CAS STNext®

INTRODUCTION TO DWPI

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Agenda

- What is the Derwent World Patents Index (DWPI)?
- The value-added Derwent title and abstract
- Structure of a DWPI record
- Keyword searching
- The Derwent classifications
- Standardization of patent assignees
- Patent family information in DWPI
- Numeric property search
- Citation data
- Associated databases: DCR, DWPIM, GENESEQ

What is the Derwent World Patents Index (DWPI)?

- The largest value-added database of global patent data
  - Covers 60 patent authorities and 2 sources of defensive publications*
- Covering all areas of technology
- An index of global patent publications
  - Concise patent families
  - Enhanced English titles and abstracts
  - Classification and indexing
  - Data standardization
- Updates twice a week
- Produced by Clarivate

* => S RD/PC
=> S TP/PC

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Recent coverage enhancements

8 former Soviet republics that form the CIS (Commonwealth of Independent States) + Eurasian Patent Organization (EAPO):

AM	Armenia
BY	Belarus
EA	Eurasian Patent Organization
GE	Georgia
KZ	Kazakhstan
KG	Kyrgyzstan
MD	Moldova
UZ	Uzbekistan
TJ	Tajikistan

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Subject coverage, starting from

1963	Pharmaceuticals
1965	Agriculture Chemicals
1966	Plastics & Polymers
1970	Rest of Chemistry
1974	All technologies

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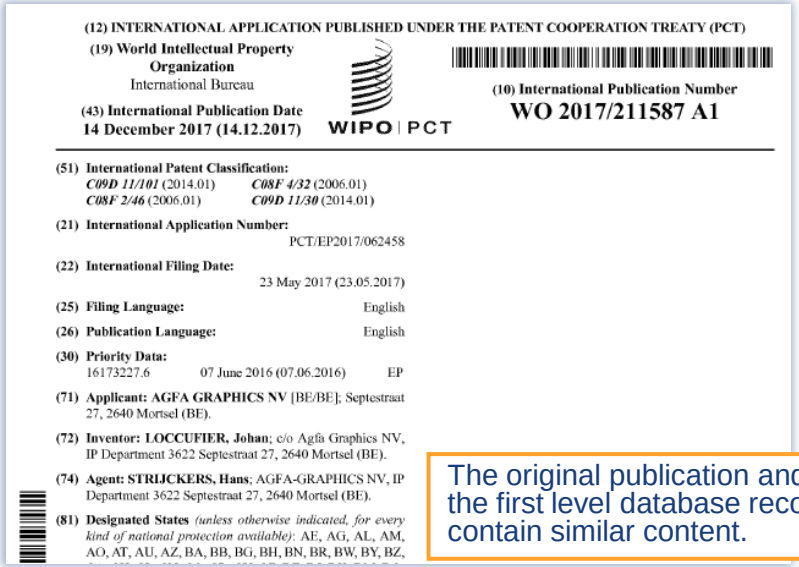
Why should I use DWPI?

- Patent information users greatly benefit from intellectually analyzed patent database content
  - Enables efficient retrieval with highly relevant results
  - Assists in obtaining a comprehensive search result
  - Enables efficient relevance assessments
- For patent searches of significant commercial importance, it is essential to search value-added patent databases and first-level patent data
  - STN has a complete offering on a single, professional search platform

What is first-level patent data?

Information derived from the original publication of the document, electronically or by Optical Character Recognition (OCR) techniques



(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
14 December 2017 (14.12.2017)

WIPO | PCT

(10) International Publication Number
WO 2017/211587 A1

(51) International Patent Classification:
C09D 11/101 (2014.01) *C08F 4/32* (2006.01)
C08F 2/46 (2006.01) *C09D 11/30* (2014.01)

(21) International Application Number:
PCT/EP2017/062458

(22) International Filing Date:
23 May 2017 (23.05.2017)

(25) Filing Language: English

(26) Publication Language: English

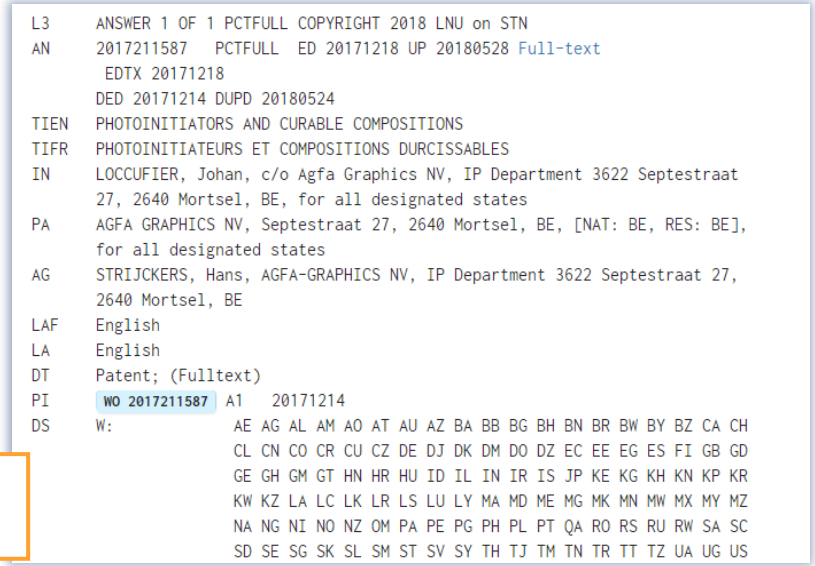
(30) Priority Data:
16173227.6 07 June 2016 (07.06.2016) EP

(71) Applicant: **AGFA GRAPHICS NV** [BE/BE]; Septestraat 27, 2640 Mortsel (BE).

(72) Inventor: **LOCCUFIER, Johan**; c/o Agfa Graphics NV, IP Department 3622 Septestraat 27, 2640 Mortsel (BE).

(74) Agent: **STRIJCKERS, Hans**; AGFA-GRAPHICS NV, IP Department 3622 Septestraat 27, 2640 Mortsel (BE).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,



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L3    ANSWER 1 OF 1 PCTFULL COPYRIGHT 2018 LNU on STN
AN    2017211587   PCTFULL  ED 20171218 UP 20180528 Full-text
       EDTX 20171218
      DED 20171214 DUPD 20180524
TIEN  PHOTOINITIATORS AND CURABLE COMPOSITIONS
TIFR  PHOTOINITIATEURS ET COMPOSITIONS DURCISSABLES
IN    LOCCUFIER, Johan, c/o Agfa Graphics NV, IP Department 3622 Septestraat
      27, 2640 Mortsel, BE, for all designated states
PA    AGFA GRAPHICS NV, Septestraat 27, 2640 Mortsel, BE, [NAT: BE, RES: BE],
      for all designated states
AG    STRIJCKERS, Hans, AGFA-GRAPHICS NV, IP Department 3622 Septestraat 27,
      2640 Mortsel, BE
LAF   English
LA    English
DT    Patent; (Fulltext)
PI    WO 2017211587 A1   20171214
DS    W:          AE AG AL AM AO AT AU AZ BA BB BG BH BN BR BW BY BZ CA CH
                  CL CN CO CR CU CZ DE DJ DK DM DO DZ EC EE EG ES FI GB GD
                  GE GH GM GT HN HR HU ID IL IN IR IS JP KE KG KH KN KP KR
                  KW KZ LA LC LK LR LS LU LY MA MD ME MG MK MN MW MX MY MZ
                  NA NG NI NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC
                  SD SE SG SK SL SM ST SV SY TH TJ TM TN TR TT TZ UA UG US
```

The original publication and the first level database record contain similar content.

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DWPI – What makes it a value-added database? - 1

- Value-add titles (TI) and abstracts (AB) reveal the actual invention
- A high-quality bibliography summarizes global publication details for a particular invention
  - One record per invention/patent family
  - Containing non convention equivalents
- Unique indexing system consistently applied that categorizes inventions and assists in retrieval
  - Proprietary classifications (Derwent Classes, Manual Codes)
  - Chemical indexing for linked structure databases
  - Deep chemical indexing (Fragmentation Codes, Polymer Indexing)

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DWPI – What makes it a value-added database? - 2

- High degree of data standardization, e.g., standardized Patent Assignee Codes (PACO) assist in efficient retrieval and analysis
- First level data available, e.g., original titles, abstracts and claim(s)
- Search and display Patent Office Classification systems with thesauri, e.g., CPC, IPC
- Error corrections
- Numeric property search (NPS) for precise retrieval of physical and chemical properties

Added value – The Derwent title

- Derwent title provides more information than the original
- Rewriting titles to cover:
  - Scope: subject of the main claim
  - Use: general use of the invention
  - Novelty: improvement compared to existing inventions

WO 2019055129 A1	
Original title	ADHESIVE FORMULATION
Derwent title	Adhesive composition for two bonding substrates comprises epoxy-based adhesive polymer and phosphorus-element-containing compound in which corrosion resistance is improved, and reduction of bonding strength of composition is minimized.

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Added value – The Derwent abstract

- Detailed – yet concise, avoiding patent jargon
- Each paragraph focuses on a different aspect of the patent
- Rapidly understand the key points of an invention

ABSTRACT

NOVELTY - An adhesive composition comprises epoxy-based adhesive polymer and phosphorus-element-containing compound, where corrosion resistance of adhesive composition is greater than or equal to 10 megapascals, and reduction of bonding strength of adhesive composition is minimized to less than or equal to 40%.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

(1) preparation of adhesive composition which involves admixing epoxy-based adhesive polymer and phosphorus-element-containing compound;

(2) increasing corrosion resistance property of an adhesive

...

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Subsections of the Derwent abstracts

/TI	**The Derwent title**	
/AB	**The Derwent abstract**	/USE Use /NOV Novelty /ADV Advantage /DETD Detailed description /ACTN Mechanism of action /ACTV Activity /DRWD Drawing description
/TECH	**Technology Focus**	Relevant subsections chosen, e.g., Agriculture, Biotechnology, Ceramics and Glass, Metallurgy, Pharmaceuticals, Polymers,….
/ABEX	**Abstract Extension**	/ABEX.ADM Administration /ABEX.SC Specific substances /ABEX.EX Example /ABEX.DEF Definitions /ABEX.WD Wider disclosure
/ABDT	**Documentation Abstract**	/ABDT.USE, /ABDT.ADV,….

7 separately searchable subsections

Technology focus describes the preferred features of the invention.

Extension abstract covers information outside claims, e.g., examples and administration.

Basic Index of DWPI

Documentation abstract was replaced by the Extension abstract in 1999

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Key advantages of rewritten titles & abstract

1. **Efficiently search with keywords**
   Concise summaries of claims, uses and advantages – and by avoiding patent jargon – allow the use of generally accepted terminology.

2. **Refine the search**
   Search in specific subsections of abstract for precise retrieval, e.g., focus search aspects to the novelty of the invention (/NOV).

3. **Efficiently review results**
   The relevance of the retrieved documents can be quickly assessed by the rewritten Derwent titles and abstracts or their subsections.

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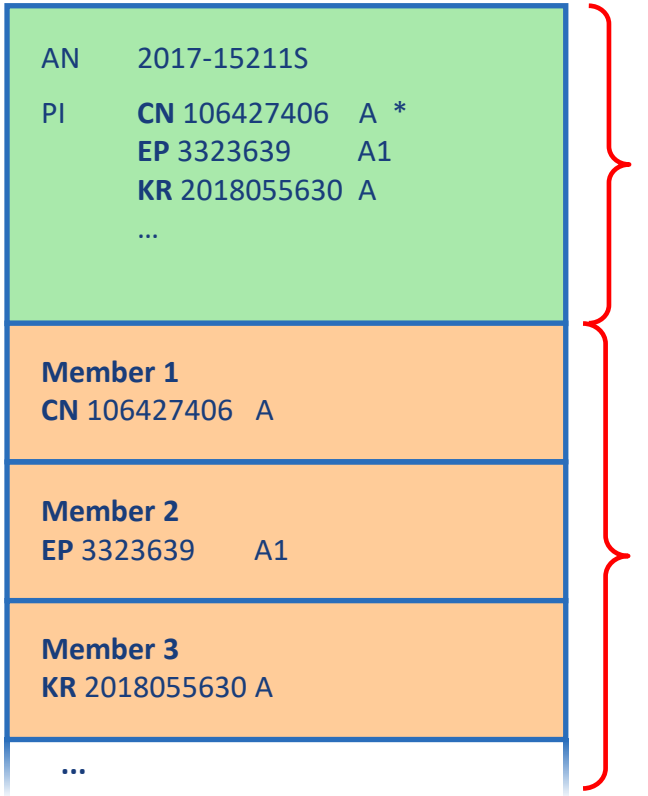
DWPI database structure

- Records within DWPI relate to particular inventions/patent families
- Each record is identified by a unique identifier: accession number (/AN)
- The title, abstract and indexing applied to this record relate to the first document received (called the basic).
- The basic document is identified in the patent number basic field (/PN.B)
- Other family members are listed within the record and are referred to as equivalents

DWPI records have two levels



INVENTION (Family) Level
Value-added data

PUBLICATION (Member) Level
Original member data

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DWPI records have two levels

INVENTION Level

- Patent family data
- Value added data
  - Enhanced title and abstract(s)
  - Proprietary classification and indexing
  - Deduplicated and standardized data

PUBLICATION Level

- Original titles, abstracts and claim(s)
- Full inventor names and addresses
- Full assignee names and addresses
- Attorney/agent names and addresses
- Available for many DWPI authorities

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DWPI sample record

```
L2   ANSWER 1 OF 1  WPINDEX COPYRIGHT 2018   CLARIVATE ANALYTICS on STN
AN   2005-497742 [200550]   WPINDEX Full-text
DNC  C2005-151407 [200550]
TI   New fused pyrimidine compounds are glycogen synthase kinase-3 inhibitors
     useful in treatment or prophylaxis of disorder e.g. diabetes such as Type
     II diabetes, obesity, Alzheimer's disease, bipolar disorder,
     schizophrenia, stroke, hair loss
DC   B02
IN   MAEDA Y; NAKANO M; MAEDA Y G K; NAKANO M G K
PA   (SMIK-C) SMITHKLINE BEECHAM CORP; (MAED-I) MAEDA Y; (NAKA-I) NAKANO M;
     (GLAX-C) GLAXOSMITHKLINE LLC
CYC  107
PI   WO 2005061516     A1 20050707 (200550)* EN  47[0]
     EP 1689753        A1 20060816 (200654)  EN
     US 20070088031    A1 20070419 (200729)  EN
     JP 2007513155     T  20070524 (200735)  JA  37
     EP 1689753        A4 20100707 (201744)  EN
```

Value-added title
Original title:
NOVEL CHEMICAL COMPOUNDS

IN: Standardized Inventor Name(s),
PA: Patent Assignee Name(s) and
Patent Assignee Code(s) - PACO.

DWPI patent family comprising the basic patent (*) and equivalent patent family members.

Language of original document

DWPI sample record

```
L2   ANSWER 1 OF 1  WPINDEX COPYRIGHT 2018   CLARIVATE ANALYTICS on STN
AN   2005-497742 [200550]   WPINDEX Full-text
DNC  C2005-151407 [200550]
TI   New fused pyrimidine compounds are glycogen synthase kinase-3 inhibitors
     useful in treatment or prophylaxis of disorder e.g. diabetes such as
     II diabetes, obesity, Alzheimer's disease, bipolar disorder,
     schizophrenia, stroke, hair loss
DC   B02
IN   MAEDA Y; NAKANO M; MAEDA Y G K; NAKANO M G K
PA   (SMIK-C) SMITHKLINE BEECHAM CORP; (MAED-I) MAEDA Y; (NAKA-I) NAKANO M;
     (GLAX-C) GLAXOSMITHKLINE LLC
CYC  107
PI   WO 2005061516     A1 20050707 (200550)* EN  47[0]
     EP 1689753        A1 20060816 (200654)  EN
     US 20070088031    A1 20070419 (200729)  EN
     JP 2007513155     T  20070524 (200735)  JA  37
     EP 1689753        A4 20100707 (201744)  EN
```

Patent number (/PN)
Patent country (/PC) can be searched separatedly

Patent kind code (/PK)

Publication date (/PD)

Derwent week (/DW)

Number of drawings (/DRWN)

Number of pages (/PGN)

Publication language (/LA)

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DWPI records include value-added text (cont.)

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PRAI  US 2003-526811P       20031204
      US 2006-596129        20060601
IPCI  A61K0031-4985 [I,A]; A61K0031-519 [I,A]; A61K0031-5377 [I,A];
      A61K0031-5377 [I,A]; A61P0015-08 [I,A]; A61P0017-14 [I,A]; A61P0025-18
      [I,A]; A61P0025-28 [I,A]; A61P0003-04 [I,A]; A61P0003-10 [I,A];
      A61P0035-00 [I,A]; A61P0037-04 [I,A]; A61P0043-00 [I,A]; A61P0009-10
      [I,A]; A61P0009-12 [I,A]; C07D0491-02 [I,A]; C07D0491-04 [I,A];
      C07D0491-048 [I,A]; C07D0491-048 [I,A]
IPCR  A61K0031-4985 [I,A]; C07D0491-04 [I,A]; C07D0491-048 [I,A]
CPC   C07D0491-04
EPC   C07D0491-04
NCL   NCLM  514/234.200
      NCLS  514/260.100; 544/118.000; 544/278.000
FCL   C07D0491-048 (CSP); A61K0031-519; A61K0031-5377; A61P0015-08; A61P0017-14;
      A61P0025-18; A61P0025-28; A61P0003-04; A61P0003-10; A61P0035-00;
      A61P0037-04; A61P0043-00 111; A61P0009-10; A61P0009-12
FTRM  4C050/AA01; 4C086/AA01; 4C086/AA02; 4C086/AA03; 4C050/BB08; 4C086/CB22;
      4C050/CC16; 4C050/EE02; 4C050/FF05; 4C050/GG04; 4C050/HH02; 4C050/HH04;
      4C086/MA01; 4C086/MA04; 4C086/NA14; 4C086/ZA16; 4C086/ZA18; 4C086/ZA36;
      4C086/ZA42; 4C086/ZA45; 4C086/ZA70; 4C086/ZA81; 4C086/ZA92; 4C086/ZB09;
      4C086/ZB26; 4C086/ZC35; 4C050; 4C086; 4C201
GI
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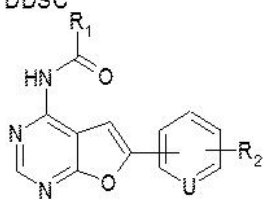
DDSC



Priority Application Information (PRAI).

International patent classification

Older classifications retained:
EPC: European Patent Classification (ECLA)
NCL: US National Patent Classification
NCLM … Main
NCLS … Secondary

Japanese patent classifications

DWPI selected drawing image

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DWPI sample record cont.

AB WO 2005061516 A1 UPAB: 20170707
NOVELTY - A fused pyrimidine compound (I) is new.
DETAILED DESCRIPTION - A fused pyrimidine compound of formula (I), its salt, solvate or derivative is new.
U=CH or N;
R1=1-6C alkyl, 3-8C cycloalkyl, -CH2CH2SCH3, -CH2-3-8C cycloalkyl, phenyl optionally substituted with halo or nitro, morpholin-4-yl or pyrrolidine-1-yl;and
R2=H, halo, 1-6C alkyl or -OCH3.
Provided that:
(1) when U is CH then R2 is H, halo, 1-6C alkyl or -OCH3; and
(2) when U is N then R2 is H.
ACTIVITY - Antidiabetic; Anorectic; Neuroprotective; Nootropic; Neuroleptic; Cerebroprotective; Vasotropic; Antialopecia; Antiarteriosclerotic; Cardiovascular-Gen.; Hypotensive; Gynecological; Immunostimulant; Cytostatic; Vulnerary; Tranquilizer.
MECHANISM OF ACTION - Glycogen synthase kinase-3 (GSK-3) inhibitors. Cyclopentanecarboxylic acid (6-pyridin-3-yl-furo(2,3-d)pyrimidin-4-yl)-amide (Ia) was tested for GSK-3 inhibitory activity. (Ia) Was incubated with the kinase (20 nM final in (4-(2-hydroxyethyl)-1-piperazine ethane sulfonic acid (HEPES) buffer (100 mM, pH 7.2) containing magnesium chloride (10 mM)), bovine serum albumin (0.1 mg/ml), dithiothreitol (1 mM), heparin (0.3 mg/ml), peptide substrate (2.8 muM), adenosine triphosphate (ATP) (2.5 muM), (gamma33 P)-ATP (0.2 microcoulombi/well), ethylenediaminetetraacetic acid (EDTA) (100 mM). After incubation, the plates were counted in scintillation counter and pIC50 was calculated. (Ia) Showed a pIC50 of greater than 8.
USE - In the treatment or prophylaxis of a disorder (e.g. diabetes

The enhanced abstract provides a concise summary of the claimed invention.

This example abstract has the following subsections:

- Novelty
- Detailed description
- Activity
- Mechanism of action
- Use
- Advantage

DWPI sample record cont.

```
MC   CPI: B06-E03; B14-D06C; B14-E12; B14-F01; B14-F02; B14-F02B; B14-F02D;
          B14-F07; B14-G01; B14-H01; B14-J01; B14-J01A1; B14-J01A3; B14-J01
          B14-N16; B14-N17B; B14-R02; B14-S04A
AN.S DCR-1104436
CN.S Hexanoic acid [6-(4-methoxy-phenyl)-furo[2,3-d]pyrimidin-4-yl]-amide
SDCN RAIFZC
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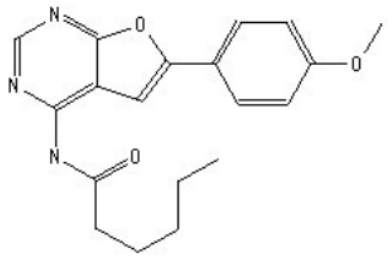

Further bibliographic and indexing information, e.g., manual codes, see also: *https://clarivate.com/intellectual-property/training-support/derwent/dwpi-reference-center/classification-system/*

Hit structures from DCR or DWPIM substance searches.

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DWPI records may include original text (cont.)

```
Member(0003)
PI    US 20070088031   A1 20070419 (200729)  EN
TIEN Novel chemical compounds
AG   GLAXOSMITHKLINE, CORPORATE INTELLECTUAL PROPERTY, MAI B475
       AGA: FIVE MOORE DR., PO BOX 13398, RESEARCH TRIANGLE PARK, NC, US
IN   NAKANO M
       INO: Nakano, Masato
       INA: Ibaraki, JP
       Residence: JP
       Nationality: JP
     MAEDA Y
       INO: Maeda, Yutaka
```

DWPI records include original title, abstract, classifications and claim(s) for several authorities.

Here, member no. 3 is a US application.

```
NCL  NCLM  514/234.200
     NCLS  514/260.100; 544/118.000; 544/278.000
EPC  C07D0491-04
ABEN  The present invention relates generally to inhibitors of the kinases,
      such as GSK-3, and more particularly to fused pyrimidine compounds.
CLMEN 1 . A compound of the formula I, or a salt or solvate of: [CF C00048]in
      whichU is CH or N; andR1 is C1-6 alkyl, C3-8 cycloalkyl, -CH2 CH2 SCH3 ,
      -CH2 -C3-8 cycloalkyl, phenyl optionally substituted with halogen or
      nitro; orR1 is a radical of formula[CF C00049]when U is CH, R2 is
      hydrogen, halogen, C1-6 alkyl, or -OCH3 ; andwhen U is N, R2 is hydrogen.
```

The title, abstract and main (1st) claim text from the U.S. patent family member are shown here.

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High quality of translations, e.g., complete claims

High quality machine assisted human translations,
e.g., of Chinese or Japanese patents and of South Korean patents, respectively.

```
CN 106693608 A

 [CLAIM 1] A technology for separating and recycling of refinery dry gas,
      wherein it at least comprises 1 sections of pressure swing adsorption
      unit, raw material dry gas after separating 1 section pressure swing
      adsorption unit. at least obtaining the purpose product component is C2 +
      components of C2 + component product gas, and hydrogen-rich gas product
      gas; 1 space pressure swing adsorption unit is provided with at least 2
        ...
[CLAIM 13] The refinery dry gas according to claim 12 separating and
      recycling technology, wherein 2 space pressure swing adsorption unit
      absorption bed is filled with adsorbent comprises activated carbon,
      silica gel, molecular sieve in the one kind of or a combination thereof.
```

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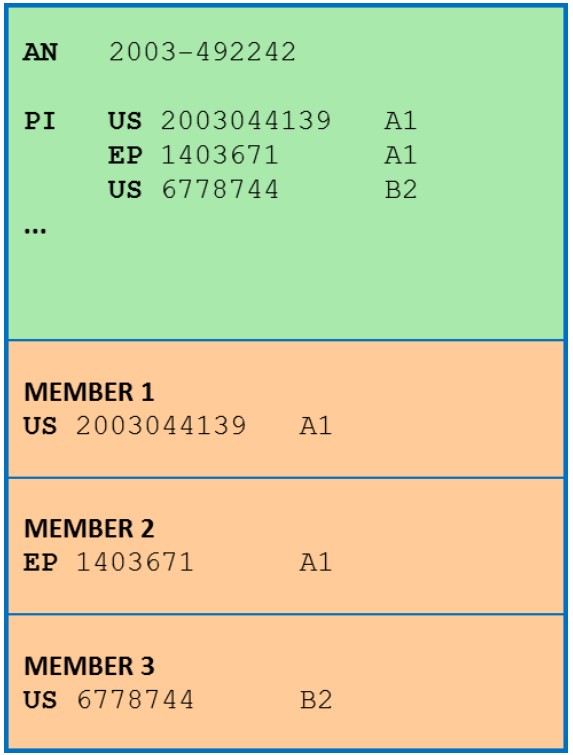
DWPI text search tips

- Include the Basic Index Extension (/BIEX)
  => SET SFIELDS BI BIEX PERM
- Add plurals and DWPI abbreviations
  => SET PLURALS ON PERM
  => SET ABBREVIATIONS ON PERM
- Add English spelling and synonym variations, e.g., color/colour; diaper/nappy
  => SET SPELLINGS ON PERM
- Use left and right truncation
  => S ?ANALY?
- Proximity operators in DWPI

Changes to settings are retained until the end of the session. To retain changes to settings beyond the end of the current session, add SET option PERM or PERMANENT.

The DWPI default Basic Index (/BI) is formed from value-added text fields



INVENTION (Family) Level
Basic Index /BI
Value-added data

PUBLICATION (Member) Level
Basic Index Extension /BIEX
Original member data

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A DWPI search can be extended to include original text with BIEX

- On STN it is possible to search DWPI value-added and original patent text separately or simultaneously
- Incorporating the Basic Index Extension (/BIEX) into a DWPI search can improve comprehensiveness

```
=> S OPTICAL (W) (FIBER# OR FIBRE#) (2W) CABLE

L1       16059 OPTICAL (W) (FIBER# OR FIBRE#) (2W) CABLE

=> SET SFIELDS BI BIEX

=> S OPTICAL (W) (FIBER# OR FIBRE#) (2W) CABLE

L2       21270 OPTICAL/BI,BIEX (W) (FIBER#/BI,BIEX OR FIBRE#/BI,BIEX) (2W) CABL
               E/BI,BIEX
```

SET SFIELDS can be used to change the default search index.

BI: Derwent title and abstract fields
BIEX: original title(s), orginal abstract(s) and claim(s)

SET PLURALS enhances retrieval

```
=> SET PLURALS ON

SET COMMAND COMPLETED

=> S ENERGY

       1797753 ENERGY
          8576 ENERGIES
L1     1800529 ENERGY
               (ENERGY OR ENERGIES)

=> S ANALYSIS

        515806 ANALYSIS
            11 ANALYSISES
         17703 ANALYSES
L2      526528 ANALYSIS
                 (ANALYSIS OR ANALYSISES OR ANALYSES)
```

=> SET PLURALS ON (OFF)
=> SET PLURALS ON (OFF) PERM

To display all settings, enter D SET at an arrow prompt.

The plurals setting also includes the wrong plural forms for irregular plurals to consider common mistakes.

Note: SET PLU is not applied to terms that contain truncation.

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SET ABBREVIATIONS to include common abbreviations

```
=> SET ABB ON

SET COMMAND COMPLETED

=> S MANUFACTURE

 1831642 MANUFACTURE
         20268 MANUFACTURES
        1838668 MANUFACTURE
                (MANUFACTURE OR MANUFACTURES)
            271 MANUF
              6 MANUFS
            276 MANUF
                (MANUF OR MANUFS)
         279805 MFR
            464 MFRS
         280089 MFR
                (MFR OR MFRS)
L3      1933620 MANUFACTURE
                (MANUFACTURE OR MANUF OR MFR)
```

The ABB option of the SET command specifies whether abbreviations of search terms are added automatically.
(For DWPI and CA/Caplus)

=> **HELP ABB** at an arrow prompt to see a list of terms for which abbreviations will be added.

Note: The search with abbreviations does not automatically search for the non-abbreviated terms.

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SET SPELLINGS retrieves spelling variations and synonyms

```
=> SET SPELLINGS ON

SET COMMAND COMPLETED

=> S COLOR

        620180 COLOR
        554615 COLOUR
L2      920650 COLOR
                 (COLOR OR COLOUR)

=> S AIRPLANE

         40320 AIRPLANE
         19212 AEROPLANE
L3       44750 AIRPLANE
                (AIRPLANE OR AEROPLANE)
```

SET SPELLINGS automatically incorporates common English spelling variations from around the world into the search.

SET SPELLINGS also automatically retrieves unambiguous English language synonyms.

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SET PLU, ABB and SPE work together

```
=> S HEMOGLOBIN
L4          9440 HEMOGLOBIN

=> S HEMOGLOBIN PLU=ON ABB=ON SPE=ON

            9440 HEMOGLOBIN
             113 HEMOGLOBINS
            9503 HEMOGLOBIN
                   (HEMOGLOBIN OR HEMOGLOBINS)
            5376 HAEMOGLOBIN
              84 HAEMOGLOBINS
            5401 HAEMOGLOBIN
                   (HAEMOGLOBIN OR HAEMOGLOBINS)
           12213 HEMOGLOBIN
                   (HEMOGLOBIN OR HAEMOGLOBIN)
            7005 HB
             891 HBS
            7840 HB
                   (HB OR HBS)
L5         19367 HEMOGLOBIN
                   (HEMOGLOBIN OR HB)
```

Option: All three settings may also be toggled ON or OFF via the command line if needed.

Or change settings ahead of search:

SET PLU ON *PERM*
SET ABB ON *PERM*
SET SPE ON *PERM*

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Simultaneous Left- and Right hand truncation (SLART)

```
=> S ANALY?/BI
L1      973953 ?ANALY?/BI

=> S ?ANALY?/BI
L2      976202 ?ANALY?/BI

=> S L1 NOT ANALY?/BI
L3       2249 L2 NOT L1

=> D 1-5 KWIC=3

L3   ANSWER 1 OF 2249  WPIX COPYRIGHT 2019   CLARIVATE ANALYTICS on STN
ADV . . . both replay and cryptanalytic attacks. The SSO...

L3   ANSWER 2 OF 2249  WPIX COPYRIGHT 2019   CLARIVATE ANALYTICS on STN
TI   Autoanalyzer has temperature maintenance...

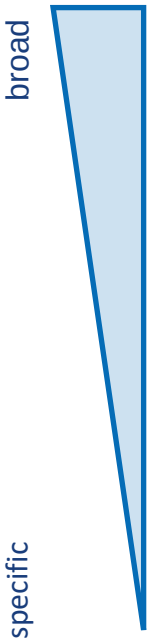
L3   ANSWER 3 OF 2249  WPIX COPYRIGHT 2019   CLARIVATE ANALYTICS on STN
TECH . . . similar methods or electroanalytical method e.g....

L3   ANSWER 4 OF 2249  WPIX COPYRIGHT 2019   CLARIVATE ANALYTICS on STN
TI . . . sample in the microanalysis system in biochemistry...

L3   ANSWER 5 OF 2249  WPIX COPYRIGHT 2019   CLARIVATE ANALYTICS on STN
ADV . . . at-home skin condition photoanalysis and light therapy ...
```

There are 2249 additional hits using left truncation.
D KWIC allows to efficiently evaluate the search terms in the context of the records.

Proximity operators in DWPI



Operator	Definition *(no. of results for search bus and/or train in WPINDEX)*
OR	One or more search terms are in the same record *(721114)*
AND	Search terms are in the same record, in any order *(17905)*
(L)	Search terms are in the same information unit; in DWPI e.g., within invention (Value-added data) or publication (original member data) level
(P)	Depends on database; in DWPI within same sub-element *(15399)*
(S)	Depends on database; in DWPI within same sentence *(15279)*
(A)	Search terms are adjacent to each other in any order *(4342)*
(W)	Search terms are adjacent to each other in the order specified *(2337)*
(T)	Search terms are in the same word or to combine Derwent DCR Roles and Numbers *Example: S ?anti? (T) ?allergic? -> e.g., antiimmunoallergic*

FILE-SPECIFIC

for online help, e.g., HELP (L)

L/P/S shift up in files with subsections like DWPI and fulltext files ((L) to search within documents)

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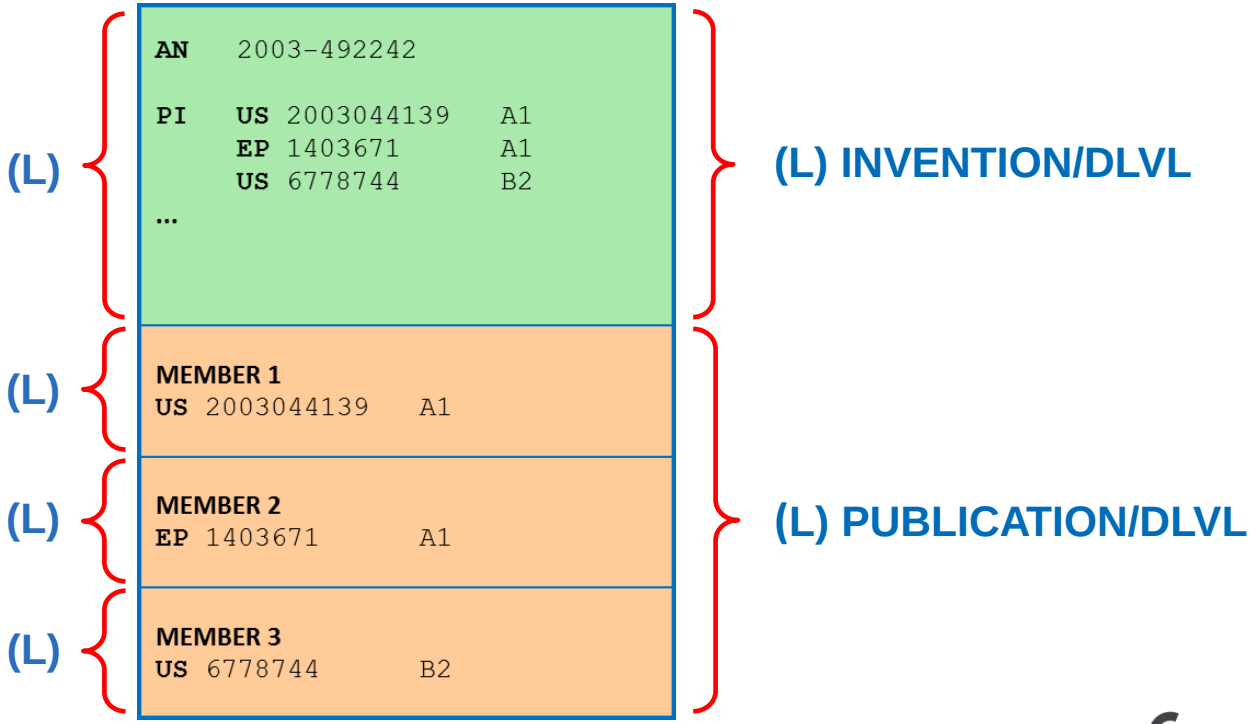
Precision at the DWPI member level: (L)-operator

(L)-proximity can be used for precision searches within individual family members:



DLVL - Document level

Precision at the DWPI member level: Search example

Example: Search for Chinese patent publications specifically claiming the use of metallocene catalysts.

```
=> S CN/PC (L) (METALLOCENE (1W) CATALYST?)/CLM

L1        1487 CN/PC (L) (METALLOCENE (1W) CATALYST?)/CLM

=> D MEMBB

Member(0001)
PI    CN 109438594    A  20190308 (201928)* ZH  8[2]
TI    Preparing ultrahigh molecular weight polyolefin involves adding solvent to
      reactor, where solvent is 5-10C alkane and 7-10C aromatic hydrocarbon,
      introducing inert gas above solvent, and adding catalyst, and olefin
      monomer to reactor
TIEN  A method for preparing ultra-high molecular weight polyolefin
AG.T  Ningbo Channel Patent Office Co., Ltd., CNYUAN, Zhong-wei, CN
IN.T  LI, Wei; WANG, Jing-dai; YANG, Yong-rong; HUANG, Zheng-liang; JIANG,
      Bin-bo
PA.T  NINGBO UNIVERSITY, 315211, Ningbo, Zhejiang, CN; ZHEJIANG UNIVERSITY
ABEN  A method for preparing ultra-high molecular weight polyolefin, ...
CLMEN [CLAIM 1] 1. A method for preparing the ultra-high molecular weight
      ...
      catalyst is a metallocene catalyst, FI-HRT catalyst, at least one
      Ziegler-Natta catalysts, chromium-based catalysts, late transition ...
```

Selected publication level display formats:

MEMB
: Publication level data available for a given record

MEMBB – Member Brief
: Publication level data available for a given record in brief.

MEMBF – Member Full

MEMBFG – Member Full plus image

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Search precision in DWPI with the (P)-operator

(P)-proximity operator can be used for precision searches within sub-elements, e.g.,

- information pertaining to an individual patent assignee (name and address)
- information within one individual abstract subsection (e.g., within NOV)
- information within one individual claim
- information in all claims of one publication in the PI field

Search precision in DWPI with the (P)-operator

(P)-proximity operator can be used for precision searches within sub-elements, e.g.,

- information pertaining to an individual patent assignee (name and address)
- information within one individual abstract subsection (e.g., within NOV)
- information within one individual claim
- information for one publication in the PI field

Example: Search for EP documents from BASF granted in 2019

```
=> S BADI-C/PACO AND PY=2019 (P) EPB#/PK
L1          298 BADI-C/PACO AND PY=2019 (P) EPB#/PK
=> D PA PIA

L1   ANSWER 1 OF 298  WPIX COPYRIGHT 2019   CLARIVATE ANALYTICS on STN
PA   (BADI-C) BASF SE
PIA  EP 3278956       A1 20180207 (201813)* DE  26[0]
     EP 3278956       B1 20190501 (201932)  DE
```

PA	Patent Assignee
PIA	Patent Information Abbreviated

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Search within small subsections: the (S) operator

The (S) operator in DWPI is used to specify that two terms must occur in subdivison of a subsection (L), in any order, e.g., for

- each paragraph from enhanced abstract, technology focus, abstract extension or documentation abstract
- each patent assignee name
- each patent assignee address, residence and nationality
- in CPC combination sets

Search within small subsections: the (S) operator

The (S) operator in DWPI is used to specify that two terms must occur in subdivison of a subsection (L), in any order, e.g., for

- each paragraph from enhanced abstract, technology focus, abstract extension or documentation abstract
- each patent assignee name
- each patent assignee address, residence and nationality
- in CPC combination sets

```
=> S (C08L0023-10(S)C08K0003-04)/CPC

L1      89 (C08L0023-10(S)C08K0003-04)/CPC

=> D L1 3 CPC

L25  ANSWER 1 OF 89  WPIX COPYRIGHT 2019   CLARIVATE ANALYTICS on STN
CPC  C08K0003-04; C08K0003-04, C08L0023-10; C08K0003-04, C08L0023-14;
     C08K0003-04, C08L0023-12
```

C08L0023-10	Homopolymer or copolymer of propene
C08K0003-04	Carbon

CPC codes within a combination set are separated by comma.

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Claims searching with high precision using the (S)-operator

```
=> S (TRANSDERMAL(S)?PATCH?)/CLM

L1          2988 (TRANSDERMAL(S)?PATCH?)/CLM

=> D AN TI PA PN HIT

L1    ANSWER X OF 2988  WPINDEX COPYRIGHT 2022    CLA
AN    2022-18342J [2022018]    WPINDEX Full-text
TI    Solid water-dispersible composition of matter
      pharmaceutical composition or medicament for t
      disorder or condition remedied by treatment wi
      sugar, polysaccharide and surfactant and lipophilic active pharmaceutical
      ingredient
PA    (KARN-N) KARNAK TECHNOLOGIES LLC; (EZRA-I) EZRA R
PI    WO 2022024127    A1 20220203 (2022018)* EN 86[12]

Member(0001)
CLMEN WO 2022024127 A1        UPCL 20220304
      [CLAIM 45] 45. The dosage form of claim 44 in a form of a sublingual,
      dermal or transdermal patch.
      [CLAIM 63] 62. The method of claim 56 or 57, wherein said administering
      of the at least one API is via a sublingual, dermal or transdermal patch.
```

Searching in claims is now similar to the patent full-text databases, i.e., proximity operators have the same functionality:

- **(L)** – searches in all claims of one publication (member)
- (**P**) – searches in all claims of one language of one publication (member)
- **(S)** – searches in one claim

The **HIT** display only includes claims with Hit terms.

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Popular DWPI display formats

See **HELP FORMAT** or database summary sheet for further details.

D SCAN	Random title (free)
D TRIAL	Title (or Title Terms*) & codes (free)
D KWIC	Keyword In Context
D BRIEF	Title, assignee, abstract
D BIB	Title, assignee, patent family
D IBIB	BIB, indented with text labels and patent family tables
D FULLG	BIB + Abstract(s), drawing image
D MEMBB	Applicant title, abstract and claim(s); agent, assignee, and inventor details

(* The DWPI title is included free-of-charge in WPIDS/WPIX. Title Terms in WPINDEX.)

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Display the Keyword in context: D KWIC

```
=> S (FLUORINAT? (2W) COAT?)/NOV

         11851 FLUORINAT?/NOV
        802170 COAT?/NOV
L1          89 (FLUORINAT? (2W) COAT?)/NOV

=> D 1-3 KWIC=15

L1   ANSWER 1 OF 89  WPIX COPYRIGHT 2019   CLARIVATE ANALYTICS on S
NOV . . . sodium hydroxide at room temperature for 0.5-3 hours,
     washing with boiling water and ethanol, and drying to obtain a
     fluorinated graphene coated fabric, sequentially stacking cut
     thiolated graphene coated fabric layers, and connecting upper
     layers of the fabric to the...

NOV . . . wt.% fluorinated epoxy resin, 10-18 wt.% zinc powder,
     graphene, 0- 0.2 wt.% fluorinated graphene, 1-3 wt.% graphene and/or
     fluorinated graphite coated fluororubber complex micropowder, 5-15
     wt.% organic solvent, 0-30 wt.% filler, 1-10 wt.% pigment, and 0.3-8 wt.%
     additive, the component B...

L1   ANSWER 5 OF 89  WPIX COPYRIGHT 2019   CLARIVATE ANALYTICS on STN
NOV  NOVELTY - The method involves applying water-repellent fluorinated
     silicone coating agent to a surface of a tube (2). The coated tube is
     inserted in a hole (11) of a fin...
```

KWIC=15 shows 15 terms left and right from the hit terms. The rest of the text is abbreviated with . . .

D KWIC
D KWIC=3 (0-50 words, default 20)
or SET KWIC=3

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Agenda

- What is the Derwent World Patents Index (DPWI)?
- The value-added Derwent title and abstract
- Structure of a DWPI record
- Keyword searching
- The Derwent classifications
- Standardization of patent assignees
- Patent family information in DWPI
- Numeric property search
- Citation data
- Associated databases: DCR, DWPIM, GENESEQ

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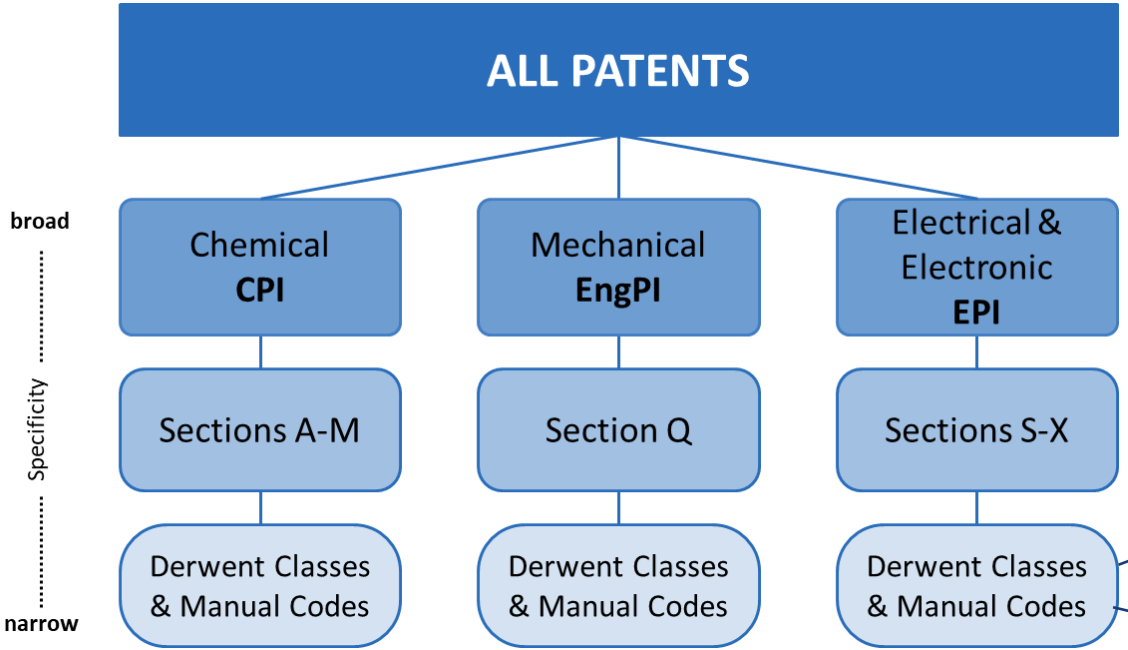
Classification Systems available in DWPI

- DWPI Classification (/DC)
- DWPI Manual Codes (/MC)
- International Patent Classification (/IPC)
- Cooperative Patent Classification (/CPC)
- Japanese Patent Office FI-Terms (/FCL or /JPC)
- Japanese Patent Office F-Terms (/FTERM)
- USPTO National Classification (/NCL)

Derwent specific classifications

The Derwent patent classification scheme



The file segment (**/FS**)

The DWPI sections

sections split into several classes (**/DC**)

Manual codes (**/MC**) with
multi-level hierarchy

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DWPI Classification (/DC)

- A broad classification system assigned by Clarivate Analytics unique to DWPI
- 2-Level Hierarchy
- Searchable at two levels:
  => S Q/DC (Section Level, 21 Sections (A-X))
  => S Q18/DC (Subsection Level)
- Expand /DC to see definition online

Example record

```
TI   Evaluation module for detecting driving condition of e.g. passenger car,
     has input interface for determining characteristic variable, where
     characteristic variable is determined to describe tire restoring torque of
     wheel of vehicle
DC   T01; X22
PA   (ISCH-C) SCHAEFFLER TECHNOLOGIES AG & CO KG
PI   DE 102017124465 A1 20190425 (201935)* DE  12[4]
```

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Why use classifications in DWPI?

```
=> S (ANTILOCK? OR ANTI-LOCK?) (2W) BREAK? OR ABS
L1        70267 (ANTILOCK?/BI,BIEX OR ANTI-LOCK?/BI,BIEX) (2W)
                BREAK?/BI,BIEX OR ABS/BI,BIEX
=> S L1 AND (X22 OR Q18)/DC
L2         8092 L1 AND (X22 OR Q18)/DC
=> S L1 NOT L2
L3        62175 L1 NOT L2
=> D 1-5 KWIC=3
L3   ANSWER 1 OF 62175  WPIX COPYRIGHT 2019   CLARIVATE ANALYT
Member . . . are made of ABS plastic.
L3   ANSWER 2 OF 62175  WPIX COPYRIGHT 2019   CLARIVATE ANALYT
NOV .  .  .  plate made of ABS material of, has...
L3   ANSWER 3 OF 62175  WPIX COPYRIGHT 2019   CLARIVATE ANALYT
Member .  .  .
      cap (4) is ABS resin waterproof screw...
```

Classifications can help to limit a text search to an appropriate area of technology independently of the language and wording used.

In this example, the term 'ABS' is ambiguous and would retrieve lots of irrelevant answers (e.g., **A**crylonitrile-**B**utadiene-**S**tyrene, antibodies (**abs**) and **A**ir **B**earing **S**urface); a problem that can be solved by using classifications.

Many false answers (**L3**) are avoided by using classification.
X22 – Automotive electrics
Q18 – Brake control systems

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The Manual Codes (/MC)

- An in-depth indexing system
- Multi-level hierarchical structure: ANN-ANNANA/MC
- Consistent indexing throughout the entire database
- More detailed and faster indexing possibilities (than IPC, CPC)
- Code hierarchies are updated annually

Chemical/Life science codes: requires subscription with Clarivate Analytics

Electrical/Electronic codes: searchable by all users

General/Mechanical codes: searchable by all users

```
...

S03-E06          USING E.G. X-RAYS,
                 NEUTRONS, ELECTRONS
 S03-E06B        FORMING PICTURE
  S03-E06B3      ELECTRONIC IMAGING
   S03-E06B3A    COMPUTER TOMOGRAPHY
```

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The Manual Codes (/MC)

- Multiple level Hierarchy
- Top level split into 21 Sections (A-N; Q, S-X)
- Searchable in several ways

=> S	W!!/MC	Section
=> S	W02/MC	Subsection
=> S	W02-G03J1/MC	Individual codes
=> S	W02-G?/MC	Range of individual codes

- Expand in /MC to see an online thesaurus

Manual Code thesaurus (S-X example)

```
=> E W02-G03J1+ALL/MC
E4        9423      BT2  W02-G03/MC
                    DEF  RECEIVERS
E5        2692       BT1  W02-G03J/MC
                     DEF  RECEIVED SIGNAL STRENGTH INDICATOR
                     HNTE (1997-    )
E6        2581        -->  W02-G03J1/MC
                      DEF  BASED ON SIGNAL LEVEL PER SE
                      HNTE (1997-    )
E7        5299         NT1  W02-G03J1A/MC
                       DEF  APPLICATION OF SIGNAL STRENGTH MEASUREMENT
                       HNTE (2002-    )
E8         350         NT1  W02-G03J1C/MC
                       DEF  NOVEL SIGNAL STRENGTH MEASUREMENT ARRANGEMENTS
                       HNTE (2002-    )
********** END **********
=> S W02-G03J1+NT/MC

W02-G03J1  BASED ON SIGNAL LEVEL PER SE
L4         8122 W02-G03J1+NT/MC    (3 TERMS)
```

Broader Term (BT).

Term expanded marked with -->

History Note (HNTE).

Narrower Term (NT).

Search with relationship codes.

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- The Derwent classifications
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- Associated databases: DCR, DWPIM, DGENE, DPCI

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Patent Assignees (PA) and Codes (PACO)

Basic standardization of original names (/PA)

- 50+ years of standardization

```
=> E CHINA BLUE STAR GROUP CO/PA

E#      FILE            FREQUENCY  TERM
--      ----            ---------  ----
E1      WPIX                    1     CHINA BLUE SKY ECOLANDSCAPE ENVIRONMENT TECHNOLOGY C/PA
E2      WPIX                    1     CHINA BLUE STAR CO LTD/PA
E3      WPIX                    7 --> CHINA BLUE STAR GROUP CO/PA
E4      WPIX                   73     CHINA BLUE STAR GROUP CO LTD/PA
E5      WPIX                    1     CHINA BLUE STAR GROUP HEAD CO/PA
E6      WPIX                    3     CHINA BLUE STAR GROUP HEAD OFFICE/PA
E7      WPIX                    1     CHINA BLUE STAR GROUP HEADQUARTERS/PA
E8      WPIX                   19     CHINA BLUE STAR HARBIN PETROCHEM CO LTD/PA
E9      WPIX                    2     CHINA BLUE STYLE TECHNOLOGY CO LTD/PA
E10     WPIX                   19     CHINA BLUECHEMICAL CO LTD/PA
E11     WPIX                   87     CHINA BLUECHEMICAL LTD/PA
E12     WPIX                  117     CHINA BLUESTAR BEIJING CHEM MACHINERY CO/PA
```

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Patent Assignees (PA) and Codes (PACO)

- 21,000+ standard assignee codes (/PACO)
  - Including codes for Japanese assignee names
- Web look-up utility https://clarivate.com/intellectual-property/training-support/derwent/dwpi-reference-center/indexing-user-guides/chemistry-indexing/patent-assignee-code-lookup/
- STN online thesaurus
- Standard vs. Non-standard PACOs:

Standard	**AAAA-C**
Non-Standard	AAAA-N
Soviet Institutes	AAAA-R
Individuals	AAAA-I

ONLY use Standard PACOs with -C!

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Example: Patent Assignees Codes (PACO)

```
=> E CHEMCHINA+ALL/PACO
E#      FILE            FREQUENCY   TERM
--      ----            ---------   ----
E1      WPIX                  0     -->  CHEMCHINA/PACO
E2      WPIX               6325     CODE CNCC-C/PACO
=> E E2+DEF/PACO
E#      FILE            FREQUENCY   TERM
--      ----            ---------   ----
E3      WPIX               6325     -->  CNCC-C/PACO
E4      WPIX                        DEF  ANHUI SHENGAO CHEM SCI & TECHN
                                         CO/PACO
E5      WPIX                        DEF  AOHUA SOUTH RUBBER CO LTD/PACO
E6      WPIX                        DEF  BEIJING CHEM MACHINERY FACTORY/PACO
E7      WPIX                        DEF  BEIJING RES & DESIGN INST RUBBER IND/PACO
E8      WPIX                        DEF  BEIJING RUBBER IND DESIGN INST MIN
                                         CHEM/PACO
E9      WPIX                        DEF  BEIJING RUBBER IND RES INST/PACO
E10     WPIX                        DEF  BLUE STAR CHEM NEW MATERIAL CO LTD/PACO
E11     WPIX                        DEF  BLUESTAR CHEM MACHINERY CO LTD/PACO
...
```

Open the thesaurus using the relationship code +ALL.

If more than one code is displayed, identify the appropriate code by expanding further

Use the relationship code **+DEF**, to display all subsidiaries of a specific company

Please note, that there exist subsidiaries not containing CHEMCHINA in their names

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Example: Patent Assignees Codes (PACO) cont.

```
=> S CNCC-C/PACO

L1          6333 CNCC-C/PACO

=> D 1-6 PA

L1   ANSWER 1 OF 6333  WPIX COPYRIGHT 2019   CLARIVATE ANALYTICS on STN
PA   (CNCC-C) SHENYANG RUBBER RES DESIGN INST CO LTD

L1   ANSWER 2 OF 6333  WPIX COPYRIGHT 2019   CLARIVATE ANALYTICS on STN
PA   (CNCC-C) DAQING CHINA BLUESTAR PETROLEUM CHEM CO

L1   ANSWER 3 OF 6333  WPIX COPYRIGHT 2019   CLARIVATE ANALYTICS on STN
PA   (CNCC-C) NANJING SANFANG CHEM EQUIP SUPERVISION

L1   ANSWER 4 OF 6333  WPIX COPYRIGHT 2019   CLARIVATE ANALYTICS on STN
PA   (CNCC-C) SHANDONG CHANGYI PETROCHEMICAL CO LTD

L1   ANSWER 5 OF 6333  WPIX COPYRIGHT 2019   CLARIVATE ANALYTICS on STN
PA   (CNCC-C) SHANDONG CHANGYI PETROCHEMICAL CO LTD

L1   ANSWER 6 OF 6333  WPIX COPYRIGHT 2019   CLARIVATE ANALYTICS on STN
PA   (CNCC-C) ZHONGHAO HEIYUAN CHEM ENG RES & DESIGN
```

Alternatively, search with S E3

Agenda

- What is the Derwent World Patents Index (DPWI)?
- The value-added Derwent title and abstract
- Structure of a DWPI record
- Keyword searching
- The Derwent classifications
- Standardization of patent assignees
- Patent family information in DWPI
- Numeric property search
- Citataion data
- Associated databases: DCR, DWPIM, GENESEQ

Patent families in DWPI

- Patent families summarize the global legal protection of an invention
- DWPI has narrow and well-defined patent families

  Benefits for the searcher:
  - More indexed information (as more families)
  - Comprehensive and precise retrieval
  - Enhanced relevance assessment

- Proven algorithms are applied to generate patent families: basic/equivalents
- A team of experts identifies and links non-convention equivalents to corresponding patent families

Example: small and well-defined DWPI patent family

Anti-Reflective Film, Patents from LG Chem

INPAFAMDB AN: 55922698

DWPI AN: 2017-64356R

WO 2017155337	**A1**
KR 2017106226	A
KR 2017118028	A
KR 1790240	B1
EP 3251832	A1
KR 2017129669	A
CN 107635765	A
KR 2018029014	A
KR 2018029015	A
US 20180106929	A1
EP 3251832	A4
KR 1919128	B1
CN 107635765	B
KR 1936370	B1
US 10222510	B2
KR 1953775	B1
US 20190137658	A1
US 20190137659	A1
KR 1953776	B1
.....	

DWPI AN: 2017-64356T

WO 2017155335	**A1**
KR 2017105437	A
TW 2017041689	A
KR 2018084712	A
TW I627435	B
CN 108474870	A
EP 3376266	A1
KR 2018111749	A
KR 2018112752	A
JP 2018533068	T
KR 1907653	B1
KR 1916944	B1
EP 3376266	A4
JP 2019015954	A
KR 1916943	B1
CN 109298470	A
US 20190025467	A1
KR 2019043515	A
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DWPI AN: 2017-64356Q

WO 2017155338	**A1**
KR 2017106920	A
TW 2018003726	A
EP 3318903	A1
CN 108027452	A
US 20180231687	A1
EP 3318903	A4
JP 2018533762	T
KR 1906492	B1
JP 6476347	B2
JP 2019070858	A
.....	

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Example: small and well-defined DWPI patent family

Anti-Reflective Film, Patents from LG Chem
INPAFAMDB AN: 61285328

DWPI AN: 2017-64356R	
WO 2017155337	**A1**
KR 2017106226	A
KR 2017118028	A
KR 1790240	B1
EP 3251832	A1
KR 2017129669	A
CN 107635765	A
KR 2018029014	A
KR 2018029015	A
US 20180106929	A1
EP 3251832	A4
KR 1919128	B1
CN 107635765	B
KR 1936370	B1
US 10222510	B2
KR 1953775	B1
US 20190137658	A1
US 20190137659	A1
KR 1953776	B1

DWPI AN: 2017-64356T	
WO 2017155335	**A1**
KR 2017105437	A
TW 2017041689	A
KR 2018084712	A
TW I627435	B
CN 108474870	A
EP 3376266	A1
KR 2018111749	A
KR 2018112752	A
JP 2018533068	T
KR 1907653	B1
KR 1916944	B1
EP 3376266	A4
JP 2019015954	A
KR 1916943	B1
CN 109298470	A
US 20190025467	A1
KR 2019043515	A

DWPI AN: 2017-64356Q	
WO 2017155338	**A1**
KR 2017106920	A
TW 2018003726	A
EP 3318903	A1
CN 108027452	A
US 20180231687	A1
EP 3318903	A4
JP 2018533762	T
KR 1906492	B1
JP 6476347	B2
JP 2019070858	A

Each PCT Family (PCT application and corresponding transfers) is in one Derwent record

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Locating extended patent families in DWPI

```
ACCESSION NUMBER:      2017-64356T [201767]   WPIX Full-text
CROSS REFERENCE:       2017-64356Q; 2017-64356R
TITLE:                 Anti-reflective film for display device, has extremums at
                       specified thickness on graph obtained from Fourier
                       transform analysis for X-ray reflectance measurement
                       carried out using copper-K(alpha) ray
DERWENT CLASS:         A14; A89; P73; P81; S03; V07
INVENTOR:              BYUN J; BYUN J S; CHANG Y; CHANG Y R; JANG S; JANG S H;
                       KIM B; KIM B K; KIM H; KOO J; KOO J P; LEE J K; OH S; OH
                       S J; SONG I; SONG I Y; LEE J
PATENT ASSIGNEE:       (GLDS-C) LG CHEM LTD; (GLDS-C) LG CHEM CO LTD
COUNTRY COUNT:         135

PATENT INFO ABBR.:

PATENT NO      KIND DATE     WEEK     LA  PG          MAIN IPC
      ------------------------------------------------------------------
      WO 2017155335   A1 20170914 (201767)* KO  60[18]
      KR 2017105437   A  20170919 (201767)  KO
      TW 2017041689   A  20171201 (201817)  ZH
      KR 2018084712   A  20180725 (201852)  KO
      TW I627435      B  20180621 (201858)  ZH
      CN 108474870    A  20180831 (201860)  ZH
      EP 3376266      A1 20180919 (201865)  EN
      KR 2018111749   A  20181011 (201871)  KO
...
```

Extended patent families can be identified via the Cross Reference (**CR**) field or by using the **FSEARCH** command:

FSEARCH Lx *or*
FSEARCH WO2017155335/PN

FSEARCH locates additional records containing related patents from an extended family. FSEARCH iteratively searches APs, PRNs and PNs.

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Locating extended patent families in DWPI

```
=> FSEARCH WO2017155335/PN

...

L5     3 FSO L4

       1 Multi-record Family Answers 1-3
       0 Individual Records
       0 Non-patent Records

=> D L5 1- PN.B

L5   ANSWER 1 OF 3  WPIX COPYRIGHT 2019   CLARIVATE ANALYTICS on STN FAMILY 1
PI   WO 2017155335   A1 20170914 (201767)* KO  60[18]

L5   ANSWER 2 OF 3  WPIX COPYRIGHT 2019   CLARIVATE ANALYTICS on STN FAMILY 1
PI   WO 2017155337   A1 20170914 (201767)* KO  55[8]

L5   ANSWER 3 OF 3  WPIX COPYRIGHT 2019   CLARIVATE ANALYTICS on STN FAMILY 1
PI   WO 2017155338   A1 20170914 (201767)* KO  63[18]
```

Extended patent families can be identified via the Cross Reference (**CR**) field or by using the **FSEARCH** command:

FSEARCH Lx *or*
FSEARCH WO2017155335/PN

FSEARCH locates additional records containing related patents from an extended family. FSEARCH iteratively searches APs, PRNs and PNs.

In this example, the *extended patent family* is represented by 3 separate DWPI records.

Get the overview about the patent family: D IBIB – 1

```
ACCESSION NUMBER:      2017-64356T [201767]   WPIX Full-text
CROSS REFERENCE:       2017-64356Q; 2017-64356R
TITLE:                 Anti-reflective film for display device, has extremums at
                       specified thickness on graph obtained from Fourier
                       transform analysis for X-ray reflectance measurement
                       carried out using copper-K(alpha) ray
DERWENT CLASS:         A14; A89; P73; P81; S03; V07
INVENTOR:              BYUN J; BYUN J S; CHANG Y; CHANG Y R; JANG S; JANG S H;
                       KIM B; KIM B K; KIM H; KOO J; KOO J P; LEE J K; OH S; OH
                       S J; SONG I; SONG I Y; LEE J
PATENT ASSIGNEE:       (GLDS-C) LG CHEM LTD; (GLDS-C) LG CHEM CO LTD
COUNTRY COUNT:         135

PATENT INFO ABBR.:

      PATENT NO      KIND DATE     WEEK     LA  PG          MAIN IPC
      ------------------------------------------------------------------
      WO 2017155335   A1 20170914 (201767)* KO  60[18]
      KR 2017105437   A  20170919 (201767)  KO
      TW 2017041689   A  20171201 (201817)  ZH
      KR 2018084712   A  20180725 (201852)  KO
      TW I627435      B  20180621 (201858)  ZH
      CN 108474870    A  20180831 (201860)  ZH
      EP 3376266      A1 20180919 (201865)  EN
      KR 2018111749   A  20181011 (201871)  KO
...
```

The IBIB format shows the same fields as BIB, but indented and the patent information in table format.

Subsections of PI-field can be searched separately.

All data pertaining to one document is listed in one line an can be linked using the P-operator.

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Get the overview about the patent family: D IBIB – 2

```
...
APPLICATION DETAILS:

      PATENT NO      KIND                    APPLICATION    DATE
      ------------------------------------------------------------------
      WO 2017155335 A1                       WO 2017-KR2580 20170309
      CN 109298470 A Div Ex                  CN 2017-80000863 20170309
      CN 108474870 A                         CN 2017-80005924 20170309
      EP 3376266 A1                          EP 2017-763596 20170309
      EP 3376266 A4                          EP 2017-763596 20170309
      KR 2017105437 A                        KR 2017-29954 20170309
      KR 2018112752 A Div Ex                 KR 2017-29954 20170309
      KR 1907653 B1                          KR 2017-29954 20170309
      KR 1916944 B1 Div Ex                   KR 2017-29954 20170309
      KR 2018084712 A Div Ex                 KR 2017-29959 20170309
      KR 1916943 B1 Div Ex                   KR 2017-29959 20170309
      TW 2017041689 A                        TW 2017-108093 20170309
      TW I627435 B                           TW 2017-108093 20170309
      CN 108474870 A PCT Application         WO 2017-KR2580 20170309
      EP 3376266 A1 PCT Application          WO 2017-KR2580 20170309
      JP 2018533068 T PCT Application        WO 2017-KR2580 20170309
      US 20190025467 A1 PCT Application      WO 2017-KR2580 20170309
      CN 109298470 A                         CN 2018-11195410 20170309
      JP 2018533068 T                        JP 2018-518611 20170309
      JP 2019015954 A                        JP 2018-75365 20180410
...
```

Subsections of AI-field can be searched separately (e.g., AD, AC,..)

All data pertaining to one document is listed in one line and can be linked using the P-operator.

APT Application Type

To list application types: E A/APT

- ADD TO
- APPLICATION NO
- CIP OF
- CONT OF
- DERIVED FROM
- DIV EX
- DIV UTIL
- PCT APPLICATION
- PCT NAT. ENTRY

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Get the overview about the patent family: D IBIB – 3

```
...

FILING DETAILS:

      PATENT NO       KIND                  PATENT NO
      ------------------------------------------------------
      KR 1907653 B1         Previous Publ   KR 2017105437 A
      KR 1916944 B1         Previous Publ   KR 2018112752 A
      CN 108474870 A        Based on        WO 2017155335 A
      EP 3376266 A1         Based on        WO 2017155335 A
      JP 2018533068 T       Based on        WO 2017155335 A
      KR 1916943 B1         Previous Publ   KR 2018084712 A

PRIORITY APPLN. INFO: KR 2017-29954        20170309
                      KR 2016-30395        20160314
                      KR 2016-29336        20160311
                      KR 2016-28468        20160309
                      KR 2017-29953        20170309
                      WO 2017-KR2580       20170309
```

The filing details field contains relationships among patent family members that are not represented in the patent family table, e.g., for divisions, or continuations.

Subsections of FDT-field can be searched separately (e.g., FDT.PC, FDT.PN,…)

Challenges for compiling comprehensive patent families: Reasons for missing or insufficient priority information

- Patents filed outside the Paris Convention
  - Patents filed outside the 12 month priority period
  - Patents filed in countries not part of the Paris Convention (e.g., Taiwan and Burma/Myanmar)
- Patents filed within the Paris Convention published without priority data
  - no family link between national filings
  - no family link between national filings and EP- or PCT-filings
- Patents filed without priority data require additional effort to match family members with the same technical content but no priority relationship

Non-convention equivalents

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The coverage of non-convention equivalents in DWPI has a long-standing tradition

- DWPI includes > 1.5 million records with non-convention equivalents
- Clarivate systematically looks at national filings of non-residents in a country 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 hash marks (#)
- Non-convention equivalents are searchable in the patent type field PT:
  US/PC (P) EQUIVALENTNONCONVENTION/PT

=> E A/PT

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Sample record: non-convention equivalent

```
TITLE:                Power handling device, has III-nitride cap layer formed
                      on III-nitride channel layer, where III-nitride digital
                      alloy back barrier layer is formed below channel layer
                      and alloy back barrier layer comprises ultra-lattice
                      structure
DERWENT CLASS:        L03; M26
INVENTOR:             CAO Y; CHU R
PATENT ASSIGNEE:      (HRLH-C) HRL LAB LLC
COUNTRY COUNT:        134

PATENT INFO ABBR.:

PATENT NO      KIND DATE     WEEK     LA  PG          MAIN IPC
      ------------------------------------------------------------------
      US 20190067464  A1 20190228 (201919)* EN  14[6]
      WO 2019040083   A1 20190228 (201919)# EN

APPLICATION DETAILS:

      PATENT NO      KIND                  APPLICATION    DATE
      ------------------------------------------------------------------
      US 20190067464 A1                    US 2017-15687369 20170825
      WO 2019040083 A1                     WO 2017-US48753 20170825

PRIORITY APPLN. INFO: US 2017-15687369     20170825
                      WO 2017-US48753      20170825
```

- PCT application filed in US on same day as US application.
- Missing priority link (two records in other databases).
- Both applications have the same title, the same inventors, and the same patent assignee

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Sample record: Chinese dual filings

Chinese dual filings:
Utility model and patent documents linked in one record.

```
AN   2019-00742A

TI   Planar array shearing force tactile sensor, has piezoelectric polymers
     connected with external charge amplifier, where surface of upper
     substrate, surface of lower substrate and piezoelectric polymers are
     coated with conductive material

PI   CN 109060200    A  20181221 (201913)* ZH  9[6]
     CN 208780370    U  20190423 (201934)# ZH

PRAI CN 2018-11283702     20181031
     CN 2018-21778140U    20181031
```

Utility model is a non-convention equivalent (#)

Patent and utility model are filed at the same day. Application number of utility model added to PRAI.

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Agenda

- What is the Derwent World Patents Index (DPWI)?
- The value-added Derwent title and abstract
- Structure of a DWPI record
- Keyword searching
- The Derwent classifications
- Standardization of patent assignees
- Patent family information in DWPI
- Numeric property search
- Citation data
- Associated databases: DCR, DWPIM, GENESEQ

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The numeric property search (NPS) – basic facts

Properties

55/59 chemical and physical properties searchable, e.g, percentage, molarity, temperature;
more than 1,800 unit variants

Numeric Analyzer

English language text fields
(DWPI: TI, AB, TIO, ABEN, CLM)

Databases

- DWPI and 15 patent full text files (e.g., PCTFULL,…)
- 13 NPL files (e.g., COMPENDEX, PQSCITECH,…)

Search operators

-	range, e.g., 10-15nm/SIZ
> <	greater/less than, e.g., SIZ>10nm
=> <=	greater/less or equal to, e.g., SIZ<=10nm

Type **HELP NPS** in database on STN to learn more.

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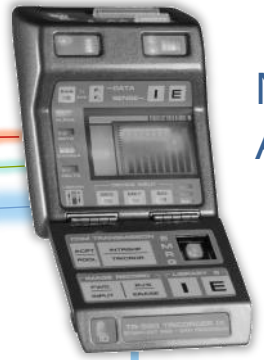
The Numeric Analzyer identifies numeric data and normalizes it

The resulting CeO_2 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. …



Numeric Analyzer

Retrieve above hits in meaningful context

Data normalization

=> S PARTICLE SIZE (10A) 5-50 NM/LEN	1 $x10^{-8}$ m, 3 $x10^{-8}$ m
=> S SAMPLE MILL? (2A) 360 MIN/TIM	2.16 $x10^{4}$ s
=> S ATTRITION MILL# (2A) 1000CM**3/VOL	1 $x10^{-3}$ m^3

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Search: Typical NPS search syntax

NPS search field

NaOH molar concentration of 1 - 5 molL^{-1}

```
S (SODIUM HYDROXIDE OR NAOH) (5A) 1-5/CMOL
```

/CMOL

AlGaInP LEDs emitting light with a wavelength of 500 - 570 nm

```
S (LED…) (10A) (AlGaInP…) (10A) 500-570 NM/LEN
```

/LEN

Records containing the following composition: Bi<60%, Pb>20%

```
S ALLOY(S) BISMUTH(1A) PER<60(S) LEAD(1A) PER>20
```

/PER

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Example: Antimicrobial laundry detergents <20 C

Search question: Find patents about antimicrobial laundry detergents used below 20 °C.

```
=> S D11-B14/MC AND (WASH? OR LAUND?) (5A) TEMP<20C

D11-B14 ANTIMICROBIAL AGENTS FOR DETERGENTS
          2798 D11-B14/MC
       1066562 WASH?/BI
        910119 WASH?/BIEX
         41852 LAUND?/BI
         30040 LAUND?/BIEX
       1418374 TEMP<20C
         11700 (WASH?/BI,BIEX OR LAUND?/BI,BIEX) (5A) TEMP<20C
L7          12 D11-B14/MC AND (WASH?/BI,BIEX OR LAUND?/BI,BIEX) (5A) TEMP<20C
```

MC to specify search
D11-B14 Antimicrobial agents for detergents/Non surface active detergent additives

KEYWORD + OPERATOR + NPS
WASH? or LAUND? within 5 words of listed temperature

Search concept
+ operator
+ NPS+search field

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Example: Antimicrobial laundry detergents <20 C

TECH . . .
The detergent or cleaning composition is a fabric cleaning composition and/or automatic dishwashing composition. Preferred Condition: The temperature of the **wash** liquor is 15-**90** degrees C or 20-60 degrees C. TEXTILES AND PAPER - Preferred Composition: The wash liquor contains 1-7 kg, 1-5 kg or. . .

TECH . . .
N, N-diethyl-2-phenylacetamide, pyriminostrobin and etoxazole. The pH of low-foam laundry liquid is 11-13. Preferred Method: The method comprises using low-foam **laundry** liquid at 0-**45** degrees C.

DETD . . . in the low alkaline detergent; and employing a rinse aid; where the temperature of the detergent use solution in the **washing** step is not above **140** degrees F; where the detergent use solution contains sufficient use levels of the aminocarboxylate, water conditioning agent and builder to. . .

Automatic unit conversion is supported

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Agenda

- What is the Derwent World Patents Index (DPWI)?
- The value-added Derwent title and abstract
- Structure of a DWPI record
- Keyword searching
- The Derwent classifications
- Standardization of patent assignees
- Patent family information in DWPI
- Numeric property search
- Citation data
- Associated databases: DCR, DWPIM, GENESEQ

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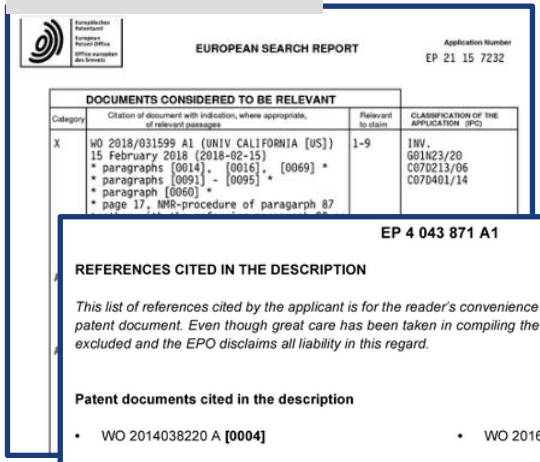
Citation Data in DWPI

40 million Derwent records enriched with citations

- **Derwent Patents Citation Index™** - unique collection of backward and forward patent and literature citations from 32 patent authorities
- **Value-added content** for all patent citations, including Derwent patent assignee codes and accession numbers
- New synergies make it much easier to combine a standard DWPI search with a citation search
- **High precision retrieval capabilities** with display options on publication and Derwent family level
- **Meaningful citation counts** help identify inventions of high relevance

Examiner citations



EUROPEAN SEARCH REPORT

Application Number
EP 21 15 7232

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	WO 2018/031599 A1 (UNIV CALIFORNIA [US]) 15 February 2018 (2018-02-15) * paragraphs [0014], [0016], [0069] * * paragraphs [0091] - [0095] * * paragraph [0060] * * page 17, NMR-procedure of paragarph 87	1-9	INV. G01N23/20 C07D213/06 C07D401/14

EP 4 043 871 A1

REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not fo patent document. Even though great care has been taken in compiling the references, errors excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- WO 2014038220 A **[0004]**
- WO 2016143872 A **[0004]**

Non-patent literature cited in the description

- **Y. INOKUMA et al.** *Nature*, 2013, vol. 495, 461-466 **[0004]**
- *Corrigendum: Nature*, 2013, 501 **[0004]**
- **M. HOSHINO et al.** *IUCrJ*, 2016, vol. 3, 139-151 **[0004]**
- **WADA.** Crystalline-Sponge- sis of Crude Natural Product *Int. Ed. Engl.*, 2018, vol. 57,

Applicant citations

Third party observations

Opposition

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Availability of citation data – use FA-field

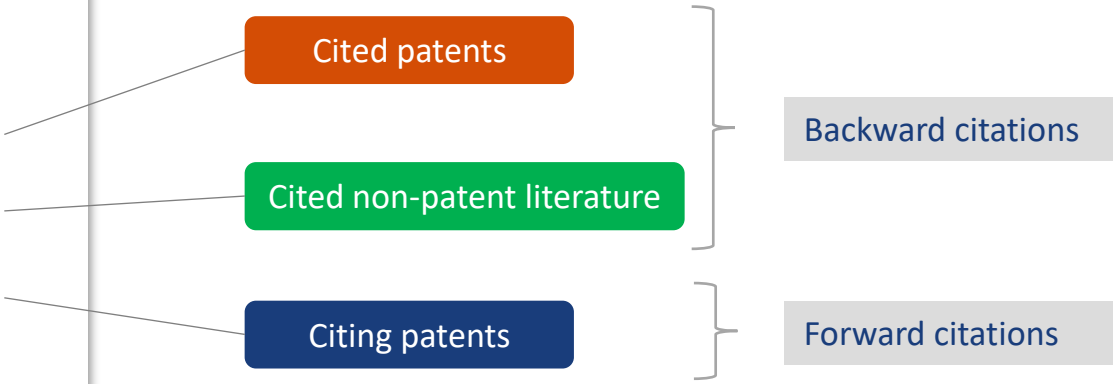
Citation data are available for 60% of all DWPI Records

```
=> S FARB/PACO
L1          40837 FARB/PACO
                  (FARB-C/PACO)

=> S FARB/PACO AND CDP/FA
L2          31630 FARB/PACO AND CDP/FA

=> S FARB/PACO AND CDL/FA
L3          21155 FARB/PACO AND CDL/FA

=> S FARB/PACO AND CGP/FA
L4          33402 FARB/PACO AND CGP/FA
```



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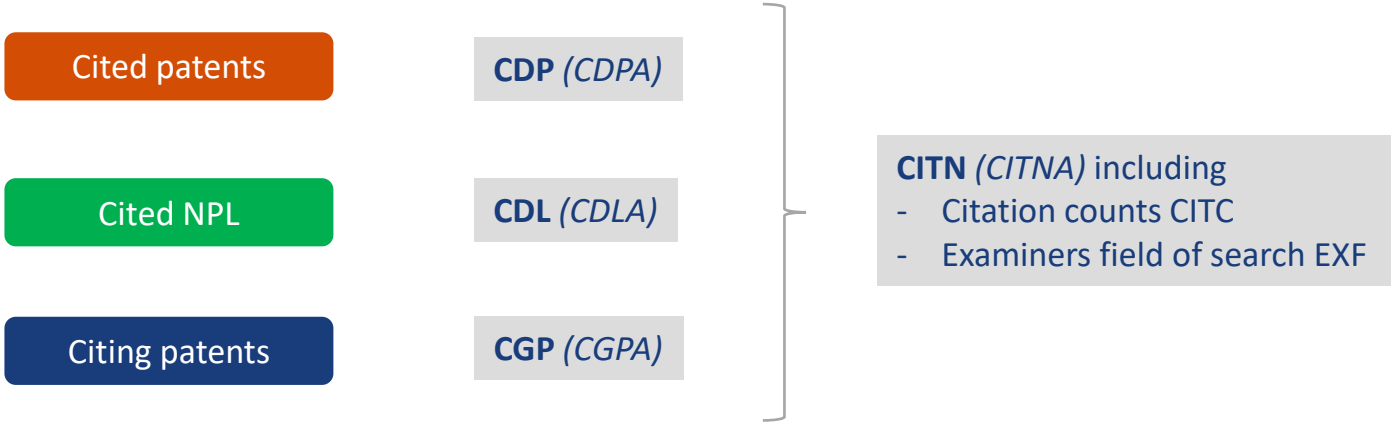
Citation display options

- DWPI offers two types of citation displays
  - Display formats including **all citation details** for individual publications
  - *Abbreviated display formats* with **deduplicated citation information** on Derwent family level
- **HIT display option** to focus on the citations relevant for the search



Citation information for Derwent Record 2021-02979S

The Derwent family of 2021-02979S includes citation information for 4 family members

```
=> D AN TI PA PN

L1    ANSWER 1  OF 1  WPIX COPYRIGHT 2022   CLARIVATE on STN
AN    2021-02979S [2021006]   WPIX
TI    System for delivering medications for treatment of various
      diseases, ailments such as asthma, includes cloud-based
      server, inhaler, electronics module, and first mobile
      application residing on first mobile device
PA    (NORT-N) NORTON WATERFORD LTD; (TEVA-N) TEVA BRANDED
PHARM...
PI    US 20210001061  A1 20210107 (2021006)* EN 25[6]
      EP 3761318      A1 20210106 (2021006)  EN
      WO 2021007154   A1 20210114 (2021006)  EN
      US 11173259     B2 20211116 (2021093)  EN
      CA 3145869      A1 20210114 (2022011)  EN
      AU 2020309514   A1 20220217 (2022016)  EN
      CN 114206416    A  20220318 (2022027)  ZH
      KR 2022031651   A  20220311 (2022027)  KO
      JP 2022539267   T  20220907 (2022072)  JA
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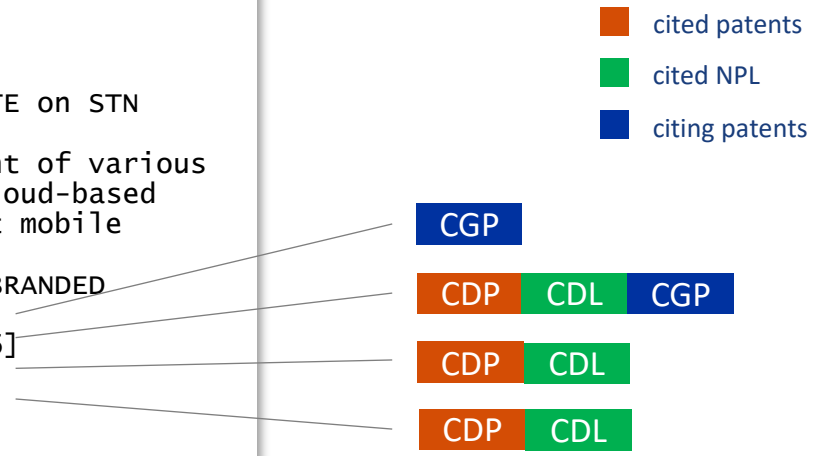

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Citation display example: Cited Patents (CDP, all details)

```
L1   ANSWER 1  OF 1  WPIX COPYRIGHT 2022   CLARIVATE on STN
AN   2021-02979S [2021006]   WPIX
TI   System for delivering medications for treatment of various diseases,
     ailments such as asthma, includes cloud-based server, inhaler, electronics
     module, and first mobile application residing on first mobile device

CDP  Cited Patents
-----------------

Citing Publication  By   Cat   Cited Patent          Date     Accession Number
-------------------------------------------------------------------------------
EP 3761318 A1       E    AY    US 20170235918 A1    20170817 2016-25288W
                          PA:  (SUMN-N) SUMNER BLUFFS LLC
                          IN:  HAGEN T; HAGEN T A; ZASTROW J
                          Relevant passages: pp. W ; para 5, para 13, fig. 1 ;
                               para 47, para 48
                          Relevant to claim: 9,10|1-8
                          ooooooooooo
WO 2021007154 A1    E     AY    US 20170235918 A1    20170817 2016-25288W
                          PA:  (SUMN-N) SUMNER BLUFFS LLC
                          IN:  HAGEN T; HAGEN T A; ZASTROW J
                          Relevant passages: pp. W ; para 5, para 13, fig. 1 ;
                               para 47, para 48
                          Relevant to claim: 9,10|1-8
                          oooooooooooo
```

The Derwent family member EP3761318 A1 cites US20170235918 A1 which is an examiner citation with citation category A and Y.

Derwent Family Members

Citation display example: Cited Patents (CDPA, dedupl.)

```
L1   ANSWER 1 OF 1  WPIX COPYRIGHT 2022   CLARIVATE on STN
AN   2021-02979S [2021006]   WPIX
TI   System for delivering medications for treatment of various diseases,
     ailments such as asthma, includes cloud-based server, inhaler, electronics
     module, and first mobile application residing on first mobile device

Cited Patents
-------------

Cited Publication      By          Accession Number
---------------------------------------------------
US 9035765 B2          E           2015-16768M
US 10019555 B2         E           2015-26376K
US 20030113269 A1      E           2002-025964
US 20160036898 A1      E           2016-09627T
US 20170076065 A1      E           2017-18774U
US 20170235918 A1      EA          2016-25288W
US 20170290527 A1      E           2016-13907K
US 20180140786 A1      E           2018-40388X
US 20190240430 A1      E           2019-684519
WO 2018104268 A1       EA          2018-46595G
WO 2018200431 A1       EA          2018-856275
US 8424517 B2          A           2009-P83440
US 8464707 B2          A           2005-235885
oooooooooo
```

The **CDPA display** includes:

- a deduplicated list of cited patent numbers (/PN.D) with the origin of the citation (/ORC)
- The cited Derwent accession number (/AN.D)

Cited Derwent accession numbers (/AN.D) could be used to extend a standard DWPI search

Retrieve cited/citing DWPI records of 2021-02979S

Use the SELECT command to retrieve cited/citing DWPI records

```
=> S 2021-02979S/an
L2            1 2021-02979S/AN

=> SEL AN.D AN.G
E1 THROUGH E65 ASSIGNED

=> D SEL 1-
E#      FILE              FREQUENCY   TERM
--      ----              ---------   ----
E1      WPIX                    4     2009-J80299/AN.D
E2      WPIX                    1     2002-025964/AN.D
OOOOOO
E64     WPIX                    1     2021-35041J/AN.G
E65     WPIX                    1     2021-70845R/AN.G

=> S E1-65/AN
L3           65 (2009-J80299/AN OR 2002-025964/AN ...)

=> D FULL 1-65
```

SELECT cited/citing Derwent accession numbers with SEL **AN.D AN.G**

Search these accession numbers in the field /AN and display the results

2021-02979S includes references to 65 cited/citing Derwent records

Use L3 for an **in-depth evaluation of cited patents**

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CAS
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Non-patent literature citations with DOI links

DOI links take you to the journal full-text

```
=> S 2022-98245J/AN

=> D AN TI PA PN CDL

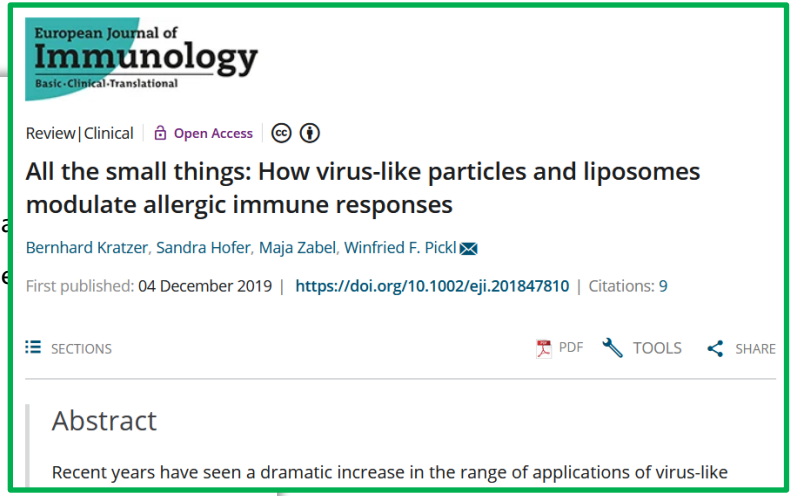
AN    2022-98245J [2022074]   WPIX
TI    Vaccine composition useful for breaking self-tolerance aga
      self-protein of host and preventing or treating e.g. AIDS
      comprises polyprotein or DNA or RNA encoding for polyprote
      immunostimulatory oligonucleotides
PA    (FARB-C) BAYER ANIMAL HEALTH GMBH
PI    WO 2022162204   A1 20220804 (2022074)* EN 232[79]

CDL  Literature Citations
-------------------------

Citing Publication    By    Cat    Literature Reference
-------------------------------------------------------------------------
WO 2022162204 A1      E     A      BERNHARD KRATZER ET AL: "All the small things:
                                   How virus-like particles and liposomes
                                   modulate allergic immune responses", EUROPEAN
                                   JOURNAL OF IMMUNOLOGY, WILEY-VCH, HOBOKEN,
                                   USA, vol. 50, no. 1, 15 December 2019
                                   (2019-12-15), pages 17 - 32, XP071228436,
                                   ISSN: 0014-2980, DOI:10.1002/EJI.201847810,
                                   relevantClaims[3-25],relevantPassages[pp. W,]
                                   DOI:  https://doi.org/10.1002/EJI.201847810

oooooooo
```

CDL is a search and display field for NPL citations



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Overview of citation search fields

Citation information is fully searchable

CITED (backward citations)

AN.D	Cited DWPI accession number
PN.D	Cited patent number
PACO.D	Cited patent assignee code
PA.D	Cited patent assignee
IN.D	Cited Patent Inventor
PC.D	Cited Patent Country
CAT	Citation category
ORC	Origin of citation
CDL	Cited non-patent literature
UPD	Update date, cited
PNC.D	Cited patents count
ANC.D	Cited accession number count
REC	Cited reference count

Master document

AN	Accession number
PN	Patent number
PACO	PA code
PA	Patent assignee
IN	Inventor

Cited | Citing

CITING (forward citations)

AN.G	Citing DWPI accession number
PN.G	Citing patent number
PACO.G	Citing Patent Assignee Code
PA.G	Citing patent assignee
IN.G	Citing inventor
PC.G	Citing patent country
CAT	Citation category
ORC	Origin of citation
UPG	Update date, citing
PNC.G	Citing patents count
ANC.G	Citing accession number count

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Use HIT Display with specific citation search

Who is citing Biontech's key inventions?

```
=> s (2017-68573S OR 2019-37061G OR 2017-67407L)/AN.D
L1          63 (2017-68573S OR 2019-37061G OR 2017-67407L)/AN.D

=> D FULL HIT

L1   ANSWER 1 OF 63  WPIX COPYRIGHT 2022   CLARIVATE on STN
AN   2022-C1548J [2022082]   WPIX
TI   Synthetic alphavirus-derived replicon nucleic acid molecule for
     treating symptoms of disease or condition such as FMD, cancer is
PA   (TIBA-N) TIBA BIOTECH LLC; (TIBA-N) TIBA BIOTECH
OOOO
CDP  Cited Patents
------------------

Citing Publication  By    Cat   Cited Patent          Date     Accession Number
-------------------------------------------------------------------------------
WO 2022198002 A1    E     A     US 20200299725 A1     20200924 2017-67407L
                       PA:  (BION-N) BIONTECH RNA PHARM GMBH; (UMTT-C) UNIV
                            MAINZ TRON TRANSLATIONALE ONKOLOGIE
                       IN:  BEISSERT T; PERKOVIC M; SAHIN U
                       Relevant passages: entire document
                       Relevant to claim: 1, 2, 4-6, 41-46, 61-64
```

Use the Derwent accession numbers of Biontech's key inventions and search them as cited AN in **/AN.D**

You can fully display DWPI records which cite Biontech's key inventions with **FULL HIT**

Tiba Biotech (WO2022198002 A1) cites US20200299725 A1 of Biontech.

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User documentation DWPI citations

- Online helps

HELP CITATIONS	general information plus coverage details
HELP 3SFIELDS	citation search fields
HELP DFIELDS	citation display fields
HELP FORMAT	citation display formats
HELP 3EFIELDS	citation select fields
HELP SRTFIELDS	citation sort fields

- Summary sheet

  https://web.cas.org/marketing/solutions/stn-ip/stn-database/wpindex.pdf

- Reference manual: The Derwent Patents Citation Index in DWPI

  https://cas-stnext.zendesk.com/hc/en-us/articles/29952385357453-Derwent-Patent-Citation-Index-in-DWPI

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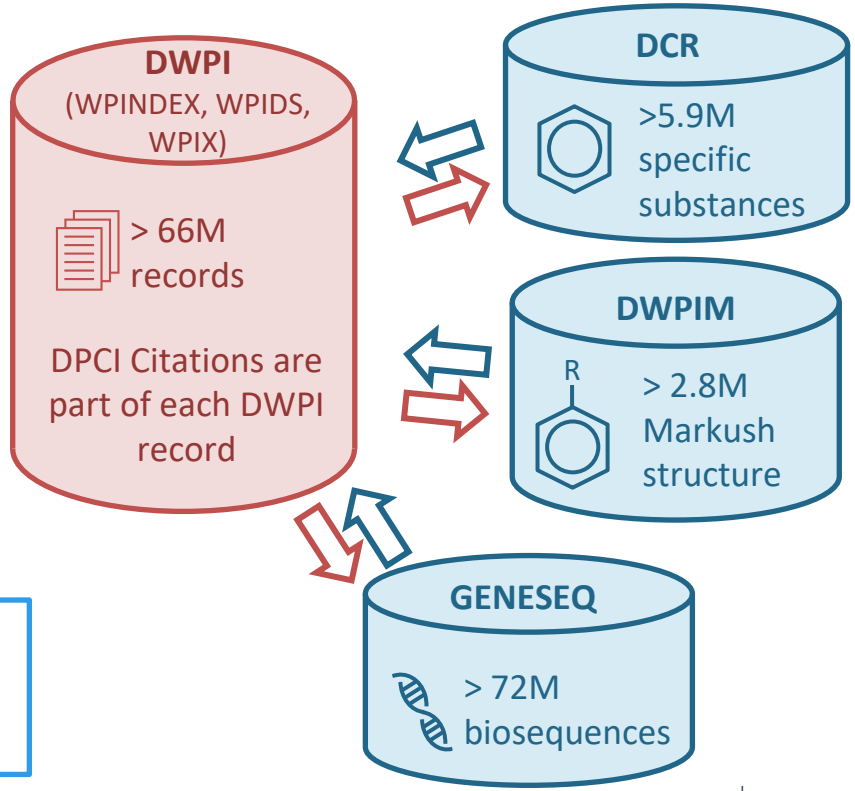
Agenda

- What is the Derwent World Patents Index (DPWI)?
- The value-added Derwent title and abstract
- Structure of a DWPI record
- Keyword searching
- The Derwent classifications
- Standardization of patent assignees
- Patent family information in DWPI
- Numeric property search
- Citation data
- Associated databases: DCR, DWPIM, GENESEQ

DWPI and associated databases

- Indexing of structures and biosequences from the basic patent
- Derwent Patents Citation Index is embedded inside the DWPI database
- Structure databases DCR and DWPIM are linked to DWPI by a simple crossover



DCR	–	Derwent Chemistry Resource
DWPIM	–	Derwent Markush Resource
GENESEQ	–	Derwent Geneseq
DPCI	–	Derwent Patents Citations Index

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Review: What is DWPI value-add?

- Enhanced patent titles and abstract
  - More efficient retrieval
  - Reduced time required to review results
- Comprehensive classification and indexing
  - Provides multiple methods to pinpoint documents
  - More efficient retrieval
- Intellectually compiled patent families
  - Precise access to equivalent documents
  - Reduced time required to review results

For more information…

CONTACT

CAS
help@cas.org
cas.org

FIZ Karlsruhe
EMEAhelp@cas.org

FIZ Karlsruhe
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