



The Derwent Patents Citation
Index in DWPI
STN Reference Manual

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STN[®]
THE CHOICE OF PATENT EXPERTS™

Author:
Christiane Emmerich

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FIZ Karlsruhe – Leibniz Institute for Information Infrastructure
Hermann-von-Helmholtz-Platz 1
76344 Eggenstein-Leopoldshafen
Germany

contact@fiz-karlsruhe.de
www.fiz-karlsruhe.de

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INTRODUCTION

The new implementation of Clarivate's Derwent World Patents Index® on STN provides an integrated solution for the traditional Derwent content and the **Derwent Patents Citation Index®**, which is seamlessly merged into the framework of the classic DWPI. The new synergies make it much easier to combine a standard DWPI patent search with a citation search, e.g. a DWPI prior art search can easily be extended with prior art from citation data. Also, ranking of DWPI patent search results according to citation counts is now more straightforward.

A citation search directly performed in DWPI can answer questions like:

- What has been cited by whom, who is citing a particular invention
- Who is working in a similar technology area
- Who are my closest competitors
- Which are the most relevant patents of a patent portfolio
- Which additional prior art could be derived from a citation search

The **Derwent Patents Citation Index** is a unique collection of patent and literature citations from 32 patent authorities with superior data quality. Backward and forward patent citations are being enriched with Derwent value-added content, like Derwent patent assignee codes, which is extremely useful for comprehensive citation analysis. An elaborated set of citation counts supports users to identify inventions of high technological relevance. Powerful display options ensure the most efficient analysis of citation search results. Citation information is made available on two different levels of detail: each Derwent family record is associated with a de-duplicated set of citations, while individual publications are linked to the full citation information.

The most prominent features of the DPCI include:

- Cited and citing patent references enriched with Derwent value-added data
 - Derwent assignee and inventor names plus patent assignee codes (PACO)
 - DWPI accession numbers
- Cited NPL references including
 - representative set of NPL citations for the Derwent family
 - access to standardized XP document numbers and DOI links
- Citation counters calculated for the Derwent family records
 - Counters for backward, forward and literature citations
 - patent number/patent authority/Derwent family counts
 - total reference count for cited patent and NPL references
- Derwent family based display options
 - full citation details for individual publications
 - de-duplicated set of cited/citing patent references plus NPL references
 - HIT display feature
- Sophisticated search options
 - high precision searches with the (P)-proximity operator
- Additional citation information with relevant information of the search report
 - origin of citation (applicant, examiner, opposition, third party observation)
 - examiner citations with citation categories
 - examiner citations with links to relevant claims and passages of the patent full-text
 - examiner's field of search for four different patent classifications (IPC, CPC, Japanese FI terms, US classification)

CITATION COVERAGE

The Derwent Patents Citation Index is a unique collection of patent and literature citations from 32 patent authorities which has been compiled on the basis of the Derwent family. Citation coverage is based on EPO's citation data (REFI) plus national office data feeds to enhance timeliness and completeness.

In total, 30 million Derwent inventions include citation information comprising 20 million inventions with backward citations (patents + NPL references) and 24 million inventions with citing patent references.

In more detail, DPCI provides access to (5/2021)

- **162** million backward citations
- **182** million forward citations
- **39** million literature citations

Citation references originate from examiner search reports, applicant citations, opposition procedures (EP) and third party observations (EP, US, WO).

Patent Citation Index - Patent Country Coverage

Country Coverage	Period	Country Coverage	Period
AM	2007 – to date	KG	2004 – to date
AT	1993 – to date	KR	2006 – to date*
AU	1993 – to date	KZ	2007 – to date
BE	1988 – to date	LU	1999 – to date
BY	2002 – to date	MD	2016 – to date
CA	1994 - 1996	MY	2006 – to date*
CH	1985 – to date	NL	1974 – to date
CN	2010 – to date	NO	2010 – to date
CZ	2000 – to date	NZ	1994 - 1996
DE	1974 – to date	PH	2010 – to date*
DK	2000 – to date *	RU	2009 – to date*
EA	2002 – to date	SE	1994 – 1996
EP	1978 – to date	SG	2000 – to date
ES	1993 – to date	TW	2000 – to date*
FR	1973 – to date	US	1974 – to date
GB	1979 – to date	WO	1978 – to date
GC	2004 – to date	ZA	1994 -1996
JP	1994 – to date*	DD, FI, IE, IT, TJ	limited coverage

* - patent citations only (no NPL references)

1) Which companies cite the ABB patent application EP 2595302 A1 ?:

=> S EP2595302/PN.D

=> D AN TI PA PN HIT 1-

2) Search for inventions which cite patents of Siemens AG and the inventor Roland Neufert:

=> S SIEI/PACO.D (P) NEUFERT R/IN.D

L1 706 SIEI/PACO.D (P) NEUFERT R/IN.D

=> D HIT 1-

3) How often does Unilever cite inventions from the competitor Procter & Gamble and vice versa:

=> S UNIL-C/PACO AND PROC-C/PACO.D

L1 **4454** UNIL-C/PACO AND PROC-C/PACO.D

Unilever: PACO UNIL-C

Procter&Gamble: PACO PROC-C

=> S UNIL-C/PACO.D AND PROC-C/PACO

L2 **6173** UNIL-C/PACO.D AND PROC-C/PACO

Non-Patent Literature Citations

Non-patent literature citations are available for 24 patent authorities, including XP document numbers, links to Internet resources and digital object identifiers. Single terms can be searched with the field /CDL, left truncation and simultaneous left and right truncation (SLART) is available. Standardized XP document numbers and digital object identifiers have their own search fields.

Field Description	Search	Display
Cited non-patent literature	CDL	CDL, CDLA
XP document number	XP	XP, CDL, CDLA
Digital object identifier	DOI	DOI, CDL, CDLA

4) Search for inventions which cite NPL references of Prof. Matthias Beller:

=> S (BELLER(1A)(MATTHIAS OR M) OR BELLER ET AL)/CDL

=> D HIT

5) Search for inventions which cite NPL references describing transdermal patches:

=> S (?TRANSDERMAL?(5A)?PATCH?)/CDL

=> D AN TI PA PN HIT

6) Search for inventions which cite NPL references of BASF as X or I document:

=> S BASF/CDL(P)(X OR I)/CAT

=> D HIT 1-

Examiner Citation Categories

Citations from patent search reports have citation categories assigned which indicate their relevance to the examined patent application. These categories are useful to refine a citation search to the most relevant citations.

Patent examiners assign one or more citation categories to individual citations. Accordingly, search capabilities allow to search with one or more categories, e.g. I/CAT, AI/CAT, (A(P)I)/CAT. The (P)-proximity operator can be used to refine citation searches with category information.

Citation Category	Description
X	relevant if taken alone
I	relevant to the inventive step
Y	relevant if combined with another document
A	technological background
O	non-written disclosure
P	intermediate document
T	theory or principle
E	earlier document published on or after the filing date
D	document cited in application
L	document cited for other reasons
R	used in CN A publications to reference dual filings

Field Description	Search	Display
Citation Category	CAT	CDP (<i>cited</i>)
Citation Category, cited	CAT.D	CGP (<i>citing</i>)
Citation Category, citing	CAT.G	CDL (<i>literature</i>)

7) Search for inventions which cite BASF patent publications as X or I documents:

=> S BASF/PA.D(P)(X OR I)/CAT

=> D HIT

Origin of Citation

Citation references originate mainly from examiner search reports and applicant citations. Documents cited in opposition procedures are only available for oppositions filed at the European Patent Office. Citations of third party observations are available for EP, US and PCT publications.

The origin of the citation is searchable with a single letter code (A, E, O, T, U) or the descriptive text (APPLICANT, EXAMINER, OPPOSITION, THIRDPARTY, UNKNOWN) in the field /ORC. A particular citation can have multiple origins assigned when deduplicated on the invention level, e.g. AE/ORC.

Field Description	Search	Display
Origin of Citation	ORC	CDP (<i>cited</i>) CGP (<i>citing</i>) CDL (<i>literature</i>)

8) Which publications of Siemens AG (PACO = SIEI-C) have been cited in EP opposition procedures:
=> S (SIEI/PACO.D OR SIEMENS/CDL)(P)O/ORC
=> D HIT

Citation Counts

Citation counts are widely used as indicators to assess the value of a particular patent or patent portfolio. Especially a high number of forward citations is seen as indicator for a high patent value.

DPCI offers meaningful citation counts for patent and literature citations based on Derwent family records. The DWPI accession number counts are invention-based citation counts which are independent of the size of the patent family.

Field Description	Search	Display
Cited DWPI Accession Number Count	ANC.D	CITC
Citing DWPI Accession Number Count	ANC.G	
Cited Patents Count	PNC.D	
Citing Patents Count	PNC.G	
Cited Patents Country Count	PCC.D	
Citing Patents Country Count	PCC.G	
Cited Literature Reference Count	CRC	
Cited Reference Count (total)	REC	

9) Search CRISPR technology patents (L1) with a high forward citation count:
=> S L1 AND ANC.G > 20
=> D FULL CITC

10) Sort the CRISPR search result (L1) according to the forward citation count:
=> S L1 AND CGP/FA (Limit DWPI result to answers with forward citations)
=> SORT L2 ANC.G D (Sort DWPI result L2 according to the citing accession number count ANC.G in descending order)

Examiner's Field of Search

The Derwent Patents Citation Index includes the patent classifications searched by the patent examiner for a particular invention, mentioned in the search report: search criteria for IPC, CPC and national office patent classifications (FI-terms, US classification) are made available. This information can be used to perform a similar search to the one the examiner performed.

The patent classification codes of the examiner's field of search have been standardized according to the STN standard as far as possible. IPC-, CPC- and FI-terms are searchable at subclass, main group and subgroup level, e.g. A61K0035-16/EXF.IPC, A61K0035/EXF.IPC, A61K/EXF.IPC.

Field Description	Search	Display
Examiner's field of search, IPC	EXF.IPC	EXF EXFA
Examiner's field of search, CPC	EXF.CPC	
Examiner's field of search, JPC	EXF.JPC	
Examiner's field of search, USPC	EXF.USPC	

11) Display the examiner's field of search for GB 2587694 A:

=> S GB 2587694/PN

=> D AN TI PA PN EXF

Derwent Family Members with Citations

Derwent family members with citation references, either being cited or citing references, are searchable with the respective .F-fields: PN.F, PK.F and PC.F.

These citation family members have a (P)-proximity link to the corresponding citations. This can be useful to analyze the citation behaviour of a patent office. Also a very useful application is to identify additional Chinese dual filings which are currently not part of the Derwent family (see example below).

Field Description	Search	Display
Patent country of family member	PC.F	CDP (<i>cited</i>)
Patent kind code of family member	PK.F	CGP (<i>citing</i>)
Patent number of family member	PN.F	CDL (<i>literature</i>)

12) Identify CN A publications which cite Chinese utility models as R document (dual filing):

=> S CNA/PK.F(P)CNU/PK.D(P)R/CAT

=> D IBIB HIT 1-

DISPLAY OPTIONS - OVERVIEW

Users have two principal options to display citation data (except for citation counts):

- Full citation details are provided with individual publications and retain the link between cited/citing publication.
- Abbreviated display formats provide de-duplicated citation information on Derwent family level, e.g. a de-duplicated list of cited patents (CDPA).

As citation displays could be very lengthy, users could choose the **HIT display option** to focus on the citations relevant for the search.

	DETAILED	ABBREVIATED	D/A
Citation Counts	CITC	CITC	CITN CITNA
Examiner's Field of Search	EXF	EXFA	
Cited Patents	CDP	CDPA	
Literature Citations	CDL	CDLA	
Citing Patents	CGP	CGPA	

Full Citation Information: CITN-Display

L1 ANSWER 1 OF 1 WPIX COPYRIGHT 2021 CLARIVATE on STN
AN 2017-62154L [201763] WPIX

Citation Counters

```

PNC.D      7      Cited Patents Count
PCC.D      2      Cited Patents Country Count
CRC        7      Cited Literature Reference Count
REC       14      Cited Reference Count (total)
ANC.D      6      Cited DWPI Accession Number Count
PNC.G      2      Citing Patents Count
PCC.G      2      Citing Patents Country Count
ANC.G      2      Citing DWPI Accession Number Count
  
```

CITC

EXF Examiner's Field of Search

```

Citing Publication    EXF  Examiners Field of Search
-----
US 10456413 B2      CPC  A61K0031-44; A61K0031-513; A61K0031-675;
                          A61K0031-685; A61K0009-00; A61P0035-00
  
```

EXF

CDP Cited Patents

Citing Publication	By	Cat	Cited Patent	Date	Accession Number
WO 2017151044 A1	E	A	WO 2015081297 A1	20150604	2015-32263X
			PA: (INEM-C) IDENIX PHARM INC		
			IN: BADAROUX E; DOUSSON C B; PAPANIN J; PIERRA C		
			Relevant passages: page 1, paragraph [0003]; page 57, column 2, line 2; page 62, column 1, line 4; page 62, column 1, line 6; page 177, paragraph [0280]		
			Relevant to claim: 1-14		
	E	A	WO 2002030922 A2	20020418	2002-489811
			PA: (DENI-I) DENIS R; (LAVA-I) LAVALLEE J F; (LEVE-I) LEVESQUE S; (REJR-I) REJ R; (SHIR-N) SHIRE BIOCHEM INC; (VAIL-I) VAILLANCOURT L; (ZACH-I) ZACHARIE B		
			IN: ATTARDO G; ATTARDO, Giorgio		
			Relevant passages: abstract; example 21		
			Relevant to claim: 1-14		
oooooooo					
CN 109069509 A	E	A	WO 2015081297 A1	20150604	2015-32263X
			PA: (INEM-C) IDENIX PHARM INC		
			IN: BADAROUX E; DOUSSON C B; PAPANIN J; PIERRA C		
			Relevant passages: X8BF4X660EX4E66X7B2C1, 57, 62, 177X9875		
			Relevant to claim: 1-14		
	E	A	WO 2002030922 A2	20020418	2002-489811
			PA: (DENI-I) DENIS R; (LAVA-I) LAVALLEE J F; (LEVE-I) LEVESQUE S; (REJR-I) REJ R; (SHIR-N) SHIRE BIOCHEM INC; (VAIL-I) VAILLANCOURT L; (ZACH-I) ZACHARIE B		
			IN: ATTARDO G; ATTARDO, Giorgio		
			Relevant passages: X6458X8981X548CX5B9EX65BDX4F8B21		
			Relevant to claim: 1-14		
oooooooo					

CDP

CDL Literature Citations

Citing Publication	By	Cat	Literature Reference
WO 2017151044 A1	E	A	MEHELLOU, Y. ET AL.: "Aryloxy Phosphoramidate Triesters: a Technology for Delivering Monophosphorylated Nucleosides and Sugars into Cells", CHEM. MED. CHEM., vol. 4, no. 11, 2009, pages 1779 - 1791, XP055414112 ISSN: 1860-7187, relevantClaims[1-14], relevantPassage s[; whole document]
US 10456413 B2	A		International Search Report and Written Opinion received for PCT Patent Application No. PCT/SE2017/050186, dated Jun. 20, 2017, 12 pages.
	A		Mehellou et al., "Aryloxy Phosphoramidate Triesters: A Technology for Delivering Monophosphorylated Nucleosides and Sugars into Cells", ChemMedChem, vol. 4, 2009, pp. 1779-1791.

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CGP Citing Patents

Cited Publication	By	Cat	Citing Patent	Date	Accession Number
WO 2017151044 A1	E	A	WO 2020171757 A1	20200827	2020-85136U
			PA: (MDIV-C) MEDIVIR AB		
			IN: ALBERTELLA M		
	A		US 10456413 B2	20191029	2017-62154L
			PA: (MDIV-C) MEDIVIR AB		
			IN: ALBERTELLA M; ENEROTH A; KLASSON B; OBERG F; OHD J		

CDL

CGP

Abbreviated Citation Information: CITNA-Display

L1 ANSWER 1 OF 1 WPIX COPYRIGHT 2021 CLARIVATE on STN
AN 2017-62154L [201763] WPIX

Citation Counters

```

PNC.D      7      Cited Patents Count
PCC.D      2      Cited Patents Country Count
CRC         7      Cited Literature Reference Count
REC        14     Cited Reference Count (total)
ANC.D      6      Cited DWPI Accession Number Count
PNC.G      2      Citing Patents Count
PCC.G      2      Citing Patents Country Count
ANC.G      2      Citing DWPI Accession Number Count
    
```

CITC

EXF Examiner's Field of Search

```

CPC  A61K0031-44; A61K0031-513; A61K0031-675;
      A61K0031-685; A61K0009-00; A61P0035-00
    
```

EXFA

Cited Patents

Cited Publication	By	Accession Number
US 10144750 B2	E	2016-14394B
WO 2002030922 A2	EA	2002-489811
WO 2005009961 A2	E	2005-132511
WO 2015081133 A2	EA	2015-322669
WO 2015081297 A1	EA	2015-32263X
WO 2016030335 A1	E	2016-14394B
WO 2017151044 A1	A	2017-62154L

CDPA

Literature Citations

By Literature Reference

```

E      LLOVET J M ET AL: "Sorafenib in advanced hepatocellular carcinoma", THE
      NEW ENGLAND JOURNAL OF MEDICINE, - NEJM -, MASSACHUSETTS MEDICAL
      SOCIETY, US, vol. 359, no. 4, 24 July 2008 (2008-07-24), pages 378 -
      390, XP009185548, ISSN: 0028-4793, DOI:
      10.1056/NEJM0A0708857,relevantClaims[1-14],relevantPassages[pp. A, |pp.
      385, pp. 389, ]
E      MEHELLOU, Y. ET AL.: "Aryloxy Phosphoramidate Triesters: a Technology
      for Delivering Monophosphorylated Nucleosides and Sugars into Cells",
      CHEM. MED. CHEM., vol. 4, no. 11, 2009, pages 1779 - 1791, XP055414112,
      ISSN: 1860-7187,relevantClaims[1-14],relevantPassages[; whole document]
ooooo
    
```

CDLA

Citing Patents

Citing Publication	By	Accession Number
WO 2020171757 A1	E	2020-85136U
US 10456413 B2	A	2017-62154L

CGPA

MONITORING OPTIONS

Citation information is updated when any new cited or citing patent information is received. This update process generates the update date UPD, when new or updated cited patent or non-patent literature references enter the DWPI (e.g. from equivalents). When citing patent information is updated, the update date UPG is generated. Both dates, UPD and UPG, can be used for citation alerts.

Citation monitoring can be done manually using saved queries or scripts. For setting up automatic alerts the CREATE AN ALERT feature of STNext can be used. Alternatively, you can use the SDI command to set up a citation alert (see HELP SDI).

Field Description	Search/Display
Update date, cited	UPD
Update date, citing	UPG

13) Manual alert: Search for new inventions which cite patents of Evonik

=> S EVON/PACO.D AND UPD>20211001

=> D FULLG HIT

14) Automatic alert on STNext: Search for new inventions citing your own key patents

Alert query:

=> S (2021-50296Y OR 2021-42523T OR 2021-42317H OR 2021-39299N OR 2021-392975)/AN.D

Alert Settings ✕

Title *

Method of delivery ⓘ

Expires

Delivery to (separate with comma)

Eliminate previously seen answers OFF

Send alerts with no answers ON

Cost center

Highlight hit terms ON

Delivery notification ON

Database settings

Database	Print format	Frequency	Update field code	
WPIX	BIB CITN	Every Update	UPD	Advanced ▾

USE CASES

Display citation information for a particular invention

15) *Display the full citation information for the patent family of WO2019183040 of Bristol Myers Squibb*

=> S WO2019183040/PN

=> D IBIB CITN

Identify additional prior art

16) *Identify additional prior art records for CRISPR technology inventions (L1) complementing the original DWPI search with cited (AN.D) and citing inventions (AN.G)*

=> TRA L1 AN.D AN.G /AN

=> S L1 OR L2

=> D FULLG 1-

use the **TRANSFER** command to select cited/citing DWPI accession numbers and search them in the field /AN

Identify key patents of a patent portfolio or technology

17) *Identify key patents of Biontech's patent portfolio*

=> S BIONTECH/PA AND CGP/FA

=> ANA L1 ANC.G

=> D 1-

=> S L1 AND ANC.G>50

=> D FULLG CITC 1-

use the **ANALYZE** command to identify those Biontech patents with the highest citing AN count (ANC.G)

Identify key competitors and licensing opportunities

18) *Who are the key competitors of BASF SE in the area of exhaust gas treatment technologies?*

=> S ((E11-Q02A OR E31-H01 OR N07-L02C OR N07-L01+NT)/MC OR (B01D0053-9418 OR F01N0003-2066+NT)/CPC) AND BADI/PACO

=> ANA L1 PACO.G

=> D 1-

use the **ANALYZE** command to analyze BASF's exhaust gas patents for citing patent assignees (PA.G or PACO.G)

19) Which companies cite biocatalysis patents of Evonik Degussa GmbH most often?

a. Strategy with Evonik as cited patent assignee, self citations removed

=> S (EVON OR DEGS)/PACO.D AND (C12N/IPC,CPC,FCL OR D05/MC)

=> S L1 NOT (EVON OR DEGS)/PACO

=> ANA L2 PACO

=> D 1-

b. Strategy with Evonik as patent assignee and analysis of citing assignees

=> S (EVON OR DEGS)/PACO AND (C12N/IPC,CPC,FCL OR D05/MC)

=> ANA L1 PACO.G

=> D 1-