

Topic 5: Retrieval and Comparison of Prior Art Citations

Lutz Mailänder

Head, International Cooperation on Examination and Training Section

Cairo April 29, 2019

Agenda

- Retrieval options for work products
- Types of prior art citations
- Search reports, list of citations
- Retrieval options
- Comparing search reports: CCD

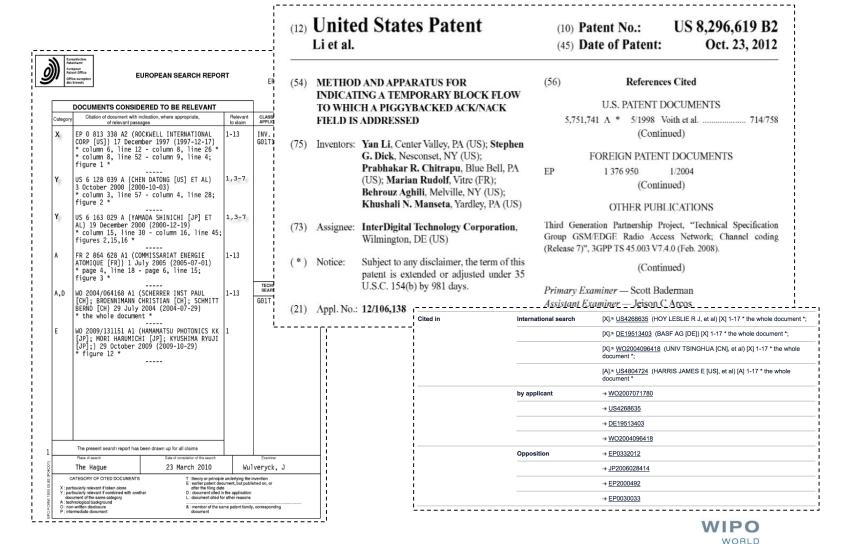


Types of citations/references

- Prior art relevant for patentability of claimed subject matter may be
 - Cited by an applicant
 - Cited by an examiner or other official search/examination bodies
 - Cited by third parties (for example, Sect. 801 of PCT AI)
- Citations may originate from
 - Substantive examination before grant
 - Opposition, re-examination, revocation, ... after grant
- Patents
 - can cite other patents as prior art (backward citations)
 - can be cited by other patents (forward citations)



Samples of prior art citations



INTELLECTUAL PROPERTY

ORGANIZATION

Overview: Access to prior art citations

Citations/references are usually presented as

- Bare listings of citations, for example lists of publication numbers only
- Citations in search reports supplemented with further useful information

Search reports are available as:

- Regular patent publications (EP-A1/A3/A4, WO-A1/A3)
- Electronic documents accessible through file/dossier access platforms, such as online registers, Global Dossier, WIPO CASE

Bare lists of citations are usually available

- On front pages of publications of granted patents, republications after opposition (EP-B1/B2..)
- Through separate links or integrated tables in patent databases, such as national registers (e.g. DE or EP Register) when viewing individual applications
- Trilateral Common Citation Document (CCD)



International Search Report (ISR)

- Established by (selected) competent ISA
- Search based on claims as originally filed (Article 15)
 - > Limited utility of ISR for amended claims in national phase
- Search performed according to PCT Examination Guidelines
- Prior art is everything made available to the public (Rule 33)
 - in written disclosure (ISR may refer to oral disclosure, exhibition, though)
 - prior to the international filing date (i.e. priorities are not taken into account for the international search)
- Not any written disclosure is to be searched: only PCT minimum documentation (Rule 34)
- In case of lack of unity, only the "first" invention will be searched (Rule 40), unless additional fees are paid
- ISA can decline search of certain subject matter (Rule 39), namely subject matter that is excluded from patentability in national law (PCT does not define what is patentable!)



ISR

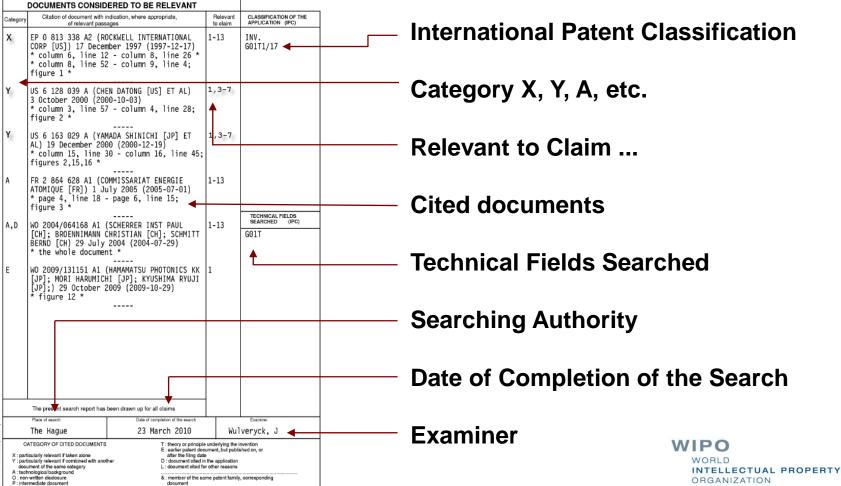
- ISR is "enriched" search report as it includes
 - List of relevant prior art documents (citations) plus indications:
 - Claims for which a citation is relevant
 - Parts of the cited document which are relevant (e.g. 'line 5-6, page 7; drawing 6') for those claims
 - Why the document is relevant (challenging novelty, inventive step; describing background art)
 - IPCs of the claimed subject matter
 - Limited search strategy: technology areas (IPC) searched
- Includes observations regarding lack of unity (Box III), or whether no meaningful search could be performed (clarity of claims)



Enriched prior art search reports







ORGANIZATION

Categories of citations

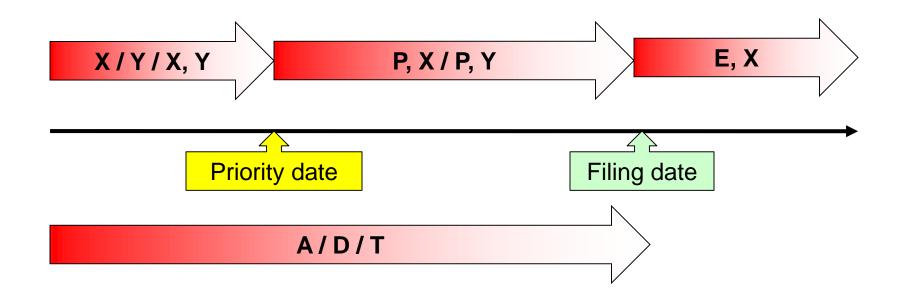
- X particularly relevant if taken alone (novelty)
- Y particularly relevant if combined with another document of the same category (inventive step)
- A technological background
- O non written disclosure
- P intermediate document, i.e. published between the earliest priority date and the filing date
- E earlier document but published on or after the filing date
- T theory or principle underlying the invention
- D document cited in the application
- I (applied by EPO for limited period of time)

See 16.59ff of the PCT Examination Guidelines



Prior art categories

Publication dates of prior art documents





Publications of search reports

- ISRs are published as WO-A1 or WO-A3 documents
- In addition to the PCT, only the EPO publishes search reports
 - EP-A1 or A3 similar to WO-A1 or A3
 - EP-A4 for supplementary European search reports if examiners conduct additional searches
- No other IPO publishes search reports, they are only made publicly available through national registers ('laid open for public inspection')
- Accessible as well through Global Dossier and WIPO CASE
- Citation information is also made available through other interfaces of various databases (not in Patentscope, though)

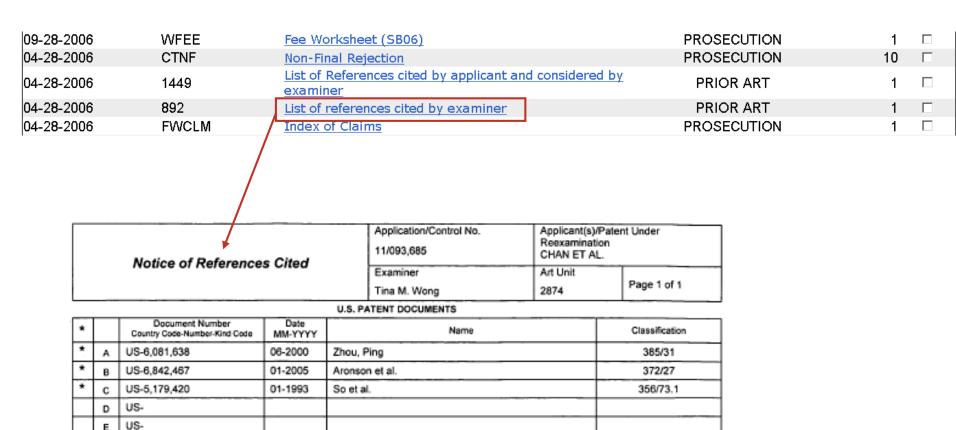


US-PAIR: search report US examiner

Notice of References Cited					Reexa		Applicant(s Reexamina COX ET Al		
		Notice of helefence	S Cheu	Examiner REGINA YOO			Art Unit 1773	Page 1 of 1	
				U.S. PA	TENT DOCUME		1770		
*		Document Number Country Code-Number-Kind Code	Date MM-YYYY			Lame		Classification	
*	Α	US-4,662,516 A	05-1987	Baker et	t al.	206/363			
*	В	US-5,003,892 A	04-1991	Bricken,	Jonathan			110/346	
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	N								

US-PAIR: prior art in image file wrapper

"Image File Wrapper" contains search and examination reports





US-PAIR: prior art tab

11/689,638	Heat Proceeding System	ns, Apparatuses, and Methods for Co: tion and Disposal of Infectious and Medical Waste						
		Continuity Published Address & Display						
New Case Data History Wrapper Data Documents Attorney/Agent References								
Reference Forms								
Mail Room Date 🗘 Document Code 🖟 Document Description 🖟								
02-24-2011	892	List of references cited by examiner						
09-16-2010 1449 <u>List of References cited by applicant and considered by examiner</u>								
08-16-2010	IDS	Information Disclosure Statement (IDS) Form (SB08)						
06-23-2009	892	List of references cited by examiner						
06-23-2009 1449 <u>List of References cited by policant and considered by examiner</u>								
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Foreign Patent a	nd Non-Patent Docum	* * * * * * * * * *						
Mail Room Date Document Description Document Description ↑								
08-16-2010	NPL /	Non Patent Literature						
08-16-2 <u>010</u>	NPL /	Non Patent Literature						
08-16- List of re	eferences cited b	List of references cited by						
08-16-		Non Patent Literature						
09-12-	applicant	Foreign Reference examiner						
09-12-2007	FOR	Foreign Reference						
09-12-2007	FOR	Foreign Reference						



US Final and Non-Final Rejections

 Relevance of citations (X, Y) can (currently) only be derived from the reasons of rejections stated in US examination reports and decisions ('final' and 'non-final rejections')

9. Claims 1, 8-10, 15-16, 34, 39-40, 42, 51, 63, 68, 69 and 79 are rejected under 35 U.S.C. 102(b) as being anticipated by Tibor (Tibor) (US Pub. No. 2004/0234117).

As per claim 1 Tibor discloses:

A secure universal transaction system, comprising: an operation ource component, including a first biometric security component, a second security component, (page 1) 33, the central system 12 can be remotely located from the electronic transaction station location as the electronic transaction station, e.g., an in-store central processor and inview of US2004023117A1'

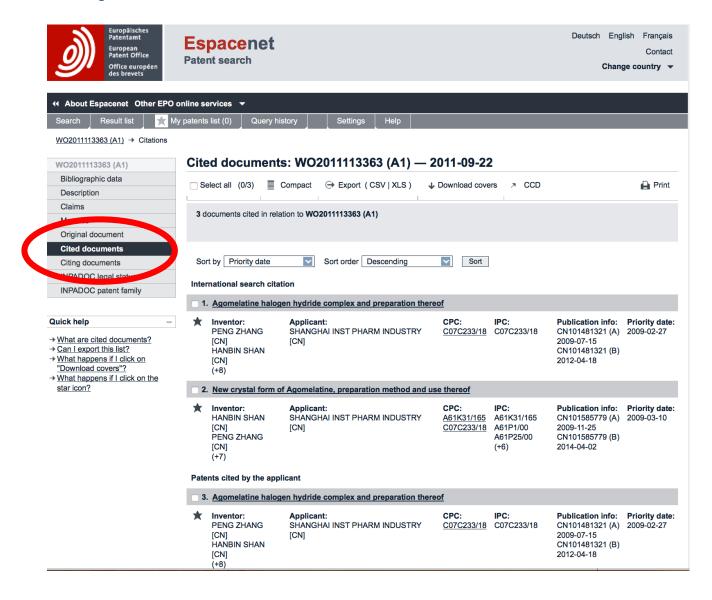


US search reports in Global Dossier

17.11.2011	List of References cited by applicant and considered by examiner
17.11.2011	Notice of Allowance and Fees Due (PTOL-85)
17.11.2011	Examiner's search strategy and results
17.11.2011	Search information including classification, databases and other search related notes
17.11.2011	List of References cited by applicant and considered by examiner
17.11.2011	Bibliographic Data Sheet
17.11.2011	Foreign Reference
17.11.2011	List of References cited by applicant and considered by examiner
17.11.2011	Issue Information including classification, examiner, name, claim, renumbering, etc.
17.11.2011	List of references cited by examiner
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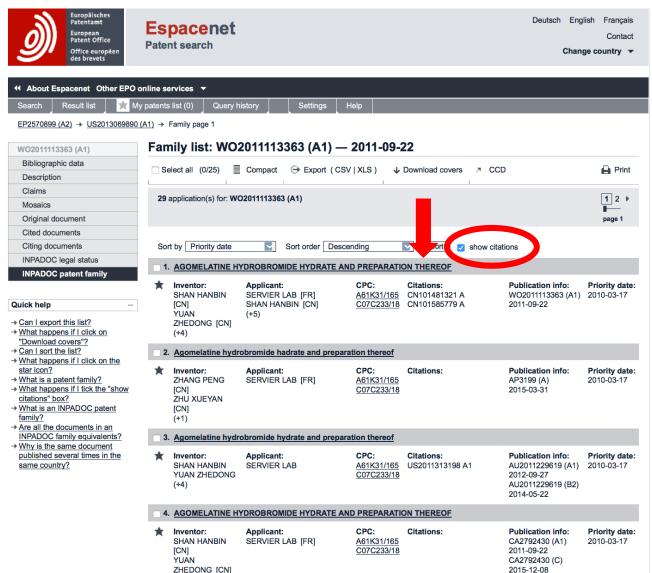


Espacenet: Backward Citations



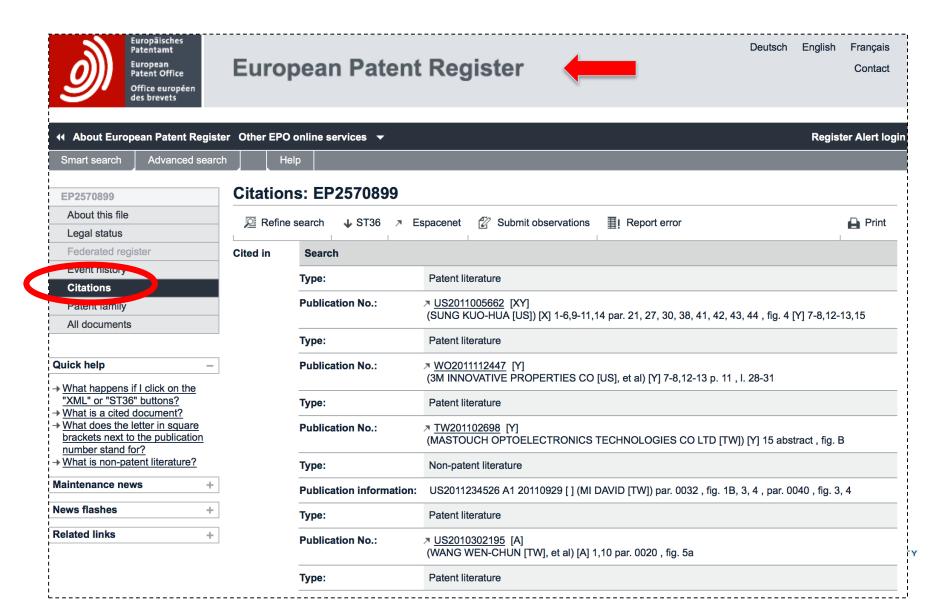


Citations in Inpadoc family list



WIPO
WORLD
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Citations (enriched) in EP-Register - 1



Citations (enriched) in EP-Register – 2

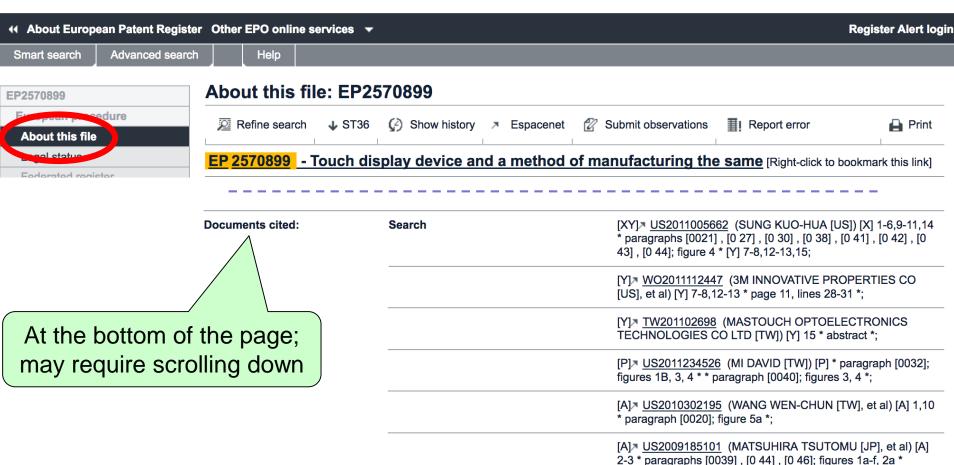


European Patent Register

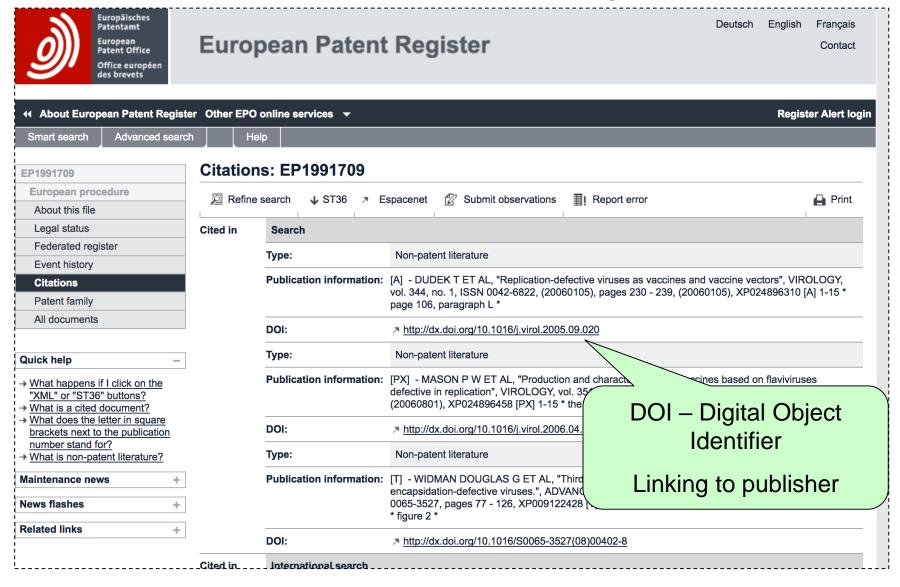


Deutsch English Français

Contact



NON-PL Citations in EP-Register



Citation during opposition (EP Register)

Cited in	International search	[X] [▶] <u>US4268635</u> (HOY LESLIE R J, et al) [X] 1-17 * the whole document *;
		[X] [▶] DE19513403 (BASF AG [DE]) [X] 1-17 * the whole document *;
		[X] WO2004096418 (UNIV TSINGHUA [CN], et al) [X] 1-17 * the whole document *;
		[A] US4804724 (HARRIS JAMES E [US], et al) [A] 1-17 * the whole document *
	by applicant	→ <u>WO2007071780</u>
		→ <u>US4268635</u>
		→ <u>DE19513403</u>
		→ <u>WO2004096418</u>
	Opposition	→ <u>EP0332012</u>
		→ <u>JP2006028414</u>
		→ <u>EP2000492</u>
		→ <u>EP0030033</u>



Citations on front pages of grant publications

Patent literature

References cited: GB-A- 2 131 952

282

THE MARCONI REVIEW, vol. XLIII, no. 218, 1980, pages 156-175, Rugby, GB; R.M. LANG-DON: "Vibratory process control transducers"

IEEE TRANSACTIONS ON INSTRUMENTA-TION AND MEASURMENT, vol. IM-32, no. 3, September 1983, pages 434-437, IEEE, New York, US; E. STEMME et al.: "Measuring liquid density with a tuning-fork transducer"

I.S.A. TRANSACTIONS, vol. 20, no. 3, 1981, pages 67-75, Research Triangle Park, NC, US; B.W. BALLS: "A new on-line density meter for viscous liquids and slurries" raimam ourey(up)

 Representative: Stoole, Brian David et al Schlumberger Electronics (U.K.) Limited 124 Victoria Road
 Farnborough Hampshire GU14 7PW (GB) © Pauls of liming 07:23.88

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THE MANCOON REVIEW, vol. X.I.R., no. 218,
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1980, pages 27-12. I MERCON BOOK OF THE MANCOON REVIEW, vol. X.I.R., no. 218,
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1980, pages 27-12. Review of the MERCON BOOK OF THE

Non patent literature

Note: Within nine months from the publication of the mention of the grant of the European patent, any person may give notice to the European Patent Office of opposition to the European patent granted. Notice of opposition shall be filed in a written reasoned statement. It shall not be deemed to have been filed until the opposition fee has been paid (Art. 99(1) European patent convention).

WIPO

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Third party observations

- Overview:
 - http://www.wipo.int/scp/en/revocation_mechanisms/third_party/index.html
 - For PCT, possible according to Section 801ff of Administrative Instructions
 - Searchable in Patentscope: TPO:(* to *)
 - Retrievable through tab "Documents"

Search and Examination-Related Documents						
Date	Title	View	Download			
26.05.2017	Third Party Observation	PDF (2p.)	PDF (2p.), ZIP(XML + TIFFs)			
26.05.2017	Additional comments submitted with observation	PDF (15p.)	PDF (15p.), ZIP(XML + TIFFs)			
24.04.2017	Third Party Observation	PDF (1p.)	PDF (1p.), ZIP(XML + TIFFs)			
24.04.2017	Third Party Observation	PDF (1p.)	PDF (1p.), ZIP(XML + TIFFs)			
16.03.2017	International Search Report	PDF (4p.)	PDF (4p.), ZIP(XML + TIFFs)			
16.03.2017	Written Opinion of the International Search Authority	PDF (9p.)	PDF (9p.), ZIP(XML + TIFFs)			
16.03.2017	Search Strategy	PDF (1p.)	PDF (1p.), ZIP(XML + TIFFs)			



Third party observations

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	! [Applicant's or	agent's file refe	erence		
	-	16F064-PCT				
		International application number Inte			Interna	itional filing date (day/month/year)
		PCT/JP2016/071237				20 Jul 2016 (20/07/2016)
		Applicant				
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Publisher of Periodical:		Pla	Place of publication:		$\overline{}$	Reference
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p12719 Discussion				-17		Explanation
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した卵作成が可能であることが開示され、さらにCRISPR-Casゲノム編集技術も利用可能であることが開示されている。従って、CRISPR-Casゲノム編集技術で鶏のovomucoid遺伝子をノックアウトすることは容易に思						
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	Title of article: Targeted gene knockout in chickens mediated by TALENs Publisher of Periodical: ISBN: Vings: ENsのゲノム編集技術を用いることが開示され、さらにCRIS	Title of article: Targeted gene	International a Applicant Applicant Third party ob Date of submit Third party ob Date of submit Title of article:	Third party observation submoderate Total party observation Total party observat	International application number PCT/JP2016/071237 Applicant (EN) HIROSHI Third party observation submitted by Anonymous Date of submission(day/month/year) 17 Jun 2017 (17/06/2017) Title of article: Title of Periodical: Proc Natl Acad Sci U SA. 2014) Chickens mediated by TALENs Publisher of Periodical: Place of publication: ISBN: ISSN: Relevant to Claims: 1-2, 4-17 ENsのゲノム編集技術を用いて、アレルギーの原因であるovomuentaでククアウトることが開示され、さらにCRISPR-Casゲノム編集技術も利用可能であることが開示	Third party observation submitted by Anonymous Date of submission(day/month/year) 17 Jun 2017 (17/06/2017) Langua 18 Jun 2017 (17/06/2017) Jun 2017 (17/06/2017) Langua Langua

Google patents: Forward Citations

Agomelatine hydrobromide hydrate and preparation thereof

Abstract

An agomelatine hydrobromide hydrate of formula (I), in which X is Br, preparation method and use thereof as well as pharmaceutical composition containing it are provided. The solubility of the agomelatine hydrobromide hydrate obtained by the present method is significantly higher than that of agomelatine. Therefore, it is more suitable for manufacturing pharmaceutical formulations. In addition, the product has higher stability and purity. The present product of high purity can be obtained through a simple process, rather than process with complicated steps.

Classifications

C07C233/18 Carboxylic acid amides having carbon atoms of carboxamide groups bound to hydrogen atoms or to acyclic carbon atoms having the nitrogen atom of at least one of the carboxamide groups bound to a carbon atom of a hydrocarbon radical substituted by singly-bound oxygen atoms with the substituted hydrocarbon radical bound to the nitrogen atom of the carboxamide group by an acyclic carbon atom having the carbon atom of the carboxamide group bound to a hydrogen atom or to a carbon atom of an acyclic saturated carbon skeleton

View 1 more classifications

W02011113363A1

WO Application

Application number: PCT/CN2011/071912

Other languages: French

Inventor: Hanbin Shan , Zhedong Yuan , Xueyan Zhu , Peng Zhang , Hongjuan Pan , Xiong Yu

Original Assignee: Les Laboratoires Servier

Priority date: 2010-03-17

Filing date: 2011-03-17

Publication date: 2011-09-22

Info: Patent citations (2), Non-patent citations (1), Cited by (4), Also published as (16), Legal events, Similar documents

External links: Espacenet, Global Dossier,

PatentScope, Discuss

Backward and forward citations

- Patents
 - can cite other patents as prior art (backward citations)
 - can be cited by other patents (forward citations)

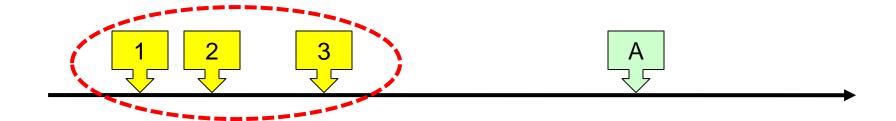


Backward and forward citations

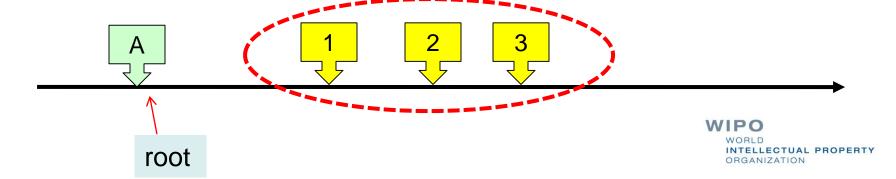
For any publication A:

Time dimension

Publications cited in A → Backward citations of A

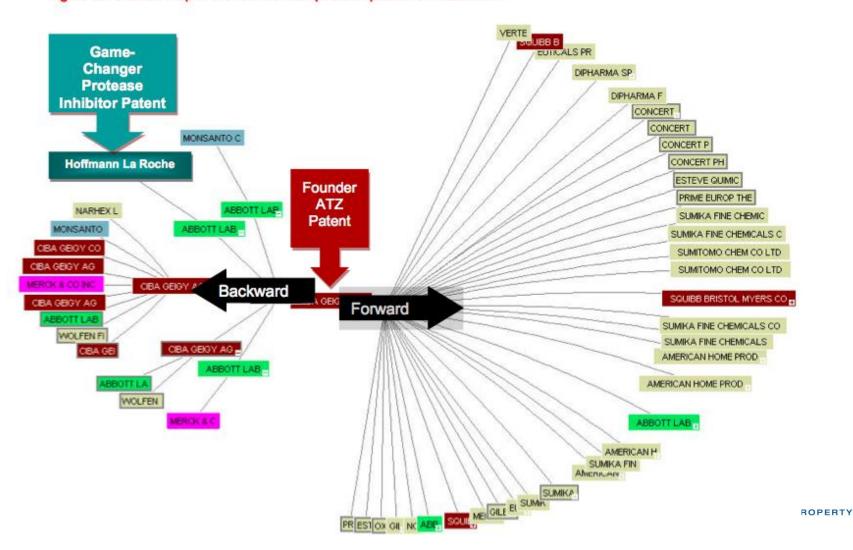


Publications citing A → Forward citations of A

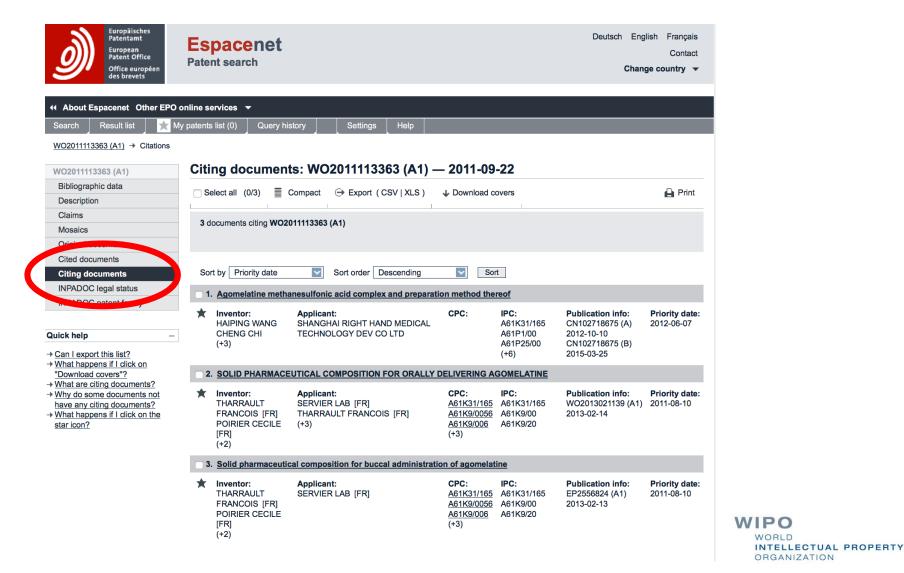


Atazanavir – citation map

Figure 29. Citation map of the founder composition patent for Atazanavir

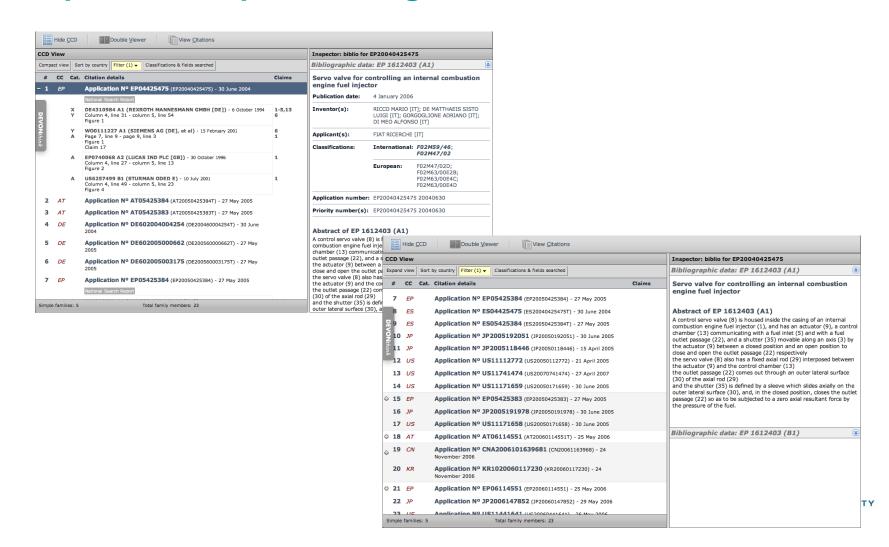


Espacenet: Forward Citations



Common Citation Document (CCD)

http://ccd.fiveipoffices.org/CCD-2.1.6/



Common Citation Document (CCD)

- CCD originated from a request of the US commercial sector to have a onestop-shop for citations of prior art identified by different IPOs for members of the patent family
 - To avoid researching individual national phases
 - Facilitate comparing prior art searches
 - Facilitate identification of prior art seen only by one examiner, or prior art not included in the ISR
 - Provide public access to trilateral offices' internal resources
 - Trilateral and other offices had established mechanisms for non public exchange of prior art search reports
- CCD has been developed and is hosted by the EPO
- Access via link in Inpadoc family list of Espacenet or at
- http://ccd.fiveipoffices.org/CCD-2.1.6/

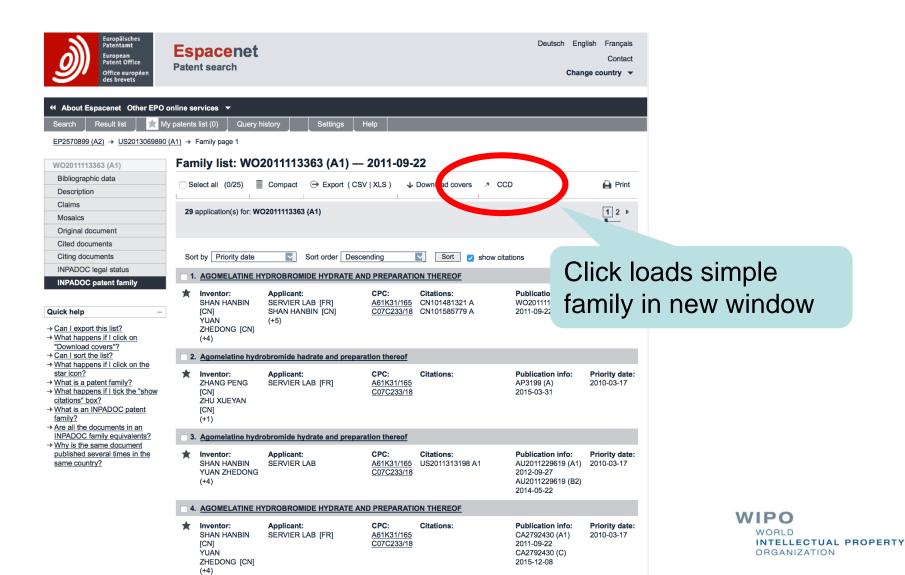


Common Citation Document (CCD)

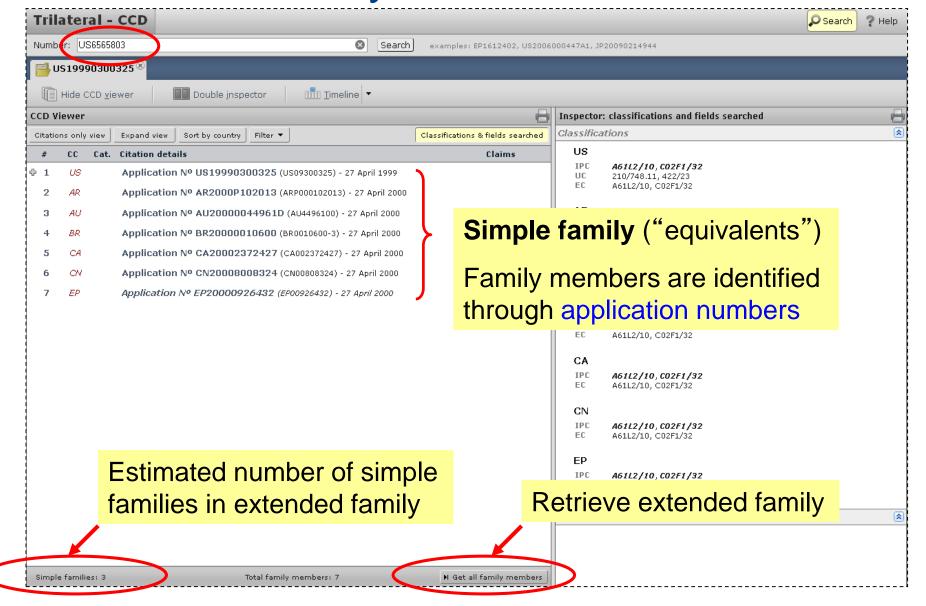
- CCD offers consolidated access to family information and citation data from EPO, KIPO, JPO, SIPO, USPTO, PCT and several other jurisdictions for each respective family member where available.
- CCD builds on the EPO's family system:
 - Family information is equivalent to that presented in Espacenet
 - CCD presents family data in a different way: members of the extended family are ordered/sorted into simple families
- CCD permits comparing of search reports; namely, if a selected citation was seen by only one, several or all examiners (appears in one, several or all available search reports)
- CCD permits viewing of cited patent documents per family member in PDF and html
- No examination reports included yet

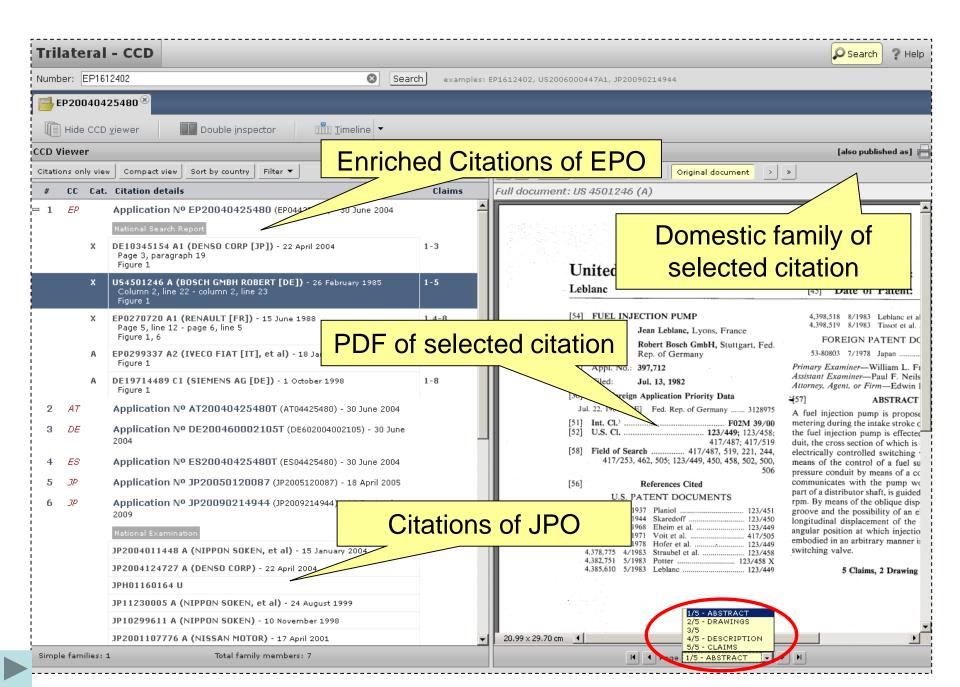


CCD: Access via Inpadoc family list

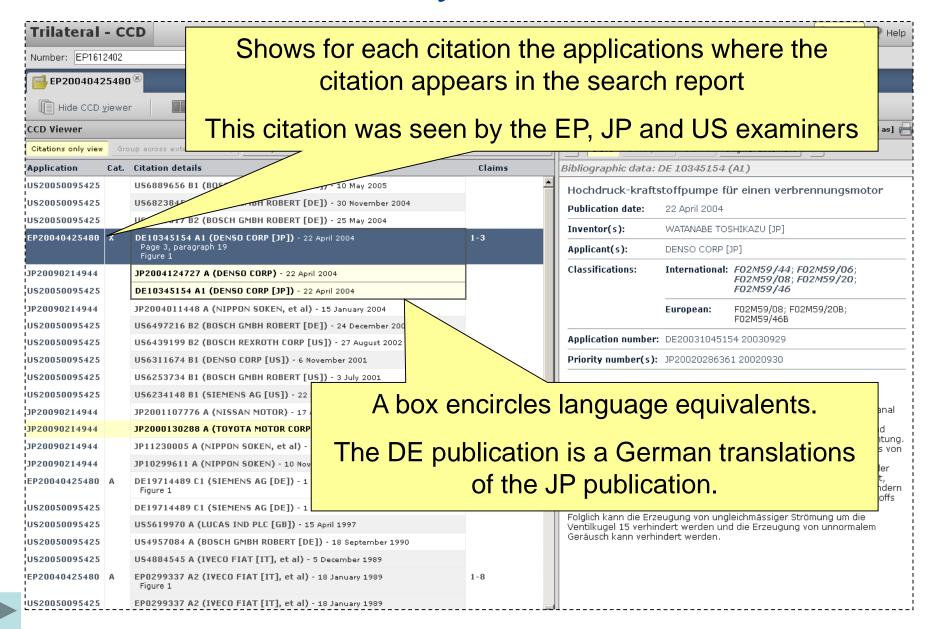


Sources of family information: CCD

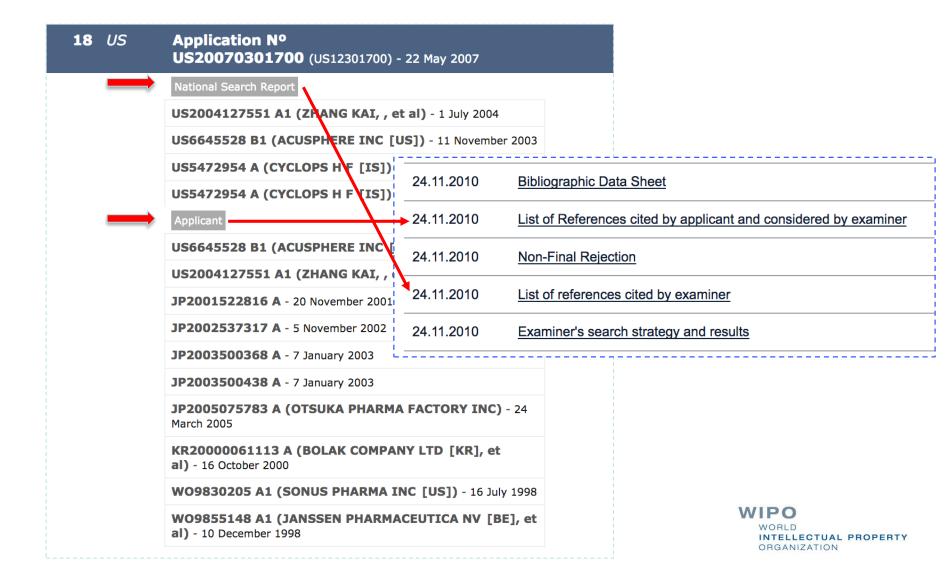




CCD - citations only view



US citations in CCD



Citations Database: Top 10 Main offices of origin

Country	First publication date	Number of citing publications	Number of cited patents	Number of cited non-patents
UNITED STATES OF AMERICA	04-02-1947	11 425 603	167 530 941	27 200 065
JAPAN	09-11-1965	5 071 602	19 816 033	453 775
WIPO	19-10-1978	3 294 659	16 312 310	4 346 752
CHINA	02-06-2010	2 924 018	14 126 563	1 705 684
EUROPEAN PATENT OFFICE	20-12-1978	2 592 831	10 235 245	3 335 114
GERMANY	18-09-1943	1 819 664	6 894 561	755 340
KOREA	07-01-2006	906 244	2 766 266	80 953
FRANCE	29-08-1969	666 441	2 497 330	306 360
GREAT BRITAIN	04-01-1979	573 139	2 315 470	104 202
AUSTRALIA	18-03-1971	388 841	987 570	84 435

WORLD

WORLD
INTELLECTUAL PROPERTY
ORGANIZATION

European Patent Office 39

Overview: Access options to citations of EP applications via EPO databases

- Publication of search report EP-A1/3
- Front page of grant publication EP-B1
- Espacenet: page 'Inpadoc family' (tick citations option)
- Espacenet: page 'Cited documents'
- EP-Register: bottom of page 'About this file'
- EP-Register: page 'citations'
- CCD
- ...[other database providers]



Thank you

lutz.mailander@wipo.int

