

# Simple PCT Families

## DEFINITION

A PCT simple family means a patent family relating to the same invention, each member of which has for the basis of its “priority right” exactly the same originating application or applications. The family contains at least one PCT application as a member.

The family includes

- a) a PCT member which is considered to be the main representative of the family; it will always show up in the result list
- b) national applications that have specified a prior PCT application;
- c) national entry phase records and
- d) priority application of the PCT application when unique and first publication

## Remarque:

a) US Provisionals:

- 1. They are only ignored if there is another genuine first filing
- 2. They are considered if there is no other genuine filing (most common case) and they generate families with the provisional as a first filing (release 2, US related references), currently this is found in the 'Other related publications' family.

b) Republications

Different republications by the same office are considered one single record containing the latest republication.

## 1) First filing with the IB, no national priorities

Def: The initial WO filing together with all the subsequent NPEs and national applications that claim the initial WO as a priority

a)no priority at all

Priorities	PCT	National Phase Entries	Nationals
	WO1	NPE1	
		NPE2	
		NPE3	
		NPE4	

WO1			N1
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Family: WO1,NPE1, NPE2, NPE3, NPE4,N1

b)WO priority

Priorities	PCT	National Phase Entries	Nationals
WO0	WO1	NPE1	
		NPE2	
		NPE3	
		NPE4	

Family: WO0, WO1,NPE1, NPE2, NPE3, NPE4,N1

## **2) WO with a single priority**

Def: a group of WO patent filings that claim the priority of a single filing, including the original priority forming filing itself together with all the subsequent NPEs and national applications that claim the WO as a priority.

Example:

Priorities	PCT	National Phase Entries	Nationals
P1	WO1	NPE11	
		NPE12	
		NPE13	
		NPE14	
P1	WO2	NPE21	
		NPE22	
WO1			N1
WO2			N2

Family: P1, WO1, WO2, NPE11, NPE12, NPE13, NPE14, NPE21, NPE22, N1, N2

Example:

Type1: WO with a single US provisional priority. It has 12 members while the corresponding EP family has 10 members (RU and IN missing)

<https://patentscope.wipo.int/search/en/detail.jsf?docId=wo2018049420> (PFM\_PCT\_ID=3255423)

<https://worldwide.espacenet.com/patent/search/family/059955681/publication/WO2018049420A1?q=%09WO2018049420>

## 1. WO2018049420 - PERFUSION BIOREACTOR BAG ASSEMBLIES

PCT Biblio. Data Description Claims Drawings ISR/WOSA/A17(2)[a] National Phase Notices Documents

PermaLink Machine translation ▼

**Publication Number**  
WO/2018/049420

**Publication Date**  
15.03.2018

**International Application No.**  
PCT/US2017/051228

**International Filing Date**  
12.09.2017

**IPC**  
C12M 1/00 [2006.01] C12M 3/06 [2006.01]

**CPC**  
C12M 23/14 C12M 23/40 C12M 27/16  
C12M 29/10 C12M 29/24

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BANKO, Max; US  
AHN, Sejin; US  
AIKEN, Charity; US

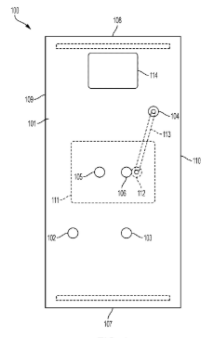
**Priority Data**  
82/393,593 12.09.2016 US

**Publication Language**  
English [EN]

**Filing Language**  
English [EN]

**Designated States**  
View All  
AU2017322752 BR112019004662 CA3035829 CN109890952 EP3510136 IN201917010313 JP2019526269 KR1020190045321 MX2019002765 RU2019110824 US20190211292

**Title**  
[EN] PERFUSION BIOREACTOR BAG ASSEMBLIES  
[FR] ENSEMBLES DE POCHE DE BIORÉACTEUR DE PERFUSION



**Abstract**  
[EN] The Present Disclosure Is Directed To Bioreactor Bag Assemblies That Can Minimize The Amount Of Additional Connections/Adaptations Made To The Bioreactor Bag Before The Bioreactor Bag Can Be Used For Cell Cultivation, Thereby Reducing The Risk Of Contamination. The Bioreactor Bag Assemblies Disclosed Herein Can Include A Pre-Assembled Waste Bag Connection And Pre-Assembled Tubing Arrangements So That The Cell Media And/Or The Cell Source Can Be Immediately Welded To The Pre-Assembled Tubing Arrangements.  
[FR] La Présente Invention Concerne Des Ensembles De Poches De Bioréacteur Qui Peuvent Réduire La Quantité De Connexions/Adaptations Supplémentaires Faites À La Poche De Bioréacteur Avant Que La Poche De Bioréacteur Ne Puisse Être Utilisée Pour La Culture Cellulaire, Ce Qui Permet De Réduire Le Risque De Contamination. Les Ensembles De Poches De Bioréacteur De L'invention Peuvent Comprendre Une Connexion De Sac De Déchets Pré-Assemblée Et Des Agencements De Tubage Pré-Assemblés De Sorte Que Le Milieu Cellulaire Et/Ou La Source De Cellules Puisse Être Immédiatement Soudés Aux Agencements De Tubes Pré-Assemblés.

**Also published as**  
AU2017322752 BR112019004662 CA3035829 CN109890952 EP3510136 IN201917010313 JP2019526269 KR1020190045321 MX2019002765 RU2019110824 US20190211292

*Latest bibliographic data on file with the International Bureau*

Type2: WO with a single priority identified (or multiple priorities, but only one non-provisional) This family (PFM\_ID\_PCT=2868761) has 20 members in our patent families and 19 in EPO, but the members differ. Our patent family has ID,IN,IR,MY,TH,VN as a member, while EPO has PL,TR,TW

[https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2016096779&\\_cid=P20-K5FG39-75029-1](https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2016096779&_cid=P20-K5FG39-75029-1)

<https://worldwide.espacenet.com/patent/search/family/052133921/publication/WO2016096779A1?q=2016096779>

# 1. W02016096779 - POWDER MIXTURE COMPRISING ORGANIC PEROXIDE

PCT Biblio. Data Description Claims ISR/WOSA/A17[2][a] National Phase Notices Documents

PermaLink Machine translation ▼

## Publication Number

W0/2016/096779

## Publication Date

23.06.2016

## International Application No.

PCT/EP2015/079680

## International Filing Date

15.12.2015

## IPC

C08K 5/14 [2006.01] C08K 13/02 [2006.01]

C07C 409/00 [2006.01] C11D 3/395 [2006.01]

## CPC

C07C 409/34 C08F 2/44 C08J 3/223

C08J 3/242 C08J 5/121 C08K 2003/3045

[View More Classifications](#)

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## Priority Data

4198583.8 17.12.2014 EP

## Publication Language

English [EN]

## Filing Language

English [EN]

## Designated States

[View All](#)

*Latest bibliographic data on file with the International Bureau*

## Title

[EN] POWDER MIXTURE COMPRISING ORGANIC PEROXIDE  
[FR] MÉLANGE PULVÉRULENT COMPRENANT DU PEROXYDE ORGANIQUE

## Abstract

[EN] Powder Mixture Comprising: -20-90 Wt% Of One Or More Powdered Organic Peroxides And -10-80 Wt% Of One Or More Powdered Filler Materials, At Least 60 Wt% Thereof Being Barium Sulphate.

[FR] L'invention concerne un mélange pulvérulent comprenant : 20 à 90 % en poids d'un ou de plusieurs peroxydes organiques en poudre et 10 à 80 % en poids d'un ou plusieurs matériaux de remplissage en poudre, au moins 60 % en poids de ceux-ci étant le sulfate de baryum.

## Also published as

AR102965 BR112017012343 CA2968637 CN107001655 EP14198583 EP3233998 ES2704952  
ID2018/03612 IN201717019049 IR139650140003003195 JP2018505247 KR1020170093947  
KR1020190004840 MX2017007649 MYPI2017702148 PH1/2017/501085 RU0002703238  
TH170454 US20180022892 VN1201702226

## EXAMPLES

For the query: [EN TI:\("horticultural light device" method\)](#) there are 3 families and 8 publications

EN\_TI:(“horticultural light device” method)



3 results Offices all Languages en Stemming true

Single Family Member true



Sort: Relevance ▾ Per page: 50 ▾ View: Simple ▾

< 1/1 ▾ >

Machine translation ▾

1. [20190140015](#) [HORTICULTURAL LIGHTING DEVICES AND METHODS](#) US - 09.05.2019

2. [WO/2014/108825](#) [A HORTICULTURE LIGHTING DEVICE AND A METHOD TO STIMULATE PLANT GROWTH AND BIO-RHYTHM OF A PLANT](#) WO - 17.07.2014

3. [WO/2019/228838](#) [A HORTICULTURAL LIGHTING DEVICE FOR SUSTAINING INDOOR PLANT GROWTH AS WELL AS A CORRESPONDING HORTICULTURAL LIGHTING SYSTEM AND METHOD](#) WO - 05.12.2019

< 1/1 ▾ >

Feedback Search ▾ Browse ▾ Tools ▾ Settings

EN\_Ti:("horticultural light device" method)

8 results Offices all Languages en Stemming true **Single Family Member false**

Sort: Relevance ▾ Per page: 50 ▾ View: Simple ▾ < 1/1 ▾ > Machine translation ▾

1.	<a href="#">20190140015</a> HORTICULTURAL LIGHTING DEVICES AND METHODS	US - 09.05.2019	1
2.	<a href="#">0002667769</a> HORTICULTURE LIGHTING DEVICE AND METHOD FOR STIMULATING PLANT GROWTH AND BIO-RHYTHM OF PLANTS	RU - 24.09.2018	2
3.	<a href="#">20160000018</a> HORTICULTURE LIGHTING DEVICE AND A METHOD TO STIMULATE PLANT GROWTH AND BIO-RHYTHM OF A PLANT	US - 07.01.2018	2
4.	<a href="#">104883872</a> A HORTICULTURE LIGHTING DEVICE AND A METHOD TO STIMULATE PLANT GROWTH AND BIO-RHYTHM OF A PLANT	CN - 02.09.2015	2
5.	<a href="#">2943056</a> A HORTICULTURE LIGHTING DEVICE AND A METHOD TO STIMULATE PLANT GROWTH AND BIO-RHYTHM OF A PLANT	EP - 18.11.2015	2
6.	<a href="#">4823/CHENP/2015</a> A HORTICULTURE LIGHTING DEVICE AND A METHOD TO STIMULATE PLANT GROWTH AND BIO RHYTHM OF A PLANT	IN - 01.07.2018	2
7.	<a href="#">WO/2014/108825</a> A HORTICULTURE LIGHTING DEVICE AND A METHOD TO STIMULATE PLANT GROWTH AND BIO-RHYTHM OF A PLANT	WO - 17.07.2014	2
8.	<a href="#">WO/2019/228838</a> A HORTICULTURAL LIGHTING DEVICE FOR SUSTAINING INDOOR PLANT GROWTH AS WELL AS A CORRESPONDING HORTICULTURAL LIGHTING SYSTEM AND METHOD	WO - 05.12.2019	3

< 1/1 ▾ >

You can see the family members when you open up one of the WO applications:

# 7. WO2014108825 - A HORTICULTURE LIGHTING DEVICE AND A METHOD TO STIMULATE PLANT GROWTH AND BIO-RHYTHM OF A PLANT



PCT Biblio. Data Description Claims Drawings National Phase Notices Documents

PermaLink Machine translation ▾

## Publication Number

WO/2014/108825

## Publication Date

17.07.2014

## International Application No.

PCT/B2014/058092

## International Filing Date

07.01.2014

## IPC

A01G 7/04 (2006.01) H01L 33/50 (2010.01)

## CPC

A01G 7/04 A01G 7/045 F21K 9/64  
F21V 9/30 H01L 25/0753 H01L 2924/0002

[View more classifications](#)

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VELDMAN, Dirk; NL  
VAN HAL, Paulus Albertus; NL  
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## Priority Data

81/751,285 11.01.2013 US

## Publication Language

English [EN]

## Filing Language

English [EN]

## Designated States

[View all](#)

[Latest bibliographic data on file with the International Bureau](#)

## Title

[EN] A HORTICULTURE LIGHTING DEVICE AND A METHOD TO STIMULATE PLANT GROWTH AND BIO-RHYTHM OF A PLANT

[FR] DISPOSITIF D'ÉCLAIRAGE D'HORTICULTURE ET PROCÉDÉ DE STIMULATION DE CROISSANCE DE PLANTE ET DE BIORYTHME D'UNE PLANTE

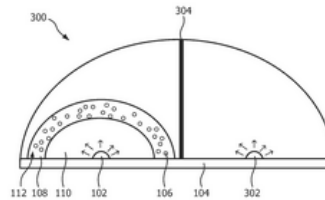


FIG. 3

## Abstract

### [EN]

The present invention relates to a lighting device [100] to stimulate plant growth and bio-rhythm of a plant. The lighting device [100] comprising a solid state light source [102] arranged to emit direct red light having a wavelength of 800 to 880 nm, preferably 840 to 880 nm, and a wavelength converting member [106] arranged to receive at least part of said direct red light emitted from said solid state light source [102] and to convert said received direct red light to far-red light having a maximum emission wavelength of 700 to 780 nm, preferably 720 to 780 nm.

### [FR]

La présente invention concerne un dispositif d'éclairage [100] pour stimuler une croissance de plante et un biorythme d'une plante. Le dispositif d'éclairage [100] comprend une source de lumière à semi-conducteur [102] conçue pour émettre une lumière rouge directe ayant une longueur d'onde de 800 à 880 nm, de préférence de 840 à 880 nm, et un élément de conversion de longueur d'onde [106] conçu pour recevoir au moins une partie de ladite lumière rouge directe émise par ladite source de lumière à semi-conducteur [102] et pour convertir ladite lumière rouge directe reçue en lumière rouge lointain ayant une longueur d'onde d'émission maximale de 700 à 780 nm, de préférence de 720 à 780 nm.

## Also published as

BR112015018408 CN104883872 DK2943058 EP2943058 IN4823/CHENP/2015 JP2016504044 JP2016504044 RU0002887769  
RU2015133530 US20160000018

## USAGE

The “Single Family Member” option is visible in the following places:

- 1) In the result list page, you can refine your query

WIPO PATENTSCOPE HELP ENGLISH LOGIN WIPO

Feedback Search Browse Tools Settings

FP:(car)

413,864 results Offices All Languages En Stemming False **Single Family Member True**

Analysis Sort: Relevance Per page: 10 Page 1 / 41,387 Machine translation View: All

1. **WO/2019/109838** NUCLEOTIDE SEQUENCE ENCODING CAR, ROBO1 CAR-NK CELL EXPRESSING CAR AND PREPARATION THEREFOR AND USE THEREOF WO - 13.06.2019

Int.Class C12N 5/10 Appl.No PCT/CN2018/117897 Applicant LI, Huashun Inventor LI, Huashun

Provided are a nucleotide sequence encoding CAR, a ROBO1 CAR-NK cell expressing the CAR and a preparation method therefor and the use thereof. The ROBO1 CAR-NK cell provided is used for specifically killing tumour cells by applying the ROBO1 antibody, which uses the ROBO1 molecule as a target antigen, to the construction of the CAR-NK cell and utilizing the ROBO1 CAR-NK cell. The ROBO1 CAR-NK cell can be used as a therapeutic drug for tumour diseases and is used for treating tumours with high expression of the ROBO1 molecule.

## 2) Advanced Search Form

WIPO PATENTSCOPE HELP ENGLISH LOGIN WIPO

Feedback Search Browse Tools Settings

FP:(car)

413,864 results Offices All Languages En Stemming False Single Family Member True

**REFINE OPTIONS** Close Search

Offices All

Languages English

Stemming

Single Family Member

## 3) Structured Search Form



WIPO IP PORTAL MENU PATENTSCOPE What is this? HELP ENGLISH LOGIN

Feedback Search Browse Tools Settings

## FIELD COMBINATION

Operator	Field	Value
AND	Field Front Page	Value
AND	Field WIPO Publication Number	Value
AND	Field Application Number	Value
AND	Field Publication Date	Value
AND	Field English Title	Value
AND	Field Abstract	Is English
AND	Field Licensing availability	<input type="checkbox"/>

+ Add another search field - Reset search fields

Offices: All

Languages: English

Stemming

Single Family Member

Reset Search

4) You can see the family members of a WO application in the biblio data page

WO2016068517 - LED LIGHTING MODULE FOR OPTIMIZING INITIAL PLANT GROWTH EFFICIENCY AND LED LIGHTING APPARATUS HAVING SAME

PCT Biblio. Data Full Text Drawings ISR/WISA/ATTI(2) National Phase Notices Documents

Publication Number: WO/2016/068517  
 Publication Date: 06.05.2016  
 International Application No.: PCT/KR2015/010704  
 International Filing Date: 12.10.2015  
 IPC: F21V 9/10 (2008.01); A01G 1/00 (2008.01)  
 CPC: A01G 31/46; F21K 9/00; F21S 2/006; F21V 16/01; F21V 18/003; F21V 23/004

Applicants: 미래도시 농업 연구원사 유계근 FUTURECROSEN AGRICULTURAL CO., LTD. K&K&K; 경기도 수원시 영통구 산천로 59-1(우편번호: 16102) S&S; S&S&S&S; Neongyeong-gu S&S&S&S; si (syeonng-gu 16981), KR

Inventors: 최성민 CHOI, Sung-Min, KR; 김지용 KIM, Ji-Yong, KR; 권기원 KWON, Ki-Byeok, KR

Agents: 김도형 KIM, Do-Hyung, KR

Priority Data: 10-2014-0146149 29.10.2014 KR

Publication Language: Korean (KO)

Filing Language: Korean (KO)

Designated States: View all

**Also published as:** CA2988838 CN3037898 JP201602177 KR1020160146149 US2016024840

# CPC searchable field

## DEFINITION

The Cooperative Patent Classification (CPC) system, in force from 1 January 2013, is a bilateral system which has been jointly developed by the EPO and the USPTO. It combines the best classification practices of the two offices.

In PATENTSCOPE, the CPC values are imported from DocDB and national offices as follows:

- 52 National offices+PCT: gathered regularly from DocDb and the national offices. As of today, our database contains more than 200 million of CPC entries, which correspond to more than 40 million of distinct filings.
- Search fields: CPC, Classif
- The Classif search field is a union of CPC and IPC.
- Daily updates

IP5	N. of distinct filings classified under CPC classification
US	11,019,736
CN	6,743,607
JP	4,848,323
EP	3,568,744
KR	2,058,568

Fig1. CPC statistics as of February 2020

## SAMPLES

For the query: [CPC:\(Y02A\\*\)](#) the system returns 351k results, which are grouped by family.

CPC:Y02A\*

351,025 results Offices all Languages en Stemming true Single Family Member true

### ANALYSIS

Filters Charts

Countries	Applicants	Inventors	IPC code	Publication Dates
China	142,252	MITSUBISHI HEAVY IND LTD	805	
Japan	59,083	TOYOTA MOTOR CORP	782	THE INVENTOR HAS WAIVED THE RIGHT TO BE MENTIONED
PCT	34,337	HITACHI LTD	829	BEVEC, Dorian
United States of America	31,800	SANYO ELECTRIC CO LTD	588	BACHER, Gerald
Germany	18,849	TOSHIBA CORP	490	CAVALLI, Fabio
France	9,887	DENSO CORP	454	CAVALLI, Vera
European Patent Office	7,823	BOSCH GMBH ROBERT	428	WANG SHENG
United Kingdom	7,507	OSAKA GAS CO LTD	401	WANG WEI
Spain	5,990	PEUGEOT CITROEN AUTOMOBILES SA	382	SPOOR & FISHERSPOOR & FISHER
Canada	4,833	PIONEER HI-BRED INTERNATIONAL, INC.	352	ZHANG WEI

Sort: Relevance Per page: 10 View: All 1 / 35,103 Machine translation

1. PA/A/2001/002485 ELEVATED STORAGE TANK  
 Int. Class. E03B 11/12 Appl. No. PA/A/2001/002485 Applicant CHICAGO BRIDGEIRON COMPANY \* Inventor BRYANT A. ZAVITZ \*  
 An elevated water storage tank comprises a reservoir supported by a pedestal with a conical ball portion supporting a cylindrical shaft section that is no more than one quarter the width of the reservoir. The ball portion has a polygonal cross-section with sloping sides and is constructed of a series of upstanding segments having relatively long lower edges, relatively short upper edges, and converging side edges. The cylindrical shaft section is situated on top of the ball portion with the reservoir situated atop the cylindrical shaft. The cylindrical shaft formed of a plurality of sections extending from the ball portion to the reservoir.

Definition of the Y02A can be found at:

<https://www.cooperativepatentclassification.org/cpc/scheme/Y/scheme-Y02B.pdf>

## USAGE

The CPC searchable field can be found in the Field Combination form or it can be entered manually in the Advanced Search Form

WIPO - Search internet

https://patentscope.wipo.int/search/en/structuredSearch.jsf

FIELD COMBINATION

Field	Value
Field Front Page	Value
Operator AND Field Cooperative Patent Classification	Value Y02A*
Operator AND Field Application Number	Value
Operator AND Field Publication Date	Value
Operator AND Field English Title	Value
Operator AND Field Abstract	Is Empty: N/A
Operator AND Field Licensing availability	<input type="checkbox"/>

Offices: All

Languages: English

Stemming

Single Family Member

439,882 results