

# STN Basics (ENGINEERING)

June 2005



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

- Choose an STN file containing information on engineering
- Perform a simple keyword search in any STN bibliographic file
- 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 files 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 files

This workshop highlights the use of STN Express<sup>®</sup> with *Discover!*<sup>™</sup> software.

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### Helpful HINT

To set up an STN account or obtain STN Express software, contact CAS Customer Service at [help@cas.org](mailto:help@cas.org)

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# OVERVIEW

## **In this section, you will**

- Discover the range of information available through STN International<sup>SM</sup>
- 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<sup>®</sup> 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 files.

# Terminology

A number of terms are used commonly in online searching.

## Files

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

- Bibliographic
- Chemical structure
- Reaction
- Directory

Bibliographic files 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.

## Records

Bibliographic files are comprised of numerous **records**, which correspond to individual publications, such as research papers or patent publications.

## Illustration:

JACS  
COMMUNICATIONS

Published on Web 08/07/2005

This research paper — a journal article — is available online via the CAPLUS<sup>SM</sup> record below.

### Membrane Media Create Small Nanospaces for Molecular Computation

Seichi Uchiyama,<sup>\*,†,‡,§</sup> Gareth D. McClean,<sup>†</sup> Kaoru Iwai,<sup>‡</sup> and A. Prasanna de Silva<sup>\*,†</sup>

School of Chemistry, Queen's University, Belfast BT9 5AG, U.K., and Department of Chemistry, Faculty of Science, Nara Women's University, Kitauoya-Nishimachi, Nara 630-8506, Japan

Received March 3, 2005; E-mail: s.uchiyama@qub.ac.uk; a.desilva@qub.ac.uk

Information processing,<sup>1</sup> storing,<sup>2</sup> and gathering<sup>3</sup> are important functions of molecular devices and machines.<sup>4</sup> In particular, chemical computation by molecular devices is an ultimate challenge of future technology. Although a semiconductor feature can be downsized to 65 nm,<sup>5</sup> it will be difficult to approach the molecular size. In molecular computation, fluorescent logic gates<sup>6</sup> play pivotal roles because they are detectable as a single molecule<sup>6</sup> and can simultaneously handle multiple inputs.<sup>7</sup> Here, we show for the first time that a designed fluorescent logic gate can operate in a small nanospace. The AND logic gate **1**<sup>8</sup> (Figure 1) is restricted to a tetramethylammonium dodecyl sulfate<sup>9</sup> (TMADS, Figure 1) micelle and gives fluorescence as an output only when both H<sup>+</sup> and Na<sup>+</sup> ions exist nearby. The volume needed for this operation has a radius of ~3 nm,<sup>10</sup> which is much smaller than that of a molecular electronic-based logic device (dimensions = 100 μm × 100 μm × 100 nm<sup>11</sup>). From a biological viewpoint, this system mimics a cell

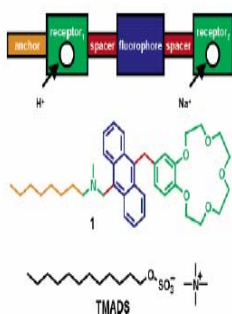


Figure 1. Structures of AND logic gate **1** and TMADS. In **1**, if H<sup>+</sup> is absent, the PET process from the trialkylamino moiety to the fluorophore is involved in nonradiative relaxation pathways of the excited anthracene, resulting in weak fluorescence. Even when H<sup>+</sup> is present, another PET occurs from the benzocrown moiety to the fluorophore, which can be

L22 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2005:479545 CAPLUS [Full-text](#)  
TITLE: Membrane Media Create Small Nanospaces for Molecular Computation  
AUTHOR(S): Uchiyama, Seichi; McClean, Gareth D.; Iwai, Kaoru; Prasanna de Silva, A.  
CORPORATE SOURCE: School of Chemistry, Queen's University, Belfast, BT9 5AG, UK  
SOURCE: Journal of the American Chemical Society (2005), 127(25), 8920-8921  
CODEN: JACSAT; ISSN: 0002-7863  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Mol. computation is fashionable because of the small device sizes that should be possible. For instance, information processing in nanospaces is widespread in biol. However, exptl. cases with computing mols. occupy rather large vols. until now (ca. 1012 nm<sup>3</sup>). Now we demonstrate small-scale computation using a designed logic gate in spheres of 3 nm radius (volume = ca. 102 nm<sup>3</sup>) which are produced by detergent micelles. The logic gate accommodated in the small nanospace fluoresces only when both H<sup>+</sup> and Na<sup>+</sup> ions are available.

# Fields

Each file record is organized in a series of **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:

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

*The highlighted fields 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
AU Mitchell, J. F.; Argyriou, D. N.; Berger, A.; Gray, K. E.; Osborn, R.;
Welp, U.
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 exptl. 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
(spun, charge, and lattice states in layered magnetoresistive oxides)
IT Oxides (inorganic), properties
RL: PRP (Properties)
(spun, charge, and lattice states in layered magnetoresistive oxides)
IT 1310-98-1, Manganite 59707-46-9, Lanthanum manganese strontium
oxide
RL: PRP (Properties)
(spun, 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 file-dependent.

## CAplus Basic Index

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

In the CAplus file, the Basic Index is made up of *single words* from the following fields:

- Title
- Abstract
- Supplementary Terms
- Indexing Terms

```
L47 ANSWER 12 OF 32 CAPLUS COPYRIGHT 2005 ACS on S
AN 2004:793743 CAPLUS Full-text
DN 141:370873
ED Entered STN: 29 Sep 2004
TI Nanomechanics of carbon nanofibers: structural and elastic properties
AU Wei, Chenyu; Srivastava, Deepak
CS NASA Ames Research Center, Moffett Field, CA, 94035, USA
SO Applied Physics Letters (2004), 85(12), 2208-2210
CODEN: APPLAB; ISSN: 0003-6951
PB American Institute of Physics
DT Journal
LA English
CC 65-6 (General Physical Chemistry)
Section cross-reference(s): 57
AB A general analytic expression for the Young's modulus of a range of
carbon nanofibers (CNFs) with single or multishell nanocone or cone
stacked structures has been developed from continuum elastic theory.
The Young's modulus of a single-shell nanocone is found to be  $\cos^4 \theta$ 
of that of an equivalent single-wall carbon nanotube (CNT). The CNFs
of short lengths and small tilting angles have very large Young's
modulus comparable to that of single or multiwall CNTs, whereas the
inverse is true for the CNFs with long lengths and large tilting
angles. The dependence of the stiffness of CNFs on various
```

*Words from the highlighted sections make up the Basic Index of CAplus.*

*(continued on next page)*

structural parameters has been predicted by the model, validated through full-scale mol. dynamics simulations, and categorized for scanning probe tip or reinforcing fiber type applications.

ST nanomechanics carbon nanofiber structural elastic property MD

IT Microstructure

Nanofibers

Stiffness

Young's modulus

(nanomechanics and structural and elastic properties of carbon nanofibers studied by continuum elastic theory and MD simulations)

IT Carbon fibers, properties

RL: PRP (Properties)

(nanomechanics and structural and elastic properties of carbon nanofibers studied by continuum elastic theory and MD simulations)

IT 7440-44-0, Carbon, properties

RL: PRP (Properties)

(nanomechanics and structural and elastic properties of carbon nanofibers studied by continuum elastic theory and MD simulations)

RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Chambers, A; J Phys Chem B 1998, V102, P4253 CAPLUS

(2) Endo, M; Appl Phys Lett 2002, V80, P1267 CAPLUS

(3) Endo, M; Nano Lett 2003, V3, P723 CAPLUS

(4) Helveg, S; Nature (London) 2004, V427, P426 CAPLUS

(5) Katayama, T; Appl Phys Lett 2002, V91, P6675 CAPLUS

●

●

●

# COMPENDEX Basic Index

The COMPENDEX file contains citations from worldwide engineering and technology journals and conference proceedings.

L47 ANSWER 26 OF 32 COMPENDEX COPYRIGHT 2005 EEI on STN  
AN 2004(46):4353 COMPENDEX [Full-text](#)  
TI Nanomechanics of carbon nanofibers: Structural and elastic properties.  
AU Wei, Chenyu (NASA Ames Research Center MS 229-1, Moffett Field, CA 94035, United States); **Srivastava, Deepak**  
SO Applied Physics Letters v 85 n 12 Sep 20 2004 2004.p 2208-2210  
CODEN: APPLAB ISSN: 0003-6951  
PY **2004**  
DT Journal  
TC Theoretical; Experimental  
LA English  
AB The mechanical properties such as Young's modulus of carbon nanofibers (CNF) were analyzed using continuum elastic theory and molecular dynamics. It was observed that the Young's modulus of a single-shell nanocone was  $\cos^4 \theta$  of that of an equivalent single-wall carbon nanotube (CNT). It was also observed that the CNF of short lengths and small tilting angles have a very large Young's modulus. The analysis resulted in derivation of a general expression for the Young's modulus of CNF. (Edited abstract) 17 Refs.  
CC 804 Chemical Products Generally; 933.1 Crystalline Solids; 421 Strength of Building Materials. Mechanical Properties; 802.2 Chemical Reactions; 802.3 Chemical Operations; 801.4 Physical Chemistry  
CT \*Carbon fibers; Computer simulation; Deposition; Molecular dynamics; Graphite; Nanostructured materials; Strain; Carbon nanotubes; Elastic moduli; Catalysis  
ST Carbon nanofibers; Nanomechanics; Elastic properties; Structural Parameters

*The highlighted words make up the Basic Index of Compendex.*

# 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.

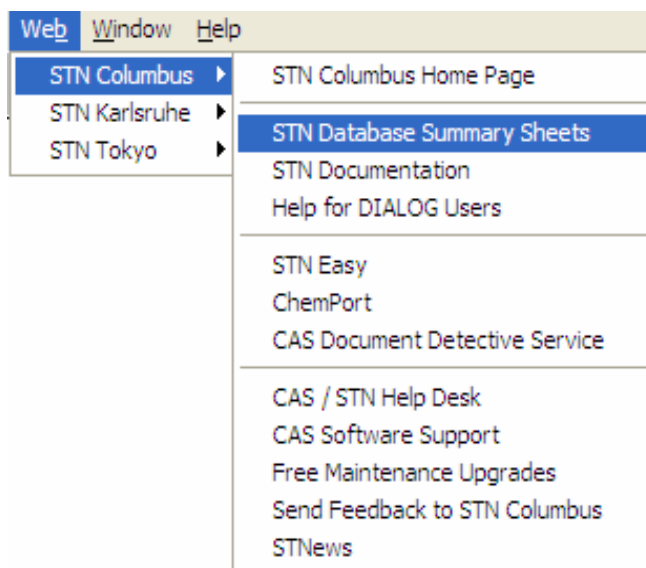
For more information visit:

<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 SEARCH

**In this section, you will learn to**

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

# Keyword Search

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 the use of nanotechnology to produce antibacterial fabric finishes?*

---

---

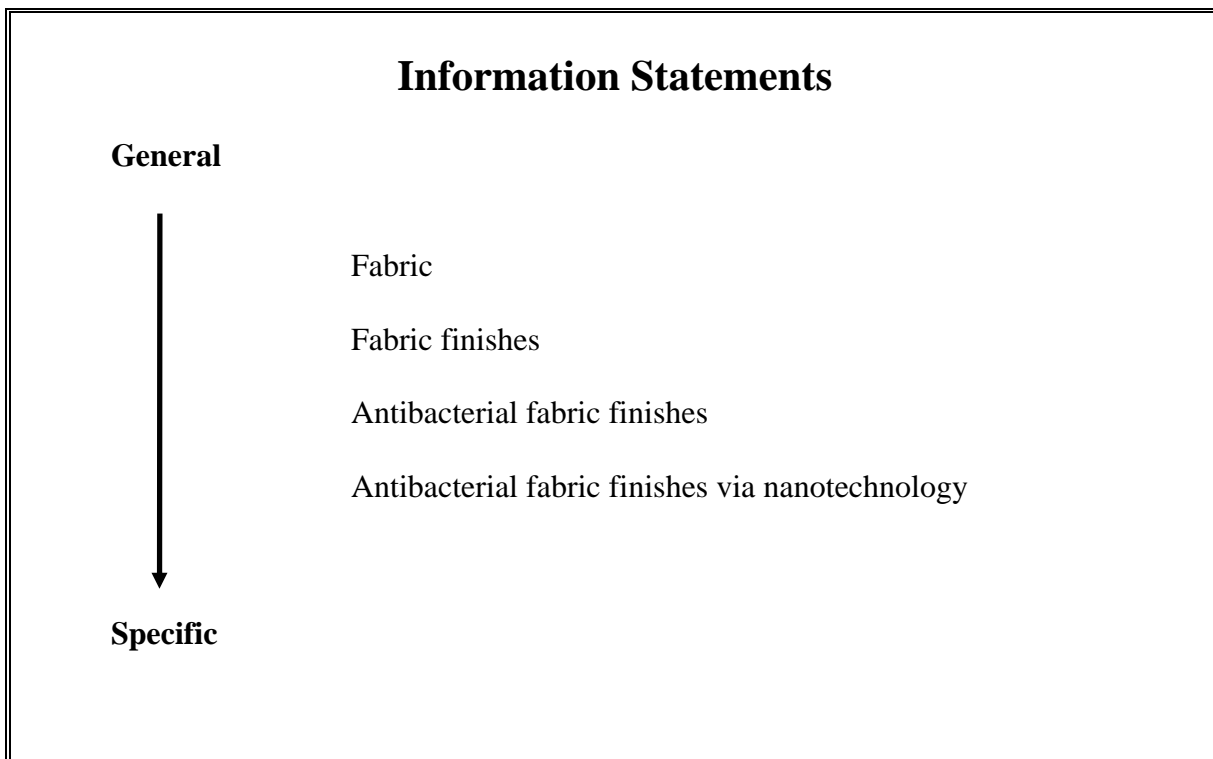
## Search Strategy

To retrieve references by using a keyword search

- Step 1      Determine your search question
- Step 2      Identify a relevant file
- 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 answers in more detail

## 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.



## Step 2: Identify a Relevant File

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

- CAS Catalog: <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.

**STN** STN Database Summary Sheet

## WTEXTILES

**WTEXTILES (World Textiles (TM))** is a bibliographic database covering the world literature on the science and technology of textile and related materials, and on economic and commercial developments, and the management of the textile industry.

The database offers comprehensive coverage of the world's textile-related literature from approximately 500 periodicals, as well as books, technical reports, conference proceedings and statistical information. In addition, it includes unique coverage of the related patents and patent applications from the US, European, and British patent offices.

The records contain bibliographic information, indexing, and an abstract.

World Textiles corresponds to the printed World Textile Abstracts.

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

**In Europe:** <http://stneasy.fiz-karlsruhe.de>  
**In Japan:** <http://stneasy-japan.cas.org>  
**In North America and elsewhere:** <http://stneasy.cas.org>

### **Subject Coverage**

- Chemical and Mechanical Treatment of Textiles
- Directory Listings for the Textile and Related Industries
- Environmental Pollution
- Health and Safety
- International Consumption, Production, and Trade Data
- Manufacture, Properties, Uses of Fibers, Yarns, and Fabrics
- Patents, Standards and Legislation
- Science and Technology of Fibers, Yarns, and Fabrics
- Synthesis, Physics, and Chemistry of Polymers for Textile Use
- Test Methods, Quality Control, and Specifications

# *Worksheet*

*Using the CAS web site, do the following:*

- Locate the World Textiles database summary sheet.
  
- What subjects does the file cover?
  
- What indexes make up the Basic Index?
  
- How often is the file updated? When did it begin?

## Step 3: Build an Initial 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

<b>Worksheet</b>		
<i>Directions: Recall that you are to find info on the use of nanotechnology to produce fabric finishes. Write each concept from this statement in a separate column of the worksheet.</i>		
<b>Concept 1</b>	<b>Concept 2</b>	<b>Concept 3</b>

### B. Choose a set of search terms

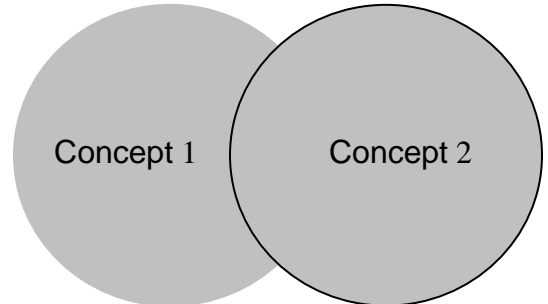
Choosing search terms for a concept involves identifying synonyms for that concept. Keep in mind that different terminology, including acronyms, may be used by others within a discipline. Add synonyms under the associated main concepts in the *Worksheet* above.

### C. Link search terms with logic operators

Logic operators are used between terms to specify search precision.

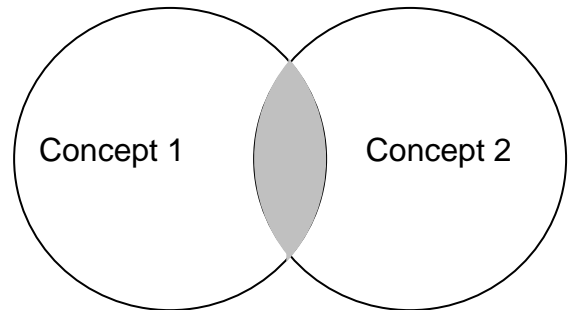
#### OR

- Connects synonyms
- Retrieves an answer set that mentions any of the synonymous terms



#### AND

- Connects different concepts
- Refines the answer set to only contain answers with all of the concepts in common



---

## 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.*

FABRIC \_\_\_\_\_ FINISH

FABRIC \_\_\_\_\_ FIBER \_\_\_\_\_ FINISH \_\_\_\_\_ TREATMENT

## Step 4: Conduct a Preliminary Search

At this point, you are ready to take a first look into the selected file. 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.

Use this command	When you want to	Format Example
FILE	Enter a file	=> <b>FILE WTEXTILES</b>
E (EXPAND)	Verify a term is in the file	=> <b>E NANOTECHNOLOGY</b>
S (SEARCH)	Search for records containing a term(s) and create an answer set (L#) of those records	=> <b>S NANOTECHNOLOGY</b>

### 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 file

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

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

```
=> FILE WTEXTILES
```

```
FILE 'WTEXTILES' ENTERED AT 07:55:15 ON 20 JUN 2005  
COPYRIGHT (C) 2005 Elsevier Science B.V., Amsterdam. All rights reserved.  
  
FILE LAST UPDATED: 16 JUN 2005      <20050616/UP>  
FILE COVERS 1970 TO DATE.
```

## Verify search terms

The **EXPAND command (E)** is used to verify that a term of interest is in the file. 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 FINISH
```

```
E1          3      FINISAREA/BI  
E2          1      FINISET/BI  
E3         4669  --> FINISH/BI  
E4          2      FINISHABILITY/BI  
E5         2266      FINISHED/BI  
E6          1      FINISHEN/BI  
E7          253      FINISHER/BI  
E8          265      FINISHERS/BI  
E9         7730      FINISHES/BI  
E10         1      FINISHIG/BI  
E11         1      FINISHIHNG/BI  
E12        18629     FINISHING/BI
```

*The term you typed appears at E3.*

*The second column gives **postings** — the number of records containing a term of interest.*

**=> E**

E13	12	FINISHINGS/BI
E14	1	FINISHMASTER/BI
E15	4	FINISHNG/BI
E16	1	FINISHVERHALTENS/BI
E17	6	FINISSAGE/BI
E18	2	FINISSAGGI/BI
E19	36	FINISSAGGIO/BI
E20	1	FINISSIMO/BI
E21	1232	FINITE/BI
E22	4	FINITELY/BI
E23	1	FINITEN/BI
E24	1	FINITEX/BI

*To continue expanding a list, type E.*

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

**=> E FIBER**

E1	1	FIBELLE/BI
E2	1	FIBENACCI/BI
E3	18673	--> FIBER/BI
E4	2	FIBERAMIC/BI
E5	3	FIBERART/BI
E6	5	FIBERARTS/BI
E7	1	FIBERARTSMAGAZINE/BI
E8	1	FIBERBAGS/BI
E9	3	FIBERBALLS/BI
E10	1	FIBERBASE/BI
E11	1	FIBERBED/BI
E12	2	FIBERBOARD/BI

**=> E FIBRE**

E1	1	FIBRAUS/BI
E2	5	FIBRAVYL/BI
E3	52131	--> FIBRE/BI
E4	1	FIBREBALL/BI
E5	13	FIBREBALLS/BI
E6	1	FIBREBLENDER/BI
E7	18	FIBREBOARD/BI
E8	1	FIBRECATED/BI
E9	1	FIBRECORE/BI
E10	43	FIBRED/BI
E11	2	FIBREDUX/BI
E12	1	FIBREE/BI

*Check for both American and British spellings.*

## 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)

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

### ***note***

- Some files (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.*

Nanotechnology or nanotechnologies

Finish, finishes, finishing

Fiber or fibre

## Run the search

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

```
=> S FINISH? AND (FABRIC# OR FIB!!#)

      27311 FINISH?
      103961 FABRIC#
      110210 FIB!!#
L1    19784 FINISH? AND (FABRIC# OR FIB!!#)
```

*19784 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. Fields displayed are file-dependent. There are two no-cost formats:

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

### Using the D TRIAL format

All files 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.

<b>The default setting for</b>	<b>Is the following:</b>	<b>Notes</b>
Answer set L-number	Last L-number created	Use D HIS if you are interested in an answer set created earlier
Answer number(s)	First answer	Answer number input options include  1-5 to see the first five answers  1, 5 to see answers 1 and 5
Format	BIB	Use the TRIAL format to evaluate answers

=> D TRIAL L1 3

L1 ANSWER 3 OF 19783 WORLD TEXTILES COPYRIGHT 2005 Elsevier Science  
B.V. on STN  
AN 2005:2051841 WTEXTILES  
TI High performance coated **fabrics**  
Tissus Enduits de Haute Performance  
CT coated **fabric**

*Hit-term highlighting is available  
in many STN files to help you see  
your search terms in the display.*

=> D L1 TRIAL 8, 15, 37, 57, 19783

L1 ANSWER 8 OF 19783 WORLD TEXTILES COPYRIGHT 2005 Elsevier Science  
B.V. on STN  
AN 2005:2051445 WTEXTILES  
TI Methods for improving dimensional stability and/or durable press  
properties of elastic **fabrics** and elastic **fabrics**  
with improved properties  
CT dimensional stability; elastomeric **fabric**; press  
**finishing**

L1 ANSWER 15 OF 19783 WORLD TEXTILES COPYRIGHT 2005 Elsevier Science  
B.V. on STN  
AN 2005:2051425 WTEXTILES  
TI Effects of environmental conditions on the antibacterial activity  
of treated cotton knits  
CT antimicrobial property

L1 ANSWER 37 OF 19783 WORLD TEXTILES COPYRIGHT 2005 Elsevier Science  
B.V. on STN  
AN 2005:2051422 WTEXTILES  
TI Tough cotton: A novel approach to durable press **finishing**  
CT press **finishing**

L1 ANSWER 57 OF 19783 WORLD TEXTILES COPYRIGHT 2005 Elsevier Science  
B.V. on STN  
AN 2005:2050439 WTEXTILES  
TI Wrinkle-resistant **fabrics** having desirable aesthetic  
characteristics, and method for making same  
CT esthetic property; crease resistance; **finishing**; softening  
agent; handle

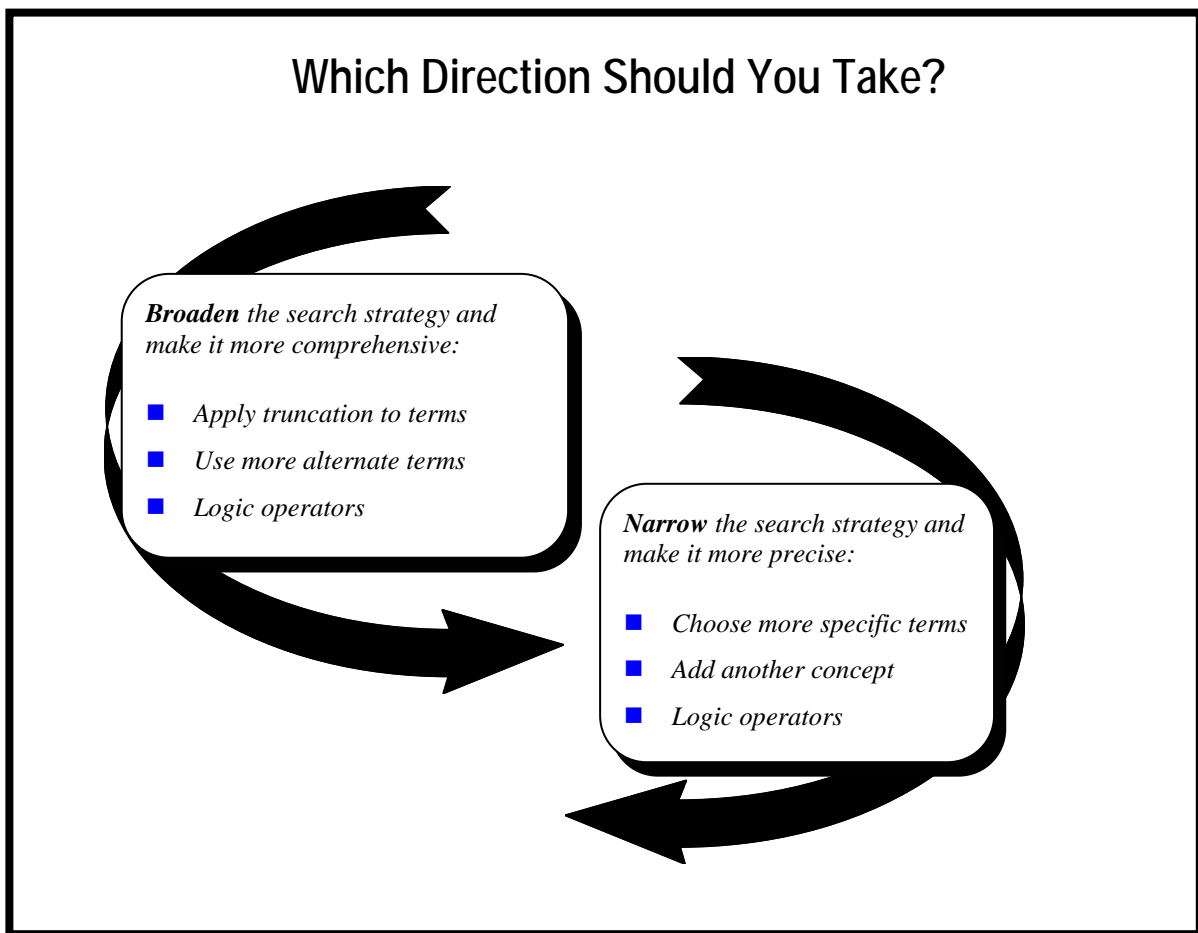
L1 ANSWER 19783 OF 19783 WORLD TEXTILES COPYRIGHT 2005 Elsevier  
Science B.V. on STN  
AN 1964:7001794 WTEXTILES  
TI Microscale surface energy measurements of repellent **finishes** on  
**fibres**  
CT OIL REPELLENCY **FINISHES**; **FIBRES**; SURFACE PROPERTIES  
(PHYSICAL CHEMICAL); WETTING; CONTACT ANGLES; SURFACE TENSION

## 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



## 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.*

Fabric	Finishes
New query:	

## *Search the new query:*

```
=> S (FABRIC# OR FIB!!# OR TEXTILE# OR CLOTH? OR APPAREL)

    103961 FABRIC#
    110210 FIB!!#
    71080 TEXTILE#
    17618 CLOTH?
    5869 APPAREL
L2    220869 (FABRIC# OR FIB!!# OR TEXTILE# OR CLOTH? OR APPAREL)

=> S (FINISH? OR TREAT? OR COATING?)

    27311 FINISH?
    28882 TREAT?
    8441 COATING?
L3    52985 (FINISH? OR TREAT? OR COATING?)

=> S L2 AND L3

L4    44100 L2 AND L3
```

---

## Helpful HINT

For more efficient and flexible searching in STN files, develop separate queries for each concept.

---

### *note*

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

```
=> S (FABRIC# OR FIBER# OR FIBRE# OR TEXTILE# OR CLOTH? OR  
    APPAREL) AND (FINISH? OR TREAT? OR COATING?)
```

```
103961 FABRIC#  
110210 FIB!!#  
71080 TEXTILE#  
17618 CLOTH?  
5869 APPAREL  
27311 FINISH?  
28882 TREAT?  
8441 COATING?
```

```
L5 44100 (FABRIC# OR FIBER# OR FIBRE# OR TEXTILE# OR  
CLOTH? OR APPAREL) AND (FINISH? OR TREAT? OR COATING?)
```

Add another concept

## *Worksheet*

Directions: Adjust your search strategy so that the results focus on **antibacterial** fabric finishes.

New query:

*Add another concept to the search query:*

```
=> S L5 AND (ANTIBACTERIAL OR ANTIMICROBIAL OR ANTI-BACTERIAL OR ANTI-
MICROBIAL)

    716 ANTIBACTERIAL
    1439 ANTIMICROBIAL
    1352 ANTI
    468 BACTERIAL
    118 ANTI-BACTERIAL
        (ANTI(W)BACTERIAL)
    1352 ANTI
    524 MICROBIAL
    117 ANTI-MICROBIAL
        (ANTI(W)MICROBIAL)
L6    1092 L5 AND (ANTIBACTERIAL OR ANTIMICROBIAL OR ANTI-BACTERIAL
OR ANTI-MICROBIAL)
```

## *Worksheet*

Directions: Sharpen the results further to focus on the use of **nanotechnology** to produce antibacterial fabric finishes.

New query:

*Add another concept to the search query:*

```
=> S L6 AND (NANO? OR SELF ASSEMBLED MONOLAYER# OR SAMS)

    1629 NANO?
    2453 SELF
    353 ASSEMBLED
    116 MONOLAYER#
    13 SELF ASSEMBLED MONOLAYER#
        (SELF(W)ASSEMBLED(W)MONOLAYER#)
    4 SAMS
L7    20 L7 AND (NANO? OR SELF ASSEMBLED MONOLAYER# OR SAMS)

=> D TRI 1-

YOU HAVE REQUESTED DATA FROM 20 ANSWERS - CONTINUE? Y/(N):y

                                         (continued on next page)
```

```

L7 ANSWER 1 OF 20 WORLD TEXTILES COPYRIGHT 2005 Elsevier Science
B.V. on STN
AN 2005:2051840 WTEXTILES
TI Nanotechnologies: Small wonders in textiles
CT nanotechnology
[. . .]
L7 ANSWER 5 OF 20 WORLD TEXTILES COPYRIGHT 2005 Elsevier Science B.V. on STN
AN 2004:2046769 WTEXTILES
TI The features of nano fabric
CT nanotechnology; textile industry; environmental
management; company information
[. . .]

L7 ANSWER 9 OF 20 WORLD TEXTILES COPYRIGHT 2005 Elsevier Science B.V. on STN
AN 2004:2039401 WTEXTILES
TI Bacteriostasis of nanosized colloidal silver on polyester
nonwovens
CT nonwoven fabric; antimicrobial property; polyester
fabric; silver; colloid
[. . .]

```

## 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

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

---

# Helpful HINT

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

=> HELP FORMAT

---

=> DISPLAY

ENTER (L7), L# OR ?:17  
ENTER ANSWER NUMBER OR RANGE (1):5 9  
ENTER DISPLAY FORMAT (BIB):iall

L9 ANSWER 5 OF 20 WORLD TEXTILES COPYRIGHT 2005 Elsevier Science  
B.V. on STN

ACCESSION NUMBER: 2004:2046769 WTEXTILES [Full-text](#)

TITLE: The features of nano fabric

SOURCE: ATA Journal, (2004), 15/5 (40)

ISSN: 1015-8138

DOCUMENT TYPE: Article

COUNTRY (OF PUBLICATION): Hong Kong

LANGUAGE: English

SUMMARY LANGUAGE: English

ABSTRACT: The importance of nanotechnology, especially in relation to the textile industry is presented. Nanotechnology is expected to bring enormous changes to the industry, health care practice, and environmental management with the availability of new commercial product. Textile with improved properties are made and new textiles are created via a process called nano-finishing. Nanotechnology works at molecular level to create large structures with improved molecular organization, giving fibers and fabrics advanced performance characteristics without losing the original softness, durability, and breathability. Nanotechnology is used to engineer fabric that repel water and oil without compromising the natural breathability and comfort of the fabric. Nano- finishing can obtain UV protection without affecting the original properties of the substrate. Besides multi-functional finishing, durability, good air permeability, and soft hand feel are also features of nano textiles . Fountain Set Ltd. is planning to add more existing features to their nano fabrics, including anti-microbial and thermal functions.

CLASSIFICATION CODE: 75.50.4 Industrial textiles

CONTROLLED TERM: nanotechnology; textile industry;  
environmental management; company information

(continued on next page)

L9 ANSWER 9 OF 20 WORLD TEXTILES COPYRIGHT 2005 Elsevier Science  
B.V. on STN  
ACCESSION NUMBER: 2004:2039401 WTEXTILES [Full-text](#)  
TITLE: Bacteriostasis of **nanosized** colloidal silver  
on polyester nonwovens  
AUTHOR: Lee H.J.; Jeong S.H.  
CORPORATE SOURCE: S.H. Jeong, Department of Fiber/Polymer Eng.,  
College of Engineering, Hanyang University,  
Seongdong-gu, Seoul 133-791, South Korea.  
E-mail: shjeong@hanyang.ac.kr  
SOURCE: Textile Research Journal, (2004), 74/5 (442-  
447), 20 reference(s)  
ISSN: 0040-5175  
DOCUMENT TYPE: Article  
COUNTRY (OF PUBLICATION): United States  
LANGUAGE: English  
SUMMARY LANGUAGE: English  
ABSTRACT: This research deals with the **antibacterial** efficacy of a  
**nanosized** silver colloidal solution and its application to nonwoven  
**fabrics**. The nutrient solution including the **nanosized** silver colloidal  
solution or the **nanosilver treated** nonwovens are placed on germ  
containing agar plates and inoculated with gram-positive and gram  
negative bacteria and evaluated for bacteriostasis and calculated  
bacterial reduction, respectively. **Nanosized** silver colloids and  
**nanosilver treated** nonwovens have good bacteriostasis. TEM observations  
of silver **nanoparticles** show their shape and size distribution. SEM  
images of **treated fabrics** indicate silver **nanoparticles** are well  
dispersed on the surfaces of specimens. **Antibacterial treatment** of  
nonwoven **fabrics** is easily achieved by the nanosized silver colloidal  
solution.  
CLASSIFICATION CODE: 75.40.3 **Finishing**  
CONTROLLED TERM: nonwoven **fabric**; **antimicrobial**  
property; polyester **fabric**; silver; colloid

---

## Helpful HINT

In many cases, the individual fields 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

Step 1	Determine your search question	
Step 2	Identify a relevant file	<ul style="list-style-type: none"> <li>■ <i>CAS Catalog</i></li> <li>■ Database summary sheets</li> </ul>
Step 3	Build a search query	<ul style="list-style-type: none"> <li>■ Main concepts and synonyms</li> <li>■ Logic operators (AND, OR)</li> </ul>
Step 4	Conduct a preliminary search	<pre>=&gt; FILE WTEXTILES =&gt; E FINISH =&gt; S FINISH? AND (FABRIC# OR FIB!!#)</pre> <ul style="list-style-type: none"> <li>■ Truncation symbols</li> </ul>
Step 5	Evaluate answers	<pre>=&gt; D L# N TRIAL =&gt; D SCAN</pre>
Step 6	Adjust the search strategy	<ul style="list-style-type: none"> <li>■ Alternate search terms</li> <li>■ File-specific terminology</li> </ul>
Step 7	Display answers	<pre>=&gt; D L# N FORMAT(S)</pre>

## Skills Practice

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

<b>Concept 1</b>	<b>Concept 2</b>	<b>Concept 3</b>
tamper tampering	package packages packaging  container containers	milk  dairy

- 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.

## Skills Practice

2. Find information on the adhesion or bonding of urethane coatings to steel in the WSCA (World Surface Coatings 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.

# SHARPEN SEARCH STRATEGIES

**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 fields

# Adjust Search Strategies to Increase Result Precision

---

---

*Search Question:*    *Locate records in the CAPLUS file on ozone resistant inks.*

---

---

## Conduct a preliminary search

=> FILE CAPLUS

=> S OZONE AND RESISTAN? AND INK?

L1                    387 S OZONE AND RESISTAN? AND INK?

=>    D SCAN

L1    387 ANSWERS    CAPLUS    COPYRIGHT 2005 ACS on STN

IC    ICM    B41M005-00

ICS    B41J002-01

CC    74-6 (Radiation Chemistry, Photochemistry, And Photographic  
And Other Reprographic Processes)

Section cross-reference(s): 38

TI    Ink-jet printing sheet containing cationic polymer

ST    ink jet printing sheet cationic polymer; quaternary ammonium  
salt polymer printing sheet

IT    Gelatins, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(binder; ink-jet printing sheet containing cationic polymer)

IT    Polyelectrolytes

(cationic; ink-jet printing sheet containing cationic polymer)

IT    Ink-jet recording sheets

Mordants

(ink-jet printing sheet containing cationic polymer)

IT    Quaternary ammonium compounds, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material  
use); USES (Uses)

(polymers; ink-jet printing sheet containing cationic polymer)

IT    9004-34-6D, Cellulose, derivs.

RL: TEM (Technical or engineered material use); USES (Uses)

(binder; ink-jet printing sheet containing cationic polymer)

IT    24623-77-6, Aluminum hydroxide oxide (Al(OH)O)

RL: TEM (Technical or engineered material use); USES (Uses)

(boehmite-type; ink-jet printing sheet containing cationic  
polymer)

*The term "ink" first appears in the title. The terms "ozone" and "resistance" must be in the abstract. This reference, however, is not relevant since it refers to a substrate for ink-jet printing.*

*(continued on next page)*

IT 717133-69-2P 717133-70-5P 717133-71-6P 717133-73-8P 717133-74-9P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (ink-jet printing sheet containing cationic polymer)

IT 1344-28-1, Alumina, uses 7631-86-9, QS 30, uses 142517-79-1, Boric acid-PVA 124 copolymer  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (ink-jet printing sheet containing cationic polymer)

IT 5153-24-2, Zirconyl acetate 12042-91-0, PAC 1000  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (mordant; ink-jet printing sheet containing cationic polymer)

IT 137803-24-8, PAA 03  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (mordant; ink-jet printing sheet containing cationic polymer)

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

L1 387 ANSWERS CAPLUS COPYRIGHT 2005 ACS on STN

IC ICM B41M005-00  
 ICS B41M005-00; B41J002-01

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 38

TI Manufacture of ink jet recording sheet covered with clear polymer layer

ST ink jet recording receptor polymer coating; charged polymer particle deposition clear layer

IT Ink-jet recording sheets  
 (ink-jet printing sheet coated with clear polymer layer)

IT Polyesters, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (ink-jet printing sheet coated with clear polymer layer)

IT 9002-89-5, Poly(vinyl alcohol)  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (cationic; ink-jet printing sheet coated with clear polymer layer)

IT 7631-86-9, Silica, uses 9003-39-8, Poly(vinylpyrrolidone)  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (ink receiving layer; ink-jet printing sheet coated with clear polymer layer)

IT 25767-47-9, Piccotoner 1221 202667-70-7, Kao M 459144-89-9  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (ink-jet printing sheet coated with clear polymer layer)

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

*(continued on next page)*

L1 387 ANSWERS CAPLUS COPYRIGHT 2005 ACS on STN  
 IC ICM C09D011-00  
 ICS B41J002-01; B41M005-00  
 CC 42-12 (Coatings, Inks, and Related Products)  
 TI Aqueous jet-printing **inks** with good storage stability,  
**ozone resistance**, and anticlogging property  
 ST aq jet **ink** storage stable **ozone resistance**;  
 sulfonated phthalocyanine quinacridone azo pigment jet **ink**; jet  
**ink** dispersant amino hydrophilic hydrophobic acrylic  
 IT Polyoxyalkylenes, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered  
 material use); USES (Uses)  
 (acrylic, tert-amine and ethylhexyl-containing, dispersants; aqueous  
 jet-printing **inks** containing pigments, sulfonated pigments, and  
 macromol. dispersants and showing good storage/discharge stability)  
 IT Polyoxyalkylenes, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material  
 use); USES (Uses)  
 (aqueous jet-printing **inks** containing pigments, sulfonated pigments,  
 and macromol. dispersants and showing good storage/discharge  
 stability)  
 IT **Inks**  
 (jet-printing, anticlogging, storage-stable; aqueous jet-printing  
**inks** containing pigments, sulfonated pigments, and macromol.  
 dispersants and showing good storage/discharge stability)  
 IT **Inks**  
 (jet-printing, anticlogging, water-thinned; aqueous jet-printing  
**inks** containing pigments, sulfonated pigments, and macromol.  
 dispersants and showing good storage/discharge stability)  
 IT Dispersing agents  
 (macromol.; aqueous jet-printing **inks** containing pigments, sulfonated  
 pigments, and macromol. dispersants and showing good storage/discharge  
 stability)  
 IT Pigments, nonbiological  
 (organic; aqueous jet-printing **inks** containing pigments, sulfonated  
 pigments, and macromol. dispersants and showing good storage/discharge  
 stability). . .

*This answer is very relevant. Note that the terms "ozone" and "resistance" are close together.*

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

L1 387 ANSWERS CAPLUS COPYRIGHT 2005 ACS on STN  
 IC ICM C09D011-00  
 ICS B41J002-01; B41M005-00; C09B029-48  
 CC 42-12 (Coatings, Inks, and Related Products)  
 TI Manufacture of water-thinned **inks** for **ink-jet**  
 recording with excellent jetting stability and weather **resistance**  
 ST dye **ink** set jet printing stability; yellow **ink** azo dye  
 diln fastness; weather **resistance** yellow **ink** discoloration rate

(continued on next page)

```

IT  Light-resistant materials
    (inks; manufacture of water-thinned jet-printing inks
    containing yellow azo dyes with good jetting properties and weather
    resistance)
IT  Inks
    (jet-printing, anticlogging; manufacture of water-thinned jet-printing
    inks containing yellow azo dyes with good jetting properties and
    weather resistance)
IT  Inks
    (jet-printing, water-thinned; manufacture of water-thinned jet-printing
    inks containing yellow azo dyes with good jetting properties and
    weather resistance)
IT  Inks
    (light-resistant; manufacture of water-thinned jet-printing
    inks containing yellow azo dyes with good jetting properties and
    weather resistance)

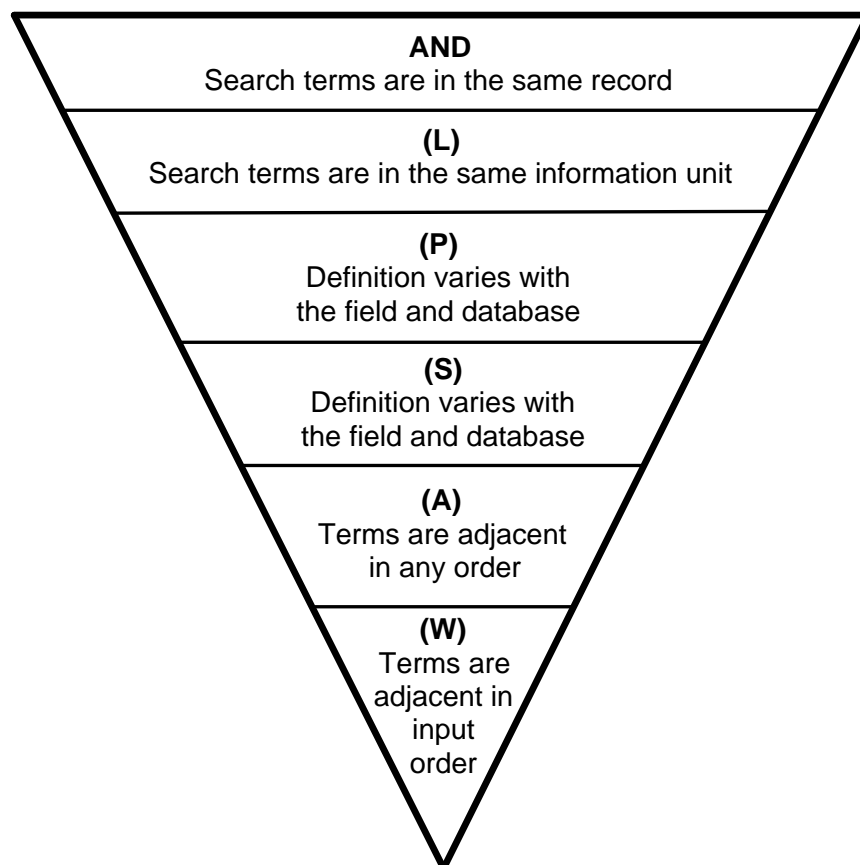
```

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

*To exit SCAN mode, type 0 or END.*

## 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.



**note**

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 ((OZONE OR 10028-15-6)(2A)(RESISTAN? OR STABILITY))(S)INK?
```

```
L2 297 ((OZONE OR L5 )(2A)(RESISTAN? OR STABILITY))(S)INK?
```

```
=> D SCAN
```

```
L2 297 ANSWERS CAPLUS COPYRIGHT 2005 ACS on STN
```

```
IC ICM C09D011-00
```

```
ICS B41J002-01; B41M005-00; C09B047-26
```

```
CC 42-12 (Coatings, Inks, and Related Products)
```

```
TI ink, ink set, and ink jet recording with  
good light, ozone, and moisture resistance
```

```
ST ink jet recording light ozone moisture  
resistance; copper phthalocyanine sulfonamide sulfonate salt  
ink jet recording
```

```
IT Ink-jet printers
```

```
    Ink-jet printing
```

```
    (ink and ink set for jet recording with good light,  
    ozone, and moisture resistance)
```

```
IT Inks
```

```
    (jet-printing; ink and ink set for jet recording  
    with good light, ozone, and moisture resistance)
```

```
IT 147-14-8DP, Copper phthalocyanine, chlorosulfonated, reaction product with  
ammonium hydroxide, sodium salt
```

```
    RL: IMF (Industrial manufacture); TEM (Technical or engineered  
    material use); PREP (Preparation); USES (Uses)
```

```
    (ink and ink set for jet recording with good light,  
    ozone, and moisture resistance)
```

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

*(continued on next page)*

L2 297 ANSWERS CAPLUS COPYRIGHT 2005 ACS on STN  
 IC ICM C09B047-24  
 ICS C09D011-00; B41J002-01  
 CC 42-12 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 41  
 TI Phthalocyanine dye for ink-jet printing  
 ST sulfamoyl phthalocyanine dye jet printing ink; light ozone  
 moisture resistance jet printing ink cyan dye  
 IT Dyes  
 (cyan; phthalocyanine dyes for ink-jet inks with  
 good light, ozone and moisture resistance)  
 IT Inks  
 (jet-printing, water-thinned; phthalocyanine dyes for ink-jet  
 inks with good light, ozone and moisture  
 resistance)  
 IT 147-14-8DP, Copper phthalocyanine, sulfamoyl, triazinyl-substituted  
 sulfamoyl and sulfo derivs.  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (phthalocyanine dyes for ink-jet inks with good  
 light, ozone and moisture resistance)  
 IT 27360-85-6P, Copper phthalocyanine tetrasulfonic acid, tetrasodium salt  
 88548-02-1P, Copper phthalocyanine tetrasulfonic acid chloride  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (phthalocyanine dyes for ink-jet inks with good  
 light, ozone and moisture resistance)  
 IT 742062-32-4DP, reaction products with copper phthalocyanine tetrasulfonic  
 acid chloride 773072-00-7DP, reaction products with copper  
 phthalocyanine tetrasulfonic acid chloride 773072-02-9DP, reaction  
 products with copper phthalocyanine tetrasulfonic acid chloride  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material  
 use); PREP (Preparation); USES (Uses)  
 (phthalocyanine dyes for ink-jet inks with good  
 light, ozone and moisture resistance)  
 IT 108-77-0, Cyanuric chloride 24605-36-5 27310-25-4,  
 2-Aminonaphthalene-4,6,8-trisulfonic acid 33562-89-9, 4-Sulfophthalic  
 acid monosodium salt  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (phthalocyanine dyes for ink-jet inks with good  
 light, ozone and moisture resistance)

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

## Display answers:

=> D L2 1 IBIB ABS

L2 ANSWER 1 OF 297 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2005:523558 CAPLUS [Full-text](#)  
TITLE: Trisazo compound, ink composition, and colored object  
INVENTOR(S): Matsui, Takahiko; Ohno, Hiroaki; Yoneda, Takashi;  
Kawaida, Yoshiaki; Shirasaki, Yasuo  
PATENT ASSIGNEE(S): Nippon Kayaku Kabushiki Kaisha, Japan  
SOURCE: PCT Int. Appl., 49 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005054374	A1	20050616	WO 2004-JP17556	20041126
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
PRIORITY APPLN. INFO.:			JP 2003-403311	A 20031202
			JP 2004-292599	A 20041005

AB [PROBLEMS] To provide: a black compound which is for use in ink -jet recording or writing utensils, is excellent in ozone resistance, light resistance, moisture resistance, and color rendering, and gives a recording fluid having satisfactory storage stability; and an ink composition containing the compound. [MEANS FOR SOLVING PROBLEMS] The black compound is a trisazo compound represented by the following formula (1) or a salt thereof. (1) [In the formula (1), R1 and R2 each independently represents hydrogen, carboxy, sulfo, hydroxy, a C1-4 alkyl, C1-4 alkoxy, or sulfo group optionally substituted by C1-4 alkoxy, an optionally carboxylated C1-4 alkoxy group, etc.; and A represents phenyl or naphthyl (provided that the phenyl and naphthyl groups may be substituted by halogeno, carboxy, sulfo, sulfamonyl optionally substituted by alkyl or phenyl, nitro, etc.)].

# 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 297 FOCUS L2 1-

=> D L3 TI 1-5

L3 ANSWER 1 OF 297 CAPLUS COPYRIGHT 2005 ACS on STN  
TI Azo dyes, their colorant compositions for ozone-resistant image formation, ink-jet inks, and ink-jet printing method

L3 ANSWER 2 OF 297 CAPLUS COPYRIGHT 2005 ACS on STN  
TI Water-thinned inks forming ozone-resistant images, jet-printing inks using them, and ink-jet printing

L3 ANSWER 3 OF 297 CAPLUS COPYRIGHT 2005 ACS on STN  
TI Phthalocyanine compounds for ozone-resistance jet-printing inks and method for ink-jet printing

L3 ANSWER 4 OF 297 CAPLUS COPYRIGHT 2005 ACS on STN  
TI Pigment mixtures for inks with good light and ozone resistance and ink-jet printing method

L3 ANSWER 5 OF 297 CAPLUS COPYRIGHT 2005 ACS on STN  
TI Ozone-resistant ink-jet inks and jet printing method and printers

*By default, the last L-number is assumed.*

*After using FOCUS, answer 1 is the most relevant while answer 297 is the least.*

---

### 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>

---

# SORT

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 L2 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 L2
```

```
L4 297 SORT L1 CS A AU A PY D
```

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

```
=> D L4 5-7
```

```
L4 ANSWER 5 OF 297 CAPLUS COPYRIGHT 2005 ACS on STN
```

```
AN 2004:355025 CAPLUS Full-text
```

```
DN 140:358896
```

```
TI Phthalocyanine compounds used in inks
```

```
IN Patel, Prakash
```

```
PA Avecia Limited, UK
```

```
SO PCT Int. Appl., 20 pp.
```

```
CODEN: PIXXD2
```

```
DT Patent
```

```
LA English
```

```
FAN.CNT 1
```

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004035700	A1	20040429	WO 2003-GB4023	20030919
	W:				AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
	RW:				GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRAI	GB 2002-23819	A	20021012		

```
OS MARPAT 140:358896
```

```
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT
```

*(continued on next page)*

L4 ANSWER 6 OF 297 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2001:676858 CAPLUS [Full-text](#)  
 DN 135:228185  
 TI Phthalocyanine dyes and their use in jet-printing inks  
 IN Patel, Prakash; Wight, Paul  
 PA Avecia Limited, UK  
 SO PCT Int. Appl., 24 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001066648	A1	20010913	WO 2001-GB570	20010212
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRAI GB 2000-5299 A 20000307  
 OS MARPAT 135:228185  
 RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 297 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2004:413023 CAPLUS [Full-text](#)  
 DN 140:408228  
 TI Metal complex azo dyes and their use in ink-jet printing  
 IN Wright, Gavin  
 PA Avecia Limited, UK  
 SO PCT Int. Appl., 17 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004041940	A1	20040521	WO 2003-GB4307	20031008
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI GB 2002-25615 A 20021102  
 OS MARPAT 140:408228  
 RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

# Refine Results Using Specialized Fields

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 fields — 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 fields. Consult the Database Summary Sheet for more information.

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

*For example:*

=> S 1999/PY

## Document Type Specialized Field

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

---

---

*Extend the Search Question...*

*What journal articles have been published on ozone resistant inks?*

---

---

## Technique:

The EXPAND command is used to identify the file-specific term used for the document type of interest. Because the Document Type (DT) field 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 field.

=> 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

*Use EXPAND to identify the appropriate search term.*

*Start at the beginning of the index by expanding on A/DT.*

*Finding "Journal" tells you that it is a valid search term in the DT index. Each document type has an abbreviation, note that "J" and "Journal" will retrieve the same number of answers.*

## Refining the answer set to general reviews:

=> D HIS FULL

L1	387	S OZONE AND RESISTAN? AND INK?
L2	297	((OZONE OR L5 )(2A)(RESISTAN? OR STABILITY))(S)INK?
L3	297	FOCUS L2 1- E J/DT

=> S L2 AND JOURNAL/DT

L4	17657885	JOURNAL/DT
	2	L2 AND JOURNAL/DT

*The D HIS FULL command is a convenient way to recall an L-number, with the full query.*

*(continued on next page)*

=> D L4 1 BIB

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2004:388303 CAPLUS Full-text  
DN 141:285702  
TI Ozone degradation of ink jet photoquality images  
AU Barcock, Richard A.; Lavery, Aidan J.  
CS Felix-Schoeller Imaging, Osnabrueck, Germany  
SO Journal of Imaging Science and Technology (2004), 48(2), 153-159  
CODEN: JIMTE6; ISSN: 1062-3701  
PB Society for Imaging Science and Technology  
DT Journal  
LA English  
RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

# Language Specialized Field

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

---

---

*Extend the Search Question Further...*

*Limit the patents to those published in **English**.*

---

---

## **Technique:**

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

```
=> S L2 AND PATENT/DT
```

```
L5          295 L2 AND PATENT/DT
```

```
=> E ENGLISH/LA
```

```
E1   13677082   EN/LA
E2   13677082   ENG/LA
E3   13677082 --> ENGLISH/LA
E4     143      EO/LA
E5   80439      ES/LA
E6     143      ESPERANTO/LA
E7     379      ESTONIAN/LA
E8     379      ET/LA
E9     121      EU/LA
E10  2029      FA/LA
E11  3931      FI/LA
E12  3931      FINNISH/LA
```

*EN and ENG are abbreviated forms of the word ENGLISH and are valid search terms in the LA index of CAPLUS.*

```
=> S L5 AND E3
```

```
L6          25 L5 AND ENGLISH/LA
```

*Restrict the answers to English language documents.*

*Note: E3 can be used as a search term.*

```
=> D L6 1 BIB
```

```
L6 ANSWER 1 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:523118 CAPLUS Full-text
TI Solubilized yellow dyes for inks with improved ozone
   and light stability
IN Potenza, Joan C.; Madaras, Marcel B.; Schmitthenner, Hans F.; Southby,
   David T.; Madaras, Mihaela L.
PA Eastman Kodak Company, USA
SO U.S. Pat. Appl. Publ., 24 pp.
DT Patent
LA English
FAN.CNT 1
PATENT NO.          KIND    DATE          APPLICATION NO.    DATE
-----
PI  US 2005126431    A1      20050616    US 2003-732093    20031210
PRAI US 2003-732093    20031210
ALL CITATIONS AVAILABLE IN THE RE FORMAT
```

# Publication Year Specialized Field

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

---

---

## *Extend the Search Question Further...*

*Retrieve the English language patent documents published in 2004.*

---

---

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 L6 AND PY=2004
```

```
L7 14 L6 AND 2004/PY
```

```
=> D L7 BIB ABS 1-
```

```
YOU HAVE REQUESTED DATA FROM 14 ANSWERS - CONTINUE? Y/(N):Y
```

```
L23 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
```

```
AN 2004:700304 CAPLUS Full-text
```

```
DN 141:208578
```

```
TI Stabilization of dyes for ink-jet inks
```

```
IN Deardurff, Larrie A.
```

```
PA Hewlett-Packard Company, USA
```

```
SO Eur. Pat. Appl., 27 pp.
```

```
DT Patent
```

```
LA English
```

```
FAN.CNT 2
```

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1449894	A2	20040825	EP 2004-76404	20030110 <--
	EP 1449894	A3	20041020		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	US 2003167966	A1	20030911	US 2002-57692	20020125 <--
	US 6730151	B2	20040504		
	EP 1331252	A2	20030730	EP 2003-250156	20030110 <--
	EP 1331252	A3	20040721		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRAI	US 2002-57692	A	20020125		
	EP 2003-250156	A3	20030110		

```
●  
●  
●
```

## Skills Practice

1. Find information in the USPATFULL file on athletic footwear for triathletes. 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 virtual keyboards. Isolate those documents written between 2004 and 2005. 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 file

# 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 on ozone resistant inks.*

---

---

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

The **ALERT 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.

```
=> FILE CAPLUS
```

```
=> ALERT L2
```

*Alerts must be based on a single L-number query.*

```
ENTER UPDATE FIELD CODE (UP) OR ?: UP
ENTER SDI REQUEST NAME, (AA001/S), OR END: OZONESTABLE/S
ENTER COST CENTER (NONE) OR NONE: RESEARCH DEPT
ENTER TITLE (NONE): OZONE RESISTANT INKS
ENTER METHOD OF DELIVERY (OFFLINE), ONLINE, OR EMAIL: EMAIL
ENTER EMAIL ID (5861C): WCOYOTE@ACME.COM;ROADRUNNER@NIKE.COM.INTERNET
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 'OZONESTABLE/S'
```

---

## Helpful HINT

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

```
=> 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 parameters:***

<b>This setup option</b>	<b>Is used to</b>	<b>Notes</b>
Update field	Determine if a record should be included in an alert answer set	Update date (UP) is the date a record: <ul style="list-style-type: none"> <li>■ First enters a file or</li> <li>■ Is updated</li> </ul> Edition date (ED) is the date a record: <ul style="list-style-type: none"> <li>■ First enters a file</li> </ul>
Name assigned to saved alert query	Identify an alert	Syntax: <ul style="list-style-type: none"> <li>■ Begin with a letter</li> <li>■ 1-12 characters</li> <li>■ Contain only letters (A-Z) and numbers (0-9)</li> <li>■ <b>End with /S for SDI</b></li> </ul>
Cost center	Distinguish SDI charges on STN invoices	
Title	Identify an alert whenever setup parameters are displayed	40-character limit
Method of delivery	Specify the way alert results should be delivered	<ul style="list-style-type: none"> <li>■ Email — Internet (requires an STNmail id)</li> <li>■ Offline — postal mail of hard copy</li> <li>■ Online — storage on STN computer</li> </ul>
Email id	Specify the internet or STNmail address where alert results should be delivered	Internet delivery can be in pdf, rtf, or html formats
Delivery notification	Notify the searcher when alert results are being delivered to an address other than their own	
Print format	Specify the answer display format	
Maximum number of hits	Specify the upper limit on the number of records in an alert results set	Up to 5000 answers can be sent
Display currency information	Display the patent currency banner at the time the alert was run, for CAS files only	

## 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.

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

## Verifying SDI setup:

```
=> D SAVED/S
```

NAME	CREATED	NOTES/TITLE
OZONESTABLE/S	21 JUN 2005	SDI REQUEST FOR FILE CAPLUS

---

## Helpful HINT

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

```
=> D OZONESTABLE/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/ONLINE/QR/currentaware.pdf>

# MANAGE 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

# Manage STN Results

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

- Answer sets

```
=> SAVE OZONESTABLE1/A
```

- Queries

```
=> SAVE OZONESTABLE2/Q
```

- L-number lists

```
=> SAVE OZONESTABLE3/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:

To store information	This STN SAVE option is useful:
Long-term	SAVE
From 7-14 days (expires on 2 <sup>nd</sup> Friday)	SAVE TEMP

# Store 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

### Step 1: Save answers

The following information is required to SAVE an answer set:

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

*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.*

```
=> SAVE TEMP TITLE
```

```
ENTER L#, L# RANGE, ALL, OR (END):L1  
ENTER NAME OR (END):OZONESTABLE1/A  
ENTER TITLE (NONE):OZONE RESISTANT INKS  
ANSWER SET L1 HAS BEEN SAVED AS 'SKINSUBS1/A'
```

## Step 2: Recall the saved search results in a future online session

=> D SAVED

*D SAVED gives an inventory of items saved in storage.*

NAME	CREATED	NOTES/TITLE
OZONESTABLE1/A	21 JUN 2005	297 ANSWERS IN FILE CAPLUS
OZONESTABLE2/Q	21 JUN 2005	QUERY CREATED IN FILE CAPLUS
OZONESTABLE3/L	21 JUN 2005	3 L-NUMBERS
SKINSUB/L	15 JUN 2005	7 L-NUMBERS
SKINSUBS1/A	15 JUN 2005	381 ANSWERS IN FILE CAPLUS
SKINSUBS2/Q	15 JUN 2005	QUERY CREATED IN FILE CAPLUS

### **note**

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

=> D SAVED/S

### Step 3: Re-use the saved results for display

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:*

```
=> FILE CAPLUS
```

```
=> ACTIVATE OZONESTABLE1/A
```

```
L3 297 SEA FILE=CAPLUS ((OZONE OR L19 )(2A)(RESISTAN? OR  
STABILITY))(S)INK?
```

```
=> D L3 12 BIB ABS
```

```
L20 ANSWER 12 OF 297 CAPLUS COPYRIGHT 2005 ACS ON STN
```

```
AN 2005:405112 CAPLUS FULL-TEXT
```

```
DN 142:448373
```

```
TI LIGHT-RESISTANT COLORING COMPOSITIONS FOR JET-PRINTING INKS, THERMAL  
RECORDING MATERIALS, COLOR TONERS, AND COLOR FILTERS
```

```
IN FUJIWARA, YOSHINORI
```

```
PA FUJI PHOTO FILM CO., LTD., JAPAN
```

```
SO JPN. KOKAI TOKKYO KOHO, 40 PP.
```

```
CODEN: JKXXAF
```

```
DT PATENT
```

```
LA JAPANESE
```

```
FAN.CNT 1
```

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005120133	A2	20050512	JP 2003-353500	20031014
PRAI	JP 2003-353500		20031014		

AB THE COMPNS.CONTAIN AZO DYES I (A, B = AROMATIC GROUP, HETEROCYCLIC GROUP; R1, R2, G = H, HALO ALIPHATIC GROUP, AROMATIC GROUP, HETEROCYCLIC GROUP, CYANO, ETC.; R3, R4 = H, ALIPHATIC GROUP, AROMATIC GROUP, HETEROCYCLIC GROUP, ALKOXYCARBONYL, ETC.; EWG = ELECTRON-WITHDRAWING GROUP).  
THUS, A WATER-THINNED JET-PRINTING **INK** CONTAINING II GAVE IMAGES WITH GOOD COLOR TONE AND **OZONE RESISTANCE**.

*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 files since the answer set was saved. Instead, it locates answers in the saved/activated set that match the additional requirement.

```
=> S L3 AND PY>=2004

      1667641 PY>=2004
L4      186 L3 AND PY>=2004
```

### Step 4: Maintain saved items for currency, deleting as needed

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

```
=> D SAVED

NAME                CREATED          NOTES/TITLE
-----
OZONESTABLE1/A      21 JUN 2005     297 ANSWERS IN FILE CAPLUS
OZONESTABLE2/Q      21 JUN 2005     QUERY CREATED IN FILE CAPLUS
OZONESTABLE3/L      21 JUN 2005     3 L-NUMBERS
SKINSUB/L           15 JUN 2005     7 L-NUMBERS
SKINSUBS1/A         15 JUN 2005     381 ANSWERS IN FILE CAPLUS
SKINSUBS2/Q         15 JUN 2005     QUERY CREATED IN FILE CAPLUS

=> DEL OZONESTABLE1/A

DELETE OZONESTABLE1/A (Y)/N:Y
```

## Work 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.

---

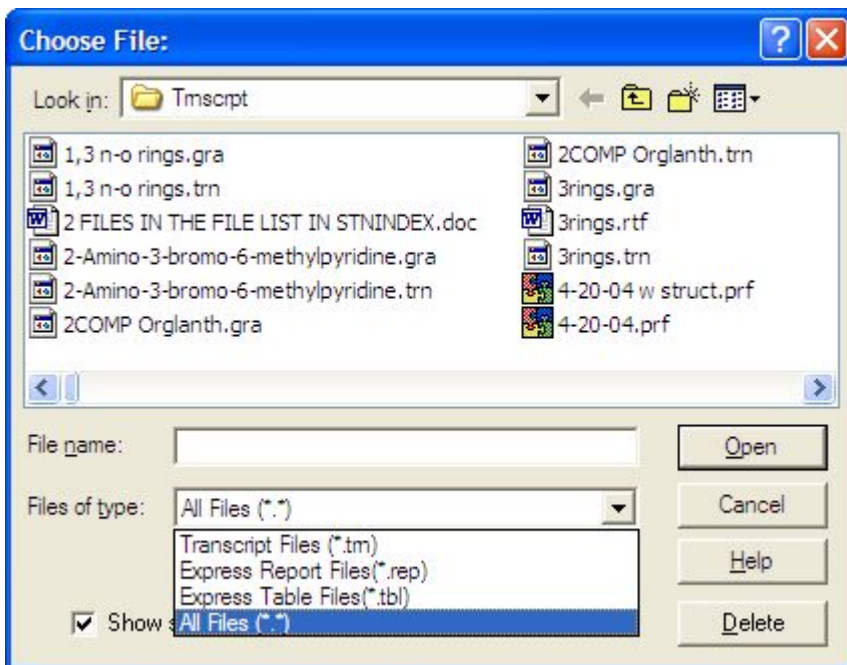
### Helpful HINT

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.



# STN BASICS (ENGINEERING)

## SUGGESTED SOLUTIONS TO SKILLS PRACTICE PROBLEMS

**JUNE 2005**

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.

=> 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

 Combine the different concepts with the AND operator. Use the OR operator and parentheses to combine synonyms.

L1 201 TAMPER? AND (PACK? OR CONTAINER#) AND (MILK OR DAIRY)

=> 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; RECLOSABLE  
CLOSURES; RECLOSABLE **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  
**DAIRY** PRODUCTS; FROZEN DESSERTS; FROZEN FOODS; GRANULATED  
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.

(continued on next page)

L1 ANSWER 4 OF 201 FROSTI COPYRIGHT 2004 LFRA on STN  
TI Device for dispensing material into a **container**.  
SH CATERING  
CT BEVERAGE DISPENSERS; BEVERAGE EQUIPMENT; CATERING EQUIPMENT; DISPENSERS;  
DISPENSING EQUIPMENT; EQUIPMENT; HAMPER EVIDENT DISPENSERS; PATENT; PCT  
PATENT

L1 ANSWER 5 OF 201 FROSTI COPYRIGHT 2004 LFRA on STN  
TI **Packaging** and method for making the same.  
CT CHEESE; CHEESE PRODUCTS; **DAIRY** PRODUCTS; EASY OPEN  
**PACKAGING CONTAINERS**; EUROPEAN PATENT;  
**PACKAGING CONTAINERS**; **PACKAGING** PRODUCTS;  
PATENT; PROCESSED CHEESE; RECLOSABLE **PACKAGING**

=> S TAMPER? AND (PACK? OR CONTAINER# OR CLOSURE# OR CONNECT? OR SEAL#)  
AND (MILK OR DAIRY OR CREAM#)

2499 TAMPER?  
66700 PACK?  
31033 CONTAINER#  
7388 CLOSURE#  
4823 CONNECT?  
5773 SEAL#  
46728 MILK  
46112 DAIRY  
12146 CREAM#

L2 236 TAMPER? AND (PACK? OR CONTAINER# OR CLOSURE# OR CONNECT?  
OR SEAL#) AND (MILK OR DAIRY OR CREAM#)

=> D TI 1-5

L2 ANSWER 1 OF 236 FROSTI COPYRIGHT 2004 LFRA on STN  
TI **Tamper** resistant composite lids for food **containers**.

L2 ANSWER 2 OF 236 FROSTI COPYRIGHT 2004 LFRA on STN  
TI **Tamper**-evident lid assembly.

L2 ANSWER 3 OF 236 FROSTI COPYRIGHT 2004 LFRA on STN  
TI **Tamper**-evident lid assembly.

L2 ANSWER 4 OF 236 FROSTI COPYRIGHT 2004 LFRA on STN  
TI Lid.

L2 ANSWER 5 OF 236 FROSTI COPYRIGHT 2004 LFRA on STN  
TI **Tamper** resistant composite lids for food **containers**.

## =&gt; D L2 1-2 BIB ABS

L2 ANSWER 1 OF 236 FROSTI COPYRIGHT 2004 LFRA on STN  
 AN 646081 FROSTI [Full-text](#)  
 TI **Tamper** resistant composite lids for food **containers**.  
 IN Witt S.H.  
 PA Stanpac Inc.  
 SO United States Patent  
 PI US 6772901 B 20040810  
 WO 2002094664  
 AI 20020517  
 NTE 20040810  
 DT Patent  
 LA English  
 SL English  
 AB The invention relates to an improved **tamper**-resistant and **tamper**-evident composite lid for food products. 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.

L2 ANSWER 2 OF 236 FROSTI COPYRIGHT 2004 LFRA on STN  
 AN 641149 FROSTI [Full-text](#)  
 TI **Tamper**-evident lid assembly.  
 IN Marshall N.R.  
 PA Huh-Tamaki UK Ltd  
 SO European Patent Application  
 PI EP 1425228 A2  
 WO 2003022703 20030320  
 AI 20020912  
 PRAI United Kingdom 20010912; 20020308  
 DT Patent  
 LA English  
 SL English  
 AB 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 the adhesion or bonding of urethane coatings to steel in the WSCA (World Surface Coatings 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.

=> FILE WSCA

=> E ADHESION

E1	2	ADHESIN/BI
E2	3	ADHESIOMETER/BI
E3	14713	--> ADHESION/BI
E4	11	ADHESIONAL/BI
E5	6	ADHESIONS/BI
E6	1	ADHESIONTTO/BI
E7	1	ADHESIOON/BI
E8	15603	ADHESIVE/BI
E9	1	ADHESIVEAFORMULATION/BI
E10	1	ADHESIVEATO/BI
E11	1	ADHESIVEIARE/BI
E12	92	ADHESIVELY/BI

=> E BONDING

E1	33	BONDERITE/BI
E2	13	BONDEX/BI
E3	3845	--> BONDING/BI
E4	15	BONDINGS/BI
E5	16	BONDLINE/BI
E6	5	BONDLINES/BI
E7	4	BONDMASTER/BI
E8	1	BONDNG/BI
E9	1	BONDO/BI
E10	1	BONDPAK/BI
E11	1	BONDPLEX/BI
E12	1	BONDRITE/BI

=> E URETHANE

E1	4	URETHANATED/BI
E2	3	URETHANATION/BI
E3	8482	--> URETHANE/BI
E4	2	URETHANEDIEPOXIDE/BI
E5	2	URETHANEDIONE/BI
E6	1	URETHANEEOXIDE/BI
E7	1	URETHANEIMINE/BI

*(continued on next page)*

E8	4161	URETHANES/BI
E9	1	URETHANESTOFFER/BI
E10	1	URETHANEUREA/BI
E11	1	URETHANEUREAS/BI
E12	6	URETHANISATION/BI

**=> S (ADHESION OR BONDING) AND URETHANE AND COATING? AND STEEL?**

14713 ADHESION  
 3845 BONDING  
 8482 URETHANE  
 100061 COATING?  
 12571 STEEL?

L3 82 (ADHESION OR BONDING) AND URETHANE AND COATING? AND STEEL?

**=> D TRIAL 1,10,20,40,82**

L3 ANSWER 1 OF 82 WSCA COPYRIGHT 2005 PAINT RESEARCH on STN  
 TI Technical and industrial aspects of corrosion control with sol/gel  
**coatings.**

IT Anticorrosive **Coatings**: sols/gels systems, urethanes/siloxanes;  
 Sols: sols/gels systems, anticorrosives, urethanes/siloxanes;  
 Siloxanes: sols/gels systems, urethanes & Urethanes: sols/gels  
 systems, siloxanes &

L3 ANSWER 10 OF 82 WSCA COPYRIGHT 2005 PAINT RESEARCH on STN  
 TI Painting of rusty **steel.**  
 IT Maintenance Painting: repair/old removal

L3 ANSWER 20 OF 82 WSCA COPYRIGHT 2005 PAINT RESEARCH on STN  
 TI Chipping-resistant **coatings** compositions.  
 IT Chip Resistance: automobiles, polyurethane **coatings**;  
 Automobiles: chip resistance, polyurethane **coatings**;  
 Polyurethane **Coatings**: automobiles, chip resistance

L3 ANSWER 40 OF 82 WSCA COPYRIGHT 2005 PAINT RESEARCH on STN  
 TI Isophthalic acid-based polyester resin for ultraviolet-curable  
**coating** applications.  
 IT Ultraviolet-curable **Coatings**: acrylic/urethanes, from  
 polyesters from isophthalic; Acrylic/Urethanes: ultraviolet-  
 curables, from polyesters from isophthalic; Polyesters: from  
 isophthalic, acrylic/urethanes from; Isophthalic Acid: polyesters,  
 acrylic/urethanes from; Staining: resistance, ultraviolet-curables,  
 acrylic/urethanes

L3 ANSWER 82 OF 82 WSCA COPYRIGHT 2005 PAINT RESEARCH on STN  
 TI Development of new protective **coatings** for large diameter  
**steel** pipelines.  
 IT PIPELINE **COATINGS** FROM POLYETHYLENE & POLYURETHANES; EXTRUSION  
**COATINGS** FOR PIPES

=> S (ADHESION OR BONDING) AND ?URETHANE? AND (COAT? OR ?TREAT? OR PAINT?) AND STEEL?

14713  
3845 BONDING  
19324 ?URETHANE?  
103692 COAT?  
19832 ?TREAT?  
56039 PAINT?  
12517 STEEL

*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.*

L4 250 (ADHESION OR BONDING) AND ?URETHANE? AND (COAT? OR ?TREAT?  
OR PAINT?) AND STEEL

=> D DI 1-5

L4 ANSWER 1 OF 250 WSCA COPYRIGHT 2005 PAINT RESEARCH on STN  
TI Effects of model coal tar components on **adhesion** strength of **polyurethane coating** on **steel** plate.

L4 ANSWER 2 OF 250 WSCA COPYRIGHT 2005 PAINT RESEARCH on STN  
TI Technical and industrial aspects of corrosion control with sol/gel **coatings**.

L4 ANSWER 3 OF 250 WSCA COPYRIGHT 2005 PAINT RESEARCH on STN  
TI Non-destructive **adhesion** control.

L4 ANSWER 4 OF 250 WSCA COPYRIGHT 2005 PAINT RESEARCH on STN  
TI Ecologically-friendly multi-functional **coating** systems with anticorrosive properties.

L4 ANSWER 5 OF 250 WSCA COPYRIGHT 2005 PAINT RESEARCH on STN  
TI Two-component composition for outside protection **coating** for **steel** surfaces.

=> D L4 1 BIB ABS

L4 ANSWER 1 OF 250 WSCA COPYRIGHT 2005 PAINT RESEARCH on STN  
AN 603830 WSCA DN 05-03830 [Full-text](#)  
TI Effects of model coal tar components on **adhesion** strength of **polyurethane coating** on **steel** plate.

AU YOKOYAMA N ; FUJINO K  
SO JCT Research 2005, Vol 2 No 6, 445-51.

DT Journal  
LA English

AB Fifteen kinds of polycyclic aromatic compounds as model coal tar components were compounded into **polyurethane** systems, and cured **coatings** were prepared on sand-blasted **steel** plates and measured for their tensile **adhesion** strength. The effect of salt water spray **treatment** on the **adhesion** strength was also examined in terms of change with time. Systems compounded with naphthalene, 2-naphthol and phenanthrene showed good properties in an ordinary state for **adhesion** strength; however only the system with 2-naphthol was found to have good properties in the change of tensile strength as a function of time during salt water spray **treatment**. Curing time was determined. Dynamic viscoelasticity of cured **coatings** was also measured.

## Skills Practice (page 35):

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**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.

---

---

```
=> FILE JICST-EPLUS
```



*Enter the JICST-Eplus file.*

```
=> E ULTRASONIC
```

```
E1          2      ULTRASONIALLY/BI
E2          1      ULTRASONIATED/BI
E3         72123  --> ULTRASONIC/BI
E4          1      ULTRASONICACTUATOR/BI
E5          9      ULTRASONICAL/BI
E6          1      ULTRASONICALIY/BI
E7         491    ULTRASONICALLY/BI
E8          1      ULTRASONICALY/BI
E9          1      ULTRASONICAPPARATUS/BI
E10         1      ULTRASONICATE/BI
E11         33    ULTRASONICATED/BI
E12         1      ULTRASONICATES/BI
```

```
=> E
```

```
E13         1      ULTRASONICATING/BI
E14        161    ULTRASONICATION/BI
E15         1      ULTRASONICATOION/BI
E16         3      ULTRASONICATOR/BI
E17         1      ULTRASONICATORS/BI
E18         1      ULTRASONICCALLY/BI
E19         1      ULTRASONICCORRELATION/BI
E20         1      ULTRASONICDIAGNOSIS/BI
E21         1      ULTRASONICDISSECTION/BI
E22         1      ULTRASONICE/BI
E23         1      ULTRASONICENDOSCOPY/BI
E24         1      ULTRASONICFATIGUE/BI
```

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

72418 ULTRASONIC?  
 200473 DETECT?  
 13598 TRAIN#  
 9813 CROSSING#

L1 7 ULTRASONIC? AND DETECT?

=> D TRIAL 4 6

L1 ANSWER 4 OF 7 JICST-EPlus COPYRI  
 TI Special Features: Safety Assessme  
 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

*D TRIAL often includes Controlled Terminology used by the database producer and your search strategy should include those terms. In this example, all the answers are relevant, due to the fact that many of the search terms are part of the controlled terminology in the JICST-Eplus file.*

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(protection); object; route; rolling stock;  
 acoustic 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#

=&gt; D L2 TI CS 1-10

Company names are found in the CS (Corporate Source) field and can be displayed using the CS answer format.

- L2 ANSWER 1 OF 18 JICST-EPlus CO  
 TI **Ultrasonic crossing** obstruction **detector**.  
 Maintenance-free by the realization of automatic tracking processing function.  
 CS Railw. Tech. Res. Inst.  
 Matsushita Communication Industrial Co., Ltd., JPN
- L2 ANSWER 2 OF 18 JICST-EPlus COPYRIGHT 2004 JST on STN  
 TI Development of level **crossing** obstruction **detector** using **ultrasonic sensors** for electrified line.  
 CS Railw. Tech. Res. Inst.
- L2 ANSWER 3 OF 18 JICST-EPlus COPYRIGHT 2004 JST on STN  
 TI **Ultrasonic** Transducer and Circuitry for Obstacle **Detector** at **Railroad Crossings**.  
 CS Tokin Corp.
- L2 ANSWER 4 OF 18 JICST-EPlus COPYRIGHT 2004 JST on STN  
 TI Special Features: Safety Assessment. Obstruction **Detecting** Devise on a Level **Crossing** Using **Ultrasonic Sensors**.  
 CS Railw. Tech. Res. Inst.
- L2 ANSWER 5 OF 18 JICST-EPlus COPYRIGHT 2004 JST on STN  
 TI **Rail** flaw **detection** system by data depot.  
 CS Tokyu Corp.
- L2 ANSWER 6 OF 18 JICST-EPlus COPYRIGHT 2004 JST on STN  
 TI The Obstruction **Detecting** Device on a Level **Crossing** Using **Ultrasonic Sensor**.  
 CS Railway Technical Res. Inst.
- L2 ANSWER 7 OF 18 JICST-EPlus COPYRIGHT 2004 JST on STN  
 TI Obstruction **Detector** on a Road-**Railway Crossing** Using **Ultrasonic** Wave.  
 CS Railway Technical Research Inst.
- L2 ANSWER 8 OF 18 JICST-EPlus COPYRIGHT 2004 JST on STN  
 TI Prevention of grade **crossing** accidents and obstruction **detectors**.  
 CS Railway Technical Res. Inst.
- L2 ANSWER 9 OF 18 JICST-EPlus COPYRIGHT 2004 JST on STN  
 TI **Crossing** obstruction **detector** using **ultrasonic** waves.  
 CS Railway Technical Res. Inst.
- L2 ANSWER 10 OF 18 JICST-EPlus COPYRIGHT 2004 JST on STN  
 TI **Crossing** obstruction **detector**.Structure and function of a practical **detector**.  
 CS Railway Technical Res. Inst.  
 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	RETARDANTION/BI
E8	3276	RETARDANTS/BI
E9	1	RETARDANY/BI
E10	2	RETARDARDATION/BI
E11	1	RETARDARTION/BI
E12	2	RETARDATE/BI

*Expand on terms to be sure that they are valid and to determine the best use of truncation symbols.*

=> E

E13	2	RETARDATES/BI
E14	1	RETARDATEUR/BI
E15	1	RETARDATEURS/BI
E16	1	RETARDATING/BI
E17	1	RETARDATIOINCREASED/BI
E18	5837	RETARDATION/BI
E19	4	RETARDATIONAL/BI
E20	1	RETARDATIONDELTAIS/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)

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; 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

=> D L5 1 IBIB ABS

L5 ANSWER 1 OF 524 COMPENDEX COPYRIGHT 2004 EEI on STN  
ACCESSION NUMBER: 2004(37):7304 COMPENDEX [Full-text](#)  
TITLE: New **flame retardant** TPVs for  
electrical applications.  
AUTHOR: Anthony, George (Advanced Elastomer Systems  
(AES), Akron, OH, United States); Pfeiffer,  
Joseph  
SOURCE: Wire Journal International v 37 n 8 August 2004  
2004.p 64-68  
CODEN: WJINDF ISSN: 0277-4275  
PUBLICATION YEAR: 2004  
DOCUMENT TYPE: Journal  
TREATMENT CODE: Experimental  
LANGUAGE: English  
AN 2004(37):7304 COMPENDEX  
AB 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):

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**Question 1:** Find information in the USPATFULL database on athletic footwear for triathletes. Use proximity operators to adjust the size and focus of your answer set. Relevance rank the answer set.

---

---

```
=> FILE USPATFULL
```

```
=> S FOOTWEAR OR SHOE?
```

```
7591 FOOTWEAR?  
78253 SHOE?
```

```
L10 80854 S FOOTWEAR? OR SHOE?
```

```
=> S TRIATH?
```

```
L19 212 TRIATH?
```

```
=> S L10 AND L19
```

```
L21 29 L10 AND L19
```

```
=> D TI 1-
```

```
YOU HAVE REQUESTED DATA FROM 29 ANSWERS - CONTINUE? Y/(N):Y
```

```
L21 ANSWER 1 OF 29 USPATFULL on STN  
TI Switching device for flexible material
```

```
L21 ANSWER 2 OF 29 USPATFULL on STN  
TI Bicycle pedal that can fit a multiplicity of shoe cleats
```

```
L21 ANSWER 3 OF 29 USPATFULL on STN  
TI Themed lunch bags
```

```
L21 ANSWER 4 OF 29 USPATFULL on STN  
TI Sole construction for energy storage and rebound
```

```
L21 ANSWER 5 OF 29 USPATFULL on STN  
TI Sole construction for footwear having metal components
```

*(continued on next page)*

L21 ANSWER 6 OF 29 USPATFULL on STN  
TI Multi-purpose mat

L21 ANSWER 7 OF 29 USPATFULL on STN  
TI Swim training fin

L21 ANSWER 8 OF 29 USPATFULL on STN  
TI Wheeled skate with step-in binding and brakes

L21 ANSWER 9 OF 29 USPATFULL on STN  
TI Sole construction for energy storage and rebound

L21 ANSWER 10 OF 29 USPATFULL on STN  
TI Describing media content in terms of degrees

- 
- 
- 

=> S L10(S)L19

L24 19 L10(S)L19

=> FOCUS

**PROCESSING COMPLETED FOR L24**

L6 19 FOCUS L5 1-

=> D TI 1-5

L25 ANSWER 1 OF 19 USPATFULL on STN  
TI Device for quick insertion of foot in shoe

L25 ANSWER 2 OF 19 USPATFULL on STN  
TI Multi-purpose reacher and dressing aid

L25 ANSWER 3 OF 19 USPATFULL on STN  
TI Bicycle shoe

L25 ANSWER 4 OF 19 USPATFULL on STN  
TI Sole construction for energy storage and rebound

L25 ANSWER 5 OF 19 USPATFULL on STN  
TI Sole construction for footwear having metal components

## Skills Practice (page 54):

**Question 2:** Use the PROMT (Predicasts Overviews of Markets and Technology) file to locate business information on the development of virtual keyboards. Isolate those documents written between 2004 and 2005. Display using the KWIC format, then display a few answers in the ALL format.

=> FILE PROMT

=> S VIRTUAL AND KEYBOARD?

186186 VIRTUAL  
54542 KEYBOARD?  
L33 3185 VIRTUAL AND KEYBOARD?

=> D KWIC 1-3

*KWIC display means Keyword in Context- a useful way to look at the record surrounding the hit keywords.*

L33 ANSWER 1 OF 3185 PROMT COPYRIGHT 2005 GALE GROUP ON STN

AB VAUGHAN, Ontario -- Ideazon Inc., creator of the Zboard, the world's first **keyboard** to deliver fully customized functions for PC gaming, today announced that its custom **keyboard** technology is now being used by the U.S.

military during training simulations to help troops prepare for combat duty.

THIS. . .

TX VAUGHAN, Ontario -- Ideazon Inc., creator of the Zboard, the world's first **keyboard** to deliver fully customized functions for PC gaming, today announced that its custom **keyboard** technology is now being used by the U.S. military during training simulations to help troops prepare for combat duty.

The . . . individuals or teams to plan, execute and review tactical operations and procedures in a realistic and customizable environment. Ideazon's custom **keyboard** technology is eliminating the need for military personnel to memorize key functions, thus saving valuable time during training simulations designed. . .

Coalescent . . . years. Coalescent Technologies' synthetic 3D simulation environment development laboratory in Orlando, Florida develops and assembles cutting-edge digital simulation models, networked **virtual** environments and training system hardware for VBS1 development projects. For more information, visit our corporate web site at: [www.ctcorp.com](http://www.ctcorp.com).

THIS. . .

L33 ANSWER 2 OF 3185 PROMT COPYRIGHT 2005 GALE GROUP ON STN

TX --US **Keyboard**, mouse and power cord included.  
About NTA **Virtual** Office

*(continued on next page)*

L33 ANSWER 3 OF 3185 PROMT COPYRIGHT 2005 Gale Group on STN

TX How . . . improve? Voice recognition is going to be really important. And there will be flexible devices where you actually pull out **keyboards** and screens and expand what you are carrying with you. Haptic technologies--based on touch and force feedback--are not yet here, but there's a lot of research going on. For example, with a handheld, you could display a **virtual keyboard** on a piece of paper and just touch that.

- 
- 
- 

=> S VIRTUAL OR PROJECTED OR PROJECTION

186186 VIRTUAL  
264939 PROJECTED  
40759 PROJECTION

L34 476416 VIRTUAL OR PROJECTED OR PROJECTION

=> S KEYBOARD?

L35 54542 KEYBOARD?

=> S L34 (5A) L35

L36 416 L34 (5A) L35

=> D KWIC 1-2

L36 ANSWER 1 OF 416 PROMT COPYRIGHT 2005 Gale Group on STN

TX How . . . not yet here, but there's a lot of research going on. For example, with a handheld, you could display a **virtual keyboard** on a piece of paper and just touch that.

L36 ANSWER 2 OF 416 PROMT COPYRIGHT 2005 Gale Group on STN

TX The . . . Zi's embedded eZiTap software and serves as a front End processor (FEP) to offer predictive text entry through the phone's **virtual keyboard**. The download version is available for Sony Ericsson's series of P800, P900 and P910 Symbian UIQ smartphones.

=> S L36 AND PY>=2004

1199204 PY>=2004

L37 79 L36 AND PY>=2004

=> FOCUS

PROCESSING COMPLETED FOR L37  
L38 79 FOCUS L37 1-

=> DIS TI 1-5

L38 ANSWER 1 OF 79 PROMT COPYRIGHT 2005 Gale Group on STN

TI iBIZ Technology Launches 1st Standalone **Virtual Laser Keyboard** for PDAs; Innovative **Virtual Keyboard** Reduces Hardware Needed.

L38 ANSWER 2 OF 79 PROMT COPYRIGHT 2005 Gale Group on STN

TI iBIZ's **Virtual Laser Keyboard** Is Now Available from the Web; Innovative **Virtual Keyboard** Can Now Be Purchased from the iBIZ Website.

L38 ANSWER 3 OF 79 PROMT COPYRIGHT 2005 Gale Group on STN

TI iBIZ Technology Corp. Reports on **Virtual Keyboard** Factory Visit; New Facility to Support Sales Increases.

L38 ANSWER 4 OF 79 PROMT COPYRIGHT 2005 Gale Group on STN

TI iBIZ Corp. Is Nominated for 'Best of Show' CES Award; iBIZ's **Virtual Laser Keyboard** is Nominated for the TechTV 'Best of Show' CES Award in the 'Mobile Computing and Wireless'.

L38 ANSWER 5 OF 79 PROMT COPYRIGHT 2005 Gale Group on STN

TI The **Virtual Keyboard**, Is (Not) Here Now!!!

=> DIS ALL 5

L38 ANSWER 5 OF 79 PROMT COPYRIGHT 2005 Gale Group on STN

AN 2004:72072 PROMT [Full-text](#)

TI The **Virtual Keyboard**, Is (Not) Here Now!!!

SO PR Newswire, (27 Feb 2004) .

PB PR Newswire Association, Inc.

DT Newsletter

LA English

WC 639

TX LONDON, February 27 /PRNewswire/ -- The **Virtual Keyboard** makes data entry to Smart Phones, PDA's (Personal Digital Assistant), or laptop PC's comfortable, convenient and fun!!!

i.Tech Dynamic Ltd., part of the Hutchison Harbour Ring Ltd. group and an approved supplier to first tier major global brands such, has a worldwide license for manufacturing, marketing and sales for this astonishing product that is based on technology developed by VKB Inc. i.Tech will be presenting the final commercial version of this breakthrough mobile accessory at the 3GSM conference in Cannes February 23-26. The product will also be showcased at the 3GSM Fashion Show alongside other i.Tech Dynamic products.

(continued on next page)

The **Virtual Keyboard** steers the IT & mobile communication industry into a new era: this device projects the image of standard size QWERTY keyboard onto practically any flat surface. An infrared system senses the letters and numbers typed by the users and communicates them by wire or radio frequency to a PDA, mobile phone or laptop PC. This initial external solution is as easy to use as a conventional computer keyboard, it is also a desktop space saving alternative for casual typists in both the household & business sector.

The **Virtual Keyboard** is based on a chipset that is also easy to integrate directly into PDAs and mobile phones. "Now mobile phones or PDAs can at last have a full-sized keyboard" explains Jonathan Curtiss, President of VKB Inc. "In this way the users can type in emails or long texts easily and effectively wherever they happen to be allowing them to fully exploit the entire functionality of PDAs and Smartphones." Jonathan also predicts that it will for example be used in sterile and medical environments as well as other multi media and industrial applications. "The **Virtual Keyboard** is one of the most innovative technologies we have yet brought through to commercialisation , we are sure that it will be the first in the world and another breakthrough for the mobile communication industry and consumer electronics in general", says Patrick Tsang, General Manager of i-Tech Dynamic Ltd. - the manufacturer and world-wide marketer for this new product.

VKB Inc. was incorporated in Delaware in August 2000. R&D facilities are located in Jerusalem, Israel. VKB develops innovative virtual interfaces that can be used with cellular phones, PDAs', PCs/Notebooks, information appliances, consumer electronic products and other devices. VKB's proprietary chipset and optical components are designed to serve as a core platform for integration into specific products by OEMs. The aim is to establish the standard for virtual interfaces across a wide variety of products. For more details see <http://www.vkb.co.il/> or contact Jonathan Curtis on +972-2659-5611

i-Tech Dynamic is the technology division of Hutchison Harbour Ring., a publicly traded group on the Hong Kong Stock Exchange. Incorporated in Hong Kong, i-Tech has core competency in R&D, manufacturing, marketing and sales of digital wireless devices, focusing on the commercialisation of innovative technologies which benefit mobile operators and mass consumers. For more details see and <http://www.itechdynamic.com/>

Hutchison Harbour Ring (HHR) forms part of Hutchison Whampoa Limited, a multinational conglomerate with businesses spanning close to 40 countries. With over 150,000 employees worldwide, Hutchison Whampoa operates and invests in five core businesses: ports and related services; telecommunications; property and hotels; retail and manufacturing; and energy and infrastructure. HHR designs, manufactures and delivers high quality products to customers across the world in a timely, cost-effective manner. With four manufacturing facilities in China employing over 25,000 staff, HHR aims to build on its position as a top 3 global toy manufacture by rapidly expanding its and premium product division and it's technology division, i.Tech Dynamic. Current technology peripherals include Bluetooth devices, DAB radios, mobile accessories and MP3 players. <http://www.harbourring.com/> or enquires@hwel-hhr.co.uk

CONTACT: Hutchison Harbour Ring, +44-207-491-1915  
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