

Topic 3: Patent Family Concepts and Sources for Family Information

Lutz Mailänder Head, International Cooperation on Examination and Training Section

> Cairo April 28, 2019

Agenda

- Families why
 - Priority rights
- Families which
 - Types
 - Families where
 - Sources of family information

WIPO

INTELLECTUAL PROPERTY

ORGANIZATION

Further reading on families

WIPO Handbook:

http://www.wipo.int/standards/en/pdf/08-01-01.pdf

EPO:

http://www.epo.org/searching/essentials/patent-families.html

http://documents.epo.org/projects/babylon/eponet.nsf/0/C9387E5053AA70 7BC125816A00508E8D/\$File/Patent_Families_at_the_EPO_en.pdf

PIUG:

http://wiki.piug.org/display/PIUG/Patent+Families

OECD:

https://www.oecd.org/sti/inno/44604939.pdf



Source of family information: Espacenet

Europäisches Patentamt European Patent Office Office européen des brevets	Espacenet Patent search	Deutsch English Français Contact Change country 🗸
About Espacenet Other EPO (
Search Result list 📩 🜟 M	y patents list (0) Query history Settings Help	
WO2007111918 (A2)	Bibliographic data: WO2007111918 (A2) — 2007-10-04	
Bibliographic data Description	★ In my patents list	🖨 Print
Claims Mosaics Original document	HEAT PROCESSING SYSTEMS, APPARATUSES, AND METHODS FOR COLLE INFECTIOUS AND MEDICAL WASTE	ECTION AND DISPOSAL OF
Cited documents Citing documents	Page bookmark WO2007111918 (A2) - HEAT PROCESSING SYSTEMS, APPARATUSES, AM AND DISPOSAL OF INFECTIOUS AND MEDICAL WASTE	ND METHODS FOR COLLECTION
INPADOC legal status INPADOC patent family	Inpadoc ('extended') family	Priorities (here 2 US)
Quick help _	Classification: - international: A61B19/02; A61L11/00; A61M5/32; B09B3/00	
What does A1, A2, A3 and B stand for after a European publication number?	- cooperative: <u>A61B19/0288; A61L11/00; B09B3/0075; B09B3/0083; A61B2019/024</u> ; A61B2019/0294; A61B20019/0294; A61B20019/0294; A61B20019/0294; A61B20019/0294; A61B20019/0294; A61B20019/0294; A61B20019/0294; A61B2000000000000000000000000000000000000	create family relations
What happens if I click on "In my patents list"?	Application number: WO2007US07071 20070322	
What happens if I click on the "Register" button?	Priority number(s): US20060785512P 20060323 ; US20060785548P 20060323	
 Why are some sidebar options deactivated for certain 	Also published as: <u> <u> </u> </u>	<u>(650 (A)</u> → <u>PE12992007 (A1)</u> → <u>more</u>
 <u>documents?</u> <u>How can I bookmark this page?</u> <u>Why does a list of documents</u> <u>with the heading "Also published</u> 	Abstract of WO2007111918 (A2)	
as" sometimes appear, and what are these documents? Why do I sometimes find the abstract of a corresponding document?	Translate this text into I Bulgarian I Powered by EPO and Google	family ('equivalents')
<u>What happens if I click on the red</u> <u>"patent translate" button?</u>	Various embodiments of systems and methods for collection and disposal of infectious and medical waste are disclosed. An embodiment includes a system with a body having a chamber that receives a container of medical waste. The chamber may include a canister that has limited access to the interior of the	WORLD INTELLECTUAL PROPERTY ORGANIZATION

Espacenet: Extended (Inpadoc) family

Patentamt European Patent Office Office européen des brevets	Espacenet Patent search	Deutsch English Françai Contac Change country	st
	online services – y patents list (0) Query history Settings Help some time has passed since your last access, you ma	Number of famil (counting distinct natio	,
WO2007111918 (A2) Bibliographic data Description Claims Mosaics	Family St: WO2007111918 (A2) 20 Select all (0/14) Compact covV XLS 14 application(s) for: WO2007111918 (A2)	DZaa	
Original document Cited documents Citing documents INPADOC legal status INPADOC patent family	Sort by Priority date Sort order	Descending Sort show citations	1st family member (AR)
Quick help	Inventor: Applicant: BIOMEDICAL TECHNOLOGY SOLUTION [US] 2. Heat processing systems, apparatuses, and methods	CPC: IPC: Publication info: Priority date A61B19/0288 (IPC1- AR060092 (A1) 2006-03-23 A61B2019/0213 7):A61L11/00 2008-05-21 2006-03-23 A61B2019/0229 (+8) for collection and disposal of infectious and medical waste	[©] 2nd family member (AU)
Horizania and the second	Inventor: Applicant: COX DONALD BIOMEDICAL TECHNOLOGY G SOLUTION GORDER DIANE R APPARATUSES, AND MEDICAL WASTE	CPC: IPC: Publication info: Thority date A61B19/0283 A61B19/02 A01B19/02 A01B19/02 A01B19/02 A61B2019/0213 A61L11/00 2007-10-04 2006-03-23 A61B2019/0229 A61M5/32 (+1) 2007-10-04 Imethods For Collection and Disposal OF INFECTIOUS AND And Disposal OF INFECTIOUS AND	3rd family member (CA)
 Why is the same document published several times in the same country? 	Applicant: COX DONALD G [US] GORDER DIANE R [US] SOLUTION [US]	CPC: IPC: Publication info: Thority date A61B19/0288 A61B19/02 CA2646350 (A1) 2006-03-23 A61B2019/0213 A61111/00 2007-10-04 2007-10-04 A61B2019/0229 A61M5/32 (+1) 2007-10-04	B:
	Applicant: BIOMEDICAL TECHNOLOGY SOLUTION [US]	IPC: Publication info: Priority dat A61L11/00 CN101448531 (A) 2006-03-23 METHODS FOR COLLECTION AND DISPOSAL OF INFECTIOUS AND	e: WIPO WORLD INTELLECTUAL PROPERT ORGANIZATION
	MEDICAL WASTE	- CPCProjection and one of the provident of the concernment of th	

AU family member

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Search Result list 📩 📩 M	y patents list (0)	Query history Settings Help				
WO2007111918 (A2) → Family →	AU2007231591 (A1)					
	Bibliograph	ic data: AU2007231591 (A1)	2007	10.04		
AU2007231591 (A1) Bibliographic data Description	t In my patents		2007			🔒 Print
Claims	L			I		
Mosaics Original document	Heat processin waste	g systems, apparatuses, and metho	ods for coll	lection and disposal of	f infectious	and medical
Cited documents						
Citing documents	Page bookmark	AU2007231591 (A1) - Heat processing sys and medical waste	tems, apparat	tuses, and methods for collect	ion and dispos	al of infectious
INPADOC legal status						
INPADOC patent family	Inventor(s):	COX DONALD G; GORDER DIANE R <u>+</u>		Same US		PCT
	Applicant(s):	BIOMEDICAL TECHNOLOGY SOLUTION	Ł			
luick help –	Classification:	- international: A61B19/02; A61L11/00; A	61M5/32; B	priorities		application
What is meant by high quality text as facsimile? What does A1, A2, A3 and B		- cooperative: <u>A61B50/362; A61L11/00;</u> <u>A61B2050/0016; A61B205</u>		like WO	TA	number
stand for after a European publication number?	Application numbe	r: AU20070231591 20070322				
What happens if I click on "In my patents list"?	Priority number(s):	US20060785512P 20060323 ; US20060785	548P 200603	23 ; WO2007US07071 20070	322	
What happens if I click on the "Register" button?	Also published as:	□ <u>AR060092 (A1)</u> □ <u>CA2646350 (A1)</u> → <u>C</u>	2L2007000747	7 (A1) DOP2007000056 (A) 🗅 <u>EA01473</u>	<u>1 (B1)</u> → more
Why are some sidebar options deactivated for certain documents? How can I bookmark this page?		vailable for AU2007231591 (A1) responding document: WO2007111	918 (A2)			ERTY

→ Why does a list of documents

Origin of patent families

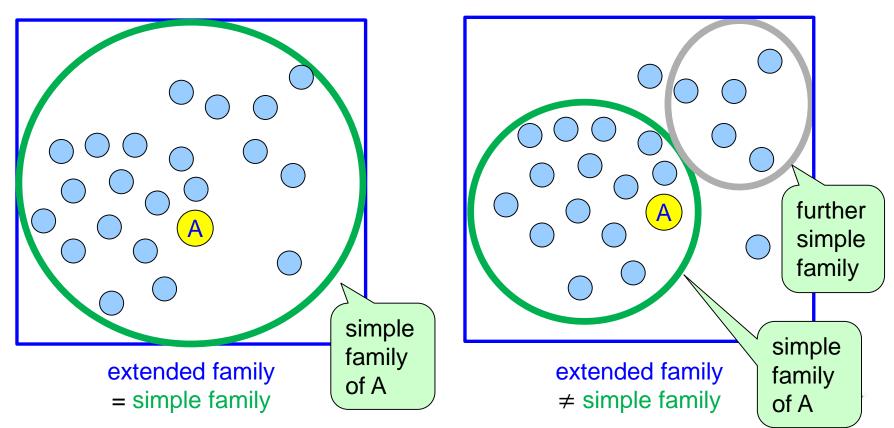
There are various reasons for patent family relations between distinct applications/filings:

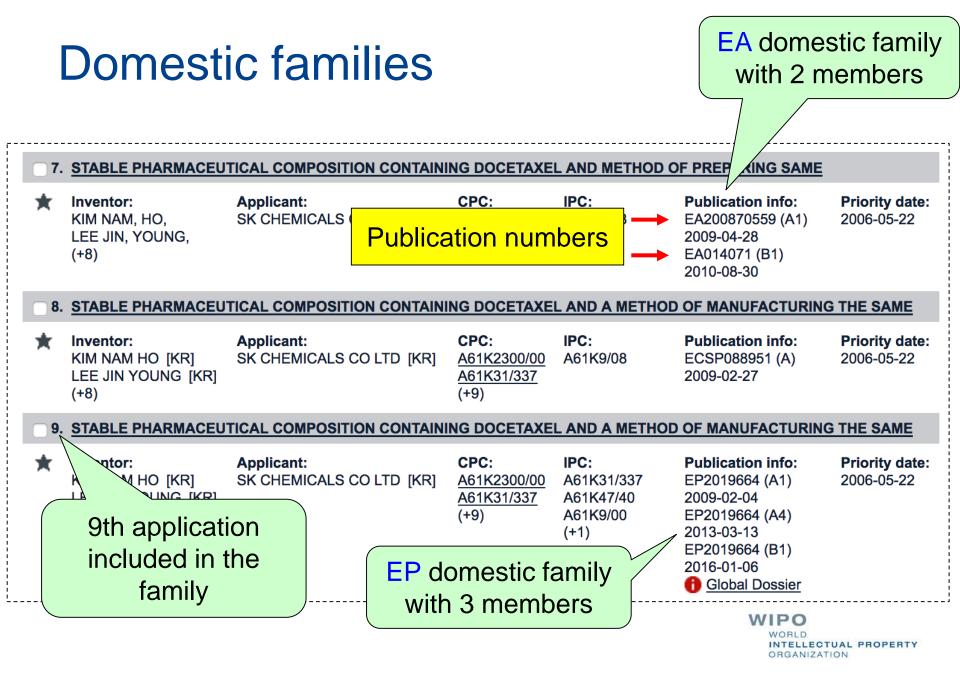
- A. Patent protection is territorial, i.e. inventors/investors may have to seek protection in various different jurisdictions ("extensions")
 B.
- Foreign applications usually claim priorities of earlier applications filed in other jurisdictions based on
 - Paris Convention
 - TRIPS agreement
- Priorities create family relations between earlier and later filings
 - N.B.: Family relations may exist also without claiming priorities !
 - Families of PCT national phase entries



Extended - Simple Family of A

Extended family is the biggest possible family of application A (*blue square*)
Simple family of application A is either equal or smaller (*green circle*)
If simple family of A is smaller then the extended family includes further simple families





Domestic family

A Domestic Family comprises all **subsequent domestic publications** of the **same application** at different prosecution stages, e.g. publication of

- unexamined application (usually 18 months after filing date)
- search report
- granted patent specification
- modified grant after opposition

Such publications are usually distinguished by different kind codes, e.g.

- EP123456 A1: Publication of application
- EP123456 B1: Publication of granted patent

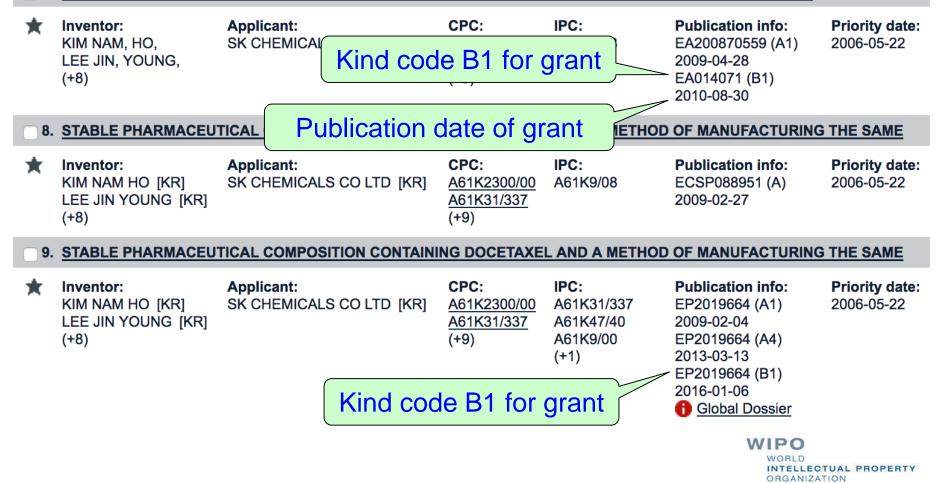
See overview of kind codes: http://www.wipo.int/export/sites/www/standards/en/pdf/07-03-02.pdf

N.B.: Some countries, e.g. US or EA use for a single application different publication numbers in addition to the different kind codes_{WIPO}

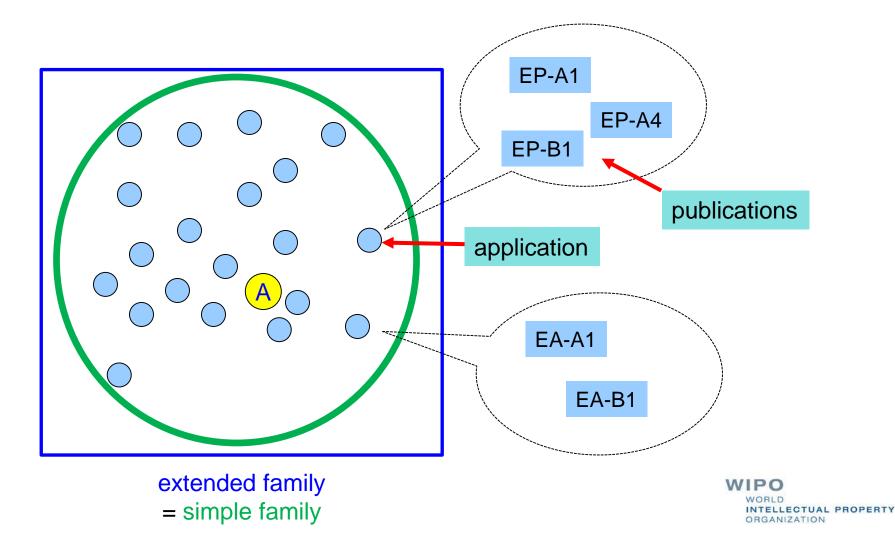
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Domestic families

7. STABLE PHARMACEUTICAL COMPOSITION CONTAINING DOCETAXEL AND METHOD OF PREPARING SAME



Extended – Simple – Domestic Families



Members of a patent family

A patent family comprises

Distinct patent applications

For each application: one or several patent **publications**

Size of a patent family is usually counted in terms of the number of distinct applications

Useful indicator for number of jurisdictions where technology is potentially protected \rightarrow value of an application



Patent families with priorities

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Priority claims - sample

Bibliographic data: WO2008004425 (A1) — 2008-01-10

🜟 In my patents list	7	EP Register	Report data erro	r	🔒 Print
	1		1	I	

PANTS-TYPE WEARING ARTICLE

Page bookmark	WO2008004425 (A1) - PANTS-TYPE WEARING ARTICLE					
Inventor(s):	Kenmochi yasuhiko [jp]; Kinoshita Akiyoshi [jp]; Aoyagi natsuko [jp]; Tanaka kayoko [jp] <u>+</u>					
Applicant(s):	UNI CHARM CORP [JP]; KENMOCHI YASUHIKO [JP]; KINOSHITA AKIYOSHI [JP]; AOYAGI NATSUKO [JP]; TANAKA KAYOKO [JP] <u>+</u>					
Classification:	- international: A61F13/49; A61F13/496; A61F13/56					
	- cooperative: <u>A61F13/15; A61F13/15756; A61F13/56</u>					
Application number:	WO2007JP62104 20070615 1 priority					
Priority number(s):	JP20060187165 20060706					
Also published as:	□ US2008009816 (A1) □ US7833207 (B2) → UA91294 (C2) □ TW200819114 (A) □ TWI336619 (B) → more					

Priority claims - sample

Bibliographic data: WO2008035580 (A1) - 2008-03-27

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PLANT CULTIVATION SYSTEM

Page bookmark	WO2008035580 (A1) - PLANT CULTIVATION SYSTEM					
Inventor(s):	OKAMOTO AKIHIRO [JP]; FUJII MANABU [JP]; YOSHIOKA HIROSHI [JP]; MORI YUICHI [JP] <u>+</u>					
Applicant(s):	MEBIOL INC [JP]; OKAMOTO AKIHIRO [JP]; FUJII MANABU [JP]; YOSHIOKA HIROSHI [JP]; MORI YUICHI [JP] <u>+</u>					
Classification:	- international: A01G1/00; A01G13/00; A01G25/00; A01G27/00; A01G7/00					
	- cooperative: <u>A01G31/02;</u> Y02P60/216					
Application number:	WO 2007 JP67578 20070910 O Global Dossier 2 priorities					
Priority number(s):	JP20060254439 20060920 ; JP20070144202 20070530					
Also published as:	■ EP2064942 (A1) ■ EP2064942 (A4) ■ US2010186298 (A1) ■ US8001721 (B2) → UA93268 (C2) → more					

Priority claims - sample

Bibliographic data: WO2008060725 (A3) — 2008-07-10

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SECURE UNIVER	RSAL TRANSACTION SYSTEM	The more priorities are claimed, the more			
Page bookmark	WO2008060725 (A3) - SECURE UNIVERSAL TRANSACTION SYSTEM	complex the family			
Inventor(s):	FRANCHI JOHN FRANCO [GB] <u>+</u>				
Applicant(s):	FRANCHI JOHN FRANCO [GB] <u>+</u>	3 priorities			
Classification:	- international: H04L9/00				
	- cooperative: <u>G06F21/32; G06F21/34; G06Q20/12; G06Q20/4014</u>	3 countries			
Application number:	WO2007US74327 20070725				
Priority number(s):	<u>US20060532580 20060918</u> ; <u>EP20060256440 20061219</u> ; <u>GB20060025304 20061219</u>				
Also published as:	■ WO2008060725 (A2) ■ WO2008060725 (A8) ■ EP1901248 (A1) → ZA200901870 (B) ■ US2011125613 (A1) → more				

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Second filings abroad

Patent protection for a particular invention is territorial, i.e. inventors may have to seek protection in different additional jurisdictions abroad ("**extensions**")

• Office of first filing (OFF): where an invention is filed for the first time; usually in the country of residence of inventor or applicant

- Office(s) of second/subsequent filing (OSF): where the invention is filed subsequently again to get geographically extended protection ("extensions"), either
 - With claiming priority of OFF (Paris/Trips), or

Without claiming priority rights

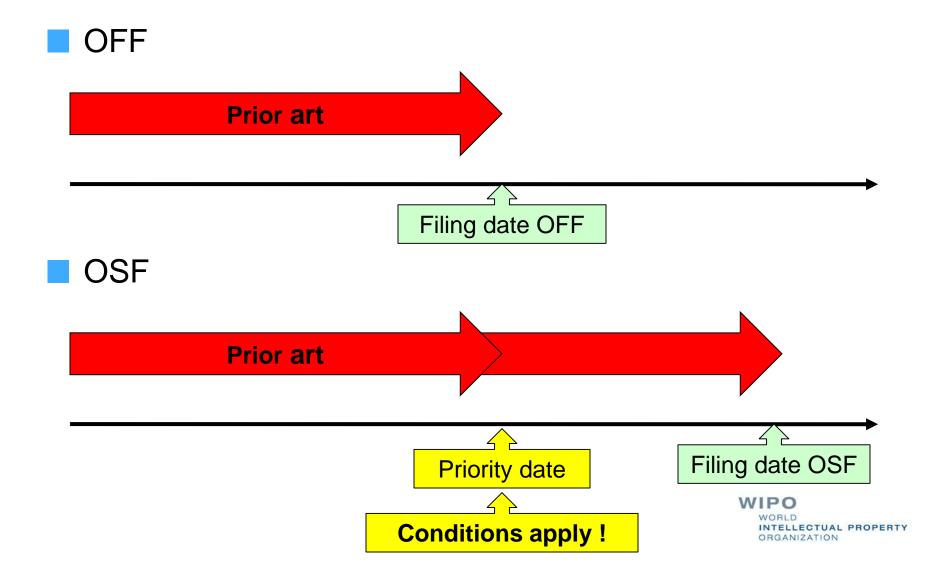
(there are no 'offices of 3rd filing')

All filings/applications including the "same invention" or parts thereof constitute a **patent family**, e.g. the applications for one invention filed in different countries

Priorities: Paris Convention of 1883

- Covers patents, designs, trademarks,...
- Facilitates second/subsequent filings abroad
- Equal protection to nationals and foreigners (non discrimination)
 - Foreigners: nationals and residents of any Union country
- Mutual recognition of (Paris Convention) **priority rights**:
 - at OSF: Treatment of application as if filed on date of first filing, i.e. same prior art is to be applied if claimed subject matter is fully disclosed in priority
 - 12 month period to file an application claiming the priority of an earlier application (Art. 4 C (1))
- Permits combination of multiple priority rights (same or different countries) (Art. 4 F)
- Permits additions of technical subject matter (Art. 4 F)
 - As long as national definition of unity is met

Priorities: Benefits of claiming priorities



Article 4 F Paris Convention

"No country of the Union may refuse a priority or a patent application on the ground

that the applicant claims **multiple priorities**, even if they originate in **different countries**, or on the ground

that an application claiming one or more priorities contains one or more elements that were not included in the application or applications whose priority is claimed,

provided that, in both cases, there is unity of invention within the meaning of the law of the country.

With respect to the elements not included in the application or applications whose priority is claimed, the filing of the subsequent application shall give rise to a right of priority under ordinary conditions."

WIPO WORLD INTELLECTUAL PROPERTY ORGANIZATION

Article 4 F Paris Convention

"No country of the Union may refuse a priority or a patent application on the ground

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provided that, in both cases, there is unity of invention within the meaning of the law of the country.

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TRIPS agreement

Agreement on Trade Related Intellectual Property Rights

Provides for 'derived' Paris Convention priority, termed "convention priority":

Members to TRIPS agreement need not sign Paris Convention but need to apply respective provisions on priority right (Art. 2 (1))

Article 2 Intellectual Property Conventions

1. In respect of Parts II, III and IV of this Agreement, Members shall comply with Articles 1 through 12, and Article 19, of the **Paris Convention** (1967).



Patent families without priorities

- An international application is filed for the first time ever with the PCT, i.e. without claiming of any priority
 - All national phase entries together with the international application constitute a 'PCT family'
- Technical patent families



PCT application without priority

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

РСТ

(19) World Intellectual Property Organization International Bureau

> (43) International Publication Date 3 September 2009 (03.09.2009)

- (51) International Patent Classification: C07C 46/02 (2006.01)
- (21) International Application Number:
 - PCT/IB2008/000451
- (22) International Filing Date: 29 February 2008 (29.02.2008)
- (25) Filing Language: English
- (26) Publication Language: English
- (71) Applicant (for all designated States except US): LABO-RATOIRE MEDIDOM S.A. [CH/CH]; Enetriederstrasse 44, CII-6060 Sarnen (CII).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): DI NAPOLI, Guido [CH/MC]; 8, Lacets Saint-Leon, MC-98000 Monaco (MC). DI NAPOLI, Alessandro [CH/CH]; Chemin du Vent-Debout 18, CH-1245 Collonge Bellerive (CH).
- (74) Agent: REUTELER & CIE, S.A.; Chemin de la Vuarpillière 29, CH-1260 Nyon (CH).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ,

(10) International F WO 2009/ EC, EE, EG, ES, EF HR, HU, ID, FF, KZ, LA MC , MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG,

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- of inventorship (Rule 4.17(iv))

US, UZ, VC, VN, ZA, ZM, ZW.

Published:

- with international search report (Art. 21(3))

PCT application without priority

Bibliographic data: WO2009106910 (A1) — 2009-09-03

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PROCESS FOR T	THE PREPARATION OF ALOE-EMODIN	NO priority	
Page bookmark	WO2009106910 (A1) - PROCESS FOR THE PREPARATION	first filing with IB	
Inventor(s):	DI NAPOLI GUIDO [MC]; DI NAPOLI ALESSANDRO [CH] +	Espacenet repeats	
Applicant(s):	MEDIDOM LAB [CH]; DI NAPOLI GUIDO [MC]; DI NAP	application number among	g
Classification:	- international: C07C46/02	priority numbers!	
	- cooperative: <u>C07C46/02</u> → <u>more</u>		
Application number:	WO2008IB00451 20080229		
Priority number(s):	WO2008IB00451 20080229		
Also published as:	AR072768 (A1)		

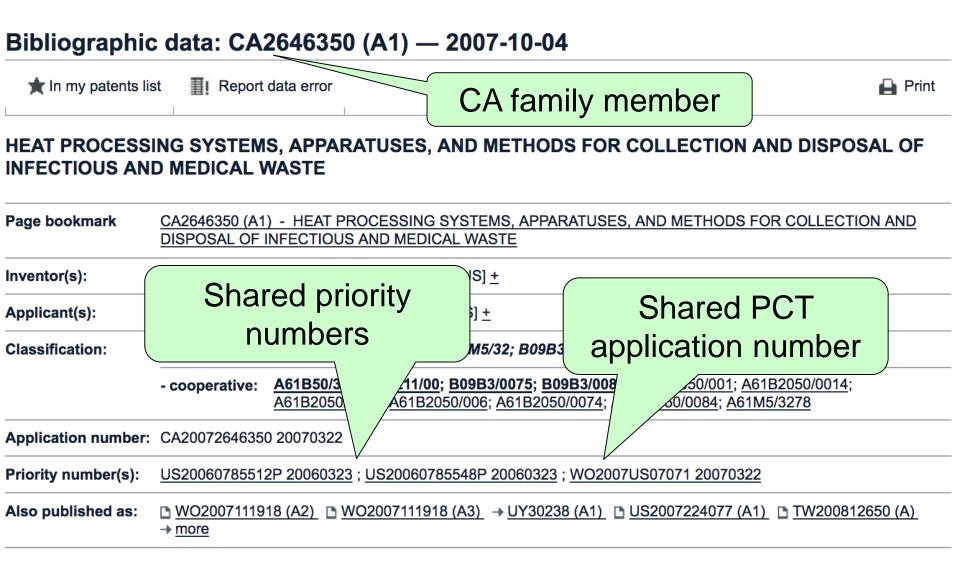
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PCT family

- PCT family' includes the international application and all its national phase entries
- Linked through the PCT application number
- Linked as well through the priorities if any were claimed which the national phase entries inherit from the international application



Family sharing PCT application numbers



PCT family – simple family

- PCT family' includes the international application and all its national phase entries
- Linked through the PCT application number
- Linked as well through the priorities if any were claimed which the national phase entries inherit from the international application
- There may be additional applications in the simple family which are not PCT NPEs
- For example, a GCC application filed through the Paris route and claiming the same priorities like the PCT application
- It may happen that a simple family includes several distinct PCT families; for example PCT/DK2006/000477

Technical families

- Applications for the same invention or parts thereof filed in different jurisdictions without claiming priority constitute a technical family
- Indicators for technical family relation:
 - Same inventor name(s)
 - Right to invention belongs to the inventor(s)
 - Same or similar drawings
 - It is very unlikely that new drawings are prepared for further filings
 - (Same applicant): the right to invention may be transferred/assigned to third parties
 - (Same or similar title)
 - (Same or similar claims)
 - (Same or similar descriptions)
 - Technical family relations are usually not recorded in any database (Inpadoc to some extent if detected by EPO examiner)

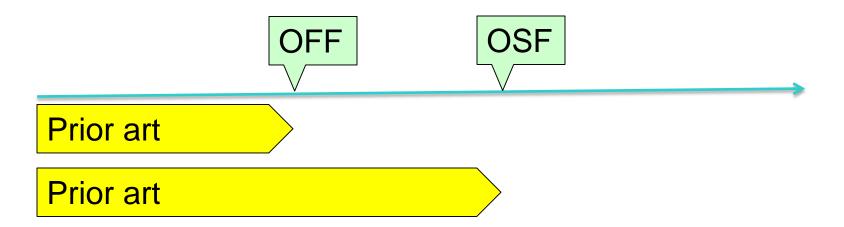


Technical families

Risk of not claiming Paris priority:

Later filing date implies different prior art, i.e. publications between

OFF and OSF filing date are included



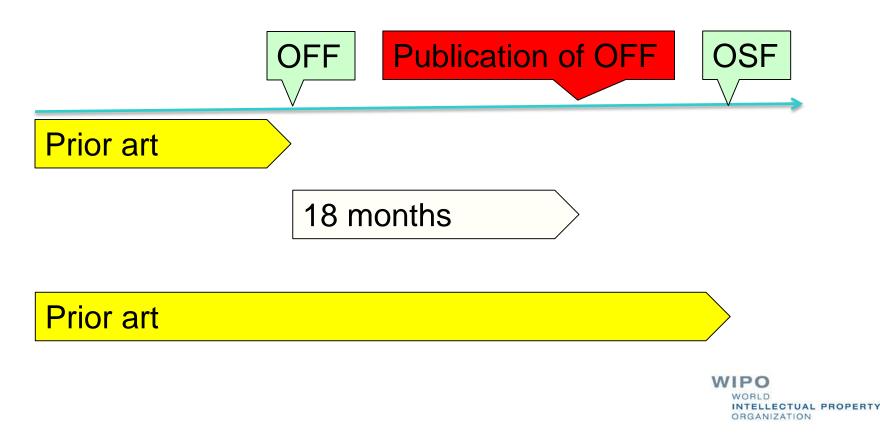
Supplementary top-up searches may reveal more prior art than other search reports obtained for family members using the priority

Technical families

Risk of not claiming Paris priority:

Later filing date implies different prior art, i.e. publications between

OFF and OSF filing date are included



Family concepts

Paris Convention permits claiming of multiple priorities

Claiming multiple and different priorities in and from different countries may lead to complex family structures, for example:

OSF1: single application claiming only priority of JP-xx OSF2: single application claiming priorities of JP-xx + JP-yy OSF3: single application claiming priorities of JP-xx + JP-yy OSF4: single application claiming priorities of JP-xx + US-zz OSF5: single application claiming only priority of US-zz

Various concepts / rules exist for constructing family relations
Largely built on the principle of shared priorities

- **Direct** sharing: completely or partially
- Indirect sharing



Article 4 F Paris Convention

"No country of the Union may refuse a priority or a patent application on the ground

that the applicant claims **multiple priorities**, even if they originate in different countries, or on the ground

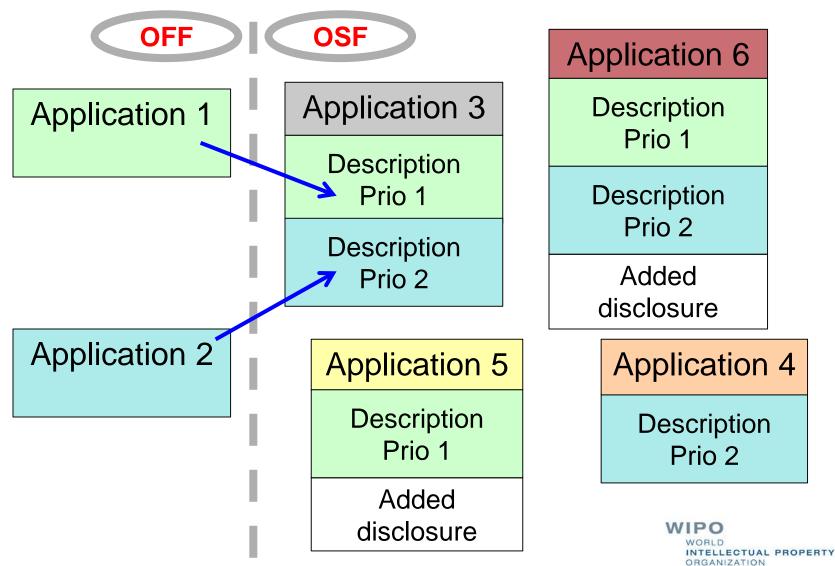
that an application claiming one or more priorities contains **one or more elements that were not included** in the application or applications whose priority is claimed,

provided that, in both cases, there is unity of invention within the meaning of the law of the country.

With respect to the elements not included in the application or applications whose priority is claimed, the filing of the subsequent application shall give rise to a right of priority under ordinary conditions."

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Combining multiple priorities



Technical disclosures of family members

- Even though priorities are claimed, technical disclosure (descriptions and drawings) may differ:
 - Combinations of different sets of descriptions
 - Parts of descriptions may be removed
 - Technical subject matter may have been added
- Permitted by Paris Convention
- Claims may also be different since claims need to be supported by description
- Differences are revealed only by comparing descriptions
- Applicants are not obliged to reveal modifications when making a new application
 - When are differences least likely?
 - When all claimed priorities are the same



Family concepts

Simple family:

All members of the family have exactly the same priority or priorities

Complex family:

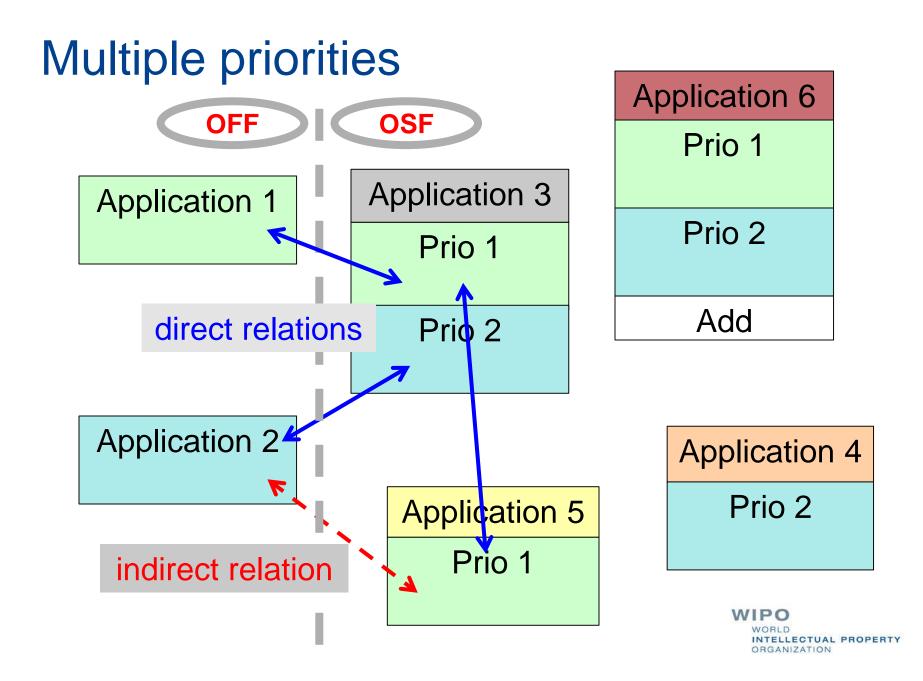
All members of the family share at least one priority

Extended family:

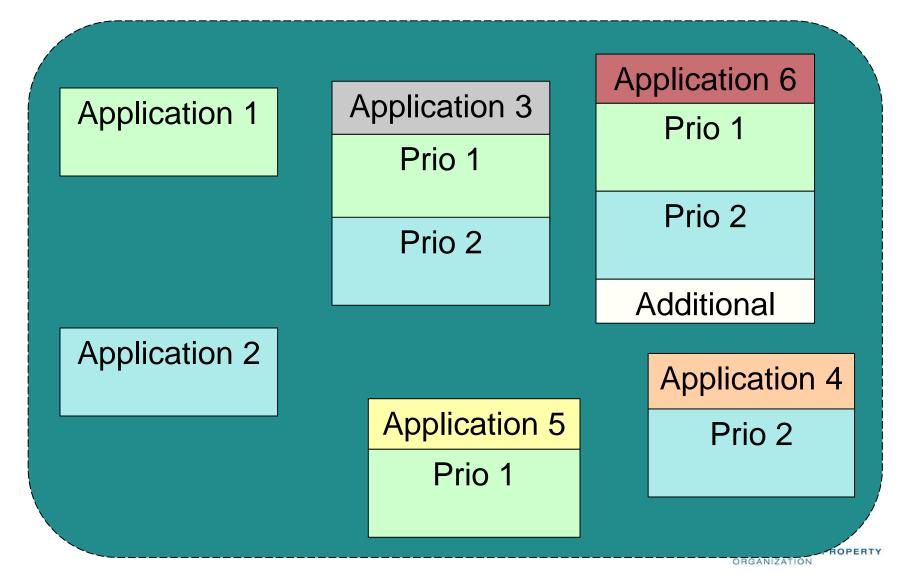
Any member shares at least one priority with at least one other member
Covers indirect sharing of priorities; is therefore the biggest possible

family

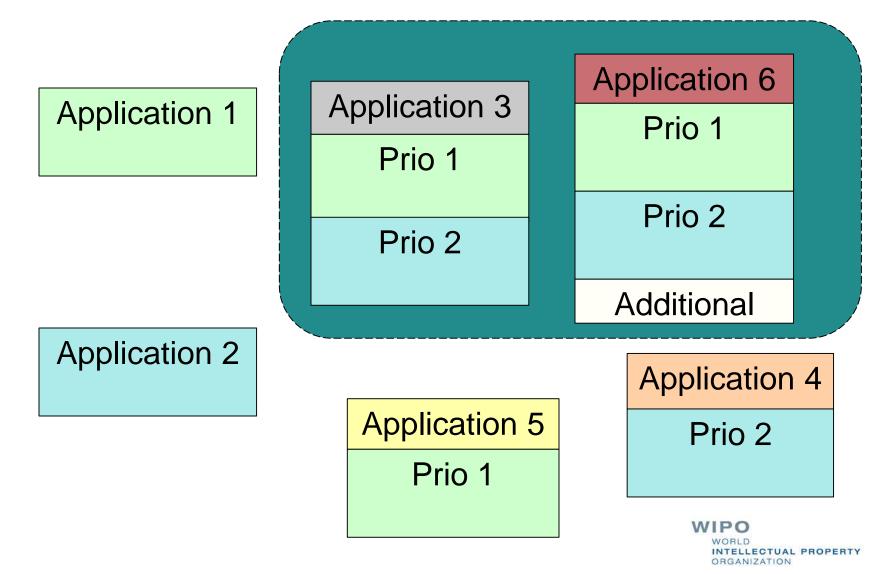
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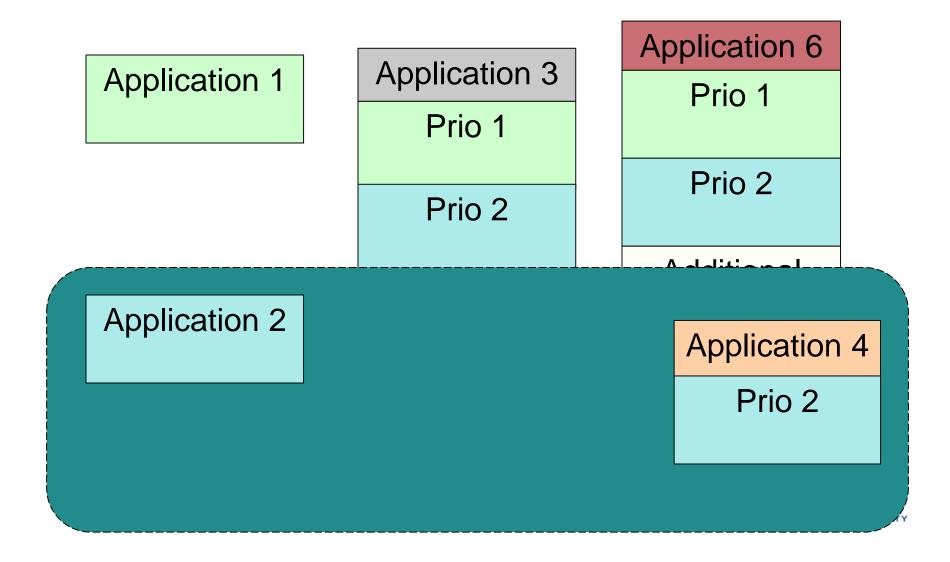
Extended family



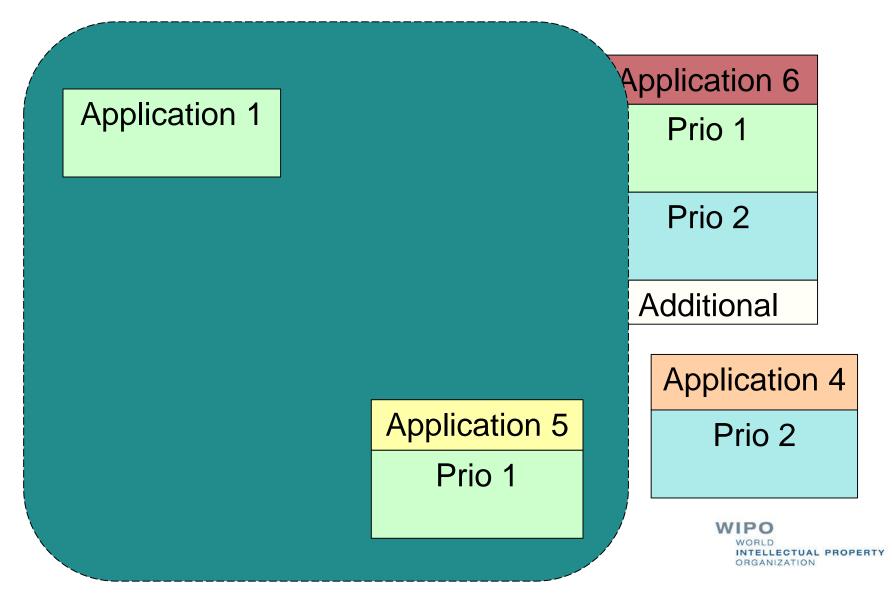
Simple family



Simple family



Simple family



Simple – extended family?

- **Simple family**: all members share the same priorities
- Simple family (PCT w/o priority): all members share the same PCT application number
 - It is very likely that descriptions of family members are equal or very similar
 - "Equivalents", "also published as"
 - Ideally, family members are just translations in other languages
 - However, Paris Convention permits additions of subject matter
 - "same invention" or group of very similar inventions

Extended (Inpadoc) family: biggest possible family, includes applications sharing priorities indirectly

- It is quite likely that descriptions are different
- More likely that they cover different but related inventions in same area of technology

WIPO WORLD INTELLECTUAL PROPERTY ORGANIZATION

Utility of simple families

Since publications belonging to the same simple family are quite likely equivalent, simple family relations are used for

Family reduction of search results: Databases like Espacenet and other professional patent databases include in the search result list only one publication per simple family (which represents the family) because other documents of the same family add no value and only blur up the result list (Patentscope has so far no family reduction)

Retrieval of language equivalents

- Find an equivalent in a language that you understand best
- **Database maintenance**, e.g. by EPO, also for, i.e. some data are stored and propagated on the family level, e.g. reclassification data



PCT family

Article 28 Amendment of the Claims, the Description, and the Drawings, Before Designated Offices

(1) The applicant shall be given the opportunity to amend the claims, the description, and the drawings, before each designated Office within the prescribed time limit. No designated Office shall grant a patent, or refuse the grant of a patent, before such time limit has expired except with the express consent of the applicant.

(2) The amendments shall not go beyond the disclosure in the international application as filed unless the national law of the designated State permits them to go beyond the said disclosure.

Disclosures (descriptions and drawings) of PCT national phase entries are usually equivalent (usually nothing was added; parts may have been removed, though)

INTELLECTUAL PROPERTY

ORGANIZATION

Sources of family information

- **Family building**: family relations are derived from priority and PCT application data
- EPO processes accordingly bibliographic data of all publications included in its database (90+ jurisdictions) as reported by data sharing offices
- EPO's INPADOC database is major source of such family information, retrievable through:
 - Espacenet & EPO's CCD (simple and extended families)
 - Other free patent information databases, like Depatis, Google Patents,...
 - Commercial database, e.g.
 - Thomson/Derwent: WPI family
 - Questel/Orbit: Fampat family
 - CAS

use widely INPADOC data and additional sources; and apply proprietary family building rules and data cleaning

Family information (in public databases) includes only information on published family members and only for jurisdictions sharing bibliographic data!

WIPO WORLD INTELLECTUAL PROPERTY ORGANIZATION

CCD access via Inpadoc family list

Europäisches Patentamt European Patent Office Office européen des brevets	Espacenet Patent search				Deutsch Eng Chang	ish Français Contact ge country ❤				
About Espacenet Other EPO	online services 🔻									
Search Result list 📩 🕅	ly patents list (0) Query h	istory Settings	Help							
EP2570899 (A2) → US2013069890	(A1) → Family page 1									
WO2011113363 (A1)	Family list: WO2	2011113363 (A1) —	2011-09-2	22						
Bibliographic data		0				D. Dive				
Description	Select all (0/25)	Compact 🕀 Export (CS	v XLS) 🕁	Downland covers 🧷 CCE	, J	🔒 Print				
Claims	20 application(a) for 14/	2011112262 (84)								
Mosaics	29 application(s) for: WC	2011113303 (A1)				12				
Original document						page 1				
Cited documents										
Citing documents	Sort by Priority date	Sort order Desc	ending	Sort 🥑 show citat	ions					
INPADOC legal status	1. AGOMELATINE HYDROBROMIDE HYDRATE AND PREPARATION THEREOF									
INPADOC patent family ick help –	Inventor: SHAN HANBIN [CN] YUAN	Applicant: SERVIER LAB [FR] SHAN HANBIN [CN]	CPC: <u>A61K31/165</u>	Citations: CN101481321 A CN101585779 A	Publication info: WO2011113363 (A1) 2011-09-22	Priority date: 2010-03-17				
Can I export this list? What happens if I click on Download covers"?	ZHEDONG [CN] (+4)	(+5)								
<u>Can I sort the list?</u> What happens if I click on the	2. Agomelatine hydro	obromide hadrate and prepar	ation thereof							
star icon? What is a patent family? What happens if I tick the "show citations" box? What is an INPADOC patent family? Are all the documents in an	★ Inventor: ZHANG PENG [CN] ZHU XUEYAN [CN] (+1)	Applicant: SERVIER LAB [FR]	CPC: A61K31/165 C07C233/18	Citations:	Publication info: AP3199 (A) 2015-03-31	Priority date: 2010-03-17				
INPADOC family equivalents?	3. Agomelatine hydro	obromide hydrate and prepar	ation thereof							
Why is the same document published several times in the same country?	★ Inventor: SHAN HANBIN YUAN ZHEDONG (+4)	Applicant: SERVIER LAB	CPC: <u>A61K31/165</u> <u>C07C233/18</u>	Citations: US2011313198 A1	Publication info: AU2011229619 (A1) 2012-09-27 AU2011229619 (B2) 2014-05-22	Priority date: 2010-03-17				
	4. AGOMELATINE H	DROBROMIDE HYDRATE A		ON THEREOF						
	★ Inventor: SHAN HANBIN [CN] YUAN ZHEDONG [CN] (+4)	Applicant: SERVIER LAB [FR]	CPC: A61K31/165 C07C233/18	Citations:	Publication info: CA2792430 (A1) 2011-09-22 CA2792430 (C) 2015-12-08	Priority date: 2010-03-17				



Sources of family information: CCD

Trilateral - CCD	Search ?	Help
Number: US6565803 Search	examples: EP1612402, US2006000447A1, JP20090214944	
<mark>⊟</mark> US19990300325 ⊗		
Hide CCD viewer Double inspector Timeline -		
CCD Viewer	🔒 Inspector: classifications and fields searched	8
Citations only view Expand view Sort by country Filter 🔻	lassifications & fields searched Classifications	۲
# CC Cat. Citation details	Claims US	
⊕ 1 US Application № US19990300325 (US09300325) - 27 April 1999	IPC A6112/10, C02F1/32 UC 210/748.11, 422/23	
2 AR Application Nº AR2000P102013 (ARP000102013) - 27 April 2000	EC A61L2/10, C02F1/32	
3 AU Application Nº AU20000044961D (AU4496100) - 27 April 2000		
4 BR Application Nº BR20000010600 (BR0010600-3) - 27 April 2000	Simple family ("equivalents")	
5 CA Application Nº CA20002372427 (CA002372427) - 27 April 2000		
6 CN Application Nº CN20008008324 (CN00808324) - 27 April 2000	Family members are identified	
7 EP Application Nº EP20000926432 (EP00926432) - 27 April 2000		
	through application numbers	
	EC A61L2/10, C02F1/32	
	CA	
	IPC A6112/10, C02F1/32 EC A61L2/10, C02F1/32	
	CN	
	IPC A6112/10, C02F1/32	
	EC A61L2/10, C02F1/32	
Estimated number of simple	EP IPC A6112/10, C02F1/32	
•		
families in extended family	Retrieve extended family	
Simple families: 3 Total family members: 7	N Get all family members	

Sources of family information: CCD

Trilateral - CCD							Search	? Help
Nur	Number: US6565803 Search examples: EP1612402, US2006000447A1, JP20090214944							
	19990300325 [®]							
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ССВ) Vie	ewer		e e e e e e e e e e e e e e e e e e e	Inspector	: classifications and fields searched		e
Cita	ation	s only view	Expand view Sort by country Filter	fications & fields searched	Classifica	ations		8
#		CC Cat.	Citation details	Claims	US			
争 1	L	US	Application Nº US19990300325 (US09300325) - 27 April 1999	<u></u>		A61L2/10, C02F1/32 210/748.11, 422/23		
2	2	AR	Application Nº AR2000P102013 (ARP000102013) - 27 April 2000		EC	A61L2/10, C02F1/32		
¦ 3	}	AU	Application Nº AU20000044961D (AU4496100) - 27 April 2000					
¦ 4	ŀ	BR	Application Nº BR20000010600 (BR0010600-3) - 27 April 2000	Simple f	ami	y , co2F1/32 C02F1/32		
5	ō	CA	Application Nº CA20002372427 (CA002372427) - 27 April 2000		AU			
6	ò	CN	Application Nº CN20008008324 (CN00808324) - 27 April 2000		IPC	A61L2/10,C02F1/32		
7	,	EP	Application Nº EP20000926432 (EP00926432) - 27 April 2000		EC	A61L2/10, C02F1/32		
÷ 8	}	AR	Application Nº AR1998P105591 (ARP980105591) - 5 November 1998	Simple	fami			
÷ 9)	AT	Application Nº AT19980949742T (AT98949742) - 1 October 1998	Cimpic		, CO2F1/32 CO2F1/32		
1	10	AU	Application Nº AU19980096001 (AU9600198) - 1 October 1998		СА			
1	1	AU	Application Nº AU19980096001D (AU9600198) - 1 October 1998		IPC	A61L2/10, C02F1/32		
1	12	BR	Application Nº BR19980015240 (BR9815240-8) - 1 October 1998		EC	A61L2/10, C02F1/32		
1	13	СА	Application Nº CA19982305762 (CA002305762) - 1 October 1998	O' I-	C	-		
1	14	CN	Application Nº CN19988009985 (CN98809985) - 1 October 1998	Simple	tam	10, c02F1/32 0, c02F1/32		
1	15	CZ	Application Nº CZ20000001256 (CZ2000 1256) - 1 October 1998		EP			
1	16	DE	Application Nº DE19986014122T (DE69814122) - 1 October 1998		IPC	A61L2/10,C02F1/32		
1	17	DK	Application Nº DK19980949742T (DK98949742) - 1 October 1998		EC	A61L2/10, C02F1/32		
1	18	EP	Application Nº EP19980949742 (EP98949742) - 1 October 1998		Fields sea	arched		8
令 1	.9	AT	Application Nº AT19990921674T (AT99921674) - 5 May 1999					
2	20	AU	Application Nº AU19990038819 (AU3881999) - 5 May 1999	-				
Sim	nple f	families: 201	Total family members: 575					

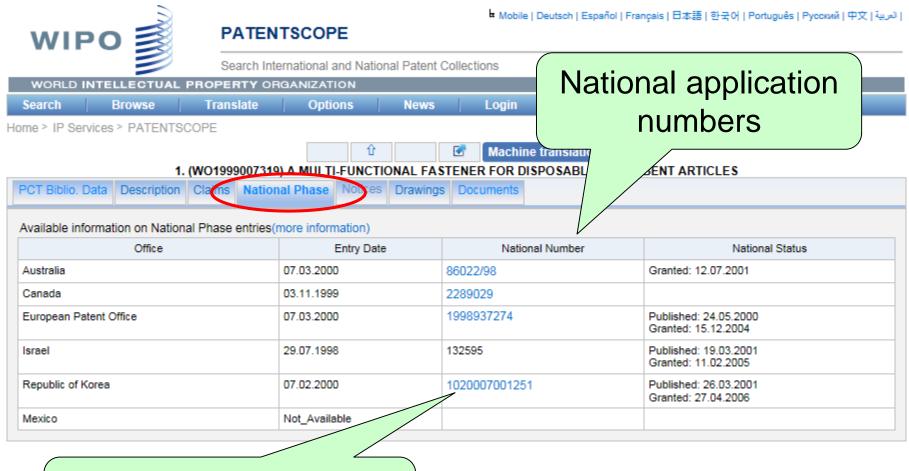
PCT/US2007/07071

Families in EP-Register

Туре	M Patent family member	>	
	Publication No.	Date	Туре
		30.09.2009	А
	Priority number	Date	
	US78551206	23.03.2006	
Туре	E Equivalent	>	
	Publication No.	Date	Туре
		21.05.2008	A1
	Priority number	Date	
	US78554806	23.03.2006	
	0010001000		

WIPO WORLD INTELLECTUAL PROPERTY ORGANIZATION

National phase entries in Patentscope



Hyperlinked to national registers

WIPO WORLD INTELLECTUAL PROPERTY ORGANIZATION

National phase entries in Patentscope

National phase entries in (NPEs) Patentscope are reported by designated/elected offices

Obligation to report such data as of July 1, 2017

Simple family ('Equivalents') of Espacenet includes national phase entries as determined by comparing PCT application numbers/priorities included in the bibliographic data national publications that offices share with EPO

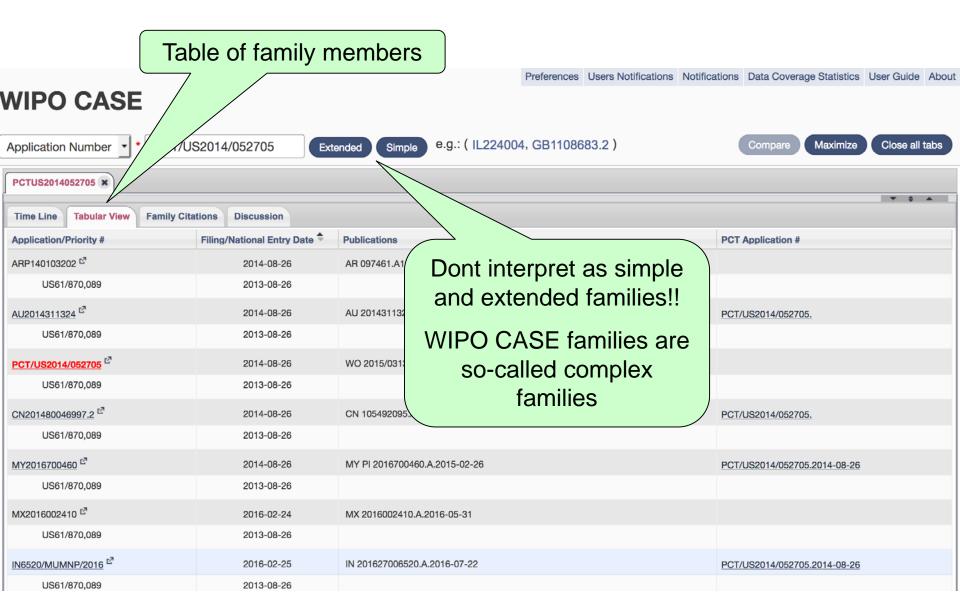
Complemented by NPE data from WIPO



NPEs in Patentscope/Espacenet

	Patentscope NPE	Espacenet Inpadoc/simple fam
WO2011162752	CA, CN, EP, IN, JP, KR, MX	AU, CA, CN, EP, JP, KR, MX, ZA
WO2011162753	-	2xUS
WO2011162754	US	US
WO2011162755	CA, CN, CO , EP, JP, MX, PH , RU,	AU, BR, CA, CN, EP, JP, MX, RU,
	SG, TH, US	SG, TW , US
WO2011162756	CA, CN, CO , EP, IN , JP, MX, PH ,	AU, BR, CA, CN, EP, HK, JP, MX,
	RU, TH , US	RU, TW , 2x US
WO2011162757	CA, CN, MX	BR, CA, CN, MX, RU, US
WO2011162758	CA, CN, CO , EP, IN , JP, MX, RU,	AU, BR, CA, CN, EP, JP, MX, RU,
	ТН	TW, US
WO2011162759	US	US
WO2011162760	-	-
WO2011162761	CN, EP, IN	BR, CN, EP

Patent family in WIPO CASE



Patent family in Global Dossier (USPTO)

About Us Careers Contact Us												
Global Dossier												
Home Public Pair	Co	ommon Cit	tation Documen	t				Current Se	rvice Status Serv	ice Hours	Help Ema	il Us 🛛 🖾
Office WIPO -	Туре	PCT Ap	plication	PCT/US2014	/052705	ς Ο		Domes		ollections	ා ී Hist	ory 1
PCT/US2014/0	527(05 12 Me	embers in Patent	Family (12 curre	ently sh	own) 🕴 📩		familie	s			
«	٥	Office \$	Application \$	Applicant	Title		App. Date 🗘	Priority #	P p. # 🛈	Pub. Date	Action 🗘 🛈	
IP Office Type	A	PE	0002862016		1	() (08/26/2014	US 61870089	PE 03542016 A1	05/11/2016		
✓ All IP5 Offices	A	MX	2016002410				08/26/2014	US PCT/US14/52705 US 61870089	MX 2016002410 A	05/31/2016		
EPOSIPO	A	EA	201690475			Extende		US PCT/US14/52705 US 61870089	EA 201690475 A1	06/30/2016		
	A	AR	P140103202			family, n		US 61870089	AR 097461 A1	03/16/2016		
 USPTO Non-IP5 Offices 	ŧ	AU	2014311324 View Dossier	1) Red Leaf Resources, Inc.,	Gas barri	option to select	D 1014	US PCT/US14/52705 US 61870089	AU 2014311324 A1 AU 2014311324 B2	04/07/2016 11/10/2016	2)	Add to ★
	A	AP	201609052			simple	014	US PCT/US14/52705 US 61870089	AP 201609052 D0	02/29/2016		
	Ŧ	US	14469062 View Dossier	1) Patten, James W. 2) Bunger, James W. 3) Seely, Dan	GAS COM	family	014	US 61870089 US 14469062	US 20150053269 A1	02/26/2015	2 (1)	Add to ★
	A	CA	2922019			c	08/26/2014	US PCT/US14/52705 US 61870089	CA 2922019 A1	03/05/2015		

Request to disclose family information

- India, for example, systematically requires applicants to disclose family information
- Disclosure to be found in dossier
- WO2011162761 in Patentscope NPEs: 9632/DELNP/2012
- WO2011162761 in Espacenet family: no India
- Example



Families within one jurisdiction

National, regional, PCT jurisdictions

- National families
- Domestic families



Origin of patent families - reasons

There are various reasons for patent family relations between distinct applications/filings:

- A. Patent protection is territorial, i.e. inventors/investors may have to seek protection in different jurisdictions ("extensions")
- B. An application may have certain deficiencies (e.g. lack of unity,...); a subsequent application seeks to heal them
- C. Further improvements of an invention; a subsequent application includes additional further improvements, i.e. new art is added
- D. (Modification/amendment of claims without adding new art)

These reasons may co-occur, i.e.

- a later foreign filing may include added art and/or new claims
- a subsequent domestic filing may include both corrections and added art!



Origin of patent families - priorities

Foreign applications usually claim **foreign priorities** of earlier applications filed in other IPOs according to

- Paris Convention
- TRIPS agreement
- (PCT)
- Domestic filings (at same office for reasons B and C) may claim a domestic/internal priority of an earlier domestic filing
 - Claiming of domestic priority rights is regulated by respective national legislation



Claiming national priorities

Bibliographic data: US2008274698 (A1) — 2008-11-06

★ In my patents list II Report data error

Print

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

Page bookmark	US2008274698 (A1) - METHOD AND APPARATUS FOR INDICATING A TE A PIGGYBACKED ACK/NACK FIELD IS ADDRESSED	MPORARY BLOCK FLOW TO WHICH		
Inventor(s):	LI YAN [US]; DICK STEPHEN G [US]; CHITRAPU PRABHAKAR R [US]; RU BEHROUZ [US]; MANSETA KHUSHALI N [US] <u>+</u>	US '138' claims		
Applicant(s):	INTERDIGITAL TECH CORP [US] <u>+</u>	3 national		
Classification:	- international: H04B1/00	priorities		
	- cooperative: <u>H03M13/09; H04L1/0041; H04L1/0073; H04L1/1664; H04L</u> H04L2001/125			
Application number:	US20080106138 20080418 () Global Dossier			
Priority number(s):	US20080106138 20080418 ; <u>US20070913179P 20070420</u> ; <u>US20070974293</u> 20071023	P 20070921 ; US20070981980P		
Also published as:	□ <u>US8296619 (B2)</u> □ <u>WO2008130694 (A1)</u> □ <u>US2013326320 (A1)</u> □ <u>US2</u> → <u>more</u>	2013039210 (A1) 🗈 US8539308 (B2)		

Domestic second filings

"Continuation (in part)"

- New national/local application claiming priority of one or several previous national/local applications
- "in part": Additions of technical subject matter to initial disclosure of parent (priority) application or other amendments are permitted, and usually intended, only part of the new application originates in earlier application
- (Up to 12 months after filing date of claimed priority)

Patent of addition (in some jurisdictions)

- Improvement of original invention of parent patent
- Unity with parent patent to be given; i.e. as if further independent claim of parent patent
- Depends on validity of parent patent
- Request possible up to 18 months after filing of patent patent



Domestic second filings

Division (US continuations)

- E.g. for healing a lack of unity: mandatory division
- Permits filing of an application with new set of claims based on previously filed disclosure (i.e. no additions to initial disclosure permitted): volontary division Paris Art. 4 G (2)
- Initial disclosure (parent application) may comprise several inventions
- Lack of unity is given only if different inventions are "claimed", i.e. if covered explicitly by claims
- Strategic approach by some applicants
- Divisions are possible usually anytime as long as parent application (EPC: only within 24 months after 1st office communication)
- Retains application date and claimed priorities; no explicit priority claim type relation to parent application

Paris Art. 4 G (1)

Further sources of family information

 National registers (e.g. US PAIR) include patent family information on national level (domestic families, national families (continuation in part), divisions)

WIPO CASE

- Applies concept of 'complex families'
- Derived from priority data in CASE database
- Families includes therefore (currently) only applications recorded in CASE database
- Espacenet family information is (currently) more comprehensive

Patentscope has no family information except for PCT national phase entries

EP-Register - divisions





US-PAIR: national family/divisions

11/689,638 Heat Processing Systems, Apparatu	ses, and Methods f	or Collection and Disposal of Infe	ctious and Medical Waste	57015-3409	45 🖳		
Select New Case Application Transaction Image File Continuity Published Address & Display Data History Wrapper Data Documents Attorney/Agent References							
Parent Continuity Data							
Description	Parent Number	Parent Filing or 371(c) Date	AIA(First Inventor to File)	Parent Status	Patent Number		
This application Claims Priority from Provisional Application	60/785,512	03-23-2006	-	Expired	-		
Claims Priority from Provisional Application	60/785,548	03-23-2006	-	Expired	-		
Child Continuity Data							
No Child Continuity Data Found							

Overview of types of patent families

Family relations based on priorities

- National families (national/internal/domestic priority)
- Filings abroad:
 - Using Paris convention (or TRIPS) priority only
 - Second filings with PCT with Paris (TRIPS) convention priority claim(s)

Family relations not based on priorities

- Technical families
- (Continuations/Divisions)
- First filings with PCT
- Domestic families



Summary

Extended families are the largest possible families and may include

- Several simple families
- Several domestic families
- Several national families
- A single application belongs at the same time to
 - One domestic family
 - One national family
 - One simple family
 - One extended family
- A simple family may include
 - Several domestic families
 - Several national families
- Families may have only a single member



Thank you

lutz.mailander@wipo.int

