



Topic 5: Patent Family Concepts and Sources for Family Information

Lutz Mailänder

Head, International Cooperation on Examination and Training Section

Daejeon
July 4, 2017

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>

- 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

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WO2007111918 (A2)

Bibliographic data

Description

Claims

Mosaics

Original document


Cited documents

Citing documents

INPADOC legal status

INPADOC patent family

Bibliographic data: WO2007111918 (A2) — 2007-10-04

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

Page bookmark [WO2007111918 \(A2\) - HEAT PROCESSING SYSTEMS, APPARATUSES, AND METHODS FOR COLLECTION AND DISPOSAL OF INFECTIOUS AND MEDICAL WASTE](#)

Inventor(s) **Inpadoc family (extended)**

Applicant(s) ORDER DIA

Classification: - international: **A61B19/02; A61L11/00; A61M5/32; B09B3/00**


- cooperative: **A61B19/0288; A61L11/00; B09B3/0075; B09B3/0083; A61B19/024; A61B2019/0294; A61B2019/0295; A61B2019/0296**


Application number: WO2007US07071 20070322

Priority number(s): **US20060785512P 20060323 ; US20060785548P 20060323**

Also published as: **WO2007111918 (A3) → UY30238 (A1) TW200812650 (A) → PE12992007 (A1) → more**

Abstract of WO2007111918 (A2)

Translate this text into 

Bulgarian  powered by EPD and Google

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

Priorities creating family relations

Simple family ("equivalents")

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- What does A1, A2, A3 and B stand for after a European publication number?
- What happens if I click on "In my patents list"?
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- Why are some sidebar options deactivated for certain documents?
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- Why does a list of documents with the heading "Also published as" sometimes appear, and what are these documents?
- Why do I sometimes find the abstract of a corresponding document?
- What happens if I click on the red "patent translate" button?

WORLD INTELLECTUAL PROPERTY ORGANIZATION

Espacenet: Extended (Inpadoc) family

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Patent Office
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WO2007111918 (A2)

Bibliographic data
Description
Claims
Mosaics
Original document
Cited documents
Citing documents
INPADOC legal status
INPADOC patent family

Family list: **WO2007111918 (A2) – 2007-10-04**

Select all (0/14) Compact CSV [XLS] Download covers CCD Print

14 application(s) for: WO2007111918 (A2)

Sort by Sort order show citations

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

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
★	BIOMEDICAL TECHNOLOGY SOLUTION [US]	A61B19/0288 A61B2019/0213 A61B2019/0229 (+8)	(IPC1-7):A61L11/00	AR060092 (A1) 2008-05-21	2006-03-23

2. Heat processing systems, apparatuses, and methods for collection and disposal of infectious and medical waste

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
★	COX DONALD G GORDER DIANE R	A61B19/0288 A61B2019/0213 A61B2019/0229 (+8)	A61B19/02 A61L11/00 A61M5/32 (+1)	AU2007231591 (A1) 2007-10-04	2006-03-23

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

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
★	COX DONALD G [US] GORDER DIANE R [US]	A61B19/0288 A61B2019/0213 A61B2019/0229 (+8)	A61B19/02 A61L11/00 A61M5/32 (+1)	CA2646350 (A1) 2007-10-04	2006-03-23

4. Heat processing systems, apparatuses, and methods for collection and disposal of infectious and medical waste

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
★	BIOMEDICAL TECHNOLOGY SOLUTION [US]		A61L11/00	CN101448531 (A) 2009-06-03	2006-03-23

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

★ Inventor: Applicant: CPC: IPC: Publication info: Priority date:

Number of family members
(counting distinct national applications)

1st family member (AR)

2nd family member (AU)

3rd family member (CA)

AU family member



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[WO2007111918 \(A2\)](#) → [Family](#) → [AU2007231591 \(A1\)](#)

AU2007231591 (A1)
Bibliographic data
Description
Claims
Mosaics
Original document
Cited documents
Citing documents
INPADOC legal status
INPADOC patent family

Bibliographic data: AU2007231591 (A1) — 2007-10-04

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Heat processing systems, apparatuses, and methods for collection and disposal of infectious and medical waste

Page bookmark [AU2007231591 \(A1\) - Heat processing systems, apparatuses, and methods for collection and disposal of infectious and medical waste](#)

Inventor(s): COX DONALD G; GORDER DIANE R ±

Applicant(s): BIOMEDICAL TECHNOLOGY SOLUTION ±

Classification:
- international: [A61B19/02](#); [A61L11/00](#); [A61M5/32](#); [B09B3/00](#)
- cooperative: [A61B50/362](#); [A61L11/00](#); [B09B3/0075](#); [B09B3/0084](#); [A61B2050/0016](#); [A61B2050/006](#); [A61B2050/008](#); [A61B2050/009](#); [A61B2050/01](#); [A61B2050/012](#); [A61B2050/014](#);

Application number: AU20070231591 20070322

Priority number(s): [US20060785512P 20060323](#) ; [US20060785548P 20060323](#) ; [WO2007US07071 20070322](#)

Also published as: [AR060092 \(A1\)](#) [CA2646350 \(A1\)](#) → [CL2007000747 \(A1\)](#) [DOP2007000056 \(A\)](#) [EA014731 \(B1\)](#) → more

Abstract not available for AU2007231591 (A1)

Abstract of corresponding document: WO2007111918 (A2)

Same priorities

Quick help

- [What is meant by high quality text as facsimile?](#)
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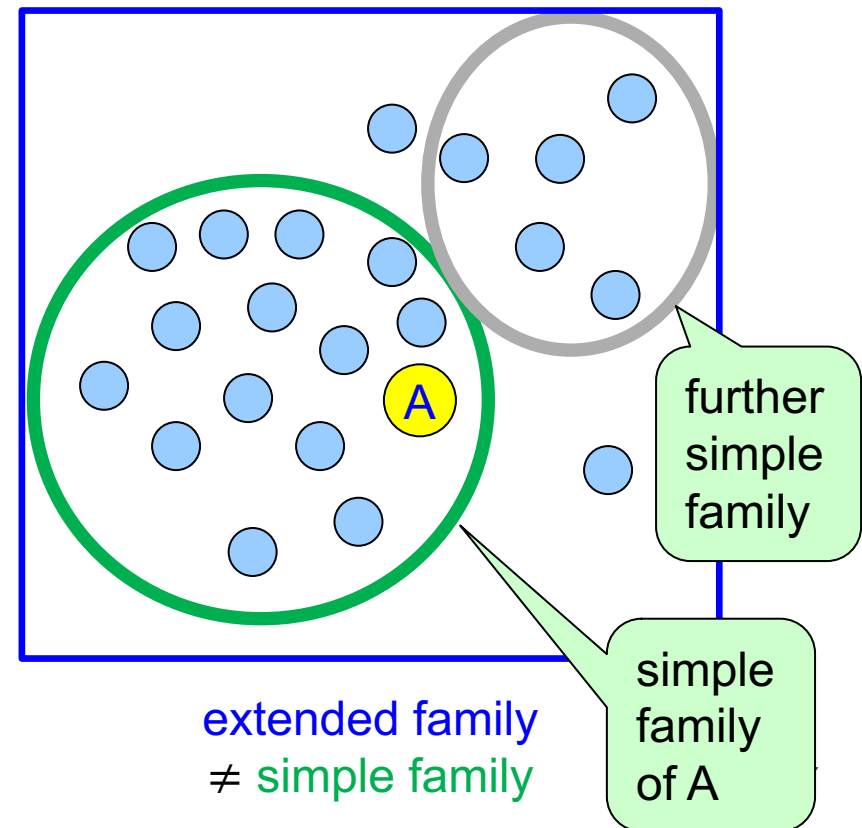
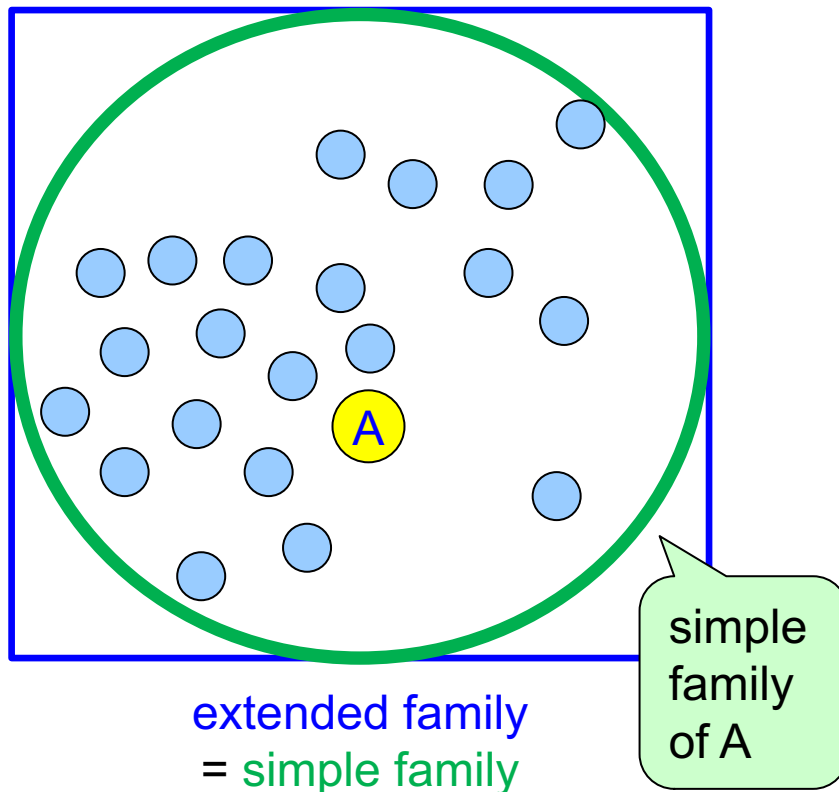
Origin of patent families

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 IPOs according to
 - Paris Convention
 - TRIPS agreement
 - **Priorities create family relations between earlier and later filings**
 - **N.B.: Family relations may exist also without claiming priorities !**
 - Families PCT national phase entries

Extended - Simple Family of A

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



Domestic families

EA domestic family
with 2 members

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

★ Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
KIM NAM, HO, LEE JIN, YOUNG, (+8)	SK CHEMICALS CO	Publication numbers		EA200870559 (A1) 2009-04-28	2006-05-22
				EA014071 (B1) 2010-08-30	

8. STABLE PHARMACEUTICAL COMPOSITION CONTAINING DOCETAXEL AND A METHOD OF MANUFACTURING THE SAME

★ Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
KIM NAM HO [KR] LEE JIN YOUNG [KR] (+8)	SK CHEMICALS CO LTD [KR]	<u>A61K2300/00</u> <u>A61K31/337</u> (+9)	A61K9/08	ECSP088951 (A) 2009-02-27	2006-05-22

9. STABLE PHARMACEUTICAL COMPOSITION CONTAINING DOCETAXEL AND A METHOD OF MANUFACTURING THE SAME

★ Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
KIM NAM HO [KR] LEE JIN YOUNG [KR] (+8)	SK CHEMICALS CO LTD [KR]	<u>A61K2300/00</u> <u>A61K31/337</u> (+9)	A61K31/337 A61K47/40 A61K9/00 (+1)	EP2019664 (A1) 2009-02-04 EP2019664 (A4) 2013-03-13 EP2019664 (B1) 2016-01-06 i Global Dossier	2006-05-22

9th application
included in the
family

EP domestic family
with 3 members

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 code use:

<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

Domestic families

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

★ Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
KIM NAM, HO, LEE JIN, YOUNG, (+8)	SK CHEMICAL			EA200870559 (A1) 2009-04-28 EA014071 (B1) 2010-08-30	2006-05-22


Kind code B1 for grant

8. STABLE PHARMACEUTICAL COMPOSITION CONTAINING DOCETAXEL AND METHOD OF MANUFACTURING THE SAME

★ Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
KIM NAM HO [KR] LEE JIN YOUNG [KR] (+8)	SK CHEMICALS CO LTD [KR]	<u>A61K2300/00</u> <u>A61K31/337</u> (+9)	A61K9/08	ECSP088951 (A) 2009-02-27	2006-05-22

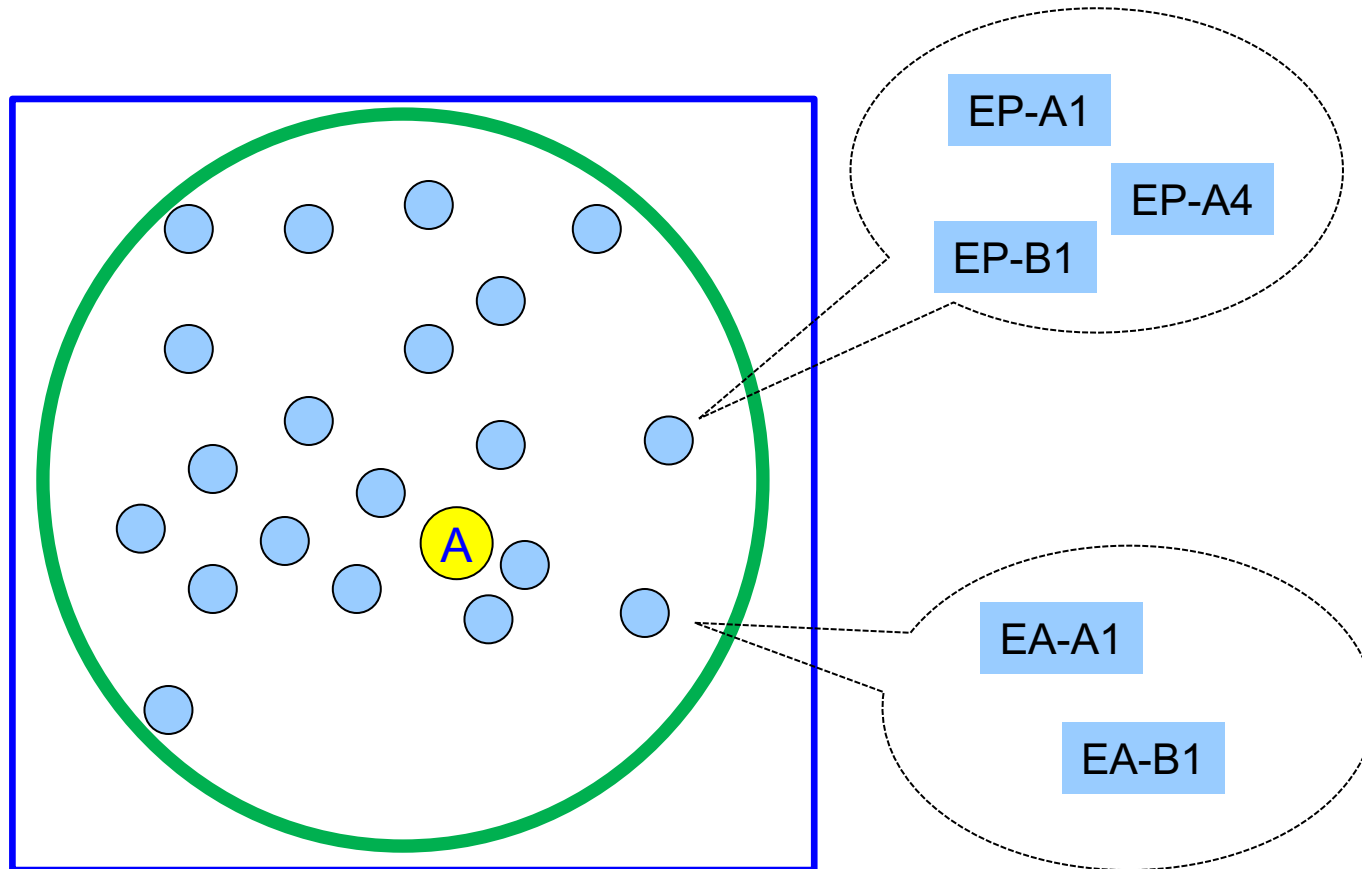
Publication date of grant

9. STABLE PHARMACEUTICAL COMPOSITION CONTAINING DOCETAXEL AND A METHOD OF MANUFACTURING THE SAME

★ Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
KIM NAM HO [KR] LEE JIN YOUNG [KR] (+8)	SK CHEMICALS CO LTD [KR]	<u>A61K2300/00</u> <u>A61K31/337</u> (+9)	A61K31/337 A61K47/40 A61K9/00 (+1)	EP2019664 (A1) 2009-02-04 EP2019664 (A4) 2013-03-13 EP2019664 (B1) 2016-01-06  Global Dossier	2006-05-22

Kind code B1 for grant

Extended – Simple – Domestic Families



extended family
= simple family

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

Patent families with priorities

Priority claims - sample

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

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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] ±

Applicant(s): UNI CHARM CORP [JP]; KENMOCHI YASUHIKO [JP]; KINOSHITA AKIYOSHI [JP]; AOYAGI NATSUKO [JP]; TANAKA KAYOKO [JP] ±

Classification: - international: [A61F13/49](#); [A61F13/496](#); [A61F13/56](#)

- cooperative: [A61F13/15](#); [A61F13/15756](#); [A61F13/56](#)

Application number: WO2007JP62104 20070615

Priority number(s): [JP20060187165](#) [20060706](#)

1 priority

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] ±

Applicant(s): MEBIOL INC [JP]; OKAMOTO AKIHIRO [JP]; FUJII MANABU [JP]; YOSHIOKA HIROSHI [JP]; MORI YUICHI [JP] ±

Classification: - international: **A01G1/00; A01G13/00; A01G25/00; A01G27/00; A01G7/00**

- cooperative: **A01G31/02; Y02P60/216**

Application number: **WO**2007JP67578 20070910 ⓘ [Global Dossier](#)

Priority number(s): [JP20060254439 20060920](#) ; [JP20070144202 20070530](#)

2 priorities

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 UNIVERSAL TRANSACTION SYSTEM

Page bookmark [WO2008060725 \(A3\) - SECURE UNIVERSAL TRANSACTION SYSTEM](#)

Inventor(s): FRANCHI JOHN FRANCO [GB] ±

Applicant(s): FRANCHI JOHN FRANCO [GB] ±

Classification: - international: *H04L9/00*

- cooperative: [G06F21/32](#); [G06F21/34](#); [G06Q20/12](#); [G06Q20/4014](#)

Application number: WO2007US74327 20070725

Priority number(s): [US20060532580 20060918](#) ; [EP20060256440 20061219](#) ; [GB20060025304 20061219](#)

Also published as: 📄 [WO2008060725 \(A2\)](#) 📄 [WO2008060725 \(A8\)](#) 📄 [EP1901248 \(A1\)](#) ➔ [ZA200901870 \(B\)](#) 📄 [US2011125613 \(A1\)](#)
➔ [more](#)

The more priorities are claimed, the more complex the family relations may be!

3 priorities
3 countries

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')

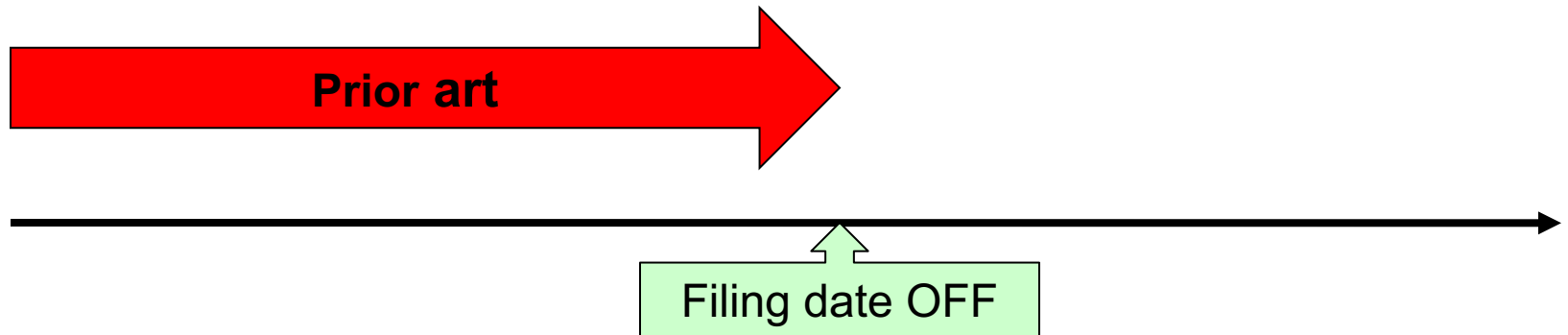
All filings/applications including the "same invention" or parts thereof constitute a **patent family**, e.g. the applications for one invention filed in different countries

Priorities: Paris Convention of 1883

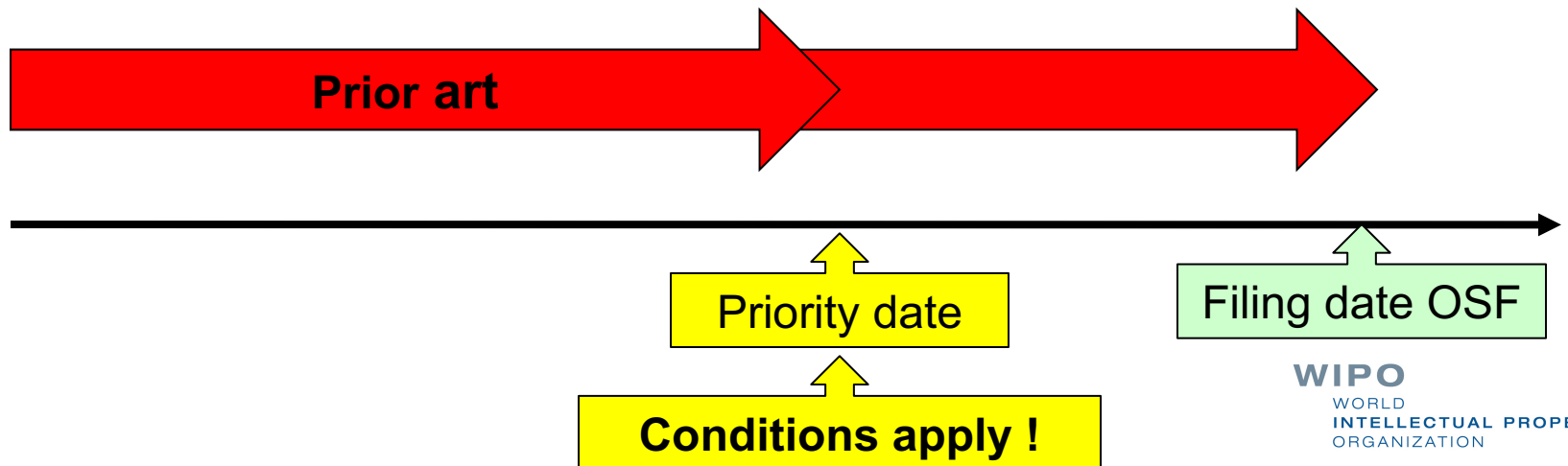
- Covers patents, designs, trademarks,..
- Facilitates second/subsequent filings abroad
- Equal protection to nationals and foreigners (non discrimination)
 - Foreigners: nationals and residents of any Union country
- Mutual recognition of (Paris Convention) **priority rights**:
 - at OSF: Treatment 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

■ OFF



■ OSF



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,

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."

TRIPS agreement

- Agreement on **T**rade **R**elated **I**ntellectual **P**roperty 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)

(19) World Intellectual Property Organization
International Bureau



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

(10) International Patent No.
WO 2009/000451

no priority
first filing with IB

(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): **LABORATOIRE MEDIDOM S.A.** [CH/CH]; Enetriederstrasse 44, CH-6060 Sarnen (CH).

(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,

EC, EE, EG, ES, FI, FR, GB, GR, HR, HU, ID, JP, KR, LA, LU, LV, MA, MK, LR, LS, LT, LU, LY, MA, MD, ME, MG, 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, US, UZ, VC, VN, ZA, ZM, ZW.

(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))

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 THE PREPARATION OF ALOE-EMODIN

Page bookmark WO2009106910 (A1) - PROCESS FOR THE PREPARATION OF ALOE-EMODIN

Inventor(s): DI NAPOLI GUIDO [MC]; DI NAPOLI ALESSANDRO [CH] ±

Applicant(s): MEDIDOM LAB [CH]; DI NAPOLI GUIDO [MC]; DI NAPOLI A

Classification:
- international: **C07C46/02**
- cooperative: **C07C46/02** → [more](#)

Application number: WO2008IB00451 20080229

Priority number(s): WO2008IB00451 20080229

Also published as: 📄 [AR072768 \(A1\)](#)

no priority
first filing with IB

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

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

Page bookmark [CA2646350 \(A1\) - HEAT PROCESSING SYSTEMS, APPARATUSES, AND METHODS FOR COLLECTION AND DISPOSAL OF INFECTIOUS AND MEDICAL WASTE](#)

Inventor(s): [Name] ±

Applicant(s): [Name] ±

Classification: [M5/32](#); [B09B3](#)

- cooperative: [A61B50/3](#); [11/00](#); [B09B3/0075](#); [B09B3/008](#); [50/001](#); [A61B2050/0014](#); [A61B2050/006](#); [A61B2050/0074](#); [00/0084](#); [A61M5/3278](#)

Application number: CA20072646350 20070322

Priority number(s): [US20060785512P 20060323](#) ; [US20060785548P 20060323](#) ; [WO2007US07071 20070322](#)

Also published as: [WO2007111918 \(A2\)](#) [WO2007111918 \(A3\)](#) → [UY30238 \(A1\)](#) [US2007224077 \(A1\)](#) [TW200812650 \(A\)](#) → [more](#)

Shared priority numbers

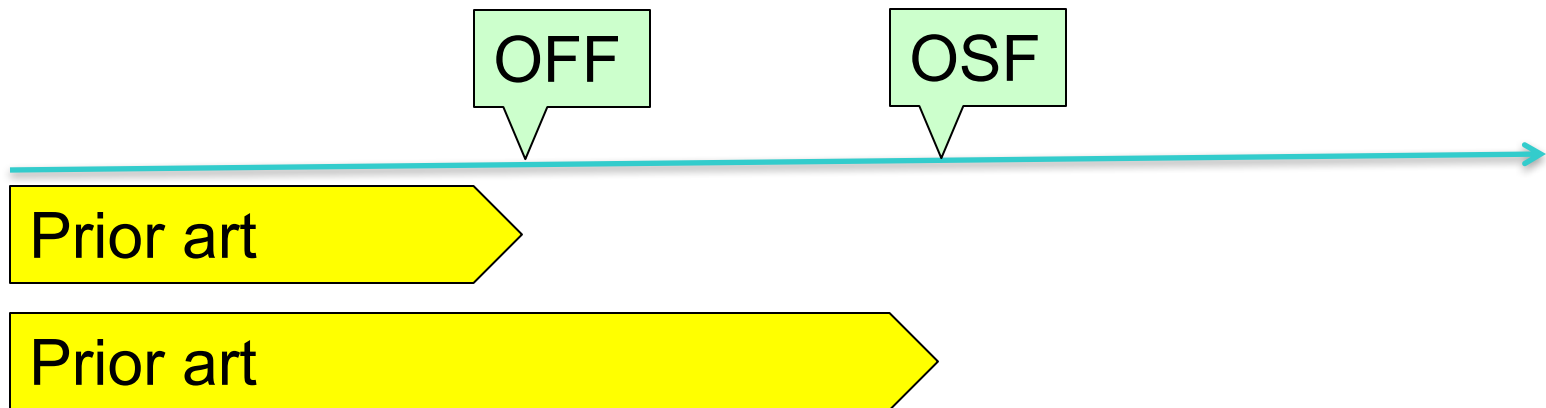
Shared PCT application number

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

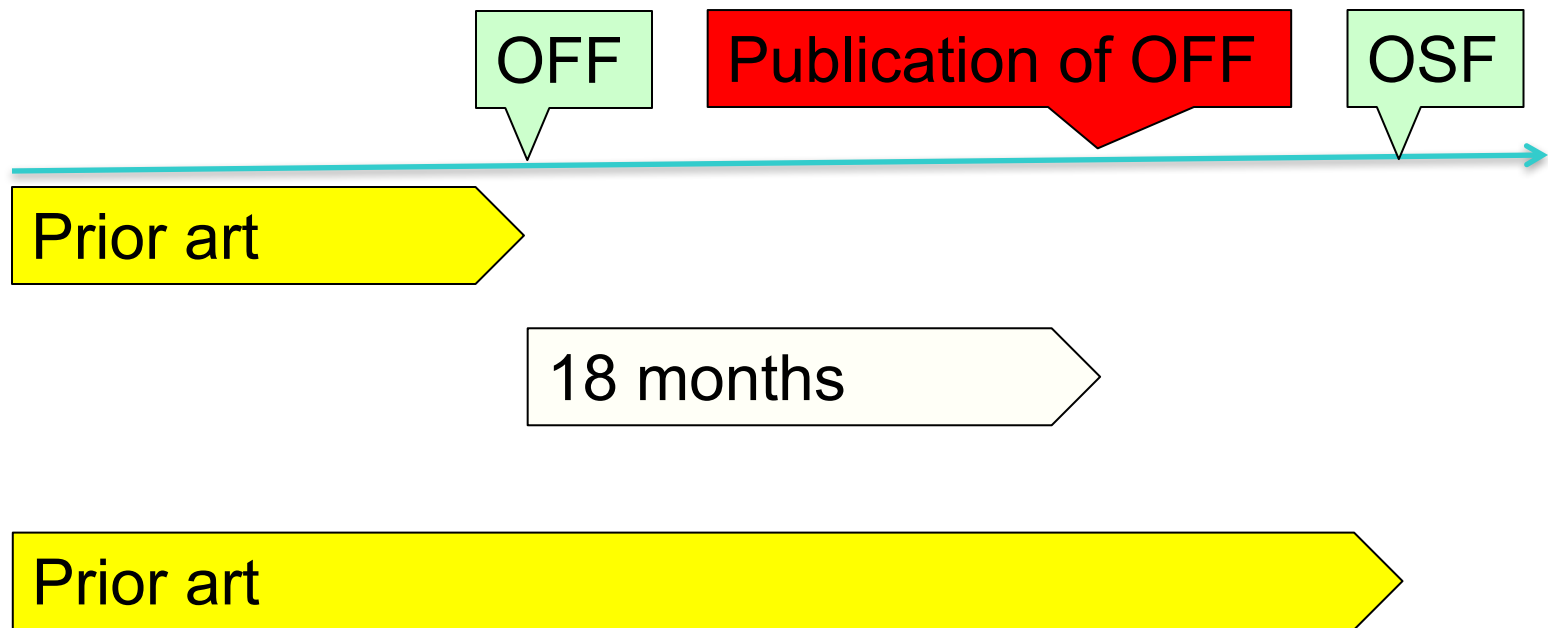
- Risk of not claiming Paris priority:
Later filing date implies different prior art, i.e. publications between OFF and OSF filing date are included



- 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

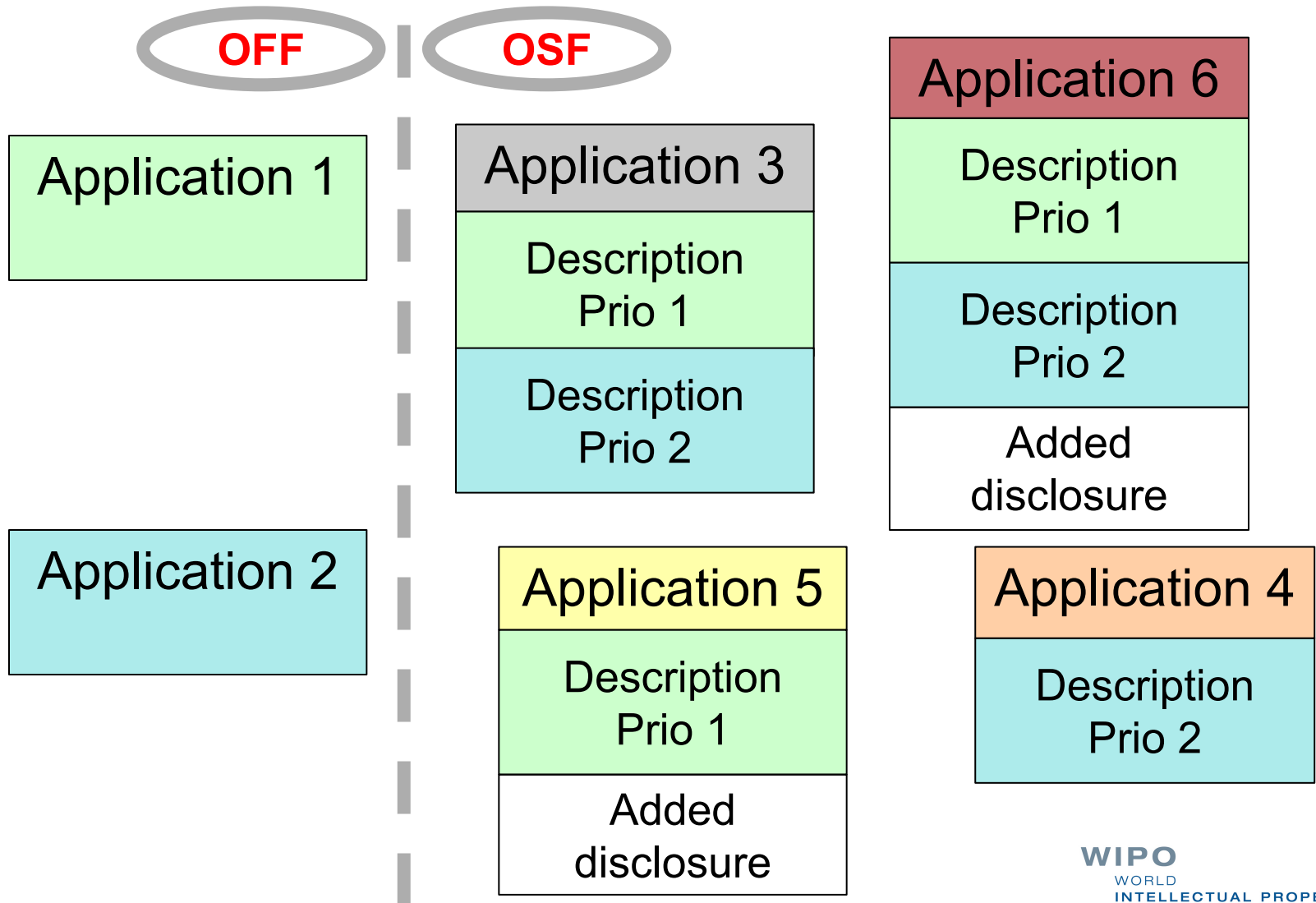
that the applicant claims **multiple priorities**, even if they originate in different countries, or on the ground

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



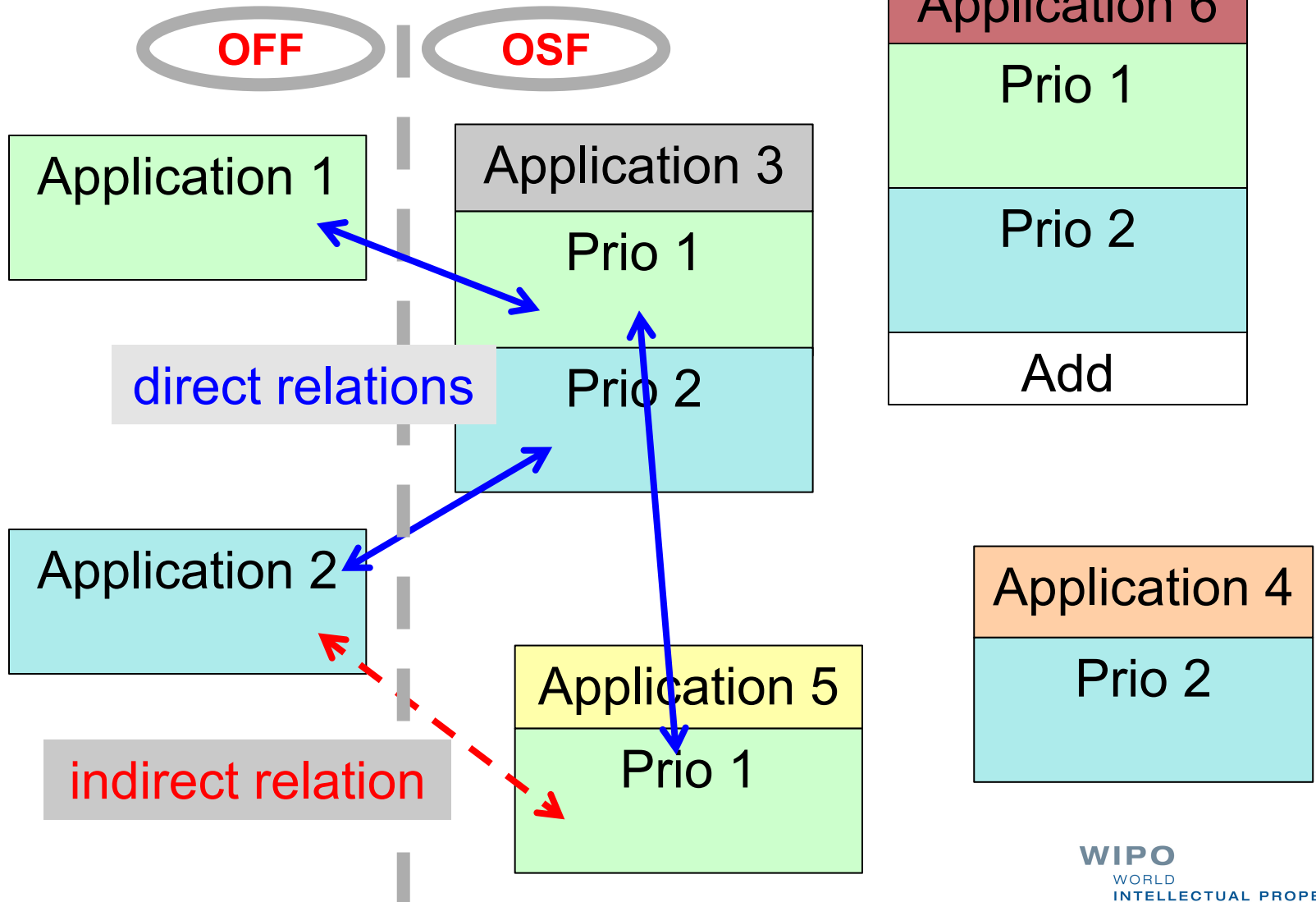
Technical disclosures of family members

- 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 are differences least likely?
 - When all claimed priorities are the same

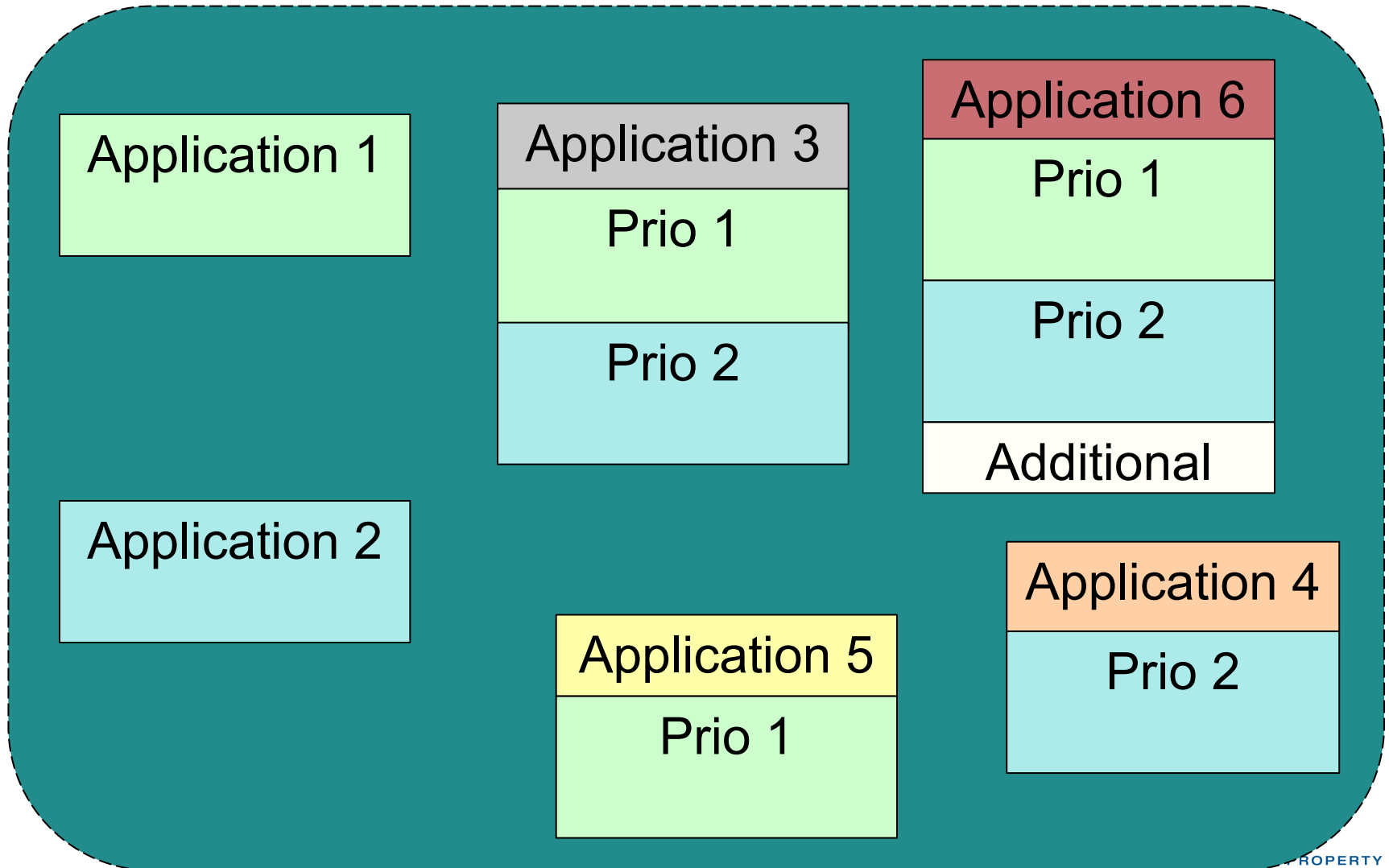
Family concepts

- 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

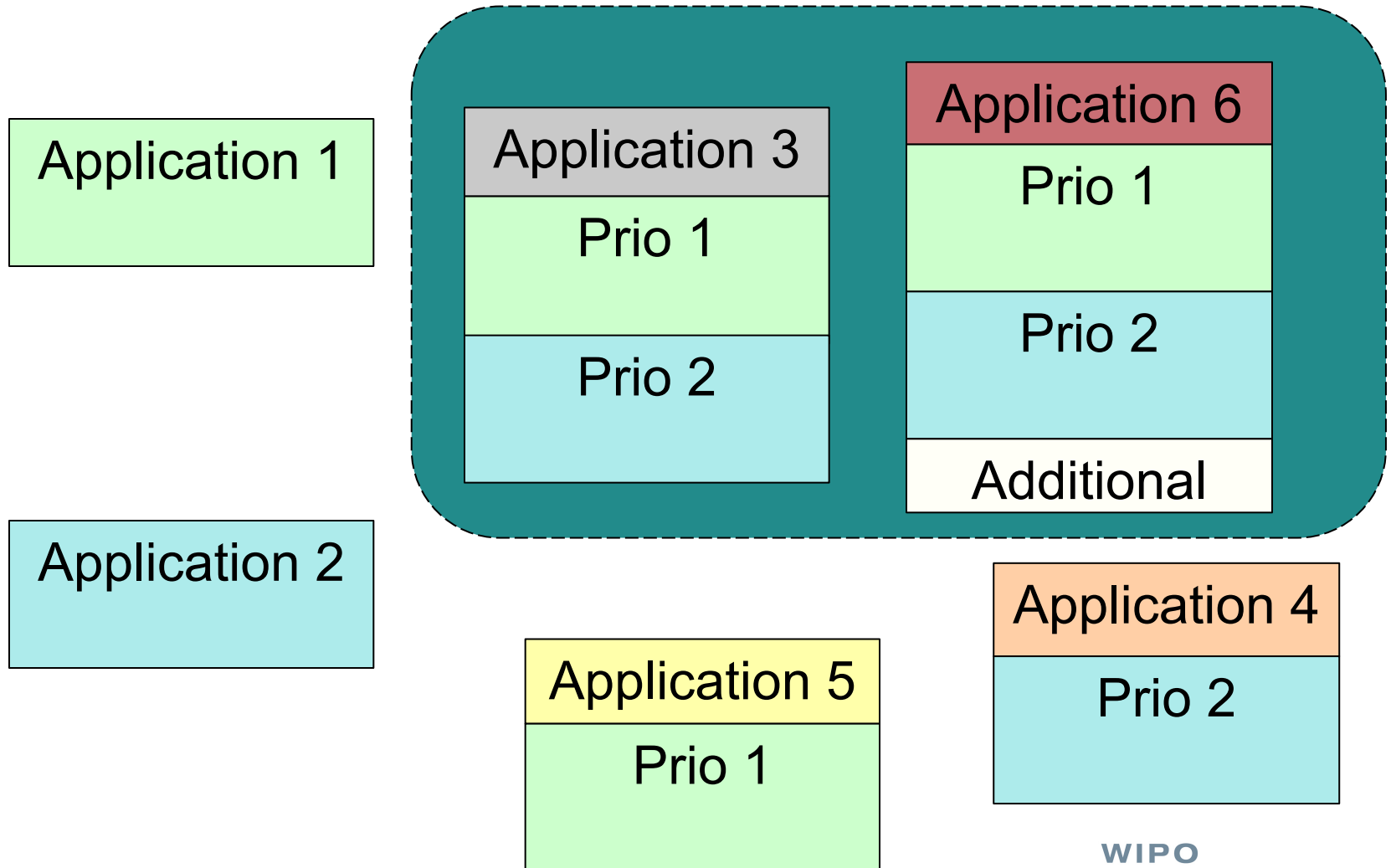
Multiple priorities



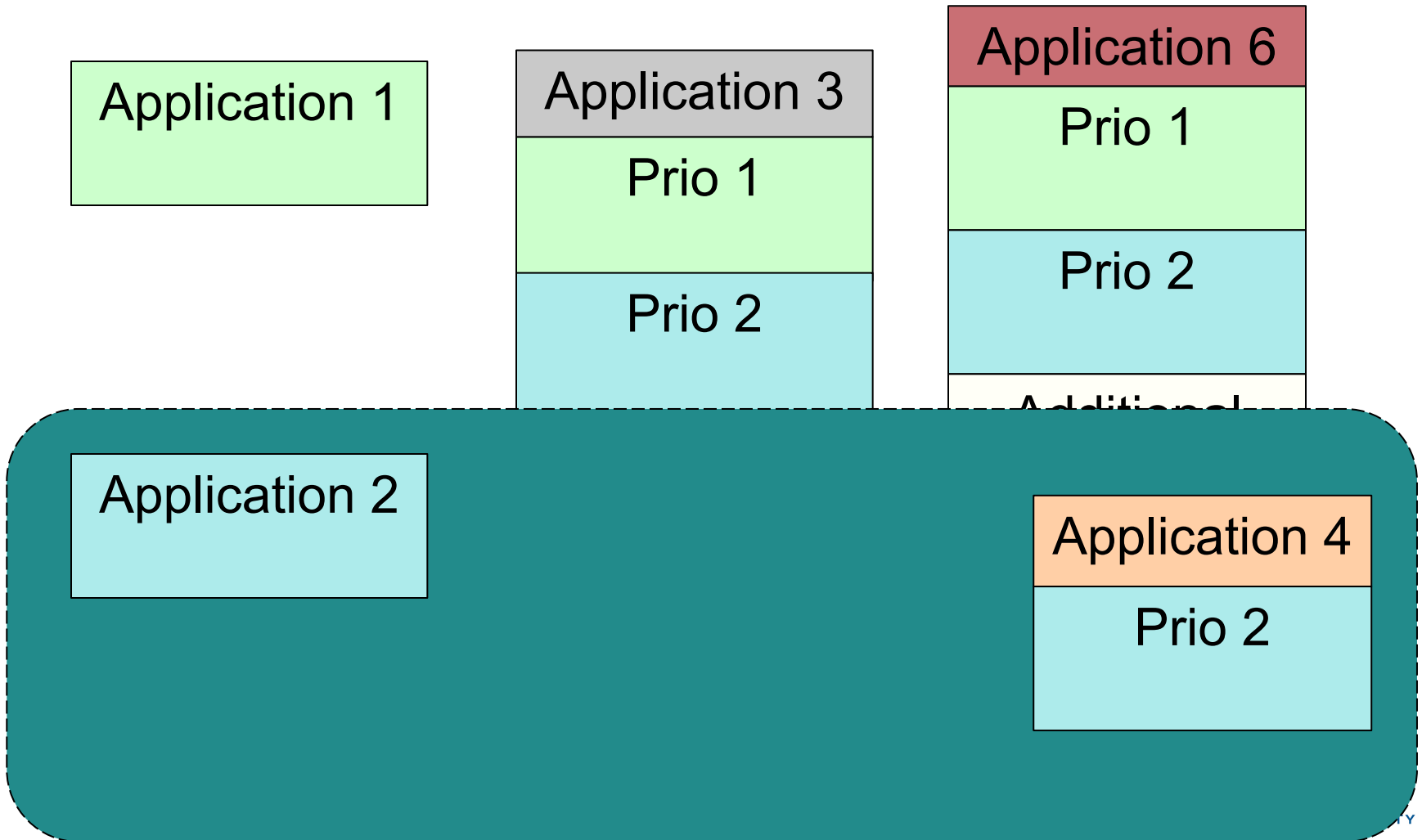
Extended family



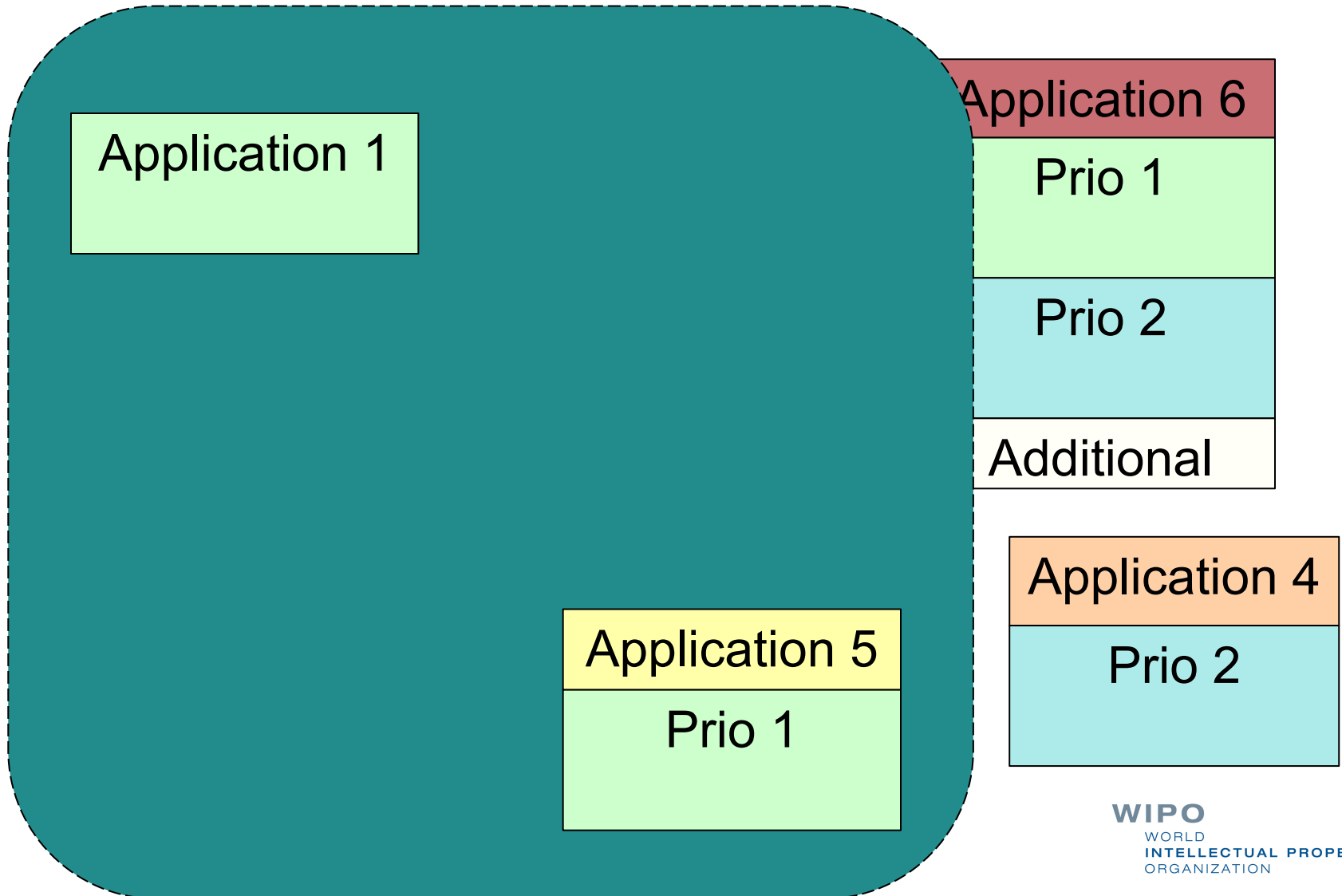
Simple family



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

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)

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)
- 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 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 européen des brevets

Espacenet
Patent search

Deutsch English Français
Contact
Change country ▾

◀ About Espacenet Other EPO online services ▾

Search Result list **★ My patents list (0)** Query history Settings Help

EP2570899 (A2) → US2013069890 (A1) → Family page 1

WO2011113363 (A1)

Bibliographic data
Description
Claims
Mosaics
Original document
Cited documents
Citing documents
INPADOC legal status
INPADOC patent family

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

Select all (0/25) Compact Export (CSV | XLS) Download covers **CCD** Print

29 application(s) for: **WO2011113363 (A1)** 1 2 ▶
page 1

Sort by Priority date Sort order Descending Sort show citations

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

Quick help

- Can I export this list?
- What happens if I click on "Download covers"?
- Can I sort the list?
- What happens if I click on the 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 INPADOC family equivalents?
- Why is the same document published several times in the same country?

Sources of family information: CCD

The screenshot shows the Trilateral - CCD interface. At the top, the search bar contains the number **US6565803**, which is circled in red. Below the search bar, the main content area displays a list of family members under the heading "CCD Viewer". The list includes seven entries, each with a country code (US, AR, AU, BR, CA, CN, EP) and an application number. A red bracket on the right side of the list groups these entries together. To the right of the list, the "Inspector: classifications and fields searched" panel shows the classification details for the selected entry, including IPC, UC, and EC codes. At the bottom of the interface, the status bar shows "Simple families: 3" (circled in red) and "Total family members: 7". A button labeled "Get all family members" is also circled in red. A yellow callout box on the right side of the interface contains the text: "Simple family ('equivalents') Family members are identified through application numbers".

#	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	
4	BR		Application N° BR20000010600 (BR0010600-3) - 27 April 2000	
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	

Simple family ("equivalents")
Family members are identified through **application numbers**

Estimated number of simple families in extended family

Retrieve extended family

Simple families: 3 Total family members: 7 Get all family members

Sources of family information: CCD

Trilateral - CCD Search ? Help

Number: examples: EP1612402, US2006000447A1, JP20090214944

US19990300325

Hide CCD viewer Double inspector Timeline

CCD Viewer				Inspector: classifications and fields searched
Citations only view Expand view Sort by country Filter				Classifications & fields searched
#	CC	Cat.	Citation details	Claims
1	US		Application N° US19990300325 (US9300325) - 27 April 1999	US IPC A61L2/10, C02F1/32 UC 210/748.11, 422/23 EC A61L2/10, C02F1/32
2	AR		Application N° AR2000P102013 (ARP000102013) - 27 April 2000	
3	AU		Application N° AU20000044961D (AU4496100) - 27 April 2000	
4	BR		Application N° BR20000010600 (BR0010600-3) - 27 April 2000	
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	
8	AR		Application N° AR1998P105591 (ARP980105591) - 5 November 1998	AU IPC A61L2/10, C02F1/32 EC A61L2/10, C02F1/32
9	AT		Application N° AT19980949742T (AT98949742) - 1 October 1998	
10	AU		Application N° AU19980096001 (AU9600198) - 1 October 1998	
11	AU		Application N° AU19980096001D (AU9600198) - 1 October 1998	CA IPC A61L2/10, C02F1/32 EC A61L2/10, C02F1/32
12	BR		Application N° BR19980015240 (BR9815240-8) - 1 October 1998	
13	CA		Application N° CA19982305762 (CA002305762) - 1 October 1998	
14	CN		Application N° CN19988009985 (CN98809985) - 1 October 1998	
15	CZ		Application N° CZ20000001256 (CZ2000 1256) - 1 October 1998	
16	DE		Application N° DE19986014122T (DE9814122) - 1 October 1998	
17	DK		Application N° DK19980949742T (DK98949742) - 1 October 1998	
18	EP		Application N° EP19980949742 (EP98949742) - 1 October 1998	EP IPC A61L2/10, C02F1/32 EC A61L2/10, C02F1/32
19	AT		Application N° AT19990921674T (AT99921674) - 5 May 1999	
20	AU		Application N° AU19990038819 (AU3881999) - 5 May 1999	

Simple families: 201 Total family members: 575

Inspector: classifications and fields searched

Classifications

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

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

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

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

Fields searched

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  Report data error

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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]; RUP BEHROUZ [US]; MANSETA KHUSHALI N [US] ±

Applicant(s): INTERDIGITAL TECH CORP [US] ±

Classification: - international: [H04B1/00](#)
- cooperative: [H03M13/09](#); [H04L1/0041](#); [H04L1/0073](#); [H04L1/1664](#); [H04L1/0001](#); [H04L1/0002](#); [H04L1/0003](#); [H04L1/0004](#); [H04L1/0005](#); [H04L1/0006](#); [H04L1/0007](#); [H04L1/0008](#); [H04L1/0009](#); [H04L1/0010](#); [H04L1/0011](#); [H04L1/0012](#); [H04L1/0013](#); [H04L1/0014](#); [H04L1/0015](#); [H04L1/0016](#); [H04L1/0017](#); [H04L1/0018](#); [H04L1/0019](#); [H04L1/0020](#); [H04L1/0021](#); [H04L1/0022](#); [H04L1/0023](#); [H04L1/0024](#); [H04L1/0025](#); [H04L1/0026](#); [H04L1/0027](#); [H04L1/0028](#); [H04L1/0029](#); [H04L1/0030](#); [H04L1/0031](#); [H04L1/0032](#); [H04L1/0033](#); [H04L1/0034](#); [H04L1/0035](#); [H04L1/0036](#); [H04L1/0037](#); [H04L1/0038](#); [H04L1/0039](#); [H04L1/0040](#); [H04L1/0041](#); [H04L1/0042](#); [H04L1/0043](#); [H04L1/0044](#); [H04L1/0045](#); [H04L1/0046](#); [H04L1/0047](#); [H04L1/0048](#); [H04L1/0049](#); [H04L1/0050](#); [H04L1/0051](#); [H04L1/0052](#); [H04L1/0053](#); [H04L1/0054](#); [H04L1/0055](#); [H04L1/0056](#); [H04L1/0057](#); [H04L1/0058](#); [H04L1/0059](#); [H04L1/0060](#); [H04L1/0061](#); [H04L1/0062](#); [H04L1/0063](#); [H04L1/0064](#); [H04L1/0065](#); [H04L1/0066](#); [H04L1/0067](#); [H04L1/0068](#); [H04L1/0069](#); [H04L1/0070](#); [H04L1/0071](#); [H04L1/0072](#); [H04L1/0073](#); [H04L1/0074](#); [H04L1/0075](#); [H04L1/0076](#); [H04L1/0077](#); [H04L1/0078](#); [H04L1/0079](#); [H04L1/0080](#); [H04L1/0081](#); [H04L1/0082](#); [H04L1/0083](#); [H04L1/0084](#); [H04L1/0085](#); [H04L1/0086](#); [H04L1/0087](#); [H04L1/0088](#); [H04L1/0089](#); [H04L1/0090](#); [H04L1/0091](#); [H04L1/0092](#); [H04L1/0093](#); [H04L1/0094](#); [H04L1/0095](#); [H04L1/0096](#); [H04L1/0097](#); [H04L1/0098](#); [H04L1/0099](#); [H04L1/0100](#); [H04L1/0101](#); [H04L1/0102](#); [H04L1/0103](#); [H04L1/0104](#); [H04L1/0105](#); [H04L1/0106](#); [H04L1/0107](#); [H04L1/0108](#); [H04L1/0109](#); [H04L1/0110](#); [H04L1/0111](#); [H04L1/0112](#); [H04L1/0113](#); [H04L1/0114](#); [H04L1/0115](#); [H04L1/0116](#); [H04L1/0117](#); [H04L1/0118](#); [H04L1/0119](#); [H04L1/0120](#); [H04L1/0121](#); [H04L1/0122](#); [H04L1/0123](#); [H04L1/0124](#); [H04L1/0125](#)

Application number: US20080106138 20080418  [Global Dossier](#)

Priority number(s): US20080106138 20080418 ; [US20070913179P 20070420](#) ; [US20070974293P 20070921](#) ; [US20070981980P 20071023](#)

Also published as: [US8296619 \(B2\)](#) [WO2008130694 \(A1\)](#) [US2013326320 \(A1\)](#) [US2013039210 \(A1\)](#) [US8539308 \(B2\)](#)
→ [more](#)

Claiming 3 national priorities

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 parent 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): **voluntary 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

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

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

Parent application(s) 

EP04771314.4 / ➤ [EP1651658](#)



Divisional application(s)

EP14194507.1 / ➤ [EP2896397](#)



The date of the Examining Division's first communication in respect of the earliest application for which a communication has been issued (EP20040771314) is 20.10.2011

US-PAIR: national family/divisions



11/689,638		Heat Processing Systems, Apparatuses, and Methods for Collection and Disposal of Infectious and Medical Waste				57015-340945		
Select New Case	Application Data	Transaction History	Image File Wrapper	Continuity Data	Published Documents	Address & Attorney/Agent	Display 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								

Thank you

lutz.mailander@wipo.int