



## Topic 5: Retrieval and Comparison of Prior Art Citations

Lutz Mailänder

Head, International Cooperation on Examination and Training Section

Moscow  
September 17, 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

**EUROPEAN SEARCH REPORT**

Europäisches Patentamt  
European Patent Office  
Office européen des brevets

**DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASS APPLIC
X	EP 0 813 338 A2 (ROCKWELL INTERNATIONAL CORP [US]) 17 December 1997 (1997-12-17) * column 6, line 12 - column 8, line 26 * * column 8, line 52 - column 9, line 4; figure 1 *	1-13	INV. I G01T
Y	US 6 128 039 A (CHEN DATONG [US] ET AL) 3 October 2000 (2000-10-03) * column 3, line 57 - column 4, line 28; figure 2 *	1,3-7	
Y	US 6 163 029 A (YAMADA SHINICHI [JP] ET AL) 19 December 2000 (2000-12-19) * column 15, line 30 - column 16, line 45; figures 2,15,16 *	1,3-7	
A	FR 2 864 628 A1 (COMMISSARIAT ENERGIE ATOMIQUE [FR]) 1 July 2005 (2005-07-01) * page 4, line 18 - page 6, line 15; figure 3 *	1-13	
A,D	WO 2004/064168 A1 (SCHERRER INST PAUL [CH]; BROENNIMANN CHRISTIAN [CH]; SCHMITT BERND [CH]) 29 July 2004 (2004-07-29) * the whole document *	1-13	TECH SEARCH G01T
E	WO 2009/131151 A1 (HAMAMATSU PHOTONICS KK [JP]; MORI HARUNICHI [JP]; KYUSHIMA RYUJI [JP];) 29 October 2009 (2009-10-29) * figure 12 *	1	

The present search report has been drawn up for all claims

Place of search: The Hague  
Date of completion of the search: 23 March 2010  
Examiner: Wulveryck, J

**CATEGORY OF CITED DOCUMENTS**

X: particularly relevant if taken alone  
Y: particularly relevant if combined with another document of the same category  
A: technological background  
O: non-written disclosure  
P: intermediate document

T: theory or principle underlying the invention  
E: earlier patent document, but published on, or after the filing date  
D: document cited in the application  
L: document cited for other reasons  
&: member of the same patent family, corresponding document

(12) **United States Patent**  
**Li et al.**

(10) **Patent No.:** **US 8,296,619 B2**  
(45) **Date of Patent:** **Oct. 23, 2012**

(54) **METHOD AND APPARATUS FOR INDICATING A TEMPORARY BLOCK FLOW TO WHICH A PIGGYBACKED ACK/NACK FIELD IS ADDRESSED**

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,751,741 A \* 5/1998 Voith et al. .... 714/758  
(Continued)

FOREIGN PATENT DOCUMENTS

EP 1 376 950 1/2004  
(Continued)

OTHER PUBLICATIONS

Third Generation Partnership Project, "Technical Specification Group GSM/EDGE Radio Access Network; Channel coding (Release 7)", 3GPP TS 45.003 V7.4.0 (Feb. 2008).

(Continued)

(75) Inventors: **Yan Li**, Center Valley, PA (US); **Stephen G. Dick**, Nesconset, NY (US); **Prabhakar R. Chitrapu**, Blue Bell, PA (US); **Marian Rudolf**, Vitre (FR); **Behrouz Aghili**, Melville, NY (US); **Khushali N. Manseta**, Yardley, PA (US)

(73) Assignee: **InterDigital Technology Corporation**, Wilmington, DE (US)

(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 981 days.

*Primary Examiner* — Scott Baderman  
*Assistant Examiner* — Jeison C. Argos

(21) **Appl. No.:** **12/106,138**

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

# 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



EUROPEAN SEARCH REPORT

Application Number  
EP 09 16 8955

Application number

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	EP 0 813 338 A2 (ROCKWELL INTERNATIONAL CORP [US]) 17 December 1997 (1997-12-17) * column 6, line 12 - column 8, line 26 * * column 8, line 52 - column 9, line 4; figure 1 *	1-13	INV. G01T1/17
Y	US 6 128 039 A (CHEN DATONG [US] ET AL) 3 October 2000 (2000-10-03) * column 3, line 57 - column 4, line 28; figure 2 *	1,3-7	
Y	US 6 163 029 A (YAMADA SHINICHI [JP] ET AL) 19 December 2000 (2000-12-19) * column 15, line 30 - column 16, line 45; figures 2,15,16 *	1,3-7	
A	FR 2 864 628 A1 (COMMISSARIAT ENERGIE ATOMIQUE [FR]) 1 July 2005 (2005-07-01) * page 4, line 18 - page 6, line 15; figure 3 *	1-13	
A,D	WO 2004/064168 A1 (SCHERRER INST PAUL [CH]; BROENNIMANN CHRISTIAN [CH]; SCHMITT BERND [CH]) 29 July 2004 (2004-07-29) * the whole document *	1-13	TECHNICAL FIELDS SEARCHED (IPC) G01T
E	WO 2009/131151 A1 (HAMAMATSU PHOTONICS KK [JP]; MORI HARUMICHI [JP]; KYUSHIMA RYUJI [JP];) 29 October 2009 (2009-10-29) * figure 12 *	1	
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 23 March 2010	Examiner Wulveryck, J
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone                      Y : particularly relevant if combined with another document of the same category                      A : technological background                      O : non-written disclosure                      P : intermediate document</p> <p>T : theory or principle underlying the invention                      E : earlier patent document, but published on, or after the filing date                      D : document cited in the application                      L : document cited for other reasons                      &amp; : member of the same patent family, corresponding document</p>			

International Patent Classification

Category X, Y, A, etc.

Relevant to Claim ...

Cited documents

Technical Fields Searched

Searching Authority

Date of Completion of the Search

Examiner



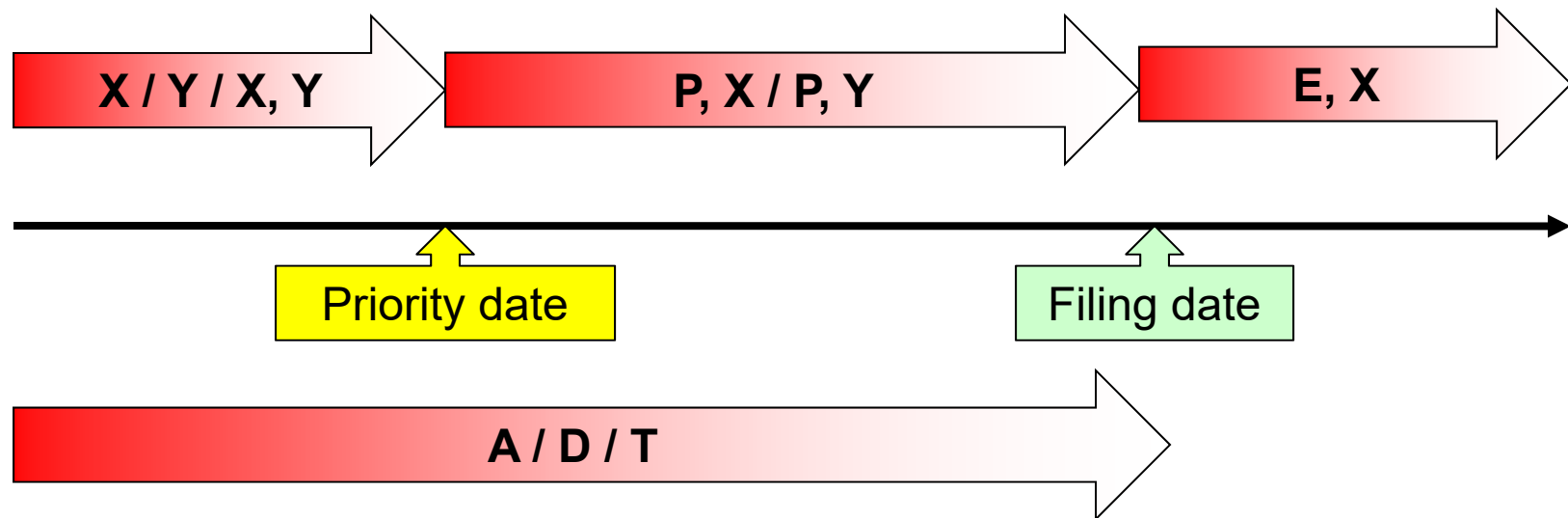
# Categories of citations

- 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

<b>Notice of References Cited</b>				Application/Control No. 11/689,638		Applicant(s)/Patent Under Reexamination COX ET AL.	
				Examiner REGINA YOO		Art Unit 1773	Page 1 of 1
<b>U.S. PATENT DOCUMENTS</b>							
*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification		
*	A	US-4,662,516 A	05-1987	Baker et al.	206/363		
*	B	US-5,003,892 A	04-1991	Bricken, Jonathan	110/346		
	C	US-					
	D	US-					
	E	US-					
	F	US-					
	G	US-					
	H	US-					
	I	US-					
	J	US-					
	K	US-					
	L	US-					
	M	US-					
<b>FOREIGN PATENT DOCUMENTS</b>							
*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification	
	N						

US search reports are **not enriched**, i.e. no X, Y, A; no references to claims, no references to pages, lines, drawings,...

# US-PAIR: prior art in image file wrapper

"Image File Wrapper" contains search and examination reports

09-28-2006	WFEE	<a href="#">Fee Worksheet (SB06)</a>	PROSECUTION	1	<input type="checkbox"/>
04-28-2006	CTNF	<a href="#">Non-Final Rejection</a>	PROSECUTION	10	<input type="checkbox"/>
04-28-2006	1449	<a href="#">List of References cited by applicant and considered by examiner</a>	PRIOR ART	1	<input type="checkbox"/>
04-28-2006	892	<a href="#">List of references cited by examiner</a>	PRIOR ART	1	<input type="checkbox"/>
04-28-2006	FWCLM	<a href="#">Index of Claims</a>	PROSECUTION	1	<input type="checkbox"/>

<b>Notice of References Cited</b>	Application/Control No. 11/093,685	Applicant(s)/Patent Under Reexamination CHAN ET AL.	
	Examiner Tina M. Wong	Art Unit 2874	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,081,638	06-2000	Zhou, Ping	385/31
*	B	US-6,842,467	01-2005	Aronson et al.	372/27
*	C	US-5,179,420	01-1993	So et al.	356/73.1
	D	US-			
	E	US-			



# US-PAIR: prior art tab

11/689,638 Heat Processing Systems, Apparatuses, and Methods for Collection and Disposal of Infectious and Medical Waste

Select New Case Application Data Transaction History Image File Wrapper Continuity Data Published Documents Address & Attorney/Agent Display References

**Reference Forms**

Mail Room Date	Document Code	Document Description
02-24-2011	892	<a href="#">List of references cited by examiner</a>
09-16-2010	1449	<a href="#">List of References cited by applicant and considered by examiner</a>
08-16-2010	IDS	<a href="#">Information Disclosure Statement (IDS) Form (SB08)</a>
06-23-2009	892	<a href="#">List of references cited by examiner</a>
06-23-2009	1449	<a href="#">List of References cited by applicant and considered by examiner</a>
09-12-2007	IDS	<a href="#">Information Disclosure Statement (IDS) Form (SB08)</a>

**Foreign Patent and Non-Patent Documents**

Mail Room Date	Document Code	Document Description
08-16-2010	NPL	<a href="#">Non Patent Literature</a>
08-16-2010	NPL	<a href="#">Non Patent Literature</a>
08-16-2010	NPL	<a href="#">Non Patent Literature</a>
08-16-2010	NPL	<a href="#">Non Patent Literature</a>
09-12-2007	FOR	<a href="#">Foreign Reference</a>
09-12-2007	FOR	<a href="#">Foreign Reference</a>
09-12-2007	FOR	<a href="#">Foreign Reference</a>

List of references cited by applicant

List of references cited by examiner

# 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 operations source component, including a first biometric security component, a second security component, (page 33, the central system 12 can be remotely located from the electronic transaction stations location as the electronic transaction station, e.g., an in-store central processor a


'Claims 1, 8-10,... not novel in view of US2004023117A1'

# US search reports in Global Dossier

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



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INPADOC legal status

INPADOC patent family

### Cited documents: WO2011113363 (A1) — 2011-09-22

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3 documents cited in relation to **WO2011113363 (A1)**

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#### International search citation

1. **Agomelatine halogen hydride complex and preparation thereof**

★ Inventor: PENG ZHANG [CN] HANBIN SHAN [CN] (+8)	Applicant: SHANGHAI INST PHARM INDUSTRY [CN]	CPC: <a href="#">C07C233/18</a>	IPC: C07C233/18	Publication info: CN101481321 (A) 2009-02-27 2009-07-15 CN101481321 (B) 2012-04-18	Priority date:
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2. **New crystal form of Agomelatine, preparation method and use thereof**

★ Inventor: HANBIN SHAN [CN] PENG ZHANG [CN] (+7)	Applicant: SHANGHAI INST PHARM INDUSTRY [CN]	CPC: <a href="#">A61K31/165</a> <a href="#">C07C233/18</a>	IPC: A61K31/165 A61P1/00 A61P25/00 (+6)	Publication info: CN101585779 (A) 2009-03-10 2009-11-25 CN101585779 (B) 2014-04-02	Priority date:
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Patents cited by the applicant

3. **Agomelatine halogen hydride complex and preparation thereof**

★ Inventor: PENG ZHANG [CN] HANBIN SHAN [CN] (+8)	Applicant: SHANGHAI INST PHARM INDUSTRY [CN]	CPC: <a href="#">C07C233/18</a>	IPC: C07C233/18	Publication info: CN101481321 (A) 2009-02-27 2009-07-15 CN101481321 (B) 2012-04-18	Priority date:
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EP2570899 (A2) → US2013069890 (A1) → Family page 1

WO2011113363 (A1)

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## Family list: WO2011113363 (A1) — 2011-09-22

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29 application(s) for: WO2011113363 (A1)

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### 1. AGOMELATINE HYDROBROMIDE HYDRATE AND PREPARATION THEREOF

★ Inventor:	Applicant:	CPC:	Citations:	Publication info:	Priority date:
SHAN HANBIN [CN] YUAN ZHEDONG [CN] (+4)	SERVIER LAB [FR] SHAN HANBIN [CN] (+5)	A61K31/165 C07C233/18	CN101481321 A CN101585779 A	WO2011113363 (A1) 2011-09-22	2010-03-17

### 2. Agomelatine hydrobromide hydrate and preparation thereof

★ Inventor:	Applicant:	CPC:	Citations:	Publication info:	Priority date:
ZHANG PENG [CN] ZHU XUEYAN [CN] (+1)	SERVIER LAB [FR]	A61K31/165 C07C233/18		AP3199 (A) 2015-03-31	2010-03-17


### 3. Agomelatine hydrobromide hydrate and preparation thereof

★ Inventor:	Applicant:	CPC:	Citations:	Publication info:	Priority date:
SHAN HANBIN YUAN ZHEDONG (+4)	SERVIER LAB	A61K31/165 C07C233/18	US2011313198 A1	AU2011229619 (A1) 2012-09-27 AU2011229619 (B2) 2014-05-22	2010-03-17

### 4. AGOMELATINE HYDROBROMIDE HYDRATE AND PREPARATION THEREOF

★ Inventor:	Applicant:	CPC:	Citations:	Publication info:	Priority date:
SHAN HANBIN [CN] YUAN ZHEDONG [CN] (+4)	SERVIER LAB [FR]	A61K31/165 C07C233/18		CA2792430 (A1) 2011-09-22 CA2792430 (C) 2015-12-08	2010-03-17

# Citations (enriched) in EP-Register - 1



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<p><b>Type:</b> Patent literature</p> <p><b>Publication No.:</b> ↗ <a href="#">US2011005662</a> [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</p>	<p><b>Type:</b> Patent literature</p> <p><b>Publication No.:</b> ↗ <a href="#">WO201112447</a> [Y] (3M INNOVATIVE PROPERTIES CO [US], et al) [Y] 7-8,12-13 p. 11 , l. 28-31</p>
<p><b>Type:</b> Patent literature</p> <p><b>Publication No.:</b> ↗ <a href="#">TW201102698</a> [Y] (MASTOUCH OPTOELECTRONICS TECHNOLOGIES CO LTD [TW]) [Y] 15 abstract , fig. B</p>	<p><b>Type:</b> Non-patent literature</p> <p><b>Publication information:</b> US2011234526 A1 20110929 [ ] (MI DAVID [TW]) par. 0032 , fig. 1B, 3, 4 , par. 0040 , fig. 3, 4</p>
<p><b>Type:</b> Patent literature</p> <p><b>Publication No.:</b> ↗ <a href="#">US2010302195</a> [A] (WANG WEN-CHUN [TW], et al) [A] 1,10 par. 0020 , fig. 5a</p>	<p><b>Type:</b> Patent literature</p>

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**EP 2570899** - Touch display device and a method of manufacturing the same [Right-click to bookmark this link]

Documents cited:	Search
	[XY] <a href="#">US2011005662</a> (SUNG KUO-HUA [US]) [X] 1-6,9-11,14 * paragraphs [0021] , [0 27] , [0 30] , [0 38] , [0 41] , [0 42] , [0 43] , [0 44]; figure 4 * [Y] 7-8,12-13,15;
	[Y] <a href="#">WO2011112447</a> (3M INNOVATIVE PROPERTIES CO [US], et al) [Y] 7-8,12-13 * page 11, lines 28-31 *;
	[Y] <a href="#">TW201102698</a> (MASTOUCH OPTOELECTRONICS TECHNOLOGIES CO LTD [TW]) [Y] 15 * abstract *;
	[P] <a href="#">US2011234526</a> (MI DAVID [TW]) [P] * paragraph [0032]; figures 1B, 3, 4 * * paragraph [0040]; figures 3, 4 *;
	[A] <a href="#">US2010302195</a> (WANG WEN-CHUN [TW], et al) [A] 1,10 * paragraph [0020]; figure 5a *;
	[A] <a href="#">US2009185101</a> (MATSUHIRA TSUTOMU [JP], et al) [A] 2-3 * paragraphs [0039] , [0 44] , [0 46]; figures 1a-f, 2a *;

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Cited in	Search	Publication information
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	<b>Publication information:</b>	[A] - DUDEK T ET AL, "Replication-defective viruses as vaccines and vaccine vectors", VIROLOGY, vol. 344, no. 1, ISSN 0042-6822, (20060105), pages 230 - 239, (20060105), XP024896310 [A] 1-15 * page 106, paragraph L *
	<b>DOI:</b>	→ <a href="http://dx.doi.org/10.1016/j.virol.2005.09.020">http://dx.doi.org/10.1016/j.virol.2005.09.020</a>
	<b>Type:</b>	Non-patent literature
	<b>Publication information:</b>	[PX] - MASON P W ET AL, "Production and characterization of replication-defective vaccines based on flaviviruses defective in replication", VIROLOGY, vol. 357, no. 1, ISSN 0042-6822, (20060801), XP024896458 [PX] 1-15 * the
	<b>DOI:</b>	→ <a href="http://dx.doi.org/10.1016/j.virol.2006.04.011">http://dx.doi.org/10.1016/j.virol.2006.04.011</a>
	<b>Type:</b>	Non-patent literature
	<b>Publication information:</b>	[T] - WIDMAN DOUGLAS G ET AL, "Third generation replication-defective viruses.", ADVANCED VIRAL REPLICATION, vol. 1, no. 1, ISSN 1522-0167, (20060501), pages 77 - 126, XP009122428 [T] 1-15 * figure 2 *
	<b>DOI:</b>	→ <a href="http://dx.doi.org/10.1016/S0065-3527(08)00402-8">http://dx.doi.org/10.1016/S0065-3527(08)00402-8</a>

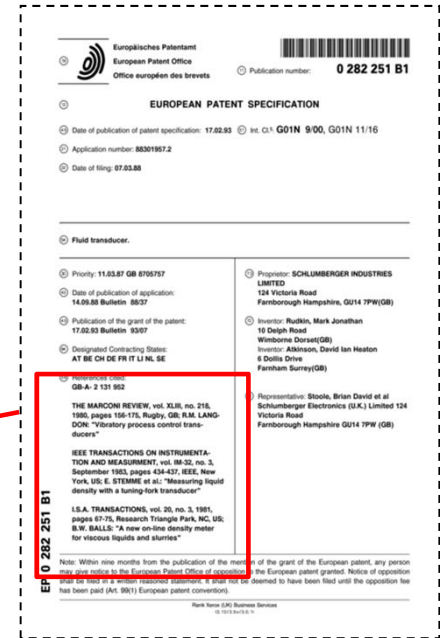
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<b>Cited in</b>	<b>International search</b>	[X] <a href="#">US4268635</a> (HOY LESLIE R J, et al) [X] 1-17 * the whole document *;
		[X] <a href="#">DE19513403</a> (BASF AG [DE]) [X] 1-17 * the whole document *;
		[X] <a href="#">WO2004096418</a> (UNIV TSINGHUA [CN], et al) [X] 1-17 * the whole document *;
		[A] <a href="#">US4804724</a> (HARRIS JAMES E [US], et al) [A] 1-17 * the whole document *
	<b>by applicant</b>	→ <a href="#">WO2007071780</a>
		→ <a href="#">US4268635</a>
		→ <a href="#">DE19513403</a>
		→ <a href="#">WO2004096418</a>
	<b>Opposition</b>	→ <a href="#">EP0332012</a>
		→ <a href="#">JP2006028414</a>
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# Citations on front pages of grant publications



Patent literature

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

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**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"

Representative: **Stoole, Brian David et al Schlumberger Electronics (U.K.) Limited 124 Victoria Road Farnborough Hampshire GU14 7PW (GB)**




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).

# Third party observations

- Overview:

[http://www.wipo.int/scp/en/revocation\\_mechanisms/third\\_party/index.html](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 \*)
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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

Applicant's or agent's file reference 16F064-PCT	
International application number PCT/JP2016/071237	International filing date (day/month/year) 20 Jul 2016 (20/07/2016)
Applicant (EN) HIROSHIMA UNIVERSITY (+1)	
Third party observation submitted by Anonymous	Observation submitted on behalf of
Date of submission(day/month/year) 17 Jun 2017 (17/06/2017)	Language of observation Japanese

## Citation # 1(Periodical article) (# uploaded documents: 17)

Author: Tae Sub Park	Title of article: Targeted gene knockout in chickens mediated by TALENs	Title of Periodical: Proc Natl Acad Sci U S A.	Publication Date: 02 Sep 2014 (02/09/2014)
Issue Number of Periodical: 111	Publisher of Periodical:	Place of publication:	
Page range of article within periodical: 2716-12721	ISBN:	ISSN:	
DOI:			
Most relevant passages or drawings: p12719 Discussion		Relevant to Claims: 1-2, 4-17	
Brief explanation of relevance: Discussionには、TALENsのゲノム編集技術を用いて、アレルギーの原因であるovomucoidをノックアウト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いつく(進歩性の否定)。			

Reference

Explanation

# 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

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WO2011113363A1

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](#)

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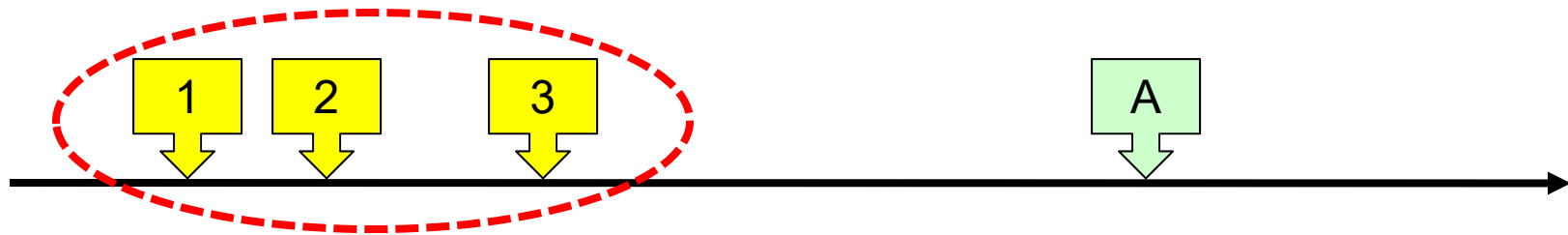
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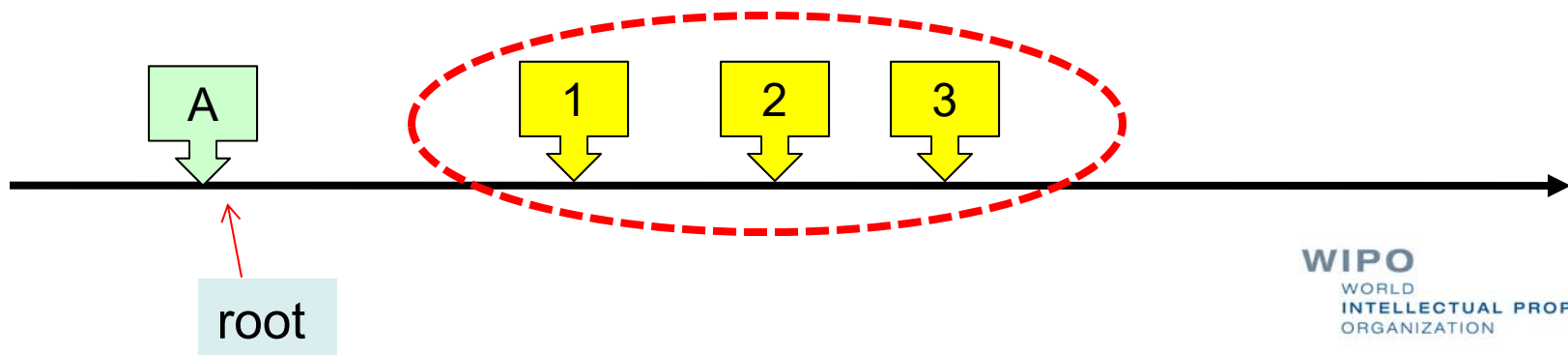
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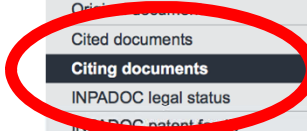
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WO2011113363 (A1) → Citations

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## Citing documents: WO2011113363 (A1) — 2011-09-22

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3 documents citing WO2011113363 (A1)

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1. Agomelatine methanesulfonic acid complex and preparation method thereof						
★	Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
	HAIPING WANG CHENG CHI (+3)	SHANGHAI RIGHT HAND MEDICAL TECHNOLOGY DEV CO LTD	A61K31/165 A61P1/00 A61P25/00 (+6)	A61K31/165 A61P1/00 A61P25/00 (+6)	CN102718675 (A) 2012-10-10 CN102718675 (B) 2015-03-25	2012-06-07
2. SOLID PHARMACEUTICAL COMPOSITION FOR ORALLY DELIVERING AGOMELATINE						
★	Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
	THARRAULT FRANCOIS [FR] POIRIER CECILE [FR] (+2)	SERVIER LAB [FR] THARRAULT FRANCOIS [FR] (+3)	A61K31/165 A61K9/0056 A61K9/006 (+3)	A61K31/165 A61K9/00 A61K9/20	WO2013021139 (A1) 2013-02-14	2011-08-10
3. Solid pharmaceutical composition for buccal administration of agomelatine						
★	Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
	THARRAULT FRANCOIS [FR] POIRIER CECILE [FR] (+2)	SERVIER LAB [FR]	A61K31/165 A61K9/0056 A61K9/006 (+3)	A61K31/165 A61K9/00 A61K9/20	EP2556824 (A1) 2013-02-13	2011-08-10

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#	CC	Cat.	Citation details	Claims
1	EP		<b>Application N° EP04425475</b> (EP20040425475) - 30 June 2004 National Search Report	
	X	DE	4310984 A1 (REKROTH MANNESMANN GMBH [DE]) - 6 October 1994 Column 4, line 31 - column 5, line 54 Figure 1	1-5,13 6
	Y	WO	011227 A1 (SIEMENS AG [DE], et al) - 15 February 2001 Page 7, line 9 - page 9, line 3 Figure 1 Claim 17	6 1
	A	EP	0740068 A2 (LUCAS IND PLC [GB]) - 30 October 1996 Column 4, line 27 - column 5, line 13 Figure 2	1
	A	US	6257499 B1 (STURMAN ODED E) - 10 July 2001 Column 4, line 49 - column 5, line 23 Figure 4	1
2	AT		<b>Application N° AT05425384</b> (AT20050425384T) - 27 May 2005	
3	AT		<b>Application N° AT05425383</b> (AT20050425383T) - 27 May 2005	
4	DE		<b>Application N° DE602004004254</b> (DE200460004254T) - 30 June 2004	
5	DE		<b>Application N° DE602005000662</b> (DE200560000662T) - 27 May 2005	
6	DE		<b>Application N° DE6020050003175</b> (DE2005600003175T) - 27 May 2005	
7	EP		<b>Application N° EP05425384</b> (EP20050425384) - 27 May 2005 National Search Report	

Simple families: 5 Total family members: 23

Inspector: biblio for EP20040425475

Bibliographic data: EP 1612403 (A1)

Servo valve for controlling an internal combustion engine fuel injector

Publication date: 4 January 2006

Inventor(s): RICCO MARIO [IT]; DE MATTHAEIS SISTO LUIGI [IT]; GORGOLIONE ADRIANO [IT]; DI MEO ALFONSO [IT]

Applicant(s): FIAT RICERCHE [IT]

Classifications: International: F02M59/46; F02M47/02  
European: F02M47/02D; F02M63/00E2B; F02M63/00E4C; F02M63/00E4D

Application number: EP20040425475 20040630

Priority number(s): EP20040425475 20040630

Abstract of EP 1612403 (A1)

A control servo valve (8) is combustion engine fuel injector (1), and has an actuator (9), a control chamber (13) communicating with a fuel inlet (5) and with a fuel outlet passage (22), and a shutter (35) movable along an axis (3) by the actuator (9) between a closed position and an open position to close and open the outlet passage (22), respectively the servo valve (8) also has a fixed axial rod (29) interposed between the actuator (9) and the control chamber (13) the outlet passage (22) comes out through an outer lateral surface (30) of the axial rod (29) and the shutter (35) is defined by a sleeve which slides axially on the outer lateral surface (30), and, in the closed position, closes the outlet passage (22) so as to be subjected to a zero axial resultant force by the pressure of the fuel.

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8	ES		<b>Application N° ES04425475</b> (ES20040425475T) - 30 June 2004	
9	ES		<b>Application N° ES05425384</b> (ES20050425384T) - 27 May 2005	
10	JP		<b>Application N° JP2005192051</b> (JP20050192051) - 30 June 2005	
11	JP		<b>Application N° JP2005118446</b> (JP20050118446) - 15 April 2005	
12	US		<b>Application N° US11112772</b> (US20050112772) - 21 April 2005	
13	US		<b>Application N° US11741474</b> (US20070741474) - 27 April 2007	
14	US		<b>Application N° US11171659</b> (US20050171659) - 30 June 2005	
15	EP		<b>Application N° EP05425383</b> (EP20050425383) - 27 May 2005	
16	JP		<b>Application N° JP2005191978</b> (JP20050191978) - 30 June 2005	
17	US		<b>Application N° US11171658</b> (US20050171658) - 30 June 2005	
18	AT		<b>Application N° AT06114551</b> (AT20060114551T) - 25 May 2006	
19	CN		<b>Application N° CNA2006101639681</b> (CN20061163968) - 24 November 2006	
20	KR		<b>Application N° KR1020060117230</b> (KR20060117230) - 24 November 2006	
21	EP		<b>Application N° EP06114551</b> (EP20060114551) - 25 May 2006	
22	JP		<b>Application N° JP2006147852</b> (JP20060147852) - 29 May 2006	
23	US		<b>Application N° US111441643</b> (US2006041643) - 26 May 2006	

Simple families: 5 Total family members: 23

Inspector: biblio for EP20040425475

Bibliographic data: EP 1612403 (A1)

Servo valve for controlling an internal combustion engine fuel injector

Abstract of EP 1612403 (A1)

A control servo valve (8) is housed inside the casing of an internal combustion engine fuel injector (1), and has an actuator (9), a control chamber (13) communicating with a fuel inlet (5) and with a fuel outlet passage (22), and a shutter (35) movable along an axis (3) by the actuator (9) between a closed position and an open position to close and open the outlet passage (22), respectively the servo valve (8) also has a fixed axial rod (29) interposed between the actuator (9) and the control chamber (13) the outlet passage (22) comes out through an outer lateral surface (30) of the axial rod (29) and the shutter (35) is defined by a sleeve which slides axially on the outer lateral surface (30), and, in the closed position, closes the outlet passage (22) so as to be subjected to a zero axial resultant force by the pressure of the fuel.

Bibliographic data: EP 1612403 (B1)



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Family list: WO2011113363 (A1) — 2011-09-22

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29 application(s) for: WO2011113363 (A1)

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1. AGOMELATINE HYDROBROMIDE HYDRATE AND PREPARATION THEREOF

Inventor:	Applicant:	CPC:	Citations:	Publication info:	Priority date:
SHAN HANBIN [CN] YUAN ZHEDONG [CN] (+4)	SERVIER LAB [FR] SHAN HANBIN [CN] (+5)	A61K31/165 C07C233/18	CN101481321 A CN101585779 A	WO2011113363 (A1) 2011-09-22	

2. Agomelatine hydrobromide hydrate and preparation thereof

Inventor:	Applicant:	CPC:	Citations:	Publication info:	Priority date:
ZHANG PENG [CN] ZHU XUEYAN [CN] (+1)	SERVIER LAB [FR]	A61K31/165 C07C233/18		AP3199 (A) 2015-03-31	2010-03-17

3. Agomelatine hydrobromide hydrate and preparation thereof

Inventor:	Applicant:	CPC:	Citations:	Publication info:	Priority date:
SHAN HANBIN [CN] YUAN ZHEDONG [CN] (+4)	SERVIER LAB	A61K31/165 C07C233/18	US2011313198 A1	AU2011229619 (A1) 2012-09-27 AU2011229619 (B2) 2014-05-22	2010-03-17

4. AGOMELATINE HYDROBROMIDE HYDRATE AND PREPARATION THEREOF

Inventor:	Applicant:	CPC:	Citations:	Publication info:	Priority date:
SHAN HANBIN [CN] YUAN ZHEDONG [CN] (+4)	SERVIER LAB [FR]	A61K31/165 C07C233/18		CA2792430 (A1) 2011-09-22 CA2792430 (C) 2015-12-08	2010-03-17

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# Sources of family information: CCD

Trilateral - CCD

Number: **US6565803** Search examples: EP1612402, US2006000447A1, JP20090214944

US19990300325

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#	CC	Cat.	Citation details	Claims
1	US		Application N° US19990300325 (US09300325) - 27 April 1999	
2	AR		Application N° AR2000P102013 (ARP000102013) - 27 April 2000	
3	AU		Application N° AU20000044961D (AU4496100) - 27 April 2000	
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5	CA		Application N° CA20002372427 (CA002372427) - 27 April 2000	
6	CN		Application N° CN20008008324 (CN00808324) - 27 April 2000	
7	EP		Application N° EP20000926432 (EP00926432) - 27 April 2000	

Classifications

US  
IPC **A61L2/10, C02F1/32**  
UC 210/748.11, 422/23  
EC A61L2/10, C02F1/32

CA  
IPC **A61L2/10, C02F1/32**  
EC A61L2/10, C02F1/32

CN  
IPC **A61L2/10, C02F1/32**  
EC A61L2/10, C02F1/32

EP  
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1	EP		Application N° EP20040425480 (EP04425480) - 30 June 2004 National Search Report	
	X		DE10345154 A1 (DENSO CORP [JP]) - 22 April 2004 Page 3, paragraph 19 Figure 1	1-3
	X		US4501246 A (BOSCH GMBH ROBERT [DE]) - 26 February 1985 Column 2, line 22 - column 2, line 23 Figure 1	1-5
	X		EP0270720 A1 (RENAULT [FR]) - 15 June 1988 Page 5, line 12 - page 6, line 5 Figure 1, 6	1, 4-8
	A		EP0299337 A2 (IVECO FIAT [IT], et al) - 18 Jan 1988 Figure 1	
	A		DE19714489 C1 (SIEMENS AG [DE]) - 1 October 1998 Figure 1	1-8
2	AT		Application N° AT20040425480T (AT04425480) - 30 June 2004	
3	DE		Application N° DE200460002105T (DE602004002105) - 30 June 2004	
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5	JP		Application N° JP20050120087 (JP2005120087) - 18 April 2005	
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			JP2001107776 A (NISSAN MOTOR) - 17 April 2001	

PDF of selected citation

Full document: US 4501246 (A)

United States Patent and Trademark Office

Leblanc

[45] Date of Patent: 4,398,518 8/1983 Leblanc et al.  
4,398,519 8/1983 Tissot et al.

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Primary Examiner—William L. Fry  
Assistant Examiner—Paul F. Neils  
Attorney, Agent, or Firm—Edwin I.

[57] ABSTRACT

A fuel injection pump is proposed for metering during the intake stroke of the engine. The fuel injection pump is effectuated during the intake stroke of the engine, the cross section of which is electrically controlled switching means of the control of a fuel supply pressure conduit by means of a control valve which communicates with the pump and is part of a distributor shaft, is guided relative to the distributor shaft. By means of the oblique displacement of the angular position at which injection is effected, the angular position of the distributor shaft is embodied in an arbitrary manner in the distributor shaft.

5 Claims, 2 Drawing

[54] FUEL INJECTION PUMP

Jean Leblanc, Lyons, France  
Robert Bosch GmbH, Stuttgart, Fed. Rep. of Germany

App. No.: 397,712  
Filed: Jul. 13, 1982

[56] Foreign Application Priority Data

Jul. 22, 1981 [FR] Fed. Rep. of Germany ..... 3128975

[51] Int. Cl. F02M 39/00  
[52] U.S. Cl. 123/449; 123/458; 417/487; 417/519

[58] Field of Search 417/487, 519, 221, 244, 417/253, 462, 505; 123/449, 450, 458, 502, 500, 506

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1937 Planiol ..... 123/451  
1944 Skaredoff ..... 123/450  
1968 Eheim et al. .... 123/449  
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Application	Cat.	Citation details	Claims
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Hochdruck-kraftstoffpumpe für einen verbrennungsmotor

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Inventor(s): WATANABE TOSHIKAZU [JP]

Applicant(s): DENSO CORP [JP]

Classifications: International: F02M59/44; F02M59/06; F02M59/08; F02M59/20; F02M59/46

European: F02M59/08; F02M59/20B; F02M59/46B

Application number: DE20031045154 20030929

Priority number(s): JP20020286361 20020930

Folglich kann die Erzeugung von ungleichmässiger Strömung um die Ventilkugel 15 verhindert werden und die Erzeugung von unnormalem Geräusch kann verhindert werden.

A box encircles language equivalents.

The DE publication is a German translations of the JP publication.

# US citations in CCD

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- Espacenet: page 'Inpadoc family' (tick citations option)
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Thank you

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