

Citation Searching on STN[®]

MAY 2009



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

- Use STN[®] features to conduct citation searches
- Search for current heavily cited research
- Locate references citing key patents
- Identify key references in a subject area
- Find all references citing a specific author

Before you begin

This workshop is designed for experienced searchers who want to review how to search for cited and citing references in bibliographic, word-searchable databases using STN command language.

This workshop highlights the use of STN Express[®] software.

Helpful HINT

To set up an STN account or obtain at no cost the STN Express software, contact CAS Customer Care at: help@cas.org

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OVERVIEW

In this section, you will review

- Terminology commonly used in citation searching
- Applications for this technique
- STN databases containing citations and fields used to verify incomplete citations

Citation Searching

Definition

A citation is a reference to a previous work. Citation searching refers to the process of searching

- Citations from journal articles
- Inventor or examiner citations from patent publications

Citation searching generally involves one or more of these processes

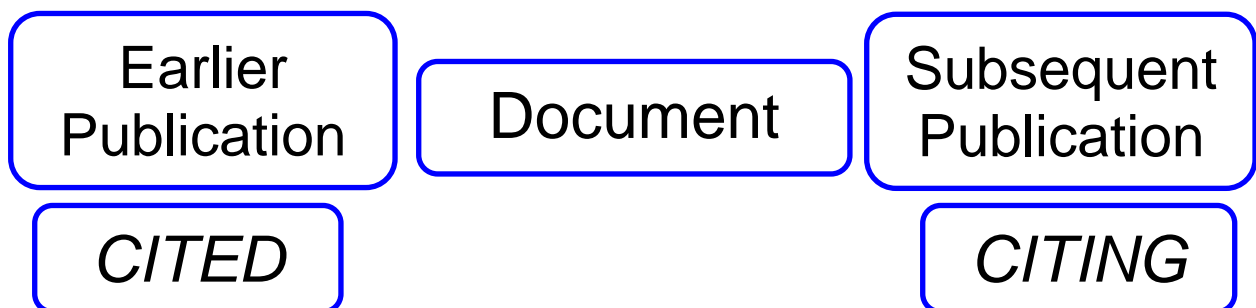
- Extracting citations from a paper or patent publication and searching them
- Converting known references to citation search terms and searching them
- Evaluating the results of the citation search

General Applications

Knowing what research is being cited and who is citing it provides valuable insight into an organization or researcher.

Applications include, but are not limited to

- Finding related art
- Determining potential competitors
- Determining the relative importance of the patents in a company patent portfolio
- Evaluating the value/importance of research published by an author or research institute
- Identifying potential new markets by identifying organizations interested in a certain technology



STN Databases Containing Citations

STN offers many databases with searchable citation information. It is often necessary to search multiple databases to get the complete picture.

If you are interested in these subject areas (time periods)	And non-patent literature of this type	And/or patents from these organizations	Consider this STN database
Chemistry, biochemistry, chemical engineering (1997-)	Journals, reviews, conference proceedings, technical reports	US EP WO DE (1997-) GB FR (2003-) CA (2005-)	CAplus SM
Science, technology, medicine (1974-)	Journals, reviews, conference proceedings	none	SCISEARCH [®]
Chemical, electrical, mechanical (varies)	none	US (1973-) EP WO (1978-) DE JP GB (1994-) BE NL FR (1994-1997, 2008-), ES (2008-)	PCI
All areas (1947-)	none	13 authorities	INPAFAMDB
Chemical (1970-), electrical, mechanical (1978-), pharmaceutical (1963-), polymers (1966-)	none	EP WO et al	WPINDEX
All areas (1975-), selected technologies (1971-1974)	none	US	USPATFULL, USPAT2
Chemistry (1950-)	none	US	IFIPAT
All areas (1978-)	none	EP	EPFULL
All areas (1968-)	none	DE and EP/WO with DE as a designated state	PATDPA

Citation Verification

Citation verification refers to the process of verifying the correctness of a complete citation or finding a complete reference when only part(s) of the reference is known.

The references may be:

- Citations that appear at the end of journal articles
- Citations on the front page of patents (example below) or listed in search reports
- Documents that are referred to in the disclosure or in other parts of prior art discussions

<p>(12) United States Patent Hempelmann et al.</p>	<p>(10) Patent No.: US 6,676,821 B1 (45) Date of Patent: Jan. 13, 2004</p>																								
<p>(54) ELECTROCHEMICAL PRODUCTION OF AMORPHOUS OR CRYSTALLINE METAL OXIDES WITH PARTICLES SIZES IN THE NANOMETER RANGE</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">4,233,351 A</td> <td style="width: 15%;">11/1980</td> <td style="width: 50%;">Okumura et al.</td> <td style="width: 20%;">428/116</td> </tr> <tr> <td>4,676,877 A</td> <td>*</td> <td>6/1987 Castillo et al.</td> <td>205/74</td> </tr> <tr> <td>4,882,014 A</td> <td></td> <td>11/1989 Coyle et al.</td> <td>204/1.5</td> </tr> <tr> <td>5,462,647 A</td> <td>*</td> <td>10/1995 Bhattacharya et al.</td> <td>205/74</td> </tr> <tr> <td>5,620,584 A</td> <td></td> <td>4/1997 Reetz et al.</td> <td>205/334</td> </tr> <tr> <td>5,925,463 A</td> <td></td> <td>7/1999 Reetz et al.</td> <td>428/402</td> </tr> </table>	4,233,351 A	11/1980	Okumura et al.	428/116	4,676,877 A	*	6/1987 Castillo et al.	205/74	4,882,014 A		11/1989 Coyle et al.	204/1.5	5,462,647 A	*	10/1995 Bhattacharya et al.	205/74	5,620,584 A		4/1997 Reetz et al.	205/334	5,925,463 A		7/1999 Reetz et al.	428/402
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4,882,014 A		11/1989 Coyle et al.	204/1.5																						
5,462,647 A	*	10/1995 Bhattacharya et al.	205/74																						
5,620,584 A		4/1997 Reetz et al.	205/334																						
5,925,463 A		7/1999 Reetz et al.	428/402																						
<p>(75) Inventors: Rolf Hempelmann, St. Ingbert (DE); Harald Natter, Saarbruecken (DE)</p>	<p style="text-align: center;">FOREIGN PATENT DOCUMENTS</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">DE</td> <td style="width: 15%;">44 08 512</td> <td style="width: 50%;">9/1995</td> <td style="width: 20%;"></td> </tr> <tr> <td>DE</td> <td>44 43 392</td> <td>6/1996</td> <td></td> </tr> </table>	DE	44 08 512	9/1995		DE	44 43 392	6/1996																	
DE	44 08 512	9/1995																							
DE	44 43 392	6/1996																							
<p>(73) Assignee: Henkel Kommanditgesellschaft Auf, Duesseldorf (DE)</p>	<p style="text-align: center;">OTHER PUBLICATIONS</p> <p>Zotti et al. article entitled, "Electrodeposition of Amorphous Fe₂O₃ Films by Reduction of Iron Perchlorate in Acetonitrile" Feb. 1998 J. Electrochem. Soc., vol. 145, No. 2 pp. 385-389.*</p> <p>J. Electrochem Soc., vol. 145, No. 2, Feb. 1998.</p>																								
<p>(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.</p>	<p>Chemical Abstracts Report 110:65662. Chemical Abstracts Report 114:31881.</p>																								
<p>(21) Appl. No.: 09/786,605</p>	<p>* cited by examiner</p>																								
<p>(22) PCT Filed: Aug. 28, 1999</p>																									
<p>(86) PCT No.: PCT/EP99/06368</p>																									
<p>§ 371 (c)(1), (2), (4) Date: Dec. 4, 2001</p>																									
<p>(87) PCT Pub. No.: WO00/14302</p>																									

note

Citations enclosed within boxes on this front page representation of US 6,676,821 B1 are used to illustrate citation verification in examples on subsequent pages.

CAplus Search Fields Useful for Citation Verification

Note: See STN Database Summary Sheets for search fields for other databases

	SOURCE
CODE	/SO
EXAMPLE	S J?/SO AND AMER?/SO AND CHEM?/SO AND 1995/SO

	AUTHOR	JOURNAL TITLE	PUBLICATION YEAR
CODE	/AU	/JT	/PY
EXAMPLE	E PAULING L/AU	E NATURE/JT	S 1995/PY

	VOLUME	ISSUE	PAGINATION
CODE	/VL	/IS	/SO (Use Source field)
EXAMPLE	S 112/VL	S 4/IS	S 567/SO

	CORPORATE SOURCE (first author's location)	PUBLISHER	LANGUAGE
CODE	/CS	/PB	/LA
EXAMPLE	S UNIV?/CS AND VIRG?/CS	S AMER? CHEM?/PB	E RUSSIAN/LA

	CHEMICAL ABSTRACTS NUMBER	PATENT NUMBER PATENT APPL NUMBER	TITLE
CODE	/AN, DN, OREF	/PATS, APPS	/TI
EXAMPLE	S 1997:186280/AN S 128:243550/DN E 4:407B/OREF	S EP 260598/PATS, APPS S AU 1987-78253/PATS, APPS	S SUNSCREEN?/TI

Helpful HINTS

Use the **/SO** field for non-patent literature. Use very short word stems and truncate because journal titles can vary and abbreviations are common.

For best results, expand on the author's last name and first initial in the author index (**/AU**). Author entries in CAplus are as they appear in their publications, which may vary.

Search the **/JT** index when you know the complete Journal Title. To ensure comprehensive retrieval, expand on the title in the **/JT** index.

Use the **/CS** field for either an author's affiliation or a patent assignee. As with the **/SO** field, use very short word stems and truncate because the spelling of organization names can vary and abbreviations are common.

For patent number and application number searching, you may search the "superfields" of **PATS** (Patent Number search fields) and **APPS** (Application and Priority Number search fields) simultaneously if you are unsure of the type of number you have. These numbers must be preceded with a country code, and there must be no space after the comma in **/PATS,APPS**.

There are three fields to consider when verifying Chemical Abstracts™ (CA) numbers in CAplus. The Accession Number (**AN**) field contains a year designation followed by a file accession number. The Document Number (**DN**) field contains the volume number and abstract number from CA from 1967 to present (or a sequentially assigned record number prior to 1967). The **OREF** (Original Reference Number) field contains the Original Reference Number(s) for any record published in CA in 1907-1998. It contains the volume number of CA, page location of the bibliographic record and abstract.

Examples

4,676,877	A	*	6/1987	Castillo et al.	205/74
4,882,014	A		11/1989	Coyle et al.	204/1.5
5,462,647	A	*	10/1995	Bhattacharya et al.	205/74

Illustration:

```

=> FILE CAPLUS

=> S US4676877/PATS,APPS

      1 US4676877/PATS
        (US4676877/PN)
      0 US4676877/AP
      0 US4676877/PRN
      0 US4676877/APPS
        (US4676877/AP, PRN)
L1    1 US4676877/PATS,APPS

=> D IBIB

L1    ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:      1986:55018  CAPLUS Full-text
DOCUMENT NUMBER:       104:55018
ORIGINAL REFERENCE NO.: 104:8805a,8808a
TITLE:                 Production of fine and ultrafine zinc powders by
                       electrolysis in a basic medium
INVENTOR(S):          Castillo, Jean Michel; Jankowski, Christian; Ferlay,
                       Serge
PATENT ASSIGNEE(S):   Societe de Promotion des Procedes
                       Hydro-Metallurgiques, Fr.
SOURCE:                PCT Int. Appl., 20 pp
                       CODEN: PIXXD2
DOCUMENT TYPE:         Patent
LANGUAGE:              French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
      PATENT NO.      KIND    DATE          APPLICATION NO.      DATE
      -----
      WO 8504195      A1     19850926      WO 1985-FR51         19850312
      W:  AU,  BR,  JP,  US
      FR 2561265      A1     19850920      FR 1984-4091         19840316
      FR 2561265      B1     19860926
      EP 156721       A1     19851002      EP 1985-400470       19850312
      EP 156721       B1     19870916
      R:  BE,  DE,  GB,  IT,  SE
      AU 8540646      A      19851011      AU 1985-40646         19850312
      AU 572638       B2     19880512
      BR 8506051      A      19860325      BR 1985-6051         19850312
      JP 61501998     T      19860911      JP 1985-501182       19850312
      US 4676877      A      19870630      US 1985-800618       19851106 <--
PRIORITY APPLN. INFO.:
                       FR 1984-4091         A 19840316
                       WO 1985-FR51         A 19850312
  
```

In CAPLUS, the "superfields" of PATS and APPS search the PN, AP, and PRN fields. With this search, we verify the correctness of the examiner's citation of US 4,676,877 referenced on the front page of US 6,676,821.

FOREIGN PATENT DOCUMENTS

DE

44 08 512

9/1995

Illustration:

=> FILE WPIDS

=> S DE 4408512/PATS,APPS

```

1 DE4408512/PN
0 DE4408512/FDT.PN
0 DE4408512/PLC.PN
0 DE4408512/PLE.PN
0 DE4408512/ABDT.PN
1 DE 4408512/PATS
  (DE4408512/PN, FDT.PN, PLC.PN, PLE.
0 DE 4408512/AP
0 DE 4408512/PRN
0 DE 4408512/APPS
  (DE 4408512/AP, PRN)

```

In WPIDS, the "superfields" of PATS and APPS consist of the PN, FDT.PN, PLC.PN, PLE.PN, ABDT.PN, AP, and PRN fields. With this search, we verify the correctness of the inventor's citation of DE 44 08 512 referenced on the front page of US 6,676,821. We see that there are several English language equivalents for this German patent publication.

L1 1 DE 4408512/PATS,APPS

=> D BIB

```

L1 ANSWER 1 OF 1 WPIDS COPYRIGHT 2009 THOMSON REUTERS on STN
AN 1995-322030 [42] WPIDS Full-text
DNC C1995-143108 [42]
TI Electrochemical reduction of metal salts to form colloids for optical and
  electronic use, etc. - in the presence of a stabiliser which may also act
  as electrolyte, the stabiliser being quat. ammonium or phosphonium salt
DC J04; L01; L03; M11; M13; P53; P73
IN HELBIG W; QUAISER S; QUAISER S A; REETZ M; REETZ M T
PA (STUD-C) STUDIENGESELLSCHAFT KOHLE MBH
CYC 16
PIA EP 672765 A1 19950920 (199542)* EN 30[0]
DE 4408512 A1 19950921 (199543) DE <--
JP 07310107 A 19951128 (199605) JA 25[0]
CA 2144217 A 19950915 (199606) EN
DE 4443392 A1 19960613 (199629) DE 14[0]
US 5620584 A 19970415 (199721) EN 19[0]
EP 672765 B1 19990630 (199930) EN
US 5925463 A 19990720 (199935) EN
DE 69510477 E 19990805 (199937) DE
ES 2133166 T3 19990901 (199941) ES
CA 2144217 C 20001107 (200061) EN
ADT EP 672765 A1 EP 1995-103130 19950304; DE 4408512 A1 DE 1994-4408512
  19940314; DE 4443392 A1 DE 1994-4443392 19941206; DE 69510477 E DE
  1995-69510477 19950304; EP 672765 B1 EP 1995-103130 19950304; DE 69510477
  E EP 1995-103130 19950304; ES 2133166 T3 EP 1995-103130 19950304; CA
  2144217 A CA 1995-2144217 19950308; CA 2144217 C CA 1995-2144217 19950308;
  US 5620584 A US 1995-401750 19950309; US 5925463 A Div Ex US 1995-401750
  19950309; JP 07310107 A JP 1995-54364 19950314; US 5925463 A US
  1996-768513 19961218
FDT DE 69510477 E Based on EP 672765 A; ES 2133166 T3 Based on EP 672765 A; US
  5925463 A Div ex US 5620584 A
PRAI DE 1994-4443392 19941206
DE 1994-4408512 19940314

```

OTHER PUBLICATIONS

Zotti et al. article entitled, "Electrodeposition of Amorphous Fe₂O₃ Films by Reduction of Iron Perchlorate in Acetonitrile" Feb. 1998 J. Electrochem. Soc., vol. 145, No. 2 pp. 385–389.*

Illustration:

=> FILE HCAPLUS

=> S ZOTTI?/AU AND ELECTRODEPOSITION/TI AND (J? AND ELECTROCHEM? AND SOC?)/SO AND 145/VL

L1 1 ZOTTI?/AU AND ELECTRODEPOSITION/TI AND (J? AND ELECTROCHEM? AND SOC?)/SO AND 145/VL

=> D IBIB ABS

L1 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:95399 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 128:197883

ORIGINAL REFERENCE NO.: 128:39005a,39008a

TITLE: **Electrodeposition** of amorphous Fe₂O₃ films by reduction of iron perchlorate in acetonitrile

AUTHOR(S): **Zotti**, Gianni; Schiavon, Gilberto; Zecchin, Sandro; Casellato, Umberto

CORPORATE SOURCE: Consiglio Nazionale Ricerche, IPELP, Padua, 35127, Italy

SOURCE: **Journal of the Electrochemical Society** (1998), **145**(2), 385-389

CODEN: JESOAN; ISSN: 0013-4651

PUBLISHER: Electrochemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Electrodeposition of amorphous Fe₂O₃ films of nanometer size was performed by reduction of Fe(ClO₄)₃ or Fe(ClO₄)₂ in oxygenated acetonitrile. Cyclic voltammetry has shown that the oxide-film formation occurs via oxidation of electrodeposited metal by dissolved oxygen. The oxide films were characterized by cyclic voltammetry, electrochem. quartz crystal microbalance, X-ray diffraction, and UV-visible spectroscopy. The films are reversibly reduced in acetonitrile + LiClO₄ in two redox processes to the Fe₃O₄ and FeO oxides via lithium intercalation. The UV-visible spectrum displays absorption with an optical gap (1.75 eV) characteristic of amorphous Fe₂O₃. Spectroelectrochem. has shown that reduction causes bleaching of the yellowish films (electrochromic efficiency ≈ 30 C⁻¹ cm² at 400 nm). Heating the films at 500 °C converts them to the crystalline α -Fe₂O₃ form with loss of electroactivity.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

We verify the correctness of this examiner's non-patent citation referenced on the front page of US 6,676,821 with a cost-effective search in HCAplus.

Chemical Abstracts Report 110:65662.
Chemical Abstracts Report 114:31881.

Illustration:

=> FILE CAPLUS

=> S 110:65662/DN

L1 1 110:65662/DN

=> D IBIB ABS

L1 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1989:65662 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 110:65662

ORIGINAL REFERENCE NO.: 110:10705a,10708a

TITLE: Electrochemical synthesis of zirconia

AUTHOR(S): Switzer, Jay A.; Phillips, Richard J.

CORPORATE SOURCE: Dep. Mater. Sci. English, University Pittsburgh, Pittsburgh, PA, 15261, USA

SOURCE: Materials Research Society Symposium Proceedings (1988), 121(Better Ceram. Chemical 3), 111-14
CODEN: MRSPDH; ISSN: 0272-9172

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Zirconia powder was produced in an aqueous solution from zirconyl nitrate using an electrogenerated base. Both divided and undivided electrochem. cells were used. In the divided cell, the OH⁻ was discharged in the cathode compartment, and hydrated zirconia was produced. The as-produced material was weakly agglomerated, amorphous, and had a surface area of ≤ 316 m²/g. The surface area of the powder did not vary systematically with the electrosynthesis c.d., but did depend on subsequent processing. Crystalline zirconia was produced by calcining in air at >400°. Tetragonal zirconia was the only phase observed until .apprx.800°. After Calcining at 800°, the crystallite size increased to .apprx.20 nm, and .apprx.34% Monoclinic zirconia was produced. When an undivided cell was used, the pH remained Constant at 1-1.5 throughout the electrosynthesis, and amorphous zirconia was deposited on the cathode.

We search for the CA abstract in order to identify the reference being cited by US 6,676,821.

note

Page images are available for display for abstracts from 1907-1998. Use the DISPLAY command and PAGE format along with answer set number and record number(s). Display of page images may be useful when you want to see items such as additional structure diagrams, reaction diagrams, or tables of data that may appear in print abstracts.

Display page – sometimes additional information in print, reaction diagrams, tables of data

CITED REFERENCE SEARCH

In this section, you will

- Use the ANALYZE command to find related art
- Requalify E-numbered terms to search in an alternate index



(12) **United States Patent**
Hempelmann et al.

(10) **Patent No.:** **US 6,676,821 B1**
(45) **Date of Patent:** **Jan. 13, 2004**

(54) **ELECTROCHEMICAL PRODUCTION OF AMORPHOUS OR CRYSTALLINE METAL OXIDES WITH PARTICLES SIZES IN THE NANOMETER RANGE**

4,233,351 A	11/1980	Okumura et al.	428/116
4,676,877 A *	6/1987	Castillo et al.	205/74
4,882,014 A	11/1989	Coyle et al.	204/1.5
5,462,647 A *	10/1995	Bhattacharya et al.	205/74
5,620,584 A	4/1997	Reetz et al.	205/334
5,925,463 A	7/1999	Reetz et al.	428/402

(75) Inventors: **Rolf Hempelmann**, St. Ingbert (DE);
Harald Natter, Saarbruecken (DE)

FOREIGN PATENT DOCUMENTS		
DE	44 08 512	9/1995
DE	44 43 392	6/1996

(73) Assignee: **Henkel Kommanditgesellschaft Auf**,
Duesseldorf (DE)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

OTHER PUBLICATIONS
Zotti et al. article entitled, "Electrodeposition of Amorphous Fe₂O₃ Films by Reduction of Iron Perchlorate in Acetonitrile" Feb. 1998 J. Electrochem. Soc., vol. 145, No. 2 pp. 385-389.*

(21) Appl. No.: **09/786,605**

(22) PCT Filed: **Aug. 28, 1999**

(86) PCT No.: **PCT/EP99/06368**

§ 371 (c)(1),
(2), (4) Date: **Dec. 4, 2001**

J. Electrochem Soc., vol. 145, No. 2, Feb. 1998.
Chemical Abstracts Report 110:65662.
Chemical Abstracts Report 114:31881.

(87) PCT Pub. No.: **WO00/14302**

* cited by examiner

Identify Cited References

When presented with a new area of technology, scientists often want to review the most important research literature in that area. This literature is generally heavily cited by authors publishing in the area. Citation searching can be used to identify these research papers.

Search Challenge

The main challenge in locating heavily cited research is converting a large number of citation search terms for key research papers into bibliographic search terms to locate the abstracts for those papers.

STN Tools

Cited reference searching in CApus was designed to facilitate easy linking from a cited reference to its CApus or MEDLINE[®] record. Each cited reference that can be located in CApus is linked with the Accession Number for that reference. If no CApus link is found, MEDLINE is checked and a link to the MEDLINE Accession Number is posted when found. This accession number can be used to easily locate the corresponding record.

Search Application — Find Related Art

Search Question: *Locate the references that are being cited most frequently in **recent publications** on combinatorial chemistry.*

Search Strategy

To locate heavily cited research in a subject area

- Step 1 Locate publications in the subject area of interest
- Step 2 Identify the most highly cited references
- Step 3 Retrieve references
- Step 4 Display results

Step 1: Locate publications in the subject area of interest

```
=> FILE CAPLUS

=> S COMBINATORIAL AND PY.B>2007

      25674 COMBINATORIAL
        5 COMBINATORIALS
      25678 COMBINATORIAL
          (COMBINATORIAL OR COMBINATORIALS)
1259694 PY.B > 2007
L1      1538 COMBINATORIAL AND PY.B > 2007
```

PY.B will limit retrieval to publication years of non-patent publications and basic patents meeting search criteria.

Step 2: Identify the most highly cited references

The ANALYZE command is used to extract terms, excluding stopwords, from an L-number and to provide statistical analysis of the terms.

This command will facilitate identifying the most highly cited references which is accomplished through the following actions:

- Extract CAPLUS and MEDLINE accession numbers from all of the answers (A cited reference will have an accession number for CAPLUS or MEDLINE (but not both) associated with it.)
- Display the high-frequency accession numbers
- Extract the high-frequency accession numbers

Use these field codes to extract the accession numbers:

- RAN.CAPLUS to extract Reference Accession Number for CAPLUS
- RAN.MEDLINE to extract Reference Accession Number for MEDLINE

Extract accession numbers and authors:

```
=> ANALYZE L1 1- RAN.CAPLUS RAN.MEDLINE

L2      ANALYZE L1 1- RAN.CAPLUS RAN.MEDLINE : 44691 TERMS
```

Web Resource

Additional information about using the ANALYZE command is available at: www.cas.org/support/stngen/qrc/

Display the high-frequency accession numbers:

```
=> SET DETAIL ON
```

SET DETAIL ON to see the field code appended to terms via ANALYZE.

```
SET COMMAND COMPLETED
```

```
=> D L2 OGT10
```

```
L2          ANALYZE L1 1- RAN.CAPLUS RAN.MEDLINE : 44691 TERMS
```

TERM #	# OCC	# DOC	% DOC	RAN.CAPLUS	RAN.MEDLINE
1	36	36	2.34	2006:786234/RAN.CAPLUS	
2	22	22	1.43	1992:76/RAN.CAPLUS	
3	22	22	1.43	92049760/RAN.MEDLINE	
4	18	18	1.17	1997:43663/RAN.CAPLUS	
5	16	16	1.04	1992:50922/RAN.CAPLUS	
6	16	16	1.04	1999:606632/RAN.CAPLUS	
7	16	16	1.04	2007:106690/RAN.CAPLUS	
8	16	16	1.04	92049761/RAN.MEDLINE	
9	15	15	0.98	1995:654141/RAN.CAPLUS	
10	13	13	0.85	1991:20531/RAN.CAPLUS	
11	13	13	0.85	2002:161958/RAN.CAPLUS	
12	13	13	0.85	90363287/RAN.MEDLINE	
13	13	12	0.78	2005:358780/RAN.CAPLUS	
14	12	12	0.78	1992:6946/RAN.CAPLUS	
15	12	12	0.78	2002:556509/RAN.CAPLUS	
16	12	12	0.78	92010563/RAN.MEDLINE	
17	11	11	0.72	2000:198882/RAN.CAPLUS	
18	11	11	0.72	2000185694/RAN.MEDLINE	
19	11	11	0.72	2004:454854/RAN.CAPLUS	
20	11	11	0.72	2004:527721/RAN.CAPLUS	
21	11	11	0.72	2008:24163/RAN.CAPLUS	

OGT10 shows the cited references that occur >10 times.

Caplus Accession Numbers contain the year of entry.

Extract the high-frequency accession numbers:

```
=> SEL 1-21
```

Select desired Accession Numbers using the "Term Numbers" appearing in the first column of the ANALYZE display.

```
E1 THROUGH E21 ASSIGNED
```

Helpful HINT

If the number of terms to be extracted exceeds the SELECT limit (999 E- numbers), use the ANALYZE command instead of SELECT. There is no additional fee for using ANALYZE to extract terms from an existing ANALYZE list.

Step 3: Retrieve references

```
=> FILE HCAPLUS MEDLINE
```

```
=> SET DETAIL OFF; SET MSTEPS ON
```

```
SET COMMAND COMPLETED
```

```
=> S E1-E21/AN
```

```
L3          17 FILE HCAPLUS
```

```
L4           5 FILE MEDLINE
```

```
TOTAL FOR ALL FILES
```

```
L5          22 ("2006:786234"/RAN.CAPLUS OR "1992:76"/RAN.CAPLUS OR 92049760/RAN.MEDLINE OR "1997:43663"/RAN.CAPLUS OR "1992:50922"/RAN.CAPLUS OR "1999:606632"/RAN.CAPLUS OR "2007:106690"/RAN.CAPLUS OR 92049761/RAN.MEDLINE OR "1995:654141"/RAN.CAPLUS OR "1991:20531"/RAN.CAPLUS OR "2002:161958"/RAN.CAPLUS OR 90363287/RAN.MEDLINE OR "2005:358780"/RAN.CAPLUS OR "1992:6946"/RAN.CAPLUS OR "2002:556509"/RAN.CAPLUS OR 92010563/RAN.MEDLINE OR "2000:198882"/RAN.CAPLUS OR 2000185694/RAN.MEDLINE OR "2004:454854"/RAN.CAPLUS OR "2004:527721"/RAN.CAPLUS OR "2008:24163"/RAN.CAPLUS)
```

Use HCAplus to avoid search term fees that would be incurred in CAplus or ZCAplus.

SET DETAIL OFF to avoid long posting lists for the multifile search; SET MSTEPS ON to create an L-number for a search in each database in the multifile search.

Requalify the E-numbered terms as Accession Numbers to search them as ANs rather than as Reference Accession Numbers which is what was originally extracted.

Step 4: Display results

```
=> D 1 18
```

```
L5 ANSWER 1 OF 22 HCAPLUS COPYRIGHT 2009 ACS on STN
```

```
AN 2008:24163 HCAPLUS Full-text
```

```
DN 148:261899
```

```
TI Dynamic combinatorial chemistry: on the road to fulfilling the promise
```

```
AU Ladame, Sylvain
```

```
CS Institut de Science et d'Ingenierie Supramoleculaires (ISIS), CNRS UMR 7006, Universite Louis Pasteur, Strasbourg, 67083, Fr.
```

```
SO Organic & Biomolecular Chemistry (2008), 6(2), 219-226
```

```
CODEN: OBCRAK; ISSN: 1477-0520
```

```
PB Royal Society of Chemistry
```

```
DT Journal; General Review
```

```
LA English
```

```
RE.CNT 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT
```

Answers are in reverse chronological order, instead of frequency of citation order.

L5 ANSWER 18 OF 22 MEDLINE on STN
 AN 2000185694 MEDLINE [Full-text](#)
 DN PubMed ID: 10720315
 TI Target-oriented and diversity-oriented organic synthesis in drug discovery.
 AU Schreiber S L
 CS Howard Hughes Medical Institute, Department of Chemistry and Chemical Biology, Harvard University, Cambridge, MA 02138, USA..
 sls@slsiris.harvard.edu
 SO Science (New York, N.Y.), (2000 Mar 17) Volume 287, Number 5460, pp.1964-9. Ref: 44
 Journal code: 0404511. ISSN: 0036-8075.
 CY United States
 DT Journal; Article; (JOURNAL ARTICLE)
 General Review; (REVIEW)
 LA English
 FS Priority Journals
 EM 200004
 ED Entered STN: 13 Apr 2000
 Last Updated on STN: 13 Apr 2000
 Entered Medline: 4 Apr 2000

Option: DUPLICATE REMOVE is very effective on removing redundant journal records between databases

=> DUP REM L5

L6 17 DUP REM L5 (5 DUPLICATES REMOVED)
 ANSWERS '1-17' FROM FILE HCAPLUS

=> D TI SO 1 6

L6 ANSWER 1 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN DUPLICATE 1
 TI Target-oriented and diversity-oriented organic synthesis in drug discovery
 SO Science (Washington, D. C.) (2000), 287(5460), 1964-1969
 CODEN: SCIEAS; ISSN: 0036-8075

L6 ANSWER 6 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
 TI Dynamic combinatorial chemistry: on the road to fulfilling the promise
 SO Organic & Biomolecular Chemistry (2008), 6(2), 219-226
 CODEN: OBCRAK; ISSN: 1477-0520

DUPLICATE REMOVE eliminates all the MEDLINE records. The first (duplicate) record is the same reference as answer 18 above from MEDLINE. The sixth record is the first unique answer between the two databases.

Helpful HINT

To display the records for the cited references in frequency of citation order, search and display each E-number separately:

```
=> FILE HCAPLUS MEDLINE
```

Use a semicolon to stack commands.

```
=> S E1/AN; D BIB; S E2/AN; D BIB
```

```
L9 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2009 ACS on STN
AN 2006:786234 HCAPLUS Full-text
DN 145:376656
TI Dynamic Combinatorial Chemistry
AU Corbett, Peter T.; Leclaire, Julien; Vial, Laurent;
West, Kevin R.; Wietor, Jean-Luc; Sanders, Jeremy K.
M.; Otto, Sijbren
CS Department of Chemistry, University of Cambridge,
Cambridge, CB2 1EW, UK
SO Chemical Reviews (Washington, DC, United States)
(2006), 106(9), 3652-3711
CODEN: CHREAY; ISSN: 0009-2665
PB American Chemical Society
DT Journal; General Review
LA English
RE.CNT 384 THERE ARE 384 CITED REFERENCES AVAILABLE FOR
THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2009 ACS on STN
AN 1992:76 HCAPLUS Full-text
DN 116:76
OREF 116:7a,10a
TI A new type of synthetic peptide library for
identifying ligand-binding activity
AU Lam, Kit S.; Salmon, Sydney E.; Hersh, Evan M.; Hruby,
Victor J.; Kazmierski, Wieslaw M.; Knapp, Richard J.
CS Arizona Cancer Cent., Tucson, AZ, 85724, USA
SO Nature (London, United Kingdom) (1991), 354(6348), 82-4
CODEN: NATUAS; ISSN: 0028-0836
DT Journal
LA English
```

CITING REFERENCE SEARCH

In this section, you will

- Learn how to conduct comprehensive patent, journal reference, and author citation searches
- Use the TRANSFER, SELECT CIT, and ANALYZE CIT commands to find citing references
- Review the FSORT command to identify patent families

Earlier
Publication

Document

Subsequent
Publication

CITED

CITING

L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2000:157927 CAPLUS [Full-text](#)

DN 132:186837

TI Electrochemical production of amorphous or crystalline metallic oxides
with particle sizes within the nanometer range

IN Hempelmann, Rolf; Natter, Harald

PA Henkel K.-G.a.A., Germany

SO Ger. Offen., 10 p

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

(10) Patent No.: **US 6,676,821 B1**
(45) Date of Patent: **Jan. 13, 2004**

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 19840842	A1	20000309	DE 1998-19840842	19980907
WO 2000014302	A1	20000316	WO 1999-EP6368	19990828
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1121477	A1	20010808	EP 1999-944556	19990828
EP 1121477	B1	20030409		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002524661	T	20020806	JP 2000-569039	19990828
AT 237007	T	20030415	AT 1999-944556	19990828
PT 1121477	T	20030829	PT 1999-944556	19990828
ES 2196852				
US 6676821				

PRAI DE 1998-198

WO 1999-EP6

L7 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2009 ACS on STN

AN 2006:262617 HCAPLUS [Full-text](#)

DN 145:258212

TI Grain size effect on the temperature dependence of the electric
Field gradient in nanocrystalline In

AU Li, X. M.; Guan, Z.; Agne, T.; Wolf, H.; Wichert, T.

CS Technische Physik (Geb. 38), Universitaet des Saarlandes,
Saarbruecken,D-66041, Germany

SO Hyperfine Interactions (2005), Volume Date 2004, 159(1-4), 63-69
CODEN: HYINDN; ISSN: 0304-3843

PB Springer

DT Journal

LA English

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

RE

(2) Hempelmann, R; DE 19840842 A1 2000 HCAPLUS

Identify Citing References

In this section, we will review the steps involved in conducting a

- Patent Citation Search to locate references citing a patent as a way to monitor for infringement
- Journal Reference Citation Search to evaluate the relative importance of a research article by determining whether it continues to be cited in recent references
- Referenced Author Search to determine the frequency of citations to an author's research providing an indicator of the awareness/value of that research

Patent Citation Search

Patent citation searching can be used to

- Enhance a prior art or patentability search
- Analyze major competitors
 - ◆ Monitor a patent portfolio for possible infringement
 - ◆ Identify especially important intellectual property based on frequency of citation
- Assist in legal challenges

Search Challenge

Comprehensive patent citation searching presents a challenge because different patent family members may be cited in patent documents from different countries.

Key Search Steps

Two steps are key to conducting comprehensive patent citation searches

- Identify all patent family members
- Search all possible databases that might contain referenced patent numbers

STN Tools

STN features facilitate comprehensive patent citation searching.

When you want to	Use this STN feature
Locate patent family members	Databases containing patent family information, such as CPlus, WPINDEX, and INPAFAMDB
Extract patent numbers for family members and search them as referenced patent numbers	TRANSFER 1- L# PN /RPN
Sort results by invention	FSORT

Search Application — Monitor for Infringement

Locating current references that cite a patent in your portfolio is a first step in identifying possible infringement.

Search Question: *Locate references citing US 5237069, a Dow Chemical patent describing heterocyclic borate metal complexes as coordination polymerization catalysts.*

Search Strategy

To locate references citing a key patent

- Step 1 Locate the invention of interest in databases reporting the family members
- Step 2 Extract the patent numbers for all family members and search them as referenced patent numbers (RPN)
- Step 3 Remove duplicate records
- Step 4 Sort results by invention
- Step 5 Display results

Step 1: Locate the invention of interest

=> FILE CAPLUS WPINDEX INPAFAMDB

=> SET MSTEPS ON

SET COMMAND COMPLETED

=> S US5237069/PN

L1 1 FILE CAPLUS
L2 1 FILE WPINDEX
L3 1 FILE INPAFAMDB

TOTAL FOR ALL FILES

L4 3 US5237069/PN

=> D 1-2 TI PI

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN

TI Heterocyclic borate metal complexes as coordination polymerization catalysts

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 482934	A1	19920429	EP 1991-309855	19911024
	EP 482934	B1	19970326		
	R: BE, CH, DE, FR, GB, IT, LI, SE				
	US 5237069	A	19930817	US 1990-603350	19901026 <--
	JP 04305585	A	19921028	JP 1991-337493	19911023
	CA 2054246	A1	19920427	CA 1991-2054246	19911025
	AU 9186732	A	19920430	AU 1991-86732	19911025
	CN 1062733	A	19920715	CN 1991-109984	19911026

L4 ANSWER 2 OF 3 WPINDEX COPYRIGHT 2009 THOMSON REUTERS on STN

TI New pyrazolyl borate metal complexes - are used as catalyst for prepn. of syndiotactic polymers with or without aluminium cpds.

PI	EP 482934	A	19920429 (199218)*	EN 10[0]	
	R: BE CH DE FR GB IT LI SE				
	AU 9186732	A	19920430 (199226)	EN	
	CA 2054246	A	19920427 (199229)	EN	
	JP 04305585	A	19921028 (199250)	JA 7	
	CN 1062733	A	19920715 (199313)	ZH	
	US 5237069	A	19930817 (199334)	EN 6[0]	<--
	EP 482934	B1	19970326 (199717)	EN 11[0]	
	R: BE CH DE FR GB IT LI SE				
	DE 69125336	E	19970430 (199723)	DE	

An additional family member is identified in this record.

L4 ANSWER 3 OF 3 INPAFAMDB COPYRIGHT 2009 EPO/FIZ KA on STN

TI HYDRIDOTRIS (PYRAZOLYL) BORATE METAL COMPLEXES AND POLYMERIZATION PROCESS.

- COMPLEXES METALLIQUES D'HYDRIDO-TRIS (PYRAZOLYL) BORATE ET PROCEDE DE POLYMERISATION.
- HETEROCYCLE BORATE METAL COMPLEXES AND THEIR USE AS COORDINATION POLYMERIZATION CATALYSTS.
- Verwendung von heterocyclischen Borat-Metall Komplexen als Koordinationspolymerisations-Katalysatoren...

Step 2: Extract and search the patent numbers as referenced patent numbers

The following STN files were selected to locate publications citing this invention:

Database	Reason for selection
HCAplus	Currency and coverage of cited references from patent and journal literature with no search term charges
PCI	Country and time coverage
INPAFAMDB	Country and time coverage
USPATFULL	Currency for U.S. citing patents
EPFULL	Currency for EP citing patents
SCISEARCH	Cited references from journal literature and time coverage

```
=> FILE HCAPLUS PCI INPAFAMDB USPATFULL USPAT2 EPFULL SCISEARCH
```

```
=> TRANSFER L4 1- PN /RPN
```

```
L5          TRANSFER L4 1- PN :          7 TERMS
L6          14 FILE HCAPLUS
L7          19 FILE PCI
L8           7 FILE INPAFAMDB
L9           8 FILE USPATFULL
L10         2 FILE USPAT2
L11         3 FILE EPFULL
L12        15 FILE SCISEARCH
```

```
TOTAL FOR ALL FILES
```

```
L13         68 L5/RPN
```

TRANSFER extracts information from one field (PN) and searches it in another field (RPN).

Step 3: Remove duplicate records

This step removes non-patent duplicates between HCAplus and SCISEARCH.

```
=> DUP REM L13
```

```
DUPLICATE IS NOT AVAILABLE IN 'PCI'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L13
L14          58 DUP REM L13 (10 DUPLICATES REMOVED)
              ANSWERS '1-14' FROM FILE HCAPLUS
              ANSWERS '15-33' FROM FILE PCI
              ANSWERS '34-40' FROM FILE INPAFAMDB
              ANSWERS '41-46' FROM FILE USPATFULL
              ANSWERS '47-48' FROM FILE USPAT2
              ANSWERS '49-51' FROM FILE EPFULL
              ANSWERS '52-58' FROM FILE USPAT2
```

Step 4: Sort results by invention

FSORT automatically groups records by common patent numbers (PN, AP, or PRN), thereby identifying invention families.

```
=> FSORT L14
```

```
SET SMARTSELECT ON
SET COMMAND COMPLETED
```

```
SET HIGHLIGHTING OFF
SET COMMAND COMPLETED
```

```
SEL L14 1- PN,APPS
L15          SEL L14 1- PN APPS :      351 TERMS
```

```
'L15' DELETED
```

```
L15          58 FSO L11
```

```
      7 Multi-record Families  Answers 1-34
        Family 1              Answers 1-7
        Family 2              Answers 8-13
        Family 3              Answers 14-18
        Family 4              Answers 19-21
        Family 5              Answers 22-24
        Family 6              Answers 25-30
        Family 7              Answers 31-34
      8 Individual Records    Answers 35-42
     16 Non-patent Records    Answers 43-58
```

Seven different invention families are represented in these 34 answers.

There are also 8 individual patent publications and 16 non-patent records (from HCAplus and SCISEARCH.)

```
SET SMARTSELECT OFF
SET COMMAND COMPLETED
```

```
SET HIGHLIGHTING DEF
SET COMMAND COMPLETED
```

Web Resource

Additional information about using the FSORT command is available at:

www.cas.org/training/stncommands/fsort.html

Step 5: Display results

Display one member from each patent family.

=> D PFAM=1-7 1 TI

L15 ANSWER 1 OF 58 HCAPLUS COPYRIGHT 2009 ACS on STN FAMILY 1
 TI Process for the polymerization or copolymerization of ethylene using aluminoxane- or borate-free single site catalysts

L15 ANSWER 8 OF 58 HCAPLUS COPYRIGHT 2009 ACS on STN FAMILY 2
 TI Manufacturing of 1-hexene by trimerization of ethylene using organometallic catalysts with neutral multidentate ligands having a tripod structure

L15 ANSWER 14 OF 58 HCAPLUS COPYRIGHT 2009 ACS on STN FAMILY 3
 TI Reduced oxidation state transition metal compounds useful as olefin polymerization catalysts

●
 ●
 ●

=> D PFAM=3 1-

YOU HAVE REQUESTED DATA FROM 5 ANSWERS - CONTINUE? Y/(N):Y

L15 ANSWER 14 OF 58 HCAPLUS COPYRIGHT 2009 ACS on STN FAMILY 3
 AN 1999:388201 HCAPLUS [Full-text](#)
 DN 131:32260
 TI Reduced oxidation state transition metal compounds useful as olefin polymerization catalysts
 IN Matsunaga, Phillip T.; Schiffino, Rinaldo S.
 PA Exxon Chemical Patents Inc., USA
 SO PCT Int. Appl., 31 pp.
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9929739	A1	19990617	WO 1998-US23519	19981103
	W: BR, CA, CN, JP, KR, MX, SG				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6362294	B1	20020326	US 1997-989295	19971211
	CA 2304506	A1	19990617	CA 1998-2304506	19981103
	EP 1037932	A1	20000927	EP 1998-956576	19981103
	EP 1037932	B1	20060726		
	R: BE, DE, ES, FR, GB, IT, NL, SE				
	BR 9813537	A	20001010	BR 1998-13537	
	JP 2001525459	T	20011211	JP 2000-5243	
	CN 1128821	C	20031126	CN 1998-8100	
	ES 2264573	T3	20070101	ES 1998-9565	
	MX 200003486	A	20001110	MX 2000-3486	
PRAI	US 1997-989295	A	19971211		
	WO 1998-US23519	W	19981103		
OS	MARPAT 131:32260				

RE.CNT in a CAplus record reveals there are 7 cited references for this record. They can be displayed with the RE, RETABLE, or the ALL formats.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 15 OF 58 PCI COPYRIGHT 2009 THOMSON REUTERS on STN FAMILY 3
AN 1999-394961 [33] PCI [Full-text](#)

DNC C1999-116067

TI Reduced oxidation state transition metal compounds comprise.

DC A17 A26 A60 A97 E11 E12

IN MATSUNAGA, P T; SCHIFFINO, R S

PA (ESSO) EXXON CHEM PATENTS INC; (ESSO) EXXONMOBIL CHEM PATENTS INC

CYC 26

PI WO 9929739 A1 19990617 (199933)* EN 31[3]

EP 1037932 A1 20000927 (200048) EN

BR 9813537 A 20001010 (200055) PT

KR 2001024474 A 20010326 (200161) KO

MX 2000003486 A1 20001101 (200163) ES

JP 2001525459 W 20011211 (200204) JA 36

US 6362294 B1 20020326 (200226) EN

CN 1336937 A 20020220 (200235) ZH

MX 216100 B 20030829 (200464) ES

CN 1128821 C 20031126 (200565) ZH

EP 1037932 B1 20060726 (200650) EN

DE 69835373 E 20060907 (200660) DE

ES 2264573 T3 20070101 (200706) ES

DE 69835373 T2 20070802 (200753) DE

ADT BR 9813537 A BR 1998-13537 19981103; BR 9813537 A WO 1998-US23519
19981103; CN 1336937 A CN 1998-810018 19981103; CN 1128821 C CN
1998-810018 19981103; DE 69835373 E DE 1998-635373 19981103; DE 69835373 E
EP 1998-956576 19981103; DE 69835373 E WO 1998-US23519 19981103; DE
69835373 T2 DE 1998-635373 19981103; DE 69835373 T2 EP 1998-956576
19981103; DE 69835373 T2 WO 1998-US23519 19981103; EP 1037932 A1 EP
1998-956576 19981103; EP 1037932 A1 WO 1998-US23519 19981103; EP 1037932
B1 EP 1998-956576 19981103; EP 1037932 B1 WO 1998-US23519 19981103; ES
2264573 T3 EP 1998-956576 19981103; JP 2001525459 W WO 1998-US23519
19981103; JP 2001525459 W JP 2000-524327 19981103; KR 2001024474 A KR
2000-703881 20000410; MX 2000003486 A1 MX 2000-3486 20000410; MX 216100 B
WO 1998-US23519 19981103; MX 216100 B MX 2000-3486 20000410; US 6362294 B1
US 1997-989295 19971211; WO 9929739 A1 WO 1998-US23519 19981103

FDT DE 69835373 E Based on EP 1037932 A; DE 69835373 E Based on WO 9929739 A;
DE 69835373 T2 Based on EP 1037932 A; DE 69835373 T2 Based on WO 9929739
A; ES 2264573 T3 Based on EP 1037932 A; BR 9813537 A Based on WO 9929739
A; EP 1037932 A1 Based on WO 9929739 A; EP 1037932 B1 Based on WO 9929739
A; JP 2001525459 W Based on WO 9929739 A; MX 216100 B Based on WO 9929739
A

PRAI US 1997-989295 19971211

CTS CITATION COUNTERS

PNC.D 19 Cited Patents Count
PNC.G 7 Citing Patents Count
IAC.D 4 Cited Issuing Authority Count
IAC.G 3 Citing Issuing Authority Count
CRC.I 0 Cited Literature Reference Count (by inventor)
CRC.X 17 Cited Literature Reference Count (by examiner)
OSC.D 15 Cited Patent WPI Accession Number Count
OSC.G 5 Citing Patent WPI Accession Number Count

(Continued on next page)

EXAMINERS FIELD OF SEARCH

NCL 502103000; 502117000; 502120000; 502162000; 502167000; 526106000;
526107000; 526125100; 526130000; 526161000; 526169200; 526348000

Citations

Cited Publication	By	Accession Number
EP 482934 A	Ex	1992-142984
EP 537609 A2	Ex	1993-127504
EP 617052 A2	Ex	1994-295725
EP 816386 A2	Ex	1998-054841
JP 195110 A	Ex	
JP 01095110 A	Ex	1989-154493
JP 08127610 A	Ex	1996-295567
US 4870042 A	Ex	1989-154493
US 5312794 A	Ex	1994-159140
US 5374696 A	Ex	1993-320695
US 5494874 A	Ex	1993-320695
US 5502124 A	Ex	1996-179321
US 5504049 A	Ex	1996-187719
US 5519099 A	Ex	1996-259114
US 5684098 A	Ex	1997-549020
WO 9717379 A	Ex	1997-280987
WO 9613529 A1	Ex	1996-239456
WO 9717379 A1	Ex	1997-280987
WO 9723492 A1	Ex	1997-350962

<--

*Hit cited family member(s) in PCI
are indicated with an arrow.*

RENB Literature Citations

Citing Publication	By	Cat	Literature Reference
EP 1037932 B1	Ex		JAFFART, J. ET AL.: "Ethylene Polymerization with Hydridotris(pyrazolyl)boratoniobium Complexes as precursors" EUROPEAN JOURNAL OF INORGANIC CHEMISTRY, volume 1998, number 4, 17 March 1998, pages 425-426, XP002092811 Weinheim
EP 1037932 B1	Ex		NAKAZAWA, H. ET AL.: "Polymerization Of Olefins With Titanium And Zirconium Complexes Containing Hydrotris(pyrazolyl)borate Or Hydrotris/3,5-dimethylpyrazolyl)borate" JOURNAL OF MOLECULAR CATALYSIS: CHEMICAL, volume 132, number 1, 28 May 1998, pages 33-41, XP002094097
EP 1037932 B1	Ex		SCHEUER, S.: "Synthesis, Structure and Olefin Polymerization Activity of Vanadium (V) Catalysts stabilized by Imido and Hydrotris(pyrazol)borato ligands" ORGANOMETALLICS, volume 14, number 6, 1995, pages 2627-2629, XP002092810

(Continued on next page)

US 6362294 B1	Ex	"13.6 Polypyrazolylborates and Related Ligands," Shaver, Comprehensive Coordination Chemical, volume 2, p. 245-259, (1987).
US 6362294 B1	Ex	"A Catalytic System for Ethylene Polymerization Based on Group III and Lanthanide Complexes of Tris(pyrazolyl)borate Ligands," Long, et al, J. Am. Chemical Society, 118, p. 12453-12454 (1996).
US 6362294 B1	Ex	"Complexes of Poly(Pyrazol-1-yl)borate Anions with the Early Transition Elements," Burchill, et al, Inorg. Nucl. Chemical Letters, volume 12, p. 93-97, (1976).
US 6362294 B1	Ex	"Ethylene Polymerization With Hydridoitris(pyrazolyl)boratoniobium Complexes As Precursors," Jaffart, et al, European Journal of Inorganic Chemistry, p. 425-426, (1998).
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US 6362294 B1	Ex	"Polymerization Of Olefins With Titanium And Zirconium Complexes Containing Hydrotris(pyrazolyl)borate Or Hydrotris(3,5-dimethylpyrazolyl)borate," Nakazawa, et al, J. Of Molecular Catalysis A: Chemical volume 132, Number 1, p. 33-41, (1998).
US 6362294 B1	Ex	"Polypyrazolylborate Complexes of Titanium and Vanadium," Manzer, J. Organometallic Chemical, 102, p. 167-174 (1975).
US 6362294 B1	Ex	"Progress Toward New Catalysts for Acyclic Diene Methathesis (ADMET) Polymerization Reactions," Blosch, et al, J. Molecular Catalysts, 76, p. 229-237, (1992).
US 6362294 B1	Ex	"Recent Advances in Poly(pyrazolyl)borate (Scorpionate) Chemistry," Trofimenko, Chemical Rev., 93, p. 943-980, (1993).
US 6362294 B1	Ex	"Syntheses, Structures, and Binding Constants of Cyclic Ether and Thioether Adducts of Soluble Cadmium(II) Carboxylates. Intermediates in the Homopolymerization of Oxiranes and Thiiranes and in Carbon Dioxide Coupling Processes," Darensbourg, et al, Inorg. Chemical, 36, p. 2426-2432 (1997).
US 6362294 B1	Ex	"Synthesis, Characterization, and Molecular Structures of a Series of [(3,5-Dimethylpyrazolyl)borator]vanadium(III) and -(IV) Complexes," Kime-Hunt, et al, Inorg. Chemical, 28, p. 4392-4399, (1989).
US 6362294 B1	Ex	"Synthesis, Structure, and Olefin Polymerization Activity of Vanadium(V) Catalysts Stabilized by Imido and

(Continued on next page)

Hydrotris(pyrazolyl)borato Ligands," Scheuer, et al, Organometallics, 14, p. 2627-2629 (1995).

US 6362294 B1 Ex Kime-Hunt et al., Inorg. Chemical, 28, 4392-4399, 1989.*

EP 1037932 A Ex See references of WO 9929739A1

Citings

Citing Publication By Accession Number

EP 1235865 B1	Ex	2001-496543
US 6900152 B2	Ex	2002-453528
US 6930070 B2	Ex	2005-304865
US 7368516 B2	Ex	2005-663058
WO 2000078826 A	Ex	2001-182476
WO 2001040322 A	Ex	2001-496543
WO 2000078826 A1	Ex	2001-182476

L15 ANSWER 16 OF 58 INPAFAMDB COPYRIGHT 2009 EPO/FIZ KA on STN FAMILY DUPLICATE 3

AN 9847261 INPAFAMDB EDF 20070321 UPFB 20090122 UWF 200904

TI "compostos de metal de transicao no estado de oxidacao reduzida uteis como catalisadores de polimerizacao de olefinas".

- REDUCED OXIDATION STATE TRANSITION METAL COMPOUNDS USEFUL AS OLEFIN POLYMERIZATION CATALYSTS.
- COMPOSES RENFERMANT DES METAUX DE TRANSITION FAIBLEMENT OXYDES, UTILES COMME CATALYSEURS DE POLYMERISATION DES OLEFINES.
- REDUCED OXIDATION STATE TRANSITION METAL COMPOUNDS USEFUL ASOLEFIN POLYMERIZATION CATALYSTS.
- REDUCED OXIDATION STATE TRANSITION METAL COMPOUNDS USEFUL AS olefin polymeriztion catalysts.
- Reduced oxidation state transition metal compounds useful as olefine polymerization catalysts.
- OLEFIN-POLYMERISATIONSKATALYSATORZUSAMMENSETZUNG, DIE UeBERGANGSMETALLVERBINDUNGEN IN NIEDRIGER OXIDATIONSSTUFE ENTHAeLT.
- OLEFIN POLYMERIZATION CATALYST COMPOSITION COMPRISING REDUCED OXIDATION STATE TRANSITION METAL COMPOUNDS.
- COMPOSITION DE CATALYSEUR DE POLYMERISATION DES OLEFINES CONTENANT DES METAUX DE TRANSITION FAIBLEMENT OXYDES.
- COMPOSICION DE CATALIZADOR DE POLIMERIZACION DE OLEFINAS QUE COMPRENDE COMPUESTOS DE METALES DE TRANSICION CON ESTADO DE OXIDACION REDUCIDO.

INS MATSUNAGA PHILLIP T; SCHIFFINO RINALDO S

- SCHIFFINO RINALDO S, US; MATSUNAGA PHILLIP T, T
- MATSUNAGA P T, US; SCHIFFINO R S, US
- MATSUNAGA T, US; SCHIFFINO S, US

PAS EXXON CHEMICAL PATENTS INC, US

- EXXONMOBIL CHEM PATENTS INC, US
- EXXONMOBIL CHEM PATENTS INC
- EXXON MOBIL CHEM PATENTS INC, US

IPCI C08F0004-68 [I,A]; C08F0004-649 [I,A]; C08F0004-69 [I,A];
 C08F0010-00 [I,A]; C08F0004-645 [I,A]; C08F0004-00 [I,C*];
 C08F0010-00 [I,C*]

IPCR C08F0004-44 [I,A]; C08F0004-645 [I,A]; C08F0004-6592 [I,A];

Cited references in INPAFAMDB can be displayed with the REP and REN formats.

(Continued on next page)

C08F0010-00 [I,A]; C08F0010-02 [I,A]; C08F0110-02 [N,A];
 C08F0210-16 [N,A]; C08F0004-00 [I,C*]; C08F0010-00 [I,C*];
 C08F0110-00 [N,C*]; C08F0210-00 [N,C*]
 EPC C08F0010-00+4/69; C08F0010-02+4/62; C08F0010-02+4/68
 AB (US 6362294 B1)

This invention is directed to reduced oxidation state Group 4-6 metal compounds, preferably the first row metals in those groups, suitable for activation as polymerization catalysts and characterized by comprising a substituted hydrotris(pyrazolyl)borate ancillary ligand and a plurality of single or multidentate uninegative ligands, excluding cyclopentadienyl ligands. The invention includes a polymerization process characterized by comprising contacting one or more monomers polymerizable by coordination or insertion polymerization under suitable polymerization conditions with these catalyst compositions.

PATENT FAMILY INFORMATION INPAFAMDB

+----- Publications -----+		+----- Applications -----+	
BR 9813537	A 20001010	BR 1998-13537	A 19981103
CA 2304506	A1 19990617	CA 1998-2304506	A 19981103
CA 2304506	C 20090106		
CN 1336937	A 20020220	CN 1998-810018	A 19981103
CN 1128821C	C 20031126		
DE 69835373	D1 20060907	DE 1998-69835373	A 19981103
DE 69835373	T2 20070802		
EP 1037932	A1 20000927	EP 1998-956576	A 19981103
EP 1037932	B1 20060726		
ES 2264573	T3 20070101	ES 1998-956576	T 19981103
JP 2001525459	T 20011211	JP 2000-524327	T 19981103
US 6362294	B1 20020326	US 1997-989295	A 19971211
WO 9929739	A1 19990617	WO 1998-US23519	W 19981103

+----- Priorities -----+	
US 1997-989295	A 19971211
WO 1998-US23519	W 19981103

2 priorities, 9 applications, 13 publications

L15 ANSWER 17 OF 58 USPATFULL on STN FAMILY 3
 AN 2002:63995 USPATFULL [Full-text](#)
 TI Reduced oxidation state transition metal compounds useful as olefin polymerization catalysts
 IN Matsunaga, Phillip T., Houston, TX, United States
 Schiffino, Rinaldo S., Kingwood, TX, United States
 PA Exxon Mobil Chemical Patents Inc., Houston, TX, United States (U.S. corporation)
 PI US 6362294 B1 20020326
 AI US 1997-989295 19971211 (8)
 DT Utility
 FS GRANTED
 LN.CNT 918
 INCL INCLM: 526/161.000
 INCLS: 526/169.200; 526/106.000; 526/107.000; 526/130.000;
 526/125.100; 526/348.000; 502/103.000; 502/117.000;
 502/120.000; 502/162.000; 502/167.000
 NCL NCLM: 526/161.000

Cited references in USPATFULL can be displayed with the REP and REN formats.

(Continued on next page)

NCLS: 502/103.000; 502/117.000; 502/120.000; 502/162.000;
502/167.000; 526/106.000; 526/107.000; 526/125.100;
526/130.000; 526/169.200; 526/348.000

IC [7]

ICM: C08F004-44

EXF 502/103; 502/162; 502/117; 502/120; 502/167; 526/161; 526/169.2;
526/106; 526/107; 526/130; 526/125.1; 526/348

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 18 OF 58 EPFULL COPYRIGHT 2009 EPO/FIZ KA on STN DUPLICATE 3
AN 1998:93020 EPFULL [Full-text](#)
DUPD 19990818 DUPW 199933

TIEN REDUCED OXIDATION STATE TRANSITION METAL COMPOUNDS USEFUL AS OLEFIN
POLYMERIZATION CATALYSTS.

TIFR COMPOSES RENFERMANT DES METAUX DE TRANSITION FAIBLEMENT OXYDES, UTILES
COMME CATALYSEURS DE POLYMERISATION DES OLEFINES.

TIDE ALS OLEFINPOLYMERISATIONSKATALYSATOREN NueTZLICHE
UeBERGANGSMETALLVERBINDUNGEN IN NIEDRIGER OXIDATIONSSTUFE.

IN MATSUNAGA, Phillip, T., 16403 Heatherdale Drive, Houston, TX 77059, US;
SCHIFFINO, Rinaldo, S., 4215 Meadow Forest Lane, Kingwood, TX 77345, US

PA EXXON CHEMICAL PATENTS INC., 5200 Bayway Drive, Baytown, TX 77520-5200,
US

PAN 1650022

DT Patent

LAF English

LA English

LAP English

TL German; English; French

PIT WOA1 International application published with search report

PI WO 9929739 A1 19990617

DS AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

AI EP 1998-956576 A 19981103

WO 1998-US23519 A 19981103

PRAI US 1997-989295 A 19971211

IC.VER 6

ICM C08F010-00

ICS C08F004-645

AN 1998:93020 EPFULL UP 20060406 [Full-text](#)
DUPD 20060405 DUPW 200614

TIEN OLEFIN POLYMERIZATION CATALYST COMPOSITION COMPRISING REDUCED OXIDATION
STATE TRANSITION METAL COMPOUNDS.

TIFR COMPOSITION DE CATALYSEUR DE POLYMERISATION DES OLEFINES CONTENANT DES
METAUX DE TRANSITION FAIBLEMENT OXYDES.

TIDE OLEFIN-POLYMERISATIONSKATALYSATORZUSAMMENSETZUNG, DIE
UeBERGANGSMETALLVERBINDUNGEN IN NIEDRIGER OXIDATIONSSTUFE ENTHAeLT.

IN MATSUNAGA, Phillip, T., 16403 Heatherdale Drive, Houston, TX 77059, US;
SCHIFFINO, Rinaldo, S., 4809 Threadneedle, Wilmington, DE 19807, US

PA ExxonMobil Chemical Patents Inc., 5200 Bayway Drive, Baytown, TX
77520-5200, US

PAN 3292552

AG Janssen, Bernd Christian, et al, Uexkuell & Stolberg Patentanwaelte
Beselerstrasse 4, 22607 Hamburg, DE

AGN 89901

DT Patent

LAF English

(Continued on next page)

LA English
 LAP English
 TL German; English; French
 PIT EPA1 Application published with search report
 PI EP 1037932 A1 20000927
 WO 9929739 19990617
 DS BE DE ES FR GB IT NL SE
 AI EP 1998-956576 A 19981103
 WO 1998-US23519 A 19981103
 PRAI US 1997-989295 A 19971211
 IPCI C08F0010-00 [I,A]; C08F0004-645 [I,A]
 C08F0010-00 [I,C*]; C08F0004-00 [I,C*]

 AN 1998:93020 EPFULL ED 20060726 UP 20060726 [Full-text](#)
 DUPD 20060726 DUPW 200630
 TIEN OLEFIN POLYMERIZATION CATALYST COMPOSITION COMPRISING REDUCED OXIDATION
 STATE TRANSITION METAL COMPOUNDS.
 TIFR COMPOSITION DE CATALYSEUR DE POLYMERISATION DES OLEFINES CONTENANT DES
 METAUX DE TRANSITION FAIBLEMENT OXYDES.
 TIDE OLEFIN-POLYMERISATIONSKATALYSATORZUSAMMENSETZUNG, DIE
 UeBERGANGSMETALLVERBINDUNGEN IN NIEDRIGER OXIDATIONSSTUFE ENTHAEeLT.
 IN MATSUNAGA, Phillip, T., 16403 Heatherdale Drive, Houston, TX 77059, US;
 SCHIFFINO, Rinaldo, S., 4809 Threadneedle, Wilmington, DE 19807, US
 PA ExxonMobil Chemical Patents, Inc., 5200 Bayway Drive, Baytown, TX
 77520-5200, US
 PAN 3292552
 AG Janssen, Bernd Christian, et al, Uexkuell & Stolberg Patentanwaelte
 Beselerstrasse 4, 22607 Hamburg, DE
 AGN 89901
 DT Patent
 LAF English
 LA English
 LAP English
 TL German; English; French
 PIT EPB1 Granted patent
 PI EP 1037932 B1 20060726
 WO 9929739 19990617
 DS BE DE ES FR GB IT NL SE
 AI EP 1998-956576 A 19981103
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 PRAI US 1997-989295 A 19971211
 REP **EP 482934** **A**
 WO 9717379 A
 JP 8127610 A
 US 5519099 A
 REN SCHEUER, S.: "Synthesis, Structure and Olefin Polymerization Activity of
 Vanadium (V) Catalysts stabilized by Imido and Hydrotris(pyrazol)borato
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 XP002092810;
 JAFFART, J. ET AL.: "Ethylene Polymerization with
 Hydridotris(pyrazolyl)boratoniobium Complexes as precursors" EUROPEAN
 JOURNAL OF INORGANIC CHEMISTRY, vol. 1998, no. 4, 17 March 1998, pages
 425-426, XP002092811 Weinheim;
 NAKAZAWA, H. ET AL.: "Polymerization Of Olefins With Titanium And
 Zirconium Complexes Containing Hydrotris(pyrazolyl)borate Or
 Hydrotris/3,5-dimethylpyrazolyl)borate" JOURNAL OF MOLECULAR CATALYSIS:
 CHEMICAL, vol. 132, no. 1, 28 May 1998, pages 33-41, XP002094097
 IPCI C08F0010-00 [I,A]; C08F0004-645 [I,A]
 C08F0010-00 [I,C*]; C08F0004-00 [I,C*]

*Hit cited family member(s) in
EPFULL are highlighted.*

DISPLAY relevant data from USPATFULL, USPAT2, and INPAFAMDB records

The Reference Patent Information (REP) and Reference Non-Patent Information (REN) formats are used to display cited references in USPATFULL, USPAT2, and INPAFAMDB.

=> D REP REN L15 17

L15	ANSWER	17 OF	58	USPATFULL	on	STN	FAMILY	3
REP	US 4870042	Sep	1989	502/114.000			Kohara et al.	
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REN	Kime-Hunt et al., Inorg. Chem., 28, 4392-4399, 1989.*							
	"Synthesis, Structure, and Olefin Polymerization Activity of Vanadium(V) Catalysts Stabilized by Imido and Hydrotris(pyrazolyl)borato Ligands," Scheuer, et al, Organometallics, 14, p. 2627-2629 (1995).							
	"A Catalytic System for Ethylene Polymerization Based on Group III and Lanthanide Complexes of Tris(pyrazolyl)borate Ligands," Long, et al, J. Am. Chem. Soc., 118, p. 12453-12454 (1996).							
	"Syntheses, Structures, and Binding Constants of Cyclic Ether and Thioether Adducts of Soluble Cadmium(II) Carboxylates. Intermediates in the Homopolymerization of Oxiranes and Thiiranes and in Carbon Dioxide Coupling Processes," Darensbourg, et al, Inorg. Chem., 36, p. 2426-2432 (1997).							
	"Synthesis, Characterization, and Molecular Structures of a Series of [(3,5-Dimethylpyrazolyl)borato]vanadium(III) and -(IV) Complexes," Kime-Hunt, et al, Inorg. Chem., 28, p. 4392-4399, (1989).							
	"Progress Toward New Catalysts for Acyclic Diene Metathesis (ADMET) Polymerization Reactions," Blosch, et al, J. Molecular Catalysts, 76, p. 229-237, (1992).							
	"Complexes of Poly(Pyrazol-1-yl)borate Anions with the Early Transition Elements," Burchill, et al, Inorg. Nucl. Chem. Letters, vol. 12, p. 93-97, (1976).							
	"Polypyrazolylborate Complexes of Titanium and Vanadium," Manzer, J. Organometallic Chem., 102, p. 167-174 (1975).							
	"Hydrotris(1-pyrazolyl)borates of Chromium(III)," Abrams, et al, Inorganica Chimica Acta, 106, p. 69-74, (1985).							

(Continued on next page)

"Recent Advances in Poly(pyrazolyl)borate (Scorpionate) Chemistry," Trofimenko, Chem. Rev., 93, p. 943-980, (1993).
 "13.6 Polypyrazolylborates and Related Ligands," Shaver, Comprehensive Coordination Chem., vol. 2, p. 245-259, (1987).
 "Polymerization Of Olefins With Titanium And Zirconium Complexes



DISPLAY cited references from CAplus records

Cited references are available for CAplus records added to the database since 1997.

The RE.CNT field indicates the number of cited references for a record. The cited references can be displayed with the Reference (RE) format or as a table using RETABLE. References also display automatically with the ALL or IALL formats.

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To compare citations from the HCAplus record, use the RETABLE format.

L15 ANSWER 14 OF 58 HCAPLUS COPYRIGHT 2009 ACS on STN FAMILY 3
 RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Borealis, A	1997			WO 9717379 A	HCAPLUS
Dow Chemical Co	1992			EP 0482934 A	HCAPLUS
Jaffart, J	1998	1998	425	European Journal of	
Nakazawa, H	1998	132	33	Journal of Molecular	HCAPLUS
Scheuer, S	1995	14	2627	Organometallics	HCAPLUS
Ube Ind Ltd	1996			JP 08127610 A	HCAPLUS
Wang, S	1996			US 55	HCAPLUS

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FILE LAST UPDATED: 4 May 2009 (20090504/ED)

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=> S L16

L17 1 L16

=> D L17 BIB,ABS

L17 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2009 ACS on STN
AN 1992:572275 HCAPLUS Full-text
DN 117:172275
TI Heterocyclic borate metal complexes as coordination polymerization Catalysts
IN Newman, Thomas H.
PA Dow Chemical Co., USA
SO Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DT Patent
LA English

(Continued on next page)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	EP 482934	A1	19920429	EP 1991-309855	19911024
	EP 482934	B1	19970326		
	R: BE, CH, DE, FR, GB, IT, LI, SE				
	US 5237069	A	19930817	US 1990-603350	19901026
	JP 04305585	A2	19921028	JP 1991-337493	19911023
	CA 2054246	AA	19920427	CA 1991-2054246	19911025
	AU 9186732	A1	19920430	AU 1991-86732	19911025
	CN 1062733	A	19920715	CN 1991-109984	19911026
PRAI	US 1990-603350		19901026		

OS MARPAT 117:172275

AB The complexes $\text{HYMX}'_n\text{X}_3$ (I) and $(\text{HYMX}'_n\text{X}_2)_+ \text{A}^-$ [HY = hydridotris(pyrazolyl)borate ion, M = Group IV metal, X = inert anionic ligand, X' = inert, nonionic donor ligand, n = 0 or 1, A- = noncoordinating anion] are manufactured for use as catalysts for polymerization of α -olefins and vinylarom. compds. Thus, heating 10 mL styrene with triisopropoxytitanium [hydridotris(pyrazolyl)borate], (iso-Pr)₃Al, and Me aluminoxane in PhMe for 4 h at 70° gave 0.28 g highly crystalline, syndiotactic polystyrene.

Journal Reference Citation Search

Citation searching can be used to determine whether known research articles are *still relevant* to researchers in a given area.

Search Challenge

Comprehensive citation searching for a journal reference presents a challenge due to frequent inconsistencies and errors. Errors typically include

- Misspelled author names
- Incorrect or missing author initials
- Incorrect publication years
- Missing or incorrect volume/page numbers
- Variations in journal titles

Key Search Steps

There are two key steps to conducting comprehensive citation searches for journal references

1. Identify all variations that occur for a cited reference in a database
2. Search all possible databases that might contain that cited reference

STN Tools

STN features facilitate comprehensive citation searching for a journal reference.

When you want to...	Use this STN feature
Convert the reference to a citation search term	<ul style="list-style-type: none">■ SELECT CIT — when you have few answers from a single-file answer set■ ANALYZE CIT; EDIT L# /CIT /RE — when you have more answers than are allowed in the SELECT CIT command (limit is 999 E-numbers) or answers from a multifile answer set; Use ANALYZE CIT & the EDIT command to requalify the search term field from /CIT to /RE
Locate variations on a cited reference search term	EXPAND
Eliminate duplicate records from a multifile cited reference search	DUPLICATE REMOVE

Search Application — Evaluate the Importance of a Research Article

One way to determine the relative importance of a journal article and its effect on current research is by determining whether it continues to be cited in recent references. To provide a clear picture of this value, a citation search must be fairly comprehensive.

Search Question: *How many times has the 1993 paper by A. M. Van der Blik in the Journal of Cell Biology been cited since January 2005?*

Search Strategy

To conduct a comprehensive citation search on a journal article

- Step 1 Locate the reference to the article of interest
- Step 2 Convert the reference to a citation search term
- Step 3 Identify relevant citation databases
- Step 4 Locate all variations on the cited reference in each database
- Step 5 Eliminate duplicate records
- Step 6 Display results
- Step 7 *(Optional)* Analyze results

Step 1: Locate the reference

Search on the author name, publication year, and other source information as needed to find the specific article.

```
=> FILE CAPLUS

=> S VAN DER BLIEK A?/AU AND 1993/PY

      35 VAN DER BLIEK A?/AU
      678949 1993/PY
L1      1 VAN DER BLIEK A?/AU AND 1993/PY

=> D AU SO

L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN
AU van der Bliiek, Alexander M.; Redelmeier, Thomas E.; Damke,
   Hanna; Tisdale, Ellen J.; Meyerowitz, Elliot M.; Schmid, Sandra L.
SO Journal of Cell Biology (1993), 122(3), 553-63
   CODEN: JCLBA3; ISSN: 0021-9525
```

Step 2: Convert the reference to a citation search term

The SELECT CIT command is used to format the reference information in a searchable format.

SELECT CIT

- Extracts the bibliographic information needed for a cited reference search term
- Arranges the information in the correct order
- Truncates before the journal title to allow for variations in journal titles
- Adds the /RE (cited reference) search field

```
=> SEL CIT;D SEL

E1 THROUGH E1 ASSIGNED

E1      1      VANDERBLIEK A M, 1993, V122, P553, ?/RE
```

Note: Spaces in author name are removed in the citation term.

Helpful HINT

Search SELECT CIT in STNGUIDE and display the names of the resulting databases to determine if SELECT CIT is available in a database of interest.

Step 3: Identify relevant citation databases

The following STN databases were selected to locate publications citing this paper:

File	Reason for selection
CAplus	Extremely current journal coverage, extensive biochemistry coverage
SCISEARCH	Extensive subject coverage

Step 4: Locate citation variations in each database

EXPAND is a cost-effective tool for finding cited reference variations in a database. With no connect hour fee, ZCAplus is a good choice for exploring terms.

Citation variations in CAplus

```
=> FILE ZCAPLUS
```

```
=> SET EXPAND CONTINUOUS
```

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SET COMMAND COMPLETED
```

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=> E E1
```

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E2      1      VANDERBLIECK A, 1991, V351, P411, NATURE/RE
E3      1      VANDERBLIECK N, 1996, V119, P547, A AS/RE
E4      0 --> VANDERBLIEK A M, 1993, V122, P553, ?/RE
E5      36     VANDERBLIEK A, 1986, V5, P3201, EMBO J/RE
E6      1      VANDERBLIEK A, 1986, V52, P165, ADV CANCER RES/RE
E7      13     VANDERBLIEK A, 1986, V6, P1671, MOL CELL BIOL/RE
E8      1      VANDERBLIEK A, 1986, V6, P1671, MOLECULAR AND CELLULAR BIOLO
          GY/RE
E9      1      VANDERBLIEK A, 1987, V6, P3325, EMBO EUR MOL BIOL ORGAN J/RE
E10     46     VANDERBLIEK A, 1987, V6, P3325, EMBO J/RE
E11     1      VANDERBLIEK A, 1987, V6, P3325, EMBO JOURNAL/RE
E12     1      VANDERBLIEK A, 1988, P165, ADVANCES IN CANCER RESEARCH/RE
E13     1      VANDERBLIEK A, 1988, V16, P484, NUCLEIC ACIDS RES/RE
```

Use SET EXPAND CONTINUOUS to keep E-number lists.

E-numbers can be used in EXPAND. Note spelling of the name at E2.

(continued on next page)

=> E

Type E to continue EXPANdIng.

E14 1 VANDERBLIEK A, 1988, V16, P4841, NUC ACIDS RES/RE
E15 1 VANDERBLIEK A, 1988, V16, P4841, NUCL ACIDS RES/RE

•
•
•

=> E

E26 1 VANDERBLIEK A, 1989, V52, P165, ADVANCE IN CANCER RES/RE
E27 1 VANDERBLIEK A, 1989, V52, P165, ADVANCES IN CANCER RESEARCH/
RE
E28 1 VANDERBLIEK A, 1991, P411, NATURE/RE
E29 249 VANDERBLIEK A, 1991, V351, P411, NATURE
E30 1 VANDERBLIEK A, 1991, V351, P411, NATURE
E31 9 VANDERBLIEK A, 1991, V351, P411, NATURE
E32 1 VANDERBLIEK A, 1991, V351, P553, NATURE/RE
E33 2 VANDERBLIEK A, 1993, V12, P553, J CELL BIOL/RE
E34 1 VANDERBLIEK A, 1993, V122, P552, J CELL BIOL/RE
E35 312 VANDERBLIEK A, 1993, V122, P553, J CELL BIOL/RE
E36 1 VANDERBLIEK A, 1993, V122, P553, J CELL SCI/RE
E37 4 VANDERBLIEK A, 1993, V122, P553, JOURNAL OF CELL BIOLOGY/RE

E33 is an error in the volume.
E34 is a page error.

•
•
•

=> E BACK E2

E50 36 VANDERBLIEK A, 1986, V5, P3201, EM
E51 1 VANDERBLIECK N, 1996, V119, P547,
E52 1 --> VANDERBLIECK A, 1991, V351, P411,
E53 1 VANDERBLIECK A, 1989, V52, P165, AD
E54 1 VANDERBLID J, 1987, V1, P68, MOLECULAR ENDOCRINOLOGY/RE
E55 1 VANDERBLICK, 1989, V52, P165, ADV CANCER RES/RE
E56 1 VANDERBLICK N, 2004, V5492, P1582, PROC SPIE/RE
E57 1 VANDERBLICK N, 1996, V309, P849, A A/RE
E58 1 VANDERBLICK A, 2003, V4, P769, DEV CELL/RE
E59 1 VANDERBLICK A, 2000, V151, PF1, J CELL BIOL/RE
E60 2 VANDERBLICK A, 1999, V9, P96, TRENDS CELL BIOL/RE
E61 1 VANDERBLICK A, 1999, V9, P96, CELL BIOLOGY/RE

Use EXPAND BACK to move
"up" the EXPAND list to look
for additional variations.

=> E

E62 2 VANDERBLICK A, 1993, V122, P553, J CELL BIOL/RE
E63 4 VANDERBLICK A, 1991, V351, P411, NATURE/RE
E64 2 VANDERBLICK A, 1989, V52, P165, ADV CANCER RES/RE
E65 1 VANDERBLICK A, 1988, V71, P410, GENE/RE
E66 1 VANDERBLICK A, 1988, V71, P401, GENE/RE
E67 1 VANDERBLEST O, 1980, P681, BEHAVIOR OF HIGH TEMPERATURE ALLO
YS IN AGGRESSIVE ENVIRONMENTS PROCEEDINGS OF THE INTERNATION
AL CONFERENCE 1979/RE
E68 1 VANDERBLEK A, 1988, V71, P401, GENE/RE
E69 1 VANDERBLEIK A, 2000, V151, PF1, J CELL BIOL/RE
E70 3 VANDERBLEIK A, 1993, V122, P553, J CELL BIOL/RE

Check for other spelling variations

=> E BLIEK A, 1993/RE

E91	1	BLIEK A, 1991, V351, P411, NATURE/RE
E92	1	BLIEK A, 1992, V25, P101, GEOBIOS/RE
E93	0 -->	BLIEK A, 1993/RE
E94	1	BLIEK A, 1993, V122, P553, J CELL BIOL/RE
E95	1	BLIEK A, 1993, V122, P553, JOURNAL OF CELL BIOLOGY/RE
E96	1	BLIEK A, 1997, V7, P1851, J PHYSIQUE III/RE
E97	1	BLIEK A, 1999, V9, P96, TRENDS CELL BIOL/RE
E98	2	BLIEK A, 2000, V151, PF1, J CELL BIOL/RE
E99	1	BLIEK A, 2001, KINETICS BASED DESIGN OF REACTIVE DISTILLATIO N FOR ESTERIFICATION OF LAURIC ACID WITH 2 ETHYLHEXANOL/RE
E100	1	BLIEK A, 2001, PCT EP02 11740/RE
E101	1	BLIEK A, 2001, V73, P770, CHEM ING TECH/RE
E102	1	BLIEK A, 2002, V194, P129, PHYS STAT SOL A/RE

=> E BLICK A, 1993/RE

E103	1	BLICHTFELDT E, 1996, V26, P2876, EUR J IMMUNOL/RE
E104	1	BLICK A, 1988, V71, P401, GENE/RE
E105	0 -->	BLICK A, 1993/RE
E106	3	BLICK A, 1994, V334, P234, PHYS LETT B/RE
E107	1	BLICK A, 1994, V4, P1, PRIB TEKH EKSP/RE
E108	3	BLICK A, 1994, VB334, P234, PHYS LETT/RE
E109	1	BLICK A, 1995, V3, P34, PRIB TEKH EKSP/RE
E110	1	BLICK A, 1995, V38, P308, INSTR EXP TECH/RE
E111	1	BLICK A, 1996/RE
E112	1	BLICK A, 1996, PREPRINT OF CERN/RE
E113	1	BLICK A, 1996, V96-105, PREPRINT OF IHEP/RE
E114	3	BLICK A, 1997, V387, P365, NUCL I

=> FILE HCAPLUS

=> S (E33-36,E62,E70,E94-95) AND PY>2004

L2 82 ("VANDERBLIEK A, 1993, V12, P553, J CELL BIOL"/RE OR "VANDERBLIE
K A, 1993, V122, P552, J CELL BIOL"/RE OR "VANDERBLIEK A, 1993,
V122, P553, J CELL BIOL"/RE OR "VANDERBLIEK A, 1993, V122, P553,
J CELL SCI"/RE OR "VANDERBLICK A, 1993, V122, P553, J CELL BIOL
"/RE OR "VANDERBLEIK A, 1993, V122, P553, J CELL BIOL"/RE OR
"BLIEK A, 1993, V122, P553, J CELL BIOL"/RE OR "BLIEK A, 1993,
V122, P553, JOURNAL OF CELL BIOLOGY"/RE)AND PY>2004

*HCAplus is a good choice if
there is a large number of
E-numbers to search.*

*82 records in HCAplus cited the Journal of
Cell Biology reference of interest.*

Citation variations in SCISEARCH

=> FILE SCISEARCH

*E-numbers are available for
use in any database.*

=> E E1

E115	1	VANDERBLIEK A M, 1993, V122, P552, J CELL BIOL/RE
E116	426	VANDERBLIEK A M, 1993, V122, P553, J CELL BIOL/RE
E117	0 -->	VANDERBLIEK A M, 1993, V122, P553, ?/RE
E118	1	VANDERBLIEK A M, 1993, V122, P653, J CELL BIOL/RE
E119	1	VANDERBLIEK A M, 1995, V52, P165, ADV CANCER RES/RE
E120	1	VANDERBLIEK A M, 1998, V35, P793, J MED GENET/RE
E121	1	VANDERBLIEK A M, 1999, V9, P2, TRENDS CELL BIOL/RE
E122	13	VANDERBLIEK A M, 1999, V9, P253, TRENDS CELL BIOL/RE
E123	153	VANDERBLIEK A M, 1999, V9, P96, TRENDS CELL BIOL/RE
E124	1	VANDERBLIEK A M, 2000, V151, P1, J CELL BIOL/RE
E125	37	VANDERBLIEK A M, 2000, V151, PF1, J CELL BIOL/RE
E126	11	VANDERBLIEK A M, 2003, V4, P769, DEV CELL/RE

=> E BACK E115

E127	1	VANDERBLIEK A M, 1993, V122, P653, J CELL BIOL/RE
E128	426	VANDERBLIEK A M, 1993, V122, P553, J CELL BIOL/RE
E129	1 -->	VANDERBLIEK A M, 1993, V122, P552, J CELL BIOL/RE
E130	4	VANDERBLIEK A M, 1993, V122, P533, J CELL BIOL/RE
E131	1	VANDERBLIEK A M, 1993, IN PRESS J CELL BIOL/RE
E132	1	VANDERBLIEK A M, 1991, V351, P414, NATURE/RE
		•
		•
		•
E167	1	VANDERBLIECK N S, 1996, IN PRESS A A/RE
E168	1	VANDERBLIECK A M, 1993, V123, P553, J CELL BIOL/RE
E169	1	VANDERBLICK A, V16, P4841, NUCLEIC ACIDS RES/RE
E170	1	VANDERBLICK A, 1988, V16, P4841, NUCLEIC ACIDS RES/RE

=> E BLIEK A/RE 20

*Browse 5-25 E-terms instead of the default 12 by
appending a number to the EXPAND command.*

E211	1	BLIEK A, 1982, THESIS MIT CAMBRIDGE/RE
E212	1	BLIEHORTHOFT M, 1979, V3, P99, WORLD J SURG/RE
E213	0 -->	BLIEK A/RE
E214	1	BLIEK A J, 1971, V12, P90, J NUCLEAR MEDICINE/RE
E215	15	BLIEK A J, 1971, V26, P125, THORAX/RE

E224 has an incorrect middle initial.

E223	1	BLIEK A V, 1988, V48, P5927, CANCER RES/RE
E224	1	BLIEK A V, 1993, V122, P553, J CELL BIOL/RE
E225	1	BLIEK A, 1982, THESIS MIT CAMBRIDGE/RE
E226	1	BLIEK A, 1984, MATH MODELING CONCUR/RE
E227	1	BLIEK A, 1984, MATH MODELLING CONCU/RE
E228	7	BLIEK A, 1984, THESIS MIT/RE
E229	4	BLIEK A, 1984, THESIS MIT CAMBRIDGE/RE
E230	1	BLIEK A, 1984, THESIS TH TWENTE NET/RE

(Continued on next page)

=> E BLICK A/RE

```
E235      1      BLICK B, 1999, V40, P444, BRIT POULTRY SCI/RE
E236      1      BLICKJENSDEFER B, 1976, V37, PL73, THIN SOLID FILMS/RE
E237      0 --> BLICK A/RE
E238      1      BLICK A J, 1971, V26, P125, THORAX/RE
E239      1      BLICK A M, 1983, JINR1383153 JOINT I/RE
E240      1      BLICK A M, 1986, IHEP9386 PREPR/RE
E241      1      BLICK A M, 1986, V6, P1671, MOL CELL BIOL/RE
E242      2      BLICK A M, 1994, V334, P234, PHYS LETT B/RE
E243      1      BLICK A M, 1994, V4, P1, PRIB TEKH EKSP/RE
E244      1      BLICK A M, 1995, V38, P308, INSTRUM EXP TECH/RE
E245      1      BLICK A M, 1996, 9657 I HIGH EN PHYS/RE
E246      1      BLICK A M, 1996, 9657 IFVE I HIGH EN/RE
```

=> S (E127-131,E168,E224) AND PY>2004

```
L3          84 ("VANDERBLIEK A M, 1993, V122, P653, J CELL BIOL"/RE OR "VANDERB
LIEK A M, 1993, V122, P553, J CELL BIOL"/RE OR "VANDERBLIEK A
M, 1993, V122, P552, J CELL BIOL"/RE OR "VANDERBLIEK A M, 1993,
V122, P533, J CELL BIOL"/RE OR "VANDERBLIEK A M, 1993, IN PRESS
J CELL BIOL"/RE OR "VANDERBLIECK A M, 1993, V123, P553, J CELL
BIOL"/RE OR "BLIEK A V, 1993, V122, P553, J CELL BIOL"/RE)AND
PY>2004
```

Step 5: Remove duplicate records

=> SET DUPORDER FILE

SET COMMAND COMPLETED

=> DUP REM L2 L3

```
L4          92 DUP REM L2 L3 (74 DUPLICATES REMOVED)
           ANSWERS '1-82' FROM FILE HCAPLUS
           ANSWERS '83-92' FROM FILE SCISEARCH
```

*SET DUPORDER FILE places
the answer set in file order.*

*Most of the records were in
both databases.*

Step 6: Display results

Record found in both databases.

=> D TI HIT 1 75 82 83 92

L4 ANSWER 1 OF 92 HCAPLUS COPYRIGHT 2009 ACS on STN DUPLICATE 1
 TI A novel cellular protein, VPEF, facilitates vaccinia virus penetration into HeLa cells through fluid phase endocytosis
 SO Journal of Virology (2008), 82(16), 7988-7999
 CODEN: JOVIAM; ISSN: 0022-538X

RE

(61) van der Blik, A; J Cell Biol 1993, V122, P553 HCAPLUS

L4 ANSWER 75 OF 92 HCAPLUS COPYRIGHT 2009 ACS on STN
 TI Clathrin- and caveolin-independent entry of human papillomavirus 16-involvement of tetraspanin-enriched microdomains (TEMs)
 SO PLoS One (2008), 3(10), No pp. given
 CODEN: POLNCL; ISSN: 1932-6203
 URL:

Answers 75-82 are unique to the CAPLUS family of files.

<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0003313>

RE

(54) van der Blik, A; J Cell Biol 1993, V122, P553 HCAPLUS

L4 ANSWER 82 OF 92 HCAPLUS COPYRIGHT 2009 ACS on STN
 TI Dynamin I phosphorylation and the control of synaptic vesicle endocytosis
 SO Biochemical Society Symposia (2005), 72(Lipids, Rafts and Traffic), 87-97
 CODEN: BSSYAT; ISSN: 0067-8694

RE

(45) van der Blik, A; J Cell Biol 1993, V122, P553 HCAPLUS

L4 ANSWER 83 OF 92 SCISEARCH COPYRIGHT (c) 2009 The Thomson Corporation
 STN
 TI Different mechanisms of cell entry by human-pathogenic old world
 World arenaviruses

Answers 83-92 are unique to SCISEARCH.

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	ARN PG (RPG)	Referenced Work (RWK)
----------------------------	---------------	--------------	-----------------	--------------------------

VANDERBLIEK A M	1993	122	553	J CELL BIOL	<--
-----------------	------	-----	-----	-------------	-----

SO JOURNAL OF VIROLOGY, (AUG 2008) Volume 82, Number 15, pp. 7677-7687.
 ISSN: 0022-538X.

L4 ANSWER 92 OF 92 SCISEARCH COPYRIGHT (c) 2009 The Thomson Corporation on
 STN
 TI Intracellular trafficking pathways and drug delivery: fluorescence imaging of living and fixed cells

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	ARN PG (RPG)	Referenced Work (RWK)
----------------------------	---------------	--------------	-----------------	--------------------------

VANDERBLIEK A M	1993	122	553	J CELL BIOL	<--
-----------------	------	-----	-----	-------------	-----

SO ADVANCED DRUG DELIVERY REVIEWS, (2 JAN 2005) Volume 57, Number 1, pp. 43-61. ISSN: 0169-409X.

note

→ An alternate way to find references that cite a research article is to search individual fields comprising the /RE (cited reference) search field.

The following search fields are used to search for citing references:

- /RAU, Reference Author
- /RPY, Reference Publication Year
- /RVL, Reference Volume
- /RPG, Reference Pagination
- /RWK, Reference Work (Avoid using this field since journal abbreviations are inconsistent.)

Develop a search query using as many pieces of information you have, truncating author names liberally and using the (S) operator rather than AND to ensure that the search terms are part of the same citation.

For example:

**=> S (VANDERBLIEK?/RAU OR VANDERBLICK?/RAU OR
VANDERBLEIK?/RAU OR BLIEK?/RAU) (S) 1993/RPY (S) 12?/RVL**

Step 7: (Optional) Analyze results

Extend the Search Question...

In what journals and by what organizations is the 1993 paper being cited?

Extract the requested information

```
=> ANALYZE L4 1- JTF CS.ORG
```

```
L5          ANALYZE L4 1- JTF CS.ORG :      197 TERMS
```

DISPLAY the company names

```
=> D CS.ORG 1-
```

```
L5          ANALYZE L4 1- JTF CS.ORG :      197 TERMS
```

TERM #	# OCC	# DOC	% DOC	JTF CS.ORG
11	4	4	4.35	NATIONAL INSTITUTES OF H
12	4	4	4.35	UNIVERSITY OF CAMBRIDGE
16	3	3	3.26	DUKE UNIVERSITY MEDICAL CENTER
19	3	3	3.26	UNIVERSITY OF QUEENSLAND
20	3	3	3.26	UNIVERSITY OF TUEBINGEN
21	3	3	3.26	YALE UNIVERSITY SCHOOL OF MEDICINE
22	3	1	1.09	UNIV BUENOS AIRES
25	2	2	2.17	DAVID GEFFEN SCHOOL OF MEDICINE AT UCLA
28	2	2	2.17	MCGILL UNIVERSITY
42	2	2	2.17	SCRIPPS RES INST
43	2	2	2.17	THE SCRIPPS RESEARCH INSTITUTE
44	2	2	2.17	THE UNIVERSITY OF CHICAGO
45	2	2	2.17	UNIVERSITY COLLEGE LONDON
46	2	2	2.17	UNIVERSITY OF ARIZONA
47	2	2	2.17	UNIVERSITY OF LEEDS
48	2	1	1.09	CHU REIMS
49	2	1	1.09	KATHOLIEKE UNIV LEUVEN
53	2	1	1.09	UNIV BRISTOL
54	2	1	1.09	UNIV QUEENSLAND
56	1	1	1.09	ABTEILUNG BIOPHYSIK, MAX-PLANCK-INSTITUT FUER MEDIZ
57	1	1	1.09	ACADEMIA SINICA
60	1	1	1.09	ALBERT-LUDWIGS UNIVERSITY
65	1	1	1.09	AVENIR INSERM EA
82	1	1	1.09	CASE WESTERN RESERVE UNIVERSITY
91	1	1	1.09	CHILDREN'S HOSPITAL OF PHILADELPHIA

By default, the organization names display in occurrence order with the most frequent first.



DISPLAY the journal names

=> D JTF ALPHA 1-

L5 ANALYZE L4 1- JTF CS.ORG : 197 TERMS

*Display the journal titles
in alphabetical order.*

TERM #	# OCC	# DOC	% DOC	JTF CS.ORG
3	1	1	1.06	ADVANCED DRUG DELIVERY REVIEWS
5	2	2	2.13	AMERICAN JOURNAL OF PHYSIOLOGY
6	1	1	1.06	ANNUAL REVIEW OF NEUROSCIENCE
7	1	1	1.06	ANNUAL REVIEW OF PLANT BIOLOGY
9	1	1	1.06	BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS
10	1	1	1.06	BIOCHEMICAL JOURNAL
11	1	1	1.06	BIOCHEMICAL PHARMACOLOGY
12	1	1	1.06	BIOCHEMICAL SOCIETY SYMPOSIA
13	1	1	1.06	BIOCHEMICAL SOCIETY TRANSACTIONS
14	1	1	1.06	BIOCHIMICA ET BIOPHYSICA ACTA-MOLECULAR CELL RESEAR
15	3	3	3.19	BIOCHIMICA ET BIOPHYSICA ACTA, MOLECULAR CELL RESEA
16	1	1	1.06	BIOLOGICAL & PHARMACEUTICAL BULLETIN
17	1	1	1.06	BRITISH JOURNAL OF PHARMACOLOGY
19	1	1	1.06	CELL (CAMBRIDGE, MA, UNITED STATES)
20	1	1	1.06	CELL & TISSUE RESEARCH
21	1	1	1.06	CELL HOST & MICROBE
22	1	1	1.06	CEREBRAL CORTEX
25	1	1	1.06	CURRENT BIOLOGY
26	1	1	1.06	CURRENT PHARMACEUTICAL DESIGN
27	1	1	1.06	CYTOKINE & GROWTH FACTOR REVIEWS
31	1	1	1.06	DEVELOPMENTAL BIOLOGY (SAN DIEGO, CA, UNITED STATES
34	1	1	1.06	EMBO JOURNAL
36	1	1	1.06	EUROPEAN JOURNAL OF PHARMACEUTICS AND BIOPHARMACEUT
38	1	1	1.06	EXPERIMENTAL CELL RESEARCH
39	1	1	1.06	FEBS LETTERS
41	1	1	1.06	G PROTEIN-COUPLED RECEPTORS HANDBOOK
42	1	1	1.06	GENES & DEVELOPMENT
51	1	1	1.06	INTERNATIONAL REVIEW OF CYTOLOGY
52	5	5	5.32	JOURNAL OF BIOLOGICAL CHEMISTRY
53	4	4	4.26	JOURNAL OF CELL BIOLOGY
54	3	3	3.19	JOURNAL OF CELL SCIENCE
55	1	1	1.06	JOURNAL OF EXPERIMENTAL BOTANY
56	1	1	1.06	JOURNAL OF INTEGRATIVE PLANT BIOLOGY
57	2	2	2.13	JOURNAL OF NEUROCHEMISTRY
58	1	1	1.06	JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY
59	5	5	5.32	JOURNAL OF VIROLOGY
61	1	1	1.06	LIPOSOME TECHNOLOGY (3RD EDITION)
67	1	1	1.06	METHODS IN ENZYMOLOGY
68	1	1	1.06	MICROBIOLOGY AND MOLECULAR BIOLOGY REVIEWS
69	2	2	2.13	MOLECULAR AND CELLULAR BIOLOGY
•				
•				
•				

Referenced Author Search

The key authors in a research area are very often the authors who have been cited most frequently.

Search Challenge

The Referenced Author (RAU) field can be used to find cited references for a specific name. However, it only retrieves cited references where the known author was the first author in CAPlus.

```
=> FILE CAPLUS SCISEARCH
```

```
2 FILES IN THE FILE LIST
```

```
=> E KOINUMA H/RAU
```

```
E1          1      KOINUMA B/RAU
E2          86     KOINUMA D/RAU
E3         1549 --> KOINUMA H/RAU
E4          126   KOINUMA K/RAU
E5           1    KOINUMA KAWASAKI MOBILE COMBINATORIAL PLD HUNTINGTON/RAU
E6          221   KOINUMA M/RAU
E7           19   KOINUMA N/RAU
E8           19   KOINUMA S/RAU
E9           49   KOINUMA T/RAU
E10          1    KOINUMA X/RAU
E11          34   KOINUMA Y/RAU
E12          10   KOINUMARU S/RAU
```

```
=> S E3
```

```
L1          592 FILE CAPLUS
L2          957 FILE SCISEARCH
```

```
TOTAL FOR ALL FILES
```

```
L3          1549 "KOINUMA H"/RAU
```

```
=> D BIB HIT
```

```
L3 ANSWER 1 OF 1549 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2008:1370022 CAPLUS Full-text
TI Pliant epitaxial ionic oxides on silicon
AU Kukuruznyak, Dmitry; Reichert, Harald; Ohmori, Kenji; Ahmet, Parhat;
   Chikyow, Toyohiro
CS Advanced Electronic Materials Centre, National Institute for Materials
   Science, 1-1 Namiki, Tsukuba, Ibaraki, 305-0044, Japan
SO Advanced Materials (Weinheim, Germany) (2008), 20(20), 3827-3831
   CODEN: ADVMEW; ISSN: 0935-9648
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
RE.CNT 30      THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
                ALL CITATIONS AVAILABLE IN THE RE FORMAT
RE
```

*The hit citation shows
Koinuma as the first
author.*

Continued on next page

=> D 593 BIB HIT

L3 ANSWER 593 OF 1549 SCISEARCH COPYRIGHT (c) 2009 The Thomson Corporation on STN
 AN 2008:1410767 SCISEARCH [Full-text](#)
 GA The Genuine Article (R) Number: 376TU
 TI Interface dipole induced by asymmetric exchange effect in Mott-insulator/Mott-insulator heterojunction
 AU Hao Lei (Reprint)
 CS Nanjing Univ, Natl Lab Solid State Microstruct, Nanjing 210093, Peoples R China (Reprint)
 E-mail: hi549063@sina.com
 AU Hao Lei (Reprint)
 CS Nanjing Univ, Dept Phys, Nanjing 210093, Peoples R China
 E-mail: hi549063@sina.com
 AU Wang Jun
 CS Southeast Univ, Dept Phys, Nanjing 210096, Peoples R China
 CYA Peoples R China
 SO CHINESE PHYSICS B, (NOV 2008) Volume 17, Number 11, pp. 4305-4311. ISSN: 1674-1056.
 PB IOP PUBLISHING LTD, DIRAC HOUSE, TEMPLE BACK, BRISTOL BS1 6BE, ENGLAND.
 DT Article; Journal
 LA English
 REC Reference Count: 33
 ED Entered STN: 18 Dec 2008
 Last Updated on STN: 18 Dec 2008

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	ARN PG (RPG)	Referenced Work (RWK)
KOINUMA H	2005	486	2	THIN SOLID FILMS <--

=> ANALYZE HIT RE L3 1-;D TOP15

L4 ANALYZE L3 1- RE HIT : 398 TERMS

TERM #	# OCC	# DOC	% DOC RE
1	137	137	8.84 KOINUMA H, 2004, V3, P429, NAT MATER
2	124	124	8.01 KOINUMA H, 1992, V60, P816, APPL PHYS LETT
3	113	113	7.30 KOINUMA H, 1991, V58, P2027, APPL PHYS LETT
4	103	103	6.65 KOINUMA H, 1994, V75, P308, APPL SURF SCI
5	54	54	3.49 KOINUMA H, 1988, V27, PL1216, JPN J APPL PHYS
6	52	52	3.36 KOINUMA H, 1977, V178, P1283, MAKROMOL CHEM

-
-
-

This analysis of the hit citations lists the top 15 cited references with Koinuma as the first author.

Search Application — Conduct Comprehensive Citation Searches for Authors

The influence/value of research may be indicated by the frequency of citations to an author's research. In order to make an accurate assessment, however, the search must also include those references where he/she was not the first author.

Search Question: Find a comprehensive set of references that have cited papers written by H. Koinuma, including those where he was not the first author.

Search Strategy To obtain cited references for a specific author

- Step 1 Conduct an author name search
- Step 2 Convert the references to citation search terms
- Step 3 Locate citing references
- Step 4 *(Optional)* Remove self-citations
- Step 5 Display results
- Step 6 *(Optional)* Analyze results

Step 1: Conduct an author name search

=> FILE HCAPLUS SCISEARCH

2 FILES IN THE FILE LIST

=> SET DETAIL ON; SET MSTEPS ON

SET COMMAND COMPLETED

=> E KOINUMA H/AU

E#	FILE	FREQUENCY	TERM
--	----	-----	----
E1	SCISEARCH	3	KOINUMA G/AU
E2	SCISEARCH	2	KOINUMA GORO/AU
E3		981 -->	KOINUMA H/AU
	HCAPLUS	400	KOINUMA H/AU
	SCISEARCH	581	KOINUMA H/AU
E4	HCAPLUS	1	KOINUMA HIDEMOI/AU
E5	HCAPLUS	1	KOINUMA HIDEO/AU
E6	HCAPLUS	1	KOINUMA HIDEOKI/AU
E7		633	KOINUMA HIDEOMI/AU
	HCAPLUS	616	KOINUMA HIDEOMI/AU
	SCISEARCH	17	KOINUMA HIDEOMI/AU
E8	HCAPLUS	3	KOINUMA HIDE TOMI/AU
E9	HCAPLUS	1	KOINUMA HIROAKI/AU
E10	HCAPLUS	3	KOINUMA HIROSHI/AU
E11	HCAPLUS	1	KOINUMA HIROYUKI/AU
E12	HCAPLUS	2	KOINUMA HISATOSHI/AU

=> E 5

E13	HCAPLUS	1	KOINUMA ITSUMI/AU
E14	HCAPLUS	9	KOINUMA JUICHI/AU
E15	HCAPLUS	10	KOINUMA JUJI/AU
E16		40	KOINUMA K/AU
	HCAPLUS	4	KOINUMA K/AU
	SCISEARCH	36	KOINUMA K/AU
E17	HCAPLUS	1	KOINUMA KAZUNORI/A

=> S E3-E12

FILE 'HCAPLUS'

L1 1029 ("KOINUMA H"/AU OR "KOINUMA HIDEMOI"/AU OR "KOINUMA HIDEO"/AU OR "KOINUMA HIDEOKI"/AU OR "KOINUMA HIDEOMI"/AU OR "KOINUMA HIDE TOMI"/AU OR "KOINUMA HIROAKI"/AU OR "KOINUMA HIROSHI"/AU OR "KOI NUMA HIROYUKI"/AU OR "KOINUMA HISATOSHI"/AU)

FILE 'SCISEARCH'

L2 598 ("KOINUMA H"/AU OR "KOINUMA HIDEMOI"/AU OR "KOINUMA HIDEO"/AU OR "KOINUMA HIDEOKI"/AU OR "KOINUMA HIDEOMI"/AU OR "KOINUMA HIDE TOMI"/AU OR "KOINUMA HIROAKI"/AU OR "KOINUMA HIROSHI"/AU OR "KOI NUMA HIROYUKI"/AU OR "KOINUMA HISATOSHI"/AU)

TOTAL FOR ALL FILES

L3 1627 ("KOINUMA H"/AU OR "KOINUMA HIDEMOI"/AU OR "KOINUMA HIDEO"/AU OR "KOINUMA HIDEOKI"/AU OR "KOINUMA HIDEOMI"/AU OR "KOINUMA HIDE TOMI"/AU OR "KOINUMA HIROAKI"/AU OR "KOINUMA HIROSHI"/AU OR "KOI NUMA HIROYUKI"/AU OR "KOINUMA HISATOSHI"/AU)

Step 2: Convert the references to citation search terms

```
=> ANALYZE L3 CIT 1-  
  
L4          ANALYZE L3 1- CIT :      1345 TERMS  
  
=> EDIT L4 /CIT /RE  
ENTER (CHANGE), COMBINE, OR TITLE: CHANGE  
ENTER TERM NUMBERS OR (ALL) : ALL
```

When using the ANALYZE CIT command, you must requalify the field appended to the search term from /CIT to /RE by using the EDIT command.

Step 3: Locate citing references

```
=> S L4  
  
FILE 'HCAPLUS'  
L5          7930 L4  
  
FILE 'SCISEARCH'  
L6          8411 L4  
  
TOTAL FOR ALL FILES  
L7          16341 L4  
L8          QUE TERMS FROM L4 WITH NO HITS: 621 TERMS
```

Step 4: (Optional) Remove self-citations

```
=> S L7 NOT KOINUMA H?/AU  
  
FILE 'HCAPLUS'  
  
          1029 KOINUMA H?/AU  
L9          7488 L5 NOT KOINUMA H?/AU  
  
FILE 'SCISEARCH'  
  
          598 KOINUMA H?/AU  
L10         7923 L6 NOT KOINUMA H?/AU  
  
TOTAL FOR ALL FILES  
L11         15411 L7 NOT KOINUMA H?/AU
```

Step 5: Remove duplicate records

```
=> SET DUPORDER FILE

SET COMMAND COMPLETED

=> DUP REM

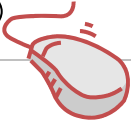
ENTER L# LIST OR (END):L11
PROCESSING COMPLETED FOR L11
L12          9497 DUP REM L11 (5914 DUPLICATES REMOVED)
              ANSWERS '1-7474' FROM FILE HCAPLUS
              ANSWERS '7475-9497' FROM FILE SCISEARCH
```

Step 6: Display results

```
=> D L12 BIB HIT 1

L12 ANSWER 1 OF 9497 HCAPLUS COPYRIGHT 2009 ACS on STN DUPLICATE 1
AN  2008:393484 HCAPLUS Full-text
DN  148:365842
TI  Correlation between crystal structure and photoluminescence for epitaxial
    ZnO on Si (1 1 1) using a  $\square$ -Al2O3 buffer layer
AU  Liu, W.-R.; Li, Y.-H.; Hsieh, W. F.; Hsu, C.-H.; Lee, W. C.; Hong, M.;
    Kwo, J.
CS  Department of Photonics and Institute of Electro-Optical Engineering,
    National Chiao Tung University, Hsinchu, 30010, Taiwan
SO  Journal of Physics D: Applied Physics (2008), 41(6), 065105/1-065105/5
    CODEN: JPAPBE; ISSN: 0022-3727
PB  Institute of Physics Publishing
DT  Journal
LA  English
RE.CNT  24      THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

RE
(11) Onuma, T; Appl Phys Lett 2004, V85, P5586 HCAPLUS
(16) Tsukazaki, A; Nature Mater 2005, V4, P42 HCAPLUS
(21) Yoo, Y; Appl Phys Lett 2004, V84, P502 HCAPLUS
```



note

Following the HCAplus hyperlink for RE (21), we see below that H. Koinuma is the last author listed.

```
L22 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:67266 HCAPLUS Full-text
DN 140:260780
TI V defects of ZnO thin films grown on Si as an ultraviolet
optical path
AU Yoo, Y.-Z.; Sekiguchi, T.; Chikyow, T.; Kawasaki, M.; Onuma,
T.; Chichibu, S. F.; Song, J. H.; Koinuma, H.
CS National Institute for Materials Science, Tsukuba, Ibaraki,
305-0047, Japan
SO Applied Physics Letters (2004), 84(4), 502-504
CODEN: APPLAB; ISSN: 0003-6951
PB American Institute of Physics
DT Journal
LA English
AB V defects were observed in the ZnO films epitaxially grown on
the ZnS-buffered Si. Although the defects were located on the
surface, strong near-bandedge emission confined to the
{10.hivin.11} facets of V defects was observed at room temperature
The near-bandedge emission spreads out over the whole film
centering at V defects at 30 K. The detailed optical
characterization shows that activation of excitonic absorption is
responsible for this unique optical behavior.
RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS
RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
```


Skills Practice

1. In 1974, Rowland and Molina published a paper in Nature on the possibility that halogenated hydrocarbons could damage the earth's ozone layer. The original paper was published in Nature in 1974 entitled, "Stratospheric Sink for Chlorofluoromethanes. Chlorine Atom Catalyzed Destruction of Ozone."

Locate the original record in both CApus and SCISEARCH. How many papers have cited this ground-breaking paper? Is it still being cited?

BONUS POINTS

Retrieve the article using the title in both CApus and SCISEARCH. How many records did you retrieve? Should you use this to enhance your citation search?

Skills Practice

2. Identify the most highly cited references of publications from researchers at ICOS Corporation. (Remember to check the CPlus Company Name Thesaurus!)

3. Identify similar references to the record below pertaining to non-fungicidal approaches for the control of apple scab. (Hint: See the Quick Reference Card on "Citation Searching in SciSearch".)

```
L1 ANSWER 1 OF 1 SCISEARCH COPYRIGHT (c) 2009 The Thomson
Corporation on STN
AN 2002:676332 SCISEARCH
GA The Genuine Article (R) Number: 581NL
TI A review of non-fungicidal approaches for the control of apple
scab
AU Carisse O (Reprint); Dewdney M
CS Agr & Agri Food Canada, Hort Res & Dev Ctr, 430 Gouin Blvd, St
Jean, PQ J3B 3E6, Canada (Reprint); Agr & Agri Food Canada, Hort
Res & Dev Ctr, St Jean, PQ J3B 3E6, Canada
CYA Canada
SO PHYTOPROTECTION, (APR 2002) Vol. 83, No. 1, pp. 1-29.
ISSN: 0031-9511.
PB QUEBEC SOC PROTECT PLANTS, PHYTOPROTECTION, 3488 CHEMIN SAINTE
FOY, ST FOY, QUEBEC G1X 2S8, CANADA.
DT General Review; Journal
LA English
REC Reference Count: 148
ED Entered STN: 30 Aug 2002
Last Updated on STN: 30 Aug 2002
*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*
```

Summary: Citation Search Tools on STN

If you are interested in	Use this tool	In order to
Finding heavily cited research	SELECT/ANALYZE RAN.CAPLUS RAN.MEDLINE or SELECT/ANALYZE RE TRANSFER RE	Extract CAPLUS/MEDLINE Accession Numbers from the cited references in an answer set for analysis and easy display (Only available in the CA/CAPLUS family of databases) Extract all cited references from an answer or answer set Extract all cited references from an answer or answer set AND search them as cited references in one step
Conducting comprehensive patent citation searches which are useful for enhancing prior art searches, analyzing competitors, or assisting in legal challenges	TRANSFER PN /RPN	Extract all patent publication numbers from an answer or answer set and search them as reference patent numbers in one step
Conducting comprehensive journal reference citation searches which are useful for evaluating the importance of a research article or the influence of an author's work	SELECT CIT ANALYZE CIT; EDI L# /CIT /RE or TRANSFER CIT	Change the bibliographic information from one or more STN answers into cited reference search terms Change the bibliographic information from one or more STN answers into cited reference search terms AND search the resulting terms in one step

CITATION SEARCHING ON STN[®]

SUGGESTED SOLUTIONS TO SKILLS PRACTICE PROBLEMS

MAY 2009

The solutions presented here are solutions that can be attained using techniques and search tools presented in the accompanying workbook.

Skills Practice (page 60):

Question 1: *In 1974, Rowland and Molina published a paper in Nature on the possibility that halogenated hydrocarbons could damage the earth's ozone layer. The original paper published in Nature in 1974 was entitled, "Stratospheric Sink for Chlorofluoromethanes. Chlorine Atom Catalyzed Destruction of Ozone."*

Locate the original record in both CAPLUSSM and SCISEARCH[®]. How many papers have cited this ground-breaking paper? Is it still being cited?

Locate the original record using the author name(s), journal title, and publication year.

```
=> FIL CAPL
=> S (ROWLAND?/AU OR MOLINA?/AU) AND NATURE?/JT AND 1974/PY
      5563 ROWLAND?/AU
      9806 MOLINA?/AU
      168240 NATURE?/JT
      418105 1974/PY
L1      2 (ROWLAND?/AU OR MOLINA?/AU) AND NATURE?/JT AND 1974/PY
=> D 1-2
L1 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1974:575441 CAPLUS
DN 81:175441
TI Stratospheric sink for chlorofluoromethanes. Chlorine atom-
   catalyzed destruction of ozone
AU Molina, Mario J.; Rowland, F. S.
CS Dep. Chem., Univ. California, Irvine, CA, USA
SO Nature (London, United Kingdom) (1974) , 249(5460), 810-12
   CODEN: NATUAS; ISSN: 0028-0836
DT Journal
LA English
L1 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1974:502859 CAPLUS
DN 81:102859
TI Antibody coated erythrocytes as a manifold probe for antigens
AU Molinaro, Guiseppe A.; Dray, Sheldon
CS Dep. Microbiol., Univ. Ill., Chicago, IL, USA
```

(Continued on next page)

SO **Nature (London, United Kingdom) (1974)**, 248(5448), 515-17
CODEN: NATUAS; ISSN: 0028-0836
DT Journal
LA English

=> **FIL SCISEARCH**

=> **S (ROWLAND?/AU OR MOLINA?/AU) AND NATURE?/JT AND 1974/PY**

8380 ROWLAND?/AU
15067 MOLINA?/AU
164668 NATURE?/JT
(NATURE?/JT)
429066 1974/PY
(19740000-19749999/PY)

L2 2 (ROWLAND?/AU OR MOLINA?/AU) AND NATURE?/JT AND 1974/PY

=> **D 1-2**

L2 ANSWER 1 OF 2 SCISEARCH COPYRIGHT (c) 2009 The Thomson
Corporation on STN
AN 1974:210875 SCISEARCH
GA The Genuine Article (R) Number: T3437
TI STRATOSPHERIC SINK FOR CHLOROFLUOROMETHANES - CHLORINE ATOMIC-
CATALYSED DESTRUCTION OF OZONE
AU **MOLINA M J (Reprint); ROWLAND F S**
CS UNIV CALIF, DEPT CHEM, IRVINE, CA 92664
CYA USA
SO **NATURE, (1974)** Vol. 249, No. 5460, pp. 810-812.
ISSN: 0028-0836.
PB MACMILLAN MAGAZINES LTD, PORTERS SOUTH, 4 CRINAN ST, LONDON,
ENGLAND N1 9XW.
DT Article; Journal
LA English
REC Reference Count: 33
ED Entered STN: 1994
Last Updated on STN: 1994

L2 ANSWER 2 OF 2 SCISEARCH COPYRIGHT (c) 2009 The Thomson
Corporation on STN
AN 1974:97222 SCISEARCH
GA The Genuine Article (R) Number: S5130
TI ANTIBODY COATED ERYTHROCYTES AS A MANIFOLD PROBE FOR ANTIGENS
AU **MOLINARO G A (Reprint); DRAY S**
CS UNIV ILLINOIS, MED CTR, DEPT MICROBIOL, POB 6998, CHICAGO, IL
60680
CYA USA
SO **NATURE, (1974)** Vol. 248, No. 5448, pp. 515-517.
ISSN: 0028-0836.
PB MACMILLAN MAGAZINES LTD, PORTERS SOUTH, 4 CRINAN ST, LONDON,
ENGLAND N1 9XW.
DT Article; Journal
LA English
REC Reference Count: 8
ED Entered STN: 1994
Last Updated on STN: 1994

Retrieve the citation for the record using SEL CIT and identify citing references:

```
=> SEL CIT 1

E1 THROUGH E1 ASSIGNED

=> D SEL

E1      SCISEARCH          1      MOLINA M J, 1974, V249, P810,?/RE

=> S E1

L3      1777 "MOLINA M J, 1974, V249, P810,?"/RE
        ("MOLINA M J, 1974, V249, P810,?"/RE)
```

Manually EXPAND to identify variants of the original citation:

```
=> E MOLINA M J, 1974/RE 25

E2      1      MOLINA M J, 1973, VQE 9, P64, IEEE J QUANT ELEC/RE
E3      5      MOLINA M J, 1973, VQE 9, P64, IEEE J QUANTUM ELECT/RE
E4      0 -->  MOLINA M J, 1974/RE
E5      1      MOLINA M J, 1974, 172ND ACS NAT M SAN/RE
E6      1      MOLINA M J, 1974, 2 INT C ENV IMP AER/RE
E7      1      MOLINA M J, 1974, NATURE/RE
E8      1      MOLINA M J, 1974, P1, REV AEROPHYS SPACE P/RE
E9      1      MOLINA M J, 1974, P249, NATURE/RE
E10     1      MOLINA M J, 1974, P99, 2ND INT C ENV IMP AE/RE
E11     44     MOLINA M J, 1974, V1, P309, GEOPHYS RES LETT/RE
E12     1      MOLINA M J, 1974, V249, NATURE/RE
E13     1      MOLINA M J, 1974, V249, P1610, NATURE/RE
E14     18     MOLINA M J, 1974, V249, P1810, NATURE/RE
E15     1      MOLINA M J, 1974, V249, P310, NATURE/RE
E16     1      MOLINA M J, 1974, V249, P3100, NATURE/RE
E17     1      MOLINA M J, 1974, V249, P5933, NATURE LONDON/RE
E18     1      MOLINA M J, 1974, V249, P796, NATURE/RE
E19     1      MOLINA M J, 1974, V249, P801, NATURE/RE
E20     1      MOLINA M J, 1974, V249, P810, CHEM TECH/RE
E21     1774   MOLINA M J, 1974, V249, P810, NATURE/RE
E22     1      MOLINA M J, 1974, V249, P810, NATURE LOND/RE
E23     2      MOLINA M J, 1974, V249, P810, NATURE LONDON/RE
E24     5      MOLINA M J, 1974, V249, P811, NATURE/RE
E25     1      MOLINA M J, 1974, V249, P812, NATURE/RE
E26     1      MOLINA M J, 1974, V249, P812, NATURE LONDON/RE
```

=> E

E27	1	MOLINA M J, 1974, V249, P813, NATURE/RE
E28	7	MOLINA M J, 1974, V249, P819, NATURE/RE
E29	1	MOLINA M J, 1974, V249, P819, NATURE LONDON/RE
E30	6	MOLINA M J, 1974, V249, P820, NATURE/RE
E31	4	MOLINA M J, 1974, V249, P910, NATURE/RE
E32	1	MOLINA M J, 1974, V249, P918, NATURE/RE
E33	1	MOLINA M J, 1974, V2498, P810, NATURE/RE
E34	3	MOLINA M J, 1974, V810, P249, NATURE/RE
E35	1	MOLINA M J, 1974, V810, P474, NATURE/RE
E36	1	MOLINA M J, 1975, 18AFY75 ICAS REP/RE
E37	1	MOLINA M J, 1975, V13, P1, REV GEOPHYS SPACE/RE
E38	22	MOLINA M J, 1975, V13, P1, REV GEOPHYS SPACE PH/RE

=> S E7,E9,E12-E35

L4 1836 ("MOLINA M J, 1974, NATURE"/RE OR "MOLINA M J, 1974, P249, NATURE"/RE OR "MOLINA M J, 1974, V249, NATURE"/RE OR "MOLINA M J, 1974, V249, P1610, NATURE"/RE OR "MOLINA M J, 1974, V249, ...

=> E MOLINA M, 1974/RE

E39	9	MOLINA M, 1972, V34, P2985, J INORG NUCL CHEM/RE
E40	8	MOLINA M, 1972, V34, P3215, J INORG NUCL CHEM/RE
E41	0 -->	MOLINA M, 1974/RE
E42	2	MOLINA M, 1974, P249, NATURE/RE
E43	4	MOLINA M, 1974, V22, P1055, J AGR FOOD CHEM/RE
E44	1	MOLINA M, 1974, V240, P810, NATURE/RE
E45	1	MOLINA M, 1974, V249, P796, NATURE/RE
E46	1	MOLINA M, 1974, V249, P810, NATURE LONDON/RE
E47	1	MOLINA M, 1974, V344, P810, NATURE/RE
E48	1	MOLINA M, 1975, NUTR ASPECTS COMMON/RE
E49	1	MOLINA M, 1975, V13, REV GEOPHYS SPACE PH/RE
E50	1	MOLINA M, 1975, V63, P1950, J CHEM PHYS/RE

=> S E42,E44-E47

L5 6 ("MOLINA M, 1974, P249, NATURE"/RE OR "MOLINA M, 1974, V240, P810, NATURE"/RE OR "MOLINA M, 1974, V249, P796, NATURE"/RE OR "MOLINA M, 1974, V249, P810, NATURE LONDON"/RE OR "MOLINA M, 1974, V344, P810, NATURE"/RE)

=> S L3-L5

L6 1843 (L7 OR L8 OR L9)

=> E MOLINA, 1974/RE

E51 1 MOLINA Y, UNPUB NATURWISSENSCH/RE
 E52 1 MOLINA, 1788, HIST NATURAL CHILE/RE
 E53 0 --> MOLINA, 1974/RE
 E54 1 MOLINA, 1974, V245, P810, NATURE/RE
 E55 1 MOLINA, 1979, V11, P95, CS/RE
 E56 1 MOLINA, 1984, V87, P596, J THOR SURG/RE
 E57 3 MOLINA, 1984, V87, P596, J THORAC CARDIOVASC/RE
 E58 1 MOLINA, 1989, V23, P37, CHUNGARA/RE
 E59 1 MOLINA, 1990, V66, P474, CANCER/RE
 E60 1 MOLINA, 1991, P474, SYNTHESIS-STUTTGART/RE
 E61 2 MOLINA, 1992, V267, P24929, J BIOL CHEM/RE
 E62 1 MOLINA, 1993, V267, P24929, J BIOL CHEM/RE

=> S E54

L7 1 "MOLINA, 1974, V245, P810, NATURE"/RE

=> S L6-L7

L8 1843 (L6 OR L7)

=> E ROWLAND F S, 1974/RE

E63 2 ROWLAND F S, 1973, V11, P360, NIPPON AISOTOPU KAIG/RE
 E64 1 ROWLAND F S, 1973, V5, P52, BIOL CONSERV/RE
 E65 0 --> ROWLAND F S, 1974/RE
 E66 1 ROWLAND F S, 1974, 168TH AM CHEM SOC M/RE
 E67 2 ROWLAND F S, 1974, 19741 AT EN COMM REP/RE
 E68 2 ROWLAND F S, 1974, 19741 U CAL AT EN CO/RE
 E69 1 ROWLAND F S, 1974, 19741 US AT EN COMM/RE
 E70 5 ROWLAND F S, 1974, AEC19741 U CAL REP/RE
 E71 1 ROWLAND F S, 1974, AT04334 CONTR/RE
 E72 1 ROWLAND F S, 1974, AT04334PA126 US AT E/RE
 E73 1 ROWLAND F S, 1974, ATOMIC ENERGY COMMIS/RE
 E74 1 ROWLAND F S, 1974, NATURE 0628/RE

=> E

E75 1 ROWLAND F S, 1974, P717, NEW SCI 1205/RE
 E76 3 ROWLAND F S, 1974, UCI19741 AEC REP/RE
 E77 1 ROWLAND F S, 1974, V1, P309, GEOPHYS RES LETT/RE
 E78 3 ROWLAND F S, 1974, V13, P1, REV GEOPHYS SPACE PH/RE
 E79 2 ROWLAND F S, 1974, V2, P163, RADIOCHIM ACTA/RE
 E80 1 ROWLAND F S, 1974, V249, P510, NATURE/RE
 E81 1 ROWLAND F S, 1974, V249, P8, NATURE/RE
 E82 21 ROWLAND F S, 1974, V249, P810, NATURE/RE
 E83 1 ROWLAND F S, 1974, V249, P810, NATURE LONDON/RE
 E84 5 ROWLAND F S, 1974, V64, P717, NEW SCI/RE
 E85 4 ROWLAND F S, 1974, V64, P717, NEW SCIENTIST/RE
 E86 1 ROWLAND F S, 1975, 169TH AM CHEM SOC NA/RE

=> S E74,E80-E83

L9 25 ("ROWLAND F S, 1974, NATURE 0628"/RE OR "ROWLAND F S, 1974, V249, P510, NATURE"/RE OR "ROWLAND F S, 1974, V249, P8, NATURE"/RE OR "ROWLAND F S, 1974, V249, P810, NATURE"/RE OR "ROWLAND F S, 1974, V249, P810, NATURE LONDON"/RE)

=> E ROWLAND F, 1974/RE

E87 1 ROWLAND F, 1970, P108, 1968 P INT SCH PHYS/RE
 E88 1 ROWLAND F, 1970, P127, 1968 P INT SCH PHYS/RE
 E89 0 --> ROWLAND F, 1974/RE
 E90 1 ROWLAND F, 1975, HOT ATOM CHEM STATUS/RE
 E91 1 ROWLAND F, 1975, P139, 1974 P PAN VIENN/RE
 E92 1 ROWLAND F, 1975, STANDARD METHOD TEST/RE
 E93 1 ROWLAND F, 1976, V80, P2049, J PHYS CHEM/RE
 E94 1 ROWLAND F, 1976, V80, P2711, J PHYS CHEM/RE
 E95 2 ROWLAND F, 1978, V14, P342, CHEM BRIT/RE
 E96 1 ROWLAND F, 1978, V14, P344, CHEM BR/RE
 E97 1 ROWLAND F, 1982, P110, AM LAB/RE
 E98 1 ROWLAND F, 1982, P110, AM LAB MAR/RE

=> E ROWLAND, 1974/RE

E99 1 ROWLAND, 1972, V287, P50, N ENG J MED/RE
 E100 1 ROWLAND, 1973, V5, P123, ASS MEX CAVE STUDIES/RE
 E101 0 --> ROWLAND, 1974/RE
 E102 1 ROWLAND, 1974, V249, P810, NATURE/RE
 E103 1 ROWLAND, 1978, V1, P136, LANCET/RE
 E104 1 ROWLAND, 1980, CLIN PHARMACOKINETIC/RE
 E105 1 ROWLAND, 1980, P115, CLIN PHARMACOKINETIC/RE
 E106 1 ROWLAND, 1980, V36, P187, BR MED B/RE
 E107 1 ROWLAND, 1983, P541, COPEIA/RE
 E108 1 ROWLAND, 1985, P1363, NUCLEAR DATA BASIC A/RE
 E109 1 ROWLAND, 1985, V2, P981, LANCET/RE
 E110 1 ROWLAND, 1986, P1363, NUCLEAR DATA BASIC A/RE

=> S E102

1 "ROWLAND, 1974, V249, P810, NATURE"/RE
 0 "ROWLAND 1974, V249, P810, NATURE"/RE
 L10 1 "ROWLAND, 1974, V249, P810, NATURE"/RE
 ("ROWLAND, 1974, V249, P810, NATURE"/RE OR "ROWLAND 1974, V249, P810, NATURE"/RE)

=> S L8-L10

L11 1869 (L8 OR L9 OR L10)

```

=> S (ROWLAND? OR MOLINA?)/RAU(S)NATURE?/RWK(S)1974/RPY

      46137 ROWLAND?/RAU
      46469 MOLINA?/RAU
      3695239 NATURE?/RWK
              (NATURE?/RWK)
      5036632 1974/RPY
L12      2018 (ROWLAND? OR MOLINA?)/RAU(S)NATURE?/RWK(S)1974/RPY

=> ANA HIT RE

L13      ANALYZE L12 1- RE HIT :      44 TERMS

=> D

L13      ANALYZE L12 1- RE HIT :      44 TERMS

TERM #   # OCC   # DOC   % DOC RE
-----
  1     1774    1774   87.91 MOLINA M J, 1974, V249, P810, NATURE
  2      117     117    5.80 MOLINARO G A, 1974, V248, P515, NATURE
  3       24      24    1.19 MOLINARO, 1974, V248, P515, NATURE
  4       21      21    1.04 ROWLAND F S, 1974, V249, P810, NATURE
  5       18      18    0.89 MOLINA M J, 1974, V249, P1810, NATURE
  6        7       7    0.35 MOLINA M J, 1974, V249, P819, NATURE
  7        6       6    0.30 MOLINA M J, 1974, V249, P820, NATURE
  8        5       5    0.25 MOLINA M J, 1974, V249, P811, NATURE
  9        4       4    0.20 MOLINA M J, 1974, V249, P910, NATURE
 10       3       3    0.15 MOLINA J M, 1974, V249, P810, NATURE
 11       3       3    0.15 MOLINA M J, 1974, V810, P249, NATURE

=> S (ROWLAND? OR MOLINA ?)/RAU(S)NATURE?/RWK(S)1974/RPY

      46137 ROWLAND?/RAU
      29017 MOLINA ?/RAU
      3695239 NATURE?/RWK
              (NATURE?/RWK)
      5036632 1974/RPY
L18      1876 (ROWLAND? OR MOLINA ?)/RAU(S)NATURE?/RWK(S)1974/RPY

```

Repeat the search in CAplus.

BONUS POINTS

Retrieve the article using the title in both CAplus and SCISEARCH. How many records did you retrieve? Should you use this to enhance your citation search?

Skills Practice (page 61):

Question 2: Identify the most highly cited references of publications from researchers at ICOS Corporation. (Remember to check the CApus Company Name Thesaurus!)

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=> FIL HCAPLUS
```

```
=> E ICOS/CO
```

E#	FILE	FREQUENCY	AT	TERM
--	----	-----	--	----
E111	2		ICORP	SORST/CO
E112	1		ICORR	LDA QUINTA DA CARVALHEIRA/CO
E113	2	-->	ICOS	CO
E114	86	3	ICOS	CORP/CO
E115	173	2	ICOS	CORPORATION/CO
E116	3		ICOS	GMBH/CO
E117	3		ICOS	VISION SYSTEMS N V/CO
E118	2		ICOS	VISION SYSTEMS NV/CO
E119	1		ICOSA	VILLAGE INC/CO
E120	1		ICOSYSTEM	CORPORATION/CO
E121	1		ICOT	GUANGDONG CERAMICS CO LTD/CO
E122	1		ICOT	POLO PONTINO/CO

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=> E E114+ALL
```

E#	FILE	FREQUENCY	TERM
--	----	-----	----
E123	207		NAME ELI LILLY COMPANY/CO
E124	86	-->	ICOS CORP/CO
E125	173	RT1	ICOS CORPORATION/CO
***** END *****			

```
=> S E124+ALL
```

```
L15 466 "ICOS CORP"+ALL/CO (3 TERMS)
```

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=> TRA L15 1- CIT
```

```
L16 TRANSFER L15 1- CIT : 273 TERMS  
L17 6645 L16  
L18 QUE TERMS FROM L16 WITH NO HITS: 154 TERMS
```

Expand E123+ALL to see the Company Name Thesaurus entry for Eli Lilly Company and any other related companies.

=> ANA L17 HIT RE 1-

L19 ANALYZE L17 1- RE HIT : 652 TERMS

=> D TOP15

L19 ANALYZE L17 1- RE HIT : 652 TERMS

TERM #	# OCC	# DOC	% DOC RE	
1	281	280	4.21	RAPORT C, 1996, V271, P17161, J BIOL CHEM
2	279	279	4.20	GODISKA R, 1997, V185, P1595, J EXP MED
3	251	249	3.75	HEIMAN M, 1997, V138, P3859, ENDOCRINOLOGY
4	248	248	3.73	GODISKA R, 1995, V58, P167, J NEUROIMMUNOL
5	246	244	3.67	TJOELKER L, 1995, V374, P549, NATURE
6	184	184	2.77	KEEGAN K, 1996, V10, P2423, GENES DEV
7	155	155	2.33	VANDERVIEREN M, 1995, V3, P683, IMMUNITY
8	144	144	2.17	SCHOEPP D, 1994, V63, P769, J NEUROCHEM
9	132	131	1.97	DU Y, 1997, V94, P11657, PROC NATL ACAD SCI
10	124	124	1.87	SADHU C, 2003, V170, P2647, J IMMUNOL
11	113	113	1.70	HOEKSTRA M, 1997, V7, P170, CURR OPIN GENET
12	109	109	1.64	CAO G, 2003, V278, P1131, J BIOL CHEM
13	109	109	1.64	STINE J, 2000, V95, P1151, BLOOD
14	108	107	1.61	LUPHER M, 1999, V20, P375, IMMUNOL TODAY
15	101	101	1.52	TJOELKER L, 1995, V270, P25481, J BIOL CHEM

Skills Practice (page 61):

Question 3: *Identify references similar to the record below pertaining to non-fungicidal approaches for the control of apple scab. (Hint: See the Quick Reference Card on "Citation Searching in SciSearch".)*

```
L1 ANSWER 1 OF 1 SCISEARCH COPYRIGHT (c) 2009 The Thomson
      Corporation on STN
AN 2002:676332 SCISEARCH
GA The Genuine Article (R) Number: 581NL
TI A review of non-fungicidal approaches for the control of apple
   scab
AU Carisse O (Reprint); Dewdney M
CS Agr & Agri Food Canada, Hort Res & Dev Ctr, 430 Gouin Blvd, St
   Jean, PQ J3B 3E6, Canada (Reprint); Agr & Agri Food Canada, Hort
   Res & Dev Ctr, St Jean, PQ J3B 3E6, Canada
CYA Canada
SO PHYTOPROTECTION, (APR 2002) Vol. 83, No. 1, pp. 1-29.
   ISSN: 0031-9511.
PB QUEBEC SOC PROTECT PLANTS, PHYTOPROTECTION, 3488 CHEMIN SAINTE
   FOY, ST FOY, QUEBEC G1X 2S8, CANADA.
DT General Review; Journal
LA English
REC Reference Count: 148
ED Entered STN: 30 Aug 2002
   Last Updated on STN: 30 Aug 2002
   *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

=> S 2002:676332/AN

L1          1 2002:676332/AN

=> SEL RE

E1 THROUGH E148 ASSIGNED
```

=> S E1-E148

L2 1387 ("ALDWINCKLE H A, 1974, V58, P625, PLANT DIS REP"/RE OR "ANDREWS J H, 1983, V73, P228, PHYTOPATHOLOGY"/RE OR "ANON, 1988, CONSEIL PRODUCTIONS"/RE OR "ANON, 2000, FAOSTAT STAT DATABAS"/RE OR "AYLOR D E, 1991, V81, P548, PHYTOPATHOLOGY"/RE OR "BENAOUF G, 2000, V90, P236, PHYTOPATHOLOGY"/RE OR "BENYAGOUB M, 1998, V88, P605, PHYTOPATHOLOGY"/RE OR "BERESFORD R M, 1994, V22, P113, NEW ZEAL J CROP HORT"/RE OR "BERNIER J, 1996, V77, P129, PHYTOPROTECTION"/RE OR "BIGGS A R, 1990, V71, P9, PHYTOPROTECTION"/RE OR "BLAISE P, 1994, V17, P105, NORWEGIAN J AGR SC S"/RE OR "BOLAR J P, 2000, V90, P72, PHYTOPATHOLOGY"/RE OR "BOSSHARD E, 1987, V17, P655, IOBC WPRS B"/RE OR "BOSSHARD E, 1992, V27, P135, ACTA PHYTOPATHOL HUN"/RE OR "BOUDREAU M A, 1987, V77, P1470, PHYTOPATHOLOGY"/RE OR "BOUSSET L, 1997, V20, P42, IOBC WPRS B"/RE OR "BOWER K N, 1995, V24, P423, ENVIRON ENTOMOL"/RE OR "BRAUN P G, 1992, V14, P215, CAN J PLANT PATHOL"/RE OR "BULTITUDE J, 1983, APPLES GUIDE IDENTIF"/RE OR "BURCHILL R

=> SORT OCC REC L2 1-

PROCESSING COMPLETED FOR L2

L3 1387 SORT L2 1- OCC REC

=> D OCC REC 1-10

L3 ANSWER 1 OF 1387 SCISEARCH COPYRIGHT (c) 2009 The Thomson Corporation on STN

FIELD COUNT

HITRE 148

REC Reference Count: 148

L3 ANSWER 2 OF 1387 SCISEARCH COPYRIGHT (c) 2009 The Thomson Corporation on STN

FIELD COUNT

HITRE 34

REC Reference Count: 181

L3 ANSWER 3 OF 1387 SCISEARCH COPYRIGHT (c) 2009 The Thomson Corporation on STN

FIELD COUNT

HITRE 32

REC Reference Count: 56

L3 ANSWER 4 OF 1387 SCISEARCH COPYRIGHT (c) 2009 The Thomson Corporation on STN

FIELD COUNT

HITRE 26

REC Reference Count: 45

(Continued on next page)

L3 ANSWER 5 OF 1387 SCISEARCH COPYRIGHT (c) 2009 The Thomson
Corporation on STN
FIELD COUNT
HITRE 25
REC Reference Count: 44

L3 ANSWER 6 OF 1387 SCISEARCH COPYRIGHT (c) 2009 The Thomson
Corporation on STN
FIELD COUNT
HITRE 17
REC Reference Count: 28

L3 ANSWER 7 OF 1387 SCISEARCH COPYRIGHT (c) 2009 The Thomson
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FIELD COUNT
HITRE 16
REC Reference Count: 24

L3 ANSWER 8 OF 1387 SCISEARCH COPYRIGHT (c) 2009 The Thomson
Corporation on STN
FIELD COUNT
HITRE 15
REC Reference Count: 29

=> D 2

L3 ANSWER 2 OF 1387 SCISEARCH COPYRIGHT (c) 2009 The Thomson
Corporation on STN
AN 2007:47677 SCISEARCH Full-text
GA The Genuine Article (R) Number: 117TN
TI Venturia inaequalis resistance in apple
AU Sansavini, S. (Reprint)
CS Univ Bologna, Dept Fruit & Woody Plant Sci, Bologna, Italy (Reprint)
AU Gessler, C.; Patocchi, A.; Tartarini, S.; Gianfranceschi, L.
CS ETH, Inst Integrat Biol, Zurich, Switzerland; Univ Milan, Dept
Biomol Sci & Biotechnol, Milan, Italy
E-mail: fruitseg@agrsci.unibo.it
CYA Italy; Switzerland
SO CRITICAL REVIEWS IN PLANT SCIENCES, (2006) Volume 25, Number 6, pp.
473-503.
ISSN: 0735-2689.
PB TAYLOR & FRANCIS INC, 325 CHESTNUT ST, SUITE 800, PHILADELPHIA, PA
19106 USA.
DT General Review; Journal
LA English
REC Reference Count: 181
ED Entered STN: 18 Jan 2007
Last Updated on STN: 9 Oct 2008
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS