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Preface

This manual is intended for use as a textbook, working book and reference book for patent searching on STN International. It is designed to simplify access to online patent information for the expert searcher having knowledge of the patent sector, and also to brush up the occasional user's knowledge of special features in patent searching.

The manual is arranged as follows:

- The Introduction presents the main types of on-line patent searches in compact form. The tabular Overview of the databases and types of searches helps identify the sections of interest when preparing a patent search.
- The short description of STN patent databases is not meant to replace the database sheets but to complement them with certain details that are of particular interest in patent searches.
- Another chapter deals with the most essential Types of search, as far as possible covering all relevant databases and pointing out specific features of the individual databases.
- These are illustrated by the Search examples, representing the basic strategies for searching.
- Finally, some Surveys are presented which proved to be useful in practical work.

When a search problem arises it is advisable to first consult the Introduction to identify the type of search and sections to be read, then to obtain information about the contents and important special features of the selected databases (Patent databases on STN International), then to read the notes on the search type in general and special features of the database (Types of search), and finally to work on the corresponding examples (Search examples). And always consult a current database list before starting your search.
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Introduction
1 Steps to conduct a patent search

Using online databases is actually very like doing a manual search. However, the manual searcher is probably unaware of many of the steps involved.

1.1 Before the search

- Understand the enquiry:
  - Formulate the subject of the search
    - As accurately but also as comprehensively as possible
    - In close cooperation with the client
  - Describe the subject of the search
  - Exclude what is already known or not required
  - Formulate a search title
  - Categorize according to the type of search
  - Define the required degree of completeness (some documents or comprehensive results)
  - Limit using formal criteria, e.g. number of patents expected; period; countries; languages

- Formulate the criteria for the search:
  - Define complexes for the search
  - Select relevant search words
  - Decide on classification (e.g. IPC, CPC, FI and F terms, Derwent MC)
  - Names of inventors/applicants if known
  - Numbers of patents already known

This involves determining search criteria that will accurately reflect the heart of the matter. If one is tackling a search for ‘brakes for inline skates’, for instance, a number of questions arise:

- Are there other names for inline skates? – e.g. rollerblades or roller-blades or roller skates.
- Is it vital that the brakes are only for roller-blades or could the brakes be used on roller skates? It may be wise to drop the ‘inline’ element.
- How many documents do you expect? If the subject of the search yields too many results one should (initially) limit the search to a more specific subject (e.g. brakes operated by hand).
- Which one (or more) of the relevant classes should be searched?
- Are there certain firms that ought to come up on the search? – It may be possible to check the quality of the search against this.
- Are some patents already known? – They may give some assistance in narrowing down the search strategy.

- Select one or more patent databases
  - By subject – e.g. Chemistry – Chemical Abstracts
  - By country – e.g. International – DWPI, e.g. U.S.A. – USPATFULL
  - By type of search – e.g. patent family – INPADOCDB

- Prepare a search table (see chapter 37: Search by subject)
Introduction

- Decide how various search criteria should be linked to each other – Search strategy
  (The search strategy also depends on the type of search and the databases chosen, cf. chapter Types of search.)

- Formulate the search queries – Search logic
  (This depends on the type of search and the databases chosen, too. It may also be necessary to perform some online test searches.)

1.2 The actual search

- Offline preparation
  - Prepare a sheet with the search criteria and the search logic as well as room for taking notes during the online session (e.g. query numbers, hits)
  - Prepare a command file with the search criteria and search logic for the software used (e.g. STN Express, STNext) – particularly important with extensive searches

- Enter the search criteria and their linking or execute the command file

- Check the results of the search:
  - Evaluate the number of hits
  - Check the titles
  - Look at some of the hits

- Refine the search/new search
  - Depending on the result already obtained, include new insights
  - Step-by-step approach (to obtain high relevance and sufficient completeness)
  - May be skipped

- Check for duplicates, sort the documents

- Display the documents or those selected, possibly display or order full text

- Save the transcript

1.3 After the search

- Evaluate and compile the results

- Create a search report.

1.4 Nothing found

In spite of good preparation, you may not have found any relevant documents or the number of hits is too large or too small – this may indicate an error in the search formulation or in the database:

- Your search formulation contained an error:
  - Wrong spelling
  - Wrong logic links (brackets!)
  - Wrong language
  - Wrong syntax
  - Wrong database field
  - Search by tradename (trademark) rather than technical term, etc.

- Your combination of keywords and classification (IPC, CPC, FI terms) was not optimal
Guide to STN Patent Databases

- Errors in the patent documents, database fields, fields not filled
  - Wrong spelling in the text
  - Missing numbers or typos
  - Wrong classification (IPC, CPC) in the documents
  - Missing names or typos

Adapt your search strategy:

- Find new concepts that define the subject of the search
- Use different possibilities and search approaches
- Consider old IPC codes (re-classification may be incomplete)
- Full-text search

Searches are often incomplete!!!

- The degree of completeness and relevance of the results depend largely on the search terms used.
- Different search strategies always lead to different results!
- Combine several search approaches to increase completeness!
- **Never blindly trust your search results!**
- You can achieve a high relevance of the search results by searching in value-added databases.

### 1.5 Approach to search: broad or precise?

- **Objective**
  - As complete as necessary (depending on the type of search)
  - As quickly as possible

- **Start your search as precise as possible**
  - Database with title and abstract + indexing (no full-text database yet)
  - Specific search words, index and classification codes (at sub-group level, CPC, F terms)
  - Use the possibilities of the databases to prepare your search and for a precise search
  - Link search words and codes with **AND**

- **Carefully broaden your search**
  - Step-by-step
  - Use synonyms
  - Use broader classification codes
  - Use full-text databases
  - Use citations

- **View the hits**
  - At any level
  - Keep relevant documents, depending on the possibilities in the database, or use additional tools
  - Exclude relevant documents found in the next search step
  - Continuously improve and adapt your search strategy
Introduction

- Interpret the search results
  - Sort long hit lists, e.g. newest publications first or a particular patent assignee
  - Look at the figures
  - Read the abstract
  - Read the main claim
2 Typical searches and types of search

- **What patents exist for brakes suitable for roller blades?**
  You want to know about patents granted/applied for in a specialist field, thus what is already known, possibly already patented, and whether there has already been a solution to the problem you pose. This is a Subject Search.

- **What patents are owned by Smith, Inc. in Columbus, OH?**
  This is a Name Search – for a particular applicant.

- **What patents are owned by Zebadiah Smith?**
  This is also a Name Search – for an inventor.

- **There is reputed to be a patent owned by Smith, Inc. for a new brake for roller skates. Is this true? What does it say?**
  This is a combination of Name Search and Subject Search.

- **Do we have to have regard to the US patent no. 5,000,075 in the UK?**
  You do have to, a) if you want to sell your product in the USA or b) if this patent has been applied for in the UK, either directly at the Intellectual Property Office, IPO, or at the European Patent Office, EPO. – You have to decide yourself about (a), but (b) involves a Patent Family Search.

- **Is there a patent written in English that relates to the number JP57080923?**
  There may be such a patent on account of an application in another country. To find out, a Patent Family Search is necessary.

- **Has a patent been granted to the application no. GB 94-4567, or is the application still valid?**
  A Legal Status Search can answer this question.

- **What other patents are cited in the US patent no. 5,000,075? Where has this patent itself been cited?**
  These are questions that can be answered with a Citation Search.

- **What is the complete text of US patent no. 5,000,075?**
  There are some databases that provide the Full Text for patents.

- **How can I search for the patents of a particular country?**

- **How can I search for dates?**

- **How should I enter a patent number?**
### Introduction

<table>
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<tr>
<th>Type of Search</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>Subject search</td>
<td>You need to find out what patents have been published on a subject or in a specialist field, i.e. you want to know what is already known and what, if anything, is already protected by a patent – you want to establish the ‘state of the art’.</td>
</tr>
<tr>
<td>Name search</td>
<td>You need to find out all the patents published by a particular company (applicant) or person (inventor).</td>
</tr>
<tr>
<td>Patent family search</td>
<td>You are aware of a published patent (its patent or application number) and want to know in which other countries its inventor has filed an application or been granted a patent.</td>
</tr>
<tr>
<td>Legal status search</td>
<td>You are aware of a published patent (its patent or application number) and want to know if a patent was granted and if it is still valid.</td>
</tr>
<tr>
<td>Citation search</td>
<td>You have details of a published patent and want to know what other publications are cited in it and in which other publications it is itself cited.</td>
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<tr>
<td>Full text order</td>
<td>You have got the details of a published patent and want the entire text and drawings.</td>
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<tr>
<td>Search by country</td>
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<tr>
<td>Search by date</td>
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<td>Search by number</td>
<td>You have got a number, which may be either a patent number or an application number, for a published patent, and want to know whether this application really exists and what is protected under the patent.</td>
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### Overview: Search options available in STN databases

On the following pages, an outline is given of the most important search options available in STN patent databases. These symbols are used:

- + — search option is available,
- * — limited search option (e.g. only display).

For an actual search problem, the notes on the appropriate database and the search type in general should be read first, and then the other notes or examples.
### 3.1 Bibliographic patent files (international)

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<th>DWPI</th>
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*Closed file: PATDPASPC has not been updated since 10/2013.
### 3.6 Files with patent classifications and references

- **All databases with IPC.** The International Patent Classification (IPC) can be searched using the thesaurus in the /IPC field. Range searching is also possible.

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- **IFIREF.** This database gives access to the US Classification and IFIClaims Uniterms.
Patent databases on STN International
4 The dynamics of the patent procedure

There is a big difference between patent databases and other biographical databases, and it is this: the patent databases have to reflect the actual progress of a patent application, examination and granting. Thus the document entered into the database shows the stage the application has reached at a particular time, for instance after publication of the application. The data that are published in respect of the application after this date are added to the databases later. They use a variety of principles in the way they do this updating.

4.1 Static principle

A publication (e.g. an unexamined application) is received as a record (= documentation unit) in the database. This record is never altered. A further publication (e.g. the granted patent) or changes to the legal status are not recorded in the database.

This principle is employed in the PCTFULL database (and in most of the scientific literature databases).

4.2 Dynamic Principle

A new record is set up in the database at the point of the first publication, and any details of the publication, and possibly the legal status, are entered at this stage.

When a new publication takes place or the legal status changes, the content of the original record is altered, with the result that one record is used for one patent application procedure, however many publication events have taken place.

This 'dynamic' principle is used in the DWPI (invention level) and INPAFAMDB databases, for instance.

4.3 Mixed principles

Some of the databases do not apply a 'pure' static or dynamic principle, but some sort of variation. In most cases only a small number of fields is updated. The bibliographical details and text of a new patent publication for a particular application (patent procedure) are recorded in a new document (record) in the database. Here are the most important principles used:

4.3.1 Static principle using separate documents

When the first publication is made of a particular invention the first document is entered into the database holding the bibliographical details and text substance of the publication. If later a patent is granted the new publication and

![Static principle diagram]

![Dynamic principle diagram]
Patent databases on STN International

its details and text substance will be entered into a second document in the database. A number of fields in both documents will be updated when later changes occur, e.g. the document type or national classification.

This principle is applied in the IFIPAT database.

**Figure:** Static principle using separate documents

**Figure:** Static principle using segmentation

### 4.3.2 Static principle using segmentation

As with the static principle a document once entered in the database remains in its original form, even if later publications appear. To add any further publications relating to the same invention, a special construction is used. One ‘Documentation Unit’ is divided into several ‘Segments’ or ‘Publication levels’. Each segment or level takes one document.

If an application is first published a new documentation unit is created and the data of the document are entered. If after that a patent is granted the existing documentation unit is extended by one segment or level and the data of this publication are entered. Once they have been entered, the documents are not altered in any way.

Later publications or legal status data (for example in INPADOCDB) may also be entered into the documentation unit. Documents containing legal status data are dynamic, i.e. new information is added to the existing data.

This principle is used in a number of databases, e.g. EPFULL, INPADOCDB, DWPI.

### 4.3.3 Dynamic principle using two databases

This principle is used in the American full-text databases USPATFULL and USPAT2. As with the dynamic principle, the records in the USPATFULL database are altered (entered, overwritten) when new information becomes available. In order to place the new full text of a granted patent in addition to that of the application this new document is entered in the USPAT2 database. If applicable, the bibliographical details may be altered. If there is another new publication later, the whole document in USPAT2 will be overwritten.
Figure: Dynamic principle using two databases
5 AUPATFULL

5.1 Typical queries

- Searches for the state of the art in AU publications (text and classification), e.g.:
  - What AU applications are there on sweet potato fermentation?
- Name searches (inventor, applicant), e.g.:
  - What AU applications of GENENTECH have been published during the past year?
  - What AU applications are there of Mr Richard Dickerson?
- Searches using formal data (e.g. numbers), e.g.:
  - What is contained in the AU application numbered AU2006234758?
  - We are looking for the full-text of an application of the company SDU IDENTIFICATIONS of 13 April 2006.
- Full-text display of AU patents
  - What are the claims made in the AU publication numbered 2009201220?
- Numeric Property Search in the context of the fulltext
  - Search for a length in the nanometer range
- Display of legal status data
- Monitoring PCT applications
- Using the full-text to find material for an opposition
- Multi-file searches in combination with other national or regional patent databases

5.2 Brief description

Producer: LexisNexis Univentio B.V.
Period covered: Since 1900
Size: More than 1.6 million records on patents, more than 919,000 full texts, more than 604,000 first page images (January 2020)
Updated: Weekly
Language: English

5.3 Contents

- Full-text of patent applications and patent specifications published in Australia from 1966
- Bibliographical details
- International Patent Classification (IPC), IPC thesaurus, range searchable
- Cooperative Patent Classification (CPC), thesaurus, range searchable
- European Patent Classification (ECLA), ECLA thesaurus, range searchable; other European classifications: ICO, IDT, are kept as historical data
- Keyterms (extracted with linguistic and statistical methods from the English full texts)
- Legal status information from INPADOCDB can be displayed (LS, LS2, FAM and CFAM fields) but is not searchable in AUPATFULL
Guide to STN Patent Databases

- Citation information from INPADOCDB can be displayed (RE field), but is not searchable
- Drawings from the first page of the publication
- Numeric values of over 30 physical and chemical properties in almost 400 units are searchable in all full text fields
- Full text has been created by Optical Character Recognition (OCR) software. This means that there may be errors and incomplete text. Some of the documents do not have text because the scanning failed.

5.4 Dynamics

The AUPATFULL database follows a mixed principle using segmentation. All publications of the same patent application form one documentation unit. Each document is entered into a separate record and will not be updated. The legal status from INPADOCDB is updated.

5.5 Updating

Publications appear in AUPATFULL one week after the date of publication.

5.6 Document from AUPATFULL

Display format: MAXG LS

**AN** 2011000537 AUPATFULL ED 20110629 UP 20191118 EDTX 20110629
**DED** 20110516 DUPD 20191112
**TI** A portable cot
**IN** Moran, Sean
**PA** FUNTASTIC LIMITED;
**AG** Freehills Patent & Trade Mark Attorneys, Level 43 101 Collins Street, Melbourne, VIC, 3000
**LAF** English
**LA** English
**DT** Patent; (Full text)
**PIT** AU44 GRANTED OPI INNOVATION PATENT [FROM 20010524 ONWARDS]
**PI** AU 2011100127 A4 20110324
**AI** AU 2011-100127 20110131
**PRAI** AU 2011-100127 20110131
**ICM** A47D0007-00
**IPCI** A47D0007-00 [I,A]
**CPC** A47D0007-002; A47D0013-063
**EPC** A47D0013-06B2; A47D0007-00B

**AB**

A foldable cot (10) includes an upper peripheral frame (16) and first and second supporting leg structures (20). Each of the first and second supporting leg structures (20) comprise two support legs (32, 34) which are pivotable to adjust from a configuration whereby the two support legs (32, 34) diverge in the downward direction at an included angle ...

**DETD**

A portable cot The following statement is a full description of this invention, including the best method of performing it known to us ...

**CLM**

1. A foldable cot including: an upper peripheral frame supported on each side by a supporting leg structure, each of which comprises two support legs pivotable relative to one another between an angled configuration whereby the support legs extend at an included angle, and a collapsed configuration whereby the support legs extend at a lesser included angle ...

**AN** 2011000537 AUPATFULL ED 20110629 UP 20191118 EDTX 20110629
**DED** 20110516 DUPD 20191112
**TI** A portable cot
**IN** Moran, Sean
**PA** FUNTASTIC LIMITED;
**AG** Freehills Patent & Trade Mark Attorneys, Level 43 101 Collins Street,
A foldable cot (10) includes an upper peripheral frame (16) and first and second supporting leg structures (20). Each of the first and second supporting leg structures (20) comprise two support legs (32, 34) which are pivotable to adjust from a configuration whereby the two support...

DETD

A portable cot. The following statement is a full description of this invention, including the best method of performing it known to us:

COMS ID No: ARCS-307977 Received by IP Australia: Time (H:m) 17:39 Date (Y-M-d) 2011-01-31 A PORTABLE COT Field of the invention The present invention relates to a portable cot. In particular, the invention relates to a cot which is foldable from an erected operational configuration to a collapsed configuration to make the cot more easily able to be stored and/or transported.

CLM

1. A foldable cot including: an upper peripheral frame supported on each side by a supporting leg structure, each of which comprises two support legs pivotable relative to one another between an angled configuration whereby the support legs extend at an included angle, and a collapsed configuration whereby the support legs extend at a lesser included...

KT

portable cot; sleeve or collar portion; coupling portion; base frame halve; bracing mechanism; base frame loop; pivotable coup; upper frame portion; foldable cot; upper peripheral frame; leg portion; supporting leg structure; ip australia; support legs pivotable; folded...

Gl
Guide to STN Patent Databases

5.7 Selected Fields

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* Numeric properties: E A/ PHP lists properties available for numeric search (cf. database description). The search is performed in all fields containing English text. There are no specific display fields, but the hit numeric values will be highlighted. For more information enter HELP NPS.

5.7.1 Super-Search-Fields

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6 CANPATFULL

6.1 Typical queries

- Searches for the state of the art in CA publications (text and classification), e.g.:
  - What CA applications are there on sweet potato fermentation?
- Name searches (inventor, applicant), e.g.:
  - What CA applications of HABITAFLEX CONCEPT INC. were published during the past year?
  - What CA applications are there of Mr Nolan McDonald?
- Searches using formal data (e.g. numbers), e.g.:
  - What is the text of the CA application numbered CA 2735018?
  - We are looking for the full-text of an application of the company MOLD HOTRUNNER SOLUTIONS that was published on October 6, 2011.
- Full-text display of CA patents:
  - What are the claims of the CA patent numbered CA2009209?
- Numeric Property Search in the context of the fulltext
  - Search for a length in the nanometer range
- Display of legal status data
- Monitoring CA applications
- Using the full-text to find material for an opposition
- Multi-file searches in combination with other national or regional patent databases

6.2 Brief description

**Producer:** LexisNexis Univentio B.V.

**Period covered:** Since 1906, some documents since 1869

**Size:** More than 2.4 million records on patents, more than 2.1 million full texts, more than 1.47 million front page images (January 2020)

**Updated:** Weekly

**Languages:** English, French

6.3 Contents

- Full text of applications and patent specifications published in Canada
- About 40,000 documents are in French, the abstracts were human translated to English, the claims and descriptions were machine translated to English
- 99% of the documents have a French title in addition to the English title
- Bibliographical details
- International Patent Classification (IPC), IPC thesaurus, range searchable
- Cooperative Patent Classification (CPC), thesaurus, range searchable
- European Patent Classification (ECLA), ECLA thesaurus, range searchable; other European classifications: ICO, IDT, are kept as historical data
Guide to STN Patent Databases

- Keyterms (extracted with linguistic and statistical methods from the English full texts)
- Legal status information from INPADOCDB can be displayed (LS, LS2, FAM and CFAM fields), but is not searchable
- Citation information from INPADOCDB can be displayed (RE field), but is not searchable
- Drawings from the first page of the publication.
- Numeric values of over 30 physical and chemical properties in almost 400 units are searchable in all full text fields
- All texts are created by Optical Character Recognition (OCR) software. This means that there may be errors and incomplete text. Some of the documents do not have text because the scanning failed.

6.4 Dynamics

The CANPATFULL database follows a mixed principle using segmentation. All publications of the same patent application form one documentation unit. Each document is entered into a separate record and will not be updated. The legal status from INPADOCDB is updated.

6.5 Updating

Publications appear in CANPATFULL ten days after the date of publication.

6.6 Document from CANPATFULL

Display format: MAXG LS

AN  2010003079 CANPATFULL ED 20110818 UP 20170928 EDTX 20110818
DED 20101229 DUPD 20170722
TIEN FOLDABLE ROOF FOR FOLDABLE HABITATION
TIFR TOITURE REPLIABLE POUR HABITATION PLIABLE
IN LAPRISE, DANIEL, 117, 11e rue, MONTMAGNY, G5V 3E4, CA; FORTIN, MATHIEU, 8, rue Corrimier, CARAQUET, E1W 1A5, CA
PA HABITAFLEX CONCEPT INC., 240 avenue Des Ateliers, MONTMAGNY, G5V 4G4, CA; [NAT: CA, RES: CA]
AG NORTON ROSE OR S.E.N.C.R.L., S.R.L./LLP, CA
LAF English
LA English
DT Patent; {Full text}
PT CAA1 PATENT (PUBLISHED FROM 1973 ONWARDS) [FROM NO. 1 TO 1275150] or APPLICATION LAID OPEN [FROM NO. 2000001 ONWARDS]
PI CA 2719746 A1 20101119
AI CA 2010-2719746 20100517
RLN WO 2010-CA756 20100517
PRAI US 2009-179547P 20090519
IPCI E04B0001-343 [I,A]; E04B0007-16 [I,A]
CPC E04B0001-3442
EPC E04B0001-344C

ABEN The foldable habitation has a foldable roof with a central section which can be folded into a generally flat configuration for transportation and storage, and which can be automatically deployed into a chevron shape upon deploying lateral sections of the roof. A novel method of handling a foldable habitation is also disclosed.

DETDEN CA 02719746 2010-11-05 - [FOLDABLE ROOF FOR FOLDABLE HABITATION CROSS-REFERENCE TO RELATED APPLICATIONS [000t] This application claims priority of United States Provisional Application no. 61/179,547, entitled “Foldable Roof for Foldable Habitation” and filed 19 May 2009 by applicants, and is also related to United States Patent Application Pub.
1. A roof for a foldable habitation also having a structural core, a floor and walls, and being foldable between a transport configuration and deployed configuration, the roof having a center section including...

25. The method of claim 24 wherein at least the second foldable habitation is manipulated by the two support frames during the step of moving.

ABEN

The foldable habitation has a foldable roof with a central section which can be folded into a generally flat configuration for transportation and storage, and which can be automatically deployed into a chevron shape upon deploying lateral sections of the roof. A novel method of handling a foldable habitation is also disclosed.

CROSS-REFERENCE TO RELATED APPLICATIONS.

[0001] This application claims priority of United States Provisional Application no. 61/179,547, entitled "Foldable Roof for Foldable Habitation" and filed 19 May 2009 by applicants, and is also related to...

1. A roof for a foldable habitation also having a structural core, a floor and walls, and being foldable between a transport configuration and a deployed configuration, the roof having a center section including...
Guide to STN Patent Databases

LEGAL STATUS INPADOCDB COPYRIGHT 2019 EPO / FIZ KARLSRUHE on STN
AN 20100003079 CANPATFULL
20101105 CAEER EXAMINATION REQUEST
EXA Examination, Search Report
.................................................. 20130801
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2009US-000179547P P 20090519
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2010WO-CA0000756 WW 20100517
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* Numeric properties: \* \* A/PHP lists properties available for numeric search (cf. database description). The search is performed in all fields containing English text. There are no specific display fields, but the hit numeric values will be highlighted. For more information enter HELP NPS.

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Guide to STN Patent Databases

7 Chemical Abstracts Plus (CAplus)

7.1 Typical queries

- Searches to find out the state of the art in chemistry and chemical processes (text and classification), e.g.:
  - What patents have been published on immunisations against hepatitis B in the last 5 years?
  - Are there any patents on the use of ‘diaminodiphenyl ether-pyromellitic anhydride copolymers’?
- Name Searches, e.g.:
  - What patents in the chemical field does Richard Paul Eckberg own?
  - What patents are owned by Stinx & Co.?
- Patent Family Searches, e.g.:
  - In what countries has an application to patent the Japanese invention JP 62111230 been made?
- Monitoring patents

7.2 Brief description

Producer: Chemical Abstracts Service (CAS), USA

Period covered: Since 1907
1907–1998: Images from the printed CA,
More documents before 1907

Size: Chemical Abstracts Plus (CAPlus): more than 15.1 million records on patents,
Chemical Abstracts (CA): more than 9.97 million records on patents (January 2020)

Updated: Chemical Abstracts Plus (CAPlus): daily
Chemical Abstracts (CA): weekly

Language: English

7.3 Contents

- Patents, articles in journals, books, conference reports, technical reports, university publications
- From all fields of chemistry and chemical processes
- Approx. 17% of the annually entered 500,000 documents are patents
- Publications from 60+ countries, the European Patent Office and the PCT, RD (Research Disclosure) publications
- Technical Disclosure from the IP.com Journal (from vol. 1, no. 1, January 2001). IP.com is both an electronic and printed journal (see SO field). The PI (Patent Information) field shows the number with IP as the ‘country’ code. (Technical Disclosure / Defensive Publications can also be searched and published on http://www.ip.com/)
- Approx. 21,000 documents of journal publications published before 1907, approx. 10,000 US patents from 1900 to 1906, approx. 1,250 US patents from 1808 to 1859
- Enhanced title and abstract in English written by experts
- International patent classification (IPC) for basics and family members, online thesaurus incl. catchwords, range searching possible, re-classification of the back-file (main class codes of IPC1–7 available for basics only)
- U.S. classification codes (the current one in the NCL field for basics and equivalents, that at the time of publication in the INCL field for basics only), online thesaurus including catchwords, no longer assigned, replaced by CPC, codes are kept as historical classification data
Patent databases on STN International

- Common Patent Classification (CPC), thesaurus, range searchable, CPC Combination Sets (C-Sets)
- European Patent Classification (ECLA), thesaurus, range searchable; retained for a limited period of time
- F-TERMS (Japanese classification) since 1/2004
- Additional indexing (keywords, REGISTRY numbers)
- Details of the patent family
- Cited references for journal articles and conference proceedings since 1997
- References to patents (Basic Document; Cited Patents; US, DE, EP, WO since 1997, FR, GB since 2003, CA since 2005; cited patents from nearly 300,000 patent records from 1982 to 2008 additionally; as the Basic Documents are often published applications without references patent citations tend to be incomplete).
- Citing references: the accession numbers of the citing documents are linked
- Legal status information (assignments/reassignments) for US patents since 1980 (US priorities or US equivalents)
- PatentPak: efficient viewing of patent full-texts, including quickly finding chemical structures in the patent full-texts
- TIFF images of CA abstracts printed between 1907 and 1966 are available in CAPlus; displayable using the PAGE, PAGE.PREV, and PAGE.NEXT formats
- Online thesauri available in the fields: Controlled Terms (/CT), CA Sections/Classification Code (/CC), Roles (/RL), Company Name (/CO), F-Terms (/FTERM), International Patent Classification (/IPC), National Patent Classifications Current (/NCL), National Patent Classifications Issue (/INCL)
- For more detailed information see http://www.cas.org/expertise/cascontent/caplus/patcoverage/

Besides patents, sources for the CA (Chemical Abstracts) file include books, journals, conference reports, technical reports and university publications. Thus, CA is the only database treated here which does not cover exclusively patents.

Patent publications for recording in CA are selected on the basis of EPIDOS data (formerly INPADOC), Vienna. The patents are subject to a restriction by countries (60+ countries, European Patent Organization and World Intellectual Property Organization), by document types and subject area (on the basis of the notations of the International Patent Classification). The criteria are described in the manual Patent Information from Chemical Abstracts Service.

The documents selected for CA are examined whether a document from the same family is already available in the Chemical Abstracts. If no earlier publication is found, the document is recorded as Basic and examined and indexed by an expert. If a corresponding document does exist in the database, the patent family is updated (patent numbers, application numbers).

### 7.4 Dynamics

Documents in CAPlus are altered if further patents on the invention appear (dynamic principle). The database has a number of update fields, which will be amended or overwritten (see section SDI searches). It may be that there are two or more records of the same patent family in the database. In these cases the number in the field FAN.CNT (Family Accession Number Count) is greater than 1. In the following cases 2 or more records are entered for a publication or invention (patent family), i.e. there are 2 or more Basic Documents for one family:

- Certain changes to the patent family (e.g. division or continuation),
- If a publication contains information on too many chemical substances that would exceed the limit of a CA record,
- Starting from 01 July, 2008 for US, DE, GB, FR, CA and EP both the national applications with the oldest priority are entered in a first document and the equivalent WO application are entered in a second document (the WO application frequently having more information including chemical structures). A reference to the second document can be found in the SO field: Chemical Indexing Equivalent to...

If only one of the two family document is wanted it is recommended to sort the patent families with FSORT or use the Patent Family Manager.
7.5 Updating

Patent documents are imported a few days up to three weeks after publication, if applicable without complete indexing (see Patent Currency Information) but with the original abstract (partly in original language, e.g. German, French; partly machine translation). The complete indexing will be added within approx. 2 months.


The CAPlus database comprises the data from CA and some additional sources. Updating is done daily.

7.6 Notes

It is recommended to make a cost assessment before starting a search:

- The cost per connect hour is low in CA, SEARCH terms are charged. When searching E#lists (SELECT or EXPAND) or when using TRANSFER, high costs may result quickly.
- The HCA file has a higher connect hour fee but no SEARCH term pricing. When searching E#lists (SELECT or EXPAND) or when using TRANSFER, HCA is, therefore, to be recommended.
- In ZCA no connect hour charges apply but the SEARCH term fee is higher. The Z-files can be recommended for browsing E#lists, e.g. the IPC thesaurus.

7.7 Document from HCAplus

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IT 2006T00139 A1 20060527 IT 2006-T0139 20060227
IT 1373229 B1 20100419
ES 2387507 T3 20120925 ES 2007-103073 20070226
JP 2007231275 A 20070913 JP 2007-48095 20070227
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**AB**

A curable rubber mix having a crosslinkable unsaturated chain polymer base, a curing system, and a reinforcing filler system having a crosslinkable unsaturated compound with a mol. weight 200-400; where R = H or CH2(OCH2CH2)nOH; n = 1-3; R' = CH2(OCH2CH2)nOH. Crosslinkable composition contains SBR and butadiene rubber base, carbon black, silica, a silane bonding agent, zinc oxide, stearic acid, wax, antioxidants, and the polyether compound for improved storage dynamic modulus and mechanical properties for tires.

**ST**

SBR butadiene rubber S vulcanizable silica hydroxy ether

**IT**

Carbon black, uses

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

Butadiene rubber, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

Tires

RL: TRED (Tires); USES (Uses)
compound for improved storage dynamic modulus and mech. properties for tires)

IT  9003-17-2
RL:  POF (Polymer in formulation);  TEM (Technical or engineered material use);  USES (Uses)
    (butadiene rubber;  curable rubber mix containing silica reinforcement and ether compound for improved storage dynamic modulus and mech. properties for tires)

IT  166033-01-8
RL:  MOA (Modifier or additive use);  USES (Uses)
    (curable rubber mix containing silica reinforcement and ether compound for improved storage dynamic modulus and mech. properties for tires)

IT  7631-86-9, Silica, uses
RL:  TEM (Technical or engineered material use);  USES (Uses)
    (curable rubber mix containing silica reinforcement and ether compound for improved storage dynamic modulus and mech. properties for tires)

IT  9003-55-8
RL:  POF (Polymer in formulation);  TEM (Technical or engineered material use);  USES (Uses)
    (styrene-butadiene rubber;  curable rubber mix containing silica reinforcement and ether compound for improved storage dynamic modulus and mech. properties for tires)

ASSIGNMENT HISTORY FOR US 20070219300

LSUS  RAD:  20070604
RAUP:  20070920
RAK:  ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).
PAO:  DI RONZA, RAFFAELE (DATE EXECUTED: 20070326)
RAC:  BRIDGESTONE CORPORATION, 10-1, KYOBASHI 1-CHOME, CHUO-KU, TOKYO 104-8340, JAPAN
RAA:  SUGHRUE MION, PLLC, 2100 PENNSYLVANIA AVENUE, N.W., SUITE 800, WASHINGTON, DC 20037
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7.8 Selected Fields

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8 **CNFULL**

8.1 **Typical queries**

- Searches for the state of the art in CN publications (text and classification), e.g.:
  - What CN applications are there on photo-voltaic cells?
- Name searches (inventor, applicant), e.g.:
  - What CN applications of CHANGZHOU TRINASOLAR CO LTD were published during the past year?
  - What CN applications are there of Mr MENG JIANG together with Mr ZHEN ZHANG?
- Searches using formal data (e.g. numbers), e.g.:
  - What is the text of the CN utility model numbered CN 202373282?
  - We are looking for the full-text of an application of HUAWEI TECH CO LTD of August 8, 2012.
- Full-text display of CN patents:
  - What are the claims of the CN patent numbered CN 102630137?
- Numeric Property Search in the context of the fulltext
  - Search for a length in the nanometer range
- Display of legal status data
- Monitoring CN applications
- Using the full-text to find material for an opposition
- Multi-file searches in combination with other national or regional patent databases

8.2 **Brief description**

**Producer:** Questel, France

**Period covered:** Since 1985

**Size:** More than 21.3 million documentation units on patents, utility models, and designs, more than 21.3 million full texts, more than 15.65 million title page images (January 2020)

**Updated:** Weekly

**Languages:** English

8.3 **Contents**

- Full text of patent applications, granted patents and utility models published in the People’s Republic of China
- Bibliographical details including patent assignee, inventors and related PCT applications
- Titles and abstracts are entered as machine translations first, they are replaced by manual translations after three months, the descriptions and claims are machine-translated
- Improved machine translation of all text parts from Chinese to English in new and updated documents from July 2015
- International Patent Classification (IPC), IPC thesaurus, range searchable
- Cooperative Patent Classification (CPC), thesaurus, range searchable
Patent databases on STN International

- European Patent Classification (ECLA), ECLA thesaurus, range searchable; other European classifications: ICO, IDT
- Keyterms (extracted with linguistic and statistical methods from the English full texts)
- Legal status information from INPADOCDB can be displayed (LS, LS2, FAM and CFAM fields), but is not searchable
- Drawings from the first page of the publication, if available
- Numeric values of more than 30 physical and chemical properties in almost 400 units (Version 1)

8.4 Dynamics

The CNFULL database follows a mixed principle using segmentation. All publications of the same patent application form one documentation unit. Each document is entered into a separate record and will not be updated. The legal status from INPADOCDB is updated.

8.5 Updating

Publications appear in CNFULL 1 to 3 weeks after the date of publication.

8.6 Document from CNFULL

Display format: MAXG LS

AN 201100608 CNFULL ED 20120202 UP 20180604 EDTX 20120202
TI Safe self-destroying injector
IN HUO XIN
PA GUANGDONG KANGERMEI MEDICAL DEVICES CO. LTD.
AG CENG QI HUANAN PATENT & TRADEMARK OFFICE
LAF English
LA English
DT Patent; (Full text)
PIT CNA UNEXAMINED APPLICATION FOR A PATENT FOR INV.
PI CN 102038989 A 20110504
AI CN 2011-10026962 20110125
PRAI CN 2011-10026962 A 20110125
IPCI A61M0005-50 [I,A]; A61M0005-31 [I,A]; A61M0005-315 [I,A]
GI

AB

The invention provides a safe self-destroying injector, which comprises an outer shell, a core bar, a core bar rubber stopper, a core bar cover, a core bar lock catch, an injection needle, a needle bed, a spring, a...
Safe self-destroying injector

Technical Field

The present invention relates to syringe technology, in particular relates to a safety self-destructing syringe.

Background Art

In the clinical course of treatment, many patients are often required for injection therapy, in order to inject the medical fluid by means of this treatment to a subject and salvage of disease to be treated.

CLM

1. A safety self-destruction syringe, characterized in: is provided with an outer jacket, the stem, the stem rubber plug, the plug cap, snap-lock core pin, injection needle, needle holder, a spring, the...

Original

The invention provides a safe self-destructing injector, which comprises an outer shell, a core bar, a core bar rubber stopper, a core bar cover, a core bar lock catch, an injection needle, a needle bed, a spring, the...

DETD

Safe self-destructing injector

Technical Field

The present invention relates to syringe technology, in particular relates to a safety self-destructing syringe.

Background Art

In the clinical course of treatment, many patients are often required for injection therapy, in order to inject the medical fluid treatment of a disease to be treated by this means and salvage of a patient.

CLM

1. Self-destruction safety syringe, characterized in: is provided with an outer jacket, the stem, the stem rubber plug, the plug cap, snap-lock core pin, injection needle, needle holder, a spring, a safety spring...
8.7 Selected Fields

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* Numeric properties: E A/ PHP lists properties available for numeric search (cf. database description). The search is performed in all fields containing English text. There are no specific display fields, but the hit numeric values will be highlighted. For more information enter HELP NPS.

8.7.1 Super-Search-Fields

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9 DEFULL

9.1 Typical queries

- Searches for the state of the art in DE publications (text and classification), e.g.:
  - What DE applications are there on electrical surgical instruments?
  - What DE patents are there on hybrid drives?
- Name searches (inventor, applicant), e.g.:
  - What DE applications of SUZUKI MOTOR CORPORATION were published during the past year?
  - What DE patents are there by Mr. GEORG WITTMANN of DEHN & SOEHNE?
- Searches using formal data (e.g. numbers), e.g.:
  - What is the text of the DE utility model numbered DE 20 2013 004 927?
  - We are looking for DE publications in the field of A61L 27 (Materials for prostheses) with DE as the priority country and 2008 to 2012 as the priority year.
- Numeric Property Search in the context of the fulltext
  - Search for a length in the nanometer range
- Full-text display of DE applications:
  - What are the claims of the DE patent numbered 10 2012 010 676?
- Display of legal status data
- Monitoring DE applications
- Using the full-text to find material for an opposition
- Multi-file searches in combination with other national or regional patent databases

9.2 Brief description

Producer: LexisNexis Univentio BV
Period covered: Since 1877
Size: More than 5.65 million documentation units of patents and utility models, more than 5.57 million full texts, more than 4.57 million front page images (January 2020)
Updated: Weekly
Languages: English, German

9.3 Contents

- Full text of German patent applications, granted patents and utility models published by the Patent Office of the German Reich (Reichspatentamt) and the German Patent and Trademark Office (since 1877, in PATDPAFULL since 1979)
- The full texts are available in German and English (machine-translated)
- Bibliographical details including patent assignee, inventors and representative; patent assignee names are available in standardised form in the PAS field and in normalised form in the PAN field
- International Patent Classification (IPC), IPC thesaurus, range searchable
- Cooperative Patent Classification (CPC), thesaurus, range searchable, CPC Combination Sets (C-Sets)
Patent databases on STN International

- European Patent Classification (ECLA) with on-line thesaurus, other European classifications: ICO (In Computer Only), no longer assigned from 1/2013, the codes are kept as historic classification data
- Keyterms (extracted with linguistic and statistical methods from the English full texts)
- Details of related documents
- Drawings
- Legal status, citation and family data come from INPADOCDB and can be displayed in the LS, LS2, RE, FAM and CFAM fields. These data are not searchable.
- Numeric values of more than 59 physical and chemical properties are searchable in all English full-text fields
- Some of the texts are created using an Optical Character Recognition (OCR) software, i.e. there may be errors and omissions of text portions

9.4 Dynamics

The DEFULL database follows a mixed principle using segmentation. All publications of the same patent application form one documentation unit. Each document is entered into a separate record and will not be updated. The legal status in INPADOCDB is continuously updated.

9.5 Updating

New data are entered in the database about 1 week after the publication date.

9.6 Document from DEFULL

Display format: MAXG

Full text of the OPI publication (Offenlegungsschrift) in German and machine translation in English

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ABDE
Original
Die Erfindung betrifft eine Nockenwellenverstelleinrichtung (19) mit einem Nockenwellenversteller (4), umfassend einen Stator (36), einen gegenüber dem Stator (36) um eine Rotationsachse (74) relativ verdrehbaren Rotor (38) und eine am Rotor (38) oder am Stator (36)...

ABEN
Equivalent from US2015083065A1
A camshaft adjusting device (19) having a camshaft adjuster (4), including a stator (36), a rotor (38) which can be rotated relative to the stator (36) about a rotational axis (74), and a hub (52) which is...

DETDEN
FIELD OF THE INVENTION.

[0001] The invention relates to camshaft phasing device with a cam phaser, comprising a stator, a rotor and a relatively rotatable relative to the stator about an axis of rotation on the rotor or on the stator...

CLMEN
1. camshaft phasing device (19) with a cam phaser (4), comprising a stator (36), a relative to the stator (36) around a rotation axis (74) relative rotatable rotor (38) and a on the rotor (38) or on the stator...

DETDDE
GEBIET DER ERFINDUNG.

[0001] Die Erfindung betrifft eine Nockenwellenverstelleinrichtung mit einem Nockenwellenversteller, umfassend einen Stator, einen gegenüber dem Stator um eine Rotationsachse relativ verdrehbaren Rotor und eine am...

CLMDE
1. Nockenwellenverstelleinrichtung (19) mit einem Nockenwellenversteller (4), umfassend einen Stator (36), einen gegenüber dem Stator (36) um eine Rotationsachse (74) relativ...

Full text of the granted patent (Patentschrift) in German and machine translation in English
ABDE

Original

Die Erfindung betrifft eine Nockenwellenverstellseinrichtung (19) mit einem Nockenwellenversteller (4), umfassend einen Stator (36), einen gegenüber dem Stator (36) um eine Rotationsachse (74) relativ...

ABEN

Equivalent from US2015083065A1

A camshaft adjusting device (19) having a camshaft adjuster (4), including a stator (36), a rotor (38) which can be rotated relative to the stator (36) about a rotational axis (74), and a hub (52) which is...

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1. camshaft phasing device (19) with a cam phaser (4), comprising a stator (36), a relative to the stator (36) around a rotation axis (74) relative rotatable rotor (38) and a on the rotor (38) or on the stator...

DETDDE

GEBIET DER ERFINDUNG.

[0001] Die Erfindung betrifft eine Nockenwellenverstellseinrichtung mit einem Nockenwellenversteller, umfassend einen Stator, einen gegenüber dem Stator um eine Rotationsachse relativ verdrehbaren Rotor und eine am...

CLMDE

1. Nockenwellenverstellseinrichtung (19) mit einem Nockenwellenversteller (4), umfassend einen Stator (36), einen gegenüber dem Stator (36) um eine Rotationsachse (74) relativ...
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* Numeric properties: EA/PHP lists properties available for numeric search (cf. database description). The search is performed in all fields containing English text. There are no specific display fields, but the hit numeric values will be highlighted. For more information enter HELP NPS.

9.7.1 Super-Search-Fields

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10 Derwent Geneseq (DGENE)

10.1 Brief description

Producer: Clarivate Analytics, Philadelphia, USA
Period covered: Since 1981
Size:
- More than 49 million sequence documents of patents and utility models (April 2019)
  - Nucleic acids: 36.2 million,
  - Amino acids: 12.8 million
Updated: Biweekly
Language: English

10.2 Contents

- Patent documents from all countries and international authorities covered in World Patents Index
- One record per sequence indexed
- Bibliographical details of the underlying Basic document
- Legal status information from INPADOCDB can be displayed (LS and LS2 fields) but is not searchable in DGENE
- Data on: nucleic acids (nucleotide sequences of 9 or more bases), amino acids (with 3 or more residues) from the underlying basic document: extended title, special abstract (prepared by a Derwent indexer), description, keywords, sequence data, information on features

Sequence data can be searched with the RUN package ‘GETSEQ’. Homology searching of protein and nucleotide sequences is possible with the RUN packages, ‘GETSIM’ or ‘BLAST’.

10.3 Dynamics

One invention may include several sequences. In DGENE, one record is entered per sequence. The records in the DGENE database are not updated (static principle). (The legal status information from INPADOC is updated.)

10.4 Updating

New data are imported approx. 2 months after publication.
10.5 Document from DGENE

Display format: ALL

AN
AEH30749 peptide DGENE

TI
Screening library of binding molecules having selective affinity for a ligand, comprises contacting an immobilized population of binding molecules with a ligand, and identifying binding molecule, which selectively binds to the ligands.

IN
Wu H; Gao C

PA
(MEDI-N) MEDI MMUNE I NC.

PI
US 2006094062 A1 20060504

AI
US 2005-261630 20051031

PRAI
US 2004-623240P 20041101

PSL
Example 3: SEQ ID NO 7

DED
29 JUN 2006 (first entry)

DT
Patent

LA
English

OS
2006-316129 [33]

DESC
Beta-lactamase signal peptide sequence SEQ ID NO: 7.

KW
ss; primer; PCR; beta-lactamase; peptide library; DNA library; high throughput screening; phage display.

ORGN
Unidentified.

AB
The present invention relates to a novel method for ultra high throughput screening of a library of binding molecules to identify a binding molecule having selective affinity for a ligand by contacting an immobilized population of binding molecules with at least one ligand, and identifying at least one binding molecule, which selectively binds to at least one of the ligands. The patentees also claim a method for enhancing the detection of the interaction of one or more binding molecules with at least one ligand; and a method for generating an expression library. Generating an expression library comprises generating, in an expression vector, a library of clones comprising polynucleotides encoding molecules ligated to a polynucleotide encoding a selectable marker useful for the selection of clones expressing functional molecules, and growing the library of clones generated under conditions, which select for clones expressing functional molecules.

Preferably, the expression vector is an Escherichia coli expression vector, where the E. coli expression vector is pUCKA. The methods are useful for screening a library of binding molecules to identify a binding molecule having selective affinity for a ligand, enhancing the detection of the interaction of one or more binding molecules with at least one ligand, and generating an expression library. The present sequence is that of the signal peptide of the beta-lactamase gene encoded by the preferred pUCKA expression vector of the invention. NOTE: The present sequence (shown as SEQ ID NO: 7 in the sequence listing) differs from the sequence shown in example 3, page 18 of the specification which is also shown as SEQ ID NO: 7 (AEH30750).

AA
4 A; 1 R; 0 N; 0 D; 0 B; 1 C; 1 Q; 0 E; 0 Z; 0 G; 1 H; 2 I; 2 L; 0 K; 0 M; 5 F; 2 P; 1 S; 0 T; 0 W; 0 Y; 2 V; 0 Others

SQL
22

SEQ
1 siqhfrvalipffaafclpvfa
10.6  Selected Fields

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* Use one of the RUN packages GETSEQ, GETSIM, or BLAST to retrieve sequence data in the SQ? fields.

10.6.1  Super-Search Fields

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11 Derwent Patents Citation Index (DPCI)

11.1 Typical queries
- See section Citation Search
- Citations searches for 23 countries:
  - What patents are cited in US patent, 6,269,141 of Philips? Has this patent been cited in later patents?
  - Has anybody cited patent no. DE 42 08 777?
- Citation statistics:
  - What companies do cite the patents of Philips most often?
  - Which are the most frequently cited patents of Philips?
  - Which patents on the subject of computer tomography are cited most often?

11.2 Brief description
Producer: Clarivate Analytics, Philadelphia, USA
Period covered: Since 1973
Size: More than 24.46 million documents of patents and utility models (January 2020)
Updated: Weekly
Language: English

11.3 Contents
- Details of cited and citing patent publications and cited non-patent literature
- Citations by examiners, inventors and authors, opponents and third parties in the determination of patentability
- Bibliographical details with enhanced patent titles, patent assignee code (PACO), family details, see DWPI
- Data content streamlined to focus on citation searching – no IPC and no Derwent Indexing of the patent family, however, citations are entered with the Examiner Field of Search (IPC or national US Classification)
- Patents citing patents from the stem family (Master Patent) are also included and updated
- DPCI uses the same Accession Number as DWPI (crossover)
- Country coverage:

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Patent databases on STN International

- Countries with limited coverage:

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11.4 Dynamics
Documents in DPCI follow the dynamic principle (cf. DWPI). In addition to family data, citation data are added regularly. The latest update is noted in the respective update field.

11.5 Updating
New publications (bibliographical details) are entered up to six months after publication (depending on country).

11.6 Document from DPCI

Display Format: ALL

AN 2003-846251 [200379] DPCI
TI Internal combustion engine operating method, by burning supplementary fuel injected while outlet valve is open
IN BAEUERLE M; REISINGER C
PA (BOSC-C) BOSCH GMBH ROBERT
CYC 3
PI DE 10217238 A1 20031106 (200379)* DE 9[4]
   FR 2838773 A1 20031024 (200382) FR
   DE 10217238 B4 20060216 (200613) DE
   IT 1348108 B 20081022 (200931) IT
ADT DE 10217238 A1 DE 2002-10217238 20020418; IT 1348108 B IT 2003-MI732
   20030410; FR 2838773 A1 FR 2003-4811 20030417
PRAI DE 2002-10217238 20020418

CTS CITATION COUNTERS

PNC. D 7 Cited Patents Count
PNC. G 7 Citing Patents Count
IAC. D 3 Cited Issuing Authority Count
IAC. G 5 Citing Issuing Authority Count
CRC 2 Cited Literature Reference Count
OSC. D 6 Cited Patent WPI Accession Number Count
OSC. G 5 Citing Patent WPI Accession Number Count

EXAMINERS FIELD OF SEARCH

IC F02D023-02; F02D041-38

Citations

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Guide to STN Patent Databases

**Literature Citations**

**By Literature Reference**


**Citations**

**Citing Publication** | **By** | **Accession Number**
---|---|---
DE 10308789 A1 | E | 2004-668219
DE 102004019021 A1 | E | 2005-760569
EP 1591651 A1 | E | 2005-772003
EP 1591651 B1 | E | 2005-772003
FR 2064161 A1 | E | 2005-437349
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WO 2006123760 A1 | E | 2007-150498

### 11.7 Selected Fields

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### 11.7.1 Super-Search-Fields

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12 Derwent World Patents Index (WPINDEX, WPIDS, WPIX)

12.1 Typical queries
- Searches for the state of the art / searches for information / searches in respect of novelty (text, classification, and indexing), e.g.:
  - What is the state of the art world-wide for Brakes for inline skates?
- Name searches (inventor, applicant), e.g.:
  - What patents does a certain B. Clinton have on the Treatment of rheumatoid arthritis?
  - What patents does FIAT own on Airbags?
- Searches using formal data (numbers: publication number, application number), e.g.:
  - What is contained in the US patent numbered 645532 (patent or application number)?
  - What is the content of the examined Japanese application, JP 2738976?
- Family searches:
  - Is there an equivalent to NEC CORP's Japanese application, JP 2710608, in English?
  - In what countries have Philips applied for patent rights on the priority number NL 83-1445?
- SDI searches

12.2 Brief description
Producer: Clarivate Analytics, Philadelphia, USA
Period covered: Since 1963
Size: More than 42.9 million records for patents and utility models, more than 32.3 million patent drawings (January 2020)
Updated: Twice per week
Languages: English, French, German, (Spanish)

12.3 Contents
- Extracts from the patents documents of 50+ patent organisations, including EP and WIPO
- Research Disclosure (RD),
  (International Technical Disclosure (TP) – up to 11/1993)
  (Defensive Publications can now be published and searched on http://www.ip.com/)
- Numerical values of more than 55 physical and chemical properties in approx. 1,800 units (Version 2)
- Documents consist of an Invention Level and a Publication Level, both levels can be searched and displayed separately
- Invention Level:
  - Bibliographical details of the patent family, including language information for each family member
  - A newly formulated, enhanced title
  - Structured abstracts (AB), 750 000 Documentation Abstracts (ABDT, from the years 1995-1999), Extension Abstracts in WPIX (in CPI file segment) from 1999
  - Names of inventors and patent assignees; additional patent assignee code (with online dictionary)
  - Graphics (patent drawings, chemical structures)
Guide to STN Patent Databases

- Current International Patent Classification (IPC, including re-classification), IPC thesaurus
- Cooperative Patent Classification (CPC), thesaurus, range searchable, CPC Combination Sets (C-Sets)
- European Patent Classification (ECLA) with online thesaurus, other European classifications: ICO (In Computer Only), no longer assigned from 1/2013, existing codes are kept as historical classification data
- U.S. National Classification with online thesaurus, will no longer be assigned and be replaced by CPC, existing codes will be kept as historical classification data
- Derwent Classification and Manual Codes (Electrical Patents Index)
- Derwent Chemistry Resource (DCR) from Derwent week 16/1999: Additional indexing and structure searching
- Japanese FI and FTERMS (since 1966) with online thesaurus
- Additional indexing for chemical patents (accessible only for subscribers of Derwent services in WPIX and WPIDS)

- Publication Level:
  - Bibliographical details of the original and selected data for each family member (available from selected patent offices only)
  - Original title, full inventor and assignee names plus agent details, including address details, original abstract and main claim
  - Additional abstract (ABEQ, structured, or main claim), if considered necessary
  - International Patent Classification from the original publication, re-assigned IPC for the respective publication, IPC thesaurus
  - Original US Classification from 1975

The World Patents Index is accessible at three user levels:

- WPINDEX – all STN users
- WPIDS – subscribers
- WPIX – selected subscribers

Coverage at invention level starts in various years for the individual subject areas (also depending on the country, see appendix):

- Pharmaceuticals: 1963
- Agricultural chemicals: 1965
- Plastics and polymers: 1966
- Other fields of chemistry: 1970
- Mechanics, electrical engineering, other fields of engineering: 1974

Coverage at publication level also varies, depending on the country:

- Original text data:

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Patent databases on STN International

**Country** | **Title** | **Abstract** | **Main claim** | **All claims**
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DE | 1968- | 2000- | 1968- | 
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FR | 2009- | 2009- | 2009- | 
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KR | 2008- | 2008-7 | 2008-7 | 2008-7
MY | 2010- | 2010- | 2010- | 
RU | 2010-9+11,7 | 2010-9+11,7 | 2010-9+11,7 | 
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TW | 2008- | 2008- | 2008- | 
US | 1975- | 1975- | 1993- | 
VN | 2010-10,8 | 2010-10,8 | 2010-10,8 | 
WO | 1978- | 1978- | 1978- | 

1 German; 2 Portuguese; 3 Spanish; 4 English, French, German; 5 Applications in English; 6 Applications in French or German; 7 Machine (assisted) translation; 8 Human translation; 9 Patent applications; 10 Patents; 11 Utility models

- Bibliographical details of original documents (incomplete bibliographical details are available from other countries):

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*APTS: Application Number, Thomson Scientific

Starting from 1996 (DW 9626), German utility models are entered in the World Patents Index. A utility model may also appear with its application number as a priority application (with BR, CN, DE, ES, IT, and JP priorities).

**Note on text substances at invention level.** To improve the accessibility of the content of the patents the database producer formulates a new, enhanced title and an abstract in English. The words of the title can be searched in their basic grammatical form (Title Terms /TT) and are complemented by Additional Words (/AW). The proximity relations of the title words are maintained in the TT field. An online thesaurus is available in the /TT field.

Older titles consist of two parts separated by a dash. The first part names the field of the invention while the second part summarises its novelty. Since 1999 there are newly structured titles and abstracts: The title is no longer segmented, but still names both the field of the invention and its novelty. There are three different types of abstracts:

- Basic Online (Alert) Abstract
- Technology Focus (only if sufficiently presented in the document)
Guide to STN Patent Databases

- Extension Abstract (CPI file segment in WPIX only)

The Alert Abstract is structured. The sections have these headings:

- **Novelty**: Short description of what makes the invention novel, i.e. in which way it is different from existing technology in a non-trivial way
- **Detailed Description**: Summary of the main claim (and, if applicable, other independent claims) if this would blast the Novelty section
- **Activity**: Description of the biological effect of the claimed invention, particularly with pharmaceutical, veterinary, or agrichemical patents
- **Mechanism of action**: Description of the biological mechanism the invention uses for its effect, particularly with pharmaceutical, veterinary, or agrichemical patents
- **Use**: Always available, list of applications of the invention in its field
- **Advantage**: Summary of the advantages of the invention, from the description by the inventor
- **Description of Drawing(s)**: Short description of possible drawings including references

The individual sections are available depending on the field of the invention and contents of the document. The restructuring of the abstract affects searching as well as quick reading and understanding the patent.

The Technology Focus is to enable end users and engineers to find out quickly if the patent is of interest. The Paragraph Headings used describe the field of an invention from different points of technology in order to present the scientific contents in an easily understandable form:

- **Agriculture**: Pesticides, Herbicides, Fungicides, Fertilizers, etc., excluding their preparation (cf. Organic Chemistry)
- **Biology**: Naturally occurring biological materials
- **Biotechnology**: Genetic engineering, etc.
- **Ceramics and Glass**: Glass, Refractories, Ceramics, Cement, etc.
- **Chemical Engineering**: Industrial processing of chemicals
- **Computing and Control**: Automotive, Environmental, Manufacturing processes, etc.
- **Electrical Power and Energy**: Power generation, Nuclear power, Radioactivity
- **Electronics**: Electronic circuits and devices
- **Environment**: Pollution control, Water and sewage treatment, etc.
- **Food**: Human food, Brewery, Animal food, etc.
- **Imaging and Communication**: Imaging technologies, Inks, Printing, Electrophotography, Recording media, Broadcasting, Telecommunications
- **Industrial Standards**: Used when comparison to industrial standards is made
- **Inorganic Chemistry**: Inorganic materials, except glass and ceramics
- **Instrumentation and Testing**: Chemical analysis, Testing, Medical equipment
- **Mechanical Engineering**: Processing machinery, Mechanical equipment, etc.
- **Metallurgy**: Metal treatment, production, refining, working & finishing, Alloys, Solders, etc.
- **Organic Chemistry**: Preparation of organic chemicals, including pharmaceuticals and agrochemicals, but excluding polymers (cf. Polymers)
- **Pharmaceuticals**: Pharmacologically active compounds & compositions, including veterinary drugs, excluding their preparation (cf. Organic Chemistry)
- **Polymers**: All types of polymers, their preparation, etc.
- **Textiles and Paper**: Paper & cardboard, Natural & synthetic textiles and their processing
12.4 Dynamics

The Derwent World Patents Index database follows the dynamic principle at invention level. Upon arrival of the first document of a patent family, this document is considered as ‘Basic’, and a new record is created in the database. The bibliographical details of later documents of the same patent family (having the same priority data) are added to the existing record as ‘Equivalents’, i.e. the publication data to the PI field, application data to the AI field, classification to the IPC field, a new abstract to the AB (ABEQ) field, etc. In some cases (e.g. division, continuation) a new record is created in the database and a cross reference is made in the CR field.

To record updates to an existing document (patent family) there are a number of Update fields being amended or overwritten (cf. chapter Monitoring patents). There are counter fields for the number of countries (CYC – Country Count) and patent numbers (PNC – Patent Number Count) being updated whenever an Equivalent is added.

In addition available data are added at publication level (original text data, bibliographical details from the original, possibly additional abstract – ABEQ, up to 1997). A separate publication level record is created for each country. These being original data, only re-assigned IPC and US classification data will be updated.

12.5 Updating

New documents are entered into the World Patents Index approx. 15 days up to some months after publication, depending on the field of technology and patent office.

12.6 Document from World Patents Index

Display format: MAXG MEMB

Invention level

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TI Juicer and grater assembly to extract juice from cut citrus fruit and grate skin of citrus fruit, has extractor removably secured on strainer in positions where tab covers aperture to allow extracted juice to flow through another aperture

DC DI14: P28

IN DE G J H; DE GROOTE J; JAN H D G; DE G J

PA (REXA-C) DART IND INC; (DGRO-I) DE GROOTE J

CYC 48

PI US 20050284309 A1 20051229 (200603)* EN 7[6] <...

EP 1611823 A2 20060104 (200603) EN

JP 2006060954 A 20060112 (200605) JA 8

CA 2508396 A1 20051225 (200609) EN

NO 2005030343 A 20051227 (200609) NO

CN 1719143 A 20051228 (200634) ZH

ZA 2005004506 A 20060426 (200635) EN 16

AU 200502481 A1 20060112 (200654) EN

US 711717 A B2 20061010 (200667) EN

KR 2006045619 A 20060517 (200673) KO

IN 2005DE01539 A 20070105 (200725) EN

JP 4018109 B2 20071205 (200781) JA 7

PH 1200500311 B1 20080403 (200869) EN

EP 1611823 B1 20090304 (200917) EN

DE 602005013028 E 20090416 (200929) DE

CN 100544642 C 20090930 (201001) ZH

NO 329537 B1 20101108 (201076) NO

CA 2508396 C 20120403 (201227) EN

IN 233978 B 20120522 (201227) EN


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2005-20485 20050607; IN 2005DE01539 A IN 2005-DE1539 20050614; DE


2005-13159 20050617; NO 2005003043 A NO 2005-3043 20050621; NO 329537 B1

NO 2005-3043 20050621; CN 1719143 A CN 2005-10082388 20050624; CN


20050624; PH 1200500311 B1 PH 2005-311 20050624; JP 2006006954 A JP
AB
US 20050284309 A1
UPAB: 20060112

NOVELTY - A juicer and grater assembly comprises an extractor having at least one radially extending tab, and a strainer having at least a first aperture larger than a second aperture. The extractor is removably secured on the strainer in two positions where the tab covers the first or second aperture for allowing extracted juice to flow through the second or first aperture.

DETAILED DESCRIPTION - A juicer and grater assembly comprises an extractor having at least one radially extending tab, and a strainer having at least a first aperture and at least a second aperture. The first aperture is larger than the second aperture. The extractor (12) is removably secured on the strainer in a first position where the tab covers the first aperture for allowing extracted juice to flow through the second aperture, or in a second position where the tab covers the second aperture allowing juice and pulp to flow through the first aperture.

USE - For extracting juice from cut citrus fruit and grating outer layer or skin of citrus fruit.

ADVANTAGE - The invention provides both juice and juice with pulp when desired and a grater for grating the outer layer or skin of citrus fruit.

DESCRIPTION OF DRAWINGS - The figure shows a top perspective view of the juicer and grater assembly.
Extractor (12)
Strainer (14)
Upper cone portion (18)
Lower portion (20)
Apex (26)
Tabs (30, 58)

TECHNICAL MECHANICAL ENGINEERING - Preferred Component: The first aperture is first apertures. The second aperture is second apertures. The extractor comprises a two-tiered upstanding cone having an upper cone portion (18) and a lower portion (20) integral with the upper cone portion. The tabs
are in an alternating configuration integral with a lower periphery of the second portion. The extractor comprises longitudinal ridges extending from an apex (26) of the upper cone portion to a lower periphery of the lower portion. The tab (30, 58) includes an indentation at a distal end. The strainer further comprises a base having an upper surface and a lower surface, and at least two protrusions disposed on the upper surface to engage the indentation on the radially extending tab. The extractor is removable snap fit secured to the strainer. The strainer comprises circular apertures on the flat base extending from the upper surface to the lower surface. It comprises sharp cutters disposed on the upper surface of the flat base and encircling each circular aperture, thus the strainer (14) may function as a grater. The first aperture is peanut-shaped. The second aperture is Y-shaped. The first apertures are disposed in an alternating configuration relative to the second apertures on the upper surface of the flat base.

Publication level

Member (0001)
PI    EP 1611823 A2 20060104 (200603) EN
TIDE Presse und Reibe Zusammenbau
TIEJUicer and grater assembly
TIFR Ensembl presse-jus et rape
AG Parry, Simon James
AGA: Forrester & Boehmert, Pettenkoferstrasse 20-22, 80336 Muenchen, DE
IN DE GROOTE J
INO: de Groote, Jan-Hendrik
INA: 43, rue jacques de Lalaing, 1040 Brussels, BE
PA (REXA-C) DART IND INC
PAO: Dart Industries Inc.
PAA: 14901 S. Orange Blossom Trail, Orlando, Florida 32837, US
APTS 2005EP-00013159 20050617
PRAI US 2004-875495 20040625
PRTS 2004US-000875495 20040625
Original: A47J0017-18 [I,A]; A47J0019-02 [I,A]; A47J0043-25 [I,A]
IPCR Current: A23N [I,S]; A23N0001-00 [I,A]
CPC Current: A47J0017-18; A47J0019-025; A47J0043-255
ABEN The invention provides a juicer and grater assembly comprising an extractor (12) having a plurality of radially extending tabs (30) integral with a lower portion (20) thereof, a combination grater and strainer (14) having at least a plurality of first apertures (60) and a plurality of second apertures (64), wherein the extractor (12) is removably secured on the combination grater and strainer in either a first position wherein the plurality of radially extending tabs cover the plurality of first apertures for allowing extracted juice to flow through the plurality of second apertures, or in a second position wherein the plurality of radially extending tabs cover the plurality of second apertures allowing juice and pulp to flow through the plurality of first apertures.

CLMEN A juicer and grater assembly, comprising: an extractor having at least one radially extending tab, a strainer having at least a first aperture and at least a second aperture, wherein said extractor is removably secured on said strainer in either a first position wherein said at least one radially extending tab covers said at least a first aperture for allowing extracted juice to flow through said at least a second aperture, or in a second position wherein said at least one radially extending tab covers said at least a second aperture allowing juice and pulp to flow through said at least a first aperture.

Member (0002)
PI    US 20050284309 A1 20051229 (200603)* EN 7[6]
TIEJUICER AND GRATER ASSEMBLY
AG Amir H. Behnia, John A. Doninger, Esquire
AGA: DART INDUSTRIES INC., P. O. Box 779001, Orlando, FL, US
IN DE GROOTE J
INO: de Groote, Jan-Hendrik
Guide to STN Patent Databases

1. A juicer and grater assembly, comprising: an extractor having at least one radially extending tab, a strainer having at least a first aperture and at least a second aperture, wherein said at least one radially extending tab covers said at least a first aperture for allowing extracted juice to flow through said at least a second aperture, or in a second position wherein said at least radially extending tab covers said at least a second aperture allowing juice and pulp to flow through said at least a first aperture.
### 12.7 Selected Fields

#### 12.7.1 Invention level, complete document

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- **Contents information**
  - BI, TI, TT
  - AB, ABDT, ABEX
  - ACTN, ACTV, ADV
  - DETD, DRWD, NOV, TECH, UADV, USE

- **Numeric properties**
  - PHP***

- **Indexing**
  - KW, MC**

- **Patent classification**
  - IPC8: IPC, IPC.KW, IPC.ACD, IPC.REF, IPC.VER
  - IPC1–7: IC
  - IPC: IPC, IPCI, IPC.R, IPC.TAB

- **Inventor**
  - AU, IN

- **Patent assignee**
  - CS, PA, PACO

- **Priority data**
  - PRC, PRD, PRDF, PRY, PRYF, PRR, PRR.F, PRFR, PRFR.F

- **Application data**
  - AC, AD, AY AP, AP.YR, APT, DS, PCS

- **Publication data**
  - PC, PC.B, PCS PD, PD.B, PY, PY.B DW, DW.AN, DW.B PN, PN.B PK, PK.B, PT CYC, PNC

- **Family data**
  - FDT, FDT.PC (RLPC), FDT.PN (RLPN), FDT.PK (RLPK), FDT.TP PATS

- **Other**
  - LA, SL, DLVL, DRWN, DT, FA, FAS, FS, PGN

**Notes:**
- **Accessible only for Derwent Subscribers in WPPIX**
- **MC are not searchable in the CPI file segment in WPINDEX**
- **Numeric properties:** Lists properties available for numeric search (cf. database description). The search is performed in all fields containing English text. There are no specific display fields, but the hit numeric values will be highlighted. For more information enter HELP NPS.

For other fields on Derwent Chemical Resource (DCR) and Derwent Chemical and Polymer Indexing see Database Summary Sheets.
### Additional fields at publication level

These fields are used for individual publications:

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13 **ENCOMPPAT/ENCOMPPAT2**

13.1 **Typical queries**
- Searches on the state of the art / information searches (text and classification) in the fields of petroleum, natural gas, and energy, e.g.:
  - What is the state of the art concerning the purification of water polluted by phenols and petroleum products?
- Name searches (inventor, patent assignee), e.g.:
  - What are the latest patents of Shell Oil Corp.?
- Searches for formal data (numbers: publication numbers, application numbers), e.g.:
  - What is the content of patent numbered RU 2099290?

13.2 **Brief description**
*Producer:* Elsevier Engineering Information, Inc., USA  
*Period covered:* Since 1964  
*Size:* More than 897,000 patent publications (January 2020)  
*Updated:* Weekly  
*Language:* English

13.3 **Contents**
- Excerpts from patent publications in the fields of petroleum and energy, including all aspects of processing, chemicals and environment, health and safety
- Up to 1982 limited country coverage (BE, CA, FR, GB, JP, NL, US, ZA); after that date, virtually all industrialized countries (including EPO and WIPO)
- Bibliographic data, priority and publication data, but no application data
- International patent classification (IPC), no attributes, no re-classification of the back-file
- Family information (FI), if further members of the family were already available at the date of entry in the database
- Information on chemical compounds, etc., is available as Controlled Terms (CT, CTA), Supplementary Terms (ST) and Linked Terms (LT)
- Numeric values of more than 55 physical and chemical properties in approx. 1,800 units (Version 2)

The database ENCOMPPAT/ENCOMPPAT2 is based on the Derwent services European Patent Report and Chemical Patents Index and on Chemical Abstracts, in addition further GB and US patents are used. The abstract is taken from the Derwent services.

There are access restrictions for the database: ENCOMPPAT is only accessible to API supporting organizations, ENCOMPPAT2 only to users from countries in which a supporting organization has its headquarters; furthermore, there is a time limit of two hours per year per organization of combined usage with ENCOMPPAT2 on all vendors (see the database description). Also, abstracts cannot be displayed in ENCOMPPAT2. (However, the Basic Index contains all words of the abstracts. The abstracts can be displayed in the World Patents Index.)
13.4 Document from ENCOMPPAT(2)

Display format: ALL

AN 2006:9418  ENCOMPPAT; ENCOMPPAT2
DN P200610588
TI Diesel engine detects oxygen concentration in exhaust gas downstream side and determines catalyst purification capability of diesel smoke purification unit, based on which execution of filter reproduction processing is prohibited
IN MORINAGA S; NAKAI E; SAHARA M
PA MAZDA MOTOR CORP; MAZDA KK
PI JP 200609764 20060413
AI JP 2004-286952 20040930
PRAI JP 2004-286952 20040930
FI JP 200609764 20060413
OS DERWENT 2006259577
IC B01D0053-94; F01N0003-24; F02D0041-02; F02D0041-04; F02D0041-38; F02D0045-00
CC AIR POLLUTION CONTROL; ENVIRONMENT, TRANSPORT & STORAGE; HEALTH & ENVIRONMENT
CT AIR POLLUTANT; *AUTOMOTIVE EMISSION CONTROL; AUTOMOTIVE EMISSION CONTROL EQUIP; AUTOMOTIVE ENGINE; AUTOMOTIVE EXHAUST GAS; CATALYST; COMPOSITION; COMPOUNDS; COMPRESSION IGNITION ENGINE; DETECTOR; DIESEL ENGINE; ELEMENT; ENGINE; EXHAUST GAS; FILTER; *FUEL CONSUMPTION; *FUEL CONSUMPTION REDUCTION; GROUP VIA; HYDROCARBON; *INSTRUMENT; INTERNAL COMBUSTION ENGINE; *MONITORING; OXYGEN; OXYGEN CONCENTRATION; *OXYGEN SENSOR; PARTICULATES; POLLUTANT; *POLLUTION CONTROL; POLLUTION CONTROL EQUIPMENT; PREVENTION; SEPARATION EQUIPMENT; SMOKE; SUBSTANCE DETERMINED; UNBURNED HYDROCARBON; WASTE GAS; WASTE MATERIAL
LT ELEMENT; GROUP VIA; OXYGEN; SUBSTANCE DETERMINED
LT AIR POLLUTANT; PARTICULATES; POLLUTANT; WASTE MATERIAL
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ATM Template not available
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* Numeric properties: E A/ PHP lists properties available for numeric search (cf. database description). The search is performed in all fields containing English text. There are no specific display fields, but the hit numeric values will be highlighted. For more information enter HELP NPS.

13.5.1 Super-Search Fields

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14 EPFULL

14.1 Typical queries

- Searches for the state of the art in EP publications (text and classification), e.g.:
  - What European inventions are there on Locating land mines using geo-radar?
- Name searches (inventor, applicant, agent), e.g.:
  - What inventions of Rossignol have been published by the European Patent Office during the past year?
  - What European patent applications are there of Mr Davin Beckham?
- Searches using formal data (e.g. numbers), e.g.:
  - Has a European Patent been granted to the application numbered EP 1 036 800?
  - What European Patents of ERICSSON were published in 2013?
- Full-text display of European Patents:
  - What are the claims of the European Patent, 0 833 511?
- Legal status display:
  - Which European countries is the patent, EP 1 300 225, valid in?
- SDI searches for European Patents
- Using the full-text to find material for an opposition
- Multi-file searches in combination with other national or regional patent databases

14.2 Brief description

Producer: European Patent Office; FIZ Karlsruhe; LexisNexis Univentio B.V.
Period covered: Since 1978
Size: More than 5.3 million records (full text), more than 1.25 million patent images (January 2020)
Updated: Weekly
Languages: English, French, German

14.3 Contents

- European Patents (EP-B1): full-text published by the European Patent Office in one of the three official languages (English, French, German) since 1980, claims are published in all three official languages
- All texts of the patent applications from 1980 to 1990 and of granted patents from 1978 to 1986 are created by Optical Character Recognition (OCR) software. This means that there may be errors and incomplete text. Some of the documents do not have text because the scanning failed.
- Bibliographical details and original abstract since 1978
- Bibliographical details of Euro-PCT applications filed in one of the official languages; no separate EP document is published of such applications. The full text can be found in PCTFULL.
- Title in all three official languages
- International Patent Classification (IPC), IPC thesaurus, range search possible, no re-classification of the back-file
Patent databases on STN International

- Abstracts are added to new documents within a few weeks (from 1990)
- Details on examiner citations, XP reference numbers are given for non-patent literature cited in European search and examination reports
- Details on inventor citations (patents and non-patent literature), since 2006
- Related documents
- Images (front pages), since 2006
- Legal status information from INPADOCDB (only for display with LS, LS2, FAM and CFAM) and from the EP-Bulletin (also searchable)

14.4 Dynamics

The EPFULL database follows a mixed principle using segmentation. All publications of the same patent application form one documentation unit. Each document is entered into a separate record and will not be updated. The legal status is updated.

14.5 Updating

EP documents are entered in the database 1 day after the EPO publication date; with WO documents there is usually a delay.

14.6 Document from EPFULL

Display format: MAXG (includes LSEP.M)

This document consists of (1) the publication of the European patent application with search report, (2) the publication of the European Patent, and (3) the legal status information.

(1) European patent application with search report

AN 2007:81309 EPFULL EDP 20080409 ED 20080409 UP 20080725
DUPD 20080723 DUPW 200830
TIENT LING mill and method for flexible cold or hot one-way or reverse rolling of a metal strip.
TIFR Laminier et procédé de laminage flexible a froid ou a chaud a une voie unique ou inverse d'une bande de metal.
TIDE Walzwerk und Verfahren zum flexiblen Kalt- oder Warm-Einweg- oder Reversiverwalzen von Metallband.
IN Bart, Axel, Dipl.-Ing. (ETH), Im Gensterfeld 20, 57078 Siegen, DE;
Neukant, Rainer, Dipl.-Ing., Zitzenbachstrasse 43a, 57223 Kreuztal, DE;
Stahl, Werner, Ing., Zum Hohlen Stein 20, 57223 Kreuztal, DE
PA ACHENBACH BUSCHHÜTTE TEN GmbH, Siegener Strasse 152, 57223 Kreuztal, DE
PAN 1433270
AG Puerckhauer, Rolf, Am Rosenwald 25, 57234 Wilnsdorf, DE
AGN 38311
DT Patent
LA German
LAF German
LAP German
TL German; English; French
PI EP 1908534 A1 20080409
DS AT BE BG CH CY CZ DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR
EXTENSION STATES: AL BA HR MK RS
AI EP 2007:18882 A 20070926
PRAI DE 2006-102006047463 A 20061007
IPCI B21B0037-26 [I,A]; B21B0037-54 [I,A]
ABEN Rolling mill for flexible cold or hot rolling a metal strip comprises drives for controlling revolutions of uncoiling and coiling units with superimposed controlling of electrical conductance
Rolling mill (1) comprises drives for controlling revolutions of uncoiling and coiling units (7, 8) with superimposed controlling of electrical conductance for compensating for and regulating of mass flow changes of the rolling strip (9) and the strip pulling speed and for regulating the strip traction, especially in the region of the deviating points of the strip acceleration during change of the strip thickness profile. An independent claim is also included for a method for flexible cold or hot rolling a metal strip.

**ABDE**


**REPA**

EP 1121990 A2 (APP) [0003]
DE 10133756 A1 (APP) [0004]
DE 10310399 A1 (APP) [0005]
EP 1464415 A2 (APP) [0006]
DE 102004041321 A1 (APP) [0007]
DE 10254178 A1 (APP) [0008]

**DETDDE**


**CLMDE**

1. Walzwerk zum flexiblen Kalt- oder Warm-Einweg- oder Reversierwalzen von Metallband, insbesondere aus Stahl, mit veränderlicher Banddicke, mit einem Walzgeruest, dass einen Walzensatz und ein Anstellingsystem zur Einstellung des

17. Verfahren zum flexiblen Kalt- oder Warm-Einweg- oder Reversierwalzen von Metallband mit veränderlicher Banddicke in einem Walzwerk, das einen Walzensatz und ein Anstellingsystem zur Einstellung des Walzspaltes, eine dem
Rolling mill and method for flexible cold or hot one-way or reverse rolling of a metal strip.

Laminoir et procédé de laminage flexible a froid ou a chaud a voie unique ou inverse d'une bande de metal.

Walzwerk und Verfahren zum flexiblen Kalt- oder Warm-Einweg- oder Reversierwalzen von Metallband.

Barten, Axel, Dipl.-Ing. (ETH), Im Gensterfeld 20, 57078 Siegen, DE;
Neukant, Rainer, Dipl.-Ing., Zitzenbachstrasse 43a, 57223 Kreuztal, DE;
Stahl, Werner, Ing., Zum Hohen Stein 20, 57223 Kreuztal, DE

ACHENBACH BUSCHHÜTTE GmbH, Siegener Strasse 152, 57223 Kreuztal, DE

advotec., Patent- und Rechtsanwälte Am Rosenwald 25, 57234 Siegen-Wirnsdorf, DE

B21B0037-26 [I,A]: B21B0037-54 [I,A]

Rolling mill for flexible cold or hot, one-way or reverse rolling of metal strip (9), in particular made of steel, with changeable strip width, having a roll stand (1) which has a set of rolls (2, 3, 4, 5) and an adjustment system.

Laminoir pour le laminage flexible a froid ou a chaud, a voie unique ou reversible, de bande ( 9 ) de metal, notamment d'acier, ayant une epaisseur de bande variable, comprenant une cage ( 1 ) de laminoir, qui a un jeu ( 2, 3, 4, 5).

2. Rolling mill for flexible cold or hot, one-way or reverse rolling of metal strip (9), in particular made of steel, with changeable strip width, having a roll stand (1) which has a set of rolls (2, 3, 4, 5) and an adjustment system.
1. Walzwerk zum flexiblen Kalt- oder Warm-Einweg- oder Reversierwalzen von Metallband (9), insbesondere aus Stahl, mit veränderlicher Banddicke, mit einem Walzgerüst (1), dass einen Walzensatz (2,3,4,5) und ein Anstellsystem ...

(3) Legal status

LEGAL STATUS INCLUDING HISTORY
AN  2007:81309   EPFULL
20080409  EPB241  Request for examination
20071011
20080409  EPB430  Unexamined document without grant, (first publication)
20080409
20080409  EPB840  Designated contracting states
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT
LU LV MC MT NL PL PT RO SE SI SK TR
EP 1908534  A1 20080409
20080409  EPB844EP  Extension of the European patent to
AL BA HR MK RS
20080723  EPB452EP  Intention to grant
20080701
20081029  EPB450  Document with grant, second publication
20081029
20081029  EPB840  Designated contracting states
DE FR GB IT
EP 1908534  B1 20081029
20081029  EPB880  Publication of search report (A3 publication)
20080409
20081217  EPB840N  Payment of designation fees
DE FR GB IT
20081217  EPB844EPN  Payment of extension fees
DE FR GB IT
20090617  EPB780  Opposition
01  20090512  Opposition filed
Muhr und Bender KG
20090826  EPB780  Opposition
01  20090512  Admissible opposition
Muhr und Bender KG
20090826  EPB780  Opposition
02  20090716  Opposition filed
Siemens Aktiengesellschaft
20090902  EPB740R  Agent reassignment
OLD:  Puerckhauer, Rolf, Am Rosenwald 25, 57234 Wilnsdorf, DE
NEW:  advotec, Patent- und Rechtsanwälte Am Rosenwald 25, 57234 Siegen-Wilnsdorf, DE
20090902  EPB780  Opposition
01  20090512  Admissible opposition
Muhr und Bender KG
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03  20090729  Opposition filed
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Note: The display format includes various events related to the patent application and its status, including examination, publication, designation, and fees paid to national offices.
### 14.7 Selected Fields

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* For DISPLAY and SELECT of many fields the desired publication level can be specified:
  .M → all publication levels in all languages are included
  .PK → certain publication levels in all languages are included
### 14.7.1 Super-Search Fields

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15 FRANCEPAT

15.1 Typical queries

- Searches for the state of the art in France (text and classification), e.g.:
  - What inventions were applied in France on Tissu pour sacs gonflables (Fabrics for Air Bags)?
- Name searches (inventor, applicant), e.g.:
  - What inventions of L’Oreal were published in France during the past year?
  - What patent applications are there in France of Mr Henri Amaud?
  - Has the company Playbois taken any licences?
- Searches using formal data (numbers: publication number, application number), e.g.:
  - What is contained in the patent numbered FR 2 843 860?
  - Who is the owner of the utility model numbered FR 2 843 796 U?
- Legal status display:
  - Is the patent numbered FR 2 550 146 still in force?
  - What patents has Playbois licensed?
  - Have any licence agreements been made on patents of Thomson CSF?
  - Is there a Complementary Protection Certificate on the patent numbered FR 2 537 395 of Rhone Poulenc Agrochimie?
  - What is the term of the Complementary Protection Certificate on the substance Rivastigmine (patent of Sandoz)?

15.2 Brief description

Producer: Institut National de la Propriété Industrielle (INPI), France
Size: Approx. 1.05 million records on patents, approx. 85,700 records on utility models, approx. 476,000 patent drawings (June 2011)
Updated: Database closed – last update 2009-11
Languages: French (Controlled Terms in English)

15.3 Contents

- Excerpts from French patent applications, granted patents and utility models from all fields relevant to patents
- Complementary Protection Certificates (from 1969), searchable
- Bibliographical details, title, names (inventor, applicant, agent)
- International Patent Classification (IPC), IPC thesaurus, range search possible, no re-classification of the back-file
- Abstracts and controlled terms from 1978, controlled terms in English from 1987
- Patent drawing (from 1978)
15.4 **Dynamics**

The FRANCEPAT database follows the dynamic principle, i.e., in case of a new publication or a legal status change the existing record is altered.

15.5 **Updating**

No updates since November 2009.

15.6 **Document from FRANCEPAT**

Display format: MAXG

AN 1096077  FRANCEPAT  ED 20070803  UP 20070803
TI SEMOIR COMPORANT UNE SERIE DE BRAS, PORTEURS DE DISQUES SEMEURS ET DE ROLLEAUX SUIVEURS, SUPPORTES SOUS LE CHASSIS PAR L'INTERMEDIARE D'ARTICULATIONS ELASTIQUES
IN CLOCHARD DANIEL
LA VIALERIE 35113 DOMAGNE (FR)
FR-35113
PA Applicant: SULKY-BUREL (Societe par actions simplifiee)
RUE FABR EN BUREL BP 921110 35220 CHATEAUBOURG (FR)
FR-35220
PAN 333622140
AG REGIMBEAU
PIT Patent
PI FR 2896659  A1 20070803 200731 Application, first publ.
AI FR 2006-756  20060127
PRAI FR 2006-756  20060127 *
PRAO FR0600756 *
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IPCR A01C0005-00 [I,C*]; A01C0007-00 [I,C*]
AB Ce semoir comprend un chasssis (1) qui supporte une tremie (11) destinee a contenir la semence a distribuer et qui est pourvu a l'avant d'un timon (10) d'attelage a un tracteur, une serie de bras porteurs (2) etant disposees longitudinalement cote a cote sous ce chasssis (1), et supportes par celui-ci, avec une certaine liberte de debattement en direction verticale, chaque bras porteur (2) etant equipe de disques semeurs (5a, 5b) et de rouleaux suiveurs (6a, 6b). Ce semoir est remarquable en ce que chaque bras (2) est solidaire du chasssis (1) par l'intermediare d'une paire de systemes d'articulation elastiques disposes l'un (3) a son extremite avant et l'autre (4) a son extremite arriere, chacun d'eux travaillant a la torsion, de maniere a developper un couple qui sollicite le bras vers le bas afin d'appliquer fermement les disques semeurs (5a, 5b) et le rouleau suiveur (6a, 6b) contre le sol. Materiel agricole.
GIS 8963
CT DISC; TORSION SPRING; RUBBER; AGRICULTURE; DRILL; DIRECT DRILLING; GAUGE WHEEL; DEPTH CONTROL; FURROW OPENER; PRESS WHEEL
CTFR AGRICULTURE; SEMOIR; SEMI'S DIRECT; DISQUE; TERRAGE; ROUE; RESSORT; TORSION; CAOUTCHOUC; ROUE DE Jauge
LS Amended Claims
FA AB AG AI CT GI IN LS PA PI RE
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16 FRFULL

16.1 Typical queries

- Full-text display of French patent and utility model applications:
  - What are the claims of the French application numbered FR 2 848 378?
- Searches by number, names, text, classification (IPC) to retrieve full text:
  - What French applications of TOTAL FINA ELF have been published in the field of Seismology (G01V001) during the past year?
- SDI searches for French patents
- Using the full-text to find material for an opposition
- Multi-file searches in combination with other national or regional patent databases

16.2 Brief description

Producer: LexisNexis Univentio B.V.
Period covered: Since 1902
Size: More than 2.44 million records on patents and utility models, more than 2.09 million title page images (January 2020)
Updated: Weekly
Languages: French, English titles and abstracts

16.3 Contents

- Full text of French patents of inventions FRA (claims and description in French and English) from 1902 to 1968
- Full text of French patent applications FRA1 (claims and description in French and English) since 1969
- French patents of invention FRB1 with abstracts in English and French since 1973, including claims and description in English and French since 1989
- Utility model applications
- Bibliographical details, title, claims, description, names (inventor, applicant)
- International Patent Classification (IPC), IPC thesaurus, range searching is possible, re-classification of the back-file
- Cooperative Patent Classification (CPC), thesaurus, range searchable, CPC Combination Sets (C-Sets)
- European Patent Classification (ECLA), ECLA thesaurus, range searchable; other European classifications: ICO, IDT, the codes are retained as historical data
- Abstracts, descriptions and claims in English are machine translated
- Keyterms (extracted with linguistic and statistical methods from the English full texts)
- Numerical values of more than 59 physical and chemical properties, searchable in all English full text fields
- All texts are created using an Optical Character Recognition (OCR) software, thus there may be errors and omissions of text portions. A small number of documents don’t contain any text because an error has occurred during scanning.
- Patent drawing (from the title page) if available
Legal status information from INPADOCDB can be displayed (LS, LS2, FAM and CFAM field) but is not searchable.

16.4 Dynamics

The FRFULL database follows a mixed principle using segmentation. All publications of the same patent application form one documentation unit. Each document is entered into a separate record and will not be updated. The legal status is updated.

16.5 Updating

New data are entered in the database 1-2 weeks after the INPI publication date.

16.6 Document from FRFULL

Display format: MAXG LS

AN 2921323 FRFULL ED 20141113 UP 20181219 EDTX 20141113
DED 20090326 DUPD 20181211
TIEN Brake control device for motor vehicle, has hollow rod including opening to intake pressurized air, which circulates in rod till front chamber, with respect to depression for driving displacement of piston and push rod of master cylinder
TIFR DISPOSITIF DE COMMANDE DE FREIN A RESPIRATION PAR TIGE DE COMMANDE
IN BRIARD JEAN LUC
PA PEUGEOT CITROEN AUTOMOBILES SA, FR
LAF French
LA French
DT Patent; (Full text)
PIT FRAI APPLICATION FOR PATENT OF INVENTION, (FIRST PUBL.) [FROM NO. 2000000]
PI FR 2921323 A1 20090327
AI FR 2007-57783 A 20070921
PRAI FR 2007-57783 20070921
IPCI B60T0013-57 [I,A]; B60T0013-569 [I,A]; B60T0013-575 [I,A]; B60T0015-10 [I,A]
CPC B60T0015-10; B60T0013-57
EPC B60T0015-10; B60T0013-57
GI
Screw-locking device of a vehicle, in particular of a motor vehicle, including understanding a case of amplifier (1) divided into two rooms (2, 3) via a piston of order (4a). The case (1) of amplifier is...

Brake control device by breathing control rod

The present invention relates to a control device master brake of a vehicle, in particular of a motor vehicle, the control takes place in particular by action of air, carried out by a control rod. The...

Brake control device by breathing control rod

1-braking device for a vehicle, in particular of a motor vehicle, comprising a housing (1) of amplifier divided into two chambers (2, 3) via a control piston (4a), the booster housing being subjected to a...

Dispositif de commande de frein a respiration par tige de commande

La presente invention concerne un dispositif de commande de frein principal d'un vehicule, notamment d'un vehicule automobile, cette commande s'effectuant notamment par action de l'air sous pression ou en...

Dispositif de freinage d'un vehicule, notamment d'un vehicule automobile, comprenant un boitier d'amplificateur (1) divise en deux chambres (2, 3) par l'intermediaire d'un piston de commande (4a), le...

AN 2921323 FR FULL ED 20141113 UP 20181213 EDTX 20141113
DED 20091105 DUPD 20181207
T I E N CONTROL DEVICE OF BRAKE HAS BREATHING BY STEM OF ORDER
T I F R DISPOSITIF DE COMMANDE DE FREIN A RESPIRATION PAR TIGE DE COMMANDE
I N BRIARD JEAN LUC
P A PEUGEOT CITROEN AUTOMOBILES SA SOCIETE ANONYME, FR
L A F French
D T Patent; (Full text)
PIT FRB1 PATENT OF INVENTION (SECOND PUBL.) [FROM NO. 2000000]
PI FR 2921323 B1 20091030
AI FR 2007-57783 A 20070921
PRAI FR 2007-57783 20070921
I P C I B60T0013-57 [I,A]; B60T0013-569 [I,A]; B60T0013-575 [I,A]; B60T0015-10 [I,A]; B60T0013-575 [I,A]; B60T0013-52 [I,C]; B60T0015-00 [I,C]
C P C B60T0015-10; B60T0013-57
EPC B60T0015-10; B60T0013-57
G I
The device has an amplifier box divided into front and rear chambers (2, 3) by a control piston (4a) and subjected to depression. A hollow control rod (12) is moved inside a control body (4b) under an effect of pressurized air.

Brake control device by breathing control rod

The present invention relates to a control device master brake of a vehicle, in particular of a motor vehicle, the control takes place in particular by action of air, carried out by a control rod.

A braking device for a vehicle, in particular of a motor vehicle, comprising a housing (1) of amplifier divided into two chambers (2, 3) via a control piston (4a), the booster housing being subjected to a closed port.

Dispositif de commande de frein a respiration par tige de commande

La presente invention concerne un dispositif de commande de frein principal d'un vehicule, notamment d'un vehicule automobile, cette commande se effectuant notamment par action de l'air sous pression ou en pressurized air; brake pedal; control body; closed port; front and rear chambers.
16.7  **Selected Fields**

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<td>IN (AU), IN.CNY</td>
<td>IN (AU), IN.CNY</td>
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<tr>
<td>Patent assignee</td>
<td>PA (CS), PA.CNY</td>
<td>PA (CS), PA.CNY</td>
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16.7.1  **Super-Search Fields**

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<td>International Patent Classification</td>
<td>IPC</td>
<td>ICM, ICS</td>
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17 GBFULL

17.1 Typical queries
- Searches for the state of the art in Great Britain (text and classification), e.g.:
  - What inventions were made in Britain on the Noise Analysis of Gears?
- Name searches (inventor, applicant), e.g.:
  - What inventions by Wonderland Nursery Goods were published in Britain during the past year?
  - What patent applications are there in Britain of Mr Michael Jackson?
- Searches using formal data (e.g. numbers), e.g.:
  - What is contained in the British application numbered GB 2404827?
- Full-text display of British patent applications:
  - What are the claims of the British application numbered GB 2267771?
- Legal status display:
  - Is the patent, GB 2258563, in force?
- SDI searches for British patents
- Using the full-text to find material for an opposition
- Multi-file searches in combination with other national or regional patent databases

17.2 Brief description
Producer: LexisNexis Univentio B.V.
Period covered: Since 1855
Size: More than 2.9 million records on patents,
  more than 2.38 million full texts,
  more than 1.81 million patent images (January 2020)
Updated: Weekly
Languages: English

17.3 Contents
- Full text from British patent specifications (claims and description) from 1855
- Full text from British patent applications (claims and description) from 1979
- Bibliographical details of patent applications with publication kind code GBD0 (application filed)
- Bibliographical details, title, names (inventor, applicant)
- International Patent Classification (IPC), IPC thesaurus, range searching is possible, re-classification of the back-file
- Cooperative Patent Classification (CPC), thesaurus, range searchable, CPC Combination Sets (C-Sets)
- European Patent Classification (ECLA), ECLA thesaurus, range searchable; other European classifications: ICO, IDT, the codes are retained as historical data
- Abstracts partly available
- Keyterms (extracted with linguistic and statistical methods from the English full texts)
- Numerical values of more than 59 physical and chemical properties, searchable in all English full texts
17.4 Dynamics

The GBFULL database follows a mixed principle using segmentation. All publications of the same patent application form one documentation unit. Each document is entered into a separate record and will not be updated. The legal status is updated.

17.5 Updating

New data are entered in the database 5 days after the publication date.

17.6 Document from GBFULL

Display format: MAXG LS

AN 2404729 GBFULL ED 20150811 UP 20151207
DUPD 20150804
TI Fuel injection
PA ROLLS-ROYCE PLC
LAF English
LA English
DT Patent
PIT GB03 PATENT APPLICATION FILED
PI GB 2003018605 A 20030808
AI GB 2003-18605 A 20030808
PRAI GB 2003-18605 A 20030808
CPC F23R0003-36; F23D2900-11101; F23R0003-286; F23R0003-30
EPC F02C0009-40; F23D0017-00B; F23R0003-28D; F23R0003-30; F23R0003-36;
F23R0003-28D; F23R0003-30; F23R0003-36
ICO R23D0900-11101
GI

AB Equivalent from US7533532B1
In order to allow dual fuel operation, that is to say gas and liquid fuel, a fuel injection arrangement and an assembly are provided in which ...

AN 2404729 GBFULL ED 20140614 UP 20200107 EDTX 20140614
DUPD 20140618
TI FUEL INJECTION ARRANGEMENT FOR GASEOUS FUEL AND/OR LIQUID FUEL
IN TOON IAN JAMES, GB; EADON GARY, GB; GRAHAM ANDREW CHARLES, GB; SALT ALLAN JOHN, GB
PA ROLLS ROYCE PLC, GB
LAF English
LA English
DT Patent; (Fulltext)
PIT GBA PATENT SPECIFICATION [UNDER NO. 2000000] or PUBLISHED PATENT APPLICATION [FROM NO. 2000000]
PI GB 2404729 A 20050209
AI GB 2003-18605 A 20030808
PRAI GB 2003-18605 20030808
ICM F23D0017-00 (7)
ICS F02C0009-40 (7); F23R0003-36 (7)
CPC F23R0003-36; F23D2900-11101; F23R0003-286; F23R0003-30
EPC F02C0009-40; F23D0017-00B; F23R0003-28D; F23R0003-30; F23R0003-36;
F23R0003-28D; F23R0003-30; F23R0003-36
ICO R23D0900-11101
A fuel injection arrangement (20 fig 2) for a turbine engine has a gaseous fuel injection means and a liquid fuel injection means which are both able to present fuel (7, 9 fig 1) to a combustor (3 fig 1). The...

The present invention relates to fuel injection and more particularly to fuel injection arrangements to allow dual fuel combustion in a combustor of a turbine engine. ...

1. A fuel injection arrangement (6) for a turbine engine, the arrangement (6) including gas fuel injection means (24) to present gaseous fuel and liquid fuel injection means (8) to present liquid fuel...

GBFULL ED 20140614 UP 20181217 EDTX 20140614
DEDD 20080125 DUPD 20181216
FUEL INJECTION
TOON IAN JAMES, GB; EADON GARY, GB; GRAHAM ANDREW CHARLES, GB; SALT ALLAN JOHN, GB
ROLLS ROYCE PLC, GB
English
English
Patent; (Full text)
GB AMENDED PATENT SPECIFICATION [UNDER NO. 2000000] or PATENT SPECIFICATION [FROM NO. 2000000]
GB 2404729 B 20080123
GB 2003-18605 A 20030808
GB 2003-18605 20030808
F23D0017-002; F02C0009-40; F23R0003-28; F23R0003-30
F02C0009-40; F23D0017-008; F23R0003-28D; F23R0003-30; F23R0003-36; F23R0003-28D; F23R0003-30; F23R0003-36
R23D0900-11101
In order to allow dual fuel operation, that is to say gas and liquid fuel, a fuel injection arrangement and an assembly are provided in which an injection conduit provides constriction to an airflow towards an...

The present invention relates to fuel injection and more particularly to fuel injection arrangements to allow dual fuel combustion in a combustor of a turbine engine.

1. A fuel injection arrangement (6) for a turbine engine, the arrangement (6) including a gas fuel injection means (24) to present gaseous fuel and a liquid fuel injection means (8) to present liquid...

fuel injection arrangement; liquid fuel jet; fuel injection assembly; liquid fuel injection; fuel injection rate; alternative liquid fuel; gas fuel injection; gas fuel and liquid fuel; injection conduit; fuel flow;
### 17.7 Selected Fields

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<td>Inventor</td>
<td>IN (AU), IN.CNY</td>
<td>IN (AU), IN.CNY</td>
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<tr>
<td>Patent assignee</td>
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* For DISPLAY and SELECT of many fields the desired publication level can be specified:
  .M → all publication levels in all languages are included
  .PK → certain publication levels in all languages are included

#### 17.7.1 Super-Search Fields

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18  **IFIALL**

### 18.1 Typical queries

- Search for current US publications using text, names, international or national (US) classification, e.g.:
  - Have there been new publications (up to last week) by American Cyanamid Co.?
  - What does the US Patent & Trademark Office have on the subject of removing alcohol from alcoholic beverages to produce non-alcoholic ones?
  - What patents have been published in the USA in the field of spectral analysis (classes in the US classification system: 324/076.190, 324/076.210, 324/076.220)?
- Searches using numbers or other formal data, e.g.:
  - What are the claims for patent US 5,749,087?
- Display of the bibliographical details with all claims
- SDI for US publications
- Using the full-text to find material for an opposition
- Multi-File searches with other national and regional patent databases

### 18.2 Brief description

**Producer:** IFI CLAIMS® Patent Services, USA  
**Period covered:** Since 1950  
**Size:** More than 14.15 million records (January 2020)  
**Updated:** Twice per week  
**Language:** English

### 18.3 Contents

- Extracts from the US Patents granted by the US Patent and Trademark Office (USPTO), as published in the Official Gazette (including Utility Patents, Defensive Publications, Design Patents and Reissue Patents, Statutory Invention registrations, Plant Patents) from 1963 onwards, and in the field of chemistry from 1950 onwards  
- Published applications since 15 March, 2001  
- Bibliographical details (title, publication number and date, number and date of application, applicant, inventor)  
- Abstract (AB), Exemplary Claim, all Claims (CLM) since 1971  
- U.S. Classification codes (the current one in the NCL field (NCLM, NCLS), that at the time of publication in the INCL field); made accessible through the IFIRE database; no longer assigned and replaced by CPC, the codes are kept as historical classification details  
- Cooperative Patent Classification (CPC), online thesaurus, range searching is possible  
- International Patent Classification (IPC), online thesaurus, range searching is possible, re-classification  
- For chemistry patents before 2011-01-25:  
  - Uniterm Codes and Controlled Terms  
  - CAS Registry Number (RN) and references to the CAPLUS database  
  - Fragment Codes for Substructure Searching of chemical substances  
  - Role Indicators for chemical substances
Patent databases on STN International

- CAS Registry Number (RN) and references to the CAPLUS database for chemical patents
- Details of the examination: References (REN, REP), Examiner’s Name (EXNAM), Examiner’s ‘Field of Search’ (EXF)
- Further details: legal representative (Agent: AG, LREP)
- Expiration Date (XPD), Disclaimer Date (DCD) for patents, Term of Patent (PTERM) for Design Patents
- Details of documents related to the present one through Division, Continuation or Continuation-in-part
- Details of other members of the patent family in BE, DE, FR, GB, NL and US (in older documents)
- US legal status data can be found in IFICLS – Current Patent Legal Status Database. IFICLS holds the current legal status of US patents including Reassigned Patents, Re-examined Patents, Expired Patents, Reinstated Patents, Certificates of Correction, Adverse Decision in Interference, Disclaimer/Dedication, Reexamination Request, Reissue Request

IFICLALL is the successor of the formerly separate IFIPAT, IFICDB and IFIUDB databases. In addition there are the IFIREF and IFICLS databases, all belonging to the IFIClaims.

18.4 Dynamics

The IFICLALL database follows the ‘static principle using separate documents’. When the application is published a document is introduced in the database and the bibliographical details and text information will be entered. Once a patent has been granted the new publication will be entered in a second document with its details and text information. Some of the fields in both documents will be updated in the course of the patent’s life: The numbers of the application and of the granted patent are entered in the FI field. The number of the application is entered in the PI field of the record of the granted patent. The data on citations in later patents (PI and PNC.G fields) and specifications of the document type (DT field) and the national classification (NCL field) are updated or amended. The application document is completed with the patent assignee name in the PPA field when the granted patent is published. The legal status of patents from IFICLALL can be found in the IFICLS database.

The database is updated twice per week.

18.5 Updating

New documents appear in the database 1 day after publication.

18.6 Documents from IFICLALL

18.6.1 Patent Application

Display format: ALL

IFICALL COPYRIGHT 2013 IFI on STN
AN 14706378 IFIALL
TI Stable, Convenient Whole Food Nutritional Supplement
INF Huntsman; Heidi L., San Mateo, CA, US
IN Huntsman Heidi L
PAF Unassigned
PA Unassigned or assigned to individual (68000)
PPA Vita Vis Nutrition Inc (Probable)
PI US 20160128367 A1 20160512
AI US 2015-933175 20151105 (14)
PRAI US 2014-76101P 20141106 (Provisional)
FI US 20160128367 20160512
DT Utility; Reassigned; Patent Application - First Publication
FS CHEMICAL
APPLICAT ION
ED Entered STN: 16 May 2016
Last Updated on STN: 21 Jun 2016
PARN RELATED APPLICATIONS This application claims priority to, and the benefit of, U.S. Provisional Application No. 62/076,101, filed on Nov. 6, 2014, which is incorporated herein by reference in its entirety.
AB The disclosure relates to shelf-stable food products that are whole food...
Guide to STN Patent Databases

based, made with fresh produce, and contain high fiber, complex protein, low sugar, low calories, without any concentrates, extracts, powders or artificial ingredients; and the process of making the same.

ECLM 1. A food product, each serving comprising: about 2-10 grams of protein from a first whole food source, about 2-10 grams of fiber from a second whole food source, and about 2-15 grams of sugar from at least one of whole fruits and/or whole vegetables, wherein the food product is a thermally processed and shelf-stable food product.

ACLM 2. The food product of claim 1, wherein the first whole food source is selected from the group consisting of legume, whole grain, seed, nut, and any combination thereof.

3. The food product of claim 1, wherein the second whole food source is selected from the group consisting of legume, whole grain, seed, husk, nut, root vegetable, leafy green vegetable, fresh herb, citrus fruit, stone fruit, pome fruit and any combination thereof.

18.6.2 Granted Patent

Display format: ALL

TI GENERATION OF PLANTS WITH ALTERED OIL CONTENT

AB The present invention is directed to isolated H041 nucleic acid and protein, and to plants that display an altered oil content phenotype due to altered expression of a H041 nucleic acid. The invention is further directed to methods of generating plants with an altered oil content phenotype.

NTE INDEXED FROM APPLICATION

Subject to any Disclaimer, the term of this patent is extended or
A method of producing oil comprising: introducing into progenitor cells of the plant a plant transformation vector comprising a nucleotide sequence that encodes a HIO41 polypeptide comprising the amino acid sequence set forth as SEQ ID NO:2, or an amino acid sequence having at least 95% sequence identity to the amino acid sequence set forth as SEQ ID NO:2; growing the transformed progenitor cells to produce a transgenic plant, wherein said polynucleotide sequence is expressed; identifying the transgenic plant that exhibits a high oil phenotype relative to a plant of the same species not comprising the plant transformation vector; and recovering oil from said transgenic plant.

The method of claim 1, wherein the oil is recovered from a seed of the plant.

A method of producing a plant having a high oil phenotype, said method comprising: introducing into progenitor cells of the plant a plant transformation vector comprising a nucleotide sequence that encodes a HIO41 polypeptide comprising the amino acid sequence set forth as SEQ ID NO:2, or an amino acid sequence having at least 95% sequence identity to the amino acid sequence set forth as SEQ ID NO:2; growing the transformed progenitor cells to produce a transgenic plant, wherein said polynucleotide sequence is expressed; and identifying the transgenic plant that exhibits a high oil phenotype relative to a plant of the same species not comprising the plant transformation vector.

The method of claim 3, wherein the nucleotide sequence encodes a HIO41 polypeptide having an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO:2.

The method of claim 4, wherein the nucleotide sequence encodes a HIO41 polypeptide having the amino acid sequence set forth as SEQ ID NO:2.

The method of claim 5 wherein the nucleotide sequence encodes a HIO41 polypeptide consisting of the amino acid sequence set forth as SEQ ID NO:2.

US 0045049 Mar 2004 Zhang et al.
US 0101481 May 2003 800278000 Zhang et al.
US 5639790 Jun 1997 Voelker et al.
US 5704160 Jan 1998 Bergquist et al.
US 6229033 May 2001 Knowlton
US 6248939 Jun 2001 Leto et al.

EP 1033405 Sep 2000
WO 183697 Nov 2001
WO 3079766 Oct 2003
WO 9565694 Nov 1999

### 18.7 Selected Fields

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19  IFICLS

19.1  Typical queries

- Search for legal status of US publications, e.g.:
  - What is the expiry date of the US Patent, 5,565,473?
  - Is the US Patent, 6,385,755, still valid?

19.2  Brief description

Producer: IFI CLAIMS® Patent Services, USA
Period covered: Since 1980
Size: More than 5.55 million records (January 2020)
Updated: Weekly
Language: English

19.3  Contents

- IFICLS contains the current legal status of US Patents including:
  - Reassigned Patents
  - Reexamined Patents
  - Expired Patents
  - Reinstated Patents
  - Certificates of Correction
  - Adverse Decision in Interference
  - Disclaimer/Dedication
  - Reexamination Request
  - Reissue Request
- Only US documents are covered where one of the above legal events has occurred.

19.4  Dynamics

The IFICLS database follows the dynamic principle. Legal status changes are added.

19.5  Updating

No details available.
19.6 Documents from IFICLS

Display format: IALL

- **Reassigned Patents** include the patent number, former assignee, new assignee, reassignment type (e.g., full interest), date of reassignment, and reel and frame number of the USPTO microfilm record.

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- **Reexamination records** include the patent number, patent assignee, name and location of the party requesting reexamination, reexamination request number and date, and reexamination certificate number and date. Also included is the text from the reexamination certificate describing the results of the reexamination.

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AS A RESULT OF REEXAMINATION, IT HAS BEEN DETERMINED THAT: The patentability of claims 1-12 is confirmed. 1. a method of scarfing a plate-like material comprising the steps of: feeding a plate-like material to move said plate-like material in a predetermined direction; stopping said feed of the plate-like material at a predetermined cutting position where a cutter receiving table is provided on one of a top surface side and a back surface side of the plate-like material, pressing, toward said cutter receiving table, said plate-like material on the surface side opposite to said cutter receiving table at least at a portion to be cut away as a chip by means of a pressing member adapted for relative movement with respect to said plate-like material in a direction perpendicular to the predetermined direction; and scarfing said stopped plate-like material by means of a rotary cutter at said predetermined cutting position in the proximity of said pressing member, said rotary cutter being adapted for movement in the same direction as said pressing member at a same speed as said pressing member to follow said pressing member.
Patent databases on STN International

- **Extension, expiration, and reinstatement records** include the patent number, patent assignee, expiration, extension, or reinstatement date, and the publication date of the Official Gazette of the USPTO containing the announcement of action.

  - ACCESSION NO.: 2941606  IFICLS
  - PATENT ASSIGNEE: Yabumoto, Kan W
  - PATENT INFORMATION: US 5717951 19980210
  - DOCUMENT TYPE: EXPIRED
  - EXPIRED INFO.: DATE: 20020210 OG DATE: 20020409

- **Reexamination request records** include patent assignee, patent information, and reexamination request information.

  - ACCESSION NO.: 4616629  IFICLS
  - PATENT ASSIGNEE: Bryant, Clyde C
  - PATENT INFORMATION: US 7222614 20070529
  - DOCUMENT TYPE: REEXAMINATION REQUESTED
  - REEXAMINATION REQUEST:
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    - REQUEST DATE: 20070529

- **Adverse decision records** include patent assignee, patent information, and adverse decision information.

  - ACCESSION NO.: 4147973  IFICLS
  - PATENT ASSIGNEE: Pfizer Inc
  - PATENT INFORMATION: US 6809094 20041026
  - DOCUMENT TYPE: ADVERSE DECISION
  - ADVERSE DECISION IN INTERFERENCE:
    - INTERFERENCE NO: 105369
    - DECISION DATE: 20060817
    - OG DATE: 20070213
    - CLAIMS AFFECTED: as to claims 1-4, 9, 11-13

- **Disclaimer/dedication records** include patent assignee, patent information, and disclaimer information.

  - ACCESSION NO.: 4427621  IFICLS
  - PATENT ASSIGNEE: International Business Machines Corp
  - PATENT INFORMATION: US 7061590 20060613
  - DOCUMENT TYPE: DISCLAIMER/DEDICATION
  - DISCLAIMER INFO.:
    - DATE: 20051024
    - OG DATE: 20060801
    - TEXT: The term of this patent, subsequent to the term of patent number 6,731,378

- **Reissue request records** include patent assignee, patent information, reissue request information, and reissue patent number.

  - ACCESSION NO.: 4587364  IFICLS
  - PATENT ASSIGNEE: Hastings, Mark
  - PATENT INFORMATION: US 539527 20070403
  - DOCUMENT TYPE: REISSUE REQUESTED
  - REISSUE REQUEST:
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    - OG DATE: 20070724
    - EXAMINATION GROUP: 2914

- **Records for certificate of correction** include patent assignee, patent information, and correction date.

  - ACCESSION NO.: 4621857  IFICLS
  - PATENT ASSIGNEE: Sanyo Electric Co Ltd JP
  - PATENT INFORMATION: US 7227333 20070605
  - DOCUMENT TYPE: CERTIFICATE OF CORRECTION
  - CORRECTION DATE: 31 Jul 2007
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20 INFULL

20.1 Typical queries

- Searches for the state of the art in India (text and classification), e.g.:
  - What IN applications are there on Driver Assistance Systems?

- Name searches (inventor, applicant), e.g.:
  - What IN applications by the Rubber Research Institute of India were published during the past year?
  - What IN applications are there by Mr Mehta Ajit Gopaldas of Mecords India Ltd?

- Searches using formal data (e.g. numbers), e.g.:
  - What is there in the text of the Indian Patent, IN 246306?
  - We are looking for Indian publications citing the priority country DE and having a priority year from 2005 to 2010 in the field of G06F 17/50 (Computer-aided design).

- Full-text display of Indian patents and applications:
  - What are the claims of the Indian Patent numbered IN 254953?

- Search by a numerical property in the full text of Indian patents:
  - Search by a nanometer length.

- Legal status display

- SDI searches for Indian patents and applications

- Using the full text to find material for an opposition

- Multi-file searches in combination with other national or regional patent databases

20.2 Brief description

Producer: LexisNexis Univentio B.V., Netherlands
Period covered: Since 1912
Size: More than 765,000 documentation units on patents, more than 690,000 full texts, more than 164,000 patent images (January 2020)
Updated: Weekly
Languages: English

20.3 Contents

- Full text from patent applications and granted patents published in India
- Bibliographical details, including patent applicant and inventor
- Title and Abstract are taken from the original document or from an equivalent, so are the description and claims; if not available in sufficient quality from the original they are taken from an equivalent, this is shown by DETD.EQ and CLM.EQ, respectively, in the FA (Field Availability) field
- International Patent Classification (IPC), IPC thesaurus, range-searchable
- Cooperative Patent Classification (CPC), thesaurus
- European Patent Classification (ECLA), ECLA thesaurus, range-searchable, other European classifications: ICO, IDT, the codes are retained as historic data
Guide to STN Patent Databases

- Family display formats for INPADOCDB available from 2004 (FAM and CFAM display fields)
- Numerical values of more than 55 physical and chemical properties in all full-text fields
- Some of the texts are created using an Optical Character Recognition (OCR) software, i.e. there may be errors and omissions of text portions

20.4 Dynamics

The INFULL database follows a mixed principle using segmentation. All publications of the same patent application form one documentation unit. Each document is entered into a separate record and will not be updated.

20.5 Updating

New data are entered into the database 1 week after the publication date.

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AB

Original
An electrode for a fuel cell is disclosed. The electrode comprises of a gas diffusion layer having an electrode catalyst layer coated thereon.

DETD
The disclosure generally relates to an electrode for a fuel cell. More particularly, the disclosure relates to an electrode comprising a gas diffusion layer having a catalyst layer coated thereon.

CLM
An electrode for a fuel cell comprising: a gas diffusion layer having an electrode catalyst layer coated thereon, wherein the electrode catalyst layer comprises of a carbon supported catalyst, the carbon supported...

KT
gas diffusion layer; electrode catalyst layer; fuel cell; carbon supported catalyst; membrane electrode assembly; catalyst layer coated; mercapto alkyl acid; carbon cloth; vulcan carbon; centimeter square;...
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* Numeric properties: E A/PHP lists properties available for numeric search (cf. database description). The search is performed in all fields containing English text. There are no specific display fields, but the hit numeric values will be highlighted. For more information enter HELP NPS.

20.7.1 Super-Search-Fields

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21 INPADOCEB / INPAFAMDB

21.1 Typical queries

• Searches by number, name or classification to elicit the bibliographical details of documents, e.g.:
  – Who filed the application for the Mexican patent, MX 167961?
  – Has the European patent, EP 0 845 799, been granted yet?
  – What patents have Philips filed in Russia?

• Information searches, technology searches – mainly in INPAFAMDB (to some extent with long retrospect)
  – What publications are there on nano-biotechnology?
  – What publications on wind turbines have there been before 1970?

• Family searches, e.g.:
  – Are there any other members of a patent family of the US patent, 6,272,657? Have any of the applications in other countries lapsed?
  – Is there an equivalent in English or German (e.g. DE, US, EP) to the Japanese patent publication numbered JP 200329388?

• Display of the legal status, e.g.:
  – Is the European patent, EP 0 313 835, still in force in Great Britain?

• Patent statistics in INPAFAMDB or, for individual countries, in INPADOCEB:
  – What can be said on the development of ultra-wide band radar in cars in the last eight years? Which focal points can be identified?

• Citation searches, e.g.:
  – Where is the US patent, 6,200,005, being cited?

• Patent monitoring, e.g.:
  – What patents by Motorola have been published since the database was last updated?
  – Was there any change in the legal status of the European Patent, EP 1 009 573, of Kennametal Inc., concerning an opposition filed since 14 November 2003?
  – Are there any changes in the patent family of EP 1 721 523?

21.2 Brief description

Producer: European Patent Office (EPO), Austria; FIZ Karlsruhe, Germany
Period covered: Since 1782
Size: More than 75.6 million records for patent applications, more than 17.9 million records for utility model applications, more than 871,000 records for designs (January 2020); More than 54 million patent families (since 1782), more than 220 million legal status data (since 1968), more than 220 million citations (since 1943) (January 2018)
Updated: Weekly
Language: Language of the original or translation into English; legal status in English
21.3 Contents

- Publications in respect of national and international patent and utility model specifications (~100 national and regional patent offices, EPO, WIPO)
  (cf. survey "Country codes and country coverage of CA, INPADOCDB, DWPI")
- Database coverage before 1968: since 1836 (US), 1840 (GB), 1879 (DE), 1900 (FR), 1944 (JP)
- Bibliographical details
- International Patent Classification (IPC), online thesaurus incl. catchwords, range searching possible, re-classification of the back-file
- Patent family details
- Legal status details:
  - Non-entry of PCT applications into the national stage: CA, DE, JP, KR
  - Entry/Non-entry of PCT applications into the European phase
  - European applications: and grant are through the EPO, a few countries assign national application or publication numbers after grant: AT, CY, DE, ES, HR, IE, SM
  - Indication in EP legal status: "Corresponds To", "Entry Into National Phase" or payment of annual fees: AT, BE, BG, CH, CZ, CY, DE, DK, EE, ES, FI, FR, GB, GR, HK, HU, IE, IL, IT, LT, LU, LV, MC, MD, MX, NL, NO, PT, RO, RU, SE, SI, SK, TR
  - SPCs (Supplementary Protection Certificates): AT, DE, ES, FI, FR, IT, LT, LU, NL, SK
  - Extensions of term (patents and utility models): AT, AU, CH, CN, CZ, DE, DK, FI, FR, GB, HU, IE, IL, JP, LT, NL, NO, RU, SE, SK, US
  - Legal status details in original language
  - Start of coverage varies by country, new countries are constantly added
  - Calculated expiration dates (XPD, XPY) for 41 countries from 1980: AR, AT, AU, BE, BR, CA, CH, CN, CZ, DD, DE, DK, EA, EG, EP, ES, FI, FR, GB, GR, HK, HU, IE, IT, JP, KR, MA, MX, NL, NO, NZ, PL, PT, RU, SE, SK, SU, TR, TW, US, ZA, etc.
- Cooperative Patent Classification (CPC), online thesaurus, range searchable; CPC Combination Sets (C-Set)
- The European Classification (ECLA), ICO, and IDT are no longer available
- National US Classification with thesaurus (since 1836), no longer assigned since 2015, replaced by CPC
- Locarno Classification for US Design Patents (since 04/2005)
- Japanese FI- and FTERMS (from 1966) with online thesaurus
- National Classifications: AT, AU, BR, CA, CH, DE, DK, ES, GB, MX, NL, SE
- Partly abstracts (32,5 million) from 50 countries since 1970: e.g. US, GB (from 1897), WO, EP, CA, DE, KR, JP, FR, CN; an English equivalent abstract ABEQ from the simple patent family is displayed in the ALL and MAX display formats if no English abstract is available for a given publication (since update week 200740)
INPADOCDB is the most comprehensive patent database with regard to the countries covered. It corresponds to the Patent Family Service (PFS) and the legal status information of the Patent Register Service (PRS). The database is updated weekly with approx. 70,000 to 1,000,000 entries/updates of the bibliographical PFS and approx. 40,000 to 180,000 legal status entries in the PRS. The EPO receives the data from the patent offices or patent organisations in electronic or paper form. The EPO tries to standardise the data, but relies on the quality of the data provided. The data are in the original language, but partly (e.g. for Russian or Japanese publications) an English translation (titles) and/or transliteration (Names) is given. (For some countries (in particular JP), published applications (code JP-A2) are often entered without details of title, assignee and inventor. As soon as such details are available, they are added to the record.)

Using the priority information, documents belonging to the same patent family can be grouped together in INPADOC. This is particularly useful to find out whether an equivalent to a known document exists in another country (e.g. because of possible infringements or for better accessibility of the language).

21.4 Dynamics

The INPADOCDB database follows the static principle using segmentation. All national publications of the same patent or utility model application form one documentation unit. If there is legal status information in a document unit it will be updated regularly. Every document is assigned a family number, FN, corresponding to its patent family. The INPAFAMDB database uses the dynamic principle. The INPADOCDB family number, FN, is used as the accession number AN of a (family) document in INPAFAMDB (AN = FN). The individual patent documents are merged into patent families anew with every update of the database, i.e. there is only one document in the database for every patent family.

21.5 Updating

New documents are entered into INPADOCDB and INPAFAMDB a few days (DE, EP, FR, GB) up to weeks (JP, US, WO) after publication.

21.6 Documents from INPADOCDB

Display format: MAXG (details of all national publications plus legal status)

The family number FN can be displayed with D FN:

| AN  | 23720717 | INPADOCDB UP 20120705 UW 201227 |
| FN  | 8584206 |
| TI  | Vorrichtung zum automatischen Melken von Tieren. A construction for automatically milking animals. Dispositif de traite automatique d’animaux. |
| TL  | German; English; French |
| IN  | VAN DER LELY, CORNELIS |
| INS | VAN DER LELY CORNELIS, CH |
| PA  | MAASLAND N.V. |
| PAS | MAASLAND NV, NL |
| DT  | Patent |
| PI  | EP 1029447 A2 20000823 English |
| PIT | EPA2 APPLICATION PUBLISHED WITHOUT SEARCH REPORT |
| DAV | 20000823 unexamined printed without grant |
| STA | PRE-GRANT PUBLICATION |
| DS  | R: DE FR GB NL SE |
| AI  | EP 2000-201926 A 19941005 |
| AIT | EPA Patent application |
The invention relates to a construction for milking animals, such as cows, comprising a milking robot (8) for automatically milking animals. A movable collecting member (36) for the excrements of an animal present in the construction is arranged at the trailing side of the construction.

Vorrichtung zum automatischen Melken von Tieren.
Dispositif de traite automatique d'animaux.

VAN DER LELY, CORNELIS
MAASLAND N.V.

A01J0005-017; A01K0001-12; A01K0023-00
A01J0005-0175; A01K0001-12; A01K0023-005
A01J0005-017a; A01K0001-12; A01K0023-00b

20010808 English

23720717 INPADOCDB UP 20120705 UW 201227
8584206

Vorrichtung zum automatischen Melken von Tieren.
A construction for automatically milking animals.
Dispositif de traite automatique d'animaux.

German; English; French

VAN DER LELY, CORNELIS
MAASLAND N.V.

2000-201926 A 19941005

Guide to STN Patent Databases

NL 1993-1753 A 19931011 (NLA, 20070614, Y)

PRAI EPA3 Prior application claimed for a division
NLA Patent application

IC V

ICS A01K0005-01

IPCR A01J0005-017 [I,A]; A01K0001-12 [I,A]; A01K0023-00 [I,A]

CPC A01J0005-0175; A01K0001-12; A01K0023-005

EPC A01J0005-017A; A01K0001-12; A01K0023-00B

FA AI; AN; DAV; CHG; CPC; DS; DT; EPC; ICM; ICS; IN; INS; IPC; IPCR; LA; PA;

PAS; PI; PIT; PRAI; Ti

CHG PRAI A; IPC A

AN 23720717 INPADOCDB UP 20120705 UW 201227

FN B584206

TI Vorrichtung zum automatischen Melken von Tieren.

A construction for automatically milking animals.

Dispositif de traite automatique d'animaux.

TL German; English; French

IN VAN DER LELY, CORNELIS

INS VAN DER LELY CORNELIS, CH

PA LELY ENTERPRISES AG

PAS LELY ENTPR AG, CH

DT Patent

PI EP 1029447 A8 20060607 English

PIT EPA8 MODIFIED FIRST PAGE

DAV 20060607 modified-first-page-pub

STA PRE-GRANT PUBLICATION

DS R: DE FR GB NL SE

AI EP 2000-201926 A 19941005

AIT EPA Patent application


NL 1993-1753 A 19931011 (NLA, 20070614, Y)

PRAI EPA3 Prior application claimed for a division
NLA Patent application

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ICS A01K0005-01

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CPC A01J0005-0175; A01K0001-12; A01K0023-005

EPC A01J0005-017A; A01K0001-12; A01K0023-00B

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PAS; PI; PIT; PRAI; Ti

CHG PRAI A; IPC A

AN 23720717 INPADOCDB UP 20120705 UW 201227

FN B584206

TI Vorrichtung zum automatischen Melken von Tieren.

A construction for automatically milking animals.

Dispositif de traite automatique d'animaux.

TL German; English; French

IN VAN DER LELY, CORNELIS

INS VAN DER LELY CORNELIS, CH

PA LELY ENTERPRISES AG

PAS LELY ENTPR AG, CH

DT Patent

PI EP 1029447 A8 20060607 English

PIT EPA8 MODIFIED FIRST PAGE

DAV 20060607 modified-first-page-pub

STA PRE-GRANT PUBLICATION

DS R: DE FR GB NL SE

AI EP 2000-201926 A 19941005

AIT EPA Patent application


NL 1993-1753 A 19931011 (NLA, 20070614, Y)

PRAI EPA3 Prior application claimed for a division
NLA Patent application

XPD 20141005

IPCI A01J0005-017 [I,A]; A01K0001-01 [I,A]

IPCR A01K0001-12 [I,A]; A01K0023-00 [I,A]
Patent databases on STN International

CPC A01J0005-0175; A01K0001-12; A01K0023-005
EPC A01J0005-017A; A01K0001-12; A01K0023-00B
FA AI; AN; DAV; CHG; CPC; DS; DT; EPC; IN; INS; IPC; IPCI; IPCR; LA; PA;
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CHG PRAI A; IPC A

LEGAL STATUS

AN 23720717 INPADOCDB
20000823 EPAC DIVISIONAL APPLICATION (ART. 76) OF: EP E473908 P
20000823 EPAK + DESIGNATED CONTRACTING STATES: EP A2
DE FR GB NL SE
20010808 EPAK + DESIGNATED CONTRACTING STATES: EP A3
DE FR GB NL SE
20020123 EP17P + REQUEST FOR EXAMINATION FILED 20011126
EXA Examination, Search Report
20020502 EPAKX + PAYMENT OF DESIGNATION FEES DE FR GB NL SE
20040303 EP17Q + FIRST EXAMINATION REPORT 20040116
EXA Examination, Search Report
20040324 EPRAP1 TRANSFER OF RIGHTS OF AN EP APPLICATION MAASLAND N.V.
CHG Change of Owner, Inventor, Applicant 20050119 EPRAP1 TRANSFER OF RIGHTS OF AN EP APPLICATION LELY ENTERPRISES AG
CHG Change of Owner, Inventor, Applicant 20050304 EPEL + FR: TRANSLATION OF CLAIMS FILED
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20060628 EPAK + DESIGNATED CONTRACTING STATES: EP B1
DE FR GB NL SE
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Guide to STN Patent Databases

Payment Year: 17

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DE: 20110228  
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ORE Opposition, Reexamination

**20120222 EPGFR**  
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NIF Lapses, Expiries, Withdrawals, Refusals

**20120222 EP27W**  
- REVOKED  
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NIF Lapses, Expiries, Withdrawals, Refusals

**20120515 EPREG**  
- REFERENCE TO A NATIONAL CODE  
SEECNC

NIF Lapses, Expiries, Withdrawals, Refusals

The LS (Legal Status) field contains the legal status information of the patent application. Every entry consists of the parts: Date of publication in the official gazette of the respective patent office (e.g. for the European Patent Office: EPO Bulletin), a code for the Status type, occasionally a code for the Type of priority or application and the Text. The Text gives information on the actual status or status change, the effective date (if applicable), the names of persons concerned (e.g. opponent) and the numbers of other patent publications concerned (e.g. in case of division or addition). Legal status categories combine all codes on a certain topic, e.g. ORE – Opposition, Reexamination. The parts of a legal status entry are searchable. The legal status can also be displayed in original language (LSO).

The complete international patent family is compiled using the priority data and can be displayed with predefined family formats.

Display format: FAM

PATENT FAMILY INFORMATION
AN 23720717 INPADOCDB

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|                  DE 1994-69426379 A 19941005 DE 69426379 T2 20010613  
|                  DE 1994-69434780 A 19941005 DE 69434780 D1 20060810  
|                  DE 69434780 T2 20070614  
|                  DE 1994-22280 U 19941005 DE 9422280 U1 19991007  
|                  DE 2000-201926 A 19941015 DE 00201926 T1 20050331  

The LS (Legal Status) field contains the legal status information of the patent application. Every entry consists of the parts: Date of publication in the official gazette of the respective patent office (e.g. for the European Patent Office: EPO Bulletin), a code for the Status type, occasionally a code for the Type of priority or application and the Text. The Text gives information on the actual status or status change, the effective date (if applicable), the names of persons concerned (e.g. opponent) and the numbers of other patent publications concerned (e.g. in case of division or addition). Legal status categories combine all codes on a certain topic, e.g. ORE – Opposition, Reexamination. The parts of a legal status entry are searchable. The legal status can also be displayed in original language (LSO).

The complete international patent family is compiled using the priority data and can be displayed with predefined family formats.
Patent databases on STN International

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2 priorities, 7 applications, 14 publications, (2 EPO simple families)

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</table>

2 priorities, 7 applications, 14 publications, (2 EPO simple families)

These family formats are available (it is recommended to use DISPLAY BROWSE; for a comprehensive list see the database description):

Family display at full price:

- All display fields and display formats with appended .F display the respective field for all family members, e.g. TI.F; in addition there are TIPI.F, PILS.F and BIBLS.F
- FAM: Table PRAI – AI, AI – PI
- FAM2: Table PRAI – PI, AI – PI
- CFAM: Condensed FAM, only PI of the FAM table
- CFAM2: Condensed FAM (PI – AI; PRAI)
- SFAM: see CFAM2, but sorted by the EPO “simple patent family”
- FAMLS: see CFAM2, plus a list of all legal status entries, sorted by legal status date LSD
- EFAM: Extended Patent Family Information, see FAM but the priority information is used as heading for the AI – PI tables
- FFAM: Full Family Format, MAX.M format (full bibliographical and legal status data) for all members of the patent family
- MFAM: Full Family Format with abstracts (if available)
- LFAM: Publication information (PI field) plus legal status information
- DFAM: Delimited Family Format, table of priority, application and publication information delimited for post-processing, SET LINELENGTH 110 is recommended
- IFAM: Indented Family format, display of: TI; Table PI – AI, PRAI; IMAX.F (full format with legal status for all family members, indented field names), heading (country name, country code) for the display of IMAX.F
- TIPI.F: TI + LS for all family members
- PILS.F: PI + LS for all family members
• BIBLS.F: BIB + LS for all family members
• CITN: RE + CGB for all family members
• Display formats for family SDI:
  • FFAMUP: Updated information in the bibliographic fields and / or legal status of a patent family
  • LFAMUP: PI (Publication Information) and LSUP (legal status changes) of a patent family
  • FFAMED: new publication levels/new members and/or legal status changes of a patent family
  • IFAMUP: indented FAM plus patent family table

Family displays at reduced price:
• FFAM.PC: FFAM for one publication country only (possible for all countries)
• FFAMUP.PC: FFAMUP for one publication country only (PC = AT AU BE CA CH DE DK EP ES FI FR GB GR IE IL IT JP KR HU NL NO RU SE US WO)
• FFAMED.PC: FFAMED for one publication country only (PC = AT AU BE CA CH DE DK EP ES FI FR GB GR IE IL IT JP KR HU NL NO RU SE US WO)
• LFAMUP.PC: LFAMUP for one publication country only (PC = AT AU BE CA CH DE DK EP ES FI FR GB GR IE IL IT JP KR HU NL NO RU SE US WO)
• MFAM.PC: MFAM for one publication country only

21.7 Document from INPAFAMDB

Display format: BRIEF (Default, de-duplicated format – content that appears repeatedly in the patent family is displayed only once)

AN  B584206INPAFAMDB UPFB 20070816 UWF 200827
TI  Konstruktion zum automatischen Melken von Tieren.
    - Vorrichtung zum automatischen Melken von Tieren.
    - Vorrichtung zum Melken von Tieren.
    - A construction for automatically milking animals.
    - Dispositif de traite automatique d’animaux.
    - Inrichting voor het automatisch melken van dieren.
INS  VAN DER LELY CORNELIS, CH
PAS  MAASLAND NV, NL
    - LELY ENTPR AG, CH
    - TEXAS INDUSTRIES INC, NL
    - TEXAS INDUSTRIES INC, AN
    - TEXAS INDUSTRIES INC
I PCI  A01J0005-017 [I,A]; A01K0001-01 [I,A]
IPC R  A01J0005-017 [I,A]; A01K0001-12 [I,A]; A01K0023-00 [I,A]
EPC  A01J0005-017A; A01K0001-12; A01K0023-00B
AB  (EP 1029447 A2)
The invention relates to a construction for milking animals, such as cows, comprising a milking robot (B) for automatically milking animals. A movable collecting member (36) for the excrements of an animal present in the construction is arranged at the trailing side of the construction.

PATENT FAMILY INFORMATION INPAFAMDB

+----------+ Publications +----------+ Applications +----------+
DE 69426379  D1 20010111  DE 1994-69426379  A 19941005
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DE 69434780  D1 20060810  DE 1994-69434780  A 19941005
DE 69434780  T2 20070614
DE 9422280  U1 19991007  DE 1994-22280  U 19941005
DE 00201926  T1 20050331  DE 2000-201926  A 19941015
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EP 1029447  B1 20060628
Patent databases on STN International

EP 647390 A3 19950614
EP 647390 B1 20001206
NL 9301753 A 19950501 NL 1993-1753 A 19931011

+-------- Priorities +--------+
EP 1994-202888 A 19941005
NL 1993-1753 A 19931011

2 priorities, 7 applications, 14 publications, (2 EPO simple families)

Display formats: The family formats from INPADOCDB are also available in INPAFAMDB.

De-duplicated formats: These exist to allow a quick survey of the patent family. Every content that appears repeatedly in the patent family is displayed only once. The default format in the database is the de-duplicated format BRIEF. This format displays the de-duplicated bibliographical details, a selected abstract and the family information (PI, AI, PRAI).

All display fields (TI, PA, IN, etc.) and the display formats (BIB, ALL, etc.) in INPAFAMDB relate to the patent family and have de-duplicated contents. More formats are described in chapter “Family search”.

21.8 When to use which database

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Note: All display formats with appended .F are family display formats and will be billed as such. All other display fields in INPAFAMDB are de-duplicated (see above).

The display formats with appended .M refer to all publication levels.

### 21.9.1 Super-Search Fields

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## 22 JAPIO

### 22.1 Typical queries
- Searches on the state of the art in Japan (using text and classification), e.g.:
  - What patents have been applied for in Japan on the subject of Georadar?
- Searches using formal data (e.g. numbers, names), e.g.:
  - What does the Japanese patent, JP 10028400, contain?

### 22.2 Brief description

**Producer:** Japan Patent Information Organization (JAPIO), Japan  
**Period covered:** From October 1976 to March 2013  
**04/1973 – 12/1997: supplementary documents from INPADOC**  
**Size:** Approx. 11.1 million records on patents  
**approx. 8.1 million patent images (August 2014)**  
**Updated:** Database closed – last update March 2013  
**Language:** English

### 22.3 Contents
- Publications of JP patent applications (Kokai Tokkyo Koho)  
- Bibliographical details, JAPIO classification, title, abstracts in English, names  
- International Patent Classification (IPC), IPC thesaurus, range search possible, no re-classification of the back-file  
- Patent drawings and formulae

The JAPIO database provides the most comprehensive access to Japanese unexamined patent applications (JP-A). JAPIO is based on ‘Patent Abstracts of Japan’ (PAJ). PAJ does not cover all unexamined patent applications (e.g. PCT applications designating Japan), thus documents from INPADOC covering the period from 04/1973 to 12/1997 were added. These do not have abstracts and some even miss an English title.

Abstracts are in English. The names of the inventors and assignees are given in Roman characters.

JAPIO does not contain records on publications relating to PCT applications entering the national phase (JP-T), published applications after examination (JP-B), or granted patents (JP-B1, JP-B2).

### 22.4 Dynamics

The JAPIO database follows the static principle, documents once entered are not updated. The database only contains publications of unexamined applications.

### 22.5 Updating

New publications are not added to JAPIO any longer.
22.6 Documents from JAPIO

22.6.1 PAJ data

Display format: ALLG

AN 2006-025595 JAPIO
TI VEHICLE DRIVING UNIT AND VEHICLE DRIVER
IN SHIMIZU HISAYA; KOWATARI TAKEHIKO; ONO KOSAKU; YAMAMOTO TATSUYUKI; INNAMI TOSHIYUKI
PA HITACHI LTD
PI JP 2006025595 A 20060126 Heisei
AI JP 2005-179018 (JP2005179018 Heisei) 20050620
PRAI JP 2005-179018 20050620
SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 2006
IPCI B60L0011-18 [I,A]; B60K0006-04 [I,A]; B60W0020-00 [I,A]; B60W0010-08 [I,A]; B60W0010-26 [I,A]; B60K0017-356 [I,A]; B60L0011-14 [I,A]; F16D0065-18 [I,A]; B60T0008-17 [I,A]; B60L0011-18 [I,C*]; B60K0006-00 [I,C*]; B60W0020-00 [I,C*]; B60W0010-08 [I,C*]; B60W0010-26 [I,C*]; B60K0017-34 [I,C*]; B60L0011-14 [I,C*]; F16D0065-18 [I,C*]; B60T0008-17 [I,C*]

AB PROBLEM TO BE SOLVED: To attain omission of a wire harnesses, such as a power cable, and improvement in power loss, in a vehicle driving system of an engine/motor hybrid type.

SOLUTION: Portions 1 of wheels are driven by an engine 3. Wheels 2, other than the wheels driven by the engine 3, are driven by a rotary electric machine 4. When a running load is large, such as at starting and going up a slope, the rotary electric machine 4 is driven as a motor for driving the wheels to assist an engine drive system. In driving a vehicle, there exists a driving region requiring no motor-driven assist, such as low/medium load running and at speed reduction. When such an assist is not required, the rotary electric machine is caused to function as a power generator, and mechanical energy from the wheels is converted into electrical energy. The rotary electric machine 4, an inverter 7, a capacitor 11 and a controller 18 are integrally formed as a unit, and is fitted to a differential gear 5.

COPYRIGHT: (C)2006, JPO&NCI PI
### 22.6.2 INPADOC data

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23 JPFULL

23.1 Typical queries
- Searches for the state of the art in Japan (text and classification), e.g.:
  - What JP applications are there on Battery Management in Hybrid Vehicles?
- Name searches (inventor, applicant), e.g.:
  - What JP applications by Toyota Motor Corp were published during the past year?
  - What JP applications are there by Mr Yamamoto Shingo of Toyota Motor Corp?
- Searches using formal data (e.g. numbers), e.g.:
  - What is there in the text of the Japanese utility model, JP 3179793?
  - We are looking for Japanese publications citing the priority country DE and having a priority year from 2005 to 2010 in the field of A61L 27 (Materials for prostheses).
- Full-text display of Japanese applications:
  - What are the claims of the JP publication numbered 2012213658?
- Search by a numerical property in the full text:
  - Search by a nanometer length.
- Legal status display
- SDI searches for Japanese applications
- Using the full text to find material for an opposition
- Multi-file searches in combination with other national or regional patent databases

23.2 Brief description
Producer: Questel, France and LexisNexis Univentio BV
Period covered: Since 2000
Size: More than 6.46 million records on patents, utility models, and designs; more than 6.44 million full texts (January 2020)
Updated: Weekly
Language: English

23.3 Contents
- Full text from patent applications, granted patents and utility models published in Japan
- Bibliographical details, including patent applicant, inventor, and representative
- The title and abstract of published applications are first entered as machine translations or taken from equivalents available. They are replaced with human-translated texts within 3 months. The description and claims are machine-translated.
- Title, patent applicant, inventor, and representative can in addition be displayed in Japanese writing.
- International Patent Classification (IPC), IPC thesaurus, range-searchable
- Cooperative Patent Classification (CPC), on-line thesaurus, range searchable, CPC Combination Sets (C-Sets)
- European Patent Classification (ECLA) with on-line thesaurus, other European classifications: ICO (In Computer Only), IDT, no longer assigned from 2013, the codes are retained as historic classification data
23.4 Dynamics

The JPFULL database follows a mixed principle using segmentation. All publications of the same patent application form one documentation unit. Each document is entered into a separate record and will not be updated. The legal status in INPADOCDB is continuously updated.

23.5 Updating

New documents are entered into the database 14 days after publication.

23.6 Document from JPFULL

Display format: ALL

**AN** 2008114975  JPFULL  ED 20130130 UP 20180126 EDTX 20121005

**DED** 20130111 DUPD 20160315

**TIEN** A wireless communication system, a radio base station device, multi-service management device

**TJA** 無線通信システム、無線基地局装置、マルチサービス管理装置

**INJA** 福永 吉晃
神奈川県川崎市中原区上小田中4丁目1番1号 富士通株式会社
社内
長谷川 一
神奈川県川崎市中原区上小田中4丁目1番1号 富士通株式会社
社内

**PA** FUJITSU LTD

**PAJA** 富士通株式会社

**LAN** 000005223

**DT** Japanese

**PI T** JP82 PUBLISHED EXAMINED PATENT APPLICATION (SECOND LEVEL) [FROM 19710716 ONWARDS] or PUBLISHED GRANTED PATENT (SECOND LEVEL) [FROM 19960301 ONWARDS]

**PI** JP 51152738 B2 20130109

**AI** JP 2008-88393 20080328

**PRAI** JP 2008-88393 20080328

**IPC1** H04W0004-06 [I,A]; H04W0028-18 [I,A]; H04W0072-04 [I,A]; H04W0088-02 [I,A]

**CPC** H04W0028-16; H04W0072-005

**AB**
Equivalent from EP2106181A2
A wireless communication system includes a multi service supplying unit (2) which transmits the same data to a plurality of user equipment (110, 120, 130, ...) and a quality evaluation result collecting unit (2b) ...

**DETD**
The present invention, a plurality of radio mobile terminal for
transmitting data of the same content to service a radio communication system, and the system is constructed as a radio base station device, multi-service control device. …

CLM

A plurality of wireless mobile terminal of the same content to service and to provide means for transmitting data, The plurality of the radio terminal multi-service quality evaluation result from the evaluation …

KT

wireless communication system; wireless base station; wireless mobile terminal; multi-service management equipment; reception quality evaluation report; collected quality evaluation; mobile station mbms …

23.7 Selected fields

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* Numeric properties: E A/PHP lists properties available for numeric search (cf. database description). The search is performed in all fields containing English text. There are no specific display fields, but the hit numeric values will be highlighted. For more information enter HELP NPS.

23.7.1 Super-Search-Fields

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130
24 KOREAPAT

24.1 Typical queries
- Searches for the state of the art in Korea (text and classification), e.g.:
  - What inventions were made in Korea on Wind Power Generators?
- Name searches (inventor, applicant), e.g.:
  - What inventions of Samsung have been published in Korea during the past year?
  - What patent applications are there in Korea of Mr Richard Wells from Lucent Technologies?
- Searches using formal data (numbers: publication number, application number), e.g.:
  - What is contained in the Korean unexamined application numbered KR 2004024835?
  - Who is the owner of the granted patent numbered KR 368043?

24.2 Brief description
Producer: Korean Institute of Patent Information (KIPI), Seoul, Korea on behalf of the Korean Intellectual Property Office (KIPO)
Period covered: Since 1979
Size: More than 2.6 million records, more than 2.4 million patent images (January 2020)
Updated: Monthly
Languages: English

24.3 Contents
- Extracts from Korean granted patents from 1979 to 2001, extracts from unexamined Korean patent applications from 2000
- Granted patents after 2001 may be available if the application was not published
- Bibliographical details, title, names (inventor, applicant)
- International Patent Classification (IPC), IPC thesaurus with catchwords, range search possible, no re-classification of the back-file
- Abstracts
- Patent drawing

24.4 Dynamics
The KOREAPAT database follows the static principle: either the unexamined application or the examined one is available. If documents were incomplete upon entry text fields will be added later. The IPC is updated.

24.5 Updating
The documents are entered into the database three months after publication.
24.6 Document from KOREAPAT

Display format: ALLG

AB PURPOSE: A gas burner with an igniting apparatus is provided to improve user convenience by easily rotating a rotation lever through the use of a guide ball.

CONSTITUTION: A gas burner comprises a burner head(10), an opening/closing valve(20) for adjusting the amount of gas supplied to the burner head, and an igniter(30) for igniting the burner head by being operated simultaneously with the opening/closing valve. The igniter includes a button lever(34) shaft-coupled onto a housing(31) of the igniter so that the button lever is pressed to the same direction as a rotating lever(22) while the opening/closing valve is closed. The igniter includes a support lever(100) coupled to the lateral surface of the housing so that the support lever is protruded in the same direction as the rotating lever while the opening/closing valve is closed. The support lever is arranged to be engaged with the rotating lever. The igniter has a guide ball which partially contacts the button lever with respect to the bottom surface of the rotating lever so that the rotating lever smoothly rotates.

COPYRGT. KIPO 2007
24.7 Selected fields

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24.7.1 Super-Search Fields

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25 KRFULL

25.1 Typical queries

- Searches for the state of the art in Korea (text and classification), e.g.:
  - What KR applications are there on Wind Turbines?
- Name searches (inventor, applicant), e.g.:
  - What KR applications by Samsung Electronics Corp were published during the past year?
  - What KR applications are there by Mr JANG, Keum-Ju of Samsung Electronics Corp?
- Searches using formal data (e.g. numbers), e.g.:
  - What is there in the text of the Korean utility model, KR 2019002800?
  - We are looking for KR publications citing DE as the priority country in the field of F03D7 (Controlling wind motors).
- Full-text display of Korean applications:
  - What are the claims of the Korean patent, KR 2039678?
- Search by a numerical property in the full text:
  - Search by a nanometer length
- Legal status display
- SDI searches for Korean applications
- Using the full text to find material for an opposition
- Multi-file searches in combination with other national or regional patent databases

25.2 Brief description

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25.3 Contents

- Full text from patent applications, granted patents and utility models published by the Korean patent office
- Full texts are available in English, the abstract, description and claims are machine-translated, the titles are human-translated
- Bibliographical details, including applicant, inventor, and representative; patent applicant names are available in standardised form in the PAS field and in normalised form in the PAN field
- The title, inventor, and patent assignee are available in Korean script
- International Patent Classification (IPC), IPC thesaurus, range-searchable
- Cooperative Patent Classification (CPC), on-line thesaurus, range searchable, CPC Combination Sets (C-Sets)
- European Patent Classification (ECLA), ECLA thesaurus, range-searchable, other European classifications: ICO (In Computer Only), IDT, no longer assigned from 2013, the codes are retained as historic classification data
Patent databases on STN International

- Keyterms (extracted with linguistic and statistical methods from the English full texts)
- Details of relations
- Drawings
- Legal status, citations and family details are taken from INPADOCDB and can be displayed in the fields LS, LS2, RE, FAM, and CFAM. These data are not searchable.
- Numerical values of more than 59 physical and chemical properties, searchable in all English full-text fields
- Some of the texts are created using an Optical Character Recognition (OCR) software, i.e. there may be errors and omissions of text portions

25.4 Dynamics

The KRFULL database follows a mixed principle using segmentation. All publications of the same patent application form one documentation unit. Each document is entered into a separate record and will not be updated. The legal status in INPADOCDB is continuously updated.

25.5 Updating

New documents are entered into the database 6 days after publication.

25.6 Document from KRFULL

Display format: MAXG LS

AN 5341539  KRFULL  ED 20191112 UP 20191204 EDTX 20191112
DED 20191028 DUPD 20191126
TIEN Warehouse system for storing automobile parts
TIKO 자동차부품 보관 체계
IN SONG CHEUL KEE, KR, KR
PA SAMSUNG CO LTD, 대전광역시 대덕구 옛신탄진로 197 (오정동), 34436, KR
PAS SAMSUNG
PAN SAMSUNG
LAF Korean
LA Korean
DT Patent; (Full text)
PI T KR 2009862 B1 20190621
AI KR 2019-73839 20190621
PRAI KR 2019-73839 20190621
CPC B65G0001-24; B66B0009-16; B65G0001-04; B66B0011-05; B66B0011-226; B65G2207-28; B65G2201-02
GI
The present invention relates to a storage warehouse system for a vehicle part. The lifting device is installed in the warehouse to ascend and descend the vehicle component to each floor of the warehouse.

The present invention relates to a storage warehouse system for a vehicle component, and more particularly, to a storage warehouse system for a vehicle component capable of transporting and storing automobile parts...

The lifting device comprises: a body; a lower installation groove which is installed at a lower end of the body; and a control unit which is installed at the lower end of the main body to support the vehicle...

warehouse system; vehicle component; adhesive composition; support bar; upper plate support; tackifier resin; support leg; installation groove; low molecular weight resin; stone powder and pulp powder; adhesive...

LEGAL STATUS

AN 0005341539 KRFULL
20190621 KRA PRI Patent application 2019KR-000073839 A 20190621
20190621 KRA APP Patent application 2019KR-000073839 A 20190621
20191021 KRB1 PUB PATENT SPECIFICATION KR-2009862 B1 20191021
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* Numeric properties: E A/PHP lists properties available for numeric search (cf. database description). The search is performed in all fields containing English text. There are no specific display fields, but the hit numeric values will be highlighted. For more information enter HELP NPS.

### 25.7.1 Super-Search Fields

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26 LITALERT

26.1 Brief description

Producer: Thomson Reuters (Professional) Ltd, UK

Period covered: Since 1973

Size: More than 97,000 records on patents,
more than 75,000 records on trademarks (January 2020)

Updated: Weekly

Language: English

26.2 Contents

- Lawsuits on US Patents and US Trademarks
- Records for patent and trademark infringement lawsuits filed in the 94 US District Courts and reported to
  the Commissioner of the USPTO
- Records for lawsuits filed since the early 1970s that have never been reported in the Official Gazette
- Patent number, trademark registration number, issue date
- Title or trademark name, inventor, owner, assignee
- US classification (USCL): title and class number;
  from 2015, title and classification code (subclass) of the CPC are entered for patents
- Descriptive information about the specific litigation: the court in which the action is taking place, the
docket number of the class, the plaintiffs and defendants, the filing date of the lawsuits; the judgement and
date, if applicable
- Sources: trademarks, patents, court cases

26.3 Dynamics

The LITALERT database follows the static principle. Documents are not updated.

26.4 Documents from LITALERT

Display format: IALL (Patent)

ACCESSION NUMBER: P2018-38-60  LITALERT Full-text
TITLE: Concave with an array of longitudinally notched spaced apart threshing elements
INVENTOR: Estes, Donald J - Frankfort, IN
PATENT ASSIGNEE: NOT ASSIGNED
PATENT INF. PUBL. TYPE: Utility
PATENT INFORMATION: US 8454416 A 20130604
RELATED PAT. INF.: none
RELATED TRADEMARK: none
PLAINTIFF: Thrash Master Concaves, LLC; C&C Combine Performance, LLC
DEFENDANT: Estes, Donald; CSM Corp
COURT LOCATION: S.D.Tex
DOCKET NUMBER: 3:18CV00280
FILING DATE: 20180919
ACTION TAKEN: CAUSE - 28 USC 2201 - COMPLAINT FOR PATENT INFRINGEMENT
DOCUMENT TYPE: Patent
LANGUAGE: English
NOTE: none
CROSS REFERENCE: none
### Selected fields

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27 PATDD

27.1 Typical queries

- State of the art searches / information searches / novelty searches (text and classification) in combination with other databases, e.g.:
  - What developments were there in East Germany concerning fibre-optic transmission?
- Name searches (inventor, assignee), e.g.:
  - What patents do Lausitzer Braunkohlen AG hold?
  - What patents were applied for by Professor Gerd Jäger?
- Search by formal data (numbers: publication, application), e.g.:
  - Who is the assignee of the patent, DD 301 749?

27.2 Brief description

Producer: Deutsches Patent- und Markenamt (DPMA), Germany
Period covered: 1981-2004
Size: 119,437 records
Updated: Closed database, last update: December 2004
Language: German

27.3 Contents

- Excerpts from patent publications published by the Patent Office of the former German Democratic Republic (previously Office for Inventions and Patents of the GDR) until October 2nd, 1990. Also included are excerpts from patents still granted according to the patent law of the former GDR, published in the Announcements of the German Patent Office (DPA) as from 3 October, 1990.
- Bibliographical details, abstracts and keywords

A number of GDR patents were evaluated for their economic importance. As a result of this, about 4,000 patents are available for use by interested parties. These can be recognized by the note ‘UNPA – Inhaberschaft zur Zeit unklar‘ in the PA field in PATDD (see sample document below).

27.4 Dynamics

In the PATDD database, a static principle with segmentation is followed, i.e. a record in the database is maintained in its original form even if further publications are added at a later stage. For this purpose, segments are used: The first publication (codes DD-A1…A9, DD-AA…AH) is included into segment S1, possible further publications (codes DD-B1…B5, DD-C2…C5, even if more than one) into segment S2. This sequence of entries is valid irrespective of whether the first publication is already a fully examined publication or not (§§ 17 (1) and 18 (2) PatG GDR 1983).

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On account of this segmenting, special features must be considered for search and display. This applies to the use of the Boolean and proximity operators.

27.5 Updating

The database has been closed.
27.6 Document from PATDD

Display format: ALL

DDAA DD-Aufgebot zur Akteeneinsicht in Patentanmeldung
DDA9 DD-Offenlegungsschrift, 10.3 ErstrG
DDBS DD-Patentschrift, Zweitpublikation gem. PatG i.V. mit ErstrG
AN 89:334524 PATDD UP 920709 EW 9228 FS S1
TI GLASIGES ODER GLASIG-KRISTALLINES MATERIAL MIT SCHNELLER LOESLICHKEIT UND
VERFAHREN ZU SEINER HERSTELLUNG.
PA ANM.: AKADEMIE DER WISSENSCHAFTEN DER DDR
PAS AKAD WISSENSCHAFTEN DDR
PAA DE
DT Patent; Ausschliessungspatent; Aufgebot
LA Deutsch
PIT DDAA DD-Aufgebot zur Akteeneinsicht in Patentanmeldung
PI DD 334524 AA 920507
AI DD 89-334524 A 891113
PRAI DD 89-334524 A 891113
IC ICM (5) C04B
FA Code Field Name

---

PAA Adresse des Anmelders
INX Erfinder nicht erfasst
PRI Prioritaetsinformationen
AN 89:334524 PATDD UP 941106 EW 9444 FS S1
TI GLASIGES ODER GLASIG-KRISTALLINES MATERIAL MIT SCHNELLER LOESLICHKEIT UND
VERFAHREN ZU SEINER HERSTELLUNG.
IN BERGER, GEORG, DR. SC. TECHN., DE; SAUER, RENATE, DIPL.-CHEM., DE;
STEINHORN, GABRIELE, DIPL.-CHEM., DE; NOEFLER, WOLFRAM, DR. MED., DE;
GRAF, HANS-LODWIG, DR. MED., DE; THIEME, VOLKER, DOZ. DR. SC. MED., DE;
DRESSEL, HORST, DIPL.-ING., DE; GUENTHER, OLAF, DIPL.-CHEM., DE
INA DE
PA ANM.: BIVISION GMBH ENTWICKLUNG, HERSTELLUNG UND VERTRIEB VON
BIOMATERIALIEN, DE
UNPA INHABERSCHAFT ZUR ZEIT UNKLAR
PAS BIVISION GMBH ENTWICKLUNG HERS; UNIV LEIPZIG; UNIV SCHILLER JENA
PAA DE
DT Patent; Ausschliessungspatent
LA Deutsch
PIT DDAA DD-Offenlegungsschrift, 10.3 ErstrG
PI DD 302011 A9 941103
AI DD 89-334524 A 891113
PRAI DD 89-334524 A 891113
IC ICM (5) C03C004-00
ICS (5) C03C010-02; (5) C03C003-062; (5) A61L0027-00; (5) A61F002-28; (5)
A61F002-30
AB Die Erfindung betrifft ein glasiges oder glaskristallines Material mit
schneller Loslichkeit, das vor dem Brennen folgende Zusammensetzung
(Massenanteile in %) aufweist: 20-55 CaO, 5-25 Na2O und 2 O, 01-15 K2O
und 2 0, 0-15 MgO, 30-50 P2O5 und 2 O, 0-15 SiO2, 2 0, 0-40 Na2O und 2
SO4 und 2 O, 0-40 K2O und 2 SO4 und 4. Das neue Material kann je nach
Abkuehlbedingungen glasig oder glaskristallin erhalten werden. Es
weist als spontan kristallisierte Glaskeramik die Phase Rhenanit, Phase
A, Phase X und/oder deren Mischkristalle auf. Das Material ist sowohl
bioaktiv als auch biokompatibel und besitzt kurze Losungszeiten. Es kann
als Implantat zum temporaren Knochenersetzung bis zur Nachbildung
koerperigen Materials stufenlos auch mit anderen Materialien
eingesetzt werden sowie als Duenge- und Futtermittel.
FA Code Field Name

---

INA Adresse des Erfinders
PAA Adresse des Anmelders
AB Zusammenfassung
ICS IPC Zweit-Klassifikation
AN 89-334524 PATDD UP 980712 EW 9828 FS S2
TI GLASIGES ODER GLASIG-KRISTALLINES MATERIALE MIT SCHNELLER LOESLICHKEIT UND
VERFAHREN ZU SEINER HERSTELLUNG
IN BERGER, GEORG, DR. SC. TECHN., DE; SAUER, RENATE, DI PL.-CHEM., DE;
STEINBORN, GABRIELE, DI PL.-CHEM., DE; KNOEFLER, WOLFRAM, DR. MED., DE;
GRAF, HANS-LUDWIG, DR. MED. DI PL.-STROMATOLOGE, DE; THIEME, VOLKER, DOZ. DR.
DR. SC. MED., DE; DRESSEL, HORST, DI PL.-ING., DE; GUENTHER, OLAF, DI PL.-CHEM., DE
INA DE
PA ANM.: BIOVISION GMBH ENTWICKLUNG, HERSTELLUNG UND VERTRIEB VON
BIOMATERIALIEN, DE
INA DE
PA ANM.: BIOVISION GMBH; UNI V LEIPZIG; UNI V SCHILLER JENA
INA DE
PA PAS PATENT; Ausschliessungspatent
LA Deutsch
PL DD 302011 B5 980709
PL DD 89-334524 A 891113
PRAI DD 89-334524 A 891113
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FA Code Field Name
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PAA Adresse des Anmelders
ICS IPC Zweit-Klassifikation
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28 PATDPA

28.1 Typical queries
- Searches on the ‘state of the art’ in Germany (using text and classification searches), e.g.:
  - What applications have been filed in Germany in respect of brakes for inline skates?
- Name searches (inventor, applicant), e.g.:
  - What inventions from Jenoptik have been published in Germany over the last year?
  - What patents have been applied for by Mr Jozef Bugovics in Germany?
- Searches using formal data (numbers: publication, application), e.g.:
  - What is contained in the patent numbered DE 197 22 778?
  - Who owns the patent numbered DE 197 01 766?
- Search for legal status
  - Is patent number DE 37 44 917 still in force?
  - Have Siemens AG offered the patent numbered DE 197 27 219 for use under licence?

28.2 Brief description
Producer: Deutsches Patent- und Markenamt (DPMA), Germany
Period covered: 1968-2011
Size: Approx. 6.9 million records of patents, approx. 687,000 records on utility models, approx. 757,000 patent images (June 2011)
Updated: Database closed – last update week 24/2011
Language: German

28.3 Contents
- Excerpts from unexamined and examined patent applications (‘Offenlegungsschriften’, ‘Auslegeschriften’), patents and utility models published by the German Patent and Trademark Office
- Excerpts from EP, PCT, and Euro-PCT publications (from 31st week 1998)
- Excerpts from EP, PCT, and Euro-PCT publications where Germany was named as designated state (from 1978)
- Translations of European patents granted, with amended claims, or corrected by the assignee, where the original application was in English or French
- Bibliographical details, title, names (inventor, assignee, agent)
- International Patent Classification (IPC), IPC thesaurus, range search possible, no re-classification of the back-file
- Patent drawings (or chemical formulae) from the first pages of German patent publications (from 1983)
- Data of citations and related patents
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* WO applications in German after entering the national phase from 1978, WO applications before entering the national phase from July 1998
Abstract, main claim:

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<td>1978</td>
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Some of the text information is entered with a delay (e.g. European abstracts). The UPAB field is available for SDI in these cases.

Up to 1998, the text parts were subjected to an automatic stemming process, the results of which are searchable (PASSAT terms, PST, not included in the Basic index).

The documents in the PATDPA database contain information on the status of the patent procedure and the legal status. For European (EP) patents, this is with respect to the status in Germany only before week 31/1998, and to both the status in Germany and of the European procedure after that date.

PATDPA also has data of related documents, such as divisional and additional applications (in the RLI field), and of patent documents and other literature cited (in the RE, REP, and REN fields).

28.4 Dynamics

The PATDPA database follows the dynamic principle, i.e. in case of a new publication or a change of the legal status the existing documentation unit in the database is changed. A documentation unit corresponds to one procedure at one of the three patent organisations (German office DPMA, EPO, WIPO), irrespective of the number of publications issued by that organisation during the procedures. For a patent family having members in DE, EP, and WO, three documentation units will exist in the database, one for each patent organisation.

A new record is introduced in the database at the first publication within a procedure and the data known at this time on the bibliographical details and legal status are entered. After this, a distinction is made between a new publication and a mere change of the legal status without a new publication.

The following table shows that corresponding fields exist, one of which is updated in the course of the procedure enabling a survey of the development so far. The other field is overwritten and shows the current data.
Patent databases on STN International

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Field contents will be appended
Field contents will be overwritten

The PI field contains the data of the latest publication, while the PI.M field contains the data of all publications of this same procedure. The FI field holds the data of all publications of the patent family, including other German, EP, and WO publications.

This distinction of current and previous data can also be found in other fields, such as the patent assignee, inventor, and IPC. With the first publication, only the IN, PA, and ICM/ICS fields (IPC1–7) are set up and the data entered. Once a change occurs, the OLD fields are created and the data are taken from the current fields. Unlike the FI and NTE fields the OLD fields do not contain any current data.

Some the amendments to the field contents are displayed only in the MAX format or when the relevant fields (TI.M, PI.M) are specified in the DISPLAY format.

28.5 Updating

No updates from week 25/2011.

28.6 Document from PATDPA

Display format: MAXG

AN DE198424420 PATDPA ED 19991202 EW 199948
SN DE198424420.7 DED 20061130 DEW 200648
UPS 20061130 weitere UP-Felder: HELP UPD
TI (C2)(B4)(A1) Kraftfahrzeug mit einem Bildschirm
IN Krause, Guenter (*DE 82194 Groebenzell)
PA Krause, Guenter (*DE 82194 Groebenzell)
PAO Bayerische Motoren Werke AG (*DE 80809 Muenchen)
PAN 09900284 DE
PAT (iND) Naturliche Person
EXF 21 Landfahrzeuge
Textseiten 13; Blattzahl 9; Zeichnungsseiten 4
Textseiten 13; Blattzahl 9; Zeichnungsseiten 4
DT Patent
LA Deutsch
NTE 19980530: ADP (22) Anmeldetag d. DE-Patentanm.
19980530: FPRD (32) Erstes Prioritaetsdatum
19991202: AO (43) Offenlegungstag der DE-Anmeldung | OS
19991202: SRN (56) Veroeff. d. Recherchenergebnisses auf DE-OS
20031002: NPA GI27 Neuer Stand Anmelder
20050811: LIBA F120 Lizenzbereitschaft erklart (verbindlich)
20050901: SRP C107 Ermi ttl. d. Entgegenhaltungen nach Offenlegung
20060601: EX (43) Pruefungsantrag gestellt
20060601: PG (45) Veroeff.-Tag der DE-Patenterteilung
20060601: SRP (56) Veroeff. d. Entgegenhaltungen auf DE-PS
20061130: PGE0 I364 Einspruchfrist abgelaufen ohne Einspruch
PIT PS EF DE-Patentschrift, 1. Veroeff., Einspr.-Frist 3 Mon.
PS EF DE-Patentschrift, 2. Veroeff., Einspr.-Frist 3 Mon.
OS DE Offenlegungsschrift, 1. Veroeff.
PITX DEB4-475 PATENTSCHRIFT, (NORMAL) NEUES RECHT
In einem Kraftfahrzeug ist das Lenkrad (1) an einem brückena rten Traeger (2) angeordnet, um einen Freiraum für einen vollwertigen Bildschirm (10) im Bereich hinter dem Lenkrad (1) zu schaffen. Der Traeger (2) ist zu beiden Seiten des Bildschirms (10) so gelagert, dass er nach oben in Richtung der Windschutzscheibe (4) verschwenkt werden kann, wodurch das Lenkrad (1) die Sicht auf den Bildschirm (10) frei gibt.
Patent databases on STN International

UPOF 20061130  AI PI REN PRAW DS RLI I C SO TI REP, letzte Fortschreibung
UPAB 20061130  AB, letzte Fortschreibung
UPAB 20060601  MCLM, letzte Fortschreibung
UPNT 19991202  ADP (NTE, Fortschr. historisiert)
UPNT 20050811  FPRD (NTE, Fortschr. historisiert)
UPNT 19991202  AO (NTE, Fortschr. historisiert)
UPNT 19991202  SRN (NTE, Fortschr. historisiert)
UPNT 20031002  NPA (NTE, Fortschr. historisiert)
UPNT 20050811  Li BA (NTE, Fortschr. historisiert)
UPNT 20050901  SRP (NTE, Fortschr. historisiert)
UPNT 20061130  EX (NTE, Fortschr. historisiert)
UPNT 20060601  PG (NTE, Fortschr. historisiert)
UPNT 20060601  SRP (NTE, Fortschr. historisiert)
UPNT 20061130  PGE0 (NTE, Fortschr. historisiert)

SPC (Supplementary Protection Certificate) Schutzzeugnis, display format: SPC

SPC Arzneimittel Zertifikat Erteilung
DE10075003.6  20000629  (DE69409360)
Pfizer Inc., 235 East 42nd Street, New York, N.Y. 10017; US
BGA: EU/2/99/014/001  25.11.1999
EU/2/99/014/002  25.11.1999
EU/2/99/014/003  25.11.1999
EU/2/99/014/004  25.11.1999
EU/2/99/014/005  25.11.1999
EU/2/99/014/006  25.11.1999
Selamectin
IPC: C07H019-01
Laufzeit: bis 20141125
EEC-Verordnung
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Display formats with appended .M refer to all national publications.

### 28.7.1 Super-Search Fields

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29  **PATDPAFULL**

29.1  **Typical queries**

- Searches for the state of the art in DE publications (text and classification), e.g.:
  - What German inventions are there on Neurofeedbacksysteme bei der Therapie von neuronalen Krankheiten (Neuro-feedback systems in the therapy of neural diseases)?
- Name searches (inventor, applicant), e.g.:
  - What inventions of ROLLS ROYCE have been published in Germany during the past year?
  - What patent applications are there in Germany of Mr Gerhard Schröder concerning furniture?
- Searches using formal data (numbers: publication number, application number), e.g.:
  - What is contained in the patent numbered DE 10 2004 012 732?
  - Are there any differences in the German patent, DE 103 53 485, compared to the publication of the application?
- Full-text display of German patents, patent applications and utility models:
  - What are the claims of the German application numbered DE 10 2004 018 950?
- Legal status display:
  - Is the patent numbered DE 101 41 506 in force?
- SDI searches for German patents
- Using the full-text to find material for an opposition
- Multi-file searches in combination with other national or regional patent databases

29.2  **Brief description**

**Producer:** Deutsches Patent- und Markenamt (DPMA), Germany  
**Period covered:** Since 1987 (bibliographical data since 1981)  
**Size:** More than 2.66 million records on patents (full texts), more than 584,000 records on utility models (full texts), more than 736,000 patent images (January 2020)  
**Updated:** Weekly  
**Languages:** German

29.3  **Contents**

- Full text from German patents and patent applications published by DPMA since 1987  
- Translations of European Patents (T2, T3, T4) since 1993  
- Claims of German utility model publications since 1999  
- No documents of EP or WO applications  
- Bibliographical details, title, names (inventor, applicant, agent)  
- International Patent Classification (IPC), IPC thesaurus, range search possible, no re-classification of the back-file  
- Details on citations, related documents
- In addition to the full-text documents the bibliographical details of all DE documents since 1981 are available.
- Drawings from front pages (if available) since 2004.
- DET1 publications (German translation of WO applications in other languages than German) are not available in (ASCII) text format, this publication type is therefore not available in PATDPAFULL.
- Legal status information from INPADOCDB can be displayed (LS, LS2, FAM and CFAM field) but is not searchable in PATDPAFULL.

29.4 Dynamics

The PATDPAFULL database follows a mixed principle using segmentation. Each document is entered into a separate record and will not be updated.

Records of T type documents contain the publication number of the EP document and in the case of Euro-PCT applications the WO number in the PI field.

29.5 Updating

New data are entered in the database 2…3 days after the DPMA publication date.

29.6 Document from PATDPAFULL

Display format: MAXG LS (both publication levels)

AN  DE102004063909 PATDPAFULL ED 20051103 EW 200544
TI  Schwimmhilfe als Weste
IN  Antrag auf Nichtnennung (AANN)
PA  Meissner, Joerg, 99326 Stadtilm, DE
DT  Patent
PIT  DEA1 Offenlegungsschrift
PITX DEAI-406 OFFENLEGUNGSSCHRIFT, 8-MONATS-AKTEN
PI  DE 102004063909 A1 20051103
AI  DE 2004-102004063909 A 20040322
PRAI DE 2004-102004063909 A 20040322
ICM  A63B0031-00
ICS  B63C0009-11


Aufgabe der Erfindung


[0010] Mit der Erfindung werden gewissermassen Unigroessen geschaffen,
das heisst durch die sehr grosse Variabilitaet der Einstellmoeglichkeiten bei den Schwimmhilfen koennen je nach Ausfuehrung bei Kindern z.B. die Groessen 92 bis 122 und bei Erwachsenen z.B. die Groessen M bis XL mit einer Groesse der Schwimmhilfe abgedeckt werden. Bei Kindern "waechst" diese Schwimmhilfe so praktisch mit.

Beispiele

[0019] Die Erfindung wird im folgenden durch Ausfuehrungsbeispiele naeher beschrieben.

[0020] In den Zeichnungen sind nicht einschraenkende Beispiele fuer die Anwendung und Ausfuehrung von Schwimmhilfen gemaess der Erfindung dargestellt, wobei:

Bezugszeichenliste
10 Seitenlasche zur Anpassung an Koerpergroesse
11 Schulterlasche zur Anpassung des Armausschnittes
12 Absteppung
13 Aufhaenger
14 Reissverschluss
15 Seitenlasche mit Haken- Klettband
16 Schulterlasche mit Haken- Klettband
17 Seitenlasche mit Flausch- Klettband
18 Schulterlasche mit Flausch- Klettband
25 Reissverschlussicherung

CLM 1. Schwimmhilfe als Weste ausgebildet, dadurch gekennzeichnet, dass die Weste fuer variable Koerpergroessen einstellbar ist, wobei hierzu der Hueftbereich mit einstellbarer wiederverschliessbarer Verschlussstechnik z.B. Seitenlaschen mit Klettbaendern (10, 15, 17) versehen ist und zum bequemeren und schnelleren An und Ausziehen ohne die exakte Koerpergroessen einstellung der Schwimmhilfe zu veraenderen ein zusatztlicher wiederverschliessbarer Verschluss vorgesehen ist.

8. Schwimmhilfe nach Anspruch 1, dadurch gekennzeichnet, dass die Weste Kamern aus Wasser- und luftdichtem Material aufweist, welche luftbefuellit, gegebenenfalls in Kombination mit anderen schwimmfaehigen Materialien, den Auftrieb gewaehrleisten.

Es folgen 3 Blatt Zeichnungen
Schwimmenlernen und zur Sicherheit am und im Wasser, im Zusammenhang verschiedener sportlicher und freizeitlicher Aktivitäten, getragen werden.

(Hauptanspruch auf der Titelseite, 00000001.tif)

Würdigung Stand der Technik

[0001] Die Schwimmhilfe gemäß der Erfindung kann bei Kindern und gleichermaßen bei Erwachsenen Anwendung finden.


Aufgabe der Erfindung


Beispiele

[0019] In den Zeichnungen sind nicht einschlägige Beispiele für die Anwendung und Ausführung von Schwimmhilfen gemäß der Erfindung dargestellt, wobei:

[0020] Fig. 1 und Fig. 2 eine westenförmige Schwimmhilfe für Kinder, wobei Fig. 1 die Ansicht von vorn und Fig. 2 die Ansicht von hinten gemäß der Erfindung zeigen. Bei dieser Darstellung ist die Schwimmhilfe aus Textilstoff genäht und mit geschlossenen Schaumplatten gefüllt. Bei dieser Ausführungsform sind alle Laschen aus Sicherheit gründen nach hinten zu schließen und der Reissverschlussgriff ist mit einer Abdeckung gesichert.

Bezugszeichenliste

10 Seitenlasche zur Anpassung an Körpergröße
11 Schulterlasche zur Anpassung des Armausschnittes
12 Absteppung
13 Aufhänger
14 Reissverschluss
15 Seitenlasche mit Haken- Klettband
16 Schulterlasche mit Haken- Klettband
17 Seitenlasche mit Flausch- Klettband
18 Schulterlasche mit Flausch- Klettband
25 Reissverschluss sicherung

1. Schwimmhilfe als Weste ausgebildet, dadurch gekennzeichnet, dass die Weste für variable Körpergrössen einstellbar ist, wobei hierzu der Hüftbereich mit einstellbarer wiederverschließbarer Verschluss technik z.B. Seitenlaschen mit Klettbandern (10, 15, 17) versehen ist und zum bequemeren und schnelleren An- und Ausziehen ohne die exakte Körpergrösseneinstellung der Schwimmhilfe zu verändern ein zusätzlicher wiederverschließbarer Verschluss vorgesehen ist.

2. Schwimmhilfe nach Anspruch 1, dadurch gekennzeichnet, dass der Armausschnitt variabel einstellbar ist, wobei hierzu an dem Rücken teil und an dem Vorder teil im oberen Bereich ein einstellbarer wiederverschließbarer Verschluss, z.B. Schulterlasche mit Klettband (11, 16, 18) vorgesehen ist.
8. Schwimmhilfe nach Anspruch 1, dadurch gekennzeichnet, dass die Weste Kammern aus wasser- und luftdichtem Material aufweist, welche luftbefüllt, gegebenenfalls in Kombination mit anderen schwimmfähigen Materialien, den Auftrieb gewährleisten.

Es folgen 3 Blatt Zeichnungen.
29.7 Selected fields

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Display formats with appended .M refer to all national publications.

29.7.1 Super-Search Fields

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30 PATDPASPC

30.1 Typical queries
- Searches for German Protection Certificates on substances, e.g.:
  - Is there a Protection Certificate in Germany on Latanoprost?
- Searches using formal data (patent number, SPC document number, and display of Certificate information), e.g.:
  - What Certificates are there for the patent DE 689 25 536 (translation of an EP patent).

30.2 Brief description
Producer: Deutsches Patent- und Markenamt (DPMA), Germany
Size: 1,248 SPC documents (August 2014)
Updated: Closed database, last update: Oct. 2013
Language: German

30.3 Contents
- German Supplementary Protection Certificates for Drugs and Plant protection agents (SPC)
  (Note: PATDPA also contains Certificates of European Patents)
- Granted, rejected, and withdrawn Certificates
- By substance, CAS Registry numbers
- SPC document number, publication and application details of the respective patent, SPC product type, SPC term, SPC application and grant details, chemical names, CAS Registry numbers of the substance and related substances, trade names, legal status notes
- International Patent Classification (IPC), IPC thesaurus, range search possible, no back-file re-classification
- Additional information may be found in PATDPA using the BIB2 (BIB, SPC) display format

30.4 Dynamics
PATDPASPC is a dynamic database. A separate document is created for every SPC document number. In case of any changes data in the document will be overwritten. New SPC documents or changes to existing documents are entered during a reload of the database. The reload date is displayed in the File Banner.
(Note: There may be more than one application for/grant of SPC for one patent number, i.e. several documents in the database.)

30.5 Updating
The database has been closed.

30.6 Documents from PATDPASPC
Display format: IALL

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Guide to STN Patent Databases

Examiners field 1.44

Patent Number DE 69033668
Patent Application Date 19900130
Int. Patent Classif. C07K003-18 (5)
                  C07K001-22 (6)
                  C07K001-22 (7)
                  C07K001-22 (8) [I, A]

Index Terms

Presumably Certified Compound(s)
- Cas Registry No. 162394-19-6
- Chemical Name 24-163-fibroblast growth factor 7, human
- Cas Registry No. 162394-19-6
- Chemical Name 24-163-keratinocyte growth factor, human
- Cas Registry No. 162394-19-6
- Chemical Name Palifermin aus Escherichia coli
- Cas Registry No. 162394-19-6
- Chemical Name Palifermin
- Cas Registry No. 162394-19-6
- Chemical Name human fibroblast growth factor-(24-163)-peptide

Trade Name(s) Kepivance Pulver zur Herstellung einer Injektionsloesung

Legal Status

Approved Compound(s) Palifermin aus Escherichia coli
SPC Requested Compound(s) Palifermin

Displayformat: ALL

AN 1130 PATDPASPC
SPC.DN DE 122006000020
SPC.TYP medicinal
SPC.HTERM 20100131-20150130
SPC.HTERM 20060411
EXF 1.44

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      C07K001-22 (6)
      C07K001-22 (7)
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IT

Presumably Certified Compound(s)
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- RN.PCC 162394-19-6
- CN.PCC 24-163-keratinocyte growth factor, human
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- RN.PCC 162394-19-6
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- RN.PCC 162394-19-6
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TN Kepivance Pulver zur Herstellung einer Injektionsloesung

LS
APP Palifermin aus Escherichia coli
REQ Palifermin
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31 PCTFULL

31.1 Typical queries
- Searches for the state of the art in PCT publications (text and classification), e.g.:
  - What PCT applications are there on ski poles?
- Name searches (inventor, applicant), e.g.:
  - What PCT applications of Halliburton have been published during the past year?
  - What PCT applications are there of Mr Bertram Pitt?
- Searches using formal data (e.g. numbers), e.g.:
  - What is contained in the PCT application numbered WO 2004/112552?
  - We are looking for the full-text of an application of the company Sartorius of 11 June, 2004.
- Full-text display of PCT patents:
  - What are the claims made in the WO publication numbered 2001/010152?
- Display of legal status data
- Monitoring PCT applications
- Using the full-text to find material for an opposition
- Multi-file searches in combination with other national or regional patent databases

31.2 Brief description
Producer: LexisNexis Univentio BV
Period covered: Since 1978
Size: More than 3.69 million records on PCT applications,
      more than 3.68 million full texts,
      more than 2.9 million patent images (January 2020)
Updated: Weekly
Languages: English, French, German, Spanish

31.3 Contents
- Full-text of published PCT applications published by the WIPO (currently 186 member countries)
- Bibliographical details
- Title in English and French, for documents in German or Spanish a title in the respective language is provided
- Keyterms (extracted with linguistic and statistical methods from the English full texts)
- Numeric values of over 35 physical and chemical properties in almost 400 units
- International Patent Classification (IPC), IPC thesaurus, range searching is possible, re-classification of the back-file
- Cooperative Patent Classification (CPC), thesaurus, range-searchable
- European Patent Classification (ECLA), thesaurus, range-searchable; other European classifications: ICO, IDT, the codes are retained as historical data
The international (W) and regional (RW) designations are shown in the Designated States DS field. The designating institutions are listed for regional (RW) designations:

- EPO: European Patent Office
- ARIPO: African Regional Intellectual Property Organisation
- EAPO: Eurasian Patent Convention
- OAPI: African Organization of Intellectual Property

Designations for Patents and Utility Models (German, Austrian, etc.) are listed separately.

- Priority application numbers are not standardized in the PRN field.
- Legal status information from INPADOCDB can be displayed (LS, LS2, FAM and CFAM field) but is not searchable in PCTFULL.
- Drawings from the first page of the publication.
- The text fields are generally available in one of the official WIPO languages (English, French, Spanish, German, Russian, Japanese, Chinese, Korean). Some texts are available in other languages (Italian, Finnish, Portuguese).
- English machine translations of the Title, Abstract, Description and Claims are available for the following languages: French, Spanish/Castilian, German, Russian, Japanese, Chinese, and Korean. Documents in certain filing languages contain the Patent Assignees, Inventors, Legal Representatives (names and partly addresses) for display both in the original language and in an English transliteration (e.g. from Russian, Chinese, Korean, Japanese).
- Certain characters from the original languages (e.g. accents, umlauts, Cyrillic or Asian characters) are displayed in the respective “Original Language” fields. The “Field Availability Index” field contains information on the availability of names (Patent Assignee, Inventor, Legal Representative) and text fields (Titles, Abstracts, Description, Claims in the various languages).
- All texts are created by Optical Character Recognition (OCR) software. This means that there may be errors and incomplete text. Some of the documents do not have text because the scanning failed.

### 31.4 Dynamics

The PCTFULL database follows the static principle; documents once entered are not updated.

### 31.5 Updating

Publications appear in PCTFULL approx. 1 to 2 weeks after the date of publication.

### 31.6 Document from PCTFULL

Display format: MAXG LS (Line length 101)

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AN 2006061274  PCTFULL  ED 20101203  UP 20170417  EDTX 20101203
DUPD 20170412
TIEN CHIP MODULE AND METHOD FOR THE PRODUCTION THEREOF
TIFR MODULE DE PUCE ET SON PROCEDE DE PRODUCTION
TIDE CHIPMODUL UND VERFAHREN ZU DESSEN HERSTELLUNG
IN LUDW G, Ronny, Kastanienweg 38, 72770 Reutlingen, DE, [NAT: DE, RES: DE], for US only:
LUDW G RONNY, DE, [NAT: DE, RES: DE], for US only;
PA ROBERT BOSCH GMBH, Postfach 30 02 20, 70442 Stuttgart, DE, [NAT: DE, RES: DE], for all designated states except US:
BOSCH GMBH ROBERT, [NAT: DE, RES: DE], for all designated states except US:
LUDW G, Ronny, Kastanienweg 38, 72770 Reutlingen, DE, [NAT: DE, RES: DE], for US only:
LUDW G RONNY, [NAT: DE, RES: DE], for US only;
AG ROBERT BOSCH GMBH, Postfach 30 02 20, 70442 Stuttgart, DE
LAF German
```
The invention relates to a chip module, particularly for optical and stress-sensitive measurements, comprising at least the following: a premold housing (1) consisting of a housing body (10) which is made of a plastic or epoxy resin material and provided with a housing edge (16) and a housing...

L'invention concerne un module de puce, servant notamment à des mesures optiques et sensibles aux contraintes, présentant au moins: un boîtier premoule (1), qui comprend un corps (10) constitué d'une matière plastique ou d'une résine époxy, comportant un bord (16) et un fond (15), ainsi qu'une...

Die Erfindung betrifft ein Chipmodul, insbesondere für optische und stressempfindliche Messungen, das mindestens aufweist: ein Premoldgehäuse (1), das einen, aus einem Kunststoff- oder Epoxidharz-Material gefertigten Gehäusekörper (10) mit einem Gehäuserand (16) und einem Gehäuseboden (15)...

[0001] Chip module and procedure for its production

[0002] The invention concerns a chip module with a micromechanically structured sensor element for optical or stress-sensitive measurements, which is usable in particular in the automotive range, as well as a procedure for its production.

1. Chip module, in particular for optical or stress-sensitive applications, which exhibits at least: 44) exhibits, which with the Bondpads (20) the Leads (5) over itself by the interior (17) of the Premoldgehäuse (1) extending wire bonds (46) are contacted.

Chipmodul und Verfahren zu dessen Herstellung
Die Erfindung betrifft ein Chipmodul mit einem mikromechanisch strukturierten Sensorelement für optische oder stressempfindliche Messungen, das insbesondere im Automotive-Bereich verwendbar ist, sowie ein Verfahren zu dessen Herstellung.

CLMDE

1. Chipmodul, insbesondere für optische oder stressempfindliche Anwendungen, das mindestens aufweist: ein Premoldgehäuse (1), das einen aus einem Kunststoff oder Epoxidharz Material gefertigten Gehäusekörper (10) mit einem Gehäuserand (16) und einem Gehäuseboden (15) und einen in den...
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<td>IN (AU), IN.CNY, INA, IN.NAT, IN.RES, IN.T</td>
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* Numeric properties: PHP lists properties available for numeric search (cf. database description). The search is performed in all fields containing English text. There are no specific display fields, but the hit numeric values will be highlighted.

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32 PCTGEN

32.1 Brief description
Producer: World Intellectual Property Organisation (WIPO), Switzerland; FIZ Karlsruhe, Germany
Period covered: Since August 2001
Size: More than 17 million sequence documents on patents (October 2018), Nucleic acids: 13 million, Proteins: 3.8 million
Updated: Weekly
Languages: English (French, German)

32.2 Contents
- Nucleotide and amino acid sequence data as submitted electronically by patent applicants to the World Intellectual Property Organization (WIPO)
- Title, patent assignee, patent and priority numbers, sequence ID
- Molecule type and organism
- Features and modifications of the sequence
- All data exactly as filed by the applicant
- Some gene sequences with the translated amino acid sequence directly aligned (if entered by applicant)

32.3 Dynamics
One patent application may include more than one sequence. Every sequence is entered in a separate record in the PCTGEN database. The individual records are not updated, the database follows the static principle.
The Accession number includes the publication year and number and the sequence ID and should be used to access a record.

32.4 Updating
The data are usually entered in the PCTGEN database one day after publication of the sequence listings by the World Intellectual Property Organisation (WIPO).
32.5  Document from PCTGEN

Display format: IALL

ACCESSION NUMBER: 2001057272.15599 DNA PCTGEN
TITLE: HUMAN GENOME DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR ANALYSIS OF GENE EXPRESSION IN HUMAN PLACENTA
PATENT ASSIGNEE: Molecular Dynamics, Inc. Penn, Sharron G. Rank, David R. Hanzel, David K. Chen, Wensheng
PATENT INFO: WO 2001057272 20010809
ENTRY DATE: 20020923
DOCUMENT TYPE: Patent
ORGANISM: Homo sapiens
SEQUENCE LENGTH: 100

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EST HUMAN HIT: AA047634.1, EVALUE 2.20e-01

32.6  Selected Fields

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* Use one of the RUN packages GETSEQ, GETSIM, or BLAST to retrieve sequence data in the SQ? fields.
** Priority data, if available, are entered in this field.

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Patent databases on STN International

33 RDISCLOSURE

33.1 Typical queries

- Searches for the state of the art in technical disclosure publications (world-wide, free-text only) to complement searches in other international patent databases, e.g.:
  - What European inventions are there on Bar code labels?
- Name searches (applicant only; often anonymous), e.g.:
  - What technical disclosure of International Business Machines Corporation has been published during the past year?
- Searches using formal data (e.g. numbers), e.g.:
  - What is in the text of the technical disclosure, RD 460128?
- Full-text display of technical disclosure:
  - What is the text of RD 420006?
- Using the full-text to find material for an opposition

33.2 Brief description

Producer: Questel Ireland Ltd, Ireland
Period covered: Since 1960
Size: More than 48,000 records (January 2020)
Updated: Monthly
Languages: 90 % English (plus French, German, Spanish, etc.)

33.3 Contents

- Full text and drawings from Technical Disclosure of inventions
- Defensive publications as an alternative to other types of intellectual property, such as patents or utility models; source is the monthly journal Research Disclosure
- Reasons for publication:
  - Low-cost alternative to prevent patenting by others
  - Complement to patents, as all patent offices use this source regularly
- Title, text, drawing(s), publication information (country code RD), application/priority information in PRAI field
- Names (assignee, inventor, or ‘anonymous’) in PA field
- Bibliographical details and full-text searchable, text and drawing(s) available for display as TIFF or PDF
- Up to early 2001 RD documents were entered in Derwent World Patents Index, including the IPC (to subclass, added by Derwent) and other Derwent indexing
- International Patent Classification IPC (frequently only subclass level), exists in approx. 40 % of the documents, IPC thesaurus, range search possible
- European Patent Classification ECLA, standardized, approx. 30 % of the documents contain the ECLA in addition to the IPC
- References to non-patent literature
Guide to STN Patent Databases

- Patent classification details and references are not added with the monthly updates but later with an extra update twice a year
- Drawing(s)
- RD documents are also entered into the World Patents Index and Chemical Abstracts databases

33.4 Dynamics

The RDISCLOSURE database follows the static principle. The documents from the Research Disclosure journal are entered and will not be updated.

33.5 Updating

Documents are entered in the database approx. 14 days after the publication date of the Research Disclosure journal. IPC and/or ECLA data and references are added twice a year.

33.6 Document from RDISCLOSURE

Display format: ALL (contains the ASCII text without drawings)

AN 487019 RDISCLOSURE
TI Injection process to reduce the static unbalance of a plastic injected fan for motor cooling system of a motor vehicle
PA Anonymous
PI RD 487019 20041110
PRAI RD 2004-487019 20041020
REN XP007134461
CODEN: RSDSBB; ISSN: 0374-4353
LA English
DT Patent
GI N 1
GIS 45378
IPCI F04D
IPCR F04D0029-66 [I,A]; F04D0029-66 [I,C*]
EPC F04D0029-66C2
TX 487019

Injection process to reduce the static unbalance of a plastic injected fan for motor cooling system of a motor vehicle
The aim of the disclosed invention is to reduce the static unbalance of an injected plastic fan for motor cooling system of a motor vehicle. The chosen process is the addition of injected flyweight coming from the same injection step than the fan injection step and the use of a mobile pad in the injection mold to modulate the weight of the injected flyweight. The first realization mode presented Fig 1 is to add injected flyweight (1) on the fan distal ring (2). The second realization mode presented Fig 2 is to add injected flyweight (1) on the fan blades (3). In this case the flyweight could have the shape of an air deflector improving the airflow capacity of the fan. The third realization mode presented Fig 3 is to add flyweight (1) on the fan hub (4). Alternatively to fig 3, the flyweight (1) could be localized in the internal face of the hub (4). In such a case, the flyweight does not disturb the airflow.

Disclosed anonymously

Display format: ALLG (contains the text and the drawings as image)

AN 487019 RDI SCLOSURE
TI Injection process to reduce the static unbalance of a plastic injected fan for motor cooling system of a motor vehicle
PA Anonymous
PI RD 487019 20041110
PRAI RD 2004-487019 20041020
REN XP007134461
CODEN: RSDSBB; ISSN: 0374-4353
LA English
DT Patent
Injection process to reduce the static unbalance of a plastic injected fan for motor cooling system of a motor vehicle

The aim of the disclosed invention is to reduce the static unbalance of an injected plastic fan for motor cooling system of a motor vehicle. The chosen process is the addition of injected flyweight coming from the same injection step than the fan injection step and the use of a mobile pad in the injection mold to modulate the weight of the injected flyweight. The first realization mode presented Fig 1 is to add injected flyweight (1) on the fan distal ring (2). The second realization mode presented Fig 2 is to add injected flyweight (1) on the fan blades (3). In this case the flyweight could have the shape of an air deflector improving the airflow capacity of the fan. The third realization mode presented Fig 3 is to add flyweight (1) on the fan hub (4). Alternatively to fig 3, the flyweight (1) could be localized in the internal face of the hub (4). In such a case, the flyweight does not disturb the airflow.

Disclosed anonymously
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34 **RUSSIAPAT**

### 34.1 Typical queries

- Searches for the state of the art in Russia (text and classification), e.g.:
  - What inventions were made in Russia on Removing Contamination from Sand?
- Name searches (inventor, applicant, agent), e.g.:
  - What inventions of Vserossijskij nauchno-issledovatelskij institut konservnoj i ovoshchesushilnoj promyshlennosti (gosudarstvennoe nauchnoe uchrezhdenie) (RU) have been published in Russia during the past year?
  - What patent applications are there in Russia of Mr Fisenko Boris Lavrentevich?
- Searches using formal data (numbers: publication number, application number), e.g.:
  - What is contained in the patent numbered RU 2252679?
  - Who is the patent assignee of the publication numbered RU 96123699?
- Legal status searches:
  - What is the entry date into the national phase in Russia of the PCT application of Siemens, WO 2001082432 / RU 2255399?

### 34.2 Brief description

**Producer:** ROSPATENT Russian Agency for Patents and Trademarks, Russia  
**Period covered:** Since 1924  
**Size:** More than 2.14 million records on patents, more than 378,000 patent drawings (January 2020)  
**Updated:** 3 times per month  
**Languages:** English

### 34.3 Contents

- Patents and patent applications from Russia (publication country RU); some older documents with country code SU are still being published  
- Bibliographical details including IPC, names (inventor, applicant – transliteration) since 1924  
- Titles in English since 1977, Abstracts in English since 1994  
- International Patent Classification (IPC), IPC thesaurus, range search possible, no re-classification of the back-file  
- All patent drawings (use special display formats; pre-defined formats display title page drawing) since 1994  
- Legal status data since 1994

### 34.4 Dynamics

The RUSSIAPAT database follows the static principle: documents are not updated. If several publications exist for the same application new records are created in the database.

### 34.5 Updating

The documents are entered into the database a few days after publication.
**Document from RUSSIA PAT**

Display format: MAXG

**AN** 2006:008652 RUSSIAPAT ED 20060526

**TI** DRAW-OUT EQUIPMENT UNIT FOR SWITCHGEAR INCORPORATING AUXILIARY MAKE-BREAK CONTACTS

**IN** KULAKOGLU Nesat (TR); ShMI DT Mario (DE); Tsikmantel Matias (DE)

**PA** SIENENS AKTSiENGEZELLSHAFT (DE)

**CA** 129010, Moskva, ul. B.Spasskaja, 25, str. 3, OOO ’Juridicheskaja firma Gorodisskij i Partnery’, pat.pov. G.B. Egorovoj

**DT** Patent

**LA** Russian

**PI** RUC2 PATENT (SECOND PUBLICATION)

**AI** RU 2004-126242 A 20030122

**WO 2003065529** 20030807

**WO 2003-DE194** 20030122

**IPC** H02B0011-127 [I,A]; H02B0011-00 [I,C*]

**DPR Effective Date of Priority Right** 20030122

**DFF Date of First Publication** 20050610

**DNP Date of Begin of national Phase** 20040830

**GIS** 18962

**GIN** 1

**GIN.EM** 0

**GIS.DRW** 7230; 8308; 9128; 18506; 18674

**GIN.DRW** 5

**GINF TYPE FORMAT COUNT**

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**GIS** 18962

**GIS.DRW** 7230; 8308; 9128; 18506; 18674

**AB** FIELD: electrical engineering.

SUBSTANCE: proposed draw-out equipment unit has control device disposed on its face control panel and designed to open or close auxiliary make-break contacts. Gate equipped with contact unit is shifted by means of link gear that has link body with worm helical line circuit. Section of worm helical line circuit has lower pitch and provides for closing auxiliary make-break contacts applying low...
Patent databases on STN International

forces for shaft control.
EFFECT: facilitated control of auxiliary make-break contacts.
24 cl, 6 dwg
FA TI; IN; PI; AI; AB; GI

34.7 Selected Fields

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35 USGENE

35.1 Brief description
Producer: SequenceBase Corporation, USA
Period covered: Since 1981
Size: More than 64.2 million sequence documents on patents (January 2020),
Nucleic acids: 45 million,
Proteins: 18.6 million
Updated: Weekly
Language: English

35.2 Contents
- Nucleic acid and peptide sequence data from patent applications and granted patents published by the US Patent and Trademark Office (USPTO)
- Original title, Patent assignee with address details, Inventor with address details, Application and Publication numbers, including PCT Application numbers, Patent number of Basic, Abstract, Patent claims, Sequence ID
- Molecule type and organism
- Features and modifications of the sequence
- Some gene sequences with the translated amino acid sequence directly aligned (if entered by applicant)
- Legal status data from INPADOCDB can be retrieved with the display fields LS, LS2, FAM and CFAM. Legal status data are not searchable.
- Direct Link to patent full texts

USGENE is a highly current and comprehensive source for all biosequences available from patent publications of the US Patent and Trademark Office (USPTO). This database is particularly suited for the needs of the researching pharmaceutical and biotech industries seeking patent protection for their biotechnical inventions in the U.S.A. and wishing to market their products in this country. It is ideal for all types of sequence patent searches, such as novelty, patentability, state of the art and in particular ‘Freedom to Operate‘ searches in the U.S.A. USGENE thus complements the high-quality sequence databases already available from STN, DGENE, REGISTRY, and PCTGEN. By using USGENE the quality and reliability of the search results from the sequence databases can be further improved.

35.3 Dynamics
Every sequence is entered in a separate record in the database. Thus, USGENE uses the same basic structure as DGENE and PCTGEN.
The individual records are not updated, the database follows the static principle.

35.4 Updating
USGENE provides weekly updates on Friday. Sequence data from issued patents is available within three days and from published applications within one day from publication.
**35.5 Document from USGENE**

**Display format:** IALL

**ACCESSION NUMBER:** 7229817.1 Protein USGENE

**TITLE:** Recombinant porcine liver esterases, their use and a method for the production thereof (Patent)

**INVENTOR(S):**
- Bornscheuer Uwe (Greifswald, DE)
- Musidlowska Anna (Greifswald, DE)
- Schmidt-Dannert Claudia (Shoreview, MN)
- Lange Stefan (Stuttgart, DE)

**PATENT ASSIGNEE:** Degussa AG (Duesseldorf, DE)

**PATENT INFORMATION:**
- US 7229817 B2 20070612
- US 20040161836 A1 20040819
- WO 2002048322 A 20020620

**APPLICATION INFO:**
- US 20001450156 20011206

**ENTRY DATE:** 20070724

**DOCUMENT TYPE:** Patent

**ABSTRACT:**
The invention relates to biotechnologically expressible, enzymically active recombinant porcine liver esterases, to a biotechnological method for the production thereof and to the use thereof in organic synthesis. The monomeric subunits of recombinant porcine liver esterase are truncated at their C-terminal end, compared with naturally occurring porcine liver esterase subunits. Moreover, it has proved to be an additional advantage to truncate the N-terminal end as well.

**CLAIM:**

1. A recombinant subunit of porcine liver esterase having esterase activity, which comprises SEQ ID NO:1 lacking from 1 to 50 amino acids at the C-terminus.

2. The recombinant subunit of porcine liver esterase of claim 1, lacking from 3 to 10 amino acids at the C-terminus.

... 26. A method of converting a prostereogenic compound, comprising contacting the prostereogenic compound with the porcine liver esterase as claimed in claim 11.

**SEQUENCE SOURCE:** PROTEIN; USPTO; GRANTED

**ORGANISM NAME:** Artificial Sequence

**SEQUENCE LENGTH:** 544

**SEQUENCE:**

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* Use one of the RUN packages GETSEQ, GETSIM, or BLAST to retrieve sequence data in the SQ? fields.

** Priority data, if available, are entered in this field.

### 35.6.1 Super-Search Fields

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Patent databases on STN International

36  USPATFULL / USPAT2

36.1  Typical queries

- Searches to find out the state of the art (full text, international and US classification), e.g.:
  - What US patents exist on Brakes for inline skates?
  - Is there an American patent for a product known as NOLU?
- Searches using names (inventor, applicant), e.g.:
  - What US patent publications of INTEL CORP. have there been in the last 4 weeks?
- Searches using formal data (e.g. numbers), e.g.:
  - What does the US patent, number 5,752,072, say?
  - Have there been any changes from the published US patent application, number US 2001003823, to the granted US patent, number US 6,311,197?
- SDI for US publications
- Using the full-text to find material for an opposition
- Multi-File searches with other national and regional patent databases

36.2  Brief description

Producer: U.S. Patent and Trademark Office, USA
Period covered: Since 1975, since 1971 for certain technical fields
USPAT2: since 2001 (Documents from the period 1790-1975 can be found in USPATOLD)
Size: USPATFULL: more than 9.7 million patent publications, USPAT2: more than 3.6 million patent publications (January 2020)
Updated: Twice per week
Language: English

36.3  Contents

- Full texts of Applications (since 2001-03-15) and Granted Patents published by the US Patent and Trademark Office (USPTO) in the Official Gazette (including Utility patents, Defensive publications, Design patents, Reissue patents, Statutory invention registrations, Plant patents).
  - USPATFULL: first or earliest publication
  - USPAT2: latest or newest publication
In the FS (File Segment) field it is noted whether the full text is that of the Application or that of the Granted Patent.
- Bibliographical details (title, publication number and date, application number and date, assignee, Corporate Patent Applicant Name for Applications, inventor)
- Data on citations in REP
- Related patents, including Division, Continuation, Continuation in Part, etc. (application and publication details) in RLI
- Assignment/Reassignment information in RAI
Guide to STN Patent Databases

- Abstract, all claims, further text fields (Summary: Background of the Invention, Summary of the Invention; Brief Description of the Drawings, Detailed Description of the Preferred Embodiment), no patent images (patent images can be retrieved using the full-text link)
- U.S. Classification codes (the current one in the NCL field, that at the time of publication in the INCL field), online thesaurus including catchwords, no longer updated
- International Patent Classification (IPC), online thesaurus incl. catchwords, range searching is possible, re-classification of the backfile
- Cooperative Patent Classification (CPC), online thesaurus, range searchable, CPC Combination Sets (C-Sets)
- CA indexing details including Registry Number for chemistry-related documents (even if a different family member was indexed for CA)
- Information on PCT publications where the U.S. is a designated country
- Details of patent examination: referenced patent and non-patent literature, examiner’s name in the EXNAM field, classes of patent searched by the examiner in the EXF field.
- Other details: Legal representative, Term of patent (PTERM) of Design patents and Disclaimer date (DCD)

36.4 Dynamics

The USPATFULL database follows a dynamic principle with two databases. All national publications are noted in the PI field. The classification information in the NCLM and NCLS fields is amended when the US Classification is revised.

A document is only entered in USPAT2 when there is a second publication. An existing document in USPAT2 is overwritten with every further (third, etc.) publication, thus only the latest document to have been published can be found in this database. There is no document in USPAT2 if there is only one national publication.

There is a cluster USPATALL comprising the USPATFULL and USPAT2 databases.

36.5 Updating

New US patents appear in the database on the day of publication.

36.6 Document from USPATFULL

Display format: MAX

USPATFULL on STN
AN 2016:272703 USPATFULL
TI SYSTEM AND METHOD FOR FABRICATING AN ELECTRODE WITH SEPARATOR
IN Eskra, Michael David, Saukville, WI, UNITED STATES
        Ralston, Paula Margaret, Frederick, MD, UNITED STATES
USPA Eskra Technical Products, Inc., Saukville, WI, UNITED STATES
PI US 20160240829      A1  20160818                             <--
AI US 2016-15062883 A1  20160307 (15)
RLI Continuation-in-part of Ser. No. US 2012-13617162, filed on 14 Sep 2012, PENDING
PRAI US 2012-61647773  20120516 (61) <--
DT Utility
FS APPLICATION
ASSIGNMENT HISTORY FOR US 20160240829
RAI RAD:  20160307
          RAUP:  20160818
          RAK:  ASSIGNMENT OF ASSIGNS INTEREST (SEE DOCUMENT FOR DETAILS).
          PAO:  ESKRA, MICHAEL DAVID (DATE EXECUTED: 20160302)
          RALSTON, PAULA MARGARET (DATE EXECUTED: 20160302)
          RAC:  ESKRA TECHNICAL PRODUCTS, INC., 2595 HWY 1, SAUKVILLE, WISCONSIN
          53080, UNITED STATES
          RAA:  ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC, 136 SOUTH WISCONSIN STREET, PORT WASHINGTON, WI 53074
          MRN:  37912    MFN:  104 (5 Page(s))
A system and method for providing a ceramic-based separator onto an electrode is disclosed. A separator is formed on the electrode via a dry, solvent-free application of a ceramic-based separator to the electrode. An electrode is provided to an application area via a feed mechanism and a separator layer is then applied to the electrode that is...

GOVII GOVERNMENT RIGHTS IN THE INVENTION

The U.S. Government has a paid-up license in this invention and the right in limited circumstances to require the patent owner to license others on reasonable terms as provided for by the terms of SP4701-09-D-0049 CLIN 0002 and HQ0147-140-C-8307 awarded by Defense Logistics Agency.

PARN CROSS-REFERENCE TO RELATED APPLICATION

The present application a continuation-in-part of, and claims priority to, U.S. patent application Ser. No. 13/617,162, filed Sep. 14, 2012, which is a non-provisional of, and claims priority to, U.S. Provisional Application 61/647,773 filed May 16, 2012, the disclosures of which are incorporated herein in their entirety.

SUMM BACKGROUND OF THE INVENTION

Embodiments of the invention relate generally to a dry, solvent-free method and apparatus for fabricating electrodes and, more particularly, to a method and apparatus for forming separator layer on an electrode.

BRIEF DESCRIPTION OF THE INVENTION

The invention is a directed method and apparatus for fabricating electrodes and, more particularly, for forming ceramic-based separators for electrodes.

According to one aspect of the invention, a method of applying a dry, solvent-free ceramic-based separator to an electrode includes providing an electrode to an application area via a feed mechanism and applying a...

DRWD BRIEF DESCRIPTION OF THE DRAWINGS

The drawings illustrate preferred embodiments presently contemplated for carrying out the invention.

In the drawings:

FIG. 1 illustrates components of a system for forming active electrode materials on an electrode substrate, according to an embodiment of the invention.

DET DETAILLED DESCRIPTION

According to embodiments of the invention, electrodes for energy storage devices, such as lithium ion batteries, are fabricated using a solvent-free method and apparatus, and a separator layer is applied to the electrodes via a dry dispersion process.

FIG. 1 illustrates a system 100 for fabricating electrodes by depositing binder and active electrode material on one side of a substrate 102 (otherwise known as a current collector in a finished electrode). The
substrate 102 can include in one example copper as an anode current

CLM

What is claimed is:

1. A method of applying a dry, solvent-free ceramic-based separator to an electrode, the method comprising: providing an electrode to an application area via a feed mechanism; and applying a separator layer comprised of a binder and an electrically non-conductive separator material to the electrode via a dry dispersion application, wherein the binder includes at least one of a thermoplastic material and a thermoset material.

2. The method of claim 1 further comprising: heating the electrode; and gapped calendaring the separator layer to form a separator layer having a desired uniform thickness, density, porosity and tortuosity.

20. A battery cell comprising: an electrode; and a separator layer adhered to the electrode, the separator layer comprising: a binder comprising at least one of a thermoplastic material and a thermoset material; and an electrically non-conductive ceramic-based separator material; wherein the separator layer ranges from 2-30% binder by weight.

21. The battery cell of claim 20 wherein a thickness of the separator layer is less than 35 μm.
Exhaust gas purifying catalyst

AB In a three-way catalyst for purifying exhaust gases from internal combustion engines, scattering of bismuth components can be suppressed by employing a Bi-Ti composite oxide at a predetermined ratio. Accordingly, the effect of suppressing hydrogen sulfide emissions can be retained for a long time. This catalyst comprises a support substrate, and a catalyst layer formed on the support substrate and including a noble metal, a porous oxide, and a Bi-Ti composite oxide, and satisfies 0.3 ≤ R ≤ 1.5, where R is the molar ratio of the Bi content to the Ti content per unit volume of the support substrate.
What is claimed is:

1. An exhaust gas purifying catalyst, comprising: a support substrate; and a catalyst layer formed on said support substrate and including a noble metal, a porous oxide, and a bismuth and titanium composite oxide, the ratio R of the molar amount of bismuth loaded per unit volume of said support substrate to the molar amount of titanium loaded per unit volume of said support substrate satisfying 0.3 ≤ R ≤ 1.5.

4. The exhaust gas purifying catalyst according to claim 1 or 2, wherein the molar amount of bismuth loaded per unit volume of said support substrate is not less than 0.2 mol/liter and not more than 0.4 mol/liter.
36.8 Selected Fields

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37 USPATOLD

37.1 Typical queries
- See USPATFULL, but for documents before 1976

37.2 Brief description
Producer: Univentio Information Services B.V., Netherlands  
Period covered: 1790-1975  
Size: More than 3.6 million patent publications (August 2014)  
Updated: Static file, no more documents are added (but US classification is updated bimonthly, update of the IPC and CAS indexing)  
Language: English

37.3 Contents
- Full text of U.S. patents (including Reissue patents) issued by the U.S. Patent and Trademark Office and published in the Official Gazette  
- No overlapping with USPATFULL/USPAT2  
- Bibliographical details: title, publication number and date, application number and date, assignee, inventor  
- CAS title, CAS patent assignee, CAS inventor name for chemistry-related documents (even if a different family member was indexed for CA)  
- Abstract, all claims, other text fields  
- CA indexing, including Registry Number, for chemistry-related documents (even if a different family member was indexed for CA)  
- U.S. Classification codes (the current code in the NCL field, that at the time of publication in the INCL field), online thesaurus including catchwords, no longer updated  
- International Patent Classification, online thesaurus including catchwords, range searching is available, re-classification of the documents  
- Common Patent Classification (CPC), online thesaurus, range-searchable, re-classification of the documents  
- Citations in REP  
- Details of patent examination: referenced patent literature, examiner’s name in the EXNAM field  
- All texts are created by Optical Character Recognition (OCR) software. This means that there may be errors and incomplete text. Some of the documents do not have text because the scanning failed.

37.4 Dynamics
USPATOLD is a static file. No new documents are being added and the documents are not being updated. Only the classifications and CA indexing are updated.

37.5 Updating
No new documents are added.
BACKGROUND OF THE INVENTION

Field of the Invention This invention relates to the preparation of magnesium fluoride. More particularly, it relates to a process for preparing a crystalline magnesium fluoride suitable for preparing a crystalline magnesium fluoride suitable for special purposes such as infrared lenses and other optical devices.

While there has been shown and described what are at present considered the preferred embodiments of the invention, it will be obvious to those skilled in the art that various changes and modifications may be made therein without departing from the scope of the invention as defined by the appended claims.

What is claimed is:

1. A process suitable for producing crystalline magnesium fluoride comprising:
   a) forming a reaction mixture consisting essentially of ammonium bifluoride, an aqueous solution of ammonium hydroxide and magnesium carbonate, said ammonium bifluoride and ammonium hydroxide being in stoichiometric excess of said magnesium carbonate; (b) heating the foregoing mixture at a temperature of at least about 300°C. for a time sufficient to form an intermediate solid complex; (c) separating said complex from the aqueous phase; (d) drying said complex at a temperature of at least about 300°C. and (e) heating the dried complex to at least about 300°C. to form magnesium fluoride.

2. A process according to Claim 1 wherein the molar ratio of ammonium bifluoride to magnesium carbonate is greater than about 3:2.

3. A process according to Claim 2 wherein the molar ratio of ammonium hydroxide to magnesium carbonate is greater than about 10:2.

4. A process according to Claim 3 wherein said reaction mixture is heated at a temperature of from about 300°C. to about 400°C.

5. A process according to Claim 3 wherein said dried complex is heated at a temperature of from about 300°C. to about 400°C.

INCLM: 423/490.00
INCLS: 423/356.000; 423/438.000; 423/464.000; 423/497.000
NCLM: 423/490.00
NCLS: 423/356.000; 423/438.000; 423/464.000; 423/497.000
CPCI C01F0005-28
IPC C01F0005-28
CHEMICAL ABSTRACTS DATA COPYRIGHT 2016 ACS on STN

CA FILE CAN CAPLUS AN PATENT NUMBER

OS 82:45946 * 1975:45946 US 3848066

* CA Data for this record included
CC 49.5 (Industrial Inorganic Chemicals)
ST magnesium fluoride high purity
IT 7783:40.6P
(manufacture of high purity, from ammonium bifluoride-magnesium carbonate mixture and ammonium hydroxide)
IT 546:93.0
(reaction of, with ammonium bifluoride and ammonium hydroxide)
IT 1331:21.6
(reaction of, with ammonium bifluoride-magnesium carbonate mixture)
IT 1341:49.7
(reaction of, with magnesium carbonate and ammonium hydroxide)

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Types of search
38 Search by subject

Subject searches are carried out in the main to establish the state of the art for a particular specialist field, to find out about solutions to a technical problem, or to find patents comparable to a present invention (prior art). These searches can take place with the aid of text entries (Text search) and of the International Patent Classification (IPC), the Common Patent Classification (CPC), or the Derwent Classification (in DWPI) – (Classification search). In some databases it is possible to use special indexing entries for searching (Search by indexing).

Usually it is not possible to obtain a 100% complete list of text keywords (to search by text) or a 100% complete list of classification codes, so a combined strategy is the best approach in many cases. Having a search problem comprising a number of aspects, both keywords and classification codes should be found for all aspects.

A search table is very helpful:

- The aspects of the search are entered in columns.
- The keywords, classification codes, index terms, etc. are entered in the rows.

The keywords, classification codes, index terms for each aspect are linked with OR, the answer sets for the aspects are linked with AND:

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The search table can be developed step-by-step during the search (see chapter 1: Steps to conduct a patent search). Moreover, intermediate results should be checked for more keywords and classification codes appearing in the documents that can be added to the search table.

38.1 Notes on subject searches in DWPI

In DWPI, in addition to the combined text and classification search a plain text search should always be made. By the enhanced title and abstract by Derwent this database is ideal for a good result of plain text searches. Adverse effects from an incorrect classification can be avoided this way.

It may also help to classify only to the level of the subclass and then combine these codes with a text search. The Derwent Classification (DC) may also be used.

If abbreviations are used there is often a problem of the same abbreviation being used for different terms in different fields, e.g.:

- ABS: Acrylonitrile-Butadiene-Styrene, Anti-Blocking System
- GPS: Glycoproteins, Global Positioning System
- PCB: Polychlorinated Biphenyl, Printed Circuit Board

Often it is enough to link the search query with the appropriate file segment or to exclude one file segment from the search:

=> S GPS NOT CPI / FS

File segments in DWPI:

- CPI: Chemical Patent Index
- EPI: Electrical Patent Index
- GMPI: General and Mechanical Patent Index
## Types of search

### 39 Search by text

#### 39.1 Search fields

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- **BI**: Database Identifier
- **TI**: Title
- **AB**: Abstract
- **KT**: Keywords
- **CLM**: Claim
- **MCLM**: Main Claim
- **DETD**: Date of Examination, Date of Determination
- **DETDEN**: Date of Examination, Date of Determination, Date of Non-Examination
- **DETFR**: Date of Examination, Date of Examination, Date of Determination, Date of Final Action
- **DETDDE**: Date of Examination, Date of Examination, Date of Determination, Date of Determination, Date of Determination, Date of Determination, Date of Determination
- **ST**: Status
- **RN**: Rejection Notice
- **TM**: Trademark
- **NCTL**: National Trademark
- **TMCC**: Trademark Classification
- **TMCT**: Trademark Classification Table
- **LS**: Legal Status
- **NTE**: Notice of Transmittal
- **APP**: Application
- **GRA**: Grant
- **REQ**: Request
39.3 Notes on all databases

Text searching can be done in all databases in the Basic Index (/BI or without a SEARCH qualifier). The searched terms can be entered in a truncated form:

```
=> $ SENSOR?
L1 9491 SENSOR?
```

The following types of truncation can be used:

- `?` replaces any number of characters (or none) at the end of the search term or at the beginning in the case of left-hand truncation
- `#` replaces one character or none at the end of the search term
- `!` replaces exactly one character in the middle or at the end of the search term

In addition to the Boolean operators AND, OR and NOT, Proximity operators may be used. These types of proximity are available for text searching:

- `(W), (1W), (2W), ... , (NOTW) — terms are adjacent (with a spacing of 1, 2 ... words, or not) in the specified order.
- `(A), (1A), (2A), ... , (NOTA) — terms are adjacent (with a spacing of 1, 2 ... words or not), in any order.
- `(T), (1T), (2T), ... , (NOTT) — the terms are connected, the terms may be written in one word (T) or have a space (1T) or hyphen (1T) or even another term (2T) between them, e.g. 
  ?micro? (2T) ?mechanical? would find e.g. micromechanical, microelectromechanical, micro mechanical, micro electromechanical, micro-electro-mechanical ;
  ?anti? (1t) ?allerg? would find e.g. anti-allergic, antigen, allergen, quantifying allergens (sometimes this does not work at line breaks)
- `(S) — terms are adjacent in the same sentence/subunit (e. g. pairs of descriptors) or in the same paragraph of text (DWPI, invention level).
- `(L) or (P) — terms are in the same field, in any order.
  (L) in PATDPA, IFIALL, CA, ENCOMPPAT, RUSSiapAT, USPATFULL, USPAT2, USPATOLD etc.,
  (P) in INPADOCDB, INPAFAMDB, PATDD, EPFULL, PATDPAFULL, PCTFULL, FRFULL, FRANCEPAT
- `(P) — DWPI, invention level: terms are adjacent in the same section of the abstract, in any order
- `(L) — DWPI: terms are adjacent in one segment of the publication level, in any order; at invention level (L) proximity works as AND
Types of search

(S) or (P) in full text databases — terms are adjacent in the same paragraph of a field, in any order.
(S) in EPFULL, PATDPAFULL, PCTFULL, FRFULL,
(P) in USPATFULL, USPAT2, USPATOLD, IFIALL

(L) in segmented full text databases — terms are adjacent in the same document (segment) of the full text, in any order (AUPATFULL, CANPATFULL, CNFULL, DEFAULT, EPFULL, FRFULL, GBFULL, INFULL, JPFULL, KRFULL, PATDPAFULL, PCTFULL)

In the text fields, (W) is implied proximity if no other (Boolean or proximity) operator is entered. Hyphenated terms are split at the hyphen and each part entered into the index separately. If a hyphen is entered as part of a search then it will automatically be replaced by (W). Special characters, such as =, /, -, are considered as blanks. To avoid confusion when searching for characters that are used in the STN command language (/, AND, OR) these must be entered in "..." or '...'.

```plaintext
=> FIL PATDPAFULL
=> S A-D-WANDLER
   1008914 A
   997724 D
   64998 WANDLER
L1  14732 A-D-WANDLER
   ( A( W) D( W) WANDLER )

=> S A-D-WANDLER
   'D-WANDLER' IS NOT A VALID FIELD CODE
L2  0 A-D-WANDLER

=> S A/D-WANDLER
   1008914 "A"
   997724 "D"
   64998 "WANDLER"
L3  14732 "A/D-WANDLER"
   ( "A"( W) "D"( W) "WANDLER" )

=> FIL EPFULL
=> S STOP AND GO
   199412 STOP
   86109 GO
L4  19895 STOP AND GO

=> S "STOP AND GO"
   199412 "STOP"
   2339900 "AND"
   86109 "GO"
L5  716 "STOP AND GO"
   ( "STOP"( W) "AND"( W) "GO" )

=> S STEP AND SCAN
   MISSING TERM BEFORE 'AND'

=> S "STEP AND SCAN"
   623871 "STEP"
   2339900 "AND"
   65798 "SCAN"
L6  1174 "STEP AND SCAN"
   ( "STEP"( W) "AND"( W) "SCAN" )
```

During a text search it should be considered if ambiguous terms could lead to unwanted results (i.e. documents from a different field of technology). In these cases a combined search with classification codes is particularly advisable.

**Left truncation.** This is available in many databases in order to deal with compounds easily. Special care must be taken when using combined left and right truncation (Floating Stem, the term entered must be at least 4 letters long). A too short search term may result in a very long search time or even in the search being aborted. However, rather longer stems should be used, for the following reasons:

- The short stem may occur in different contexts:

```plaintext
=> S ?HEMD?
L10 3904 ?HEMD?
```
Guide to STN Patent Databases

A too short search term may result in a very long search time

This problem occurs mostly in German databases because the German language uses compounds extremely often. In any case EXPAND and EXPAND LEFT should be used to check in advance if the intended search query will yield a reasonable result:

If necessary a longer stem (possibly more than one) should be found in order to do a search with left and right truncation in a reasonable time.

Stop words. Certain frequent words are excluded from indexing in the Basic Index. These words become unavailable for searching this way, even if used in a string search. If entered as part of a search they are normally ignored, but they are counted if proximity operators are used. It is a disadvantage, anyway, that this makes it impossible to search for certain combinations of terms including stop words.

When entered without proximity operators the words are linked by Implied Proximity. The system replaces spaces between the words by proximity operators and recognizes any stop words. If a stop word was used a ‘free space’ is considered:

If a proximity operator was entered the system will not recognize the stop words:

Thus, using proximity operators the extra space for the stop word must be considered:
Types of search

11425 UNWANTED
2185880 PRODUCT# 
L3 208 UNWANTED(1W)PRODUCT#

=> D 7 12 KWIC C=5

L3 ANSWER 7 OF 208 HCAPLUS COPYRIGHT 2006 ACS on STN
AB Endotoxin is an unwanted by product of recombinant proteins purified from...

L3 ANSWER 12 OF 208 HCAPLUS COPYRIGHT 2006 ACS on STN
AB ... 1,3-BDSA is more complicated with unwanted products such as SO2 and benzene...

In EPFULL (and other files) stop words do not exist:

=> FILE EPFULL

Note on this example: The term ‘byproduct’ must of course also be searched as ‘byproduct’ in all the databases.

In the table below it is shown how a list of stop words can be displayed in each of the databases.

<table>
<thead>
<tr>
<th>Database</th>
<th>Stop words</th>
<th>Online Help</th>
<th>Standard</th>
<th>Fields in /Bl</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUPATFULL</td>
<td>No</td>
<td></td>
<td>CA</td>
<td>Ti, ST, IT, CT, CW, AB</td>
</tr>
<tr>
<td>CANPATFULL</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAPLUS</td>
<td>Yes</td>
<td>? content</td>
<td>CA</td>
<td>Ti, AB, DETD, CLM</td>
</tr>
<tr>
<td>CNFULL</td>
<td>Yes</td>
<td>? stopwords</td>
<td>Ti, AB, DETD, CLM</td>
<td></td>
</tr>
<tr>
<td>DEFULL</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DGENE</td>
<td>Yes</td>
<td>non</td>
<td>DERWENT</td>
<td>Ti, KW, AB, DESC, ORGN</td>
</tr>
<tr>
<td>DPCI</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DWPI</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENCOMPPAT</td>
<td>Yes</td>
<td>? content</td>
<td>CA</td>
<td>Ti, AB, CT, ST, RN</td>
</tr>
<tr>
<td>EPFULL</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRANCEPAT</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GBFULL</td>
<td>Yes</td>
<td>? stopwords</td>
<td>Ti, AB, DETD, CLM</td>
<td></td>
</tr>
<tr>
<td>IFIALL</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INFULL</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INPADOCDB /INPAFAMDB</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JAPIO</td>
<td>Yes</td>
<td>? content</td>
<td>CA</td>
<td>Ti, CT, AB</td>
</tr>
<tr>
<td>JPFULL</td>
<td>Yes</td>
<td>? stopwords</td>
<td>Ti, TIEN, AB, DETD, CLM</td>
<td></td>
</tr>
<tr>
<td>KOREAPAT</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KRFULL</td>
<td>Yes</td>
<td>? stopwords</td>
<td>Ti, TIEN, AB, DETD, CLM</td>
<td></td>
</tr>
<tr>
<td>PATDD</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PATDPA</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PATDPAFULL</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PATDPASPc</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCTFULL</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCTGEN</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RDISCLOSURE</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RUSSIAPAT</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USGENE</td>
<td>NO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USPATFULL/USPAT2</td>
<td>Yes</td>
<td>? stopwords</td>
<td>USPATFULL</td>
<td>Ti, CLM, DETD, SUMM, DRWD, AB, PARN, GOVI</td>
</tr>
<tr>
<td>USPATOLD</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Changed text substances (e.g. introduction of abstracts from a certain date) may have an influence on search results. For the time after the introduction of a new text substance the number of hits of a text search may be considerably
higher. This should particularly be taken into account when performing statistical analyses as the search result is more complete for the documents having the new text substance. In turn, with the same search strategy the search result will be less complete for earlier documents not having the extra text substance.

In some databases (in particular those following the dynamical principle) text substances may be added to already existing documents. This must be considered when doing a current awareness search. There exist update fields to take this into account (cf. “Monitoring patents”).

**Abbreviations.** In some databases, such as World Patents Index and Chemical Abstracts, where the text substances (Title, Abstract, Index terms) are edited by the database producer, there are abbreviation lists for abbreviations often used in the documents. These abbreviations must be considered in a search, the result otherwise being incomplete. It is advisable to SET ABBREVIATIONS ON in order to search for abbreviations automatically. (The current abbreviation list can be displayed with HELP ABB in the databases.)

```
=> F I L W P I N D E X
=> S E T A B B O N
=> S H A R D D I S K D R I V E
   135496 H A R D
   121185 D I S K
   792044 D R I V E
   7385 H A R D D I S K D R I V E
       [ H A R D( W) D I S K( W) D R I V E]
   2997 H D D
L11  8977 H A R D D I S K D R I V E
```

**Spelling.** With SET SPELLINGS ON the system will search both British and American spellings automatically:

```
=> F I L I N P A D O C D B
=> S E T S P E L L I N G S O N P E R M
=> S ?A L U M I N U M?
   140565 ?A L U M I N U M?
   169182 ?A L U M I N I U M?
L2  290476 ?A L U M I N U M?
```

If SET SPELLING is not on, this feature can be activated by appending it to the search command:

```
=> S E T S P E L L I N G S O F F
=> S GL A S S F I B E R? S P E = O N
360911 G L A S S
369326 F I B E R?
256257 F I B R E?
566579 F I B E R?
   [ F I B E R? OR F I B R E?]?
L1  37192 G L A S S F I B E R?
   [ G L A S S( W) F I B E R?]?
```

### 39.4 Using proximity operators with searches in text fields

Proximity operators offer the opportunity of searching with a higher precision, compared to the Boolean operators AND, OR, NOT, by searching for the terms entered only within a certain scope (e.g. in one field, in one sentence, or within a specified distance). The way proximity operators are used is different between the databases with a segmented structure and other databases, possibly with special features in any of the databases. Therefore help is available in all of the databases (HELP (S), HELP (P), HELP (L)).

In literature databases and in most patent databases with static or dynamic concept proximity operators are used like this:

<table>
<thead>
<tr>
<th>Patent databases with static or dynamic concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Unit = Record</td>
</tr>
<tr>
<td>Field</td>
</tr>
<tr>
<td>Paragraph</td>
</tr>
<tr>
<td>Sentence</td>
</tr>
<tr>
<td>Compound terms</td>
</tr>
</tbody>
</table>
Types of search

![Diagram of search types]

**Figure:** Proximity Operators in databases with static or dynamic concept

A sub-unit of a field is usually considered a 'sentence'.

In databases with a segmented structure above all (L) proximity differs in its use:

<table>
<thead>
<tr>
<th>Databases with file segmentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Unit</td>
</tr>
<tr>
<td>Record</td>
</tr>
<tr>
<td>Field</td>
</tr>
<tr>
<td>Paragraph</td>
</tr>
<tr>
<td>Sentence</td>
</tr>
<tr>
<td>Compound terms</td>
</tr>
</tbody>
</table>

**Figure:** Proximity operators in databases with segmented structure

This example shows the use of the (L) operator in INPADOCDB:

```
L1  ANSWER 1 OF 1  INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
AN  20203275  INPADOCDB UP 20061116  UW 200646
TI  DREHPFLUG DER NONSTOP - BAUART.
TL  German
IN  NAUD, BERNHARD
INS NAUD BERNHARD, FR
PA  CHARRUES NAUD
PAS NAUD EXPL CHARRUES, FR
DT  Patent
PI  DE 3522933  A1 19860109
PIT DEA1 DOC. LAID OPEN (FIRST PUBLICATION)
DAV 19860109 unexamined - printed - without - grant
STA PRE - GRANT PUBLICATION
AI  DE 1985 - 3522933  A  19850627
AIT DEA Patent application
PRAI FR 1984 - 10577  A  19840629 (FRA)
```
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PRAIT FRA Patent application
REC 5. THERE ARE 5 CITED REFERENCES (5 PATENT, 0 NON PATENT) AVAILABLE FOR THIS RECORD. ALL CITATIONS ARE AVAILABLE IN THE RE FORMAT.

AN 20203275 INPADOCDB UP 20061117
TI Volldrehpflug.
TL German
IN NAUD, BERNHARD, BEAUPREAU, FR
INS NAUD BERNHARD, FR
PA CHARRUES NAUD, BEAUPREAU, FR
PAS CHARRUES NAUD BEAUPREAU, FR
DT Patent
PI DE 3522933 C2 19940303
PIT DEC2 PATENT SPECIFICATION (SECOND PUBL.)
FDT DED2 Grant of a patent after the examination procedure
DAV 19940303 printed-with-grant
STA GRANTED
AI DE 1985-3522933 A 19850627
AIT DEA Patent application
PRAI FR 1984-10577 A 19840629 (FRA)
PRAIT FRA Patent application

This search yields a result, even though ‘Volldrehpflug’ and ‘Nonstop’ do not appear in the same title but at different publication levels:

=> S (VOLLDREHPFLUG AND NONSTOP) / TI
   28 VOLLDREHPFLUG/TI
   112 NONSTOP/TI
L2 1 (VOLLDREHPFLUG AND NONSTOP) / TI

To search just within the same publication level, (L) must be used:

=> S (VOLLDREHPFLUG (L) NONSTOP) / TI
   28 VOLLDREHPFLUG/TI
   112 NONSTOP/TI
L3 0 (VOLLDREHPFLUG (L) NONSTOP) / TI

In DWPI the invention level has a dynamic concept, but the individual members at publication level are arranged as segments. Therefore (L) proximity cannot be used to restrict the search to one information unit. (L) proximity is used in conjunction with the document level indicator /DLVL search term to restrict searches to the invention or member patent level, e.g.

=> S ((OIL (L) DEGREASING) / TIEN (L) PUBLICATION / DLVL
Both words must appear with one member.

L2 ANSWER 1 OF 11 WPI INDEX COPYRIGHT 2007 THE THOMSON CORP ON STN

Member (0002)
TIEN DEGREASING AND ZINC PHOSPHATE CHEMICAL CONVERSION LIQUID FOR STEEL MATERIAL WITH DEPOSITION OF OIL

Member (0003)
TIEN DEGREASING AND ZINC PHOSPHATE CHEMICAL CONVERSION LIQUID FOR STEEL MATERIAL WITH DEPOSITION OF OIL

Search only at the invention level.

=> S ((PERMANENT MAGNET?) (P) (INDUCTION HEAT?)) / AB (L) INVENTION / DLVL

Thus, there is no operator to restrict a search to a particular field:

<table>
<thead>
<tr>
<th>DWPI</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Unit = Record</td>
<td>AND, OR, NOT</td>
</tr>
<tr>
<td>Record</td>
<td>(L)</td>
</tr>
<tr>
<td>Field</td>
<td>-</td>
</tr>
<tr>
<td>Section of the abstract</td>
<td>(P)</td>
</tr>
<tr>
<td>Paragraph</td>
<td>(S)</td>
</tr>
<tr>
<td>Compound terms</td>
<td>(A) = (N),</td>
</tr>
<tr>
<td></td>
<td>(W) = ()</td>
</tr>
</tbody>
</table>
Types of search

![Diagram](image.png)

**Figure**: Proximity operators in DWPI

The (P) operator is used to link search terms within one section of the abstract:

```plaintext
=> S ((MAGNET?) (P) (INDUCTION?)) / NOV
L7 2115 ((MAGNET?) (P) (INDUCTION?)) / NOV
```

```plaintext
=> D L7 HIT
```

L7 ANSWER 1 OF 2115 WPINDEX COPYRIGHT 2006 THE THOMSON CORP on STN
NOV NOVELTY - The motor has an induction rotor with a shaft rotatably inserted into a center of a stator. A synchronous rotor (130) is slid in a longitudinal direction of the shaft between the stator and the induction rotor. Another synchronous rotor (140) is slid in the direction of the shaft between the stator and the induction rotor, where a magnetic flux of the synchronous rotors is varied according to a variation of an applied voltage.

The (S) operator is used to link search terms within a single text paragraph:

```plaintext
=> S ((MAGNET?) (S) (INDUCTION?)) / NOV
L8 2111 ((MAGNET?) (S) (INDUCTION?)) / NOV
```

```plaintext
=> S L7 NOT L8
L9 4 L7 NOT L8
```

Here the search terms can be found in different paragraphs.

```plaintext
=> D L9 HIT
```

L9 ANSWER 1 OF 4 WPINDEX COPYRIGHT 2006 THE THOMSON CORP on STN
NOV NOVELTY - A urine detection system, comprises:

1. an inducer for generating magnetic field within an effective distance of potentially wetted area;
2. an energy-converting module for conditionally engaging in mutual induction with the inducer; and
3. an analyzing module for constructing and applying magnetic energy distribution function to a set of stored parameters corresponding to known wetness conditions.

### 39.5 Notes on individual databases

In the **Derwent World Patents Index, invention level**, the titles and abstracts are newly formulated by the database producer (see the database description). Often more than one abstract is entered into the database for the same invention (from different publications in the patent family). The words from the title and abstract (incl. ABEQ, ABEX, ABDT and the sections of the abstracts) are indexed in the Basic Index (but ABEX and ABDT are displayable in the subscriber files only). They can be searched using left and right truncation. Additionally, the words of the title are available in the Basic Index in their grammatically basic forms as Title terms (also searchable in the /TT field). At the same time the proximity relations (i.e. the order of the individual words) are maintained. A thesaurus is available for the /TT field where the preferred form is shown:
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=> E INPUTS/TT 5
E# FREQUENCY AT TERM
-- ----------- -- ----
E1 41 INPUT/OUTPUT/TT
E2 1 INPUT/OUTPUT,TT
E3 2 INPUTS/TT
E4 2 INPUTTING/TT
E5 1 INPUT SHAFT/TT

=> E INPUT+USE/TT
E1 0 INPUT/TT
E2 324615 USE INPUT/TT
********** END **********

=> E INPUT+UF/TT
E1 324615 INPUT/TT
E2 0 UF Inputs/TT
E3 0 UF Inputting/TT
********** END **********

Hyphenated terms are also entered into the /TT field; using EXPAND the various writings can be found:

=> E IN-LINE/TT 5
E# FREQUENCY AT TERM
-- ----------- -- ----
E1 1 IN-FLIGHT/TT
E2 1 IN-HOUSE/TT
E3 1 IN-LINE/TT
E4 1 IN-MOULD/TT
E5 1 IN-PHASE/TT

=> E IN-LINE/TT 5
E# FREQUENCY AT TERM
-- ----------- -- ----
E1 1 INLET-OUTLET/TT
E2 2 INLETS/TT
E3 1 IN-LINE/TT
E4 3 INMARSAT/TT
E5 1 INMARSAT-A/TT

For every section of the abstract, e.g. /NOV, /TECH, there are special search fields, e.g.:

=> S ((PERMANENT MAGNET?) (P) (INDUCTION HEAT?))/NOV
L1 6 ((PERMANENT MAGNET?) (P) (INDUCTION HEAT?))/NOV

To link search terms in one section of the abstracts (P) proximity is recommended. Left truncation is available. In Derwent World Patents Index, publication level, there are fields for the original data:

=> S LICHTBOGEN/TIDE
L4 504 LICHTBOGEN/TIDE

Apart from the /TI and /AB fields there is a special Basic Index, /BIEX. As the text may be in German, French or Spanish these languages should be considered. In order to include all text fields into the search both index fields must be combined:

=> S (?SCREWDRIVER? OR ?SCHRAUBENZIEHER?)/BI,BIEX
L7 6377 (?SCREWDRIVER? OR ?SCHRAUBENZIEHER?)/BI,BIEX

The original data are available only from some of the patent offices:

- Title:
  - German patent applications, patents and utility models (DE-A1, DE-B1/B2/B3/B4, DE-C1/C2 and DE-U1) from 1968
Types of search

- PCT applications (WO-A1/A2) from 1978
- Japanese applications (JP-A) (Machine Assisted Translations) from 1975
- Australian applications (AU-A) from 2004
- United Kingdom granted patents (GB-B) since 2004

- Abstracts:
  - PCT applications (WO-A1/A2) from 1978

- Claims:
  - German patent applications, patents and utility models (DE-A1, DE-B1/B2/B3/B4, DE-C1/C2 and DE-U1) from 1968
  - UK patents (GB-B, Derwent week 1984/09 to 1997/51 only)

In the Derwent Patents Citation Index only the title is available for text searching. It is recommended to do text and subject searches in the World Patents Index and switch to the DPCI file for the citation search only.

In INPADOCDB and INPAFAMDB the title (90% of all documents have titles, extensions to the title or original titles, TIO) and the abstract are available for searching. For most European languages it is entered in the original language, while for some non-European languages and Russian a translation into English is made. Abstracts are entered for publications from 42 countries since 1970, i.e. from US, GB (since 1897), WO, EP, CA, DE, FR, CN. However, abstracts are not generally entered, but the number of the existing abstracts is considerable (> 13 million). The language of the abstract is often English, but other languages occur. Therefore, a (multi-lingual) text or keyword search in INPADOCDB should be made to complement, but not to restrict, a classification search.

The long-term coverage may be very helpful with some search problems.

In INPAFAMDB the search indexes always cover the patent family. If two or more search terms are linked by AND the hits may come from several publications of the patent family. If this is not wanted (L) proximity must be used (see above).

In the Chemical Abstracts database, the title and abstract are edited by the database producer. The words of the title, the abstract, and chemical indexing terms, including CAS Registry numbers, are searchable in the Basic Index. Searching is also possible with left-hand truncation. Single words from the abstract are additionally searchable in a specific /AB search field; the words of the Basic index excluding the abstract (i.e. only titles and index data) can also be searched in the /OBI search field.
In the **Multilingual databases** (DEFULL, EPFULL, PCTFULL, PCTGEN, RDISCLOSURE, INPADOCDB, INPAFAMDB) the key words, apart from English, should also be entered in other languages.

In the **full text databases** on the one hand the complete text of the publication, on the other hand the individual text components (Title, Abstract, Main Claim, All Claims) can be searched.

In the Basic Index single words from all text fields (Title, Abstract, All Claims and more text fields) are searchable. (Right and left hand truncation are available.) This usually yields a high number of results compared to text searches in other patent databases, yet the result often contains documents of little relevance. In order to limit the number of hits and at the same time improve the relevance of the documents retrieved:

- Proximity operators should be used and
- The FOCUS command should be used to sort the result.

It is advisable not to use AND but the (S) operator or the (P) operator (in USPATFULL/USPAT2, USPATOLD and IFIALL) to link two or more terms.

Because of the extensive text components, where specific expressions and quite likely even company names, trademark names, etc., can be found, full text databases are particularly useful to search for opposition material and for monitoring searches.

- **USPATFULL**, **USPAT2** and **USPATOLD** Full text Browsing is possible, i.e. a document can be browsed by screens and searches by additional aspects can be done.
- **EPFULL** German and French terms should be used in addition to English. To display fields in a particular language display formats are available that prefer a certain language, e.g. by DISPLAY CLMDE German claims are preferred.
- **AUPATFULL**, **CANPATFULL**, **DEFULL**, **FRFULL**, **GBFULL**, **INFULL**, **JPFULL**, **KRFULL**, and **PCTFULL** certain text components are generated by Optical Character Recognition (OCR) software, i.e., recognition errors may occur and text components may be incomplete. These databases are multilingual: PCTFULL – English, German, French, Spanish; FRFULL – French, English.

**PATDPAFULL** contains the full text of German patent applications (‘Offenlegungsschriften’), patents (‘Patentschriften’) and translations of European patent documents as well as German utility models (‘Gebrauchsmuster’) (no description, only claims), published by the German Patent and Trademark Office. There are no documents from European or PCT applications with Germany as designated state in this database. It is therefore recommended to also consult the EDPULL and PCTFULL databases if a comprehensive search for documents relevant for Germany is wanted.

**IFIALL** should be seen as a full text database with respect to text searches, even if only the title, abstract and all claims are available.

In Derwent Geneseq **DGENE** and in **PCTGEN** every record only has the information on one single sequence claimed in a patent. Thus, the data of a single patent are spread over as many records as sequences are claimed in the patent.

The title of a record in DGENE is the same as that of the corresponding record in DWPI. The Abstract (AB), Keywords (KW), and Description (DESC) contain a description of the properties of the individual sequence indexed in the record. All text fields can be searched using the Basic Index or (excluding the abstract) the separate search fields /TI, /KW, /DESC.

**PCTGEN** contains the original titles of the patents. The Basic Index includes, apart from the Title (English, French, German), the Molecule Type /MTY and the Organism Name /ORGN; Abstracts are not available.

The Feature Table (FEAT) provides descriptions of the properties of partial sequences. It is searchable in the /FEAT search field where left hand truncation can be used. On sequence searching see “Search by subject index”.

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### 40 Search by patent classification

#### 40.1 Classification fields

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<td>US Classification USCL</td>
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<td>NCLT</td>
<td></td>
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<td></td>
<td>NCLT</td>
<td>NCLT</td>
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<td>TMCC,</td>
<td>US Classification for Trademarks</td>
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<td>TMCT</td>
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<td>INPADOCDB, INPAFAMDB</td>
<td>LCL</td>
<td>LCL</td>
<td>Locarno Classification for US Design</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Patents</td>
</tr>
</tbody>
</table>

* Classification information is not available in these databases: DGENE and PCTGEN.
** IPC is a Super Search Field and comprises these search fields: ICA, ICI, ICM, ICS, IPCI, IPCR. It should be preferred in all databases.
*** IPCI and IPCR are only display fields in DWPI.
**** In DWPI re-classification of the back-file/reload may affect the ICM or ICS fields. These fields should therefore not be used any more, even for publications before 2006.

No IPC8 codes available: PATDD

**Note:** IPC codes are occasionally provided later for PCT (WO) applications. If this is the case a code at Subclass level is assigned in DWPI and CA.

40.2 Principles underlying a patent classification system

(Source: [http://www.wipo.int/classifications/ipc/en/brochure/princip.htm](http://www.wipo.int/classifications/ipc/en/brochure/princip.htm))

‘In establishing a patent classification, two main approaches are traditionally distinguished.

‘Under one of the two approaches, inventions are classified according to the branches of industry, “art” or human activity to which they are characteristically relevant. This approach is usually termed “industry-oriented,” “art-oriented” or “application-oriented.” The former German Patent Classification, which had a certain influence on the IPC, employed this approach.

‘Under the other approach, inventions are classified according to the functions characterizing them. This approach is usually termed “function-oriented.” The United States of America and the United Kingdom patent classification systems are of this nature.

‘The two approaches can hardly be applied in their theoretical purity. Some functions are so characteristically, if not exclusively, relevant to certain branches of industry that it is natural to classify them under such branches. For example, spinning, weaving and knitting mainly concern textiles and it is only natural to regard them as mainly relevant to the textile industry. And indeed, they appear in the IPC under Section D (“Textiles; Paper”).

‘On the other hand, conveying, packing, storing, hoisting, lifting and hauling are functions which concern almost any branch of industry. Inventions relating to these functions lend themselves naturally to a “function-oriented” classification. And indeed, they appear in the IPC under Section B (“Performing Operations; Transporting”).

‘Although the IPC is in principle mainly function-oriented, it does, in fact, combine both approaches. It is the result of experience acquired by persons whose daily task consists in comparing inventions for which patent protection is claimed with similar inventions already disclosed in published patent documents. It is their judgment, based on such experience, which plays a decisive role in choosing, in each case, between the two approaches and in establishing the system.’
### 40.3 Searching by International Patent Classification (IPC)

In order to provide a tool for ordering world-wide patent publications into fields of technology and a tool for searching that is independent from languages the International Patent Classification (IPC) was published by WIPO in 1968 and revised every five years. It is used by all national and regional patent offices and WIPO.

From 1 January, 2006 the IPC was considerably extended and new regulations introduced (e.g. structure, classification rules, revisions, database updates). The 2012 version of the IPC has approximately 70,000 symbols to identify fields of technology, it is now being revised once every year, and the whole back-file gets re-classified in accordance with every new version. The IPC has eight sections:

<table>
<thead>
<tr>
<th>Section</th>
<th>Field of technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Human Necessities</td>
</tr>
<tr>
<td>B</td>
<td>Performing Operations; Transporting</td>
</tr>
<tr>
<td>C</td>
<td>Chemistry; Metallurgy</td>
</tr>
<tr>
<td>D</td>
<td>Textiles; Paper</td>
</tr>
<tr>
<td>E</td>
<td>Fixed Constructions</td>
</tr>
<tr>
<td>F</td>
<td>Mechanical Engineering; Lighting; Heating; Weapons; Blasting</td>
</tr>
<tr>
<td>G</td>
<td>Physics</td>
</tr>
<tr>
<td>H</td>
<td>Electricity</td>
</tr>
</tbody>
</table>

The sections are subdivided hierarchically: Class — Subclass — Group/Main Group — Subgroup. A symbol of the IPC is an alphanumerical code (i.e. consisting of letter and numbers). A patent on in-line skates (A63C 17/06) is codified like this:

- **A63C 17/00 =** Roller skates (Main Group)
  - **A63C 17/04 =** with wheels arranged otherwise than in two pairs (Subgroup, 1-point classification)
    - **A63C 17/06 =** single-track type (Subgroup, 2-point classification)

When searching every relevant subgroup must be considered individually. For example, a search by the main group does not automatically include all subgroups (1 point, 2 point, 3-point, etc.) that are in the hierarchy below that main group.

More than one IPC symbol may be assigned to a single patent application.

**Note:** From 2006 to 2010 the IPC was divided into a Core and an Advanced Level, which can still be seen on publications and sometimes in databases. In 2011 this distinction was dropped. In the text below there may still be references to these levels. They can only be removed once the databases have been adapted.

The IPC is provided with convenient search tools in various databases or by the patent offices through the Internet:

- [http://www.wipo.int/classifications/ipc/ipc8/](http://www.wipo.int/classifications/ipc/ipc8/)

The Internet version includes additional information: additional definitions, chemical structures, illustrations, references.

A revision of the IPC is announced by WIPO six months in advance.

From 2006, with IPC revision 8, the classification concept was changed:
Guide to STN Patent Databases

Old concept: Patent publications are assigned a main IPC code which identifies the invention in its key aspect as described in the main claim. This main IPC code is printed in bold on the publication’s title page. Where appropriate, further secondary IPC codes are assigned which refer to further aspects of the invention. Therefore, in patent databases a distinction is made between the Main IPC (ICM field) and the Secondary IPC (ICS field). The combined ICM and ICS fields can be searched and displayed together in the IC field. Some patent offices assign Additional IPCs (ICA field) and Index IPCs (ICI field) which provide further information on the contents of the publication. On the printed publication these IPC codes are separated from the Main and Secondary IPC codes by a double forward slash, //. Documents already available in the patent databases are usually not reclassified.

A printed IPC (IPC 1-7) code is according to this pattern:

ANNAnnN/NNnnn
A: Letter
N: Number
n: Number, optional; if these positions are not required they are not printed (no leading/trailing zeroes)

Section  Class  Subclass  Group  Subgroup
A  NN  A  nnN  /  NNnnn
A-H  01-99  A-Z  1-999  /  00-9999

New concept: IPC codes (one or more) are assigned that characterise the core of the invention (Invention IPC). For this, the full document is considered, not only the claims.

- Bold = Invention IPC
- Non-bold = non-invention IPC

Document (fictitious), with revision indicator:
Types of search

A printed IPC code is according to this pattern:

ANNAnnnN/NNnnnn

A: Letter
N: Number
n: Number, optional; if these positions are not required they are not printed (no leading/trailing zeroes)

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<td>A</td>
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<tr>
<td>A–H</td>
<td>01–99</td>
<td>A–Z</td>
<td>1–9999</td>
<td>00–999999</td>
</tr>
</tbody>
</table>

The revision indicator on the printed publication has this format:

(YYYY.MM)

YYYY: Year
MM: Month

The data of the patent offices include other information that can be entered in the databases. Existing documents in the databases are continuously revised to the current revision of the IPC.

40.3.1 Re-classification

40.3.1.1 Reference database MCD

When the back-file is re-classified or during a later re-classification due to revisions of the IPC only one member of the patent family is re-classified. The new classification is then transferred to the other members of the patent family.

The basis of this procedure is the MCD classification (MCD = Master Classification Database, reference database).

The patent families are found by their priority data (simple family concept).

Every database producer decides how this re-classification is applied in the database.

Note: Re-classification in the MCD file may be incomplete and delayed. Thus, the respective old codes must be included in classification searches by IPC. For monitoring searches using the IPC, the old codes should be kept (at least for some time).

40.3.1.2 STN’s strategy: Back-file, patent publications before 2006

All old codes (IPC1-7) are retained in all the patent databases, so are the search and display fields (ICM, ICS, ICA, ICI, IC). These fields can still be used to search the back-file.

The re-classified data of the back-file are currently entered in these databases: AUPATFULL, CANPATFULL, CAPLUS, CNFULL, DEFULL, DWPI, FRFULL, GBFULL, INFULL, INPADOCDB, INPAFAMDB, JPFULL, KRFULL, PCTFULL, USPATFULL, USPAT2, USPATOLD.

40.3.1.3 STN’s strategy: New patent publications from 2006

The IPC8 is introduced in all of the patent databases. New search and display fields are introduced for the codes and the additional information.

If for a new patent publication both original IPC8 data (i.e. codes assigned by the patent office) and re-classified IPC8 data are available both the original data and current IPC8 codes will be entered in separate fields. The re-classified codes will be overwritten each time the classification is revised.

40.3.2 IPC Search Fields

Two IPC search fields were introduced:

- All types of IPC codes (editions 1 to 8) can be searched in the IPC field.
- The IPC.KW field contains standardised keywords specifying the origin of both old and new IPC codes.

Both search fields should be linked with (S) proximity:
A search just in the IPC fields yields the biggest answer set. To limit to a certain origin (see table below) the IPC.KW field is used with (S) proximity.

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<td>EP DE WO, etc.</td>
<td>Country code of the patent office (two-letter code + name)</td>
<td></td>
</tr>
<tr>
<td>Other (CC)</td>
<td>98</td>
<td>Codes assigned through Rolled-Up Core (DWPI)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RC</td>
<td>Codes assigned through Rolled-Up Core (INPADOCDB, INPAFAMDB, CA, etc.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>99</td>
<td>Codes assigned by the database producer at Subclass Level if no or no valid IPC codes were available (DWPI)</td>
<td></td>
</tr>
</tbody>
</table>

* According to WIPO it is only recommended to place the code for the main aspect in the first position, but this is not mandatory — contrary to IPC1-7, i.e. not all patent offices adhere to this rule.
** Rolled-Up Core codes from Derwent (98/IPC.KW) have HUMAN in this position if the data are original (other databases show MACHINE in this case)
*** WPINDEX only

If the IPC code is entered in old format it will be edited automatically:

```
=> FIL EPFULL
=> S A47L0013-20/IPC
L1 202 A47L0013-20/IPC

=> S A47L0013-20/IPC (S) INVENTION/IPC.KW
202 A47L0013-20/IPC
122348 INVENTION/IPC.KW
L4 27 A47L0013-20/IPC (S) INVENTION/IPC.KW
```

In addition to the full IPC, the following abbreviated forms are entered into the index of the database so that a truncation at this search level as a rule is not necessary (an error may occur if truncation is used in connection with an IPC7 code):

```
A47L0013/IPC
A47L/IPC
```
Types of search

Truncation by ! is only required at still higher levels, e.g. search for class A47: $A47!/IPC$, for section A: $A!!!/IPC$. The latter should usually be avoided: To narrow a search to a particular subject field other SEARCH fields are more appropriate in most cases (e.g. the File Segment /FS field in DWPI).

40.3.3 IPC Thesaurus

The International Patent Classification is available in many STN patent databases with full title in English as an on-line thesaurus (from the introduction of edition 8). Search is possible with catchwords (Relationship Operator +KT). The IPC field holds the classification codes and catchwords of the current edition of the IPC (edition 8). To access earlier editions the number of the desired edition must be appended to the field code, e.g. /IPC5. Catchwords are available from edition 5.

These Relationship Codes can be used for SEARCH and EXPAND:

- Full class title (+INDEX).
- Full class title and IPC edition (+ED)
- Full class title and broader terms (+BT)
- Narrower terms (+NT), Related terms (+RT), Broader terms (+BT) or Hierarchy (+HIE)
- Browse (+BRO) the full class; (+BRO5) – 5 Broader and 5 Narrower terms; browse forward and backward (+NEXT (n), +PREV (n))
- Keyword terms (+KT)
- All related terms (+ALL)
- All Advanced Level (+ADV)
- All corresponding Core Level (+COR)

Here are some applications:

- Hierarchical search of the IPC at all hierarchy levels
- Simple query of defined IPC ranges
- Correlation of Advanced Level and Core Level codes is displayed in the IPC8 thesaurus
- Identification of suitable IPC codes through a catchword search

The main on-line aids are: HELP THESAURUS (Thesaurus contents) and HELP RCODES (meaning and application of Relationship Codes).

40.3.3.1 Limiting to invention information

One important limiting option is to search by IPC for invention information. For old IPC codes (editions 1 to 7) the attributes ICM and ICS are available and for new IPC 8 codes INVENTION or I, all in the IPC.KW field:

=> Fil INPADOCDB
=> S G02C0005-08/IPC{(S)(I OR ICM OR ICS)}/IPC.KW
  467 G02C0005-08/IPC
  46889478 I/IPC.KW
  37020372 ICM/IPC.KW
  17720910 ICS/IPC.KW
L7 467 G02C0005-08/IPC{(S)(I OR ICM OR ICS)}/IPC.KW

The search query may be limited to the IPC8 attribute for the SDI search profile:

=> S G02C0005-08/IPC{(S)(I)}/IPC.KW
  467 G02C0005-08/IPC
  46889478 I/IPC.KW
L8 416 G02C0005-08/IPC{(S)(I)}/IPC.KW

40.3.3.2 Limiting to Main IPC codes

In the old IPC system all patent publications had one Main IPC code. In the new IPC system there is no Main IPC code any longer; however, the patent offices have the option to assign either a FIRST or a LATER attribute to each invention...
Guide to STN Patent Databases

IPC code. Use and actual meaning of FIRST depends on the individual patent office and is only roughly comparable to that of a Main IPC code.

=> S G02C0005-08/IPC (S)(F OR ICM)/IPC.KW
   467 G02C0005-08/IPC
   21294704 F/IPC.KW
   37020372 ICM/IPC.KW
L9   299 G02C0005-08/IPC (S)(F OR ICM)/IPC.KW

40.3.4 Search Strategy

In many cases it is useful to link the result of an IPC search with that of a search by free text. In order to obtain a comprehensive search result different variations of text and IPC queries and their linking should be employed and the partial results be combined by OR. This strategy is shown in the search examples on search by subject.

40.3.5 IPC display

The IPC display field shows all IPC details (old and new classification) of a document; the attributes are displayed in brackets. The IPC field combines the IPCI (original IPC8 data) and IPCR (latest re-classified IPC data) fields.

Use the command SET ICFORMAT ON to display even the old IPC in the new format:

=> SET ICFORMAT ON
SET COMMAND COMPLETED

Always use this command before performing any IPC-based analyses.

Here is a document from 2006 with its IPC data:

=> D PI IPC
L1   ANSWER 1 OF 1  INPADOCDB COPYRIGHT 2013 EPO/FIZ KA on STN
PI   EP 1628341    A2  20060222
PI   EP 1628341    A3  20070919
IPCI  H01L0021-8247 [I,A]; H01L0027-22 [I,A]

Here is a document before 2006 with its IPC data:

=> D PI IPC
L2   ANSWER 1 OF 1  INPADOCDB COPYRIGHT 2013 EPO/FIZ KA on STN
PI   IT 9020727    D0  19900622
PI   IT 9020727    A1  19911223
PI   IT 1248974    B  19950211
ICM   B42D
IPCI  G06K0019-08 [I,A]; B42D [I,S]
IPCR  D21H0021-48 [I,A]; G06K0019-12 [I,A]; G07D0007-04 [I,A];
G07F0007-08 [I,A]
IPCR  D21H0021-48 [I,A]; G06K0019-12 [I,A]; G07D0007-04 [I,A];
G07F0007-08 [I,A]

The introduction of re-classification data for the back-file, as e.g. in INPADOCDB, INPAFAMDB, offers considerable advantages for searching. The example above gives a good impression of how much different re-classification data and original IPC data may prove. In this case of a patent publication from Italy, which was originally issued with an IPC code at subclass level only, the IPC codes made available through re-classification are much more detailed. Re-classification thus offers a much better chance of finding more relevant documents. It also levels out different classification practices of the various patent offices.

Depending on the amount of information displayed the IPC display field may be free (e.g. in INPADOCDB, INPAFAMDB) or charged (HCAPLUS).

=> F I L HCAPLUS

=> D I PC
L3   ANSWER 1 OF 1  HCAPLUS COPYRIGHT 2011 ACS on STN
CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
----------------------------------------------
US 20040040574 IPCI B08B0001-00 [ICM,7];
   ICM B08B0001-00 [ICM,7]; A47L0013-16 [I,C*]; A47L0013-17 [I,A]; A47L0013-10
The IPC.TAB format displays a table with detailed IPC data. Again, the charges depend on the database used:

```plaintext
=> D IPC.TAB
```

<table>
<thead>
<tr>
<th>IPC</th>
<th>CODE</th>
<th>VERSION</th>
<th>POS</th>
<th>INV</th>
<th>LEVEL</th>
<th>CC</th>
<th>ASSIGNMENT DATE</th>
<th>STAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPCI</td>
<td>H01L0021-8247</td>
<td>(200601)</td>
<td>F</td>
<td>I</td>
<td>Advanced EP Human</td>
<td>20051128</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td></td>
<td>H01L0027-22</td>
<td>(200601)</td>
<td>L</td>
<td>I</td>
<td>Advanced EP Human</td>
<td>20051128</td>
<td>O</td>
<td></td>
</tr>
</tbody>
</table>

### 40.3.6 Notes on DWPI

The fields shown in the Classification fields table above are those at the invention level of DWPI and partly of the publication level. To limit a search e.g. to the invention level the command would be:

```plaintext
=> S B08B0007-00/IPC (L)INVENTION/ DLVL
```

These fields are available only at publication level:

<table>
<thead>
<tr>
<th>DWPI (Publication level only)</th>
<th>IIC, IICA, IICI, IICM, IICS</th>
<th>IPC.ACD</th>
<th>IPC.TAB.M</th>
<th>US Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>IIC, IICA, IICI, IICM, IICS</td>
<td>IP.C.TAB.M</td>
<td>IIC, IICA, IICI, IICM, IICS</td>
<td>US Classification</td>
<td></td>
</tr>
<tr>
<td>INCL, INCLM, INCLS</td>
<td>IP.TAB.M</td>
<td>INCL, INCLM, INCLS</td>
<td>US Classification</td>
<td></td>
</tr>
</tbody>
</table>

**IPC data at invention level:**

- Search an display options are retained for IPC1–7
- Only current IPC8 data are displayed (IPCI and IPCR), re-classification is considered
- No display of Assignment Attributes

**IPC data at publication level:**

- IPC of the original, IPC1–7 (IICM, IICS, …) and IPC8 (IPCR)
- Re-classified IPC (IPCR) for the publication
- Display of Assignment Attributes

All IPC codes (IPC1–8) can be searched with the /IPC search field.
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40.3.6.1 IPC8

The same search and display fields are available as in the other patent databases. There is a special display format, IPC.TAB.M, to display a full IPC8 table at publication level:

```plaintext
=> D IPC.TAB.M
```

L5 ANSWER 1 OF 27 WPINDEX COPYRIGHT 2006 THE THOMSON CORP on STN

<table>
<thead>
<tr>
<th>Member (0001)</th>
<th>VERSION</th>
<th>POS</th>
<th>INV</th>
<th>LEVEL</th>
<th>CC</th>
<th>ASSIGNMENT DATE</th>
<th>STAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPCI A63C0017-00 (2006)</td>
<td>L</td>
<td>N</td>
<td>Core</td>
<td>98</td>
<td>Human</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IPCI A63C0017-04 (2006)</td>
<td>F</td>
<td>I</td>
<td>Core</td>
<td>98</td>
<td>Human</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IPCI A63C0017-06 (200601)</td>
<td>F</td>
<td>I</td>
<td>Advanced</td>
<td>GB</td>
<td>Human</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IPCI A63C0017-14 (200601)</td>
<td>L</td>
<td>N</td>
<td>Advanced</td>
<td>GB</td>
<td>Human</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>IPCI A63C0017-22 (200601)</td>
<td>L</td>
<td>N</td>
<td>Advanced</td>
<td>GB</td>
<td>Human</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

A search with IPC8 codes can be linked to the /IPC.KW field to limit it. With a few exceptions, the same attributes are used as in other databases:

<table>
<thead>
<tr>
<th>From field / Indicator</th>
<th>Entry in IPC.KW</th>
<th>Code in IPC.KW</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status of IPC codes (STAT)</td>
<td>INITIAL</td>
<td>To identify initial entries, re-classification, deleted entries, etc.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RECLASSIFICATION</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CURRENT</td>
<td>CUR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ORIGINAL</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>Other (CC)</td>
<td>98</td>
<td>Rolled-Up Core created by the database producer (labelled as HUMAN for the original data—labelled as MACHINE in INPADOCDB, INPAFAMDB)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>99</td>
<td>Code at subclass level assigned by the database producer if no or no valid IPC codes are available</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BASIC</td>
<td>Codes from the Basic</td>
<td></td>
</tr>
</tbody>
</table>

```plaintext
=> S A63C0017-06/IPC(S)BASEC/IP.C.KW
L4 524 A63C0017-06/IPC(S)BASEC/IP.C.KW
```

```plaintext
=> D 100 BIB IPC MEMB
```

L4 ANSWER 100 OF 524 WPINDEX COPYRIGHT 2006 THE THOMSON CORP on STN

AN 2002-259067 [31] WPINDEX
DNN N2002-200779 [31]
TI Roller skate comprises shoe and wheel body, with foot front and heel components, heel component having at least two projections
DC P22; P36
IN SHIH F C
PA (SHIH-l) SHIH F C
CYC 4
IC ICN A63C0001-04; A63C0017-04; A63C0017-06; A63C0017-20
ICS A43B0005-16; A63C0001-02

212
CLMDE 1. Rölschuh, umfassend einen Schuh (40) und einen Radkörper, gekennzeichnet durch: ein Fussspitzenelement (70) und ein Fersenelement (80), die an einem vorderen Endabschnitt und einem hinteren Endabschnitt des Schuhs (40) angeordnet sind, wobei das Fersenelement (80) wenigstens zwei Vorsprünge (84) aufweist, die in Eingriff mit dem Schuh (40) stehen, eine Sicherungseinrichtung (13, 14), welche einen vorderen Abschnitt des Radkörpers und das Fussspitzenelement (70) miteinander koppelt, um den vorderen Abschnitt des Schuhs (40) zwischen dem Fussspitzenelement (70) und dem Radkörper festzulegen, und Verriegelungselemente (20), welche einen hinteren Abschnitt des Radkörpers und das Fersenelement (80) losbar miteinander verriegeln, um den hinteren Abschnitt des Schuhs (40) zwischen dem Fersenelement (80) und dem Radkörper festzulegen.

Apart from the other IPC fields that were introduced in all databases with the IPC8 reform there is the /IPC.REF search field which can be used to search all IPC8 codes both at Invention Level and at Publication Level.

=> S A63C0017-06/IPC.REF
L3 27 A63C0017-06/IPC.REF

=> D L3 IPC

L3 ANSWER 1 OF 27 WPINDEX COPYRIGHT 2006 THE THOMSON CORP on STN
IPCI A63C0017-04 [I,C]; A63C0017-06 [I,A]; A63C0017-14 [N,A]; A63C0017-22 [N,A]

The IPC thesaurus works in the same way as in the other patent databases.

40.3.6.2 RD documents (Research Disclosure)
The database producer creates an IPC code (Subclass) for these documents:

- Document with IPC7:
  L1 ANSWER 1 OF 1 WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
  AN 2000-504373 [200045] WPI NDEX
  DNN N2000-372930 [200045]
  TI Dual GMR sensor with canted pinned magnetization to achieve near zero symmetry of the read signal
  DC T03; U12; V02
  PA (IBMC-C) INT BUSINESS MACHINES CORP
  CYC 1
  PI RD 432135 A 20000410 (200045)* EN 1[1] 200003320
  ADT RD 432135 A RD 2000-432135 20000320
  PRAI RD 2000-432135 20000320
  IC ICM G11B0000-00
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- **Document with IPC8:**
  
  L4  ANSWER 1 OF 1  WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
  AN  2006-412543 [200642] WPINDEX
  DNN N2006-341573 [200642]
  TI  Image forming method, for color inkjet printer, involves printing fewer ink dots in overlapping print area created by feeding paper of amount less than width of deflection steps along sub-scan direction, if paper feed amount is larger
  DC  P75; T04
  PA  (ANON-C) ANONYMOUS
  CYC 1
  PI  RD 506090       A  20060610
  ADT  RD 506090 A RD 2006-506090 20060610
  PRAI  RD 2006-506090       20060610
  IPCR B41J [I,S] 40.3.7
  Range search with /MGR and /SGR
  Some databases (see above) provide the option of searching entire ranges of the IPC (editions 1 to 7 only) using the /MGR and /SGR search fields. With the introduction of the IPC thesaurus this option has become obsolete; in INPADOCDB and INPAFAMDB this type of range search has been abandoned.

  => S A01N/1CM(S)25-61/MGR
  18644 A01N/1 CM
  1563432 25-61/MGR
  L5  14296 A01N/1CM(S)25-61/MGR
  => S C04B014/I C(T)0000-08000/SGR
  43 C04B014/1C
  66277 00000-08000/SGR
  L5  16 C04B014/I C(T)0000-08000/SGR

  In this case, the subgroup (field /SGR) must consist of five digits with zeros filled on the right side.

  This option should be used in particular when setting up SDI profiles. In an on-line search the searching time may become so long that it is quicker to enter individual IPC codes, in particular when using a script.

  Depending on the database, different proximity operators must be used (various operators may work):

  - (S) Proximity: in FRFULL, KOREAPAT, PATDD, PATDPA, PATDPAFULL, PCTFULL, USPATFULL, USPAT2
  - (T) Proximity: in EPPFULL, FRANCEPAT, FRFULL, JAPIO, PATDPA, PATDPAFULL
  - (L) Proximity: in PATDPASPC

  In DWPI many documents do not have any data in the ICM and ICS fields. Thus, MGR and SGR should not be used for range searching any more but IPC8 range searching or the thesaurus should be preferred in DWPI.

40.3.7 Searching the Cooperative Patent Classification (CPC)

40.4.1 Introduction

The Cooperative Patent Classification (CPC) was developed and is being maintained in cooperation between the European Patent Office (EPO) and the US Patent and Trademark Office (USPTO). The system was introduced in January, 2013 and replaces the European classification systems ECLA and ICO and the national US Patent Classification, USPC.

In order to classify the subject matter of patent applications CPC codes are assigned by examiners of the European Patent Office, the USPTO, and of national offices in AU, BR, CL, CN, CZ, DK, EE, ES, FI, GB, GR, HU, IL, KR, MX, NO, PL, PT, RU, SE, and TR (though often incomplete). The codes are available on the day of publication for all EP and US documents, for PCT documents where the EPO is the International Search Authority (ISA) and for documents classified by the national offices above. For publications from all other countries where the classification is assigned by the EPO (including the PCT minimum documentation) the CPC codes are available approximately 6 months after publication of the documents: AP, AT, AU, BE, CA, CH, DE, FR, GB, LU, NL, OA, WO.

WO publications that are not available in one of the official languages of the EPO (German, English, French) have no longer been intellectually classified by the EPO since 1/2016 (e.g. JP, CN, KR, RU):

- The IPC classifications of the national offices are entered into the CPC field.
Types of search

- If a member of the patent family is available in an EPO official language (+ Dutch), then the CPC that has been assigned intellectually is also included in the WO documents.

The CPC codes are used in databases only. Only IPC codes are printed on publications. Definitions and concordances (ECLA-CPC, IPC-CPC) are published by the EPO on:

- CPC Scheme and Definitions: http://www.cooperativepatentclassification.org/deliverables/cpcSchemeAndDefinitions.html
- CPC Concordances: http://www.cooperativepatentclassification.org/deliverables/cpcConcordances.html

The USPTO had a transition period until December 2014. During this period, codes were assigned as follows:

- New US patent applications were assigned both USPC and CPC codes
- Granted US patents were assigned either USPC or both USPC and CPC codes
- CPC codes were printed on the publications in addition to IPC and USPC codes

Since 2015 the USPTO has used the CPC exclusively (Plant and Design Patents exempt).

The CPC is continuously revised by both offices, documents are re-classified according to the latest revisions in the databases.

### 40.4.2 The structure of the CPC

The CPC is a classification system based on the IPC having approximately 250,000 classification codes. It comprises the former EPC and ICO codes, additional codes for business methods (G06Q) and specific aspects of the USPC. The CPC has the sections A to H plus an extra section Y for new technologies and technologies overlapping multiple sections. The groups a finer than those of the IPC. Up to 6 digits for subgroups may follow the slash /.

<table>
<thead>
<tr>
<th>A63</th>
<th>Section</th>
<th>HUMAN NECESSITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A63</td>
<td>Class</td>
<td>SPORTS; GAMES; AMUSEMENTS</td>
</tr>
<tr>
<td>A63C</td>
<td>Subclass</td>
<td>SKATES; SKIS; ROLLER SKATES; DESIGN OR LAYOUT OF COURTS, RINKS OR THE LIKE</td>
</tr>
<tr>
<td>A63C 17</td>
<td>Group</td>
<td>Roller skates; Skate-boards</td>
</tr>
<tr>
<td>...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A63C 17/04</td>
<td>Subgroup</td>
<td>... with wheels arranged otherwise than in two pairs (</td>
</tr>
<tr>
<td>A63C 17045</td>
<td>Subgroup</td>
<td>... Roller skis</td>
</tr>
<tr>
<td>A63C 17/06</td>
<td>Subgroup</td>
<td>... single-track type</td>
</tr>
<tr>
<td>A63C 17/061</td>
<td>Subgroup</td>
<td>... with relative movement of sub-parts on the chassis</td>
</tr>
<tr>
<td>A63C 17/062</td>
<td>Subgroup</td>
<td>... with a pivotal frame or cradle around transversal axis for relative movements of the wheels</td>
</tr>
<tr>
<td>A63C 17/064</td>
<td>Subgroup</td>
<td>... comprising steered wheels, i.e. wheels supported on a vertical axis</td>
</tr>
<tr>
<td>A63C 17/065</td>
<td>Subgroup</td>
<td>... {with movements during use of the foot plate or shoe relative to the chassis, e.g. inline clap skate}</td>
</tr>
<tr>
<td>A63C 17/067</td>
<td>Subgroup</td>
<td>... with adjustable position of the foot plate or shoe relative to the chassis</td>
</tr>
<tr>
<td>A63C 17/068</td>
<td>Subgroup</td>
<td>... Production or mounting thereof</td>
</tr>
<tr>
<td>A63C 17/08</td>
<td>Subgroup</td>
<td>... {Single-wheel type with single axis }</td>
</tr>
</tbody>
</table>

Curly brackets [...] denote either a title of a CPC group that does not exist in the EPC or text specific to the CPC that was added to the original title of an EPC group.

Existing documents in the databases are continuously revised in accordance with the latest version of the CPC.

### 40.4.3 Using CPC codes for searching

The format of the CPC codes, the CPC fields, and the CPC thesaurus are basically the same as those of the IPC. The CPC field can be searched by full code, at man group or at subclass level:

- $\Rightarrow S \ A63C0017\cdot061/CPC$
- $\Rightarrow S \ A63C0017/CPC$
- $\Rightarrow S \ A63C/CPC$

Truncation should not be used. To search starting from a higher level of hierarchy always use the online thesaurus.

The CPC thesaurus (HELP THESAURUS) can be used to display the hierarchy of the CPC and to create a search using relationship codes.
Guide to STN Patent Databases

**E1** 3459 -- > A63C0017-06/CPC
with relative movement of sub-parts on the chassis (2013-01-01)

**E2** 93 NT1 A63C0017-061/CPC

**E3** 466 NT2 A63C0017-062/CPC
with a pivotal frame or cradle around transversal axis for relative movements of the wheels (2013-01-01)

**E4** 269 NT2 A63C0017-064/CPC
comprising steered wheels, i.e. wheels supported on a vertical axis (2013-01-01)

**E5** 305 NT1 A63C0017-065/CPC

**E6** 136 NT1 A63C0017-067/CPC
with adjustable position of the foot plate or shoe relative to the chassis (2013-01-01)

**E7** 235 NT1 A63C0017-068/CPC
Production or mounting thereof (2013-01-01)

**E8** 414 NT1 A63C0017-08/CPC

This table shows the CPC attributes and further search fields:

<table>
<thead>
<tr>
<th>CPC-Attribute</th>
<th>Search terms</th>
<th>Search fields</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>classification value</td>
<td>I, invention</td>
<td>/CPC.KW</td>
<td>I = Main aspects of the invention; A = Additional aspects of the invention</td>
</tr>
<tr>
<td></td>
<td>A, additional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>classification status</td>
<td>O, original, initial</td>
<td>/CPC.KW</td>
<td>New documents or documents from the backfile of INPADOC have the attribute &quot;O&quot; (original)</td>
</tr>
<tr>
<td></td>
<td>R, reclassified</td>
<td></td>
<td></td>
</tr>
<tr>
<td>source of classification</td>
<td>H, human</td>
<td>/CPC.KW</td>
<td>New documents or documents from the backfile of INPADOC have the attribute &quot;H&quot; (human)</td>
</tr>
<tr>
<td></td>
<td>M, machine</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>G, generated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>generating office</td>
<td>ES, FI, GB, SE</td>
<td>/CPC.KW</td>
<td>Available only for documents classified by ES, FI, GB, or SE; Not available for documents classified by EPO or USPTO</td>
</tr>
<tr>
<td>position attribute</td>
<td>F, first</td>
<td>/CPC.KW</td>
<td>Denotes if the code is in first position or a later position (relevant for US documents)</td>
</tr>
<tr>
<td></td>
<td>L, later</td>
<td></td>
<td></td>
</tr>
<tr>
<td>version of he CPC</td>
<td>CCYYMMDD</td>
<td>/CPC.VER</td>
<td>Shows the CPC version (date is searchable)</td>
</tr>
<tr>
<td>action date</td>
<td>CCYYMMDD</td>
<td>/CPC.ACD</td>
<td>Shows the date when the code was assigned (date is searchable)</td>
</tr>
</tbody>
</table>

40.4.4 Displaying CPC codes

In INPADOCDB/INPAFAMDB the CPC codes are displayed de-duplicated in the CPC display field:

=> D TI PI PA I ND

L6 ANSWER 1 OF 268 INPADOCDB COPYRIGHT 2013 EPO/FIZ KA on STN
PI JP 06506374 A 19940721
PI JP 32342338 B2 20011204
ICM A63C0017-04
ICS A63C0005-035; A63C0017-22
IPCR A63C0005-035 [I,A]; A43B0005-16 [I,A]; A63C0017-00 [I,A]; A63C0017-04 [I,A]; A63C0017-06 [I,A]; A63C0017-22 [I,A];
The full CPC information can be displayed with the CPC.TAB display format:

=> D CPC.TAB

In DWPI the codes are de-duplicated if they have the same attributes, so codes may be displayed more than once. In CAplus and USPATFULL/USPAT2 there are further display fields apart from CPC and CPC.TAB: CPC.UNIQ for de-duplicated display (if the display field CPC is used all codes are listed for every family member) and CPC.HIT to display CPC hitterms. CPC.TAB is charged in CAplus.

In other databases the codes are de-duplicated, as in INPADOCDB/INPAFAMDB.

### 40.4.5 CPC Combination Sets (C sets)

In some fields of technology combinations of CPC codes are assigned. These are very useful when searching for mixtures:

- Simple mixtures in chemistry
- Polymer mixtures
- Inorganic mixtures, e.g. cements

The search can yield highly relevant answers and is possible in CA/CAPLUS, DWPI (WPINDEX, WPIIDS, WPIX), INPADOCDB/INPAFAMDB, and USPATFULL/USPAT2/USPATOLD.

The description of the Combination Sets can be found in the Definition of the relevant CPC codes on Espacenet: https://worldwide.espacenet.com/classification?locale=en_EP#!/CPC=C

When searching two or more codes (S) proximity must be used:

=> S (C07C0037-08 (S) C07C0039-10)/CPC

1973 C07C0037-08/CPC
426 C07C0039-10/CPC
L12 16 (C07C0037-08 (S) C07C0039-10)/CPC

AN 51742277 INPADOC DB UW 201307
TI PROCESS FOR PRODUCING HYDROXY BENZENES.
IN MIKI HI SAYA; ARAKI SHINTAROU; NITABARU MASATOSHI
PA MITSUI PETROCHEMICAL IND. LTD.
DT Patent
PI KR 9103468 81 19910601
AI KR 1988-3309 A 19880326
ALT KRA Patent application
PRAI JP 1987-71765 A 19870327 (JPA, Y)
ICM C07C0037-50
IPCR B01J0027-02 [I,A]; B01J0027-06 [I,A]; B01J0027-16 [I,A]; C07B0061-00 [I,A]; C07C0027-00 [I,A]; C07C0037-08 [I,A]; C07C0037-50 [I,A]; C07C0039-08 [I,A]; C07C0039-10 [I,A]; C07C0067-00 [I,A]; C07C0067-08 [I,A]; C07C0067-50 [I,A]; C07C0067-50; C07C0037-08; C07C0039-08; C07C0039-08; C07C0039-08; C07C0039-08; C07C0039-10; C07C0037-08, C07C0039-10
The sets in the CPC field are separated by a comma. A new set or code follows after a semicolon.

In the CPC table display format (CPC.TAB), a comma or point appears after the codes from the set:

```
=> D  CPC.TAB

<table>
<thead>
<tr>
<th>CPC CODE</th>
<th>VERSION</th>
<th>POS</th>
<th>INV</th>
<th>CC</th>
<th>ASSIGNMENT</th>
<th>DATE</th>
<th>STAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>C07C0037</td>
<td>50</td>
<td>F</td>
<td>I</td>
<td>Hua</td>
<td>20130101</td>
<td>20130101</td>
<td>O</td>
</tr>
<tr>
<td>C07C0037</td>
<td>08</td>
<td>L</td>
<td>I</td>
<td>Hua</td>
<td>20130101</td>
<td>20130207</td>
<td>O</td>
</tr>
<tr>
<td>C07C0039</td>
<td>08</td>
<td>L</td>
<td>I</td>
<td>Hua</td>
<td>20130101</td>
<td>20130207</td>
<td>O</td>
</tr>
<tr>
<td>C07C0037</td>
<td>50</td>
<td>L</td>
<td>I</td>
<td>Hua</td>
<td>20130101</td>
<td>20130207</td>
<td>O</td>
</tr>
<tr>
<td>C07C0039</td>
<td>08</td>
<td>L</td>
<td>I</td>
<td>Hua</td>
<td>20130101</td>
<td>20130207</td>
<td>O</td>
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<tr>
<td>C07C0037</td>
<td>08</td>
<td>L</td>
<td>I</td>
<td>Hua</td>
<td>20130101</td>
<td>20130207</td>
<td>O</td>
</tr>
<tr>
<td>C07C0039</td>
<td>08</td>
<td>L</td>
<td>I</td>
<td>Hua</td>
<td>20130101</td>
<td>20130207</td>
<td>O</td>
</tr>
</tbody>
</table>
```

40.4.6 Notes on searching by classification (CPC, EPC, USPC)

The EPC and ICO codes will be retained as historical data for a transition period. However, new or updated documents are not assigned EPC or ICO codes any more.

40.5 Searching classifications of the European Patent Office

When assigning classifications to the subject matter of a patent application the examiners at the European Patent Office used the European Patent Classification EPC (also known as ECLA) and an internal supplementary classification ICO (In Computer Only). Some old documents even contain IDT codes (Indeling der Techniek). The EPC has no longer been used since the introduction of the CPC in January, 2013.

40.5.1 European Patent Classification (EPC)

The European Patent Classification (EPC) is an extension to the International Patent Classification and was assigned by the EPO's patent examiners to EP publications and other publications used for examination. On STN the EPC is available with historical data in the CAPLUS, DWPI and AUPATFULL, CANPATFULL, CNFULL, DEFULL, FBFULL, GBBFULL; INFULL, JPFULL, KRFULL, PCTFULL databases.

This example shows the IPC subclass H 04 L with its EPC extensions (bold italics):

```
| H04L | TRANSMISSION OF DIGITAL INFORMATION, e.g. TELEGRAPHIC COMMUNICATION (typewriters B41); order telegraphs, fire or police telegraphs G08B; visual telegraphy G08B, G08CC; teleautographic systems G08C; ciphering or deciphering apparatus per se G09C; coding, decoding or code conversion, in general H03M; arrangements common to telegraphic and telephonic communication H04M; selecting H04Q) |
| H04L001/00 | Arrangements for detecting or preventing errors in the information received (correcting synchronisation H04L 7/00; for digital computers G06F 11/00; arrangements in the transmission path H04B) |
| H04L1/00A | * [N: Systems modifying transmission characteristics according to link quality (adaptive data allocation for multicarrier modulation H04L27/26M1A; controlling transmission power for radio systems H04B7/005B)] [N9911] |
| H04L1/00A1 | * [N: by adapting the transmission rate] [N9911] |
| H04L1/00A1M | * [N: by switching between different modulation schemes] [N9911] |
| H04L1/00A3 | * [N: by adapting the transmission format] [N9911] |
| H04L1/00A3L | * [N: by modifying the frame length] [N9911] |
| H04L1/00A5 | * [N: by adapting the channel coding] [N9911] |
| H04L1/00A7 | * [N: by adapting the source coding] [N9911] |
| H04L1/00B | * [N: by using error correcting codes (in general H03M 13/00)] |
| H04L1/00B1 | * [N: by using block codes] |
| H04L1/00B2 | * [N: by using convolutional codes] |
| H04L1/00B2B | * [N: with a maximum]-likelihood or sequential algorithm, i.e. Viterbi, Fano, ZJ algorithms] |
```

The format of the EPC was streamlined with the IPC. Use the EXPAND command to find out about the format:

```
=> FIL  INPADOCDB
```
Types of search

<table>
<thead>
<tr>
<th>E#</th>
<th>FREQUENCY</th>
<th>AT</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>0</td>
<td>1</td>
<td>H04K0003-00 (C0608) /EPC</td>
</tr>
<tr>
<td>E2</td>
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<td>0</td>
<td>H04K /EPC</td>
</tr>
<tr>
<td>E3</td>
<td>648483</td>
<td>1651</td>
<td>H04L /EPC</td>
</tr>
<tr>
<td>E4</td>
<td>0</td>
<td>0</td>
<td>H04L /EPC</td>
</tr>
<tr>
<td>E5</td>
<td>83888</td>
<td>1651</td>
<td>H04L0001/EPC</td>
</tr>
<tr>
<td>E6</td>
<td>1058</td>
<td>171</td>
<td>H04L0001-00/EPC</td>
</tr>
<tr>
<td>E7</td>
<td>7</td>
<td></td>
<td>H04L0001-00+IDT /EPC</td>
</tr>
<tr>
<td>E8</td>
<td>2280</td>
<td>41</td>
<td>H04L0001-00A /EPC</td>
</tr>
<tr>
<td>E9</td>
<td>2977</td>
<td>10</td>
<td>H04L0001-00A1/EPC</td>
</tr>
<tr>
<td>E10</td>
<td>367</td>
<td>9</td>
<td>H04L0001-00A13/EPC</td>
</tr>
<tr>
<td>E11</td>
<td>415</td>
<td>8</td>
<td>H04L0001-00A13B/EPC</td>
</tr>
<tr>
<td>E12</td>
<td>115</td>
<td>8</td>
<td>H04L0001-00A13D/EPC</td>
</tr>
</tbody>
</table>

=> E H04L /EPC

EPC codes are available for all publications where the classification is assigned by the European Patent Office (PCT minimum documentation). This way about half of all documents are accessible using an EPC code.

40.5.1.1 Linked EPC

In the description of the EPC it is pointed out (see “Notes”) that more options are available for a more targeted EPC search. These additional limitations are appended to the EPC codes using a “+” sign. This type of search is called “Linked EPC” on STN.

Linked EPC are available in these databases: INPADOCDB, INPAFAMDB, DWPI and RDISCOSURE.

A “+” code is used with the EPC/ECLA to combine different aspects of the invention for indexing (see “Notes” in the description of the EPC). However, this is used only in certain fields of technology, mainly organic chemistry. Special indexing codes may be used, including ICO or IDT codes.

Examples: A “+M” code is used to index additional details of the invention. Compositions containing one or more active substances, e.g. formulations or synergistic mixtures, will have a “+M” code appended to the classification code, e.g. A01N0039/02 + M.

For example, in subclass C01G, and in particular the sub-groups C10G0009/00 to C10G0069/14, these “+” codes can be present:

| +B  | Obtained product gasoline |
| +D  | Obtained product diesel oil |
| +G  | Obtained product gasoil |
| +H  | Obtained product jet fuel |
| +L  | Obtained product lubricating oil |
| +L1 | Obtained product electrical isolation oil |
| +L2 | Obtained product white oil, eating oil |
| +R  | Starting material Residues |
| +S  | Obtained product Solvents |
| +X1 | Obtained product C2-C4 olefins |
| +X2 | Obtained product higher olefins |
| +X3 | Obtained product acetylene and homologues |
| +Y1 | Obtained product fuel gas |
| +Y2 | Obtained product propane and butane |
| +Z  | Obtained product aromatics |

If EPC codes are used after the “+” symbol they are abbreviated in most cases. On STN these abbreviated codes are “reconstructed” in order to facilitate searching. In addition, all codes are made searchable in the /EPC.KW search field, which is linked to the /EPC search filed by (S) proximity. Unfortunately, the spelling of the codes is not unambiguous. The various spellings can best be found with EXPAND:
Guide to STN Patent Databases

For the code C10G0009-00C+Y1+X1/EPC the following entries can be found in the search index:

- C10G0009-00C+Y1+X1/EPC
- C10G0009-00C/EPC
- Y1/EPC.KW
- X1/EPC.KW

The full code can be searched in these ways:

- $ C10G0009-00C+Y1+X1/EPC
- $ C10G0009-00C/EPC(S)(Y1(S)X1)/EPC.KW

For abbreviated linked EPC codes the full EPC codes also are entered. For example, for the abbreviated code B01D0009-00B4+/00C6+/00E+/02 these full EPC codes are also searchable:

- B01D0009-00B4+/00C6+/00E+/02/EPC
- B01D0009-00B4/EPC
- B01D0009-00C6/EPC
- B01D0009-00E/EPC
- B01D0009-02/EPC
- 00C6/EPC.KW
- 00E/EPC.KW
- 02/EPC.KW

40.5.2 ICO Classification

The ICO classification was newly introduced and offers additional potential for in-depth searching. The EPO uses ICO codes to index additional aspects of an invention.
Types of search

Most ICO codes are similar to EPC codes; in place of A, B, C, D, E, F, G, H the letters K, L, M, N, P, R, S, T are used as the first letter.

ICO codes are standardised to IPC8 format, e.g. M12Q0001-6BD4. In the INPADOC databases there are separate search and display fields for ICO codes (ICO). In the Chemical Abstracts the ICO codes can be searched and displayed in the EPC field (ECLA, EPCLA).

In 2004 additional codes Y01N... were introduced for nano-technology, e.g.:

<table>
<thead>
<tr>
<th>ICO Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y01N0002</td>
<td>Nanobiotechnology</td>
</tr>
<tr>
<td>Y01N0004</td>
<td>Nanotechnology for information processing, storage and transmission</td>
</tr>
<tr>
<td>Y01N0006</td>
<td>Nanobiotechnology for materials and surface science</td>
</tr>
<tr>
<td>Y01N0008</td>
<td>Nanobiotechnology for interacting, sensing or actuating</td>
</tr>
<tr>
<td>Y01N0010</td>
<td>Nanoptics</td>
</tr>
<tr>
<td>Y01N0012</td>
<td>Nanomagnetics</td>
</tr>
</tbody>
</table>

In 2010 additional codes Y02... were introduced for renewable energies, e.g.:

<table>
<thead>
<tr>
<th>ICO Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y02C0010-00</td>
<td>CO2 capture or storage (not used, see subgroups)</td>
</tr>
<tr>
<td>Y02C0010-02</td>
<td>Capture by biological separation</td>
</tr>
<tr>
<td>Y02C0010-04</td>
<td>Capture by chemical separation</td>
</tr>
<tr>
<td>Y02C0010-06</td>
<td>Capture by absorption</td>
</tr>
<tr>
<td>Y02C0010-08</td>
<td>Capture by adsorption</td>
</tr>
<tr>
<td>Y02C0010-10</td>
<td>Capture by membranes or diffusion</td>
</tr>
<tr>
<td>Y02C0010-12</td>
<td>Capture by rectification and condensation</td>
</tr>
<tr>
<td>Y02C0010-14</td>
<td>Subterranean or submarine CO2 storage</td>
</tr>
</tbody>
</table>

The file banner of INPADOCDB, INPAFAMDB displays a link to the current ICO classification, e.g.:

http://www.stn-international.de/ico_1102.html

40.5.3 The IDT (Indeling der Techniek) Classification

This IDT classification was used by the Institut International des Brevets (IIB) and served to develop the EPC. Many IDT codes were converted to EPC codes by the EPO. However, this was not possible in a few fields of organic chemistry (see HELP IDT).

Example from 12D:

```
  IDT   -   12D
  XIDT  -   012_D
```
Guide to STN Patent Databases

TI - Clarification, séparation, filtration (filtres et filtres-presses).

Notes
A partir des 2 juillet 1976, 29 mars et 18 octobre 1979 et 8 avril 1983, la sous-classe 12 D est clôturée et remplacée par B01D, B01J et C01B.
Les groupes clôturés correspondent globalement aux groupes de B01D, B01J et C01B de la façon suivante:

- 12 D 25 : B01D 39/00
- 12 D 25 F : B01J 20/00
- 12 D 25 F 6 : B01J 20/10
- 12 D 25 F 6 E : C01B 33/28B
- 12 D 25 F 6 E 2 : C01B 33/28B2
- 12 D 25 F 6 E 2 A : C01B 33/28B4
- 12 D 25 F 6 E 2 B : C01B 33/28B4
- 12 D 25 F 6 E 2 B 1 : C01B 33/28B4B
- 12 D 25 F 6 E 2 B 2 : C01B 33/28B4D
- 12 D 25 F 6 E 2 C : C01B 33/28B6
- 12 D 25 F 6 E 2 D : C01B 33/28B8
- 12 D 25 F 6 E 2 E : C01B 33/28B10
- 12 D 25 F 6 E 2 F : C01B 33/28B12
- 12 D 25 F 6 E 2 G : C01B 33/28B14

Matériaux filtrants et leur épuration.

730/10831 - (C) IDT / EPO
AN - 010102
IDT - 12025
XIDT - 012_D025

TI - Matériaux filtrants, adsorbants, accessoires pour filtres et échangeurs d'ions (VIDE).

Remarque
Les échangeurs d'ions contenant une partie minérale et une partie organique, p.ex. les phosphates contenant de l'acide citrique, acitates, etc. sont rangés dans la dernière place possible; donc dans le groupe des échangeurs organiques appropriés.

40.6 Searching the National Patent Classification (USPC)

After the introduction of the Cooperative Patent Classification (CPC) in 2013, the USPC has not been continued since 2015. Previously, the USPC was used as follows:

The United States Patent and Trademark Office (USPTO) used the national patent classification USPC (since 1830) and generated the notations of the IPC by a concordance list. Since this concordance list had to map two classification systems to each other, which were very different in their structure, a correct IPC classification could not always be relied upon. If US documents from this time are searched, as far as possible the US classification (USPC) should be employed.

The USPC was revised frequently and the codes in the databases constantly adapted to the latest version.

40.6.1 Hierarchical structure of the USPC

The USPC is hierarchical system. It is made up of classes and subclasses. All documents are classified to subclass level.

```
280  Class  LAND VEHICLES
841  Subclass  SKATES
      (First Line)
```

The Class is one of 450 main subdivisions. A class has a number and a title describing its meaning. The definitions and relations to other classes and subclasses are given. A class number consists of 1 to 3 digits, e.g. 280.

Subclasses have a number and a title, too. One or more periods in front of the title are used to indicate its position in the hierarchy. The position of a subclass in the hierarchy cannot be concluded from the number alone. The number of a subclass consists of up to 6 digits, e.g. 11212.
Types of search

The US Classification has more definitions; the sections below are cited from this Internet source:

- http://www.uspto.gov/web/offices/pac/dapp/sir/co/examhbk/five.htm

40.6.1.1 Additional Types of Art Collections

a. Digest

A digest is a collection of cross-references created by an examiner; it is based on a concept that relates to a class but not to any particular subclass of that class. No ORs may be placed in digests. Digests are listed in numerical sequence at the end of the class schedule. Digests are not defined and are not available in the Public Search Room file.

b. Cross-Reference Art Collection

Cross-reference art collections differ from digests in that the material involved in the cross-reference art collection is defined to some degree and the patents are available in the Public Search Room. Some of these art collections include indentation levels. Placement in these areas is intended to follow official patent placement procedures. Cross-reference art collections are usually listed in numerical sequence at the end of the class. In most classes, subclass numbers 900 - 999 are reserved for cross-reference art collections. Some cross-reference art collections may only be searched electronically (via APS). Other cross-reference art collections are based on the European Classification (ECLA) system, which is an expansion of the International Patent Classification (IPC) system.

c. Alpha Subclasses

Over the years, Patent Examiners have created alpha subclasses (previously called "unofficial" subclasses) to facilitate searches within the arts under their jurisdiction. In this process, a grouping of patents is selected from an existing numeric subclass and then collected in a new indented subclass with an alpha designation following the numeric designation. Since the original subclass no longer has all the patents officially classified therein, it is given the alpha designation "R" (indicating residual). Note that the numeric subclass located in the Public Search Room equates to the residual subclass plus any alpha subclasses indented under it. There are no definitions for alpha subclasses, nor is it contemplated to define these subclasses beyond the context of the titles and the definitions of the subclasses from which they were formed (and which are now "R" subclasses). The indented alpha subclasses are positioned in their proper hierarchical location in the schedule (i.e., immediately above the next subclass having an indent level less than or equal to the "R" subclass). These art collections are offered only to the extent they may be helpful as a search assist and should not necessarily be considered to be a completed collection of the art represented by the title.

40.6.2 Design classes

Design classes are used to classify Design Patents. These classes have up to 2 digits and the subclasses have up to 3 digits.

40.6.3 STN format

In STN format the classification codes are always given with 3 digits for the class and 6 digits for the subclass. If needed they are filled with zeroes (see examples).

- Display format: NNN/NNN.NNN
- Search format: NNNNNNNNN

For Design Classes 2 digits are used for the class and 6 digits for the subclass, if needed zeroes are added (see examples).

- Display format: NN/NNN.NNN
- Search format: NNNNNNNNN

If the display format is used in a query it will automatically be changed to the correct search format by Messenger Field Edit (valid for SEARCH and EXPAND).
40.6.3.1 Examples

<table>
<thead>
<tr>
<th>Printed document</th>
<th>STN Display</th>
<th>STN Search</th>
<th>Other formats</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
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<td>002/001.000</td>
<td>002001000/NCL</td>
<td>002/001.000/NCL</td>
<td></td>
</tr>
<tr>
<td>2/2.11</td>
<td>002/002.110</td>
<td>002002110/NCL</td>
<td>002/002.110/NCL</td>
<td></td>
</tr>
<tr>
<td>2/903</td>
<td>002/903.000</td>
<td>002903000/NCL</td>
<td>002/903.000/NCL</td>
<td>Cross-reference art collections</td>
</tr>
<tr>
<td>2/DIG5</td>
<td>002/DIG.005</td>
<td>002DIG005/NCL</td>
<td>002/DIG.005/NCL</td>
<td>Digest</td>
</tr>
<tr>
<td>188/1.11R</td>
<td>188/001.11R</td>
<td>188001110/R/NCL</td>
<td>188/001.110R/NCL</td>
<td>Residual Subclass (cf. Alpha Subclass)</td>
</tr>
<tr>
<td>D1/102</td>
<td>D01/102.000</td>
<td>D01102000/NCL</td>
<td>D01/102.000/NCL</td>
<td>Design Class</td>
</tr>
</tbody>
</table>

The codes may be entered in a short format:

=> $ 002/ NCL
L5 20421 002/NCL

40.6.3.2 Sources

In USPATFULL, USPAT2, USPATOLD, CA, DWPI and INPADOCDB/INPAFAMDB the full US Patent Classification, including catchwords, is available as a thesaurus.

IFIREF also has the full US Classification with all subclasses and Design Classes.

The USPTO has published the full classification on its web site, offering various display and search options:
- http://www.uspto.gov/go/classification/

Even a search in the concordance is possible:
- US-to-IPC Concordance
- US-to-Locarno Concordance (Design Classes)
- USPC-to-IPC Reverse Concordance

http://www.uspto.gov/go/classification/international/ipc/ipc8/ipc_concordance/ipcsel.htm

40.6.3.3 Obtaining classification codes

Classification codes of the USPC can be found using US documents or by a text/IPC search, followed by SELECT or ANALYZE.

=> FIL USPATFULL
=> D HIS

Text search

FILE 'USPATFULL' ENTERED AT 13:18:48 ON 01 SEP 2009
L1 14750 S ?SKAT?
L2 5720 S (?ROLLERBLAD? OR ?ROLLER?(1A)?BLAD?)
L3 1067 S (?ROLLER?(1A)?SHOE?)
L4 20560 S L1-L3
L5 2870575 S (INLINE OR IN-LINE)
L6 132092 S (SINGLE OR ONE)(1A)(ROW# OR TRACK#))
L7 2495 S L5-L6 (3A) L4
L8 1419882 S (?BRAKE? OR ?BRAKING OR STOP####)
L9 536 S L7 (P) L8

=> D L9 1 TI IND

Display a document. Are these codes appropriate?

L9 ANSWER 1 OF 536 USPATFULL on STN
TI IN-LINE ROLLER BLADE BRAKING SYSTEM
I NCL INCLM: 280/087.041
NCL NCLM: 280/087.041
IC IPCI B62M0001-00 [I, A]

=> SET EXP CONT
SET COMMAND COMPLETED

The most frequent codes can be found by SELECT.

=> SEL 1 - NCL
E1 THROUGH E543 ASSIGNED
Types of search

Analyse can also be used. In CA, Analyse should be preferred because of search term pricing.

Now use the thesaurus to identify the most appropriate codes.

On the USPTO server, a similar strategy can be used.

40.7 Searching the national patent classification (Japanese FI and F-Terms)

The Japanese Patent Office develops two systems for the classification of Japanese patent documents:

The Japanese File Index (FI-term) was introduced 1980 as an internal system of the JPO. The index was based on the International Patent Classification, version 4, however at sub-group level it is much finer divided. In the course of the
IPC reform FI-term were also revised in order to keep close to the IPC (however, some differences exist on sub-group level). In addition to the claims, FI-terms also reflect technological details from the description.

F-terms (File Forming Terms) were developed independently in order to reflect current technological developments. They were introduced 1987. F-terms are particularly useful for computer-aided searching and make it possible to reflect different aspects of a technology (use, application, material, etc.). F-terms are not available for all fields of technology, which are covered by FI-terms. F-term are used in connection with keywords, FI and IPC codes.

FI and F-term are revised once per year and updated in the databases.

In DWPI and INPADOC FI-terms and F-terms are available for publications starting from 1966; in CAplus F-terms are available for publications starting from 2004.

A description of the FI and F-terms can be found on the homepage of the Japanese Patent Office:

40.7.1 Searching FI-Terms

A code has this format:

```
ANNAnnnN/NNnnn nnn a
```

A: letter
N: digit
n: digit, optional
a: letter, optional

<table>
<thead>
<tr>
<th>Section</th>
<th>Class</th>
<th>Subclass</th>
<th>Group</th>
<th>Subgroup</th>
<th>Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-H</td>
<td>01-99</td>
<td>A-Z</td>
<td>1-999</td>
<td>00-999,99 00-999 A-Z</td>
<td></td>
</tr>
</tbody>
</table>

The search is done in the same way as with the IPC. In addition to the full classification the following search indices are available:

- ANNAnnnN
- ANNAnnn

=> S A63C0019-06 A/JPC

L6 19 A63C0019-06 A/JPC

Search can be done parallel to the IPC:

== S A63C0019-06?/JPC,IPC

L8 52 A63C0019-06/JPC

571 A63C0019-06/IPC

If the EPC is used in the same search, truncation must be used:

== S A63C0019-067/JPC,IPC,EPC

L4 52 A63C0019-067/JPC

571 A63C0019-067/IPC

353 A63C0019-067/EPC

40.7.2 Searching F-Terms (File Forming Terms)

A term has this format:

```
NANNN / AA NN
```

A: letter
N: digit
F-terms can be found:

- By an ANALYZE command after a keyword or a classification search to find F-terms with many occurrences and followed by a search in the F-Term thesaurus,

- By the FI-/F-Term search available on the server of the Japanese Patent Office:

```
4C601  Ultra sonic diagnosis equipment
A61B8/00-8/14
```

```text
#### Viewpoint

<table>
<thead>
<tr>
<th>Viewpoint</th>
<th>bbb0</th>
<th>bbb2</th>
<th>bbb3</th>
<th>bbb5</th>
</tr>
</thead>
<tbody>
<tr>
<td>BB</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Image pick-up spaces being one-dimensional</td>
<td>Image pick-up spaces being two-dimensional</td>
<td>Image pick-up spaces being three-dimensional</td>
<td>Ultrasound beam deflection systems</td>
</tr>
<tr>
<td>F</td>
<td>BB11</td>
<td>BB12</td>
<td>BB13</td>
<td>BB14</td>
</tr>
<tr>
<td>DD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Linear</td>
<td>Convex</td>
<td>Sector</td>
<td>Radial</td>
</tr>
<tr>
<td>F</td>
<td>BB21</td>
<td>BB22</td>
<td>BB23</td>
<td>BB24</td>
</tr>
<tr>
<td>DD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thickness, width, or length</td>
<td>Body fat layer thickness, or body fat amount</td>
<td>Blood flow</td>
<td>Blood flow amount</td>
</tr>
<tr>
<td>F</td>
<td>DD11</td>
<td>DD12</td>
<td>DD13</td>
<td>DD14</td>
</tr>
<tr>
<td>DD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Head</td>
<td>Throat, or gums</td>
<td>Eyes</td>
<td>Blood vessel walls</td>
</tr>
<tr>
<td>F</td>
<td>DD15</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
```


F-terms can then be used to refine a search for Japanese patent documents:

```
4C601: Ultra sonic diagnosis (theme)
BB03: Image pick-up spaces being three-dimensional (Term Code)
DD11: Head (Term Code)
DD13: Eyes (Term Code)
DD15: Heart (Term Code)

=> S (4C601/BB03 AND (4C601/DD11 OR 4C601/DD13 OR 4C601/DD15)) / FTERM
1105 4C601/BB03/FTERM
33 4C601/DD11/FTERM
20 4C601/DD13/FTERM
484 4C601/DD15/FTERM
L9 165 (4C601/BB03 AND (4C601/DD11 OR 4C601/DD13 OR 4C601/DD15)) / FTERM
```
40.8 Searching the DWPI Classification (/DC) and DWPI Manual Codes

The DWPI Classification and DWPI Manual Codes can be used as an alternative to the International Patent Classification for searching in the DWPI database. Similar to the IPC, it is a hierarchical system: (A = letter, N = number)

<table>
<thead>
<tr>
<th>T</th>
<th>Section</th>
<th>Data Recording</th>
</tr>
</thead>
<tbody>
<tr>
<td>03</td>
<td>Class</td>
<td></td>
</tr>
<tr>
<td>03-H</td>
<td>Group (Generic Manual Code)</td>
<td>Record carriers and accessories in general</td>
</tr>
<tr>
<td>03-H01</td>
<td>Sub-group</td>
<td>Containers</td>
</tr>
<tr>
<td>03-H01A</td>
<td>Sub-group division</td>
<td>For discs</td>
</tr>
<tr>
<td>03-H01A6</td>
<td>Full Manual Code</td>
<td>Disc type</td>
</tr>
<tr>
<td>03-H01A6B</td>
<td></td>
<td>Optical</td>
</tr>
</tbody>
</table>

The codes are assigned intellectually and represent the characteristic features of the invention. (Only in the P section, General and Mechanical, the code is automatically assigned from the IPC. Since 2006, the codes have been assigned intellectually in the Q section, Mechanical / Transportation, too.) The fact that the codes are assigned by the database producer means that a better uniformity of allocation may be expected than with the IPC. The codes are assigned to the Basic. Usually a number of codes are used in order to appropriately reflect the features of the invention.

The DWPI Manual Codes are revised annually, this must be considered when using them. You can find user guides and a Manual Code lookup in the DWPI Reference Center:


There is also an on-line thesaurus that may be used to identify the codes or to search using the codes.

The DWPI Classification codes are entered in the DC (DWPI Class) field in all file segments (CPI, EPI, and GMPI) of the database. Additionally the codes are entered in the MC (Manual Codes) field of the EPI (Electrical indexing) and CPI (Chemical indexing) file segments. The DC field holds the code to the subclass level (3 characters) only while the MC field contains the Full Manual Code.

```
DC   A88 P51 Q64 Q67
MC   CPI: A11-A05B; A11-C01A; A12-H02C
```

Using the Manual Codes in the EPI and CPI (subscribers only) segments it is often possible to classify a subject much more exactly than with the International Patent Classification.

Both fields are part of the IND and MAX formats. To SEARCH use the /MC field in the EPI segment in WPINDEX. The Chemical Indexing in the CPI file segment can only be used in the WPIEDS and WPIX subscriber files.

In the /DC field either the section letter alone or the three-character class can be searched, if applicable use # or ! to truncate.

These options are available when searching in /MC:

- SEARCH a known code (e.g. X13-B02A/MC).
- SEARCH a code and all its sub-codes using truncation (e.g. X13-B?/MC).
- SEARCH at class level, this covering all sub-codes without truncation (e.g. X13/MC).
- Using the on-line thesaurus.

As with IPC searching it is advisable not to use the codes on their own, but to combine them with other search terms.
40.9 **Searching for US Design Patents by Locarno Classification in INPADOCDB/INPAFAMDB**

In the INPADOC databases the codes of the Locarno Classification are available for US Design Patents from April 2005. The Locarno Classification is published by WIPO and has 32 classes and 219 subclasses. It is revised every five years. The 9th revision has been in force since January 2009:

- [http://www.wipo.int/classifications/nivilo/locarno/](http://www.wipo.int/classifications/nivilo/locarno/)

1216/LCL could also be used for searching.

```plaintext
=> S 12-16/LCL
L1 4334 12-16/LCL (1216/LCL)

=> D ALL
L1 ANSWER 1 OF 4334 INPADOCDB COPYRIGHT 2011 EPO/FIZ KA on STN
AN 63809272 INPADOCDB ED 20110210 EW 201106 UP 20110210 UW 201106
FN 41438625
TI Truck box bed rail guard.
TL English
IN TAYLOR ELWOOD L.
INS TAYLOR ELWOOD L, CA
PAS TAYLOR ELWOOD L
DT Design Patent
PI US 631819D S1 20110201 English
PIT US DESIGN PATENT
DAV 20110201 printed with grant
STA GRANTED
AI US 2010-368102F F 20100818
AIT USF Design application
PRAI US 2010-368102F F 20100818 (USF, 20110210, Y)
PRAIT USF Design application
NCL NCLM D12/414.000
LCL 12-16
FA AI; AN; DAV; DT; ED; EW; IN; INS; LA; LCL; NCL; PAS; PI; PIT; PRAI; TI
```
41 Search by subject index

41.1 Search fields

<table>
<thead>
<tr>
<th>Databases</th>
<th>SEARCH</th>
<th>DISPLAY</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Abstracts</td>
<td>BI, BI, CT, CW, IT, BI, RL</td>
<td>RN, CT, IT, ST, RL</td>
<td>CAS Registry Number, Controlled Terms, Index Terms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Controlled Terms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Supplementary Terms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Role Indicator</td>
</tr>
<tr>
<td>AUPATFULL, CANTFULL, CNFULL, DEFAULT, FRFULL, GBFULL, JPFULL, KRFULL, PCFULL</td>
<td>KT</td>
<td>KT</td>
<td>Keyterms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENCOMPPAT</td>
<td>BI, BI, CT, CW, CTA, ST, LT</td>
<td>RN, CT, CTA, ST, LT</td>
<td>CAS Registry Number, Controlled Terms, Controlled Terms, Assigned</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Supplementary Terms, Linked Terms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRANCEPAT</td>
<td>CT, CTFR, CW</td>
<td>CT, CTFR</td>
<td>Controlled Terms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IFIALL</td>
<td>BI, BI, CT, UN, UN, UNRN, UNRN, FG, RN, CT, UN, UN, URN, URN, FG</td>
<td>RN, CT, UN, UN, UNRN, UNRN, FG, RN, CT</td>
<td>CAS Registry Number, Controlled Terms, Uniterms, Uniterm Registry Number, Fragment Code</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PATDD</td>
<td>ST, SW</td>
<td>ST</td>
<td>Supplementary Terms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PATDPASPC</td>
<td>RN, RN.CEC, RN.OC, RN.PCC, CN, CN.CEC, CN.OC, CN.PCC, CN.S, IT</td>
<td>RN, IT</td>
<td>CAS Registry Number, CAS Registry Number Certified Compounds, CAS Registry Number Other Compounds, CAS Registry Number Presumably Certified Compounds, Chemical Names, Chemical Names Certified Compounds, Chemical Names Other Compounds, Chemical Names Presumably Certified Compounds, Chemical Name Segment, Indexterms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USPATFULL / USPAT2</td>
<td>CT, CW, IT</td>
<td>CT, IT</td>
<td>Controlled Terms, Index Terms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USPATOLD</td>
<td>CT, CW, IT</td>
<td>CT, IT</td>
<td>Controlled Terms, Index Terms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DWPI*</td>
<td>KW, MC</td>
<td>KW, MC</td>
<td>Keyword Indexing, Manual Codes für EPI- Segment</td>
</tr>
</tbody>
</table>

More fields are available in DWPI (WPINDEX) and in the subscriber files, WPIDS and WPIX.

Indexing of patent documents is mainly done in chemistry concerning the information contained on compounds (formulae, reactions, etc.). As this is a very wide and complex field, additional literature is referred to as follows:

- CAS Coverage of Patents
  https://support.cas.org/content/references/patentcoverage


- DWPI Reference Manual – Derwent World Patents Index produced by Thomson Reuters (Scientific) : STN online user guide, 2009

41.2 CAS Registry Number

In the Chemical Abstracts, ENCOMPPAT, the IFIClaims and USPATFULL / USPAT2 files CAS Registry numbers are available for searching. These numbers can be identified by a search in the REGISTRY file. Here it is possible to search by the chemical or trivial names of chemical substances or conduct a structure search. Apart from the Registry number the result contains in the Locator field a list of databases where the CAS Registry number appears.

Re-searching a search result (L number) with a Registry number will automatically search for the Registry number rather than repeat the original search, e.g. a structure search. (The Registry number(s) will be selected automatically and the result be searched.) In the respective databases the Registry numbers can be searched in the Basic Index (/BI).

When searching for a Registry number the search should be started in the REGISTRY database and then be continued with the resulting L number in the other databases. This way Deleted Registry Numbers (DRN) will be included in the search. If a Registry number is entered directly in a search in the CA or CAPLUS files then an automatic crossover to the REGISTRY file is performed to guarantee a comprehensive search.

41.3 Indexing in Chemical Abstracts

In the Chemical Abstracts database, the results of subject indexing are contained above all in the IT field (Index terms, searchable as /IT or /CT and in the Basic Index /BI), (since 1967). The IT field corresponds to two indexes of the printed Chemical Abstracts:

- the General Subject Index: general contents of the referenced documents, classes of compounds, utilization and application of chemical substances
- the Chemical Substance Index: information on chemical substances referred to in the referenced publications

```
IT   Polyimides, preparation
RL: PREP (Preparation)
 (arom. prepn. of pyromellitic anhydride-based, for thin films,
  for liq. crystals, with good orientation)
```

The field heading can be searched in /CT and the narrative text (in parenthesis) in /IT. Both can be linked by (L) proximity.

The IT field also contains the CAS Registry numbers:

```
IT   52219-35-9   107396-90-7   112172-80-2   125692-20-8   143133-03-3
  143243-17-8   143251-81-4   143374-45-2
RL: USES (Uses)
 (Langmuir-Blodgett films from, imidation of, for liq. crystals)
```

An on-line thesaurus is available in the CT field (see HELP LEXICON).

Since mid-1994 CAS Roles are entered into the Chemical Abstracts database (subfield.RL) for newly indexed substances and index terms. These provide additional information on the substances treated in the indexed publications. For CAS Roles an online thesaurus is available. For searching there are two alternative ways of entering the Role: (a) Using the /RL SEARCH field; (b) Using the Role code as a SEARCH field:

```
=> $ METHANOL (L) MOA / RL
=> $ METHANOL / MOA
```

On Roles or the thesaurus see the online help with the commands HELP ROLES, HELP THESAURUS and HELP LEXICON.

The chemical index terms and CAS Registry numbers are copied to the USPATFULL / USPAT2 database, even if it was a different patent family member that was indexed in CA. In USPATFULL these index fields are, however, not searchable in the Basic Index but have to be searched in the /IT and /CT fields.

**CAS Lexicon on STNext:** With STNext, the Lexicon can be used menu-driven in the CA databases:

```
=> FILE HCAPL
=> E LENSES
```
A window opens with a message that LENSES is present in the CAS Lexicon.

Clicking on Lenses opens the Lexicon. Synonyms, Related Terms, Narrower Terms can be selected here.
You can also use the search function to search for terms and display the hierarchy directly in CAS Lexicon.

41.4 Full text databases

In the full text databases (AUPATFULL, CANPATFULL, CNFULL, DEFULL, FRFULL, GBFULL, JPFULL, KRFULL, PCTFULL), Keyterms are available in the KT field. They are included in a search in the Basic Index. A search for Keyterms only in the KT field makes it easier to find relevant results compared to the Basic Index and supports effective evaluation.

Keyterms are single words or phrases of up to 5 terms. They are identified and extracted from the English text components (title, abstract, description, claims) by linguistic and statistical methods. A maximum of 30 Keyterms are generated per document. They are listed in the KT field, sorted by relevance. The KT field is always located at the end of the document (if there are multiple publications in the national patent family, the KT field is generated only once).

When searching for Keyterms, the AND or (L) operators can be used. If you are searching for 2 or more words that should occur in one Keyterm, you should use the (S) operator. However, it is also possible to use (A) or (W) operators (these also apply to one Keyterm).

A search with

```bash
=> S (WIRELESS (S) TRANSMISSION) / KT
```

will for example find the Keyterm wireless signal transmission.

The words “OR” or “AND” may also appear in the Keyterms. If you are searching a phrase containing these words, you must use quotation marks to search. A search with

```bash
=> S ("PHOTODIODE OR SOLAR CELL") / KT
```

will find exactly this Keyterm, “Photodiode or Solar Cell”.

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41.5 IFIALL

In IFIALL, searching for patents published before January 25, 2011, is possible by:

- In-depth indexing by Uniterm Codes and Controlled Term keywords
- CAS Registry Numbers (RN) and references to CAPLUS
- Fragment codes which allow for substructure searching of chemical substances
- Role Indicators for chemical substances

The Uniterms, as well as the U.S. National Classification, are available in the IFIREF database. Furthermore, when displaying in the IIND format, a detailed description of the Uniterms will be given.

41.6 Sequence searching

41.6.1 Search Fields

<table>
<thead>
<tr>
<th>Databases</th>
<th>SEARCH</th>
<th>DISPLAY</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>DGENE</td>
<td>AA, AA.CNT</td>
<td>AA</td>
<td>Amino Acid</td>
</tr>
<tr>
<td></td>
<td>NA, NA.CNT</td>
<td>NA</td>
<td>Nucleic Acid</td>
</tr>
<tr>
<td></td>
<td>FEAT</td>
<td>FEAT</td>
<td>Feature Table: Features and Modifications of the Sequence</td>
</tr>
<tr>
<td></td>
<td>MTY</td>
<td>MTY</td>
<td>Molecule Type (DNA, etc.)</td>
</tr>
<tr>
<td></td>
<td>KW</td>
<td>KW</td>
<td>Keywords</td>
</tr>
<tr>
<td></td>
<td>DESC</td>
<td>DESC</td>
<td>Description (Identification Number of the Sequence incl., if available)</td>
</tr>
<tr>
<td></td>
<td>ORGN</td>
<td>ORGN</td>
<td>Organism Name</td>
</tr>
<tr>
<td></td>
<td>SQL</td>
<td>SQL</td>
<td>Sequence Length</td>
</tr>
<tr>
<td></td>
<td>SQEP, SQEFP</td>
<td>SEQ, SEQ3, SEQO</td>
<td>Sequence Exact, Protein</td>
</tr>
<tr>
<td></td>
<td>SQSP, SQSFP</td>
<td>PSL</td>
<td>Subsequence, Protein</td>
</tr>
<tr>
<td></td>
<td>SQEN</td>
<td>SQSN</td>
<td>Sequence Exact, Nucleic Acid</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Subsequence, Nucleic Acid</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Patent Sequence Localization in the Original Patent Application</td>
</tr>
<tr>
<td>PCTGEN</td>
<td>FEAT</td>
<td>FEAT</td>
<td>Feature Table: Features and Modifications of the Sequence</td>
</tr>
<tr>
<td></td>
<td>MTY</td>
<td>MTY</td>
<td>Molecule Type (DNA, etc.)</td>
</tr>
<tr>
<td></td>
<td>ORGN</td>
<td>ORGN</td>
<td>Organism Name</td>
</tr>
<tr>
<td></td>
<td>SEQN</td>
<td>SEQN</td>
<td>Identification Number of the Sequence</td>
</tr>
<tr>
<td></td>
<td>SQL</td>
<td>SQL</td>
<td>Sequence Length</td>
</tr>
<tr>
<td></td>
<td>SQEP, SQEFP</td>
<td>SEQ, SEQ3, SEQO</td>
<td>Sequence Exact, Protein</td>
</tr>
<tr>
<td></td>
<td>SQSP, SQSFP</td>
<td>PSL</td>
<td>Subsequence, Protein</td>
</tr>
<tr>
<td></td>
<td>SQEN</td>
<td>SQSN</td>
<td>Sequence Exact, Nucleic Acid</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Subsequence, Nucleic Acid</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sequence in original application format</td>
</tr>
<tr>
<td>USGENE</td>
<td>FEAT</td>
<td>FEAT</td>
<td>Feature Table: Features and Modifications of the Sequence</td>
</tr>
<tr>
<td></td>
<td>MTY</td>
<td>MTY</td>
<td>Molecule type (DNA, etc.)</td>
</tr>
<tr>
<td></td>
<td>DESC</td>
<td>DESC</td>
<td>Description (including Identification number)</td>
</tr>
<tr>
<td></td>
<td>ORGN</td>
<td>ORGN</td>
<td>Organism name</td>
</tr>
<tr>
<td></td>
<td>SEQN</td>
<td>SEQN</td>
<td>Identification Number of the Sequence</td>
</tr>
<tr>
<td></td>
<td>SQL</td>
<td>SQL</td>
<td>Sequence Length</td>
</tr>
<tr>
<td></td>
<td>SQEP, SQEFP</td>
<td>SEQ, SEQ3, SEQO</td>
<td>Sequence Exact, Protein</td>
</tr>
<tr>
<td></td>
<td>SQSP, SQSFP</td>
<td>PSL</td>
<td>Subsequence, Protein</td>
</tr>
<tr>
<td></td>
<td>SQEN</td>
<td>SQSN</td>
<td>Sequence Exact, Nucleic Acid</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Subsequence, Nucleic Acid</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sequence origin: Sequence type, source, publication type</td>
</tr>
</tbody>
</table>
41.6.2 Search Notes

Sequence data can be searched in the DGENE (Derwent), REGISTRY (CAS), PCTGEN (WIPO, FIZ Karlsruhe) and USGENE (SequenceBase Corporation, FIZ Karlsruhe) databases. The databases hold one record for every amino or nucleic acid sequence indexed from a patent publication. DGENE also includes the bibliographical details with the title and abstract in addition to the sequence data. PCTGEN and USGENE includes the bibliographical details with the title, in USGENE all claims (but only the main claim is searchable). In REGISTRY, bibliographical data and abstracts cannot be searched. Additional information on the patent or patent family can be found in the corresponding bibliographical databases (DWPI, CAPLUS, PCTFULL, USPATALL).

The individual amino acid residues or nucleic acid bases can be searched in the AA (/AA, /AA.CNT) (DGENE) or NA (/NA, /NA.CNT) (DGENE and REGISTRY) fields respectively.

Sequences cannot be searched directly using the SEARCH command. A special RUN package has to be employed (DGENE, PCTGEN and USGENE):

- GETSEQ for simple sequence searches
- GETSIM for similarity (homology) searches (based on FastA algorithm)
- BLAST® for similarity (homology) searches (based on BLAST algorithm)
- GETSIM with proportional refinement of the results of homology searches
- BLAST® with proportional refinement of the results of homology searches

A short sequence may be entered directly. For longer sequences UPLOAD or the STN Upload Query Wizard should be used (DGENE, PCTGEN and USGENE on STN on the WEB and STN Express).

When using GETSEQ to search for sub-sequences in the /SQSP, SQSFP, or /SQSN fields a variety of expressions may be used to introduce repetitions, omissions, alternatives, etc., and thus make the search sequence very variable (see the database sheet or the display of HELP SQQ for more information).

For amino acids one or three letter codes can be used for SEARCH and DISPLAY, for nucleic acids only one letter codes can be used. A list of the possible codes can be obtained with either HELP AAC for amino acids or HELP NUC for nucleic acids.

With all sequence searches (BLAST, GETSIM, GETSEQ) the correspondences between the sequence searched and the sequence found can be displayed with the command DISPLAY ALIGN (DGENE, PCTGEN and USGENE).
### Types of search

Here is a summary of the options available in each database:

<table>
<thead>
<tr>
<th></th>
<th>DGENE</th>
<th>REGISTRY</th>
<th>PCTGEN</th>
<th>USGENE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period covered</td>
<td>since 1981</td>
<td>since 1957</td>
<td>since 2001</td>
<td>since 1982</td>
</tr>
<tr>
<td>Sources</td>
<td>41 patent organisations</td>
<td>9,000 journals</td>
<td>WIPO</td>
<td>USPTO</td>
</tr>
<tr>
<td>Sequence type</td>
<td>Peptide sequences</td>
<td>Peptide sequences</td>
<td>Peptide sequences</td>
<td>Peptide sequences</td>
</tr>
<tr>
<td></td>
<td>Nucleotide sequences</td>
<td>Nucleotide sequences</td>
<td>Nucleotide sequences</td>
<td>Nucleotide sequences</td>
</tr>
<tr>
<td>Update</td>
<td>Biweekly</td>
<td>Daily</td>
<td>Weekly</td>
<td>Weekly</td>
</tr>
<tr>
<td>Sequence display</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Name search</td>
<td>DESC</td>
<td>CN</td>
<td>ORGN</td>
<td>ORGN DESC</td>
</tr>
<tr>
<td></td>
<td>KW</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ORGN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bibliographical details (searchable)</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Abstracts and title</td>
<td>yes</td>
<td>no</td>
<td>title only</td>
<td>yes + ECLM</td>
</tr>
<tr>
<td>SCM searching (Sequence Code Match)</td>
<td>GETSEQ</td>
<td>yes</td>
<td>GETSEQ</td>
<td>GETSEQ</td>
</tr>
<tr>
<td>Similarity Searching</td>
<td>BLAST</td>
<td>BLAST</td>
<td>BLAST</td>
<td>BLAST</td>
</tr>
<tr>
<td>Similarity ALIGN display</td>
<td>In the transcript</td>
<td>STN EXPRESS: in the Merged Transcript Report after post-processing STN on the Web: in the Report</td>
<td>In the transcript</td>
<td>In the transcript</td>
</tr>
</tbody>
</table>

More information and documentation can be found on this URL:

42 Search by numeric properties

42.1 Numeric properties in patents

Numeric indications of physical or chemical properties play an important role in patents, for example:

- Amount or weight
- Concentration
- Ratio of mixture
- Frequency
- Wave length
- Temperature

Typically applicants avoid stating exact values in order to extend the scope of protection and to keep business secrets. In patent applications they rather state wide ranges around the actually relevant or commercially interesting values – a practice that makes searching numeric properties in ordinary text documents even more difficult.

42.2 Problem

Intervals of numeric properties are difficult to find using conventional tools for fulltext searching:

- Manually entering all possible values is cumbersome and error-prone, in particular if a larger interval is wanted
- A search by a sequence of numbers often exceeds the system limits
- The search is substantially incomplete

Consequently, numeric indications:

- Must be semantically treated
- Must be linked to their respective units
- Units must be convertible

42.3 Numeric Property Search (NPS)

Numeric Property Search (NPS) makes it possible to search numeric indications in patent publications in the context of the respective fulltext. Due to the numeric properties being indexed in the context of the document proximity operators known from text searches can be employed to link numeric values and keywords. This search option has already been implemented in the full-text databases AUPATFULL, CANPATFULL, CNFULL, DEFULL, INFULL, JPFULL, KRFULL, PCTFULL, and DWPI and in the non-patent literature databases 1Mobility, 2Mobility, AEROSPACE, AGRICOLA, CABA, COMPENDEX, ENCOMPPAT/ENCOMPPAT2, FSTA, METADEX, PQSCITECH, and TULSA/TULSA2 (version 1). There is a cluster NPS comprising all databases that have Numeric Property Search.

Upon introduction of NPS into Derwent World Patent Index the search options have been extended both with regard to the number of properties covered and possible synonyms (version 2). This version is also available in the FSTA (Food Science and Technology) database.

Numeric properties are extracted from the fulltext and processed by STN for improved searching:

- More than 55 (version 1: 35) chemical and physical properties in approximately 1,800 (version 1: 400) units
- Units are converted automatically
- Numerics are recognized (version 2)
- All English text fields are included (TIEN, ABEN, CLMEN, DETDEN)
- Numeric indications are kept in the context of the fulltext (Proximity)
Types of search

- Full flexibility for searching: open or closed intervals, tolerances, exact values, magnitudes (nano-, milli-, kilo-)

42.3.1 Semantic enrichment

For semantic enrichment this basic algorithm is performed:

- Correct identification of numbers and units:

  ... The resulting CeO2 particle size measured by X-ray diffraction were in the range of 10 to 30 nm. Fig. 1 shows typical nano particles in a sample milled for 6 hours. In a second experiment a 1 litre attrition mill was used for milling the mixture. ... In addition it is widely accepted that the existence of a so-called 'limiting particle size' limits the practical minimum particle size that can be attained by grinding to values greater than 100nm, irrespective of the type of ball mill employed. ...

  There are both exact numeric values and closed and open intervals. The units are sometimes written out, sometimes abbreviated, and they are appended to the respective number with or without a space. The empirical formula and the reference to “Fig. 1” also contain numbers, but they are no numeric properties.

- Extraction of values and their respective units:
  - 10 nm
  - 30 nm
  - 6 hours
  - 1 liter
  - 100 nm

- Conversion to basic SI units:
  - 10 nm = 1,0 x 10^{-8} m
  - 30 nm = 3,0 x 10^{-8} m
  - 6 hours = 2,16 x 10^{4}s
  - 1 litre = 1,0 x 10^{-3} m^3
  - 100 nm = 1,0 x 10^{-7} m

The data found can be searched in the context of the original document:

- As exact values or in intervals
- In combination with keywords
- Using proximity operators
- In various units

The algorithm is able to identify and process SI units\(^1\), metric and non-metric units and various writings. For example feet and other units of the imperial system are identified and converted to their metric equivalents.

---

\(^1\) Strictly speaking, only metre, kilogram, second, kelvin, mole and candela are SI basic units. Others, such as cubic metre, mole per litre, Joule or Newton are coherent SI units; they are derived from the basic units. Others again, such as bit and byte or percent are not part of the Système International at all.
### Searchable physical quantities

The table below lists the searchable physical quantities together with the respective units and search fields:

<table>
<thead>
<tr>
<th>Search Field</th>
<th>Quantity</th>
<th>Unit</th>
<th>Symbol</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>/AOS</td>
<td>Amount of Substance</td>
<td>Mole</td>
<td>mol</td>
<td></td>
</tr>
<tr>
<td>/BIR</td>
<td>Bit Rate</td>
<td>Bit / Second</td>
<td>bit/s</td>
<td></td>
</tr>
<tr>
<td>/BIT</td>
<td>Stored Information</td>
<td>bit</td>
<td>bit</td>
<td></td>
</tr>
<tr>
<td>/CAP</td>
<td>Capacitance</td>
<td>Farad</td>
<td>F</td>
<td>Version 2</td>
</tr>
<tr>
<td>/CDN</td>
<td>Current density</td>
<td>Ampere / Square meter</td>
<td>A/m²</td>
<td>Version 2</td>
</tr>
<tr>
<td>/CMOL</td>
<td>Molar Concentration (Molarity)</td>
<td>mole / litre</td>
<td>mol/l</td>
<td></td>
</tr>
<tr>
<td>/CON</td>
<td>Conductance (Electrical Conductance)</td>
<td>Siemens</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>/DB</td>
<td>Dezibel</td>
<td>Dezibel</td>
<td>dB</td>
<td>Version 2</td>
</tr>
<tr>
<td>/DEG</td>
<td>Degree</td>
<td>Degree</td>
<td>degree</td>
<td></td>
</tr>
<tr>
<td>/DEN</td>
<td>Density, Mass Concentration</td>
<td>Kilogram / Cubic Metre</td>
<td>kg/m³</td>
<td></td>
</tr>
<tr>
<td>/DEQ</td>
<td>Dose Equivalent</td>
<td>Sievert</td>
<td>Sv</td>
<td>Version 2</td>
</tr>
<tr>
<td>/DOS</td>
<td>Dosage</td>
<td>Milligram / Kilogram</td>
<td>mg/kg</td>
<td>Version 2</td>
</tr>
<tr>
<td>/DV</td>
<td>Viscosity, Dynamic</td>
<td>Pascal x Second</td>
<td>Pa/s</td>
<td></td>
</tr>
<tr>
<td>/ECH</td>
<td>Electric Charge</td>
<td>Coulomb</td>
<td>C</td>
<td>Version 2</td>
</tr>
<tr>
<td>/ECO</td>
<td>Electric Charge Density</td>
<td>Coulomb / Square meter</td>
<td>C/m²</td>
<td>Version 2</td>
</tr>
<tr>
<td>/ECO</td>
<td>Electrical Conductivity</td>
<td>Siemens / Meter</td>
<td>S/m</td>
<td>Version 2</td>
</tr>
<tr>
<td>/ELC</td>
<td>Electric Current</td>
<td>Ampere</td>
<td>A</td>
<td>Version 2</td>
</tr>
<tr>
<td>/ELF</td>
<td>Electric Field</td>
<td>Volt / Meter</td>
<td>V/m</td>
<td>Version 2</td>
</tr>
<tr>
<td>/ENE</td>
<td>Energy</td>
<td>Joule</td>
<td>J</td>
<td></td>
</tr>
<tr>
<td>/ERE</td>
<td>Electrical Resistivity</td>
<td>Ohm x Meter</td>
<td>ohm m</td>
<td>Version 2</td>
</tr>
<tr>
<td>/FOR</td>
<td>Force</td>
<td>Newton</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>/FRE</td>
<td>Frequency</td>
<td>Hertz</td>
<td>Hz</td>
<td></td>
</tr>
<tr>
<td>/IU</td>
<td>International Unit</td>
<td>none</td>
<td>IU</td>
<td>Version 2</td>
</tr>
<tr>
<td>/KV</td>
<td>Viscosity, Kinematic</td>
<td>Square Metre / Second</td>
<td>m²/s</td>
<td>Version 2</td>
</tr>
<tr>
<td>/LEN (/SIZ)</td>
<td>Length</td>
<td>Meter</td>
<td>m</td>
<td></td>
</tr>
<tr>
<td>/LUME</td>
<td>Luminous Emittance/Illuminance</td>
<td>Lux</td>
<td>lx</td>
<td></td>
</tr>
<tr>
<td>/LUMF</td>
<td>Luminous Flux (Luminous Power)</td>
<td>Lumen</td>
<td>lm</td>
<td></td>
</tr>
<tr>
<td>/LUMI</td>
<td>Luminous Intensity</td>
<td>Candela</td>
<td>cd</td>
<td></td>
</tr>
<tr>
<td>/M</td>
<td>Mass</td>
<td>Kilogram</td>
<td>kg</td>
<td></td>
</tr>
<tr>
<td>/MHC</td>
<td>Mass to Charge Ratio</td>
<td>none</td>
<td>m/z</td>
<td></td>
</tr>
<tr>
<td>/MFD (/MFS)</td>
<td>Magnetic Flux Density</td>
<td>Tesla</td>
<td>T</td>
<td></td>
</tr>
<tr>
<td>/MFR (/MFL)</td>
<td>Mass Flow Rate</td>
<td>Kilogram / Second</td>
<td>kg/s</td>
<td></td>
</tr>
<tr>
<td>/MW (/MM)</td>
<td>Molecular Weight, (Molar Mass)</td>
<td>Gram / Mole</td>
<td>g/mol</td>
<td></td>
</tr>
<tr>
<td>/MOLS</td>
<td>Molarity of Substance</td>
<td>Mol / Kilogram</td>
<td>mol/kg</td>
<td>Version 2</td>
</tr>
<tr>
<td>/MVR</td>
<td>Melt Volumere Rate</td>
<td>none</td>
<td>g/10 min</td>
<td>Version 2</td>
</tr>
<tr>
<td>/NUC</td>
<td>Nutrition Content</td>
<td>none</td>
<td>g/100 kcal</td>
<td>Version 2</td>
</tr>
<tr>
<td>/PER</td>
<td>Percent (Proportionality)</td>
<td>none</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>/PERA</td>
<td>Permittivity, Absolute</td>
<td>Farad / Meter</td>
<td>F/m</td>
<td>Version 2</td>
</tr>
<tr>
<td>/PHV</td>
<td>pH Value</td>
<td>pH</td>
<td>ph</td>
<td></td>
</tr>
<tr>
<td>/POW</td>
<td>Power</td>
<td>Watt</td>
<td>W</td>
<td></td>
</tr>
<tr>
<td>/PRES, /P</td>
<td>Pressure</td>
<td>Pascal</td>
<td>Pa</td>
<td></td>
</tr>
<tr>
<td>/RAD</td>
<td>Radioactivity</td>
<td>Becquerel</td>
<td>bq</td>
<td></td>
</tr>
<tr>
<td>/RES</td>
<td>Electrical Resistance</td>
<td>Ohm</td>
<td>Ohm</td>
<td></td>
</tr>
<tr>
<td>/RSP</td>
<td>Rotational Speed</td>
<td>Revolution / Minute</td>
<td>rpm</td>
<td></td>
</tr>
<tr>
<td>/SAR</td>
<td>Area</td>
<td>Square Meter</td>
<td>m²</td>
<td></td>
</tr>
<tr>
<td>/SOL</td>
<td>Solubility</td>
<td>Gram / 100 Gram</td>
<td>g/100g</td>
<td>Version 2</td>
</tr>
<tr>
<td>/STSC</td>
<td>Surface Tension, Spring Constant</td>
<td>Joule / Square Metre</td>
<td>J/m²</td>
<td>Version 2</td>
</tr>
<tr>
<td>/TCO</td>
<td>Thermal Conductivity</td>
<td>Watt / Meter Kelvin</td>
<td>W/m K</td>
<td>Version 2</td>
</tr>
<tr>
<td>/TEMP</td>
<td>Temperature</td>
<td>Kelvin</td>
<td>K</td>
<td></td>
</tr>
<tr>
<td>/TIM</td>
<td>Time</td>
<td>Second</td>
<td>s</td>
<td></td>
</tr>
<tr>
<td>/VEL</td>
<td>Velocity</td>
<td>Metre / Second</td>
<td>m/s</td>
<td></td>
</tr>
<tr>
<td>/VELA</td>
<td>Velocity, angular</td>
<td>Radian / Second</td>
<td>rad/s</td>
<td>Version 2</td>
</tr>
<tr>
<td>/VLR</td>
<td>Volumetric Flow Rate</td>
<td>Cubic Meter / Second</td>
<td>m³/s</td>
<td>Version 2</td>
</tr>
<tr>
<td>/VOL</td>
<td>Volume</td>
<td>Cubic Metre</td>
<td>m³</td>
<td></td>
</tr>
<tr>
<td>/VOLT</td>
<td>Voltage</td>
<td>Volt</td>
<td>V</td>
<td></td>
</tr>
</tbody>
</table>

Detailed information on the searchable quantities can be displayed by entering EXPAND / PHP or HELP NPS.
42.3.3 Systems of units available

The CGS system of units (Centimetre—Gram—Second) is a metric coherent system of units that is based on the units centimetre, gram, and second. However, there are a number of concurrent extensions for electromagnetic units. STN Messenger accepts these systems:

<table>
<thead>
<tr>
<th>System</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGS</td>
<td>The centimeter-gram-second system</td>
</tr>
<tr>
<td>ENG</td>
<td>Customary U.S. Engineering units</td>
</tr>
<tr>
<td>FPS</td>
<td>The foot-pound-second system</td>
</tr>
<tr>
<td>MKS</td>
<td>The meter-kilogram-second system</td>
</tr>
<tr>
<td>SI</td>
<td>Systém International d’unités (International system) based on the MKS system</td>
</tr>
<tr>
<td>STN</td>
<td>Customary units based on the SI-system</td>
</tr>
</tbody>
</table>

If a search is performed in one system of units documents using a different unit for a particular property will be found anyway, e.g.:

```plaintext
=> FIL WPINDEX
=> S 100000-200000/PRES
L1 74521 100000 PASCAL - 200000 PASCAL /PRES
=> S 1-2 BAR/PRES
L3 74521 1-2 BAR/PRES
```

The SET command can be used to define a preferred unit, e.g. to set Fahrenheit as the preferred unit for the temperature use:

```plaintext
=> SET UNIT TEMP=F PERMANENT
```

It is recommended to use the CGS system:

```plaintext
=> SET UNITS ALL=CGS
```

42.3.4 Searching

The data received can be searched in the context of the original text, i.e. they can be linked to a keyword search using proximity operators in order to obtain a more relevant search result. Exact numbers as well as closed or open intervals can be searched. By using SET TOLERANCE an absolute or relative tolerance range can be defined for each quantity, this can even be made permanent with the PERMANENT option:

```plaintext
=> SET TOLERANCE
ENTER FIELD CODES AND TOLERANCES OR (END): TEMP=10%
ENTER FIELD CODES AND TOLERANCES OR (END): END
```

The example below shows a search for a length in the nanometer range:

```plaintext
=> FIL PCTFULL
=> S SIZE (3A) SIZ<=100NM
756526 SIZE
112228 SIZE<=100NM
L1 17287 SIZE (3A) SIZ<=100NM
=> D KWIC 1-5
L1 ANSWER 1 OF 17287 PCTFULL COPYRIGHT 2011 LNU on STN DETDEN ... particles with an average particle size of from approximately 3 to 100 nanometers, and a...
DETDEN ... 30 to 300 or even 100 nanometer size range results in a significant...
DETDEN ... SiC powder with an average size of 90 nanometers was added and the...
DETDEN ... TiO2 powder having a particle size of about 50 nanometers is added to
```

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The examples below show various options for entering “nanometers”. Using exponential representation.

\[ \text{S SIZE (3A) SIZ} \leq 1.0 \times 10^{-7} \]

The basic unit for the length is “metre”.

\[ \text{S SIZE (3A) SIZ} \leq 0.0000001 \]

The table below shows the search options:

<table>
<thead>
<tr>
<th>Search option</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard units</td>
<td>=&gt; S 50/VOL</td>
</tr>
<tr>
<td></td>
<td>L1 454 50 M**3/VOL</td>
</tr>
<tr>
<td>Intervals</td>
<td>=&gt; S 50-60/VOL</td>
</tr>
<tr>
<td></td>
<td>L2 599 50 M<strong>3 - 60 M</strong>3/VOL</td>
</tr>
<tr>
<td>Other units</td>
<td>=&gt; S 10-30 ML/VOL</td>
</tr>
<tr>
<td></td>
<td>L3 114464 10-30 ML/VOL</td>
</tr>
<tr>
<td>Open intervals</td>
<td>=&gt; S SIZ &lt; 5 MM</td>
</tr>
<tr>
<td></td>
<td>L4 463893 SIZ &lt; 5 MM</td>
</tr>
<tr>
<td>Absolute tolerance</td>
<td>=&gt; S 5 MM +/- 1/SIZ</td>
</tr>
<tr>
<td></td>
<td>L5 160136 5 MM +/- 1/SIZ</td>
</tr>
<tr>
<td>Relative tolerance in %</td>
<td>=&gt; S 5 MM +/- 5%/SIZ</td>
</tr>
<tr>
<td></td>
<td>L6 113784 5 MM +/- 5%/SIZ</td>
</tr>
</tbody>
</table>

The availability of searchable properties can be checked in the /PHP field:

\[ => S MW/PHP (SA) (?BLOCK ?POLYM? OR (?BLOCK? (T) ?POLYM?)) \]

42.3.5 The EX operator

(NPS Version 2)

When searching an open range (e.g. S LEN > 3) or an exact value (e.g. S 4/LEN) it may be that hits like this are found: “more than 1 meter” because the whole range is indexed in this case. To prevent this the EX operator can be used: S LEN. EX > 3. This excludes documents where the value is lower than 3 meters, such as this:

Member...

... relates to thread|yarn entanglement prevention of a fishing rod. The effect of the invention of Example 1 since it is at least 5 cm or more separated from the front-end|tip part of a pole of the fishing line and the fishing rod by ... rod of normal. The effect of the invention of Example 2 since the fishing line and the fishing rod are at least 5 cm
Types of search

or more separated with the pipe in which the front-end|tip part of the pole was bent although the fishing ... it can use as a fishing rod of normal. The effect of the invention of Example 3. Since it is at least 5 cm or more separated from the front-end|tip part of a pole of the fishing line and the fishing rod by ...
### 43 Search by name

#### 43.1 Important fields for a name search

<table>
<thead>
<tr>
<th>Databases</th>
<th>SEARCH</th>
<th>DISPLAY</th>
<th>Notes</th>
<th>Index form (see below)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUPATFULL, CANPATFULL, CNFULL, DEFULL, DWPI, EPFULL, FRANCEPAT, FRFULL, GBFULL, INFULL, INPADOCDB, INPAFAMDB, JPFULL, KOREAPAT, KRFULL, LITALERT, PATDPA, PATDPAFULL, PCTFULL, RUSSIAPAT, USGENE, USPATOLD</td>
<td>/IN</td>
<td>IN</td>
<td>Inventor (Author)</td>
<td>Mixed index</td>
</tr>
<tr>
<td></td>
<td>/AU</td>
<td>AU</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>/PA</td>
<td>PA</td>
<td>Assignee (Corporate Source)</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td></td>
<td>/CS</td>
<td>CS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INPADOCDB, INPAFAMDB</td>
<td>/INS</td>
<td>INS</td>
<td>Inventor in INPADOC standard</td>
<td>Mixed Index</td>
</tr>
<tr>
<td></td>
<td>/PAS</td>
<td>PAS</td>
<td>Assignee in INPADOC standard</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td>DEFULL, KRFULL</td>
<td>/PAS</td>
<td>PAS</td>
<td>Assignee, standardised</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td></td>
<td>/PAN</td>
<td>PAN</td>
<td>Assignee, normalised</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td>USPATOLD</td>
<td>/IN</td>
<td>IN</td>
<td>Inventor</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td></td>
<td>/AU</td>
<td>AU</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>/PA</td>
<td>PA</td>
<td>Assignee (Corporate Source)</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td></td>
<td>/CS</td>
<td>CS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PATDD</td>
<td>/IN, (IN.W)</td>
<td>IN</td>
<td>Inventor (Author)</td>
<td>Word index</td>
</tr>
<tr>
<td></td>
<td>(AU, (/AU.W))</td>
<td>AU</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>/PA, (PA.W)</td>
<td>PA</td>
<td>Assignee (Corporate Source)</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td></td>
<td>/CS, (/CS.W)</td>
<td>CS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>/IN.S</td>
<td>IN</td>
<td>Inventor (Author)</td>
<td>Phrase index</td>
</tr>
<tr>
<td></td>
<td>/PA.S</td>
<td>PA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA, DPCI, DGENE, ENCOMMPAT2, IFIALL*, JAPIO, USPATFULL, USPAT2</td>
<td>/IN</td>
<td>IN</td>
<td>Inventor (Author)</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td></td>
<td>/AU</td>
<td>AU</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>/PA</td>
<td>PA</td>
<td>Assignee (Corporate Source)</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td></td>
<td>/CS</td>
<td>CS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USPATFULL, USPAT2</td>
<td>USPA</td>
<td>USPA, PA</td>
<td>Corporate Patent Applicant Name</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td>IFIALL</td>
<td>PPA</td>
<td>PPA, PA</td>
<td>Patent Assignee probable</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td>PCTGEN, RDISCLOSURE</td>
<td>/PA, /CS</td>
<td>PA, CS</td>
<td>Assignee</td>
<td>Mixed index with system interpretation; no inventors</td>
</tr>
<tr>
<td>PATDD</td>
<td>/PAS, /PAS.W</td>
<td>PAS</td>
<td>Assignee</td>
<td>Word index Phrase index</td>
</tr>
<tr>
<td></td>
<td>/PAS.S</td>
<td>PAS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DWPI, WPIFV, DPCI, DGENE</td>
<td>/PACO</td>
<td>in PA</td>
<td>Assignee Code</td>
<td></td>
</tr>
<tr>
<td>CANPATFULL, DWPI, PATDPA, EPFULL, PATDPAFULL, USPATFULL, USPAT2</td>
<td>/AG</td>
<td>AG</td>
<td>Agent</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td>IFIALL, FRANCEPAT</td>
<td>/AG</td>
<td>AG</td>
<td>Agent</td>
<td>Word index</td>
</tr>
<tr>
<td>RUSSIAPAT</td>
<td>/AG</td>
<td>AG</td>
<td>Agent</td>
<td>Mixed index</td>
</tr>
<tr>
<td></td>
<td>/CA</td>
<td>CA</td>
<td>Corporate Address (Agent)</td>
<td>Mixed index</td>
</tr>
<tr>
<td>PATDPA, EPFULL</td>
<td>/OP</td>
<td>OP</td>
<td>Opponent**</td>
<td>Mixed index</td>
</tr>
<tr>
<td>LITALERT</td>
<td>/OW</td>
<td>OW</td>
<td>Owner</td>
<td>Mixed index with system interpretation</td>
</tr>
</tbody>
</table>

(In the individual patent databases, a great variety of further name fields are available. To list them all would exceed the limits of this publication. It is recommended to keep informed by means of the documentation of the individual databases.)

* – In IFIALL there is another field for applications, /PPA (Probable Patent Assignee).
** Types of search

In INPADOCDB and INPAFAMDB an opponent can be searched in the /LSOP field. If the applicant name changes, e.g. due to a company merger, this can often be seen from the Legal Status in the LSPA field, however, the name may remain unchanged in the PA field.

### 43.2 Index types in name fields

**Word Index:** This index form considers solely the single words of a name. Normally the (S) proximity operator is predefined. If the search statement is $ \text{PROCTER & GAMBLE} / \text{PA}$, then Procter and Gamble may appear in any order of succession in the relevant name field of the same record.

**Phrase Index:** In this case names are only available as bound phrases. If you enter $\text{FISCHER ARTUR} / \text{IN}$, the system will search accordingly (watch out for punctuation!). Consequently, the searcher should closely follow the rules of the database searched.

**Mixed Index:** In a mixed index the names are listed both broken up in single words and in full (as a phrase). When entering $\text{FISCHER} / \text{IN}$, the word Fischer is searched, entering $\text{FISCHER ARTUR} / \text{IN}$ will result in a search for that very phrase.

**Mixed Index where the System interprets the Query:** As in the mixed index above, single words and phrases are listed together. Here, however, the query $\text{PROCTER & GAMBLE} / \text{PA}$ results in a search by single words using implied (S) proximity. Entering $\text{"PROCTER & GAMBLE"} / \text{PA}$ (using quotation marks) will lead to a search with bound phrases. New or redesigned databases will in most cases be set up with this type of index for the Patent Assignee (/PA) field.

For an overview on the index types used in the various patent databases see the table above.

### 43.3 Notes for all databases

For name searches the use of the EXPAND command is highly recommended as it offers a number of advantages:

- You will see which kind of index is available in the database used.
- The various spellings of the name are shown.

Searches for inventors can be continued based on the results obtained by EXPAND. However, a search for assignees in most cases requires a more in-depth search strategy as company names may vary considerably (e.g. the sequence of the parts of the name).

If a name contains ‘Umlauts’, one should search both with the dissolved umlaut (ae for ä) and with the basic vowel instead of the umlaut (a for ä).

Some databases have entries with special characters (e.g. –, &) in the non-standardised Assignee Name field. To find such name entries with an EXPAND command the special characters must be entered.

In a crossover search, it is recommended to search only for the main parts of the name. If a multipart name is searched, use of (S)-Proximity is appropriate. In some of the databases other proximity operators, such as (W), are not permitted.

### 43.4 Notes on individual countries

#### 43.4.1 US

The USPTO has been publishing the Corporate Patent Assignee Name for patent applications since 2015. This is entered into these fields:

- PA – Patent Assignee
- PAS – Patent Assignee Standard (INPADOC)
- USPA – Patent Assignee US (USPATFULL, USPAT2)
- PPA – Probable Patent Assignee (IFIALL)

It is advisable to use the /PASS super-search field. This automatically uses all patent assignee name search fields available in the database:

=> FIL USPATFULL
Still there are cases where there is no patent assignee name available for a patent application. In particular before 2015 only the inventor field is filled in patent applications in many cases. Only once a patent is granted the patent assignee is registered. This may be a problem with name searches. There are a number of opportunities to find the company affiliation of an inventor:

In some databases (DWPI, USPATFULL, IFIALL) the AG field contains the representative (agent), from which a likely patent owner can often be concluded.

If the invention is not only filed in US the owner can be retrieved in an international database through the family members:

In PCT applications the applicants are distinguished between applicants for US and for other countries:

A change of ownership is registered in INPADOCDB into the legal status (see section INPADOCDB/INPAFAMDB), in CAplus and USPATALL this change is registered in the RAI field (Reassignment Information). By including these fields into a name search, the name search can be more complete:
Types of search

=> D PA HIT 5

ASSIGNMENT HISTORY FOR US 20090259787

RAI_RAD: 20090203
RAUP: 20091015
RAK: ASSIGNMENT OF ASSIGNS I RTEREST (SEE DOCUMENT FOR DETAILS).
PAO: ELOUOSI, MUHAMMED (DATE EXECUTED: 20090120)
KAR, JAYASHREE (DATE EXECUTED: 20090202)
FUEGA, DAVID G. (DATE EXECUTED: 20090122)
VENKATARAMAN, SRIKRISHNAN (DATE EXECUTED: 20090120)
RAC: INTEL CORPORATION, 2200 MISSION COLLEGE BOULEVARD, SANTA CLARA, CALIFORNIA 95052-5326, UNITED STATES
RAA: INTEL CORPORATION C/O INTELLEVATE LLC, P.O. BOX 52050, MINNEAPOLIS, MN 55402
MRN: 22197 MFN: 676 (7 Page(s))

43.4.2 Germany

In German patent applications the inventor does not have to be named:

L7 ANSWER 1 OF 1 PATDPAFULL COPYRIGHT 2014 DPMA on STN
TI Oxidationsfärbermittel
IN Erfinder wird später genannt werden (EWSG)
PA Hans Schwarzkopf GmbH & Co. KG, 22763 Hamburg, DE
PI DE 19728147 A1 19980618

In such a case the inventor can be found through an equivalent (international or European) application:

L9 ANSWER 1 OF 1 EPFULL COPYRIGHT 2014 EPO/FIZ KA/LNU on STN
TIEN OXIDATION DYES.
TI/FR COLORANTS D’OXIDATION.
TI/DE OXIDATIONSFÄRBERMITTEL.
IN BITTNER, Andreas, Joachim, Wiesenstrasse 11, D-63071 Offenbach, DE;
KLEEN, Astrid, Venhauser Allee 203, D-40627 Duesseldorf, DE
PA Hans Schwarzkopf GmbH & Co. KG, (Schwarzkopf GmbH & Co. KG, Hans),
Hohenzollernring 127, 22763 Hamburg, DE
PI EP 912160 A2 19990506
WO 9801106 19980115

Only the applicant is named in utility models.

43.4.3 Japan

An inconvenience of Japanese patent publications is that the names of inventors and assignees need to be converted from Japanese characters (as shown on the document) to Roman characters (the way they appear in the database).

- Japanese proper names are written in Chinese characters (Kanji). Kanji may have various readings and hence completely different pronunciations. A conversion into Roman characters yields, therefore, not always clear results.

- Foreign proper names are converted according to their pronunciation into Japanese syllable writing (Katakana). For integration in the database they are re-converted following specific rules. In particular accumulations of consonants frequently found in European names cannot be converted adequately into Katakana. As a result, foreign names are in most cases not recognizable after two consecutive conversions.

This concerns especially person names. Therefore they are not entered sometimes (DWPI to 6/2005, they are entered after that date). For companies there are usually adequate conversions into Roman characters or it is known which foreign company ‘hides’ behind a specific syllable sequence.

AN 33078029 INPADOCDB UP 20080225 UW 200808
TI DIFFERENTIAL GEAR FOR AXLE DRIVING DEVICE OF AUTOMOBILE.
TL English
IN EDOMUNTO SANDERU; PEETA MEFUERUTO; PEETAA HEEBERU
INS EDOMUNTO SANDERU; PEETA MEFUERUTO; PEETAA HEEBERU
PA DR ING H C F PORSCHE AG
Guide to STN Patent Databases

43.4.4 Russia

With Russian names similar problems arise due to conversion. Non-Russian names are often changed very much. This applies both to names of companies and person names. In addition to that person names are often entered very differently: family name + initial(s), family name + full first name(s), changing sequence of the name parts. This can make name searches difficult in RUSSIAPAT. In INPADOCDB and INPAFAMDB the standardised /PAS field can help. In DWPI and CAPLUS the names are usually edited to a better standard. This partly applies even to national Russian applications having no corresponding foreign applications.

43.5 Derwent databases: DWPI, DPCI, DGENE

43.5.1 Inventor

The Inventor (/IN) field in DWPI has a mixed index where the family names plus (possibly several) initials are entered. Individual words (name or initial alone) or the name together with initial(s) are searchable. Thus, it is possible to search by family name alone or by family name together with the initial(s); it may be necessary to use truncation:

```plaintext
=> S BRANDENBURG /IN
L1 324 BRANDENBURG /IN

=> S BRANDENBURG K /IN
L2 71 BRANDENBURG K /IN

=> S BRANDENBURG K? /IN
L3 76 BRANDENBURG K? /IN
```

The parts of a name can be linked with (S) proximity:

```plaintext
=> S (BRANDENBURG (S) K) /IN
2632995 K /IN
L10 81 (BRANDENBURG (S) K) /IN
```
Types of search

The names are normalized in the index, i.e. special characters have been removed.

The name of the Inventor indicated on the first page of the Basic Patent is available in the Inventor field (since 1978). In older documents surnames with more than 10 letters were abbreviated (e.g. Tautzenberger – Tautzenber); more recent documents (from 1985) additionally contain the full name. Both forms should be searched. From 1980, up to 8 Inventor names have been entered, before that time 3 at the most. Similarly, only 3 names are entered for Soviet (SU) patents. Japanese inventors (from A and B publications) are entered from Derwent Week 200537. Inventors from small countries are sometimes missing.

In older documents (up to 1985) names with umlauts are entered only with the corresponding basic vowel (e.g. Müller – Muller); more recent documents additionally contain the name with converted umlaut (Mueller). Both forms should, as a rule, be searched. Multi-part surnames can be searched in various ways, e.g.: von Danwitz is searchable as VONDANWITZ or as VON DANWITZ.

In DPCI and DGENE there is only a phrase index for the inventor names (/IN field), i.e. the family name must be used together with the initial(s) or with truncation, if necessary.

43.5.2 Patent assignee

A mixed index with system interpretation is used for Patent Assignees; individual words from the name therefore appear in one list along with the name ranked as a phrase. Usually a search by single words is assumed. (S) proximity is used automatically:

=> S PROCTER & GAMBLE/PA
   11204 PROCTER/PA
   11273 GAMBLE/PA
L2 11170 PROCTER & GAMBLE/PA
   ((PROCTER(S)GAMBLE)/PA)

If the name is to be searched as a phrase it must be entered with quotation marks:

=> S "PROCTER & GAMBLE CO"/PA
L3 11059 "PROCTER & GAMBLE CO"/PA
or

=> S "PROCTER & GAMBLE"?/PA
L4 11169 "PROCTER & GAMBLE"?/PA

The truncation character ? must immediately precede the slash and not be included in the quotation marks.

If several entries are contained in the name field every name will be treated as one sentence ((S) proximity). Names in a record are always in alphabetical order (may be different from the Patent Gazette).

The complete name (up to 40 letters) is entered for each Patent Assignee. Until Derwent week 9216, a maximum of 24 letters were used.

Since Derwent week 9216, all Patent Assignees (including those of the Equivalents) are added to the PA field. Prior to this, the number of the patent assignees was limited to 4. Differing patent assignees of the Equivalents have been added since 1976 (Derwent-Week 7648). The names of Patent Assignees (/PA) are searchable since 1970 (year of introduction into the database).

In addition to the name of the Patent Assignee, a code is entered into the database by the database producer (into the PACO field). (For the years 1963 to 1969, only this code is available.) The code consists of four (three up to 1970) letters and, where appropriate, a further symbol of identification:-

- C – for unambiguous codes of major companies (more than 500 documents in the database),
- I – for individuals acting as assignees,
- N – for companies which are not part of this group of major companies,
- R – for institutions of the former Soviet Union and Russia.

The codes are particularly useful as a search tool in the case of the mentioned major companies where they are unambiguous. The patent assignee code can be searched in the /PA field together with the assignee name or individually in the /PACO field. If an Equivalent carries a different name (e.g. because of a change of the company name), the new name is entered in PA and a new code in PACO, where appropriate.
Guide to STN Patent Databases

If two companies (having standard codes) merge the patents continue to be entered under both standard codes as long as the companies apply for patents as independent companies. When they change to their new name the database producer does not automatically assign a new standard code but the most suitable code is chosen (either a new code or one of the old codes). The codes in existing documents are not automatically reassigned retrospectively.

A list of codes (both standard and non-standard) and respective assignee names is available on-line in the DWPI database or in the DWPI Reference Center (free of charge):


In DWPI a thesaurus is available for the codes. It is both possible to identify the code for a given patent assignee and all the assignees entered under a given code. A mixed index is used. It may be used in three ways:

- **EXPAND on /PACO** (E FARB / PACO) produces an alphabetical list of codes, with all parts of the names and the full names from the PA field. The frequency and number of Associated Terms (AT) is displayed.
- **EXPAND on a particular code (with hyphen) in /PACO** with ALL or DEF relation (E FARB - C + DEF / PACO) produces all names related to that code.
- **EXPAND on a part of the name (without hyphen)** in /PACO with ALL relation (E BAYER + ALL / PACO) produces all codes for that part of name.

The thesaurus is available in DWPI and DPCI, in DPCI also in the /PACO.D and /PACO.G fields.

Examples:

1. **EXPAND on /PACO** produces an alphabetical list of codes, with pieces of the names and the full names from the PA field:

```
=> E COKE / PACO
E# FREQUENCY AT TERM
--- -------- ------ ---------
  E1       1   COKE-N / PACO
  E2       3   COKE-I / PACO
  E3       0     35  --> COKE / PACO
  E4       0     1   COKE-CHP INII ENTERP DES INST/PACO
  E5       0     1   COKE-CHP INII PLANTS DES INST/PACO
  E6       0     1   COKE-CHP INII RES INST/PACO
  E7       0     1   COKE-CHP WKS DES INST/PACO
  E8   839     22  COKE-C / PACO
  E9       0     3   COKE-CHEM/PACO
  E10      0     1   COKE-CHP WKS DES INST/PACO
  E11      0     1   COKE-GAS/PACO
  E12      111     11   COKE-I / PACO
```

2. **EXPAND on a particular code (with hyphen)** in /PACO with ALL or DEF relation produces all names related to that code:

```
=> E COKE-C + ALL / PACO
E1  839  --> COKE-C / PACO
  DEF COCA-COLA AMATIL AUST PTY LTD
  DEF COCA-COLA ASIA PACIFIC KENKYOU KAIHATSU
  DEF COCA-COLA ASIA PACIFIC RES & DEV CO LTD
  DEF COCA-COLA BEVERAGE SERVICE KK
  DEF COCA-COLA CO
  DEF COCA-COLA CO LTD
  DEF COCA-COLA ENTERPRISES INC
  DEF COCA-COLA ENTERPRISES LTD
  DEF COCA-COLA ERFRISCHUNGSGUTRAENKE AG
  DEF COCA-COLA GMBH
  DEF COCA-COLA JAPAN CO LTD
  DEF COCA-COLA LTD
  DEF COCA-COLA PACIFIC GIJUTSU CENT KK
  DEF KINIKI COCA-COLA BOTTLING KK
  DEF KITA KYUSHU COCA-COLA BOTTLING KK
  DEF NIPPON COCA-COLA CO LTD
  DEF SANYO COCA-COLA BOTTLING KK
  DEF SHI KOKU COCA-COLA BOTTLING KK
  DEF TOKYO COCA-COLA BOTTLING CO LTD
  DEF TOKYO COCA-COLA BOTTLING KK
```
Types of search

DEF TOKYO COCA-COLA KK
DEF TONE COCA-COLA BOTTLING KK

********** END **********

3. EXPAND on a part of a name (without hyphen) in /PACO with ALL relation produces all codes for that piece of name:

=> E COKE+ALL/PACO
E1  0  - - - >  COKE/PACO
E2  20  CODE ALCHEM/R/PACO
E3  19  CODE AVDE-R/PACO
E4  4708  CODE BIO-R/PACO
E5  8  CODE BRICT-C/PACO
E6  329  CODE CINI-R/PACO
E7  234  CODE COKE-R/PACO
E8  395  CODE DETR-R/PACO
E9  87  CODE DNO-C/PACO
E10  6  CODE DOCO-R/PACO
E11  3654  CODE DONE-R/PACO
E12  613  CODE DONN-R/PACO
E13  11  CODE ERDA-R/PACO
E14  4339  CODE GIROL-R/PACO
E15  247  CODE HUNA-R/PACO
E16  471  CODE JEWEL/R/PACO
E17  104  CODE JEWEL-R/PACO
E18  533  CODE KANU-C/PACO
E19  27  CODE KECO-R/PACO
E20  14  CODE KEMB-R/PACO
E21  306  CODE KHCO-R/PACO
E22  8  CODE KOCO-R/PACO
E23  890  CODE MAKE-R/PACO
E24  1256  CODE MARI-R/PACO
E25  9344  CODE MITS-R/PACO
E26  949  CODE MOCO-R/PACO
E27  1109  CODE PENN-R/PACO
E28  222  CODE QIAN-R/PACO
E29  84  CODE SESA-R/PACO
E30  13711  CODE SHAN-R/PACO
E31  0  CODE SLCO-R/PACO
E32  26171  CODE SUMQ-C/PACO
E33  175  CODE TONA-R/PACO
E34  6  CODE UNCC-C/PACO
E35  114  CODE YASI-R/PACO
E36  2  CODE YEOC-R/PACO

********** END **********

=> S E36
L1  2  YEOC-R/PACO

=> D PA
L1  ANSWER 1 OF 2 WPINDEX COPYRIGHT 2007 THE THOMSON CORP on STN PA (YEOC-R) GEOCHEM COKE CHEM RES INST

The PAX select field produces a list of codes and names. The PAX field may be used with the SELECT, ANALYZE or TABULATE commands. Since one assignee code can be associated with several name entries the EDIT command should be used to combine the entries of the resulting table (cf. "Patent statistics"):

=> S DATA(4A) TRANSMISSION AND MOBILE(2W) (PHONE OR TELEPHONE) AND 2003/PY.B
L1  351 DATA(4A) TRANSMISSION AND MOBILE(2W) (PHONE OR TELEPHONE) AND 2003/PY.B

=> ANALYZE L1 - PAX 344 TERMS

=> D 1-15
L2  ANALYZE L1 - PAX 344 TERMS

TERM  # OCC  # DOC  % DOC PAX
---------  ---------  ---------  ---------

Guide to STN Patent Databases

<p>| | | | | | |</p>
<table>
<thead>
<tr>
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<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
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<td>(S I E M E N S AG)</td>
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<td>(MATSUHITA DENKI SANGYO KK)</td>
<td></td>
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<td>17</td>
<td>4.84</td>
<td>(SONY CORP)</td>
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<td>3.99</td>
<td>(FUJI PHOTO FILM CO LTD)</td>
<td></td>
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<td>12</td>
<td>12</td>
<td>3.42</td>
<td>(MITSUBISHI ELECTRIC CORP)</td>
<td></td>
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<td>10</td>
<td>2.85</td>
<td>(CANON KK)</td>
<td></td>
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<tr>
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<td>10</td>
<td>10</td>
<td>2.85</td>
<td>(NEC CORP)</td>
<td></td>
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<tr>
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<td>10</td>
<td>10</td>
<td>2.85</td>
<td>(SEIKO EPSON CORP)</td>
<td></td>
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<tr>
<td>9</td>
<td>10</td>
<td>10</td>
<td>2.85</td>
<td>(TOSHIBA KK)</td>
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<td>7</td>
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<td>1.99</td>
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<td>(NTT DO TSUSHI NMO KK)</td>
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<tr>
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<td>5</td>
<td>5</td>
<td>1.42</td>
<td>(PHILIPS ELECTRONICS NV)</td>
<td></td>
</tr>
</tbody>
</table>

### 43.5.3 Notes on name searches in publication level

In DWPI, the fields shown in the table above refer to the invention level and partly to the publication level. The search can be limited e.g. to the publication level:

```
=> S BADI · C / PACO (L) PUBLICATION / DLVL
L35 29912 BADI · C / PACO (L) PUBLICATION / DLVL
```

These fields exist only on the publication level:

<table>
<thead>
<tr>
<th>Only publication level:</th>
<th>SEARCH</th>
<th>DISPLAY</th>
<th>Definition</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>INO</td>
<td>INA, INO</td>
<td>INOA</td>
<td>Inventor, Original (family name, full first name(s) or initials)</td>
<td>Mixed index</td>
</tr>
<tr>
<td>INA</td>
<td>INOA</td>
<td>INOA</td>
<td>Inventor Address</td>
<td>Mixed index (groups of words are indexed)</td>
</tr>
<tr>
<td>IN.T</td>
<td>INOA</td>
<td>INOA</td>
<td>Name and complete Inventor Address</td>
<td>Mixed index (every word is indexed)</td>
</tr>
<tr>
<td>INA.CNY</td>
<td>INOA</td>
<td>INOA</td>
<td>Inventor Address, Country (e.g. DE)</td>
<td>Word index</td>
</tr>
<tr>
<td>INA.CTY</td>
<td>INOA</td>
<td>INOA</td>
<td>Inventor Address, City (e.g. Berlin)</td>
<td>Word index</td>
</tr>
<tr>
<td>PAO</td>
<td>PAO, PAO</td>
<td>PAO</td>
<td>Patent Assignee, Original</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td>PAA</td>
<td>PAA</td>
<td>PAA</td>
<td>Patent Assignee, Address</td>
<td>Mixed index (groups of words are indexed)</td>
</tr>
<tr>
<td>PA.T</td>
<td>PAA</td>
<td>PAA</td>
<td>Patent Assignee, Name and Full Address</td>
<td>Mixed index (every word is indexed)</td>
</tr>
<tr>
<td>PAA.CNY</td>
<td>PAA</td>
<td>PAA</td>
<td>Patent Assignee, Country (e.g. GB)</td>
<td>Word index</td>
</tr>
<tr>
<td>PAA.CTY</td>
<td>PAA</td>
<td>PAA</td>
<td>Patent Assignee, City (e.g. London)</td>
<td>Word index</td>
</tr>
<tr>
<td>PA.LIM</td>
<td>PAA</td>
<td>PAA</td>
<td>Patent Assignee, Limitation</td>
<td>Word index</td>
</tr>
<tr>
<td>PA.NAT</td>
<td>PAA</td>
<td>PAA</td>
<td>Patent Assignee, Nationality (e.g. SE)</td>
<td>Word index</td>
</tr>
<tr>
<td>PA.RES</td>
<td>PAA</td>
<td>PAA</td>
<td>Patent Assignee, Residence (e.g. FR)</td>
<td>Word index</td>
</tr>
<tr>
<td>AG</td>
<td>AGA</td>
<td>AGA</td>
<td>Agent</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td>AGA</td>
<td>AGA</td>
<td>AGA</td>
<td>Agent, Adresse</td>
<td>Mixed index (groups of words are indexed)</td>
</tr>
<tr>
<td>AG.T</td>
<td>AGA</td>
<td>AGA</td>
<td>Agent, Name and Full Address</td>
<td>Mixed index (groups of words are indexed)</td>
</tr>
<tr>
<td>AGA.CNY</td>
<td>AGA</td>
<td>AGA</td>
<td>Agent, Country</td>
<td>Word index</td>
</tr>
<tr>
<td>AGA.CTY</td>
<td>AGA</td>
<td>AGA</td>
<td>Agent, City</td>
<td>Word index</td>
</tr>
</tbody>
</table>

The fields available at publication level only are original data and available from these patent offices only:

- German patent applications, patents and utility models (DE-A1, DE-B1/B2/B3/B4, DE-C1/C2 and DE-U1) from 1968
- PCT applications (WO-A1/A2) from 1978
- Japanese patent applications (J-P-A) from 1977 (no address information, no agent information)

To find out about different spellings the use of EXPAND is absolutely recommended:

```
=> E MASSONNE K / INO
E1  2  MASSONI, NICOLAS / INO
E2  42 MASSONNE / INO
E3  8  > MASSONNE K / INO
E4  1  MASSONNE KLEMENS DR / INO
```
Types of search

E5  12 MASSONNE, JOACHIM/INO
E6  29 MASSONNE, KLEMENS/INO
E7  9 MASSONNEAU/INO
E8  1 MASSONNEAU, MARC/INO
E9  8 MASSONNEAU, VIVIANE/INO
E10 13 MASSONNET/INO
E11  4 MASSONNET D/INO
E12  1 MASSONNET, ALBERT/INO

(S)-proximity is implied in fields with mixed index with system interpretation.

In fields with mixed index (P)-proximity should be used to link different parts of the names (no implied proximity):

=> S (MASSONNE (P) KLEMENS)/IN.T
    83 MASSONNE/IN.T
    1208 KLEMENS/IN.T
L11  37 (MASSONNE (P) KLEMENS)/IN.T

The original names (INO, PAO, AG) are separated from the other address information (INA, PAA, AGA). Thus, certain address components can be used to restrict the search. The different fields are linked with (L)-proximity:

Limiting the patents of Intel to applications of the Irish subsidiary.

=> S INTEL/PAO (L) (IE OR IRELAND)/PAA
    13536 INTEL/PAO
    6642 IE/PAA
    215 IRELAND/PAA
L5    3 INTEL/PAO (L) (IE OR IRELAND)/PAA

As the data cannot always be properly identified the additional fields IN.T, PA.T, and AG.T were introduced. These fields contain the complete name and every single word is searchable.

It is useful to include the AG field in a patent assignee search as the patent assignee is often not available for US patent applications.

=> S SYNGENTA/PA, AG OR SYGN-C/PACO
    1147 SYNGENTA/PA
    432 SYNGENTA/AG
    1121 SYGN-C/PACO
L7    1177 SYNGENTA/PA, AG OR SYGN-C/PACO

The use of the AG field yields 30 more documents in this example.
Guide to STN Patent Databases

(MUNS-I) MUNSON C
PAO: Munson, Catherine
PAA: Baton Rouge, LA, US
Residence: US
Nationality: US

(OLIV-I) OLIVER M A
PAO: Oliver, Michael Allen
PAA: Daphne, AL, US
Residence: US
Nationality: US

(SCHW-I) SCHWEMLEIN H P
PAO: Schwemlein, Heinz Peter
PAA: Mobile, AL, US
Residence: US
Nationality: US

43.6 INPADOCDB, INPAFAMDB

For name searches the names of the Inventor (/IN, /INS) and Patent Assignee (/PA, /PAS) are available. The standard name fields /INS (inventor) and /PAS (assignee) should be used in addition: First standardisation assists the formulation of the search query, second sometimes the IN and PA fields do not contain data. To obtain a complete result EXPAND should be used to find the main parts of the name and then a search using (S) proximity be performed:

=> E KNOLL FRITZ / IN, INS 9
E1 2 KNOLL FRIEDRICH DIPL ING / INS
E2 1 KNOLL FRIEDRICH ERNST / INS
E3 34 => KNOLL FRITZ / IN
E4 38 KNOLL FRITZ / INS
E5 2 KNOLL FRITZ 7750 KONSTANZ DE / IN
E6 1 KNOLL FRITZ DE / IN
E7 1 KNOLL FRITZ DIPL BIOL / IN
E8 1 KNOLL FRITZ DIPL BIOL / INS
E9 1 KNOLL G / IN

=> S (KNOLL(S)FRITZ) / IN, INS
L1 48 (KNOLL(S)FRITZ) / IN, INS

=> D 1 2 IN INS
L1 ANSWER 1 OF 48 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
IN HEINZ STEINER; FRITZ KNOLL
INS STEINER HEINZ; KNOLL FRITZ

L1 ANSWER 2 OF 48 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
IN KNOLL FRITZ
INS KNOLL FRITZ

Names with Umlauts should be searched both with a converted umlaut (Müller – Mueller) and the corresponding basic vowel (Muller). For example for the name Gebrüder Bühler these variations were found:

Gebruder Buehler
Gebruder Buhler
Gebryder Byler

In the case of the German double-s ligature ß conversion into ss or sz must be considered. It is advisable to truncate this as s!

A (probably multiple) transliteration (Latin to Cyrillic, Japanese or Hebrew and return) can change the spelling of a name beyond recognition.

In INPADOCDB and INPAFAMDB an opponent can be searched in the /LSOP field. If the applicant name changes, e.g. due to a company merger, this can often be seen from the Legal Status in the LSPA field, however, the name may remain unchanged in the PA field.

L44 ANSWER 1 OF 3244 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
PAS KOTANI NAOKI; SEBE AKIO; OKAZAKI GEN; TAMAKI TOKUHIKO

LEGAL STATUS HIT
AN 53430616 INPADOCDB
In order to allow efficient searching of these entries in the legal status fields together with those in the name fields the Super Search Fields /PASS (/PA, /PAS, /LSPA) and /INSS (/IN, /INS, /LSIN) were introduced. (S) is Implied Proximity in the /PA, /PAS, /LSPA, and /PASS search fields.

=> S BOSCH SIEMENS/ PASS
175714 BOSCH/ PA
172535 BOSCH/ PAS
17920 BOSCH/ LSPA
183268 BOSCH/ PASS
(BOSCH/ PA, PAS, LSPA)
408486 SIEMENS/ PA
402110 SIEMENS/ PAS
39891 SIEMENS/ LSPA
424940 SIEMENS/ PASS
(SIEMENS/ PA, PAS, LSPA)
L1 19651 BOSCH SIEMENS/ PASS
((BOSCH(S)SIEMENS)/PASS)

US applications often do not mention the name of the patent assignee (but rather the names of the inventors in the PA field). With other publications in the patent family mentioning the company name a name search will often yield a better result in INPAFAMDB due to the family structure of this database (see “Family Search”):

**43.7 Full text databases**

In some full text databases (AUPATFULL, CANPATFULL, CNFULL, DEXFULL, FRFULL, GBFULL, INFULL, JPFULL, KRFULL, PCTFULL) not only the respective name but also the address is entered in the inventor field or applicant field. Generally, the address details can be searched in the following fields:
Not all of these fields may be available in each database (see database descriptions).

Patent assignee field with address details in CANPATFULL:

```
PA     HARRO HOFLIGER VERPACKUNGSMASCHINEN GMBH, Helmholtzstrasse 4 71573, ALLMERSBACH IM TAL, DE, [NAT: DE, RES: DE]
```

### 43.8 DEFULL, KRFULL

In DEFULL and KRFULL the fields PA (patent applicant), PAS (patent applicant, standardized) and PAN (patent applicant, normalized) exist for the patent assignee name.

In the PA field, the names are entered as supplied by the respective patent office. Since there are no formal rules for registering the names, the form and spelling of the names can vary considerably.

For the standardized patent assignee name, a number of rules have been applied to reduce the number of variations in spelling, special characters in the name and company designations (GmbH, Inc. etc.). All names entered in the PA fields have been standardized and entered in the PAS field.

The normalization of patent assignee names is a semi-automatic selection process, whereby a representative name is defined for the standard names. This name is then entered in the PA field for all relevant documents. About 4000 names from the standard field have been normalized and are available in the PAN field.

```
PA     Bayerische Motoren Werke Aktiengesellschaft, Muenchen, 80809, DE, [NAT: DE, RES: DE], for all designated states
PAS    BAYERISCHE MOTOREN WERKE
PAN    BMW
```

In the example below there are the PA and PAS fields, but a normalized field PAN is not available:

```
PA     BMW TRIEBWERKBAU GMBH, DE
PAS    BMW TRIEBWERKBAU
```

Use the EXPAND command to find the standardized name:

```plaintext
=> EXPAND BAYERISCHE MOTOREN/PAS
E1     11 BAYERISCHE MILCHVERSORGUNG G M/PAS
E2     1  BAYERISCHE MORTOREN WERKE/PAS
E3     0 -> BAYERISCHE MOTOREN/PAS
E4     25074 BAYERISCHE MOTOREN WERKE/PAS
E5     1  BAYERISCHE MOTOREN WERKE AG BM/PAS
```

```
=> E4
```

```
L14     25074 "BAYERISCHE MOTOREN WERKE"/PAS
```

```plaintext
=> D PA PAS PAN
L14     ANSWER 1 OF 25074 DEFULL COPYRIGHT 2019 LNU on STN.
```

```
PA     Bayerische Motoren Werke Aktiengesellschaft, Muenchen, 80809, DE, [NAT: DE, RES: DE], for all designated states
PAS    BAYERISCHE MOTOREN WERKE
PAN    BMW
```

The normalized name can be taken from an existing document. The PAN field can then be effectively used to search for known standardized names of larger companies, e.g.:

```plaintext
=> S BMW/PAN
```
Types of search

43.9 EPFULL

There are special SEARCH fields for the address details of the inventor, of the patent assignee, of the agent, of the opponent and the agent of the opponent:

- /INA, /PAA, /AGA, /OPA, /OPAGA: Address
- /IN.CNY, /PA.CNY, /AG.CNY, /OP.CNY: Address, Country
- /IN.CTY, /PA.CTY, /AG.CTY, /OP.CTY: Address, City
- /IN.STR, /PA.STR, /AG.STR, /OP.STR: Address, Street
- /PAN, /AGN, /OPN, /OPAGN: Number
- /IN.COM: Comment on the Inventors
- /PA.DS: Designated States

43.10 RUSSIAPAT

The difficulty of searching Russian names is discussed above.

In RUSSIAPAT the Patent Assignee field is divided into PA.AP (Patent Assignee/Applicant) and PA.AS (Patent Assignee/Proprietor). In most cases only of these is filled. In addition these fields exist: /AG (Agent) with the name of the agent (only partly filled) and /CA (Corporate Address, always filled) with the address and the name of the agent.

43.11 Chemical Abstracts, IFIALL, USPATFULL, USPAT2, JAPIO, ENCOMPPAT

43.11.1 Inventor

The /IN (or /AU) field is phrase indexed. Therefore, it can only be searched by phrase. There is no implied proximity:

```plaintext
=> S ANDERA JOSEPH F /IN
```

43.11.2 Patent assignee

The /PA (or /CS) field can be searched by name, country, and the assignee number either as a phrase or single words (mixed index with interpretation of the query). (S) is implied proximity. If the name is to be searched as a phrase it must be included in quotation marks, "..." (cf. DWPI).

43.11.3 CA, CAPPLUS

In Chemical Abstracts there is a thesaurus on the /CO field with the most frequent name entries for large companies, which can be used like this:

```plaintext
=> SET EXPAND CONT
=> E BAYER/CO
```

EXPAND is used for the company name Bayer.
The thesaurus for the name entry yields information on the development of the company and the various names.

NOTES 1863: Friedrich Bayer et. Comp. founded
1925: Farbenfabriken vorm. Friedr. Bayer & Co. merged into I. G. Farbenindustrie AG
1951: I. G. Farbenindustrie AG dissolved and Farbenfabriken Bayer AG reestablished
1954: Mobay Chemical Co. formed
1967: Bayer AG acquired Mobay Chemical Co.
1974: Bayer AG acquired Cutter Laboratories
1977: Chemische Industrie AKU-Goodrich B. V. renamed Ciago BV
1978: Bayer AG acquired Miles Laboratories
1979: Boots Hercules Agrochemicals Co. established
1984: Nor-Am Chemical Co. acquired Boots Hercules Agrochemicals Co.
1989: Miles, Inc. acquired Technicon Instruments Corp.
1994: Metrika, Inc. founded
1994: Miles-Sankyo Co., Ltd. renamed Bayer-Sankyo Co., Ltd.
1995: Miles Inc. renamed Bayer Corp.
1999: Bayer-Sankyo Co., Ltd. and Chiron KK merged to form Bayer Medical Ltd.
2002: Bayer AG acquired Aventis CropScience
2004: Bayer AG acquired Roche Consumer Health AG
2005: Bayer CropScience AG acquired full ownership of Genoptera LLC
2006: Bayer HealthCare LLC acquired Metrika, Inc.

E15  2  RT1  AGREVO/CO
E16  2  RT1  AGREVO CANADA INC/CO
E17  8  RT1  AGREVO ENVIRONMENTAL HEALTH/CO
E18  3  RT1  AGREVO GMBH/CO
E19  1  RT1  AGREVO JAPAN CO LTD/CO
E20  43 RT1  AGREVO UK LTD/CO
E21  55 RT2  AGREVO UK LIMITED/CO
E22  7  RT1  AGREVO USA CO/CO
E23  18 RT1  AMES CO/CO
E24  18 RT1  AMES RES LAB/CO
E25  3  RT1  AVENTIS AGRICULTURE LTD/CO
E26  34 RT1  AVENTIS CROPSCIENCE/CO
E27  2  RT1  AVENTIS CROPSCIENCE CANADA/CO
E28  3  RT1  AVENTIS CROPSCIENCE FRANCE/CO
E29  97 RT1  AVENTIS CROPSCIENCE GMBH/CO

E242  7  RT1  TECHNICON INT DIV S A/CO
E243  7  RT1  TECHNICON INTERNATIONAL LTD/CO
E244  13 RT1  THE FARBENFABRIKEN OF ELBERFELD CO/CO
E245  77 RT1  THE FARBENFABRIKEN OF ELBERFELD COMPANY/CO
E246  14 RT1  UNION CARBIDE AGRIC PROD CO/CO
E247  24 RT1  UNION CARBIDE AGRIC PROD CO INC/CO
E248  10 RT1  UNION CARBIDE AGRICULTURAL PRODUCTS CO INC/CO

**END**

Only one search term is charged for this thesaurus search in the /CO field in CAPLUS.
HELP RCODES displays the definition of the Relationship Codes.

=> HELP RCODES

The following Relationship Codes may be used with the EXPAND and
### Types of search

**SEARCH commands in the Company Name (/CO) field:**

<table>
<thead>
<tr>
<th>Relationship Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ALL</strong></td>
<td>All Associated Terms</td>
</tr>
<tr>
<td><strong>CNUM</strong></td>
<td>CAS Assigned Number</td>
</tr>
<tr>
<td><strong>JV</strong></td>
<td>Joint Venture</td>
</tr>
<tr>
<td><strong>NAME</strong></td>
<td>Highest level company name information</td>
</tr>
<tr>
<td><strong>NOTE</strong></td>
<td>Note</td>
</tr>
<tr>
<td><strong>RT</strong></td>
<td>Related Term</td>
</tr>
</tbody>
</table>

To complete the search it should be combined with an ‘ordinary’ search in the name fields (/CS, /PA – cf. search examples).

#### 43.11.4 USPATFULL, USPAT2, USPATOLD

In USPATFULL the /PA field is often not filled for patent applications (see above). The full text of the granted patent including the name of the patent assignee is usually entered in USPAT2. The name of the patent assignee is not added in USPATFULL.

Since April 2015, the USPTO has delivered data on Corporate Patent Application Names for US patent applications. These are entered into the USPA field in the USPATFULL and USPAT2 databases:

| AN     | 2016:241025 | USPATFULL |
| TI     | METHOD, SYSTEM AND DEVICE FOR IMPROVED STORAGE AND HANDLING OF COMPONENTS |
| IN     | JACOBSSON, Nils, Taby, SWEDEN |
| USPA   | MYCRONIC AB, Taby, SWEDEN |
| PI     | US 20160212899 | 20160721 |
| AI     | US 2016-15022799 | 20140917 (15) |
| WO     | 2014-EP69831 | 20140917 |
| PRAI   | US 2013-61879172 | 20130918 (61) |

For patent applications, there are thus the following cases of patent assignee names being shown:

- PA field only
- USPA field only
- Both PA and USPA fields
- Neither the PA field nor the USPA field is available

There is a super-search field, /PASS, that can be used to search both the patent assignee (PA) and the Corporate Patent Application Name (USPA). It is advisable to use this search field when searching by patent applicant/patent assignee in the USPATFULL and USPAT2 databases.

Information on the inventor and assignee addresses is available in specific SEARCH fields:

- /IN, /PA, /USPA — Name
- /IN.CNY, /PA.CNY, /USPA.CNY — Country
- /IN.CTY, /PA.CTY, /USPA.CTY — City
- /IN.ST, /PA.ST, /USPA.ST — State
- /IN.ZIP, /PA.ZIP, /USPA.ZIP — ZIP Code
43.11.5 IFIALL

In the /PA field, in addition to the name the assignee number is searchable.

In addition to the name, the location and country can be searched in the /INF (inventor) and /PAF (assignee) fields. The search is carried out using single words (word index), and (W) is implied proximity:

```plaintext
=> S (MOTOROLA AND CA) /PAF
    18526 MOTOROLA /PAF
    269293 CA /PAF
L28 38 (MOTOROLA AND CA) /PAF
```

43.11.6 JAPIO

Particularly the names of inventors are affected by the afore-mentioned problem of name conversion. A search for the inventor is virtually only possible if all Kanji, or Katakana writings respectively, of the searched name are known.

In JAPIO names of inventors are available in the IN field. The /IN search field contains the name including surname and first name indexed as phrase. Japanese names begin with the surname followed by the first name. This order of sequence is also observed in JAPIO. Names in a sequence order used for most European names, i.e. first name – surname, will be sorted according to the first name and the writing, which results from the two-fold transcription. Searching for inventor names in JAPIO, therefore, involves considerable difficulties.

43.12 PATDPA

Search is possible by the names of Inventors (/AU, /IN, /INC, /INO, /INA), Patent Assignees (/CS, /PA, /PAC, /PAO, /PAA) and Agents (/AG). The individual fields are assigned like this (shown here for the Patent Assignee, basically the same for the Inventor fields):

- /CS, /PA: Super-field of /PAC and /PAO
- /PAC: Name of the current assignee
- /PAO: Name of a former assignee
- /PAA: Country, postcode, place of the assignee

In PATDPA a mixed index is used for the Inventor fields and a mixed index with interpretation of the search query for the Patent Assignee fields (implied (S) proximity). Additionally, every name is entered in a number of different variations, one of which is normalized, i.e. special characters, such as comma, hyphen, etc., are removed:

```plaintext
=> E WI DER /IN
E1 4 W I D E N T A L A I N /I N
E2 2 W I D E N T P I E R R E /I N
E3 19 ... > WI DER /IN
E4 1 WI DER B E R N H A R D /IN
E5 1 WI DER C H A R L E S /IN
E6 1 WI DER C H A R L E S D I P L I N G / IN
E7 1 WI DER G E R H A R D /IN
E8 2 WI DER G E R H A R D D R /IN
E9 1 WI DER G E R H A R D P D R /IN
E10 5 WI DER H A N S W I L H E L M /IN
E11 2 WI DER H A N S W I L H E L M D I P L I N G / IN
E12 1 WI DER H A R M U T /IN
```

In the /INC and /PAC fields EXPAND shows all special characters, the country, postcode, and place:

```plaintext
=> E B O S C H /PAC 6
E1 1 B O S C A R O L P R O D U C T I O N S . R . L . (* IT 39 10 0 B O L Z A N O ) / PAC
E2 9 B O S C A T O / PAC
E3 60080 ... > B O S C H /PAC
E5 1 B O S C H & S C H O E R L E (* D E 7 0 0 0 S T U T T G A R T ) / PAC
```
Types of search

The expression in brackets including the place can be searched together with the name as a phrase ("..."), or the respective E number can be used. If single words from the name or place are to be searched then the place must be searched in the /INA or /PAA field respectively, linking the search fields by (S) proximity:

=> S BOSCH/PA (S) STUTTGART/ PAA
   62591 BOSCH/ PA
   104144 STUTTGART/ PAA
L22 53834 BOSCH/PA (S) STUTTGART/ PAA

Postcodes or a range of postcodes can also be searched:

=> S DE70!!!/PAA
L23 58456 DE70!!!/PAA

A mixed index is also used in the /AG (Agent) field. If more than one part of the name is entered (S) proximity is used automatically. To obtain a complete result it may be necessary to explicitly use AND to link parts of the name.

As the place name is entered in a number of different ways (see example below) a search with the place should be done only with the E numbers obtained by EXPAND:

=> E ENGEL UND KOLLEGEN/AG 8
E1 1 ENGEL K/AG
E2 1 ENGEL K RECHTSANW AG
E3 113 ENGEL UND KOLLEGEN/AG
E4 113 ENGEL UND KOLLEGEN (98527 SUHL)/AG
E5 1 ENGEL UND KOLLEGEN SUHL/AG
E6 1 ENGEL UND KOLLEGEN, 98527 SUHL/AG
E7 31 ENGEL, C. ‘DIPL. - ING., PAT.-ANW.’ (98527 SUHL)/AG
E8 30 ENGEL, CHRISTOPH KLAUS (98527 SUHL/THUERINGEN)/AG

=> S E6
L24 9 "ENGEL UND KOLLEGEN, 98527 SUHL"/AG

43.12.1 Notes

No Inventors are entered for utility models, only the Assignee is available. When using DISPLAY and SELECT the PA field is used in place of the IN field.

It may happen that in some cases the first name of an Inventor is erroneously entered in /INA. First names should, therefore, be searched additionally in /INA; the surname in /IN and the first name in /INA must be linked by (S) proximity.

Patdpa has been closed since July, 2011.

43.13 PATDPAFULL

Records for utility models do not contain inventor names.

The country of the inventor is searchable in the /INA field (two letter code and partly the text). The country of the patent assignee is searchable in the /PAA field (two letter code and text).

The agent can be searched in the /AG field.

In PATDPAFULL, German postcodes can be searched in the PA and IN fields:

=> S 98693/IN
L11 1081 98693/IN

=> D 4 IN
L11 ANSWER 4 OF 1081 PATDPAFULL COPYRIGHT 2012 DPMA on STN
IN Sommer, Ralf, Prof. Dr., 98693, Ilmenau, DE;
Schaefer, Eric, 99089, Erfurt, DE;
Krausse, Dominik, 98693, Ilmenau, DE;
Henning, Eckhard, Dr., 99096, Erfurt, DE

=> S 70!!!/PA
L13 89771 70!!!/PA
43.14 FRANCEPAT

In addition to /IN and /PA these fields exist in FRANCEPAT:

- /INA: Inventor Address (word index)
- /PAA: Patent Assignee Address (word index)
- /PAN: Patent Assignee Code (for French companies)
- /PAT: Patent Assignee Type (phrase index)
- /PA.AP: Patent Assignee / Applicant (mixed index with interpretation)
- /PA.AS: Patent Assignee / Proprietor (mixed index with interpretation)
- /AG: Agent (word index)

In the /PA.AP field only the applicant can be searched, in the /PA.AS field the proprietor or the assignee can be searched:

```plaintext
=> S SIEMENS/PA NOT SIEMENS/PA.AS
11133 SIEMENS/PA
222 SIEMENS/PA.AS
L40 10911 SIEMENS/PA NOT SIEMENS/PA.AS
```
Types of search

If only the /IN or /PA fields are specified in the SEARCH command, the search is run in the word index (/IN.W or /PA.W). (S)-Proximity is automatically used; the (W) and (A) proximity operators are not allowed (this applies to all name fields):

```
=> S MUELLER KLAUS/IN
   20044 MUELLER/IN
      (MUELLER/IN.W)
   50153 KLAUS/IN
      (KLAUS/IN.W)
L25        800 MUELLER KLAUS/IN
         ((MUELLER(S)KLAUS)/IN)
```

Similarly, the complete name can be searched as a phrase. In that case it must be specified that the search should be carried out in the phrase index:

```
=> S MUELLER, KLAUS?/IN.S
L26        623 MUELLER, KLAUS?/IN.S
```

The name must be entered exactly in the form as it is entered in the phrase index (including any special characters!); in practice, truncation with ? is often used.

To look into the index (EXPAND command), it must be specified whether the word index (E ... /PA.W) or the phrase index (E ... /PA.S) is meant.

In the case of several Inventors or a group of Assignees, every individual name is considered a sentence and is searched by (S) proximity. If two names are to appear together in a document (e.g. an Inventor group), (P) proximity or AND can be used.
Guide to STN Patent Databases

44  Search by formal data
(Publication and application data)

44.1  Search fields

Information on publication, application, and priority is displayed as a dataset in the DISPLAY fields PI, AI and PRAI. These fields have a largely uniform structure:

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PI</td>
<td>DE 102012013810</td>
<td>B4 20130117</td>
<td></td>
</tr>
<tr>
<td>AI</td>
<td>DE 2012-102012013810 A 20120712</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRAI</td>
<td>DE 2012-102012013810 A 20120712</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The data are subdivided in search fields enabling the user a straightforward search for specific items.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI</td>
<td>DE 102012013810</td>
<td>B4 20130117</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>(1) Country</th>
<th>(2)* Number</th>
<th>(3) Kind Code</th>
<th>(4) Date</th>
<th>(4) Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI</td>
<td>Publication /PC</td>
<td>/PN Doc#</td>
<td>/PK /PNK /PD /PY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AI</td>
<td>Application /AC</td>
<td>/AP App#</td>
<td>/AK - /AD /AY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRAI</td>
<td>Priority /PRC</td>
<td>/PRN Pri#</td>
<td>/PRK - /PRD /PRY</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Doc# – Document, publication number
App# – Application number, serial number of the application
Pri# – Priority number, serial number of the priority application

As can be seen here, this indexing is applied uniformly to the Publication Information, Application Information, and Priority Application Information. (Only the SEARCH field /AP does not follow this system, but /AN is used for the Accession Number.) The fields for information on Related Patents, /RLI, and Cited patent and non-patent literature, /REP, are similar in their structure. Subdivision into search fields is applied as above.

Other fields are only available in certain databases. In INPADOCDB, there are e.g. the Application Information Type /AIT and Priority Application Information Type /PRAIT search fields. As there is often more than one priority application there is another useful search field in many databases: Priority Year First /PRYF.

AN  72025120 INPADOCDB
PI  DE 19964590 B4 20130207 German
PIT DEB4 PATENT (SECOND PUBLICATION)
AI  DE 1999-19964590  A 19991018
AIT DEA Patent application
PRAI DE 1998-19849703 A 19981028
DE 1999-19964590 A 19991018
PRAIT DEA Patent application

In the course of further standardization of the patent databases, the following Super-SEARCH fields are defined: /PATS for Patent Numbers, /APPS for Application Numbers (serial number), and /PCS for Patent Countries (Publication Country/Designated State).

It is advised to check for availability of data and their indexing format before a search by publication or application data using the EXPAND command:

```
=> E DE97·1970005/ AP 5
E1  1 DE97·19700048/ AP
E2  1 DE97·19700049/ AP
E3  0 ...> DE97·1970005/ AP
E4  1 DE97·19700050/ AP
```
Types of search

E5 1 DE97-19700051/AP

It can be seen if the number entered is in the index and, if not, if the number format was correct at all (for example, it can be seen that German application numbers are indexed with eight digits, in the example one digit is missing). The number formats are described in more detail in the sections below.

Sometimes the details of old documents are incomplete in INPADOCDB/INPAFAMDB. In these cases the European Patent Office uses dummy numbers.

44.2 Search by country

When searching by country (Priority Country /PRC, Application Country /AC, Publication Country /PC, Designated State in the international or European procedure /DS, Related Document Country /RLC, Referenced Patent Country /RPC) one should always use the two-letter country code. The query should be linked directly with a further query (e.g. limit of period), otherwise, the system limits will be reached very fast in some databases (INPADOCDB/INPAFAMDB) and frequently cited countries such as Japan (JP).

=> $ L11 AND DE/AC
   1715954 DE/AC
L12 24 L11 AND DE/AC

The fully spelled name of the country is also available in the databases, but, depending on the individual databases, various languages are used (English, German).

To cover the patents of a particular country in addition to the Publication Country, /PC, the Designated State of the international and European procedure, /DS, must also be searched. There is a Super-Search-Field, /PCS, covering just these fields.

=> $ RU/PCS
   99367 RU/PC
   146814 RU/DS
   246181 RU/PCS
   (RU/PC,DS)

Note that the applicant of a PCT or EP application does not have to make his final decision about the designated states at the time of application. If the designated states are changed later this information can be found for example in the legal status in INPADOCDB/INPAFAMDB.

In INPADOCDB/INPAFAMDB the fields AC.WO and PRC.WO can be used to get the number of applications of a particular country.

=> E DE/AC, AC.WO, PRC.WO
E1 235007 DD/AC
E2 1 DD/PRC.WO
E3 5660160 ... DE/AC
E4 49035 DE/AC.WO
E5 128039 DE/PRC.WO
E6 337842 DENMARK/AC
E7 11998 DENMARK/AC.WO
E8 343124 DENMARK/PRC.WO
E9 337842 DK/AC
E10 11998 DK/AC.WO
E11 43412 DK/PRC.WO
E12 1455 DZ/AC

44.2.1 Note on Designated States

The Designated States in PCT applications are entered in different sections – RW and W. The countries after the code W (World) are PCT designations to national offices. The countries after the code RW (Regional World) are designations to a country via a regional office (EPO, EAPO, ARIPPO, OAPI). For EP applications there is only the code R (Regional).

PI WO 2005014251 A1 20050217 (200515)* EN 19 B28C007-04
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE
LS LU MC MW NZ NA NL OA PL PT RO RD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE
DK DM DZ EC EE EG ES FI GB GD GE GH GM GR HU ID IL IN IS JP KE KG
KP KR KZ LC LL LR LS LT LU LV MA MD MG MK MN MW MX NZ NA NI NO NZ
OM PG PH PL PT RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG
US UZ VC VN YU ZA ZM ZW

263
To search for a country with a particular designation code use the /DS field:

`=> $ W I T / D S`

L17  256 W I T / D S

`=> $ R W I T / D S`

L18  881330 R W I T / D S

`=> $ R I T / D S`

L19  1218699 R I T / D S

The field DS always contains the countries as published on the respective publication. There may be changes between the A and B publications of the EPO.

Concerning WO applications, please note these particulars of the individual patent databases:

**INPADOCDB/INPAFAMDB:** all countries that are designated through a regional office are specified behind RW and/or W. For every regional office a separate line with the designation code is displayed:

<table>
<thead>
<tr>
<th>PI</th>
<th>WO 2001050838</th>
<th>A1 20010719</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS</td>
<td>W:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AE AG AL AM AT AU AZ BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FN GB GD GE GH GM HR HU I D L I N IS JP KE KG KP KR KZ LC LK LL LS LT LU LV MA MD MG MK MN NW MX MZ NA NC NF NG NL NT NU NV NY NZ OX P Q PW PY PT PU RW SD SE SG SI SK SL ST SU SV SY T1 T2 T3 U1 U2 UA UG US UZ YN YP YR YU YV YZ ZA ZB ZC ZD ZE ZF ZG ZH ZI ZJ ZK ZL ZM ZN ZO ZP ZQ ZR ZS ZT ZU ZV ZW</td>
<td></td>
</tr>
<tr>
<td>RW (ARIPO):</td>
<td>GH GM KE LS MW MZ SD SL SZ T1 T2 T3 U1 U2 UA UG US UZ YN YP YR YU YV YZ ZA ZB ZC ZD ZE ZF ZG ZH ZI ZJ ZK ZL ZM ZN ZO ZP ZQ ZR ZS ZT ZU ZV ZW</td>
<td></td>
</tr>
<tr>
<td>RW (EAPO):</td>
<td>AM AZ BY KG KZ MD RU T1 T2</td>
<td></td>
</tr>
<tr>
<td>RW (EPO):</td>
<td>AT BE CH CY DE DK ES FI FR GB GH GM GR HU IE IT LU MC NL NT PE TR</td>
<td></td>
</tr>
<tr>
<td>RW (OAPI):</td>
<td>BF BJ CF CG CI CM GA GN GW ML MR NE SN SD TG</td>
<td></td>
</tr>
</tbody>
</table>

**DWPI:** the countries designated through EPO or ARIPO are specified individually. The countries designated through EAPO or OAPI are summarized by EA and/or OA:

<table>
<thead>
<tr>
<th>PI</th>
<th>WO 2005014251</th>
<th>A1 20050217</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS</td>
<td>W:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AE AG AL AM AT AU AZ BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FN GB GD GE GH GM HR HU I D L I N IS JP KE KG KP KR KZ LC LK LL LS LT LU LV MA MD MG MK MN NW MX MZ NA NC NF NG NL NT NU NV NY NZ OX P Q PW PY PT PU RW SD SE SG SI SK SL ST SU SV SY T1 T2 T3 U1 U2 UA UG US UZ YN YP YR YU YV YZ ZA ZB ZC ZD ZE ZF ZG ZH ZI ZJ ZK ZL ZM ZN ZO ZP ZQ ZR ZS ZT ZU ZV ZW</td>
<td></td>
</tr>
<tr>
<td>RW (ARIPO):</td>
<td>GW GM KE LS MW MZ SD SL SZ T1 T2 T3 U1 U2 UA UG US UZ YN YP YR YU YV YZ ZA ZB ZC ZD ZE ZF ZG ZH ZI ZJ ZK ZL ZM ZN ZO ZP ZQ ZR ZS ZT ZU ZV ZW</td>
<td></td>
</tr>
<tr>
<td>RW (EAPO):</td>
<td>AM AZ BY KG KZ MD RU T1 T2</td>
<td></td>
</tr>
<tr>
<td>RW (EPO):</td>
<td>AT BE CH CY DE DK ES FI FR GB GH GM GR HU IE IT LU MC NL NT PE TR</td>
<td></td>
</tr>
<tr>
<td>RW (OAPI):</td>
<td>BF BJ CF CG CI CM GA GN GW ML MR NE SN SD TG</td>
<td></td>
</tr>
</tbody>
</table>

If you do not wish to display the designation countries use an appropriate output format, e.g. PIA (Patent Information Abbreviated) or BIB.

**PCTFULL:** There is a separate line with the appropriate designation code for each regional designation. If a U is attached to W and/or RW a utility model registration is designated in the respective countries (starting from 2004):

<table>
<thead>
<tr>
<th>L5</th>
<th>ANSWER 2 OF 2</th>
<th>PCTFULL</th>
<th>COPYRIGHT 2005</th>
<th>University on STN</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI</td>
<td>WO 2005014251</td>
<td>A1 20050217</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DS</td>
<td>W:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AE AG AL AM AT AU AZ BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FN GB GD GE GH GM HR HU I D L I N IS JP KE KG KP KR KZ LC LK LL LS LT LU LV MA MD MG MK MN NW MX MZ NA NC NF NG NL NT NU NV NY NZ OX P Q PW PY PT PU RW SD SE SG SI SK SL ST SU SV SY T1 T2 T3 U1 U2 UA UG US UZ YN YP YR YU YV YZ ZA ZB ZC ZD ZE ZF ZG ZH ZI ZJ ZK ZL ZM ZN ZO ZP ZQ ZR ZS ZT ZU ZV ZW</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RW (ARIPO):</td>
<td>GW GM KE LS MW MZ SD SL SZ T1 T2 T3 U1 U2 UA UG US UZ YN YP YR YU YV YZ ZA ZB ZC ZD ZE ZF ZG ZH ZI ZJ ZK ZL ZM ZN ZO ZP ZQ ZR ZS ZT ZU ZV ZW</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RW (EAPO):</td>
<td>AM AZ BY KG KZ MD RU T1 T2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RW (EPO):</td>
<td>AT BE CH CY DE DK ES FI FR GB GH GM GR HU IE IT LU MC NL NT PE TR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RW (OAPI):</td>
<td>BF BJ CF CG CI CM GA GN GW ML MR NE SN SD TG</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Patent and Utility Model (U) each summarize a number of other types of publication:
Types of search

- **Patent:**
  - Patent
  - Inventor’s Certificate
  - Provisional Patent
  - Consensual Patent

- **Utility Model (U):**
  - Utility Model
  - Auxiliary Utility Model
  - Petty Patent
  - Utility Certificate
  - Patent for Utility Solution

**EPFULL:** There are no designation type codes in this file. For WO publications only those countries are specified that were designated via the EPO.

```
PI     WO 2005000888        A2 20050106
DS     AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU I E I T LI LU MC NL PL PT RO
      SE SI SK TR
PI     EP 1511369           A2 20050302
DS     AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU I E I T LI LU MC NL PL PT RO
      SE SI SK TR
```

### 44.3 Search by date

In a search for date specifications (Priority Date, /PRD, Application Date, /AD, Publication Date, /PD, Date for a Relation, /RLD, Entry Date, /ED, Updating Date, /UP) it is most favourable to use the uniform date format:

```
YYYYMMDD
19990909
```

- **YYYY** – Year, four digits (a two-digit input will be edited automatically)
- **MM** – Month, two digits
- **DD** – Day, two digits

If longer periods (weeks, months) are to be searched, range searching is possible in the date fields.

```
=> S 19990601-19990630/PD
L7 30852 19990601-19990630/PD
     (19990601-19990630/PD)
```

If years are to be searched, the SEARCH fields /PRY, /AY, /PY (Year, four digits) can be used in addition to a range search. A search for longer periods (several months, several years) should always be linked with another query, in order to avoid exceeding the system limits (especially in INPADOCDB/INPAFAMDB).

### 44.4 Search by priority and application numbers

When searching for Priority and Application Numbers (Priority Number, /PRN, Application Number, /AP), it is advisable to use the STN standard format or the Derwent format.

The STN standard format has this structure:

- For applications except PCT, DE (from 2004) and US (from series 13 or from Dec. 18, 2010):
  ```
  CCYYYY: aaannnnn
  US1996-733805
  ```

- For PCT applications:
  ```
  WOYYYY: cccnnnnn
  W01999-DK63
  ```
Guide to STN Patent Databases

- For DE applications (from 2004):
  
  \[ \text{CC}YY \text{Y} \text{Y} \cdot \text{ZZYY} \text{Y} \text{NNNNN} \]
  
  \[ \text{DE}2004 \cdot 102004002764 \]

- For US applications (INPADOC, DWPI, CAPLUS, full-text databases):
  
  - Patent applications from series code 13
  - Provisional applications, series code 61 from Dec. 18, 2010 (priority numbers only)
  - Design applications, series code 29 from Dec. 18, 2010

  \[ \text{CC}YY \text{Y} \cdot \text{SC} \text{NNNNNN} \]
  
  \[ \text{US}2012 \cdot 13253463 \]

**CC** – Country (two-letter-code)

**YYY** – Year (application numbers with a year before 2000 are indexed with two-digit year, application numbers starting from 2000 are indexed with four-digit year; Japanese emperor year is converted into Gregorian year)

**aaa** – Optional, digit or letter

**n** – Digit, optional

**N** – Digit

**ZZ** – Digits, designate the type of intellectual property (see “Number formats”)

**SC** - Digits, US series code

It is advisable to always use a four-digit year, as for years before 2000 a four-digit year will be edited by the Messenger Field Edit system automatically:

\[ => \text{S JP1997·245415/ AP} \]

\[ \text{L7} \]

\[ 1 \text{ JP1997·245415/ AP} \]

\[ ( | P97·245415/ AP) \]

If a year is embedded in the application number, as for example a two-digit year in German application numbers, it is kept as a two-digit number. If a four-digit year is embedded it is kept as such.

The year is always displayed in four digits by the system (in DISPLAY, SORT, SELECT commands).

These examples are to illustrate the conversion of application numbers into the formats common in patent databases (STN, DERWENT):

<table>
<thead>
<tr>
<th>DE Application</th>
<th>Original number</th>
<th>STN format</th>
<th>Derwent format</th>
</tr>
</thead>
<tbody>
<tr>
<td>to 1995</td>
<td>P 4444 400.1</td>
<td>DE1994-4444400</td>
<td>1994DE-00444400</td>
</tr>
<tr>
<td>from 1995</td>
<td>100 00 004.5</td>
<td>DE2000-10000004</td>
<td>2000DE-10000004</td>
</tr>
</tbody>
</table>

* The check digit following the dot in DE or EP application numbers is not taken into account for conversion.

If only an Application Number without a year is available this may be masked with exclamation marks (!, four digits):

\[ => \text{S US!!1111.12345/ AP} \]

\[ \text{L8} \]

\[ 8 \text{ US!!1111.12345/ AP} \]

\[ => \text{D AP} \]

\[ \text{L8} \]

\[ \text{AN} \text{SWER} \ 1 \text{ OF} \ 8 \text{ I} \text{NPA} \text{DO} \text{CDB} \text{ COP} \text{Y} \text{RI} \text{T} \ 2007 \text{ EPO} / \text{FIZ} \text{ KA} \text{ o} \text{n} \text{ STN} \]

\[ \text{AI} \]

\[ \text{US} \ 2004 \cdot 12345 \]

\[ \text{A} \ 20041216 \]

Using SELECT, the Application Numbers can then be retrieved from the documents found:
Types of search

=> SEL 1· AP
E1 THROUGH E8 ASSIGNED

=> D SEL
E1  1   US1935-12345/AP
E2  1   US1960-12345/AP
E3  1   US1979-12345/AP
E4  1   US1987-12345/AP
E5  1   US1993-12345/AP
E6  1   US1998-12345/AP
E7  1   US2001-12345/AP
E8  1   US2004-12345/AP

44.4.1 Notes

- US serial numbers on the printed patent specification consist of the serial code and a six-digit serial number, e.g.: 09/932,243

<table>
<thead>
<tr>
<th>Serial code</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Earlier than Jan. 1, 1948</td>
</tr>
<tr>
<td>15</td>
<td>Jan. 2016 – present</td>
</tr>
<tr>
<td>29</td>
<td>Design applications filed beginning in January 1993</td>
</tr>
<tr>
<td>61</td>
<td>Provisional Applications Jan. 1, 2008 – present</td>
</tr>
<tr>
<td>90</td>
<td>Ex parte reexamination proceedings</td>
</tr>
<tr>
<td>95</td>
<td>Inter parte re-examination proceedings</td>
</tr>
</tbody>
</table>

- German application and publication numbers have the same serial number. The format of these numbers is described in section ‘Search by document number’ and in the ‘Number formats’ survey.

- Some countries use the same numbers both for Patent and Utility Model Applications. To distinguish a ‘U’ is appended to the numbers of utility models (in INPADOCDB/INPAFAMDB and DWPI).

=> D TI PI AI PRAI
L16  ANSWER 1 OF 1   INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
      TI   TRAI NINGSGERAET FUER PFERDE.
      PI   AT 6710U   U1 20040325
      AI   AT 2003-318U   U 20030508
      PRAI  DE 2002-2015987  U 20021017 (DEU)

=> D TI PI AI PRAI
L18  ANSWER 1 OF 1   WPINDEX COPYRIGHT 2007 THE THOMSON CORP on STN
      TI   Digital broadcast program recorder e.g. video recorder, outputs image signal to display electronic program guide information and relative time obtained from CPU by using hard disk drive
      PI   US 20030233657  A1 20031218 (200411)* EN 10[4]
      AI   US 2003-458935  20030611
      PRAI JP 2002-3581U  20020613

- US patent law has Provisional Applications. These may be used as a Priority Application. In order to distinguish these Priority Numbers a ‘P’ is appended (in all patent databases):
Guide to STN Patent Databases

For provisional applications with the series code 61 from application date Dec. 18, 2010 the series code is included in the priority application number. This makes the number unique and there is no need to append “P” any more (INPADOC, DWPI, CAPLUS, full-text databases):

- Several application numbers with appended codes may exist. With INPADOCDB, INPAFAMDB now covering patent applications starting from 1836, overlapping ranges of serial numbers are more likely (see INPADOCDB/INPAFAMDB Numbers with appended codes).
- For certain types of division it may be that the application year in the application number does not match the application year in the date.

Particulars of the priority fields in the various databases

| The PRAI,/PRN field only has data if a foreign priority was actually claimed: | USPATFULL, USPATZ, USPATOLD, IFIALL |
| The PRAI,/PRN field does not exist: | RUSSIAPAT |
| The PRAI,/PRN field may contain non-standardized priority numbers: | PATDPAFULL, PCTFULL |
| There is a PRAO,/PRNO field that contains the original (non-standardized) priority numbers. This field is filled either in addition to the PRAI field or only this field is the pre-defined display formats: | PATDPAFULL, EPFULL, PCTFULL, FRANCEPAT, KOREAPAT, RUSSIAPAT, FRFULL, GBFULL |
Types of search

- In some databases the original application numbers are recorded in the APO field (KOREAPAT, RUSSIAPAT). These fields are not included in the pre-defined display formats. This may apply to document numbers in the PNO field too.

44.5 Search by document number

Document numbers (Publication Numbers), just as Application Numbers, can have very varying formats depending on the patent office, e.g. just a serial number, a number with preceding year, identical with the digit sequence of the Application Number, etc. Often, to distinguish the publication status within the patent procedure, the Document Kind Code is specified as well. Examples:

- **DE** 19919951 A1
- **DE** 10 2004 002 764 A1
- **DE** 20 2004 000 023 U1
- **EP** 0 050 443 B1
- **US** 4,718,426
- **US** 2001/0006158 A1
- **WO** 99/12345 A1
- **WO** 00/04255 A1

When searching for a document number (SEARCH field /PN) on STN International, a uniform format is to be used in all databases. This format has the following structure:

- For numbers of up to 7 digits:
  \[CCnnnnnnN\]
- For numbers of 8 digits:
  \[CCNNNNNNNN\]
- For numbers of 12 digits:
  \[CCZZYYYYNNNNNN\]
- For numbers with a leading/trailing year (19YY):
  \[CCYYNNNNN\]
- For numbers with a leading/trailing year (20YY):
  \[CC20YYNNNNN\]

\[CC\] – Country (Two-letter code)

\[n\] – Optional digit; enter without a leading zero or punctuation. (A leading zero due to the Japanese year of the emperor should be entered and will be removed by the STN search system if necessary.)

\[N\] – Digit

\[ZZ\] – Digits, designate the type of intellectual property (see “Number formats”)

\[YY/YYYY\] – Year (two or four-digit)

From the publication year 2000 patent numbers with a leading or trailing year will always be indexed as a 2-4-6 string, i.e. 2 characters for the country, 4 digits for the year, and 6 digits for the number. A trailing year will be moved to the front (e.g., Australia). The numbers of US or WO Applications may be entered both as a 2-4-6-string or using the original format from the document (automatic field edit).

When searching the document kind code must be omitted in the /PN search field. The search queries for the above numbers would look like this:

- => S DE19919951/PN
- => S DE102004002764/PN
- => S DE202004000023/PN
- => S EP50443/PN
- => S US4718426/PN
- => S US20010006158/PN
- => S WO9912345/PN
- => S WO2000004255/PN
Guide to STN Patent Databases

To search the publication number together with the document kind code use the /PNK field. It is advisable to adhere to these number formats. Anyway, if a number is entered in a different format it will in many cases be edited automatically to some degree:

=> S WO99-12345/PN
  L5 1 WO99-12345/PN
     (WO9912345/PN)

44.5.1 Notes

44.5.1.1 Utility models

In some countries, the same number range is used both for Patent and Utility Model Publications. To distinguish these numbers a 'U' is appended to Utility Model numbers, e.g.:

=> S FI 950103U/PN
  L10 1 FI 950103U/PN
     (FI950103U/PN)

44.5.1.2 Overlapping number series of different publication types

In some countries, the same ranges of numbering are used for different types of publications. A letter for the publication type is appended to the numbers for these countries.

- **China**: The Publication Number ranges of the examined and unexamined patent publications from China overlap. Thus, a 'C' is appended to the numbers of granted patents (Patent Kind Code CNC):

  => E CN1060260/PN 6
     E1 1 CN1060259/PN
     E2 1 CN1060259C/PN
     E3 1 ...> CN1060260/PN
     E4 1 CN1060260C/PN
     E5 1 CN1060261/PN
     E6 1 CN1060261C/PN

  => D AN TI PI PRAI PRAIT

- **Hungary, Lithuania, Monaco**: For these, the Patent Kind Code is appended to the number, too.

  HU2000001774A3
  LT2628R
  MC100E

- **USA**:
  - As the number series of US publications overlap a letter should be appended to the number when searching certain types of IP publications (INPADOCDB, INPAFAMDB, DWPI). In the US databases a letter may be appended in the search query, however it is removed by SEARCH EDIT. The display format of the document numbers is dependent on the database (see appendix Publication Numbers).

<table>
<thead>
<tr>
<th>Document type</th>
<th>SEARCH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S USnnnnnnNE/PN</td>
</tr>
<tr>
<td>Reissues from Jan. 2, 2001</td>
<td>S US37166E/PN</td>
</tr>
<tr>
<td></td>
<td>S USnnnnnnNE/PN</td>
</tr>
<tr>
<td>Defensive Publications</td>
<td>S US105702T/PN</td>
</tr>
<tr>
<td></td>
<td>S USnnnnnnNT/PN</td>
</tr>
<tr>
<td>Statutory Invention Registration before Jan. 2, 2001</td>
<td>S US1889H/PN</td>
</tr>
<tr>
<td></td>
<td>S USnnnnnnNH/PN</td>
</tr>
<tr>
<td>Statutory Invention Registration from Jan. 2, 2001</td>
<td>S US1942H/PN</td>
</tr>
<tr>
<td></td>
<td>S USnnnnnnNH/PN</td>
</tr>
</tbody>
</table>
Types of search

<table>
<thead>
<tr>
<th>Document type</th>
<th>SEARCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design Patents before Jan. 2, 2001</td>
<td>S 548425D/PN/PN</td>
</tr>
<tr>
<td></td>
<td>S USnnnnnnND/PN</td>
</tr>
<tr>
<td>Design Patents from Jan. 2, 2001</td>
<td>S US444511D/PN/PN</td>
</tr>
<tr>
<td></td>
<td>S USnnnnnnND/PN</td>
</tr>
<tr>
<td></td>
<td>S USnnnnnnNP/PN</td>
</tr>
<tr>
<td>Plant Patents from Jan. 2, 2001</td>
<td>S US20010011366P/PN</td>
</tr>
<tr>
<td></td>
<td>S US20YYNNNNNNDNP/NP</td>
</tr>
</tbody>
</table>

- In USPATOLD there are special number formats for Reissues: USREnnnnnn

  L6 ANSWER 1 OF 28310 USPATOLD on STN
  PI US RE028552 A 19750916

  and for very old patents: USXnnnnnn

  L8 ANSWER 1 OF 1 USPATOLD on STN
  PI US X0009019 A 18350817

- More publication numbers with appended codes may exist. With INPADOCDB, INPAFAMDB now covering patent applications starting from 1836, overlapping ranges of publication numbers are more likely (see INPADOCDB/INPAFAMDB — Numbers with appended codes and Number formats (Publication numbers)).

44.5.2 Note on DWPI

There is a field LA (Language) with the filing language of the respective patent (useful for countries where applications may be filed in several languages, e.g. CA, EP, WO). The LA field is linked to the corresponding patent information details by (P) proximity:

=> S EP/PC (P) DE/LA
L10 369210 EP/PC (P) DE/LA

=> D PIA
L10 ANSWER 1 OF 369210 WPI INDEX COPYRIGHT 2006 THE THOMSON CORP on STN
PIA US 20060130701 A1 20060622 (200646) A7 EN 9[0]
EP 1674067 A1 20060628 (200646) DE
JP 2006176511 A 20060706 (200646) JA 21

44.5.3 Note on German document numbers

German publication numbers are identical to the corresponding application numbers. From 01 Jan. 2004 there are new formats for application numbers of patents, utility models and topographies, from 01 Jan. 2005 for trademarks, design patents and typographies. See the appendix for an explanation of the numbers.

44.5.4 Note on IT document numbers

The document number and the application number alike include the province of the assignee. For entry in the database, letters are converted into figures using a list of provinces. Alternatively, you can search for the application number, as this will be used for the document number.

For patent applications and utility models the same number series are used. Therefore it is recommended to include the document type code (/PK) in your search.

(See appendix “Italy”)

44.5.5 Note on US document numbers

Since 15 March 2001, applications for US patents are being published in addition to granted patents. The number formats and publication kind codes can be found in the appendices to this guide.

Different number formats are used for patent applications, reissues and granted patents. In STN databases the numbers of new documents are included in the PI field of the existing document (USPATFULL, DWPI) or in new publication segments (INPADOCDB). Earlier publications are not shown on the printed documents.
44.5.6  **Note on IN document numbers**

Patent numbers in India (INA1) consist of the two-letter code IN and a serial number of up to 6 digits:

- IN nnnnnN

**Until 2004:** Publication numbers of applications (INA) until 2004 consist of the two-letter code IN and a serial number of up to 6 digits: IN nnnnnN.

**2005-2015:** Since the introduction of the Patents (Amendment) Rules 2005 the six-digit serial number is only assigned upon grant of patent; applications are now being published under their application numbers. The numbers are standardized when the documents are entered into the database, which means that the three-letter code for the responsible patent office is shortened to two letters and the number is padded with zeros to five digits:

<table>
<thead>
<tr>
<th>Office</th>
<th>On the publication</th>
<th>STN format</th>
<th>/PK in DWPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delhi</td>
<td>1713/DEL/2010</td>
<td>IN 2010DE01713</td>
<td>I1</td>
</tr>
<tr>
<td>Kolkata (formerly Calcutta)</td>
<td>861/KOL/2008</td>
<td>IN 2008KO0861</td>
<td>I2</td>
</tr>
<tr>
<td>Mumbai (formerly Bombay)</td>
<td>1911/MUM/2006</td>
<td>IN 2008MU01911</td>
<td>I3</td>
</tr>
<tr>
<td>Chennai (formerly Madras)</td>
<td>2108/CHE/2012</td>
<td>IN 2012CH02108</td>
<td>I4</td>
</tr>
</tbody>
</table>

**Nationalisation of PCT applications**

<table>
<thead>
<tr>
<th>Office</th>
<th>On the publication</th>
<th>STN format</th>
<th>/PK in DWPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delhi</td>
<td>6541/DELNP/2008</td>
<td>IN 2008DN06541</td>
<td>P1</td>
</tr>
<tr>
<td>Kolkata</td>
<td>2712/KOLNP/2013</td>
<td>IN 2013KN02712</td>
<td>P2</td>
</tr>
<tr>
<td>Mumbai</td>
<td>2067/MUMNP/2010</td>
<td>IN 2010MN02067</td>
<td>P3</td>
</tr>
<tr>
<td>Chennai</td>
<td>8577/CHENP/2010</td>
<td>IN 2010CN08577</td>
<td>P4</td>
</tr>
</tbody>
</table>

YYYY – year, 4 digits; OFF, OF – code for the office, 3 and 2 letters; N – digit; n – digit, optional

For national phase publications of PCT applications the second letter is replaced with ‘N’.

In DWPI, these publication numbers (displayed kind code INA) can be searched with the publication kind codes INI1, INI2, INI3, INI4 or INP1, INP2, INP3, INP4, respectively, in the /PK field. The numbers 1 to 4 represent the patent offices Delhi, Kolkata, Mumbai, Chennai.

**From 2016:** The Indian Patent Office introduced a new patent numbering format for applications filed from January 2016 onwards. On STN, Indian patent publications with the new numbering format are covered in the regular updates of DWPI, CAplus, and INFULL. The new numbering system makes use of two digits to indicate the regional offices in India (J) and the type of application (T). The old regional office codes have been replaced by a digit ranging from 1 to 4, corresponding to the four regional patent offices in India:

<table>
<thead>
<tr>
<th>J</th>
<th>Regional Office</th>
<th>T</th>
<th>Type of application</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Delhi</td>
<td>1</td>
<td>Ordinary Application</td>
</tr>
<tr>
<td>2</td>
<td>Mumbai</td>
<td>2</td>
<td>Ordinary-Divisional Application</td>
</tr>
<tr>
<td>3</td>
<td>Kolkata</td>
<td>3</td>
<td>Ordinary-Patent of Addition Application</td>
</tr>
<tr>
<td>4</td>
<td>Chennai</td>
<td>4</td>
<td>Convention Application</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>Convention-Divisional Application</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6</td>
<td>Convention-Patent of Addition Application</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7</td>
<td>PCT National Phase Application</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8</td>
<td>PCT National Phase-Divisional Application</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9</td>
<td>PCT National Phase Patent of Addition Application</td>
</tr>
</tbody>
</table>

The STN numbering format is consistent with the original format comprising a total of 12 digits. Patent publications in the new numbering format have kind code A assigned:

- **Publication number:** JNYYYJTNNNNN A — e.g. JN201641016472
- **Application/Priority number:** JNYYYJTNNNNN — e.g. JN201641016472

44.5.7  **Note on JP document numbers**

Japanese publication numbers before 2000 appear on the original document like this:

6–11796
EE–NNNNNN
Types of search

The first number denotes the year of the Emperor (EE), the second part is the actual number. Conversion between the year of the Emperor and the Western year is as follows:

<table>
<thead>
<tr>
<th>Emperor</th>
<th>Era</th>
<th>First year of reign</th>
<th>Conversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hirohito</td>
<td>Showa</td>
<td>1926</td>
<td>+1925</td>
</tr>
<tr>
<td>Akihito</td>
<td>Heisei</td>
<td>1989</td>
<td>+1988</td>
</tr>
</tbody>
</table>

From May 1996 (for patents) and from 2000 (for applications) only the Western year is used. On how to use the numbers on STN see the survey “Number formats (publication numbers)” enclosed with this guide.

<table>
<thead>
<tr>
<th>Document type</th>
<th>SEARCH</th>
<th>DISPLAY (STN format)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A- and T-documents</td>
<td>$JP06011796/PN$</td>
<td>$JP06011796 A$</td>
</tr>
<tr>
<td>(before 2000):</td>
<td>$JP011796/PN$</td>
<td>$JP011796 A$</td>
</tr>
<tr>
<td>A- and T-documents</td>
<td>$JP2002012345/PN$</td>
<td>$JP2002012345 A$</td>
</tr>
<tr>
<td>(from 2000):</td>
<td>$JP2002012345/PN$</td>
<td>$JP2002012345 A$</td>
</tr>
<tr>
<td>B-documents</td>
<td>$JP06011796B/PN$</td>
<td>$JP06011796 B$</td>
</tr>
<tr>
<td>(published examined application, until March 1996)</td>
<td>$JP06011796B/PN$</td>
<td>$JP06011796 B$</td>
</tr>
<tr>
<td>C-documents</td>
<td>$JP2139594/PN$</td>
<td>$JP2139594 C$</td>
</tr>
<tr>
<td>(Granted patents, until March 1996)</td>
<td>$JP2139594/PN$</td>
<td>$JP2139594 C$</td>
</tr>
<tr>
<td>B-documents</td>
<td>$JP2763879B/PN$</td>
<td>$JP2763879 B2$</td>
</tr>
<tr>
<td>B1-documents</td>
<td>$JP2852740B/PN$</td>
<td>$JP2852740 B1$</td>
</tr>
<tr>
<td>(published registered patent specification without previous A2 publication)</td>
<td>$JP2852740B/PN$</td>
<td>$JP2852740 B1$</td>
</tr>
<tr>
<td>Utility model</td>
<td>$JP07039349U/PN$</td>
<td>$JP07039349 U2$</td>
</tr>
<tr>
<td>Utility model, published after examination</td>
<td>$JP07039349U/PN$</td>
<td>$JP07039349 U2$</td>
</tr>
<tr>
<td>Utility model, examined, 2nd publication</td>
<td>$JP2585094Y/PN$</td>
<td>$JP2585094 Y1$</td>
</tr>
<tr>
<td></td>
<td>$JP2585094/Y/PN$</td>
<td>$JP2585094 Y1$</td>
</tr>
</tbody>
</table>

All kinds of documents can be searched with truncation, e.g.:

\[ => S \text{ JP06011796? / PN} \]

Usually EXPAND is recommended.

The numbering of publications is done separately for each document type. This means that:

- Documents of different publication levels, although being members of the same patent family, are likely to have different publication numbers and
- Documents of different publication levels having the same publication number are rather unlikely to belong to the same patent family.

For a clear distinction of document types the document kind code must be specified in addition to the publication number.

Due to the publication system having changed from a publication of the examined application (with a three months’ pre-grant opposition period) to publication of the granted patent (with a six months’ post-grant opposition period) numbering has been changed for these documents to consecutive numbers starting from 2,500,001 with the publication kind code B from May 1996.

JAPIO only contains unexamined applications. In World Patents Index all publications of the national patent family are included in the PI field. The ADT field gives information on which publication relates to which application number. In INPADOCDB the members of the national family are entered into new publication segments. The application number can also be used to identify documents based on the same application.

JP documents show the publication number (as illustrated in the above format) and the publication date (including Emperor and Western years, in Roman characters), B documents show the relevant data of an earlier publication additionally (code A, T).
44.5.8  **Note on KR document numbers**

Current Korean publication and patent numbers on the printed documents include a code for the type of publication (10 = patent, 20 = utility model, 30 = design); this code is not included in the document number format on STN. The number of digits is different, too.

Example:
- Printed Korean number: 10- 2004- 0009844
- STN publication number: KR 2004009844 A

44.6  **Search by patent kind code**

Often it is necessary to use a document kind code together with a patent number, e.g. in legal status searches, or to restrict the scope of the search to certain types of documents in a subject or SDI search strategy. To do this, the publication kind codes must be entered in this format:

```
CCnn
```

- **CC** – Country (Two-letter code)
- **n** – Optional, letter, digit, or space

In some databases (e.g. INPADOCDB, INPAFAMDB, PATDPA) the meaning of the PK entry can be seen in the PIT (patent information type) field:

```
=> E EPA/ PK 6
E1  662  EEU1/PK
E2  10368  EGA/PK
E3  483  EPA/PK
E4  1163265  EPA1/PK
E5  640691  EPA2/PK
E6  468255  EPA3/PK
```

```
=> E EPA/ PIT 6
E1  9  EEU1 REGISTERED UTILITY MODEL/PIT
E2  10368  EGA PATENT FOR INVENTION / PATENT OF ADDITION/PIT
E3  0  EPA/PIT
E4  1163265  EPA1 APPLICATION PUBLISHED WITHOUT SEARCH REPORT/PIT
E5  640691  EPA2 APPLICATION PUBLISHED WITH SEARCH REPORT/PIT
E6  468255  EPA3 SEARCH REPORT/PIT
```

In the STN patent databases the so-called DOCDB coding is now used.

44.6.1  **Notes on INPADOCDB/INPAFAMDB**

44.6.1.1  **The “Data Availability” (DAV) field**

The various publication types are categorized into 12 categories. The category, together with the publication date, is entered in the “Data Availability” (DAV) field:

```
PI  DE 19928770  C2  20031120
PIT  DEC2 PATENT SPECIFICATION (SECOND PUBL.)
DAV  20031120  PRINTED WITH GRANT
STA  GRANTED
A1I  DE 1999-19928770  A  19990623
A1O  DE19928770
A1T  DEA Patent application
PRAI  DE 1999-19907169  A  19990219 (DEA1)
    DE 1999-19913240  A  19990323 (DEA1)
    DE 1999-19928770  A  19990623 (DEA, 20070322)
PRAO  199 07 169.1
    199 13 240.2
PRAIT  DEA1 Domestic priority claimed for patent
```

This information is searchable in the /DAV field:

```
=> S PRINTED WITH GRANT/DAV
L2  24439442 PRINTED WITH GRANT/DAV
```
Types of search

The entries of the list and their meaning can be displayed with HELP DAV.

<table>
<thead>
<tr>
<th>DAV</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>gazette-reference</td>
<td>date of announcement of filed application in gazette</td>
</tr>
<tr>
<td>abstract-reference</td>
<td>date of separate publication of an abstract</td>
</tr>
<tr>
<td>supplemental-srep-reference</td>
<td>date of separate publication of a supplementary search report</td>
</tr>
<tr>
<td>gazette-pub-announcement</td>
<td>date of announcement of a granted application in a gazette</td>
</tr>
<tr>
<td>modified-first-page-pub</td>
<td>date of separate publication of a modified first page report</td>
</tr>
<tr>
<td>unexamined-not-printed-without-grant</td>
<td>date of making available to the public by viewing or copying on request, an unexamined document on which no grant has taken place on or before the said date</td>
</tr>
<tr>
<td>examined-not-printed-without-grant</td>
<td>date of making available to the public by viewing or copying on request, an examined document on which no grant has taken place on or before the said date</td>
</tr>
<tr>
<td>unexamined-printed-without-grant</td>
<td>date of publication by printing or similar process of an unexamined document on which no grant has taken place on or before the said date</td>
</tr>
<tr>
<td>examined-printed-without-grant</td>
<td>date of publication by printing or similar process of an examined document on which no grant has taken place on or before the said date</td>
</tr>
<tr>
<td>printed-with-grant</td>
<td>date of publication by printing or similar process of document on which grant has taken place on or before the said date</td>
</tr>
<tr>
<td>claims-only-available</td>
<td>date of making available to the public by viewing or copying on request of a document on which grant has taken place on or before the said date</td>
</tr>
</tbody>
</table>

44.6.1.2 The “Patent Status” (STA) field

The “Patent Status” (STA) field shows whether this is a GRANTED or a PRE-GRANT PUBLICATION. This offers a simple way to limit the search result to granted patents.

44.6.1.3 The “Filing Details” (FDT) field

This field shows details on the type of publication for DE and PCT.

Examples:
Guide to STN Patent Databases

**TI** ELECTRONIC APPARATUS, METHOD OF MANUFACTURING ELECTRONIC APPARATUS CASE AND BLANKING DEVICE.

**PI** WO 9967979 A1 19991229

**AI** WO 1999-JP3237 W 19990617

**FDT** WO100000 WITH INTERNATIONAL SEARCH REPORT

**L12** ANSWER 2 OF 70383 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN

**TI** VERFAHREN ZUM BESCHichten VON LEITERPLATTTEN ODER DERGLEICHEN Substraten.

**PI** WO 9967978 A1 19991229

**AI** WO 1999-EP4044 W 19990611

**FDT** WO100000 WITH INTERNATIONAL SEARCH REPORT;

W030000 BEFORE EXPIRATION OF TIME LIMIT FOR AMENDING THE CLAIMS AND TO BE REPUBLISHED IN THE EVENT OF THE RECEIPT OF THE AMENDMENTS

**L11** ANSWER 1 OF 9 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN

**TI** NOVEL USE OF TAUROLINE.

**PI** WO 8701591 A2 19870326

**AI** WO 1986-EP545 W 19860919

**FDT** WO400000 WITH DECLARATION UNDER ARTICLE 17(2)(A). WITHOUT ABSTRACT; TITLE NOT CHECKED BY THE INTERNATIONAL SEARCHING AUTHORITY

**L11** ANSWER 2 OF 9 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN

**TI** PROCESS FOR THE DEVELOPMENT OF OPTIMUM MAINTENANCE AND PROTECTION SYSTEMS FOR PROTECTION AGAINST CORROSION, ESPECIALLY AS REGARDS REMOTE HEAT SUPPLY SYSTEMS.

**PI** WO 8504781 A2 19851107

**AI** WO 1985-HU24 W 19850415

**FDT** WO200000 WITH DECLARATION UNDER ARTICLE 17(2)(A). WITHOUT CLASSIFICATION AND WITHOUT ABSTRACT; TITLE NOT CHECKED BY THE INTERNATIONAL SEARCHING AUTHORITY

The definitions of the codes can be seen from the tables below.

For Germany:

<table>
<thead>
<tr>
<th>Country</th>
<th>Kind</th>
<th>Extended</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>DE</td>
<td>C1</td>
<td>D1</td>
<td>Grant of a patent without OS</td>
</tr>
<tr>
<td>DE</td>
<td>C2</td>
<td>D2</td>
<td>Grant of a patent after the examination procedure</td>
</tr>
<tr>
<td>DE</td>
<td>C3</td>
<td>D3</td>
<td>Limited patent maintenance (without OS)</td>
</tr>
<tr>
<td>DE</td>
<td>C4</td>
<td>D4</td>
<td>Limited patent maintenance (with OS)</td>
</tr>
<tr>
<td>DE</td>
<td>C5</td>
<td>D5</td>
<td>Patent changed in the restriction procedure No OS,no changed PS</td>
</tr>
<tr>
<td>DE</td>
<td>C6</td>
<td>D6</td>
<td>Patent changed in the restriction procedure No OS,changed PS</td>
</tr>
<tr>
<td>DE</td>
<td>C7</td>
<td>D7</td>
<td>Patent changed in the restriction procedure With OS,without changed PS</td>
</tr>
<tr>
<td>DE</td>
<td>C8</td>
<td>D8</td>
<td>Patent changed in the restriction procedure With OS, with changed PS</td>
</tr>
</tbody>
</table>

On PCT publications the 6 digit code has the definitions as shown below:
### Types of search

<table>
<thead>
<tr>
<th>Position</th>
<th>Value</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>With international search report</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>With declaration under art. 17(2)(a)</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>Without international search report and to be republished upon receipt of that report</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>With declaration under Article 17(2)(a).</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>With amended claims</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>With amended claims and statement</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>Before expiration of time limit for amending the claims and to be republished in the event of the receipt of the amendments</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>In English translation (filed in …)</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>Before the expiration of the time limit referred to in Article 21(2)(a) on the request of the applicant</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>Upon request of the applicant under article 64(3)(c)(i))</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td>Upon request of the applicant under Article 64(3)(c)(ii)</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>Upon request of the applicant, before the expiration of the time limit referred to in Article 21(2)(a).</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>Without classification; title and abstract not checked by the International Searching Authority.</td>
</tr>
<tr>
<td>15</td>
<td>h</td>
<td>With declaration under Article 17(2)(a); without classification and without abstract; title not checked by the International Searching Authority.</td>
</tr>
<tr>
<td>16</td>
<td>i</td>
<td>With declaration under Article 17(2)(a); without abstract; title not checked by the International Searching Authority.</td>
</tr>
<tr>
<td>17</td>
<td>k</td>
<td>Under Rule 91.1(f), with a request for rectification.</td>
</tr>
<tr>
<td>18</td>
<td>m</td>
<td>With (an) indication(s) in relation to deposited biological material furnished under Rule 13bis separately from the description.</td>
</tr>
<tr>
<td>19</td>
<td>n</td>
<td>With a declaration as to non-prejudicial disclosures or exceptions to lack of novelty.</td>
</tr>
<tr>
<td>20</td>
<td>p</td>
<td>With an indication in relation to a priority claim considered not to have been made.</td>
</tr>
<tr>
<td>21</td>
<td>q1</td>
<td>Published entirely in electronic form (except for the front page) and available upon request from the International Bureau.</td>
</tr>
<tr>
<td>22</td>
<td>q2</td>
<td>Sequence listing part of description published separately in electronic form and available upon request from the International Bureau.</td>
</tr>
</tbody>
</table>

In 2003 the WIPO changed this coding for PCT publications; the numbers were replaced by letters.

The letters have the following explanations:


The codes below appearing after the heading “Published/Publiée” indicate that the corresponding text matter was published on the front page of the PCT pamphlet:

- a With amended claims.
- b With amended claims and statement.
- c Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.
- d Upon request of the applicant under Article 64(3)(c)(i))
- e In accordance with Article 64(3)(c)(ii) upon publication of a patent based on the international application, issued by the United States Patent and Trademark Office on <date> under serial number <number>.
- f Upon request of the applicant, before the expiration of the time limit referred to in Article 21(2)(a).
- g Without classification; title and abstract not checked by the International Searching Authority.
- h With declaration under Article 17(2)(a); without classification and without abstract; title not checked by the International Searching Authority.
- i With declaration under Article 17(2)(a); without abstract; title not checked by the International Searching Authority.
- k Under Rule 91.1(f), with a request for rectification.
- m With (an) indication(s) in relation to deposited biological material furnished under Rule 13bis separately from the description.
- n With a declaration as to non-prejudicial disclosures or exceptions to lack of novelty.
- p With an indication in relation to a priority claim considered not to have been made.
- q1 Published entirely in electronic form (except for the front page) and available upon request from the International Bureau.
- q2 Sequence listing part of description published separately in electronic form and available upon request from the International Bureau.

The codes below that appear after the heading “Declaration(s)/Déclaration(s)” indicate that a text corresponding to the following wording was published on the front page of the PCT pamphlet:

- r Declaration as to the identity of the inventor (Rule 4.17(i)).
- s Declaration as to applicant’s entitlement to apply for and be granted a patent (Rule 4.17(ii)).
- t Declaration as to the applicant’s entitlement to claim the priority of the earlier application (Rule 4.17(iii)).
- u Declaration of inventorship for the purposes of the designation of US only (Rule 4.17(iv)).
- v Declaration as to non-prejudicial disclosures or exceptions to lack of novelty (Rule 4.17(v))

And finally:

- x With international search report
- z Without international search report and to be republished upon receipt of that report
44.7 Using proximity operators

In this section, the use of proximity operators in the number fields is considered, this being important in particular in databases employing the dynamic principle where there may be information of several publications or applications in the respective field. In databases employing a static principle with segmentation there may be various publication and application data within the same documentation unit, but one record (level, file segment) only holds information of one single publication/application. That is why for these fields the same rules apply as for other fields in these databases.

An exception is with the data of Priority applications. There may be a number of priority applications in the PRAI field in any of the databases. To link the information of one priority application within the priority field, i.e. within one entry in the PRAI field, between the /PRC, /PRD, /PRN, and /PRY fields, (S) proximity is used.

In the tables below it is shown which Boolean and proximity operators may be used to link the information belonging to the same patent:

<table>
<thead>
<tr>
<th>DWPI</th>
<th>PI (PN, PC)</th>
<th>AI</th>
<th>PRAI</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI (PN, PC)</td>
<td>(P)</td>
<td>(P)</td>
<td>AND</td>
</tr>
<tr>
<td>AI</td>
<td>(P)</td>
<td>(P)</td>
<td>AND</td>
</tr>
<tr>
<td>PRAI</td>
<td>AND</td>
<td>AND</td>
<td>(S)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DWPI</th>
<th>PI (PD, PY, PK)</th>
<th>AI</th>
<th>PRAI</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI (PD, PY, PK)</td>
<td>(P)</td>
<td>(L)</td>
<td>AND</td>
</tr>
<tr>
<td>AI</td>
<td>(L)</td>
<td>(P)</td>
<td>AND</td>
</tr>
<tr>
<td>PRAI</td>
<td>AND</td>
<td>AND</td>
<td>(S)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAPLUS</th>
<th>PI</th>
<th>AI</th>
<th>PRAI</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI</td>
<td>(L) oder (P)</td>
<td>(L)</td>
<td>AND</td>
</tr>
<tr>
<td>AI</td>
<td>(L) oder (P)</td>
<td>(L)</td>
<td>AND</td>
</tr>
<tr>
<td>PRAI</td>
<td>AND</td>
<td>AND</td>
<td>(S)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PATDPA</th>
<th>PI.M</th>
<th>AI</th>
<th>PRAI</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI.M</td>
<td>(P)</td>
<td>AND</td>
<td>AND</td>
</tr>
<tr>
<td>AI</td>
<td>AND</td>
<td>(S)</td>
<td>AND</td>
</tr>
<tr>
<td>PRAI</td>
<td>AND</td>
<td>AND</td>
<td>(S)</td>
</tr>
</tbody>
</table>

In DWPI the Publication and Application Information of one patent can be searched by using (P) proximity, linking the /PC and /PN fields. To link the /PD, /PY, /PK and even /ICM (IPC1–7) fields (L) proximity must be used, further limitation is possible by linking to the DLVL (Document Level Qualifier) field:

=> S JP/PC (L) JP/AC (L) PD>20050101 (L) PUBLICATION/DLVL
L1 727701 JP/PC (L) JP/AC (L) PD>20050101 (L) PUBLICATION/DLVL

In the ADT (Application Details) DISPLAY field the publication details are displayed together with the respective application information. The application information of one publication makes up one paragraph (see above, (P) proximity). Separation of the paragraphs is made by semicolon. Within one paragraph there may be the information of a number of applications separated by commas. The information of one such application (/AC, /AD, /AP, and /AY search fields) is linked by (P) proximity.

In PATDPA the data of the family (DE, EP und WO) is entered in the FI field. The entries are linked by these operators:

<table>
<thead>
<tr>
<th>PATDPA</th>
<th>FIP</th>
<th>FIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIP</td>
<td>(P)</td>
<td>AND</td>
</tr>
<tr>
<td>FIA</td>
<td>AND</td>
<td>(S)</td>
</tr>
</tbody>
</table>

Related patents (e.g. addition and division applications) are recorded in the RLI (Related application information) field. In databases having this field it may usually be searched using (S) proximity. The same goes for entries in the REP (Referenced patent information) field.
Types of search

### 44.8 Notes on DWPI at publication level

<table>
<thead>
<tr>
<th>SEARCH</th>
<th>DISPLAY</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>APTS</td>
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<td>Application Number, Thomson Scientific</td>
</tr>
<tr>
<td>PRTS</td>
<td>PRTS</td>
<td>Priority Number, Thomson Scientific</td>
</tr>
<tr>
<td>PRC.B,</td>
<td>PRTS</td>
<td>Priority Country, Basic</td>
</tr>
<tr>
<td>PRO.B,</td>
<td></td>
<td>Priority Date, Basic</td>
</tr>
<tr>
<td>PRN.B,</td>
<td></td>
<td>Priority Number, Basic</td>
</tr>
<tr>
<td>PRY.B</td>
<td></td>
<td>Priority Year, Basic</td>
</tr>
<tr>
<td>SLM,</td>
<td>SLM,</td>
<td>Summary Language, Member</td>
</tr>
<tr>
<td>FS.M</td>
<td>FS.M</td>
<td>File Segment, Member</td>
</tr>
<tr>
<td>FA.M</td>
<td></td>
<td>Field Availability, Member</td>
</tr>
</tbody>
</table>

At publication level there may be the Title, Abstract and Claims in English, French or German. The search result can be limited to a certain language by using the /SL.M field:

```plaintext
=> DE/SL.M
L18 2203735 DE/SL.M
```

The fields APTS and PRTS are available in addition to the AI (ADT) and PRAY display fields at publication level. These fields contain additional information from the original data (DE, EP, US, PCT, JP, etc.). These fields were added by Thomson Scientific (in the appropriate format). Before complete application details were only available starting from 1992.

```plaintext
Member (0001)
TiDE FLACHGES IMPLANTAT UND VERFAHREN ZU SEINER HERSTELLUNG

Member (0002)
TiDE Flaechiges Implantat und Verfahren zu seiner Herstellung

The fields APTS and PRTS are available in addition to the AI (ADT) and PRAY display fields at publication level. These fields contain additional information from the original data (DE, EP, US, PCT, JP, etc.). These fields were added by Thomson Scientific (in the appropriate format). Before complete application details were only available starting from 1992.

```plaintext
Member (0001)
P1  DE 1769181 B 19750123 (199911)* DE 3[0]
TiDE Waermeisolierstoffplatte aus Schaumkunststoff, sowie Verfahren zu deren Herstellung
AG  AG.T Strohschaenck, H., Dipl.-Ing., Patentanwalt, 8000 Muenchen
PA  (ROCA-C) ROCKWOOL AB
ADT  DE 1769181 B
APTS 1968DE-0001769181
PRAY SE 1967-6602 19670511
PRTS 1967SE-000006602
```
45 Family search

45.1 Typical family searches

- Oppositions against competitors' patents: to monitor the patent families in order to be able to submit an opposition immediately when a patent is granted (e.g. DE or EP)
- Identification of potential markets for certain technologies
- Monitoring competitor activities in certain markets
- Finding family members in English (German)
- Finding family members for obtaining full-text documents
- „Freedom to operate“: Use of technologies in countries, where there is no patent protection
- Commercial evaluation and utilization of patents: it is important in how many and in which countries patents were applied for, e.g. in licensing negotiations or Due Diligence in mergers and acquisitions

45.2 International patent families

All patent publications in different countries that concern the same invention, form a patent family. The members of this patent family refer to the same initial patent application (the priority application). The legal basis for this is the Paris Convention for the Protection of Industrial Property of 1883. If a patent application is filed in any member state of the Paris Convention further applications can be filed in other member states within the priority term of one year and claim the priority of the first application. Merging world-wide patent publications into one family representing an invention is an effective and time-saving way both for database producers creating family-based databases and for patent searchers to evaluate their search results.

The publications of family members of one country are called national patent families.

Types of patent families include:

- Conventional patent family
  - The same priority application(s)
  - The same applicant/inventor
  - The same subject matter
- Non-conventional patent family
  - No claim to the same priority application
  - The same applicant/inventor
  - The same subject matter
- Technical patent families
  - The same subject matter
  - Competing patent applications

When referring to patent families this usually means conventional patent families. These are covered in all databases having patent families. Non-conventional and technical patent families are much more special and are covered in few patent databases (INPADOC, DWPI, CAPLUS).

It is common that not only one priority but multiple priorities are claimed. This can lead to very complex patent families. To understand these patent families it is necessary to look into the patent law of the individual countries. One finds a few terms in this context, which, however, we will not explain here:

2 The right to a priority can be transferred.
Types of search

- Multiple priority and partial priority.
- DE: Internal Priority, Division, Additional Application, Utility Model Derivation,
- US: Continuation, Continuation-in-part, Division, Provisional Application.

45.2.1 Publications within one patent family

- National applications: each family member as an application and a publication/patent number,
- International applications: application is made through the PCT procedure
  - Granted national patents get a number
  - Entry into the national phase is published by these countries in the legal status: AR, AT, AU, BE, BR, CA, CH, CN, CO, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HK, HU, IE, IL, IT, JP, LT, LU, MC, MD, NL, NO, NZ, PE, PH, PL, PT, RU, SE, SI, SK, TW, US, WO, ZA
  - Non-entry into the national phase of PCT applications is published by these countries in the legal status: CA, DE, JP, KR
  - In the national phase of the PCT procedure there may be publications with the following publication kind codes (depending on national law):
    o T* – Translation
    o B*/C* – Grant
    o A* – National re-publication
- European applications: application and grant are made through the EPO, some countries assign a national application/publication number:
  - Countries with national application/publication numbers: AT, CY, DE, ES, HR, IE, ...
  - Information in the EP legal status “Corresponds to”, “Entry Into National Phase” or information on payment of maintenance fees: AT, BE, BG, CH, CZ, CY, DE, DK, EE, ES, FI, FR, GB, GR, HK, HU, IE, IL, IT, LI, LT, LU, LV, MC, MD, NL, PL, PT, RO, RU, SE, SI, SK, TR
  - In the national phase of the PCT procedure there may be publications with the following publication kind codes (depending on national law):
    o T* – Translation
    o DED1 – National number for EP Patent with DE designation, etc.

45.2.2 Example of a simple patent family

- Family involving EP procedure

<table>
<thead>
<tr>
<th>Priority application</th>
<th>Applications claiming priority</th>
<th>Publication of the application</th>
<th>Grant of patent</th>
<th>National number for EP patent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>DEA1 2008-05-21</td>
<td>DEB4 2008-09-18</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>Up to 12 months</td>
<td>Up to 20 years patent term</td>
<td></td>
<td>from application date</td>
</tr>
</tbody>
</table>
45.3 Family information in STN patent databases

<table>
<thead>
<tr>
<th>Database</th>
<th>Countries</th>
<th>Families</th>
<th>Family relations</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA, CAPLUS</td>
<td>&gt;60 countries, including EP, WO</td>
<td>Selected families</td>
<td>National, International, conventional</td>
</tr>
<tr>
<td></td>
<td></td>
<td>non-conventional families</td>
<td>International, non-conventional</td>
</tr>
<tr>
<td>INPADOCDB,</td>
<td>95 Patent authorities, including EP, WO</td>
<td>95 countries, including EP and WO</td>
<td>National, International, conventional</td>
</tr>
<tr>
<td>INPAFAMDB</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

45.3.1 Family documents in the databases

- Family document in DWPI (display format: IBIB):

  ACCESSION NUMBER: 2010-C36080 [19]  WPINDEX
  TITLE: Producing a semiconductor wafer, comprises disposing the semiconductor wafer in a cutout in a carrier, and ...
  DERWENT CLASS: L03; U11
  INVENTOR: HAIR G; HEIER G; HEILMAIER A; ROETTGER K; GEREUHAREUTEU H; KEULRAUSEU R
  PATENT ASSIGNEE: (WACK-C) WACKER SILTRONIC GES HALBLEITEMATERIALI; (SILT-N) SILTRONIC AG
  COUNTRY COUNT: 4
  PATENT INFO ABR.: An asterisk * identifies the Derwent Basic patent.

  The family members are sorted in chronological order (Derwent Week).

  PATENT NO KIND DATE WEEK LA PG MAIN IPC
  US 20100055908 A1 20100304 (201019) * EN 6[2]
  CN 101659027 A 20100303 (201019) ZH
  JP 2010056530 A 20100311 (201019) JA 17
  KR 2010025470 A 20100309 (201020) KO

  APPLICATION DETAILS:

  PATENT NO KIND APPLICATION DATE
  US 20100055908 A1 US 2009-547749 20090826
  JP 2010056530 A JP 2009-164436 20090713
  CN 101659027 A CN 2009-10168313 20090827
  KR 2010025470 A KR 2009-70077 20090730

  PRIORITY APPLN. INFO: DE 2008-102000844646 20080827
The Basic Patent is on the first line in the PI field. The family members are listed below, sorted by application date.

<table>
<thead>
<tr>
<th>Patent No.</th>
<th>Kind</th>
<th>Date</th>
<th>Application No.</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 2010055908</td>
<td>A1</td>
<td>20100304</td>
<td>US 2009-547749</td>
<td>20090826</td>
</tr>
<tr>
<td>DE 102008044646</td>
<td>A1</td>
<td>20100325</td>
<td>DE 2008-102008044646</td>
<td>20080827</td>
</tr>
<tr>
<td>JP 2010056530</td>
<td>A</td>
<td>20100311</td>
<td>JP 2009-164436</td>
<td>20090730</td>
</tr>
<tr>
<td>KR 2010025470</td>
<td>A</td>
<td>20100309</td>
<td>KR 2009-70077</td>
<td>20090730</td>
</tr>
<tr>
<td>CN 201059027</td>
<td>A</td>
<td>20100303</td>
<td>CN 2009-10168313</td>
<td>20090827</td>
</tr>
</tbody>
</table>

Each family member claims the same German priority.

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

Family document in INPAFAMDB (display format BRIEF: bibliographical details + patent family table):

AN 38875177 INPAFAMDB EDF 20100204 EWF 201005 UPFB 20121122 UWF 201247
TI Device for heating moulded parts, in particular of ceramic, moulded dental parts.

INS LAUBERSHEIMER JUERGEN, CH; JUSSEL RUDOLF, AT; LAUTENSCHLAEGER W, CH;

PAS IVOCLAR VIVADENT AG, LI

PAS IVOCLAR VIVADENT AG

PCI A61C0013-00 [I,A]; A61C0013-20 [I,A]; H05B0006-80 [I,A]

CPC A61C0013-203; H05B0006-80; H05B2206-046

EPC H05B0006-80

ICO T05B0206:046; K61C0013:20M

NCL NCLM 219/759.000

NCL NCLM 219/759.000

AB (EP 2150092 A2)
The device has a microwave generator that impinges a susceptor with microwave radiation, where the susceptor is arranged between a molding...

INPADOCDB/INPAFAMDB contain Design Patents from these countries: BR, CA, CR, DO, EC, GT, JP, US, UY, etc. These Design Patents may be combined into families with other IP rights via their priorities:

AN 75288892 INPADOCDB ED 20131128 EW 201348 UP 20140320 UW 201412
FN 50371044
TI Sole for a shoe.
IN YUDELOWITZ SAUL
PA SARK, LTD.; SARK, LTD
DT Design Patent
PI US 693548D S1 20131119 English
PIT US51 DESIGN PATENT
AI US 2012-29434066 F 20121009
AIT USF Design application
PRAI US 2012-29434066 F 20121009 (USF, 20131128, N)
US 2012-13478061 A 20120522 (USA1, 20131128, Y)
PRAIT USF Design application
USA1 Prior application claimed for continuation
L5 ANSWER 1 OF 1 INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN

PATENT FAMILY INFORMATION
AN 75288892 INPADOCDB
+-------------------------PRAI-------------------------+ +--------------------------AI--------------------------+
US 2012-13478061 A 20120522 US 2012-13478061 A 20120522
US 2012-29434066 F 20121009
US 2012-29434066 F 20121009
WO 2013-IB54190 W 20130521
US 2012-29434066 F 20121009
US 2012-29434066 F 20121009

+-------------------------AI-------------------------+ +--------------------------PI--------------------------+
US 2012-13478061 A 20120522 US 2013031292 A1 20131128
US 2012-29434066 F 20121009 US 693548D S1 20131119
WO 2013-IB54190 W 20130521 WO 2013175406 A1 20131128

2 priorities, 3 applications, 3 publications (1 EPO simple family)

45.3.2 Quality improvements in INPADOC families by FIZ Karlsruhe

Priority, application and publication numbers need to be correct in order to be able to correctly bring together the patent families. FIZ Karlsruhe performs a quality inspection of the original data provided by EPO:

- New numbers are compared to standard formats; all numbers not meeting these standards are filtered, checked by a human and corrected
- Individual errors (e.g. wrong priority number on a document) are corrected by a human, using a variety of sources
- Error corrections are online very quickly, usually within one week

The UPFC update field shows how many mergers or splits were made at a given date:

=> E 2010/UPFC 25
E1 80 20091217/UPFC
E2 90 20091224/UPFC
E3 0...> 20100000/UPFC
E4 26 20100104/UPFC
...
E17 141 20100401/UPFC
E18 143 20100408/UPFC
E19 102 20100415/UPFC
E20 119 20100422/UPFC
E21 86 20100429/UPFC
E22 121 20100506/UPFC
E23 67 20100514/UPFC
E24 96 20100520/UPFC
45.3.2.1 Merger of patent families by correction of numbers
Correction of the priority number of US20090083750 (misprint on the original document):
CN2007-11017879 => CN2007-1017879

45.3.2.2 Split of false patent families by correction of numbers
Correction of the priority number of US20080021851: US2006-492395 => US2006-492335

45.4 The patent family definitions of the database producers
The database producers use a number of different definitions of a patent family. This definition determines what goes into one database document. In DWPI and CAPLUS there may be more than one database record for the same invention. These documents contain an information on other documents of the family being available in the database. These complex families may be assembled using a family search or family display.

45.4.1 INPADOCDB and INPAFAMDB

45.4.1.1 Database structure
INPADOCDB and INPAFAMDB are the patent databases with the widest country coverage. The data of 95 patent organizations (including EP and WO) are covered.

One document in INPADOCDB includes all publications which are based on one national application. This includes the bibliographical details of all publication levels as well as the legal status details. Both parts of the document, the bibliography and the legal status, are updated continuously.
For every invention (patent family) a number of documents is created in INPADOCDB that corresponds to the number of applications per invention.

<table>
<thead>
<tr>
<th>Document 1</th>
<th>Document 2</th>
<th>Document N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st publication</td>
<td>1st publication</td>
<td>1st publication</td>
</tr>
<tr>
<td>2nd publication</td>
<td>2nd publication</td>
<td>2nd publication</td>
</tr>
<tr>
<td>Legal status</td>
<td>Legal status</td>
<td>Legal status</td>
</tr>
</tbody>
</table>

76 million publications → 65 million documents → 42 million patent families

The database indexes in INPADOCDB relate to the respective applications. This way it is possible to search, display, and monitor the information of individual applications, publications, and legal status details. Specific update codes are available to monitor selected applications. Using family related update codes it is also possible to monitor patent families.

### 45.4.1.1 Family definition in INPADOCDB

In INPADOCDB, all publications that are directly or indirectly linked through a claimed priority belong to one patent family (the so-called INPADOC family definition). Based on this definition, a family number FN is assigned to every individual document that belongs to a patent family when the database is built and whenever the database is updated.

<table>
<thead>
<tr>
<th>Family number FN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publication D1</td>
</tr>
<tr>
<td>Publication D2</td>
</tr>
<tr>
<td>Publication D3</td>
</tr>
<tr>
<td>Publication D4</td>
</tr>
<tr>
<td>Publication D5</td>
</tr>
</tbody>
</table>

### 45.4.1.2 Database structure of INPAFAMDB

The INPADOCBD Family Number FN is used as the Accession Number AN of the corresponding (family) document in INPAFAMDB (AN = FN). This compilation of individual documents into patent family documents is re-performed, and checked, with every update of the database, i.e. there is only one document per patent family. This is different from e.g. DWPI or CAPLUS where a different, narrower family definition is used. In those databases it is possible that due to multiple priorities more than one (family) document exists for a given invention.

INPAFAMDB has this structure:

All documents that belong to one patent family are assigned the same Family Number FN in INPADOCDB.
Types of search

AN  47588957  INPADOCDB
FN  34427091
TI  CONTROL DEVICE.
PI  US 5232197  A  19930803
PA  ROBERT BOSCH GMBH
IN  KALIPPKE, HARALD; FRANZ, MANFRED; RENNINGER, ERHARD; MEIWES, JOHANNES; GERHARD, ALBERT; HAMMER, UWE

AN  23204569  INPADOCDB
FN  34427091
TI  STELLEINRICHTUNG.
PI  EP 513274  A1 19921119
PA  ROBERT BOSCH GMBH, POSTFACH 30 02 20, W-7000 STUTTGART 30
IN  KALIPPKE, HARALD; LANGE STR. 87, W-7141 BENNINGEN; FRANZ, MANFRED; DANZIGER STR. 5, W-7257 DITZINGEN; RENNINGER, ERHARD; SILLCHERSTR. 5, W-7145 MARKGROENINGEN; MEIWES, J. ROSENBURG; GERHARD, ALBERT, URACHER WEG 1, W-7146 TAMM; HAMMER, UWE; GOERLITZER WEG 45, W-7141 SCHWEIDINGEN

This Family Number is the Accession Number AN of the corresponding family document in INPAFAMDB.

AN  34427091  INPAFAMDB UPFB 20090115 UWF 200903
TI  STELLEINRICHTUNG.
· CONTROL UNIT.
· DISPOSITIF DE REGLAGE.
IN  KALIPPKE, HARALD DIPL ING, DE; FRANZ MANFRED, DE; RENNINGER ERHARD DIPL ING, DE; MEIWES JOHANNES DR ING, DE; GERHARD ALBERT, DE; HAMMER UWE DIPL ING, DE
PA  BOSCH GMBH ROBERT, DE

PATENT FAMILY INFORMATION INPAFAMDB

+-------- Publications --------+   +-------- Applications --------+
DE 4038762   A1 19920611   DE 1990-4038762   A 19901205
US 5232197   A 19930803   US 1992-910304   A 19920721

+-------- Priorities --------+
DE 1990-4038762   A 19901205
WO 1991-DE893   W 19911115

2 priorities, 7 applications, 7 publications

45.4.1.2 EPO “Simple Family”

The European Patent Office also defines the so-called “EPO simple family”. This is used in Espacenet, for classification of patent documents using the CPC and for the MCD database. A “simple family” consists of all documents that share the same priority or the same combination of priorities. The INPADOC family above therefore forms 4 “simple families”:

287
However, a detailed analysis by the EPO of given patent documents can lead to some priorities being considered "non-active". This means that these priorities are ignored for simple patent families. This assessment may change when new facts come up, e.g., a new publication. It may be said that those priorities are "active", which define the technical contents of the "simple family". WO priorities are often non-active because they share the same technical contents with the national applications. Active and non-active priorities are marked in the documents (Y = active priority, N = non-active priority).

A "simple family" is created for WO 2007009624.
Y = active priority
N = non-active priority.

PATENT FAMILY INFORMATION
AN 35175373 INPAFMDB

EPO simple family (SFN): 37031203

+----------+ +----------+
PUBLICATIONS APPLICATIONS +----------+ +----------+
DE 102005034274 A1 20070125 DE 2005-102005034274 A 20050722
JP 2009503313 T 20090129 JP 2008-521843 T 20060708
US 20080216788 A1 20080911 US 2008-9848 A 20080122

+----------+ +----------+
PRIORITY PRIORITIES +----------+ +----------+
DE 2005-102005034274 A 20050722 (DEA, 20070208, Y)

2 priorities, 4 applications, 4 publications

45.4.2 DWPI
All family members in one database document have the same priorities as the Basic Patent, the first family member that was used for indexing.

When a new priority appears this publication is the basis for a new document in the database:
- Each database document has a reference to other documents belonging to the same family in the CR (Cross Reference) field
- Complex patent families result from multiple priorities being assigned to one patent application, in particular if there are Continuations in part.

The DWPI family is well suited to find closely related family members in a big patent family which is beneficial when reviewing search results.

Different Basic Patents may be used for indexing in DWPI and CAPLUS.

45.4.3 CAPLUS
All family members in one database document have the same priorities as the Basic Patent. In case of complex patent families more than one document is created in the database for one family.

In contrast to DWPI the same patent numbers may appear in more than one database document.

Whether a new family document is created is decided based on the priorities. New family documents are created in CAPLUS when new priorities appear. A hint that there are other documents of the same family can be found in the FAN.CNT (Family Accession Number Count) field.
Other reasons to create more than one document in the database for a family are:

- Many substances that must be indexed, exceeding the limit for one document.
- From 2008-07-01 one family document is created and indexed for the oldest national priority of US, DE, GB, FR, CA, EP and a second document for the WO application (WO documents often contain more information, including more chemical structures).

### 45.5 Family searches on STN

#### 45.5.1 Family display formats

In the international family databases there are specific display formats:

##### 45.5.1.1 Family documents

<table>
<thead>
<tr>
<th>Database</th>
<th>Family format</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWPI</td>
<td>IBIB</td>
<td>Family information of one database document</td>
</tr>
<tr>
<td>HCAPPLUS</td>
<td>IBIB</td>
<td>Family information of one database document</td>
</tr>
<tr>
<td>INPAFAMDB</td>
<td>BRIEF</td>
<td>De-duplicated format for the full family</td>
</tr>
</tbody>
</table>

In INPAFAMDB one family document always comprises the complete family.

##### 45.5.1.2 Full families

<table>
<thead>
<tr>
<th>Datenbank</th>
<th>Family format</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWPI</td>
<td>1-IBIB</td>
<td>After the family has been searched</td>
</tr>
<tr>
<td>HCAPPLUS</td>
<td>1-IBIB</td>
<td>After the family has been searched</td>
</tr>
<tr>
<td></td>
<td>FAM, FBIB</td>
<td>Family information of all database documents relating to one invention, especially to display complex families</td>
</tr>
<tr>
<td>INPADOCDB/INPAFAMDB</td>
<td>FAM</td>
<td>All priority, application and publication numbers with association</td>
</tr>
<tr>
<td></td>
<td>CFAM</td>
<td>Simple table of all publication numbers and details</td>
</tr>
<tr>
<td></td>
<td>SFAM</td>
<td>Displays the narrow INPADOC family (EPO simple family)</td>
</tr>
<tr>
<td></td>
<td>FFAM</td>
<td>Bibliographical details and legal status of all family members</td>
</tr>
<tr>
<td></td>
<td>FFAM.PC</td>
<td>Displays the narrow INPADOC family (EPO simple family)</td>
</tr>
<tr>
<td></td>
<td>MFAM</td>
<td>FFAM format plus abstracts and citations</td>
</tr>
</tbody>
</table>

These formats are by example only. There are many more formats available in the databases (in particular in INPAFAMDB).

#### 45.5.2 Searching patent families using FSEARCH / FSORT commands

The FSEARCH and FSORT commands can be used for enhanced family searching in individual databases (e.g. INPADOCDB, DWPI, HCAPPLUS) and for cross-file family searches (e.g. DWPI, HCAPPLUS). In INPAFAMDB the full family is collected in one document, so the FSEARCH and FSORT commands are not needed.

Using FSEARCH the system automatically selects publication numbers and application numbers (PN, APPS) from a previous search result and searches them in the database or databases of interest. This procedure is repeated until no more documents are found (it stops after 4 iterations but can be started again). The starting point for FSEARCH can be:

- a publication number,
- an application number,
- an E numbers list or a L number (SELECT or SmartSELECT result),
- a L number or L number list, or
- a search profile.

FSEARCH always closes with a FSORT.

FSORT sorts an answer set (L number) to family groups by the publication and application numbers found. Two records are considered to belong to the same patent family if the publication numbers, the application numbers or the priority numbers match. The resulting patent families and the appropriate answers are listed.
Both commands are free of charge. Instead of using databases with search-term pricing, it is, however, advisable to search H files (i.e. HCA, HPATENTS instead of CA, PATENTS) where search terms are not charged.

Following the FSORT procedure, the display command

D PFAM 1 – allows to display only one document of each patent family. Any display format may be used together with PFAM.

FSORT can also be used to identify and/or eliminate duplicates in multi-file searches. The Patent family manager of STN Express is very useful for this purpose (see the “Multifile” search example).

An example of a family search using FSEARCH in DWPI can be found in the “Family” search example. An example using FSORT and the PFAM format can be found in the “Multifile” search example.

45.5.3 Searching patent families using the Patent Family Manager

Both in STN Express and in STNext the Patent Family Manager is available to:

- Extract the first member of each patent family in the answer set,
- Remove an element of multiple basics from CA/CAplus answer sets,
- Create a custom display format of the patent family.

Calling the Patent Family Manager Wizard in STN Express

(mouse click on the L-number link of the answer set)

Calling the Patent Family Manager in STNext
45.5.4 INPADOCDB and INPAFAMDB

45.5.4.1 Family display formats in INPADOCDB and INPAFAMDB

For all answers retrieved in a search (e.g., publication number, application number, names, etc.) the patent family can be displayed. When entering DISPLAY followed by the family format, the system automatically identifies the relevant priority number and displays the patent family. It is recommended to use the DISPLAY BROWSE (D BRO) command to make sure you will be charged only once even if there are multiple display formats involved.

```plaintext
=> $ US20100046623/PN
L9  1 US 20100046623/PN
    (US20100046623/PN)

=> D BRO
:CFAM2
PATENT FAMILY INFORMATION
AN  38985104 INPAFAMDB

+--------+ +--------+
PUBLICATIONS | APPLICATIONS
+--------+ +--------+
CN 101656825 | A  20100224  CN 2009-10170901 | A  20090818
CN 101656825 | B  20120328
CN 101873489 | A  20101027  CN 2010-10150205 | A  20100419
EP 2244485   | A2  20101027  EP 2010-3916  | A  20100413
HK 1141377   | A1  20121116  HK 2010-107643 | A  20100810
KR 2010022447| A  20100302  KR 2009-76682  | A  20090819
TW 2010026034| A  20100701  TW 2009-127871 | A  20090819
US 20100046623| A1  20100225  US 2009-400736  | A  20090309
US 20100046615| A1  20100225  US 2009-427440  | A  20090421

+--------+ +--------+
PRIORITIES | 
+--------+ +--------+
US 2008-90075P | P  20080819
US 2009-400736 | A  20090309
US 2009-427440 | A  20090421

3 priorities, 9 applications, 10 publications (2 EPO simple families)
```

Using FFAM all bibliographical data of the full patent family including the legal status are displayed. If only the family and legal status information of one particular country is wanted this can be displayed with the FFAM.PC format (Reduced price family display, PC being replaced by the country code of the respective country):

```plaintext
:FFAM.EP

+--------+ +--------+
PUBLICATIONS | APPLICATIONS
+--------+ +--------+
```

**FAM.3**

+--------+ +--------+
PUBLICATIONS | APPLICATIONS
+--------+ +--------+
CN 101656825 | A  20100224  CN 2009-10170901 | A  20090818
CN 101656825 | B  20120328
CN 101873489 | A  20101027  CN 2010-10150205 | A  20100419
EP 2244485   | A2  20101027  EP 2010-3916  | A  20100413
HK 1141377   | A1  20121116  HK 2010-107643 | A  20100810
KR 2010022447| A  20100302  KR 2009-76682  | A  20090819
TW 2010026034| A  20100701  TW 2009-127871 | A  20090819
US 20100046623| A1  20100225  US 2009-400736  | A  20090309
US 20100046615| A1  20100225  US 2009-427440  | A  20090421

+--------+ +--------+
PUBLICATIONS | APPLICATIONS
+--------+ +--------+
```

**FAM.3**

+--------+ +--------+
PUBLICATIONS | APPLICATIONS
+--------+ +--------+
CN 101656825 | A  20100224  CN 2009-10170901 | A  20090818
CN 101656825 | B  20120328
CN 101873489 | A  20101027  CN 2010-10150205 | A  20100419
EP 2244485   | A2  20101027  EP 2010-3916  | A  20100413
HK 1141377   | A1  20121116  HK 2010-107643 | A  20100810
KR 2010022447| A  20100302  KR 2009-76682  | A  20090819
TW 2010026034| A  20100701  TW 2009-127871 | A  20090819
US 20100046623| A1  20100225  US 2009-400736  | A  20090309
US 20100046615| A1  20100225  US 2009-427440  | A  20090421

+--------+ +--------+
PUBLICATIONS | APPLICATIONS
+--------+ +--------+
US 2008-90075P | P  20080819
US 2009-400736 | A  20090309
US 2009-427440 | A  20090421

3 priorities, 9 applications, 10 publications (2 EPO simple families)
Guide to STN Patent Databases

US 2009-400736 A 20090309 (USA, 20100225, Y)
PRAIT USP Provisional application
USA Patent application

REC 3. THERE IS 1 CITED REFERENCE (1 PATENT, 0 NON PATENT) AVAILABLE FOR THIS RECORD. ALL CITATIONS ARE AVAILABLE IN THE PIRE FORMAT.

IPCI H04N0007-01 [I, A]
CPC H04N0007-01
EPC H04N0007-01
FA AB; AI; AN; DAV; CHG; CPC; DS; DT; ED; EPC; EW; IN; INS; IPC; IPCI; LA;
PA; PAS; PI; PIT; PRAI; REP; TI
CHG CIT A

LEGAL STATUS
AN 38985104 INPAFAMDB
20100224 EPAX + DESIGNED CONTRACTING STATES:
EP A2
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT
LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

20100224 EPAX + EXTENSION OF THE EUROPEAN PATENT TO
AL BA RS

SFAM is a display format for the “EPO simple family” (see Espacenet):

: SFAM

PATENT FAMILY INFORMATION
AN 38985104 INPAFAMDB

=================================
EPO simple family (SFN): 41346706
=================================

+-------- Publications --------+ +-------- Applications --------+
CN 101656825 A 20100224 CN 2009-10170901 A 20090818
CN 101656825 B 20120328
HK 1141377 A1 20121116 HK 2010-107643 A 20100810
KR 2010022447 A 20100302 KR 2009-76682 A 20090819
TW 2010026054 A 20100701 TW 2009-127871 A 20090819
US 20100046623 A1 20100225 US 2009-400736 A 20090309

+-------- Priorities --------+
US 2008-90075P P 20080819 (USP, 20100225, Y)
US 2009-400736 A 20090309 (USA, 20100225, Y)

=================================
EPO simple family (SFN): 42320901
=================================

+-------- Publications --------+ +-------- Applications --------+
CN 101873489 A 2010010227 CN 2010-10150205 A 20100419
EP 2244485 A2 2010010227 EP 2010-3916 A 20100413
US 20100046623 A1 20100225 US 2009-427440 A 20090421

+-------- Priorities --------+
US 2009-427440 A 20090421 (USA, 20100304, Y)
US 2009-400736 A 20090309 (USA, 20100225, N)
US 2008-90075P P 20080819 (USP, 20100225, N)

3 priorities, 9 applications, 10 publications (2 EPO simple families)

: END

Y – active priorities
N – non-active priorities
At the end of the tabular family display formats, the number of priorities, applications and publications is printed (Patent Family Counts):

3 priorities, 9 applications, 10 publications (2 EPO simple families)

In INPAFAMDB, there are Search and Select fields for these “counters” that can be used to analyze the patent application policy of patent assignees:

<table>
<thead>
<tr>
<th>Family Counts</th>
<th>Search/Select Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Number Counts</td>
<td>ACNT</td>
</tr>
<tr>
<td>Priority Number Counts</td>
<td>PRCNT</td>
</tr>
<tr>
<td>EPO Simple Family Number Counts</td>
<td>FCNT</td>
</tr>
</tbody>
</table>

=> $ (INA (S) SCHAEFFLER) / PA, PAS 
L36 2575 (INA (S) SCHAEFFLER) / PA, PAS

=> ANA 1. ACNT 
L37 ANALYZE L36 1. ACNT : 15 TERMS

=> D 1. 
L37 ANALYZE L36 1. ACNT : 15 TERMS

On average, Ina Schaeffler files 3.89 patent applications per individual invention.

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********* END OF L37 *********

In INPADOCDB and INPAFAMDB it is possible to monitor patent families (see “Monitoring patents”).

45.5.4.2 Other family display formats in INPADOCDB and INPAFAMDB

INPADOCDB: The bibliographical details of the national patent families can be displayed. As these documents can be very large there is a de-duplicated display format BRIEF containing the most essential information on the national patent family:

=> D BRIEF

AN 64740525 INPADOCDB FN 42001438 EDP 20110512
TI Electric lifting stator inner cavity cyclometer.
INS WENFENG XU; XIAOMING ZENG
PAS HANGZHOU FROMO ELECTROMECHANICAL TECHNOLOGY CO LTD
PI CN 102042792 A 20110504
CN 102042792 B 20111207
DT Patent
AI CN 2009-10310020 A 20091120
PRAI CN 2009-10310020 A 20091120 (CNA, 20110512, Y)
IPCI G01B0005-20 [I,A]
AB The invention relates to an electric lifting stator inner cavity cyclometer, which provides a stator inner cavity cyclometer with the advantages of convenience for operation and use and high measuring...

INPAFAMDB: To allow a quick survey of the patent family there are non-redundant (de-duplicated) display formats. These formats merge the most essential information of each field unit. When these formats are used all field contents
that are repeated identically within the family are displayed only once. The default format in this database is the non-redundant BRIEF format. This format displays the non-redundant bibliographical details, a selected abstract, and the family details (PI, AI, PRAI).

With the non-redundant BRIEF format only the English title is displayed. For the inventors and the patent assignee only the original names are displayed in the standardized fields, INS and PAS respectively.

In addition there are these formats:

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| PA | ROBERT BOSCH GMBH, 7000 STUTTGART, DE |
| PA | ROBERT BOSCH GMBH, POSTFACH 30 02 20, W-7000 STUTTGART 30 |
| PA | ROBERT BOSCH GMBH |
| PA | ROBERT BOSCH GMBH, POSTFACH 10 60 50, D-7000 STUTTGART 10 |

All display fields (TI, PA, IN, etc.) and the display formats (BIB, ALL, etc.) in INPAFAMDB relate to the patent family and are not reduced:
Types of search

.F (or .M)  show all family members
.H   show only publications with HIT terms
.B   show the earliest publication
.P   show the latest publication
.U   show the latest updated publication(s)

De-duplicated family formats

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<th>.H publication with HIT terms</th>
<th>.B earliest publication</th>
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<th>.U Latest updated publication(s)</th>
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All family members: If the display fields (TI, PA, IN, etc.) are used with .F they are displayed with all information and not de-duplicated. The legal status formats, MAX (MAXO, IMAX) and BIBLS, are equivalent to the formats MAX.F (MAXO.F, IMAX.F) and BIBLS.F, respectively, i.e. the legal status LS is not de-duplicated.

Basic Patent: In INPADOC/INPAFAMDB the first publication of a patent family is defined as the basic patent. If there are more than one publication on the first publication date the documents are sorted by the publication country PC in descending order. Then the first publication, e.g. the WO publication, is selected as the basic publication. PN.B (PI.B) are SELECT fields.

HIT Patent: In INPAFAMDB patent families can be monitored using patent numbers. The following HIT display formats show the publication number used for the search: PI.H, TI.H, TIPI.H. SELECT HIT is available for PI.H if one of the fields in PI (PC, PN, PK, PY, PD) was searched.

Full-text links: The display format PI.PDF contains a direct link to the original document (PDF) at the European Patent Office.

45.5.5  DWPI

The Derwent World Patents Index database (WPINDEX, WPIDS, WPIX) is not quite as comprehensive as INPADOCDB/INPAFAMDB with regard to country coverage. In Derwent World Patents Index a dynamic design is implemented on the invention level, i.e. later publications of the same family are included into the same record. The first patent publication of a new patent family received at the database producer, is the Basic Patent. All additional patent publications (equivalents) in this document have the same priority (or priorities) as the Basic Patent.

The FAM format is a very compact format for the patent family, the format IBIB presents the family in a very clear format:

=> D FAM

The asterisk * marks the Basic Patent.

The family members are in chronological order.

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295
Guide to STN Patent Databases

DE 10107314 C2 20030327 (200324) DE
KR 2003076683 A 20030926 (200410) KO
US 20040037129 A1 20040226 (200416) EN
JP 2004528664 W 20040916 (200461) J A 40
CN 1524267 A 20040825 (200477) ZH
US 6920074 B2 20050719 (200547) EN
KR 563100 B1 20060327 (200724) KO
KR 2003076683 A 20030926 (200410) KO
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JP 2004528664 W 20040916 (200461) JA 40
CN 1524267 A 20040825 (200477) ZH
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PRAI DE 2001-10107314 20010216
WO 2002-DE486 20020211

=> D I B I B
L1 ANSWER 1 OF 1 WPINDEX COPYRIGHT 2009 THOMSON REUTERS on STN
ACCESSION NUMBER: 2002-609022 [65] WPINDEX
DOC. NO. NON-CPI: N2002-482242 [65]
TITLE: Reading cell of e.g. DRAM semiconductor memory with closely-spaced bit lines, employs four phases of switching and read amplifier control
DERWENT CLASS: U13; U14
INVENTOR: FISCHER H; SZCZYPINSKI K
PATENT ASSIGNEE: (FISC-I) FISCHER H; (INFN-C) INFINEON TECHNOLOGIES AG; (SZCZ-I) SZCZYPINSKI K
COUNTRY COUNT: 5
PATENT INFO ABBR.: PATENT NO KIND DATE Week LA PG MAIN IPC ..................................................
WO 2002067264 A2 20020829 (200265)* DE 23[3]
DE 10107314 A1 20020905 (200267) DE
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KR 2003076683 A 20030926 (200410) KO
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The “Application details” field places the application numbers next to the publication numbers.

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CN 1524267 A CN 2002-805052 20020211
JP 2004528664 W J P 2002-566497 20020211

"Filing details" help with the interpretation of the patent family.

FILING DETAILS:
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JP 2004528664 W WO 2002-DE486 20020211
US 20040037129 A1 US 2003-642906 20030818
US 6920074 B2 US 2003-642906 20030818
KR 563100 B1 WO 2002-DE486 20020211

The “Publication details” field places the publication numbers next to the application numbers.

PUBLICATION DETAILS:
PATENT NO KIND APPLICATION DATE ..................................................
WO 2002067264 A2 WO 2002-DE486 20020211
DE 10107314 A1 DE 2001-10107314 20010216
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KR 563100 B1 WO 2002-DE486 20020211

"Filing details" help with the interpretation of the patent family.
Types of search

JP 2004528664 W Based on WO 2002067264 A
KR 563100 B1 Previous Publ KR 2003076683 A
KR 563100 B1 Based on WO 2002067264 A

All family members claim the same priorities.

With some types of family relations it is possible that there are other family members whose data are not part of the present record. In these cases the Accession Number of the respective record is available in the CR (Cross Reference) field:

=> D 1-2 AN CR FAM

The other family members may then be retrieved by these Accession Numbers in the /AN field or (better) by using the FSEARCH command (extended family search).

Once created, more data can be added to a document but it cannot be deleted.

45.5.6 Chemical Abstracts Plus

The CAPLUS database holds data of more than 60 patent organizations. The dynamic principle is followed in CAPLUS, i.e. later publications of the same patent family are added to the same record.

The family members are displayed in the PI filed in the BIB or ALL formats:

4 If the technical contents is different of in case of certain types of relations (Continuation, Continuation In Part, Division, etc.) it may be that not all family members appear in the same record in the CAPLUS database but that another or a
number of records exist belonging to the same patent family. Other reasons for a family being spread over several documents are:

- Too many substances to be indexed, so that the limit for one document is exceeded
- Since 01 July, 2008 for US, DE, GB, FR, CA, EP one family document is created and indexed for the document with the oldest priority and a second document for the WO publication (WO documents often contain more information, including more chemical structures)

If this is the case, i.e. there are more records to the same family, the number in the FAN.CNT (Family accession number count) field is greater than 1. It is possible that by adding new family members documents in CAplus are re-sorted, too.

There are two ways to get these family members displayed:

- Retrieving them by using FSEARCH (always use HCAplus) and DISPLAY BIB or ALL, etc.:
  
  => FSEARCH US2004019248/PN
  => D 1-2

- Using the special family formats FAM, FBIB, and MAX.
  
  In this case the full patent family and additional information on the ‘intertwining’ within the families are displayed.

  => S US2004019248/PN
  => D FAM
**Types of search**

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**PATENT FAMILY INFORMATION:**

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</table>

**Conclusion for INPADOCDB, DWPI, HCAplus**

If it is vital to obtain a fully comprehensive patent family all three family data bases should be searched. Due to the different country coverage, different definitions of what a patent family is, different timeliness of patent publications being entered into the databases and different time coverage of the databases the publications considered members of a given patent family varies in the three databases.

**45.6 Non-conventional patent families**

A non-conventional patent family combines applications that have the same or similar technical content but do not refer to each other because there is no priority (no Paris Convention membership) or the priority is not claimed. The applicant/patent assignee and inventors are the same.

Owing to patent strategy considerations, two very similar applications are sometimes filed on the same day. While the description and figures are the same there may be e.g. different claims that aim at protecting different aspects of the same basic invention.

To specifically find these non-conventional families which are not linked by common priorities it may be useful to search for applications by the same applicant of the same day.

Two A1 publications of the same day, but with different priorities – the documents belong to two different national families.
Whether the contents of both documents are actually the same needs to be thoroughly examined. At least the similar application should be found.

45.6.1 Non-conventional patent families in the databases

Non-conventional patent families (priorities not claimed) are merged in some of the databases. In order to facilitate this merging, technical priorities are introduced and identified accordingly.

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<td>&gt;100 authorities</td>
<td>Many years, even old documents</td>
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WPINDEX: Intellectual merger

- >290,000 non-conventional patent families, ~200 added with every update
- The database producer systematically looks at national filings of non-residents in publications for which no foreign priority data are available
- Equivalency to an existing DWPI family requires comparisons of: inventor names, countries of residence, subject matter, drawings, diagrams
- Verification of a match results in the assignment of the non-convention equivalent to an existing DWPI family, identified by a hash sign (#). The application information (number, date) is entered in the priority field.
- Non-conventional equivalents are searchable in the /PT (Patent Type) field:

  => S US/PC (P) EQUIVALENTNONCONVENTION/PT

Example: no priority given on the publications

AN 2017-006966 [201780] WPINDEX
TI High strength nickel-based superalloy for use as high-temperature members, has chemical composition that includes carbon, iron, chromium, cobalt, molybdenum, tungsten, titanium, aluminum, and niobium in specified amounts
PA (NIKL-C) JAPAN STEEL WORKS LTD
US 20170342525 A1 20171130 [201781]# EN - <-
PRAI EP 2016-171670 20160527
US 2016-15165570 20160526
Types of search

CA: Adoption of technical priorities from INPADOC with labelling, further intellectual mergers

- Non-conventional patent families can be displayed in the FBIB format
- If a technical priority has been introduced this is indicated by a T0 in the priority field.
- Some non-conventional family members are also labelled by a T0 in the publication field.
- Example: no priority given on the publications, a technical priority has been introduced in the PRAI field and is indicated by T0

INPADOC: Introduction of technical priorities with labelling

- INPADOC families are based on real priorities (claimed by applicants) and EPO technical priorities.
- If the applicant has not claimed a priority patent family members will receive technical priorities (false first filings).
- Intellectual family relations through technical priorities are mainly established for the PCT minimum documentation.
- In INPADOC technical priorities are shown in the priority field (PRAI, PRAIT) and are searchable:
  \[ \Rightarrow \text{S USAT/PRAI} \]
- Example: assigned technical US priority
45.6.2 Non-conventional patent families of Chinese duplicate applications in INPADOCDB/INPAFAMDB, DWPI, and CAplus

From 2009 it has been possible in China to file both a patent and a utility model application for the same invention on the same day. This aims at obtaining protection quickly through the utility model and strong protection later through an examined patent. The two applications (utility model, patent) are not linked by priorities and are consequently not members of the same (conventional) patent family.

However, search reports for Chinese A publications cite the (duplicate) utility models. A special reference category, “R”, is used (starting February 2010). STN uses this reference category, “R”, to identify these duplicate applications. The application number of the cited utility models is entered as a technical priority into the priority field of the A documents:

AN 84050909 INPADOCDB
TI Mov able folding stereoscopic parking lot.
IN WANG JUN
PA WANG JUN
DT Patent
PI CN 105201247 A 20151230 English
AI CN 2015-10450717 A 20150728
PRAI CN 2015-10450717 A 20150728 (CNA, 20160114, Y)
AI CN 2015-20554503 U 20150728 (CNU, 20151126)
PRAI CNA Patent application
CNU Application for a utility model

REC 7. THERE ARE 7 CITED REFERENCES (7 PATENT, 0 NON PATENT) AVAILABLE FOR THIS RECORD. ALL CITATIONS ARE AVAILABLE IN THE RE FORMAT.

REP ....
CN 2015-10450717 A 20150728
CN 2015-20554503 U 20150728
CN 2015-10450717 A 20150728
CN 2015-20554503 U 20150728

This way, the number of Chinese patent families is lower and there is no need to read the same technical contents twice.

In DWPI, Chinese duplicate applications are joined, too. Again, they are flagged with #:

PI CN 108110213 A 20180601 (201841)* ZH 7[2]
CN 207624803 U 20180717 (201850)# ZH
ADT CN 108110213 A CN 2017-11349916 20171215; CN 207624803 U CN 2017-21757602U 20171215
PRAI CN 2017-11349916 20171215
CN 2017-21757602U 20171215

In CAplus, Chinese duplicate applications are joined, too. The are flagged with T0 in the priority field:
Types of search

<table>
<thead>
<tr>
<th>PATENT NO.</th>
<th>KIND</th>
<th>DATE</th>
<th>APPLICATION NO.</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CN 110354727</td>
<td>A</td>
<td>20191022</td>
<td>CN 2018-11228642</td>
<td>20181022 &lt;--</td>
</tr>
<tr>
<td>CN 209612780</td>
<td>U</td>
<td>20191112</td>
<td>CN 2018-21709269</td>
<td>20181022 &lt;--</td>
</tr>
<tr>
<td>PRAI CN 2018-11228642</td>
<td>T0</td>
<td>20181022</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Joining these non-conventional patent families is carried out completely independently in INPADOCDB/INPAFAMDB, in DWPI, and in CAplus.

45.7 Technical patent families

A technical patent family includes applications that have the same or similar technical content but do not refer to each other. The applicants/patent assignees and inventors are different. Patents for such similar applications may be granted if:

- There is no publication of the equivalent application in any other country (unpublished applications are only relevant to novelty and only if relating to the same geographical area),
- Two or more equivalent applications are filed on the same day.

These technical families can usually be found by a subject search.

45.8 Notes on other databases

45.8.1 PATDPA

The PATDPA database contains publications of three patent organizations: DPMA, EPO, WIPO. Every application to one of these organizations (or rather the resulting first publication) triggers a new record in PATDPA to be opened and updated by the publications of the respective patent office. Thus, there may be more than one record in the database for the same patent family (for DE, EP, and WO). Additionally, all publications of the patent family are added to the family field of each record.

All documents of one patent family can be retrieved with the FSEARCH command:

```plaintext
=> FSEARCH DE 69912412/PN
L16 3 FSO L15
    1 Multi-record Family   Answers 1-3
    0 Individual Records
    0 Non-patent Records
```

```plaintext
=> D 1-3 PA PI AI PRAI
L16 ANSWER 1 OF 3 PATDPA COPYRIGHT 2007 DPMA/FIZ KA on STN FAMLLY 1
PA Siemens Information and Communication Networks Inc. (*US Boca Raton, Fla.)
PI DE 69912412 T2 20040819 PG2T (47) 036 (siehe PITA)
AI DE 1999-69912412 E 19990330 ADNR (22) DE-AKZ fuer EP-Patent
EP 1999-915104 AW 19990330 ADR (86) EURO-PCT-Anm. m. DE-Ben.
PRAI US 1998-53147 A 19980331 CP (32) Unionsprioritaet
```

```plaintext
L16 ANSWER 2 OF 3 PATDPA COPYRIGHT 2007 DPMA/FIZ KA on STN FAMLLY 1
PA Siemens Information and Communication Networks Inc. (*US Boca Raton, FL 33487)
PI EP 1068713 B1 20031029 PGR OP9 (87) letzte Publ./ EP-Schrift
AI EP 1999-915104 AW 19990330 ADR (86) EURO-PCT-Anm. m. DE-Ben.
DE 1999-69912412 E 19990330 ADNR (22) DE-AKZ fuer EP-Patent
PRAI US 1998-53147 A 19980331 CP (32) Unionsprioritaet
WO 1999-US6867 W 19990330 CT (32) PCT-Anmeldung
```

```plaintext
L16 ANSWER 3 OF 3 PATDPA COPYRIGHT 2007 DPMA/FIZ KA on STN FAMLLY 1
PA SIEMENS INFORMATION AND COMMUNICATION NETWORKS, INC. (*US FL 33487)
PI WO 9951008 A1 19991007 AOW (87) 1.Publ./ WO-Schrift
PRAI US 1998-53147 A 19980331 CP (32) Unionsprioritaet
```
The FI (Family information) field is the same in all three documents:

```plaintext
=> D FI

<table>
<thead>
<tr>
<th>L16</th>
<th>ANSWER 1 OF 3</th>
<th>PATDPA COPYRIGHT 2007 DPMA/FIZ KA on STN FAMILY 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>FI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIA</td>
<td>DE 1999-69912412 E 19990330 ADRN (22) DE69912412</td>
<td></td>
</tr>
<tr>
<td>FIP</td>
<td>WO 9951008 A1 19991007 AD O LXX (87) WO-Publik. mit DE-Best.:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W:</td>
<td>JP</td>
<td></td>
</tr>
<tr>
<td>RW:</td>
<td>AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE</td>
<td></td>
</tr>
</tbody>
</table>

By FSEARCH also such families may be retrieved in PATDPA which are linked by:

- Applications abroad
- Multiple priorities
- Part priorities
- Claiming an internal priority
- Addition
- Division, Continuation
- Continuation into a utility model

Here is an example of a patent family of two patents resulting from an Internal Priority being claimed:

```plaintext
=> FSEARCH DE 19941807/PN
=> D 1-2 TI PI AI PRAI FI NTE

<table>
<thead>
<tr>
<th>L21</th>
<th>ANSWER 1 OF 2</th>
<th>PATDPA COPYRIGHT 2007 DPMA/FIZ KA on STN FAMILY 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>TI</td>
<td>(U1) Golfcaddie, roboterähnlich mit elektrischem Maschinenantrieb</td>
<td></td>
</tr>
<tr>
<td>PI</td>
<td>DE 29815208 U1 19990624 UGO (10) 1.Publ./ DE-Kopie</td>
<td></td>
</tr>
<tr>
<td>AI</td>
<td>DE 1998-29815208 U 19980825 ADU (22) DE-Gebrauchsm.-Anm.</td>
<td></td>
</tr>
<tr>
<td>FI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIA</td>
<td>DE 1998-29815208 U 19980825 ADU (22) DE29815208</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIP</td>
<td>DE 29815208 U1 19990624 UGO (43) DE-Gebrauchsm.-Bekanntm.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NTE</td>
<td>19980825: ADU (22) Anmeldetag der GbM-Anm.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>19980825: FPRD (32) Erstes Prioritaetsdatum</td>
<td></td>
</tr>
<tr>
<td></td>
<td>19990512: UGI (47) Gebrauchsm.-Eintr. in Rolle</td>
<td></td>
</tr>
<tr>
<td></td>
<td>19990624: UGO (43) Gebrauchsm.-Bekanntmachung im Patentblatt</td>
<td></td>
</tr>
<tr>
<td></td>
<td>19990729: LUIP F422 Interesse an Lizenzvergabe erlaebt (unverb.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20010613: NPA GA27 Neuer Stand Inhaber</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20020124: UG6 D410 Verlaengerung der Gbm-Schutzdauer auf 6 Jahre</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20050609: ZT6 H433 Gbm erloschen (6 Jahre nach Anmeldung</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>L21</th>
<th>ANSWER 2 OF 2</th>
<th>PATDPA COPYRIGHT 2007 DPMA/FIZ KA on STN FAMILY 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>TI</td>
<td>(A1) Roboter-Golfcaddie</td>
<td></td>
</tr>
<tr>
<td>PI</td>
<td>DE 19941807 A1 20030130 AO (10) 1.Publ./ DE-Schrift</td>
<td></td>
</tr>
<tr>
<td>AI</td>
<td>DE 1998-19941807 A 19990809 ADP (22) DE19941807</td>
<td></td>
</tr>
<tr>
<td>PRAI</td>
<td>DE 1998-29815208 U1 19990624 UGO (43) DE-Gebrauchsm.-Bekanntm.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DE 19941807 A1 20030130 AO (43) DE-Offenlegung</td>
<td></td>
</tr>
<tr>
<td>NTE</td>
<td>19980825: ADU (22) Anmeldetag der GbM-Anm.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20030130: AO (43) Offenlegungstag der DE-Anmeldung (OS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20030130: EX (43) Pruefungsantrag gestellt</td>
<td></td>
</tr>
</tbody>
</table>
```
45.8.2 IFIALL

IFIALL contains all national US publications. With every US application and every publication in the national procedure a new document is entered in this database, i.e. there may be more than one document in the database for a given application. The FI (Family Information) field contains information on all publications of the same family. The RLI (Related Applications) field holds details of other family members. Applications not claiming a foreign priority do not have data in the PRAI field. However, the PRAI field will contain details of a provisional application, if applicable. All documents belonging to one patent family can be found with FSEARCH.

In IFIALL, the “history” of a publication can be displayed in the RLI and FI fields.

FSEARCH can be used to get all family members. There are 5 documents in the family (3 applications and 2 granted patents).

FSEARCH will also bring together families in IFIALL that result from:

- Multiple priorities
- Continuation
- Continuation in Part
- Division
- Reissue

The FSEARCH command can also be used to find all publications of a national US family in the USPATALL cluster.
46  **Legal status search**

46.1  **Introduction**

46.1.1  **Typical legal status searches**

A legal status search may be a separate search or part of a complex patent search (e.g. infringement search, freedom to operate). Two types have to be distinguished:

- Display of the legal status for given documents found in another search (e.g. number search)
- Search for legal status entries in connection with another search (name search, subject search, classification search, etc.)

Some of the databases allow only to display the legal status, but not to search for legal status entries.

46.1.2  **Legal status data**

Legal status data give details on a status change in the life of an IP right. They include a date, an event (plus code) and details or additional information:

```
PI  DE 19964362  B4 20100617
20110120  DE8339  - CEASED/NON- PAYMENT OF THE ANNUAL FEE
NIF Lapses, Exprires, Withdrawals, Refusals
```

46.1.3  **Typical queries**

- Search by legal or procedure status or display of the legal or procedure status:
  - Has an examination request been filed?
  - Is the application still under examination? Has it been rejected or allowed?
  - In which countries is there an active patent protection?
  - Has anyone filed an opposition or a nullity action? Possibly display of the opponent(s)
  - Has the opposition procedure been closed?
  - Have all annual fees been paid?
  - Has the term of protection been extended over the normal 20 years through a Supplementary Protection Certificate (SPC)?

- Search (display) of declaration of willingness to licence or licensee

- Search (display) of change of ownership

- Search (display) of lapsed patents in order to be able to use the technology (only 10% of all patent literature is actually protected)

46.2  **Databases with legal status data**

Legal status data are regularly entered and updated in these databases:

**INPADOCDB/INPAFAMDB**

```
```

Entry of PCT applications into the national phase:

```
```

Non-entry of PCT applications into the national phase: CA, DE, JP, KR
Types of search

Entry of PCT applications into the European phase

Non-entry of PCT applications into the European phase

European applications: application and grant are through the EPO, in some countries the patent offices assign national application numbers/publication numbers:

- Countries where national application/publication numbers are assigned:
  AT, CY, DE, ES, HR, IE, SM

  Note in the EP legal status “Corresponds To”, “Entry Into National Phase” or reference to payment of annual fees: AT, BE, BG, CH, CZ, CY, DE, DK, EE, ES, FI, FR, GB, GR, HK, HU, IE, IL, IT, LI, LT, LU, LV, MC, MD, NL, PL, PT, RO, RU, SE, SI, SK, TR

SPCs (Supplementary Protection Certificates): AT, DE, ES, FI, FR, IT, LT, LU, NL, SK

Extension of term (patents and utility models):

AT, AU, CH, CN, CZ, DE, DK, FI, FR, GB, HU, IE, IL, JP, LT, NL, NO, RU, SE, SK, US

The start date varies with the country; more countries are constantly added.


Legal status data in original language

PATDPA German and European patents (DE, EP), (no more updates from 7/2011)

PATDPASPC SPCs (Supplementary Protection Certificates): DE, EP

IFICLS Legal status of US patents including Reassigned Patents, Reexamined Patents, Expired Patents, Reinstated patents, Certificates of Correction, Adverse Decision in Interference, Disclaimers/Dedication, Reexamination Request, Reissue Request

EPFULL Legal status from INPADOCDB and searchable legal status from the European Patent Register

FRANCEPAT French patents and utility models (no updates from 11/2009)

SPCs (Supplementary Protection Certificates): FR

RUSSIAPAT Publication data of earlier publications in the national patent procedure for Russian patents, entry of PCT applications into the national phase and the priority date

LITALERT Lawsuits on US Patents and US Trademarks

The INPADOCDB legal status can be displayed in other databases: AUPATFULL, CANPATFULL, CNFULL, DEFULL, DGENE, EPFULL, FRFULL, GBFULL, JPFULL, KRFULL, PATDPAFULL, PCTFULL, USGENE.

In all these databases, no responsibility is accepted for the correctness of the legal status information. Correct information can be obtained by inspection of the files of the respective patent office.

Still, databases with legal status information have some advantages compared to the national registers:

- Legal status information from multiple countries can be displayed in the international databases. The information can be displayed in chronological order and in compact form for the whole patent family.

- Extensive search options are available to find documents containing certain legal status information, e.g.:
  - Search for active patents of a company or in a technology field
  - Search for lapsed patents of a company or in a technology field
  - Search for patents that were opposed
  - Search for opponents of European patents (partly also AU, BR, FI, GB, NL, NO, PT)
  - Statistics of opponents
  - Search for patents offered for licensing
Guide to STN Patent Databases

- Search for SPCs
- Display of expiration dates of IP rights in 30 countries
- Monitoring of legal status events

46.3 INPADOCDB/INPAFAMDB

INPADOCDB holds legal status information of currently 61 countries (constantly being extended). The description below refers to INPADOCDB, but legal status display is done the same way in INPAFAMDB. The display formats for legal status in INPAFAMDB (LS, MAX, etc.) are all de-duplicated.

The legal status can be displayed with the formats LS or LS2 (LSUP with SDI):

=> D LS

LEGAL STATUS
AN 23989135 INPADOCDB
20010929 EPA PRI Patent application
    EP 2001-123512 A 20010929
20010929 EPA APP Patent application
    EP 2001-123512 A 20010929
20030402 EPA1 PUB APPLICATION PUBLISHED WITH SEARCH REPORT
    EP 1297908 A1 20030402
20030402 EPAK + DESIGNATED CONTRACTING STATES:
    AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
20030402 EPAK + DESIGNATED CONTRACTING STATES:
    EP A1
    AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
20030402 EPAK + EXTENSION OF THE EUROPEAN PATENT TO
    AL LT LV MK RO SI
20030402 EP17P + REQUEST FOR EXAMINATION FILED
    20010929
EXA Examination, Search Report
20040102 EPAKK + PAYMENT OF DESIGNATION FEES
    DE ES FR GB IT
20040225 EPB1 PUB PATENT SPECIFICATION
    EP 1297908 B1 20040225
20040225 EPAK + DESIGNATED CONTRACTING STATES:
    EP B1
    DE ES FR GB IT
20040225 EPREG REFERENCE TO A NATIONAL CODE
    GBF4D + GB: EUROPEAN PATENT GRANTED
    NOT ENGLISH
20040324 EPREG REFERENCE TO A NATIONAL CODE
    IEFG4D + IE: EUROPEAN PATENTS GRANTED DESIGNATING IRELAND
    GERMAN
20040401 EPREF CORRESPONDS TO:
    DE 50101564 P 20040401
20040512 EPGT + GB: TRANSLATION OF EP PATENT FILED (GB SECTION
    77(6)(A)/1977)
    20040419
20040716 EPREG REFERENCE TO A NATIONAL CODE
    ESGF2A ES: DEFINITIVE PROTECTION
    ES 2211712 T3
20040922 EPREG REFERENCE TO A NATIONAL CODE
    IEFD4D + IE: EUROPEAN PATENTS DESIGNATING IRELAND TREATED AS
    ALWAYS HAVING BEEN VOID
20041029 EPET + FR: TRANSLATION FILED
20050119 EP26 + OPPOSITION FILED
    SMS DEMAG AG
    20041124
ORE Opposition, Reexamination
Types of search

20070221 EP270 + OPPOSITION REJECTED 20061015

20101029 EPPGF + POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
ES: 20100916
Payment Year: 10

20101130 EPPGF + POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
FR: 20100914
Payment Year: 10

20101231 EPPGF + POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
GB: 20100929
Payment Year: 10

20110228 EPPGF + POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
DE: 20101123
Payment Year: 10

20110331 EPPGF + POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
IT: 20100929
Payment Year: 10

In LSO, the legal status can be displayed in original language, e.g. DE, FR, ES NL:

=> D BIB LSO

AN 53298503 INPADOCDB ED 20070614 EW 200724 UP 20111007 UW 201140
TI Abgabevorrichtung zur Abgabe von Wirkstofffluiden in die Spuellflüssigkeit in einem Toilettenbecken.
INS BUTTER-JENTSCH RALPH, DE; MENKE RONALD, DE; MUEHLHAUSEN HANS-GEORG, DE;
PESSEL FRANK, DE; JUNGMAANN THOMAS, DE; SUCHLER STEFAN, DE
PAS HENKEL KGAA, DE
PI DE 10164866          B4 20070614

LEGAL STATUS
AN 53298503 INPADOCDB

20040923 DEQ172 AUSGESCHIEDEN ODER ABGETEILT VON (NACHTRAG):
DE 10113036          P 20110811

20040930 DE8110 + EINGANG VON PRÜFUNGSANTRÄGEN PAR. 44
EXA Examination, Search Report

20070614 DE84 PUB PATENT (SECOND PUBLICATION)
DE 10164866          B4 20070614

20070614 DEAC AUSSCHEIDUNG AUS
DE 10113036          P 20070614

20071206 DE8364 + EINSPRUCHSFRIEST ABGELAUFEN OHNE DASS EINSPRUCH ERHOBEN WURDE

20080605 DE8310 - KLAGE AUF ERKLÄRUNG DER NICHTIGKEIT ERHOBEN

20080724 DE8327 AENDERUNG IN PERSON, NAMEN ODER WOHNORT DES PATENTINHABERS
HENKEL AG & CO. KGAA, 40589 DÜSSELDORF, DE
CHG Change of Owner, Inventor, Applicant

20090108 DE8313 + ANTRAG AUF ERKENNUNG DER NICHTIGKEIT ZURÜCKGEWIESEN / GEZOGEN

When the legal status is displayed using the formats LS or LS2 (LSUP with an SDI) the respective priority, application, and publication details are displayed (not with the formats MAX, FFAM, etc.). Element Billing is used, i.e. the
Guide to STN Patent Databases

bibliographical details are billed only if they are displayed with the legal status only. If the legal status is displayed in addition to the bibliographical details and there is no additional legal information only the BIB format will be billed.

The information is formatted like this:

<table>
<thead>
<tr>
<th>Legal status date</th>
<th>Legal status code</th>
<th>Legal status code text;</th>
</tr>
</thead>
<tbody>
<tr>
<td>20050119</td>
<td>EP 26</td>
<td>- OPPOSITION FILED</td>
</tr>
<tr>
<td>20070221</td>
<td>EP 270</td>
<td>SMS DEMAG AG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20041124</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ORE Opposition, Reexamination</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+ OPPOSITION REJECTED</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20061015</td>
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<tr>
<td></td>
<td></td>
<td>..................................................</td>
</tr>
<tr>
<td></td>
<td></td>
<td>...20070222</td>
</tr>
</tbody>
</table>

Legal status date
(priority date, application date, publication date)

=> D LS2

LEGAL STATUS

AN 23989135 INPADOCDB
PRD 20010929
PRK EPA
PRAI Patent application
PIR

AN 23989135 INPADOCDB
AD 20010929
AK EPA
AIT Patent application
AIP

... AN 23989135 INPADOCDB UPLS 20110407 EWLS 201114
LSD 20110331
LSC EPPGF
LSCI

LSTX POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
LSPMY Payment Year: 10
LSCY IT
LSDF 20100929

The family formats, FFAM, LFAM and IFAM, include the legal status, too.

In the INPAFAMDB database all legal status details of a complete patent family can be displayed in chronological order.

On the server of the European Patent Office (http://www.epo.org/searching/data/data/tables.html) there are tables available detailing:

- Contents and coverage of the INPADOC legal status file
- Classification of recently used PRS codes
- Description of legal status codes: AU, DE, EP, GB, NZ, US

310
Types of search

A table containing all legal status codes in original language is available on:

- http://documents.epo.org/projects/babylon/rawdata.nsf/0/8A0E71AB90C1C4A6C12579EC002E26D0/$File/le-codes-or1217.txt

There are a number of search fields available. EXPAND is recommended to browse the codes and code description text:

=> E EP/LSC

...  
E4 317  EPI10E/LSC  
E5 317  EPI11E REQUEST FOR CONVERSION INTO A NATIONAL PATENT APPLICATION/LSC  
E6 2141  EPI11L/LSC  
E7 2141  EPI11L LICENSES/LSC  
E8 2533  EPI11Z/LSC  
E9 2533  EPI11Z REGISTERING OF LICENCES OR OTHER RIGHTS/LSC  
E10 1108  EP16A/LSC  
...

=> E OPPOSITION/LSTX

...  
E1 104  OPPOS/LSTX  
E2 6  OPPOSITION/LSTX  
E3 2428746 ... > OPPOSITION/LSTX  
E4 97  OPPOSITIONS/LSTX  
E5 1  OPPOSTION/LSTX  
...

These fields are available:

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<th>DISPLAY header in format LS2</th>
<th>SEARCH field</th>
<th>Content</th>
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<td>LSIC放学</td>
<td>LSIC放学</td>
<td>Legal Status IPC</td>
</tr>
</tbody>
</table>

*LSTX contains only the description of LSC

Note: The fields are filled only if the respective data are provided by the patent office, e.g. the fields LSSPC.EX, LSSPC.FD, LSSPC.XD are not available for German SPCs.
46.3.1 Notes on /UPLS and /EDLS

The /UPLS field indicates when a certain event was entered in the legal status field (from April 2007).

For monitoring certain important events in patent procedures it was necessary to introduce a new update field, /EDLS. This field indicates both changes in the bibliographic levels (/ED) and in the legal status data (/UPLS):

EDLS := ED + UPLS

It is planned to include certain publication information (e.g. grant) in the legal status again.

46.3.2 Notes on /LSFT and /LSBI

A field /LSFT (Legal Status Free Text) was introduced, because in the back-file in some cases the legal status information was not assigned to a specific field, e.g. /LSPA. To get all information the search should be made in /LSFT + /LSPA, /LSIN, /LSOP, /LSAG or even in /LSBI (Legal Status Basic Index):

LSBI := LSAG, LSFT, LSIN, LSOP, LSPA

46.3.3 Search in the legal status fields

The information in the legal status fields is word indexed. (W) is used as implied proximity; the other proximity operators may also be used in these fields (LSTX contains only the description for LSC). The Boolean operators include all legal status information in LS and/or LS2. To link two terms from the same entry (L) proximity should be used:

=> S DEOP8/LSC(L) 20110526/UPLS
   471360 DEOP8/LSC
   77012 20110526/UPLS
   (20110526/UPLS)
L4    403 DEOP8/LSC(L)20110526/UPLS

=> D HIT
L4    ANSWER 1 OF 403 INPADOCDB COPYRIGHT 2011 EPO/FIZ KA on STN

LEGAL STATUS HIT
AN    64918509 INPADOCDB
20110526 DEOP8 + REQUEST FOR EXAMINATION AS TO PARAGRAPH 44 PATENT LAW
EXA Examination, Search Report
........................................20110526

UPLS is also range searchable:

=> S EPPG25/LSC (L) 20110101-20110215/UPLS
   896976 EPPG25/LSC
   685967 20110101-20110215/UPLS
   (20110101-20110215/UPLS)
L5    66822 EPPG25/LSC (L) 20110101-20110215/UPLS

With DISPLAY HIT only those legal status entries will be displayed which were entered or updated during the period specified:

=> D HIT 1 60000
L5    ANSWER 1 OF 66822 INPADOCDB COPYRIGHT 2011 EPO/FIZ KA on STN

LEGAL STATUS HIT
AN    63724922 INPADOCDB
20041110 EPPG25 - LAPPED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT
INFORM. FROM NAT. OFFICE TO EPO
LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME LIMIT.
AT: 20041110
NIF Lapses, Expiries, Withdrawals, Refusals
........................................20110203

L5    ANSWER 60000 OF 66822 INPADOCDB COPYRIGHT 2011 EPO/FIZ KA on STN

LEGAL STATUS HIT
Types of search

When searching in the LSTX field (S) proximity should be used to link the search terms:

```plaintext
=> S BAYER/PA, PAS AND (EXPIR?(S) FAIL?) /LSTX
  199972 BAYER/PA
  202142 BAYER/PAS
  1890718 EXPIR?(S) /LSTX
  1103205 FAIL?/LSTX
  919716 (EXPIR?(S) FAIL?)/LSTX
L2  5417 BAYER/PA, PAS AND (EXPIR?(S) FAIL?) /LSTX

=> D HIT 2
L6  ANSWER 2 OF 6510 INPADOCDB COPYRIGHT 2011 EPO/FIZ KA on STN
PA  BAYER AKTIENGESELLSCHAFT
PAS  BAYER AG, DE

LEGAL STATUS HIT
AN  52848545 INPADOCDB
20110503 USFP - EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE
  20110313
NIF Lapses, Expiries, Withdrawals, Refusals
..................................................20110505
```

**Note:** The INPADOCDB database was reloaded in spring 2007. All documents existing in the database at that time have the same (or a similar) entry date (e.g. Entry Date field). If you want to link legal status information from that time (or before) with a date do not use the database entry/update date (e.g. Entry Date /ED) but rather a date from the document (e.g. Publication Date /PD).

### 46.3.3.1 Legal status categories

With over 2,600 legal status codes, legal status searches using these codes can be a challenge even for an experienced searcher. The codes vary between patent offices and even the description text may change over time. Therefore, to successfully complete a comprehensive search a detailed knowledge of the various patent examination procedures is indispensable.

In order to better help searchers legal status categories were introduced that group all codes on a particular theme. These seven category codes cover the most needed fields.

The category codes are searched in the /LSC2 search field:

- **CHG** Change of Owner, Inventor, Applicant
- **EXA** Examination, Search Report
- **LIC** Licensing
- **NIF** Lapses, Expiries, Withdrawals, Refusals
- **ORE** Opposition, Reexamination
- **REI** Reinstatement or Restoration
- **SPC** Supplementary Protection Certificate, Time Extension

```plaintext
=> S SYNGENTA/PA, PAS AND NIF/LSC2
  11409 SYNGENTA/PA
  11430 SYNGENTA/PAS
  11816835 NIF/LSC2
L7  2893 SYNGENTA/PA, PAS AND NIF/LSC

=> D PI LS
```
The advantage of the legal status categories lies in the easy access to specific legal status information. They are:

- Reliable and easy to use,
- Well suited for specific needs of legal status monitoring,
- Current, as new codes and code definitions are constantly updated.

Anyway, note that the legal status categories are no more than a convenient summary of existing legal status code entries. Always consider these additional notes (see also the "Monitoring" search example):

- NIF in EP or WO applications does not mean that all Designated States are concerned
- Lapse of a patent or application (denoted by NIF) can be reversed by a later event (e.g. reinstatement or Supplementary Protection Certificate, SPC)
- ORE does not include NO OPPOSITION
- SPC not only covers Supplementary Protection Certificates but also all other extensions of the term of an IP right (including e.g. renewal of utility models)

46.3.4 Calculated expiration dates

To identify active or expired patents the expiration dates of granted patents of important patent offices (from 30 countries) from 1980 are calculated and displayed: AR, AT, AU, BE, BR, CA, CH, CN, DE, DK, EP, ES, FI, FR, GB, HK, HU, IE, IL, IT, JP, KR, MX, NL, PL, RU, SE, SU, TW, US, ZA

This information is typically not available from the legal status as most patents do not expire at the end of their theoretical term but, for a variety of reasons, at an earlier time (average effective term: 12 years).

For the calculation of the expiration dates it is not enough to consider the usual 20-year patent term but approximately 400 rules must be considered for the 30 countries, in particular:
Types of search

- Patent laws and changes to patent laws for all granted patent rights since 1980 (patents, utility models, design patents, plant patents, all publication types, such as short term patents, re-examination, reissue, etc.)
- Determination of the first effective application date (the first priority date in a chain of priority dates, important in particular for Divisional Patents and Continuations-in-Part)

The calculation is based on the bibliographical details in INPADOC (publication, application and priority dates). Data that are not taken into account:

- Patent Term Adjustments (PTA), e.g. for US patents
- Expiration dates from the legal status data in INPADOC (e.g. expired for non-payment of maintenance fees)
- Calculated expiration dates of SPC (Supplementary Protection Certificates)

For searching the fields XPD (Expiration Date) and XPY (Expiration Year) are available:

```
=> S 20130120/XPD
=> S 20140601-2015-0601/XPD
=> S XPD>20140101
=> S 2014-2017/XPD
```

```
=> S C12N0015-79+NT/IPC,CPC AND XPD>20140101
L2 45789 C12N0015-79+NT/IPC,CPC AND XPD>20140101 => d l2 std 40
```
The legal status is always with regard to the patent publication shown in the PI field. The information given is this:

- **DE A/B/C** – Publication date in the Patent gazette
- **DE U0** – Date of entry in the register
- **DE U1** – Publication date in the Patent gazette
- **EP** – Effective date
- **WO** – Effective date

The legal status code can be searched in the /NTE field:

```
=> S LIBP/NTE
```

To see which codes there are for a particular legal status matter EXPAND can be used:

```
=> E L/NTE 22
E1  680  INTF/NTE
E2  680  INTF WIEDERAUFNAHME DES VERFAHRENS (REgel 90)/NTE
E3  84368 -- L/NTE
E4  84368 L LIIZENZ INFORMATION/NTE
E5  1  LAOR9/NTE
E6  1  LAOR9 (48) EP-A9 IST NICHT ERSCHIENEN/NTE
E7  765  LER/NTE
E8  765  LER  LIIZENZEN EIGETRAGEN NACH REgel 21-1/NTE
E9  2  LERZ/NTE
E10 2  LERZ  LIIZENZEN GELOESCHT NACH REgel 21-2/NTE
E11 8160  LF/NTE
E12 8160  LF  FOERDERUNG DURCH BMFT/NTE
E13 13773  LIBA/NTE
E14 13773  LIBA  LIIZENZBEREITSCHAFT ERKLAERT (VERBINDLICH)/NTE
E15 34149  LIBP/NTE
E16 34149  LIBP  LIIZENZBEREITSCHAFT ERKLAERT (VERBINDLICH)/NTE
E17 17537  LUIA/NTE
E18 17537  LUIA  INTERESSE AN LIIZENZVERGABE ERKLAERT (VERBINDLICH)/NTE
E19 11073  LUIP/NTE
E20 11073  LUIP  INTERESSE AN LIIZENZVERGABE ERKLAERT (VERBINDLICH)/NTE
E21 65  LUZA/NTE
E22 65  LUZA  INTERESSE AN LIIZENZVERGABE WEGGEFALLEN/NTE
```

### 46.4.1 Supplementary Protection Certificates

Supplementary Protection Certificates can so far only be displayed. In the /FA field one can find if a certificate was applied for or granted:

```
=> S SPC/FA
L39  983 SPC/FA
```

```
=> D SPC
L39  ANSWER 1 OF 983 PATTPA COPYRIGHT 2004 DPMA/FIZ KA on STN
SPC Arzneimittel Zertifikat Anmeldung
DE10399018.6 200301023 (DE69720320)
F. Hoffmann-La Roche AG, Grenzacherstr. 124, 4070 Basel, CH
BGA: EU/1/02/221/001 20.06.2002
EU/1/02/221/002 20.06.2002
EU/1/02/221/003 20.06.2002
EU/1/02/221/004 20.06.2002
EU/1/02/221/005 20.06.2002
EU/1/02/221/006 20.06.2002
EU/1/02/221/007 20.06.2002
EU/1/02/221/008 20.06.2002
peginteferon alfa-2a
IPC: A61K047-48
EEC-Verordnung
```
Types of search

46.5 PATDPASPC

PATDPASPC contains details on granted, rejected and withdrawn protection certificates for German drugs and plant protection agents (SPC). All details on the chemical compounds, the certificates and the legal status are searchable (SPC document number, publication and application details of the respective patent, SPC product type, SPC term, SPC application and grant details, chemical names, CAS Registry numbers of the substance and related substances, trade names, legal status notes, IPC main class).

=> S DE 19775049/SPC.DN AND ERLOSCHEN/NTE
   1 DE 19775049/SPC.DN
   (DE19775049/SPC.DN)
   16 ERLOSCHEN/NTE
L1 1 DE 19775049/SPC.DN AND ERLOSCHEN/NTE

=> D SPC LS

L1 ANSWER 1 OF 1 PATDPASPC COPYRIGHT 2011 DPMA/FIZ KA on STN

SPC.DN DE 19775049
SPC.TYP plant protection
SPC.GD 20010511
SPC.AD 19970731

LS
APP Fenbuconazol mit Fenpropimorph
REQ Fenbuconazol
GRA Fenbuconazol; alle Formen
NTE erloschen (Nichtzahlung der Jahresgeb.)

The update of the database is irregular. With the update new documents for SPCs will be recorded and already existing updated. In the file banner of the database is shown if a new update took place.

46.6 EPFULL

In EPFULL current legal status data from INPADOCDB are added. This way the data available include data after granting and the entry into the national phase. The legal status data can be displayed by LS and LS2 as in INPADOCDB but they are not searchable.

In addition searchable legal status information from the European Bulletin is added to the database: this information can be displayed with the LSEP field. With the LSEP display field a PDF link to the European Patent Register (updated daily, some additional information) is additionally displayed. Once displayed, the link will be accessible in the session transcript for 90 days and will present the data at the time when the command was initiated. For updating, display LSEPR needs to be used again.

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</table>
To find out what licenses an institution has granted one could use this search strategy:

=> S (EIDGENOESSISCH (S) TECHNISCH (S) HOCHSCHULE (S) ZUERICH) / PA AND EPB790 / LSC

L1 5 (EIDGENOESSISCH (S) TECHNISCH (S) HOCHSCHULE (S) ZUERICH) / PA AND EPB790 / LSC

=> D TI PA AG PI DS AI PRAI LSEP

L1 ANSWER 1 OF 5 EPFULL COPYRIGHT 2011 EPO/FIZ KA/LNU on STN

TIEF Scaffolds for artificial heart valves and vascular structures.

TIDE Geruest fuer kuenstliche Herzklappenprothese und Gefaess-Strukturen.

PA Eidgenoessische Technische Hochschule Zuerich, Raemistrasse 101, 8092 Zuerich, CH

AG Schaad, Balass, Menzl & Partner AG, Dufourstrasse 101 Postfach, 8034 Zuerich, CH

PI EP 1864687 A1 20071212

DS AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

AI EP 2006-11911 A 20060609

PRAI EP 2006-11911 A 20060609 *

LEGAL STATUS INCLUDING HISTORY

AN 2006:172417 EPFULL
20071212 EPB430 Unexamined document without grant, (first publication) 20071212

20071212 EPB840 Designated contracting states AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR EP 1864687 A1 20071212

20071212 EPB844EP Extension of the European patent to AL BA HA MK YU

20071212 EPB844EP Extension of the European patent to AL BA HA MK YU

20080723 EPB241 Request for examination 20080609

20080813 EPB242 Dispatch of the first examination report 20080725

20080820 EPB840N Payment of designation fees AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

20080820 EPB844EPN Payment of extension fees

20090603 EPB790 License 20090330 AB Medica S.p.A.
46.7 FRANCEPAT

46.7.1 Legal Status Information

The FRANCEPAT database is no longer updated from 11/2009, i.e. legal status information is no longer updated, either.

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<td>/LS.RD</td>
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<tr>
<td>/LS.SD</td>
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<td>Legal Status, Date of Supplementary Search Report</td>
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/LS

Legal Status

In FRANCEPAT the legal status field is subdivided into a number of search fields. This way it is possible to do a very specific search for legal status changes. A change in the legal status is shown in the UP field.

=> D UP LS

UP 20040625
LS Date of Grant: 20040625 200426
French Patent Registry:
CD (Changement de nom, de denomination) N137202 20040128

In FRANCEPAT license information can be displayed for patent numbers or applicants and one can even search for licensees:

=> S PLAYBOIS/LINM
L41 1 PLAYBOIS/LINM

=> D PA LI

L41 ANSWER 1 OF 1 FRANCEPAT COPYRIGHT 2004 INPI on STN
PA
Applicant: BIETRIX ROBERT
CHE DES MOULIERES 34540 BALARUC LE VIEUX (FR)
FR-34540
LI LINM: PLAYBOIS
LIA: ZI DE BOMBES 43700 SAINT GERMAIN LAPRADE (FR)
LIT: Societe a responsabilité limitée
LINM: MALEYSSON CREATION
LIA: LE MOULIN DE LA ROCETTE ROUTE DU PUY 43800 ROSIERES (FR)
46.7.2 Supplementary Protection Certificates

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In FRANCEPAT the SPC field is subdivided into a number of search fields. This way a very specific search for details is possible. A change to the Supplementary Protection Certificate details is shown in the UP field.

=> S RIVASTIGMINE/SPC.DNM
L40          1 RIVASTIGMINE/SPC.DNM

=> D SPC

L40  ANSWER 1 OF 1 FRANCEPAT COPYRIGHT 2004 INPI on STN
SPC  Applicant: NOVARTIS AG / Schwarzwaldallee 215, 4085 Basel, CH
     Publication: FR98C0033
     Date of Publication: 19981113 (BOPI 199846)
     Drug: RIVASTIGMINE
     Drug Approval: EU/1/98/066/001  19980512
     Date of Grant: 20010302  BOPI 200109
     Deadline of Validity 20120731  (BOPI 0109)

46.8 IFICLS / IFIALL

IFICLS (Current Patent Legal Status Database) is a database of U.S. legal status information. IFICLS contains the current legal status of US utility patents including:

- Reassigned Patents
- Reexamined Patents
- Expired Patents
- Reinstated Patents
- Certificates of Correction
- Adverse Decision in Interference
- Disclaimer/Dedication
- Reexamination Request
- Reissue Request

All data are searchable. IFICLS is reloaded every year. Reassigned Patents are updated every two months, other patents weekly.

ACCESSION NO.: 3949143 IFICLS
PATENT ASSIGNEE: Krugman, Maurice D
PATENT ASSIGNEE: Mostyn, William T
PATENT ASSIGNEE: Stone, Arthur D
PATENT INFORMATION: US 6629245 20030930
DOCUMENT TYPE: REASSIGNED
REASSIGNMENT INFO.:
Some information on the course of the procedure can also be found in the IFIALL database, such as Related documents in the RLI field and the Expiry date in the XPD field. The XPD field contains the calculated expiration date (up to 1995: 17 years after publication; from 1995: 20 years after filing).

### Legal Status, Date of First Publication
- **US 5840727**: 19981124
- **US 5364866**: 19981124
- **US 5776963**: 19981124

### Legal Status, Date of Begin of National Phase
- **US 5840727**: 19981124
- **US 5364866**: 19981124
- **US 5776963**: 19981124

### Legal Status, Effective Date of Property Rights
- **US 5840727**: 19981124
- **US 5364866**: 19981124
- **US 5776963**: 19981124

### Search Displays
- **/LS.DPF**: LSRU
- **/LS.DNP**: Legal Status, Date of First Publication
- **/LS.DPR**: Legal Status, Date of Begin of National Phase
- **/LS.DPR**: Legal Status, Effective Date of Property Rights
Guide to STN Patent Databases

The legal status field contains some additional data which are not available from the PI and AI fields. This legal status display belongs to an international application with RU as designated state:

```
=> S RU 2232157/PN
=> D LSRU

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These data are also searchable.
Types of search

47 Citation search

47.1 Typical enquiries

- You are interested in a patent, US 6,311,197. A citation search may help you find out:
  - Which other patents are cited in the patent, US 6,311,197?
    This provides information on earlier inventions in the field.
  - Which other patents cite the application, US 2001/003823, or the patent?
    This provides information on more recent patents in the field.
  - The number of citations may indicate how important a particular patent is.
- You do a prior art search.
  - Citations may provide extra documents which were not found in the subject search.
  - Citations by a different patent authority may help you find material for an opposition.
- Analysing competition:
  - Finding competitors who are particularly interested in your patents.
  - Which companies own the most significant patents?
  - Which are the most advanced competitors in the field?
- Evaluating the citations of one’s own patents:
  - Who cites our patents?
  - Possible infringements
  - Monitoring
- Comparing the citations by various patent offices.
- Evaluating the citation categories of EP, WO, FR, and GB patents.

47.2 Databases with citation information

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### Guide to STN Patent Databases

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Due to limited space the table does not show all available fields in all databases.

* Only citations from Basic Patents are entered (except US Patents)
** On the fields in DPCI see below in section Derwent Patents Citation Index (DPCI).
*** As both USPATFULL and USPAT2 contain US Patents, the cluster of both databases, USPATALL, should be used.
**** SCISEARCH contains citations from the scientific journal literature. For searching literature citations there are far more fields available than there could be included in the table.

A number of patent databases have citations from the title pages of patent publications. These are mainly from the patent examination. Some patent offices do a separate prior art search, which may be included in the databases, too.

EPFULL contains inventor citations (patent and non-patent literature; REPA, RENA) from 2006.

Basically a search for citations is a search for publication numbers. Usually the SEARCH field /RPN (Referenced Patent Number) is used. Some of the databases have additional fields (see table above).

With DPCI now covering more than 10 years for the countries selected and its search and display options being most comprehensive it is advisable to use this database. Citation statistics are best performed in DPCI, too.

The INPADOCDB/INPAFAMDB databases include citations from 27 patent organisations, the search and display options have been considerably improved. Thus, INPADOCDB/INPAFAMDB can also be recommended for citation searches. The choice between INPADOCDB and INPAFAMDB should be made on the basis of the display formats desired.

**Note.** The SCISEARCH database does not include patents. Citations to patents contained in this database are from other types of publications (e.g. journal articles). Concerning patent citations this database should be considered nothing more than an additional source.

### 47.3 Cited and citing patents

In the field of patents, citations play an equally important role as in scientific literature:

- The inventor uses them to characterise the state of the art based on which he made his invention,
- The patent examiner tries to find patents that may oppose the new patent to be granted and cites them against the application.

When a patent X is published it has references to earlier publications, i.e. patents (= Cited Patents, CDP) or other literature. These can be located either in the text of the publication or on the title page. The references are introduced:
Types of search

1. By the inventor or applicant—these are spread over the text, or

2. By the examiner citing them against the application as relevant prior art – these are normally printed on the title page.

These citations are usually entered into the RE field in the databases (or probably REP for the cited patents and REN for the cited non-patent literature).

The patent X itself may now be cited in other patents (= Citing Patents, CGP). Then the number of the patent X will be printed on the other patents and introduced into the REP field of these patent records in the databases.

In the Derwent Patents Citation Index, CAPLUS and INPADOC one step further is taken: Here the citing patents too are entered into the record of the patent X. This way a loop is introduced (dotted lines).
47.4 Derwent Patents Citation Index (DPCI)

DPCI is much more comprehensive than other patent databases concerning coverage of citations (cf. above):

- Patents and literature cited and citing (from the Basic and Equivalents),
  - By examiners
  - By inventors/authors
  - By opponents/third parties during the determination of patentability

This database contains citation data from the patent publications of these countries (and patent organisations) (please see the DPCI database description for more details):

- Mid-1994 to May 1997 only: AT, CA, SE

The structure of DPCI (SEARCH and DISPLAY fields) is primarily designed for citation searching and should be used in this way. Searches by text, etc., should rather be performed in the Derwent World Patents Index (WPINDEX, WPIDS, WPIX). Identical Accession numbers (AN) are used in both DPCI and the World Patents Index, so using this for crossover is possible and advisable.

In DPCI, for searching cited or citing patents the usual bibliographical field codes are used, being qualified for citation searching by appending extra letters: /PN → /PN.D, /PN.DI, /PN.DX, /PN.DHT, /PN.DO, /PN.G, /PN.GI, /PN.GX, /PN.GHT, /PN.GO, etc. The table below provides an overview of these fields.

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</tr>
<tr>
<td>– cited by third party</td>
<td>/REN.TH</td>
</tr>
<tr>
<td>– cited in opposition</td>
<td>/REN.O</td>
</tr>
<tr>
<td>Publication country of the citing family member</td>
<td>/REPC</td>
</tr>
<tr>
<td>Publication kind of the citing family member</td>
<td>/REPK</td>
</tr>
<tr>
<td>Publication number of the citing family member</td>
<td>/REPN</td>
</tr>
<tr>
<td>References Count</td>
<td>/CRC</td>
</tr>
<tr>
<td>– cited by applicant</td>
<td>/CRC.I</td>
</tr>
<tr>
<td>– cited by examiner</td>
<td>/CRC.X</td>
</tr>
<tr>
<td>– cited by third party</td>
<td>/CRC.TH</td>
</tr>
<tr>
<td>– cited in opposition</td>
<td>/CRC.O</td>
</tr>
<tr>
<td>– undefined</td>
<td>/CRC.UN</td>
</tr>
</tbody>
</table>

The data of Cited Patents and Citing Patents are arranged in a similar way in a DPCI record:

```
Citing Publication By Cat Cited Patent Date Accession Number
----------------------------------------------------------------------------------------
WO 2010115838 A1   E   X   DD 298280 A5   19920213   1992-226751 <=-
PA: (J ENP-C) J ENAP HARM GMBH; (NEUB-N) NEUBAPHARM GMBH
```
Thus, the respective SEARCH fields are assigned like this:

- **For Cited patents (CDP):**
  
  | PA: (PACO.D) | PA.D |
  | IN: I.N.D |

- **For Citing patents (CGP):**
  
  | PA: (PACO.G) | PA.G |
  | IN: I.N.G |

The data of a particular citation entry are linked by (P) proximity:

```
=> S CHCC/PACO.D (P) US/PC.F
8636 CHCC/PACO.D
   | CHCC- C/PACO.D
3517148 US/PC.F
L9 4734 CHCC/PACO.D (P) US/PC.F
```

When doing a cross-file search, please note that the /RPN field is only equivalent to /PN.DX but not to /PN.D. If inventor citations are to be included in DPCI either the /PN.D field has to be used or the /PN.DI field must be searched in addition. In many cases it is advisable to also search for citations (Citing patents in particular) in other databases in addition to DPCI. When searching for Citing patents the CGP field should not be the only source as not all citations are actually included in every case. Often a SEARCH in the /RPN field (multi-file) or /PN.D field (DPCI) may yield additional results.

**Relevance categories.** WO, EP, ES, FR, GR, IT, LU, NL, NO, and TR search reports contain categories of the references to indicate the relevance of the cited documents to the invention (A E L O P T X I Y). These categories are meant as a quick classification of prior-art publications, they do not represent an in-depth evaluation of invention features.

**CDP Cited Patents**

<table>
<thead>
<tr>
<th>Citing Publication</th>
<th>By</th>
<th>Cat</th>
<th>Cited Patent</th>
<th>Date</th>
<th>Accession Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA: (SCHD-C)</td>
<td>SCHERING AG</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN: BAEURLE S; BERGER M; JAROCH S; KROLIKIEWICZ K; MENGENL A; NGUYEN D; REHWI NKEI H; SCHAECKE H; SCHMEES N; SKUBALLA W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E PX WO 2006100100 A1</td>
<td>20060928</td>
<td>2006-697791</td>
<td></td>
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<tr>
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<td>SCHERING AG</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN: BAEURLE S; BERGER M; BUCHMANN B; KROLIKIEWICZ K; MENGEN A; REHWI NKEI H; SCHAECKE H; SCHMEES N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PA: (SCHD-C)</td>
<td>SCHERING AG</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN: BAEURLE S; BERGER M; JAROCH S; KROLIKIEWICZ K; MENGEN A; NGUYEN D; REHWI NKEI H; SCHAECKE H; SCHMEES N; SKUBALLA W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Types of search

These relevance categories can be searched in the /CAT.D and /CAT.G fields and their meaning is:

<table>
<thead>
<tr>
<th>Relevance categories from EP and WO search reports:</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
</tr>
<tr>
<td>I</td>
</tr>
<tr>
<td>Y</td>
</tr>
<tr>
<td>A</td>
</tr>
<tr>
<td>O</td>
</tr>
<tr>
<td>P</td>
</tr>
<tr>
<td>E</td>
</tr>
<tr>
<td>T</td>
</tr>
<tr>
<td>D</td>
</tr>
<tr>
<td>L</td>
</tr>
</tbody>
</table>

XP numbers in European Search Reports and Patents refer to non-patent literature (field /REN). These numbers point to documents in an EPO internal database. They can be found in the EPFULL, DPCI, INPADOCDB/INPAFAMDB, RDISCLOSURE and CA databases. DPCI, EPFULL, INPADOCDB/INPAFAMDB and CA additionally contain references to the respective journals.

```plaintext
=> S XP002000032/REN
L21       4 XP002000032/REN

=> D REN

REN Literature Citations
------------------------

Citing Publication By Cat Literature Reference
----------------------------------------------


```
47.5 Notes

**INPADOCDB/INPAFAMDB** contain cited patents and references and citing patents of 27 patent organisations including patent and non-patent literature: AP, AU, BE, BG, CH, CN, CY, CZ, DE, DK, EA, EP, ES, FI, FR, GB, GR, IT, JP, KR, LU, NL, NO, SG, TR, TW, US, WO.

Both patent and non-patent references can be searched and displayed in detail. The source of the citation can be searched (/SRT) and the cited patent assignee (/PAS.D) has been entered. Non-patent references include XP numbers and DOI links (Digital Object Identifier). The following information from EP and WO search reports is also entered in the database:

- Relevance category
- Cited application numbers in the REAI field in these cases:
  - If the application was published the respective publication number is entered in the REP field and labelled with an asterisk *
  - Pending applications (not yet published)
  - Provisional US applications (no publication)
  - Abandoned applications (no publication)
  - Application number (original format, no STN format yet)
- Office that has created the search report: /SRO (WO only)

The sources of citations are displayed for these countries: AP*, AU*, BE, BG*, CH, CN*, CY, CZ*, DE, DK, EA*, EP, ES*, FI*, FR, GB*, GR, IT, JP*, KR*, LU, NL, SG*, TR, TW*, US, WO. For countries marked with * the citations come from search reports only. For the other countries the citations may also be by the applicant or inventor, they are taken from the description and in particular the “Background of the invention” section. For EP and WO publications there may be other sources (see table below).

These search and display fields are available for references:

<table>
<thead>
<tr>
<th>Reference information</th>
<th>Search field</th>
<th>Display field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patent number of patent references</td>
<td>/RPN (/PN.D)</td>
<td>REP</td>
</tr>
<tr>
<td>Country of patent references</td>
<td>/RPC (/PC.D)</td>
<td>REP</td>
</tr>
<tr>
<td>Publication kind code of patent references</td>
<td>/RPK (/PK.D)</td>
<td>REP</td>
</tr>
<tr>
<td>Publication date of patent references</td>
<td>/RPD (/PD.D)</td>
<td>REP</td>
</tr>
<tr>
<td>Publication year of patent references</td>
<td>/RYP (/PY.D)</td>
<td>REP</td>
</tr>
<tr>
<td>Patent assignee of patent references</td>
<td>/PAS.D</td>
<td>REP</td>
</tr>
<tr>
<td>Number of patent references</td>
<td>/REC (RE.CNT)</td>
<td></td>
</tr>
<tr>
<td>Application number of reference</td>
<td>/AP.D</td>
<td>REAI</td>
</tr>
<tr>
<td>Application country of reference</td>
<td>/AC.D</td>
<td>REAI</td>
</tr>
<tr>
<td>Application kind code of reference</td>
<td>/AK.D</td>
<td>REAI</td>
</tr>
<tr>
<td>Cited non-patent literature</td>
<td>/REN</td>
<td>REN</td>
</tr>
<tr>
<td>XP number of the EPO</td>
<td>/REXP</td>
<td></td>
</tr>
<tr>
<td>Patent number of citing patent</td>
<td>/PN.G</td>
<td>CGP</td>
</tr>
<tr>
<td>Country of citing patent</td>
<td>/PC.G</td>
<td>CGP</td>
</tr>
<tr>
<td>Number of citing patents</td>
<td>/PNC.G</td>
<td>CGP</td>
</tr>
<tr>
<td>Display format for cited and citing patents</td>
<td>—</td>
<td>CITN</td>
</tr>
<tr>
<td>Display format for cited and citing patents for every family member, including the publication numbers</td>
<td>—</td>
<td>PICITN</td>
</tr>
</tbody>
</table>

-- INPADOCDB: for all members of the national patent family
-- INPAFAMDB: for all members of the international patent family
### Types of search

<table>
<thead>
<tr>
<th>Source of the reference</th>
<th>Search field</th>
<th>Display field</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEA</td>
<td>/SRT</td>
<td>REP</td>
</tr>
<tr>
<td>APP</td>
<td>/SRO</td>
<td>REP</td>
</tr>
<tr>
<td>EXA</td>
<td>/CAT</td>
<td>REP</td>
</tr>
<tr>
<td>OPP</td>
<td></td>
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<tr>
<td>ISR</td>
<td></td>
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<tr>
<td>SUP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CH2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The RE display format can be used in INPADOCDB and in INPAFAMDB (de-duped format).

**=> D TI PI AI RE**

1 priority, 2 applications, 2 publications
Guide to STN Patent Databases

The PICITN display format is used in INPADOCDB to display cited and citing patents together with the (citing/cited) publication number.

=> US20120008660/PN
L12 1 US20120008660/PN

=> D PICITN

L12 ANSWER 1 OF 1 INPADOCDB COPYRIGHT 2013 EPO/FIZ KA on STN
PI US 20120008660 A1 20120112
REP US 20080191223 A1 20080814 (PRS, pat)
UNIV CALIFORNIA, US
US 20060126688 A1 20060615 (PRS, pat)
PALO ALTO RES CT INC
REC 4. THERE ARE 4 CITED REFERENCES (2 PATENT, 2 NON PATENT) AVAILABLE FOR THIS RECORD.
CGP US 20110164637 A1 20110707 [US20120008660A1 (PRS, pat)]
SUMITOMO ELECTRIC INDUSTRIES, JP
US 20110180805 A1 20110728 [US20120008660A1 (PRS, pat)]
SUMITOMO ELECTRIC INDUSTRIES, JP
US 20110292957 A1 20111201 [US20120008660A1 (PRS, pat)]
BHAT RAJARAM; SIZOV DMITRY
US 8189639 B2 20120529 [US20120008660A1 (SEA, pat)]
CORNING INC, US
US 8207544 B2 20120626 [US20120008660A1 (SEA, pat)]
SUMITOMO ELECTRIC INDUSTRIES, JP
PNC 5. THERE ARE 5 CITING PATENT REFERENCES AVAILABLE FOR THIS RECORD.
OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)
UPOS.G Date last citing reference entered STN: 23 Jul 2009

In CAPLUS cited references are included for basic patents from US, EP, WO, DE, and for journals and conference proceedings since 1997. Patent examiner citations from GB (since 2003), FR (since 2003), CA (since 2005) and from nearly 300,000 patent records from 1982 to 2008 are added. Since the basic publications often are published applications and have no references patent citations tend to be incomplete.

In order to find documents citing a given publication Citing Patents were introduced:

=> D OS G

L1 ANSWER 1 OF 5 608442 HCAPLUS COPYRIGHT 2009 ACS on STN
OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)
UPOS.G Date last citing reference entered STN: 23 Jul 2009

The CA accession numbers are linked.

PATDPA since 1994 also contains citations from the patent examination that have led to the application being rejected and which therefore never were published on a patent document. These can be recognised by the entry 'SRP' as the type of reference (RPT) without a patent document (kind codes DEB# or DEC#) having been published and a 'Zurueckweisung' ('Rejected') or 'Zuruecknahme' ('Withdrawn') entry in the NTE field. Currently, PATDPA is the only database holding this type of data, which is not entered in DPCI either.

L10 ANSWER 1 OF 4 PATDPA COPYRIGHT 1999 DPMA/FIZ KA
TI (A1) Verfahren zum Auslösen eines Insassenschutzsystems fuer Kraftfahrzeuge sowie ein Insassenschutzsystem fuer Kraftfahrzeuge
PA TEMIC TELEFUNKEN microelectronic GmbH (*DE 74072 Heilbronn)
PI DE 19757137 A1 19990218 AO (10) 1.Publ./DE-Schrift
RE
REP DE 4433601 C1 SRP (56) AUS NATION. PRUEFUNGSVERF.
DE 3736296 C1 SRP (56) AUS NATION. PRUEFUNGSVERF.
DE 9610833 A1 SRP (56) AUS NATION. PRUEFUNGSVERF.
WO 9214633 A1 SRP (56) AUS NATION. PRUEFUNGSVERF.
NTE 19971220: ADP (22) Anmeldetag d. DE-Patentanm.
19990218: AO (43) Offenlegungstag der DE-Anmeldung (OS)
19990218: AVO (43) vorgezogene Offenlegung d. Patentanm.

334
Types of search

19990218: EX (43) Prüfungsantrag gestellt
19990520: SRP C107 Ermittl. d. Entgegenhaltungen nach Offenlegung
19990715: ZWAO H131 Zurückweisung nach DE-OFFENLEGUNG

**USPATALL** is the cluster consisting of the USPATFULL and USPAT2 databases. Since both databases contain citations both—or the USPATALL cluster—should be used for citation searching. Citations published upon publication of the US Patent are not entered into the record of the Application.

**EPFULL** contains citations from publications of the European Patent Office. These are usually entered together with European Patents (EPB1).
48 Crossover between databases

48.1 Crossover using L numbers or E numbers, TRANSFER

The familiar crossover options using L or E numbers can also be used between patent databases. In addition to possibly varying field designations and field contents, these points should be considered:

- Varying languages,
- Varying options for free-text searching,
- Varying index forms, particularly in the name fields.

When searching patent databases a search result often has to be transferred between databases, for example in order to compare two search results or to find additional information. For this transfer, a unique identification for a patent document is necessary. This may be a patent number, application number, or, in some cases, the accession number. The transfer can be made using SELECT (creating an E# list) or TRANSFER (creating an L number). For example, to obtain the full text of European publications in EUROPATFULL for a search result from DWPI, this strategy could be employed:

```
=> FIL WPINDEX
=> S SONOPRESS/PA
L1          27 SONOPRESS/PA
=> FIL EPFULL

=> TRANSFER L1 1- PN
L2          TRANSFER L1 1- PN :  111 TERMS
L3          19 L2

=> D 1- ALL
```

Before using SELECT or TRANSFER, the search costs should be taken into account:

- SELECT (E#): varying costs per processed document, depending on the type of the selected data
- TRANSFER (L#): fixed price per use

When crossing over from DPCI to DWPI (WPINDEX, WPIDS, WPIX), SELECT or TRANSFER are not necessary. A simple search command is sufficient:

```
=> FIL DPCI
=> S JENOPTIK/PA.D
L5        1999 JENOPTIK/PA.D

=> FIL WPINDEX

=> S L5
L6        1999 L5
```

Note on Chemical Abstracts. When using SELECT or TRANSFER the databases without SEARCH term charges should be used (HCA, HCAPLUS).

48.2 Simultaneous search in multiple databases (Multi-file SEARCH)

As the contents and search options in the databases vary considerably one will choose a suitable database to obtain a good result once the search criteria have been clarified (see “Overview of search options” and “Using STN databases to conduct a patent search”). After the first search it may be helpful to consult a second or third database in order to complete the search results.

In some cases it may be useful to perform a multi-file search in a number of databases.

There are a number of search types where a multi-file SEARCH can be particularly useful:

- Search by number (publication number, reference number)
- Search by the International Patent Classification
Types of search

- Parallel free-text searching in more than one database (mono- or multilingual)
- SDI searches in DWPI and WPIFV
- Name searches using EXPAND lists
- Text searches or SDI searches for all patent documents relevant to Germany in the PATDPAFULL, EPFULL, and PCTFULL databases.

After a multi-file search, the documents retrieved should be sorted into family groups by using the FSORT command. This allows for documents of the same patent family being easily identified and, if necessary, eliminated.

### 48.3 Identifying duplicates

The DUPLICATE command can be used in multi-file searches in order to identify and, if necessary, eliminate duplicates. This function can be used in all the databases dealt with in this guide.

In order to identify duplicates the DUPLICATE command uses the publication country, document number, and publication date.

In most cases duplicates can be detected, except for the following cases:

**Chemical Abstracts:** The DUPLICATE command uses only the data of the first line of the PI field. Documents entered as *Equivalent* in the Chemical Abstracts will not be found as duplicates.

**INPADOCDB/INPAFAMDB:** The DUPLICATE command uses only the data from the PI field of the first publication. The other publications are not used.

**PATDPA:** Of the PI field only the first line (latest publication) is used. The other (earlier) publication levels are not considered.

**World Patents Index:** The DUPLICATE command uses only the data of the *Basic*. Thus, documents only entered as *Equivalent* in the World Patents Index will not be detected as duplicates.

**DPCI:** The DUPLICATE command cannot be used.

Generally it is, however, preferable to use the FSORT command together with * DPFAM* instead of the DUPLICATE command if only one member of the patent family is to be displayed.

As INPADOCDB has standardised and current priority numbers it is advisable to include INPADOCDB in an FSORT command for a more complete duplicate and family identification; see “Multi-file” search example, “Full-text databases”.

### 48.4 Crossover using the OS field

<table>
<thead>
<tr>
<th>Field</th>
<th>From database</th>
<th>To database</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS</td>
<td>CA</td>
<td>CASREACT, MARPAT</td>
</tr>
<tr>
<td></td>
<td>USPATFULL/USPAT2</td>
<td>CA</td>
</tr>
<tr>
<td></td>
<td>USPATOLD</td>
<td>CA</td>
</tr>
<tr>
<td></td>
<td>DGENE</td>
<td>DWPI</td>
</tr>
<tr>
<td></td>
<td>ENCOMPPAT</td>
<td>DWPI</td>
</tr>
<tr>
<td></td>
<td>IFIALL</td>
<td>CA</td>
</tr>
<tr>
<td></td>
<td>PATDPA</td>
<td>CA</td>
</tr>
</tbody>
</table>

In the OS field usually the name and Accession Number of the other database are specified and may be used to retrieve the corresponding document in that database. Crossover to the other database is carried out with the help of SELECT: (Illustrated here by a search example from PATDPA.)

```plaintext
>> SEL 1 - OS
E1 THROUGH E4 ASSIGNED

>> D SEL
E1 3 CA/OS
E2 1 87:134706/OS
E3 1 92:286211/OS
E4 1 98:215483/OS
```
Guide to STN Patent Databases

=> FIL HCA
=> S E2.4/AN

1 "87:134706"/AN
1 "92:28621"/AN
1 "98:215483"/AN

L14 3 ("87:134706"/AN OR "92:28621"/AN OR "98:215483"/AN)
49 Display of patent images and full-text images

49.1 Image data in patent databases

Patent databases containing images: AUPATFULL, CANPATFULL, CNFULL, DWPI, FRANCEPAT, FRFULL, GBFULL, EFPFULL, INFULL, JAPIO, KOREAPAT, PATDPA, PATDPAFULL, PCTFULL, RDISCLOSURE, RUSSIAPAT.

All databases have an entry “GI” in the Field Availability (FA) field if a record includes a patent image:

\[ \Rightarrow S\ L1\ AND\ GI/F A \]

The Graphics Information Size /GIS field holds the image size:

\[ \Rightarrow D\ 1-3\ GIS \]

The images are displayed with the GI field or as part of a predefined display format (BIB.G, MAXG, etc.).

Patent images are stored in these formats:

<table>
<thead>
<tr>
<th>Image Format</th>
<th>File Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIFF</td>
<td>.tif</td>
</tr>
<tr>
<td>JPEG</td>
<td>.jpg</td>
</tr>
<tr>
<td>GIF</td>
<td>.gif</td>
</tr>
<tr>
<td>Structure Image</td>
<td>.gra</td>
</tr>
</tbody>
</table>

The images can be transferred using **STN Express** or **STN on the Web**. The images are displayed in the document context. When using STN Express the images may also be displayed in a separate window using the TIFF Viewer. With STN Express, version 8.4 or later, the images are transferred faster than with previous versions. With STN on the Web the transcript files with images should be saved as RTF (Rich Text Format).

49.2 CA/CAPLUS

The TIFF or GIF images of the scanned pages from the printed Chemical Abstracts of the years 1907–1966 can be displayed in CAPLUS. The DISPLAY formats are: PAGE, PAGE.NEXT, and PAGE.PREV. It is a good idea to use STN Express or STN on the WEB.

**PatentPak:** With PatentPak it is possible to quickly find and display chemical structures in patent full texts and to quickly display the PDF documents of important patent offices through links provided in the CA/CAPLUS database.

- **PatentPak PDF** – links to more than 9 million original PDFs from the PatentPak Library (collection of PDF documents of important patent offices)
- **PatentPak PDF+** – PDF document plus display of a table containing the chemical structures information from the patent document
- **PatentPak Interactive** – an interactive version of the PDF document including highlighting of the location in the document where the indexed substance appears

L5 ANSWER 51 OF 781 HCAPLUS COPYRIGHT 2016 ACS on STN

PATENTPAK PDF | PATENTPAK PDF+ | PATENTPAK INTERACTIVE
AN 2016:627148 HCAPLUS
DN 164:508626
ED Entered STN: 21 Apr 2016
TI Production of rubber compositions containing silica fillers
IN Taniguchi, Sho
PA TOYO Tire & Rubber Co., Ltd., Japan
CODEN: GWXXBX
DT Patent
LA German
CC 39-9 (Synthetic Elastomers and Natural Rubber)
FAN. CNT 1

PPPI

<table>
<thead>
<tr>
<th>PATENT NO.</th>
<th>KIND</th>
<th>DATE</th>
<th>LANGUAGE</th>
<th>PATENTPAK</th>
</tr>
</thead>
<tbody>
<tr>
<td>DE 102015220215</td>
<td>A1</td>
<td>20160421</td>
<td>German</td>
<td>PDF</td>
</tr>
</tbody>
</table>
Silica filled rubber vulcanizates are manufactured for tires with improved grip on wet pavement. The rubber composition contains 100 parts of rubber component, 20-150 parts SiO₂, and 1-10 parts polymer gel based on...
49.3 DWPI

The DWPI database contains patent images (technical and chemical structure drawings):

- **Engineering:** from Derwent week (DW) 8801
- **Chemistry:** from Derwent week (DW) 9201

Generally, a record holds no more than one patent image. It is, however, not necessarily the drawing from the title page of the patent document. Sometimes, however, there may be more than one patent image.

Images in DWPI are scanned at 300 dpi. Images are displayed in the GI or Gl.M display fields. Additionally, there is a number of display formats that include images and where the image is displayed at invention level: e.g., ALLG, BRIEFG, FULLG, MAXG. To obtain an image and its respective Member at publication level the MEMBG or MEMBFG formats can be used.

49.4 RDISCLOSURE

In RDISCLOSURE the full text is searchable, it can be displayed as ASCII text without images (ALL format) or as page images, including drawings, using one of these formats:

- **TIFF** – DISPLAY ALL (STN Express or STN on the Web)
- **PDF** – DOWNLOAD PDF (STN Express only)

```plaintext
=> FIL RDISCLOSURE
=> S ?MICROCONTROLLER
L1 71 ?MICROCONTROLLER?

=> DOWNLOAD L1 1-2 PDF
ENTER HI GLIGHT or NO HI GLIGHT: NO
VALID DOWNLOAD OPTIONS ARE 'PDF, CAPT'
ENTER DOWNLOAD OPTION(PDF): .
CREATE (SINGLE) OR MULTIPLE FILES: MUL
ENTER FILENAME OR (?): ?MICRO
TEXT DATA WILL BE DOWNLOADED TO ' ?MICRONnn.PDF' USING 'PDF'
START DOWNLOAD (Y)?:
```

Options:
- **PDF** Save as .pdf
- **CAPT** Save together with .trn (can be displayed with PDF reader)
- **SINGLE** Save all full texts in one file
- **MULTIPLE** Save each full text in a separate file

49.5 RUSSIAPAT

RUSSIAPAT contains all drawings from the full text. The formats GI, ALLG and MAXG, as in other patent databases, display the title page image only. ALLG and MAXG additionally display this information on the images:

```plaintext
<table>
<thead>
<tr>
<th>INF</th>
<th>TYPE</th>
<th>FORMAT</th>
<th>COUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FP</td>
<td>GI.FP</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Draw. Pages</td>
<td>GI.DRW</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Embedded</td>
<td>GI.EM</td>
<td>94</td>
</tr>
<tr>
<td>GIS</td>
<td>17339</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| GIS.EM | 2661; 2661; 1755; 3419; 911; 361; 643; 361; 361; 797; 361; 325; 253; 917; 325; 325; 311; 325; 325; 323; 323; 929; 1075; 505; 395; 325; 841; 1635; 445; 451; 439; 325; 2969; 325; 395; 329; 395; 395; 399; 309; 325; 309; 395; 325; 325; 325; 395; 1735; 1891; 457; 393; 317; 887; 539; 945; 967; 395; 635; 741; 721; 1449; 837; 721; 389; 389; 353; 407; 769; 909; 921; 851; 725; 581; 815; 577; 777; 585; 789; 857; 959; 961; 1049; 651; 953; 997; 793; 653; 949; 975; 917; 397; 397; 397; 397; 1735; 1891; 457; 393; 317; 887; 539; 945; 967; 395; 635; 741; 721; 1449; 837; 721; 389; 389; 353; 407; 769; 909; 921; 851; 725; 581; 815; 577; 777; 585; 789; 857; 959; 961; 1049; 651; 953; 997; 793; 653; 949; 975; 917; 397; 397; 397; 397
| GIS.DRW| 9989; 18915; 18409; 6089; 19787; 13699
| AB     | FIELD: coding in communication systems.

SUBSTANCE: proposed partial reverse bit-order interleaver (P-RBO) functions to sequentially column-by-column configure input data stream of size N in matrix that has 2m lines and (j - 1) columns, as
Guide to STN Patent Databases

well as R lines in J column, to **interleave** configured data, and to **read out interleaved data from lines**.
**EFFECT**: optimized interleaving parameters complying with interleaver size.
4 cl, 7 dwg, 3 tbl

To retrieve the other images the display fields GI.DRW and GI.EM must be used.
The number of images can be obtained with the 3 counter fields: /GIN (/GIN.FP), /GIN.DRW and /GIN.EM.
Types of search

50 Full text

50.1 Searches in full-text databases

Bibliographical databases, having meaningful titles, abstracts, and advanced indexing, are still the best sources for searching prior-art publications. Anyway, full-text databases offer a number of options to either complement the bibliographical databases or use them alone for searching by text (see “Text searches”):

Comprehensive text coverage. This may be an advantage or a drawback.

Full-text databases hold a lot of unweighted text, which will tend to increase the number of hits and at the same time decrease the relevance of the search results. To increase the relevance of the documents found proximity operators should be used a lot. The FOCUS and DISPLAY OCCURRENCES commands should also be employed to identify relevant documents. Another way is to use selected search fields, e.g. /TI, /AB, /CLM, rather than searching the full text.

On the other hand the comprehensive text coverage has the advantage that certain search terms, such as proper names, very current or specific wordings, etc., will only appear here. This feature is often used when searching for prior art to be used in an opposition. It may also be that the otherwise very good indexing in bibliographical databases is less appropriate for certain fields of technology, e.g. if the field of search is a very new or dynamic one. Full-text databases can be very helpful in these circumstances.

In CNFULL and JPFULL, machine-translated titles and abstracts in English are entered first or the texts of equivalent publications are used. These texts are replaced with human-translated titles and abstracts (CN, JPA) after three months. The descriptions and claims are machine-translated.

Numeric Property Search (NPS) provides the opportunity to search numerical information in patent documents in the context of the full text. Because the numerical data are indexed in the continuous text of the document the proximity operators known from text search can be used to link numerical data with keywords. This search option has so far been implemented in the AUPATFULL, CANPATFULL, CNFUL, DEFULL, INFULL, JPFULL, KRFULL, and PCTFULL full-text databases.

Timeliness. Full-text databases either import the machine-readable text provided by the patent offices or they make use of an OCR (Optical Character Recognition) software to produce the full text. As the documents are not edited manually they can be made available very quickly. Thus, full-text databases are often used at the same time as bibliographical databases to cover very recent publications.

Additional bibliographic information. Full-text databases even offer extensive bibliographical information from the original documents, such as the addresses of applicants, inventors, or legal representatives.

Full-text searches are often performed as multi-file searches (e.g. in PCTFULL, EPFULL, PATDPAFULL). The search result is likely to include a number of publications from the same patent family, which should be combined using their priority numbers. However, the priority numbers in full-text databases are often not in standard format, which makes it necessary to use either INPADOCDB or INPAFAMDB to identify the patent families. The “Multi-file” and the “Family” search examples illustrate this strategy.

The following table gives an overview of the contents and search options in full-text databases:

<table>
<thead>
<tr>
<th>Database</th>
<th>Contents</th>
<th>Language</th>
<th>SLART</th>
<th>Images</th>
<th>NPS*</th>
<th>LS / FAM</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUPATFULL</td>
<td>1964-1984</td>
<td>EN</td>
<td>BI, TI, AB, CLM, MCLM</td>
<td>Yes</td>
<td>Yes</td>
<td>LS/FAM Disp</td>
<td>IPC, CPC, EPC, ICO, IDT</td>
</tr>
<tr>
<td>CANPATFULL</td>
<td>1920-1972</td>
<td>EN, FR</td>
<td>BI, TI, AB, CLM, MCLM</td>
<td>Yes</td>
<td>Yes</td>
<td>LS/FAM Disp</td>
<td>IPC, CPC, EPC, ICO, IDT</td>
</tr>
<tr>
<td>CNFULL</td>
<td>1985-1989</td>
<td>EN</td>
<td>BI, TI, AB, CLM, MCLM</td>
<td>Yes</td>
<td>Partly</td>
<td>LS/FAM Disp</td>
<td>IPC, CPC, EPC</td>
</tr>
<tr>
<td>DEFULL</td>
<td>1877-2003</td>
<td>DE, EN</td>
<td>BI, TI, AB, MCLM, CLM</td>
<td>Yes</td>
<td>Yes</td>
<td>LS/FAM Disp</td>
<td>IPC, CPC</td>
</tr>
</tbody>
</table>
Guide to STN Patent Databases

<table>
<thead>
<tr>
<th>Database</th>
<th>Contents</th>
<th>Language</th>
<th>SLART</th>
<th>Images</th>
<th>NPS*</th>
<th>LS / FAM Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPFULL</td>
<td>1978-</td>
<td>DE, EN, FR</td>
<td>BI, CLM, TI, AB, MCLM</td>
<td>Yes</td>
<td>No</td>
<td>LS Search LS/FAM Disp IPC</td>
</tr>
<tr>
<td></td>
<td>EPA, EPB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRFULL</td>
<td>1900-</td>
<td>FR, EN</td>
<td>BI, TI, AB, CLM, MCLM</td>
<td>Yes</td>
<td>No</td>
<td>LS/FAM Disp IPC, CPC, EPC, ICO</td>
</tr>
<tr>
<td></td>
<td>FRA</td>
<td></td>
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<tr>
<td>GBFULL</td>
<td>1840-</td>
<td>EN</td>
<td>BI, TI, AB, CLM, MCLM</td>
<td>Yes</td>
<td>No</td>
<td>LS/FAM Disp IPC, CPC, EPC, ICO</td>
</tr>
<tr>
<td></td>
<td>GBA, GB, GBC</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>IFIALL**</td>
<td>1950-</td>
<td>EN</td>
<td>BI, TI, AB, CLM</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td></td>
<td>USA, USB, USE, USH, USI, USP</td>
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<td></td>
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<tr>
<td>INFULL</td>
<td>1912-</td>
<td>EN</td>
<td>BI, TI, AB, CLM, MCLM</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td></td>
<td>IN, INA1, INE</td>
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<td></td>
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<tr>
<td>JPFULL</td>
<td>1964-</td>
<td>EN</td>
<td>BI, TI, AB, CLM, MCLM</td>
<td>Yes</td>
<td>Yes</td>
<td>LS/FAM Disp IPC, CPC, EPC, ICO</td>
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<tr>
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<td>JPA, JP, JPU, JPK, JPY</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>KRFULL</td>
<td>1978-</td>
<td>EN</td>
<td>BI, TI, AB, CLM, MCLM</td>
<td>Ja</td>
<td>Ja</td>
<td>LS/FAM Disp IPC, CPC, EPC, ICO</td>
</tr>
<tr>
<td></td>
<td>KRA, KRB, KRU, KRY</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PATDPAFULL</td>
<td>1987-</td>
<td>DE, EN</td>
<td>BI, TI, AB, CLM, MCLM</td>
<td>Yes</td>
<td>No</td>
<td>LS/FAM Disp IPC</td>
</tr>
<tr>
<td></td>
<td>DEA, DEB, DEC, DET, DEU</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCTFULL</td>
<td>1978-</td>
<td>DE, EN, ES, FR</td>
<td>BI, TI, AB, CLM, MCLM</td>
<td>Yes</td>
<td>Yes</td>
<td>LS/FAM Disp IPC, CPC, EPC</td>
</tr>
<tr>
<td></td>
<td>WOA</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RDISCLOSURE</td>
<td>1960-</td>
<td>DE, EN, FR, SV</td>
<td>BI, TI</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
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<tr>
<td>USPATALL**</td>
<td>1790-</td>
<td>EN</td>
<td>BI, AB, TI, CLM, ECLM</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>1975-1992</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>1994-2002</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>USA, USB, USE, USH, USI, USP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* NPS – Numeric Property Search

** IFIALL and USPATALL contain CAS Indexing. IFIALL contains Uniterm Codes.

50.2 Accessing the full text

Basically, there are two ways to get the full text of a patent document:

- Display the documents in ASCII format in one of the full-text databases (AUPATFULL, CANPATFULL, CNFULL, EPFULL, FRFULL, GBFULL, IFIALL, INFULL, JPFULL, KRFULL, PATDPAFULL, PCTFULL, RDISCLOSURE, USPATFULL, USPAT2, USPATOLD)

- Display the page images of a document (RDISCLOSURE)

- Display or order the full document using the FULLTEXT link

STN Express or STN on the WEB can be used. An Internet browser has to be installed on the computer.

50.2.1 Displaying documents from full-text databases

The full text of patent publications is stored in the AUPATFULL, CANPATFULL, CNFULL, EPFULL, FRFULL, GBFULL, IFIALL, INFULL, JPFULL, KRFULL, PATDPAFULL, PCTFULL, RDISCLOSURE, USPATFULL, USPAT2 and USPATOLD databases (in IFIALL only the claims of US patents). It can be displayed online or printed directly. For information on the contents and time coverage see the database descriptions and on transferring patent images see section “Patent images”.

An Optical Character Recognition (OCR) software is used to create the texts in the AUPATFULL, CANPATFULL, CNFULL, FRFULL, GBFULL, INFULL, JPFULL, KRFULL, PATDPAFULL, PCTFULL, RDISCLOSURE, USPATFULL, USPAT2 and USPATOLD databases. This means that there may be spelling errors and text portions may be incomplete. A small number of documents have no text at all due to errors in the scanning process.

In PCTFULL the line length should be set to 100 to display the full text of a document in order to prevent unnecessary line breaks:

```plaintext
=> SET LINELENGTH 100
```
Once the display is complete the line length should be reset to the usual 80.

50.2.1.1 Using DISPLAY BROWSE

DISPLAY BROWSE can be used to browse a number of answers in order to check their relevance before the full text is displayed. It is especially useful that an answer set can be browsed in any order and even repeatedly. For each document displayed the most costly display format used is charged once. Documents can be tagged and combined into a new answer set with high relevance (see the reference sheet for the STN search language).

```
=> FIL EFPFULL
=> S MOUSERAP?
L1       16 MOUSERAP?
=> D BRO
*:TI
:1-6
L1     ANSWER 1 OF 16  EFPFULL  COPYRIGHT 2005  EPO/FIZ KA on STN
TIEN   Animal trap.
TIFR   Piege pour animaux.
TIDE   Tierfalle.
L1     ANSWER 2 OF 16  EFPFULL  COPYRIGHT 2005  EPO/FIZ KA on STN
TIEN   AUTOMATIC MOUSETRAP.
TIFR   SOURICIERE AUTOMATIQUE.
TIDE   AUTOMATISCHE MAUSEFALLE.
...
:1 6 8 9 HIT
...
:TAG 1 8
ANSWER 1 TAGGED
ANSWER 8 TAGGED
:END
=> SORT TAG
ENTER (L1), L#, OR L# RANGE:.
ENTER SORT FIELDS AND SORT DIRECTION (?): PD D
PROCESSING COMPLETED FOR L1
L2     2 SORT L1 TAG PD D
=> D 1-2 TI
L2     ANSWER 1 OF 2  EFPFULL  COPYRIGHT 2005  EPO/FIZ KA on STN
TIEN   Animal trap.
TIFR   Piege pour animaux.
TIDE   Tierfalle.
L2     ANSWER 2 OF 2  EFPFULL  COPYRIGHT 2005  EPO/FIZ KA on STN
TIEN   Center pivot door for a top load horizontal axis washing machine.
TIFR   Porte a pivotement central pour machine a laver a axe horizontal.
TIDE   Tuer mit zentralem Drehpunkt fuer eine von oben beschickbare mit waagerechter Achse arbeitende Waschmaschine.
=> SEL 1- PN
E1 THROUGH E2 ASSIGNED
=> D SEL
E1       1   EP1300077/PN
E2       1   EP869212/PN
```

The basic options are:

- Display documents from the answer set in any format
- Change the default format
- Display selected fields
- Tag documents for later sorting and processing
This is a short summary of options available:

: dis  Display the next or first document in the default format
: 1-4  Display answers 1–4 in the default format
: 3, 7, 10 Display answers 3, 7, 10 in the default format
: *trial Change the default format to TRIAL
: 4 hit  Display answer 4 in HIT format
: tag  Tag current document for later sorting
: untag 10 Untag answer 10
: end  End DISPLAY BROWSE and return to the normal Messenger prompt (=>)

Additional options, e.g. string search, are available in USPATFULL/USPAT2:

: F3  Forward 3 fields
: B3  Back 3 fields
: S MOTOR  Search forward for the word ‘motor’ in the document
: S MOTOR  Search backward for the word ‘motor’ in the document

50.2.2 FULLTEXT Link

A FULLTEXT link is available for every document in all bibliographical and full text databases if at least the bibliographical details are displayed. (There is no link if e.g. only the title is displayed.) When the link is clicked the ways STN offers to get the full text are displayed:

- Web-based document resources
  Page images can be downloaded free from Espacenet (European Patent Office, PDF) and from the USPTO (U.S. Patent and Trademark Office, single pages, TIFF).

- Fee-based document resources
  - Download document: The full text (single PDF file) can be downloaded immediately. A fee applies.
  - Order document: You can order the full text from FIZ AUTODOC (as a PDF file or printed). An order form will be displayed. A fee applies.

If any special software is needed to display images you will be alerted to this.
51 Patent statistics

51.1 Introduction

To create useful patent statistics – time series, inventor and applicant statistics, country statistics, technology field statistics, citation statistics – there are a number of preconditions:

- **Suitable databases.** The required fields must be available. They must be consistently filled throughout the time period to be analyzed. They must be filled in such a way that the entries are useable, i.e. they need to be structured and standardised. Multiple entries in one field should not occur.

- **Good database knowledge.** The databases are differently suitable for patent statistics. National patent databases are suitable only for statistics concerning a particular country while using international databases patent statistics for several countries can be created. The dynamics concepts and family definitions of the databases should always be considered. Some databases contain only one document per national publication sequence, others include further publications of the same patent application in various ways. In this case the suitable fields must be chosen, e.g. to include into the analysis only the latest document of the national publication sequence. The patent family size may also influence the statistics result. There are certain analyses, e.g. citation statistics, where only few databases are suitable at all.

- **Good searching knowledge.** A market or technology field analysis will always be preceded by a subject search using classification and text search. It is up to the searcher to either use the documents from an existing subject search or to prepare a special search strategy for the purpose of statistical analysis. A competitor analysis will always be preceded by a carefully performed name search.

- **Using suitable statistics tools.** STN International offers a number of tools:
  - SELECT can be used to create rankings. Creation and display of the lists can be tailored using a number of options.
  - ANALYZE and TABULATE can be used to create statistical tables, that may then be displayed, sorted and edited according to needs or that can be exported to Excel for post-processing.
  - Mit Analyze Plus werden die statistischen Tabellen inklusive Sortieren, Editieren und Visualisieren menügeführt erstellt. Using ANALYZE Plus it is possible to create the statistical tables guided by menus, including sorting, editing, and visualization.
  - STN AnaVist is an interactive analysis and visualization tool. A precondition for this is that the data in the databases are standardised.

The first precondition for an analysis of patent applications or granted patents is a suitable sample. It is only with an appropriate search result that a meaningful result can be obtained with the statistics tools. Wrong documents in the search result will lead to a false analysis result and cause misinterpretations. One cannot point out often enough that a profound knowledge of the databases and search strategies is indispensable to perform statistical analyses. It is only too often that errors are found even in the technical literature.

Below the STN tools for patent statistics are presented and their uses for the creation of statistical analyses are discussed. The tools are either used on-line (in part the free STNGUIDE database can be used) or the tables and diagrams can also be edited off-line. There may be fees for connect time to the databases and in some cases for use of the tools, but there is no need to download, and thus pay for, the documents to be analysed.

51.2 The SELECT command

The SELECT command extracts terms from source documents, counts their occurrences, and creates a list of terms ordered by descending occurrence.

```plaintext
=> SET ICFORMAT ON
=> SEL L1 1. IPC.F
E1 THROUGH E439 ASSIGNED
```

The command is used with the following parameters:
The L number of the documents to be used (default: the latest L number),

Documents to be used for the command, in this case all documents,

The field from which to select, here: IPC (default is file-specific, mostly Title); up to five fields separated by commas can be specified, however, only one E-numbered list will be created.

(SET ICFORMAT ON is needed if the IPC8 is used.)

There are a number of options that can be used together with the SELECT command:

WITH "..." to select only those terms containing the string given in quotation marks.

NOT "..." to select only those terms, which do not contain the string given.

LEN n to cut off all selected terms after n characters.

SET ICFORMAT ON
SET COMMAND COMPLETED

SEL 1. IPC.F WITH "G01" LEN8
E1 THROUGH E47 ASSIGNED

SELECT creates an E-numbered list (EXPAND list). The entries are sorted by their number of occurrence in the documents. The result of the SELECT command can be viewed using the D SEL command. It is possible to limit the display to certain entries of the list, e.g. to the first ten E numbers by D SEL E1-10.

SEL1-10
E1 315  G01G0021/IPC
E2 226  G01G0023/IPC
E3 130  G01G0007/IPC
E4  67   G01G0019/IPC
E5  45   G01G0003/IPC
E6  28   G01G0001/IPC
E7  26   G01L0001/IPC
E8  20   G01N0015/IPC
E9  13   G01G0009/IPC
E10 13   G01N0005/IPC

The SELECT command should only be used on one criterion, i.e. the search result needs to be restricted accordingly before SELECT is applied. For example, to obtain a time series for a number of patent assignees the search result to be used for this analysis needs to be split up by the names (by SEARCH commands) and each of the resulting parts has to be SELECTed separately. (Basically, up to five SELECT fields can be used in a single SELECT command, but all the terms selected this way are counted independent from each other. Thus, selecting the year and patent assignee name will produce both a time series and a ranking of names, but not the desired time series by individual assignees.)

The result of a SELECT command – much like the EXPAND result – can be used to continue the search by entering the appropriate E numbers in a SEARCH command.

A SELECT invalidates any E numbers previously obtained by EXPAND. In successive SELECT applications, the lists are appended to the respective end of the previous SELECT result. A new EXPAND command in turn deletes the E numbers of a previous SELECT. This behaviour can be changed by the command SET EXP CONT, which causes any new E-numbered list to be appended to an existing one. The E numbers can be deleted explicitly with DEL SEL.

51.3 The ANALYZE command

The ANALYZE command creates an L number containing the result of the analysis. No E numbers are assigned. For ANALYZE the same parameters and options can be used as for SELECT.

FIL WPINDEX
E SYMRISE/PA
E1  2  SYMPSL/P A
E2  2  SYMPSL GES PULSTE C/P A
E3 483 .. SYMRISE/PA
E4 139 SYMRISE AG/P A
E5  1 SYMRISE GMBH/P A
E6  61 SYMRISE GMBH & CO KG/P A
E7  16 SYMRISE GMBH CO KG/P A
Types of search

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>E8</td>
<td>2</td>
<td>SYMRISE GMBH &amp; CO/PA</td>
</tr>
<tr>
<td>E9</td>
<td>397</td>
<td>SYMRISE GMBH &amp; CO KG/PA</td>
</tr>
<tr>
<td>E10</td>
<td>4</td>
<td>SYMRISE INC/PA</td>
</tr>
<tr>
<td>E11</td>
<td>2</td>
<td>SYMRISE KK/PA</td>
</tr>
<tr>
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<td>1</td>
<td>SYMRISE RP/PA</td>
</tr>
<tr>
<td>E13</td>
<td>1</td>
<td>SYMRISE SA/PA</td>
</tr>
<tr>
<td>E14</td>
<td>1</td>
<td>SYMRISE SCENT &amp; CARE/PA</td>
</tr>
<tr>
<td>E15</td>
<td>28</td>
<td>SYMS/PA</td>
</tr>
</tbody>
</table>

=> S E3
L1 483 SYMRISE/PA)

=> ANALYZE L1 1 - IPC.F
L2 ANALYZE L1 1 - IPC.F : 216 TERMS

To view the result, use the DISPLAY command. A table is displayed that shows:

- The current number of the entry,
- Its frequency of occurrence,
- The number of documents where it occurs,
- The percentage of documents where it occurs, and
- The extracted entry itself.

=> D
L2 ANALYZE L1 1 - IPC.F : 118 TERMS

<table>
<thead>
<tr>
<th>TERM #</th>
<th># OCC</th>
<th># DOC</th>
<th>% DOC</th>
<th>IPC.F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>42</td>
<td>42</td>
<td>8.70</td>
<td>A61K0008-30</td>
</tr>
<tr>
<td>2</td>
<td>28</td>
<td>28</td>
<td>5.80</td>
<td>A23L0001-226</td>
</tr>
<tr>
<td>3</td>
<td>25</td>
<td>25</td>
<td>5.18</td>
<td>A61K</td>
</tr>
<tr>
<td>4</td>
<td>22</td>
<td>22</td>
<td>4.55</td>
<td>A23L0001-22</td>
</tr>
<tr>
<td>5</td>
<td>17</td>
<td>17</td>
<td>3.52</td>
<td>C10L0003-00</td>
</tr>
<tr>
<td>6</td>
<td>15</td>
<td>15</td>
<td>3.11</td>
<td>C11B0009-00</td>
</tr>
<tr>
<td>7</td>
<td>10</td>
<td>10</td>
<td>2.07</td>
<td>A61K0008-00</td>
</tr>
<tr>
<td>8</td>
<td>7</td>
<td>7</td>
<td>1.45</td>
<td>A23L0001-221</td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>5</td>
<td>1.04</td>
<td>A61K0008-33</td>
</tr>
</tbody>
</table>

Several fields may be selected with one ANALYZE command. If the LENGTH option is used the respective field should be in the first position. The WITH option cannot be used as it would apply to all fields used.

=> ANALYZE L1 1 - IPC.F LEN4 PRYF PRC PCS IN
L3 ANALYZE L1 1 - IPC.F PRYF PRC PCS IN LEN 4 : 814 TERMS

Then the individual lists may be displayed separately. (This can be done in the STNGUIDE file.)

=> FIL STNG

=> D PRYF
L3 ANALYZE L1 1 - IPC.F PRYF PRC PCS IN LEN 4 : 814 TERMS

<table>
<thead>
<tr>
<th>TERM #</th>
<th># OCC</th>
<th># DOC</th>
<th>% DOC</th>
<th>IPC.F</th>
</tr>
</thead>
<tbody>
<tr>
<td>134</td>
<td>52</td>
<td>52</td>
<td>10.77</td>
<td>2002</td>
</tr>
<tr>
<td>136</td>
<td>51</td>
<td>51</td>
<td>10.56</td>
<td>2006</td>
</tr>
<tr>
<td>137</td>
<td>51</td>
<td>51</td>
<td>10.56</td>
<td>2007</td>
</tr>
<tr>
<td>138</td>
<td>48</td>
<td>48</td>
<td>9.94</td>
<td>2005</td>
</tr>
<tr>
<td>139</td>
<td>46</td>
<td>46</td>
<td>9.52</td>
<td>2003</td>
</tr>
<tr>
<td>140</td>
<td>46</td>
<td>46</td>
<td>9.52</td>
<td>2004</td>
</tr>
<tr>
<td>151</td>
<td>32</td>
<td>32</td>
<td>6.63</td>
<td>2008</td>
</tr>
<tr>
<td>153</td>
<td>31</td>
<td>31</td>
<td>6.42</td>
<td>2010</td>
</tr>
<tr>
<td>156</td>
<td>27</td>
<td>27</td>
<td>5.59</td>
<td>2001</td>
</tr>
<tr>
<td>157</td>
<td>27</td>
<td>27</td>
<td>5.59</td>
<td>2009</td>
</tr>
</tbody>
</table>

...
There are various options to display the result obtained with ANALYZE:

1. displays all entries; default the first 10 entries,

   TOP n  displays the n entries with the highest frequency of occurrence,

   OGT n  displays all entries with a frequency of occurrence exceeding n,

   DGT n  displays all entries that were found in more than n documents,

   %GT n or PGT n  displays all entries found in more than n per cent of the documents,

   WITH "..."  displays entries containing the quoted string,

   NOT "..."  displays entries that do not contain the quoted string,

These options govern the order in which the result is displayed:

   DOCUMENT sorts the list by number of documents, in which the terms occur,

   PERCENT sorts the list by percentage,

   ALPHABETIC sorts the list in alphabetical order,

   OCC sorts by number of occurrence of the terms.

The sort order may be ascending (A) or descending (D).

The Term Numbers may be reassigned when the result is re-sorted, e.g. when sorting by years (this should be considered when the search is continued).

A specific sort function remains valid until a new sort function is specified.

```plaintext
=> D PRYF ALPH D
L3   ANALYZE L1 1.1 IPC.F PR YF PRC PCS IN LEN 4 : 814 TERMS
TERM #   # OCC   # DOC  % DOC  IPC.F  PRYF  PRC  PCS  IN
------ ----------------- ----------------- --------------- ------- ------- ---- ---- ----
 1 20       2  0.41  2012
 2 20       2  0.41  2011
 3 31       31  6.42  2010
 4 27       27  5.59  2009
 5 32       32  6.63  2008
 6 51       51 10.56  2007
 7 51       51 10.56  2006
 8 48       48  9.94  2005
...
```

```plaintext
=> D PRC DOC
L3   ANALYZE L1 1.1 IPC.F PRYF PRC PCS IN LEN 4 : 814 TERMS
TERM #   # OCC   # DOC  % DOC  IPC.F  PRYF  PRC  PCS  IN
------ ----------------- ----------------- --------------- ------- ------- ---- ---- ----
103 243     225 46.58  DE
119 262     139 28.78  US
128 84       79 16.36  EP
139 44       44  9.11  WO
169 19       19  3.93  RD
...
```
Further options influence the appearance of the displayed data:

**ANS** shows a list of answer numbers for each term (Exception: display fields that include key identifying information such as patent numbers, accession numbers, and CAS Registry Number® identifiers);

**DETAIL** shows the terms with appended field tags (particularly useful if multiple fields have been selected);

**DELIMITED** shows the data in a delimited format appropriate for automatic processing (e.g. to enter the data into a spreadsheet to create a chart).

### 51.3.1 Using an ANALYZE result for searching

An ANALYZE result can easily be used for a further search or analysis. The following options are available:

1. Apply SEARCH to the L number or TRANSFER to all terms of the L number of the ANALYZE result, e.g. to transport the terms to another database,
2. Apply TRANSFER to some terms of the ANALYZE result or to a subset limited by one of the options DGT, OGT, PGT, TOP, WITH, or NOT.
3. Apply SELECT to the L number of the ANALYZE result. The same options as above (2) may be used. The result will be an E-numbered list that can be used in the same way as any other E-numbered list.

**Example:** Using the result of L3, further analysis is to be done. The new base to be used are the patents of Symrise in the technologies represented by the 10 most frequent classifications (Subclasses). Variant 3 is used first:

```plaintext
=> FIL WP INDEX
=> D IPC.F
L3 ANALYZE L1 1- IPC.F PRYF PRC PCS IN LEN 4 : 814 TERMS
TERM # # OCC # DOC % DOC IPC.F PRYF PRC PCS
------ -------- ---  ---------  ------- ------- -------
120 155 155  32.09 A61K
131 73  73  15.11 C07C
132 71  71  14.70 A23L
150 32  32  6.63 C07D
163 21  21  4.35 C10L
170 18  18  3.73 C11B
183 14  14  2.90 A61Q
192 11  11  2.28 C11D
203 9  9  1.86 A23G
204 9  9  1.86 B01J

=> SEL L3 120 131 132 150 163 170 183 192 203 204
E1 THROUGH E10 ASSIGNED
=> S E1-E10/IPC AND L1
L4 457 (A61K/IPC OR C07C/IPC OR A23L/IPC OR C07D/IPC OR C10L/IPC OR C11B/IPC OR A61Q/IPC OR C11D/IPC OR A23G/IPC OR B01J/IPC) AND L1
```

(In place of SELECT another ANALYZE could have been used.)

Using TRANSFER (Variant 2) the same result is obtained this way. As IPC.F is not a search field the correct search field needs to be inserted:

```plaintext
=> TRANSFER L3 117 119 127 137 138 158 174 175 176 183
L5 TRANSFER L3 120,131,132,150,163,170,183,192,203,204 : 10 TERMS
'IPC.F' IS NOT A VALID FIELD CODE
L6 0 L5
=> S L5/IPC AND L1
ALL TERMS IN L5/IPC RETRIEVED.
L8 457 L7 AND L
```

### 51.3.2 Editing an ANALYZE result

It often occurs that for example a patent assignee pops up with a number of variations of his name in the documents and thus in the ANALYZE result.

```plaintext
=> FIL EPFULL
```
In an ANALYZE result, these list entries can be combined using the EDIT command. It is a good idea to display and edit the list in the STNGUIDE file (no connect hour charges). To find all the different spellings of the names the Patent Assignee lists have to be displayed in full:

```plaintext
=> EDIT L2
ENTER (CHANGE), COMBINE, OR TITLE: COMBINE
ENTER PREFERRED TERM NUMBER OR (?) : 12
PREFERRED TERM: MANROLAND AG/PA
ENTER EQUIVALENT TERM NUMBERS OR (END): 30 46 62
EQUIVALENT TERM: MANROLAND SHEETFED GMBH/PA
EQUIVALENT TERM: MANROLAND WEB SYSTEMS GMBH/PA
ENTER EQUIVALENT TERM NUMBERS OR (END): .
APPLY CHANGES? (Y)/N: Y
TERMS COMBINED
```

```
=> D L2 PA
L2 ANALYZE L1 1- PA PRY PRC : 1196 TERMS
(AFTER EDITS : 1193 TERMS)
```

```
TERM #   # OCC  # DOC  % DOC PA PRY PRC
------------------------
9@    537    537  13.36 MANROLAND AG
13     400    400  9.96 KOENIG & BAUER AKTIENGESELLSCHAFT
18     164    164  4.08 KOMORI CORPORATION
21     104    104  2.59 KOENIG & BAUER AG
24     79     79  1.97 GOSS INTERNATIONAL AMERICAS, INC.
25     78     78  1.94 WIEMOELLER & HOELSCHER KG
26     73     73  1.82 KBA-PRESSSYS SA
27     66     66  1.64 WIFAG MASCHINENFABRIK AG
28     61     61  1.52 MITSUBISHI HEAVY INDUSTRIES, LTD.
29     56     56  1.39 KBA-GIORI S.A.
```

@ INDICATES TERM AFFECTED BY MOST RECENT EDITS

All entries of all relevant patent assignees should be edited in this way. In a following DISPLAY the entries that were edited are marked.

If EDIT COMBINE is repeated note that the term numbers change. Thus, the patent assignee list has to be displayed repeatedly to use the correct term numbers.

In this example note that there are two variations of the name KOENIG & Bauer Aktiengesellschaft in 652 documents, but 654 hits. This means that there are two documents where both variations of the name occur. This is reflected in the new list:
## Types of search

**=> D L2 PA DOC**

L2   ANALYZE L1 1  PA PRY PRC :  1196 TERMS  
     (AFTER EDITS :  1167 TERMS)

<table>
<thead>
<tr>
<th>TERM #</th>
<th># OCC</th>
<th># DOC</th>
<th>% DOC</th>
<th>PA</th>
<th>PRY</th>
<th>PRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>4*</td>
<td>654</td>
<td>652</td>
<td>16.23</td>
<td>KOENIG &amp; BAUER AKTIENGESELLSCHAFT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10*</td>
<td>545</td>
<td>545</td>
<td>13.56</td>
<td>MANROLAND AG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17*</td>
<td>167</td>
<td>167</td>
<td>4.16</td>
<td>KOMORI CORPORATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19*</td>
<td>162</td>
<td>162</td>
<td>4.03</td>
<td>GDOSS INTERNATIONAL AMERICAS, INC.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22*</td>
<td>114</td>
<td>114</td>
<td>2.84</td>
<td>MITSUBISHI HEAVY INDUSTRIES, LTD.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23*</td>
<td>104</td>
<td>104</td>
<td>2.59</td>
<td>HEIDELBERGER DRUCKMASCHINEN AKTIENGESELLSCHAFT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26*</td>
<td>82</td>
<td>82</td>
<td>2.04</td>
<td>WINDMOELLER &amp; HOELSCHER KG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>66</td>
<td>66</td>
<td>1.64</td>
<td>WIFAG MASCHINENFABRIK AG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>57</td>
<td>57</td>
<td>1.42</td>
<td>TECHNOTRANS AG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29*</td>
<td>52</td>
<td>52</td>
<td>1.29</td>
<td>BALDWIN N. JAPAN LTD.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* INDICATES TERMS AFFECTED BY PREVIOUS EDITS

Use **EDIT CHANGE** to e.g. shorten very long names:

**=> EDIT L2**

ENTER (CHANGE), COMBINE, OR TITLE:.  
ENTER TERM NUMBERS OR (ALL):.  
ENTER STRING TO BE REPLACED OR (END): AKTIENGESELLSCHAFT  
ENTER REPLACING STRING OR (NONE): AG  
...

**=> D PA**

L2   ANALYZE L1 1  PA PRY PRC :  1196 TERMS  
     (AFTER EDITS :  1167 TERMS)

<table>
<thead>
<tr>
<th>TERM #</th>
<th># OCC</th>
<th># DOC</th>
<th>% DOC</th>
<th>PA</th>
<th>PRY</th>
<th>PRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>4*</td>
<td>654</td>
<td>652</td>
<td>16.23</td>
<td>KOENIG &amp; BAUER AG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10*</td>
<td>545</td>
<td>545</td>
<td>13.56</td>
<td>MANROLAND AG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17*</td>
<td>167</td>
<td>167</td>
<td>4.16</td>
<td>KOMORI CORPORATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19*</td>
<td>162</td>
<td>162</td>
<td>4.03</td>
<td>GDOSS INTERNATIONAL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22*</td>
<td>114</td>
<td>114</td>
<td>2.84</td>
<td>MITSUBISHI HEAVY IND</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23*</td>
<td>104</td>
<td>104</td>
<td>2.59</td>
<td>HEIDELBERGER DRUCK AG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26*</td>
<td>82</td>
<td>82</td>
<td>2.04</td>
<td>WINDMOELLER &amp; HOELSCHER KG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>66</td>
<td>66</td>
<td>1.64</td>
<td>WIFAG MASCHINENFABRIK AG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28*</td>
<td>57</td>
<td>57</td>
<td>1.42</td>
<td>TECHNOTRANS AG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29*</td>
<td>52</td>
<td>52</td>
<td>1.29</td>
<td>BALDWIN N. JAPAN LTD.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

@ INDICATES TERM AFFECTED BY MOST RECENT EDITS  
* INDICATES TERMS AFFECTED BY PREVIOUS EDITS
51.4 **SELECT or ANALYZE?**

Whether to use SELECT or ANALYZE depends on the search or statistics problem at hand.

<table>
<thead>
<tr>
<th></th>
<th>SELECT</th>
<th>ANALYZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apply to results from one single database</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Apply to results from a Multi-file search</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Maximum number of terms/documents to extract</td>
<td>999 E numbers</td>
<td>50 000 documents</td>
</tr>
<tr>
<td>Display of details:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of occurrences</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Number of documents</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Percentage of documents</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Answer numbers for extracted terms</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Sorting of display:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By number of occurrences</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>By number of documents</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>By percentage of documents</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Alphabetical/alphanumeric</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Combining of terms/variations</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Use of extracted terms for a search:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All terms</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Selected terms</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Costs</td>
<td>variable (and dependent on the file)</td>
<td>variable (price dependent on number of documents treated)</td>
</tr>
</tbody>
</table>

**Caution:** In CA/HCA/CAplus/HCAplus/ZCA/ZCAplus the charges for each SELECT are considerable (for fields from both patent or non-patent documents). Consider preferring ANALYZE.

**Note:** To create patent statistics including graphical representations the ANALYZE PLUS function of STN Express is most useful.

51.5 **Displaying a results table – TABULATE**

By using the TABULATE command the data from two fields of an ANALYZE result can be displayed in a tabular format (this goes also for an already edited result). This way it is possible to see e.g. a list of patent assignees and the number of their applications over time.

When entering a TABULATE command it has to be specified whether the result is to be displayed in a tabular format or as a delimited list (for later processing by a spreadsheet or presentation program, e.g. Excel). It is not possible to get both types of display by just one TABULATE command.

Tabular format:

```plaintext
=> TABULATE L2 PA PR
```

Delimited format:

```plaintext
=> TABULATE L2 PA PR DELIMITED
```

For the tabular format again there are two options:

- Default format
- GRID

TABULATE should be used in beginner’s mode. For later processing e.g. by Excel, the GRID format can be used. This format displays a two-dimensional table, displaying the terms of the primary display code in rows and the terms of the secondary code in columns. The number of documents for each combination of terms is displayed in the respective intersection.

```plaintext
=> TABULATE L2
DISPLAY AS GRID FORMAT (N), Y, OR ?: Y
ENTER PRIMARY DISPLAY CODE OR (?) : PA
ENTER SECONDARY DISPLAY CODE OR (?) : PRY
DISPLAY PRIMARY (TOP 10), ENTIRE OR ? :.
PRIMARY SORT ORDER (CURRENT), DOC, ALPHA, OR ?: DOC
```
Types of search

PRIMARY SORT DIRECTION (DEFAULT), A, D, OR ?: D
SECONDARY SORT ORDER (CURRENT), DOC, ALPHA, OR ?: ALPH
SECONDARY SORT DIRECTION (DEFAULT), A, D, OR ?: A
A FEE WILL BE CHARGED. PROCEED? (Y), N, OR ?: Y
L2 ANALYZE L1 1- PA PRY PRC : 1164 TERMS
(AFTER EDITS: 1139 TERMS)

PRY

-------------------------
--- --- --- --- --- --- --- --- --- --- --- --- ---

KOENIG & BAUER AG 165 99 99 72 64 40 25 27 16 2
MANROLAND AG 30 19 59 87 104 123 101 45 17 10 1
KOMORI CORPORATION 14 18 11 25 19 41 17 7 13 15 1
GOSS INTERNATIONAL 10 16 15 29 14 15 30 11 18 11 0
MITSUBISHI HEAVY IND 9 3 8 6 28 25 20 12 5 0 0
HEIDELBERGER DRUCK AG 3 8 12 6 23 20 9 7 0 8 0
WINDMOELLER & HOELSCHER KG 12 10 9 5 11 10 11 6 6 5 2
WE FAG MASCHENFABRIK 4 4 8 9 10 12 10 7 1 1 0
TECHNOTRANS AG 2 4 6 6 18 14 6 1 1 0 0
BALDWIN N 10 8 11 6 2 2 8 3 2 0 0

REFORMAT USING SAME DISPLAY FIELDS? (N), Y, OR ?: Y

For the sort order the default should be used, or else these rules be observed in order to obtain a useful display:

- Doc (sort by number of documents) → D (descending)
- Alp (alphabetical order) → A (ascending)

The table can be resorted without extra cost. If the same data is wanted in DELIMITED format a new TABULATE command must be entered, though.

REFORMAT USING SAME DISPLAY FIELDS? (N), Y, OR ?: Y
DISPLAY AS GRID FORMAT (N), Y, OR ?: N
EXCHANGE PRIMARY AND SECONDARY DISPLAY FIELDS (N), Y, OR ?:.
DISPLAY PRIMARY (TOP 10), ENTIRE OR ?:.
DISPLAY SECONDARY (TOP 10), ENTIRE OR ?:.
PRIMARY SORT ORDER (CURRENT), DOC, ALPHA, OR ?:.
PRIMARY SORT DIRECTION (DEFAULT), A, D, OR ?:.
SECONDARY SORT ORDER (CURRENT), DOC, ALPHA, OR ?:.
SECONDARY SORT DIRECTION (DEFAULT), A, D, OR ?:.
L2 ANALYZE L1 1- PA PRY PRC : 1196 TERMS
(AFTER EDITS: 1167 TERMS)

TERM # # DOC % DOC PA PRY
----- ------ ------ --------- ---------
2 652 16.23 KOENIG & BAUER AG
 2 0.05 -- 2012
 16 0.40 -- 2011
 27 0.67 -- 2010
 25 0.62 -- 2009
 40 1.00 -- 2008
 64 1.59 -- 2007
 91 2.26 -- 2006
 72 1.79 -- 2005
 99 2.46 -- 2004
 99 2.46 -- 2003
6 545 13.56 MANROLAND AG
 1 0.02 -- 2012
 10 0.25 -- 2011
 17 0.42 -- 2010
 45 1.12 -- 2009
 101 2.51 -- 2008
 123 3.06 -- 2007
 104 2.59 -- 2006
 87 2.17 -- 2005
 59 1.47 -- 2004
 19 0.47 -- 2003
...
51.5.1 Using the results in a spreadsheet program

If the statistical data are to be processed in a spreadsheet program the DELIMITED format should be used:

```
=> TABULATE L2 DELIMITED
DISPLAY AS GRID FORMAT (N), Y, OR ?: N
ENTER PRIMARY DISPLAY CODE OR (?) : PA
ENTER SECONDARY DISPLAY CODE OR (?) : Pry
DISPLAY PRIMARY (TOP 10), ENTIRE OR ?: .
DISPLAY SECONDARY (TOP 10), ENTIRE OR ?: ENTIRE
PRIMARY SORT ORDER (CURRENT), DOC, ALPHA, OR ?: DOC
PRIMARY SORT DIRECTION (DEFAULT), A, D, OR ?: D
SECONDARY SORT ORDER (CURRENT), DOC, ALPHA, OR ?: ALPH
SECONDARY SORT DIRECTION (DEFAULT), A, D, OR ?: D
L2 ANALYZE L1 1 - PA PRY PRC : 1196 TERMS
(AFTER EDITS : 1167 TERMS)
```

2; 0.05; KOENIG & BAUER AG; 2012
16; 0.40; KOENIG & BAUER AG; 2011
27; 0.67; KOENIG & BAUER AG; 2010
25; 0.62; KOENIG & BAUER AG; 2009
40; 1.00; KOENIG & BAUER AG; 2008
64; 1.59; KOENIG & BAUER AG; 2007
91; 2.26; KOENIG & BAUER AG; 2006
72; 1.79; KOENIG & BAUER AG; 2005
99; 2.46; KOENIG & BAUER AG; 2004
99; 2.46; KOENIG & BAUER AG; 2003
165; 4.11; KOENIG & BAUER AG; 2002
37; 0.92; MANROLAND AG; 2001
1; 0.02; MANROLAND AG; 2012
10; 0.25; MANROLAND AG; 2011
17; 0.42; MANROLAND AG; 2010
45; 1.12; MANROLAND AG; 2009
101; 2.51; MANROLAND AG; 2008
123; 3.06; MANROLAND AG; 2007
104; 2.59; MANROLAND AG; 2006
87; 2.17; MANROLAND AG; 2005
53; 1.47; MANROLAND AG; 2004
19; 0.47; MANROLAND AG; 2003
30; 0.75; MANROLAND AG; 2002
1; 0.02; MANROLAND AG; 2001
1; 0.02; KOMORI CORPORATION; 2012
15; 0.37; KOMORI CORPORATION; 2011
13; 0.32; KOMORI CORPORATION; 2010
7; 0.37; KOMORI CORPORATION; 2009
17; 0.42; KOMORI CORPORATION; 2008
...

REFORMAT USING SAME DISPLAY FIELDS? (N), Y, OR ?: N

This table with the 'semicolon' as separator can easily be copied to the spreadsheet program (in this example Excel) and be processed there.

Procedure:

- Copy to Excel (Select/Copy/Paste)
- Make a spreadsheet (Data/Text in columns/Separator: Semicolon, Delete % column, Delete empty column, Enter column titles)
- Make a PIVOT table (Data/PIVOT table)
- Make a 3D diagram (Diagram wizard, show diagram on a new sheet, copy diagram and paste it e.g. to Word)
Types of search

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<td>252</td>
<td>124</td>
<td>98</td>
<td>66</td>
<td>6</td>
<td>2129</td>
</tr>
</tbody>
</table>

51.6 Using STN Express

STN Express has two tools for analyses (from version 7.0):

- **ANALYZE:**
  - To analyse one or two fields from an answer set
  - To create diagrams

- **ANALYZE PLUS:**
  - To analyse one or two fields from an answer set
  - To group/edit the lists and save the results
  - To create diagrams and an interactive Excel matrix; displaying STN documents is possible
Guide to STN Patent Databases

– To save tabular data (.TBN) for off-line or on-line processing in order to create new diagrams (from version 8.0)

An example using ANALYZE PLUS is shown here:

=> FIL WPINDEX
=> S B60R0021-01+NT/IPC AND PRYF>=1998
L1 4383 B60R0021-01+NT/IPC AND PRYF>=1998

Click on the L number (L1) to produce a menu where ANALYZE PLUS is selected. (There is also an option in the menu to save the search result for processing with the STN Anavist software: Save for STN Anavist.)

This calls the Analyze Plus Wizard (STN Express 8.0):

Here you can choose between

- One field analysis
- Two field analysis

For our example choose Two field analysis (a One field analysis example see the “ANALYZE” search example). Further the fields to be analysed are selected. Some of these are shown in the window; if the desired field is not shown here it can be added by clicking Options.

Group similar terms should always be activated when the Patent Assignee is analysed; this will automatically group similar Patent Assignee names.

Capture delimited tabulation data for later use should be activated if you are going to create off-line or on-line Excel files or if you wish to group/edit the lists off-line.
Types of search

This is the Options window:

Here you can enter the desired fields as Custom fields. For Terms to view 10 is selected. The sort order for the Patent Assignee should be by frequency, and for the Priority Year alphanumerically. Click OK when ready. The previous window will reappear and you can click ANALYZE. If Capture delimited tabulation data for later use was activated a Save as dialog will appear to create a TBN file which is used to save the statistics results.

Then the analysis is performed. If Two field analysis was selected a TABULATE will be done. This may take some time, in particular with big answer sets. After that the Excel files and Excel diagrams are created. For this the system automatically changes to the STNGUIDE file (free of charge).

The Data Group Tool shows all Patent Assignee names, even if only the top 10 names were wanted. The reason for this is shown below. After the analysis or when the TBN file is opened this window will open to group the first field:

The Patent Assignee Code / Patent Assignee present in the answer set are listed in alphabetical order. Having activated Group similar terms in the Analyze Plus Wizard similar names have already been grouped automatically. This list should be checked and if necessary more names can be grouped here. The result can be saved with Save changes to data groupings. The list can then be edited off-line later and is immediately available for further analysis (in STN Express). Here is an example with grouped entries for 'TRW':

359
More information on grouping Patent Assignee names can be found in the search examples.

With Next the window for the second field is displayed:

No changes are needed here. Finish starts the creation of the Excel tables and diagrams.

Excel will be opened automatically and ‘Workbook 1’ (interactive) and ‘Sheet 1’ (Excel table only) will be created.

The table created, ‘Cross-Tab’, is interactive, i.e. you can click on a field to see the respective documents in a free format. Other formats to be displayed can be selected from a menu. (If you are off-line STN Express will automatically open the Login window to connect to STN.)
When you click on one of the above fields this window will be displayed:

The interactive diagram ‘3-D Column’ possibly just shows part of the picture where you can choose the start and end (see Excel’s menu). As our example is with 10 Patent Assignees only this diagram shows the complete picture. This diagram can be edited (e.g. delete lines, change colours, display a legend, etc.) or a different type of diagram be selected.
Other views/diagrams can be created easily (columns, bars, lines, circles, etc.):

A second Excel file is created that contains the raw data for processing. Here are the table and the diagram that can be opened:
Types of search
Creating the diagrams from saved tabular data (STN Express from version 8.0):

The STN Online and Results menu offers for example:

- Edit Data Group File: to edit the grouped lists (PA, PAS, etc.) off-line if they were saved
- Create Analyze Plus chart from saved data: to start creation of new Excel tables and diagrams with the previously saved TBN file. This file contains all the tabular data and is not limited, e.g. to the most frequent Patent Assignees. So these data can be used to create completely new diagrams.

51.7 ANALYZE or ANALYZE PLUS?

By using the ANALYZE command one can analyse the data from a number of fields in one step and then display the results. There are several options for the analysis and to format the results display. Considerable time may be needed to edit table data (e.g. Patent Assignee names) and to create Excel tables and diagrams.

When using ANALYZE PLUS the fields to be analysed need to be dealt with individually. This is likely to cause higher off-line cost. Fewer sort options for the documents are available. Anyway, using the available tools the statistical analysis including any diagrams can be created quickly, minimising the required working time. This way good quality diagrams can be created even without in-depth knowledge of the Excel software.

51.7.1 Combining the ANALYZE command and ANALYZE PLUS

- If you wish to perform analysis on several fields you may save cost by entering one ANALYZE command on all desired fields together in the first step. ANALYZE PLUS is then applied for each each desired visualization (One-Field-Analysis, Two-Field-Analysis). If you wish for example to analyse four fields (One Field Analysis) you will be charged 1 ANALYZE command plus 4 ANALYZE PLUS rather than 4 ANALYZE commands plus 4 ANALYZE PLUS.
- The Data Group function of ANALYZE PLUS lists all entries (e.g. Patent Assignee names) in alphabetical order only. This means there is no ranking and one would in theory have to edit all the names even if one is interested in the 20 most frequent companies only. Therefore you could first use the ANALYZE command and display the list sorted by rank. Then you start ANALYZE PLUS. When grouping you concentrate on the companies ranking highest. This procedure does not produce any extra charges.
- The charge for ANALYZE PLUS is applied when ‘Finish’ is clicked after the fields have been edited. If you cancel the command (e.g. due to an error) no charge applies. This is why it is also a good idea to first perform ANALYZE in order to keep any intermediate results.
51.7.2 Cost

<table>
<thead>
<tr>
<th>Types of search</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANALYZE</td>
<td>1-1 000 answers</td>
<td>1 001-10 000 answers</td>
<td>10 001-50 000 answers</td>
</tr>
<tr>
<td>Cost</td>
<td>€34,25</td>
<td>€54,60</td>
<td>€83,20</td>
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</table>

<table>
<thead>
<tr>
<th>TABULATE</th>
<th>Always follows an ANALYZE or TABULATE command</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>€90,10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Types of search</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANALYZE PLUS</td>
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<td>1 001–10 000 answers</td>
<td>10 001–50 000 answers</td>
</tr>
<tr>
<td>Cost</td>
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<td>€68,70</td>
<td>€112,60</td>
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</table>

<table>
<thead>
<tr>
<th>ANALYZE PLUS</th>
<th>One-field</th>
<th>Two-field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>ANALYZE (Level 1, 2 or 3) + ANALYZE PLUS (Level 1, 2 or 3)</td>
<td></td>
</tr>
<tr>
<td>Level 2</td>
<td>ANALYZE (Level 1, 2 or 3) + TABULATE + ANALYZE PLUS (Level 1, 2 or 3)</td>
<td></td>
</tr>
<tr>
<td>Cost</td>
<td>€88,85...195,80</td>
<td>€178,95...285,90</td>
</tr>
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</table>

It is a good idea to first perform ANALYZE and then ANALYZE PLUS.

51.8 Summary: SELECT, ANALYZE, ANALYZE PLUS

51.8.1 SELECT

Use: Creation of rankings / time series from the search results in a database

Options: Some options for display of lists

Maximum number of terms to be extracted / documents: 999 terms

Editing of tables: Editing or sorting the lists, e.g. patent assignee names, is not possible

Using two or more criteria: Only in succession

Visualization of results: No special support for visualization or transfer to Excel

Functions to improve the relevance of the search result / sample: The SELECT result can be used for further searching to obtain a new (more relevant) sample.

Conclusion: Because of its limited options in particular for the treatment and display of the results SELECT is rather a tool to improve a search strategy (e.g. to find appropriate classifications or keywords) than a real statistics tool.

51.8.2 ANALYZE / TABULATE

Use: Creation of statistical tables

Options: Many options for display and sorting of lists

Maximum number of terms to be extracted / documents: 50 000 documents

Editing of tables: Editing the lists, e.g. patent assignee names, is possible

Using two or more criteria: Criteria can be edited at the same time, two criteria can be displayed in one table.

Visualization of results: Visualization and transfer of results to Excel is supported.

Functions to improve the relevance of the search result / sample: The ANALYZE result can be used for further searching to obtain a new (more relevant) sample.

Conclusion: ANALYZE and TABULATE offer convenient options to create statistical tables. At the same time it is relatively inconvenient to edit the tables (e.g. patent assignee names). For post-processing and visualization a good knowledge of Excel or other software tools is needed.
51.8.3 ANALYZE PLUS

<table>
<thead>
<tr>
<th>Use:</th>
<th>Menu based creation of statistical tables including visualization.</th>
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<tr>
<td>Options:</td>
<td>Necessary options for display and sorting of lists.</td>
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<td>Maximum number of terms to be extracted / documents:</td>
<td>50,000 documents</td>
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<tr>
<td>Editing of tables:</td>
<td>Efficient editing of the lists, e.g. patent assignee names, is supported</td>
</tr>
<tr>
<td>Using two or more criteria:</td>
<td>One or two criteria can be edited and displayed in a table or diagram.</td>
</tr>
<tr>
<td>Visualization of results:</td>
<td>Visualizations can be created quickly and easily. Table data are available in Excel format for post-processing.</td>
</tr>
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<td>Functions to improve the relevance of the search result / sample:</td>
<td>ANALYZE PLUS should only be applied to the result of a search with an optimized search strategy. It can be used in combination with ANALYZE to treat and visualize a sample to obtain a new (and more relevant) one.</td>
</tr>
</tbody>
</table>

**Conclusion:** ANALYZE PLUS is a convenient menu-guided option of the STN Express retrieval software to create statistical tables and diagrams. It makes editing the tables (e.g. patent assignee names) easy. It is recommended to combine ANALYZE Plus with the ANALYZE command.

51.9 Using STNext

Any search result can be analyzed with menu navigation. Both a one-field analysis or a two-field analysis can be performed.

It is advisable to download the result of the analysis as a CSV file and use this file for further processing and visualization.

51.10 Database dynamics and its influence on statistical analysis results

<table>
<thead>
<tr>
<th>Database</th>
<th>Dynamics principle used</th>
<th>Notes on statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static principle</td>
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<td></td>
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<td></td>
<td></td>
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<tr>
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## Types of search

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<td><strong>Dynamic principle</strong></td>
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<td>Patent family (one document per invention) influences the statistical analysis</td>
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<tr>
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<td>- No influence by family size</td>
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<td>- There is a PRYF field (Priority Year First) for the patent family/document</td>
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<td>- Useful for a large variety of statistics problems</td>
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<td>DWPI</td>
<td>One (sometimes more than one) document for each patent family, the fields are updated.</td>
<td>Invention level: Patent family (usually one document per invention) goes into the analysis:</td>
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<tr>
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<td>- Analysis can be limited to Basic Patents</td>
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<tr>
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<td></td>
<td>- There is a PRYF (Priority Year First) field for the whole patent family/the document</td>
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<td></td>
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<td>- Useful for a large variety of statistics problems</td>
</tr>
<tr>
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</tr>
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<td>CAPLUS</td>
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<td>Patent family (usually one document per invention) goes into the analysis:</td>
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<td></td>
<td>- Influence of the family size is nearly eliminated (only if the family has numerous documents in DWPI this may influence the statistics result)</td>
</tr>
<tr>
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<td>- Analysis can be limited to Basic Patents</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- There is a PRYF (Priority Year First) field for the whole patent family/the document</td>
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<tr>
<td></td>
<td></td>
<td>- Useful for a large variety of statistics problems</td>
</tr>
<tr>
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<td></td>
<td></td>
</tr>
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<td>PATDPA</td>
<td>One document for each patent procedure, fields are updated or overwritten. More than one document may belong to the same patent family (DE, EP, WO, German application number for EP applications, translation of EP and WO documents). There may be separate documents of national family members (Internal Priority, Division, Division into Utility model, Additional patents, etc.)</td>
<td>- The database has fields holding only data of the latest publication (PI, PK, etc.). Using these the influence of updates to the document may be eliminated. Other fields hold data of all publications (PI.M, PK.M, etc.).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Each patent procedure goes into the analysis:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o The family size influences the statistics result</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o The answer set to be analysed should be limited to one country and type of publication</td>
</tr>
<tr>
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<td></td>
<td>- No longer updated from 7/2011</td>
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<td>DPCI</td>
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<td></td>
<td></td>
<td>- DWPI should be used for statistics using bibliographical data (completeness)</td>
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<td>- Useful for citation statistics</td>
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<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>FRANCEPAT</td>
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<td>- There are no fields limited to the latest publication in the document. Even priorities are updated.</td>
</tr>
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<td>- Thus, the number of publications goes into the statistics result.</td>
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<tr>
<td></td>
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<td>- No longer updated</td>
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<td>Databases with segmentation</td>
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<td></td>
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<tr>
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<td>- The database has fields holding only data of the latest publication (IN, PA, etc.), and others holding data of all publications (IN.M, PA.M, etc.).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Each patent procedure goes into the statistics result:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o The family size influences the statistics result</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o There is a PRYF (Priority Year First) field for the whole patent family (in some cases there may be more than one), each PRYF is counted per document</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o The answer set to be analysed should be limited to one country and type of publication</td>
</tr>
</tbody>
</table>
## Guide to STN Patent Databases

<table>
<thead>
<tr>
<th>Database</th>
<th>Dynamics principle used</th>
<th>Notes on statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUPATFULL</td>
<td>One document for one Australian patent procedure. In case of updates a new segment is entered into the document.</td>
<td>– The database has fields holding only data of the latest publication (IN, PA, etc.), and others holding data of all publications (IN.M, PA.M, etc.).&lt;br&gt;– Useful for statistics of latest publications</td>
</tr>
<tr>
<td>CANPATFULL</td>
<td>One document for one Canadian patent procedure. In case of updates a new segment is entered into the document.</td>
<td>– The database has fields holding only data of the latest publication (IN, PA, etc.), and others holding data of all publications (IN.M, PA.M, etc.).&lt;br&gt;– Useful for statistics of latest publications</td>
</tr>
<tr>
<td>CNFULL</td>
<td>One document for one Chinese patent procedure. In case of updates a new segment is entered into the document.</td>
<td>– The database has fields holding only data of the latest publication (IN, PA, etc.), and others holding data of all publications (IN.M, PA.M, etc.).&lt;br&gt;– Useful for statistics of latest publications</td>
</tr>
<tr>
<td>DEFULL</td>
<td>One document for one German patent procedure. In case of updates a new segment is entered into the document.</td>
<td>– The database has fields holding only data of the latest publication (IN, PA, etc.), and others holding data of all publications (IN.M, PA.M, etc.).&lt;br&gt;– Useful for statistics of latest publications</td>
</tr>
<tr>
<td>EPFULL</td>
<td>One document for the regional (EP) or international (Euro-PCT) patent procedure. In case of updates a new segment is entered into the document.</td>
<td>– The database has fields holding only data of the latest publication (IN, PA, etc.), and others holding data of all publications (IN.M, PA.M, etc.).&lt;br&gt;– Useful for statistics of latest publications</td>
</tr>
<tr>
<td>FRFULL</td>
<td>One document for one French patent procedure. In case of updates a new segment is entered into the document.</td>
<td>– The database has fields holding only data of the latest publication (IN, PA, etc.), and others holding data of all publications (IN.M, PA.M, etc.).&lt;br&gt;– Useful for statistics of latest publications</td>
</tr>
<tr>
<td>GBFULL</td>
<td>One document for one British patent procedure. In case of updates a new segment is entered into the document.</td>
<td>– The database has fields holding only data of the latest publication (IN, PA, etc.), and others holding data of all publications (IN.M, PA.M, etc.).&lt;br&gt;– Useful for statistics of latest publications</td>
</tr>
<tr>
<td>INFULL</td>
<td>One document for one Indian patent procedure. In case of updates a new segment is entered into the document.</td>
<td>– The database has fields holding only data of the latest publication (IN, PA, etc.), and others holding data of all publications (IN.M, PA.M, etc.).&lt;br&gt;– Useful for statistics of latest publications</td>
</tr>
<tr>
<td>JPFULL</td>
<td>One document for one Japanese patent procedure. In case of updates a new segment is entered into the document.</td>
<td>– The database has fields holding only data of the latest publication (IN, PA, etc.), and others holding data of all publications (IN.M, PA.M, etc.).&lt;br&gt;– Useful for statistics of latest publications</td>
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<td>KRFULL</td>
<td>One document for one Korean patent procedure. In case of updates a new segment is entered into the document.</td>
<td>– The database has fields holding only data of the latest publication (IN, PA, etc.), and others holding data of all publications (IN.M, PA.M, etc.).&lt;br&gt;– Useful for statistics of latest publications</td>
</tr>
<tr>
<td>PATDD</td>
<td>One document for one DD procedure. In case of updates a new segment is entered into the document.</td>
<td>– The fields hold data of the full database document, i.e. the same invention may go into the statistics result multiple times.</td>
</tr>
<tr>
<td>PATDPFULL</td>
<td>One document for one German patent procedure. In case of updates a new segment is entered into the document.</td>
<td>– The database has fields holding only data of the latest publication (IN, PA, etc.), and others holding data of all publications (IN.M, PA.M, etc.).&lt;br&gt;– Useful for statistics of latest publications</td>
</tr>
<tr>
<td>Database with separate documents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IFIALL</td>
<td>A new document for each update of a US application or patent.</td>
<td>– Each member of the national patent family is entered into a new document (Continuation, Division, Reissue, etc.)&lt;br&gt;– Each update level goes into the statistics result (maximum two)&lt;br&gt;– A patent assignee is often not available for patent applications</td>
</tr>
</tbody>
</table>
51.10.1 Note on databases with segmentation

In these databases (INPADOCDB, PATDPAFULL, EFPFULL, and others) there are SELECT fields relating to the most recent publication only. These are the fields without an appended .M, e.g. IN, PA. For many of these fields there is an equivalent field with an appended .M, e.g. IN.M, PA.M. These always relate to all publications included in the record, i.e. all publications from the same patent procedure.

For the purposes of a statistical analysis one should prefer the fields relating to the most recent publication only so the varying number of publications does not go into the statistics result. The .M fields were omitted from the tables in the sections below for better clarity.

51.10.2 Note on databases with dynamic principle and family based documents (DWPI, DPCI, CAPLUS and INPAFAMDB)

In these databases the PI field of a document contains the details for a whole patent family. It is possible to either include all family members into the statistical analysis or the Basic Patent only. To include the Basic only the fields with appended .B have to be used (DWPI and CAplus).

In CAPLUS there may be two Basics for applications from US, DE, GB, FR, CA or EP on the one hand and the corresponding WO application on the other (see the CAPLUS database description). A reference to the other document can be found in the SO field: Chemical Indexing Equivalent to... These “duplicate” documents should be removed from the answer set before performing any statistics:

- Remove the equivalent WO documents:

  => S 98-01-1/BUU AND P/DT
  L1 32 98-01-1/BUU AND P/DT

  => S L1 NOT (CHEMICAL INDEXING EQUIVALENT/SO AND WO/PC.B)
  L2 30 L1 NOT (CHEMICAL INDEXING EQUIVALENT/SO AND WO/PC.B)

- Remove the equivalent national documents:

  => S L1 NOT (CHEMICAL INDEXING EQUIVALENT/SO NOT WO/PC.B)
  L3 30 L1 NOT (CHEMICAL INDEXING EQUIVALENT/SO NOT WO/PC.B)

So there were 2 inventions in the answer set where the indexing was spread to two documents.

In INPAFAMDB there is no Basic but the field PN.B can be used for statistics purposes — this is the oldest of all patent publications in the family (however, PD.B, PK.B, etc. do not exist). For other fields, e.g. applicant, inventor, classification, the statistics cannot be limited to one member of the family (one publication may have more than one entry anyway). This means that for example several applicants or inventor names or even spellings (a particular feature of INPAFAMDB) and also several IPC codes of a document go into the statistical analysis. In this type of database it is thus more useful to use the documents count (#DOC) rather than the occurrences count (#OCC) for evaluation.

L8 ANALYZE L7 1-1000 PA : 1353 TERMS
TERM #  # OCC  # DOC  % DOC PA
------- ------- ------- ------- -------
1 32 25 2.50 LG ELECTRONICS INC.
2 32 19 1.90 SANYO ELECTRIC CO., LTD.
3 25 19 2.50 SANYO ELECTRIC CO LTD
4 23 23 2.30 BEIJING XINGZHE MULTIMEDIA TECHNOLOGY CO., LTD.
5 23 8 0.80 APPLIED MATERIALS, INC.
Guide to STN Patent Databases

6 19 4 0.40 SOLYNDRA, INC.
7 17 16 1.60 SHARP KABUSHIKI KAISHA
8 17 11 1.10 JUSUNG ENGINEERING CO., LTD.
9 16 5 0.50 EMCORE CORPORATION
10 16 1 0.10 APPLE INC.

As SELECT always counts occurrences this is only of limited use.

In order to obtain a more correct result in particular the applicant and inventor names should be edited.

DPCI is a database specially adapted to citations and thus also citation statistics. Any statistics on bibliographical data and classifications should therefore be performed in DWPI.

51.11 Specific statistical problems

51.11.1 Statistics by time

Time series help to survey the development of a field of technology or a company in the past and to estimate its further development. For evaluation purposes often a number of time series are presented together to allow comparing e.g. a number of companies.

In most cases a chronological order based on years is sufficient. As a rule it is advisable to use Priority years (PRY, or first priority year PRYF). Based on the priority years a comparison of inventor activities can be made without taking into account the varying periods of examination procedures, for example. (Often analyses based on the Publication year only can be found. The timeliness shown this way is only an ostensible one – publications of the current year refer basically to inventor activities that took place at least one and a half years earlier.)

For the evaluation of patent citations it is advantageous to use the Publication date (PD, or Publication year PY), though. (First, patents or other literature can be cited only after publication, anyway. Second, most citations are introduced during examination, i.e. shortly before publication.)

If a more refined grouping in quarters and months is required, it is necessary to use the full date (Priority date PRD or First priority date PRDF, respectively; Publication date PD; Application date AD). The date is selected according to the YYYYMMDD pattern. The LEN option of the SELECT command may be used. Using e.g. SEL LEN 6 restricts the date to the month. To do a quarterly evaluation a number of months have to be combined accordingly; there is no quarter-specific option available.

As a rule, it is necessary to re-sort the list subsequently as the SELECT command creates a list in descending occurrence order. If a list was created by ANALYZE the answer will be sorted automatically after D ALPHA is entered.

Within the same record often several dates of the same type can be found together, e.g. due to combined priorities. In some databases (see table below) SELECTing can be done in the fields PRDF (date) or PRYF (year) and this way be restricted to the oldest priority. In the other databases it is not possible to eliminate this effect (except to download all records and examine them individually).

In a number of databases (PATDD, USPATFULL, USPAT2, IFIALL) the priority field exists only for those documents where a priority has actually been claimed.

In a number of databases (PCTFULL, PATDPAFULL, FRFULL) the priority fields are not standardised. In both cases the priority field should not be used for statistical purposes.

If in INPAFAMDB the PY field is used in a SELECT this is equivalent to PY.B. If all publication years are wanted in the analysis PY.M must be used.
Types of search

<table>
<thead>
<tr>
<th>Database</th>
<th>Priority</th>
<th>Application</th>
<th>Publication</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUPATFULL</td>
<td>PRD, PRDF, PRY, PRYF</td>
<td>AD, AY</td>
<td>PD, PY</td>
<td>RLD, RLY</td>
</tr>
<tr>
<td>CAPATFULL</td>
<td>PRD, PRDF, PRY, PRYF</td>
<td>AD, AY</td>
<td>PD, PY</td>
<td>RLD, RLY</td>
</tr>
<tr>
<td>CAPPLUS**</td>
<td>PRD, PRDF, PRY, PRYF</td>
<td>AD, AY, AY.B, AY.B</td>
<td>PD, PD.B, PY, PY.B</td>
<td>RLD, RLY</td>
</tr>
<tr>
<td>CANFULL</td>
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<td>PD, PY</td>
<td>RLD, RLY</td>
</tr>
<tr>
<td>CFULL</td>
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<td>AD, AY</td>
<td>PD, PY</td>
<td>RLD, RLY</td>
</tr>
<tr>
<td>DPCI****</td>
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<td>PD, PD.B, PY, PY.B</td>
<td>****</td>
</tr>
<tr>
<td>DWPI** / Invention level</td>
<td>PRD, PRY, PRDF, PRYF</td>
<td>AD, AY***, AY***</td>
<td>PD, PY, PD.B, PY.B</td>
<td></td>
</tr>
<tr>
<td>EPFULL*</td>
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<td>AD, AY</td>
<td>PD, PY</td>
<td>RLD, RLY</td>
</tr>
<tr>
<td>FRANCEPAT</td>
<td>PRD, PRY</td>
<td>AD, AY</td>
<td>PD, PY</td>
<td>RLD, RLY, ****</td>
</tr>
<tr>
<td>FRFULL</td>
<td>PRD, PRY, PRYF</td>
<td>AD, AY</td>
<td>PD, PY</td>
<td>RLD, RLY</td>
</tr>
<tr>
<td>GBFULL</td>
<td>PRD, PRY, PRYF</td>
<td>AD, AY</td>
<td>PD, PY</td>
<td>RLD, RLY</td>
</tr>
<tr>
<td>IFIALL</td>
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<td>AD, AY</td>
<td>PD, PY</td>
<td>FY, RLD, RLY, RPD</td>
</tr>
<tr>
<td>INFULL</td>
<td>PRD, PRDF, PRY, PRYF</td>
<td>AD, AY</td>
<td>PD, PY</td>
<td>RLD, RLY</td>
</tr>
<tr>
<td>INPADOCDB*</td>
<td>PRD, PRY, PRYF</td>
<td>AD, AY</td>
<td>PD, PY</td>
<td>RLD, RLY</td>
</tr>
<tr>
<td>INPAFAMDB</td>
<td>PRD, PRY, PRYF</td>
<td>AD, AY</td>
<td>PD, PY</td>
<td>RLD, RLY</td>
</tr>
<tr>
<td>JAPIO</td>
<td>PRD, PRY, PRDF, PRYF</td>
<td>AD, AY</td>
<td>PD, PY</td>
<td>RLD, RLY</td>
</tr>
<tr>
<td>JPFULL</td>
<td>PRD, PRDF, PRY, PRYF</td>
<td>AD, AY</td>
<td>PD, PY</td>
<td>RLD, RLY</td>
</tr>
<tr>
<td>KOREAPAT</td>
<td>PRD, PRY</td>
<td>AD, AY</td>
<td>PD, PY</td>
<td>RLD, RLY</td>
</tr>
<tr>
<td>KRFULL</td>
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<td>PD, PY</td>
<td>RLD, RLY</td>
</tr>
<tr>
<td>PATDD*</td>
<td>PRD, PRY, PRDF, PRYF</td>
<td>AD, AY</td>
<td>PD, PY</td>
<td>RLD, RLY</td>
</tr>
<tr>
<td>PATDPA</td>
<td>PRD, PRY</td>
<td>AD, AY</td>
<td>PD, PY</td>
<td>RLD, RLY</td>
</tr>
<tr>
<td>PATDPAFULL*</td>
<td>PRD, PRY</td>
<td>AD, AY, AY.B, AY.B</td>
<td>PD, PD.B, PY, PY.B</td>
<td>RLD, RLY</td>
</tr>
<tr>
<td>PCTFULL</td>
<td>PRD, PRDF, PRY, PRYF</td>
<td>AD, AY</td>
<td>PD, PY</td>
<td>RLD, RLY</td>
</tr>
<tr>
<td>RDISCLOSURE</td>
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<td>PD, PY</td>
<td>RLD, RLY</td>
</tr>
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<td>USPATFULL, USPAT2</td>
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<td>AD, AY</td>
<td>PD, PY</td>
<td>RLD, RLY, RLPY, RPD, RPY</td>
</tr>
</tbody>
</table>

* Databases with segmentation: There are additional fields with an appended .M relating to all publications included in the record. Fields without the appended .M relate to the most recent publication only.

** DWPI, CA, INPAFAMDB: These databases have fields relating to the Basic only (e.g. PY.B). These can be used to eliminate the influence of the family size.

*** Application data are complete from DW 9216 (see the DWPI handbook).

**** DPCI is rather less suited for statistics on bibliographical data. Anyway, this database has a number of fields for citation statistics (see the database description and citation searching).

***** FRANCEPAT: LS.GD, LS.LD, LS.NPD, LS.RD, LS.SD, SPC.AD, SPC.BPI, SPC.DA, SPC.DAD, SPC.GB, SPC.GD, SPC.LD, SPC.PD, SPC.RD

51.11.2 Inventor and Assignee statistics

Evaluation by Inventor or Assignee names is simplified by them being selected as a phrase.

It may happen that different variations of the same name appear in the search result. Every variation will have its own entry in the list; it is up to the user to combine all variations of the name. (For ANALYZE results the EDIT command may be used. Combining the variations needs, however, prior examination of all entries. ANALYZE PLUS offers very good assistance with this.)

Often one record holds multiple names of inventors or assignees. It is not possible to limit the SELECT to e.g. the first name only (with the exception of databases with segmentation, PATDPA, see below). Every entry is SELECTed from the name field separately and counted in the list. Therefore simply adding up the numbers from the list will yield a result different from 100%, in most cases higher than that. This is not an error that would require ‘correction’. Preferably presentation of the results should be done in a way that takes this effect into account.

In an Assignee statistics it should be considered that the names of companies may have changed, e.g. after mergers and acquisitions. This must be taken into account when editing the statistics tables.

In databases with segmentation (INPADOCDB, PATDPAFULL, EPFULL, etc.) it is possible to limit the statistical evaluation to the latest publication level if the IN or PA fields are used in place of the IN.M or PA.M fields.

In DWPI the Patent assignee code (PACO) can be used. This is, however, only advisable for cases where the code is unambiguous, i.e. the largest assignee companies. There is also a field PAX containing both the patent assignee name and the patent assignee code. This field is very useful to edit patent assignee names.
In some of the databases there are a number of fields for the patent assignee: **DWPI** (PA, PACO, PAX), **INPADOCDB/INPAFAMDB** (PA, PAS), **PATDPA** (PA, PAC) and **IFIALL** (PA, PAF). This offers an opportunity to analyse the patenting habit of companies (e.g. co-operation of applicants).

<table>
<thead>
<tr>
<th>Database</th>
<th>Inventor</th>
<th>Patent assignee</th>
<th>Other fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUPATFULL</td>
<td>IN</td>
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<td>IN.CNY</td>
</tr>
<tr>
<td>CANPATFULL</td>
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<td>PA, CS</td>
<td>AG, AG.CNY, IN.CNY, PA, PA.CNY, PA.NAT, PA.RES, PA.T, PAA</td>
</tr>
<tr>
<td>CAPLUS</td>
<td>AU, IN</td>
<td>CS, PA</td>
<td>PB, PUI</td>
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<td>PA, CS</td>
<td>IN.CNY, PA.CNY</td>
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<td>DEFULL</td>
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<td>PA, CS</td>
<td>IN.CNY, PA.CNY</td>
</tr>
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<td>DPCI***</td>
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<td>PA</td>
<td>PACO</td>
</tr>
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<td>DWPI / Invention level</td>
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<td>PA</td>
<td>PACO, PAX</td>
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<td>AG, AG.CNY, AG.CTY, IN.CNY, IN.COM, IN.CTY, IN.STR, PA.CNY, PA.CTY, PA.DS, PA.STR, PA.A, PAN</td>
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<td>FRANCEPAT</td>
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<tr>
<td>FRFULL</td>
<td>IN</td>
<td>PA, CS</td>
<td>PA.CNY</td>
</tr>
<tr>
<td>GBFULL</td>
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<td>PA, CS</td>
<td>PA.CNY</td>
</tr>
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<td>PA, PAF, PACO</td>
<td>AG (LREP), EXNAM</td>
</tr>
<tr>
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<td>PA, CS</td>
<td>IN.CNY, PA.CNY</td>
</tr>
<tr>
<td>INPADOCDB*</td>
<td>AU, IN, INS</td>
<td>CS, CS.M, PA, PAS</td>
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<tr>
<td>INPAFAMDB</td>
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<td>CS, CS.M, PA, PAS</td>
<td>INA**, PAA**, LS.IN, LS.PA, LS.OP, LS.AG</td>
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<tr>
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<td>IN.CNY, PA.CNY</td>
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<td>INA, PAA</td>
</tr>
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<td>PA, PAC, PAO</td>
<td>INA**, PAA**, PAN, AG</td>
</tr>
<tr>
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<td>PA</td>
<td>INA*, PAA*</td>
</tr>
<tr>
<td>PCTFULL</td>
<td>IN</td>
<td>PA</td>
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</tr>
<tr>
<td>RDISCLOSURE</td>
<td></td>
<td>PA, CS</td>
<td></td>
</tr>
<tr>
<td>USPATFULL, USPAT2</td>
<td>IN</td>
<td>PA</td>
<td>IN.CTY, PA.CTY, IN.CNY, PA.CNY, IN.ST, PA.ST, IN.ZIP, PA.ZIP, AG (LREP), EXNAM</td>
</tr>
</tbody>
</table>

* Databases with segmentation: There are additional fields with an appended .M relating to all publications in the record. Fields without this appended .M relate to the most recent publication only.
**Selects address details, limited use for statistics purposes.**

***DPCI is rather less suited for statistics on bibliographical data. Anyway, this database has a number of fields for citation statistics (see the database description and citation searching).***

### 51.11.3 Country statistics

Country statistics are helpful to find:

- Countries of origin of inventions (Priority countries: `SEL PRC`),
- Destination countries of applications (Application countries: `SEL AC`; Publication countries: `SEL PC`; Designation countries: `SEL DS`)

The country information is selected as two-letter codes, thus making evaluation quite easy.

```plaintext
=> SEL L1 1. PRC
E1 THROUGH E7 ASSIGNED
=> D SEL
E1 28 US/PRC
E2 20 JP/PRC
E3  7 GB/PRC
E4  4 DE/PRC
E5  2 NL/PRC
E6  1 AU/PRC
E7  1 FR/PRC
```

When analysing destination countries the Designated states of European (EP) and PCT (WO) applications must be considered. In the application often a number of countries is designated which are not maintained later when this would incur costs. Therefore it should be considered if the DS field is taken into account for the statistics (depending on the database used, probably for granted patents only).

In some databases the priority field is only available if a priority has actually been claimed. In these databases it may be necessary to include both priority countries (`PRC`) and application countries (`AC`) to evaluate on countries of origin.

To allow the country of filing to be included in statistics for WO applications, the fields PRC.WO and AC.WO were introduced in INPADOCDB/INPAFAMDB.

```plaintext
=> FIL INPADOCDB
=> S B81B007/1 PC AND WO/PC
L9 540 B81B007/1 PC AND WO/PC
=> SEL 1. AC.WO
E1 THROUGH E22 ASSIGNED
=> D SEL E1:10
E1 262 US/AC.WO
E2  58 EP/AC.WO
E3  34 AU/AC.WO
E4  34 DE/AC.WO
E5  31 JP/AC.WO
E6  29 IB/AC.WO
E7  24 FR/AC.WO
E8  12 SE/AC.WO
E9   9 GB/AC.WO
E10  8 FI/AC.WO
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Invention level
Guide to STN Patent Databases

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* Databases with segmentation: There are additional fields with an appended .M relating to all publications in the record. Fields without this appended .M relate to the most recent publication only.
** DWPI, CA, INPAFAMDB: These databases have fields relating to the Basic only (e.g. PY.B). These can be used to eliminate the influence of the family size.
*** Application data are complete from DW 9216 (see the DWPI handbook).
**** DPCI is rather less suited for statistics on bibliographical data. Anyway, this database has a number of fields for citation statistics (see the database description and citation searching).

51.11.4 Subject statistics (Classifications)

To create a statistics by subject field, use of the International Patent Classification is appropriate in most cases.

51.11.4.1 IPC1-7

Often the evaluation of the main classification (ICM) is sufficient, although in many cases it is advisable to additionally use the secondary classification (ICS), or both (IC).

In some databases (mainly CA, IFIClaims) in particular older documents often do not have separate ICM and ICS fields. Instead there is only a combined IC field, which should be used for statistics.

In DWPI re-classification of the back-file/reload may affect the ICM or ICS fields. These fields should therefore not be used any more, even for publications before 2006.

Depending on the required aggregation level (restriction of the evaluation to higher hierarchical IPC levels) either file-specific SELECT fields or the LEN option may be used.

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<thead>
<tr>
<th>Level</th>
<th>Example (STN format)</th>
<th>Field</th>
<th>LEN Option</th>
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</table>

The SCG, etc., and SCL, etc., fields do not exist in some of the databases. The LEN option can be used in all of the databases.

Databases with segmentation: There are additional fields with an appended .M relating to all publications in the record. Fields without this appended .M relate to the most recent publication only.

In the DPCI, DGENE, and PCTGEN databases classification details are not available.
51.11.4.2 IPC8

The SELECT fields available for IPC8 are:

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<th>Field</th>
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<tr>
<td>IPC.F</td>
<td>Field for statistical analysis, contains the main classification ICM (versions 1–7) and the first IPC codes (IPCI, version 8). <strong>Advantage:</strong> only one code is selected per document. <strong>Problem:</strong> In the guidelines of the WIPO it is only recommended to put the IPC code for the main aspect into the first position, contrary to IPC versions 1–7. The patent offices are not obliged to adhere to this. DE, CA and US do, the EPO does not as such distinction does not exist in the EPC/CPC (codes are arranged in alphabetical order). <strong>Note:</strong> In DWPI and INPADOCDB/INPAFAMDB one IPC.F code is entered per document, in CAplus there may be more than one IPC.F code per document.</td>
</tr>
<tr>
<td>IPC.A</td>
<td>Selects all Advanced Level IPC codes</td>
</tr>
<tr>
<td>IPC.C</td>
<td>Selects all Core Level IPC codes</td>
</tr>
<tr>
<td>IPC.AI</td>
<td>Selects all Advanced Level IPC codes for invention information. <strong>Problem:</strong> There may be more than one Advanced Level code per document.</td>
</tr>
<tr>
<td>IPC.CI</td>
<td>Selects all Core Level IPC codes for invention information. (provides good overview). <strong>Problem:</strong> There may be more than one Core Level code per document.</td>
</tr>
<tr>
<td>IPCI</td>
<td>Selects all initial IPC codes</td>
</tr>
<tr>
<td>IPCR</td>
<td>Selects all re-classified IPC codes</td>
</tr>
</tbody>
</table>

Before performing a statistical analysis always SET ICFORMAT ON to allow for the extra digits of IPC8 codes.

The limitations/extensions of .M and .B do not exist. The most recent level is always selected in databases with segmentation. In DWPI and CA the data from all family members are selected.

In DWPI the codes are deduplicated, i.e. each code in the document goes only once into the statistics. In CA and INPAFAMDB all family members are entered, even if multiple. Therefore the documents count (#DOC) rather than occurrences count (#OCC) should be used.

There are no special fields for the subclass or group. The LEN option has to be used if a limitation is desired.

In addition there is a field IPC relating to the IPC1–8. This selects all IPC codes in the document. In databases with segmentation these codes only relate to the most recent level. This field is often used for statistics purposes despite the classifications not being ranked, as in IPC.F, and there being usually more than one classification in a document. The field IPC.M is also available to analyse all levels.

51.11.4.3 Other classifications

The USCL (US patent classification) is included in these databases: CAPLUS, IFICLAIMS, DWPI, USPATFULL and INPADOCDB/INPAFAMDB.

The EPC and CPC are entered in these databases: INPADOCDB/INPAFAMDB, DWPI, CAplus, RDISCLOSE. The EPC is gradually replaced by the CPC.

Japanese FTERMS are available in CAPLUS from 2004, in DWPI from 1966 and INPADOCDB/INPAFAMDB.

Japanese FI-terms are available in DWPI and INPADOCDB/INPAFAMDB from 1966.

Database-specific manual codes are available in DWPI.

Special statistics fields are available for all classifications. Using the LEN option (SEL LEN 6 or 3) it is possible to analyse the classifications at a higher hierarchy level.

51.11.5 Citation statistics

The DPCI database is recommended for citation statistics (see the database description and “Citation Searching”).

51.12 Common analyses in patent statistics

51.12.1 Market analysis

For the statistical analysis of the applications or patents of a certain field a representative sample is an indispensable preliminary. The sample should be restricted to the field to be analysed as narrow as possible. The sample does not have to hold all relevant documents but only those, which are representative for the field in question. Documents not closely belonging to the analysed field increase the risk of obtaining distorted results.
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An analysis of a market or technology field will usually be preceded by a search by IPC and/or text. The searcher may decide to analyse the results of a previous search or to specially create a search strategy for the statistical analysis only.

Here are a few basic analyses as an example for a given technology field:

**Time series of national applications:** Based on priority years this list allows to estimate inventor activity and its development over the years. The time series may be complemented by the same time series for the most important (i.e. most active) applicants.

**Ranking of applicants:** This list shows the most important companies on the market and their ranking in terms of patent activity. It may be informative to compile this list for a limited period (e.g. five years) or consecutive periods of the same length each. This will make it possible to estimate the development and to find newcomers or dropouts.

**Target countries:** This list yields information on the countries seen as potential markets by the applicants.

**Priority countries of applications:** This list yields information similar to that of the list of applicants (see above), but this time at country level.

Often the analysis of a technology field is complemented with a similar analysis of the most important companies active in the field.

Depending on the problem and technology field this analysis may be limited to certain markets (DE, US, East-Asia, etc.) or so-called Triade patents (combined applications in EP, US, JP).

### 51.12.2 Competitor analysis

This analysis usually follows a name search. In order to better estimate the performance of a company in question often the results are compared to those obtained for the most important companies active in the same market (i.e. technology field or country).

**Time series of applications** The time series (if applicable by field of technology) allows estimating the R&D activity of the company.

**Fields of technology** Based on a list of IPC codes of the applications or patents the main fields of research activity can be found.

**Application countries** The list of application countries allows to conclude on possible prospective market activity.

**Grant ratio** The portion of patents granted after examination to the number of all applications allows to estimate how active the company in question maintains its intellectual property rights.

This may be complemented by the portion of patents lapsed after a certain period of time. For a number of countries this information is available from the legal status data.

Depending on the desired details these can be complemented by further analyses, e.g. a list of the most active inventors from the company, co-operation with other companies (from common applications), competitors (e.g. from the names of opponents – available from PATDPA, EPFULL or INPADOCDB/ INPAFAMDB – or examiner references).

### 51.13 Post-processing

#### 51.13.1 General

Processing the results of a statistical analysis will normally include at least extracting of the data from the transcript file in order to include them into the search report.

For the sake of easier evaluation the numbers from the transcript should be presented in graphical form. Spreadsheet or presentation software can be used for this purpose. Most programs offer a way to import data from ASCII files. The program has to be told the file format, i.e. for the DELIMITED format:

- Data element separator: semicolon (;),
- Record separator: new line (CR–LF).

Often data in columns can be used; this allows making use of a TABULATE GRID display.
Types of search

The ANALYZE PLUS/STN EXPRESS software can be useful to quickly create good quality tables and diagrams. This way is recommendable if a quick, yet attractive result is desired without bothering too much with the spreadsheet or presentation program.

Below the most appropriate types of graphical representation are being discussed in brief without going into detail with the realization in the various software packages.

51.13.2 Time series

Time series are best presented in a line or bar chart.

Figure: Time series of a technology field

For the most recent year a drop of the figures can be seen which is probably not due to reduced inventor activity but to the fact that publication is behind application (e.g. 18 months in DE). At the time when this example was created the data up to 2000 can be considered reliable.

If several time series have to be presented a bar chart quickly becomes difficult to evaluate. In this case a line chart may be more appropriate.

Figure: Time series of a technology field

This example shows the same analysis for the same field of technology but with the data for two applicants added.
51.13.3 Ranking

To present rankings (i.e. for inventor or applicant statistics, country statistics or technology statistics) bar charts can be used.

**Figure**: Ranking of patent assignees (PA) for a technology field

Pie charts are useful for patent statistics in a few exceptional cases only. In most cases SELECT/ANALYZE extracts more than one term from some of the documents. Then the numbers do not ‘sum up’ to the number of documents or the result is different from 100 per cent.
51.14  STN AnaVist™

STN AnaVist is an analysis and visualization tool, which can be used to create statistic tables and diagrams

- to include them in a comprehensive search report (as a file or short report)
- to interactively provide, both for the searcher and for the end user/client, information to evaluate the search result and explore different facets.

It is a prerequisite for this tool that the data in the databases are prepared in a standardised way in order to allow application of uniform criteria for the identification of concepts and meaningful analysis/visualization. So far these databases are included in STN AnaVist: CAPLUS, USPATFULL, PCTFULL, EPFULL, and DWPI.

STN AnaVist automatically performs statistical analyses in the database(s) selected (patent assignee, patent classification, etc.). The fields analysed do not need to, and cannot, be selected by the searcher. This can be seen as an advantage as this does not require the same degree of in-depth knowledge of the databases to obtain good results, as this is the case with the other statistics tools.

51.14.1  Search and data transfer

The search is performed with the STN Express software.

The search strategy may be quite extensive (20,000 documents being the limit) as with STN AnaVist it is possible to limit this to a smaller sample at a later stage.

Transfer of the search result from STN Express or STN on the Web to AnaVist is prepared. (What is transferred are not the full documents but rather access codes for the documents.) STN AnaVist automatically produces a list of titles for a first sifting.

51.14.2  Data analysis and visualization

By activation of the button Start Visualization the analysis and visualization are started.

A number of fields can be selected from the individual databases for the creation of data clusters (Clustering Concepts) to be used for a topological map of the text analysis (Research Landscape):

- Title/Abstract
- Exemplary/First Claim
- All Claims (PCTFULL, EPFULL, USPATFULL only)
- IPC Codes
- Technology Indicators (CAPLUS, USPATFULL only)

The default fields are Title/Abstract. Other combinations of fields can be selected from Custom Fields. If any of the fields have not data in some of the documents Backup fields are used.

51.14.2.1  Creation of bar charts, matrices, lists and topological maps

Once the first visualization of the search result is completed three frames are automatically displayed:
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- Topological map of the text analysis
- Bar chart of companies (patent assignees)
- Matrix of authors/inventors and years

In addition a document frame is provided to display selected titles.

This example was created with the topic Application of radar in motor vehicles in the DWPI database.

Depending on the database representations of other aspects can be displayed:

- Bar chart of the patent countries (application countries)
- Bar chart of patent classifications
- Bar chart of publication years
- Bar chart of priority years/date
- Survey of data clusters (Clustering Concepts)
- Technology Indicators (CAplus and USPATFULL only)
- Document distribution (patent/non-patent literature)
- Derwent Classification (DWPI only)
- Derwent Manual Codes (DWPI only)
- Labels (assigned by user)
- Other matrix representation of two criteria, e.g. Patent assignee and Priority years

An important feature is the interactive linking within the individual analyses and between them. If a selection of a range is made in one frame (bar, column, row, circled area in the topological map) all ranges corresponding to the first are highlighted both in the same frame and in all other frames. This way it is easy to identify e.g. connections in the assignment of IPC codes, co-operation between companies or between companies and inventors.
Types of search

It is also possible to identify e.g. the main areas of activity within a technology field or of companies by IPC, Derwent Classification, Manual Codes, and technical terms in the topological map.

For the example technology Application of radar in motor vehicles the topological map shows two main areas of activity:

1. [Diagram circle 1]
   - Scanner, beam, element array, light, emitter
   - Antenna, body, mount, sensor, active
   - Obstruction, apparatus, response, interrogator, amplifier, oscillator

2. [Diagram circle 2]
   - Road, surface, accident, apps
   - Drive, display, screen, obstacle, operate
   - Image, camera, collision, radar, pulse, transmission
In the topological map, the areas of interest can be enlarged and displayed with more detail. It is possible to improve the clustering of similar documents by keywords if the keywords are edited (text mining). 3D bar charts, which tend to lack clarity, are not available. The results of a linked analysis of two criteria can be represented by means of the interactive display described above or as a matrix. The matrix below shows the patent assignees and priority years.

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<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>Matsu Manufacturing Co.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>Raytheon Co.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>ALPI-ECH</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
</tr>
</tbody>
</table>
```

Even with databases having standardized data it is sometimes necessary to edit the results of the analysis (e.g. inventor, patent assignee). STN AnaVist automatically groups names which are known to the system (CAS Company Thesaurus). Customized groups can be saved for later use in other searches and analyses.
51.14.2.2 Finding main areas of research activity

It should be examined whether it is sufficient to analyse the total result set or if it is possible to find, and analyse, individual subjects/areas of activity in the field. For this, the titles and sometimes further text of the documents should be read. The documents to be read can be identified e.g. by selecting certain ranges (bars, columns, rows, circled area in the topological map). With each selection a list of documents (Highlighted Documents) is produced that can be evaluated.

The topological map can be effectively used here. The area selected in the map was obstruction, apparatus and the document titles resulting were checked. Here, the titles can be marked (highlighted) in four stages to filter them, display, print, etc.

51.14.2.3 Creating subsets and visualization of subsets

In order to limit a sample to a smaller subset a range of documents should be selected in one of the frames (bar, column, row, circled area in the topological map). This produces a list of documents (Highlighted Documents) that can again be analyzed and visualized. This list can be further limited by valuating (assigning Labels) and selection of titles (application of filters) – Drill down from this Bar (the latter may of course also be applied to the whole sample).
In our example the area Applications was circled on the map and maybe some documents selected, then a visualization of this subset was initiated. Now the fields of application can be identified more clearly.

- Collision warning and prevention, driver assistance (collision, predict, obstacle, warn, drive, assistance)
- Recognition of the road surface (road, surface)
- Monitoring the environment of the vehicle (image, camera, display)
- Distance control, vehicles in front (precede, calculate, track, move, obstructs)

Now it must be decided whether more bar charts, tables, evaluated title lists, etc., on these areas of application need to be created, or whether a visualization for each area and further evaluation is to take place. In the title list below Labels were assigned to the documents.

<table>
<thead>
<tr>
<th>Title</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Object detection system for vehicle drive assist system, has determination unit that heath detected object as subject of detection based on determining existing probability of intensity of radio wave with respect to threshold value. VINITEX</td>
<td>Objektidentifizierung</td>
</tr>
<tr>
<td>Radar installation of monopulse system for detecting target object existing in surrounding of vehicle, has stop unit for stopping calculation of azimuth by azimuth calculation unit. VINITEX</td>
<td></td>
</tr>
</tbody>
</table>
51.14.3 Creating the search report

51.14.3.1 Saving the results and producing a report

The individual analyses can be saved in a number of formats for post-processing in order to include them in a printed or electronic search report. Also a short report (1 page) or a detailed report (8-9 pages) can be produced automatically.

51.14.3.2 Transferring the visualization results to end users/clients

Using a so-called Shared Project Login ID the results can be transferred to other users in the company. This allows them to interactively view or further evaluate the results, either alone or together with the searcher. If documents are displayed additional costs may be caused.

51.14.4 Summary

STN AnaVist™ offers these features:

<table>
<thead>
<tr>
<th>Use:</th>
<th>Menu-guided creation of statistical tables, visualization; results can be made available interactively for searcher or end user/client.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Options:</td>
<td>Automatic creation of a number of tables and diagrams, which are known from experience to be useful in patent statistics. Many options for display/marking of links between search results.</td>
</tr>
<tr>
<td>Maximum number of terms to be extracted / documents:</td>
<td>20,000 documents</td>
</tr>
<tr>
<td>Editing of tables:</td>
<td>Editing lists, e.g. patent assignees, is made effective. Effort needed is made lower from the start by the prepared databases.</td>
</tr>
<tr>
<td>Using two or more criteria:</td>
<td>One or two criteria can be evaluated and represented in a table or diagram. The display of two criteria always takes place in tables.</td>
</tr>
<tr>
<td>Visualization of results:</td>
<td>Visualizations are quick and easy to create. Additional visualizations of partial analyses are also possible. Extensive possibilities to display links between the analyses exist.</td>
</tr>
<tr>
<td>Functions to improve the relevance of the search result / sample:</td>
<td>Various possibilities exist to create subsets, i.e. limited samples (selection from the map or the diagrams, labelled documents), and start an analysis and visualization of the subsets.</td>
</tr>
</tbody>
</table>

Conclusion: STN AnaVist is not only a tool to efficiently create single statistical tables and diagrams in high quality. With its interactivity and the possibility to visualize subsets it offers comfortable means to create meaningful search reports (print or electronic with screenshots). Using a Shared Project Login ID the results can even be made available to the end user/client.

51.14.5 Publications


52 Monitoring patents

52.1 Introduction
By monitoring patents in patent databases it is possible to continuously gain information on intellectual property rights or progress of technology. In this section the information available in the patent databases with respect to monitoring patents is presented and various ways to perform current-awareness searches in these databases are shown.

Current-awareness searches are made to continuously monitor a subject field, company, or inventor for new patents or published patent applications. One benefit is that new intellectual property rights can be recognised in good time to take action against infringements, for example by filing an opposition within the opposition period. Another benefit is that the market can be monitored for example for the development of research priorities or emerging competition.

Various names are used for patent monitoring:
- Selective Dissemination of Information (SDI)
- Current Awareness Service (or Control or Information),
- Current Alert Services,
- Profile,
- Watch Services.

52.2 Types of search
- Monitoring a subject field (search by subject):
  - Search by classification
  - Search by text
  - Search by index terms
  - Checking new patents and utility models in the subject field for possible infringement
  - Monitoring technological trends
  - Monitoring companies active in the field (competitors or cooperation partners)
  - Monitoring intended markets
- Monitoring of competitors by name search:
  - Checking new patents and utility models of competitors for possible infringement
  - Monitoring the target markets of competitors
  - Monitoring competition research priorities
- Monitoring patent families:
  - Monitoring patent families for new members (Equivalents)
  - Monitoring patent procedures for grant, lapse, entry into the national phase, etc.
  - Monitoring designation countries
- Monitoring citations:
  - Where do our own patents get cited?
  - Checking for possible infringement
52.3 The SDI Command

Using the SDI command a ‘subscription’ for a periodical search in one or more databases can be set up. When SDI is entered you are prompted for all required parameters. The intended database must be open and there must be a search result or search query, i.e. an L number. This search query must not include any of the commands SELECT, ANALYZE, TRANSFER, FSORT, FSEARCH, or TRANSFER.

`=> FILE | NPADOCDB`

`=> SDI`

`ENTER QUERY L # FOR SDI REQUEST OR (END): L1`

`ENTER UPDATE FIELD CODE (UP), UPAA, UPFA, UPM, UPFL, UPCC, EDLS, UPBB, UPFE, EDPR, ED, EDP, EDF, UPF, UPL, UPLS OR ?:`

`ENTER SDI REQUEST NAME, (AA040/S), OR END: INLINE/S`

`ENTER COST CENTER (NONE) OR NONE:`

`ENTER TITLE (NONE): INLINE SKATES`

`ENTER METHOD OF DELIVERY (EMAIL), ONLINE OR RSS: RSS`

`ENTER EMAIL ID (1116K): ELKE.THOMAE@TU-ILMENAU.DE INTERNET`

`RECEIVE DELIVERY NOTIFICATION? (Y)/N: Y`

`ARCHIVE ANSWERS? Y/(N): N`

`REDISTRIBUTE ANSWERS? Y/(N): N`

`ENTER MAXIMUM NUMBER OF HITS TO BE PRINTED PER RUN (100): 100`

`SORT SDI ANSWER SET (N)/Y?: N`

`SEND SDI WITH NO ANSWERS? (Y)/N: N`

`ENTER SDI RUN FREQUENCY - (WEEKLY), MONTHLY, OR ?: MONTHLY`

`ENTER SDI EXPIRATION DATE ‘YYYYMMDD’ OR (NONE): NONE`

`RSS URL=https://stnweb.fiz-karlsruhe.de/cgi-bin/nph-stnrsst?T9n9BRVvco1nfKt2AYF
xBPNx_5feAmgQjDytjQ6N7zop7OlywcjRSTZ@l1Y8AUZ1nUqBfjUs6dU1cf01 QUERY L1 HAS BEEN SAVED AS SDI REQUEST ‘INLINE/S’`

Note: To be able to set up a SDI you need a STNMAIL ID. You can get help with the following commands:

`=> HELP SET MAILID`

`=> HELP MAIL`

`=> HELP READ`

`=> HELP SEND`

52.3.1 Options to customize a SDI run

- Automatic numbering
- Delivery of search results: on-line, STN mail, Internet e-mail, RSS
  - Email, ending ”.internet”: documents (preferably without patent images) will be sent in the email message. Note: Your mailbox should offer sufficient space.
  - Email, not ending „.internet”: links to the documents (RTF, PDF, HTML) will be delivered to your mailbox → recommended for patent monitoring
  - RSS: a URL is displayed. This can be used with an RSS reader software. The documents can be delivered by RSS and e-mail at the same time.
  - If you wish to use a free or reduced format in an SDI search in order to first select interesting documents choose ONLINE as Method of Delivery. The answer set will be saved in the system. To display the documents use the free or reduced format first to select the wanted documents and display the selected documents in the desired format in the second step.
- Hit-term highlighting in the search results
- Elimination of already known answers from an earlier SDI run (Historical Duplicate Removal)

In patent databases the documents can be updated when new information arrives. When monitoring a subject field it is often better to eliminate already known answers, otherwise the documents will be delivered again with
every change (legal status, patent family, etc.). When monitoring a particular legal status or patent family this update is what is wanted and must not be eliminated.

Note: The old results will be kept for one year only, i.e. if an update occurs later than one year after the document was found for the first time it will be delivered again.

- Sorting the answers
- In case of ‘zero’ result (optional): notify on the ‘zero’ information
- Set the frequency of SDI runs
- Set a date for the SDI to expire
- Variable SDI frequency in some databases (CAPLUS: daily, weekly, biweekly)

52.3.2 Creating a SDI profile in STNext

To create a SDI profile select ‘Create an Alert’ from the menu in the History tab.
52.3.3 Displaying a list of SDI profiles

<table>
<thead>
<tr>
<th>NAME</th>
<th>CREATED</th>
<th>NOTES/TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>INLINE/S</td>
<td>31 AUG 2012</td>
<td>SDI REQUEST FOR FILE INPADOCDB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>INLINE SKATES</td>
</tr>
</tbody>
</table>

52.3.4 Displaying a SDI profile

<table>
<thead>
<tr>
<th>NAME</th>
<th>CREATED</th>
<th>NOTES/TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>INLINE/S</td>
<td>31 AUG 2012</td>
<td>SDI REQUEST FOR FILE INPADOCDB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>INLINE SKATES</td>
</tr>
<tr>
<td>COST CENTER</td>
<td>NONE</td>
<td></td>
</tr>
<tr>
<td>UPDATE QUALIFIER</td>
<td>UP</td>
<td></td>
</tr>
<tr>
<td>METHOD OF DELIVERY</td>
<td>RSS</td>
<td></td>
</tr>
<tr>
<td>RSS URL</td>
<td><a href="https://stnweb.fiz-karlsruhe.de/cgi-bin/nph-stnrsst9n98R9VVo1nft2AYFxxBNPxt5fEAm">https://stnweb.fiz-karlsruhe.de/cgi-bin/nph-stnrsst9n98R9VVo1nft2AYFxxBNPxt5fEAm</a></td>
<td></td>
</tr>
<tr>
<td>EMAIL ID(S)</td>
<td><a href="mailto:ELKE.THOMAE@TU-ILMENAU.DE.INTERNET">ELKE.THOMAE@TU-ILMENAU.DE.INTERNET</a></td>
<td></td>
</tr>
<tr>
<td>NOTIFICATION</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>PRINT FORMAT</td>
<td>ALL.M</td>
<td></td>
</tr>
<tr>
<td>MAXIMUM NUMBER OF HITS TO BE DELIVERED</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>HIGHLIGHTING</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>DUPLICATE ELIMINATION</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>SEND SDI WITH NO ANSWERS</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>SDI RUN FREQUENCY</td>
<td>WEEKLY</td>
<td></td>
</tr>
<tr>
<td>DISPLAY QUERY WITH RESULTS</td>
<td>YES</td>
<td></td>
</tr>
</tbody>
</table>

52.3.5 Viewing SDI results

SDI results to be delivered ONLINE can be viewed with the ACTIVATE command. The first SDI result of the above profile would have the name INLINE01/A, the counter being incremented with every SDI run:

=> ACT INLINE01/A

Else the results are delivered automatically either by post, fax, or to the e-mail address and do not need to be viewed on-line.

52.3.6 SDI EDIT

A SDI profile can be edited with the SDI EDIT command. It is often easier to delete the old profile and issue a new one.

52.3.7 Editing a SDI profile in STNext

In STNext, the alerts are stored under My Files and can be displayed and edited.

52.3.8 Deleting an SDI profile

=> DELETE INLINE/S
DELETE INLINE/S? {Y}/N: Y
INLINE/S DELETED
52.3.9 Monitoring multiple databases (Multi-file SDI)

To set up a SDI profile for multiple databases all the databases to be used have to be open first. Then SDI MFILE is entered and you are prompted first for the name and all properties of the SDI profile and then for the names and parameters of the search in each of the databases.

When a multi-file SDI is set up there are of course the same problems as with any multi-file search in patent databases: It is not possible to formulate all types of queries in such a way that they can be used in parallel in each of the databases. In addition, there are varying update fields in each of the databases.

If the PACKAGE option is used the results of this multi-file SDI are delivered only once per month or once per week, irrespective of the actual number of SDI runs performed. The cost is summed up from the charges for the individual runs.

=> SDI MFILE PACKAGE
=> SDI MFILE PACKAGE STANDARD

If the question ELIMINATE PREVIOUSLY SEEN ANSWERS WITH EACH SDI RUN? is answered YES both duplicates between the databases in the same SDI run and duplicates from previous SDI runs (within the same database and between the databases in a multi-file profile) are removed. (Only duplicates from previous SDI runs within the last year are identified.)

=> FIL PATDPAFULL EPFULL PCTFULL

=> SDI MFILE

MULTIFIILE SDI GENERAL PARAMETERS

ENTER MULTIFIILE SDI REQUEST NAME ('AA031/S'), OR END: AIRBAG/S
ENTER TITLE (NONE): DE:RELEVANTE DOKUMENTE ZU "AIRBAG"
ENTER COST CENTER (NONE) OR NONE: NONE
ENTER METHOD OF DELIVERY (EMAIL), ONLINE, OR RSS: EMAIL
ENTER EMAIL ID (EMAIL), ONLINE, OR RSS: ELKE.THOMAE@TU-ILMENAU.DE
ELKE.THOMAE@TU-ILMENAU.DE
RECEIVE DELIVERY NOTIFICATION? (Y)/N: N
ELIMINATE PREVIOUSLY SEEN ANSWERS WITH EACH SDI RUN? Y/(N): Y

In this particular example there can’t be any duplicates. So this question may be answered Y or N.

HIGHLIGHT HIT TERMS? (Y)/N: Y
SEND SDI WITH NO ANSWERS? (Y)/N: N
ENTER SDI EXPIRATION DATE 'YYYYMMDD' OR (NONE): NONE

MULTIFIILE SDI FILE SPECIFIC PARAMETERS: PATDPAFULL

ENTER COMPONENT SDI REQUEST NAME ('AA031/S') OR END: AIRBAG/S
ENTER QUERY L# FOR MULTIFIILE SDI REQUEST OR END: L2
ENTER UPDATE FIELD CODE (ED) OR ?: ED
ENTER PRINT FORMAT (BIB.M) OR ?: ALL
ARCHIVE ANSWERS? Y/(N): N
REDISTRIBUTE ANSWERS? Y/(N): N
ENTER MAXIMUM NUMBER OF HITS TO BE PRINTED PER RUN (100):
SORT SDI ANSWER SET (Y)/N?:

MULTIFIILE SDI FILE SPECIFIC PARAMETERS: EPTFULL

ENTER COMPONENT SDI REQUEST NAME ('AA031/S') OR END: EPAIRBAG/S
ENTER QUERY L# FOR MULTIFIILE SDI REQUEST OR END: L3
ENTER UPDATE FIELD CODE (UP) OR ?: ED
ENTER PRINT FORMAT (STD) OR ?: ALL
ARCHIVE ANSWERS? Y/(N): N
REDISTRIBUTE ANSWERS? Y/(N): N
ENTER MAXIMUM NUMBER OF HITS TO BE PRINTED PER RUN (100):
SORT SDI ANSWER SET (Y)/N?:

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Types of search

MULTIFILE SDI FILE SPECIFIC PARAMETERS: PCTFULL

ENTER COMPONENT SDI REQUEST NAME ('AA031/S') OR END: WOAIRBAG/S
ENTER QUERY L# FOR MULTIFILE SDI REQUEST OR END: L4
ENTER UPDATE FIELD CODE (UP) OR ?: ED
ENTER PRINT FORMAT (STD) OR ?: ALL
ARCHIVE ANSWERS? Y/(N): N
REDISTRIBUTE ANSWERS? Y/(N): N
ENTER MAXIMUM NUMBER OF HITS TO BE PRINTED PER RUN (100): .
SORT SDI ANSWER SET (N)/Y?: .
MULTIFILE SDI HAS BEEN SAVED AS SDI REQUEST 'AIRBAG/S'
QUERY L2 HAS BEEN SAVED AS SDI REQUEST 'DEAIRBAG/S' FOR FILE PATDPFULL
QUERY L3 HAS BEEN SAVED AS SDI REQUEST 'EPAIRBAG/S' FOR FILE EPFULL
QUERY L4 HAS BEEN SAVED AS SDI REQUEST 'WOAIRBAG/S' FOR FILE PCTFULL

These variations of SDI STANDARD are allowed:

=> SDI STANDARD PACKAGE
=> SDI PACKAGE STANDARD
=> SDI STANDARD PACKAGE MFILE
=> SDI PACKAGE STANDARD MFILE

52.3.9.1 Eliminating duplicates in a Multi-file SDI

During an SDI run the Accession Numbers found in a database are checked against previous runs and duplicates are removed if this has been requested (ELIMINATE PREVIOUSLY SEEN ANSWERS WITH EACH SDI RUN? Y/(N): Y). The Accession Numbers found are saved for one year and will thus be used to identify duplicates for that period.

To identify duplicates in more than one database the same algorithm is used as for the DUPLICATE REMOVE command (e.g. Patent Numbers are compared), if the above question has been answered YES (the DUPLICATE command cannot be used in an automatic SDI). Please note:

- SDI runs are performed in each database at a different time, depending on the individual updates of the databases.
- It is not possible to choose a particular database to deliver the ‘original’ document. ‘Original’ document and duplicates are decided by the order in time of SDI runs in the databases.
- In databases containing family information (CAPLUS, DWPI) only the patent number of the Basic Patent is compared. So not all duplicates will be found.
- DUPLICATE does not work in the DPCI database.

52.3.10 SMARTracker

In the CAPLUS database (or a multi-file including CAPLUS) a special ‘MultiFile SDI’ can be issued that takes reference to a Structure Search result (in the REGISTRY file).

=> FILE REGISTRY
=> STR 33069-62-4
: END
L1 STRUCTURE CREATED

=> S L1 FUL
FULL SEARCH INITIATED 12:36:49 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED . 4485 TO ITERATE
100.0% PROCESSED 4485 ITERATIONS 1741 ANSWERS
SEARCH TIME: 00.00.01
L2 1741 SEA SSS FUL L1

=> FILE CAPLUS

=> S L2/THU AND P/DT
B100 L2 567412 THU/RL 5047 L2/THU
It is also possible to use the Standard option:

SMART STANDARD

** SMARTTracker INITIATED **
ENTER QUERY L# FOR SDI REQUEST OR (END): L3
ENTER UPDATE FIELD CODE (UP) OR ?: .
ENTER SDI REQUEST NAME, (AA013/S), OR END: TAXOLS/S
ENTER COST CENTER (NONE) OR NONE: .
ENTER TYPE OF SEARCH (S5S), CSS, FAMILY, OR EXACT:: .
ENTER TITLE (NONE): .
ENTER EMAIL ID (1116K): ELKE.THOMAE@TU.-ILMENAU.DE
ELKE.THOMAE@TU.-ILMENAU.DE
RECEIVE DELIVERY NOTIFICATION? (Y)/N: N
ELIMINATE PREVIOUSLY SEEN ANSWERS WITH EACH SDI RUN? Y/(N): Y
ENTER PRINT FORMAT (BIB) OR ?: CBIB ABS HITSTR
HIGHLIGHT HIT TERMS? (Y)/N: .
ARCHIVE ANSWERS? Y/(N): N
REDISTRIBUTE ANSWERS? Y/(N): N
ENTER MAXIMUM NUMBER OF HITS TO BE PRINTED PER RUN (100): .
SORT SDI ANSWER SET (N)/Y?: N
SEND SDI WITH NO ANSWERS? (Y)/N: N
DISPLAY CURRENCY INFORMATION? (Y)/N: Y
ENTER SDI RUN FREQUENCY: (WEEKLY), BIWEEKLY, OR ?: .
ENTER SDI EXPIRATION DATE 'YYYYMMDD' OR (NONE): .
QUERY 'L3' HAS BEEN SAVED AS SDI REQUEST 'TAXOLS/S'

52.4 Saved queries
The profiles for a monitoring search can also be saved on the STN host using the SAVE command or on the local computer using command files if you do not want to issue a SDI command to the STN host. There may be various reasons for this:

- The monitoring is not to be done at regular intervals,
- The monitoring is not to be done after each update of the database but at longer intervals,
- The query needs to be adapted to new requirements frequently,
- The search profile uses certain commands not allowed in an SDI, such as SELECT, ANALYZE, TABULATE, FOCUS, FSEARCH, or FSORT.

52.4.1 The SAVE command
The SAVE command can be used to save a search profile under a name as a query:

```plaintext
=> SAVE INLINE/Q
```
From time to time this query can then be run with the ACTIVATE command and linked to the chosen update field:

```plaintext
=> ACTIVATE INLINE/Q
L16 QUE ABB=ON L5 OR L15
```

```plaintext
=> S L16 AND UP>20111101
L17 25 L16 AND UP>20111101
```

```plaintext
=> D 1-25 TRIAL
```
52.5 Support for command files by STN software

With the help of the STN Express communication package or STN on the Web a search profile can be prepared off-line and later be used on-line.

52.5.1 The ‘Run command file’ function of STN Express and STNext

With this function a complete search profile can be prepared, saved and run. When there are system prompts during the execution (e.g. due to a command being incomplete or certain options of the SET command) the run is paused. The answers to the prompts may then be entered, manual input being ended by hitting the ‘END’ key or SUBMIT.

For this function, a number of commands can be used:

<table>
<thead>
<tr>
<th>Character</th>
<th>Example</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>* Command File</td>
<td>* introduces a comment</td>
</tr>
<tr>
<td>=&gt;</td>
<td>=&gt; s acid and rain</td>
<td>=&gt; is a shortcut for SEND – the rest of the line will be sent to the host</td>
</tr>
<tr>
<td>_lnum</td>
<td>=&gt; s acid and rain&gt;_lnum</td>
<td>The resulting L number will be saved to the variable _lnum for later use. The variable name must begin with an underscore.</td>
</tr>
<tr>
<td>!</td>
<td>=&gt; s e1!</td>
<td>Stop the script run in order to manually enter data, e.g. the last E number.</td>
</tr>
</tbody>
</table>

52.5.1.1 Example: Command file for SDI ‘Producers of inline skates’, INPADOCDB database

\* SDI * Inline-Skates, INPADOCDB
\> S A63C0017-04+NT/IPC > IPC
\> S (NORDICA )/PA, PAS\> _NAME1
\> S (BENETTON S) SPORT?)/PA, PAS\> _NAME2
\> S (DEKA(S) PROD?) /PA, PAS\> _NAME3
\> S (SALOMON) /PA, PAS\> _NAME4
\> S (MGSM (S) SPA)/PA, PAS\> _NAME5
\> S (SKIS (S) ROSSI GNOL)/PA, PAS\> _NAME6
\> S _NAME1, _NAME6> _NAME
\> S _IPC OR _NAME1> _RESULT

Some syntactic errors in the search profile can be found by the software. If an error is seen after the ‘Run’ function has been started (e.g. a typo) the execution can be stopped. After the file has been edited execution can be re-started. It is a good idea to test-run the script in the (free) STNGUIDE database to find any errors concerning the STN command language (e.g. mismatched brackets, errors in the definition of variables, typos in commands or options, etc.).

In STNext scripts can be created, edited, and run via the menu:

52.5.2 The command window of STN Express and STNext

In STN Express from version 4 and STNext, the search profile prepared off-line can be displayed in the command window during the on-line session. In the command window only commands of the STN command language may be used, the STN Express script language or any variables will not work.

Each command line can be issued individually, be edited during the on-line session or additional command lines can be entered or lines be left out or issued repeatedly. It is also possible to run the search profile without any interruption.

52.5.3 STN on the WEB

In STN on the Web a search profile prepared off-line can be copied to the command window by Copy/Paste (resize the window first). This should usually be short profiles which are then started by the SUBMIT button. The command lines
cannot be issued one by one. For longer search profiles it is advisable to load the text file using the ‘Upload Command File’ function and start it then. In this case the command lines may even be issued one at a time. Special characters, e.g. for variables, cannot be used.

52.6 Patent types and country coverage

<table>
<thead>
<tr>
<th>Database</th>
<th>Patent types</th>
<th>Countries</th>
<th>Delay</th>
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<tr>
<td>DWPI</td>
<td>Patent applications and granted patents, utility models Research Disclosure</td>
<td>40+ countries, incl. EP, WO</td>
<td>Weeks (depending on country)</td>
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<td>Patent applications and granted patents</td>
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<tr>
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<td>Patent applications</td>
<td>WO</td>
<td>Some days</td>
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<td>Patent applications</td>
<td>GB</td>
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<td>Legal status data</td>
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<tr>
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<td>Patent applications and granted patents</td>
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<td>JP</td>
<td>Approx. 4 months</td>
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<td>See DWPI</td>
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<tr>
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52.7 SDI frequency

When creating an SDI profile with the SDI command you can choose from a number of different SDI frequencies in some of the databases, i.e. at what interval the SDI run is to be executed.

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<th>Frequencies</th>
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<td>- Monthly</td>
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<td>INPADOCDB</td>
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<td>HCAPLUS</td>
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<td>- Biweekly</td>
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<td>- Monthly</td>
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<td>CNFULL</td>
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<td>- Monthly</td>
</tr>
<tr>
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<tr>
<td></td>
<td>- Weekly (default)</td>
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<td></td>
<td>- Monthly</td>
</tr>
<tr>
<td>IFICLS</td>
<td>- Every update (twice per week)</td>
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</tr>
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<td>INFULL</td>
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</tr>
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<td>JAPIO</td>
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<tr>
<td>USGENE</td>
<td>Every update (weekly)</td>
</tr>
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</table>
52.8 Information on timeliness: HCAPPLUS and IFIALL

Patents are added to the CA/HCA/ZCA and CAPLUS/HCAPLUS/ZCAPLUS databases with a delay of some days after publication. At that point the indexing is likely not to be complete, it may take up to two months until a document is completely indexed. For a number of countries, namely US, EP, DE, JP, WO, GB, and FR the current status of the indexing process can be established.

A number of applications are possible:

- NEWS FILE: Information on the Updating and Patent Currency
- Include to a DISPLAY or PRINT: DISPLAY CURRENCY
- Include into SDI

More information on updates can be found on:


The IFIALL database is updated two times per week. Documents are entered between one day and one week after publication. Use NEWS FILE to see information on updates.

52.9 Search fields for awareness searches

52.9.1 Overview

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<tr>
<th>Database</th>
<th>Field</th>
<th>Linked SDI</th>
<th>Entered upon/usable for</th>
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<td>/ED</td>
<td>New initial publications and further national publications</td>
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<td>/EDPR</td>
<td>New priority number entries</td>
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<td></td>
<td>/UP</td>
<td>New initial publications, further national publications, corrections to bibliographical data and classifications</td>
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<td>/UPCC</td>
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<td>/UP</td>
<td>All publications and changes, including legal status (retrospective)</td>
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<td>/UP</td>
<td>New documents and changes</td>
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### National patent databases

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<td>New initial publications and further national publications</td>
</tr>
<tr>
<td></td>
<td>/UP</td>
<td></td>
<td>New documents, updates and changes</td>
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<td>New initial publications and further national publications</td>
</tr>
<tr>
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<td>/UP</td>
<td></td>
<td>New documents, updates and changes</td>
</tr>
<tr>
<td></td>
<td>/EDTX</td>
<td></td>
<td>ED for fulltext</td>
</tr>
<tr>
<td>DE FULL</td>
<td>/ED</td>
<td></td>
<td>New initial publications and further national publications</td>
</tr>
<tr>
<td></td>
<td>/UP</td>
<td></td>
<td>New documents, updates and changes</td>
</tr>
<tr>
<td></td>
<td>/EDTX</td>
<td></td>
<td>ED for fulltext</td>
</tr>
<tr>
<td>FRANCEPAT</td>
<td>/ED</td>
<td></td>
<td>New documents, initial publications</td>
</tr>
<tr>
<td></td>
<td>/UP</td>
<td></td>
<td>New documents, updates and changes, including to the legal status</td>
</tr>
<tr>
<td></td>
<td>/EDTX</td>
<td></td>
<td>ED for fulltext</td>
</tr>
<tr>
<td>FRFULL</td>
<td>/ED</td>
<td></td>
<td>New documents, initial publications</td>
</tr>
<tr>
<td></td>
<td>/UP</td>
<td></td>
<td>New documents, initial publications (ED=UP)</td>
</tr>
<tr>
<td>GBFULL</td>
<td>/ED</td>
<td></td>
<td>New documents, initial publications</td>
</tr>
<tr>
<td></td>
<td>/UP</td>
<td></td>
<td>New documents, initial publications (ED=UP)</td>
</tr>
<tr>
<td>IFIALL</td>
<td>/ED</td>
<td></td>
<td>New documents</td>
</tr>
<tr>
<td></td>
<td>/UP</td>
<td></td>
<td>New documents and corrections</td>
</tr>
<tr>
<td>IFICLS</td>
<td>/ED</td>
<td></td>
<td>New documents</td>
</tr>
<tr>
<td></td>
<td>/UP</td>
<td></td>
<td>New documents and corrections</td>
</tr>
<tr>
<td>INFULL</td>
<td>/ED</td>
<td></td>
<td>New documents</td>
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<tr>
<td></td>
<td>/UP</td>
<td></td>
<td>New documents and corrections</td>
</tr>
<tr>
<td></td>
<td>/EDTX</td>
<td></td>
<td>ED for fulltext</td>
</tr>
<tr>
<td>JAPIO</td>
<td>/ED</td>
<td></td>
<td>New documents</td>
</tr>
<tr>
<td></td>
<td>/UP</td>
<td></td>
<td>New documents and corrections</td>
</tr>
<tr>
<td>JPFULL</td>
<td>/ED</td>
<td></td>
<td>New documents</td>
</tr>
<tr>
<td></td>
<td>/UP</td>
<td></td>
<td>New documents and corrections</td>
</tr>
<tr>
<td></td>
<td>/EDTX</td>
<td></td>
<td>ED for fulltext</td>
</tr>
<tr>
<td>KOREAPAT</td>
<td>/ED</td>
<td></td>
<td>New documents</td>
</tr>
<tr>
<td></td>
<td>/UP</td>
<td></td>
<td>New documents and corrections</td>
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<tr>
<td></td>
<td>/UP</td>
<td></td>
<td>New documents and corrections</td>
</tr>
<tr>
<td></td>
<td>/EDTX</td>
<td></td>
<td>ED for fulltext</td>
</tr>
<tr>
<td>PATDD</td>
<td>/ED</td>
<td></td>
<td>New documents</td>
</tr>
<tr>
<td></td>
<td>/UP</td>
<td></td>
<td>New documents, updates and changes, including certain legal status changes (e.g. patent assignee) – manual monitoring only</td>
</tr>
<tr>
<td>PATDPAFULL</td>
<td>/ED</td>
<td></td>
<td>New documents and updates</td>
</tr>
<tr>
<td></td>
<td>/UP</td>
<td></td>
<td>New documents, updates and changes</td>
</tr>
<tr>
<td>USPATFULL</td>
<td>/ED</td>
<td></td>
<td>New documents</td>
</tr>
<tr>
<td>USPAT2</td>
<td>/ED</td>
<td></td>
<td>New documents</td>
</tr>
<tr>
<td></td>
<td>/UPCA</td>
<td></td>
<td>New documents with CA indexing</td>
</tr>
<tr>
<td></td>
<td>/UP</td>
<td></td>
<td>New documents, updates and changes</td>
</tr>
</tbody>
</table>

### Field-specific databases

<table>
<thead>
<tr>
<th>Database</th>
<th>Field</th>
<th>Linked SDI</th>
<th>Entered upon/usable for</th>
</tr>
</thead>
<tbody>
<tr>
<td>DGENE</td>
<td>/ED</td>
<td></td>
<td>Date of receipt of new documents with the database producer</td>
</tr>
<tr>
<td></td>
<td>/DED</td>
<td></td>
<td>Same as /ED</td>
</tr>
<tr>
<td>DPCI</td>
<td>/ED</td>
<td></td>
<td>New documents (= new Basic)</td>
</tr>
<tr>
<td></td>
<td>/UP</td>
<td></td>
<td>All changes</td>
</tr>
<tr>
<td></td>
<td>/UPD</td>
<td></td>
<td>New cited documents</td>
</tr>
<tr>
<td></td>
<td>/UPG</td>
<td></td>
<td>New citing documents</td>
</tr>
<tr>
<td></td>
<td>/PCIW</td>
<td></td>
<td>All changes, PCI-week</td>
</tr>
<tr>
<td></td>
<td>/PCIW.G</td>
<td></td>
<td>New citing documents, PCI-week</td>
</tr>
<tr>
<td></td>
<td>/DW</td>
<td></td>
<td>All changes, Derwent week</td>
</tr>
<tr>
<td></td>
<td>/DW.B</td>
<td></td>
<td>New documents (= new Basic), Derwent week</td>
</tr>
<tr>
<td>RDISCLOSURE</td>
<td>/UP</td>
<td></td>
<td>New documents</td>
</tr>
<tr>
<td>USGENE</td>
<td>/ED</td>
<td></td>
<td>New documents</td>
</tr>
<tr>
<td></td>
<td>/UP</td>
<td></td>
<td>New documents, updates and corrections</td>
</tr>
</tbody>
</table>
52.9.2 Using the /UPAB fields in DWPI and PATDPA

In the DWPI database it may occur that documents are entered without an abstract and abstracts are added at a later date or not at all. In PATDPA the same problem exists: The abstracts or main claims of certain document types are added at a later date, for some document types no abstracts or claims are entered (DECE: serial number for EP applications with DE designation, .DET1: translation of WO documents).

When to prefer /UP over /UPAB: Documents without an abstract will be found. All changes are monitored. In case of a free text search it may be that documents relevant to the search are not retrieved: On date A (no abstract available) they are not found because the words searched do not occur in the text available, on date B (abstract available) they are not found due to a new UP date used.

When to prefer /UPAB over /UP: A document will only be retrieved once an abstract is available. Hence this field should be preferred with free text searches. Only changes to the abstract or main claim are considered. Documents not having an abstract will not be retrieved.

52.9.3 Linked update fields / Linked SDI

In addition to the /ED and /UP fields there are fields covering only certain types of data entered or updated. With the help of these fields a current awareness search can be targeted more precisely (e.g. UPP, UPAB).

52.9.3.1 Linking the PI field with /UPP

In the DWPI database it is possible to link a search query concerning the PI field (PN, PK) to the respective update field by using (P) proximity. This way the search can be narrowed further. For example, using the command

```plaintext
=> S EPB#/PK (P) (20101112-20101211)/UPP
```

in DWPI will narrow the search to updates in the PI field through use of UPP and there to updates for EP granted patents only through use of (P) proximity.

```plaintext
=> FIL WPIND
  => S EPB#/PK AND (20101112-20101211)/UPP
  1027681 EPB#/PK
  1027681 226136 (20101112-20101211)/UPP
  (20101112-20101211)/UPP
L1       10685 EPB#/PK AND (20101112-20101211)/UPP
=> S EPB#/PK (P) (20101112-20101211)/UPP
  226136 EPB#/PK
  226136 (20101112-20101211)/UPP
  (20101112-20101211)/UPP
L2        4829 EPB#/PK (P) (20101112-20101211)/UPP
```

In the CAPLUS database the UPP field can be linked to a search query by (L) proximity:

```plaintext
=> S EP17P/LSC(L)20101202/UPLS
```

L5        2353 EP17P/LSC(L)20101202/UPLS

L6      2353 EP17P/LSC AND 20101202/UPLS

=*

Linking the legal status code with the UPLS update date is also useful in EPFULL (use (P) proximity):

```plaintext
=> FIL EPFULL
  => S SONY/PA AND EPB235/LSC (P) UPLS>20100909
L3          21 SONY/PA AND EPB235/LSC (P) UPLS>20100909
```

399
52.9.3.3  Linking bibliographical details with various Update fields in INPADOCDB/INPAFAMDB

Owing to the database structure in INPADOCDB (each publication in the national succession of publications forms one level/segment in the database document) it is possible to link bibliographical details to Update fields. Using (L) proximity it is possible to limit the search by bibliographical detail to one publication level. This also works in INPAFAMDB. These fields can be used: /EDP, /ED, /UP, /UPBB, /UPCC (see table above).

A number of useful examples are shown below:

<table>
<thead>
<tr>
<th>Example</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPB#/pk(l)ED&gt;20100101</td>
<td>For EP granted</td>
</tr>
<tr>
<td>granted/stal(l)ED&gt;20100101</td>
<td>For all granted</td>
</tr>
<tr>
<td>(au or nz)/pc(l)epdp&gt;20100101</td>
<td>For priority applications from AU and NZ</td>
</tr>
<tr>
<td>sony/spat(l)upls&gt;20100101</td>
<td>For legal status changes concerning SONY</td>
</tr>
<tr>
<td>a6l1k/ipc, epcc(l)upcc&gt;20100101</td>
<td>For changes to IPC or EPC</td>
</tr>
</tbody>
</table>

52.9.4  Dynamic queries

To use this ‘Linked SDI’ in automatic SDI runs this issue was to be solved:

The update field used when the SDI is set up is linked to the search queries by AND – but a proximity operator is needed.

A symbolic search field of the form ‘update_field_code/LAST’ was introduced. This symbolic search field is edited by the Messenger system to a range search on the data of the latest Update range in the field given. To create an automatic SDI in DWPI linking the UPP field by (P) proximity to the PK field the appropriate commands would be:

```plaintext
=> S SIEI/PACO AND EPB#/PK(P)UPP/LAST
L4 1047 SIEI/PACO AND EPB#/PK(P)UPP/LAST

=> SDI
ENTER QUERY L# FOR SDI REQUEST OR (END): L4
ENTER UPDATE FIELD CODE (UP), ED, UPP, UPAB, UPCR, EDCR, UPWX, UPB, UPKW, UPA, UPTC, UPEQ OR ?:UPP
...```

Dynamic queries can currently be created in the DWPI, DPCI, and INPADOCDB/INPAFAMDB databases.

**Note:** If /LAST is used in a manual search the past year is automatically used in order to allow testing and creating the SDI profile. /LAST cannot be used to manually monitor publications.

52.9.5  Notes on INPADOCDB/INPAFAMDB

52.9.5.1  Display of changes to the document

The CHG field. The CHG display field indicates fields where changes have occurred. The contents of the field can even be searched. The added letters mean: A = AMEND / MODIFIED and C= CHANGED / NEW.

```plaintext
=> E E/CHG
E1 38766 DS A/CHG
E2 93 DS C/CHG
E3 0 ... E/CHG
E4 469033 EPC A/CHG
E5 159166 EPC C/CHG
E6 14475 IC A/CHG
E7 97 IC C/CHG
E8 151806 ICO A/CHG
E9 109573 ICO C/CHG
E10 440 IDT A/CHG
E11 245 IDT C/CHG
E12 42344 IN A/CHG

=> S IN C/CHG AND PA C/CHG AND EPC C/CHG
L1 397 IN C/CHG AND PA C/CHG AND EPC C/CHG

=> D BIB.M CHG.M
L1 ANSWER 1 OF 397 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
```
Types of search

For the following fields the changes are indicated:

- ABDE: Abstract in German
- ABEN: Abstract in English
- ABES: Abstract in Spanish
- ABFR: Abstract in French
- ABOL: Abstract in original language
- ABO: Abstract in original non-ASCII character set
- AI: Application information
- AIO: Application information, original form
- CNT: Citations
- DF: Date in Force (Advertising German Utilities)
- DSG: Designated States
- EPC: European Patent Classification (ECLA A-H)
- IC: International Patent Classification version 1-7
- ICO: In Computer Only (ECLA K-Y)
- IDT: Indeling der Techniek
- IN: Inventor
- INO: Inventor, original character set
- INS: Inventor, standardized
- IPC: International Patent Classification (current and old)
- NCL: National Patent Classification
- PA: Patent Assignee
- PAO: Patent Assignee, original character set
- PAS: Patent Assignee, standardized
- PI: Patent information
- PRAI: Priority information
- PRAO: Priority information, original form
- TI: Title
- TIO: Title, original character set

52.9.5.2 Displaying changes to the patent family

Patent families may have to be combined into one e.g. if several national families (e.g. US) are combined into a new family by a EP or a WO application. A patent family may have to be divided if due to errors, e.g. in the priority numbers, certain members were wrongly entered into the family. In both cases it can happen that family members are missing in a monitoring search result. To prevent this the field UPFC (UPdate Family Changed) was introduced, which is displayed in the BIB, STD, ALL, MAX, FFAM, UPALL and BRIEF display formats. After each SDI search run the new documents should be reviewed or (by a search) be checked whether a change to the family is displayed. If that is the case, the complete family should be reviewed:

- AN 59373185 INPADOCDB ED 20090917 EW 200938 UP 20090917 UW 200938
- FN 38377924 UPFC 20091001
Guide to STN Patent Databases

**TI**  Networked gaming system communication protocols and methods.

**TL**  English

**IN**  KELLY BRYAN M.; LOCKARD DENNIS; TALLCOTT JEFFREY; KROECKEL JOHN; SOLITERMAN GENNADY; RUPANAGUDI REDDY


**PAS**  KELLY BRYAN M; LOCKARD DENNIS; TALLCOTT JEFFREY; KROECKEL JOHN; SOLITERMAN GENNADY; RUPANAGUDI REDDY

**DT**  Patent

**PI**  US 20090227363       A1 20090910  English

**PIT**  USA1 FIRST PUBLISHED PATENT APPLICATION [FROM 2001 ONWARDS]

**DAV**  20090910  unexamine
d-
p-

**STA**  PRE-GRANT PUBLICATION

**AI**  US 2008-291842 A 20081112

**AIT**  USA Patent application

**PRAI**  US 2008-291842 A 20081112 (USA, 20090917, Y)

**AN**  38377924 INPAFAMDB UPFB 20091001 UWF 200940

**UPFC**  20091001

**TI**  SISTEMA Y METODO DE INTERFAZ DE USUARIO.
- Prize redemption system for games.
- Gaming and prize redemption system.
- Prize redemption system for games executed over a wide area network.
- Progressive-type prize awarding scheme.

52.9.6 Monitoring patent families in INPADOCDB/INPAFAMDB—Family SDI

In INPADOCDB/INPAFAMDB it is possible to monitor patent families (manually or automatically). The fields for this see in the table above. Any event occurring to the patent family can be found this way, from the first entry of a family member to changes to the legal status. Here are some notes on the update fields:

If certain update fields are set the same date will automatically be entered in other update fields (INPADOCDB):

- **EDF** → UPFD, UPFP, UPFB, UPFE, UPFA
- **UPFD** → UPFP, UPFB, UPFE, UPFA
- **UPFP** → UPFB, UPFE, UPFA
- **UPFB** → UPFA

Using DISPLAY UPALL the table of updates can be displayed for every document.

Thanks to the database structure of INPAFAMDB it is easy to monitor patent families in this database. All update codes in this database relate to the patent family.

In INPADOCDB both record-based and family-based monitoring can be done. The following table shows the relevant fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Record (INPADOCDB)</th>
<th>Family (INPADOCDB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New family (new family number FN)</td>
<td>-</td>
<td>EDF</td>
</tr>
<tr>
<td>Merged or split families</td>
<td>-</td>
<td>UPFC</td>
</tr>
<tr>
<td>New record (member)</td>
<td>EDP</td>
<td>UPFD</td>
</tr>
<tr>
<td>New document</td>
<td>ED</td>
<td>UPFP</td>
</tr>
<tr>
<td>Update of BIB + IND</td>
<td>UP</td>
<td>UPFB</td>
</tr>
<tr>
<td>Update of BIB</td>
<td>UPBB</td>
<td>UPBB</td>
</tr>
<tr>
<td>Update of IND</td>
<td>UPCC</td>
<td>UPCC</td>
</tr>
<tr>
<td>Update of the legal status (LS)</td>
<td>UPLS</td>
<td>UPFL</td>
</tr>
</tbody>
</table>
Types of search

<table>
<thead>
<tr>
<th>Record (INPADOCDB)</th>
<th>Family (INPADOCDB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New document or LS</td>
<td>EDLS</td>
</tr>
<tr>
<td>All updates / changes</td>
<td>UPFE</td>
</tr>
<tr>
<td>All Bib and/or LSUP of family members updated with the current update, weekly SDI</td>
<td>FFAMUP</td>
</tr>
<tr>
<td>FFAMUP4</td>
<td>All Bib and/or LSUP of family members updated with the current update, monthly SDI</td>
</tr>
<tr>
<td>FFAMUP.CC</td>
<td>Country specific FFAMUP, e.g. FFAMUP.EP (only for these countries: PC=AT AU BE CA CH DE DK EP ES FI FR GB GR IE IL IT JP HU NL NO SE US WO)</td>
</tr>
<tr>
<td>FFAMED</td>
<td>New publications and/or LSUP of a patent family, weekly SDI</td>
</tr>
<tr>
<td>FFAMED4</td>
<td>New publications and/or LSUP of a patent family, monthly SDI</td>
</tr>
<tr>
<td>FFAMED.CC</td>
<td>Country specific FFAMED, e.g. FFAMED.US (only for these countries: PC=AT AU BE CA CH DE DK EP ES FI FR GB GR IE IL IT JP HU NL NO SE US WO)</td>
</tr>
<tr>
<td>LFAMUP</td>
<td>PI (Publication Information) and LSUP (legal status changed) of the current update week of a patent family, weekly SDI</td>
</tr>
<tr>
<td>LFAMUP4</td>
<td>PI (Publication Information) and LSUP (legal status changed) of the current update week of a patent family, monthly SDI</td>
</tr>
<tr>
<td>LFAMUP.CC</td>
<td>Country specific LFAMUP, e.g. LFAMUP.FR (only for these countries: PC=AT AU BE CA CH DE DK EP ES FI FR GB GR IE IL IT JP HU NL NO SE US WO)</td>
</tr>
<tr>
<td>UPALL</td>
<td>Table of update dates</td>
</tr>
</tbody>
</table>

The display formats for updates only show data of the current update week. 'Element billing' applies to all these formats, i.e. you will be charged only for data that actually appear in the display.

The update fields needed for a Family SDI are available if any update has occurred to the patent family since the introduction of this feature (9/2004). (This may be important in a retrospective search if you wish to use any of the UP fields.)

=> D B I B U P A L L

AN 53039753 INPADOCDB ED 20070505 EW 200718 UP 20070505 UW 200718
TI Verfahren und Vorrichtung zur Speicherung und Verteilung von Verschlüsselungsschlüsseln.
Method and apparatus for storing and distributing encryption keys.
PI 20070502
PIT EPA3 SEARCH REPORT
DAV 20070502 supplemental-srep-reference
STA PRE-GRANT PUBLICATION
DS R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
AI EP 2006-26909 A 20020118
AIT EPA Patent application
PRI US 2001-785849 A 20010216 (USA)
PRI EP 2002-720815 A 20020118 (EPA3, 20070419)
PRI US 2001-785849 A 20010216 (USA)
PRI EP 2002-720815 A 20020118 (EPA3, 20070419)
PRI US 2001-785849 A 20010216 (USA)
PRI EP 2002-720815 A 20020118 (EPA3, 20070419)
PRI US 2001-785849 A 20010216 (USA)
PRI EP 2002-720815 A 20020118 (EPA3, 20070419)
PRI US 2001-785849 A 20010216 (USA)
PRI EP 2002-720815 A 20020118 (EPA3, 20070419)
PRI US 2001-785849 A 20010216 (USA)
PRI EP 2002-720815 A 20020118 (EPA3, 20070419)
PRI US 2001-785849 A 20010216 (USA)
PRI EP 2002-720815 A 20020118 (EPA3, 20070419)
PRI US 2001-785849 A 20010216 (USA)
PRI EP 2002-720815 A 20020118 (EPA3, 20070419)
PRI US 2001-785849 A 20010216 (USA)
PRI EP 2002-720815 A 20020118 (EPA3, 20070419)
AN 53039753
UP 20070505
ED 20070505
EDP 20070426
EDF 20070222
UPFD 20070426
UPFP 20070505
UPFB 20070505
UPFL 20070505
UPBB 20070505
UPCC 20070505

=> D FAM

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PATENT FAMILY INFORMATION
AN 53039753 INPADOCDB

PRAI
+-------------
|  ----------- |
+-------------
EP 2002-720815 A 20020118
EP 2006-26909 A 20020118
EP 2006-26910 A 20020118
EP 2006-26911 A 20020118
EP 2006-26912 A 20020118
EP 2006-26913 A 20020118
US 2001-785849 A 20010216
AT 2002-720815 T 20020118
AU 2002-251789 A 20020118
DE 2002-60218289 A 20020118
EP 2002-720815 A 20020118
EP 2006-26909 A 20020118
EP 2006-26910 A 20020118
EP 2006-26911 A 20020118
EP 2006-26912 A 20020118
IL 2002-157049 A 20020118
US 2001-785849 A 20010216
WO 2002-US1479 W 20020118
AU 2002-251789 A 20020118
DE 2002-60218289 A 20020118
EP 2002-720815 A 20020118
WO 2002-US1479 W 20020118

AI
+-------------
|  ----------- |
+-------------
AT 2002-720815 T 20020118
AT 3548987 T 20070315
AU 2002-251789 A 20020118
AU 2002-251789 A 20020904
DE 2002-60218289 A 20020118
DE 60218289 D1 20070405
EP 2002-720815 A 20020118
EP 1362444 A2 20031119
EP 1362444 A4 20040707
EP 1362444 B1 20070221
EP 2006-26909 A 20020118
EP 1777870 A2 20070425
EP 1777870 A3 20070502
EP 2006-26910 A 20020118
EP 1775905 A2 20070418

PI
+-------------
|  ----------- |
+-------------

PA MOTOROLA, INC.

TL German; English; French
IN SOWA, HANS CHRISTOPHER; MCDONALD, DANIEL J.; CHATER-LEA, DAVID J.; KREMKE, RANDY; PAPPAS, SCOTT J.; JOHUR, JASON; NEWKIRK, DENNIS; ANDERSON, WALTER F.; WALTON, GLENN BRIAN

=> D FFAMUP

L13 ANSWER 1 OF 129 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN

AN 53039753 INPADOCDB ED 20070426 EW 20070717 UP 20070505 UW 2007018
TI Verfahren und Vorrichtung zur Speicherung und Verteilung von Verschlüsselungsschlüsseln.
Procede et dispositif pour stocker et distribuer des clef de cryptage.
TL German; English; French
IN SOWA, HANS CHRISTOPHER; MCDONALD, DANIEL J.; CHATER-LEA, DAVID J.; KREMKE, RANDY; PAPPAS, SCOTT J.; JOHUR, JASON; NEWKIRK, DENNIS; ANDERSON, WALTER F.; WALTON, GLENN BRIAN
PA MOTOROLA, INC.
Types of search

PAS MOTOROLA INC, US
DT Patent
PI EP 1777870 A2 20070425 English
PIT EPA2 APPLICATION PUBLISHED WITHOUT SEARCH REPORT
DAV 20070425 unexamined printed
STA PRE-GRA NT PUBLICATION
DS R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
AI EP 2006-26909 A 20020118
AIT EPA Patent application
PRAI US 2001-785849 A 20010216 (USA)
EP 2002-720815 A (EPA3, 20070419)
PRAI USA Patent application
EPA3 Prior application claimed for a division
IPCI H04L0009-08 [I,A]; H04Q0007-38 [I,A]; H04L0009-08 [I,C*]; H04Q0007-38 [I,C*]
IPCR H04L0029-06 [I,A]; H04Q0007-28 [N,A]
EPC H04Q0007-38S; H04L0009-08B; H04L0009-08R; H04L0029-06C6B;
H04L0029-06C6C2; H04W0006-02; H04W0006-06
ICO T04L0029-06C6D6; T04Q0007-28; T04Q0007-38A; T04W0050:04T
FA AI; AN; DAV; DS; DT; ED; EPC; EW; ICO; IN; INS; IPC; IPCI; IPCR; LA; PA;
PAS; PI; PIT; PRAI; REN; REP; REXP; TI
CHG CIT A

LEGAL STATUS
AN 53039753 INPADOCDB ED 20070505 EW 200718 UP 20070505 UW 200718
TI Verfahren und Vorrichtung zur Speicherung und Verteilung von
Verschlüsselungsschlußeln.
Method and apparatus for storing and distributing encryption keys.
Verfild et dispositif pour stocker et distribuer des clés de cryptage.

TL German; French

IN SOWA, HANS CHRISTOPHER; MCDONALD, DANIEL J.; CHATER-LEA, DAVID J.;
KREMSKE, RANDY; PAPPAS, SCOTT J.; JOHUR, JASON; NEWKIRK, DENNIS;
ANDERSON, WALTER F.; WALTON, GLENN BRIAN

INS SOWA HANS CHRISTOPHER, US; MCDONALD DANIEL J, GB;
KREMSKE RANDY, US; PAPPAS SCOTT J, GB; JOHUR JASON, GB;
NEWKIRK DENNIS, US; ANDERSON WALTER F, US; WALTON GLENN BRIAN, GB

PA MOTOROLA, INC.

LEGAL STATUS
AN 53039753 INPADOCDB
20070502 EPAPK + DESIGNATED CONTRACTING STATES:

20070502 EPRIC1 CLASSIFICATION (CORRECTION)

20070502 EPAPK class= BaseClass name="EPRIC1" value="CLASSIFICATION (CORRECTION)"

20060101AEP 20070314BHEP
Family Updates | FFAMUP | FFAMED | LFAMUP | FFAMUP.DE | FFAMUP.EP | LFAMUP.WO
--- | --- | --- | --- | --- | --- | ---
EPA1 (new record + LS entry) | ✔ | ✔ | ✔ | | | 
WOA2 (updated) | ✔ | | | | | 
EPB1 (LS update) | | | | | | 
US (updated) | | | | | | 
WO (LS update) | | | | | | 
DE (new record) | ✔ | | | | | 

52.9.7 Using the Update fields in special cases

It is possible that a first publication of an invention that is entered in the INPADOCDB/INPAFAMDB databases misses certain details (e.g., IPC codes, patent assignee name). If such documents need to be present in the SDI results do not use the fields marking the first entry of a patent family, e.g., /EDP, but rather use either /ED (new national publications) or one of the /UP fields (update of bibliographical details, including IPC).
Types of search

In an SDI on document basis in the INPADOCDB database /ED or /UP should be used as the update field rather than /EDP. As all publications of a family appear in the SDI results in this case the question “ELIMINATE PREVIOUSLY SEEN ANSWERS WITH EACH SDI RUN?” should be answered YES when the SDI query is created (i.e. elimination of duplicates). (However, the documents are available to the system for this elimination for one year only. If the next publication is issued more than one year later it will show in the SDI results again.)

In an SDI on family basis in INPADOCDB or in an SDI in INPAFAMDB one of the /UP fields should be used rather than /EPF. The “ELIMINATE PREVIOUSLY SEEN ANSWERS…” question (elimination of duplicates) should be answered NO in this case because otherwise later family members will be lost.

Here are a few known problem cases:

- Some WO publications have no IPC codes. The codes will be entered later and the documents concerned are updated. In order not to lose these documents in a document based SDI in the INPADOCDB database the /UP field should be used and the question “ELIMINATE PREVIOUSLY SEEN ANSWERS…” should be answered NO.
  
  In a family based SDI use one of the UP fields and answer NO to the eliminate duplicates question.

- Some countries publish the fact that an application was made without actually publishing a document. In INPADOCDB these pseudo-documents receive the code D0 (e.g. GB-D0, IL-D0, NO-D0, SE-D0). However, the records do not contain all the data, in particular the IPC is often missing. If such a D0 record is the first record of a patent family the whole patent family, including later publications in other countries, will be lost in a SDI using a combination of IPC and the /EDF or /EDPR field. If /EDP is used any later national publications would be lost.

  When monitoring individual documents the /ED field should be used (rather than /EDP).

  In a family based SDI in the INPADOCDB database or in the INPAFAMDB database one of the /UP fields should be used rather than /EDF, too.

  However, usually these D0 records contain the Patent assignee name. So it is possible to perform a name search on this base:

  AN 53423387 INPADOCDB ED 20070705 EW 200727 UP 20070705 UW 200727
  TI Method for selecting a set of remote user terminals in a data communications network.
  TL English
  PA KNOTT, ANDREW M
  PAS KNOTT ANDREW M
  DT Patent
  PI GB 2007008500 D0 20070606
  PITT GB0 P A 2007008500 D0 20070606
  DAV 20070606 gazette reference
  STA PRE-GRANT PUBLICATION
  AI GB 2007-8500 A 20070502
  AIT GB A Patent application
  PRAI GB 2007-8500 A 20070502 (GBA, 20070705)
  PRAI T GBA Patent application
  FA AI; AN; DAV; DT; ED; EW; PA; PAS; PI; PITT; PRAI; TI

- In the past, publications of US applications often didn’t show the patent assignee or the inventor was entered into the PA field. From 2015, the USPTO has published Corporate Patent Assignee Names which are entered into the PA field or into designated fields. In order to cover all these fields the super search field /PASS should be used. In some cases it may still be that no patent assignee is present. This problem can be approached by including in the SDI profile the names of known inventors or possibly CPC or IPC codes in addition to the patent assignee name.

- In Japanese publications there is often no patent assignee, no inventor, or no title. Sometimes the data are added later, sometimes they are not. Concerning the update fields the same applies as in the cases described above (D0 publications, patent assignee). Always include the IPC to monitor Japanese publications.

52.9.7.1 DWPI, etc.

The issue of D0 publications does not exist in DWPI or other databases because this type of documents is not entered there. Anyway, the issue of patent assignees not being available in US applications should be considered. The ED field
is set when the Application is entered into the database. When the document is updated, e.g. after grant of a patent, and the patent assignee becomes available the ED field remains unchanged. In this case the /UP field should be used rather than the /ED field, answering NO to the question “ELIMINATE PREVIOUSLY SEEN ANSWERS WITH EACH SDI RUN?” (assuming that you wish to receive all family members).
Search examples
53 Subject search example

53.1 Example 1
What inventions about brakes for in-line skates do exist?

53.1.1 Subject classification using IPC codes

<table>
<thead>
<tr>
<th>A63</th>
<th>Section</th>
<th>Section A — HUMAN NECESSITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A63</td>
<td>Class</td>
<td>SPORTS; GAMES; AMUSEMENTS</td>
</tr>
<tr>
<td>A63C</td>
<td>Subclass</td>
<td>SKATES; SKIS; ROLLER SKATES; DESIGN OR LAYOUT OF COURTS, RINKS OR THE LIKE [5]</td>
</tr>
<tr>
<td>A63C 17</td>
<td>Group</td>
<td>Roller skates; Skate-boards [4]</td>
</tr>
<tr>
<td>A63C 17/00</td>
<td>Main Group</td>
<td>Roller skates; Skate-boards [4]</td>
</tr>
<tr>
<td>A63C 17/01</td>
<td>Sub Group</td>
<td>Skate-boards (A63C17/02 to A63C17/28 take precedence) [4]</td>
</tr>
<tr>
<td>A63C 17/02</td>
<td>Sub Group</td>
<td>with wheels arranged in two pairs</td>
</tr>
<tr>
<td>A63C 17/04</td>
<td>Sub Group</td>
<td>with wheels arranged otherwise than in two pair</td>
</tr>
<tr>
<td>A63C 17/06</td>
<td>Sub Group</td>
<td>. single-track type</td>
</tr>
<tr>
<td>A63C 17/08</td>
<td>Sub Group</td>
<td>. single-wheel type</td>
</tr>
<tr>
<td>A63C 17/10</td>
<td>Sub Group</td>
<td>. with endless tracks</td>
</tr>
<tr>
<td>A63C 17/12</td>
<td>Sub Group</td>
<td>. with driving mechanisms</td>
</tr>
<tr>
<td>A63C 17/14</td>
<td>Sub Group</td>
<td>. with brakes, e.g. toe stoppers, freewheel roller clutches</td>
</tr>
<tr>
<td>A63C 17/16</td>
<td>Sub Group</td>
<td>. for use on specially shaped or arranged runways</td>
</tr>
<tr>
<td>A63C 17/18</td>
<td>Sub Group</td>
<td>. convertible into ice or snow-running skates</td>
</tr>
</tbody>
</table>

These IPC codes are used for searching:
- A63C 17/04, A63C 17/06 and A63C 17/08 for the ‘in-line skates’ aspect,
- A63C 17/14 for the ‘brakes for roller skates’ aspect.

53.1.2 Keywords
The keywords to be searched in the patent databases can be arranged in these groups:
1. Expressions for skates/roller skates,
2. Expressions for ‘in-line’,
3. Expressions for brakes.

We use the following English words for searching:
1. Skate, Rollerskate, Roller skate, Rollerblade, Roller blade, Roller shoe
2. In-line, Inline, Aligned, Single-row, One-row, Single-track, One-track
3. Brake, Braking, Stop

The English words are partly used in German publications, too. For the German language databases we should additionally use the corresponding German words:
1. Rollschuhe
2. Einspurig, einreihig
3. Brems-, Abbrems-, Anhalt-

The words from groups (1) and (2) will be linked by a proximity operator.

The classification codes will be linked to the text search by AND (see below).

53.1.3 Linking classification and text search
Classification codes were found for all aspects of the search question. As a plain classification search may lead to a large number of hits (in particular in international databases) the search by classification should be linked to the search by keywords. The various combinations of classification codes (IPC) and keywords should be considered, e.g.:
1. IPC (brakes for skates) AND Keywords (in-line skates)
2. IPC (in-line skates) AND Keywords (brakes)
3. IPC (brakes for skates) AND IPC (in-line skates)
4. Keywords (in-line skates) AND Keywords (brakes)

At last the individual results are combined by OR to form the overall result.

Combination (3) improves the overall result in particular for documents lacking text fields (e.g. utility models in PATDPA, where there is neither an abstract nor a claim) while combination (4) yields an improved result with incomplete or unfavourable classification.

53.1.4 Search with IPC: DWPI, alternative 1

(Bibliographic file in English, IPC8 with re-classification, using the field IPC for IPC1–8, for IPC1–7 the ICI and ICA fields are included, attributes are not used in this example, range searching, search in the /BI field)

53.1.4.1 Command file for searching with STN Express
(cf. “Monitoring patents” or the STN Express manual)

```plaintext
/* SEARCH "BRAKES FOR IN-LINE SKATES" IN THE WPINDEX FILE
=> fil wpindex
/* IPC: ASPECT "IN-LINE SKATES"
=> s (a63c0017-04-a63c0017-08)/ipc > _IPCinlsk
/* IPC: ASPECT "BRAKES"
=> s (a63c0017-14)/ipc > _IPCbrake
/* KEYWORDS: ASPECT "IN-LINE SKATES"
=> s ?skat? > _kw1
  => s ?rollerblad? or ?roller?(1)a?blad? > _kw2
  => s ?roller?(1)a?shoe? > _kw3
  => s _kw1 _kw3 > _kw4
  => s inline or in-line > _kw5
  => s align## > _sw6
  => s (single or one){1a}row# or track# > _kw7
  => s _kw5 _kw7 > _kw8
  => s _kw4(3a)_kw8 > _KWinlsk
/* KEYWORDS: ASPECT "BRAKES"
=> s ?brake? or ?braking or stop#### > _KWbrake
/* LINKING
=> s _IPCinlsk and _KWbrake > _res1
=> s _IPCbrake and _KWinlsk > _res2
=> s _KWlnsk and _KWbrake > _res3
=> s _IPCinlsk and _IPCbrake > _res4
=> s _res1 _res4 > _res
```

53.1.4.2 Search

```plaintext
=> fil wpindex
FILE 'WPINDEX' ENTERED
COPYRIGHT (C) 2013 THOMSON REUTERS

IPC: aspect 'in-line skates'
=> s (A63C0017-04-A63C0017-08)/IPC
L1 2540 (A63C0017-04-A63C0017-08)/IPC (3 TERMS)
    (A63C0017-04+NEXT2/IPC)

IPC: aspect 'brakes'
=> s (A63C0017-14)/IPC
L2 1425 (A63C0017-14)/IPC

Keywords on the aspect 'in-line skates' follow now.

=> s ?SKAT?
L3 12845 ?SKAT?
=> s ?ROLLERBLAD? or ?ROLLER?(1A)?BLAD?
```
Guide to STN Patent Databases

There being no stop words in DWPI, ‘in’ is searched. The hyphen is interpreted as (W) proximity, which can be seen in the postings (in brackets).

Next are keywords on the aspect ‘brakes’.

Now the keywords and IPC codes are linked in four combinations, see the introduction to this example.

The overall result is achieved by OR.

With 1036 hits the search strategy should be refined. To check the result and to find more aspects to refine the search a few titles are displayed with D SCAN.

=> D SCAN

412
Search examples

- Detachable in-line skate has sliding module which is slid according to rotation of footstool in wheel frame, and mode conversion piece enforces hanging of sliding module in walk mode to perform conversion to driving mode from break mode.

- Composite structure used in e.g. automobiles, comprises overmolding resin composition over portion of the surface having portion made of surface resin composition containing fibrous material impregnated with matrix resin composition.

- Ball-slide sport shoes, have chassis provided with back braking block corresponding to position of heel, and soles, chassis, slide ball, front braking block and back braking block that are integrally fixed.

- Single wheel skate - in which a shoe sole only contains a single roller and a braking rubber block.

- Frame for in-line skate, has front portion of heel brake pad provided with gap, where wheel rotary part is provided for right in-line skate over wheel diameter.

To check the titles one should save the answer set with the SAVE command. The search can then be continued later with more specific search terms.

=> SAVE L17 INLWPI/A

A refinement could for example be the type of brakes:

- Hand-actuated brakes
- Brakes acting on the ground
- Brakes acting on the wheels

However, as the IPC does not offer specific enough classes this requires a keyword search.

53.1.5 Search with IPC: DWPI, alternative 2

(Bibliographic file in English, IPC8 with re-classification, using the field IPC for IPC1–8, for IPC1–7 the ICI and ICA fields are included, attributes are used in this example for invention information, range searching)

53.1.5.1 Command file for searching with STN Express

```c
\* SEARCH "BRAKES FOR INLINE-SKATES" IN THE WINDEX FILE
=> fil windex

\* IPC: ASPECT "INLINE-SKATES"
=> s (a63c0017-04-a63c0017-08)/ipc (s) (i or l cm or l cs)/ipc.kw > _IPCinlsk

\* IPC: ASPECT "BRAKES"
=> s (a63c0017-14)/ipc (s) (i or l cm or l cs)/ipc.

\* KEYWORDS: ASPECT "INLINE SKATES"
=> s ?skat?
```
Guide to STN Patent Databases

=> s rollerblad? or roller?(1a)?blad?\>_kw2
=> s roller?(1a)?shoe?\>_kw3
=> s kw1\.kw3\>_kw4
=> s inline or in\>-line\>_kw5
=> s align##\>_sw6
=> s (single or one)(1a)(row# or track#)\>_kw7
=> s kw5\.kw7\>_kw8
=> s kw4\>_KWnlsk

\* KEYWORDS: ASPECT "BRAKES"
=> s brake? or braking or stop####\>_KWbrake

\* LINKING
=> s IPCinlsk and KWbrake\>_res1
=> s IPCbrake and KWnlsk\>_res2
=> s KWnlsk and KWbrake \>_res3
=> s IPCinlsk and IPCbrake\>_res4
=> s res1\>_res\>_res

53.1.5.2 Search

=> FIL WPINDEX
FILE 'WPINDEX' ENTERED
COPYRIGHT (C) 2013 THOMSON REUTERS

... 

=> DIS WPINDEX
FILE 'WPINDEX' ENTERED
L1 2471 S (A63C0017-04-A63C0017-08)/IPC (S) (I OR ICM OR ICS)/IPC.KW
L2 1393 S (A63C0017-14)/IPC (S) (I OR ICM OR ICS)/IPC.KW
L3 12845 S ?SKAT?
L4 3211 S ?ROLLERBLAD? OR ?ROLLER?(1A)?BLAD?
L5 1050 S ?ROLLER?(1A)?SHOE?
L6 16456 S L3-L5
L7 55962 S INLINE OR IN-LINE
L8 297855 S ALIGN##
L9 22541 S (SINGLE OR ONE)(1A)(ROW# OR TRACK#)
L10 372196 S L7-L9
L11 2542 S L6\(3A\)L10
L12 914112 S ?BRAKE? OR ?BRAKING OR STOP####
L13 546 S L1 AND L12
L14 468 S L2 AND L11
L15 553 S L1 AND L12
L16 501 S L1 AND L2
L17 1018 S L13-L16

This alternative search strategy using attributes yields 18 fewer documents than the first one.
53.1.6  Search with IPC: DWPI, alternative 3

(Bibliographic file in English, IPC8 with re-classification, using the field IPC for IPC1–8, for IPC1–7 this covers the ICI and ICA fields, attributes are not used in this example, range searching, search in Bl field, search is extended to the BIEX field)

53.1.6.1  Search strategy

<table>
<thead>
<tr>
<th>“Brakes” aspect</th>
<th>“Ground contact” aspect</th>
<th>“In-line skates” aspect</th>
</tr>
</thead>
<tbody>
<tr>
<td>brake</td>
<td>contacting the ground</td>
<td>skate</td>
</tr>
<tr>
<td>braking</td>
<td>contacting the ground</td>
<td>rollerblade</td>
</tr>
<tr>
<td>stop</td>
<td>contacting the ground</td>
<td>roller blade</td>
</tr>
<tr>
<td></td>
<td>contacting the ground</td>
<td>roller shoe</td>
</tr>
<tr>
<td></td>
<td>contacting the ground</td>
<td>inline</td>
</tr>
<tr>
<td></td>
<td>contacting the ground</td>
<td>in line</td>
</tr>
<tr>
<td></td>
<td>contacting the ground</td>
<td>align</td>
</tr>
<tr>
<td></td>
<td>contacting the ground</td>
<td>single row</td>
</tr>
<tr>
<td></td>
<td>contacting the ground</td>
<td>single track</td>
</tr>
<tr>
<td></td>
<td>contacting the ground</td>
<td>one row</td>
</tr>
<tr>
<td></td>
<td>contacting the ground</td>
<td>one track</td>
</tr>
<tr>
<td>A63C0017-14</td>
<td>(No IPC code available)</td>
<td>A63C0017-04</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A63C0017-06</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A63C0017-08</td>
</tr>
</tbody>
</table>

53.1.6.2  Command file for searching with STN Express

```plaintext
* SEARCH ’GROUND CONTACTING BRAKES FOR IN-LINE SKATES’ IN WPINDEX
=> fil wpindex
*
* BRAKES
=> s ?brake? or ?braking or stop### > _SWbrake
=> s (A63C0017-14)/IPC > _IPCbrake
=> s _SWbrms or _IPCbrms > _Brake
*
* GROUND CONTACT
=> s contact? (3a) ground? or groundcontact? > _Contact
*
* IN-LINE SKATES
=> s ?skat? or ?rollerblad? or ?roller?(1a)?blad? or ?roller?(1a)?shoe? > _SWskate
=> s inline or in-line or align## or (single or one)(1a)(row# or track#) > _SWinl
=> s _SWskate(3a)_SWinl > _SWinlsk
=> s (A63C0017-04-A63C0017-08)/IPC > _IPCinlsk
=> s _SWinlsk or _IPCinlsk > _Skate
*
* LINKING
=> s _Brake and _Contact and _Skate
```

53.1.6.3  Search

```plaintext
=> fil wpindex
FILE ’WPINDEX’ ENTERED
COPYRIGHT (C) 2013 THOMSON REUTERS
...
=> D HIS
L1 914112 S ?BRAKE? OR ?BRAKING OR STOP###
L2 1425 S (A63C0017-14)/IPC
L3 914440 S L1 OR L2
L4 19176 S CONTACT? (3A) GROUND?
L5 16456 S ?SKAT? OR ?ROLLERBLAD? OR ?ROLLER?(1A)?BLAD? OR ?ROLLER?(1A)?
L6 372196 S INLINE OR IN-LINE OR ALIGN## OR (SINGLE OR ONE)(1A)(ROW# OR T
L7 2542 S L5(3A)L6
L8 2540 S (A63C0017-04-A63C0017-08)/IPC
L9 4077 S L7 OR L8
L10 56 S L3 AND L4 AND L9
```
The new aspect introduces some limitation because the IPC cannot be used for this aspect. The search is extended to the BIEX field:

```
=> SET SFIELDS BI BIEX

...  

=> D HIS  
FILE 'WPINDEX' ENTERED
L11 1244963 S ?BRAKE? OR ?BRAKING OR STOP####
L12 1393 S (A63C0017-14)/IPC(S) (I OR ICM OR ICS)/IPC.KW
L13 1245203 S L11 OR L12
L14 30477 S CONTACT? (3A) GROUND? OR GROUNDCONTACT?
L15 30664 S (SKAT? OR ?ROLLERBLAD? OR ?ROLLER?(1A)?BLAD? OR ?ROLLER?(1A)? 
L16 551938 S INLINE OR I N-LINE OR ALIGN## OR (SINGLE OR ONE)(1A)(ROW# OR T
L17 2794 S L15(3A)L16
L18 2471 S (A63C0017-04-A63C0017-08)/IPC (S) (I OR ICM OR ICS)/IPC.KW
L19 4196 S L17 OR L18
L20 97 S L13 AND L14 AND L19
L21 42 S L20 NOT L10

The search in BIEX yields 42 more documents. When looking at the titles you will find more expressions for the "ground contact" aspect.

=> D SCAN
L21 42 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
TI Ground engaging in-line roller skate brake which is remotely 
activated - has aligned wheels attached to boot, two slidably engaged 
brake members moving between two positions with braking surface above 
and in contact with skating surface

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1): 2
L21 42 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
TI Brake system for roller skates - has brake pad that is moved to make 
contact with skating surface when tension is applied to actuating line 
through handle
L21 42 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
TI Roller ski for use on non snow or turf surfaces, has single row of rollers 
supported by bearings at bottom surface center of roller ski board

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

53.1.7 Search with IPC: full-text databases PATDPAFULL, EPFULL, PCTFULL
(Full-text databases, IPC8, employing range search, search in the full text (in English and German) and in the TI, AB, CLM fields)

53.1.7.1 Command file for searching with STN Express

```
rem SEARCH 'GROUND CONTACTING BRAKES FOR IN-LINE SKATES' 
rem IN PATDPAFULL, EPFULL AND PCTFULL
=> fil patdpafull epfull pctfull

rem BRAKES
=> s (?brake? or ?braking or stop#### or ?abbrems? or ?anhalt?)\_SWbrake
=> s (A63C0017-14)/ipc \_IPCbrake
=> s \_SWbrake or \_IPCbrake\_Brake

rem GROUND CONTACT
=> s (contact? [3a] ground? or groundcontact? or ?bodenkontakt? or boden [3a]
kontakt?)\_Contact
```
Search examples

\* IN-LINE SKATES

=> s (?skat? or ?rollerblad? or ?roller?(1a)?blad? or ?roller?(1a)?shoe? or rollschuhe?) \> \_SWskate

=> s (inline or in-line or align## or (single or one)(1a)(row# or track#) or einspur? or ?einreih?) \> _SWinl

=> s _SWskate (3a)_SWinl or inlineskat?

=> s _SWinlsk or _IPCinlsk \> _Skate

\* LINKING

=> s _Brake and _Contact and _Skate

53.1.7.2 Search

=> FIL PATDPAFULL EPFULL PCTFULL

Search in the full text

=> D HIS FILE 'PATDPAFULL, EPFULL, PCTFULL' ENTERED

L1  1198065 S (?BRAKE? OR ?BRAKING OR STOP### OR ?ABBREMS? OR ?ANHALT?)
L2   683 S (A63C0017-14)/IPC
L3  1198360 S L1 OR L2
L4   3973 S (CONTACT? (3A) GROUND? OR GROUNDCONTACT? OR BODENKONTAKT? OR
L5   8827 S (?SKAT? OR ?ROLLERBLAD? OR ?ROLLER?(1A)?BLAD? OR ?ROLLER?(1A)
L6   792631 S (INLINE OR IN-LINE OR ALIGN## OR (SINGLE OR ONE)(1A)(ROW# OR
L7  227400 S L5 (3A)L6 OR INLINESKAT?
L8   1378 S (A63C0017-04-A63C0017-08)/IPC
L9   3294 S L7 OR L8
L10  304 S L3 AND L4 AND L9

It may be a good idea to use the TI, AB, CLM fields rather than the Basic Index to obtain fewer, but more relevant documents.

D HIS FULL provides more information on the search history.

=> D HIS FULL FILE 'PATDPAFULL, EPFULL, PCTFULL' ENTERED

L1  297543 SEA ABB=ON (?BRAKE? OR ?BRAKING OR STOP### OR ABBREMS? OR
ANHALT?)/TI, AB, CLM
L2   683 SEA ABB=ON (A63C0017-14)/IPC
L3  297913 SEA ABB=ON L1 OR L2
L4   9976 SEA ABB=ON (CONTACT? (3A) GROUND? OR GROUNDCONTACT? OR
BODENKONTAKT? OR BODEN (3A) KONTAKT?)/TI, AB, CLM
L5  29985 SEA ABB=ON (?SKAT? OR ?ROLLERBLAD? OR ?ROLLER?(1A)?BLAD? OR
?ROLLER?(1A)?SHOE? OR ROLLSCHUH?)/TI, AB, CLM
L6  227400 SEA ABB=ON (INLINE OR IN-LINE OR ALIGN## OR (SINGLE OR
ONE)(1A)(ROW# OR TRACK#) OR EINSPUR? OR EINREIH?)/TI, AB, CLM
L7   1546 SEA ABB=ON L5 (3A)L6 OR INLINESKAT?
L8  1378 SEA ABB=ON (A63C0017-04-A63C0017-08)/IPC
L9   2249 SEA ABB=ON L7 OR L8
L10   38 SEA ABB=ON L3 AND L4 AND L9

53.1.8 Search with USCL: USPATFULL (Full text database)

Note: Since 2015, the CPC has been used for new US documents throughout. All old documents have been assigned CPC codes. Thus, a search by USCL should only be made to complement a CPC search.

53.1.8.1 Subject classification using USCL codes

<table>
<thead>
<tr>
<th>188/ NCL</th>
<th>BRAKES</th>
</tr>
</thead>
<tbody>
<tr>
<td>18802000/R/NCL</td>
<td>VEHICLES</td>
</tr>
<tr>
<td>18800500/R/NCL</td>
<td>Ground-engaging</td>
</tr>
<tr>
<td>18806000/R/NCL</td>
<td>Sprag</td>
</tr>
<tr>
<td>18807000/R/NCL</td>
<td>Anchors</td>
</tr>
<tr>
<td>18808000/R/NCL</td>
<td>Sled</td>
</tr>
<tr>
<td>280/ NCL</td>
<td>LAND VEHICLES</td>
</tr>
<tr>
<td>280841000/NCL</td>
<td>SKATES</td>
</tr>
</tbody>
</table>
Guide to STN Patent Databases

280011190/NCL , Wheeled skate
280011201/NCL , With retrogression prevention
280011202/NCL , Including skate ventilation
280011203/NCL , Including lighting means
280011204/NCL , With brake
280011205/NCL , Continuously applied brake
280011206/NCL , Brake includes roller engageable with skating surface
280011207/NCL , Brake element rigidly attached to skate frame
280011208/NCL , Brake element engageable with skating surface
280011209/NCL , Element attached to front end of skate
280011211/NCL , Brake element movably mounted to skate frame
280011212/NCL , Hand actuated brake controller
280011213/NCL , Wireless brake controller
280011214/NCL , Leg operated brake controller
280011215/NCL , Brake element pivotally mounted
280011216/NCL , Brake element engageable with skating surface
280011217/NCL , Brake element engaging skating surface and wheel
280011221/NCL , In-line wheels (e.g., in-line skates)
280011222/NCL , Different size wheels
280011223/NCL , Axle mounting arrangement
280011224/NCL , Including pivotally mounted boot
280011225/NCL , Including shock absorbing means
280011226/NCL , Spherical wheels
280011227/NCL , Cylindrical wheels
280011231/NCL , Three or four wheels
280011232/NCL , A wheel raised above skating surface
280011233/NCL , Two wheels
280011240/NCL , One-wheel
280011250/NCL , Two-wheeled
280011260/NCL , Extensible
280011270/NCL , Trucks and mountings
280011280/NCL , Resiliently yieldable

We are going to do a US classification search only. As USPATFULL also has IPC codes (generated with the help of a concordance list) these can of course be used, too (with some disadvantages, see the section on “Search by patent classification*). The search strategy would be basically as in DWPI. When linking keywords (P) proximity should be preferred over the Boolean AND operator. It is even possible to combine a USCL and an IPC search.

The US classification is much more specific regarding our field of search than the IPC, which suggests a much narrower search strategy. As existing documents in the databases are re-classified with every change of the USCL the old classes do not need to be considered and we can just simply enter the current classes. In our example we limit this search to hand-actuated brakes for inline skates. These are the classes we are going to use for our search:

- 188005000-188008000 for the ‘brakes’ aspect and
- 280011211, 212, 213 for ‘hand-actuated brakes for skates with wheels’
- 280011221, 222, 223, 224, 225, 226, 227, 231, 232, 233 for ‘inline-skates’

The keywords to be searched in the patent databases can be arranged in these groups:

1. Expressions for skates/roller skates,
2. Expressions for ‘in-line’,

To compare here is the classification from the year 1999. Please note how much the classification system was refined in the meantime and how the classification system follows the latest developments.

280/ NCL LAND VEHICLES
280841000/NCL SKATES
280011190/NCL , Wheeled skate
280011201/NCL , With brake
280011210/NCL , With retrogression preventers
280011220/NCL , Tandem wheels
280011230/NCL , Two-wheeled
280011240/NCL , One-wheel
280011250/NCL , Two-wheeled
280011260/NCL , Extensible
280011270/NCL , Trucks and mountings
280011280/NCL , Resiliently yieldable

We are going to do a US classification search only. As USPATFULL also has IPC codes (generated with the help of a concordance list) these can of course be used, too (with some disadvantages, see the section on “Search by patent classification*). The search strategy would be basically as in DWPI. When linking keywords (P) proximity should be preferred over the Boolean AND operator. It is even possible to combine a USCL and an IPC search.

The US classification is much more specific regarding our field of search than the IPC, which suggests a much narrower search strategy. As existing documents in the databases are re-classified with every change of the USCL the old classes do not need to be considered and we can just simply enter the current classes. In our example we limit this search to hand-actuated brakes for inline skates. These are the classes we are going to use for our search:

- 188005000-188008000 for the ‘brakes’ aspect and
- 280011211, 212, 213 for ‘hand-actuated brakes for skates with wheels’
- 280011221, 222, 223, 224, 225, 226, 227, 231, 232, 233 for ‘inline-skates’

The keywords to be searched in the patent databases can be arranged in these groups:

1. Expressions for skates/roller skates,
2. Expressions for ‘in-line’,

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Search examples

3. Expressions for hand-actuated brakes.

We use the following English words for searching:

1. Skate, Rollerskate, Roller skate, Rollerblade, Roller blade, Roller shoe
2. In-line, Inline, Aligned, Single-row, One-row, Single-track, One-track
3. Handbrake, wireless brake, contact-less brake

We have to decide whether to search in the Basic Index with the option of left and right truncation (floating stem) or in the /TI, /AB, and /CLM fields only which do not offer left truncation. In this example we are going to use the Basic Index.

When linking the class and keyword searches we are going to consider that these classes are very specific already.

53.1.8.2 Command file for searching with STN Express

```plaintext
/* SEARCH 'BRAKES FOR INLINE-SKATES' IN THE USPATFULL FILE
=> fil uspatfull
*/

/* NCL: ASPECT INLINE-SKATES */
=> s (280011221 or 280011222 or 280011223 or 280011224 or 280011225 or 280011226 or 280011227 or 280011231 or 280011232 or 280011233)/ncl,incl> _NClInl

/* NCL: ASPECT "HAND BRAKE FOR ROLLER SHOES" */
=> s (280011221 or 280011223)/ncl,incl> _NClhand

/* NCL: ASPECT BRAKES */
=> s (188005000+nt)/ncl,incl> _NClbrake

/* KEYWORDS: ASPECT INLINE-SKATES */
=> s ?skat? > _KW1
  => s ?rollerskat? > _KW2
  => s (roller(1a)blad? or roller(1a)blad?) > _KW3
  => s (roller(1a)shoe# or ?rollershoe?) > _KW4
  => s _KW1, _KW4 > _KWskae
  => s (inline or in-line) > _KW5
  => s align## > _KW6
  => s ((single or one)(1a)(row# or track#)) > _KW7
  => s _KW5, _KW7 > _KWinl
  => s _KWskae (3a) _KWinl

/* KEYWORDS: ASPECT HAND BRAKES */
=> s ((?hand? or ?wireless? or ?contactless?)(2a)?brak? or ?handbrak?) > _KWhand

/* LINKING */
=> s _NClhand > _res1
=> s _NClbrake and _KWhand > _res2
=> s _NClbrake and ( _KWinl (p) _KWhand ) > _res3
=> s _KWinl (p) _KWhand > _res4
=> s _res1 - _res4
```

53.1.8.3 Search

```plaintext
=> fil USPATFULL
```

Classification codes for the ‘in-line skates’ aspect.

```plaintext
=> s (280011221 OR 280011222 OR 280011223 OR 280011224 OR 280011225 OR 280011226 OR 280011227 OR 280011231 OR 280011232 OR 280011233)/NCL,INCL
```

Classification codes on ‘handbrakes for roller skates’.

```plaintext
=> s (280011212 OR 280011213)/NCL,INCL
```

Classification codes on ‘brakes’ aspect.
Guide to STN Patent Databases

=> S (188005000+NT)/NCL,INCL
L3 322 (188005000+NT)/NCL,INCL

This is followed by the keyword search for the 'in-line skates' aspect.

=> QUE ?SKAT?
L4 QUE ?SKAT?

=> QUE ?ROLLERSKAT?
L5 QUE ?ROLLERSKAT?

=> QUE (?ROLLERBLAD? OR ROLLER(1A)BLAD?)
L6 QUE (?ROLLERBLAD? OR ROLLER(1A)BLAD?)

=> QUE (ROLLER(1A)SHOE# OR ?ROLLERSHOE?)
L7 QUE (ROLLER(1A)SHOE# OR ?ROLLERSHOE?)

=> QUE L4·L7
L8 QUE (L4 OR L5 OR L6 OR L7)

=> QUE (INLINE OR IN-LINE)
L9 QUE (INLINE OR IN-LINE)

=> QUE ALIGN##
L10 QUE ALIGN##

=> QUE ((SINGLE OR ONE)(1A)(ROW# OR TRACK#))
L11 QUE ((SINGLE OR ONE)(1A)(ROW# OR TRACK#))

=> QUE L9·L11
L12 QUE (L9 OR L10 OR L11)

=> QUE L8 (3A)L12
L13 QUE L8 (3A)L12

Keywords on 'handbrakes'


Linking with (P) proximity is advisable when searching with keywords in the Basic Index of full text databases.

=> S L2
L15 65 (280011212 OR 280011213)/NCL,INCL

=> S L1 AND L14
L16 49 L1 AND L14

=> S L3 AND (L13 (P) L14)
L17 9 L3 AND (L13 (P) L14)

=> S L13 (P) L14
L18 31 L13 (P) L14

=> S L15·L18
L19 95 (L15 OR L16 OR L17 OR L18)

=> D 1-6 TI INCL NCL
L19 ANSWER 1 OF 95 USPATFULL on STN
Ti Hand held skating device
INCL INCLM: 280/087.010
INCLS: 280/841.000; 188 5; 280/028.500; 280/011.180
NCL INCLM: 280/087.010
NCLS: 188/005.000; 280/011.180; 280/028.500; 280/841.000

L19 ANSWER 2 OF 95 USPATFULL on STN
Ti Recreational and sporting device for movement over ground
INCL INCLM: 280/011.190
NCL INCLM: 280/011.212; 280/011.190
NCLS: 280/011.140; 280/602.000; 280/607.000; 280/DIG.013

420
53.2 Example 2

This search is on applications of GPS (the Global Positioning System) on golf courses.

53.2.1 Subject classification using Derwent Manual Codes

The codes have to be found in the manual or from documents already known. The thesaurus may then be used online and the search be performed using the E numbers created.

Similar to a search by IPC codes or other classification systems the search by Derwent Manual Codes should be complemented by a keyword search as it is difficult to find classification codes for all possible applications. A plain keyword search may not be necessary if the subject field is sufficiently covered by Manual Codes but may be useful to check the result or to find additional codes.

53.2.2 Search in DWPI

=> F I L W P I N D E X
FILE 'W P I N D E X ' ENTERED
COPYRIGHT (C) 2013 THOMSON REUTERS

=> S E T E X P CONT
SET COMMAND COMPLETED

=> E W 0 6 - A 0 3 + A L L / M C
E1 234489 BT2 W06/MC
   DEF AVIATION, MARINE AND RADAR SYSTEMS
E2 2449 BT1 W06-A/MC
   DEF RADAR, NAVIGATION, ETC.
E3 10347 - > W06-A03/MC
   DEF POSITION FIXING
E4 4573 NT1 W06-A03A/MC
   DEF SATELLITE BASED SYSTEM E.G. GPS
   HNTE (1992- )
E5 507 NT2 W06-A03A1/MC
   DEF NOVEL ASPECTS OF GPS
   HNTE (1997- )
E6 5754 NT2 W06-A03A5/MC
   DEF GPS APPLICATIONS
   HNTE (1997- )
E7 750 NT3 W06-A03A5A/MC
   DEF DIFFERENTIAL GPS
   HNTE (2002- )
E8 16580 NT3 W06-A03A5C/MC
   DEF ABSOLUTE POSITION DETERMINATION
   HNTE (2002- )
E9 3440 NT3 W06-A03A5E/MC
Guide to STN Patent Databases

DEF POSITION DETERMINATION FOR SECONDARY PURPOSE
HNTE (2002- )
E10 609 NT3 W06-A03A5G/MC
DEF USE OF GPS AS A TIME STANDARD
HNTE (2002- )
E11 114 NT3 W06-A03A5J/MC
DEF USE OF GPS AS A FREQUENCY STANDARD
HNTE (2002- )
E12 38 NT3 W06-A03A5M/MC
DEF GPS JAMMING/ANTI-JAMMING
HNTE (2007- )
E13 2114 NT3 W06-A03A5R/MC
DEF NOVEL GPS RECEIVER
HNTE (2002- )
E14 170 NT3 W06-A03A5X/MC
DEF OTHER GPS APPLICATIONS
HNTE (2002- )
E15 1659 NT1 W06-A03B/MC
DEF USING RADIO WAVES
HNTE (2005- )
E16 209 NT1 W06-A03D/MC
DEF USING LIGHT WAVES
HNTE (2005- )
E17 432 NT1 W06-A03F/MC
DEF USING SONIC OR ULTRASONIC WAVE
HNTE (2005- )

********** END **********

=> S E3-E14
W06-A03 POSITION FIXING
W06-A03A SATELLITE BASED SYSTEM E.G. GPS
W06-A03A1 NOVEL ASPECTS OF GPS
W06-A03A5 GPS APPLICATIONS
W06-A03A5A DIFFERENTIAL GPS
W06-A03A5C ABSOLUTE POSITION DETERMINATION
W06-A03A5E POSITION DETERMINATION FOR SECONDARY PURPOSE
W06-A03A5G USE OF GPS AS A TIME STANDARD
W06-A03A5J USE OF GPS AS A FREQUENCY STANDARD
W06-A03A5M GPS JAMMING/ANTI-JAMMING
W06-A03A5R NOVEL GPS RECEIVER
W06-A03A5X OTHER GPS APPLICATIONS
10347 W06-A03J/MC
4573 W06-A03A/MC
507 W06-A03A1/MC
5754 W06-A03A5/MC
750 W06-A03A5A/MC
16580 W06-A03A5C/MC
3440 W06-A03A5E/MC
609 W06-A03A5G/MC
114 W06-A03A5J/MC
38 W06-A03A5M/MC
2114 W06-A03A5R/MC
170 W06-A03A5X/MC
L1 43401 (W06-A03/MC OR W06-A03A/MC OR W06-A03A1/MC OR W06-A03A5/MC OR W06-A03A5A/MC OR W06-A03A5C/MC OR W06-A03A5E/MC OR W06-A03A5G/MC OR W06-A03A5J/MC OR W06-A03A5X/MC OR W06-A03A5/MC OR W06-A03A5R/MC OR W06-A03A5X/MC)

Next are codes on the set-up of sports grounds, such as golf courses.

=> E W04-X01+ALL/MC
E18 883685 BT2 W04/MC
DEF AUDIO/VISUAL RECORDING AND SYSTEMS
E19 1799 BT1 W04-X/MC
DEF SPORTS, GAMES, TOYS
E20 6276 -- > W04-X01/MC
DEF SPORTS AND LEISURE
HNTE (1983- )
E21 4599 NT1 W04-X01A/MC

422
The codes relevant for golf courses are chosen and included in the search.

=> S E38 - E36, E44
W04-X01C COUNTING, TIMING, MEASURING, SCORING
W04-X01C1 COUNTING, TIMING, MEASURING, SCORING, DETECTION
Guide to STN Patent Databases

W04-X01C1A COUNTING, TIMING, MEASURING
W04-X01C1C DETECTION OF SCORING OR FAULT CONDITION
W04-X01C3 SCORING, SCORE DISPLAY
W04-X01D LOCATORS AND GUIDING SYSTEMS
W04-X01E SPORTS EQUIPMENT PER SE
W04-X01F SPORTS GROUNDS, STADIA, COURSES, INSTALLATIONS
W04-X01H WARNING SYSTEMS, ALARMS, PROTECTION
W04-X01K1L GOLF

The abbreviation ‘GPS’ having a different use in the CPI (Chemical Patents Index) segment of DWPI this segment is excluded from the search.

Next are four combinations of classification and keywords. This is the combination of the Manual Codes for the various aspects.

As it is difficult to find appropriate classification codes for all applications it is a good idea to use combinations with keywords.

And this is a plain keyword search.

To check some documents are displayed with D SCAN.

Golf ball locator for use by golfer at golf club, has processor controlling radar transceiver and display, calculating position of golf ball and providing display to inform user about position of golf ball
Search examples

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1): 5

L9 749 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN

TI Golf cart with automatic track guidance

L9 749 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN

TI Golf assistant terminal has arithmetic processing unit that processes required data for play and indicator that displays drop point based on result of arithmetic processing unit

L9 749 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN

TI Golf tournament information providing system for golf tournament hall, has information input portable terminal transmitting geographical positional information of golf ball and tournament basic information to management server

L9 749 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN

TI Measurement structure of distance in golf course uses portable measurement display device in displaying distance of green, and distance of cart to green in (liquid crystal display) LCD

L9 749 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN

TI Golf ball location system for use on golf course has display screen showing plan views or three-dimensional displays of golf course and using GPS navigation system

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

If the classification codes were good enough only few additional documents should be found in the plain keyword search—in this case there are 40 documents that were found exclusively by the keyword search.

=> S L9 NOT L5-7
L10 136 L9 NOT (L5 OR L6 OR L7)

=> SEL 1- MC
E77 THROUGH E382 ASSIGNED

The group T01J? (data processing systems) would probably be a good candidate to complement the search results.
54  Example for subject classification on-line (IPC)

54.1  Hierarchical search

Hierarchical search with the 2-point subgroup, G03F 7/027. All relevant subgroups should be included in the search.

Excerpt from the hierarchy of the IPC class, G03 – Photography

<table>
<thead>
<tr>
<th>Group</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>G03F 7/027</td>
<td>Non-macromolecular photopolymerisable compounds having carbon-to-carbon double bonds</td>
</tr>
<tr>
<td>G03F 7/028</td>
<td>with photosensitivity-increasing substances</td>
</tr>
<tr>
<td>G03F 7/029</td>
<td>Inorganic compounds; Onium compounds;</td>
</tr>
<tr>
<td>G03F 7/031</td>
<td>Organic compounds not covered by group G03F 7/029</td>
</tr>
<tr>
<td>G03F 7/032</td>
<td>with binders</td>
</tr>
<tr>
<td>G03F 7/033</td>
<td>the binders being polymers obtained by reactions only involving carbon-to-carbon unsaturated bonds</td>
</tr>
<tr>
<td>G03F 7/035</td>
<td>the binders being polyurethanes</td>
</tr>
<tr>
<td>G03F 7/037</td>
<td>the binders being polyamides or polyimides</td>
</tr>
</tbody>
</table>

=> FIL HCAPLUS

1. EXPAND with the IPC code shows whether this code is in the IPC thesaurus. The AT column refers to the IPC thesaurus.

2. Use the +NT relationship code to display all ‘Narrower Terms’.

=> E G03F0007-027/IPC 5

<table>
<thead>
<tr>
<th>E#</th>
<th>FREQUENCY</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>3</td>
<td>G03F0007-026/IPC</td>
</tr>
<tr>
<td>E2</td>
<td>1</td>
<td>G03F0007-0269/IPC</td>
</tr>
<tr>
<td>E3</td>
<td>9985</td>
<td>G03F0007-027/IPC</td>
</tr>
<tr>
<td>E4</td>
<td>4136</td>
<td>G03F0007-028/IPC</td>
</tr>
<tr>
<td>E5</td>
<td>2974</td>
<td>G03F0007-029/IPC</td>
</tr>
</tbody>
</table>

=> E G03F0007-027+NT/IPC

<table>
<thead>
<tr>
<th>E6</th>
<th>FREQUENCY</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E6</td>
<td>9985</td>
<td>G03F0007-027/IPC</td>
</tr>
</tbody>
</table>

=> E G03F0007-035/IPC 5

<table>
<thead>
<tr>
<th>E9</th>
<th>FREQUENCY</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E9</td>
<td>3195</td>
<td>G03F0007-031/IPC</td>
</tr>
</tbody>
</table>

=> E G03F0007-032/IPC 5

<table>
<thead>
<tr>
<th>E10</th>
<th>FREQUENCY</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E10</td>
<td>3012</td>
<td>G03F0007-032/IPC</td>
</tr>
</tbody>
</table>

=> E G03F0007-033/IPC 5

<table>
<thead>
<tr>
<th>E11</th>
<th>FREQUENCY</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E11</td>
<td>4208</td>
<td>G03F0007-033/IPC</td>
</tr>
</tbody>
</table>

=> E G03F0007-035/IPC 5

<table>
<thead>
<tr>
<th>E12</th>
<th>FREQUENCY</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E12</td>
<td>487</td>
<td>G03F0007-035/IPC</td>
</tr>
</tbody>
</table>
Search examples

E13 1125 NT2 G03F0007-037 IPC

... the binders being polyamides or polyimides

ADVANCED

VALID FROM 19900101 TO PRESENT (IPC EDITION: 5-8)

******** END *********

3. Use the +NT relationship code to search the IPC code and all 'Narrower Terms'.

=> S G03F0007-027+NT/IPC

L1 18761 G03F0007-027+NT/IPC (8 TERMS)

54.2 Range search

Searching all IPC codes from B60R 21/23 to B60R 21/239.

Excerpt from the hierarchy of IPC class, B60R 21 – Airbags

<table>
<thead>
<tr>
<th>IPC Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B60R21/16</td>
<td>Inflatable occupant restraints or confinements designed to inflate upon impact or impending impact, e.g. air bags (connection of valves to inflatable elastic bodies B60C 29/00) [4]</td>
</tr>
<tr>
<td>B60R21/23</td>
<td>...Inflatable members [2006.01]</td>
</tr>
<tr>
<td>B60R21/231</td>
<td>...characterised by their shape, e.g. shaped with respect to a specific part of the occupant's body (B60R 21/233 takes precedence) [2006.01]</td>
</tr>
<tr>
<td>B60R21/232</td>
<td>...Curtain-type airbags deploying mainly in a vertical direction from their top edge [2011.01]</td>
</tr>
<tr>
<td>B60R21/233</td>
<td>...comprising a plurality of individual compartments; comprising two or more bag-like members, one within the other [2006.01]</td>
</tr>
<tr>
<td>B60R21/234</td>
<td>...Expansion regulating features [2011.01]</td>
</tr>
<tr>
<td>B60R21/238</td>
<td>...Tethers [2011.01]</td>
</tr>
<tr>
<td>B60R21/239</td>
<td>...characterised by their material [2006.01]</td>
</tr>
<tr>
<td>B60R21/237</td>
<td>...characterised by the way they are folded [2006.01]</td>
</tr>
<tr>
<td>B60R21/239</td>
<td>...characterised by their venting means [2006.01]</td>
</tr>
<tr>
<td>B60R21/24</td>
<td>(transferred to B60R 21/233)</td>
</tr>
</tbody>
</table>

=> FIL INPADOCDB

=> S B60R0021-23 B60R0021-239/IPC

L1 14744 B60R0021-23 B60R0021-239/IPC (11 TERMS) (B60R0021-23+NEXT10/IPC)

Extension of the search to the code B60R0021-24.

=> S (B60R0021-23 B60R0021-239 OR B60R0021-24)/IPC

14744 B60R0021-23 B60R0021-239/IPC (11 TERMS) (B60R0021-23+NEXT10/IPC)

773 B60R0021-24/IPC

L2 14809 (B60R0021-23 B60R0021-239 OR B60R0021-24)/IPC

=> S L2 NOT L1

L3 65 L2 NOT L1

A small number of documents have not been re-classified.

Until re-classification is complete also use the old (now invalid) IPC codes. Even with re-classification you can still get hits with dropped codes.

=> D PI IPC.TAB

L3 ANSWER 1 OF 65 INPADOCDB COPYRIGHT 2013 EPO/FIZ KA on STN
PI JP 3052832U U 19981009

IPC CODE VERSION POS INV LEVEL CC ASSIGNMENT DATE STAT
.... .......................... .......................... .......................... .......................... .......................... ..........................
ICM B60R0021-24 (6) <--
54.3  Identifying relevant IPC classes (Chemical Abstracts)

Identifying relevant IPC classes for the chemical treatment of wood.

=> FIL ZCAPLUS

1. EXPAND with keyword in the IPC field.

=> E WOOD/IPC

<table>
<thead>
<tr>
<th>E#</th>
<th>FILE</th>
<th>FREQUENCY</th>
<th>AT</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>ZCAPLUS</td>
<td>0</td>
<td>1</td>
<td>WOGGLES/IPC</td>
</tr>
<tr>
<td>E2</td>
<td>ZCAPLUS</td>
<td>0</td>
<td>1</td>
<td>WOLFRAM/IPC</td>
</tr>
<tr>
<td>E3</td>
<td>ZCAPLUS</td>
<td>0</td>
<td>1</td>
<td>WOOD/IPC</td>
</tr>
<tr>
<td>E4</td>
<td>ZCAPLUS</td>
<td>0</td>
<td>1</td>
<td>WOOD * ABRASIVE GRINDING OR POLISHING OF WOOD/IPC</td>
</tr>
<tr>
<td>E5</td>
<td>ZCAPLUS</td>
<td>0</td>
<td>1</td>
<td>WOOD * ARTIFICIAL WOOD/IPC</td>
</tr>
<tr>
<td>E6</td>
<td>ZCAPLUS</td>
<td>0</td>
<td>1</td>
<td>WOOD * CHEMICAL OR PHYSICAL TREATMENT OF WOOD/IPC</td>
</tr>
<tr>
<td>E7</td>
<td>ZCAPLUS</td>
<td>0</td>
<td>1</td>
<td>WOOD * CHIPBOARD/IPC</td>
</tr>
</tbody>
</table>

2. EXPAND with relevant keywords and +KT relationship code displays relevant IPC codes.

=> E E6+KT

<table>
<thead>
<tr>
<th>E#</th>
<th>FILE</th>
<th>FREQUENCY</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>ZCAPLUS</td>
<td>0</td>
<td>WOOD * chemical or physical treatment of WOOD/IPC</td>
</tr>
<tr>
<td>E2</td>
<td>ZCAPLUS</td>
<td>9583</td>
<td>KT B27K/IPC</td>
</tr>
</tbody>
</table>

********** END **********

3. EXPAND with the relevant IPC code and +ED relationship code displays the title of the IPC code.

=> E B27K+ED/IPC

<table>
<thead>
<tr>
<th>E#</th>
<th>FILE</th>
<th>FREQUENCY</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>ZCAPLUS</td>
<td>9583</td>
<td>B27K/IPC</td>
</tr>
</tbody>
</table>

**Processes, Apparatus or Selection of Substances For Impregnating, Staining, Dyeing, Bleaching of Wood or Similar Materials, or Treating of Wood or Similar Materials With Permeant Liquids, Not Otherwise Provided For (Applying Liquids or Other Fluent Materials to Surfaces in General B05; Coating Wood or Similar Material B44D); Chemical or Physical Treatment of Cork, Cane, Reed, Straw or Similar Materials**

********** END **********

54.4  Identifying relevant IPC classes (INPADOCDB)

Identifying relevant IPC classes for the chemical treatment of wood.

=> FIL INPADOCDB

1. EXPAND with keyword in the IPC field.

=> E WOOD/IPC

<table>
<thead>
<tr>
<th>E#</th>
<th>FILE</th>
<th>FREQUENCY</th>
<th>AT</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>INPADOCDB</td>
<td>0</td>
<td>1</td>
<td>WOGGLES/IPC</td>
</tr>
<tr>
<td>E2</td>
<td>INPADOCDB</td>
<td>0</td>
<td>1</td>
<td>WOLFRAM/IPC</td>
</tr>
<tr>
<td>E3</td>
<td>INPADOCDB</td>
<td>0</td>
<td>1</td>
<td>WOOD/IPC</td>
</tr>
<tr>
<td>E4</td>
<td>INPADOCDB</td>
<td>0</td>
<td>1</td>
<td>WOOD * ABRASIVE GRINDING OR POLISHING OF WOOD/IPC</td>
</tr>
<tr>
<td>E5</td>
<td>INPADOCDB</td>
<td>0</td>
<td>1</td>
<td>WOOD * ARTIFICIAL WOOD/IPC</td>
</tr>
<tr>
<td>E6</td>
<td>INPADOCDB</td>
<td>0</td>
<td>1</td>
<td>WOOD * CHEMICAL OR PHYSICAL TREATMENT OF WOOD/IPC</td>
</tr>
<tr>
<td>E7</td>
<td>INPADOCDB</td>
<td>0</td>
<td>1</td>
<td>WOOD * CHIPBOARD/IPC</td>
</tr>
<tr>
<td>E8</td>
<td>INPADOCDB</td>
<td>0</td>
<td>1</td>
<td>WOOD * CUTTING SCREW THREADS ON WOOD/IPC</td>
</tr>
</tbody>
</table>
Search examples

2. EXPAND with relevant keywords and +KT relationship code displays relevant IPC codes.

=> E E6+KT
E#     FILE            FREQUENCY  TERM
--     ------            --------  ----
E1     INPADOCDB        0     >   WOOD * chemical or physical treatment of
E2     INPADOCDB        27120   KT  B27K/IPC
********** END **********

3. EXPAND with the relevant IPC code and +ED relationship code displays the title of the IPC code.

=> E B27K+ED/IPC
E#     FILE            FREQUENCY  TERM
--     ------            --------  ----
E1     INPADOCDB        27120   ->  B27K/IPC
    PROCESSES, APPARATUS OR SELECTION OF
    SUBSTANCES FOR IMPREGNATING, STAINING,
    DYEING, BLEACHING OF WOOD OR SIMILAR
    MATERIALS, OR TREATING OF WOOD OR
    SIMILAR MATERIALS WITH PERMEANT LIQUIDS,
    NOT OTHERWISE PROVIDED FOR (applying
    liquids or other fluent materials to
    surfaces in general B05; coating wood or
    similar material B44D); CHEMICAL OR
    PHYSICAL TREATMENT OF CORK, CANE, REED,
    STRAW OR SIMILAR MATERIALS

********** END **********
55 Search by subject index example

55.1 Example 1
We are looking for materials that can be used for Antireflection coatings on optical lenses.

55.1.1 Search in HCAPPLUS

```
=> FIL HCAPPLUS
FILE 'HCAPPLUS' ENTERED
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
COPYRIGHT (C) 2016 AMERICAN CHEMICAL SOCIETY (ACS)

Search field /CT: Controlled Terms;
additional explanations in /IT; use (L) proximity.

=> S OPTICAL MATERIALS/CT(L)(LENS?(L)COAT?(L)ANTIREFLECT?)/IT
21944 OPTICAL MATERIALS/CT
72094 LENS?/IT
1213501 COAT?/IT
28253 ANTIREFLECT?/IT
L1 31 OPTICAL MATERIALS/CT(L)(LENS?(L)COAT?(L)ANTIREFLECT?)/IT
Searching additional indexing terms.

=> S LENSES/CT(L)(COAT?(L)ANTIREFLECT?)/IT
34035 LENSES/CT
1213501 COAT?/IT
28253 ANTIREFLECT?/IT
L2 265 LENSES/CT(L)(COAT?(L)ANTIREFLECT?)/IT
Both results complement each other.

=> S L1 -2
L3 277 (L1 OR L2)
The retrieved answer set is limited to patent publications.

=> S L3 AND P/DT
11491884 P/DT
L4 245 L3 AND P/DT
Examining the search result.

=> D SCAN
L4 245 ANSWERS HCAPPLUS COPYRIGHT 2016 ACS on STN
IPCI H01L0031-052 [I]; H01L0031-052 [I]
IPCR H01L0031-052 [I]
CPCI Y02E0010-52
ECLA Y02E0010-52
FTRM 5F051/AA01; 5F051/AA08; 5F051/BA18; 5F051/JA14; 5F051/JA20
CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
TI The reflector used for the light focusing type solar cell module
ST solar cell light collector antireflection coating
IT Antireflective films
Lenses
Optical reflectors
Solar cells
(solar cell light collector lens with multilayer dielectric antireflective coating)
IT 1313-96-8, Niobium pentoxide 1314-23-4, Zirconia, uses 1314-61-0,
Tantalum pentoxide 1344-28-1, Alumina, uses 7631-86-9, Silica, uses
7783-40-6, Magnesium difluoride 13463-67-7, Titania, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(solar cell light collector lens multilayer dielectric antireflective coating containing thin film of)
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1): END

55.1.2 Search in USPATFULL

=> FIL USPATFULL
FILE 'USPATFULL' ENTERED

430
Search examples

Here we can use the same search query as in HCA (see above).

=> S L1
3512 OPTICAL MATERIALS/CT
16999 LENS?/IT
193572 COAT?/IT
8680 ANTIREFLECT?/IT
L5 3 OPTICAL MATERIALS/CT(L)(LENS?(L)COAT?(L)ANTIREFLECT?)/IT

=> S L2
10425 LENSES/CT
193572 COAT?/IT
L6 74 LENSES/CT(L)(COAT?(L)ANTIREFLECT?)/IT

Only US patents are retrieved.

=> S L5 - 6
L7 75 (L5 OR L6)

=> D BRO
:*IT
:.L7 ANSWER 1 OF 75 USPATFULL on STN
IT Lenses
IT Optoelectronic semiconductor devices
IT Reactors
IT Semiconductor device fabrication
   [manufacuring semiconductor devices with lenses with antireflective
       oxide coatings and devices and substrate processing apparatus]
IT Oxides (inorganic)
   [manufacuring semiconductor devices with lenses with antireflective oxide
       coatings and devices and substrate processing apparatus]
IT Antireflective films
   [multilayer manufacturing semiconductor devices with lenses with
       antireflective oxide coatings and devices and substrate processing
       apparatus]
:END

55.2 Example 2

We are preparing a search strategy for Azo Dyes. To identify relevant search terms we will use the on-line thesaurus in the /CT field.

55.2.1 Search in HCAPLUS

Due to the Search Term Fees in CAPLUS (CA) it is better to use HCAPLUS (HCA) if we are going to work with the on-line thesaurus.

=> FIL HCAPLUS
FILE 'HCAPLUS' ENTERED
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
COPYRIGHT (C) 2016 AMERICAN CHEMICAL SOCIETY (ACS)

From the thesaurus we see that 'Azo Dyes' is a CA Index Term and that there are 32 Associated Terms.

=> E AZO DYES/CT
E# FREQUENCY AT TERM
.......
E1 28 AZO DYE N-DEMETHYLASE/CT
E2 2 AZO DYE REDUCTASE/CT
E3 13020 52 ..> AZO DYES/CT
E4 11 AZO DYES (L) ACI D/CT
E5 2 AZO DYES (L) BASIC/CT
E6 2 AZO DYES (L) CATIONI C/CT
E7 10 AZO DYES (L) DICHROI C/CT
E8 2 AZO DYES (L) DIRECT/CT
E9 11 AZO DYES (L) DI5AZO/CT
Guide to STN Patent Databases

E10          0    12     AZO DYES (L) DISPERSIVE/CT
E11          0     2     AZO DYES (L) INTERMEDIATES/CT
E12          0    10     AZO DYE S (L) POLYMERIZABLE/CT

E E3+All produces all the Associated Terms.

=> E E3+ALL
E1       15535   BT3  Chemical compounds/CT
E2       63227     BT2  Organic compounds/CT
E3       6989     BT1  Azo compounds/CT
E4       26580  BT3  Materials/CT
E5       18747  BT2  Coloring materials/CT
E6       14253  BT1  Dyes/CT
E7      13020  BT1  Azo dyes/CT

= > Azo dyes/CT

HNTE Valid heading during volume 126 (1997) to present.

E8          12082     OLD  Dyes (L) azo/CT
E9          11511     OLD  Dyes, azo/CT
E10          0       UF  Azo dye/CT
E11          0       UF  Azodye/CT
E12          0       NT1  4-(Dimethylamino)azobenzene/CT
E13          0       NT1  4-Ami no-4'-nitroazobenzene/CT
E14          0       NT1  4-Aminoazobenzene/CT
E15          0       NT1  Acid Red 1/CT
E16          0       NT1  Acid Red 80/CT
E17          0       NT1  Acid Yellow 36/CT
E18          0       NT1  Amaranth (dye)/CT
E19          0       NT1  Azo dye intermediates/CT
E20          11       NT1  Basic azo dyes/CT
E21         1786   NT1  C.I. Acid Red 14/CT
E22          0       NT1  C.I. Pigment Yellow 180/CT
E23          0       NT1  C.I. Solvent Red 24/CT
E24          0       NT1  Carmine 6B/CT
E25          86       NT1  Cationic azo dyes/CT
E26          0       NT1  Congo red/CT
E27         104       NT1  Direct azo dyes/CT
E28          0       NT1  Disperse Blue 165/CT
E29          0       NT1  Disperse Blue 291/CT
E30          0       NT1  Disperse Blue 79/CT
E31          0       NT1  Disperse Red 1/CT
E32          0       NT1  Disperse Violet CW/CT
E33          0       NT1  Er iochrome Black T/CT
E34          0       NT1  Methyl orange/CT
E35          0       NT1  Methyl red/CT
E36          0       NT1  New Coccine/CT
E37          0       NT1  Orange G/CT
E38          0       NT1  Pigment Orange 36/CT
E39          0       NT1  Pigment Yellow 12/CT
E40          0       NT1  Pigment Yellow 128/CT
E41         1298   NT1  Reactive azo dyes/CT
E42          0       NT2  4-(2-Sulfatoethylsulfonyl)aniline/CT
E43          0       NT1  Sudan I/CT
E44          0       NT1  Sudan Red II/CT
E45          0       NT1  Sunset Yellow/CT
E46          0       NT1  Tartrazine/CT
E47          0       NT1  Trypan blue/CT
E48         3076   RT  Formazans/CT
E49       592646   RT  Pigments, nonbiological/CT
E50         8676   RT  Stains, coloring materials/CT
E51        697600  RTCS 2,5-Dimethoxyaniline/CT
E52       408100  RTCS 4-Phenyl azophenol/CT

********** END **********

We continue the search with the OLD and Narrower Terms.

=> S E7+OLD, NT
L1  82521 "AZO DYES" + OLD, NT/CT (39 TERMS)

=> S L1 AND P/DT
L2 11491884 P/DT
L3  38120 L1 AND P/DT
Search examples

`}5`6 22 16000 KWIC

We have selected some sample displays:

1. CAS Registry Number for Disperse Red 1

2. Current CA Index Term.

3. Narrower Class Term.

4. The OLD Index Term for 'Azo Dyes'.

55.3 Example 3

Combined sequence and bibliographic search in USGENE

USGENE is characterised by the fact that sequence searches can be refined with text searches in original abstracts / original titles / main claim.

In the example below the result of a DNA sequence search (BLAST) is linked with a key word search. The following steps are performed:

1. Upload of the sequence to STN
2. BLAST search, the BLAST filter is switched off.
3. Sorting of the sequence answers by homology
4. Displaying the alignments
5. Refining with key words in the Basic Index and Main Claim
6. Renewed sorting of the answers by homology
7. Sorting of the answers by patent families with FSORT
8. Displaying of the relevant answers, one answer per family

55.3.1 Search in USGENE

=> FIL USGENE
Guide to STN Patent Databases

The search sequence is loaded to USGENE using the UPLOAD command.

=> UPLOAD R BLAST
START LOCAL KERMIT TRANSMIT PROCESS
UPLOAD SUCCESSFULLY COMPLETED
L1 GENERATED

By DLQUE the correct UPLOAD is verified.

=> DLQUE
L1 ANSWER 1 USGENE COPYRIGHT 2007 SEQUENCEBASE CORP on STN
LQUE taaagttttag tttatatataac gtaaagtctgt atatactatta ttatgtctccccaatatga
agtttagaaatt tttatatataac gtttgtatcttttttttttccc ccccccccccc
cccctttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttttt...
Search examples

AGTAATACATGTTTATAGTGTAGTATATGTCTATACTAGTAGTAACTAT

TAGAGAAAGTAGGAATAAACTATGTCACAAGATGTAAATGAATTAAGTA

AAGCAACAAAGGCAATAAAGCAGAGATAAACAGATTTTTGATGGCTT

AAACAAAGAGGGCCCTATAAAGATGTTAAATGAAAAATGTGATTGCT

GCTGAAGAGGGCTATTTGTTTTATCTGTTTATCCAGGAGAAATGTTCTC

TAGATCTCTCTTTATACATCATTACATTTATAGTATAGTATAGTATAT

Answer set arranged by accession number; to sort by descending similarity score, enter at an arrow prompt (=>) "sor score d".

With SOR SCORE the sequence answers are sorted by homology

=> SOR SCORE D
PROCESSING COMPLETED FOR L2
L3    57 SOR L2 SCORE D

With the free display format TRIAL ALIGN the sequence answers can be displayed.

=> D TRIAL ALIGN

L3    ANSWER 1 OF 57 USGENE COPYRIGHT 2007 SEQUENCEBASE CORP on STN
TI    Staphylococcus aureus polynucleotides and sequences
      (PublishedApplication)
MTY   nucleic acid
SQL   900
BLASTALIGN
Query  = 900 letters
Length  = 900
Score   = 1784 bits (900), Expect = 0.0
Identities = 900/900 (100%)
Strand   = Plus / Plus

Query: 1   taatgtttagtttattaacagtaagttcgtatatcaatgtttagtgctccccaaaattga
Sbjct: 1   taatgtttagtttattaacagtaagttcgtatatcaatgtttagtgctccccaaaattga

Query: 781 agttacattatgtcatggaccagcagcactactttcagcagggcttaacagagaaaaatc
Sbjct: 781 agttacattatgtcatggaccagcagcactactttcagcagggcttaacagagaaaaatc

Query: 841 tccattagaaggtaatctctgtttgtcttttcctgacctattagatgaaggtgcaaatat
Sbjct: 841 tccattagaaggtaatctctgtttgtcttttcctgacctattagatgaaggtgcaaatat

...

L3    ANSWER 57 OF 57 USGENE COPYRIGHT 2007 SEQUENCEBASE CORP on STN
TI    Detection of differential gene expressions (PublishedApplication)
MTY   DNA
SQL   6184
BLASTALIGN
Query  = 900 letters
Length  = 6184
Score   = 40.1 bits (20), Expect = 4e-06
Identities = 20/20 (100%)
Strand   = Plus / Plus

Query: 421 attgaaaaattgaaaaatgt 440
Sbjct: 5992 attgaaaaattgaaaaatgt 6011

435
Guide to STN Patent Databases

The key word search is executed in the basic index and the main claim: /BI, ECLM

=> S L3 AND (STAPHYLOCOCC? OR STAPHYLO(W)COCC? OR COCCI OR BACILL? OR BACTERI? OR EUBACTER? OR FIRMICUT?) /BI, ECLM

L4 15 L7 AND (STAPHYLOCOCC? OR STAPHYLO(W)COCC? OR COCCI OR BACILL? OR BACTERI? OR EUBACTER? OR FIRMICUT?) /BI, ECLM

After the key word search the answer set needs to be sorted again by SCORE.

=> SOR SCORE D
PROCESSING COMPLETED FOR L4

L5 15 SOR L4 SCORE D

With the help of the FSORT command the 15 sequence answers are sorted into 7 patent families

=> FSORT L5
SEL L5 1. PN, APPS
L6 SEL L9 1. PN APPS : 17 TERMS
L6 15 FSO L5

4 Multi-record Families Answers 1-12
Family 1 Answers 1-3
Family 2 Answers 4-6
Family 3 Answers 7-9
Family 4 Answers 10-12
3 Individual Records Answers 13-15
0 Non-patent Records

Of the 7 families the first answer each with the best homology is displayed; D PFAM is used for the family display.

=> D PFAM=1- BRIEF ALIGN

L6 ANSWER 1 OF 15 USGENE COPYRIGHT 2007 SEQUENCEBASE CORP on STN FAMILY 1
AN 20070020746.327 nucleic acid USGENE
TI Staphylococcus aureus polynucleotides and sequences
(PublishedApplication)
IN Kunsch Charles A. (Norcross, GA); Choi Gil H. (Rockville, MD); Barash Steven C. (Rockville, MD); Dillon Patrick J. (Carlsbad, CA); Fannon Michael R. (Silver Spring, MD); Rosen Craig A. (Laytonsville, MD)
PA No assignee at publication
PI US 20070020746 A1 20070125
AI US 2004-807556 20040324
ED 20070331
DT Patent
AB The present invention provides polynucleotide sequences of the genome of Staphylococcus aureus, polypeptide sequences encoded by the polynucleotide sequences, corresponding polynucleotides and polypeptides, vectors and hosts comprising the polynucleotides, and assays and other uses thereof. The present invention further provides polynucleotide and polypeptide sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use.
ECLM US20070020746 A1: 1. An isolated protein-encoding nucleic acid fragment of the Staphylococcus aureus genome, wherein said fragment consists of the nucleotide sequence of any one of the fragments of SEQ ID NOS:1-5,191 depicted in Tables 2 and 3, or a degenerate variant thereof.
SSO NUCLEIC; PSI PS; APPLICATION
ORGN Not provided
SQL 900
SEQ
taatgtttaag ttatatttaaca gtaagtttcgt atatcattagt ttattgtctcc
51 cciaataatg aagtttgact ttatcctgag aatcggtgtat
101 ttatatttaaca gaaattcatt ttgatatttt tggataatga gcatttttaat
151 agtaatact gtttattgtg ttagtattat gttcataacta gtagtaacat
201 tattggagaa atggagataa aatctgtttgc aagttggtat tgaatattg
251 aagcagcacta gctgatataa ggctgagata aacgtatatttt tcccatactc
301 atattctctt tgcgagataa cagcagtttt ttgatatttt tggatatttt
ggatgtttc
gttatattggatgtttc
gttatattggatgtttc
gttatattggatgtttc
gttatattggatgtttc
gttatattggatgtttc
gttatattggatgtttc
401 gctgaagagc gatagtcttg attggaaat ggaagaaagtt tcttacggtg
Search examples

451 taatcatcct gttgaatgt tattaacctt acatatatta atggaaagcag
501 gttttgagct tgatgtttcg acattatctg gttatccagt taattagaa
551 ttatggcta tgcacacctga agacgaggca gttataagta cttaataa
601 attgaagaac aatttacac acgccaaaaa attaccagat gtgaataaa
651 atgaataggg actcgattca gcattaatct gttcctttat cccagcggga
701 catgtgcag ttgtggtat ttctgaaggt gagagggtcc aacaacaccttt
751 agattggca ttagacaatt accgcttttat agttacatta tgtctattggac
801 cagcagcact acctcagca ggcttaaca gagraaatct tccattagaa
851 ggtactctcttgtgtgtctctccccactcta ttagatgaag tgtcaaattatat cagcagcact acctcagca ggcttaaca gagraaatct tccattagaa
894 ggtactctcttgtgtgtctctccccactcta ttagatgaag tgtcaaattatat cagcagcact acctcagca ggcttaaca gagraaatct tccattagaa
938 ggtactctcttgtgtgtctctccccactcta ttagatgaag tgtcaaattatat cagcagcact acctcagca ggcttaaca gagraaatct tccattagaa
968 ggtactctcttgtgtgtctctccccactcta ttagatgaag tgtcaaattatat cagcagcact acctcagca ggcttaaca gagraaatct tccattagaa
982 ggtactctcttgtgtgtctctccccactcta ttagatgaag tgtcaaattatat cagcagcact acctcagca ggcttaaca gagraaatct tccattagaa
1000 ggtactctcttgtgtgtctctccccactcta ttagatgaag tgtcaaattatat cagcagcact acctcagca ggcttaaca gagraaatct tccattagaa

BLASTALIGN
Query = 900 letters
Length = 900
Score = 1784 bits (900), Expect = 0.0
Identities = 900/900 (100%)
Strand = Plus / Plus

Query: 1 taatgttttatttaacagtaagttcgtatatcaatgtttagtgcccccattga
Sbjct: 1 taatgttttatttaacagtaagttcgtatatcaatgtttagtgcccccattga

Query: 61 a gtttgaatttttaaaagcatcttgtagaatttagttgtatttttttcaaagaaattcatt
Sbjct: 61 a gtttgaatttttaaaagcatcttgtagaatttagttgtatttttttcaaagaaattcatt

Query: 781 agttacattatgtctagaaccacgcactactttcagcagggcttaacagagaaaaatc
Sbjct: 781 agttacattatgtctagaaccacgcactactttcagcagggcttaacagagaaaaatc

Query: 841 tccattaggaaggatactttgttttgtcttccccactttagatgaaggtgcacatat
Sbjct: 841 tccattaggaaggatactttgttttgtcttccccactttagatgaaggtgcacatat

18588 U 19770613
56  Numeric Property Search example

56.1  Example 1
Search in the context of the fulltext: To make Italian espresso a water pressure exceeding 9 bar must be used. We are searching espresso machines working at that pressure.

Proximity operators can be used as in a normal text search.

=> S PRES>9BAR (S) (COFFEE? OR ESPRESSO? OR ESPRESSO? OR NESPRESSO? )
L3  227 PRES>9BAR (S) (COFFEE? OR ESPRESSO? OR ESPRESSO? OR NESPRESSO? )

In addition the search result is limited to “apparatus for making beverages“ with A47J0031.

=> S L3 AND A47J0031/IPC
L4  96 L3 AND A47J0031/IPC

56.2  Example 2
Automatic conversion of units: In a search for 30-40 degrees Celsius (unit of temperature) the unit is automatically converted and the correct range in Fahrenheit or Kelvin (SI unit) is searched.

=> S 30-40 CELSIUS/TEMP
L2  136689 30-40 CELSIUS/TEMP

=> D KW C
L2  ANSWER 1 OF 136689 PCTFULL COPYRIGHT 2011 LNU on STN
DET DEN . . . temperature. The mixture was heated to 35 °C for 3 h....

L2  ANSWER 3 OF 136689 PCTFULL COPYRIGHT 2011 LNU on STN
DET DEN . . . formed hydrogels after incubating at 37 °C for 24 hr as...

L2  ANSWER 12 OF 136689 COPYRIGHT 2011 LNU on STN
DET DEN . . . to a temperature from about 50 degrees Fahrenheit to about 550 degrees Fahrenheit...

L2  ANSWER 32 OF 136689 COPYRIGHT 2011 LNU on STN
DET DEN . . . temperature is within the range 263 Kelvin to 333 Kelvin
56.3 Example 3

Non-SI units: For some quantities, non-SI units (INCH/ SIZ, FOOT/ SIZ, ATM/ PRES, FAHRENHEIT/ TEMP, etc.) can be used for searching. The search is automatically performed in the correct SI unit.

You may even use imperial units for searching.

=> S 1-5 INCH/ SIZ
L3 251985 1-5 INCH/ SIZ

=> D KWIC
L3 ANSWER 1 OF 251985 PCTFULL COPYRIGHT 2011 LNU on STN
DETDEN...
surrounding that value. For example, a dimension disclosed as "40 mm" is intended to mean "about 40 mm".

=> S 100 FAHRENHEIT/ TEMP
L4 43153 100 FAHRENHEIT/ TEMP

=> D KWIC
L4 ANSWER 1 OF 43153 PCTFULL COPYRIGHT 2011 LNU on STN

100°F = 37.77°C, this is correct.

DETDEN...
typically range from about 5 °C to about 90 °C. The water to fabric ratio is typically...

56.4 Example 4

Percentage: We are searching alloys of bismuth, lead, tin, and cadmium, wherein bismuth and lead have a defined percentage.

=> S ALLOY (S) (BISMUTH (1A) 40-60/PERCENT (S) LEAD (1A) PERCENT>20 (S) TIN (S) CADMIUM)
L8 17 ALLOY (S) (BISMUTH (1A) 40 PERCENT - 60 PERCENT /PERCENT (S) LEAD (1A) PERCENT>20 PERCENT (S) TIN (S) CADMIUM)

=> D KWIC
L8 ANSWER 1 OF 17 PCTFULL COPYRIGHT 2011 LNU on STN
DETDEN...
temperature curing processes is used to cover the fasteners. One example of such an alloy is a eutectic alloy, made of about 50% bismuth, about 26.7% lead, about 13.3% tin, and about 10% cadmium by weight, and with a melting point of approximately 70 °C (158 °F). During the curing...

L8 ANSWER 2 OF 17 PCTFULL COPYRIGHT 2011 LNU on STN
DETDEN...
lowered clearly, if a such alloy contains approx. 14% to 60% bismuth, 20% to 30% lead or up to 45% tin or also antimony, cadmium, indium, zinc, tellurium, mercury or thallium. In particular with initially the...
57  Search by name (Inventor) example

57.1  Example 1

We are looking for the patents of Jozsef Bugovics, the inventor of the ‘anti-virus PC card’.

57.1.1  Search in DWPI

=> FIL WPINDEX
FILE 'WPINDEX' ENTERED
COPYRIGHT (C) 2013 THE THOMSON CORPORATION

Always recommended for name searches: EXPAND. Apart from /IN also /PA should be used.

=> E BUGOVICS/IN, PA
E1 24 BUGOV KH U/IN
E2 1 BUGOV O S/IN
E3 22 => BUGOVICS/IN
E4 4 BUGOVICS/PA
E5 5 BUGOVICS G/IN
E6 17 BUGOVICS J/IN
E7 4 BUGOVICS J/PA
E8 3 BUGOVSKI I/IN
E9 1 BUGOVSKI I/PA
E10 1 BUGOVSKI I D S/IN
E11 1 BUGOVSKI I N V/IN
E12 1 BUGOVSKI I N V/PA

Search for the appropriate E numbers.

=> S E6-7
17 'BUGOVICS J'/IN
4 'BUGOVICS J'/PA
L1 17 ('BUGOVICS J'/IN OR 'BUGOVICS J'/PA)

Displaying some of the documents in the free SCAN format.

=> D SCAN
L1 17 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
T1 Decoding equipment for digital information - enables encoding and decoding of digital information, with decoding unit guaranteeing access to those authorised and excluding those unauthorised

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1): 3

L1 17 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
T1 Computer-aided financial transaction system - has customer and dealer systems connected by secure transmission system

L1 17 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
T1 Entry device for financial transactions using an automatic teller card

L1 17 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
T1 Adaptive fuel as substitute for wood fuel pellets obtained by crushing seed or fruit admixed with calcium oxide

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1): END
57.1.2 Search in PATDPAFULL

=> FIL PATDPAFULL
FILE 'PATDPAFULL' ENTERED
COPYRIGHT (C) 2013 DPMA

Again we start with an EXPAND on the name in /IN and /PA.

=> E BUGOVICS/IN, PA
E1  1  BUGOSH MARK J STERLING HEIGHTS MICHIGAN 48313 US/IN
E2  1  BUGOSLAW/IN
E3  8  => BUGOVICS/IN
E4  3  BUGOVICS/PA
E5  2  BUGOVICS JOZSEF 04430 DOELZIG DE/IN
E6  2  BUGOVICS JOZSEF 06254 ZWEIMEN DE/IN
E7  2  BUGOVICS JOZSEF 06886 LUTHERSTADT WITTEMBERG DE/IN
E8  1  BUGOVICS JOZSEF 04252 LUTHERSTADT EISLEBEN DE/IN
E9  1  BUGOVICS JOZSEF 04600 WITTEMBERG LUTHERSTADT DE/IN
E10 1  BUGOVICS, JOZSEF, O 4252 LUTHERSTADT EISLEBEN, DE/PA
E11 2  BUGOVICS, JOZSEF, O 04600 WITTEMBERG LUTHERSTADT, DE/PA
E12 1  BUGREEV/IN

In this search we find 15 documents.

=> S E5-11
2 "BUGOVICS JOZSEF 04430 DOELZIG DE"/IN
2 "BUGOVICS JOZSEF 06254 ZWEIMEN DE"/IN
2 "BUGOVICS JOZSEF 06886 LUTHERSTADT WITTEMBERG DE"/IN
1 "BUGOVICS JOZSEF 04252 LUTHERSTADT EISLEBEN DE"/IN
1 "BUGOVICS, JOZSEF, O 4252 LUTHERSTADT EISLEBEN, DE"/PA
2 "BUGOVICS, JOZSEF, O 04600 WITTEMBERG LUTHERSTADT, DE"/PA
L2  9  "BUGOVICS JOZSEF 04430 DOELZIG DE"/IN OR "BUGOVICS JOZSEF 06254 ZWEIMEN DE"/IN OR "BUGOVICS JOZSEF 04252 LUTHERSTADT EISLEBEN DE"/IN OR "BUGOVICS JOZSEF 06886 LUTHERSTADT WITTEMBERG DE"/IN OR "BUGOVICS, JOZSEF, O 4252 LUTHERSTADT EISLEBEN, DE"/IN

Display of the titles.

=> D 1-11 TI
L2  ANSWER 1 OF 9 PATDPAFULL COPYRIGHT 2013 DPMA on STN
TI  Adaptive Brennstoff aus Oelpresskuchen in Form von Pellets
IN  Bugovics, Jozsef, 06254 Zweim, DE;
PA  Ysenburg und Buedingen, Sylvester Fuerst zu, 63654 Buedingen, DE
L2  ANSWER 2 OF 9 PATDPAFULL COPYRIGHT 2013 DPMA on STN
TI  Beweissicheres und schnelles WORM-Speichersystem auf Festplattenbasis
IN  Bugovics, Jozsef, 06254 Zweim, DE
PA  Memory Data GmbH, 06254 Zweim, DE
L2  ANSWER 3 OF 9 PATDPAFULL COPYRIGHT 2013 DPMA on STN
TI  Verfahren zur Funktion, Implementation sowie Selbstkonfiguration einer Finanz-Transaktions-Schnittstelle
IN  Bugovics, Jozsef, 04430 Doelzig, DE
PA  Me Technology Europe GmbH, 04430 Doelzig, DE
L2  ANSWER 4 OF 9 PATDPAFULL COPYRIGHT 2013 DPMA on STN
TI  Verfahren zur universellen Kreditkartennutzung
IN  Bugovics, Jozsef, 04430 Doelzig, DE
PA  Me Technology Europe GmbH, 04430 Doelzig, DE

Do the documents from PATDPAFULL concern the same inventions as the documents found in DWPI? To test this we use the TRANSFER command. 16 documents are found in PATDPAFULL now.

=> TRANSFER L1 1- PN
L3  TRANSFER L1 1- PN : 43 TERMS
L4  16 L3
There are some documents that we did not find by the name search. However, there are other names in these documents.

=> S L4 NOT L2
L5 8 L4 NOT L2

=> D 1- TI IN PA

L5 ANSWER 1 OF 8 PATDPAFULL COPYRIGHT 2013 DPMA on STN
TI Adaptive Brennstoff
PA Neo Energy AG, Baar, CH

L5 ANSWER 2 OF 8 PATDPAFULL COPYRIGHT 2013 DPMA on STN
TI Eingabegeraet fuer Geschaeftsvorfaelle
PA Me Technology Europe GmbH, 04430 Doelzig, DE

L5 ANSWER 3 OF 8 PATDPAFULL COPYRIGHT 2013 DPMA on STN
TI Anordnung zur rechnergestuetzten Zahlungsabwicklung ueber
Zahlungssysteme
PA ESD Information Technology Entwicklungs GmbH, 04430 Doelzig, DE

L5 ANSWER 4 OF 8 PATDPAFULL COPYRIGHT 2013 DPMA on STN
TI Anordnung eines Integrationssystems und Verfahren zur Verwaltung von
Finanzdienstleistungen zur Einbindung von Bankfilialen in Netzwerke
IN Antrag auf Nichtnennung (AANN)
PA ESD Information Technology Entwicklungs GmbH, 04430 Doelzig, DE

L5 ANSWER 5 OF 8 PATDPAFULL COPYRIGHT 2013 DPMA on STN
TI Verfahren zum Erstellen eines Informationsverteilungssystems fuer
beliebig viele geschlossene Nutzergruppen mit Hilfe einer physikalischen
Einheit
IN Antrag auf Nichtnennung (AANN)
PA Strohschneider, Sabine, 39576 Stendal, DE

L5 ANSWER 6 OF 8 PATDPAFULL COPYRIGHT 2013 DPMA on STN
TI Entschluesselungseinrichtung von Entschluesselungsalgorithmen und
Verfahren zur Durchfuhrung der Ver- und Entschluesselung derselben
IN Antrag auf Nichtnennung (AANN)
PA ESD Vermoegensverwaltungsgesellschaft mbH, 80333 Muenchen, DE

L5 ANSWER 7 OF 8 PATDPAFULL COPYRIGHT 2013 DPMA on STN
TI Entschluesselungseinrichtung von digitalen Informationen und Verfahren
zur Durchfuhrung der Ver- und Entschluesselung dieser mit Hilfe der
Entschluesselungseinrichtung
IN Antrag auf Nichtnennung (AANN)
PA ESD Vermoegensverwaltungsgesellschaft mbH, 80333 Muenchen, DE

L5 ANSWER 8 OF 8 PATDPAFULL COPYRIGHT 2013 DPMA on STN
TI Entschluesselungseinrichtung von digitalen Informationen und Verfahren
zur Durchfuhrung der Ver- und Entschluesselung dieser
IN Antrag auf Nichtnennung (AANN)
PA ESD Vermoegensverwaltungsgesellschaft mbH, 80333 Muenchen, DE

Using the crossover options a better result can be achieved than by searching in one file only. In DWPI the inventor name BUGOVICS came from other family members. Have we found all the documents of the inventor BUGOVICS in DWPI?

=> S L2 NOT L4
L6 1 L2 NOT L4

=> D TI IN PA PI

This German utility model was not found. German utility models are covered since 1996 only.

L6 ANSWER 1 OF 1 PATDPAFULL COPYRIGHT 2013 DPMA on STN
TI Hardwareschreibschutz fuer externe Massenspeicher
PA Bugovics, Jozsef, O-4600 Wittenberg Lutherstadt, DE
PI DE 9203602 U1 19920716
57.2 Example 2
Searching for patents of Wolfgang Adamek.

57.2.1 Search in INPADOCDB

=> FILE INPADOCDB
FILE 'INPADOCDB' ENTERED
COPYRIGHT (C) 2016 European Patent Office / FIZ Karlsruhe

In INPADOCDB it is always recommended to search the standardised field INS together with IN.

=> E ADAMEK WOLFGANG/IN,INS
E1 7 ADAMEK WOLFGANG/IN
E2 7 ADAMEK WOLFGANG/INS
E3 39 ... => ADAMEK WOLFGANG/IN
E4 47 ADAMEK WOLFGANG/INS
E5 7 ADAMEK WOLFGANG DIPL/IN
E6 15 ADAMEK WOLFGANG DIPL/INS
E7 5 ADAMEK WOLFGANG DIPL S3797 LOHMAR DE/IN
E8 1 ADAMEK WOLFGANG ING/IN
E9 1 ADAMEK WOLFGANG ING/INS
E10 1 ADAMEK ZBI GNI EW/IN
E11 4 ADAMEK ZBI GNI EW/INS
E12 8 ADAMEK ZDENEK/IN

=> S E3-E9
L1 61 ("ADAMEK WOLFGANG"/IN OR "ADAMEK WOLFGANG"/INS OR "ADAMEK WOLFGANG DIPL"/IN OR "ADAMEK WOLFGANG DIPL S3797 LOHMAR DE"/IN OR "ADAMEK WOLFGANG ING"/IN OR "ADAMEK WOLFGANG ING"/INS)

Maybe the name was even entered in a wrong order.

=> E WOLFGANG ADAMEK/IN,INS
E1 1 WOLFGANG ADAMEEKU/IN
E2 1 WOLFGANG ADAMEEKU/INS
E3 10 ... => WOLFGANG ADAMEK/IN
E4 3 WOLFGANG ADAMEK/INS
E5 3 WOLFGANG ADAMETZ/IN
E6 1 WOLFGANG ADAMETZ/INS
E7 1 WOLFGANG ADAMI TZKI/IN
E8 3 WOLFGANG ADAMI TZKI/INS
E9 9 WOLFGANG ADAMS/IN
E10 1 WOLFGANG ADE DINGER/IN
E11 1 WOLFGANG ADE RHold/IN
E12 8 WOLFGANG ADE RHold/INS

=> S E3-E4
L2 11 ("WOLFGANG ADAMEK"/IN OR "WOLFGANG ADAMEK"/INS)

=> S L1 OR L2
L3 63 L1 OR L2

It is also a good idea to search the first and family name separately in the /IN field and combine them by (S) proximity. (S) must be entered manually because there is a mixed index (no interpretation) and no implied proximity in /IN.

=> S (WOLFGANG(S) ADAMEK)/IN,INS
L4 64 (WOLFGANG(S) ADAMEK)/IN,INS

=> S L4 NOT L3
L5 1 L4 NOT L3

One more document was found where the inventor field was filled incorrectly.

=> D
L5 ANSWER 1 OF 1 INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN AN 40437142 INPADOCDB
Guide to STN Patent Databases

FN 3764248
TI Hydraulic circuit for stabilising the lower links of a tractor three-point linkage.
TL English
IN ADAMEK, DIPL-ING WOLFGANG; HENSELER, HEINRICH; KIRSCHBAUM, KURT
INS ADAMEK DIPL-ING WOLFGANG; HENSELER HEINRICH; KIRSCHBAUM KURT
PA GKN WALTERSCHEID GMBH
PAS WALTERSCHEID GMBH GKN
DT Patent
PI NZ 337907            A  20001027
PIT NZA PATENT APPLICATION
DAV 20001027 printed-with-grant
STA GRANTED
AI NZ 1999-337907 A 19990920
AIT NZA Patent application
PRAI DE 1998-19845968 A 19981006 (DEA, 20120309, Y)
PRAIT DEA Patent application
XPD 20190920

The inventor names should also be searched in the patent assignee field /PA. Sometimes only the patent assignee field is filled, e.g. for German utility models.

=> S (ADAMEK(S)WOLFGANG) /IN,INS,PA,PAS
L6 69 (ADAMEK(S)WOLFGANG) /IN,INS,PA,PAS

=> S L6 NOT L4
L7 5 L6 NOT L4

=> D
L7 ANSWER 1 OF 5 INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN
AN 84142121 INPADOCDB ED 20160114 EW 201602 UP 20160114 UW 201606
FN 56247754
TI Trinkgefaess mit Ueberschwappschutz.
TL German
PA ADAMEK, WOLFGANG
PAS ADAMEK WOLFGANG, DE
DT Utility Model
PI DE 202015007991 U1 20151214 German
PIT DEU1 UTILITY MODEL
DAV 20151214 printed-with-grant
STA GRANTED
DF 20160121
AI DE 2015-202015007991 U 20151119
AIT DEU Application for a utility model
PRAI DE 2015-202015007991 U 20151119 (DEU, 20160114, Y)
PRAIT DEU Application for a utility model
XPD 20251130
58 Search by name (Patent assignee) example

58.1 Example 1
We are looking for patents by Philips NV in Russia or in the former Soviet Union, respectively.

58.1.1 Search in INPADOCDB

We use QUERY because we expect a large number of patents with the publication countries SU or RU.

The search in the /PA field yields a large number of patents.

The search in the /PAS field yields still more patents.

Combining the two results by OR.

Let us now see what documents were found with /PAS but not with /PA.

Due to the transfer of the names into Cyrillic letters Ph has become F. The PAS field holds the correct Latin spelling.

The /PAS field is only available in INPADOC. It should be used with name searches in addition to /PA to obtain a better result.
58.1.2  Search in DWPI

=> FIL WPINDEX
FILE 'WPINDEX' ENTERED
COPYRIGHT (C) 2013 THOMSON REUTERS

We search the /PA field for Philips.

=> S PHILIPS/PA AND L1
67977 PHILIPS/PA
24540 SU/DS
1183355 SU/PC
1206568 SU/PCS
(SU/DS, PC)
1793979 RU/DS
530015 RU/PC
2243557 RU/PCS
(RU/DS, PC)
L6 21292 PHILIPS/PA AND L1

=> D TI PA
L6 ANSWER 1 OF 21292 WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
TI Support for supporting patient for MRI system utilized for e.g. studies applications, has table top supported by support structure, and coil connector moved between engaged and disengaged positions when table top moves in and out of volume
PA (PHIG-C) KONINK PHILIPS ELECTRONICS NV

In the case of Philips the patent assignee code in the /PACO field may also be used.

=> S PHIG/PACO AND L1
54161 PHIG/PACO
24540 SU/DS
1183355 SU/PC
1206568 SU/PCS
(SU/DS, PC)
1793979 RU/DS
530015 RU/PC
2243557 RU/PCS
(RU/DS, PC)
L7 21193 PHIG/PACO AND L1

=> S L7 NOT L6
L8 4 L8 NOT L7

With PACO certain inconsistencies in the names can be balanced.

=> D TI PA
L8 ANSWER 1 OF 67 WPINDEX COPYRIGHT 2007 THE THOMSON CORP on STN
TI Picture display device used in e.g. television apparatus, computer monitor has neck portion manufactured from same material as conical portion or from same material as display screen
PA (GLDS-C) LG PHILIPS DISPLAYS
L8 ANSWER 2 OF 67 WPINDEX COPYRIGHT 2007 THE THOMSON CORP on STN
TI Electron gun for cathode ray tubes in television, computer monitors, has dynamic astigmatism and focusing lens section arranged on main lens section forming integrated dynamic astigmatism and focusing main lens section
PA (GLDS-C) LG PHILIPS DISPLAYS HOLDING BV
L8 ANSWER 3 OF 67 WPINDEX COPYRIGHT 2007 THE THOMSON CORP on STN
TI Pivot hood assembly for roof mounted ventilation shaft controls flow of air entering or exiting the ventilation shaft when the attachment framework is fixed to the ventilation shaft and the hood pieces are
Search examples

Pivoted to a closed position
PA (ADAM-I) ADAMS J; (KLEP-I) KLEPFER S; (PHIL-I) PHILIPS D

=> S L6 NOT L7
L9 103 L6 NOT L7

By using PACO other inventor or assignee names are excluded.

=> D TI PA 1-3

L9 ANSWER 1 OF 103 WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
TI Computer-implemented method for reporting impact credit ratings of rated legal entity involves displaying status information for rated legal entity based on evaluated status of retrieved trigger
PA (MORG-N) MORGAN STANLEY; (PHIL-I) PHILIPS M; (RAJ-AI) RAJAMANUR V S

L9 ANSWER 2 OF 103 WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
TI Method for estimating noise in reconstructed image e.g. computed tomography image, involves dividing reconstructed image into multiple segments, and estimating local noise power spectral density by multi-resolution transformation
PA (UGNT-C) UNIV GENT; (IBBT-N) IBBT VZW; (GOOS-I) GOOSSENS B; (PHIL-I) PHILIPS W; (PIZU-I) PIZURICA A

L9 ANSWER 3 OF 103 WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
TI Organic electroluminescent device, useful as an organic LED, comprises a substrate, first and second electrodes formed on the substrate, a light-emitting layer formed between the first and the second electrodes, and a hole-blocking layer
PA (GLDS-C) LG DISPLAY CO LTD; (GLDS-C) LG ELECTRONICS INC; (GLDS-C) LG PHILIPS LCD CO LTD

58.2 Example 2

Searching for patents of the firm Buckeye, which works in the technical area of cellulose.

58.2.1 Search in DWPI

=> FIL WPINDEX
FILE 'WPINDEX' ENTERED
COPYRIGHT (C) 2013 THOMSON REUTERS

First we try to EXPAND on the name. We cannot be sure to get all spelling variations of the name.

=> E BUCKEYE/PA 25
E1 1 BUCKEY D/PA
E2 1 BUCKEY J/PA
E3 188 ... BUCKEYE/PA
E4 2 BUCKEYE BLUEGRASS FARMS/PA
E5 4 BUCKEYE BLUEGRASS FARMS INC/PA
E6 2 BUCKEYE BOXES INC/PA
E7 1 BUCKEYE BOYS LLC/PA
E8 1 BUCKEYE CABLEVISION INC/PA
E9 51 BUCKEYE CELLULOSE CORP/PA
E10 1 BUCKEYE DENTAL LLC/PA
E11 2 BUCKEYE FEED MILLS INC/PA
E12 2 BUCKEYE FIRE EQUIP CO/PA
E13 1 BUCKEYE FORGE DIV-GULF &/PA
E14 31 BUCKEYE INT INC/PA
E15 1 BUCKEYE MACHINE FABRICATORS INC/PA
E16 4 BUCKEYE MFG CO/PA
E17 1 BUCKEYE MFG INC/PA
E18 16 BUCKEYE MOLDING CO/PA
E19 1 BUCKEYE PHARM LLC/PA
E20 2 BUCKEYE STAMPING CO/PA
E21 1 BUCKEYE STAMPING CO INC/PA
E22 1 BUCKEYE STEEL CAST/PA
E23 3 BUCKEYE STEEL CASTING CO/PA
E24 2 BUCKEYE STEEL CASTING CO/PA
E25 25 BUCKEYE STEEL CASTINGS CO/PA
Now we select all patent assignees and have a look at the result. Be careful with a big answer set: every patent assignee selected will be charged. Thus, use only a limited number of documents for testing or use ANALYZE rather than SELECT. In this case (188 documents) ANALYZE is preferable over SELECT in DWPI.

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<th># DOC</th>
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<td>1.06</td>
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</table>
Search examples

Now we search the correct entries from the list.

=> SEL 1 12 33 81
E1 THROUGH E4 ASSIGNED

=> S E1-E4

A search with (S) proximity in this case yields the same result.

=> S (((BUCKEYE OR BAKKAI) (S)CELLU?)) / PA

58.3 Example 3

Searching for patents of the company Haarmann & Reimer. The company merged with DRAGOCO into a new company named SYMRISE in 2003.

58.3.1 Search in INPADOCDB

First one should use EXPAND to identify the various spellings like in the previous examples. To find all spellings it is often useful to
enter only the first word of the name. We use both the PA and PAS fields again.

=> E HAARMANN/PA, PAS 25
E1  1  HAARMAN REYMER CORP/PA
E2  1  HAARMAN REYMER CORP/PAS
E3  1594  => HAARMANN/PA
E4  1607  HAARMANN/PAS
E5  1  HAARMANN AND REIMER/PA
E6  1  HAARMANN AND REIMER/PAS
E7  1  HAARMANN AND REIMER CORP/PA
E8  1  HAARMANN AND REIMER CORP/PAS
E9  1  HAARMANN AND REIMER GMBH/PA
E10  1  HAARMANN AND REIMER GMBH/PAS
E11  38  HAARMANN AND REIMER GMBH/PA
E12  38  HAARMANN AND REIMER GMBH/PAS
E13  1  HAARMANN AND REIMER USA/PA
E14  1  HAARMANN AND REIMER USA/PAS
E15  2  HAARMANN ANNEGRET/PA
E16  2  HAARMANN ANNEGRET/PAS
E17  27  HAARMANN ARNOLD DR ING/PA
E18  36  HAARMANN ARNOLD DR ING/PAS
E19  1  HAARMANN ARNOLD DR ING 4600 DORTMUND/PA
E20  12  HAARMANN AUGUST/PA
E21  1  HAARMANN AUGUST DR/PAS
E22  1  HAARMANN AUGUST DR/PA
E23  1  HAARMANN AUGUST DR ING/PAS
E24  1  HAARMANN BEI MER/PA
E25  1  HAARMANN BEI MER/PAS

=> E  25
E26  3  HAARMANN CO WERKZEUGFABRIK/PA
E27  3  HAARMANN CO WERKZEUGFABRIK 5630 REMSCHEID/PA
E28  1  HAARMANN CO WERKZEUGFABRIK 5630 REMSCHEID DE/PA
E38  1  HAARMANN ET REIMER/PA
E39  1  HAARMANN ET REIMER/PAS
E40  16  HAARMANN ET REIMER GMBH/PA
E41  10  HAARMANN ET REIMER GMBH DT/PA
E42  1  HAARMANN ET REIMER GMBH DT/PAS
E47  1  HAARMANN G REIMER GMBH/PA
E48  1  HAARMANN G REIMER GMBH/PAS

E120  943  HAARMANN REIMER GMBH/PA
E121  1198  HAARMANN REIMER GMBH/PAS
E122  24  HAARMANN REIMER GMBH 3450 HOLZMINDEN/PA
E123  40  HAARMANN REIMER GMBH 3450 HOLZMINDEN DE/PA
E124  1  HAARMANN REIMER GMBH 37603 HOLZMINDEN/PA
E125  47  HAARMANN REIMER GMBH 37603 HOLZMINDEN DE/PA
E168  1  HAARMANN REIMER CORP/PA
E169  1  HAARMANN REIMER CORP/PAS

There are scores of different spellings in particular for hyphenated names. It is useful to check different spellings (e.g. type the first part of the name and then directly a hyphen without blank) – but in our case there is no additional hit.

=> E HAARMANN- / PA, PAS
E1  3  HAARMANN WOLFRAM/PA
E2  4  HAARMANN WOLFRAM/PAS
E3  0  => HAARMANN- / PA
E4  0  HAARMANN- / PAS
E5  1  HAARMANNS /PA
E6  1  HAARMANNS /PAS

The strategy shown in example 2 (searching for one part of the name → ANALYZE/SELECT → joining the parts of the name with
(S) proximity) is an essential aid for searching hyphenated names.

Only the search with (S) proximity, based on the ANALYZE result, is shown here.

=> S ((HAARMANN OR HAARMAN OR HAAMAN OR HAARMANNS)(S)(REIMER OR RAI MA OR REIMER OR REIMER)) / PA, PAS

A change of the patent assignee name, due to a merger or change of the patent assignee, is recorded in the legal status field, LSPA, only. It is often not entered in the PA or PAS fields. You should complement your search with the LSPA field. It is possible to take the field PASS, which covers PA, PAS and LSPA.

=> S ((HAARMANN OR HAARMAN OR HAAMAN OR HAARMANNS)(S)(REIMER OR RAIMAA OR REIMBER OR REIMERMPANY OR REYMER OR BEIMER OR LEIMER OR REINER OR REMER))/PA,PAS,LSPA

In our case there are 139 more hits.

=> S L2 NOT L1

L3 139 L2 NOT L1

=> D PA PAS HIT 1-3

L3 ANSWER 1 OF 139 INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN
PA SYMRISE GMBH & CO. KG
PAS SYMRISE GMBH & CO KG, DE

LEGAL STATUS HIT
AN 54239504 INPADOCDB
20070831 USAS
ASSIGNMENT
HAARMANN & REIMER, GERMANY
ASSIGNMENT OF ASSIGNS INTEREST; ASSIGNS: KOCH, OSKAR; DILLS, ERICH; LANGNER, ROLAND; AND OTHERS; REEL/FM:019771/0271; SIGNING DATES FROM 20020115 TO 20020115
CHG Change of Owner, Inventor, Applicant
................................................................. 20090212

L3 ANSWER 2 OF 139 INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN
PA MCDERMOTT KEITH J.; ZHUANG ZI JIE JUDY; SMITH LESLIE C.
PA SYMRISE, INC.
PAS SYMRISE INC, US

LEGAL STATUS HIT
AN 49682783 INPADOCDB
20021113 USAS
ASSIGNMENT
HAARMANN & REIMER CORPORATION, NEW JERSEY
ASSIGNMENT OF ASSIGNS INTEREST; ASSIGNS: MCDERMOTT, KEITH J.; ZHUANG, ZI JIE JUDY; SMITH, LESLIE C.; REEL/FM:013480/0516; SIGNING DATES FROM 20021014 TO 20021018
CHG Change of Owner, Inventor, Applicant
................................................................. 20090320

L3 ANSWER 3 OF 139 INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN
PA GUPTA GARGI; LAMMERT MATTHIAS; MCDERMOTT KEITH

LEGAL STATUS HIT
AN 49638367 INPADOCDB
20020417 USAS
ASSIGNMENT
HAARMANN & REIMER, NEW JERSEY
ASSIGNMENT OF ASSIGNS INTEREST; ASSIGNS: GUPTA, GARGI; LAMMERT, MATTHIAS; MCDERMOTT, KEITH; REEL/FM:012821/0889
58.4  Example 4
We are looking for the Patent Assignee Code of Kodak.

58.4.1  Search in DWPI

=> FIL WPINDEX
FILE 'WPINDEX' ENTERED
COPYRIGHT (C) 2016 THOMSON REUTERS

We use the /PACO field to find entries that might be applicable.

=> E KODAK/PACO
E# FREQUENCY AT TERM
-- -------- -- -----------
E1 0 1 KODAIRA SANGYO KK/PACO
E2 0 1 KODAIRA SEI SAKUSHO KK/PACO
E3 0 6 -- > KODAK/PACO
E4 0 1 KODAK AG/PACO
E5 0 1 KODAK ALARIS INC/PACO
E6 0 1 KODAK AUSTRALASIA PTY LTD/PACO
E7 0 1 KODAK BET-GMBH/PACO
E8 0 1 KODAK BRASILEIRA COMERCIO & IND LTD/PACO
E9 0 1 KODAK CANADA INC/PACO
E10 0 1 KODAK CLINICAL DIAGNOSTICS LTD/PACO
E11 0 1 KODAK CO LTD/PACO
E12 0 1 KODAK COLOR DRAWING INC/PACO

The code for a probable entry can be displayed with this command. The code ending -C is a unique code for a company having many patent publications. The codes ending -N are non-unique and are used for companies having few patent publications.

=> E E3+ALL
E1 0 -- > KODAK/PACO
E2 1083 CODE APPL-N/PACO
E3 85335 CODE CHENGDU KODAK STAR PRINTING EQUIP CO LTD/PACO
E4 31155 CODE EAST-C/PACO
E5 623 CODE KODAK-N/PACO
E6 46880 CODE SICH-N/PACO
E7 5536 CODE SUPE-N/PACO
******** END *********

With the DEF relation all entries belonging to this code are displayed.

=> E E4+DEF
E1 31155 -- > EAST-C/PACO
E2 DEF CANADIAN KODAK/PACO
E3 DEF CHENGDU KODAK STAR PRINTING EQUIP CO LTD/PACO
E4 DEF EASTMAN KK/PACO
E5 DEF EASTMAN KODAK CO/PACO
E6 DEF EASTMAN KODAK JAPAN KK/PACO
E7 DEF EASTMAN SPEC ALITIES HOLDINGS CORP/PACO
E8 DEF EASTMAN TECHNI INC/PACO
E9 DEF KODAK AG/PACO
E10 DEF KODAK AUSTRALASIA PTY LTD/PACO
E11 DEF KODAK BET-GMBH/PACO
E12 DEF KODAK BRASILEIRA COMERCIO & IND LTD/PACO
E13 DEF KODAK CLINICAL DIAGNOSTICS LTD/PACO
E14 DEF KODAK CO LTD/PACO
E15 DEF KODAK COLOR DRAWING INC/PACO
E16 DEF KODAK COLOR DRAWING LLC/PACO
E17 DEF KODAK DIGITAL PROD OF JAPAN/PACO
E18 DEF KODAK GRAPHIC COMMUNICATIONS GMBH/PACO
E19 DEF KODAK GRAPHIC COMMUNICATIONS CANADA CO/PACO
Search examples

453

E20  DEF  KODAK GRAPHIC COMMUNICATIONS GMBH/ PACO
E21  DEF  KODAK GRAPHIC COMMUNICATIONS JAPAN LTD/ PACO
E22  DEF  KODAK GRAPHIC COMMUNICATIONS KK/ PACO
E23  DEF  KODAK IMAGEX LTD/ PACO
E24  DEF  KODAK JAPAN/ PACO
E25  DEF  KODAK JAPAN LTD/ PACO
E26  DEF  KODAK LTD/ PACO
E27  DEF  KODAK MEDICAL LTD/ PACO
E28  DEF  KODAK NEDERLAND BV/ PACO
E29  DEF  KODAK PARK WORKS/ PACO
E30  DEF  KODAK PATHE/ PACO
E31  DEF  KODAK PATHE SA/ PACO
E32  DEF  KODAK PATH THE/ PACO
E33  DEF  KODAK POLYCHROME/ PACO
E34  DEF  KODAK POLYCHROME GRAPHICS/ PACO
E35  DEF  KODAK POLYCHROME GRAPHICS CO/ PACO
E36  DEF  KODAK POLYCHROME GRAPHICS CD LTD/ PACO
E37  DEF  KODAK POLYCHROME GRAPHICS GMBH/ PACO
E38  DEF  KODAK POLYCHROME GRAPHICS GROUP/ PACO
E39  DEF  KODAK POLYCHROME GRAPHICS INC/ PACO
E40  DEF  KODAK POLYCHROME GRAPHICS KK/ PACO
E41  DEF  KODAK POLYCHROME GRAPHICS JAPAN LTD/ PACO
E42  DEF  KODAK POLYCHROME GRAPHICS KK/ PACO
E43  DEF  KODAK POLYCHROME GRAPHICS LLC/ PACO
E44  DEF  KODAK POLYCHROME GRAPHICS LTD/ PACO
E45  DEF  KODAK THERMAL TECHNOLOGIES INC/ PACO
E46  DEF  KODAK TROPHY/ PACO
E47  DEF  KODAK VERSA LUTUNG AG/ PACO
E48  DEF  LAB & SERVICES KODAK/ PACO
E49  DEF  LAB & SERVICES KODAK SA/ PACO
E50  DEF  NEXPRESS SOLUTIONS LLC/ PACO
E51  DEF  NEXPRESS SOLUTIONS/ PACO
E52  DEF  NEXPRESS SOLUTIONS INC/ PACO
E53  DEF  NEXPRESS SOLUTIONS LLC/ PACO
E54  DEF  NIHON DORO KODAN JAPAN HIGHWAY PUBLIC CO/ PACO
E55  DEF  NIPPON KODAK KK/ PACO
E56  DEF  SCITEX DIGITAL PRINTING INC/ PACO

58.5  Example 5
Finding related company names of the patent assignee Symrise.

58.5.1  Search in HCAPLUS

FILE ‘HCAPLUS’ ENTERED
COPYRIGHT (C) 2013 AMERICAN CHEMICAL SOCIETY (ACS)

The CO (Corporate Name) field has a thesaurus for the name entries of major companies (since 1907).
EXPAND on the company name. If there is an entry in the Associated Terms (AT) column this indicates that thesaurus terms are available.

=> E SYMRIS E/ CO
E#  FREQUENCY  AT  TERM
---  --------  ---  ---
E1  1          SYMPOZ INC/ CO
E2  1          SYMPTOM TOLERABILITY RESPONSE TO EXERCISE TRIAL OF CAN DESAR TAN CILEX ETIL I N HEART FAILURE STRETCH INVESTIGAT ORS/ CO
E3  15         SYMRIS E/ CO
E4  64         SYMRIS E AG/ CO
E5  2          SYMRIS E ASI A PACIFIC PTE LTD/ CO
E6  2          SYMRIS E CO LTD/ CO
E7  1          SYMRIS E GMBH/ CO
E8  151 2      SYMRIS E GMBH CO KG/ CO

********** END **********
Guide to STN Patent Databases

Expand on an E-number of an appropriate name entry, followed by +ALL to see all thesaurus entries. The preferred company name is indicated by NAME.

=> E E8+ALL
E1  203  NAME SYMRISE GMBH CO KG/CO
E2  151  => SYMRISE GMBH CO KG/CO
********** END **********

Expand on the E-number of the preferred name followed by +ALL to view all related company names.

=> E E1+ALL
E1  0  CNUM CAS1027755/CO
E2  203  => SYMRISE GMBH CO KG/CO
  NOTE 2003: Haarmann & Reimer GmbH and Dragoco, Inc. merged to form Symrise GmbH & Co. KG
E3  106  RT1 DRAGOCO/CO
E4  26  RT1 DRAGOCO GMBH / CO
E5  6  RT1 DRAGOCO GERBERDING AND CO AG/CO
E6  17  RT1 DRAGOCO GERBERDING CO AG/CO
E7  24  RT2 DRAGOCO GERBERDING CO A G / CO
E8  6  RT2 DRAGOCO GERBERDING CO AKTIENGESELLSCHAFT/CO
E9  5  RT1 DRAGOCO GERBERDING UND CO AG/CO
E10  5  RT2 DRAGOCO GERBERDING UND CO A G / CO
E11  5  RT2 DRAGOCO GERBERDING UND CO GMBH/CO
E12  47  RT1 DRAGOCO GERBERDING UND CO GMBH/CO
E13  5  RT1 DRAGOCO HOLZMINDEN/CO
E14  10  RT1 DRAGOCO INC/CO
E15  5  RT1 DRAGOCO SPEZIALFABRIK KONZ REICH UND AROMASTOFFE GERBERDING CO GMBH/CO
E16  9  RT1 DRAGOCO SPEZIALFABRIK KONZ RIECH UND AROMASTOFFE GERBERDING CO GMBH/CO
E17  11  RT1 DRAGOCO SPEZIALFABRIK KONZ RIECH UND AROMASTOFFE GERBERDING CO GMBH/CO
E18  22  RT1 HAARMANN AND REIMER CORP/CO
E19  1  RT1 HAARMANN AND REIMER S LAB/CO
E20  33  RT1 HAARMANN REIMER/CO
E21  16  RT1 HAARMANN REIMER CHEMISCHE FABRIK ZU HOLZMINDEN GMBH/CO
E22  120  RT1 HAARMANN REIMER GMBH/CO
E23  77  RT2 HAARMANN REIMER GMBH/CO
E24  190  RT1 HAARMANN UND REIMER GMBH/CO
E25  21  RT1 HAARMANN UND REIMER GMBH/CO
E26  4  RT1 SYMRISE GMBH CO KG/CO
E27  151  RT2 SYMRISE GMBH CO KG/CO
E28  25  RT1 SYMRISE GMBH AND CO KG/CO
E29  4  RT1 SYMRISE GMBH CO KG/CO
********** END **********

After the names have been checked the search is done with the relationship code +ALL.

=> S E2+ALL
L1  1136 "SYMRISE GMBH CO KG"+ALL/CO (29 TERMS)

=> S L1 AND P/DT
  8810496 P/DT
L2  743 L1 AND P/DT

With P/DT the result is restricted to patents.

It is necessary to complete this search in the /CO field with a search in the /PA (or /CS) field. The thesaurus is very useful to find different forms of a name.

If you are only interested in patents you can just search in the /PA field.
Search examples

=> S (DRAGOCO OR SYMRISE OR (HAARMAN OR HAARMANN OR HAARMER) (S) (REIMER)) / PA
130 DRAGOCO/PA
396 SYMRISE/PA
1 HAARMAN/PA
328 HAARMANN/PA
0 HAARMER/PA
338 REIMER/PA
326 (HAARMAN OR HAARMANN OR HAARMER) (S) (REIMER)
L3 834 (DRAGOCO OR SYMRISE OR (HAARMAN OR HAARMANN OR HAARMER) (S) (REIMER)) / PA

=> S L3 OR L2
L4 834 L2 OR L3

=> S (DRAGOCO OR SYMRISE OR (HAARMAN OR HAARMANN OR HAARMER) (S) (REIMER)) / CS
381 DRAGOCO/CS
497 SYMRISE/CS
1 HAARMAN/CS
537 HAARMANN/CS
0 HAARMER/CS
557 REIMER/CS
535 (HAARMAN OR HAARMANN OR HAARMER) (S) (REIMER)
L5 1395 (DRAGOCO OR SYMRISE OR (HAARMAN OR HAARMANN OR HAARMER) (S) (REIMER)) / CS

The search in the /CS field and restricting with P/DT yields 10 more documents.

=> S L5 AND P/DT
L6 8810496 P/DT
L7 844 L5 AND P/DT

=> S L6 NOT L4
L7 10 L6 NOT L4

These 10 documents are Defensive Publications (Research Disclosure). In these documents the company name is not entered in PA but in the CS field only.

=> D
L7 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2013 ACS on STN
AN 2007:116474 HCAPLUS
DN 146:527497
TI Use of tropolone derivatives as antioxidants in food, nutraceutical, cosmetic and pharmaceutical compositions
AU Schmaus, Gerhard; Franke, Heige; Pillai, Ravikumar
CS Symrise, UK
SO Research Disclosure (2006), 512(Dec.), P1558-P1561 (No. 512014)
CODEN: RSDSBB; ISSN: 0374-4353
PB Kenneth Mason Publications Ltd.
DT Journal; Patent
LA English
FAN. CNT 1
PI RD 512014 20061210 RD 2006-512014 20061210
PRAI RD 2006-512014 20061210
OS MARPAT 146:527497

58.6 Example 6

Searching for the company QUALCOMM. In US patent applications often only the inventors are entered or there is no patent assignee given at all. Therefore the search should be completed with a search in the AG field (Agent, Representative).

(The AG (Agent) or LREP (Legal Representative) field is available in these databases: AUPATFULL, CANPATFULL, DWPI, EPFULL, FRANCEPAT, IFIALL, PATDPA, PATDPAFULL, PCTFULL, RUSSIAPAT, USPATFULL, USPAT2.)
58.6.1 Search in USPATALL

=> FIL USPATALL
FILE 'USPATFULL' ENTERED
CA INDEXING COPYRIGHT (C) 2013 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED
CA INDEXING COPYRIGHT (C) 2013 AMERICAN CHEMICAL SOCIETY (ACS)

=> S QUALCOMM/PA
L1 14887 QUALCOMM/PA

=> S QUALCOMM/AG
L2 8322 QUALCOMM/AG

=> S L1 OR L2
L3 18751 L1 OR L2

With the search in the /AG (/LREP) field we get 3864 more hits.

=> S L2 NOT L1
L4 3864 L2 NOT L1

58.6.2 Search in DWPI

=> FIL WPINDEX
FILE 'WPINDEX' ENTERED
COPYRIGHT (C) 2013 THOMSON REUTERS

=> S QUALCOMM/PA
L5 14070 QUALCOMM/PA

=> S QUALCOMM/AG
L6 7722 QUALCOMM/AG

=> S L1 OR L2
L7 14235 L1 OR L2

Often only the inventor is entered in the PA field. Extending the search to the /AG field at the publication level yields 165 more hits. The display of original data (Member) in addition to the invention level does not cause additional charges.

=> D BIB HIT
L8 ANSWER 1 OF 165 WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
AN 2011-A62124 [201109] WPINDEX
TI Method for performing device management process on computing device from device management server, involves transmitting message to server indicating that intervening configuration data does not change
59  Family search example

59.1  Family search in several databases

For the US patent numbered 6,300,146 equivalent applications in other countries or additional US patents are sought.

59.1.1  Search in INPAFAMDB

=> FIL INPAFAMDB
FILE 'INPAFAMDB' ENTERED
COPYRIGHT (C) 2016 European Patent Office / FIZ Karlsruhe

=> S US 6300146/PN
L1  1 US 6300146 /PN
                  (US6300146/PN)

BRIEF is the default format. This format provides a good overview of the whole patent family.

=> D

AN  15190523 INPAFAMDB UPFB 20111229 UWF 201621
TI  HYBRID PACKAGE INCLUDING POWER MOSFET DIE AND CONTROL AND PROTECTION CIRCUIT DIE WITH SMALLER SENSE MOSFET.  
   - Hybrid package including a power MOSFET die and a control and protection circuit die with a smaller sense MOSFET.  
   - Ionizing bar and method of its fabrication.
INS  THIERRY VINCENT, FR; THIERRY VINCENT
PAS  INT RECTIFIER CORP, US
   - INT RECTIFIER CORP
IPCR  H01L0023-34 [I,A]; H03K0017-08 [N,A]; H03K0017-082 [I,A]
CPC  H01L0024-49; H01L0024-45; H01L2224-45144; H01L2224-48091; 
     H01L2224-48137; H01L2224-48247; H01L2224-48472; H01L2224-4903;
NCL  NCLM 257/690.000; 438/014.000
     NCLS 257/204.000; 257/262.000; 257/355.000; 257/426.000; 257/444.000; 
     257/500.000; 257/666.000; 257/691.000; 257/723.000; 257/724.000; 
     257/725.000; 257/728.000; 438/003.000; 438/005.000; 438/015.000; 
     438/017.000; 438/018.000
INCL  INCLM 257/690.000; 438/014.000
     INCLS 257/728.000; 257/725.000; 257/724.000; 257/723.000; 257/691.000;
FCL  H01L0023-34 D
FTRM  5F036/AA01; 5F036/BF05; 5F136/BB11; 5F136/DA01; 5F136/DA08; 5F136/DA21; 
     5F136/FA03; 5F136/HA01; 5F136/HA03
AB  (US 6137165 A)
   A power MOSFET die and a logic and protection circuit die are mounted on a common lead frame pad, such as a TO220 lead frame pad. The logic and protection circuit die includes a MOSFET that is connected in parallel ...

PATENT FAMILY INFORMATION INPAFAMDB

+----------- Publications ----------- +----------- Applications -----------+
DE 10031115  A1 20010125  DE 2000-10031115  A 20000626
JP 2001015655  A 20010119  JP 2000-189210  A 20000623
US 6137165  A 20001024  US 1999-344704  A 19990625
US 6300146  B1 20011009  US 2000-549280  A 20000414

+----------- Priorities -----------+
US 1999-344704  A 19990625
US 2000-549280  A 20000414

2 priorities, 4 applications, 4 publications (1 EPO simple family)
Search in INPADOCDB

It is recommended to use D BROWSE if family formats are going to be displayed.

If only equivalents of one country are wanted a ‘Reduced Price Format’ is recommended.
**Guide to STN Patent Databases**

**CFAM**

L1  ANSWER 1 OF 1       INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN

PATENT FAMILY INFORMATION
AN  48656108 INPADOCDB

+-----------------+-----------------+
| DE 10031115 | A1  20010125 |
| JP  2001015655 | A  20010119 |
| US  6137165  | A  20010124 |
| US  6300146  | B1  20011009 |

2 priorities, 4 applications, 4 publications (1 EPO simple family)

**IFAM**

L2  ANSWER 1 OF 1       INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN

TITLE: Ionizing bar and method of its fabrication.

PATENT FAMILY INFORMATION
AN  48656108 INPADOCDB

+-----------------+-----------------+-----------------+-----------------+
| DE 10031115 | A1  20010125 | DE  2000-10031115 | A  20000626 |
| JP  2001015655 | A  20010119 | JP  2000-189210 | A  20000623 |
| US  6137165  | A  20010124 | US  1999-344704 | A  19990625 |
| US  6300146  | B1  20011009 | US  2000-549280 | A  20000414 |

+-----------------+-----------------+
| US  1999-344704 | A  19990625 |
| US  2000-549280  | A  20000414 |
+-----------------+-----------------+
| GERMANY FEDERAL REPUBLIC OF (DE) |
+-----------------+-----------------+

******

MEMBER 1

******

ACCESSION NUMBER: 21118511 INPADOCDB

CFAM shows the publication details of all family members.

IFAM displays a short synopsis of the patent family in a table first. Then the complete documents are displayed, including the abstracts and legal status of all family members. The format has indented text labels and the full country name as headings.
Search examples

FAMILY NUMBER: 15190523
TITLE: Halbleiterbauteil sowie Verfahren zur Messung seiner Temperatur.
TITLE LANGUAGE: German
INVENTOR(S): THIERRY, VINCENT
STANDARDIZED: THIERRY VINCENT, FR
PATENT ASSIGNEE(S): INTERNATIONAL RECTIFIER CORP., EL SEGUNDO
STANDARDIZED: INT RECTIFIER CORP, US
PATENT INFORMATION:

NUMBER KIND DATE
---------------------------
DE 10031115 A1 20010125

PATENT INFO. TYPE: DEA1 DOC. LAID OPEN (FIRST PUBLICATION)
DATE OF AVAILABILITY: 20010125 unexamined printed without grant
PATENT STATUS: PRE-GRANT PUBLICATION
APPLICATION INFO.: DE 2000-10031115 A 20000626
APPL. INFO. TYPE: DEA Patent application
PRIORITY APPL. INFO.: US 1999-344704 A 19990625 (USA, Y)
PRIO. APPL. INFO. TYPE: USA Patent application
CITING PATENT REF.: DE 102008045722 B4 20111201 [DE10031115A1 (SEA, pat)]
MITSUBISHI ELECTRIC CORP, JP
DE 102010029147 A1 20111214 [DE10031115A1 (SEA, pat)]
SEMIKRON ELEKTRONIK GMBH, DE
DE 102010029147 B4 20120412 [DE10031115A1 (SEA, pat)]
SEMIKRON ELEKTRONIK GMBH, DE
DE 102013211841 A1 20150108 [DE10031115A1 (SEA, pat)]
OSRAM OPTO SEMICONDUCTORS GMBH, DE
US 7705637 B2 20100427 [DE10031115A1 (APP, pat)]
NEON TECHNOLOGIES AG, DE
US 8602645 B2 20131210 [DE10031115A1 (APP, pat)]
MITSUBISHI ELECTRIC CORP, JP; MIYAMOTO NOBORU, JP; YAMAMOTO AKIRA, JP
US 9010999 B2 20150421 [DE10031115A1 (APP, pat)]
SCHULER STEFAN, DE; SEMIKRON ELEKTRONIK GMBH, DE

CITING PATENT NO. COUNT: 7. THERE ARE 7 CITING PATENT REFERENCES AVAILABLE FOR THIS RECORD.

IPC VERSION(1-7): 7
INT. PATENT CLASSIF.: MAIN:
H01L0023- 62 (not assigned by patent authority)
SECONDARY:
H01L0025- 07; H01L0027- 06; G01K0013- 00; H03K0017- 687
IPC RECLASSIF. (ADV): [H01L0023- 34 [I,A]; H03K0017- 08 [N,A]; H03K0017- 082 [I,A]]
CPC CLASSIFICATION:
H01L00024- 49; H01L00024- 45; H01L2224- 45124;
H01L2224- 45144; H01L2224- 48091; H01L2224- 48137;
H01L2224- 48427; H01L2224- 48472; H01L2224- 4903;
H01L2224- 49051; H01L2224- 49111; H01L2924- 01004;

ABSTRACT LANGUAGE: German
ABSTRACT SOURCE: national office
FIELD AVAILABILITY: ABDE; AI; AN; DAV; CGP; CPC; DT; ICM; ICS; IN; INS;
IPC; IPR; PA; PAS; PI; PIT; PRAI; TI
LEGAL STATUS
AN 20070628 DE8110 + REQUEST FOR EXAMINATION PARAGRAPH 44
We want to use the DFAM family display format. To use this format without unfavourable line breaks a minimum line length of 101 should be set.

=> SET LINELENGTH 101
SET COMMAND COMPLETED

DFAM shows the complete family (priority, application, publication details) and is sorted by the priority date. This is where we need the minimum line length of 101.

=> SET LINELENGTH 80
SET COMMAND COMPLETED

59.1.3 Search in DWPI

=> FIL WPINDEX
FILE 'WPINDEX' ENTERED
COPYRIGHT (C) 2016 THOMSON REUTERS

=> S US 6300146/PN
L2 1 US 6300146 /PN
   (US6300146/PN)

The field CR is displayed to find out if there are further documents belonging the patent family.

=> D CR FAM
L1 ANSWER 1 OF 1 WPINDEX COPYRIGHT 2016 THOMSON REUTERS on STN
CR 2001-059644
FDT US 6300146 B1 Div ex US 6137165 A
PRAI US 2000-549280 20000414
US 1999-344704 19990625

The cross-referenced document is searched.

=> SEL CR
E1 THROUGH E1 ASSIGNED

=> S E1/AN
L3 1 2001-059644/AN

=> D CR FAM

Sometimes the CR field is not filled. It is therefore a good idea to do an extended family search (see below).
Search examples

CR 2002-235722
PI US 6137165     A 20001024 (200107)* EN 8(6)
DE 10031115     A1 20010125 (200107)
JP 2001015655     A 20010119 (200107) JA 32
DE 10031115     A1 DE 2000-10031115 20000626
PRAI US 1999-344704 19990625

59.1.4 Search in IFIALL

=> FIL IFIALL
FILE 'IFIALL' ENTERED
COPYRIGHT (C) 2016 IFI CLAIMS Patents Services (IFI)

=> S US 6300146/PN
L1 1 US 6300146 /PN

With regard to family information the FI and RLI fields are of particular interest.

=> D STD
L1 ANSWER 1 OF 1 IFIALL COPYRIGHT 2016 IFI on STN
AN 03586128 IFIALL
TI HYBRID PACKAGE INCLUDING A POWER MOSFET DIE AND A CONTROL AND PROTECTION CIRCUIT DIE WITH A SMALLER SENSE MOSFET
IN Thierry Vincent (FR)
PA International Rectifier Corp (42928)
PI US 6300146 B1 20011009 (CITED IN 004 LATER PATENTS)
AI US 2000-549280 20000414 (9)
RLI US 1999-344704 19990625 DIVISION 6137165
FI US 6300146 20011009
US 6137165
DT Utility; Certificate of Correction
CDAT 27 May 2003
6 May 2003
FS CHEMICAL
GRANTED
ED Entered STN: 11 Oct 2001
Last Updated on STN: 8 Jul 2002
INCL INCLM: 438014000
INCLS: 438003000; 438005000; 438015000; 438017000; 438018000
NCL NCLM: 438014000
NCLS: 438003000; 438005000; 438015000; 438017000; 438018000
CPC CPCI H01L0024-49 [I]; H01L2924-01014; H03K2017-0806; H01L2924-014;
H01L2924-0106; H01L2924-01005; H01L2924-01029; H01L2224-49051;
H01L2924-13091; H01L2224-45124; H01L2224-01079; H01L2924-01027;
IPC . . .
IPC G01R0031-26
H01L0021-66
IPCR H01L0023-34 [I]; H03K00017-08 [N]; H03K0017-08 [N]; H03K0017-082
[N]; H03K0017-082 [I]

59.1.5 Search in USPATFULL

=> FIL USPATFULL
FILE 'USPATFULL' ENTERED
COPYRIGHT (C) 2016 AMERICAN CHEMICAL SOCIETY (ACS)

=> S US 6300146/PN
L2 1 US 6300146 /PN

The RLI field holds detailed information on the patent family.

=> D
L2 ANSWER 1 OF 1 USPATFULL on STN
Guide to STN Patent Databases

AN 2001:173407 USPATFULL
TI Hybrid package including a power MOSFET die and a control and protection circuit die with a smaller sense MOSFET
IN Thierry, Vincent, Aix en Provence, France
PA International Rectifier Corp., El Segundo, CA, United States (U.S. corporation)
PI US 6300146          B1  20011009 <...
AI US 2000-549280 20000414 (9)
DT Utility
FS GRANTED
LN.CNT 356
INCL INCLM: 438/014.000
INCLS: 438/015.000; 438/017.000; 438/018.000; 438/005.000; 438/003.000
NCL NCLM: 438/014.000
NCLS: 438/003.000; 438/005.000; 438/015.000; 438/017.000; 438/018.000
CPC CPCI H01L0024-49 [I]; H01L0024-45; H01L2224-45124; H01L2224-45144;
       H01L2224-48091; H01L2224-48137; H01L2224-48247; H01L2224-48472;
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IPCR H01L0023-34 [I]; H03K0017-08 [N]; H03K0017-082 [I]
EXF 438/14; 438/15; 438/17; 438/18; 438/5; 438/13

59.1.6 Extended family search in DWPI

=> FIL WPINDEX
FILE 'WPINDEX' ENTERED
COPYRIGHT (C) 2016 THOMSON REUTERS

=> FSEARCH US6300146/PN
SEA US6300146/PN
L3 1 US6300146/PN

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SET COMMAND COMPLETED
SET HIGHLIGHTING OFF
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L4  SEL L3 1- PN APPS :  3 TERMS
SEA L4
L5  2 L4
*** ITERATION 2 ***
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L4  SEL L3 1- PN APPS :  8 TERMS
SEA L4
L5  2 L4
FSORT L5
L6  2 FSOL5
     1 Multi-record Family Answers 1-2
     0 Individual Records
     0 Non-patent Records

464
59.2 Non-conventional patent families examples

59.2.1 WPINDEX

59.2.1.1 Example 1

Non-conventional equivalents filed outside the one year priority period

- Non-conventional equivalents (#) in WO, EP, JP, US were filed more than one year after the DE priority application.

The non-conventional applications have their application numbers posted to the priority field.

59.2.1.2 Example 2

Non-conventional equivalents in countries that have not signed the Paris Convention
Taiwan has not signed the Paris Convention, but recognises priority claims from contracting members.

59.2.1.3 Example 3
Linking national applications without priority relationship into patent families

- The Canadian publication is the basic of the DWPI record
- The patent assignee from India filed in Brazil and the US on the same day, but without claiming a priority
- In DWPI, the BR and US publications were linked to the CA publication via intellectual effort.

59.2.1.4 Example 4
Linking national applications and PCT applications without priority relationship into patent families

- The US application was filed by a foreign applicant without priority information
- The link to the WO basic was established via intellectual effort

59.2.2 CAplus

59.2.2.1 Example 1
The US application for an invention from India was filed without priority information

- The US application was filed without priority details on 30 April 2013
- The IN application for the same invention was filed 5 months earlier, in 7 November 2012
- It was found that the inventors, patent assignee and title were identical
- The T0 kind code in the PRAI field indicates the non-conventional equivalent

**AN** 2013:1665 HCAPLUS
**TI** Method system and device for providing customized point of care testing
**IN** Thangaraju, Shyam; Sadasivam, Siva Sakthivel
**PA** HCL Technologies Limited, India

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<th>PATENT NO.</th>
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59.2.2.2 Example 2

Numerous applications filed more than one year after the priority application
- The applications in CA, CN, KR, BR, SG, and NZ were all filed more than one year after the French priority application
- Use the FBIB display format to see the T0 kind codes

**AN** 2007:38492 HCAPLUS
**PA** Sanofi Aventis, Fr.

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<th>LANGUAGE</th>
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<td>20070112</td>
<td>French</td>
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**PI**

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<th>DATE</th>
<th>APPLICATION NO.</th>
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<td>AR 2006-102940</td>
<td>20060707</td>
</tr>
</tbody>
</table>

59.2.2.3 Example 3

The Chinese application published without Taiwan priority
- Remember: Taiwan has not signed the Paris Convention
- Redearch revealed the earlier Taiwan application
- Tip: For Chinese and Taiwan patents, check the PDF files of both to obtain complete assignee information
- Check also for alternate spellings of inventor names
59.2.3 INPADOC

59.2.3.1 Example 1

Family based on technical priorities

- The applicant filed two applications at the USPTO and CIPO on the same day, without claiming a priority
- The EPO assigned both application numbers to all family members as technical priorities

59.2.3.2 Example 2

Extensive family building for pre-1968 publications

- The priority application in Germany was followed by two applications in France and the UK, neither claiming any priority
- The EPO manually assigned the DE technical priority to the FR and GB publications to compile the family
59.2.3.3 Example 3

Chinese dual applications

- FIZ Karlsruhe joins Chinese dual applications (where both a patent and a utility model application were filed for the same subject on the same day without giving any priority information) into non-conventional patent families

AN 55749978 INPAFAMDB EDF 20151126 EWF 201548 UPFB 20170119 UWF 201703
TI Movable folding stereoscopic parking lot.
INS WANG JUN
PAS WANG JUN

+------- Publications +------- +------- Applications +------- +
CN 105201247 A 20151230 CN 2015-10450717 A 20150728
CN 105201247 B 20161207
CN 204754359 U 20151111 CN 2015-20554503 U 20150728

+------- Priorities +-------
CN 2015-10450717 A 20150728
CN 2015-20554503 U 20150728

2 priorities, 2 applications, 3 publications (2 EPO simple families)
60  Legal status search example

60.1  Example 1

We are interested in the current legal status of various members of the patent family of the US patent numbered 6,479,876.

Note: The patent databases with legal status information allow searching by publication or application number. Appropriate DISPLAY formats for the legal status are available.

The details available vary between the databases.

60.1.1  Search in INPADOCDB

=> FIL INPADOCDB
FILE 'INPADOCDB' ENTERED
COPYRIGHT (C) 2013 European Patent Office / FIZ Karlsruhe

SEARCH with the patent or application number. The legal status can be displayed e.g. by D MAX or D ALL LS or D LS (legal status field only).

=> S US6479876/PN
L1           1 US6479876/PN

If there is a patent family with few members it is more effective to use a family display format with legal status information for all members (if the full information is needed). LFAM or FFAM are possible. The IFAM format would have even more details (Indented Family Format)

=> D FFAM
L1    ANSWER 1 OF 1       INPADOCDB COPYRIGHT 2013 EPO/FIZ KA on STN

..............
MEMBER 1
..............

AN    2139782 INPADOCDB UP 20100701 UW 201028
FN    11576539
TI    Vertical power MOSFET.
Ti    Vertikaler Leistungsmosfet.
TL    English; German
IN    TIHANYI, JENOE, DR.-ING., 85551 KIRCHHEIM, DE; DEBOY, GERALD, DR. R. NAT., 82008 UNTERHACHING, DE
INS   TIHANYI JENOE DR ING, DE; DEBOY GERALD DR RER NAT, DE
PA    SIEMENS AG, 80333 MUENCHEN, DE
PAS   SIEMENS AG, DE
DT    Patent
PI    DE 19730759          C1 19980903
PIT   DEC1 PATENT SPECIFICATION (FIRST PUBL.) [FROM NO. 1400000 ONWARDS]
FDT   DED1 Grant of a patent without 'OFFENLEGUNGSSCHRIFT'
DAV   19980903 printed with grant
STA   GRANTED
AI    DE 1997-19730759 A 19970717
AIT   DEA Patent application
PRAI  DE 1997-19730759 A 19970717 (DEA, 20080814, Y)
PRAIT  DEA Patent application
XPD   20170717
REC   1. THERE IS 1 CITED REFERENCE [1 PATENT, 0 NON PATENT] AVAILABLE FOR THIS RECORD. ALL CITATIONS ARE AVAILABLE IN THE RE FORMAT.
IC. V 6
ICM   H01L0029-78
IPCR  H01L0021-336 [I.A]: H01L0029-06 [I.A]; H01L0029-167 [I.A]; H01L0029-32 [I.A]; H01L0029-76 [I.A]; H01L0029-78 [I.A]; H01L0031-062 [I.A]
CPC   H01L0029-0634; H01L0029-167; H01L0029-32; H01L0029-7802
EPC   H01L0029-7882; H01L0029-06828382; H01L0029-167; H01L0029-32
AN 23621185 INPADOCDB UP 20100701 UW 201028
FN 11575639
TI VERTIKALER LEISTUNGS-MOSFET.
     VERTICAL POWER MOSFET.
     TRANSISTOR A EFFET DE CHAMP MOS VERTICAL DE PUISSANCE.
TL German; English; French
IN DEBOY, GERALD; TIHANYI, JENÖE
INS DEBOY GERALD, DE; TIHANYI JENÖE, DE
PA SIEMENS AKTIENGESELLSCHAFT
PAS SIEMENS AG, DE
DT Patent
PI EP 929910 A1 19990721 German
PIT EPAK APPLICATION PUBLISHED WITH SEARCH REPORT
DAV 19990721 examined-printed-without-grant
STA PRE-GRANT PUBLICATION
DS R: DE FR GB IE IT
AI EP 1998-947303 A 19980717
AIT EPA Patent application
PRAI WO 1998-DE2020 W 19980717 (WOWW, 20080814, N)
    DE 1997-19730759 A 19970717 (DEA, 20080814, Y)
PRAIT WOWW Additional PCT application
    DEA Patent application
REC 1. THERE IS 1 CITED REFERENCE (0 PATENT, 1 NON PATENT) AVAILABLE FOR THIS
    RECORD. ALL CITATIONS ARE AVAILABLE IN THE RE FORMAT.
IC V 6
ICM H01L0029-78
ICS H01L0029-167; H01L0029-32
IPCR H01L0029-336 [I,A]; H01L0029-06 [I,A]; H01L0029-167 [I,A]; H01L0029-32 [I,A]; H01L0029-76 [I,A]; H01L0029-78 [I,A]; H01L0031-06 [I,A]
CPC H01L0029-0634; H01L0029-167; H01L0029-32; H01L0029-7802
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FA AI; AN; DAV; CPC; DS; DT; EPC; ICM; ICS; IN; INS; IPC; IPCR; LA; PA; PAS; PI; PIT; PRAI; REP; TI; XPD
LEGAL STATUS
AN 23621185 INPADOCDB
19990721 EPAK + DESIGNATED CONTRACTING STATES:
    EP
    A1
    DE FR GB IE IT
19990721 EP17P + REQUEST FOR EXAMINATION FILED
    19990305
EXA Examination, Search Report
20011114 EPRAP1 TRANSFER OF RIGHTS OF AN EP APPLICATION
    INFINEON TECHNOLOGIES AG
CHG Change of Owner, Inventor, Applicant
20070815 EP17Q + FIRST EXAMINATION REPORT
    20070717
EXA Examination, Search Report
20080528 EP18D - DEEMED TO BE WITHDRAWN
    20071128
NIF Lapses, Expirations, Withdrawals, Refusals
..................................................20080528

471
Guide to STN Patent Databases

LEGAL STATUS
AN 69403912 INPADOC DB 20080814 EW 200833 UP 20120719 UW 201229

An examination report of the patent application has been issued, and the patent has been granted. The patent is valid until 2012.

LEGAL STATUS
AN 69403912 INPADOC DB 20080424 JPA61

An annual fee has been paid for the year 2012.

LEGAL STATUS
AN 69403912 INPADOC DB 20110630 EW 201126 UP 20120719 UW 201229

A renewal fee has been paid for the year 2011.

LEGAL STATUS
AN 69403912 INPADOC DB 20110630 EW 201126 UP 20120719 UW 201229

An annual fee has been paid for the year 2011.

LEGAL STATUS
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A renewal fee has been paid for the year 2010.

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An annual fee has been paid for the year 2009.

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A renewal fee has been paid for the year 2008.

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A renewal fee has been paid for the year 2007.

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An annual fee has been paid for the year 2005.

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A renewal fee has been paid for the year 2004.

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AN 69403912 INPADOC DB 20110630 EW 201126 UP 20120719 UW 201229

An annual fee has been paid for the year 2004.
AN 48835776 INPADOCDB UP 20000701 UW 2001028
FN 11575539
TI Vertical power MOSFET.
TL English
IN DEBOY GERALD; TIHANYI JENOE
INS DEBOY GERALD, DE; TIHANYI JENOE, DE
PA DEBOY GERALD; TIHANYI JENOE
DT Patent
PI US 6479876 B1 20021112
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DAV 20021112 printed-with-grant
STA GRANTED
AI US 2000-467259 A 20001012
AIT USA Patent application
PRAI DE 1997-19730759 A 19970717 (DEA, 20080814, Y)
WO 1998-DE2020 W 19980717 (WOWW, 20080814, N)
PRAIT DEA Patent application
WOWW Additional PCT application
XPD 20180717
REC 7. THERE ARE 7 CITED REFERENCES (7 PATENT, 0 NON PATENT) AVAILABLE FOR THIS RECORD. ALL CITATIONS ARE AVAILABLE IN THE RE FORMAT.
IC.V 7
ICM H01L0029-76
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IPCR H01L0021-336 [I,A]; H01L0029-06 [I,A]; H01L0029-167 [I,A]; H01L0029-32 [I,A]; H01L0029-76 [I,A]; H01L0029-78 [I,A]; H01L0031-062 [I,A]
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20001012 USAS ASSIGNMENT SIEMENS AKTIENGESELLSCHAFT, GERMANY ASSIGNMENT OF ASSIGNS INTEREST; ASSIGNS:DEBOY, GERALD; TIHANYI, JENOE; REEL/FRAME:011165/0961 19991230
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Guide to STN Patent Databases

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    TRANSISTOR A EFFET DE CHAMP MOS VERTICAL DE PUISSANCE.
TL German; English; French
IN DEBOY, GERALD; TIHANYI, JENOE
INS DEBOY GERALD, DE; TIHANYI JENOE, DE
PA SIEMENS AKTIENGESELLSCHAFT; DEBOY, GERALD; TIHANYI, JENOE
PAS SIEMENS AG, DE; DEBOY GERALD, DE; TIHANYI JENOE, DE
DT Patent
PI WO 9904437 A1 19990128
PIT WOA1 INTERNATIONAL APPLICATION PUBLISHED WITH INTERNATIONAL SEARCH REPORT
FDT WO100000 With international search report; WO030000 Before expiration of time limit for amending the claims and to be republished in the event of the receipt of the amendments
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STA PRE-GRANT PUBLICATION
DS W: JP US
RI WO 1998-DE2020 W 19980717 German
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REC 4. THERE ARE 4 CITED REFERENCES (4 PATENT, 0 NON PATENT) AVAILABLE FOR THIS RECORD. ALL CITATIONS ARE AVAILABLE IN THE RE FORMAT.
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19990128 WOAK + DESIGNATED STATES
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19990506 WO121 EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNED IN THIS APPLICATION
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    .................................20080430
20001012 WOWWE + WIPO INFORMATION: ENTRY INTO NATIONAL PHASE
    US 09462759
    .................................20071108
20071128 WOWWW + WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE
    EP 1998947303
    NIF Lapses, Expiries, Withdrawals, Refusals
    .................................20081016

2 priorities, 5 applications, 6 publications (1 EPO simple family)
60.1.2 Search in IFICLS

=> FIL IFICLS
FILE 'IFICLS' ENTERED
COPYRIGHT (C) 2013 IFI CLAIMS Patent Services (IFI)
SEARCH by US patent number (there is no application number field in IFICLS).

=> S US6479876/PN
1 US6479876/PN
(US6479876/PN)

The IALL (Indented ALL) format is used to get the full name of the fields.

=> D IALL
L2 ANSWER 1 OF 1 IFICLS COPYRIGHT 2013 IFI on STN

ACCESSION NO.: 3783993 IFICLS
PATENT ASSIGNEE: Deboy, Gerald DE
PATENT ASSIGNEE: Tihanyi, Jenoe DE
PATENT INFORMATION: US 6479876 20021112
DOCUMENT TYPE: REASSIGNED;
CORRECTION DATE: 24 Jun 2003
REASSIGNMENT INFO.: DATE: 20001012
KIND: ASSIGNMENT OF ASSIGNS INTEREST
ASSIGNOR: DEBOY, GERALD DATE SIGNED: 12/30/1999; TIHANYI, JENOE DATE SIGNED: 12/30/1999
ASSIGNEE: SIEMENS AKTIENGESELLSCHAFT MUNICH GERMANY
AGENT: IRWIN OSTROFF, ESQUIRE 3 LACKAWANNA BOULEVARD MURRAY HILL, NJ 07974
MICROFILM REEL NO: 011165
MICROFILM FRAME NO: 0961
DATE: 20020715
KIND: ASSIGNMENT OF ASSIGNS INTEREST
ASSIGNOR: AKTIENGESELLSHAFT, SIEMENS DATE SIGNED: 07/01/2002
ASSIGNEE: INFINEON TECHNOLOGIES AG SANKT-MARTIN-STRABE 53 MUNICH GERMANY 81669
AGENT: IRWIN OSTROFF, ESQUIRE 3 LACKAWANNA BOULEVARD MURRAY HILL, NJ 07974
MICROFILM REEL NO: 013085
MICROFILM FRAME NO: 0518

60.1.3 Search in EPFULL

=> FIL EPFULL
FILE 'EPFULL' ENTERED
COPYRIGHT (C) 2013 European Patent Office / FIZ Karlsruhe / LexisNexis Univentio B.V.

=> S EP929910/PN
1 EP929910/PN

The legal status from the European Patent Register is displayed with D LSEP. This legal status is searchable. The INPADOCDB legal status can be displayed in EPFULL and in other full-text databases.

=> D LSEP
L3 ANSWER 1 OF 1 EPFULL COPYRIGHT 2013 EPO/FIZ KA/LNU on STN

LEGAL STATUS INCLUDING HISTORY
AN 1998:60472 EPFULL
19990506 WO/006EP The EPO has been informed by WIPO that EP was designated in this application
19990506 WO/870 PCT publication data
19990506 EP/840 Designated contracting states

475
Guide to STN Patent Databases

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
WO 9904437  A1 19990128
19990506 WOB880  PCT, Publication of the international search report (A3 publication) 19990128
19990721 EPB241  Request for examination 19990305
19990721 EPB430  Unexamined document without grant, (first publication) 19990721
19990721 EPB840  Designated contracting states DE FR GB IE IT
WO 9904437           A1 19990128
19990506 WOB880     PCT, Publication of the international search report (A3 publication) 19990128
19990721 EPB241  Request for examination 19990305
19990721 EPB430  Unexamined document without grant, (first publication) 19990721
19990721 EPB840  Designated contracting states DE FR GB IE IT

20011114 EPB710R  Applicant reassignment
OLD: SIEMENS AKTIENGESELLSCHAFT, Wittelsbacherplatz 2, 80333 Muenchen, DE
NEW: Infineon Technologies AG, (Technologies AG, Infineon), St.-Martin-Strasse 53, 81669 Muenchen, DE

20011219 EPB740R  Agent reassignment
OLD: Patentanwaelte Westphal, Mussgnug & Partner, Mozartstrasse 8, 80336 Muenchen, DE
NEW: Patentanwaelte Westphal, Mussgnug & Partner, Herzog-Wilhelm-Str. 26, 80331 Muenchen, DE

20070815 EPB242  Dispatch of the first examination report 20070816

...............20070816

20071205 EPB740R  Agent reassignment
OLD: Patentanwaelte Westphal, Mussgnug & Partner, Mozartstrasse 8, 80336 Muenchen, DE
NEW: Patentanwaelte Westphal, Mussgnug & Partner, Herzog-Wilhelm-Str. 26, 80331 Muenchen, DE

...............20071205

20080528 EPB237  Application deemed withdrawn 20080528

...............20080528

60.2  Example 2

Has a US patent for the application published as US 2002/0106495 already been granted?

Notes: This search can most easily be accomplished in INPADOCDB, but rather than the legal status the STA field should be used where the status of the publication is registered. Another way is to search by the publications kind codes for granted patents. Note that these codes may vary between databases.

The search by publication kind code should be done in INPADOCDB or in another national or regional patent database where all publications are displayed in a single document (for US: USPATFULL, IFIPAT). DWPI or HCAPLUS should not be used with this strategy because in these databases it is possible that the number of the granted patent is entered into a different document of the patent family.

From Jan. 2, 2001, the relevant US publication kind codes are USB1 or USB2 in USPATFULL/IFIPAT and in INPADOCDB.

60.2.1 Search in INPADOCDB, USPATFULL and IFIALL

=> FILE INPADOCDB
FILE 'INPADOCDB' ENTERED
COPYRIGHT (C) 2013 European Patent Office / FIZ Karlsruhe

Search in INPADOCDB with GRANTED/STA.

=> E A/STA
**** START OF FIELD ****
E3  0 -> A/STA
E4  35279038  GRANTED/STA
E5  40740032  PRE-GRANT PUBLICATION/STA
**** END OF FIELD ****

=> S US 2002106495/PN AND GRANTED/STA
L1  1 US 2002106495/PN AND GRANTED/STA

=> D PI.M
L5  ANSWER 1 OF 1 INPADOCDB COPYRIGHT 2013 EPO/FIZ KA on STN
60.3 Example 3

We are looking for oppositions against patents of GlaxoSmithKline and oppositions filed by GlaxoSmithKline in 2011.

Notes: INPADOCDB or EPFULL can be used to search for oppositions. Some patent offices even publish the opponent, e.g. the European Patent Office. The second part of the question can only be answered for publications of these offices.

60.3.1 Search in INPADOCDB (1)

Searching oppositions against patents of GlaxoSmithKline.

=> FILE INPADOCDB
FILE 'INPADOCDB' ENTERED
COPYRIGHT (C) 2012 European Patent Office / FIZ Karlsruhe

The legal status code ORE is used. This code is set with all
Oppositions or Reexaminations (except where the text says: ‘NO
OPPOSITION’)

60.3.2 Search in EPFULL

Searching oppositions against patents of GlaxoSmithKline.

=> SET MSTEPS ON; SET DETAIL OFF

=> S US 20110268954/01 PN AND USB!/PK
L6 1 FILE 'INPADOCDB'
L7 1 FILE 'USPATFULL'
L8 1 FILE 'IFIALL'
TOTAL FOR ALL FILES
L9 3 US 20110268954/01 PN AND USB!/PK

In this multi file search the FROM option is used because of the
different display formats in the individual databases.
(L) proximity is used to get only documents where the same
legal status entry contains both ‘opposition’ and ‘2007’.

=> S (GLAXO? OR SMITHKLINE?)/PA, PAS AND ORE/LSC2 (L) 2011/LSD
34812 GLAXO?/PA
35099 GLAXO?/PAS
36336 SMITHKLINE?/PA
36911 SMITHKLINE?/PAS
201997 ORE/LSC2
3671278 2011/LSD
(20110000-20119999/LSD)
9851 ORE/LSC2 (L) 2011/LSD
L1 21 (GLAXO? OR SMITHKLINE?)/PA, PAS AND ORE/LSC2 (L) 2011/LSD

=> D BIB HIT 5

L2 ANSWER 5 OF 21 INPADOCDB COPYRIGHT 2012 EPO/FIZ KA on STN
AN 52737667 INPADOCDB ED 20101216 EW 201050 UP 20101216 UW 201050
FN 8201841
TI IMPFSSTOFFZUSAMMENSETZUNGEN MIT VIROSOMEN UND EINEM SAPONIN-ADJUVANS.
VACCINE COMPOSITIONS COMPRISING VIROSOMES AND A SAPONIN ADJUVANT.
COMPOSITIONS DE VACCIN COMPRENANT DES VIROSOMES ET UN ADJUVANT A BASE DE
SAPONINES.
TL German; English; French
IN COLLER, BETH-ANN; HENDERICKX, VERONIQUE; GARCON, NATHALIE M.J.
INS COLLER BETH-ANN, BE; HENDERICKX VERONIQUE, BE; GARCON NATHALIE M J, BE
PA GLAXOSMITHKLINE BIOLOGICALS SA
PAS GLAXOSMITHKLINE BIOLOGICALS SA, BE
DT Patent
PI EP 1755666 B1 20101215 English
PIT EPB1 PATENT SPECIFICATION
DAV 20101215 printed with grant
STA GRANTED
DS R: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT
MC NL PL PT RO SE SI SK TR
XS R: HR LV
AI EP 2005-747432 A 20050526
AIT EPA Patent application
GB 2004-12039 A 20040528 (GBA, 20070301, Y)
GB 2004-12304 A 20040602 (GBA, 20070301, Y)
PRAIT WOWW Additional PCT application
GBA Patent application
PA GLAXOSMITHKLINE BIOLOGICALS SA
PAS GLAXOSMITHKLINE BIOLOGICALS SA, BE
PA GLAXOSMITHKLINE BIOLOGICALS SA
PAS GLAXOSMITHKLINE BIOLOGICALS SA, BE
LEGAL STATUS HIT
AN 52737667 INPADOCDB
20111019EP26 - OPPOSITION FILED
CRUCELL HOLLAND B.V.
20110915
ORE Opposition, Reexamination
.........................20111020

LEGAL STATUS HIT
AN 52737667 INPADOCDB
20111026EP26 - OPPOSITION FILED
STRAWMAN LIMITED
20110915
ORE Opposition, Reexamination
.........................20111027

With European patents also the Opponent is named.
We now want to get a list of Opponents.

=> ANALY L1 1- LSOP
L3 ANALYZE L1 1- LSOP : 17 TERMS
Search examples

=> D 1 -
L 3 Analyze L 1 - LSOP : 17 TERMS

TERM #  # OCC  # DOC % DOC LSOP
------- -------- -------- -------- --------
 1       5      2   9.52 NORTON HEALTHCARE LIMITED
 2       4      1   4.76 TEVA PHARMACEUTICAL INDUSTRIES LTD.
 3       3      2   9.52 NOVARTIS VACCINES AND DIAGNOSTICS, INC.
 4       3      1   4.76 GEDEON RICHTER PLC.
 5       3      1   4.76 MICROMET AG
 6       2      1   4.76 CHIRON CORPORATION
 7       2      1   4.76 FRIESLAND BRANDS B.V.
 8       1      1   4.76 BAYER PHARMA AKTIENGESELLSCHAFT
 9       1      1   4.76 BOCK WOLFGANG
10      1      1   4.76 CRUCELL HOLLAND B.V.
11      1      1   4.76 NOVARTIS AG
12      1      1   4.76 SANOFI PASTEUR, INC.
13      1      1   4.76 SCHERING AKTIENGESELLSCHAFT
14      1      1   4.76 STRAWMAN LIMITED
15      1      1   4.76 TASMANIAN ALKALOIDS PTY. LTD.
16      1      1   4.76 THE KINGDOM OF THE NETHERLANDS, REPRESENTED BY THE
17      1      1   4.76 VON MENGES, ALBRECHT

********** END OF L 3 **********

60.3.2 Search in INPADOCDB (2)

Search for oppositions (against European Patents) by GlaxoSmithKline. The LSOP field (Legal Status Patent Opponent) is used.

=> S (GLAXO? OR SMITHKLINE?) / LSOP (L) 2011 / LSD

116 GLAXO / LSOP
970 SMITHKLINE / LSOP
3671278 2011 / LSD
(20110000 - 20119999 / LSD)

L 4 15 (GLAXO? OR SMITHKLINE?) / LSOP (L) 2011 / LSD

=> D PA HIT
L 4 ANSWER 1 OF 15 INPADOCDB COPYRIGHT 2012 EPO/FIZ KA ON STN PA EXONHIT THERAPEUTICS SA

LEGAL STATUS HIT
AN 57172616 INPADOCDB
20110615EP26 - OPPOSITION FILED
   GLAXO GROUP LIMITED
   20110504
   ORE Opposition, Reexamination
   ................................................................. 20110616

Now GLAXO is the Opponent. This is a list of patent assignees against whose patents GLAXO has opposed.

=> ANAL L 3 1 - PAS
L 5 ANALYZE L 4 1 - PAS : 13 TERMS

=> D 1 -
L 5 ANALYZE L 4 1 - PAS : 13 TERMS

TERM #  # OCC  # DOC % DOC PAS
------- -------- -------- -------- --------
 1       4      4  26.67 NOVARTIS VACCINES & DIAGNOSTICS
 2       2      2  13.33 PROcter & GAmBLE
 3       1      1  6.67 CHIRON SRL
 4       1      1  6.67 CIPLA LTD
 5       1      1  6.67 CURIS INC
 6       1      1  6.67 EXONHIT THERAPEUTICS SA
 7       1      1  6.67 GALAXY BIOTECH LLC
 8       1      1  6.67 GENENTECH INC
 9       1      1  6.67 INST SYSTEMS BIOLOGY
10      1      1  6.67 MANNKI ND CORP

479
Guide to STN Patent Databases

60.4  Example 4

Search of European patents where the company BIOSENSOR ENTREPRISES is licensee.

=> FIL EPFULL
FILE 'EPFULL' ENTERED
COPYRIGHT (C) 2012 European Patent Office / FIZ Karlsruhe / LexisNexis Univentio B.V.

=> E BIOSENSOR/LI
E1  6  BIO SCIENCE/LI
E2  7  BIO SCIENCES/LI
E3  17  BIOSENSOR/LI
E4  1  BIOSENSOR ENTERPRISES LLC/LI
E5  16  BIOSENSOR ENTERPRISES LLC/LI
E6  1  BIOSPHERICS/LI
E7  1  BIOSPHERICS INCORPORATED/LI

=> S E3
L6  17 BIOSENSOR/LI

Selecting those patent assignees where BIOSENSOR ENTREPRISES appears as licensee.

=> SEL 1- PA
E1 THROUGH E3 ASSIGNED

=> D SEL
E1  14  AMBRI LIMITED/PA
E2  3  AUSTRALIAN MEMBRANE AND BIOTECHNOLOGY RESEARCH INSTITUTE/PA
E3  2  THE UNIVERSITY OF SYDNEY/PA

Display of the first document with full address details.

=> D 1 TI PI PA HIT
L6  ANSWER 1 OF 17  EPFULL  COPYRIGHT 2012 EPO/FIZ KA/LNU on STN
TIEN  Improved sensor membranes.
TIFR  Membranes améliorées pour les capteurs.
TIDE  Verbesserte Sensormembranen.
PI  EP 1130388  A1 20010905
PA  Ambri Limited, 126 Greville Street, Chatswood, NSW 2067, AU
LI  0100 20030825  Exclusive licence
      Biosensor Entreprises , LLC, 925 Page Mill Road, Palo Alto, California
      94304, US
      8700
      for AT BE CH DE DK ES FR GB GR I E IT LI LU MC NL PT SE

60.5  Example 5

We are interested in the current legal status, and in particular the expiration dates, of patents on the substance ZOLEDRONATE and their family members. US 4,939,130 is a US family member, EP 0 275 821 is a European family member, the German application number for the designation is DE 37 76 880.

Notes: The data of the individual family members can be found in the databases with legal status information (incl. SPC – Supplementary Protection Certificates) (IFICLS, PATDPA) and the data for the full family can be found in INPADOCDB. The PATDPASPC database offers the option to search not only by patent number but also by substance. PATDPA and PATDPASPC are closed databases. Current procedures cannot be searched any more.

60.5.1  Search in IFICLS

=> FIL IFICLS
FILE 'IFICLS' ENTERED
COPYRIGHT (C) 2016 IFI CLAIMS(R) Patent Services (IFI)
The new expiration date for US is 2 Sept. 2012. The trade name is ZOMETA.

The XPD (Expiration Date) field in IFIALL usually contains the computed 'normal' expiration date. In this case the extension of the expiration date is shown.

60.5.2 Search in IFIALL

The XPD (Expiration Date) field in IFIALL usually contains the computed 'normal' expiration date. In this case the extension of the expiration date is shown.
Guide to STN Patent Databases

INF  Jaeggi, Knut A, Basel, CH
     Widler, Leo, Muchenstein, CH
IN  Widler Leo (CH); Jaeggi Knut A (CH)
PAF  Ciba-Geigy Corporation, Ardsley, NY
PA  Ciba-Geigy Corp (2)
EXNAM Raymond, Richard L
AG  Villamizar, JoAnn
PI  US 4993130 A  19900703 (CITED IN 035 LATER PATENTS)
AI  US 1989-315962  19890227 (7)
XPD  2 Sep 2012
RLI  US 1987-120284  19871111 CONTINUATION IN-PART ABANDONED
PRAI CH 1986-4666  19861121
FI  US 4939130  19900703
DT  Utility; Reassigned; Extended
FS  CHEMICAL GRANTED
OS  CA 114:62355
ED  Entered STN: 4 Dec 1992
Last Updated on STN: Jan 2011
MRN 005228  MFN: 0929
     011089  0648
CLMN 5

60.5.3 Search in PATDPASPC

=> FILE PATDPASPC
FILE 'PATDPASPC' ENTERED
COPYRIGHT (C) 2016 Deutsches Patent- und Markenamt / FIZ Karlsruhe (DPMA/FIZ KA)

=> S ZOLEDRONATE / CN
L4  2 ZOLEDRONATE / CN

PATDPASPC contains the expiration date for German SPCs.
(PATDPASPC contains data from 1992 to October 2013.)

=> D MAX
L4  ANSWER 1 OF 2 PATDPASPC COPYRIGHT 2016 DPMA/FIZ KA on STN

AN  889 PATDPASPC
SPC.DN DE 10199052
SPC.TYP medicinal

SPC.TERM 20071117-20121116
SPC.GD 20040928
SPC.AD 20010919
SPC.DA EU-1.01-176-01; EU-1.01-176-02; EU-1.01-176-03; EU-EWR
Liechtenstein IKS 55463 01
EXF 1.43
PI  DE 3776880
    EP 275821
AD  19871116
IPC C07F009.65 (4)
     C07F009.547 (5)
     C07F009.547 (6)
     C07F009.547 (7)

IT Certified Compound(s)
RN.CEC 118072-93-8
CN.CEC Zoledronate
RN.CEC 118072-93-8
CN.CEC Zoledronic acid
RN.CEC 118072-93-8
CN.CEC Zoledronsaeure

482
Search examples

RN.CEC 118072-93-8
CN.CEC Zometa

Other Compound(s)
RN.OC 165800-06-6
CN.OC Zoledronat
RN.OC 165800-06-6
CN.OC Zoledronic acid hydrate
RN.OC 165800-06-6
CN.OC Zoledrnsaeurehydrat
RN.OC 165800-06-6
CN.OC Zoledrnsaeuremonohydrat

TN Zometa; Zometa Pulver und Losungsmittel zur Herstellung einer Infusionslosung

LS APP Zoledrnsaeure
REQ Zoledrnsaeuremonohydrat
GRA Zoledrnsaeure

The extension of the term by the Pediatric Extension is: 17 Nov. 2012 to 16 May 2013.

NTE Laufzeitverlaengerung von 17.11.2012 bis 16.05.2013;
 Laufzeitverlaengerung um 6 Monate beantragt am 26.02.2010;
 Laufzeitverlaengerung rechtskraeftig am 09.07.2010

These are the details of a later application.

L4 ANSWER 2 OF 2 PATDPASPC COPYRIGHT 2016 DPMA/FIZ KA on STN

AN 887 PATDPASPC
SPC.DN DE 10199050
SPC.TYP medicinal
SPC.TERM 20070726-20120725
SPC.GD 20040928
SPC.AD 20010914
SPC.DA EU-1.01.0176-001; EU-1.01.0176-002; EU-1.01.0176-003; EU-EWR
 Liechtenstein IKS-Nr. 55 463 01
EXF 1.43
PI DE 3778800
EP 258618
AD 19870725
IPC C07F009-65 (4)
 C07F009-6503 (5)
 C07F009-6503 (6)
 C07F009-6503 (7)

IT Certified Compound(s)
RN.CEC 118072-93-8
CN.CEC Zoledronate
RN.CEC 118072-93-8
CN.CEC Zoledronic acid
RN.CEC 118072-93-8
CN.CEC Zoledrnsaeure
RN.CEC 118072-93-8
CN.CEC Zometa
RN.CEC 165800-06-6
CN.CEC Zoledronat
RN.CEC 165800-06-6
Guide to STN Patent Databases

CN.CEC    Zoledronic acid hydrate
RN.CEC    165800-06-6
CN.CEC    Zoledronsäurehydrat
RN.CEC    165800-06-6
CN.CEC    Zoledronsäuremonohydrat

TN        Zometa; Zometa Pulver und Lösungsmittel zur Herstellung einer Infusionslösung

LS
APP       Zoledronsäuremonohydrat
REQ       Zoledronsäure
GRA       Zoledronsäure; Salze

=> SEL 1 PN
E1 THROUGH E2 ASSIGNED

=> D SEL
E1        1     DE3776880/PN
E2        1     EP275821/PN

PATDPASPC does not include the legal status of the patent.

60.5.4 Search in PATDPA

=> FIL PATDPA
FILE 'PATDPA' ENTERED
COPYRIGHT (c) 2016 Deutsches Patent- und Markenamt / FIZ Karlsruhe (DPMA/FIZ KA)

=> S E1-E2
L6        1 (DE3776880/PN OR EP275821/PN)

In Germany, an SPC was granted for the European Patent EP 0275821.

=> D 1 TI PA PI AI PRAI NTE SPC
L6        ANSWER 1 OF 1 PATDPA COPYRIGHT 2016 DPMA/FlZ KA on STN
TI (B1)(A) Neue substituierte Alkandiphosphonsäuren.
PA Novartis AG (*CH 4002 Basel)
PAO (B1) Ciba-Geigy AG (*CH Basel)
PI EP 275821 B1 19920226 PGR OP9 (87) letzte Publ./ EP-Schrift
DE 1987-3776880 E 19871116 ADRN (22) DE-AKZ fuer EP-Patent
PRAI CH 1986-4666 A 19861121 CP (32) Unionsprioritaet
NTE 19861121: FPRD (32) Erstes Prioritaetsdatum
19871116: ADR (86) Anmeldetag d. EP-Anm. m. DE-Benennung
19971009: NPA G327 Neuer Stand Inhaber
SPC Arzneimittel Zertifikat Anmeldung
DE10199052.9 20002110 (DE3776880)
Novartis AG, Lichtstrasse 35, 4056 Basel, CH
BGA: EU/1/01/176/01 20.03.2001
EU/1/01/176/02 20.03.2001
EU/1/01/176/03 20.03.2001
Zometa - Zoledronsäure
IPC: C07F009.547
EG: Liechtenstein 55463 28.11.2000
EEC-Verordnung
SPC Sonstiges (Arzneimittel Zertifikat)
DE10199052.9 20002111 (DE3776880)
IPC: C07F009.547

Vertreter und Zustellanschrift geaendert in: Kroher - Strobel Rechts- und Patentaawaelte, Bavariaring 20, 80336 Muenchen
SPC Sonstiges (Arzneimittel Zertifikat)
DE10199052.9 20100812 (DE3776880)
IPC: C07F009.547

Die Laufzeit des Schutzzertifikats wurde gemaess Artikel 13 Absatz 3 der EG-Verordnung Nr. 469/2009 verlaengert.
Search examples

60.5.5  Search in INPADOCDB/INPAFAMDB

=> F I L I N P A F A M D B
FILE 'INPAFAMDB' ENTERED
COPYRIGHT (C) 2016 European Patent Office / FIZ Karlsruhe

In INPAFAMDB the full patent family can be displayed, including the SPCs in the individual countries and expiration details. The deduplicated format including the legal status or a full format with details of every individual patent and its legal status may be used.

=> S E1-E2
L7 1 (DE3776880/PN OR EP275821/PN)
Display of the deduplicated format (Brief) and legal status of the full family in chronological order.

=> D B R I E F  L S
L7 ANSWER 1 OF 1  INPAFAMDB COPYRIGHT 2016 EPO/FIZ KA on STN

AN 3658386 INPAFAMDB UPFB 20160721 UWF 201629
TI NOVEL SUBSTITUTED ALKANEDI PHOSPHONIC ACIDS.
- PROCESS FOR THE MANUFACTURE OF NOVEL SUBSTITUTED ALKANEDI PHOSPHONIC ACIDS.
- Substituted alkanedi phosphonic acids.
- Substituted alkane di phosphonic acids.

INS JAEaggi Knut A DR; WIDLER Leo DR; JAEaggi Knut A; WIDLER Leo; JAEaggi Knut A, CH; WIDLER Leo, CH; JAEaggi Knut, CH; WIDLER Leo Dr, CH; JAEaggi Knut, CH; WIDLER Leo Dr, CH; KUNUUTO AA IETSUGI, REO BIDORAA; KNUT A JAEaggi, CH; Leo WIDLER, CH; JAEaggi KNUT ALFRED
PAS CIBA GEIGY AG, CH
- CIBA GEIGY AG
- NOVARTIS AG, CH
- CIBA GEIGY, CH
- CIBA GEIGY CORP, US
IPCR C07F0009-38 [I,A]; A61K0031-665 [I,A]; A61K0031-665 [I,A];
CPC C07F0009-65061; C07F0009-65032; C07F0009-65033; C07F0009-65062; C07F0009-65181; C07F0009-65182; C07F0009-6539
NCL NLM 514/094.000
NCLS 514/092.000; 514/093.000; 548/112.000; 548/119.000; 987/063.000; 987/354.000; 987/362.000
INCL NLM 514/094.000
INCLS 514/092.000; 514/093.000; 548/112.000; 548/119.000
FCL A61K0031-66 (ADF); A61K0031-665 (ADD); A61K0031-67 (AB); A61K0031-675
FTRM 4C086/AA01; 4C086/AA03; 4C086/AA04; 4C086/DA38; 4C086/MA01; 4C086/MA04;

AB (US 4939130 A)
Alkanedi phosphonic acids, in particular heteroarylalkanediphosphonic acids of formula \langle IMAGE \rangle (I) wherein R1 is a 5-membered heteroaryl radical which may be fused with benzene or cyclohexene nuclei and which contains, as hetero atoms, 2 to 4 N-atoms or 1 or 2 N-atoms as well as 1...

PATENT FAMILY INFORMATION INPAFAMDB

+-------- Publications +-------- Applications +--------
AT 72816T  T 19920315 AT 1987-810664 T 19871116
AU 1081453  A 19880526 AU 1987-81453 A 19871120
AU 607722  B2 19910314 CA 23893973 C 19970225 CA 1987-552209 A 19871119
CA 1338937 CA 19880527 CA 1995-1827 A 19951201
CY 1827 A 19951201 CY 1995-1827 A 19951201
DD 270533 A5 19890802 DD 1987-309267 A 19871120
DE 3776880 D1 19920402 DE 1987-3776880 A 19871116
DE 10199052 I 1 20020110 DE 1987-10199052 C 19871116

485
Guide to STN Patent Databases

DK 8706095   DO 19871120   DK 1987-6095   A 19871120
DK 8706095   A 19880522
DK 174098    B1 20020617
EP 275821    B1 19920226
ES 2038692   T3 19930801    ES 1987-810664   T 19871116
ES 2038692   T4 20120210
FI 8705096   AO 19871118    FI 1987-5096   A 19871118
FI 8705096   A 19880522
FI 87570     B 19921015
FI 87570     C 19930125
GR 3003895   T3 19930316    GR 1991-402106   T 19920227
HK 9401148   A 19941027    HK 1994-1148   A 19941020
HU 46330     A 19881028    HU 1987-5160   A 19871120
HU 199150    B 199001129
IE 8703148   L 19880521    IE 1987-3148   A 19871120
IE 59816     B1 19940406
IL 84497     D0 19880429    IL 1987-84497   A 19871116
IL 84497     A 19941021
JP 63150291  A 19880622    JP 1987-292198   A 19871120
JP 27442388  B2 19900428
LU 90838     I2 20011119    LU 2001-90838   C 20010919
MX 9427     A 19931201    MX 1987-9427   A 19871119
NL 3000581   I1 20011201    NL 2001-300058C   C 20010919
NL 3000581   I2 20020201
NO 8704856   D0 19871120    NO 1987-4856   A 19871120
NO 8704856   A 19880524
NO 173446    B 19930906    NO 173446    C 19931215
NO 200100015I I2 20041011    NO 2001-15C   C 20010904
NL 222610    A 199000926   NZ 1987-222610   A 19871119
PH 24345     A 19900613    PH 1987-36100   A 19871120
PT 86167     A 19871201    PT 1987-86167   A 19871119
PT 86167     B 19900831
SG 9400921   G 19950428    SG 1994-921   A 19940711
US 4939130   A 19900703    US 1989-315962   A 19890227
ZA 8708698   B 19880523    ZA 1987-8698   A 19871120

+--------- Priorities ---------+

1 priority, 29 applications, 46 publications (1 EPO simple family)

LEGAL STATUS
AN 3658386 INPAFAMDB

19861121 CHA PRI Patent application
19861121 CHAT PRI Technical priority

19861121 CHSPCF PRI Patent application

19871116 ATT APP Translation
19871116 DEA APP Patent application
19871116 EPA APP Patent application
19871116 EST APP Translation
19871116 ILA APP Patent application

CHSPCF CH: SUPPLEMENTARY PROTECTION CERTIFICATE FILED
CHSPCFIKS CHSP Suppl. Protect. Certificate, Time Extension

REFERENCE TO A NATIONAL CODE

20010531 EPREG [EP 1987-810664   A 19871116]
Search examples

20010802 AUNC  + EXTENSION OF TERM REQUESTED FOR STANDARD PATENT (SECT. 70)
[ AU 1987-81453 A 19871120]
PRODUCT NAME: ZOMETAZOLEDRONIC ACID
SPC Suppl. Protect. Certificate, Time Extension
.......................................20070628
...

20040828 DEV484  DELIVERY OF THE DECISION OF GRANT
[ DE 1987-3776880 A 19871116]
PRODUCT NAME: ZOLEDRONSAEURE; REGISTRATION NO/DATE:
EU/1/01/176/01 - EU/1/01/176/03; 20010320
101 99 052
20010919
SPC Suppl. Protect. Certificate, Time Extension
.......................................20070628
...

20040831 FI FG  + Patent granted
[ FI 1987-5096 A 19871118]
NOVARTIS AG
20040928 DEV457  + SPC GRANTED
[ DE 1987-3776880 A 19871116]
PRODUCT NAME: ZOLEDRONSAEURE; REGISTRATION NO/DATE:
EU/1/01/176/01 - EU/1/01/176/03; 20010320
101 99 052
20010919
SPC Suppl. Protect. Certificate, Time Extension
.......................................20070405
...

The Pediatric Extensions are included.

20110914 F I SP CP  + APPLICATION FOR A SIX MONTH EXTENSION OF AN SPC
[ FI 1987-5096 A 19871118]
203
20130517
SPC Suppl. Protect. Certificate, Time Extension
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20110930 E P REG  REFERENCE TO A NATIONAL CODE
[ EP 1987-810566 A 19871116]
FRCL
FR: CONCESSION TO GRANT LICENSES
PRODUCT NAME: ZOLEDRONIC ACID; NAT. REG. NO/DATE:
EU/1/01/176/001 20010320; FIRST REG.: LI IK S N 55 463
200011128
01C0035
LIC Licensing
.....................................20111103

20111015 AT SZV  + SPC PROLONGED
[ AT 1987-810566 T 19871116]
PRODUCT NAME: ZOLEDRONSAEURE UND DEREN SALZE UND HYDRATE;
REG. NO/DATE: EU/1/01/176/001-003 20010320
SZ 27/2001
20010919
20071117
20130516
20110907
SPC Suppl. Protect. Certificate, Time Extension
.......................................20111027
...

Meanwhile, the patents and SPC have expired.

20140315 E P REG  REFERENCE TO A NATIONAL CODE
[ EP 1987-810566 A 19871116]
ATSPCX  AT: EXPIRY OF AN SPC
AT 72816
PRODUCT NAME: ZOLEDRONSAEURE UND DEREN SALZE UND HYDRATE;
NAT. REGISTRATION NO/DATE: EU/1/01/176/001-003 20010320;
FIRST REGISTRATION: LI 55463.01 200011128
27/2001
20010919
20071116
20130516
AT: 20130516

487
Guide to STN Patent Databases

SPC Suppl. Protect. Certificate, Time Extension

........................................20140327

20140429 CAMKEX - EXPIRY
[CA 1987-552209     A 19871119]
20140225
NIF Lapses, Expiries, Withdrawals, Refusals
........................................20140522
...

1 priority, 29 applications, 46 publications (1 EPO simple family)

If only the legal status details of one country are wanted the display in INPADOCDB is more compact.

=> FILE INPADOCDB
FILE 'INPADOCDB' ENTERED
COPYRIGHT (C) 2016 European Patent Office / FIZ Karlsruhe

=> S DE 3750687/PN
L8 1 DE 3750687/PN
(DE3750687/PN)

=> D B I B L S

L8 ANSWER 1 OF 1 | INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN
AN 20352640 | INPADOCDB UW 201248
FN 3651965
TL German
IN CARINI, DAVID JOHN, WILMINGTON DELAWARE 19803, US; DUNCIA, JOHN JONAS VYTAUTAS, NEWARK DELAWARE 19711, US
NS CARINI DAVID JOHN, US; DUNCIA JOHN JONAS VYTAUTAS, US
PA E.I. DU PONT DE NEMOURS AND CO., WILMINGTON, DEL., US
PAS DU PONT, US
DT Patent
PI DE 3750687    T2 19950223
PIT DET2 TRANSLATION OF EP PATENT
DAV 19950223 not printed with grant
STA GRANTED
AI DE 1987-3750687    A 19870709
AIT DEA Patent application
PRAI US 1986-884920    A 19860711 (USA, 20110818, Y)
US 1987-50341    A 19870522 (USA, 20110818, Y)
PRAIT USA Patent application
XPD 20070709

LEGAL STATUS
AN 20352640 | INPADOCDB
19860711 USA PRI Patent application
19870522 USA PRI Patent application
19870709 DEA APP Patent application
19941201 DED1 PUB GRANTED EP NUMBER IN BULLETIN [FROM NO. 1400000 ONWARDS]
19950223 DET2 PUB TRANSLATION OF EP PATENT
19960201 DEV484 + APPLICATION OF SPC
PRODUCT NAME: LOSARTAN ODER DESSEN PHARMAZEUTISCH AKZEPTABLE SALZE, INSBESONDERE LOSARTAN-KALIUM; REGISTRATION NO/DATE: 32343.00.00, 32345.00.00, 32347.00.00; 19950914
196 75 001
19960201
SPC Suppl. Protect. Certificate, Time Extension
........................................20070405

20020602 DEV484 DELIVERY OF THE DECISION OF GRANT
PRODUCT NAME: LOSARTAN ODER DESSEN PHARMAZEUTISCH AKZEPTABLE SALZE, INSBESONDERE LOSARTAN-KALIUM;
Search examples

REGISTRATION NO/DATE: 32343.00.00, 32345.00.00, 32347.00.00; 19950914
196 75 001
19960201

SPC Suppl. Protect. Certificate, Time Extension ........................................20091015

20020702 DEV457
SPC Suppl. Protect. Certificate, Time Extension ........................................20070405

20100303 DEV464
SPC Suppl. Protect. Certificate, Time Extension ........................................20100415

PRODUCT NAME: LOSARTAN ODER DESSEN PHARMAZEUTISCH AKZEPTABLE SALZE, INSBESONDERE LOSARTAN-KALIUM;
REGISTRATION NO/DATE: 32343.00.00, 32345.00.00, 32347.00.00; 19950914
196 75 001
19960201

In Germany, the SPC has expired, too.

PRODUCT NAME: LOSARTAN ODER DESSEN PHARMAZEUTISCH AKZEPTABLE SALZE, INSBESONDERE LOSARTAN-KALIUM;
REGISTRATION NO/DATE: 32343.00.00, 32345.00.00, 32347.00.00; 19950914
196 75 001
19960201
61 Citation search example

61.1 Example 1

We are looking for cited and citing patents for EP patent numbered 1964269?

This search is shown in the citation databases DPCI and INPAFAMDB.

61.1.1 Search in DPCI

=> FIL DPCI
FILE 'DPCI' ENTERED
COPYRIGHT (C) 2013 THOMSON REUTERS

=> S EP 1964269 /PN
L1 1 EP 1964269 /PN
(EP1964269/PN)

We use the TRIAL format to check if this is the right document.
We also display the Counter Fields (CTCS, non-billable) to see if there are citations (e.g. Citing Patents) in the document.

=> D TRIAL CTCS

CTCS CITATION COUNTERS
----------------------
PNC.D 4 Cited Patents Count (total)
PNC.DI 0 Cited Patents Count (by inv.)
PNC.DX 4 Cited Patents Count (by exam.)
PNC.DO 0 Cited Patents Count (in opp. doc.)
PNC.DTH 0 Cited Patents Count (third party)
PNC.DUN 0 Cited Patents Count (undefined)
IAC.D 2 Cited Issuing Authority Count (total)
IAC.DI 0 Cited Issuing Authority Count (by inv.)
IAC.DX 2 Cited Issuing Authority Count (by exam.)
IAC.DO 0 Cited Issuing Authority Count (in opp. doc.)
IAC.DTH 0 Cited Issuing Authority Count (third party)
IAC.DUN 0 Cited Issuing Authority Count (undefined)
PNC.G 7 Citing Patents Count (total)
PNC.GI 0 Citing Patents Count (by inv.)
PNC.GX 7 Citing Patents Count (by exam.)
PNC.GO 0 Citing Patents Count (in opp. doc.)
PNC.GTH 0 Citing Patents Count (third party)
PNC.GUN 0 Citing Patents Count (undefined)
IAC.G 2 Citing Issuing Authority Count (total)
IAC.GI 0 Citing Issuing Authority Count (by inv.)
IAC.GX 2 Citing Issuing Authority Count (by exam.)
IAC.GO 0 Citing Issuing Authority Count (in opp. doc.)
IAC.GTH 0 Citing Issuing Authority Count (third party)
IAC.GUN 0 Citing Issuing Authority Count (undefined)
CRC 4 Cited Literature Reference Count (total)
CRC.I 0 Cited Literature Reference Count (by inv.)
CRC.X 4 Cited Literature Reference Count (by exam.)
CRC.O 0 Cited Literature Reference Count (in opp. doc.)
CRC.TH 0 Cited Literature Reference Count (third party)
CRC.UN 0 Cited Literature Reference Count (undefined)
OSC.D 4 Cited Patent WPI Accession Number Count (total)
OSC.DX 4 Cited Patent WPI Accession Number Count (by exam.)
OSC.DO 0 Cited Patent WPI Accession Number Count (by inv.)
OSC.DTH 0 Cited Patent WPI Accession Number Count (third party)
The citation fields to be displayed can be limited to those where there actually are data, based on what we have found in the CTCS field. Display of the CDP, REN and CGP fields is more cost-effective than the full record.

These are the cited patents and non-patent literature and patents citing EP1 964 269.

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<th>Cat</th>
<th>Cited Patent</th>
<th>Date</th>
<th>Accession Number</th>
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<th>By</th>
<th>Cat</th>
<th>Citing Patent</th>
<th>Date</th>
<th>Accession Number</th>
</tr>
</thead>
</table>

Search examples:

- OSC.DUN 0 Cited Patent WPI Accession Number Count (undefined)
- OSC.G 5 Citing Patent WPI Accession Number Count (total)
- OSC.GX 5 Citing Patent WPI Accession Number Count (by exam.)
- OSC.GO 0 Citing Patent WPI Accession Number Count (by inv.)
- OSC.GI 0 Citing Patent WPI Accession Number Count (in opp. doc.)
- OSC.GTH 0 Citing Patent WPI Accession Number Count (third party)
- OSC.GUN 0 Citing Patent WPI Accession Number Count (undefined)
Guide to STN Patent Databases

PA: (CAMB-N) CAMBRIDGE SILICON RADIO LTD
IN: LAMANNA P; SORNIN N
E E WO 2007112390 A1 20071004 2008-A33848
PA: (QCOM-C) QUALCOMM
IN: WU Y; WU, Yue
E X WO 2009109636 A2 20090911 2009-N50987
PA: (CAMB-N) CAMBRIDGE SILICON RADIO LTD
IN: LAMANNA P; SORNIN N
E X WO 2009109637 A2 20090911 2009-N50986
PA: (CAMB-N) CAMBRIDGE SILICON RADIO LTD
IN: LAMANNA P; SORNIN N
US 7345550 B2 US 20020075091/PN.D
E2 1 US20020041651/PN.D
E3 1 US6281758/PN.D
E4 1 WO2005025069/PN.D
PA: (QCOM-C) QUALCOMM
IN: WU Y; WU, Yue

The citations also relate to other members of the patent family. In this case, not the European patent is cited but the US family members.

By SET EXPAND CONTINUOUS we prevent the SELECT list from being deleted by later EXPAND.

We SELECT the numbers of the cited patents. There is no SELECT fee on PN.D.

=> SET EXP CONT
SET COMMAND COMPLETED

=> SEL PN.D
E1 THROUGH E4 ASSIGNED

=> D SEL
E1 2 US20020075091/PN.D
E2 1 US20020041651/PN.D
E3 1 US6281758/PN.D
E4 1 WO2005025069/PN.D
We SELECT the numbers of the citing patents. There is no SELECT fee on PN.G.

=> SEL PN.G
E5 THROUGH E11 ASSIGNED

=> D SEL E5-
E5 1 US7706767/PN.G
E6 1 US8089307/PN.G
E7 1 US8125254/PN.G
E8 1 US8274325/PN.G
E9 1 WO2007112390/PN.G
E10 1 WO2009109636/PN.G
E11 1 WO2009109637/PN.G

61.1.2 Search in INPAFAMDB

=> FILE INPAFAMDB
FILE 'INPAFAMDB' ENTERED
COPYRIGHT (C) 2013 European Patent Office / FIZ Karlsruhe

=> S EP 1964269 /PN
L1 1 EP 1964269 /PN
(EP1964269/PN)
The PICITN format displays citing and cited patent numbers and all citation fields. It includes all cited patent and non-patent literature of EP 1 964 269 and all cited patent and non-patent literature of the family members. It also includes citing documents (forward citations).

=> D PICITN
Search examples

L2  ANSWER 1 OF 1       INPAFAMDB COPYRIGHT 2013 EPO/FIZ KA on STN

PI  EP 1964269       A1 20080903
REP  WO 2005025069       A1 20050317 (SEA, pat, Cat: X)
          VANDEL ERIC, CH; XEMICS SA, CH
US 20020041651       A1 20020411 (SEA, pat, Cat: X)
          ATMEG GERMANY GMBH, DE
REXP  XP011101747 (SEA, Cat: X)
(2) See also references of WO 2007068088A1 (SEA)
REC  4. THERE ARE 4 CITED REFERENCES (2 PATENT, 2 NON PATENT) AVAILABLE FOR THIS RECORD.

PI  EP 1964269       A4 200811224

PI  JP 20095189899       A 20090507
REP  US 20020075091       A1 20020620 (EXA, pat)
          JAPAN RADIO CO LTD
JP 2003332907       A 20031121 (EXA, pat)
          MATSUSHITA ELECTRIC IND CO LTD
JP 031303213       A 19910809 (EXA, pat)
          DELCO ELECTRONICS CORP
JP 105016171       A (EXA, pat)
JP 05057934U       U 19930730 (EXA, pat)
JP 02309710       A 19901225 (EXA, pat)
          TOKO INC
REC  7. THERE ARE 7 CITED REFERENCES (7 PATENT, 0 NON PATENT) AVAILABLE FOR THIS RECORD.

PI  JP 2011142668       A 20110721

PI  US 20070126512       A1 20070601
CPG  US 8089307       B2 20120403 [US20070126512A1 (APP, pat)]
          CAMBRIDGE SILICON RADIO LTD, GB
US 82750425       B2 20120292 [US20070126512A1 (APP, pat)]
          CAMBRIDGE SILICON RADIO LTD, GB
US 8278984       B2 20120102 [US20070126512A1 (APP, pat)]
          CAMBRIDGE SILICON RADIO LTD, GB
WO 20071112390       A1 20071004 [US20070126512A1 (SEA, pat, Cat: E)]
QUALCOMM US; WU YUE, US
WO 20091096366       A2 20090911 [US20070126512A1 (SEA, pat, Cat: X)]
          CAMBRIDGE SILICON RADIO LTD, GB; LAMANNA PASQUALE, FR; SORGINICOLAS, FR
WO 2009109637       A2 20090911 [US20070126512A1 (SEA, pat, Cat: X)]
          CAMBRIDGE SILICON RADIO LTD, GB; LAMANNA PASQUALE, FR; SORGINICOLAS, FR

REC  6. THERE ARE 6 CITING PATENT REFERENCES AVAILABLE FOR THIS RECORD.

PI  US 7345550       B2 20080318
REP  US 6281758       B1 20010828 (APP, pat)
          CONEXANT SYSTEMS INC, US
US 20020075091       A1 20020620 (APP, pat)
REC  4. THERE ARE 4 CITED REFERENCES (2 PATENT, 2 NON PATENT) AVAILABLE FOR THIS RECORD.

CPG  US 2011006820       A1 20110113 [US7345550B2 (PRS, pat)]
          MSTAR SEMICONDUCTOR INC, TW
US 20110215848       A1 20110908 [US7345550B2 (PRS, pat)]
          SILICON LAB INC, US
US 7706767       B2 20100427 [US7345550B2 (APP, pat)]
QUALCOMM INC, US
US 8125254       B2 20120228 [US7345550B2 (APP, pat)]
Guide to STN Patent Databases

ALTERA CORP, US

PNC. G 4. THERE ARE 4 CITING PATENT REFERENCES AVAILABLE FOR THIS RECORD.

PI WO 2007068088 A1 20070621
REP US 20020075091 A1 20020620 (SEA, pat, Cat: X)
REN (1) See also references of EP 1964269A1 (SEA)
REC 2. THERE ARE 2 CITED REFERENCES (1 PATENT, 1 NON PATENT) AVAILABLE FOR THIS RECORD.

2 priorities, 5 applications, 7 publications (1 EPO simple family)

=> D MAX. H

L2 ANSWER 1 OF 1 INPAFAMDB COPYRIGHT 2013 EPO/FIZ KA on STN

AN 35612897 INPAFAMDB ED 20080904 EW 200836 UP 20090102 UW 200901
DN 56946985
TI TYPE II PHASE LOCKED LOOP USING DUAL PATH AND DUAL VARACTORS TO REDUCE LOOP FILTER COMPONENTS.
BOUCLE A VERROUILLAGE DE PHASE DE TYPE II UTILISANT UNE DOUBLE VOIE ET DES VARACTORS DOUBLES POUR REDUIRE LES COMPOSANTS DE FILTRE A BOUCLE.
TL German; English; French
IN BELLAOUAR, ABDELLATIF; FRIDI, AHMED, R.; BALASUBRAMANIYAN, ARUL, M.
INS BELLAOUAR ABDELLATIF, US; FRIDI AHMED R, US; BALASUBRAMANIYAN ARUL M, US
PA SIIFIC WIRELESS CORPORATION
PAS SIIFIC WIRELESS CORP, CA
DT Patent
PI EP 1964269 A1 20080903 English
PIT EPA1 APPLICATION PUBLISHED WITH SEARCH REPORT
DAV 20080903 examined-printed-without-grant
STA PREAMGRANT PUBLICATION
DS R: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR
AI EP 2006-846922 A 20061205
AIT EPA Patent application
PRAI WO 2006-CA1983 W 20061205 (WOWW, 20080904, N)
US 2005-291162 A 20051205 (USA, 20070621, Y)
PRAIT WOWW Additional PCT application
USA Patent application
REP WO 2005025069 A1 20050317 (SEA, pat, Cat: X)
VANDEL ERIC, CH; XEMICS SA, CH
US 20020041651 A1 20020411 (SEA, pat, Cat: X)
ATMEL GERMANY GMBH, DE
REXP XP011101747 (SEA, Cat: X)
REN (2) See also references of WO 2007068088A1 (SEA)
REC 4. THERE ARE 4 CITED REFERENCES (2 PATENT, 2 NON PATENT) AVAILABLE FOR THIS RECORD.

The A4 publication is also displayed with HIT. Anyway, it does not have any citation information.

AN 35612897 INPAFAMDB ED 20081229 EW 200852 UP 20081229 UW 200852
DN 56946985
TI TYPE II PHASE REGELKREIS MIT ZWEI FACHEN WEG UND ZWEI FACHEN VARAKTOREN ZUR VERRINGERUNG VON SCHLEIFENFILTERKOMPONENTEN.
PI EP 1964269 A4 20081224 English
Search examples

PIT EPA4 SUPPLEMENTARY SEARCH REPORT

2 priorities, 5 applications, 7 publications (1 EPO simple family)

Next a list of the publication numbers of the cited patents (no SELECT fee).

=> SEL PN.D
E1 THROUGH E10 ASSIGNED

=> D SEL
E1  3  US20020075091/RPN
E2  1  JP02309710/RPN
E3  1  JP03183213/RPN
E4  1  JP05057934U/RPN
E5  1  JP10501671/RPN
E6  1  JP2002158584/RPN
E7  1  JP2003332907/RPN
E8  1  US20020041651/RPN
E9  1  US6281758/RPN
E10 1  WO2005025069/RPN

=> SEL PN.G
E11 THROUGH E20 ASSIGNED

=> D SEL
E11 1  US20110006820/PN.G
E12 1  US20110215848/PN.G
E13 1  US7706767/PN.G
E14 1  US8089307/PN.G
E15 1  US8125254/PN.G
E16 1  US8274325/PN.G
E17 1  US8278984/PN.G
E18 1  WO2007112390/PN.G
E19 1  WO2009109636/PN.G
E20 1  WO2009109637/PN.G

If only citations for a particular patent number are wanted
INPADOCDB is apt for this search.

61.2 Example 2

We are looking for documents citing patent publications of the German company, Leifheit (excluding any self-citations).

Note: ‘Self-citations’ refers to citations where the company’s own patents are cited.

61.2.1 Search for citations of a company by other companies

=> FIL DPCI
FILE 'DPCI' ENTERED
COPYRIGHT © 2016 THOMSON REUTERS


=> S LEIF/PACO.D
L1  1106 LEIF/PACO.D
(LEIF-C/PACO.D)

The ‘self-citations’ are removed from this result.

=> S L1 NOT LEIF/PACO
L2  947 L1 NOT LEIF/PACO

=> D TRIAL CDP
L2  ANSWER 1 OF 947 DPCI COPYRIGHT 2016 THOMSON REUTERS on STN
AN 2016-308634 [201636] DPCI
TI Cleaning device has engine controller that controls engine output of m

CDP Cited Patents
61.2.2 Citation frequency of a company by other companies

Which are the companies who cite the patents of Leifheit most frequently?

This type of a search problem always requires use of statistics commands.

=> ANALYZE L2 1- PA
L3          ANALYZE L2 1- PA :  1247 TERMS

=> D
L3          ANALYZE L2 1- PA :  1247 TERMS

TERM #  # OCC  # DOC  % DOC PA
--------------------------
 1      31     31   3.27 FREUDENBERG KG CARL
 2      13     13   1.37 HAILO-WERK LOH GMBH & CO KG ALFRED
 3      12     12   1.27 WHIRLPOOL CORP
 4      11     11   1.16 PROCTER & GAMBLE CO
 5      11      9   0.95 BISSELL INC
 6       9      9   0.95 BSH BOSCH & SIEMENS HAUSGERAETE GMBH
 7       9      9   0.95 EMSA-WERK WULF GMBH & CO
 8       9      9   0.95 HELEN OF TROY LTD
 9       9      9   0.95 KAERCHER GMBH&CO KG ALFRED
10      7      7   0.74 FREUDENBERG FA CARL
11      7      7   0.74 STEINER W
12      7      7   0.74 WUESTER H

Using ANALYZE PLUS the various spellings of the patent assignee names can be merged efficiently and a diagram can be produced (see "Patent statistics").
61.2.3 Citation frequency of the patents of a company

This search is performed twice, once including ‘self-citations’, once without ‘self-citations’ (see above). The advantages of both ways are as follows:

Including ‘self-citations’: a patent with ‘self-citations’ may also be cited frequently by other companies.
Without ‘self-citations’: The citation frequency cannot be biased by ‘self-citations’.

61.2.3.1 Including ‘self-citations’

=> FIL DPCI
FILE ‘DPCI’ ENTERED
COPYRIGHT (C) 2016 THOMSON REUTERS

=> S LEIF/PACO
L1 551 LEIF/PACO

In this search the ‘self-citations’ are included.

There are the counters PNC and OSC. With PNC the number of cited patent numbers is counted. With OSC the number of cited families (Accession Numbers) is counted. To eliminate any influence of the family size OSC is used.

=> ANALYZE L1 1- OSC.G
L2 ANALYZE L1 1- OSC.G : 23 TERMS

Ascending order is chosen to get the lowest number of documents at the top of the list (which increases the probability that a document with a high number of citations is found).

=> D 1- OSC.G DOC A
L2 ANALYZE L1 1- OSC.G : 23 TERMS

TERM # # OCC # DOC % DOC OSC.G

1 1 1 0.18 15
Guide to STN Patent Databases

With D ANS we get the corresponding answer numbers.

=> D OSC.G DOC A 1- ANS
L2 ANALYZE L1 1- OSC.G : 23 TERMS

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 5       2      2   0.36 18
 8       3      3   0.54 10
 9       3      3   0.54 11
10      3      3   0.54 12
11      3      3   0.54 16
12      5      5   0.91 13
13      5      5   0.91 14
14      6      6   1.09  9
15      8      8   1.45  7
16      8      8   1.45  8
17     16     16   2.90  6
18     21     21   3.81  5
19     33     33   5.99  4
20     56     56  10.16  3
21    143    143  25.95  1
22    170    170  30.85  0
********* END OF L2 *********

This is the most cited document (31 times).

=> D L1 500 STD
L1 ANSWER 500 OF 551 DPCI COPYRIGHT 2016 THOMSON REUTERS on STN
AN 1979-H54248 [197936] DPCI
TI Grater and slicer for fruit or vegetables · has baseplate with
   rectangular opening which locates removable blades that can be stored in
   slots in body
IN HIMMIGHOFEN D; LIEBSCHER J; SCHULEIN R G
PA (LEIF-C) LEIFHEIT INT LEIFHEIT GMBH G; (LEIF-C) LEIFHEIT INT LEIFHEIT
   GMBH G
Cyc 12
PI BE 875655 A 19790816 (197936)* FR
   GB 2018207 A 19791017 (197942) EN
   DE 2815415 A 19791018 (197943) DE
   NL 7901695 A 19791012 (197943) NL
PRAI DE 1979-2909308 19790309
CTS CITATION COUNTERS

...
Search examples

PNC.D 29 Cited Patents Count
PNC.G 40 Citing Patents Count
IAC.D 6 Cited Issuing Authority Count
IAC.G 6 Citing Issuing Authority Count
CRC 0 Cited Literature Reference Count
OSC.D 6 Cited Patent WPI Accession Number Count
OSC.G 31 Citing Patent WPI Accession Number Count

Citations

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Cited Publication By Accession Number

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<td>DE 7816028 U1</td>
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<td>FR 2050881 A5</td>
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<td>FR 2302138 A</td>
<td>E</td>
<td>1976-B1253X</td>
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<tr>
<td>GB 1218593 A</td>
<td>E</td>
<td></td>
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<tr>
<td>GB 1390020 A</td>
<td>E</td>
<td>1975-D9742W</td>
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<tr>
<td>US 1922973 A</td>
<td>E</td>
<td></td>
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<tr>
<td>US 1926735 A</td>
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<td>US 2741286 A</td>
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<td></td>
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<tr>
<td>US 3797847 A</td>
<td>E</td>
<td>1974-A7038V</td>
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<tr>
<td>US 4081145 A</td>
<td>E</td>
<td>1978-D9649A</td>
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Citing

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Citing Publication By Accession Number

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<td>CN 102133056 A</td>
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<td>DE 3202881 A</td>
<td>E</td>
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<td>DE 3700012 C</td>
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<td>DE 3700013 A</td>
<td>E</td>
<td>1988-198897</td>
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<td>DE 4231648 A1</td>
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<td>DE 4231648 C2</td>
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<td>DE 102004056405 B3</td>
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<td>EP 196550 A</td>
<td>E</td>
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<td>EP 1410883 B1</td>
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<td>2004-332683</td>
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<tr>
<td>EP 1561410 A1</td>
<td>E</td>
<td>2004-378296</td>
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61.2.3.2 Without ‘self-citations’

The search is repeated, this time excluding ‘self-citations’ by Leifheit.

=> S LEIF/PACO NOT LEIF/PACO.G
L3 398 LEIF/PACO NOT LEIF/PACO.G

=> ANALYZE L3 1- OSC.G
L4 ANALYZE L3 1- OSC.G : 14 TERMS

=> D 1- OSC.G DOC A
L4 ANALYZE L3 1- OSC.G : 14 TERMS

TERM # # OCC # DOC % DOC OSC.G
---- ------------- ------------- ------------- -------------
1 1 1 1 0.25 27
Guide to STN Patent Databases

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********** END OF L4 **********

=> D OSC.G DOC A 1- ANS

L4
ANALYZE L3 1- OSC.G : 14 TERMS

TERM #   # OCC   # DOC   % DOC   OSC.G
-------   ------   -------   -------   -------
1         1       1       0.25     27
(ANS: 307)
2         2       2       0.50     10
(ANS: 231,383)
3         2       2       0.50     11
(ANS: 263,333)
4         3       3       0.75     14
(ANS: 306,310,315)
5         3       3       0.75     7
(ANS: 256,327,390)
6         4       4       1.01     8
(ANS: 212,281,352,356)
7         4       4       1.01     9
(ANS: 328,336,353,366)

********** END OF L4 **********

=> D L3 306 STD

L3
ANSWER 306 OF 398 DPCI COPYRIGHT 2016 THOMSON REUTERS on STN
AN 1989-200533 (198928) DPCI
TI Splash protection for bath tub - with top guide rail and magnetic elements holding sliding plastic plate in position
IN BAUMANN H
PA (LEIF-C) LEIFHEIT AG; (SPI-N) SPIRELLA AG
CYC 10
PI EP 323617 A 19890712 (198928)* DE 10[6]
US 4888835 A 19891226 (199008) EN 9
CH 675197 A 1988-33 19880106
PRAI CH 1988-33 19880106

CTS CITATION COUNTERS

PNC.D 15 Cited Patents Count
PNC.G 16 Citing Patents Count
IAC.D 4 Cited Issuing Authority Count
IAC.G 3 Citing Issuing Authority Count
CRC 0 Cited Literature Reference Count
OSC.D 6 Cited Patent WPI Accession Number Count
OSC.G 14 Citing Patent WPI Accession Number Count

Citations

Cited Publication By Accession Number
------------------------------------------------------------------------
EP 18299 A E 1980-K7682C
Search examples

EP 140329 A           E           1985-
FR 2413902 A          E           1979-J
GB 2079595 A           E           1982-A
US 1944440 A           E
US 1971802 A           E
US 2032180 A           E
US 2748908 A           E
US 2776439 A           E
US 2864096 A           E
US 3000016 A           E
US 3074077 A           E
US 3449770 A           E
US 4090265 A           E           1977-C
US 4594741 A           E           1986-1

Citing Publication By Accession Number
------------------------------------------------------------------------
EP 976351 A2          E           1998-533561
GB 2452074 A          E           2009-F36188
GB 2452074 B          E           2009-F36188
GB 2492823 A          E           2013-A09845
US 4998304 A          E           1991-093745
US 5083330 A          E           1991-103225
US 5231707 A          E           1993-257296
US 5357639 A          E           1994-340341
US 5365619 A          Ei          1995-005185
US 5701615 A          E           1998-075917
US 6154894 A          E           2001-023952
US 6857140 B1         E           2005-170869
US 8151384 B2         E           2009-F51989
US 8185980 B2         E           2009-H93238
US 8276221 B2         E           2005-542673
US 8328789 B2         E           2005-542673

61.3 Example 3

Which patent publications cite those of Evonik on Enterobacter Species for Biosynthesis as highly relevant documents (i.e. categories X or I)?

=> FIL INPAFAM
FILE 'INPAFAMDB' ENTERED
COPYRIGHT (C) 2013 European Patent Office / FIZ Karlsruhe

=> S (EVONIK OR DEGUSSA)/PASS AND C12N/IPC,CPC AND ENTEROBACT?
L1          63 (EVONIK OR DEGUSSA)/PASS AND C12N/IPC,CPC AND ENTEROBACT?

We select the patent numbers.

=> SEL PN
E1 THROUGH E570 ASSIGNED

Now searching the selected patent numbers in /PN.D, together with the categories “X” or “I”. (S) proximity is used..

=> S E1-E570/PN.D(S)(X OR I)/CAT
L2          31 (EP1382685/PN.D ... EP1430139

Self citations are removed.

=> S L2 NOT (EVONIK OR DEGUSSA)/PASS
L3          27 L2 NOT (EVONIK OR DEGUSSA)/PASS
The PIRE display format is used to see the cited patent information together with the number of the family member.

=> D BRIEF PIRE

L3    ANSWER 1 OF 27    INPAFAMDB COPYRIGHT 2013 EPO/FIZ KA on STN
AN    46069210 INPAFAMDB EDF 20130110 EWF 201302 UPFB 20130117 UWF 201303
The present invention is related to a recombinant microorganism for improved methionine production comprising modifications to produce methionine from glucose as main carbon source by fermentation, and modifications to improve glucose import, wherein the glucose import is improved by modifying the expression of at least one gene selected from ptsG, sgrT, sgrS and dgsA. The invention is also related to a method for the fermentative production of methionine or methionine derivatives comprising the steps of: culturing the recombinant microorganism as described above in an appropriate culture medium comprising a fermentable source of carbon containing glucose and a source of sulphur, and recovering methionine or methionine derivatives from the culture medium.
61.4 Example 4

We use a forward citation search (/PN.G) to find additional prior art documents on transdermal patches for insulin.

=> **F IL I N P A F A M**
FILE 'INPAFAMDB' ENTERED
COPYRIGHT (C) 2013 European Patent Office / FIZ Karlsruhe

=> **S A61K0009-7023+NT/CPC AND INSULIN#**
L1 63 (EVONIK OR DEGUSSA)/PASS AND C12N/1PC, CPC AND ENTEROBAC?
The documents should be checked for relevance after this search.

=> **D 1-11 TI**
L1 ANSWER 1 OF 11 INPAFAMDB COPYRIGHT 2013 EPO/FIZ KA on STN
TI PERCUTANEOUS ABSORPTION PROMOTING PHARMACEUTICAL PREPARATION AND
PERCUTANEOUS ABSORPTION SYSTEM USING THE SAME.
- TRANSDERMALLY ABSORBABLE PREPARATION AND TRANSDERMALLY ABSORBABLE SYSTEM
  USING THE SAME.
- PREPARATION ABSORBABLE PAR VOIE TRANSDERMIQUE ET SYSTEME ABSORBABLE PAR
  VOIE TRANSDERMIQUE UTILISANT CETTE DERNIERE.

L1 ANSWER 11 OF 11 INPAFAMDB COPYRIGHT 2013 EPO/FIZ KA on STN
TI FORMULATIONS COMPRISING THERAPEUTICALLY ACTIVE PROTEINS OR POLYPEPTIDES.
- FORMULATIONS COMPRÉNANT DES PROTEINES OU DES POLYPEPTIDES
  THERAPEUTIQUEMENT ACTIFS.
- ARZNEIMITTEL ENTHALTEND THERAPEUTISCH WIRKSAME PEPTIDE ODER PROTEINE.
- A FORMULATION FOR ADMINISTERING TRANSDERMALLY A PROTEIN OR POLYPEPTIDE
  SUCH AS INSULIN.

Taking relevant documents a search for forward citations (ie. citing documents) may yield more documents that are also relevant. In this case all documents in the answer set are used to search citing documents.

=> **TRA PN.G /PN**
L2 TRANSFER L1 1. PN.G : 582 TERMS
L3 307 L2/PN

=> **D 1-**
L3 ANSWER 1 OF 307 INPAFAMDB COPYRIGHT 2013 EPO/FIZ KA on STN
L3 "blood sample collection apparatus and kits".
L3 ANSWER 2 OF 307 INPAFAMDB COPYRIGHT 2013 EPO/FIZ KA on STN
TI SYSTEMS AND METHODS FOR ENHANCING THE DELIVERY OF COMPOUNDS TO SKIN PORES
USING ULTRASONIC WAVEFORMS.
- SYSTEMES ET PROCESSUS POUR AMELIORER LA DISTRIBUTION DE COMPOSES DANS DES
  PORES CUTANEES EN UTILISANT DES FORMES D'ONDE ULTRASONORES.
L3 ANSWER 4 OF 307 INPAFAMDB COPYRIGHT 2013 EPO/FIZ KA on STN
TI STABLE FORMULATIONS FOR PARENTERAL INJECTION OF PEPTIDE DRUGS.
- FORMULATIONS STABLES POUR INJECTION PARENTERALE DE MEDICAMENTS
  PEPTIDIQUES.
62 Monitoring search example

62.1 INPADOCDB

62.1.1 Example 1

Patent publications for the 'manufacturers of inline skates' example shall be monitored using a profile of three IPC codes and six companies. The search shall be limited to the countries DE, EP and WO and first publications. (Since there are no problems with these countries with the EDP update field this can be used effectively to monitor first publications.) We want publications from May 19, 2007. This example can use either automatic (SDI) or manual monitoring. The latter is shown here:

62.1.1.1 Creating a command file for STN Express

```plaintext
* SDI INLINE SKATES, INPADOCDB
=> FIL INPADOCDB

* IPC
* Using the thesaurus to search for the IPC code
* and all its sub-codes.
=> S A63C0017-04+NT/IPC > _IPC

* COMPANY NAMES
=> S (NORDICA) /PA,PAS > _NAME1
=> S (BENETTON (S) SPORT?) /PA,PAS > _NAME2
=> S (DEKA(S)PROD?) /PA,PAS > _NAME3
=> S (SALOMON) /PA,PAS > _NAME4
=> S (MGM (S)(SPA)) /PA,PAS > _NAME5
=> S (SKIS (S) ROSSIGNOL) /PA,PAS > _NAME6
=> S _NAME1 - _NAME6 > _NAME

* INTERMEDIATE RESULT
=> S _IPC OR _NAME > _RESULT1

* LINKING OF THE 1ST INTERMEDIATE RESULT WITH THE DESIRED PUBLICATION COUNTRIES
=> S _RESULT1 AND (DE OR EP OR WO)/PC > _RESULT2

* LINKING OF THE 2ND INTERMEDIATE RESULT WITH UPDATE FIELD 'EDP'
* (FIRST ENTRY)
=> S _RESULT2 AND EDP>=20150101 > _RESULT3

* DISPLAY OF DOCUMENTS
=> D 1- ALL
```

62.1.2 Search

Display the search history.

=> D HIS

FILE 'INPADOCDB'

L1 6319 S A63C0017-04+NT/IPC
L2 1898 S (NORDICA) /PA,PAS
L3 164 S (BENETTON (S) SPORT?) /PA,PAS
L4 1970 S (DEKA(S)PROD?) /PA,PAS
L5 9490 S (SALOMON) /PA,PAS
L6 65 S (MGM (S)(SPA)) /PA,PAS
L7 1595 S (SKIS (S) ROSSIGNOL) /PA,PAS
L8 15148 S L2-L7
L9 20898 S L1 OR L8
L10 5758 S L9 AND (DE OR EP OR WO)/PC
L11 183 S L10 AND EDP>=20150101

62.1.2 Example 2

To set up a monitoring search in INPADOCDB with this specification:
Search examples

- IPC codes:
  - A47J 27/21 to 27/56, 31/06 to 31/44, 37/12 (range search)
  - B01D complete
  - B01J 39/00 to 49/00 (range search or)
  - C02F complete
  - G01N 27/06 to 27/30, 27/403 to 27/416 (range search)

- Patent assignee:
  - Amway Corp.
  - The Clorox Company
  - Culligan International Company
  - Procter & Gamble

- Countries:
  - DE, EP, WO

- Publication kinds:
  - First publications

- Further requirements:

Not all documents are going to be displayed, but a selection based on titles shall be made.

62.1.2.1 Notes on the search strategy

EDP is chosen as the update field – yielding the first publication in the national publication sequence.

During a manual search the titles can be displayed first to select a number of documents and the selected documents can be displayed later (if this selection is not going to be done immediately during the on-line session the answer set should be saved with the command SAVE NAME/A).

To follow this procedure with an automatic monitoring (SDI) search ‘online’ delivery must be selected when the SDI is set up.

In STNext, automatic monitoring can also be set up menu-driven.

In any SDI search by classification it must be considered that on the one hand the codes may have been revised and on the other hand documents with the new codes (IPC, CPC) may come with a delay. Before setting up an SDI search profile it is therefore necessary to check whether the codes to be used have been revised. If codes have actually been revised both the new codes and the old codes before revision must be included in the search. After some time (approx. 2 years, to be checked) the old codes may be removed.

62.1.2.2 Search

1. Retrospective search:

   => D H I S

   FILE 'INPADOCDB' ENTERED
   L1  88285 S (A47J0027-21-A47J0027-56 OR A47J0031-06-A47J0031-44 OR A47J0037-
   12/IPC
   L2  1184572 S (B01D)/IPC
   L3  42398 S (B01J0039-00-B01J0049-00)/IPC
   L4  568981 S (C02F)/IPC
   L5  144432 S (G01N0027-06-G01N0027-30 OR G01N0027-403-G01N0027-416)/IPC
   L6  1863136 S L1-L5
   L7  310 S (AMWAY)/PA,PAS
   L8  2472 S (CLOROX OR CLORUX)/PA,PAS
   L9  493 S (CULLIGANT)/PA,PAS
   L10 315 S (CUNO INC)/PA,PAS
   L11 122735 S (PROCTER OR FROKTER OR PROCTOR)/PA,PAS
Guide to STN Patent Databases

L12  254559 S (GAM#### OR CABLE OR CAMBLE OR GABLE OR GEHME)/PA, PAS
L13  119552 S L11 (S) L12
L14  123542 S L7 OR L8 OR L9 OR L10 OR L13
L15  327973 S (DE OR EP OR WO)/PC AND (L6 OR L14)

2. Setting up the SDI:

=> SDI

ENTER QUERY L# FOR SDI REQUEST OR (END): L15
ENTER UPDATE FIELD CODE (UP), UPAA, UPFA, UPM, UPFL, UPCC, EDLS, UPBB, UPFE, EDPR, ED, EDP, EDF, UPFD, UPFC, UPFB, UPLS OR ?: EDP
ENTER SDI REQUEST NAME, (AA046/S), OR END: DEEPWO/S
ENTER COST CENTER (NONE) OR NONE: NONE
ENTER TITLE (NONE): EXAMPLE1
ENTER METHOD OF DELIVERY (EMAIL), ONLINE OR RSS: ONLINE
ELIMINATE PREVIOUSLY SEEN ANSWERS WITH EACH SDI RUN? Y/N: Y
HIGHLIGHT HIT TERMS? (Y)/N: Y
ENTER SDI RUN FREQUENCY - (WEEKLY), MONTHLY, OR ?: WEEKLY
ENTER SDI EXPIRATION DATE 'YYYYMMDD' OR (NONE): 20160825
QUERY L15 HAS BEEN SAVED AS SDI REQUEST 'DEEPWO/S'

3. Checking the SDI:

=> D SAVED/S

NAME             CREATED      NOTES/TITLE
--------------        -----------                 ------------------------------------
DEEPWO/S         24 AUG 2016  SDI REQUEST FOR FILE INPADOCDB
                  EXAMPLE1

4. Checking the first SDI run, activating the answer set and displaying the titles:

=> D SAVED

NAME             CREATED      NOTES/TITLE
--------------        -----------                 ------------------------------------
DEEPWO35/A    26 AUG 2016  176 ANSWERS IN FILE INPADOCDB
                  EXAMPLE1

=> ACTIVATE DEEPWO35/A

=> D L1- T1. M IPC. M

5. Evaluation of the titles

6. Activating the answer set and displaying the selected documents:

=> ACTIVATE DEEPWO35/A

=> TITLE: BEISPIEL1

L1   QUE ABB=ON (A47J0027-21 - A47J0027-56 OR A47J0031-06 - A47J0031-12) / IPC
     0031-44 OR A47J0037-12) /IPC
L2   QUE ABB=ON (B01D) / IPC
L3   QUE ABB=ON (B01J0039-00 - B01J0049-00) / IPC
L4   QUE ABB=ON (C02F) / IPC
L5   QUE ABB=ON (G01N0027-06-G01N0027-30 OR G01N0027-403-G01
     N0027-416) / IPC
L6   QUE ABB=ON (L1 OR L2 OR L3 OR L4 OR L5)
L7   QUE ABB=ON (AMWAY) / PA, PAS
L8   QUE ABB=ON (CLOROX OR CLORUX) / PA, PAS
L9   QUE ABB=ON (CULLI GAN) / PA, PAS
L10  QUE ABB=ON (CUNO INC) / PA, PAS
L11  QUE ABB=ON (PROCTER OR PROKTER OR PROCTOR) / PA, PAS
L12  QUE ABB=ON (GAM### OR CABLE OR CAMBLE OR GABLE OR GEHME
     EL) / PA, PAS
L13  QUE ABB=ON L11 (S) L12
L14  QUE ABB=ON L7 OR L8 OR L9 OR L10 OR L13
L15  QUE ABB=ON (DE OR EP OR WO)/PC AND (L6 OR L14)
L16  176 SEA FILE=INPADOCDB ABB=ON L15 AND 20160819-20160825/EDP

=> D L16 1 5 14 27 ... ALL
62.1.2.3 Difficult cases

a) The above example to include any of the countries GB, IL, NO, or SE:
   In these countries there are A0 publications (publication of the fact that a patent application was filed, no document published).
   In this case the update field /ED (rather than /EDP) should be used. As in this case all subsequent publications appear in the monitoring results the question „ELIMINATE PREVIOUSLY SEEN ANSWERS WITH EACH SDI RUN?“ should be answered YES.

b) The above example to include JP as completely as possible:
   The applicant and the title are often missing in Japanese publications.
   If /EDP (or /EDPR) is used the same applies as above, i.e. all publications in the national publication sequence (and/or the patent family) are lost. /ED should be used.

c) The example above is to include WO publications as completely as possible:
   IPC codes are missing in some WO publications.
   In this case /UP should be used as update code. When setting up the SDI the question „ELIMINATE PREVIOUSLY SEEN ANSWERS WITH EACH SDI RUN?“ should be answered NO.

62.1.3 Example 3

Here are a few examples to demonstrate the use of special update fields in INPADOCDB.

62.1.3.1 1st Example

The European publication number, EP 1491511, is to be monitored with regard to grant and changes of the legal status. Second the whole patent family is to be monitored.

The search is done for the current update week. The update field used is /EDLS.

=> FILE INPADOCDB
FILE 'INPADOCDB' ENTERED
COPYRIGHT (C) 2016 European Patent Office / FIZ Karlsruhe

The result is zero. This means no grant was published and there was no legal status change for this application.
Now the /UPFE field is used, i.e., the whole family is monitored for grants or legal status changes.

=> S EP 3049113 /PN AND EDLS>20160817
L1  0 EP 3049113 /PN AND EDLS>20160817

There is one hit.

=> D BROWSE

FFAMED is used to display the result, i.e., only the changes to the patent family are shown. This format only includes the current update week. It can be thus be used only if monitoring weekly (either manually or by SDI command).
We can see that one US publication was added.

| MEMBER 7 |

| AN | 80180173 INPADOCDB ED 20150409 EW 201515 UW 201606 |
| FN | 53637482 |
| PI | WO 2015048484 A2 20150402 |
| AN | 80180173 INPADOCDB ED 20150507 EW 201519 UW 201606 |
Guide to STN Patent Databases

62.1.3.2 2nd Example

The company, Rohde & Schwarz, is being monitored for grant publications and legal status changes. First the manual monitoring is shown and then an automatic monitoring profile (SDI) is set up.

a) Manual monitoring

=> S (ROHDE (S) SCHWARZ)/PA,PAS AND EDLS>20160817
L3 16 (ROHDE (S) SCHWARZ)/PA,PAS AND EDLS>20160817

When monitoring a company the FSORT command should be used because otherwise several members of the same patent family may be displayed.

=> FSORT L3

SET SMARTSELECT ON
SET COMMAND COMPLETED

SET HIGHLIGHTING OFF
SET COMMAND COMPLETED

SEL L3 1- PN,APPS
L4 SEL L3 1- PN APPS : 57 TERMS

' L4' DELETED
L4 16 FSO L3

1 Multi-record Family Answers 1-2
14 Individual Records Answers 3-16
0 Non-patent Records
D FFAMED displays only documents updated during the current update week. With PFAM only one document from each family is displayed.

=> D PFAM 1 - FFAMED

L4 ANSWER 1 OF 16  INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN FAMILY DUPLICATE 1

MEMBER 1

AN 86606402 INPADOCDB ED 20160804 EW 201631 UP 20160811 UW 201633
FN 57781797
PI EP 3051304 A1 20160803

LEGAL STATUS CURRENT UPDATE
AN 86606402 INPADOCDB
20160810 EPRI N1 INVENTOR (CORRECTION)
TANKIELUN, ADAM
CHG Change of Owner, Inventor, Applicant

MEMBER 2

AN 86739961 INPADOCDB ED 20160818 EW 201633 UP 20160818 UW 201633
FN 57781797
TI Measuring device, system and method for wirelessly measuring radiation patterns.
TL English
IN Tankielun Adam
INS TANKIELUN ADAM, DE
PA Rohde & Schwarz GmbH & Co. KG
PAS ROHDE & SCHWARZ, DE
DT Patent
PI US 20160226607 A1 20160804 English
PIT USA1 FIRST PUBLISHED PATENT APPLICATION [FROM 2001 ONWARDS]
DAV 20160804 unexamined-printed-without-grant
STA PUBLICATION
AI US 2015-14609701 A 20150130
AIT USA Patent application
PRAI US 2015-14609701 A 20150130 (USA, 20160804, Y)
PRAIT USA Patent application
IPCI H04B0017-318 [I, A]; H04W0024-10 [I, A]
CPC H04B0017-318; G01R0029-10; H04W0024-10
FA AB; AI; AN; DAV; CPC; DT; ED; EW; IN; INS; IPC; IPCI; LA; PA; PAS; PI;
PIT; PRAI; TI

LEGAL STATUS CURRENT UPDATE
AN 86739961 INPADOCDB
20150617 USAS ASSIGNMENT
ROHDE & SCHWARZ GMBH & CO. KG, GERMANY
ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR: TANKIELUN, ADAM, DR.; REEL/FRAME: 035852/0213
20150326
CHG Change of Owner, Inventor, Applicant

... With /UPFE there is a higher number of hits.
Guide to STN Patent Databases

This search could also be done in INPAFAMDB. FSORT would not be necessary there.

=> S (ROHDE (S) SCHWARZ)/PA, PAS AND UPFE>=20160817
L5 47 (ROHDE (S) SCHWARZ)/PA, PAS AND UPFE>=20160817
FSORT is used again.

=> FSORT L5
L6 47 FSO L5

12 Multi-record Families  Answers 1-44
  Family 1  Answers 1-2
  Family 2  Answers 3-5
  Family 3  Answers 6-10
  Family 4  Answers 11-16
  Family 5  Answers 17-19
  Family 6  Answers 20-21
  Family 7  Answers 22-25
  Family 8  Answers 26-27
  Family 9  Answers 28-29
  Family 10 Answers 30-33
  Family 11 Answers 34-40
  Family 12 Answers 41-44
  3 Individual Records Answers 45-47
  0 Non-patent Records

With this command only one document updated during the last week is displayed from each patent family.

=> D PFAM 1- FFAMED

b) Set-up of an SDI
The FSORT command cannot be used within an SDI profile. To use the above strategy anyway, ‘ONLINE’ is chosen as ‘METHOD OF DELIVERY’ when the SDI profile is set up.

=> QUE (ROHDE (S) SCHWARZ)/PA, PAS
L1 QUE (ROHDE (S) SCHWARZ)/PA, PAS

=> SDI

ENTER QUERY L# FOR SDI REQUEST OR (END): L1
ENTER UPDATE FIELD CODE (UP), UPAA, UPFA, UPM, UPFL, UPCC, EDLS, UPBB, UPFE, EDPR, ED,
EDP, EDF, UPFD, UPFP, UPFC, UPFB, UPLS OR ?: EDLS
ENTER SDI REQUEST NAME, (AA046/S), OR END: ROHDE1/S
ENTER COST CENTER (NONE) OR NONE: .
ENTER TITLE (NONE): .
ENTER METHOD OF DELIVERY (EMAIL), ONLINE OR RSS: ONLINE
HIGHLIGHT HIT TERMS? (Y)/N: .
ENTER SDI RUN FREQUENCY - (WEEKLY), MONTHLY, OR ?: .
ENTER SDI EXPIRATION DATE ‘YYYYMMDD’ OR (NONE): .
QUERY L1 HAS BEEN SAVED AS SDI REQUEST ‘ROHDE1/S’

First result of monitoring:

=> D SAVED
NAME           CREATED   NOTES/TITLE
-------------- ----------- ----------------------
ROHDE135/A   26 AUG 2016 28 ANSWERS IN FILE INPADOCDB

=> ACTIVATE ROHDE135/A
L1 QUE ABB=ON (ROHDE (S) SCHWARZ)/PA, PAS
L2 28 SEA FILE=INPADOCDB ABB=ON L1 AND 20160819-20160825/EDLS
Now the answer set can be sorted by FSORT.

=> FSORT L2
L3 28 FSO L2

0 Multi-record Families  Answers 1-28
28 Individual Records  Answers 1-28
0 Non-patent Records

510
Search examples

But there are no multi-record families in this update week.

62.1.3.3 3rd Example

The applications of the company, Bayer CropScience, shall be monitored for granting:

Setting up the search profile for an automatic SDI.

=> S (BAYER CROPSCIENCE )/PA (L)GRANTED/STA(L)ED/LAST
248724 BAYER/PA
21908 CROPSCIENCE/PA
19764 (BAYER CROPSCIENCE )/PA
((BAYER(S)CROPSCIENCE)/PA)
45812537 GRANTED/STA
5904533 ED/LAST
(20150824-20160824/ED)
L1 736 (BAYER CROPSCIENCE )/PA (L)GRANTED/STA(L)ED/LAST

Setting up the search profile for a manual SDI.

=> S (BAYER CROPSCIENCE )/PA (L)GRANTED/STA(L)ED>20160817
248724 BAYER/PA
21908 CROPSCIENCE/PA
19764 (BAYER CROPSCIENCE )/PA
((BAYER(S)CROPSCIENCE)/PA)
45812537 GRANTED/STA
52887 ED>20160817
(ED>20160817)
L2 10 (BAYER CROPSCIENCE )/PA (L)GRANTED/STA(L)ED>20160817

=> D

L2 ANSWER 1 OF 10 INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN
AN 86732681 INPADOCDB ED 20160818 EW 201633 UP 20160818 UW 201633
FN 5787450
TI Soybean variety ER22621.
TL English
IN Thomas James
62.1.3.4  4th Example

We want to monitor patents/applications if they are still in force/pending. For this search the legal status category NIF (Lapses, Expiries, Withdrawals, Refusals) is used.

First a few national publication numbers to be monitored are entered.

=> S (DE112005002409 OR US6290688 OR GB2007011018 OR DE19843211 OR US7254833 OR FR2884439)/PN AND NIF/LSC2(L)UPLS>20070815
L4 3 (DE112005002409 OR US6290688 OR GB2007011018 OR DE19843211 OR US7254833 OR FR2884439)/PN AND NIF/LSC2(L)UPLS>20070815

The 3 numbers below have the category NIF during the period that was monitored.

=> D 1-3 PI LS
L4 ANSWER 1 OF 3 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
PI GB 2007011018 DO 20070718

LEGAL STATUS
AN 53767919 INPADOCDB
20070718 GBAT - APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)
NIF Lapses, Expiries, Withdrawals, Refusals 200733.................................20070816

L4 ANSWER 2 OF 3 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
PI DE 112005002409 A5 20070712

LEGAL STATUS
AN 53475805 INPADOCDB
20070816 DE8130 - WITHDRAWAL
NIF Lapses, Expiries, Withdrawals, Refusals 200733.................................20070816

L4 ANSWER 3 OF 3 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
PI US 6290688 B1 20010918

LEGAL STATUS
AN 48646654 INPADOCDB
20030211 USRR + REQUEST FOR REEXAMINATION FILED 20021220
ORE Opposition, Reexamination
20031006 USAS ASSIGNMENT
ALPHA INDUSTRIES, INC. 20 SYLVAN ROAD WOBURN, MASSA
RELEASE AND RECONVEYANCE/SECURITY INTEREST;
ASSIGNOR: CONEXANT SYSTEMS, INC.; REEL/FRAME:014580/0880 20030307
CHG Change of Owner, Inventor, Applicant
20031006 USAS ASSIGNMENT
ALPHA INDUSTRIES, INC. 20 SYLVAN ROAD WOBURN, MASSA

512
It is necessary to display the documents because it may be that there are documents where both NIF and REI occur at the same time. A Reinstatement/Restoration is even possible at a later time.

Extra checks are thus necessary.

We want to monitor EP publications of the company, Alcatel. The NIF category is set either for the EP publication altogether or for each individual country. If NIF appears this does not automatically mean that the EP patent has expired in all designated countries.
In this example either the EP-patent lapsed altogether (EP18, DEEMED TO WITHDRAWN) or it lapsed in NL (EPNLV1, NL: LAPSED OR ANNULED DUE TO FAILURE...). There are more codes for the lapse of an EP patent as a whole or in individual countries.

We are now going to monitor WO publications of the company Siemens during a longer period of time. With WO publications, the NIF category is set either for the WO publication as a whole or for individual countries. If NIF appears...
this does not automatically mean that the WO application is not pending any more in any designated country. With WO applications one should look for NON ENTRY into the national phase.

=> S SIEMENS/PA, PAS AND WO/PC AND NIF/LSC2(L)>20060815
L14 441 SIEMENS/PA, PAS AND WO/PC AND NIF/LSC2(L)>20060815

=> D 1-5 HIT
L14 ANSWER 1 OF 441 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
PA SIEMENS AKTIENGESELLSCHAFT OESTERREICH; INGRUBER, OTTO; KANZIAN, CHRISTIAN; SCHMOELLER, FRANZ
PAS SIEMENS AG OESTERREICH, AT; INGRUBER OTTO, AT; KANZIAN CHRISTIAN, AT; SCHMOELLER FRANZ, DE
PI WO 2006094972 A1 20060914

LEGAL STATUS HIT
AN 15613027 INPADOCDB
20070208 WOWA - WITHDRAWAL OF INTERNATIONAL APPLICATION
NIF Lapses, Expiries, Withdrawals, Refusals
200708.................................20070222

L14 ANSWER 2 OF 441 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
PA SIEMENS CORPORATE RESEARCH, INC.; GRADY, LEO
PAS SIEMENS CORP RES INC, US; GRADY LEO, US
PI WO 2006036789 A2 20060406
PA SIEMENS MEDICAL SOLUTIONS USA, INC.; GRADY, LEO
PAS SIEMENS MEDICAL SOLUTIONS, US; GRADY LEO, US
PI WO 2006036789 A3 20060810

LEGAL STATUS HIT
AN 15554964 INPADOCDB
20070726 WOREG - REFERENCE TO NATIONAL CODE
DE8642 - DE: IMPACT ABOLISHED FOR DE - I.E. PCT APPL. NOT ENT. GERMAN PHASE
NIF Lapses, Expiries, Withdrawals, Refusals
200730.................................20070726

L14 ANSWER 3 OF 441 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
PA SIEMENS AKTIENGESELLSCHAFT; LEDERER, THOMAS
PAS SIEMENS AG, DE; LEDERER THOMAS, DE
PI WO 2005125172 A1 20051229

LEGAL STATUS HIT
AN 15518057 INPADOCDB
20060808 WOWA - WITHDRAWAL OF INTERNATIONAL APPLICATION
NIF Lapses, Expiries, Withdrawals, Refusals

L14 ANSWER 4 OF 441 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
PA SIEMENS AKTIENGESELLSCHAFT; HENSE, CHRISTOPH
PAS SIEMENS AG, DE; HENSE CHRISTOPH, DE
PI WO 2005117397 A1 20051208

LEGAL STATUS HIT
AN 15510283 INPADOCDB
20060323 WOWA - WITHDRAWAL OF INTERNATIONAL APPLICATION
NIF Lapses, Expiries, Withdrawals, Refusals

L14 ANSWER 5 OF 441 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
PA SIEMENS AKTIENGESELLSCHAFT; CHRISTMANN, MARK; GULDEN, PETER; VOSSIEK, MARTIN; WEBKING LEIF, DE
PAS SIEMENS AG, DE; CHRISTMANN MARK, DE; GULDEN PETER, DE; VOSSIEK MARTIN, DE; WEBKING LEIF, DE
PI WO 2005088333 A2 20050922

LEGAL STATUS HIT
AN 15481224 INPADOCDB
20060302 WOWA - WITHDRAWAL OF INTERNATIONAL APPLICATION
NIF Lapses, Expiries, Withdrawals, Refusals
The NIF category may basically be used to monitor for the lapse of a patent or of an application. Anyway, one should always remember that all Designated States are concerned.

62.2 Chemical Abstracts

New publications are often entered into the Chemical Abstracts (CAPlus, HCAPlus, ZCAPlus) without Indexing information in the first place. The indexing information is added at a later time and can be searched separately. For that the right Update field must be used.

=> FIL HCAPL
FILE 'HCAPLUS' ENTERED
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
COPYRIGHT © 2016 AMERICAN CHEMICAL SOCIETY (ACS)

A short search by keywords.

=> S OPTICAL (2A) (FIBER# OR FIBRE#)
L1 115166 OPTICAL (2A) (FIBER# OR FIBRE#

The result is limited to documents from the last 6 weeks.

=> S L1 AND ED>20160817 AND P/DT
L2 73 L1 AND ED>20160817 AND P/DT

The newest patent is displayed. There is no Index terms (IT) field available!

=> D ALL
L2 ANSWER 1 OF 73 HCAPLUS COPYRIGHT 2016 ACS on STN
AN 2016:1377280 HCAPLUS
ED Entered STN: 23 Aug 2016
TI Optical reflectometer with loss and/or reflectance profile view
IN Perron, Stephane; Leclerc, Michel
PA Exfo Inc., Can.
SO U.S.
CODEN: USXXAM
DT Patent
LA English
FAN. CNT 1
PI PATENT NO. KIND DATE APPLICATION NO. DATE
--------------- ---- -------- ----------------------
 US 9423316 B2 20160823 US 2013-14092227 20131127
PRAI US 2012-61730610 P 20121128
CLASS PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
-------------- --------------- -------------------------------
 US 9423316 IPCI G01N0021-00 [I]; G01M0011-00 [I]
 CPCI G01M0011-3145 [I]; G01M0011-3118 [I]
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
AB There is provided an optical reflectometric method and system for characterizing an optical fiber link, wherein events in the fiber optic link under test are identified and values of parameters characterizing the events (e.g., location, insertion loss and reflectance) are extracted from an analysis of one or more reflectometric measurements performed on the optical fiber link. A loss profile and/or a reflectance profile are then constructed. The loss and reflectance profiles are typically displayed on screen or otherwise graphically represented for an operator to be able to appreciate the measurement results at a single glance.

Search with the update code UPI.
The UPI field is updated when the Indexing information is added.

=> S L1 AND UPI>20160817 AND P/DT
L3 79 L1 AND UPI>20160817 AND P/DT

This is the newest patent with Indexing information.

=> D ALL

516
The invention relates to a process for determination of an optical property of a sample (50), comprising: (a) illumination of a surface of the sample using a beam of light to form, on the surface of the sample, an elementary zone...
If one wants to search for the descriptor OPTICAL FIBERS the appropriate field must be used.

=> S OPTICAL FIBERS/CT AND UPI >20160817 AND P/DT
L4 61 OPTICAL FIBERS/CT AND UPI >20160817 AND P/DT

=> D L4 TI IT
L4 ANSWER 1 OF 61 HCAPLUS COPYRIGHT 2016 ACS on STN
TI Method for characterizing a sample by measuring a backscattered optical signal
IT Absorptivity
Animalia
Animals
Anisotropic diffusion
Diffusion
Homo sapiens
Human
Illumination
Light
Light scattering
Mathematical methods
Optical anisotropy
Optical fibers
Optical properties
Optical reflection
Skin
Skin epidermis
Surface
(method for characterizing sampled by measuring backscattered optical signals)
IT Backscattering
(optical; method for characterizing sampled by measuring backscattered optical signals)
63 Multi-file search example

These search examples demonstrate some strategies to perform online searches in multiple files.

63.1 Subject search – Example 1

After a search in the Chemical Abstracts database we would like to retrieve the corresponding documents from the World Patents Index, which will provide additional information. To group the documents by patent families FSORT and D PFAM are used. How to use the Patent Family Manager of STN Express is demonstrated, too.

63.1.1 Search in Chemical Abstracts PLUS and DWPI

```
=> FIL HCAPLUS
FILE 'HCAPLUS' ENTERED
COPYRIGHT (C) 2013 AMERICAN CHEMICAL SOCIETY (ACS)

=> S FURNITURE(L)(POLISH? OR BRIGHTEN?) AND P/DT
L1 464 FURNITURE(L)(POLISH? OR BRIGHTEN?) AND P/DT
Switch to DWPI and HCAPLUS. The order of the file names governs the order in which the family members are going to be arranged by the FSORT command later on.
Using TRANSFER, the patent, application, and priority numbers from the records are searched in both databases.

=> FIL WPINDEX HCAPLUS
FILE 'WPINDEX' ENTERED
COPYRIGHT (C) 2013 THOMSON REUTERS
FILE 'HCAPLUS' ENTERED
COPYRIGHT (C) 2013 AMERICAN CHEMICAL SOCIETY (ACS)

=> TRANSFER L1 1- PN APPS
L2 TRANSFER L1 1- PN APPS : 1556 TERMS
L3 786 L2

=> FSORT L3
SET SMARTSELECT ON
SET COMMAND COMPLETED
SET HIGHLIGHTING OFF
SET COMMAND COMPLETED
SEL L3 1- PN APPS
L4 SEL L3 1- PN APPS : 2145 TERMS
'L4' DELETED
L4 786 FSOL3
```

FSORT groups the documents by patent families.

As a result, the sorted patent families are displayed.
Sometimes more than one record from each database is present in a family.

263 Multi-record Families Answers 1-589
Family 1 Answers 1-2
Family 2 Answers 3-4
Family 3 Answers 5-6
Family 4 Answers 7-8
Family 5 Answers 9-10
Family 6 Answers 11-12
Family 7 Answers 13-14
Family 8 Answers 15-16
...
Family 263 Answers 588-589

Some documents have no equivalents. The main reasons for this are the different country and time coverage.

197 Individual Records Answers 590-786
Using D PFAM=1−2 only one document of the first two families is displayed.

=> D PFAM=1-2 TI PA FAM

L4  ANSWER 1 OF 786  WINDEX COPYRIGHT 2013  THOMSON REUTERS on STN
FAMILY 1
TI  Whole bamboo plywood useful in bottom plate of container, doors and windows, furniture, automobile, and ship berth, comprises a phenolic laminated paper, a bamboo mat long plate, a bamboo curtain short plate, and a bamboo curtain long plate
PA  (DEQI-N) DEQING DESEN WOOD IND CO LTD
PI  CN 202517539 U 20121107 (201320)* ZH 7[2]  <-
ADT  CN 202517539 U CN 2011-20436809U 20111104
PRAI  CN 2011-20436809U  20111104

L4  ANSWER 3 OF 786  WINDEX COPYRIGHT 2013  THOMSON REUTERS on STN
FAMILY 2
TI  Agent used for polishing furniture, comprises specified amount of silicon carbide oil, hard wax, oleic acid, triethanolamine, gasoline, dimethyl silicone polymer, coconut oil diethanolamide, and water
PA  (HAIA-N) HAIAN GUOLI HAIAN GUOLI CHEM IND CO LTD
PI  CN 102702980 A 20121003 (201317)* ZH 3[0]  <-
ADT  CN 102702980 A CN 2012-10203424 20120620
PRAI  CN 2012-10203424  20120620

D PFAM is now used to display all 2 records of family 8.

=> D PFAM=8 1-2 TI PA FAM

L4  ANSWER 15 OF 786  WINDEX COPYRIGHT 2013  THOMSON REUTERS on STN
FAMILY 8
TI  Amino plastic used for decorating e.g. furniture, comprises raw material having melamine formaldehyde resin, urea resin, and mixture of plant straw fiber, cotton scrap fiber, fruit husk powder, bone meal and starch, and inorganic material
PA  (CHEN-I) CHEN T
PI  CN 102558761 A 20120711 (201268)* ZH 4[0]  <-
ADT  CN 20120711 A CN 2010-10624211 20101231
PRAI  CN 2010-10624211  20101231

L4  ANSWER 16 OF 786  HCAPLUS COPYRIGHT 2013 ACS on STN FAMILY 8
TI  Environmental friendly amino plastic and its production method
PA  Peop. Rep. China
AN  2012:1019583  HCAPLUS
DN  157:230764
FAN. CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
--------------- ---- ---------- ------------------- -----
PI  CN 102558761 A 20120711 CN 2010-10624211 20101231 <-
CN 102558761 A 2010-10624211 20101231 <-

These are documents that have no equivalent.

=> D L4 590 TI PA FAM

L4  ANSWER 590 OF 786  HCAPLUS COPYRIGHT 2013 ACS on STN
TI  Furniture brightener containing styrene and manufacture method thereof
PA  Peop. Rep. China
AN  2013:218763  HCAPLUS
DN  158:333755
FAN. CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
--------------- ---- ---------- ------------------- -----
PI  CN 102911607 A 20130206 CN 2011-10221285 20110802 <-

520
To compare: DUPLICATE does not find all equivalents that were identified by FSORT!

63.1.2  How to use the Patent Family Manager of STN Express

To find the duplicates and display the documents from the multi-file search above the Patent Family Manager (in STN Express and STNext) is an efficient tool:

Left-click on L3 in the search above; start the Patent Family Manager.

Two options are offered. We choose „Extract the first member...”.

FSORT is run automatically.
Guide to STN Patent Databases

Then SORT is run automatically. A new answer set is created from the first answer numbers of each patent family and from the single documents (in several steps).

The new answer set does not contain any duplicates.

63.2 Subject search – Example 2

We want to perform a text search in the full-text files, PATDPAFULL, EPFULL, and PCTFULL. To group the retrieved documents by patent family FSORT will be used. The patent numbers will in addition be searched in INPADOCDB, as this file has the priority numbers standardised and continuously updated and allows a comprehensive retrieval of patent families.

Example: Lichtbögen in Bordnetzen (Electric arcs in on-board supply systems) (vehicles, aircrafts, electric vehicles, etc.).

63.2.1 Search in PATDPAFULL, EPFULL und PCTFULL

=> FILE PATDPAFULL EPFULL PCTFULL
FILE 'PATDPAFULL' ENTERED
COPYRIGHT (C) 2013 DPMA
FILE 'EPFULL' ENTERED
After SET MSTEPS ON a search generates L-numbers for each file.

(S) proximity is used to link both aspects of this search (arcs and on-board systems).

Some of the documents are grouped by FSORT.
Guide to STN Patent Databases

**WO 2004-EP53724** A 20041229

**PRAI DE 2004-102004004623 A 20040129**

**L5** ANSWER 29 OF 162 PCTFULL COPYRIGHT 2013 LNU on STN FAMILY 14

**TIEEN** FUEL CELL SYSTEM FOR A SUBMARINE

**TIFR** SYSTEME DE PILES A COMBUSTIBLE POUR SOUS-MARIN

**TIDE** BRENNSTOFFZELLENEINRUCHTUNG Fuer EIN U-BOOT

**PA** SIEMENS AKTIENGESELLSCHAFT, Wittelsbacherplatz 2, 80333 Muenchen, DE, [NAT: DE, RES: DE], for all designated states except US

**PI** WO 2005073075 A1 20050811

**AI** WO 2004-EP53724 20041229

**PRAI** DE 2004-102004004623 20040129

To find all equivalents INPADOCDB is involved.

**=> FIL INPADOCDB**

FILE ‘INPADOCDB’ ENTERED

COPYRIGHT (C) 2013 European Patent Office / FIZ Karlsruhe

**=> TRANSFER** L4 1- PN

L6 TRANSFER L4 1- PN : 163 TERMS

L7 163 L6

SET DUPORDER FILE causes the number of duplicates per file to be displayed when DUPLICATE is invoked.

**=> SET DUPORDER FILE**

SET COMMAND COMPLETED

**=> DUPLICATE IDENTIFY L5 L7**

FILE ‘PATDPAFULL’ ENTERED

COPYRIGHT (C) 2013 DPMA

FILE ‘EPFULL’ ENTERED

COPYRIGHT (C) 2013 European Patent Office / FIZ Karlsruhe / LexisNexis Univentio B.V.

FILE ‘PCTFULL’ ENTERED

COPYRIGHT (C) 2013 LexisNexis Univentio B.V.

FILE ‘INPADOCDB’ ENTERED

COPYRIGHT (C) 2013 European Patent Office / FIZ Karlsruhe

L8 325 DUPLICATE IDENTIFY L5 L7 (INCLUDES 124 SETS OF DUPLICATES)

ANSWERS ‘1-108’ FROM FILE PATDPAFULL

ANSWERS ‘109-136’ FROM FILE EPFULL

ANSWERS ‘137-162’ FROM FILE PCTFULL

ANSWERS ‘163-325’ FROM FILE INPADOCDB

FSORT identifies 117 patent families, compared to 113 without INPADOCDB before. D PFAM 1– would only display 117 documents.

**=> FSORT L8**

L9 325 FSO L8

117 Multi-record Families Answers 1-325

Family 1 Answers 1-2

Family 2 Answers 3-4

Family 3 Answers 5-6

Family 4 Answers 7-8

Family 5 Answers 9-10

... Family 28 Answers 69-72

... Family 117 Answers 324-325

0 Individual Records

0 Non-patent Records

0 Non-patent Records

524
Search examples

This is an example where the standardised priority numbers in INPADOCDB helped to identify an equivalent (priority numbers are not standardised in PCTFULL).

63.2.2 How to use the Patent Family Manager of STN Express

Rather than FSORT the Patent Family Manager (in STN Express or STNext) is now used to sort L8. The second option is shown: „Customize display of patent family results”. The first document of a patent family is displayed with BIB AB, all further documents with TI only. Since the database opened first was PATDPAFULL, most documents displayed with BIB AB come from this database.

Note: If this option is used, the display of the documents cannot be interrupted. Even the display of the expected display price (after SET NOTICE DISPLAY), which would allow to stop, is switched off.
=> FIL PATDPAFULL, EPFULL, PCTFULL, INPADOCDB
FILE 'PATDPAPFULL' ENTERED
COPYRIGHT (C) 2013 DPMA

FILE 'EPFULL' ENTERED
COPYRIGHT (C) 2013 European Patent Office / FIZ Karlsruhe / LexisNexis Univentio B.V.

FILE 'PCTFULL' ENTERED
COPYRIGHT (C) 2013 LexisNexis Univentio B.V.

FILE 'INPADOCDB' ENTERED
COPYRIGHT (C) 2013 European Patent Office / FIZ Karlsruhe

=> FSORT L8
SEL L8 1- PN, APPS
L10  SEL L8 1- PN APPS : 349 TERMS

'L10' DELETED
L10  325 FSO L8

  117 Multi-record Families  Answers 1-325
    Family 1  Answers 1-2
    Family 2  Answers 3-4
    Family 3  Answers 5-6
    ... 
    Family 117  Answers 324-325

0 Individual Records
0 Non-patent Records

=> DIS L10 PFAM=1 1 BIB, AB
L10  ANSWER 1 OF 325 PATDPAPFULL COPY RIGHT 2013 DPMA on STN DUPLICATE 1
AN    DE102012201123 PATDPAPFULL ED 20130321 EW 201312
TI    Gewinkelter Hochvolt-Stecker
IN    Saller, Robert, 84546, Egglkofen, DE;
      Wimmer, Christian, 84175, Schalkham, DE;
      Wimmer, Stefan, 84098, Hohenthann, DE
PA    Lisa Draexlmaier GmbH, 84137, Vilsbiburg, DE
AG    HOFFMANN - EITLE, 81925, Muenchen, DE
DT    Patent
PIT    DEB3 Patentschrift als 1. Publikation (ohne vorherige Offenlegungschrift)
      DEB3 Patent (first publication)
PITX   DEB3-070 PATENTTSCHRIFT, (UEBERROLLTE OS) NEUES RECHT
PI    DE 102012201123  B3 20130321
AI    DE 2012-102012201123 A 20120126
PRAI  DE 2012-102012201123 A 20120126 *
AB    Gewinkelter Hochvolt-Stecker (1) zur Verwendung im Bordnetz von

526
Search examples

Kraftfahrzeugen mit einem Aussenleiter (3.1, 3.2) und einem Innenleiter (5.1, 5.2) die in einem elektrisch isolierenden, einstueckigen Gehaeuse...

=> DIS L10 PFAM=1 2·TOT TI

L10 ANSWER 2 OF 325 INPADOCDB COPYRIGHT 2013 EPO/FIZ KA on STN FAMILY DUPLICATE 1
TI Gewinkelter Hochvolt·Stecker.

=> DIS L10 PFAM=2 1 BIB, AB

L10 ANSWER 3 OF 325 PATDPFULL COPYRIGHT 2013 DPMA on STN DUPLICATE 2
AN DE102011079547 PATDPFULL ED 20130124 EW 201304
TI Vorrichtung und Verfahren zum Ansteuern eines Relais in einem Fahrzeug
IN Fuessl, Peter, 84137, Vilsbiburg, DE
PA Lisa Draexlmaier GmbH, 84137, Vilsbiburg, DE
AG HOFFMANN·EITLE, 81925, Muenchen, DE
DT Patent
PIT DEA1 Offenlegungsschrift
PITX DEA1·406·OFFENLEGUNGSSCHRIFT, 8·MONATS·AKTEN
PI DE 102011079547 A1 20130124
AI DE 2011-102011079547 A 20110721
PRAI DE 2011-102011079547 A 20110721 *
AB Die vorliegende Erfindung betrifft eine Vorrichtung (10) und ein Verfahren zum Ansteuern eines Relais eines Fahrzeugs mit einer Spule (21) und einem Anker (22), die eine Haltespannung bzw. einen Haltestrom...

=> DIS L10 PFAM=2 2·TOT TI

L10 ANSWER 4 OF 325 INPADOCDB COPYRIGHT 2013 EPO/FIZ KA on STN FAMILY DUPLICATE 2
TI Vorrichtung und Verfahren zum Ansteuern eines Relais in einem Fahrzeug.

63.3 Search by name (Using the EXPAND command)

This example is to show how to use EXPAND in a multi-file search.

STNINDEX can be used to check for name entries.

=> INDEX WPINDEX HCAPL
INDEX 'WPINDEX, HCAPLUS' ENTERED

2 FILES IN THE FILE LIST IN STNINDEX

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

=> SET DETAIL ON
SET COMMAND COMPLETED

Using EXPAND we can see the various spellings of the patent assignee name and how often they occur in the selected databases.

=> E BIOLITEC/PA 13
E# FILE FREQUENCY TERM
--- -------- -------
E1 WPINDEX 1 BIOLITE LLC/PA
E2 WPINDEX 1 BIOLITE LTD/PA
E3  28 --> BIOLITEC/PA
WPINDEX 18 BIOLITEC/PA
HCAPLUS 10 BIOLITEC/PA
E4 HCAPLUS 1 BIOLITEC AG/G/PA
E5 HCAPLUS 1 BIOLITEC AG GERMANY/PA
E6  8 BIOLITEC AG/PA
WPINDEX  4 BIOLITEC AG/PA

527
Guide to STN Patent Databases

HCAPLUS 4 BIOLITEC AG/PA
E7 HCAPLUS 3 BIOLITEC AG GERMANY/PA
E8 WPINDEX 8 BIOLITEC INC/PA
HCAPLUS 5 BIOLITEC INC/PA
E9 HCAPLUS 1 BIOLITEC INC GERMANY/PA
E10 HCAPLUS 3 BIOLITEC INC USA/PA
E11 WPINDEX 14 BIOLITEC PHARMA MARKETING LTD/PA
HCAPLUS 1 BIOLITEC PHARMA MARKETING LTD/PA
E12 HCAPLUS 1 BIOLITEC PHARMA MARKETING LTD MALAY/PA
E13 WPINDEX 1 BIOLITEC RES GMBH/PA

The correct entries are chosen.
The details of the search are shown for each of the databases.

=> S E4-E13
FILE 'WPINDEX'
18 BIOLITEC/PA
0 "BIOLITEC AG"/PA
0 "BIOLITEC AG GERMANY"/PA
4 "BIOLITEC INC"/PA
3 "BIOLITEC INC MALAY"/PA
13 "BIOLITEC INC USA"/PA
1 "BIOLITEC PHARMA MARKETING LTD"/PA
0 "BIOLITEC PHARMA MARKETING LTD MALAY"/PA
1 "BIOLITEC RES GMBH"/PA
18 (BIOLITEC/PA OR "BIOLITEC AG"/PA OR "BIOLITEC AG GERMANY"/PA OR "BIOLITEC INC"/PA OR "BIOLITEC INC GERMANY"/PA OR "BIOLITEC INC USA"/PA OR "BIOLITEC PHARMA MARKETING LTD"/PA OR "BIOLITEC PHARMA MARKETING LTD MALAY"/PA OR "BIOLITEC PHARMA MARKETING LTD MALAY"/PA OR "BIOLITEC RES GMBH"/PA)

FILE 'HCAPLUS'
10 BIOLITEC/PA
1 "BIOLITEC AG"/PA
1 "BIOLITEC AG GERMANY"/PA
4 "BIOLITEC INC"/PA
3 "BIOLITEC INC GERMANY"/PA
5 "BIOLITEC INC USA"/PA
3 "BIOLITEC INC USA"/PA
1 "BIOLITEC PHARMA MARKETING LTD"/PA
1 "BIOLITEC PHARMA MARKETING LTD MALAY"/PA
0 "BIOLITEC RES GMBH"/PA
10 (BIOLITEC/PA OR "BIOLITEC AG"/PA OR "BIOLITEC AG GERMANY"/PA OR "BIOLITEC INC"/PA OR "BIOLITEC INC GERMANY"/PA OR "BIOLITEC INC USA"/PA OR "BIOLITEC PHARMA MARKETING LTD"/PA OR "BIOLITEC PHARMA MARKETING LTD MALAY"/PA OR "BIOLITEC RES GMBH"/PA)

A SEARCH in STNIndex creates a QUERY.

L1 QUE (BIOLITEC/PA OR "BIOLITEC AG"/PA OR "BIOLITEC AG GERMANY"/PA OR "BIOLITEC AG"/PA OR "BIOLITEC AG GERMANY"/PA OR "BIOLITEC INC"/PA OR "BIOLITEC INC GERMANY"/PA OR "BIOLITEC INC USA"/PA OR "BIOLITEC PHARMA MARKETING LTD"/PA OR "BIOLITEC PHARMA MARKETING LTD MALAY"/PA OR "BIOLITEC PHARMA MARKETING LTD MALAY"/PA OR "BIOLITEC RES GMBH"/PA)

To actually execute the search the files with hits are opened using the FILE command.
The QUERY created above is used for searching.

=> FIL HITS
FILE 'WPINDEX' ENTERED
COPYRIGHT (C) 2013 THOMSON REUTERS
FILE 'HCAPLUS' ENTERED AT
COPYRIGHT (C) 2013 AMERICAN CHEMICAL SOCIETY (ACS)
63.4 Search by name (Using proximity)

This example is to show how proximity operators can be used in a search for a name in multiple files. Due to the varying name indexes in the databases one cannot always rely on the right proximity operators to be chosen by the STN system.

All databases containing patents are opened for STNIndex.

=> INDEX PATENTS
FILE 'ENCOMPPAT', ACCESS NOT AUTHORIZED
FILE 'TULSA', ACCESS NOT AUTHORIZED
INDEX 'AEROSPACE', 'AUPATFULL', 'CAPATFULL', 'CAPLUS', 'CASREACT', 'CNFULL', 'CROPU', 'DGENE',
    'DPCI', 'ENCOMPPAT2', 'EPFULL', 'FRANCEPAT', 'FRFULL', 'FRSTA', 'GBFULL', 'IFIALL',
    'IFICS', 'IMSPATENTS', 'INFULL', 'INPADOCDB', 'INPAFAMDB', 'JAPIQ', 'JPFULL',
    'KOREAPAT', 'LITALERT', 'NTIS', 'PATDD', 'PATDPA', ...
ENTERED
45 FILES IN THE FILE LIST IN STNINDEX

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

=> SET DETAIL ON
SET COMMAND COMPLETED

The essential parts of the name (with the required truncation) are searched using (S) proximity.
Detailed display for each of the databases.

=> S (COLGATE (S) PALMOLIVE) / PA
FILE 'AEROSPACE':
252 COLGATE/PA
250 PALMOLIVE/PA
249 (COLGATE (S) PALMOLIVE) / PA

FILE 'AUPATFULL':
2314 COLGATE/PA
2312 PALMOLIVE/PA
2309 (COLGATE (S) PALMOLIVE) / PA

FILE 'CAPATFULL':
2624 COLGATE/PA
2608 PALMOLIVE/PA
2606 (COLGATE (S) PALMOLIVE) / PA

FILE 'CAPLUS':
3616 COLGATE/PA
3619 PALMOLIVE/PA
3608 (COLGATE (S) PALMOLIVE) / PA

FILE 'CASREACT':
6 COLGATE/PA
6 PALMOLIVE/PA
6 (COLGATE (S) PALMOLIVE) / PA

FILE 'CNFULL':
686 COLGATE/PA
682 PALMOLIVE/PA
680 (COLGATE (S) PALMOLIVE) / PA

FILE 'CROPU':
9 COLGATE/PA
9 PALMOLIVE/PA
9 (COLGATE (S) PALMOLIVE) / PA

FILE 'DGENE':

Guide to STN Patent Databases

FILE 'DPCI'
3769 COLGATE/PA
3736 PALMOLIVE/PA
3734 (COLGATE (S) PALMOLIVE)/PA

FILE 'ENCOMPPAT2'
197 COLGATE/PA
197 PALMOLIVE/PA
196 (COLGATE (S) PALMOLIVE)/PA

FILE 'EPFULL'
1621 COLGATE/PA
1617 PALMOLIVE/PA
1617 (COLGATE (S) PALMOLIVE)/PA

FILE 'FRANCEPAT'
999 COLGATE/PA
994 PALMOLIVE/PA
994 (COLGATE (S) PALMOLIVE)/PA

FILE 'FRFULL'
1100 COLGATE/PA
1110 PALMOLIVE/PA
1094 (COLGATE (S) PALMOLIVE)/PA

FILE 'FSTA'
10 COLGATE/PA
10 PALMOLIVE/PA
10 (COLGATE (S) PALMOLIVE)/PA

FILE 'GBFULL'
1193 COLGATE/PA
1178 PALMOLIVE/PA
1174 (COLGATE (S) PALMOLIVE)/PA

FILE 'IFICLS'
1561 COLGATE/PA
1517 PALMOLIVE/PA
1517 (COLGATE (S) PALMOLIVE)/PA

FILE 'IMSPATENTS'
0 COLGATE/PA
0 PALMOLIVE/PA
0 (COLGATE (S) PALMOLIVE)/PA

FILE 'INFULL'
582 COLGATE/PA
574 PALMOLIVE/PA
568 (COLGATE (S) PALMOLIVE)/PA

FILE 'INPADOCDB'
34133 COLGATE/PA
33999 PALMOLIVE/PA
33909 (COLGATE (S) PALMOLIVE)/PA

FILE 'INPAFAMDB'
5989 COLGATE/PA
5910 PALMOLIVE/PA
5880 (COLGATE (S) PALMOLIVE)/PA

FILE 'JAPIO'

530
Search examples

486 COLGATE/PA
483 PALMOLIVE/PA
483 (COLGATE (S) PALMOLIVE)/PA

FILE 'JPFULL'
160 COLGATE/PA
157 PALMOLIVE/PA
157 (COLGATE (S) PALMOLIVE)/PA

FILE 'KOREAPAT'
31 COLGATE/PA
32 PALMOLIVE/PA
30 (COLGATE (S) PALMOLIVE)/PA

FILE 'LITALERT'
3 COLGATE/PA
3 PALMOLIVE/PA
3 (COLGATE (S) PALMOLIVE)/PA

FILE 'NTIS'
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0 PALMOLIVE/PA
0 (COLGATE (S) PALMOLIVE)/PA

FILE 'PATDD'
12 COLGATE/PA
(COLGATE/PA.W)
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(PALMOLIVE/PA.W)
11 (COLGATE (S) PALMOLIVE)/PA

FILE 'PATDPA'
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3180 PALMOLIVE/PA
3180 (COLGATE (S) PALMOLIVE)/PA

FILE 'PATDPAFULL'
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894 (COLGATE (S) PALMOLIVE)/PA

FILE 'PATDPASPC'
'PA' IS NOT A VALID FIELD CODE
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0 PALMOLIVE/PA
0 (COLGATE (S) PALMOLIVE)/PA

FILE 'PCTFULL'
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1231 (COLGATE (S) PALMOLIVE)/PA

FILE 'PCTGEN'
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394 (COLGATE (S) PALMOLIVE)/PA

FILE 'PIRA'
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0 PALMOLIVE/PA
0 (COLGATE (S) PALMOLIVE)/PA

FILE 'POSCITECH'
274 COLGATE/PA
272 PALMOLIVE/PA
271 (COLGATE (S) PALMOLIVE)/PA

FILE 'PS'
2 COLGATE/PA
2 PALMOLIVE/PA
63.5 Patent records in different databases

A search by patent assignee is to be made in INPADOC due to the extensive coverage of countries and time in this file. If available, the documents retrieved are to be reviewed in DWPI because of the deeper indexing in this file. Finally, information on some older German utility models is desired which are not covered in DWPI.
Search examples

With SET AUDIT ON, terms with zero hits from TRANSFER will be captured. These terms can then be used for another search in another file.

=> SET AUDIT ON
SET COMMAND COMPLETED

=> S (OETKER (S) (AUGUST OR NAHRUNG?))/PA, PAS
L1 261 (OETKER (S) (AUGUST OR NAHRUNG?))/PA, PAS

=> FIL WPIINDEX
FILE 'WPIINDEX' ENTERED
COPYRIGHT (C) 2016 THOMSON REUTERS

The search result from INPADOC is TRANSFERred to DWPI. L3 holds the answer set with hits; L4 holds a QUERY for the terms with no hits in DWPI.

=> TRANSFER L1 1- PN
L2 TRANSFER L1 1- PN : 272 TERMS
L3 66 L2
L4 QUE TERMS FROM L2 WITH NO HITS: 121 TERMS

=> D L3 1-6 TI
L3 ANSWER 1 OF 66 WPIINDEX COPYRIGHT 2016 THOMSON REUTERS on STN
TI Method for producing foamed food product mass with flavoring agent, involves introducing the food mass at an end of a stator housing that is arranged in an inlet and supplying the pressurized gas is supplied into the stator

L3 ANSWER 2 OF 66 WPIINDEX COPYRIGHT 2016 THOMSON REUTERS on STN
TI Preparing desserts, comprises dosing first composition through first filling line and second composition through second filling line in beaker by filling device comprising the first and second filling lines with feeding cups by cup feeder

L3 ANSWER 3 OF 66 WPIINDEX COPYRIGHT 2016 THOMSON REUTERS on STN
TI Cup for use as closed-sale food packaging has endpiece that extends at distance from cup wall to plane on which base rests, and is connected to cup wall by spacer

L3 ANSWER 4 OF 66 WPIINDEX COPYRIGHT 2016 THOMSON REUTERS on STN
TI Method for continuous production of flat baked dough-rolls through baking preformed raw dough-rolls on a baking support to baked dough-rolls having first and second baking surfaces, comprises removing the first baking surface of the rolls

L3 ANSWER 5 OF 66 WPIINDEX COPYRIGHT 2016 THOMSON REUTERS on STN
TI Continuous decoration of pizza surfaces, in a production line, keeps surface areas clear of scattered material for the decoration to be applied in given positions

L3 ANSWER 6 OF 66 WPIINDEX COPYRIGHT 2016 THOMSON REUTERS on STN
TI Continuous production of flat pastry goods, i.e. pizza bases, bakes dough blanks followed by a compression station

=> D L3 3 ALL

German utility models are available in DWPI from 1996.
Guide to STN Patent Databases

IPC B65D0085-72 [I,A]
CPC B65D0001-26; B65D0001-46; B65D0025-2882; B65D2577-2066; B65D2577-2083; B65D0077-204; B65D0077-2052; B65D0081-3415
AB DE 20203100384 U1 UPAB: 20130612
NOVELTY - The cup has base (1) to mount cup walls (2,2a,5) which form a clamped opening (4) closed by a cover film in opposite to base. An endpiece (10) extends at a distance from the cup wall (2) to the plane on which the base rests. The endpiece is connected to the cup wall (2) by a spacer (15) which extends over the distance between the endpiece and the cup wall (2).
USE - Cup for use as closed-sale packaging for food e.g. chocolate coating.
ADVANTAGE - The stability of the cup can be increased. The transfer of heat to the user hand can be avoided so that cup can be handled even after heating using heat transfer medium while avoiding spoiling of food.
DESCRIPTION OF DRAWINGS - The drawings show the top and side views of the cup.
Base (1)
Cup walls (2,2a,5)
Clamped opening (4)
Endpiece (10)
Spacer (15)
MC EngPl: Q32-A99; Q32-B06; Q34-C05

=> FILE PATDPFULL
FILE 'PATDPFULL' ENTERED
COPYRIGHT (C) 2016 DPMA

=> S L4
L5 25 L4
L6 QUE TERMS FROM L4 WITH NO HITS: 96 TERMS

=> D L5 ALL
This utility model was published in 1995.

L5 ANSWER 1 OF 25 PATDPFULL COPYRIGHT 2016 DPMA on STN
AN DE9410153 PATDPFULL ED 20021009 EW 199507
TI Fruchtschaumdessert auf Milchbasis
PA Dr. August Oetker Nahrungsmittel KG, 33617 Bielefeld, DE
AG Meyer, G., Dr.
DT Utility Model
LA German
PI T DEU1 Gebrauchsmuster
DEU1 Utility model
PI DE 9410153 U1 19950216
AI DE 1994-10153 U 19940623
PRAI DE 1994-10153 U 19940623 *
ICS A23C0009-152
IC5 A23P0001-16

=> FILE INPADOCDB
FILE 'INPADOCDB' ENTERED
COPYRIGHT (C) 2016 European Patent Office / FIZ Karlsruhe

=> D L6 1-
These are the documents that were neither available in DWPI nor in PATDPA. (DWPI does not cover some publication kind codes, e.g. A0.)

L6 QUE TERMS FROM L4 WITH NO HITS: 96 TERMS
TERM # TERMS

1 AT180387T/PN
2 AT253828T/PN
3 AT295688T/PN
4 AT296547T/PN
5 AT301447T/PN
6 AT383079T/PN
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Guide to STN Patent Databases

Transferring patent numbers between CAPLUS, DWPI and INPADOCDB may sometimes cause trouble, in particular if there are JP, CN, or TW patents in the search result. This is caused by overlapping serial numbers for different types of publications, which makes the respective publication numbers ambiguous. The search result can be greatly enhanced by using the PNK (publication number + publication kind code) field rather than the PN (patent number) field in a cross-file search.

Searching the Chinese number CN 1127574 results in different patent families being retrieved in CAPLUS and DWPI.
battery supply and third voltage stage electrically coupled to portable
device power supply.

We now show the different results between using PN and PNK.

=> FIL CAPPLUS

=> S (EVONIK OR DEGUSSA)/PA AND C12N/IPC AND CN/PC
L3 214 (EVONIK OR DEGUSSA)/PA AND C12N/IPC AND CN/PC

=> FIL WPINDEX

The patent numbers from the CAPPLUS result are now transferred to DWPI.

=> TRANSFER L3 1- PN
L4 TRANSFER L3 1- PN : 1642 TERMS
L5 192 L4

=> D L4 1- WITH "CN"
L4 TRA L3 1- PN : 1642 TERMS
TERM # TERMS
--------- ---------
275 CN100366901/PN
276 CN100347190/PN
277 CN100351837/PN
278 CN100352926/PN
...

=> S L5 AND (EVONIK OR DEGUSSA)/PA
L6 178 L5 AND (EVONIK OR DEGUSSA)/PA

=> S L5 NOT L6
L7 14 L5 NOT L6

Our check shows that there are completely different families in
the new search result. Only the patent assignees are displayed.

=> D 1-4 PA
L7 ANSWER 1 OF 14 WPINDEX COPYRIGHT 2016 THOMSON REUTERS on STN
PA (GULA-I) GULAS S; (SPIN-N) SPINWOOD TRADING & CONSULTING LTD; (SPIN-N)
SPINWOOD TRADING & CONSULTING LTD
L7 ANSWER 2 OF 14 WPINDEX COPYRIGHT 2016 THOMSON REUTERS on STN
PA (NAEP-N) NAEPFLIN SCHLEIFTECHNIK AG; (NAPF-I) NAPFLIN H; (NAPF-N) NAPFLIN
SCHLEIFTECHNIK AG
L7 ANSWER 3 OF 14 WPINDEX COPYRIGHT 2016 THOMSON REUTERS on STN
PA (STRA-I) STRASSER J
L7 ANSWER 4 OF 14 WPINDEX COPYRIGHT 2016 THOMSON REUTERS on STN
PA (FANG-I) FANG Z

=> FIL CAPPLUS

=> S (EVONIK OR DEGUSSA)/PA AND C12N/IPC AND CN/PC
L8 214 (EVONIK OR DEGUSSA)/PA AND C12N/IPC AND CN/PC

=> FIL WPINDEX

We use PNK rather than PN.
Guide to STN Patent Databases

=> TRA L8 1- PNK  
L9
TRA L8 1- PNK : 1818 TERMS 
L10 178 L9

=> D L9 1- WITH "CN" 
L9
TRA L8 1- PNK : 1818 TERMS

TERM # TERMS
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287 CN100336901 C/PNK
288 CN100347190 C/PNK
289 CN100351387 C/PNK
290 CN100352926 C/PNK
...

=> S L10 AND (EVONIK OR DEGUSSA)/PA 
2068 EVONIK/PA
4922 DEGUSSA/PA 
L11 178 L10 AND (EVONIK OR DEGUSSA)/PA

Now we have the correct patent assignee in all patent families.

=> S L10 NOT L11 
L12 0 L10 NOT L11
64 ANALYZE tool examples

64.1 Example 1 – One Field Analysis

We want to do a company analysis of Junghans in the DWPI file (IPC.CI, PRYF, PC, IN fields).

Excel should already be open.

```plaintext
=> F I L W P I N D E X
FILE 'WPINDEX' ENTERED
COPYRIGHT (C) 2007 THE THOMSON CORPORATION

=> S E T I C F O R M A T  O N

=> S J U N N / P A C O
L1 277 J U N N / P A C O
(J U N N / P A C O)
```

First we execute an ANALYZE command. All desired fields can be entered in one go.

```plaintext
=> A N A L Y Z E L 1 1 - 1 P C . C I L E N 8 P R Y F P C I N
L2 ANALYZE L1 1 - 1 P C . C I P R Y F P C I N L E N 8 : 293 TERMS
```

Clicking on L2 (left click) opens a wizard where you choose ANALYZE PLUS. This produces the dialog below. All the fields used in the previous ANALYZE command are already shown. Just choose One field analysis. The analysis is then performed one at a time for each field.

![STN Analyze Plus Wizard](image-url)
Guide to STN Patent Databases

Clicking Options produces this dialog:

Select the number of Terms to view and the Sort order.

For the IPC.CI and IN fields the number of terms should be set to 10 or 20 and ‘by frequency’ should be selected as sort order. For the PRYF field all terms are needed and the sort order should be ‘alphabetically’ (it is not possible to limit the analysis to the latest years only).

When you click OK the previous dialog will reappear and you can start the analysis by clicking ANALYZE. As the option ‘Capture Delimited Tabulation Data for Later Use’ was activated you will get a file-save dialog to create a .TBN file. Having saved the data you can later use them to create new diagrams at any time.

The Data Group Tool will be displayed next. You have to decide whether to group any terms or not.
In our example there is no need to group the data captured from the IPC.CI and PC fields. However, due to varying spellings it is a good idea to group the entries from the IN field. In PRYF one could e.g. put the years up to 1990 in one group and only analyse the most recent years individually. This will not be done in this example — the most recent years will simply be selected later.

After analysis the Excel file will be created: Workbook1 with Cross-Tab, 3D column and sheet 1 with diagram 1 and table 1. All 4 presentations are shown here for the IPC.CI field, but only 3D column diagrams for the other fields.

**IPC.CI field:**

Table 1:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>G04c0003</td>
<td>30</td>
</tr>
<tr>
<td>F42c0015</td>
<td>23</td>
</tr>
<tr>
<td>G04c0010</td>
<td>16</td>
</tr>
<tr>
<td>F42c0009</td>
<td>13</td>
</tr>
<tr>
<td>G04g0001</td>
<td>12</td>
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<tr>
<td>G04c0021</td>
<td>11</td>
</tr>
<tr>
<td>G04g0007</td>
<td>11</td>
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<td>G04c0013</td>
<td>10</td>
</tr>
<tr>
<td>G04b0019</td>
<td>9</td>
</tr>
<tr>
<td>G04b0037</td>
<td>9</td>
</tr>
</tbody>
</table>

Diagram 1 (Excel diagram):
Guide to STN Patent Databases

Cross-Tab:

<table>
<thead>
<tr>
<th>IPC.CI</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>G04c0003</td>
<td>30</td>
</tr>
<tr>
<td>F42c0015</td>
<td>23</td>
</tr>
<tr>
<td>G04c0010</td>
<td>16</td>
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<tr>
<td>F42c0009</td>
<td>13</td>
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<td>G04g0001</td>
<td>12</td>
</tr>
<tr>
<td>G04c0021</td>
<td>11</td>
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<tr>
<td>G04g0007</td>
<td>11</td>
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<td>10</td>
</tr>
<tr>
<td>G04b0019</td>
<td>9</td>
</tr>
<tr>
<td>G04b0037</td>
<td>9</td>
</tr>
</tbody>
</table>

3D column:
Search examples

PC field:

IN field:
**PRYF field:**

Here is the whole Excel screen to show how to limit the display to part of the list: Simply choose the start year from the menu.

The Cross-Tab can even be edited (the connection to the documents is retained there), e.g. the years 1962 to 1989 could be grouped.

### 64.2 Example 2 – Two Field Analysis

For the field A45F — Travelling or Camp Equipment the most active patent applicants with details on the development over time (by priority years) are wanted.

```plaintext
=> FIL WP INDEX

=> S A45F/IPC(S)(I OR ICM OR ICS)/IPC.KW AND PRYF>=1998

L1 10113 A45F/IPC
  7591984 I/IPC.KW
  9093992 ICM/IPC.KW
  5546397 ICS/IPC.KW
  9455 A45F/IPC(S)(I OR ICM OR ICS)/IPC.KW
  5404110 PRYF>=1998

L2 3939 A45F/IPC(S)(I OR ICM OR ICS)/IPC.KW AND PRYF>=1998
```

The PAX and PRYF fields are selected. PAX includes PACO, which helps in combining the various patent assignee names.

Having chosen PRYF the family size is usually not important.

Now the ANALYZE command is invoked. This produces a table with the patent assignees sorted by frequency. This ANALYZE command does not cause extra cost (ANALYZE PLUS is always preceded by ANALYZE or TABULATE).

```plaintext
=> ANALYZE L1 1- PAX PRYF

L2 ANALYZE L1 1- PAX PRYF : 3127 TERMS
```
Search examples

The first entries of the patent assignee list are displayed and printed in order to help in the data grouping later when ANALYZE PLUS is performed.

```
=> D 1-100 PAX

L2    ANALYZE L1 1- PAX PRYF : 4363 TERMS

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<th>TERM</th>
<th># OCC</th>
<th># DOC</th>
<th>% DOC</th>
<th>PAX</th>
<th>PRYF</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
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<td>17</td>
<td>0.43</td>
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<td>TRAVEL CADDY INC DBA TRAVELON</td>
</tr>
<tr>
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<td>16</td>
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<td>TRAVEL CADDY INC</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
<td>12</td>
<td>0.30</td>
<td>ELEP-N</td>
<td>ELEPHANT MAHOBI N KK</td>
</tr>
<tr>
<td>13</td>
<td>12</td>
<td>12</td>
<td>0.30</td>
<td>SALO-C</td>
<td>SALOMON SA</td>
</tr>
<tr>
<td>14</td>
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<td>11</td>
<td>0.28</td>
<td>BLDE-C</td>
<td>BLACK &amp; DECKER INC</td>
</tr>
<tr>
<td>15</td>
<td>11</td>
<td>11</td>
<td>0.28</td>
<td>LAFU-N</td>
<td>LAFUMA SA</td>
</tr>
<tr>
<td>16</td>
<td>11</td>
<td>11</td>
<td>0.28</td>
<td>LBRE-I</td>
<td>LE BRETON Y</td>
</tr>
<tr>
<td>17</td>
<td>11</td>
<td>11</td>
<td>0.28</td>
<td>ORTL-I</td>
<td>ORTLIEB H</td>
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<tr>
<td>19</td>
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<td>MI ZUNO SPORTING GOODS CO LTD</td>
</tr>
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<td>10</td>
<td>10</td>
<td>0.25</td>
<td>SKIS-N</td>
<td>SKIS ROSSI GGNL SA</td>
</tr>
</tbody>
</table>
```

...and so on...
The data will be saved to a .TBN file, then the analysis is performed.

Next the table of Patent Assignees and Patent Assignee Codes (PAX field) is displayed. You can concentrate on the most frequent patent assignees here. It is a good idea to save the edited list in order to have the grouped names ready for a later statistical analysis.

The table with priority years below will not be grouped.
### Results:

1. Table PAX/PRYF for the 20 most frequent Patent Assignees:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Trav-N) Travel Caddy Inc Dba Travelon</td>
<td>1</td>
<td>9</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>(Elep-N) Elephant Mahohbin Kk</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td></td>
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<td></td>
<td></td>
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<td>(Salo-C) Salomon SA</td>
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<td>1</td>
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<td>(Bide-C) Black &amp; Decker Inc</td>
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<td>2</td>
<td></td>
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<td></td>
</tr>
<tr>
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<td>3</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
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<tr>
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</table>
2. Diagram 1 (Excel Diagram):

![Diagram of "PAX" by PRYF]

3. Cross-Tab

<table>
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<tr>
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</table>
Guide to STN Patent Databases

<table>
<thead>
<tr>
<th>(Skis-N) Skis Rossignol SA</th>
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<th>2</th>
<th>5</th>
<th>2</th>
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</thead>
<tbody>
<tr>
<td>(Moti-C) Motorola Inc</td>
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<tr>
<td>(Angu-I) Angus J</td>
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<td>1</td>
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<tr>
<td>(Came-N) Camelbak Prod Llc</td>
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<tr>
<td>(Will-I) Willows K</td>
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<td>(Yang-I) Yang S</td>
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<td>2</td>
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<td>(Gors-I) Gorski E</td>
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<td>(Ilt-C) Illinois Tool Works Inc</td>
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<td>1</td>
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</tr>
</tbody>
</table>
The diagram can be limited to the most recent years:
64.3 Example 3 – Two Field Analysis

We want to know which companies co-operate in the field of brakes (F16d, B60t).

A database with two patent assignee fields must be used. INPADOCDB is suitable (PA und PAS) and is used here. DWPI with the PAX and PA fields would be okay too.

=> FIL INPADOCDB

The sample is taken from the years 2003 to 2008.

=> S (?BREMS? OR BRAKE? OR BRAKING) AND (F16D OR B60T)/IPC(S)(I OR ICM OR ICS)/IPC.K

L1 154639 (?BREMS? OR BRAKE? OR BRAKING) AND (F16D OR B60T)/IPC(S)(I OR ICM OR ICS)/IPC.K

The search is limited to EP applications so the family size cannot influence the result.

=> S L2 AND (EPA1 OR EPA2)/PK(L)2003-2008/PY

L2 2642 L1 AND (EPA1 OR EPA2)/PK(L)2003-2008/PY

The ANALYZE command is invoked and the list of the 100 most frequent PAS is displayed.

=> ANALYZE L2 1- PAS PA

L3 ANALYZE L2 1- PA PAS : 1202 TERMS

=> D 1-100 PAS

L3 ANALYZE L2 1- PA PAS : 1202 TERMS

TERM # # OCC % OCC DOC % DOC PA PAS

1 262 262 9.92 BOSCH GMBH ROBERT
3 185 185 7.00 KNORR BREMSE SYSTEME
4 171 171 6.47 CONTINENTAL TEVES AG & CO OHG
8 83 83 3.14 FRENI BREMBO SPA
9 61 61 2.31 HONDA MOTOR CO LTD
10 60 60 2.27 DELPHI TECH INC
12 56 56 2.12 LUCAS AUTOMOTIVE GMBH
15 47 47 1.78 NISSIN KOGYO KK
16 45 45 1.70 NISSAN MOTOR
19 41 41 1.55 TOYOTA MOTOR CO LTD
22 40 40 1.51 SHI MANO KK
23 38 38 1.44 AUDI NSU AUTO UNION AG
25 33 33 1.25 HALDEX BRAKE PROD AB
27 33 33 1.25 HI TACHI LTD
28 33 33 1.25 PEUGEOT CITROEN AUTOMOBILES SA
30 31 31 1.17 SIEMENS AG
31 30 30 1.14 MANDO CORP
34 28 28 1.06 BAYERISCHS MOTOREN WERKE AG
35 28 28 1.06 HONEYWELL INT INC
36 28 28 1.06 WABCO GMBH & CO OHG
37 27 27 1.02 DAIMLER CHRYSLER AG
41 26 26 0.98 MERITOR HEAVY VEHICLE BRAKING
42 26 26 0.98 ZAHNRAFABRIK FRIEDRICHSHAFEN
44 25 25 0.95 GOODRICH CORP
46 23 23 0.87 MESSIER BUGATTI
50 21 21 0.79 RENAULT SA
54 19 19 0.72 WABCO GMBH
55 18 18 0.68 BPW BERGISCHE ACHSEN KG
57 18 18 0.68 VOLVO LASTVAGNAR AB
58 17 17 0.64 FORD GLOBAL TECH LLC
60 16 16 0.61 ADVICS CO LTD
61 16 16 0.61 BOSCH ROBERT CORP
62 16 16 0.61 BOSCH SIST DE FRENADO SL
64 16 16 0.61 NISSHI N SPINNING
67 15 15 0.57 ARVINMERITOR TECHNOLOGY LLC
71 14 14 0.53 FEDERAL MOGUL FRICTION PRODUCT
73 13 13 0.49 AKEBONO CORP NORTH AMERICA
77 12 12 0.45 FUJI HEAVY IND LTD
79 12 12 0.45 KELSEY HAYES CO
81 12 12 0.45 KNORR BREMSESYSTEME FUER SCHIE
ANALYZE-PLUS (Two Field, PAS and PA, full answer set, sort by frequency) is now applied to L4. The PAS list can be used as basis to edit the names. The names should be largely corresponding in the PA and PAS lists.

The result is that e.g. the companies NISSIN and HONDA co-operate in patent applications. A search for the combinations confirms this result:

=> S (NISSIN AND HONDA) / PA, PAS
L20  273 (NISSIN AND HONDA) / PA, PAS

=> S (NISSIN AND HONDA) / PA, PAS AND L2
L21  11 (NISSIN AND HONDA) / PA, PAS AND L2

The Cross-Tab in Workbook 1 provides a good overview (see extract below). The names can even be combined in this table. Another sort by frequency is needed. The 3D column diagram changes accordingly.

Only the relevant excerpts from the diagrams are shown.
Surveys
Guide to STN Patent Databases

## 65 Country codes and country coverage of CA, INPADOCDB, INPAFAMDB, DWPI

In the patents field it is customary to work with country codes rather than the full names of countries. This code is allocated by the WIPO (the World Intellectual Property Organisation). These codes are shown in the table below, together with details on the coverage of the individual countries in the international databases. For this survey, single years covered were not included and different publication kinds are not distinguished. For more detailed information please refer to:

- [http://www.cas.org/expertise/cascontent/caplus/patcoverage/patyear.html](http://www.cas.org/expertise/cascontent/caplus/patcoverage/patyear.html)

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66 Abbreviations

CAPLUS and DWPI have automatic search for abbreviations that are in frequent use, i.e. if the respective term is entered in its full form or if a truncated search includes this full form the abbreviation will be searched. This goes for the Basic Index and all text fields included in the Basic Index. This option can be switched on or off with SET ABBREVIATIONS ON or OFF respectively:

=> SET ABB ON
SET COMMAND COMPLETED

=> S DMA
L1 3834 DMA

=> S DIRECT MEMORY ACCESS
230415 DIRECT
489495 MEMORY
234464 ACCESS
2505 DIRECT MEMORY ACCESS
(DIRECT(W)MEMORY(W)ACCESS)
3834 DMA
L2 4778 DIRECT MEMORY ACCESS

66.1 Chemical Abstracts

To display the current list enter HELP ABB.

ABSOLUTE CHEMISTRY DISSOCIATION
ABSTRACT CLINICAL DISTILLATION
ADDITION CLINICALLY DISTILLED
ADDITIONAL COEFFICIENT DISTILLING
ADDITIONALY COMMERCIAL ELECTRICALLY
ADRENOCORTIOTROPIN COMMERCIALY ELECTROCARDIGRAM
ALCOHOL COMPOSITION ELECTROENCEPHALOGRAM
ALCOHOLIC COMPOUND EQUILIBRIA
ALIPHATIC CONCENTRATE EQUILIBRIUM
ALKALINE CONCENTRATED EQUILIBRIUM
AMOUNT CONCENTRATION ESTIMATE
ANALYSES CONDUCTIVITY ESTIMATING
ANALYSES CONSTANT ETHYL
ANALYTICAL CONTAINING EVAPORATE
ANHYDROUS CRISTALINE EVAPORATED
APPARATUS CRYSTALLINE EVAPORATION
APPROXIMATE CRYSTALLIZATION EXAMINATION
APPROXIMATELY CRYSTALLIZED EXAMINED
APPROXIMATION CRYSTALLIZING EXAMINING
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AROMATIC DECOMPOSED EXPERIMENTAL
ASSOCIATE DECOMPOSING EXPERIMENTALLY
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ASSOCIATING DEGRADATION EXPERIMENTED
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ASYMMETRIC DERIVATIVE EXTRACTED
ASYMMETRICALLY DERIVATIVE EXTRACTING
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ATMOSPHERE DETERMINATION GRAVITY
ATMOSPHERIC DIAMETER HEMOGLOBIN
AVERAGE DIAMETER IMMUNOGLOBULIN
CALCULATE DIAMETER INFARED
CALCULATED DIAMETER IRRADIATION
CALCULATING DIATOMS LABORATORY
CALCULATION DIAMOND LIQUID
CALORIE DISSOCIATE MAGNETOHYDRODYNAMIC
CHEMICAL DISSOCIATED MANUFACTURE
CHEMICALLY DISSOCIATING MANUFACTURED
CHEMISTRY
67 INPADOCDB/INPAFAMDB – Numbers with appended codes

67.1 Patent numbers

With the INPADOCDB database now covering publications starting in 1836 it becomes more likely that serial numbers of applications and publications overlap. In order to avoid ambiguities in overlapping serial numbers the format of patent numbers was adapted to include letters and/or numbers from the patent kind code, PK (see also: “Search by formal data”).

- Utility model numbers have a U appended – except Germany (DEU) and China (CNU) where the current publication number format includes the information that this is a utility model number,

- For technical reasons the EPO introduced dummy patent numbers with an appended D where the publication number is unknown and/or was derived from the application number.

In addition to this, a code is appended to the following numbers:

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n       digit, optional
EEE     e.g. 3 digit number, zero-filled
YYYY    calendar year, may be two-digit before 2000

67.2 Application numbers

Overlapping numbers exist in the case of application numbers, too, and make it necessary to append a code for the type of application and/or priority to the number.

- Utility model application numbers have a U appended – except Germany (DEU) and China (CNU) where the current application number format includes the information that this is a utility model application,
- For technical reasons (see above), there may be a need to create dummy application or priority numbers. These have one of the following letters appended:
  - D – application numbers,
  - T – priority application numbers,
  - X – application or priority numbers before 1920.

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68 Asian Publications

Asian publications can be found in the three big patent databases with international coverage:

- CAPLUS by Chemical Abstracts Service (CAS),
- INPAFAMDB by the European Patent Office and FIZ Karlsruhe and
- Derwent World Patents Index by Clarivate.

This is complemented by two national patent databases:

- JAPIO by the Japanese Patent Office and
- KOREAPAT by the Korean Institute of Patent Information (KIPI).

For full-text searches, there are four databases for Asian countries:

- JPFULL, from 2000
- CNFULL, from 1985
- INFULL, from 1975
- KRFULL, from 1978

68.1 CAPLUS

- China
  - From 1985
  - Unexamined and examined patent applications and granted utility models
  - Current unexamined applications and granted utility models with new number format
  - Granted utility models from publication year 2006
  - Granted patents from 2004
  - Good timeliness for all Chinese publications
  - Bibliographical details and translation of the original abstract within 2 weeks
  - Full indexing information is entered within 50 days

- India
  - From 1946
  - Unexamined and examined applications, patents
  - Indian patent applications (new law) from 2004
  - Bibliographical details and abstracts are available 2 weeks after publication

- Japan
  - From 1916
  - Unexamined and examined applications, patents, Japanese translations of PCT applications
  - Utility models from publication year 2006
  - Bibliographical details and abstracts are available 2 days after publication
  - Full indexing is entered within 27 days
  - Japanese patent classification (FTERMS), thesaurus of F-TERMS
Surveys

- Korea
  - From 1994
  - Unexamined and examined applications, patents
  - Utility models from publication year 2006
  - Bibliographical details and abstracts are available 2 weeks after publication
- Philippines
  - From 2001
  - Unexamined applications
- Singapore, Taiwan and Hong Kong (from 2000)

68.2 INPAFAMDB

- China
  - Unexamined and examined patent applications, patents, utility model applications and granted utility models
  - Current patent applications, patents and granted utility models with new number format
  - Documents are entered approx. 1-3 months after publication
  - Legal status data from 1985 and entry into national phase of PCT applications
  - English abstracts (human-translated by SIPO) are available for patents and utility models, partly original abstracts
  - Names may appear uncommon (through transliteration), often the standardized name fields INS and PAS can help—mainly relevant for national applications without other family members
- Japan
  - Unexamined and examined applications, patents, Japanese translations of PCT applications of non-Japanese applicants, utility model applications and granted utility models
  - Documents entered from 1944
  - Documents are entered 1-3 months after publication
  - No legal status data, only entry and non-entry into the national phase of PCT applications
  - No abstracts
  - When documents are entered the English title and inventor and applicant names may be missing, the details are added later—mainly relevant for national applications without other family members
  - Names may appear uncommon (through transliteration), often the standardized name fields INS and PAS can help—mainly relevant for national applications without other family members
- Korea
  - Examined and unexamined patent applications from 1978, granted patents from 1984, examined utility model applications and examined utility models from 1978 to 2000
  - Documents are entered 1-3 months after publication
  - No legal status data, only entry and non-entry into the national phase of PCT applications
  - English abstracts
  - Names may appear uncommon (through transliteration), often the standardized name fields INS and PAS can help—mainly relevant for national applications without other family members
Guide to STN Patent Databases

- Hong Kong, India, Indonesia, Malaysia, Philippines, Singapore, Taiwan, Vietnam
  - Documents are often entered with extreme delay
  - No current documents from IN, MY and VN
  - Utility models from TW from 2000
  - Patents from PH from 1975 to 1979 (incomplete)
  - Utility models from PH from 1982 to 1995
  - No legal status data
  - English abstracts are only partly available from TW and SG
  - Hong Kong: legal status data from 4/2009

68.3 DWPI

- China
  - From 1985
  - Unexamined patent applications, patents, granted utility models
  - Current unexamined applications and granted utility models with new number format
  - Chinese utility models are entered from June 2007
  - Chemical indexing for patent applications and utility models from January 2008
  - English translations (by humans) of application title and abstract from July 2007
  - English translations (by human) of all claims (from 7/2008) can be displayed in Member level – for Chinese patents (from 1/2007) and utility models (from 6/2007) in the DWPI patent family

- India
  - Unexamined and examined applications, patents
  - Indian patent applications (new law) from 2004
  - Indian examined applications from 2000
  - Bibliographical details and abstracts available 2 weeks after publication

- Japan
  - From 1963
  - Examined applications for chemical patents (CPI) from 1963, all technologies from 1999
  - Unexamined applications in electrical engineering (EPI) from 1982, all technologies from 1996
  - Granted patents from 1996
  - Utility model from publication year 2008
  - Main claims in English from 2006
  - Japanese patent classification (FI-Terms, File Index Codes) and FTERMS (File forming Term) from 1966
  - F-TERM thesaurus for easy identification of relevant F-Terms and search and display of the F-Term hierarchy

- Korea
  - From 1986
  - Unexamined applications, patents
  - Delay: 30 days
  - English machine translations of application title and abstract from January 2008
Surveys

- Korean utility models from January 2008
- English machine translations of all patent claims from January 2008, searchable in publication level

- Singapore: from 1995
- Taiwan
  - Patent applications from 1993
  - Patents
  - Utility models from 2003 in the DWPI family, including English titles from 2008
- Philippines:
  - Patent applications and patents
  - Utility models from January 2010
- Thailand: Patents from January 2010
- Vietnam: Patent applications and patents from January 2010
- Malaysia: Patents from January 2010
- Hong Kong: Patent applications, patents and short-term patents from January 2011

68.4 Summary: Chinese Patent Documents

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Notes:
* – Chemical indexing for CNA and CNY from 2008, English translations (by human) of all claims in publication level for invention patents (from 1/2007) and utility models (from 6/2007)
** – English abstracts (human-translated by SIPO) from 1985

68.4.1 CNFULL

CNFULL contains full texts (machine-translated) from 1985, the titles and abstracts are replaced with human-translated texts after approximately 3 months.

68.4.2 Conclusion

Very extensive and current coverage in the value-added databases and in INPAFAMDB:

- Bibliographical details and abstracts available for patents from 1985
- Utility models are available in the value-added databases from 2006/7
- INPAFAMDB has bibliographical details and abstracts of utility models from 1985
- Translated claims are available in DWPI in publication level from 1/2007
- Good timeliness in CAPlus (translated abstracts and full indexing)
- Full-text database CNFULL
## 68.5 Summary: Indian Patent Documents

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Notes:

* – With the new patent act (from 2004) the new codes IN-I1/I2/I3/I4 for unexamined patent applications and IN-P1/P2/P3/P4 for PCT applications, national phase, were introduced. 1/2/3/4 stand for the patent offices Delhi, Kolkata (formerly Calcutta), Mumbai (formerly Bombay), Chennai (formerly Madras).

** – In CAPLUS and INFULL patent applications and granted patents in accordance with the new patent act are available, too, but have the codes INA and IN/A1.

*** – INPAFAMDB includes Indian patents from 1938, but no patent applications. Current patent publications in accordance with the new patent act are not available.

**** – In DWPI the codes IN1-I4 and INP1-P4 are searchable (S INP1/PK). However, for display the publication kind code INA (for patent applications) is used.

### 68.5.1 INFULL

INFULL contains full texts from 1912. This database also includes current documents in accordance with the new patent act from 2004. Thus, INFULL is the only database that includes all available documents from India. The abstracts are taken from the original documents or from equivalents. If the description or claims from the original publications are not sufficient for high-quality OCR they are taken from equivalents. In these cases the Field Availability (FA) field contains DETD.EQ and CLM.EQ, respectively.

### 68.5.2 Conclusion

- The INFULL full-text database has the most comprehensive coverage of Indian patent publications from 1912 and with very good timeliness.
- Current documents from India are available from CAPLUS, DWPI and INFULL.
- Older documents before 2004 (old patent act) are available from CAPLUS, INFULL, INPAFAMDB and partly DWPI.
- Human indexing in chemistry in CAplus from 1948 and in DWPI from 2000.
- Value-added data for all fields of technology from 2000.
68.6 **Summary: Japanese Patent Documents**

<table>
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<tr>
<th>Unexamined Patent Applications</th>
<th>CAPLUS</th>
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Notes:

* In JAPIO and INPAFAMDB abstracts of national JP applications only are available from 1976, abstracts of foreign applications in Japan exist from 1998.

** The data for DWPI are valid for chemical patents (CPI). Electronic JP-A are covered from 1982, all technologies from 1996; JP-B in all technologies are covered from 1999.

68.6.1 **JAPIO**

JAPIO covers unexamined JP patent applications (Kokai Tokkyo Koho) with their bibliographical details, a figure and a machine-translated title and abstract from 1976. New documents were entered into JAPIO approx. 3-4 months after publication. JAPIO has been closed, last update March 2013.

68.6.2 **JPFULL**

JPFULL contains full texts (machine-translated) from 1964, the titles and abstracts of unexamined patent applications (JPA) are replaced with human-translated texts after approximately 3 months.

68.6.3 **Conclusion**

Japan was early considered a relevant market by the database producers:

- Intellectual indexing in chemistry from 1963 in DWPI, from 1916 in CAplus
- Value-added data created for all fields of technology since 1996
- Utility models from 2006/8 with English titles and abstracts
- Machine translation of main claims in DWPI from 2006
- Japanese patent classes in CAplus (F-Terms from 2004) and DWPI (from 1966, FI & F-Terms)
- Good timeliness in CAplus (translated abstracts and full indexing)
- Full-text database JPFULL
68.7  Summary: Korean Patent Documents

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Notes:
* – From 2000 KR-B documents are only entered if no KR-A document is available.
** – In WPI, abstracts are only available in the CPI (chemistry) and EPI (electrical engineering) file segments

68.7.1  KOREAPAT

KOREAPAT covers unexamined KR patent applications and examined patents with their bibliographical details, a figure and an English title and abstract since 1979. The titles and abstracts are high quality, being translated by specialists. New documents are entered with a delay of approx. 3 months.

68.7.2  KRFULL

KRFULL covers the full texts (machine-translated) from 1978, titles are human-translated.

68.7.3  Conclusion

Very current and extensive coverage in the value-added databases and in KRFULL:

- Full texts of patent applications, granted patents and utility models from 1978
- Machine translation of all claims in DWPI (from 2008)
- Good timeliness in CAPlus (translated abstracts and full indexing)
- Many abstracts added to INPADOCDB/INPAFAMDB
# Italy: Province codes in application numbers

(From 1991)

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** Korean publication numbers and patent numbers on the printed patent specification contain a code for the type of intellectual property (10 = Patent, 20 = Utility model, 30 = Design patent), the STN number format does not contain this code.
*** In the US databases it is possible to search with or without the appended letter for the type of document. If appended the letter is removed by SEARCH EDIT.

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n – Optional digit; without leading zeros or separators.
(Leading zero stemming from Japanese Emperor year may be entered and will be deleted by Messenger if appropriate.)

X – Letter
YYYY – Year (may be two digits only before 2000)