

Topic 3: Patent Family Concepts and Sources for Family Information

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Head, International Cooperation on Examination and Training Section

Casablanca Mars 19, 2018

Agenda

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

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 👻	
44 About Espacenet Other EPO o			
Search Result list My WO2007111918 (A2)	Bibliographic data: WO2007111918 (A2) -2007-10-04		
Bibliographic data Description	t In my patents list → EP Register → Report data error	🖨 Print	
Claims Mosaics Original document	HEAT PROCESSING SYSTEMS, APPARATUSES, AND METHODS FOR COLL INFECTIOUS AND MEDICAL WASTE	ECTION AND DISPOSAL OF	
Cited documents Citing documents	Page bookmark WO2007111918 (A2) - HEAT PROCESSING SYSTEMS, APPARATUSES, A AND DISPOSAL OF INFECTIOUS AND MEDICAL WASTE	ND METHODS FOR COLLECTION	
INPADOC legal status INPADOC patent family	Applican 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? What happens if I click on "In my patents list"? 	- cooperative: <u>A61B19/0288; A61L11/00; B09B3/0075; B09B3/0083; A61B</u> A61B2019/024; A61B2019/0294; A61B2019/0295; A61B2009/0295; A61B2009/0000000000000000000000000000000000	create family relations	
	Application number: W02007US07071 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 documents?	Also published as: <u> <u> <u> </u> <u> </u></u></u>	2650 (A) → PE12992007 (A1) → more	
 How can I bookmark this page? Why does a list of documents with the heading "Also published 	Abstract of WO2007111918 (A2)		
as" sometimes appear, and what are these documents? Why do I sometimes find the abstract of a corresponding	Translate this text into I Bulgarian I Patenttranslate powered by EPO and Google Simple	family ('equivalents')	
document? • What happens if I click on the red "patent translate" button?	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	ບີອບັໂຮັດກິ⊂Enĝitistกິ Fränçais Contact Change country →	
↔ About Espacenet Other EPO of Search Result list My Velcome back to Espacenet. If	y patents list (0) Query history Settings Help	Number of family counting distinct nation	
WO2007111918 (A2)	Family Ist: WO2007111918 (A2) - 2007-08		
Bibliographic data Description	Select all (0/14) Compace (0/14)	Download covers A CCD	
Claims Mosaics Original document	14 application(s) for: WO2007111918 (A2)		1st family
Cited documents Citing documents	Sort by Priority date Sort order Desc	ending 🔽 Sort 🔲 show citations	member (AR)
INPADOC legal status INPADOC patent family	☐ 1. <u>HEAT PROCESSING SYSTEMS, APPARATUSES, AND METHO</u> <u>MEDICAL WASTE</u>	DS FOR COLLECTION AND DISPOSAL OF INFECTIOUS AN	
Quick help	SOLUTION [US] <u>A61B</u> <u>A61B</u> (+8)	IPC: Publication info: Priority date: <u>9/0288</u> (IPC1- AR060092 (A1) 2006-03-23 <u>019/0213</u> 7):A61L11/00 2008-05-21 2009/0229	2nd family member (AU)
Can I sort the list? What happens if I click on the star icon? What is a patent family? What is a patent family? What happens if I tick the "show citations" box? What is an INPADOC patent family?	G SOLUTION A61B2	Ction and disposal of infectious and medical waste IPC: Publication info: Trority date: 9/0288 A61819/02 AU2007231591 (A1) 2006-03-23 2019/0213 A61111/00 2007-10-04 2006-03-23 019/0229 A61405/32 (+1) 1	3rd family member (CA)
 Are all the documents in an INPADOC family equivalents? Why is the same document published several times in the same country? 	☐ 3. <u>HEAT PROCESSING SYSTEMS, APPARATUSES, AND METHO</u> MEDICAL WASTE	DS FOR COLLECTION AND DISPOSAL OF INFECTIOUS AND	
	★ Inventor: Applicant: CPC: COX DONALD BIOMEDICAL TECHNOLOGY A61B G [US] SOLUTION [US] A61B2	IPC: Publication info: Hority date: 9/0288 A61B19/02 CA2646350 (A1) 2006-03-23 0019/0213 A61L11/00 2007-10-04 2007-10-04 (+1) (+1) (+1) (+1)	
	T 4. Heat processing systems, apparatuses, and methods for colle	ction and disposal of infectious and medical waste	
	★ Inventor: Applicant: CPC: BIOMEDICAL TECHNOLOGY SOLUTION [US]	IPC: Publication info: Priority date: A61L11/00 CN101448531 (A) 2006-03-23 2009-06-03 2009-03-03	
	5. HEAT PROCESSING SYSTEMS, APPARATUSES, AND METHO MEDICAL WASTE	DS FOR COLLECTION AND DISPOSAL OF INFECTIOUS AND	INTELLECTUAL PROPERTY ORGANIZATION
i	Aunlicant:CPC:CPC:	lPC:Publication_info:Priority date:_	1

AU family member

Europäisches Patentamt European Patent Office Office européen des brevets	Espacen Patent search	et					Deutsch	English Français Contact Change country I
	y patents list (0) Qu	uery history	Settings	s Help			_	
<u>WO2007111918 (A2)</u> → Family → A AU2007231591 (A1)	AU2007231591 (A1) Bibliographi	c data: AU	200723	1591 (A1) — 2007	²-10-04		
Bibliographic data Description	n my patents	list Previou	us ¶ 3/1	5 🕨 Next	I Report	t data error		Print
Claims					1			
Mosaics	Heat processing	j systems, ar	paratuses	s, and meth	ods for col	llection and disposal o	f infectio	us and medical
Original document	waste							
Cited documents								
Citing documents	Page bookmark			t processing s	vstems, appara	atuses, and methods for collec	tion and dis	posal of infectious
INPADOC legal status		and medical wa	aste			<i></i>	`	
INPADOC patent family	Inventor(s):	COX DONALD	G; GORDEF	DIANE R +	(
,	Applicant(s):	BIOMEDICAL	TECHNOLOG	SY SOLUTION	<u>+</u>	Same US		PCT
uick help –	Classification:	- international	: A61B19/0	2: A61L11/00:	A61M5/32: B	priorities		application
What is meant by high quality text as facsimile? What does A1, A2, A3 and B		- cooperative:	A61B50/36	62; A61L11/00	; <u>B09B3</u>	like WO	AN AN	number
stand for after a European publication number?	Application number	: AU200702315	91 20070322					
What happens if I click on "In my patents list"?	Priority number(s):	US200607855	12P 2006032	3 ; US2006078	35548P 200603	323 ; WO2007US07071 20070	322	
What happens if I click on the "Register" button?	Also published as:					7 (A1) 🗅 DOP2007000056 (/		4731 (B1)_ → more
Why are some sidebar options deactivated for certain documents? How can I bookmark this page?	Abstract not ava Abstract of corr				1918 (A2)			ERT

Abstract of corresponding document: WO2007111918 (A2)

→ Why does a list of documents

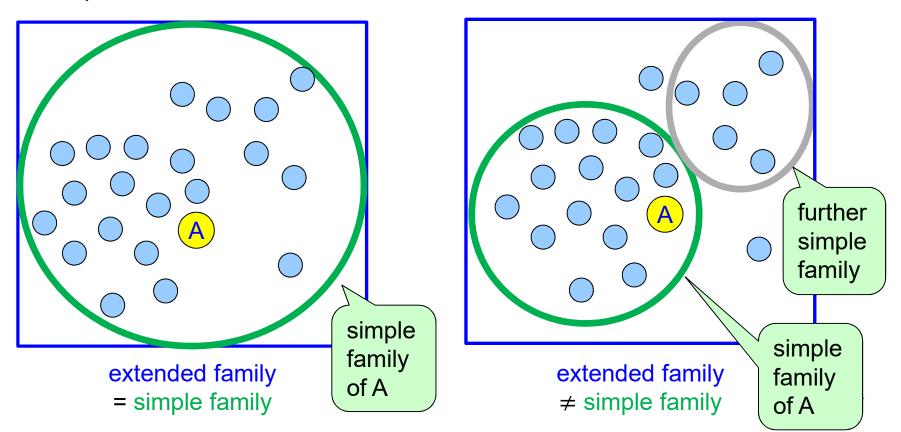
Origin of patent families

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

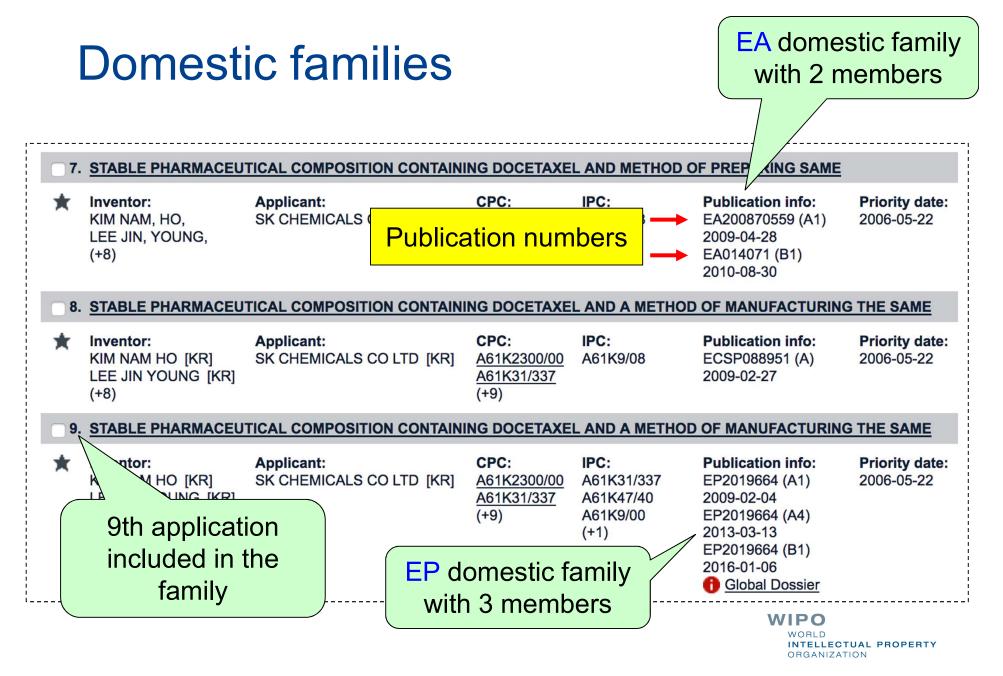
- A. Patent protection is territorial, i.e. inventors/investors may have to seek protection in various different jurisdictions ("**extensions**")
- Β.
- Foreign applications usually claim **priorities** of earlier applications filed in other jurisdictions based on
 - Paris Convention
 - TRIPS agreement
- 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



WO2007136219



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

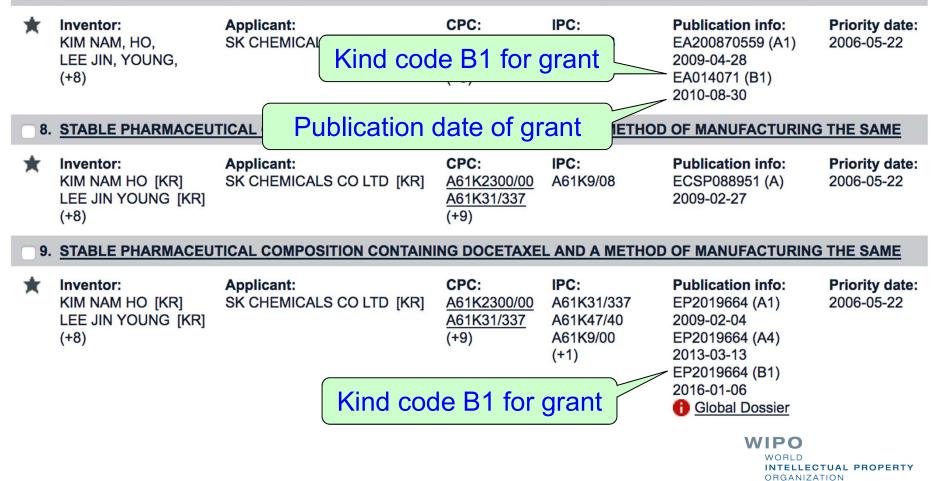
N.B.: Some countries, e.g. US or EA use for a single application different publication numbers in addition to the different kind codes_{WIPO}

INTELLECTUAL PROPERTY

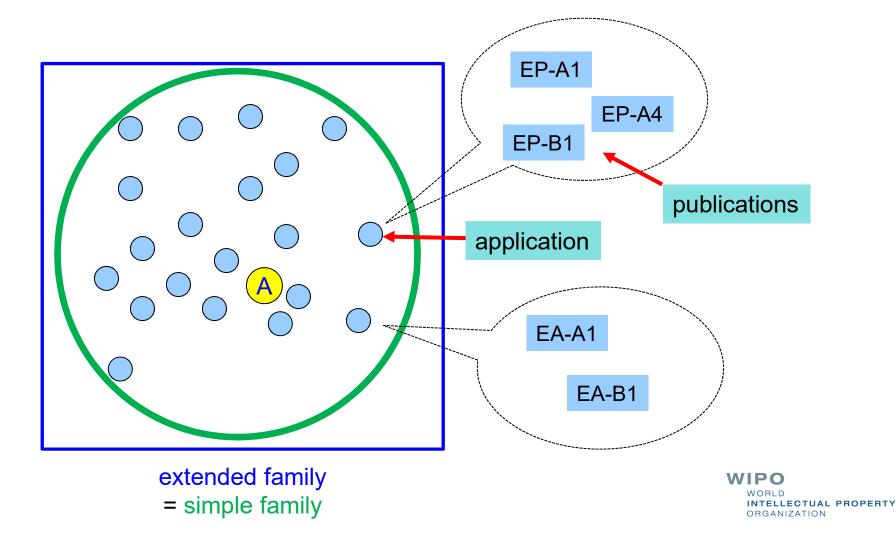
ORGANIZATION

Domestic families





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



Priority claims - sample

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

★ In my patents list	EP Register	I Report data error	🔒 Print
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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

🜟 In my patents list	EP Register	I Report data error	🔒 Print

PLANT CULTIVATION SYSTEM

	o [JP]; Fujii Dkamoto a	i Manabu [J .Kihiro [JP];	IP]; YOSHIOKA I		• • -			
EBIOL INC [JP]; C	DKAMOTO A	Kihiro [JP];	•		• • -			
			; FUJII MANABU	[JP]; YOSHIOKA	HIROSHI [JP]; MORI YUICHI			
international: A0	1G1/00: A01			MEBIOL INC [JP]; OKAMOTO AKIHIRO [JP]; FUJII MANABU [JP]; YOSHIOKA HIROSHI [JP]; MORI YUICHI [JP] +				
	- international: A01G1/00; A01G13/00; A01G25/00; A01G27/00; A01G7/00							
cooperative: <u>A0</u>	1G31/02; Y0	2P60/216						
<mark>VO</mark> 2007JP67578 2	20070910	1 Global D	ossier		2 priorities			
P20060254439 200	060920 ; <u>JP2</u>	0070144202	20070530					
EP2064942 (A1)	B EP206494	42 (A4) 🗈 US	S2010186298 (A	1) 🖪 <u>US8001721</u>	(B2) → UA93268 (C2) → mo	ore		
20	0060254439 200	0060254439 20060920 ; <u>JP2</u>	0060254439 20060920 ; JP20070144202	0060254439 20060920 ; JP20070144202 20070530	0060254439 20060920 ; JP20070144202 20070530			

Priority claims - sample

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

★ In my patents lis	st .↗ EP Register	🔒 Print					
SECURE UNIVER	RSAL TRANSACTION SYSTEM	The more priorities are claimed, the more	_				
Page bookmark	WO2008060725 (A3) - SECURE UNIVERSAL TRANSACTION SYSTEM	complex the family relations may be!					
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):	US20060532580 20060918 ; EP20060256440 20061219 ; GB20060025304 20061219						
Also published as:	■ WO2008060725 (A2) ■ WO2008060725 (A8) ■ EP1901248 (A1) → ZA → more	200901870 (B) 🗅 US2011125613 (A1)					

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')

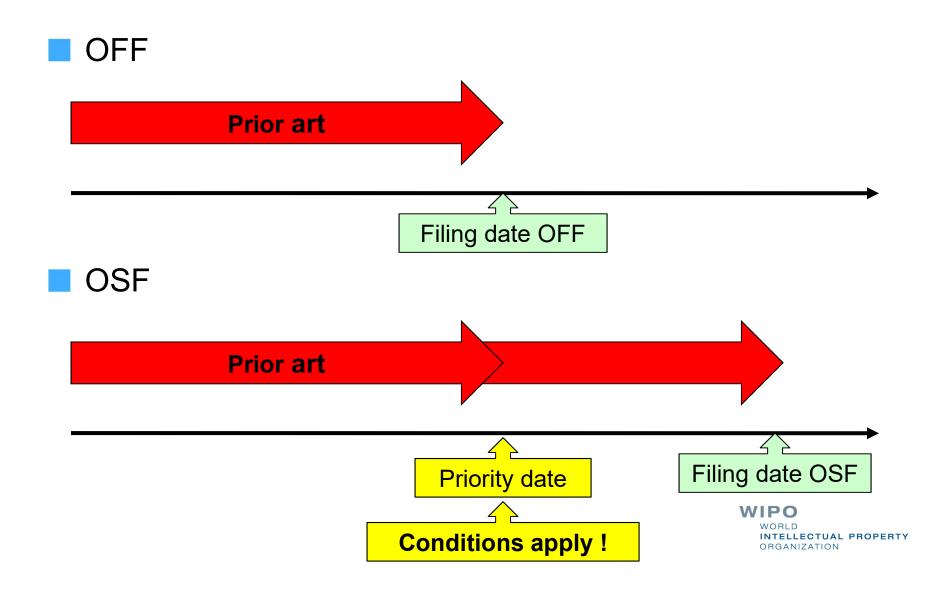
All filings/applications including the "same invention" or parts thereof constitute a **patent family**, e.g. the applications for one invention filed in different countries

WIPO world intellectual property organization

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."

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,

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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."

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).

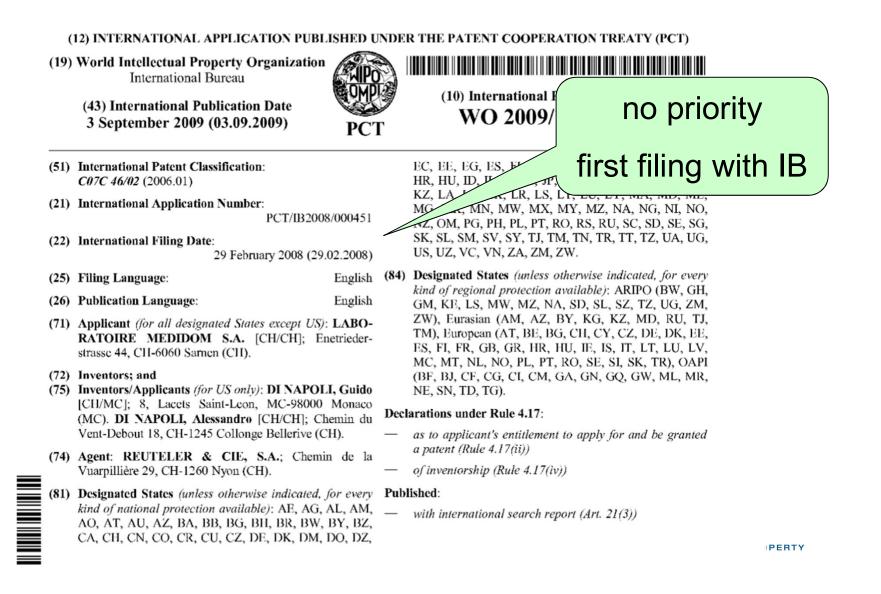


Patent families without priorities

- 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'

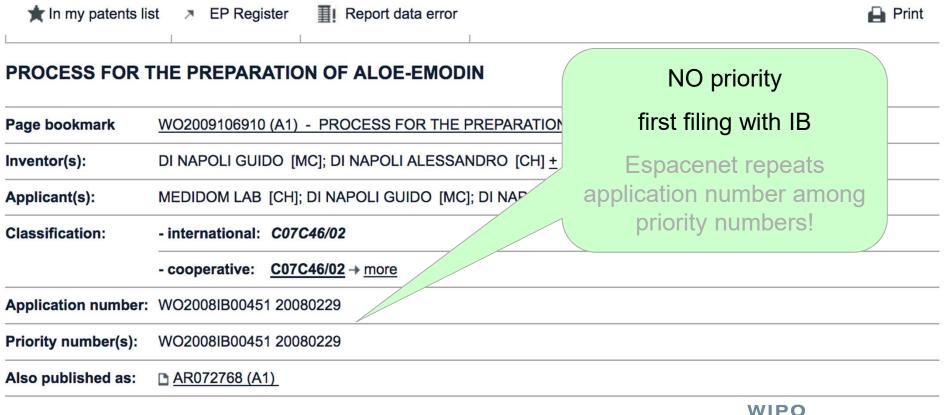
Technical patent families

PCT application without priority



PCT application without priority

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



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

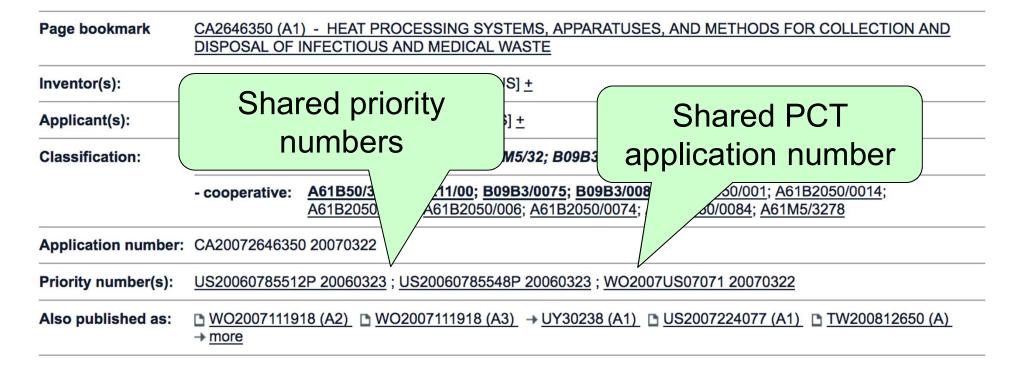


Family sharing PCT application numbers

Bibliographic data: CA2646350 (A1) — 2007-10-04



HEAT PROCESSING SYSTEMS, APPARATUSES, AND METHODS FOR COLLECTION AND DISPOSAL OF INFECTIOUS AND MEDICAL WASTE



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

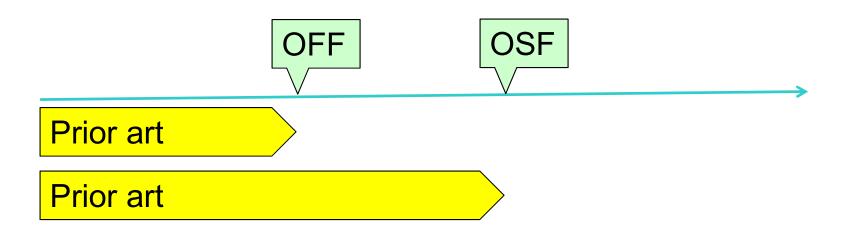
Technical families

- 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

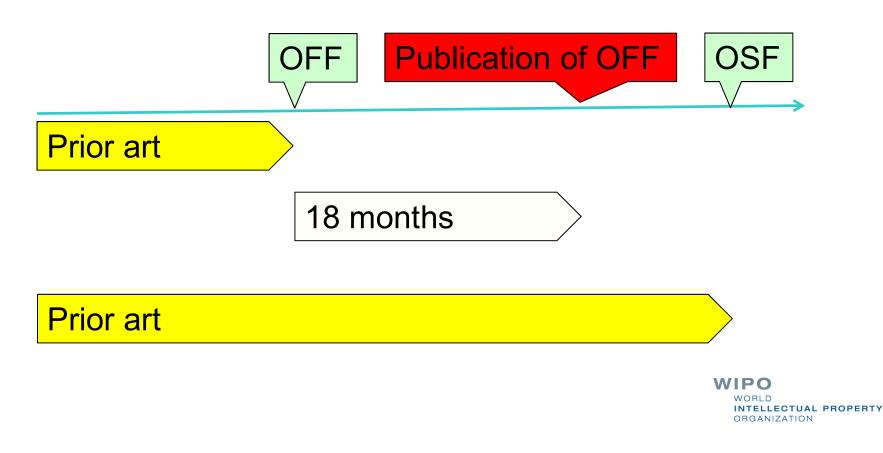
Risk of not claiming Paris priority: Later filing date implies different prior art, i.e. publications between OFF and OSF filing date are included



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** OSF4: 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

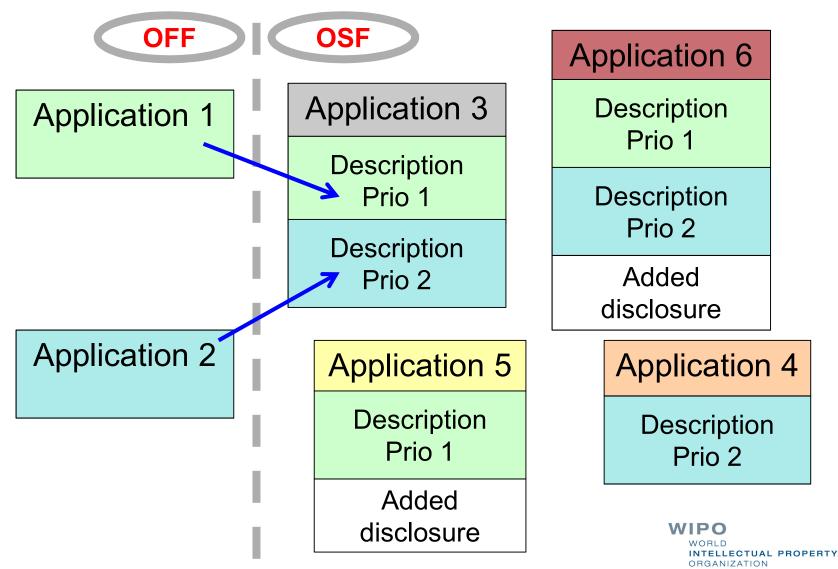
that the applicant claims **multiple priorities**, even if they originate in different countries, or on the ground

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."

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
- 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



Permitted by Paris Convention

Family concepts

Simple family:

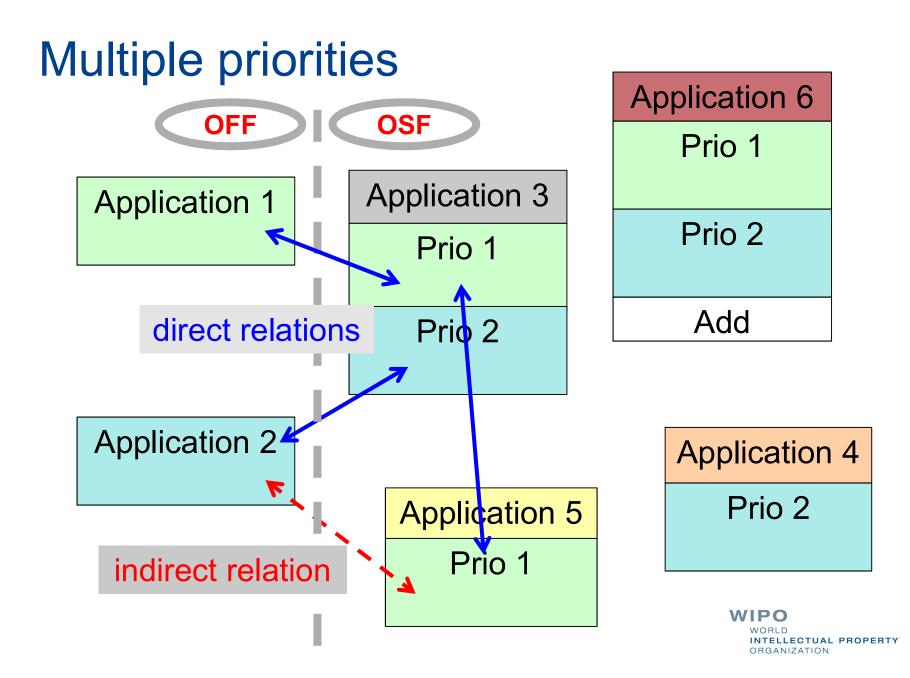
All members of the family have exactly the same priority or priorities

Complex family:

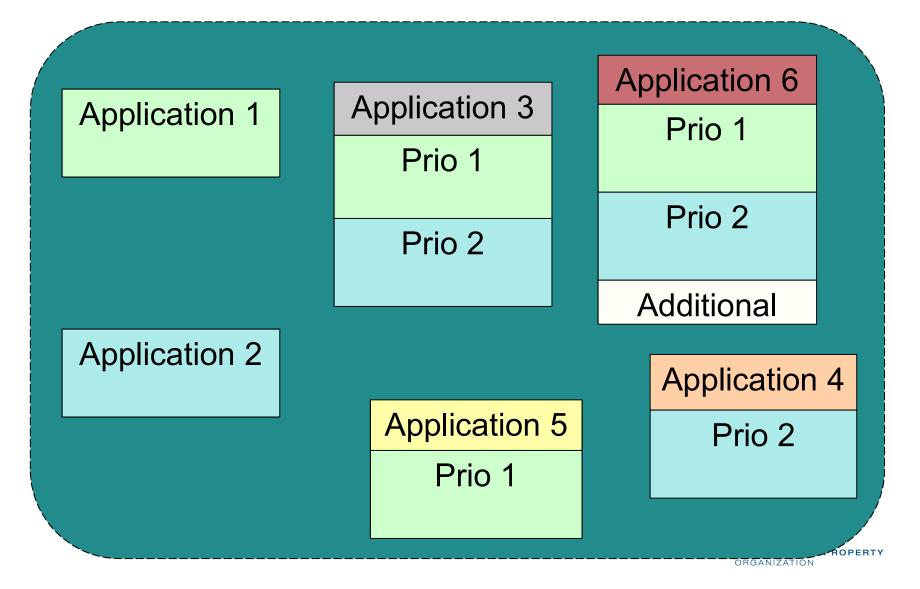
All members of the family share at least one priority

Extended family:

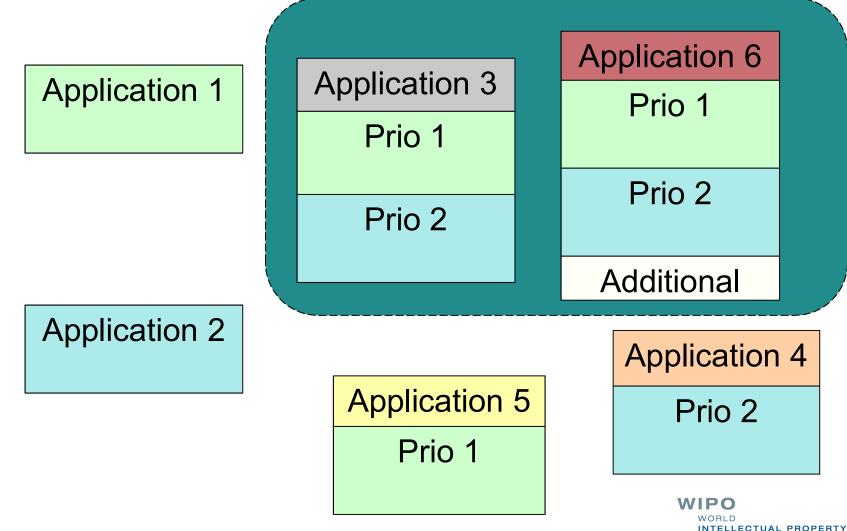
- Any member shares at least one priority with at least one other member
- Covers indirect sharing of priorities; is therefore the biggest possible family



Extended family

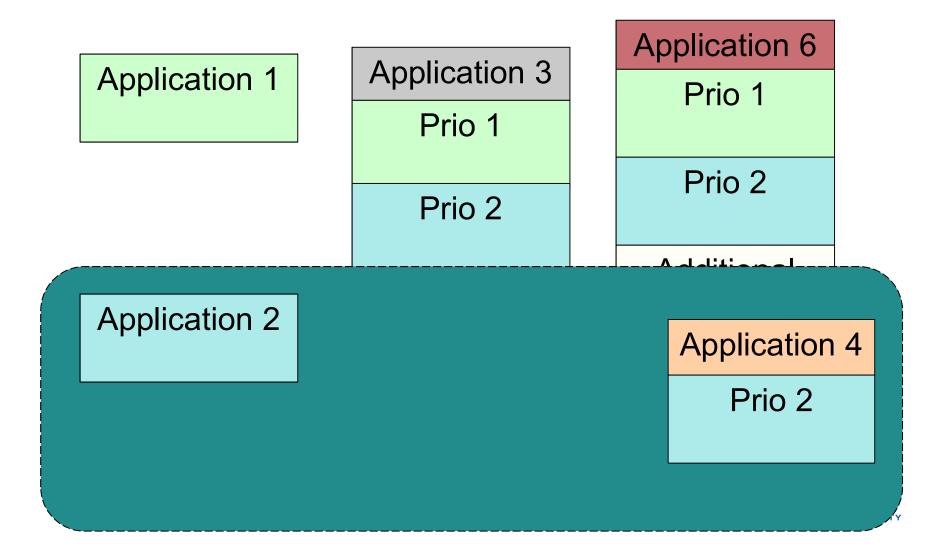




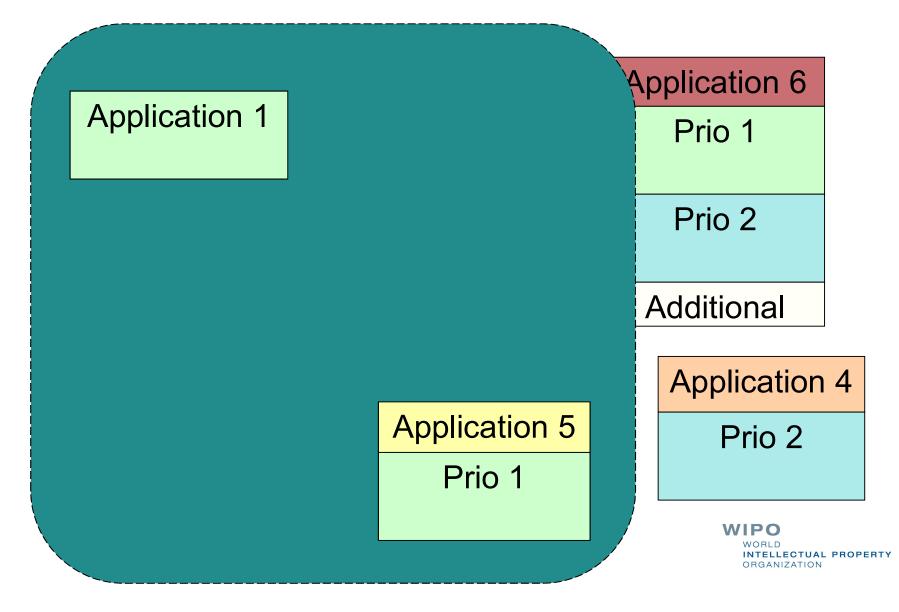


INTELLECTUAL PROPERTY ORGANIZATION

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!

CCD access via Inpadoc family list

Europäisches Patentamt European Patent Office Office europé des brevets	Espacenet Patent search	Deutsch Englisi Change	h Français Contact country ▼						
About Espacenet Othe Search Result list EP2570899 (A2) → US2013 WO2011113363 (A1)	er EPO online services ▼ My patents list (0) Query history Settings Help 1069990 (A1) → Family page 1 Family list: WO2011113363 (A1) — 2011-09-22		_						
Bibliographic data Description Claims	□ Select all (0/25)	ン	Print						
Mosaics Original document Cited documents Citing documents	Sort by Priority date Sort order Descending Sort order Sort	ns	page 1						
INPADOC legal status INPADOC patent family	1. AGOMELATINE HYDROBROMIDE HYDRATE AND PREPARATION THEREOF	15							
Quick help ▶ Can I export this list? ▶ What happens if I click on "Download covers"?	SHAN HANBIN SERVIER LAB [FR] A61K31/165 CN101481321 A V		Priority date: 010-03-17						
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What is a patent family? What is a patent family? What is a niNPADOC pater family? What is an INPADOC pater family? Are all the documents in an	Inventor: Applicant: CPC: Citations: F ZHANG PENG SERVIER LAB [FR] A61K31/165 A show [CN] C07C233/18 2 ZHU XUEYAN C07C233/18 2 ti [CN] (+1)		Priority date: 010-03-17						
INPADOC family equivalen	3. Agomelatine hydrobromide hydrate and preparation thereof								
Why is the same document published several times in t same country?	he Inventor: Applicant: CPC: Citations: F SHAN HANBIN SERVIER LAB <u>A61K31/165</u> US2011313198 A1 A YUAN ZHEDONG <u>C07C233/18</u> (+4)		Priority date: 010-03-17						
	4. AGOMELATINE HYDROBROMIDE HYDRATE AND PREPARATION THEREOF								
	SHAN HANBIN SERVIER LAB [FR] A61K31/165 CO [CN] C07C233/18 22 YUAN C07C233/18 22		Priority date: 010-03-17						

Sources of family information: CCD

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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	Simple	(equivalents)	
	6	CN			manual are are identified	
1	7	EP	Application Nº EP20000926432 (EP00926432) - 27 April 2000	Family	members are identified	
				through	application numbers	
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					СА	
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Sources of family information: CCD

Trila	ateral -	CCD				Search	? Help
Numb	er: US65658	103 Search exa	amples: EP1612402, US2006	000447A1, JP2	0090214944		
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#	CC Cat.	Citation details	Claims	US			
争 1	US	Application Nº US19990300325 (US09300325) - 27 April 1999	-		A61L2/10, C02F1/32 210/748.11, 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	Circula f				
4	BR	Application Nº BR20000010600 (BR0010600-3) - 27 April 2000	Simple f	ami	C02F1/32 C02F1/32		
5	CA	Application Nº CA20002372427 (CA002372427) - 27 April 2000		AU			
6	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	V		
夺 9	AT	Application Nº AT19980949742T (AT98949742) - 1 October 1998	ompio		y , c02F1/32 C02F1/32		
10	AU	Application Nº AU19980096001 (AU9600198) - 1 October 1998		CA			
11	AU	Application Nº AU19980096001D (AU9600198) - 1 October 1998		IPC EC	A61L2/10, C02F1/32		
12	BR	Application Nº BR19980015240 (BR9815240-8) - 1 October 1998		EC	A61L2/10, C02F1/32		
13	CA	Application Nº CA19982305762 (CA002305762) - 1 October 1998	0	c			
14	CN	Application Nº CN19988009985 (CN98809985) - 1 October 1998	Simple	Tami	y 10, C02F1/32 0, C02F1/32		
15	CZ	Application Nº CZ2000001256 (CZ2000 1256) - 1 October 1998		EP			
16	DE	Application Nº DE19986014122T (DE69814122) - 1 October 1998		IPC EC	A6112/10, C02F1/32		
17	DK	Application Nº DK19980949742T (DK98949742) - 1 October 1998		EU	A61L2/10, C02F1/32		
18	EP	Application Nº EP19980949742 (EP98949742) - 1 October 1998		Fields seal	rched		8
争 19	AT	Application Nº AT19990921674T (AT99921674) - 5 May 1999					
20	AU	Application Nº AU19990038819 (AU3881999) - 5 May 1999	•				
Simple	families: 201	. Total family members: 575					1



Families in EP-Register

	US78551206	23.03.2006	
Туре	M Patent family member	>	
	Publication No.	Date	Туре
	↗ ZA200808077	30.09.2009	А
	Priority number	Date	
	US78551206	23.03.2006	
уре	E Equivalent	>	
	Publication No.	Date	Туре
	↗ <u>AR060092</u>	21.05.2008	A1
	Priority number	Date	
	US78554806	23.03.2006	
	US78551206	23.03.2006	

National phase entries in Patentscope

WORLD INTELLECT	Search Int	emational and National F RGANIZATION	Patent Collections	National application
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vailable information on			12783	
Offi	ce	Entry Date	National I	
Australia		07.03.2000	86022/98	Granted: 12.07.2001
Canada		03.11.1999	2289029	
European Patent Office		07.03.2000	1998937274	Published: 24.05.2000 Granted: 15.12.2004
srael		29.07.1998	132595	Published: 19.03.2001 Granted: 11.02.2005
Republic of Korea		07.02.2000	1020007001251	Published: 26.03.2001 Granted: 27.04.2006
Mexico		Not_Available		
Hvper	linked to	national		WIPO

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

	Table of family n	nember	s	
Application Number *	/US2014/052705 Ext	ended Simp		Compare Maximize Close all tabs
Time Line Tabular View Fam	ily Citations Discussion			¥ \$ A
Application/Priority #	Filing/National Entry Date 🕈	Publications		PCT Application #
ARP140103202 [₽]	2014-08-26	AR 097461.A1	Dont interpret as simple	
US61/870,089	2013-08-26		· · ·	
AU2014311324 27	2014-08-26	AU 201431132	and extended families!!	PCT/US2014/052705.
US61/870,089	2013-08-26		WIPO CASE families are	
PCT/US2014/052705	2014-08-26	WO 2015/031	so-called complex	
US61/870,089	2013-08-26		•	
<u>CN201480046997.2</u> ^{L⁷}	2014-08-26	CN 105492095	families	PCT/US2014/052705.
US61/870,089	2013-08-26			
MY2016700460	2014-08-26	MY PI 2016700	0460.A.2015-02-26	PCT/US2014/052705.2014-08-26
US61/870,089	2013-08-26			
MX2016002410 ^{L²}	2016-02-24	MX 201600241	0.A.2016-05-31	
US61/870,089	2013-08-26			
IN6520/MUMNP/2016	2016-02-25	IN 2016270065	520.A.2016-07-22	PCT/US2014/052705.2014-08-26
US61/870,089	2013-08-26			

Patent family in Global Dossier (USPTO)

uspto										About Us	Careers	Contact Us
Global Do	ssie	er										
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PCT/US2014/0	5270	05 12 Me	embers in Patent	Family (12 curre	ently sho	own) 🥼 🚣						
«	0	Office \$	Application \$	Applicant	Title	App. D	ate 🗘	Priority #	P p. # 🛈	Pub. Date	Action 🗘 🛈	
IP Office Type	A	PE	0002862016			08/26/3	2014	US 61870089	PE 03542016 A1	05/11/2016		
All IP5 Offices	4	MX	2016002410			08/26/2	2014	US PCT/US14/52705 US 61870089	MX 2016002410 A	05/31/2016		
✓ EPO✓ SIPO	A	EA	201690475			Extended	014	US PCT/US14/52705 US 61870089	EA 201690475 A1	06/30/2016		
	A	AR	P140103202			family, no	014	US 61870089	AR 097461 A1	03/16/2016		
 ✓ JPO ✓ USPTO ✓ Non-IP5 Offices 	Ŧ	AU	2014311324 View Dossier	1) Red Leaf Resources, Inc.,	Gas barri	option to select	014	US PCT/US14/52705 US 61870089	AU 2014311324 A1 AU 2014311324 B2	04/07/2016 11/10/2016	2 (2)	Add to ★
	4	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	family	014	US 61870089 US 14469062	US 20150053269 A	02/26/2015	â (1)	Add to ★
	4	CA	2922019			08/26/2	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 TEMPORARY BLOCK FLOW TO WHICH A PIGGYBACKED ACK/NACK FIELD IS ADDRESSED					
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] +	3 national				
Classification:	- international: H04B1/00	priorities				
	- cooperative: <u>H03M13/09; H04L1/0041; H04L1/0073; H04L1/1664; H04L</u> H04L2001/125	prioritico				
Application number:	US20080106138 20080418 (1) 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

Paris Art. 4 G (1)

- 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 is pending (EPC: only within 24 months after 1st office communication)
- Retains application date and claimed priorities; no explicit priority claim type relation to parent application

Further sources of family information

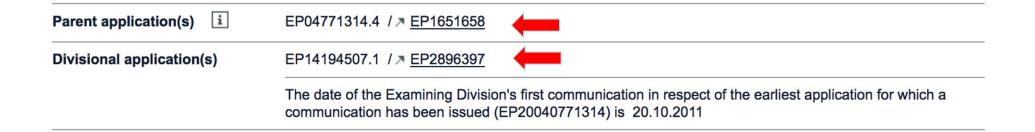
 National registers (e.g. US PAIR) include patent family information on national level (domestic families, national families (continuation in part), divisions)

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	57015-3409	45 🖉						
Select New Case Application Transaction Data Image File History Continuity Wrapper Published Data Address & 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