

Topic 6: Retrieving and Comparing Prior Art Citations

Lutz Mailänder

Head, International Cooperation on Examination and Training Section

Casablanca Mars 20, 2018

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

					· · ·	Unite Li et al.	d State	es Patent	. ,	Patent No.: Date of Patent:	US 8,296,619 B2 Oct. 23, 2012	
Diate Contract of the second s	nyihicher estanti estanti est office est currupter brevets	OPEAN SEARCH REPO	RT	EP	(54)	METHO		RATUS FOR PORARY BLOCK FLO	(56)	Reference	es Cited	
	DOCUMENTS CONSIDERI	ED TO BE RELEVANT				TO WHIC	CH A PIGGY	BACKED ACK/NACK		U.S. PATENT D	OCUMENTS	
Category	Citation of document with indica of relevant passages		Relevant to olaim	CLASS APPLIQ		FIELD IS	ADDRESSE	D	5,7		oith et al 714/758	
x	EP 0 813 338 A2 (ROCKW CORP [US]) 17 December * column 6, line 12 - * column 8, line 52 - figure 1 *	1997 (1997-12-17) column 8, line 26 *	1-13	INV. GOITI	(75)	Inventors:	G. Dick, Ne	ter Valley, PA (US); Steph sconset, NY (US); R. Chitrapu , Blue Bell, P		(Contin FOREIGN PATEN 1 376 950	,	
347	US 6 128 039 A (CHEN D 3 October 2000 (2000-1 * column 3, line 57 - figure 2 *	0-03)	1,3-7				Behrouz Ag	n Rudolf, Vitre (FR); hili, Melville, NY (US); Manseta, Yardley, PA (U		(Contin OTHER PUBI	uued)	
	US 6 163 029 A (YAMADA AL) 19 December 2000 (* column 15, line 30 - figures 2,15,16 *	2000-12-19) column 16, line 45;			(73)	Assignee:	InterDigital Wilmington,	Technology Corporation DE (US)	Group C		oject, "Technical Specification ess Network; Channel coding 4.0 (Feb. 2008).	
	FR 2 864 628 A1 (COMMI ATOMIQUE [FR]) 1 July * page 4, line 18 - pa figure 3 *	2005 (2005-07-01)	1-13	TECH	(*)	Notice:	patent is ext	y disclaimer, the term of t tended or adjusted under b) by 981 days.	this 35	(Contin	ued)	
A,D	WO 2004/064168 A1 (SCH [CH]; BROENNIMANN CHRI	STIAN [CH]; SCHMITT	1-13	G01T					-	Examiner — Scott Bac t Examiner — Jeison C		į
	BERND [CH) 29 July 200 * the whole document *	4 (2004-07-29)			(21)	Appl. No.:	12/106,138	Cited in	International search		LESLIE R J, et al) [X] 1-17 * the whole doc	umer
E	WO 2009/131151 A1 (HAM [JP]; MORI HARUMICHI [1					-		[X]. [#] <u>DE19513403</u> (BA	SF AG [DE]) [X] 1-17 * the whole document	•;
	[JP];) 29 October 2009 * figure 12 *							1		[X] <i>≭</i> <u>WO2004096418</u> (document *;	UNIV TSINGHUA [CN], et al) [X] 1-17 * the	whole
									-	[A]> US4804724 (HAR document *	RIS JAMES E [US], et al) [A] 1-17 * the who	le
								1	by applicant	→ WO2007071780		
								1	ngeneral en 199 Matrix Contra A. A.C.	→ <u>US4268635</u>		
								1		→ DE19513403		
			4					1		→ WO2004096418		
	The present search report has been Place of search	drawn up for all claims Date of completion of the search		Exercises		_ :			Opposition	→ EP0332012		
	The Hague	23 March 2010	Wu	lveryck,	J					→ JP2006028414		
	ATEGORY OF CITED DOCUMENTS	T : theory or principl E : earlier patent do after the filing dat	cument, but pub	invention lished on, or						→ <u>EP2000492</u>		
Y:part docu A:tech	icularly relevant if combined with another ument of the same category mological background	D : document cited i L : document cited for	n the application or other reasons					I I		→ <u>EP0030033</u>		
	-written disclosure rmediate document	& : member of the so document	ame patent famil	ly, corresponding				L				

WORLD 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)

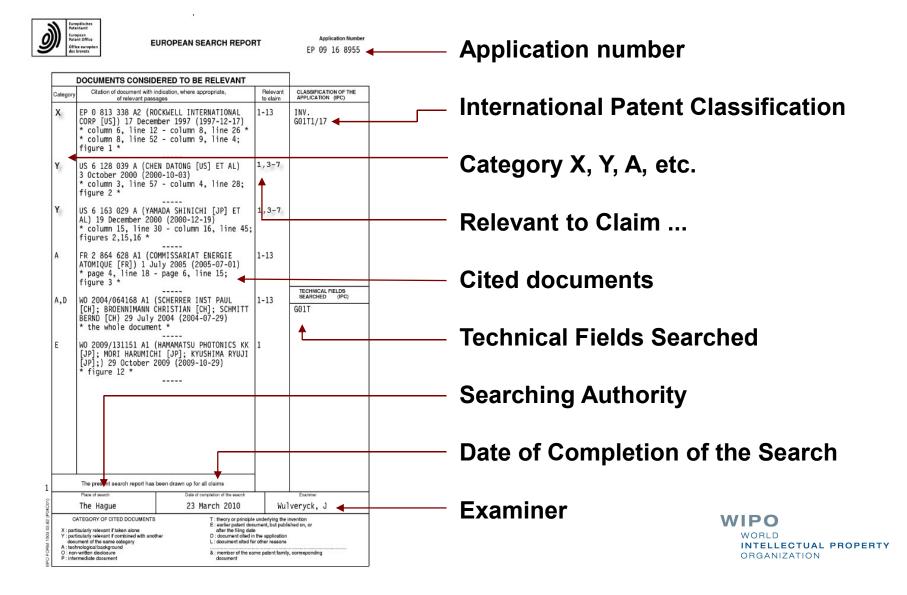
- Established by (selected) competent ISA
- Search based on claims as originally filed (Article 15)
 - Limited utility of ISR for amended claims in national phase
- Search performed according to PCT Examination Guidelines
- Prior art is everything made available to the public (Rule 33)
 - in written 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



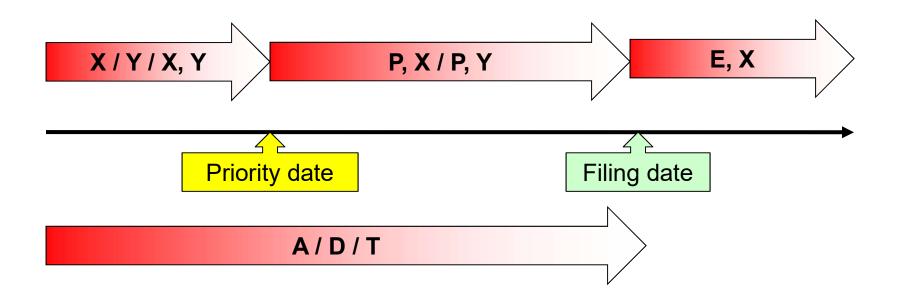
Categories of citations

- 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 Reference	s Cited		Application/Co 11/689,638	ntrol No.	Applicant(s) Reexaminat COX ET AL	
		Notice of Helefence	5 Uneu		Examiner REGINA YOC		Art Unit 1773	Page 1 of 1
			(U.S. P	ATENT DOCUME	NTS	1	
*		Document Number Country Code-Number-Kind Code	Date MM-YYYY			tume		Classification
*	А	US-4,662,516 A	05-1987	Baker e	et al.			206/363
*	в	US-5,003,892 A	04-1991	Bricken	n, Jonathan			110/346
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US-PAIR: prior art in image file wrapper

"Image File Wrapper" contains search and examination reports

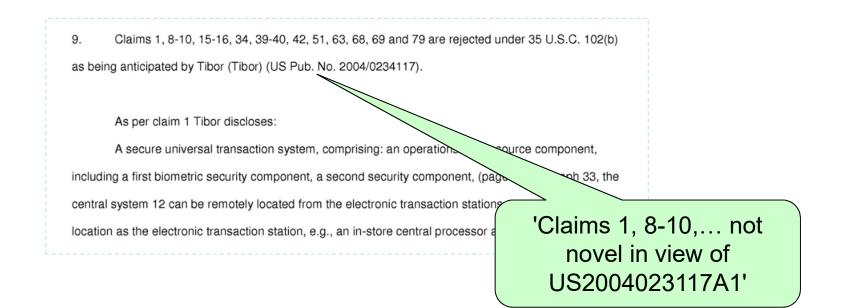


US-PAIR: prior art tab

_11/689,638	Heat Processing Systems,	Apparatuses, and Methods for Co	ion and Disposal of Infectious and Medical Waste
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09-16-2010	1449	List of References cited by applicant	and considered by examiner
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06-23-2009	892	List of references cited by examiner	
06-23-2009	1449	List of References cited by applicant	and considered by examiner
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08-16-2010	NPL	Non Patent Literature	
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08-16-1	,	Non Patent Literature	
09-12-1	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')



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

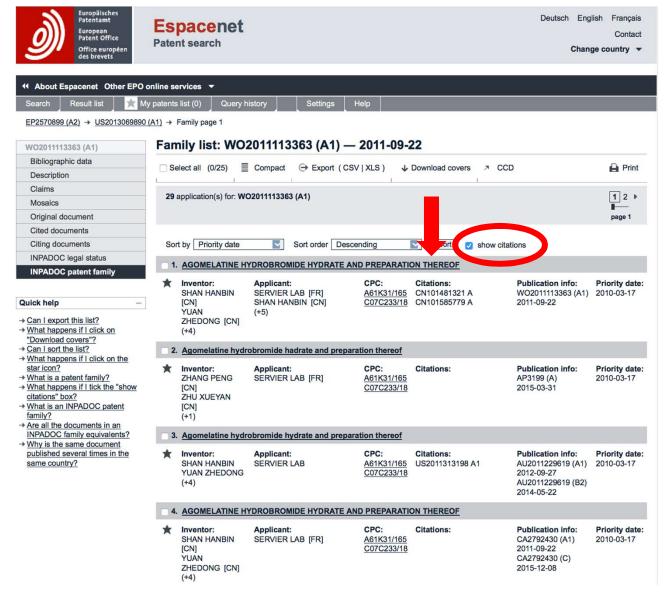


Espacenet: Backward Citations

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WO2011113363 (A1) → Citations		
WO2011113363 (A1)	Cited documents: WO2011113363 (A1) — 2011-09-22	
Bibliographic data Description	□ Select all (0/3)	🔒 Print
Claims	3 documents cited in relation to WO2011113363 (A1)	
Original document		
Cited documents		
Citing documents	Sort by Priority date Sort order Descending Sort	
INPADOC legal state	International search citation	
INPADOC patent family	1. Agomelatine halogen hydride complex and preparation thereof	
Quick help –	The Inventor: Applicant: CPC: IPC:	Publication info: Priority date:
	PENG ZHANG SHANGHAI INST PHARM INDUSTRY <u>C07C233/18</u> C07C233/18 [CN] [CN] HANBIN SHAN [CN] (+8)	CN101481321 (A) 2009-02-27 2009-07-15 CN101481321 (B) 2012-04-18
star icon?	2. New crystal form of Agomelatine, preparation method and use thereof	
	Inventor: Applicant: CPC: IPC: HANBIN SHAN SHANGHAI INST PHARM INDUSTRY A61K31/165 A61K31/165 [CN] [CN] [CN] A61P25/00 [CN] (+7) (+6)	Publication info: Priority date: CN101585779 (A) 2009-03-10 2009-11-25 2011585779 (B) 2014-04-02 2014-04-02
	Patents cited by the applicant	
	3. Agomelatine halogen hydride complex and preparation thereof	
	Inventor: Applicant: CPC: IPC: PENG ZHANG SHANGHAI INST PHARM INDUSTRY C07C233/18 [CN] [CN] HANBIN SHAN [CN] (*8)	Publication info: Priority date CN101481321 (A) 2009-02-27 2009-07-15 CN101481321 (B) 2012-04-18 2012-04-18

WIPO

Citations in Inpadoc family list





Citations (enriched) in EP-Register - 1

9 European Patent Office Office européen des brevets	Euro	pean Patent	Register	Contac		
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Citations		Туре:	Patent literature			
Patent amily		Publication No.:	US2011005662 [XY] (SUNG KUO-HUA [US]) [X] 1-6,9-11,14 par. 21, 27, 30, 38, 41, 42, 43, 44, fig. 4 [Y] 7-8	12-13 15		
All documents				5, 12-15, 15		
		Туре:	Patent literature			
Quick help –		Publication No.:	<u>> WO2011112447</u> [Y]			
What happens if I click on the			(3M INNOVATIVE PROPERTIES CO [US], et al) [Y] 7-8,12-13 p. 11 , I. 28-31			
"XML" or "ST36" buttons? What is a cited document?		Туре:	Patent literature			
What is a cited document: What does the letter in square brackets next to the publication number stand for?		Publication No.:	<u>TW201102698</u> [Y] (MASTOUCH OPTOELECTRONICS TECHNOLOGIES CO LTD [TW]) [Y] 15 abstract ,	fig. B		
→ What is non-patent literature?		Туре:	Non-patent literature			
Maintenance news +		Publication information:	US2011234526 A1 20110929 [] (MI DAVID [TW]) par. 0032 , fig. 1B, 3, 4 , par. 0040 , f	fig. 3, 4		
News flashes +		Туре:	Patent literature			
Related links +		Publication No.:	↗ <u>US2010302195</u> [A] (WANG WEN-CHUN [TW], et al) [A] 1,10 par. 0020 , fig. 5a			
		Туре:	Patent literature			



Citations (enriched) in EP-Register – 2

Europäisches Patentamt European Patent Office Office européen des brevets	European F	Patent Register	Deutsc	h English Français Contact
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Endersted register				
	Documents cited:	Search	[XY]≭ <u>US2011005662</u> (SUNG KUO-HL * paragraphs [0021] , [0 27] , [0 30] , [0	
			43] , [0 44]; figure 4 * [Y] 7-8,12-13,15;	30] , [0 4 1] , [0 42] , [0
			[Y]⊼ <u>WO2011112447</u> (3M INNOVATIVE [US], et al) [Y] 7-8,12-13 * page 11, line	
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may require sc			[P]≭ <u>US2011234526</u> (MI DAVID [TW]) figures 1B, 3, 4 * * paragraph [0040]; fig	
		2		
			[A] ↗ <u>US2010302195</u> (WANG WEN-CH * paragraph [0020]; figure 5a *;	UN [TW], et al) [A] 1,10

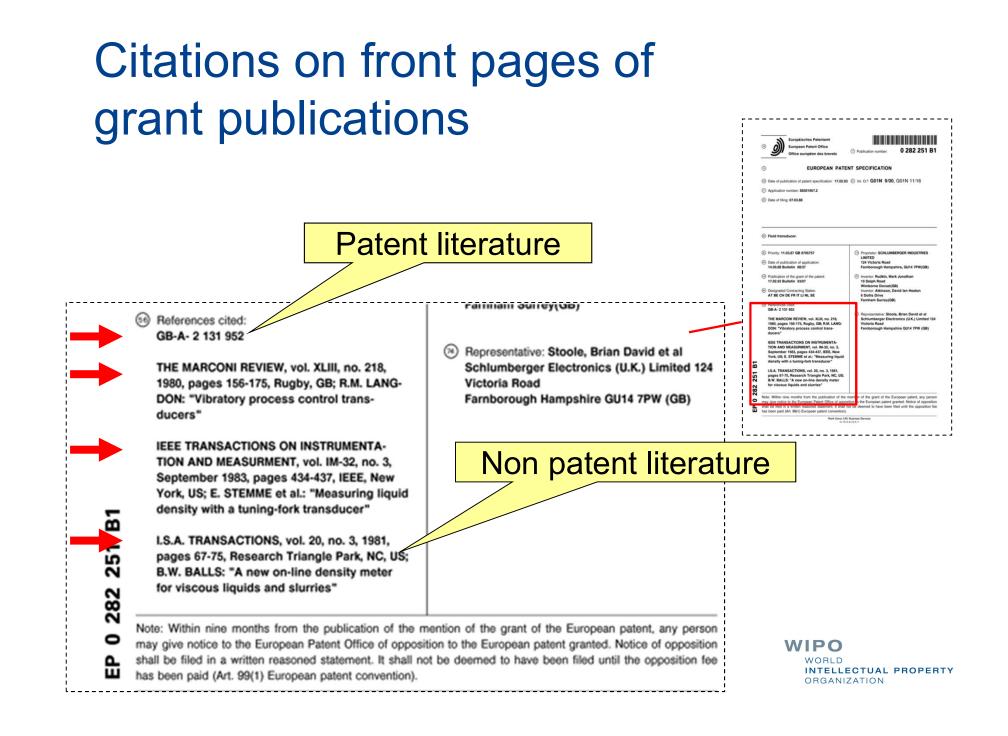


NON-PL Citations in EP-Register

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Legal status	Cited in	Search		
Federated register		Type:	Non-patent literature	
Event history				
Citations		Publication information:	[A] - DUDEK T ET AL, "Replication-defective viruses as vaccines and vaccine vector vol. 344, no. 1, ISSN 0042-6822, (20060105), pages 230 - 239, (20060105), XP0248	
Patent family			page 106, paragraph L *	1903 IU [A] 1-15
All documents		DOI:	http://dx.doi.org/10.1016/j.virol.2005.09.020	
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 What happens if I click on the "XML" or "ST36" buttons? What is a cited document? 		Publication information:	[PX] - MASON P W ET AL, "Production and charact defective in replication", VIROLOGY, vol. 35 (20060801), XP024896458 [PX] 1-15 * the DOI – Digital	
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number stand for? What is non-patent literature?			Non-patent literature	-

Citation during opposition (EP Register)

Cited in	International search	[X] JUS4268635 (HOY LESLIE R J, et al) [X] 1-17 * the whole document *;
		[X]. DE19513403 (BASF AG [DE]) [X] 1-17 * the whole document *;
		[X]↗ <u>WO2004096418</u> (UNIV TSINGHUA [CN], et al) [X] 1-17 * the whole document *;
		[A] [,] <u>US4804724</u> (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>
		→ EP0030033



Third party observations

Overview:

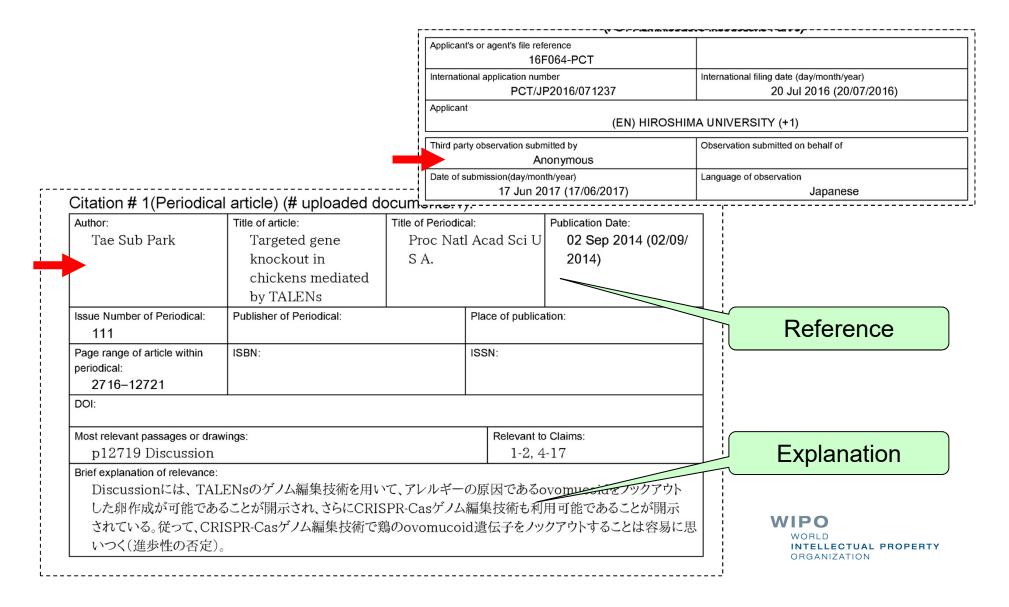
http://www.wipo.int/scp/en/revocation_mechanisms/third_party/index.html

- 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)							
16.03.20 <mark>1</mark> 7	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



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

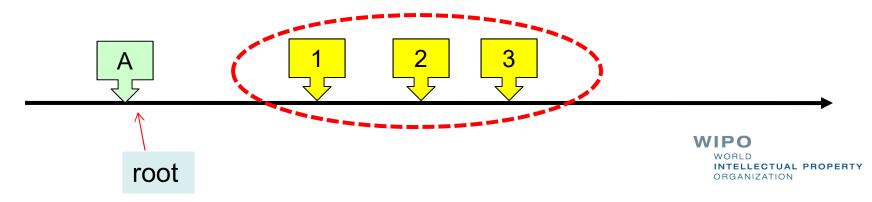
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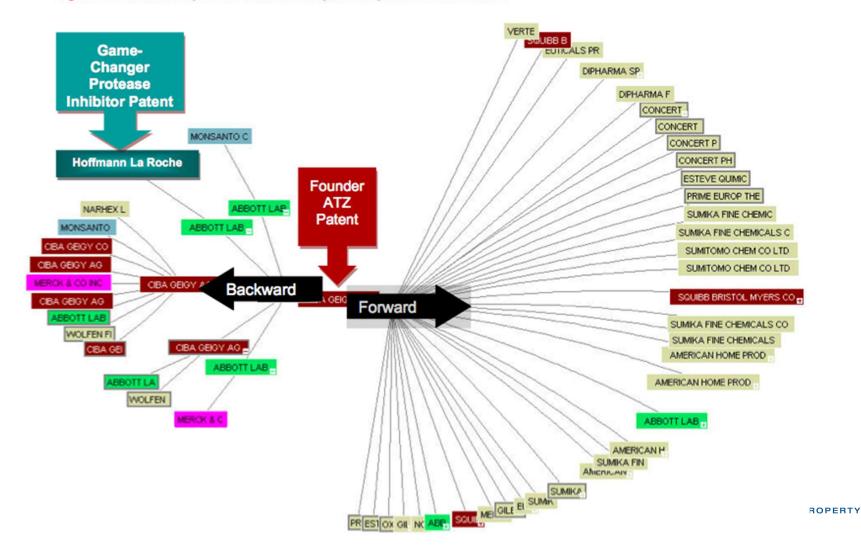


Publications citing A -> Forward citations of A



Atazanavir – citation map

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



Espacenet: Forward Citations

Europäisches Patentamt European Patent Office	Espacene	et			Deutsch Eng	lish Français Contact
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INPADOC legal status						
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	Inventor: HAIPING WAN	Applicant: G SHANGHAI RIGHT HAND MEDICAL	CPC:	IPC: A61K31/165	Publication info: CN102718675 (A)	Priority date: 2012-06-07
uick help –	CHENG CHI (+3)	TECHNOLOGY DEV CO LTD		A61P1/00 A61P25/00	2012-10-10 CN102718675 (B)	
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What are citing documents? Why do some documents not	Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
have any citing documents?	THARRAULT	SERVIER LAB [FR]	A61K31/165	A61K31/165	WO2013021139 (A1)	
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	[FR]		(+3)			
	(+2)					
	3. Solid pharma	ceutical composition for buccal administr	ation of agomelati	ne		
	THARRAULT	Applicant: SERVIER LAB [FR]	CPC:	IPC:	Publication info:	Priority date: 2011-08-10
	FRANCOIS [F	R]	the second se	A61K9/00	EP2556824 (A1) 2013-02-13	2011-08-10
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Compa	ct viev	Sort	t by country Filter (1) Classifications & fields searched	Bibliographic da	ta: EP 1612403	3 (A1)			
#	сс	Cat.	Citation details	Claims			internal combustion		
	EP		Application Nº EP04425475 (EP20040425475) - 30 June 2004		engine fuel inje				
_			National Search Report		Publication date:	4 January 2006			
DEV		X Y	DE4310984 A1 (REXROTH MANNESMANN GMBH [DE]) - 6 October 1994 Column 4, line 31 - column 5, line 54 Figure 1	1-5,13 6 1	Inventor(s):		T]; DE MATTHAEIS SISTO GOGLIONE ADRIANO [IT]; O [IT]		
		YA	WO0111227 A1 (SIEMENS AG [DE], et al) - 15 February 2001 Page 7, line 9 - page 9, line 3		Applicant(s):	FIAT RICERCHE [IT]			
n.			Figure 1 Claim 17		Classifications:	International:			
		A	EP0740068 A2 (LUCAS IND PLC [GB]) - 30 October 1996 Column 4, line 27 - column 5, line 13 Figure 2	1		European:	F02M47/02 F02M47/02D; F02M63/00E2B;		
		A	US6257499 B1 (STURMAN ODED E) - 10 July 2001 Column 4, line 49 - column 5, line 23 Figure 4	1		F02M63/00E4C; F02M63/00E4C; F02M63/00E4D			
2	AT		Application Nº AT05425384 (AT20050425384T) - 27 May 2005		Application number	r: EP2004042547	5 20040630		
з	AT		Application Nº AT05425383 (AT20050425383T) - 27 May 2005		Priority number(s): EP2004042547	5 20040630		
4	DE		Application N° DE602004004254 (DE200460004254T) - 30 June 2004		Abstract of EP 1				
5	DE		Application N° DE602005000662 (DE200560000662T) - 27 May 2005		A control servo valve combustion engine fi chamber (13) comm	uel inje Hide unicatir			
6 DE			Application N° DE602005003175 (DE200560003175T) - 27 May 2005		outlet passage (22), and a s the actuator (9) between a close and open the outlet pa Expand view Sort by country				
7	EP		Application Nº EP05425384 (EP20050425384) - 27 May 2005		the servo valve (8) a the actuator (9) and		Cat. Citation details		
			National Search Report		the outlet passage (2 (30) of the axial rod	22) com			
Simple	famili	05' 5	Total family members: 23		and the shutter (35) outer lateral surface	is defir	Application No		

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uropear	n:	F02M6	17/02D; 33/00E2B; 33/00E4C; 33/00E4O						
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	nd view	Sort	oy country Filter (1) Classifications & fields searched	Bi	ibliographic data: EP 1612403 (A1)				
as cor #	cc	Cat.	Citation details		ervo valve for controlling an internal combustion				
7	EP		Application Nº EP05425384 (EP20050425384) - 27 May 2005	e	ngine fuel injector				
fir a 8	ES		Application Nº ES04425475 (ES20040425475T) - 30 June 2004	A	bstract of EP 1612403 (A1)				
29	ES		Application Nº ES05425384 (ES20050425384T) - 27 May 2005		control servo valve (8) is housed inside the casing of an internal ombustion engine fuel injector (1), and has an actuator (9), a control				
§ 1	0 JP		Application Nº JP2005192051 (JP20050192051) - 30 June 2005	ch	namber (13) communicating with a fuel inlet (5) and with a fuel titlet passage (22), and a shutter (35) movable along an axis (3) by				
thin 1	1 JP		Application Nº JP2005118446 (JP20050118446) - 15 April 2005	th	the actuator (9) between a closed position and an open position to				
-12	2 US		Application Nº US11112772 (US20050112772) - 21 April 2005	th	close and open the outlet passage (22) respectively the servo valve (8) also has a fixed axial rod (29) interposed betwee				
1;	3 US		Application Nº US11741474 (US20070741474) - 27 April 2007	th	e actuator (9) and the control chamber (13) the outlet passage (22) comes out through an outer lateral surface				
14	4 US		Application Nº US11171659 (US20050171659) - 30 June 2005	ar	(30) of the axial rod (29) and the shutter (35) is defined by a sleeve which slides axially on th outer lateral surface (30), and, in the closed position, closes the out passage (22) so as to be subjected to a zero axial resultant force by				
÷ 1	5 EP		Application Nº EP05425383 (EP20050425383) - 27 May 2005	pa					
10	6 JP		Application Nº JP2005191978 (JP20050191978) - 30 June 2005	th	ne pressure of the fuel.				
13	7 US		Application Nº US11171658 (US20050171658) - 30 June 2005						
-	8 AT		Application Nº AT06114551 (AT20060114551T) - 25 May 2006	Bi	ibliographic data: EP 1612403 (B1)				
÷ 19	9 CN		Application Nº CNA2006101639681 (CN20061163968) - 24 November 2006						
20	0 KR		Application Nº KR1020060117230 (KR20060117230) - 24 November 2006						
⊕ 2:	1 EP		Application Nº EP06114551 (EP20060114551) - 25 May 2006						
23	2 JP		Application Nº JP2006147852 (JP20060147852) - 29 May 2006						
Sec. 200	2 110		Application NO IIS11441641 (UCODECA41641) 36 May 2006						
Simp	ole famil	lies: 5	Total family members: 23						

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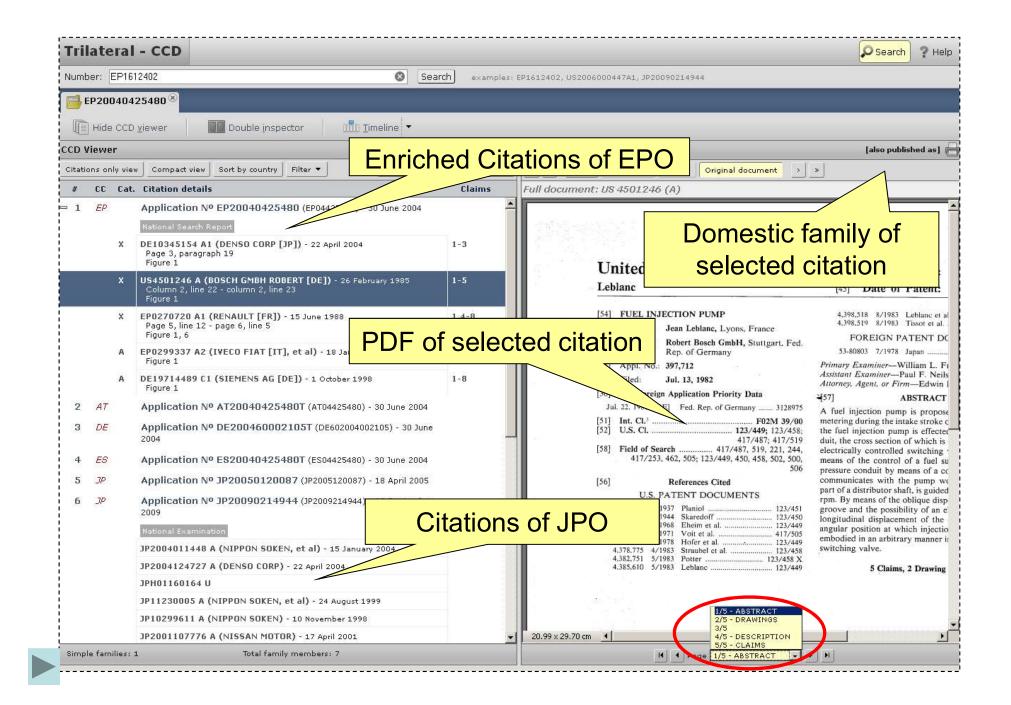


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W02011113363 (A1) Bibliographic data Description Claims Mosaics Original document Cited documents		Compact 🕞 Export (C		Downlead covers A CC	D		Print			
Citing documents INPADOC legal status INPADOC patent family Quick help → Can export this list?	Sort by Priority date 1. AGOMELATINE I Inventor: SHAN HANBIN [CN] YUAN ZHEDONG [CN]	Sort order Des HYDROBROMIDE HYDRATE A Applicant: SERVIER LAB [FR] SHAN HANBIN [CN] (+5)		Citations: CN101481321 A				bads sir in new	mple window	
→ What happens if 1 click on "Download covers"? → Can 1 soft the list? → What happens if 1 click on the star icon? → What is a patent family? → What happens if 1 tick the "show citations" box? → What is an INPADOC patent family?	(+4)	Irobromide hadrate and prepa Applicant: SERVIER LAB [FR]	CPC: <u>A61K31/165</u> <u>C07C233/18</u>	Citations:	Publication ir AP3199 (A) 2015-03-31		riority date: 010-03-17			
→ Are all the documents in an INPADOC family equivalents? → Why is the same document published several times in the same country?	 3. Agomelatine hydrogenetic and a second seco	Irobromide hydrate and prepa Applicant: SERVIER LAB	CPC: <u>A61K31/165</u> <u>C07C233/18</u>	Citations: US2011313198 A1	Publication ir AU201122961 2012-09-27 AU201122961 2014-05-22	9 (A1) 20	riority date: 010-03-17			
	4. AGOMELATINE I Numerical Inventor: SHAN HANBIN [CN] YUAN ZHEDONG [CN] (+4)	HYDROBROMIDE HYDRATE A Applicant: SERVIER LAB [FR]	ND PREPARATI CPC: A61K31/165 C07C233/18	ON THEREOF Citations:	Publication in CA2792430 (A 2011-09-22 CA2792430 (C 2015-12-08	(1) 20	riority date:)10-03-17		WORLD INTELLECTUAL P ORGANIZATION	ROPERTY

Sources of family information: CCD

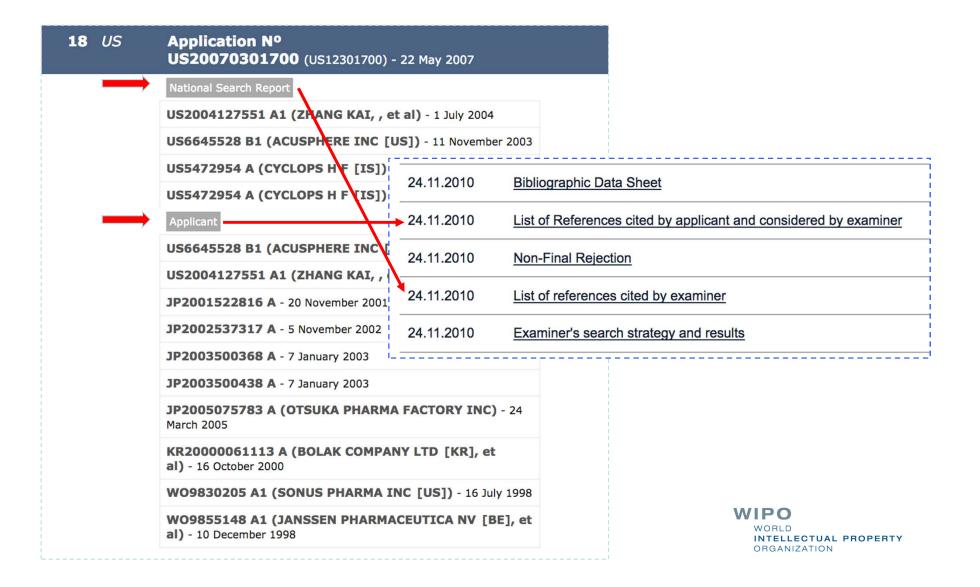
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Number: US6565803 Search examples: EP1612402, US2006000447A1, JP20090214944									
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*	¥	CC (Cat. Citation details	Claims	US				
÷		US	Application Nº US19990300325 (US09300325) - 27 April 1999		IPC A6112/10, C02F1/32 UC 210/748.11, 422/23 EC A61L2/10, C02F1/32				
Ι.,	2	AR	Application Nº AR2000P102013 (ARP000102013) - 27 April 2000						
8	3	AU	Application Nº AU20000044961D (AU4496100) - 27 April 2000	Simple	family ("equivalents")				
	5	BR CA	Application Nº BR20000010600 (BR0010600-3) - 27 April 2000 Application Nº CA20002372427 (CA002372427) - 27 April 2000	omple	(equivalents)				
	6	CN			manual are are identified				
1	7	EP	Application Nº EP20000926432 (EP00926432) - 27 April 2000	members are identified					
				through	application numbers				
					EC A61L2/10, C02F1/32				
					СА				
					IPC A61L2/10, C02F1/32 EC A61L2/10, C02F1/32				
					CN				
					IPC A61L2/10, C02F1/32 EC A61L2/10, C02F1/32				
			Estimated number of simple		EP				
			•		IPC A61L2/10, C02F1/32				
			families in extended family	R	etrieve extended family				
Sir	mple f	amilies	Total family members: 7	t all family members					



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Trilateral - Number: EP16124	102 4 80 ewer	Shows for each citation	Shows for each citation the applications where the citation appears in the search report This citation was seen by the EP, JP and US examiners					
Application C	at.	Citation details		Claims	Bibliographic data	: DE 10345154 (A1)		
US20050095425 US20050095425		US6889656 B1 (BD0 10 May 2005 US682384	004		Hochdruck-kraf	tstoffpumpe für einen verbrennungsmotor 22 April 2004		
US20050095425		UP - 25 May 2004						
EP20040425480 X		DE10345154 A1 (DENSO CORP [JP]) - 22 April 2004 Page 3, paragraph 19		1-3	Inventor(s):	WATANABE TOSHIKAZU [JP]		
	-	Fage 3, paragraph 19 Figure 1			Applicant(s):	DENSO CORP [JP]		
JP20090214944 US20050095425		JP2004124727 A (DENSO CORP) - 22 April 2004 DE10345154 A1 (DENSO CORP [JP]) - 22 April 2004			Classifications:	International: F02M59/44; F02M59/06; F02M59/08; F02M59/20; F02M59/46		
JP20090214944	9	JP2004011448 A (NIPPON SOKEN, et al) - 15 January 2004		1		European: F02M59/08; F02M59/20B;		
US20050095425		US6497216 B2 (BOSCH GMBH ROBERT [DE]) - 24 December 2				F02M59/46B		
US20050095425		US6439199 B2 (BOSCH REXROTH CORP [US]) - 27 August 200			Application numbe	r: DE20031045154 20030929		
US20050095425		US6311674 B1 (DENSO CORP [US]) - 6 November 2001			Priority number(s)): JP20020286361 20020930		
US20050095425		US6253734 B1 (BOSCH GMBH ROBERT [US]) - 3 July 2001						
US20050095425		US6234148 B1 (SIEMENS AG [US]) - 22	— 	!!	1			
JP20090214944		JP2001107776 A (NISSAN MOTOR) - 17	box ei	ncircies	languag	e equivalents.		
JP20090214944		JP2000130288 A (TOYOTA MOTOR CORP				d		
JP20090214944		JP11230005 A (NIPPON SOKEN, et al) - Tho I)E nul	hlication	is a Co	rman translations		
JP20090214944		JP10299611 A (NIPPON SOKEN) - 10 Nov			blication is a German translations			
EP20040425480 A	٩.	DE19714489 C1 (SIEMENS AG [DE]) - 1 Figure 1		of the JP publication.				
US20050095425		DE19714489 C1 (SIEMENS AG [DE]) - 1						
US20050095425		US5619970 A (LUCAS IND PLC [GB]) - 15 April 1997			Folglich kann die Erzeugung von ungleichmässiger Strömung um die Ventilkugel 15 verhindert werden und die Erzeugung von unnormalem Geräusch kann verhindert werden.			
US20050095425		US4957084 A (BOSCH GMBH ROBERT [DE]) - 18 September 19						
US20050095425		US4884545 A (IVECO FIAT [IT], et al) - 5 December 1989						
EP20040425480 A	4	EP0299337 A2 (I¥ECO FIAT [IT], et al) - 18 January 1989 Figure 1		1-8				
US20050095425		EP0299337 A2 (IVECO FIAT [IT], et al) - 18 January 1989						

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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

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