Synthetic fibers, polymeric
RL: BIOL ( Biological study)
(glycolic acid, skin substitute manuf. with)

25038-59-9, Polyethylene terephthalate, biological studies
RL: BIOL ( Biological study)
(skin substitute manuf. with)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1): 0
**Sharpening Search Strategies – 45**

<table>
<thead>
<tr>
<th>PATENT NO.</th>
<th>KIND</th>
<th>DATE</th>
<th>APPLICATION NO.</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>JP 2004222836</td>
<td>A2</td>
<td>20040812</td>
<td>JP 2003-12059</td>
<td>20030121</td>
</tr>
<tr>
<td>PRIORITY APPLN. INFO.:</td>
<td></td>
<td></td>
<td>JP 2003-12059</td>
<td>20030121</td>
</tr>
</tbody>
</table>

AB Cultured dermis sheets, useful as artificial skin, are manufactured by culturing mesenchymal stem cells in a culture medium containing female hormone-like substances and impregnating artificial skin substitute material such as collagens, atelocollagens, gelatins, etc., with the suspension containing the activated stem cells or by impregnating the artificial skin material with a cell suspension containing a culture medium, female hormone-like substances, and mesenchymal stem cells and culturing the cells in the materials. Thus, bone marrow cells collected from a patient with bed sore were cultured in MEM medium containing PBS and estriol. Checkerboard-like cuttings were formed on a collagen sponge sheet (Pelnac), and the sheet was impregnated with the cell suspension. Implanting of the sheet to bed sore of the above patient regenerated granulation tissue and skin after 2 mo.
Relevance Ranking Answers

By default, records in answer sets are organized in reverse chronological order (newest to oldest). This can be changed. Answer sets may be relevance ranked.

FOCUS

The **FOCUS command** is used to rearrange the records in an answer set to bring the most relevant to the top. Relevance is algorithmically determined using

- Occurrence of hit terms, weighted by index
- Proximity of search terms

=> FOCUS

PROCESSING COMPLETED FOR L2
L3 349 FOCUS L2 1-

=> D L3 TI 1-5

L2 ANSWER 1 OF 349 CAPLUS COPYRIGHT 2004 ACS on STN
TI **Artificial skin** and its preparation

L2 ANSWER 2 OF 349 CAPLUS COPYRIGHT 2004 ACS on STN
TI Skin basement membrane formation promoters containing matrix metalloprotease inhibitors and manufacture of **artificial skin** using the promoters

L2 ANSWER 3 OF 349 CAPLUS COPYRIGHT 2004 ACS on STN
TI **Artificial skin** base materials and their manufacture

L2 ANSWER 4 OF 349 CAPLUS COPYRIGHT 2004 ACS on STN
TI **Hyaluronic acid gel** for **artificial skin** manufacture

L2 ANSWER 5 OF 349 CAPLUS COPYRIGHT 2004 ACS on STN
TI Manufacture of **artificial skin**

**Web Resource**

FOCUS is available in most bibliographic and full-text files on STN where it is best used with broad, multi-word subject searches. For additional information, see [http://www.cas.org/training/stncommands/focus.html](http://www.cas.org/training/stncommands/focus.html)
The SORT command allows you to rearrange answers in field order, based on alphanumeric ranking. Ascending (A) or descending (D) order can be added to the command.

```
=> SORT L1 CS A AU A PY D
SORT ENTIRE ANSWER SET? (Y)/N:y
SORT IS APPROXIMATELY 95% COMPLETE
3 ANSWERS DID NOT HAVE 'CS' SORT FIELD
13 ANSWERS DID NOT HAVE 'AU' SORT FIELD
PROCESSING COMPLETED FOR L1
L3 349 SORT L1 CS A AU A PY D

=> D L3 6-8
```

Answers that do not contain sort fields are placed at the end of the answer set.

L3  ANSWER 6 OF 349  CAPLUS  COPYRIGHT 2004 ACS on STN
AN  1990:125258  CAPLUS  Full-text
DN  112:125258
TI  Modified amino acid copolymers for growth of cells
IN  Fujiwara, Yukihiko; Aiba, Seiichi; Minora, Norihiko; Kobayashi, Junji; Sato, Yutaka
PA  Agency of Industrial Sciences and Technology, Japan
CODEN: JKXXAF
DT  Patent
LA  Japanese
FAN.CNT 1

<table>
<thead>
<tr>
<th>PATENT NO.</th>
<th>KIND</th>
<th>DATE</th>
<th>APPLICATION NO.</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI JP 01048824</td>
<td>A2</td>
<td>19890223</td>
<td>JP 1987-204102</td>
<td>19870819</td>
</tr>
<tr>
<td>PI JP 03040055</td>
<td>B4</td>
<td>19910617</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

=> D L3 6-8

L3  ANSWER 7 OF 349  CAPLUS  COPYRIGHT 2004 ACS on STN
AN  1988:576399  CAPLUS  Full-text
DN  109:176399
TI  Methionine-oxyalkylene block copolymers for artificial organs and medical devices with high cell-compatibility
IN  Minora, Norihiko; Aiba, Seiichi; Fujiwara, Yukihiko
PA  Agency of Industrial Sciences and Technology, Japan
SO  Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DT  Patent
LA  Japanese
FAN.CNT 1

<table>
<thead>
<tr>
<th>PATENT NO.</th>
<th>KIND</th>
<th>DATE</th>
<th>APPLICATION NO.</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI JP 63132939</td>
<td>A2</td>
<td>19880604</td>
<td>JP 1986-174200</td>
<td>19860724</td>
</tr>
<tr>
<td>PI JP 03049293</td>
<td>B4</td>
<td>19910729</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(continued on next page)
Refining Results Using Specialized Indexes

Another technique for adjusting a search strategy is to refine an answer set using search terms that are not in the Basic Index. This technique — called searching specialized indexes — allows you to use search terms to specify that records are

- From a particular type of source document — e.g., patent, journal article, review article
- Written in a particular language
- Published within a specific time period

These are just a few examples of the many available search indexes. Consult the Database Summary Sheet for more information.

Specialized indexes are added to a search by qualifying search terms with a forward slash followed by a search field.

**For example:**

\[ \text{S 1999/PY} \]

**Document Type Specialized Index**

The Document Type index (DT) contains an indication of the type of source document.

*Extend the Search Question…*

What reviews have been published on the preparation and manufacture of skin substitutes?
Technique:

The EXPAND command is used to identify the file-specific term used for the document type of interest. Because the Document Type (DT) index contains a relatively small number of possible terms, one way to determine the relevant term is to begin the EXPAND at the start of the index.

=> E A/DT

**** START OF FIELD ****
E3  0 --> A/DT
E4  255156 B/DT
E5  8440 BIO/DT
E6  8440 BIOGRAPHY/DT
E7  255156 BOOK/DT
E8  35136 BOOK REVIEW/DT
E9  35136 BR/DT
E10 1028925 C/DT
E11  121 COMPUTER MAGNETIC DISK/DT
E12   3 COMPUTER OPTICAL DISC/DT

=> E

E13  46099 COMPUTER OPTICAL DISK/DT
E14 1028925 CONFERENCE/DT
E15  348204 D/DT
E16  348204 DISSERTATION/DT
E17  13489 ED/DT
E18  13489 EDITORIAL/DT
E19  11715 ER/DT
E20  11715 ERRATA/DT
E21 1753822 GENERAL REVIEW/DT
E22 1753822 GR/DT
E23 17657885 J/DT
E24 17657885 JOURNAL/DT

Refining the answer set to general reviews:

=> D HIS FULL

L1  2616 S SKIN AND SUBSTITUTE# AND (PREPARE? OR MANUF?)
L2  349 S (SKIN OR DERMAL) (2A) (SUBSTITUTE# OR ARTIFICIAL) AND (PREPARE? OR PREPARATION# OR MANUF?)
L3  349 FOCUS L2 1-
    E A/DT

=> S L2 AND GENERAL REVIEW/DT

          1587266 GENERAL REVIEW/DT
L4  26 L2 AND GENERAL REVIEW/DT
Large-area, flexible sensors for electronic artificial skins. A new class of applications of organic transistors

Someya, Takao; Sakurai, Takayasu; Kawaguchi, Hiroshi; Sekitani, Tsuyoshi

Quantum-Phase Electron. Cent., Sch. Eng., The Univ. Tokyo, Tokyo, 113-8656, Japan

Oyo Butsuri (2004), 73(5), 610-614
CODEN: OYBSA9; ISSN: 0369-8009

Oyo Butsuri Gakkai

Journal; General Review

Japanese
Language Specialized Index

The Language index (LA) indicates the language of the original source document.

Extend the Search Question Further…

Limit the general reviews to those published in English.

Technique:

The EXPAND command is used to identify the file-specific term used for the language of interest.

=> E ENGLISH/LA

<table>
<thead>
<tr>
<th>E</th>
<th>File Number</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>13677082</td>
<td>EN/LA</td>
</tr>
<tr>
<td>E2</td>
<td>13677082</td>
<td>ENG/LA</td>
</tr>
<tr>
<td>E3</td>
<td>13677082</td>
<td>ENGLISH/LA</td>
</tr>
<tr>
<td>E4</td>
<td>143</td>
<td>EO/LA</td>
</tr>
<tr>
<td>E5</td>
<td>80439</td>
<td>ES/LA</td>
</tr>
<tr>
<td>E6</td>
<td>143</td>
<td>ESPERANTO/LA</td>
</tr>
<tr>
<td>E7</td>
<td>379</td>
<td>ESTONIAN/LA</td>
</tr>
<tr>
<td>E8</td>
<td>379</td>
<td>ET/LA</td>
</tr>
<tr>
<td>E9</td>
<td>121</td>
<td>EU/LA</td>
</tr>
<tr>
<td>E10</td>
<td>2029</td>
<td>FA/LA</td>
</tr>
<tr>
<td>E11</td>
<td>3931</td>
<td>FI/LA</td>
</tr>
<tr>
<td>E12</td>
<td>3931</td>
<td>FINNISH/LA</td>
</tr>
</tbody>
</table>

=> S L4 AND E3

L5 9 L4 AND ENGLISH/LA

=> D L5 1 BIB

L5 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:591895 CAPLUS Full-text
DN 141:185172
TI What is new in wound healing?
AU Kumar, Senthil; Wong, Peng Foo; Leaper, David John
CS The Professorial Unit of Surgery, University Hospital of North Tees, Stockton-on-Tees, TS19 8PE, UK
SO Turkish Journal of Medical Sciences (2004), 34(3), 147-160
CODEN TJMEEA; ISSN: 1300-0144
PB Scientific and Technical Research Council of Turkey
DT Journal; General Review
LA English
RE.CNT 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
Publication Year Specialized Index

The Publication Year index (PY) contains an indication of the publication year of the source document.

*Extend the Search Question Further…*

*Are there any general reviews published in English since 2002?*

Publication year information may be in several formats:

- Single years, e.g., PY=2002 OR 2002/PY
- Date ranges, e.g., 1997-2002/PY OR PY>=1997

>`=> S L5 AND PY>=2002

L6  3 L5 AND PY>=2002

`=> D L6 BIB ABS 1-

YOU HAVE REQUESTED DATA FROM 3 ANSWERS - CONTINUE? Y/(N): Y

L6   ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   2004:591895  CAPLUS  [Full-text]
DN   141:185172
TI   What is new in wound healing?
AU   Kumar, Senthil; Wong, Peng Foo; Leaper, David John
CS   The Professorial Unit of Surgery, University Hospital of North Tees, Stockton-on-Tees, TS19 8PE, UK
SO   Turkish Journal of Medical Sciences (2004), 34(3), 147-160
CODEN: TJMEEA; ISSN: 1300-0144
PB   Scientific and Technical Research Council of Turkey
DT   Journal; General Review
LA   English
AB   A review. Wound biol. is complex. Wounds which were until recently seen only as defects in tissues are now increasingly interpreted in cellular and mol. terms. Growth factors, cytokines, proteases and adhesion mols. which participate in wound healing are discussed in this article. From a clin. perspective, conceptual shifts of importance, including moist wound healing, wound bed prepn. and wound assessment, are presented. The frontiers of therapeutics employed in wound healing continue to advance with an increasing array of modalities joining the ranks at a regular pace. A range of currently available as well as evolving therapies- phys. (topical neg. pressure therapy, warming, elec. stimulation), biol. (larva therapy, skin substitutes, stem cell therapy, growth factors, gene therapy) and of a misc. variety (hyperbaric oxygen, dressings)- are appraised.
RE.CNT 60  THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

---

**Sharpening Search Strategies** – 53
1. Find information in the MEDLINE database on job stress in the dental profession. Use proximity operators to adjust the size and focus of your answer set. Relevance rank the answer set.

2. Use the PROMT (Predicasts Overviews of Markets and Technology) file to locate business information on the development of new gourmet coffee flavors. Isolate those documents written between 2002 and 2004. Display using the KWIC format, then display a few answers in the ALL format.
CURRENT AWARENESS ALERTS

In this section, you will learn to set up a current awareness alert in one database.
Automatic Current Awareness Alerts

Current awareness information is valuable for all users of scientific and technical information. Current awareness information allows monitoring of

- New developments in research
- Competitor organizations
- Potential new markets or uses for a company’s products

Current awareness information may be obtained through

- Periodic searches performed manually to assess information in an area at any given time
- Automatic current awareness alerts to continuously monitor new literature in an area of interest
**Search Question:** Monitor new research in the area of the preparation and manufacture of skin substitutes.

Current awareness alerts run on a user-defined, periodic basis. Alerts run only on the segment of a database that has been added/updated since the last run.

The **SDI command** is used to set up a single-file automatic current awareness alert. A series of sub-prompts are used to specify set-up parameters.

```plaintext
=> FILE CAPLUS
=> SDI L2

ENTER UPDATE FIELD CODE (UP) OR ?: ED
ENTER SDI REQUEST NAME, (AA001/S), OR END: SKINSUBS/S
ENTER COST CENTER (NONE) OR NONE: RESEARCH DEPT
ENTER TITLE (NONE): SKIN SUBSTITUTES
ENTER METHOD OF DELIVERY (OFFLINE), ONLINE, OR EMAIL: EMAIL
ENTER EMAIL ID (5861C): WCOYOTE@ACME.COM;ROADRUNNER@NIKE.COM,INTERNET
RECEIVE DELIVERY NOTIFICATION? (Y)/N: N
ELIMINATE PREVIOUSLY SEEN ANSWERS WITH EACH SDI RUN? Y/(N): Y
ENTER PRINT FORMAT (BIB) OR ?: IBIB ABS
HIGHLIGHT HIT TERMS? (Y)/N: Y
ARCHIVE ANSWERS? Y/(N): N
REDISTRIBUTE ANSWERS? Y/(N): N
ENTER MAXIMUM NUMBER OF HITS TO BE PRINTED PER RUN (100): 100
SORT SDI ANSWER SET (N)/Y?: N
SEND SDI WITH NO ANSWERS? (Y)/N: N
DISPLAY CURRENCY INFORMATION? (Y)/N: Y
ENTER SDI RUN FREQUENCY - DAILY, (WEEKLY), BIWEEKLY, OR ?: WEEKLY
ENTER SDI EXPIRATION DATE 'YYYYMMDD' OR (NONE): NONE
QUERY L2 HAS BEEN SAVED AS SDI REQUEST 'SKINSUBS/S'
```

**Helpful HINT**

For more information on update codes specific to the database of interest type:

```plaintext
=> HELP UPDATE
```

If you are unsure how to answer a sub-prompt for set-up information, type a ? and STN will provide more explanation.
**Selecting Setup Options:**

<table>
<thead>
<tr>
<th>This setup option</th>
<th>Is used to</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update field</td>
<td>Determine if a record should be included in an alert answer set</td>
<td>Update fields are based on the date a record</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- First enters a file</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Is updated</td>
</tr>
<tr>
<td>SDI request name</td>
<td>Identify an alert</td>
<td>Syntax:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Begin with a letter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- 1-12 characters</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Contain only letters (A-Z) and numbers (0-9)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- End with /S for SDI</td>
</tr>
<tr>
<td>Cost center</td>
<td>Distinguish SDI charges on STN invoices</td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Identify an alert whenever setup parameters are displayed</td>
<td>40-character limit</td>
</tr>
<tr>
<td>Method of delivery</td>
<td>Specify the way alert results should be delivered</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Email — Internet (requires an STNmail id)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Offline — postal mail of hard copy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Online — storage on STN computer</td>
</tr>
<tr>
<td>Email id</td>
<td>Specify the internet or STNmail address where alert results should be</td>
<td>Internet delivery can be in pdf, rtf, or html formats</td>
</tr>
<tr>
<td></td>
<td>be delivered</td>
<td></td>
</tr>
<tr>
<td>Delivery notification</td>
<td>Notify the searcher when alert results are being delivered to an address</td>
<td></td>
</tr>
<tr>
<td></td>
<td>other than their own</td>
<td></td>
</tr>
<tr>
<td>Print format</td>
<td>Specify the answer display format</td>
<td></td>
</tr>
<tr>
<td>Maximum number of hits</td>
<td>Specify the upper limit on the number of records in an alert results set</td>
<td>Up to 5000 answers can be sent</td>
</tr>
<tr>
<td>Display currency</td>
<td>Display the patent currency banner at the time the alert was run, for</td>
<td></td>
</tr>
<tr>
<td>information</td>
<td>CAS files only</td>
<td></td>
</tr>
</tbody>
</table>
Delivery Options

Current awareness results can be delivered via

- E-mail
- Offline print
- Online storage of answer sets
- Intranet, with STN Easy for Intranets

Several e-mail delivery options are available. The options provide embedded graphics for structures and images and a link to the full text of the document, or just text only.

The form of the e-mail address determines the format in which the results are received.

<table>
<thead>
<tr>
<th>Results available via</th>
<th>Email format</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-mail delivery in the following formats (graphics and full-text links included):</td>
<td>User@domain</td>
<td><a href="mailto:wcoyote@acme.com">wcoyote@acme.com</a></td>
</tr>
<tr>
<td>RTF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PDF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HTML</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASCII text</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-mail delivery of ASCII text (no graphics)</td>
<td><a href="mailto:User@domain.internet">User@domain.internet</a></td>
<td><a href="mailto:wcoyote@acme.com.internet">wcoyote@acme.com.internet</a></td>
</tr>
<tr>
<td>Hyperlinks from STN Easy for Intranets (graphics and full-text links included)</td>
<td><a href="mailto:STNID@stnalerts.org">STNID@stnalerts.org</a></td>
<td><a href="mailto:ssscas03qxb@stnalerts.org">ssscas03qxb@stnalerts.org</a></td>
</tr>
</tbody>
</table>
Verifying SDI setup:

=> D SAVED/S

<table>
<thead>
<tr>
<th>NAME</th>
<th>CREATED</th>
<th>NOTES/TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKINSUBS/S</td>
<td>2 SEP 2004</td>
<td>SDI REQUEST FOR FILE CAPLUS</td>
</tr>
</tbody>
</table>

Helpful HINT

To see the complete details of the SDI, including the search query, type

=> D SKINSUBS/S FULL

Web Resource

Additional information about setting up single-file alerts is available:

- [http://www.cas.org/training/stncommands/sdi.html](http://www.cas.org/training/stncommands/sdi.html)
- [http://www.cas.org/ONLINE/QR/currentaware.pdf](http://www.cas.org/ONLINE/QR/currentaware.pdf)
MANAGING SEARCH RESULTS

In this section, you will learn to

- Save searches, queries, or answer sets
- Use saved searches, queries, or answer sets
- Work with session transcripts
Managing STN Results

A number of options are available on STN to store and manage

- **Answer sets**
  
  => SAVE SKINSUBS1/A

- **Queries**
  
  => SAVE SKINSUBS2/Q

- **L-number lists**
  
  => SAVE SKINSUBS3/L

for use in a future online session. Information is stored by login ID.

The **SAVE, ACTIVATE, and DELETE commands** are used together to manage stored STN search results.

**Storage Options**

There are two options for storage:

<table>
<thead>
<tr>
<th>To store information</th>
<th>This STN SAVE option is useful:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-term</td>
<td>SAVE</td>
</tr>
<tr>
<td>From 7-14 days (expires on 2nd Friday)</td>
<td>SAVE TEMP</td>
</tr>
</tbody>
</table>
Storing STN Search Results

To store and manage STN search results

**Step 1**  
Save answers.

**Step 2**  
Recall the saved search results in a future online session.

**Step 3**  
Re-use the saved results for display.

**Step 4**  
Maintain saved items for currency, deleting as needed.

Save answers

The following information is required to SAVE an answer set:

- Answer set L-number
- File name
- Title (optional)

```
=> SAVE TEMP TITLE
ENTER L#, L# RANGE, ALL, OR (END): L1
ENTER NAME OR (END): SKINSUBS1/A
ENTER TITLE (NONE): PREPARATION OF SKIN SUBSTITUTES
ANSWER SET L1 HAS BEEN SAVED AS 'SKINSUBS1/A'
```

The name must begin with a letter, have 1-12 characters, contain only letters or numbers, and end in /A. TITLE must be included on the command line if you wish to add a title.
Recall saved results

=> D SAVED

<table>
<thead>
<tr>
<th>NAME</th>
<th>CREATED</th>
<th>NOTES/TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALLKW/A</td>
<td>15 MAY 2003</td>
<td>161 ANSWERS 158 ANSWERS IN FILE HCAPLUS 3 ANSWERS IN FILE WPINDEX</td>
</tr>
<tr>
<td>CAKW/A</td>
<td>15 JUN 2004</td>
<td>309 ANSWERS IN FILE HCAPLUS</td>
</tr>
<tr>
<td>CASEQ/A</td>
<td>14 AUG 2003</td>
<td>76 ANSWERS IN FILE HCAPLUS</td>
</tr>
<tr>
<td>CASSEP/A</td>
<td>09 NOV 2002</td>
<td>54 ANSWERS IN FILE CAPLUS</td>
</tr>
<tr>
<td>NEWHITS/A</td>
<td>14 AUG 2004</td>
<td>6 ANSWERS IN FILE HCAPLUS</td>
</tr>
<tr>
<td>SKINSUBS1/A</td>
<td>TEMP</td>
<td>361 ANSWERS IN FILE CAPLUS</td>
</tr>
<tr>
<td>WPIKW/A</td>
<td>20 AUG 2004</td>
<td>3 ANSWERS IN FILE WPINDEX</td>
</tr>
</tbody>
</table>

**note**

Current awareness alerts do not display by default. To see current awareness alerts saved under an ID, type

=> D SAVED/S
## Reuse saved results

Stored answer sets can be recalled in a future online session using the ACTIVATE command.

The query is not re-searched. The same answers are in the answer set as when it was saved.

An answer set is not removed from storage when it is activated.

### Displaying results in more detail:

```plaintext
=> FILE CAPLUS
=> ACTIVATE SKINSUBS1/A
L3          349 SEA FILE=CAPLUS (SKIN OR DERMAL) 
            ARTIFICIAL) AND (PREPN# OR PREPARATION# OR MANUF?)
=> D L3 12 BIB ABS

L3   ANSWER 12 OF 349  CAPLUS COPYRIGHT 2004 ACS
AN   2004:212886  CAPLUS
TI   Change in cell adhesion property on cytocompatible interface using phospholipid polymer grafted with poly(d,l-lactic acid) segment for tissue engineering
AU   Watanabe, Junji; Ishihara, Kazuhiko
CS   School of Engineering, Department of Materials Engineering, The University of Tokyo, Tokyo, 113-8656, Japan
SO   Science and Technology of Advanced Materials (2003), 4(6), 539-544
       CODEN: STAMCV; ISSN: 1468-6996
PB   Elsevier Ltd.
DT   Journal
LA   English
AB   Tissue engineering is a multi-disciplinary science that utilizes basic principles from materials engineering and mol. biol. To reconstruct tissues from polymer matrixes and cellular components. Artificial skins were well known as one of the concrete examples. Technol. innovation of the tissue engineering must be contributed to improve quality of life. From the viewpoint, design of cytocompatible materials for tissue engineering would be the most important candidate to reconstruct tissue. 2-Methacryloyloxyethyl phosphorylcholine (MPC), Bu methacrylate, and polylactic acid (PLA) macromonomer were polymd. for the prepn. of cytocompatible interface. The polymer may involve following novel properties: (i) cytocompatibility by phospholipid groups, and (ii) enhancement of cell adhesion by PLA segment. The results of XPS showed the MPC unit and PLA segment on the membrane, which was prepd. by dip coating. The surface mobility by contacting water was estd. with static contact angle measurement. The contact angle by water decreased after contact with water due to the chain rearrangement of hydrophilic MPC unit. Fibroblast cells adhesion and protein adsorption on the membranes were studied. The no. of cell adhesion and cell proliferation on the

* •
  •
  •
```

Answer sets must be activated in the file(s) in which they were created.

The next L-number in the current session is assigned to the activated answer set.
Searching with saved results:

The activated answer sets can be refined using additional search terms. STN does not update the search in the sense that it does not find answers added to the databases since the answer set was saved. Instead, it locates answers in the saved/activated set that match the additional requirement.

>`=> S L3 AND PY>=1998

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6193571</td>
<td>PY&gt;=1998</td>
<td></td>
</tr>
<tr>
<td>L4</td>
<td>181 L3 AND PY&gt;=1998</td>
<td></td>
</tr>
</tbody>
</table>

Deleting saved items

The items saved in long-term storage can be removed using the DELETE command.

>`=> D SAVED

<table>
<thead>
<tr>
<th>NAME</th>
<th>CREATED</th>
<th>NOTES/TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALLKW/A</td>
<td>15 MAY 2003</td>
<td>161 ANSWERS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>158 ANSWERS IN FILE HCAPLUS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 ANSWERS IN FILE WPINDEX</td>
</tr>
<tr>
<td>CAKW/A</td>
<td>15 JUN 2004</td>
<td>309 ANSWERS IN FILE HCAPLUS</td>
</tr>
<tr>
<td>CASEQ/A</td>
<td>14 AUG 2003</td>
<td>76 ANSWERS IN FILE HCAPLUS</td>
</tr>
<tr>
<td>CASSEP/A</td>
<td>09 NOV 2002</td>
<td>54 ANSWERS IN FILE CAPLUS</td>
</tr>
<tr>
<td>NEWHITS/A</td>
<td>14 AUG 2003</td>
<td>6 ANSWERS IN FILE HCAPLUS</td>
</tr>
<tr>
<td>SKINSUBS1/A</td>
<td>TEMP</td>
<td>349 ANSWERS IN FILE CAPLUS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PREPARATION OF SKIN SUBSTITUTES</td>
</tr>
<tr>
<td>WPIKW/A</td>
<td>20 AUG 2004</td>
<td>3 ANSWERS IN FILE WPINDEX</td>
</tr>
</tbody>
</table>

>`=> DEL SKINSUBS1/A

DELETE SKINSUBS1/A? (Y)/N: Y
Offline tools

Working with transcripts

Depending on the interface you use to access STN, there are different ways to save session transcripts.

**STN on the Web** transcripts are saved during your session. The transcripts are available via the Transcript Assistant for 4 days. Transcripts can be downloaded as PDF, RTF, or HTML files.

**STN Express** transcripts can be saved in TRN or RTF formats. The TRN format is the STN Express default transcript format. A TRN file can be saved as an RTF file. STN Express offers several post-processing tools for producing professional looking search reports.

---

**Helpful HINT**

For more information on post processing tools in STN Express, click on the Help button in STN Express.

---

**Reopen a saved transcript in STN Express**

From the STN Express main menu, select **Results…Open**. The default TRN files are displayed. To see RTF files, use the pull down menu to select **All files**.
The solutions presented here are solutions that can be attained using techniques and search tools presented in the accompanying workbook.
Skills Practice (page 34):

**Question 1:** Use the FROSTI (Food Science and Technology) file to locate information on tamper resistant packaging for milk.

```plaintext
=> FILE FROSTI  Enter the FROSTI file.

=> S TAMPER? AND (PACK? OR CONTAINER#) AND (MILK OR DAIRY)

2187 TAMPER?
59001 PACK?
25683 CONTAINER#
42628 MILK
41624 DAIRY

L1 => D TRIAL 1-5  Use D TRIAL to preview answers.

L1 ANSWER 1 OF 201  FROSTI COPYRIGHT 2004 LFRA on STN
TI Tamper resistant composite lids for food containers.
CT CLOSURES; CONFECTIONERY; CONTAINERS; DAIRY PRODUCTS;
DESSERTS; DRIED FOODS; FROZEN CONFECTIONERY; FROZEN DAIRY
PRODUCTS; FROZEN DESSERTS; FROZEN FOODS; GRANULATED FOODS; ICE CREAM;
PACKAGING CONTAINERS; PACKAGING PRODUCTS;
PATENT; POWDERED FOODS; PRESERVED FOODS; TAMPER EVIDENT
CLOSURES; TAMPER EVIDENT CONTAINERS; TAMPER
EVIDENT PACKAGING PRODUCTS; TAMPER RESISTANT
CLOSURES; TAMPER RESISTANT CONTAINERS; TAMPER
RESISTANT PACKAGING PRODUCTS; US PATENT

L1 ANSWER 2 OF 201  FROSTI COPYRIGHT 2004 LFRA on STN
TI Lid.
CT CLOSURES; CONTAINERS; EUROPEAN PATENT; LIDS; PACKAGING
CONTAINERS; PACKAGING PRODUCTS; PATENT; RECOLSABLE
CLOSURES; RECOLSABLE CONTAINERS; TAMPER EVIDENT
CLOSURES; TAMPER EVIDENT CONTAINERS; TAMPER
EVIDENT PACKAGING PRODUCTS

L1 ANSWER 3 OF 201  FROSTI COPYRIGHT 2004 LFRA on STN
TI Tamper resistant composite lids for food containers.
CT CLOSURES; CONFECTIONERY; CONTAINERS; DAIRY PRODUCTS;
DESSERTS; DRIED FOODS; EUROPEAN PATENT; FROZEN CONFECTIONERY; FROZEN
DAIRY PRODUCTS; FROZEN DESSERTS; FROZEN FOODS; GRANULATED FOODS;
ICE CREAM; PACKAGING CONTAINERS; PACKAGING
PRODUCTS; PATENT; POWDERED FOODS; PRESERVED FOODS; TAMPER
EVIDENT CLOSURES; TAMPER EVIDENT CONTAINERS;
TAMPER EVIDENT PACKAGING PRODUCTS; TAMPER
RESISTANT CLOSURES; TAMPER RESISTANT CONTAINERS;
TAMPER RESISTANT PACKAGING PRODUCTS
```

From these free displays and from thinking further about the question, additional terms can be added to the question to make it better.
Device for dispensing material into a container.

Packaging and method for making the same.

Tamper-resistant composite lids for food containers.

Tamper-evident lid assembly.

Tamper-evident lid assembly.

Lid.

Tamper resistant composite lids for food containers.
The invention relates to an improved tamper-resistant and tamper-evident composite lid for food containers. The invention claims to increase consumer confidence in the products by having the capability to resist and render tampering and/or contamination of the products readily detectable at the point of sale. It also provides a closure manufactured from inexpensive raw materials that can be applied to a container utilizing commercially available capping equipment with minor modification. Prior arts do not provide a satisfactory mechanism for clearly indicating any postpackaging tampering with the products. The invention is suitable for a wide range of dairy products such as ice cream and granular or powdered food products.

The invention relates to an improved lid assembly with a tamper-evident seal for containers filled with comestibles such as spreads and ice cream. The tamper-evident lid assembly demonstrates to consumers that the contents inside the container have not been exposed to the external environment and/or contaminated following packaging. The lid assembly comprises a hinged tab that does not extend outwards from the lid and can be used to assist a consumer in opening the container. Removal of the lid is also facilitated after removing or breaking the tamper-evident seal. Prior arts utilize rigid flanges that have a tendency to break unintentionally during transport and rough handling. Rigid flanges also adversely affect optimal close-packing of the containers.
Skills Practice (page 35):

Question 2: Find information on flavor or aroma components of blackberries in FSTA (Food Science and Technology Abstracts) file. Use D TRIAL to evaluate your answers, sharpen your search strategy as needed, and display several answers in the answer format of your choice.

=> FILE FSTA

=> E FLAVOR

<table>
<thead>
<tr>
<th>E</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>40</td>
<td>FLAVOPROTEIN/BIBI</td>
</tr>
<tr>
<td>E2</td>
<td>7</td>
<td>FLAVOPROTEINS/BIBI</td>
</tr>
<tr>
<td>E3</td>
<td>3484</td>
<td>FLAVOR/BIBI</td>
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<td>FLAVORABLE/BIBI</td>
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<tr>
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<td>FLAVORANTS/BIBI</td>
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<td>1</td>
<td>FLAVORASE/BIBI</td>
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<tr>
<td>E9</td>
<td>12</td>
<td>FLAVORCREST/BIBI</td>
</tr>
<tr>
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<td>319</td>
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</tr>
<tr>
<td>E11</td>
<td>3</td>
<td>FLAVORESE/BIBI</td>
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<tr>
<td>E12</td>
<td>10</td>
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=> E AROMA

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<td>AROM/BIBI</td>
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<td>AROMA/BIBI</td>
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<td>E4</td>
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<td>AROMAAKKUMULATION/BIBI</td>
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<td>1</td>
<td>AROMAAKTIVER/BIBI</td>
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<td>AROMABEEINFLUSSENDER/BIBI</td>
</tr>
<tr>
<td>E12</td>
<td>1</td>
<td>AROMABEEINFLUSSUNG/BIBI</td>
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</tbody>
</table>

=> E BLACKBERRY

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</tr>
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<td>2</td>
<td>BLACKBOARD/BIBI</td>
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</table>

(continued on next page)
The species name for blackberry can be added as a synonym. Note the British spelling of flavour.

This answer set contains a significant number of irrelevant answers. With the search tools that you know at this point, there is little more you can do to eliminate irrelevant answers. Later in STN Basics you will learn to use proximity operators to specify the closeness of search terms in answers, and thus improve the number of relevant hits in a search such as this one.

(continued on next page)
Aroma extract dilution analysis of cv. Marion (Rubus spp. hyb) and cv. Evergreen (R. laciniatus L.) blackberries.

Preliminary aroma comparison of Marion (Rubus spp. hyb) and Evergreen (R. laciniatus L.) blackberries by dynamic headspace/OSME technique.

Stability of anthocyanins in pasteurized juice of blackberry (Rubus glaucus Benth).

Alcohol sweetened and sparkling fruit ciders and method for same.
Skills Practice (page 35):

**Question 3:** Search the JICST-Eplus file (Japanese Information Center of Science and Technology, and Medicine in Japan) to find information on the use of ultrasonic waves in detection devices used at train crossings. Display titles and company names for the first 10 answers.

**HINT** Use the display format TI CS.

<table>
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<th>Enter the JICST-Eplus file.</th>
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<tr>
<td>E1</td>
<td>2 ULTRASONICALLY/BI</td>
</tr>
<tr>
<td>E2</td>
<td>1 ULTRASONIATED/BI</td>
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<tr>
<td>E3</td>
<td>72123 ULTRASONIC/BI</td>
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<td>E4</td>
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<tr>
<td>E8</td>
<td>1 ULTRASONICALY/BI</td>
</tr>
<tr>
<td>E9</td>
<td>1 ULTRASONICAPPARATUS/BI</td>
</tr>
<tr>
<td>E10</td>
<td>1 ULTRASONICATE/BI</td>
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<tr>
<td>E24</td>
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</table>
Suggested Solution 3, page 35 - continued

=> S ULTRASONIC? AND DETECT? AND TRAIN# AND CROSSING#

72418 ULTRASONIC?
200473 DETECT?
13598 TRAIN#
9813 CROSSING#
L1
=> D TRIAL 4 6

L1 ANSWER 4 OF 7 JICST-EPlus COPYRIGHT 2004 JST on STN
TI Special Features: Safety Assessment
CT Devive on a Level Crossing Using
CC RC07030B (625.14)
CT railroad crossing; obstruction; detector;
ultrasonic wave; antenna(electric); snow cover; performance test;
in-place test
BT crossing; object; acoustic wave; elastic wave; wave motion; test

L1 ANSWER 6 OF 7 JICST-EPlus COPYRIGHT 2004 JST on STN
TI Prevention of grade crossing accidents and obstruction detectors.
CC RC07030B (625.14)
CT railroad crossing; accident prevention; obstruction;
detector; snow cover; route(land transportation); train;
stopping; ultrasonic wave; antenna(electric)
BT crossing; preclusion(protect); object; route; rolling stock;
aoustic wave; elastic wave; wave motion

=> S ULTRASONIC? AND (DETECT? OR SENSOR#) AND (TRAIN# OR RAIL?) AND CROSSING#

72418 ULTRASONIC?
200473 DETECT?
82778 SENSOR#
13598 TRAIN#
39515 RAIL?
9813 CROSSING#
L2
18 ULTRASONIC? AND (DETECT? OR SENSOR#) AND (TRAIN# OR RAIL?) AND CROSSING#
Ultrasonic crossing obstruction detector.
Maintenance-free by the realization of automatic tracking processing function.
Matsushita Communication Industrial Co., Ltd., JPN

Development of level crossing obstruction detector using ultrasonic sensors for electrified line.

Ultrasonic Transducer and Circuitry for Obstacle Detector at Railroad Crossings.
Tokin Corp.


Rail flaw detection system by data depot.
Tokyu Corp.

The Obstruction Detecting Device on a Level Crossing Using Ultrasonic Sensor.
Railway Technical Res. Inst.

Obstruction Detector on a Road-Railway Crossing Using Ultrasonic Wave.
Railway Technical Research Inst.

Prevention of grade crossing accidents and obstruction detectors.
Railway Technical Res. Inst.

Crossing obstruction detector using ultrasonic waves.
Railway Technical Res. Inst.

Crossing obstruction detector. Structure and function of a practical detector.
Kyosan Electric Mfg. Co., Ltd.
Skills Practice (page 35):

**Question 4:** Find information on flame-retardant materials used to insulate electric cables in the COMPENDEX (Computerized Engineering Index and EI Engineering Meetings) file. Display the bibliographic and abstract information for the fifth answer.

**HINT** Use either the BIB or IBIB answer formats for bibliographic information.

-->
```
=> FILE COMPENDEX
=> E RETARDANT
E1  842 RETARDANCY/BI
E2   1 RETARDANE/BI
E3 3235 --> RETARDANT/BI
E4   1 RETARDANTED/BI
E5   1 RETARDANTES/BI
E6   1 RETARDANTI/BI
E7   1 RETARDATION/BI
E8  3276 RETARDANTS/BI
E9   1 RETARDANY/BI
E10  2 RETARDATION/BI
E11  1 RETARDATION/BI
E12  2 RETARDATE/BI

=> E
E13  2 RETARDATES/BI
E14  1 RETARDATEUR/BI
E15  1 RETARDATEURS/BI
E16  1 RETARDATING/BI
E17  1 RETARDATIONINCREASED/BI
E18 5837 RETARDATION/BI
E19   4 RETARDATIONAL/BI
E20   1 RETARDATIONDELTAS/BI
E21  140 RETARDATIONS/BI
E22   1 RETARDATIONSSPEKTREN/BI
E23   8 RETARDATIVE/BI
E24   2 RETARDATON/BI

=> E INSULATE
E1   1 INSULATD/BI
E2   1 INSULATDRS/BI
E3  392 --> INSULATE/BI
E4 13498 INSULATED/BI
```

(continued on next page)
E5 1 INSULATEDCABLES/BI
E6 1 INSULATEDGATE/BI
E7 1 INSULATEDPI/BI
E8 4 INSULATER/BI
E9 105 INSULATES/BI
E10 1 INSULATESIMILAR/BI
E11 1 INSULATGKS/BI
E12 1 INSULATI/BI

=> S FLAME# AND RETARD? AND INSULAT? AND CABLE#

31021 FLAME#
20962 RETARD?
89228 INSULAT?
44129 CABLE#

L1 159 FLAME# AND RETARD? AND INSULAT? AND CABLE#

=> D TRIAL 1-5

L1 ANSWER 1 OF 159 COMPENDEX COPYRIGHT 2004 EEI on STN
TI New flame retardant TPVs for electrical applications.
CC 803 Chemical Agents; 914.2 Fires and Fire Protection; 818.2 Elastomers; 535.2 Metal Forming; 815.1.1 Organic Polymers; 704 Electric Components and Equipment
CT *Flame retardants; Polyurethanes; Extruders; Flammability; Hardness; Wear resistance; Elasticity; Vulcanization agents; Thermoplastic elastomers; Wire; Cables; Polyvinyl chlorides; Electric insulation
ST Thermoplastic vulcanizates (TPV); Jacketing; Thermoplastic olefins (TPO); Heat aging

L1 ANSWER 2 OF 159 COMPENDEX COPYRIGHT 2004 EEI on STN
TI Manufacturing of data communication cables using high-speed backtwist technology, and the impact of fluorinated ethylene propylene (FEP) on productivity.
CC 535 Rolling, Forging and Forming; 716.2 Radar Systems and Equipment; 722.3 Data Communication (Equipment and Techniques); 804.1 Organic Components; 701 Electricity and Magnetism; 704 Electric Components and Equipment
CT *Cables; Codes (standards); Specifications; Permittivity; Electric insulation; Flame retardants; Fire protection; Cost effectiveness; Data communication equipment; Ethylene; Propylene
ST Data communication cables; Plenum cables; Flame testing

L1 ANSWER 3 OF 159 COMPENDEX COPYRIGHT 2004 EEI on STN
TI Characterization of polyimide foams after exposure to extreme weathering conditions.
CC 815.1.1 Organic Polymers; 804 Chemical Products Generally; 421 Strength of Building Materials. Mechanical Properties; 741.1 Light. Optics; 802.2 Chemical Reactions; 706.2 Electric Power Lines and Equipment

(continued on next page)
Suggested Solution 4, page 35 - continued

CT *Polyimides; Thermogravimetric analysis; X ray photoelectron spectroscopy; Fourier transform infrared spectroscopy; Raman spectroscopy; Impurities; Hydrogen inorganic compounds; Foams; Weathering; Photooxidation; Degradation; Superconducting cables; Insulation

ST Polyimide foams; Thermal oxidation; Foam density; Thermomechanical analysis (TMA)

ET H

L1 ANSWER 4 OF 159 COMPENDEX COPYRIGHT 2004 EEI on STN

TI Bringing It All Together.

CC 704.2 Electric Equipment; 704.1 Electric Components; 706.2 Electric Power Lines and Equipment; 902.2 Codes and Standards; 803 Chemical Agents; 914.2 Fires and Fire Protection

CT *Electric appliances; Standardization; Cost accounting; Electric insulation; Flame retardants; Electric wiring; Electric cables; Safety factor; Reliability; Electric connectors

ST Globalization; Original equipment manufacturers (OEM)

L1 ANSWER 5 OF 159 COMPENDEX COPYRIGHT 2004 EEI on STN

TI Effect of various combinations of flame-retardant fillers on flammability of radiation cross-linked poly(vinyl chloride) (PVC).

CC 815.1.1 Organic Polymers; 803 Chemical Agents; 914.2 Fires and Fire Protection; 521.4 Flame Research; 802.2 Chemical Reactions

CT *Polyvinyl chlorides; Flame retardants; Fillers; Thermal effects; Crosslinking; Flammability

ST Flame-retardant fillers

ET O*Sb; Sb2O; Sb cp; cp; O cp; Al*H*O; Al(OH); Al cp; H cp; H*Mg*O; Mg(OH); Mg cp

For a more comprehensive search, the alternate terms can be added to the query.

=> S (FLAME# OR FIRE#) AND (RETARD? OR RESISTAN? OR PROTECT?)

31021 FLAME#
45896 FIRE#
20962 RETARD?
228777 RESISTAN?
178162 PROTECT?

L2 20576 (FLAME# OR FIRE#) AND (RETARD? OR RESISTAN? OR PROTECT?)

=> S INSULAT? OR JACKET? OR SHEATH?

89228 INSULAT?
3895 JACKET?
7778 SHEATH?

L3 99428 INSULAT? OR JACKET? OR SHEATH?

=> S CABLE# OR WIRE# OR LINE#

44129 CABLE#
65693 WIRE#
313248 LINE#

L4 403908 CABLE# OR WIRE# OR LINE#

=> S L2 AND L3 AND L4

L5 524 L2 AND L3 AND L4
The potential of flame-retardant (FR) thermoplastic vulcanizates (TPV) in areas such as wet electrical properties, physical properties, abrasion resistance and cost effectiveness was investigated. The new grades of FR-TPVs showed advantages over traditional wire and cable insulation and jacketing materials such as thermoset rubbers. It was observed that the TPVs had a lower compression set and, in the case of TPV-2, a lower brittle point than the thermoplastic polyurethane (TPU). The results show that TPVs exhibit potential for use in wire and cable insulation, especially when lead free formulations are required. (Edited abstract) 5 Refs.
Skills Practice (page 54):  

Question 1: Find information in the MEDLINE database on job stress in the dental profession. Use proximity operators to adjust the size and focus of your answer set. Relevance rank the answer set.

=> FILE MEDLINE
=> S DENTAL OR DENTIST?
   266713 DENTAL
   81399 DENTIST?
L1  294305 DENTAL OR DENTIST?
=> S JOB STRESS###
   34181 JOB
   276121 STRESS###
L2   579 JOB STRESS###
   (JOB(W)STRESS###)
=> S L1 AND L2
L3   13 L1 AND L2

=> D TRIAL 1-
YOU HAVE REQUESTED DATA FROM 13 ANSWERS - CONTINUE? Y/(N): Y
L3   ANSWER 1 OF 13   MEDLINE on STN
TI   Perceptions of a dental career among successful applicants for dentistry compared with those of fifth-year dental students.
CT   Check Tags: Comparative Study; Human
   *Attitude
   *Career Choice
   Career Mobility
   Chi-Square Distribution
   Cohort Studies
   Communication
   Confidence Intervals
   Economics, Dental
   Education, Dental
   Great Britain
   Mathematics
   Motor Skills
   Occupational Diseases: ET, etiology
   Problem Solving
   Professional Autonomy
   Questionnaires

(continued on next page)
Stress, Psychological: ET, etiology
  *Students, Dental: CL, classification
  *Students, Dental: PX, psychology
Technology, Dental: ED, education

L3  ANSWER 2 OF 13     MEDLINE on STN
TI  [Job stress and health in dentists].
Werkdruk en gezondheid bij tandartsen.
CT  Check Tags: Comparative Study; Female; Human; Male
    Adult
    *Dentists: PX, psychology
    *Dentists: SN, statistics & numerical data
    English Abstract
    *Health Status
    Middle Aged
    Netherlands: EP, epidemiology
    Prevalence
    Questionnaires
    Sex Factors
    *Stress, Psychological: EP, epidemiology
    *Stress, Psychological: ET, etiology
    *Workload: PX, psychology

L3  ANSWER 3 OF 13     MEDLINE on STN
TI  Dentists' perceived stress and its relation to perceptions about anxious patients.
CT  Check Tags: Female; Human; Male; Support, Non-U.S. Gov't
    Adult
    Age Factors
    Aged
    Appointments and Schedules
    *Attitude of Health Personnel
    Communication
    Confidence Intervals
    Denmark
    Dental Anxiety: PC, prevention & control
    *Dental Anxiety: PX, psychology
    Dental Care: AE, adverse effects
    Dentist-Patient Relations
    *Dentists
    Mental Disorders: PX, psychology
    Middle Aged
    *Occupational Diseases: PX, psychology
    Odds Ratio
    Oral Health
    Pain: ET, etiology
    Practice Management, Dental
    Private Practice
    Professional Practice Location
    Public Relations
    Workload

  ●
  ●
  ●
Suggested Solution 1, page 54 - continued

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

37806 JOB#
262480 WORK
173375 OCCUPATION?
276121 STRESS###
L4 3094 (JOB# OR WORK OR OCCUPATION?) (2A) STRESS###

=> S L1 AND L4

L5 88 L1 AND L4

=> FOCUS
PROCESSING COMPLETED FOR L5
L6 88 FOCUS L5 1-

=> D TI 1-5

L6 ANSWER 1 OF 88 MEDLINE on STN
TI Work stress, job satisfaction and emotional well-being among Canadian dental assistants.

L6 ANSWER 2 OF 88 MEDLINE on STN
TI 'It's difficult being a dentist': stress and health in the general dental practitioner.

L6 ANSWER 3 OF 88 MEDLINE on STN
TI Occupational stress and job satisfaction in the community dental service of north Wales: a pilot study.

L6 ANSWER 4 OF 88 MEDLINE on STN
TI Occupational stress and dentistry: theory and practice. Part II. Assessment and control.

L6 ANSWER 5 OF 88 MEDLINE on STN
TI The relationship between occupational stress and job satisfaction in orthodontics.
Skills Practice (page 54):

Question 2: Use the PROMT (Predicasts Overviews of Markets and Technology) file to locate business information on the development of new gourmet coffee flavors. Isolate those documents written between 2002 and 2004. Display using the KWIC format, then display a few answers in the ALL format.

=> FILE PROMT

=> S (GOURMET OR SPECIALTY) (3A) COFFEE (3A) FLAVO?

30304 GOURMET
306411 SPECIALTY
69384 COFFEE
124654 FLAVO?

L7 228 (GOURMET OR SPECIALTY) (3A) COFFEE (3A) FLAVO?

=> D KWIC 1-5

L1 ANSWER 1 OF 228 PROMT COPYRIGHT 2004 Gale Group on STN

AB IRVINE, Calif. -- Gloria Jean's announced the release of their new specialty-flavored promotional coffee, Dulce de Leche. Available as a blended frozen Chiller or Hotty Toddy, as well as whole coffee beans in quarter-, half- and one-pound bags, Gloria Jean's is among the first specialty coffee chains to offer Dulce de Leche.

TX IRVINE, Calif. -- Gloria Jean's announced the release of their new specialty-flavored promotional coffee, Dulce de Leche. Available as a blended frozen Chiller or Hotty Toddy, as well as whole coffee beans in quarter-, half- and one-pound bags, Gloria Jean's is among the first specialty coffee chains to offer Dulce de Leche.

L1 ANSWER 2 OF 228 PROMT COPYRIGHT 2004 Gale Group on STN

TX EIGHT O'CLOCK COFFEE 2 Paragon Dr Montvale, NJ 07645 800-869-1991, Fax: 201-930-4574 Products: Coffee (fresh brew. whole bean, gourmet, flavored) coffee roasters, bulk cappuccino, hot chocolate & gourmet teas Glenn Cooper

NESTLE BRANDS FOODSERVICE CO 800 N Brand Blvd Glendale, CA 91203 818-549-6000, Fax: 818-549-5660 Products: Fresh-brew coffee (regular, decaf, European roasts, specialty flavors, Colombian), freeze-dried coffee (regular, decaf, gourmet flavors), non-dairy creamer (regular, lite, gourmet flavored), hot cocoa mix. Doug Wertz

(continued on next page)
Javo Beverage Launches Innovative Coffee House Drink Line; Shelf-Stable Line to Target Powdered Mixes at Coffee Fest Debut in Las Vegas.


SAN DIEGO--(BUSINESS WIRE)--June 10, 2004

Javo Beverage Co. Inc. (OTCBB:JAVO) announced today that it will introduce Javo Ice(R), a line of shelf-stable concentrated beverage mixes that may be conveniently combined with milk and ice to prepare coffee-house-style blended and over-ice drinks. The products are expected to spur the spread of iced coffee beverages to the more than 1.2 million casual dining restaurants, chain establishments, sandwich shops, bars, resorts, university dining and health care facilities where espresso-based drinks have traditionally been challenging to prepare and serve.

The frozen, blended coffee beverage industry is one of the fastest growing segments in North America, with sales climbing more than 30 percent annually. According to National Coffee Drinking Trends, a report published by the National Coffee Association of U.S.A. Inc., the number of daily iced and blended coffee drinkers increased from 750,000 in 1997 to 48 million people in 2002. Sales of ice-blended and over-ice coffee drinks in restaurants is approaching $1 billion as chain leaders Dunkin Donuts(R), Au Bon Pain(R), Cinnabon(R) and Krispy Kreme(R) have successfully added caffeinated cold drinks to their menus.

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The new Javo Ice beverages mixers are available in two flavors for over-ice drinks, Espresso Latte and Triple Mocha Latte, and two flavors for ice-blended drinks, Vanilla Cappuccino and Mocha Cappuccino. Also part of the lineup is Javo's Unsweetened Espresso, double the strength of traditionally brewed espresso, for use by operators who wish to hand-prepare specialty coffee drinks without the expense or hassle of espresso brewing equipment. All varieties are packed in 32-ounce aseptic containers and have a nine-month shelf life.