THE PATENTSCOPE USER'S GUIDE

Updated October 2021

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INTRODUCTION

WHAT IS THE PATENTSCOPE SEARCH SYSTEM?

You're a patent attorney and need to find a specific patent document...

You're an inventor and want to see whether your latest invention has already been patented...

You're a researcher and are interested in seeing which technologies have been developed in your field...

You're an entrepreneur and want to find out who your competitors are and what they're up to...

The PATENTSCOPE search system just might be the right tool for you!

The PATENTSCOPE search system is the FREE OF CHARGE patent search system provided by the World Intellectual Property Organization (WIPO) that allows you to access millions of patent documents.

This User's Guide will help you get to know the PATENTSCOPE search system and learn how to get the most out of its powerful search and analysis features.

ABOUT THIS GUIDE

The PATENTSCOPE search system is constantly improving to provide new features and new content to its users. In fact, from the time the writing of this guide started to the time it was completed, a few things have changed on the interface. To keep up to date on the latest developments and changes to the PATENTSCOPE search system, look at: https://www.wipo.int/patentscope/en/news/

To help readability, a few conventions were used in this guide:

- Web Sites urls and email addresses are in blue in Courier; and
- to refer to *something that you see on the interface* italics was used;



• tips are indicated with

Note: Screenshots in this guide reflect what the interface was like in October 2021; a few significant changes took place during the writing of this guide.

WHAT IS THE DATA COVERAGE?

PATENTSCOPE gives you access to millions of patent documents, namely:

- International Patent Applications filed under the PCT (Patent Cooperation Treaty)
- Regional and national patent collections from numerous participating countries and organizations, including:
- \rightarrow Argentina
- → ARIPO (African Regional Intellectual Property Organization)
- \rightarrow Australia
- \rightarrow Bahrain
- \rightarrow Brazil
- \rightarrow Brunei Darussalam
- \rightarrow Bulgaria
- \rightarrow Cambodia
- \rightarrow Canada
- \rightarrow Chile
- \rightarrow China
- \rightarrow Colombia
- \rightarrow Costa Rica
- \rightarrow Cuba
- \rightarrow Czech Republic
- \rightarrow Czechoslovakia
- \rightarrow Denmark
- \rightarrow Dominican Republic
- → EAPO (Eurasian Patent Organization)
- \rightarrow Ecuador
- \rightarrow Egypt
- \rightarrow El Salvador
- \rightarrow EPO (European Patent Office)
- \rightarrow Estonia
- \rightarrow Finland
- \rightarrow France
- → Georgia
- \rightarrow Germany
- \rightarrow Germany (DDR data)
- \rightarrow Greece
- → Guatemala
- \rightarrow Honduras
- \rightarrow India
- \rightarrow Indonesia

- \rightarrow Israel
- \rightarrow Italy
- \rightarrow Japan
- \rightarrow Jordan
- → Kenya
- → Lao People's Democratic Republic
- \rightarrow Latvia
- \rightarrow Lithuania
- \rightarrow Malaysia
- \rightarrow Mexico
- → Morocco
- \rightarrow Netherlands
- \rightarrow New Zealand
- → Nicaragua
- → Panama
- \rightarrow Peru
- \rightarrow Philippines
- \rightarrow Portugal
- \rightarrow Republic of Korea
- \rightarrow Romania
- \rightarrow Russian Federation
- \rightarrow Russian Federation (USSR data)
- \rightarrow Saudi Arabia
- \rightarrow Singapore
- \rightarrow Slovakia
- \rightarrow South Africa
- \rightarrow Spain
- \rightarrow Sweden
- \rightarrow Thailand
- \rightarrow Tunisia
- \rightarrow United Arab Emirates
- \rightarrow United Kingdom
- \rightarrow United States of America
- \rightarrow Uruguay
- \rightarrow Vietnam

Those countries share their national/regional data with WIPO; they are not the PCT applications entering into national phase into those countries. National phase information is available here: https://patentscope.wipo.int/search/en/nationalphase.jsf

Please check our website, new collections become available on a regular basis. The collections available are listed in the *Advanced Search/Field Combination* page; click the arrow sign next to *Offices* to see the list.

ADVANCED SEARCH	•
-----------------	---

			Query Assistant Query Examples
Expand with related terms			
Office All			\odot
All PCT Africa			
African Regional Intellectual Property Organization (ARIPO) ARABPAT	Kenya	South Africa	
Egypt Saudi Arabia Americas	☐ Jordan ☐ Tunisia	Morocco	
Canada	United States of America		
Argentina Colombia	Brazil Costa Rica Costa rica	Chile	
Dominican Republic Guatemala Nicaragua	Ecuador Honduras Panama	El Salvador Mexico Peru	
Uruguay Asia-Europe			
Australia China Eurasian Patent Organization	Bahrain Denmark European Patent Office	Bulgaria Estonia France	
Georgia	Germany India	Germany(DDR data)	
	🗔 Japan	🗆 Latvia	

UP-TO-DATE & DETAILED DATA COVERAGE

For the most up-to-date information on data coverage, please go to the *Help* menu, *PATENTSCOPE Help*, *Data coverage national collections* at: https://patentscope.wipo.int/search/en/help/data_coverage.jsf

NON-PATENT LITERATURE

The integration of non-patent literature (NPL) in PATENTSCOPE has now started with the open-access content from Nature and Wikipedia (only technology and scientific content filtered using an in-house algorithm).

A new button to include the NPL in the result list is now available in:

1. The advanced search and the Field Combination interfaces

ADVANCED SEARCH 🔸	
IC:("A61K31/551")	
	☑ Query Assistant Query Examples
Offices All	· · · · · · · · · · · · · · · · · · ·
Languages All	•
☑ Stemming	
Single Family Member	
Include NPL	
	Reset

FIELD COMBINA	TI	ON -				
		Field Front Page	*	Value	?	
Operator AND	Ŧ	Field WIPO Publication Number	*	Value	?	
Operator AND	*	Field Application Number	Ŧ	Value	?	
Operator AND	Ŧ	Field Publication Date	*	Value	?	
Operator AND	Ŧ	Field Abstract	*	Value	?	
Operator AND	Ŧ	Field Abstract	*	ls Empty: NA	-	
Operator AND	Ŧ	Field Licensing availability	*			
+ Add another search field - Reset search	fields					
Offices All					Ŧ	
Languages All						
Stemming						
Single Family Member						
Include NPL						

2. The result list: the *refine options* is available by clicking on *Include NPL*

A61K31/551")	
523 results Offices all Languages all Stemming true Single Family Member fais Include NPL faise	9 # B 4
EFINE OPTIONS	Close Search
ffices Al	
anguages All	-
3 Stemming	
Single Family Member	
Include NPL	

All the PATENTSCOPE search features are available to perform searches in the NPL in PATENTSCOPE.

Useful fields to search the NPL content:

Field	Information retrieved
AU: Hyojin Kim	author, Hyojin Kim for example, of the
	article
CTR:ZZ	only NPL information search criteria.
DP:(30.12.2020)	publication date, December 30 th , 2020 for
DI.(30.12.2020)	example
DTY:NPL	all NPL the records
EN_AB: (electric bicycle)	information in the abstract of the article,
	electric bicycle for example
EN_DE: (electric bicycle)	information in the article, electric bicycle for
	example
EN_TI: (electric bicycle)	information in the title of article, electric
	bicycle for example
IC: G06F	code IPC, G06F for example (assigned by
	an AI procedure)
JO: (British Journal of Cancer)	journal of the article, for example, the
	British Journal of Cancer
PN: 10.1038/s41416-019-0673-5	publication number of the article, for
	example: 10.1038/s41416-019-0673-5
PU: Nature	publisher or source of NPL, for example
	Nature

In the Analysis in the result list, NPL information is available in the Kind code column

											>	-
8 results Offices all Langu	lages all	Stemming true Single Family Member	r false	Include NPL true							9 7 0	22
ANALYSIS	35										С	Close
Offices		Applicants		Inventors		IPC code		Publication Dates			Kind code	
China	424	UNIVERSITY OF JINAN 6	8	WEI QIN	49	G01N	651	1986	1	A		348
United States of America	75	SHANDONG UNIVERSITY OF TECH 5	51	WU DAN	28	C12Q	47	1987	1	в		154
PCT	37	ABBOTT POINT OF CARE INC 4	19	LI YUEYUN	26	B82Y	28	1988	1	B2		5
Republic of Korea	34	SOUTHEAST UNIVERSITY 1	14	DONG YUNHUI	25	C07K	18	1989	2	B1		5
European Patent Office	27	LIFESCAN INC 1	13	MA HONGMIN	24	B01L	17	1990	1	A1		3
Japan	21	YANGZHOU UNIVERSITY	12	CAMPBELL JOHN LEWIS EMERSON	20	C12M	13	1991	3	С		1
Canada	18	CILAG GMBH INTERNATIONAL 1	11	MILLER CARY JAMES	19	C12N	7	1992	3	C1		1
India	17	FUJIAN NORMAL UNIVERSITY 1	11	魏琴	19	C09J	6	1993	5	NPL		
Australia	12	CAMPBELL JOHN LEWIS EMERSON 1	10	CAO WEI	18	C01G	5	1994	1	U		
Russian Federation	10	CHONGQING MEDICAL UNIVERSITY	8	LIU QING	18	G02B	5	1995	9	C2		
Germany	8	NINGBO UNIVERSITY	8	SUN XIA	18	A61K	4	1996	4	A2		1
Malaysia	4	UNIVERSITY OF UTAH RESEARCH FOUNDATION	7	ZHANG YONG	18	C01B	4	1997	1	A4		
Singapore	3		6	FAN DAWEI	17	C086	4	1998	5	B5		
Israel	2			WANG PING	16	H01L	4	1999	4	T2		
Italy	2	THE UNITED STATES OF AMERICA AS		WANG XIANGYOU	15	B01J	3	2000	2	Т3		
Romania	2	REPRESENTED BY THE SECRETARY OF THE NAVY		吴丹	15	C09K	3	2001	7	UI		
Germany(DDR data)	1	UP THE NAVI		马洪敏	14	C12R	3	2002	6			

If selected, the result list will include NPL information ranked by relevance together with the patent documents that match the search performed.

An example of an NPL document:

	SITY, LOW LEVELS OF PHYSICAL ACTIVITY AND SMOKING PRESENT RIMARY CARE ASTHMA INTERVENTIONS: AN ANALYSIS OF BASELINE DATA DLS STUDY
	PermaLink
Publisher nature	Title [EN] Desity, low levels of physical activity and smoking present opportunities for primary care asthma interventions: an analysis of baseline data from The Asthma Toola Study
Journal noi Primary Care Respiratory Medicine Publication Number 10.1026/npiperm.2015.58 Publication Date 010.2015 IPC AR18 5/08 A818 5/08 A818 5/18 A818 5/18 A818 5/18 A818 5/11 Barbara P Vawn Matthew A Bank Susan L Berram	Abtract EM Market Link Control (Link Control Contr

The information in the *NPL Biblio Data* tab is available for download for logged-in users. The link to the source allows users to export the content.

In the *Description* tab, the full-text of the article is available and the *machine translation* button is available if translation is needed:

1. NPL313168373 - OBESITY, LOW LEVELS OF PHYSICAL ACTIVITY AND SMOKING PRESENT OPPORTUNITIES FOR PRIMARY CARE ASTHMA INTERVENTIONS: AN ANALYSIS OF BASELINE DATA FROM THE ASTHMA TOOLS STUDY
NPL Biblio. Data Description
PermaLin Machine translation *
Note: Obtained from nature. Please see original document here
licensed under a Creative Commons Attribution 4.0 International License (<u>CC BY 4.0</u>) [EN] Abstract
Abstract
Background:
Asthma prevalence, severity and outcomes are associated with various patient characteristics and lifestyle choices.
Aims:
To identify potentially modifiable factors associated with poor asthma outcomes among US primary care patients.
Methods:
Using baseline data from the Asthma Tools Study, we calculated cross-sectional frequencies of activity levels, smoking, secondhand smoke exposure and the presence of obesity, as well as rates of out-of-control asthma and asthma exacerbations. Frequencies were stratified by sex, and into three age groups: 5-11 years, 12-18 years and 19 years and lost. Logistic regression was used to identify factors associated with each of the asthma outcomes.
Results:
In the 801 individuals enrolled in this asthma study, tobacco smoke exposure, obesity, low activity levels, poverty, inadequately controlled asthma and high asthma-related health-care utilisation were common. Across all age groups, obesity was associated with poorer asthma outcomes: either poor asthma control lodds ratio (DR1-2.3, 5956 confidence interval (011-4.7 in a-stud); and (DR1-2.3, Passitic) and (DR1-3, Passitic); and (DR1-3
Conclusions:
Obesity, low levels of physical activity and smoking are common, and they are associated with poor asthma outcomes in a sample of primary care patients, suggesting important targets for intervention.
Introduction
Asthma is common among US children and adults, with up to 1 in 8-11 children and in 13 adults having received a physician diagnosis of asthma. ¹² Asthma continues to be associated with a significant burden to patients, families and health-care systems. ¹⁻¹² That burden has been shown to be increased in certain age, sex, race/ethnicity and family income groups. ¹⁻¹² These commonly enumerated factors are seldom amenable to medical interventions.
However, asthma prevalence, severity and outcomes are also associated with several potentially modifiable patient characteristics and lifestyle choices including level of obesity, \mathbb{R}^{24} smoking status, \mathbb{R} levels of physical activity \mathbb{R}^{24} and exposure to secondhand smoke, \mathbb{R}^{24} Primary care physicalms and practices provide the majority of asthma care ³ and are therefore appropriate sites in which to assess the frequency of the additional potentially modifiable characteristics and lifestyle choices, highlighting opportunities to use nonmedication-based interventions to improve asthma outcomes.

SEARCH INTERFACES

DIFFERENT LANGUAGES

Interface languages

WIPO	MENU	PATENTSCOPE		What is this? $ imes$		HELP		LOGIN	WIPO
					Feedback	Searcl	ENGLISH		gs
SIM		SEARC	ЭН				FRANÇAIS		
JIFI		JLANC	///				DEUTSCH		
-	ENTSCOPE yo coverage info		on patent do	cuments including 3.7	million publie	shed inte	ESPAÑOL		
PCT Publi (30.01.202		20 (23.01.2020) is now	available. Th	ne next publication da	te is schedule	d as foll	PORTUGUÊS		
							РУССКИЙ		
Field Front Pag	je		 Search 	terms			日本語		
							中文		
							한국어		
							عربى		

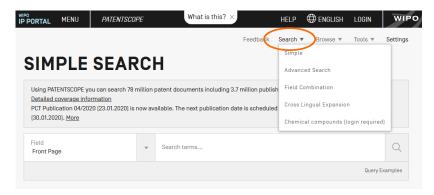
The search interface is available in 10 languages that can be selected in the navigation bar (black bar on the top of the interface).

Search languages

You can search in all the filing languages of the documents contained in PATENTSCOPE, such as Arabic, Bulgarian, Cambodian, Chinese, Danish, English, Estonian, French, German, Greek, Hebrew, Italian, Japanese, Korean, Laotian, Portuguese, Romanian, Russian, Spanish, Thai, Vietnamese, etc.

SEARCH INTERFACES

There are 5 ways to conduct a search using PATENTSCOPE Search service. Those options can be selected from the *Search* menu as indicated below.



1. Simple search

The Simple Search interface is the default interface.

WIPO	MENU	PATENTSCOP	E	What is this? $ imes$	HELP	ENGLISH	LOGIN	WIPO
SIM		SEAR	റപ	Feedback	Search Simple		Tools v	Settings
Using PAT Detailed o	ENTSCOPE yo coverage info cation 04/20	ou can search 78 m	illion pate	nt documents including 3.7 million pub le. The next publication date is schedu	ish ^{Field C}	ced Search Combination Lingual Expansio cal compounds (l		0
Field Front Pag	je		▼ Se	earch terms				Q
							Query E	xamples

It offers 7 predefined search fields:

SIMPLE SE	ARC	H		
Using PATENTSCOPE you can sea	arch 93 millio	on patent do	cuments including 4.0 million published international patent applications (PCT). Detailed coverage information	
PCT publication 53/2020 (30.12.2	2020) is now	available <u>he</u>	re. The next PCT publication 01/2021 is scheduled for 07.01.2021. More	
Check out the new PATENTSCOP	E features: C	PC, PCT fam	ilies <u>More</u>	
			<u>8</u>	
Field				
Front Page		Searc	terms	Q
Front Page				
Any Field				Query Examples
Full Text				
ID/Number				
Int. Classification(IPC)				*
Names				
Publication Date				

- 1. *Front page*: the search criteria you entered in this field will be searched in the front page of the document (title, abstract, names and numbers).
- 2. *Any field*: the search criteria you entered in this field will be searched in any fields of the document.
- 3. *Full-text*: enter your query in this field if you are interested in full-text.
- 4. *ID/Number*: enter publication number, filing number, etc.
- 5. *IPC*: enter any International Patent Classification code.
- 6. *Names*: enter your search in this field to look for the name of an inventor, an applicant, a company, etc.
- 7. Publication Date: enter a date here to search for specific publication dates

You can use the Simple Search interface to search for:

- a specific number: a reference to patent document in the press, in a trial, etc.
- an individual, an inventor, an applicant, etc.
- a company whether it is for personal interest, for merging and/or acquisition purposes or to keep track of the work of a competitor
- an IPC code
- a specific publication date
- a subject matter expressed with simple keywords, a concept that is very specific in order to have a limited number of results

Use the *Browse by week* option to see all international applications published during a given week).

Click the *Query Examples* to be provided with search examples. If you click on those examples, they will automatically appear in the search box. They give you good examples of the kind of searches that can be performed in the *Simple Search* interface:

			The entered value is searched against the Title, Abstract, Numbers and Names.	
Field Front Page	v	Search terms	✓ "electric car"~50✓ Smith or Klein	Q
			WO201000001	Query Examples
			EP2012001709	
			✓ "sol* panel"~5	
			✓ elect?icit?	
			✓ electric^10 and car^3	

To use the Simple Search interface:

- 1. Select one of the 7 available search fields from the drop-down menu;
- 2. Enter your search terms into the selected field;
- 3. Click the \bigcirc button

-0-

To look for a specific patent document number, use the *ID/Number* field To look for any information related to a name (inventor, agent, etc.), use the *Names* field.

2. Advanced Search

WIPO	MENU	PATENTSCO	PE	What is this? $ imes$	HELP	⊕ ENGLISH	LOGIN	WIPO
				Feedback	Search	Browse V	Tools 🔻	Settings
SIM	PLE	SEAR	C	۲ (Simple Advan	e ced Search	>	
-	ENTSCOPE yo		nillion p	atent documents including 3.7 million public	h ^{Field (}	Combination		
	cation 04/202		now ava	ilable. The next publication date is schedule	d ^{Cross}	Lingual Expansio	n	
(00.01.20.	1010				Chemi	cal compounds (I	login required	d]
Field Front Pag	je		Ŧ	Search terms				Q
							Query E	Examples

The *Advanced Search* is the PATENTSCOPE expert search interface that can be used to create complex search queries using an unlimited number of terms.

ADVANCED SEARCH -

	✓ Query Assistant Query Examples
Expand with related terms	
Offices All	•
Languages All	•
Stemming	
Single Family Member	
Include NPL	
	Reset

The PATENTSCOPE search service offers a wide range of operators that can be used to combine search terms, including Boolean operators, proximity operators, and range operators. Using these operators will allow you to customize your results. You can also use wildcard operators to search for variants of terms based on a common stem, or root.

For more information about operators available in the PATENTSCOPE search service, look at: https://patentscope.wipo.int/search/en/help/querySyntaxHelp.jsf

The *Advanced Search* interface uses field codes to define the fields in which search terms must be found.

More information about field codes can be found at: https://patentscope.wipo.int/search/en/help/fieldHelp.jsf

Some examples of the use of the Advanced Search:

1. Searching for inventions made by Steve Jobs published during the period from 2007 to 2009 comprising the keyword "touch" in the description.

IN:(Jobs) AND DP:[2007 TO 2009] AND EN_DE:(touch)

This search query uses field codes, a Boolean operator, and a range operator.

The field codes are IN for inventor, DP for publication date, and EN_DE for English description.

The Boolean operator AND is used to ensure that all search terms are included in the search results (i.e. that the results are for Jobs as inventor, within the given publication date range, and using the word "touch").

The range operator TO is used to define a range of publication date values.

2. Searching for inventions related to cutting tree trunks:

cutting AND trunk

This search query will retrieve over 10,000 results, many of which are not related to cutting tree trunks.

cutting NEAR5 trunk

This search query retrieves a few hundred results; most of which are related to the wood industry. It uses a proximity operator NEAR to ensure that the two terms are close to each other in your results and specifies that they must be within 5 words of each other by defining the value as NEAR5. Similarly, you could specify that the terms must be within any other number of words of each other, e.g. NEAR4, NEAR100.

3. Searching for surgical instruments that are referred to before the paragraph "Field of the invention":

"Field of the invention" BEFORE100 "surgical instruments"

The operator BEFORE allows users to define the part of the document the search should be carried out: only documents containing surgical instruments positioned 100 words after "Field of the invention" will be retrieved.

To use the Advanced Search interface:

ADVAI	NCED SEARCH +			
	1			
			🔽 Query Assistant 🛛 Q	uery Examples
+ Expand with r	elated terms			
Offices All	2			v
Languages All	3			*
Stemming	4			
Single Famil	y Member 5			
Include NPL	6			
			Reset	Search

- 1 Enter keywords/Boolean expression/field codes etc. Please read the Annex section of this guide or go to the *Help* menu on the search interface for a complete list of Boolean expressions and *Fields Definition*;
- 2 Select the collection/s you are interested in using the arrow;
- 3 Select the language in which you would like to perform the search using the arrow;
- 4 *Stemming* is on by default. It is a process that removes ending in order to find keywords with common roots such as electric, electricity, electrical. The stemmer is related to the language of the search, in this example, it is therefore the English stemmer.
- 5 Tick this box if you would like to have family information in your result list. Please read the section in this Guide about families in PATENTSCOPE.
- 6 Tick this box if you would like to have non-patent literature information in your result list. Please read the section in this Guide about non-patent literature in PATENTSCOPE.

Expand with related terms

This feature allows you to expand your query with synonyms that are automatically provided by PATENTSCOPE

Enter your query in the query box and click the Expand with related terms button

ADVANCED	SEARCH -	
	🗹 Query Assistant	Query Examples
+ Expand with related terms		
Offices All		Ŧ
Languages English		*
Stemming		
Single Family Member		
	Reset	Search

Your new query is displayed just below:

electric car		
	🛛 Query Assistant	Query Examples
Hide the expanded query Refresh Expanded query: (("electric vehicle" OR "electric car")) OR (electric AND (motor OR car))		
		.4

The click the *Expanded Search* button to run your search.

Click the *Query Examples* to be provided with search examples. If you click on those examples, they will automatically appear in the search box.

3. Field Combination

WIPO	MENU	PATENTSCOF	PE	What is this? $ imes$	HELP	🕀 ENGLISH	LOGIN	WIPO
CIM		SEAR		Feedback	Search Simple	5101100	Tools v	Settings
Using PA <u>Detailed</u> PCT Publ	TENTSCOPE yo	ou can search 78 n rmation	nillion p	• • • • • • • • • • • • • • • • • • •	Field C	ced Search Combination Lingual Expansio cal compounds (l		d]
Field Front Pa	ge		Ŧ	Search terms				Q
							Query B	Examples

The *Field Combination* interface can be used to structure a more targeted search using specific search criteria in any search fields (e.g. title, abstract, description, etc.) can be performed using this interface.

D Publication Numbe lication Number lication Date lish Title	* * * *	Value Value Value Value Value Value Is Empty: N/A	? ? ? ?
D Publication Number lication Number lication Date lish Title	•	Value Value Value Is Empty:	(?
lication Number	▼ ▼	Value Value Is Empty:	(?
lication Date	•	Value	?
tract		Is Empty:	
tract	Ŧ		
nsing availability	Ŧ		
search fields			
			Reset

The *Field Combination Search*, a list of preset search fields that can be combined according to the users' needs, should be used to search together different concepts such as:

- a date and an inventor

- an inventor and a company,

- etc.

Any combination of the preset search fields available in the Field Combination Search is possible.

Some examples of the use of the *Field Combination*:

• Searching for the inventions filed by Shimano in 2017.

In the drop-down box, select the field *Applicant Name* and enter **Shimano**; select *AND* and the field *Publication date* and enter **2017**

		Field Front Page	~	Value
Operator AND	•	Field Applicant Name	~	Value Shimano
operator AND	*	Field Publication Date	•	Value 2017
Operator AND	*	Field Publication Date	~	Value
Operator AND	Ŧ	Field Abstract	*	Value
Operator	Ŧ	Field	~	Is Empty:

• Searching for applications containing microchip with licensing availability. In the drop-down box, select *English Claims* and enter **microchip**, then tick the *Licensing availability* box (the last row in the *Field Combination* interface).

Operator	•	Field English Claims		Value microchip	
Operator AND	*	Field Abstract	*	ls Empty: N/A	•
Operator AND	•	Field Licensing availability			

• Searching for missing information using the empty field option: for example, you can search applications without any IPC code. In the row before last, select the *IPC* in the drop-down box and tick *yes* next to empty.

Operator AND	 Field International Class	Ŧ	ls Empty: N/A	•
			N/A +	
Operator AND	Field Licensing availability	~	Yes	
			No	

To use the Field Combination interface:

- 1 Select the field/s of interest using the arrow of the drop-down menu
- 2 Use the *AND/OR* boxes to add or include fields
- 3 If you would like to add more fields or remove one or more fields, please click the + or signs:

	$(+)$ [+] Add another search field \bigcirc [-] Reset search fields	
2	4 Select the collection/s you are interested in the drop-down menu:	
	Offices All	(v)

5 Select the language in which you would like to perform the search in the drop-down menu:

Languages English	(v)

7 Stemming is on by default. It is a process that removing ending in order to find keywords with common roots such as electric, electricity, electrical. The stemmer is related to the language of the search, in this example, it is therefore the English stemmer:

	Stemming
8	Tick this box if you would like to have family information in your result list. Please read the section in this Guide about the families:
	Single Family Member

9 Tick this box if you would like to have non-patent literature in your result list. Please read the section in this Guide about non-patent literature:

Include NPL

At the bottom of the search page, the number of results are indicated, allowing therefor to amend the query is necessary:

FIELD COMBINATI	0	1 -			
		Field Front Page	•	Value	?
Operator AND	Ŧ	Field Chinese Description	*	Value 百姓车	?
Operator AND	Ŧ	Field Application Number	Ŧ	Value	?
Operator AND	Ŧ	Field Publication Date	Ŧ	Value	?
Operator AND	*	Field Abstract	Ŧ	Value	?
Operator AND	-	Field Abstract	*	ls Emply: NA	,
Operator AND	Ŧ	Field Licensing availability	Ŧ		
Add another search field					
Offices All					Ŧ
Languages All					Ŧ
Stemming					
Single Family Member					
Include NPL					
				58 results sear	ch

-0-

From the result page, to go back to Field Combination with your search criterias, go to the *Search* menu and select *Field Combination*.

4. CLIR_ Cross-Lingual Information Retrieval

WIPO IP PORTAL	MENU	PATENTSCO	PE	What is this? $ imes$	HELP	⊕ ENGLISH	LOGIN	WIPO		
				Feedback	Search	Browse V	Tools 🔻	Settings		
		SEAR			Simple	e				
SIM	FLC	JEAR		1	Advan	ced Search				
_	-	ou can search 78 n	h Field Combination							
	overage info cation 04/202		now ava	ilable. The next publication date is schedule	Cross	Cross Lingual Expansion				
(30.01.202	20]. <u>More</u>				Chemi	ical compounds (I	login require	d]		
Field Front Pag	je		•	Search terms				Q		
							Query I	Examples		

CLIR stands for Cross Lingual Information Retrieval. This tool allows you to expand your search by including patent documents in your result list that were disclosed in a foreign languages: for example, you enter one keyword in English, your result list will include that keyword in English and its synonyms as well as the translation of both the keyword and the synonyms into 13 languages. The tool first finds synonym of your query and then translate everything into 13 languages. The following languages are available:

- Chinese
- Danish
- Dutch
- English
- French
- German
- Italian
- Japanese
- Korean
- Polish
- Portuguese
- Russian
- Spanish
- Swedish

Just enter one or more terms in one of those languages in the search box and the system will suggest variants and translate the term(s), thus allowing you to search patent documents disclosed in all of these languages.

CROSS LINGUAL EXPANSION -

ns *		
juage" 2 e of your query	Expansion Mode: Automatic Supervised Use the Supervised mode to select the technical domains, the relevant variants, the languages to translate your query to and the fields to search by	Precision level High 4 Influences the precision of the suggested variants Highest level considers only the most relevant one [less suggested variants] Lowest level considers the less relevant as well [more suggested variants]
	domains, the relevant variants, the languages to	[less suggested variants] Lowest level considers the less relevant a

Step 1: Enter your query

- 1. Enter the search query in the search box. Up to 5 keywords can be entered and "..." are supported.
- 2. Select the language of your query.

- 3. Select the *Expansion mode:*
 - a. *Supervised* will allow you to select the technical domain associated with your query and the variants relevant to your query.
 - b. *Automatic* will generate the results immediately without any further user input.
- 4. Select the level of precision. If you favor precision, an expanded query will be built in order to retrieve only the most relevant results at the risk of missing some results. If you favor recall, an expanded query will be built in order to retrieve more results at the possible expense of accuracy.

<u>Precision</u> is defined as the <u>proportion of relevant documents</u> in the set of all documents returned by a search query. Precision is a measure of exactness. <u>Recall</u> is defined as the <u>number of relevant documents</u> retrieved as fraction of all relevant documents. Recall is a measure of completeness.

5. Click the *Search* (automatic mode) or *Select Domains* (supervised mode) button.

Automatic mode: 1 step

After entering your query, select the query language, the expansion mode, define the level of precision and click the *search* button:

biodegradable cup		.ii
Duery Language English The language of your query	Expansion Mode: Automatic Supervised Use the Supervised mode to select the technical domains, the relevant variants, the languages to translate your query to and the fields to search by	Precision level High Influences the precision of the suggested variants Highest level considers only the most relevant ones [less suggested variants] Lowest level considers the less relevant as well (more suggested variants)

The result list will be displayed with the new query containing synonms and translations of your query:

FULL QUERY

Edit

(EN TI:("biodegradable cup"~21 OR "biodegradable tank"~21) OR EN AB:("biodegradable cup"~21 OR "biodegradable tank"~21)) OR (DA TI:("biologisk nedbrydelige tank"~22 OR "biologisk nedbrydelige bæger"~22 OR "bionedbrydelige tank"~22 OR "bionedbrydelige bæger"~22 OR "biologisk nedbrydelige hule"~22 OR "biologisk nedbrydeliae kop"~22 OR "nedbrydeliat materiale tank"~22 OR "biologisk nedbrydeliae baegerformede"~22 OR "nedbrydeliat materiale bæger"~22) OR DA AB:("biologisk nedbrydelige tank"~22 OR "biologisk nedbrydelige bæger"~22 OR "bionedbrydelige tank"~22 OR "bionedbrydelige bæger"~22 OR "biologisk nedbrydelige bæger"~22 OR "biologisk nedbrydelige bæger"~22 OR "biologisk nedbrydelige bæger"~22 OR "bionedbrydelige bæger"~22 OR "biologisk nedbrydelige bæger" "biologisk nedbrydelige kop"~22 OR "nedbrydeligt materiale tank"~22 OR "biologisk nedbrydelige baegerformede"~22 OR "nedbrydeligt materiale bæger"~22)) OR (DE_TI: ("biologisch abbaubaren Tank"~22 OR "biologisch abbaubaren Schutzkappe"~22 OR "biologisch abbaubaren Becher"~22 OR "biologisch abbaubaren gewölbter"~22 OR "biologisch abbaubaren Pfanne"~22 OR "biologisch abbaubaren desselben"~22 OR "biologisch abbaubaren Zufuhrbecher"~22 OR "biologisch abbaubaren Tasse"~22 OR "bioabbaubare Tank"~22) OR DE_AB;("biologisch abbaubaren Tank"~22 OR "biologisch abbaubaren Schutzkappe"~22 OR "biologisch abbaubaren Becher"~22 OR "biologisch abbaubaren gewölbter"~22 OR "biologisch abbaubaren Pfanne"~22 OR "biologisch abbaubaren desselben"~22 OR "biologisch abbaubaren Zufuhrbecher"~22 OR "biologisch abbaubaren Tasse"~22 OR "bioabbaubare Tank"~22)) OR (ES_TI:("tanque biodegradables"~22 OR "vaso biodegradables"~22 OR "cubeta biodegradables"~22 OR "depósito biodegradables"~22 OR "taza biodegradables"~22 OR "cop biodegradables"~22 OR "copa biodegradables"~22 OR "bote biodegradables"~22 OR "cuba biodegradables"~22) OR ES_AB:("tanque biodegradables"~22 OR "vaso biodegradables"~22 OR "cubeta biodegradables"~22 OR "depósito biodegradables"~22 OR "taza biodegradables"~22 OR "cup biodegradables"~22 OR "copa biodegradables"~22 OR "bote biodegradables"~22 OR "cuba biodegradables"~22)) OR (FR TI:("réservoir biodégradable"~22 OR "gobelet biodégradable"~22 OR "citerne biodégradable"~22 OR "coupelle biodégradable"~22 OR "cuve biodégradable"~22 OR "godet biodégradable"~22 OR "bassin biodégradable"~22 OR "tasse biodégradable"~22 OR "cup biodégradable"~22) OR FR_AB:("réservoir biodégradable"~22 OR "gobelet biodégradable"~22 OR "citerne biodégradable"~22 OR "coupelle biodégradable"~22 OR "cuve biodégradable"~22 OR "gobet biodégradable"~22 OR "bassin biodégradable"~22 OR "tasse biodégradable"~22 OR "cup biodégradable"~22)) OR (IT_TI: ("biodegradabili serbatoio"~22 OR "biodegradabili vasca"~22 OR "biodegradabili tazza"~22 OR "biodegradabili bicchiere"~22 OR "biodegradabili bicchiere"~22 OR "biodegradabili scodellino"~22 OR "biodegradabili scodellino" and the second s calotta"~22 OR "biodegradabili serbatorio"~22 OR "biodegradabili cisterna"~22) OR IT AB: ("biodegradabili serbatorio"~22 OR "biodegradabili vasca"~22 OR "biodegradabili serbatorio"~22 OR "biodegradabili vasca"~22 OR "biodegradabili serbatorio" ("biodegradabili serbatorio") (" tazza"~22 OR "biodegradabili bicchiere"~22 OR "biodegradabili bicchieri"~22 OR "biodegradabili scodellino"~22 OR "biodegradabili organi a calotta"~22 OR "biodegradabili bicchiere"~22 OR "biodegradab serbatorio"~22 OR "biodegradabili cisterna"~22)) OR (JA_TI:("生分解 タンク"~22 OR "生分解 カップ"~22 OR "分解可能 タンク"~22 OR "分解可能 カップ"~22 OR "生分解 コップ"~22 OR "分解性 カップ"~22 OR "生物分解 タンク"~22 OR "生崩壊性 タンク"~22) OR JA_AB:("生分解 タンク"~22 OR "生分解 カッ ブ"~22 OR "分解可能 タンク"~22 OR "分解性 タンク"~22 OR "分解可能 カップ"~22 OR "生分解 コップ"~22 OR "分解性 カップ"~22 OR "生物分解 タンク"~22 OR "生崩 壊性 タンク"~22)) OR (KO_TI:("컵 생분해성"~22 OR "탱크 생분해성"~22 OR "저장탱크 생분해성"~22 OR "탱크용 생분해성"~22 OR "정화조 생분해성"~22 OR "위생팩을 생분해성"~22 OR "원료 생분해성"~22 OR "조립식 생분해성"~22 OR "통기관형 생분해성"~22) OR KO_AB;("컵 생분해성"~22 OR "탱크 생분해성"~22 OR "저장탱크 생분 해성"~22 OR "탱크용 생분해성"~22 OR "정화조 생분해성"~22 OR "위생팩을 생분해성"~22 OR "원료 생분해성"~22 OR "조립식 생분해성"~22 OR "통기관형 생분해 성"~22)) OR (NL_T:("biologisch afbreekbaar kopvormige"~22 OR "biologisch afbreekbaar cup"~22 OR "biodegradeerbare kopvormige"~22 OR "biodegradeerbare cup"~22 OR "biologisch afbreekbaar beker"~22 OR "biologisch afbreekbaar tank"~22 OR "biologisch afbreekbaar tank"~22 OR "biologradeerbare tank"~22) OR NL_AB:("biologisch afbreekbaar kopvormige"~22 OR "biologisch afbreekbaar cup"~22 OR "biologisch afbreekbaar cup"~22 OR "biodegradeerbare cup"~22 OR "biologisch afbreekbaar beker"~22 OR "biodegradeerbare beker"~22 OR "biologisch afbreekbaar tank"~22 OR "biologisch afbreekbaar reservoirs"~22 OR "biodegradeerbare tank"~22)) OR (PL TI:("biodegradowalny zbiornika"~22 OR "biodegradowalnego zbiornika"~22 OR "biologicznemu zbiornika"~22 OR "podobny zbiornika"~22 OR "biodegradowalny wanna"~22 OR "biodegradowalnego wanna"~22 OR "biodegradacji zbiornika"~22 OR "rozkładowi zbiornika"~22 OR "biologicznemu wanna"~22) OR PL_AB:("biodegradowalny zbiornika"~22 OR "biodegradowalnego zbiornika"~22 OR "biologicznemu zbiornika"~22 OR "podobny zbiornika"~22 OR "biodegradowalny wanna"~22 OR "biodegradowalnego wanna"~22 OR "biodegradacji zbiornika"~22 OR "rozkładowi zbiornika"~22 OR "biologicznemu degradával"- 22.00 " biodegradáva#-22.00 "reconvetário bio readával"- 22 OD "to aradâusia", 22 OD "

Supervised mode: 4 steps

Step 1: enter your query, select the query language, the expansion mode, define the level of precision and click the *Select Domains* button:

Search terms * biodegradable cup		н
Query Language English The language of your query	Expansion Mode: Automatic Use the Supervised Use the Supervised mode to select the technical domains, the relevant variants, the languages to translate your query to and the fields to search by	Precision level High Influences the precision of the suggested variants Highest level considers only the most relevant ones (less suggested variants) Lowest level considers the less relevant as well (more suggested variants)
		Select Domains

Step 2: Select the technical domain/s:

The PATENTSCOPE search system will propose a list of domains to which the keywords you entered in the first step could belong. You can edit the proposals by:

- removing the technical domains that are not relevant with just one click on the cross next to the domain:

T

selecting relevant domains in the drop-down menu:

Select one or more techinal domains relevant to your search terms	
Domains *	
ICHEMI Chemical & Materials Technoloav 🗙 IMANUI Manufacturina & Materials Handlina Tech 🗙 IPACKI Packaaina & Distribution of Goods X	
[ADMN] Admin, Business, Management & Soc Sci	
[AERO] Aeronautics & Aerospace Engineering	
[AGRI] Agriculture, Fisheries & Forestry	
[AUDV] Audio, Audiovisual, Image & Video Tech	
[AUT0] Automotive & Road Vehicle Engineering	
IRI DRI Civil Engineering & Ruilding Construction	

Up to 5 domains can be selected.

_

Then click the *Expand Synonyms* button

Step 3: Select the variants relevant to your query

The system will suggest variants for the terms of your initial query. Variants are proposed for each term of your query click the *term* button to check the proposals for all the terms. Select the checkboxes next to the variants relevant to your query. If you know a variant that is not in the proposed list, click on *Add variant* button, enter the variant in the box and select the relevant domain.

deo Tech × [CHEM] Chemical & Materials Tec ndling Tech × [PACK] Packaging & Distributi		Ť
		-
ancillary piece	Close	
earpiece	earphone	
ramming		
	L hollow	
		Add variant
ADABLE		
	ndling Tech × [PACK] Packaging & Distribution	hdling Tech X [PACK] Packaging & Distribution of Goods X ancillary piece aramming cushion cuvette pot pit pit pit bowl

Please note that is necessary to check if each displayed variant applies otherwise you might have incomplete results.

Click on *Translate Selected Terms*.

English French German Spanish Po Danish IPC 1	tuguese Japanese Russian Chinese Korea	n Italian Swedish Dutch Polish
Search terms * "car" OR "wagon" OR "automotive" OR "m	tor vehicles" OR "automobile" OR "auto" OR "wagg	on"
		Remove this translation
Field(s) you want to search: *	Acceptable distance between matched	Stemming 4
Title	Minimal	
Abstract	Sentence	
Description	Paragraph Page	
Claims	Unconstrained	Start Over Back Search 5

Step 4: Check the proposed translations and define the fields in which the search should be performed.

1. Check the translated terms by going in each tab. The *remove translation* button will remove language that the user is not interested in

- 2. Define the fields where the search will be performed. We recommend using title and abstract because it is fast. If you are not satisfied with the amount of results, add then first claims and finally description to the scope of your query to try to find more results.
- 3. Define the distance between the words. We recommend using the unconstrained option when searching titles and abstracts. If you search description or claims, we recommend using the sentence or paragraph distance to make sure the concepts you search appear close to one another in the text of the returned results.
- 4. Untick the *Stemming* option if you would like to have results including only the exact term of your search. Stemming uses the root form of the word, for example if you search "swim", the results will include swimming, swimmers etc.

5. Click on *Submit Query*. Results will be retrieved from the PATENTSCOPE search service and results will be displayed.

5. Chemical structure search

Available from the Search menu, for logged-in users, the chemical structure search allows users to search for chemical information in PATENTSCOPE

IP PORTAL ME	NU	PATENTSCO	PE	What is this? \times	HELP	english	LOGIN	WIPO
				Feedback	Search 🔻	Browse V	Tools v	Settings
CIMD				1	Simple			
SIMP	LC	JEAR		7	Advanc	ed Search		
Using PATENTS	COPE yo	u can search 78 r	million p	patent documents including 3.7 million publish	Field Co	ombination		
Detailed cover PCT Publication			now ava	ilable. The next publication date is scheduled	Cross L	ingual Expansio	n	
[30.01.2020]. <u>M</u>	lore				Chemic	al compounds (I	login require	
Field Front Page			Ŧ	Search terms				Q
							Query I	Examples

If you do not have a WIPO account to login-in, please see Login section of this Guide menu.

There are four options to perform a search.

Convert structure Structure editor	SubStru	Icture Upload structure
Search type Compound name	Ŧ	Type an accepted name, commercial name, CAS name, IUPAC name
Search for scaffold		
Offices All		•
		Reset Show in editor Exact Structure Search

Convert structure tab

Convert a structure allows users to select the input type of the search such as the name of the chemical compound.

Search type Compound name	•	Type an accepted name, commercial name, CAS name, IUPAC name	
Compound name			
INN		no]-1-methyl-1H-benzimidazol-2-yl}butanoic acid	
InChl		5-17[11-13]21-16-10-7 -12;5-3-4-6-14[12]18[16]19-15;/h3-11H,1-2H3;1H/q+1;/p-1	
SMILES			
All			
			_

Different option to enter your search are available: name of the chemical compound such as trivial name, commercial name, IUPAC name or CAS name, the International Nonproprietary Name (INN) InchI, InchIkeys or SMILES.

You can submit your query directly or check the structure using the show in editor. This button will process the input data to convert the compound name, INN, InchI or SMILES into the corresponding structure

Structure editor tab

Structure editor allows users to draw or edit a structure. Chemical structures, reactions and fragments can be drawn in a very intuitive way using the symbols familiar from chemical sketches on paper.

Convert structure Structure editor SubStructure Upload structure	
	^
	_
	~
Search for scaffold	
Offices All	*
Reset Substructure Search Exact Structure Search	Evaluate

Upload structure tab

Upload a structure allows users to upload a chemical description file in a supported format; for example: MOL, SMILES as well as a bitmap representation of the chemical compound such as png, gif, tiff, jpeg format. The Search for scaffold button will enlarge the search as the compound will be searched more generally, taking into consideration only the 1st part of the InchIKey. The scaffold is Basic skeleton of a molecule to which further groups and moieties are attached Structure editor tab

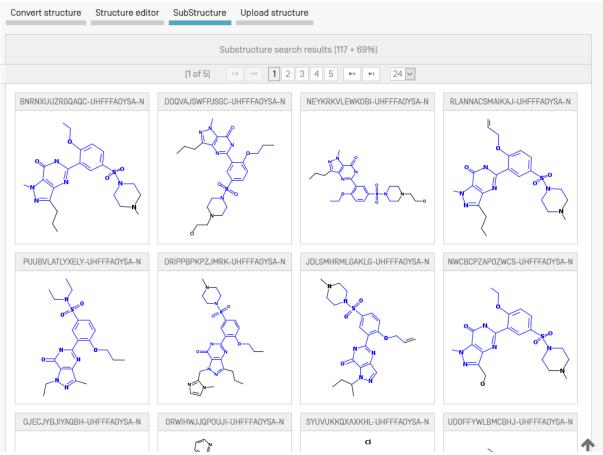
Convert structure	Structure editor	SubStructure	Upload structure	
Select a structure	file (MOL) or image	file (PNG, GIF, TIF	F, JPEG] and upload it.	Upload
				Reset

Substructure search tab

Additionally to the "Exact Structure Search", the functionality to search substructures within chemical compounds is now also available. The "Substructure Search" can be submitted from the "Structure editor".

Convert structure Structure editor SubStructure Upload structure	
	~
InChI: InChI=1S/C22H30N604S/c1-5-7-17-19-20[27[4]25-17]22[29]24-21[23-19]16-14-15[8-9-18[16]32-6-2]33[30,31]28-12-10-26[3]11-13-28 /h8-9,14H,5-7,10-13H2,1-4H3,[H,23,24,29] InChiKey: BNRNXUUZRGQAQC-UHFFFA0YSA-N Molecular Formula: C22H30N604S Molecular Weight: 474.5846 G/mol	
Search for scaffold	
Offices All	
Reset Substructure Search Exact Structure Search	•

After a substructure search has been launched, a list of structures containing the query molecule will be returned (ordered as a grid). The matching substructure is shown highlighted (blue color) by each molecule hit.



You can select one or several structures before submitting the search by clicking on the checkboxes or you can select (or deselect) all the chemical compounds on the page clicking the buttons "Select all" (or "Clear all").

A maximum of 1024 chemical compounds can be selected for the search of the patents. If selection contains more than 1024 chemical compounds, a message will be displayed as shown in *Error! R eference source not found*.

If the "substructure search" takes longer than 4 sec., a link with the label "Show more" will appear on the last page indicating that the substructure search is not completed (s. **Error! Reference source not f ound.**). This information may also be inferred by the percentage of the result list at the top of the substructure list.

Jif La	Highord High	⁶
BNRNXUUZRGQAQC-UHFFFA0YSA-0		
	Show more [5 of 5] ¹⁴ ⁴ 1 2 3 4 5 ^(b) 24 ^v	
□ Search for scaffold		
Offices All		•
	Reset Clear all Select all	Search

Markush Search in PATENTSCOPE

Markush searching refers to finding an exact structure or a substructure or a fuzzy structure of interest in documents with a range of chemical structures defined by a Markush structure

Within the PATENTSCOPE system there are two ways of carrying out a Markush search.

<u>Firstly</u>, in order to enable a rapid search within structures contained in documents defined by a Markush formula, these Markush structures have been enumerated and the relevant document annotated with the respective InchiKeys in the same way as for the normal chemical structures in PATENTSCOPE documents which have been identified as chemical related.

This function is available in the Chemical Compounds Search opening page by selecting the "Include enumerated Markush structures" function and by clicking on the "Exact Structure Search" button:

WIPO IP PORTAL MENU PATENTSCOPE		Covid-19 Update $ imes$	HELF	PAUL HALFPENNY	🗘 🖨	WIPO
			Feedback Goto Search 🔻	Browse V Tools V	Settings	
CHEMICAL CO	OMPOUND	S SEARCI	Н •			
Convert structure Upload structure	Structure editor	Found compounds	Found Markush Formulas			
Search type Compound name	▼ Fype an accepted name	e, commercial name, CAS nan	ne, IUPAC name			
Search for scaffold						
Include enumerated Markush structure	res					
Offices All					Ŧ	
			Reset Show in editor	Exact Structure Se	arch	
						

The results are displayed as follows:

Note the new PATENTSCOPE search field ENUM that is used to index the enumerated InchiKeys.

WIPO IP PORTAL	MENU	PATENTSCOPE	Covid-19 Update 🗙	HELP JOHN DOE	Ç 🕀	WIPO
			Feedback (Goto Search ▼ Browse ▼ Tools	 Settings 	
	CHEM	(AQIXAKUUQRKLND-UHFFFAOYSA-I) OR ENUI	M:(AQIXAKUUQRKLND-UHFFFAOYSA-N)	>	Q	
	27,98	results Offices all Languages en Stemming true	Single Family Member false Include NPL true	B D S	# D 🗆	
	Sort: Pub	Date Asc 🔻 Per page: 10 🔻 View: All 💌	< 1/2,799 ▼ >	Download 🔻 Machine	translation 🔻	
		00002857324 99 <u>C07D 233/64</u> ⑦ Appl.No Applicant Inventor			DE -	
		<mark>376054558</mark> チオウレア化合物の製法 ms <u>C07D 233/64</u> ⑦ Appl.No 1975106455 Applicant	Inventor グラハム ジヨン デユラント	- qL	- 13.05.1976	
		3 <mark>76125074</mark> 複素環式化合物の製法 ss <u>C07D 233/64</u> ⑦ Appl.No 1975106460 Applicant	Inventor トーマス ヘンリー プラウン	- JP	- 01.11.1976	
	Int.Cla Proces specifi	D13678 PROCESS FOR PREPARING HETEROCYCLICAL ss <u>C07C 67/00</u> Appl.No 05606269 Applicant Smill sf or preparing heterocyclicalky(thiolakyl-N-cyanoguanidine) products are N-cyano-N*-rethyl-N*-[:2-[[5-rmethyl-4-imills sh tamine H.sub.2 - antagonists. Products are N-cyano-N*-rethyl-N*-[:2-[[5-rmethyl-4-imills	th Kline &; French Laboratories Limited Inventor Bro s and thioureas by treating a heterocyclicalkyl derivati	wn Thomas Henry ve with a mercaptoalkyl-N-cyanoguanidine or ti		
		3446 PROCESS FOR PREPARING 4-SUBSTITUTED IMI ss C07D 233/54 ⑦ Appl.No 6644677 Applicant SMI		PT -	- 01.05.1977	

The advantages of the Markush search by enumerations are:

- Simplicity: you only need to tick a box to search Markush Formulae
- Response times: the search is executed in a matter of seconds
- Full power of combination with all other PATENTSCOPE fields using Boolean logic: for example if you want to search cimetidine in Markush structures but only documents concerning Mandelson syndrome, you could use the search query: "ENUM:(AQIXAKUUQRKLND-UHFFFAOYSA-N) AND EN DE:Mandelson"

The disadvantages are:

- Reduced recall: the Markush enumeration algorithm enumerates each Markush formula to a maximum number of 500 Inchikeys, starting with the simpler structures that match the Markush definition. The more complicated structures will not be retrieved.
- Only exact compound searches can be conducted

<u>Secondly</u>, another more elaborate search is available from the structure editor page. To arrive at this page when you are using a name, or chemical formula as your input, firstly, type in your search term and then click the "show in editor" button as shown below:

WIPO IP PORTAL	MENU PAT	ENTSCOPE			Covid-19 Upd	late $ imes$			HELP	CHRISTOPH	E MAZENC	Ĉ	硷	WIPO
						Fe	edback	Goto	Search 🔻	Browse V	Tools 🔻	Setting	gs	
	CHEN	IICAL C	ΟΜ	IPOUN	DS SE	AR	СН	•						
	Convert structu	re Upload structure		Structure editor	Fou		ids Fo	und Mari	kush Formul					
	Search type Compound na	ne	*	Type an accepted lansoprazole	name, commercia	al name, CAS	name, I	UPAC nar	ne					
	□ Search for s	caffold												
	🗆 Include enu	merated Markush struct	ures											
	Offices All											T		
							Rese		Show in edito	or Eac	t Structure S	earch		

In this case the search term is lansoprazole and when the structure editor opens you need to scroll down to beneath the structure window and a tab with the option of "Markush Search" is visible which gives the option of four different search types, see below:

onvert structure Upload structure	Structure editor	Found compounds	Found Markush Formulas	
	- c. () **** 2 0 0 0 0			
F				ĺ
0	j r			
N Store				
Ň				
InChl: InChl=15/C16H14F3N302S/c1-10-13(2	20-7-6-14(10)24-9-16(17,18)19)8-25(2:	3)15-21-11-4-2-3-5-12(11)22	15/h2-7H,8-9H2,1H3,[H,21,22]	
InChiKey: MJIHNNLFOKEZEW-UHFFFAOYS Molecular Formula: C16H14F3N302S		3)15-21-11-4-2-3-5-12(11)22-	15/h2-7H,8-9H2,1H3,(H,21,22)	
InChiKey: MJIHNNLFOKEZEW-UHFFFAOYS		3]15-21-11-4-2-3-5-12(11)22-	15/h2-7H,8-9H2,1H3,(H,21,22)	
InChiKey: MJIHNNLFOKEZEW-UHFFFAOYS Molecular Formula: C16H14F3N302S	A-N		15/h2-7H,8-9H2,1H3,[H,21,22]	Ł
InChiKey: MJIHNNLFOKEZEW-UHFFFAOYS Molecular Formula: C16H14F3N302S Molecular Weight: 369.3664 g/mol	A-N Fuzzy and ranked substructure Sea	l rch	15/h2-7H,8-9H2,1H3,(H,21,22)	Ŀ
InChiKey: MJIHNNLFOKEZEW-UHFFFAOYS Molecular Formula: C16H14F3N302S Molecular Weight: 369.3664 g/mol Search for scaffold	A-N Fuzzy and ranked substructure Sea Fuzzy substructu Search	l rch re	15/h2-7H,8-9H2,1H3,(H,21,22)	£
InChiKey: MJIHNNLFOKEZEW-UHFFFAOYS Molecular Formula: C16H14F3N302S Molecular Weight: 369.3664 g/mol Search for scaffold	A-N Fuzzy and ranked substructure Sea Fuzzy substructu Search Substructure Sea	l rch re	15/h2-7H,8-9H2,1H3,(H,21,22)	
InChiKey: MJIHNNLFOKEZEW-UHFFFAOYS Molecular Formula: C16H14F3N302S Molecular Weight: 369.3664 g/mol Search for scaffold	A-N Fuzzy and ranked substructure Sea Fuzzy substructu Search	rch rc		· · · · · · · · · · · · · · · · · · ·

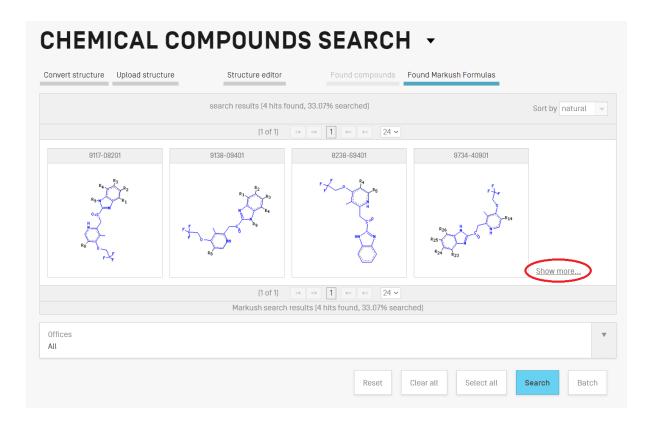
This search uses a manually-curated database where the structures are represented as chemical MOL files and the search uses a complex chemical matching algorithm.

You can specify the matching algorithm you want to be applied between your search structure and the Markush formulae indexed in the system:

- exact match
- substructure match
- fuzzy match

This more complex search technique takes longer and once the first illustrative results are displayed there is the option of a batch search in which your search will carry on in the background and your results will be available in your PATENTSCOPE account a while later.

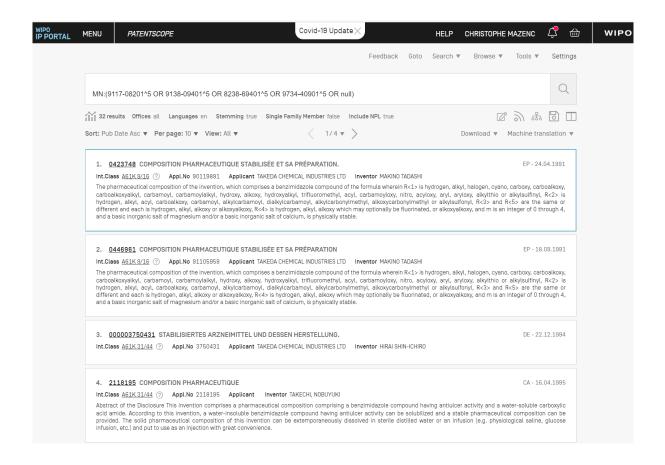
Clicking on the "show more" link allows to search interactively for more matches for one more minute and the percentage of the indexed Markush structures that have been searched so far increases accordingly:



Markush structures are identified by their unique number, attributed by Clarivate Analytics (Here: 9117-08201, 9138-09401,...)

When you are satisfied with the found Markush structures (or have searched them all), the next step is to search for the corresponding patent documents. This is done by selecting the displayed Markush structures of interest up to a maximum of one thousand (you can click on the "select all" button if applicable) and then click on the "Search" button.

And finally you get the PATENTSCOPE results list:



The MN search field also allows you to search directly if you already have one or more Clarivate Markush numbers to search.

Please note:

- The search by matching structures implemented in PATENTSCOPE has a limitation in the sense that all repeating groups in the indexed Markush structures are standardized to one repetition ie. in a chemical structure with –(CH₂)_n- only n=1 will be found. As a consequence, you may need to manually edit your searched structures if it contains similar repeating groups.
- 2. There is the capacity to define variable groups for your searched structure in the structure editor. This is achieved by using the pre-defined groups to change an atom properties by firstly drawing a skeleton, selecting the atom properties where you wish to place the pre-defined group using the highlighted button in the image below, selecting the query atom button where you have the choice of pre-defined groups to take the place of the selected atom:

Edit Atom Properties	
Atom properties Query ator	
Acyclic Hydrocarbons (linear or branched, no rings):	Heterocyclic Systems (at least one hetero atom):
CHK saturated C-chain	HET monocyclic, non- aromatic
CHE unsaturated C-chain, no triple bond	HEA monocyclic, aromatic
CHY unsaturated C-chain, with triple bond	HEF polycyclic, aromatic and/or non-aromatic
Carbocyclic Systems (mono- or polycyclic rings, no hetero atoms):	
CYC aliphatic	ARY at least one aromatic ring
ОК	Cancel
	Edit Atom Properties Usery ator Acyclic Hydrocarbons (linear or branched, no rings): CHK saturated C-chain, CHE unsaturated C-chain, no CHY unsaturated C-chain, with triple bond ChY unsaturated C-chain, CHY CHY UNSATURATE CHY CHY CHY CHY CHY CHY CHY CHY CHY CHY

Markush searching using the matching algorithms has the following advantages:

- Recall: all structures matching a given Markush structure can be searched (not only the 500 simplest ones as for the enumerated structures)
- Richness of what to search: Markush structures can not only be searched for exact compounds but also for compounds with specified variable groups
- Richness of how to search: three levels of matching algorithms are provided with increasing recall and decreasing precision: exact, substructure, fuzzy substructure which automatically introduces the variable groups as above in the query atom tab

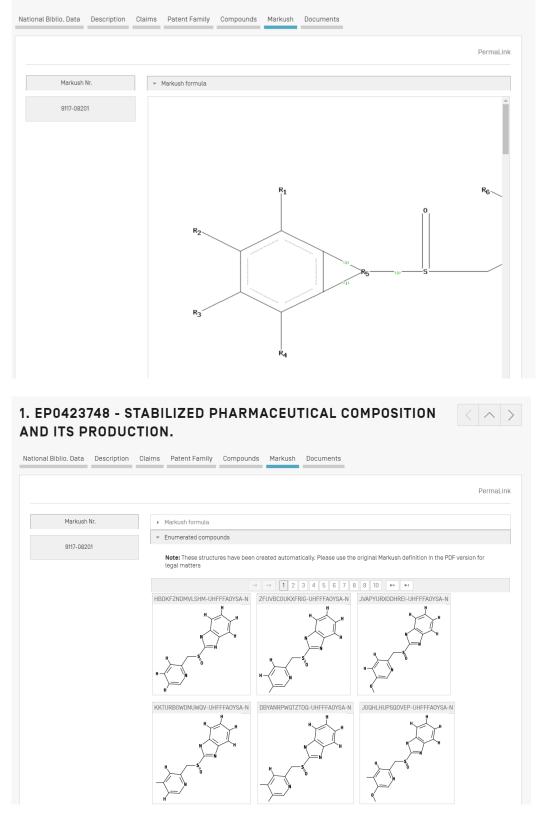
And the following disadvantages:

- Very long response times
- Repeating groups not supported
- Complexity: chemical knowledge required to select the found Markush structures of interest

To conclude, when viewing the search result record details of a patent document, a new tab has been defined to display the associated Markush structures and enumerations:

 $\langle \land \rangle$

1. EP0423748 - STABILIZED PHARMACEUTICAL COMPOSITION AND ITS PRODUCTION.



FAMILIES IN PATENTSCOPE

DEFINITION

PATENTSCOPE Patent Families denominate the grouping of different publications of the same invention by different authorities.

The PATENTSCOPE Patent Families include patent documents via the PCT route and the Paris route.

- The PCT families are a subset of the PATENTSCOPE Patent Families. They include:
 - 1. A PCT patent application (IC1);
 - 2. Its national entries either
 - a. reported as national entries by the participating offices prior to their publication (IC2 or IC3) or
 - b. after publication as part of the of the bibliographic data, International Convention data other than Paris Convention (IC2); and
 - 3. Its priority application if first and only priority (IC5);

The PCT families can further by enriched by adding:

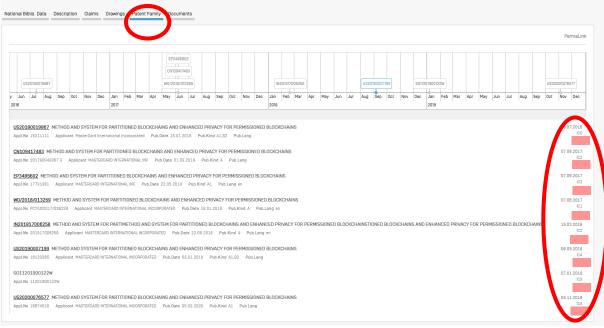
- 4. US related documents of US patents already part of the PCT family such as the divisionals, continuations, reissues and republications of those publications. Continuations in part are not included; and finally
- 5. Any applications that have not followed the PCT route but share the same priorities as the members of the PCT family.

Further to this, the Paris route subset of the PATENTSCOPE Patent Families include:

- 1. All applications that share the same priorities and where there is no PCT application sharing those priorities (IC4); and
- US related documents of the US patents already part of the PCT family such as the divisionals, continuations, reissues and republications of those publications. Continuations in part are not included (IC6);
- 3. The priority application if first and only priority;
- 4. National application related to another application of the same office already included in the family, such as divisionals, continuations, republications etc.

The IC (Inclusion Criteria) codes indicate which of the criteria listed above was first met and used to include the invention in the family. This does not mean that the criteria listed next to the invention it is the only criteria met. A national entry for example that is denoted as IC2 meets also IC4 because it shares the priorities with the PCT application and the other IC2 applications. This information can be found below the application date in the family tab of the patent document:

1. US20190007199 - METHOD AND SYSTEM FOR PARTITIONED BLOCKCHAINS AND ENHANCED PRIVACY FOR PERMISSIONED BLOCKCHAINS



IC CODES

Codes	Definition
IC1	A published PCT application from which family originated
IC2	A national entry of the published PCT application in PATENTSCOPE. If not visible in National Phase tab, taken from bibliographic data of national document
IC3	A national entry of the published PCT application not available in PATENTSCOPE
IC4	US application related to one of the other US application/s
IC5	Application is the only priority of the applications of this family
IC6	Connected by priority field
IC7	National application related to another application of the same national office already included in the family

When hovering the cursor over the code, a window will pop up with the definition of the code in question:

	15.07. <u>2018</u> IC5
Sole priori	ty inside the family
1	07.08.2017 IC2
	07.08.2017 IC1
OR PERMISSIONED BLOCKCHAIN	19.02.2018

IC1: Published PCT application = origin of the family + information in the National Phase tab

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0618735 COMPUTERIZED SYSTEMS AN .No 18288403 Applicant COUPANG CORP. 020200108752 직업 프로세스를 보조:	Pub.Date 14.04.2020 Put	b.Kind B1 Pub.Lang															11.03.2019 IC5 17.05.2019	
.No 1020180057872 Applicant 쿠팡 주식			ing														IC8	
10826959 COMPUTERIZED SYSTEM AN No 201810880058.3 Applicant COUPAND			ang														10.10.2019 IC2	
0200290808 COMPUTERIZED SYSTEM	S AND METHODS FOR ASSIST	TED PICKING PROCESS	SES														03.03.2020	
2020/183372 COMPUTERIZED SYSTEM No PCT/I82020/052071 Applicant COUPP																	10.03.2020 IC1	
020237658 COMPUTERIZED SYSTEMS No 2020237858 Applicant Coupang Corp																	10.03.2020 IC2	
1202011425U COMPUTERIZED SYSTEM No 11202011425U Applicant COUPANG (CORP. Pub.Date 30.12.2020	Pub.Kind A1 Pub.L	ang														10.03.2020 IC2	
No PI 2020006242 COMPUTERIZED SYSTEM																	10.03.2020 IC2	
D20537697 .No 2020537697																	03.07.2020 IC3	
																	28.10.2020	
0210039885 COMPUTERIZED SYSTEM																	154	
2210029885 COMPUTERZED SYSTEM WO202018 CT Biblio. Data Descrip	3372 - 0	COMPL	JTERI		SYST ational Pha			Ces Do			ASS	ISTE	D P	ICK			154	
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Available information on	33372 - C	Drawings	JTERI SR/WOSA/A1 nformation) Entry Date	17[2][a] N			Family Not	ces Do			ASS	ISTE			<u>St</u>		DCE	
Available information on Office Japan	33372 - C	Drawings	JTERI ISR/WOSA/A1	17[2](a) N			Family Not 2020 2020	al Number			ASS	ISTE			<u>St</u>		DCE	

-	US10618735 COMPUTERIZED SYSTEMS AND METHODS Appl.No 16298403 Applicant COUPANG CORP. Pub.Date 1			1	11.03.2019 IC5				
-	<u>KR1020200108752</u> 픽업 프로세스를 보조하기 위한 컴- Appl.No 1020190057672 Applicant 쿠팡주식회사 Pub.D			1	17.05.2019 IC6				
	CN110826959 COMPUTERIZED SYSTEM AND METHOD F Appl.No 201910960058.3 Applicant COUPANG CORP Pub.			11	10.10.2019 IC2				
	US20200290808 COMPUTERIZED SYSTEMS AND METHODS FOR ASSISTED PICKING PROCESSES Appl.No 18808080 Applicant Coupang Corp. Pub.Date 17.09.2020 Pub.Kind A1.82 Pub.Lang								
	W0/2020/183372 COMPUTERIZED SYSTEMS AND METHODS FOR ASSISTED PICKING PROCESSES AppLNo PCT/I82020/052071 Applicant COUPANG CORP. Pub.Date 17.09.2020 Pub.Kind A Pub.Lang en								
	AU2020237555 Cu PUTERIZED SYSTEMS AND METHODS FOR ASSISTED PICKING PROCESSES Incl. Nn. 20202227 Applicent Coupang Corp. Pub.Date 17.09.2020 Pub.Kind A.A1 Pub.Lang								
	SG11202011425U MPUTERIZED SYSTEMS AND METH	HODS FOR ASSISTED PICKING PROCESSES Date 30.12.2020 Pub.Kind A1 Pub.Lang		10	L0.03.2020 IC2				
-	MYPI 2020006242 COMPUTERIZED SYSTEMS AND METH Appl.No PI 2020006242 Applicant COUPANG CORP. Pub.Di			10	10.03.2020 IC2				
	JP2020537697 Appl.No 2020537697			0	03.07.2020 IC3				
	US20210039885 COMPUTERIZED SYSTEMS AND METHO Appl.No 17082214 Applicant Coupcang, Corp. Pub.Date			21	28.10.2020 IC4				
	EP2020769069 Appl.No 2020769069			2:	21.12.2020 IC3				
	Office	Entry Date	National Number	National Status					
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	Japan	03.07.2020	2020537697						
,	Japan Australia		2020537697 2020237658						
		03.07.2020							

Example of information available in the National Phase tab of PATENTSCOPE

US10618735 COMPUTERIZED SYSTEMS AND METHODS FOR ASSISTED PICKING PROCESSES AppLNo 18298403 Applicant COUPANG CORP. Pub.Date 14.04.2020 Pub.Kind 81 Pub.Lang	11.03.2019 IC5
<u>KR1020200108752</u> 픽업 프로세스를 보조하기 위한 컴퓨터화된 시스템 및 방법 AppLNo 1020190057872 Applicant 쿠랑 주식회사 Pub.Date 21.09.2020 Pub.Kind A Pub.Lang	17.05.2019 IC6
CN110826959 COMPUTERIZED SYSTEM AND METHOD FOR ASSISTED SORTING PROCESS Appl.No 201910980058.3 Applicent COUPANG CORP Pub.Date 21.02.2020 Pub.Kind A Pub.Lang	10.10.2019 IC2
US20200290808 COMPUTERIZED SYSTEMS AND METHODS FOR ASSISTED PICKING PROCESSES AppLNo 15808080 Applicant Coupang Corp. Pub.Date 17.09.2020 Pub.Kind A1.82 Pub.Lang	03.03.2020 IC2
WO/2020/183372 COMPUTERIZED SYSTEMS AND METHODS FOR ASSISTED PICKING PROCESSES Appl.No PCT/B2020/052071 Applicant COUPANG CORP. Pub.Date 17.08.2020 Pub.Kind A Pub.Lang en	10.03.2020 IC1
AU2020237658 COMPUTERIZED SYSTEMS AND METHODS FOR ASSISTED PICKING PROCESSES Appl.No 2020237658 Applicant Coupang Corp. Pub.Date 17.03.2020 Pub.Kind A.A1 Pub.Lang	10.03.2020 IC2
SG11202011425U COMPUTERIZED SYSTEMS AND METHODS FOR ASSISTED PICKING PROCESSES AppLNo 11202011425U Applicant COUPANG CORP. Pub.Date 30.12.2020 Pub.Kind A1 Pub.Lang	10.03.2020 IC2
MYPI 2020006242 COMPUTERIZED SYSTEMS AND METHODS FOR ASSISTED PICKING PROCESSES AppLNo PI 2020006242 Applicant COUPANG CORP. Pub.Late 11.09.2020 Pub.Lang	10.03.2020 IC2
JP2020537697 AppLNo 2020537697	03.07.2020 IC3
US20210039885 COMPUTERIZED SYSTEMS AND METHODS FOR ASSISTED PICKING PROCESSES Appl.No 17082214 Applicant Coupoang. Corp. Pub.Date 11.02.2021 Pub.Kind A1 Pub.Lang	28.10.2020 IC4
EP2020769069 Appl.No 2020769069	21.12.2020 IC3
1. CN110826959 - COMPUTERIZED SYSTEM AND METHOD FOR ASSISTED SORTIN	NG PROCESS
National Biblio. Data Description Claims Drawings Patent Family Documents	
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offin 1. US20200290808 - COMPUTERIZED SYSTEMS AND METHODS FOR ASSISTED P Chir App National Biblio. Data Description Claims Drawings Patent Family Documents	ICKING PROCESSES
2018 App 10.10	PermaLink Machine translation 🔻

Example of information taken from the bibliographic data.

For the Chinese, US and Malaysian documents, the "prior PCT field" in the bibliographic data was used. This "Prior PCT field" is a field not shown in the PATENTSCOPE interface. This information is available in the database provided by the offices and which complements the national phase information.

IC3: National entry of a published PCT application not found in PATENTSCOPE 1. W02020183372 - COMPUTERIZED SYSTEMS AND METHODS FOR ASSISTED PICKING PROCESSES

Drawings ISR/W0SA/A17[2][a] National Pha	ase Patent Family Notices Documents	
		Submit observation PermaLir
entries (<u>more information</u>)		
Entry Date	National Number	National Status
03.07.2020	2020537697	
23.10.2020	2020237658	
17.11.2020	11202011425U	
21.12.2020	2020769069	Published: 31.03.2021
	entries (more information) Entry Date 03.07.2020 23.10.2020 17.11.2020	Entry Date National Number 03.07.2020 2020537697 23.10.2020 2020237659 17.11.2020 112020114250

The patent documents in question are not available in PATENTSCOPE because these applications entered the national phase in the relevant offices but were not published yet at the time of the creation of the document.

IC4: US application related to one of the US applications already included in the family as either a divisional, continuation, reissue or republication. Continuations-in-part are not included

CN107368259 METHOD AND DEVICE FOR WRITING BUSINESS DATA IN BLOCK CHAIN SYSTEM AppLNo 201710373983.8 Applicant ALIBABA GROUP HOLDING LIMITED Pub.Date 21.11.2017 Pub.Kind A.B Pub.Lang	25.05.2017 IC5
SG112019092499 METHOD AND DEVICE FOR WRITING SERVICE DATA IN BLOCK CHAIN SYSTEM	23.05.2018
Appl.No 112018092490 Applicant Alibaba Group Holding Limited Pub.Date 28.11.2019 Pub.Kind A1 Pub.Lang	IC2
KR1020190136053 서비스 데이터를 블록체인 시스템에 기입하기 위한 방법 및 디바이스 Appl.No 1020197032391 Applicant 알리바바그룹 흘딩 리미티드 Pub.Jate 09.12.2013 Pub.Kind A Pub.Lang	23.05.2018 IC2
EP3591510 METHOD AND DEVICE FOR WRITING SERVICE DATA IN BLOCK CHAIN SYSTEM Appl.No 18805039 Applicant ADVANCED NEW TECHNOLOGIES CO LTD Pub.Date 08.01.2020 Pub.Kind A1,A4,B1,B8 Pub.Lang en	23.05.2018 IC2
<u>VN1201905514</u> PHƯƠNG PHÁP VÀ THIẾT BỊ ĐỂ GHI DỮ LIỆU DỊCH VỤ TRONG HỆ THỔNG CHUỗI KHỔI	23.05.2018
Appl.No 1201905514 Applicant ALIBABA GROUP HOLDING LIMITED Pub.Date 30.01.2020 Pub.Kind A Pub.Lang	IC2
J <u>P2020521254</u> サービス・データをブロックチェーン・システムに書き込むための方法およびデバイス	23.05.2018
Appl.No 2019565191 Applicant アリババ・グループ・ホールディング・リミテッド Pub.Date 16.07.2020 Pub.Kind A Pub.Lang ja	IC2
WO/2018/214898 METHOD AND DEVICE FOR WRITING SERVICE DATA IN BLOCK CHAIN SYSTEM	23.05.2018
Appl.No PCT/CN2018/087968 Applicant ALIBABA GROUP HOLDING LIMITED Pub.Date 29.11.2018 Pub.Kind A Pub.Lang zh	IC1
MYPI 2019005762 METHOD AND DEVICE FOR WRITING SERVICE DATA IN BLOCK CHAIN SYSTEM	23.05.2018
Appl.No PI 2019005762 Applicant ALIBABA GROUP HOLDING LIMITED Pub.Date 25.11.2018 Pub.Kind A Pub.Lang	IC6
US20200019545 METHOD AND DEVICE FOR WRITING SERVICE DATA IN BLOCK CHAIN SYSTEM	26.09.2019
Appl.No 16594573 Applicant ALIBABA GROUP HOLDING LIMITED Pub.Date 16.01.2020 Pub.Kind A1 Pub.Lang	IC4
IN201947040213 METHOD AND DEVICE FOR WRITING SERVICE DATA IN BLOCK CHAIN SYSTEM AppLNo 201947040213 Applicant ALIBABA GROUP HOLDING LIMITED Pub.Date 29.11.2019 Pub.Kind A Pub.Lang en	04.10.2019 IC2
US20200167344 METHOD AND DEVICE FOR WRITING SERVICE DATA IN BLOCK CHAIN SYSTEM	28.01.2020
Appl.No 16775118 Applicant ALIBABA GROUP HOLDING LIMITED Pub.Date 28.05.2020 Pub.Kind A1.82 Pub.Lang	IC4

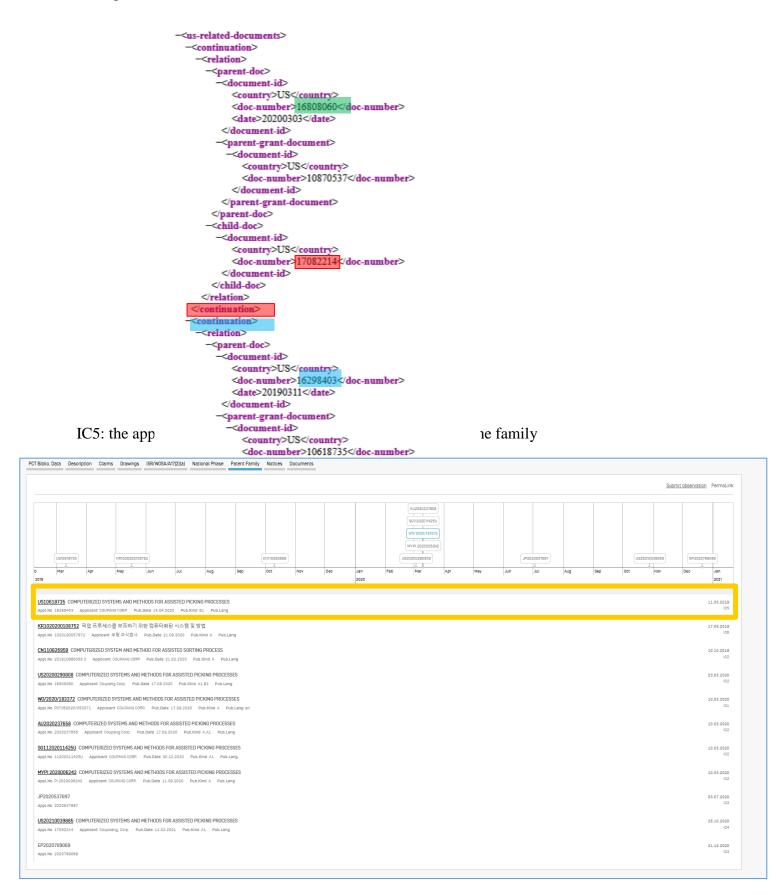
The relationship between the members of the family can be viewed in the *Description* tab or in the XML available in the *Documents* tab:

1. US20200167344 - METHOD AND DEVICE FOR WRITING SERVICE DATA IN BLOCK CHAIN SYSTEM

National Biblio. Data Description Claims Drawings Patent Family Documents
PermaLink Machine translation 💌
Note: Text based on automatic Optical Character Recognition processes. Please use the PDF version for legal matters
CROSS REFERENCE TO RELATED APPLICATIONS
The present application is a continuation application of U.S. patent application Ser. No. 16/504,579, filed on Sep. 26, 2019, and titled "Method and Device for Writing Service Data in Block Chain System," which is a continuation application of the International Patent Application No. PCI/CN2019/097968, filed on May 22, 2018, and titled "Method and Device for Writing Service Data in Block Chain System," which claims priority to Chinese Patent Application No. 2017/0379893.8 filed on May 25, 2017. The entire contents of all of the above applications are incorporated herein by reference in their entirety.
TECHNICAL FIELD
The present application relates to the field of computer technologies, and in particular, to a method and device for writing transaction data in a blockchain system.
BACKGROUND
With the development of computer technologies, blockchain technologies [also referred to as distributed ledger network] have been extensively used, due to advantages such as decentralization, openness and transparency, immutability, and trustworthiness, in various fields, such as smart contracts, securities transactions, e-commerce, Internet of Things, social communications, document storage, existence proof, identity verification, and equity crowd-funding.
When a transaction system is implemented based on blockchain technologies, the transaction system (which may also be referred to as a blockchain system as the system is implemented using blockchain technology needs to write transaction data in a blockchain a blockchain. When the blockchain system created to a blockchain (which may also be referred to as a transaction in blockchain technologies), the blockchain system created to a blockchain (which may also be referred to as a transaction in blockchain technologies), the blockchain system chronologically executes these transactions using a first-in first-out sequence, thereby completing operations such as transaction verification, implementation, writing data into blockchain, etc.
In current technologies, to fully and reasonably use computation resources of a blockchain system, the blockchain system may comprise many different types of transactions and equally treat these different types of transaction data chronologically is unable to meet application demand. For example, when various types of information having different types are processed, the blockchain system may comprise many different to the sources of a block chain system. The sources of the block chain system may comprise many different types of transactions and equally treat these different types of transactions data chronologically is unable to meet application demand. For example, when various types of information having different confidentiality levels are processed, the blockchain system may receive transactions for processing information of different confidentiality levels. At this point, the information of different confidentiality levels may need to be isolated to prevent leaking information of a higher confidentiality level from and to ensure the information security. Therefore, when a special control needs to be performed on a transaction, the manner of writing blockchain transaction data in current technologies is unable to meet the application demand.
Therefore, there is an urgent need for a method for writing transaction data that can meet transaction processing needs for different types of transaction data in a blockchain system having various types of transaction data.

FAMILY INFORMATION ACCESS

Example of the XML available in the *Documents* tab in PATENTSCOPE:



io. Data Description Claims Drawings ISR/WOSA/A17(2)(a) Natio	nal Phase Patent Family Notices Documents	
	Submit	observation PermaLink
US50515725 Mar Apr May Jun Jul	Aug Sep Oct Nov Dec Jan Pet Mar Apr May Jun Jul Aug Sep Oct Nov	EP2020786089 Dec Jan
		11.03.2018
10618735 COMPUTERIZED SYSTEMS AND METHODS FOR ASSISTED PICKING 10202000108752 픽업 프로세스를 보조하기 위한 컴퓨터파린 시스템 및 방법 1010202000108752 Applicant 무글 자신회사 Pub.Date 21.08.2020 Pub.KG		11.03.2019 17.05.2019 IC8
K110826959 COMPUTERIZED SYSTEM AND METHOD FOR ASSISTED SORTING pLNo 201810880058.3 Applicant COUPANG CORP Pub.Date 21.02.2020 Pub.		10.10.2019 IC2
S20200290908 COMPUTERIZED SYSTEMS AND METHODS FOR ASSISTED PICK opt.No 18808080 Applicant Coupang Corp. Pub.Date 17.08.2020 Pub.Kind Al,	INO PROCESSES	03.03.2020 IC2
OV2020/183372 COMPUTERIZED SYSTEMS AND METHODS FOR ASSISTED PIC DoLARD PC/0820/052071 Applicant COUPANG CORP. Pub.Date 17.09.2020 Pu	KING PROCESSES	10.03.2020 IC1
U2020237658 COMPUTERIZED SYSTEMS AND METHODS FOR ASSISTED PICKI opt. No 2020237658 Applicant Coupang Corp. Pub.0ate 17.09.2020 Pub.I0nd /	NG PROCESSES	10.03.2020 IC2
G11202011425U COMPUTERIZED SYSTEMS AND METHODS FOR ASSISTED PIC		10.03.2020 IC2
1. KR1020200108752 -	픽업 프로세스를 보조하기 위한 컴퓨터화된 시스템 및 방법	10.03.2020
P202000 National Biblio. Data Description Claims Dr	ravings Patent Family Documents	03.07.2020
IS2021003988	PermaLink Machine translation 🔻	28.10.2020
Office Office Office Republic of Korea Application Number 10201769069 102017090 Application Number 1020190007672	Title [K0] 픽업 프로세스를 보조하기 위한 컴퓨터하된 시스템 및 방법	104 21.12.2020 103
Application Date 705.2019 Publication Number 102220009752 Publication Date 21.09.2020 Publication Kind A IPC 0060 10/00 0000 10/10 CPC		
6068 10/087 6068 10/083 6669 10/083 Applicants 무당 주소입사 Inventors 2031년 2031년 2031년 2031년 2031년 2032 2032	[변화] - 한 [변화] - 한 [변화] - 한 [편] Abstract [M0] 이 사용의 실시에들은 적이도 하나의 프로비서와 명칭이들은 재장하는 메모리를 프로하는 철표의 구경 사스탑은 프라먼다. 일 실시에에서는 시스템의 백치 실별자를 수식하고 컨테이너의 계수를 관향하고 컨테 이너의 유수를 사용자 디바이스트 전문하고, 그러고 사용자 디바이스트워드 꽤 전립이니서 발치를 수십미다. 시스템은 제 아이템의 위치 실별자를 검색하고, 위치 식별자를 사용자 디바이스트 운영자고, 그러고 사 용자 디바이스트로워트 클릭귀에 위치 식별자를 수십마다. 시스템은 클리히 위치 식별자가 위치 식별자가 무치될 때 해 아이템을 사용자 디바이스트 전용한다. 시스템은 제 아이템의 블리히 아이템의 설리하 우신하고 컨 테이너를 가져온 북쪽자를 사용자 디바이스트 중십만다.	
김종 Asents 역 및 고백 8 8 Priority Data 19228403 11 03, 2019 US	Also published as Usidenezasi Chimoszessa Uszczczezegea Wuzczczmesarz Auzczczatesa senizozoniużsu Miny zczodobzał uprozostnem Uszczrodoseges Eprozotnegoeg	
National Biblio. Data Descripti	9 - COMPUTERIZED SYSTEM AND METHOD FOR AS	
Office China	1. AU2020237658 - COMPUTERIZED SYSTEMS AND METHODS FOR ASS National Biblio. Data Description Claims Drawings Patent Family Documents	ISTED PIC
Application Number 201910860058.3		
Application Date	Office Title	

IC6: applications included in the family based on matching priorities

IC7. a national application related to another application of the same national office already included in the family. It indicates the relationships such as divisionals, republications, reissues etc. It can be considered as the equivalent of IC4 for other national offices than the USPTO.

al Biblio. Data	Patent Family Docu	ments					
							PermaLink
NZ594073							NZ598265
_	Aug	Sep	Oct	Nov	Dec	Jan 2012	Feb
	RE DRAIN FORMING APP opplicant Peter Sutherland	PARATUS I Pub.Date 27.04.2012 Pul	b.Kind B Pub.Lang en				14.07.2011 IC7
598255 PASTU	RE DRAIN FORMING API	PARATUS					16.02.2012 IC7

GROUP RESULTS BY FAMILIES

To use the "Single Family Member" option, go to:

1) The result list (also when using the Simple search interface) to select the option *Single Family Member* to open the *Refine Options*:

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2) The Advanced Search offers the option to select the *Single Family Member* option before the search:

ADVANCED SEARCH -

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Single Family Member		
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3) The Field Combination offers the option to select families before the search:

FIELD COMBINATION -

		Field Front Page	Ŧ	Value	?
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(+) Add another search field (-) Reset search	fields				
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THE COOPERATIVE PATENT CLASSIFICATION

The Cooperative Patent Classification (CPC) system, in force as of 1 January 2013, is a bilateral system that 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:

- 59 National offices+PCT: gathered regularly from DocDb and the national offices. PATENTSCPE contains, at the time of writing this Guide, more than 290 million of CPC entries, which correspond to more than 51 million of distinct filings.
- Daily updates

IP5	N. of distinct filings classified under CPC classification
US	11,538,100
CN	8,875,231
JP	5,337,705
EP	3,777,520
KR	2,058,568

CPC statistics as of February 2020

SEARCH FIELDS

2 search fields are available: CPC, Classif. Classif is the combination of CPC and IPC.

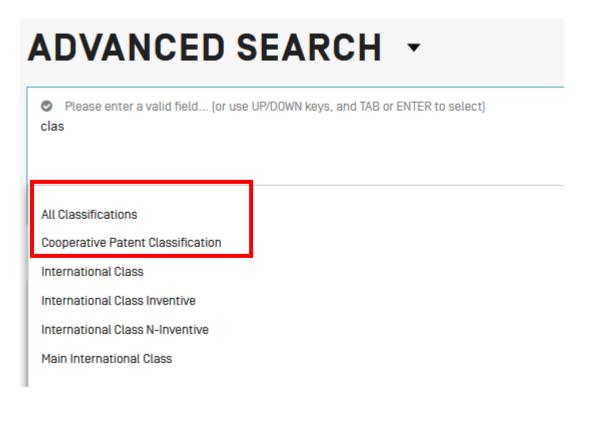
In the example below, the query: CPC:(Y02A*) returns almost 550,000 results, which are grouped by family.

appan 6.5.19 Jappan 67.47 PIONEER HI BRED INITERNATIONAL NC 1.00 MARVED THE INBITITIE Andia 6.0.07 2013 22.42 U 0.000	NALYSIS	eseries												Close
paper 6.319 Japan 8.74 PIONEER HIBRED INTERVATIONALINE 203 RAME DIFERINGTIONE And 0.01 20.30 22.42 U 0.000	Countries		Offices		Applicants		Inventors		IPC) code	Publica	tion Dates	Ki	nd code
anada 18.07 Australia 18.79 Australia 18.79 HITACH LTD 951 CMALL VERA 418 C07K 28.847 2019 40.917 T3 9.988 rance 9.94 France 9.949 France 9.949 Trance 9.949 France 9.949 Trance 9.949 10.079 A2 9.049 9.949 9.949 9.949 9.949 9.949 9.949 9.949 9.949 9.949	apan Inited States of America ICT uropean Patent Office	85,319 41,872 40,754 32,183	Japan United States of America PCT European Patent Office	87,447 54,889 40,754 35,525	PIONEER HI BRED INTERNATIONAL INC MONSANTO TECH LLC GLAXOSMITHKLINE BIOLOGICALS SA	1,208 1,170 1,098	WAIVED THE RIGHT TO BE MENTIONED WANG WEI LI WEI BEVEC, DORIAN BACHER, GERALD	477 489 422	A016 B01D A61P A01K	80,307 53,928 48,241 47,857	2013 2014 2015 2016 2017	22,642 25,285 27,300 34,312	U A1 B2 B B1	215,829 90,097 50,918 49,473 43,099 32,826
	anada rance	18.007 9,949	Australia France	18,739 9,949	UNIVERSITY OF CALIFORNIA HITACHI LTD MITSUBISHI HEAVY IND LTD TOYOTA MOTOR CO	951 869 841	CAVALLI, VERA LIU WEI ZHANG WEI	418 408 405	C07K C05F	28,347 25,455	2019 2020	40,817 21,642	T3 Y	11,032 9,388 8,009 8,802

To search for CPC information, go to the Field Combination and select *All Classifications* (combination of IPC and CPC) from the drop-down menus

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Operator AND	Ŧ	Field Cooperative Patent Class	*	Value	?	
Operator AND	Ŧ	Field Publication Date	Ŧ	Value	?	

Those fields can also be found in the Advanced Search: just start typing *class* and the matching fields will appear below:



THE BROWSE MENU

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SIMPLE SEARCH	Gazette Archive	
Using PATENTSCOPE you can search 95 million patent documents including 4.0 million published international patent applications (PCT).	Sequence listing	
PCT publication 12/2021 [25.03.2021] is now available here. The next PCT publication 13/2021 is scheduled for 01.04.2021. More	 National Phase Entries 	
Check out the new PATENTSCOPE features: CPC, NPL, Families	National Phase Entries Full download	
New Search Facility to Support COVID-19 Innovation Efforts	National Phase Entries Incremental download [last 7 days]	
	✓ Authority File	
Field v Search terms	Authority File Download Standard ST37	Q
	Authority File Download current year	Query Examples
	Authority File Download All	

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WIPO publishes new PCT applications every week on Thursday. Selecting *Browse by week* gives access to a list of PCT applications by publication week.

BROWSE BY WEEK (PCT)

Gazette 37/2019 [12.09.2019]					*
Excel Download IPC Statistics					
Results 1 - 200 of 4584	□ < 1 2 3	4 5 6 7	8 9 10	▶ ►I	
Title	Kind	Appl.No		Applicant	
1. <u>W0/2019/173151</u> SMART BLADE TECHNOLOGY TO CONTROL BLADE INSTABILITY	Initial Publication with ISR[A1]	US2019	A61B 17/32	ETHICON LLC	
2. <u>W0/2019/173154</u> [METH]ACRYLATE COPOLYMER COMPOSITIONS AND USE THEREOF AS POUR POINT DEPRESSANTS FOR CRUDE OIL	Initial Publication with ISR[A1]	US2019	C10M 145/14	ROHM AND HAAS COMPANY	
3. <u>W0/2019/173157</u> CONDUCTIVELY-COOLED SLAB	Initial Publication	US2019	H01S	COHERENT, INC.	

Use the arrow of the drop-down menu to select a PCT publication week.

Gazette 37/2019 (12.09.2019)

The result list can be downloaded using the Excel download button and IPC statistics can be accessed:

azette 37/2019 (12.09.2019)	Ŧ
Excel Download IPC Statistics	

IPC statistics available in PATENTSOCPE provide a picture of the global trends in PCT applications. For example, it can show who the main and/or new main actors are etc. It takes into account applications that have IPC codes. Out of 3000 published applications, about 100 do not have any IPC code.

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	A61P35/00 (?)	<u>78</u>	<u>63</u>	<u>44</u>	<u>58</u>	<u>50</u>	<u>293</u>	-8	-10.75
	A61B 5/00 ?	<u>42</u>	<u>53</u>	<u>28</u>	<u>35</u>	<u>43</u>	<u>201</u>	+8	+3.50
	G06K 9/00	<u>32</u>	<u>42</u>	<u>37</u>	<u>25</u>	<u>40</u>	<u>176</u>	+15	+6.00
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The column \sum last 5 gazettes shows the number of occurrences of a code in the last 5 gazettes. The column Δ shows the increase/decrease in the last gazette. Breakout a major difference in the use of a code in the last 5 gazettes.

Breakout a major unreference in the use of a code in the last 5 gazettes.

Each column is sortable. A tooltip pops up on the individual gazette columns to indicate the delta with the previous week.

You can select more than one code to be display in the graphic at the bottom of the page that displays the values for the last 13 weeks (3 month).

There is the *chart* option to have the information in a graph format.

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Gazette 01/2020			•
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Filter all columns:			
	Results 1 - 200 of 6758 🛛 🛤 🤜 🚺	2 3 4 5 6 7	8 9 10 🕨 🕨
W0 Number	Title	Kind Appl	. IPC Applicant
1.W0/2020/001477	DUAL-PROTOCOL FOR MOBILITY ENHANCEMENT	Initial CN20 Publi with ISR [A1]	. H04 MEDIATEK SINGAPORE <u>Vi</u> PTE. LTD.
2.W0/2020/001480	METHOD AND SYSTEM FOR PACKAGING TILES BY GRADE	Initial CN20 Publi with ISR [A1]	. G06 KEDA CLEAN ENERGY <u>Vi</u> CO., LTD

SEQUENCE LISTING

Sequence Listing gives access to the lists of nucleotide and or amino acid sequence listings contained in published PCT applications. Use the 2 drop-down menus shown below to select the year and publication week.

SEAR	CH	SEQL	JENCE LISTINGS	Back to home				
This data is al	This data is also available for bulk download via anonymous ftp from ftp://ftp.wipo.int/pub/published_pct_sequences/publication/							
Published Nu	Published Nucleotide and/or Amino Acid Sequence Listings Contained in Published PCT Applications [WinZIP 8.0]							
Year: 2019 🔻	Year: 2019 ▼ Publication Week: September 12, 2019 ▼ Publication Date:							
WoNumber	Size	Download	Applicant					
W019/169448	5 KBs	<u>SL1.zip</u>	ST VINCENT'S INSTITUTE OF MEDICAL RESEARCH					
W019/169504	0 KBs	<u>SL1.zip</u>	POLYAMYNA NANOTECH INC.					
W019/169625	2 KBs	<u>SL1.zip</u>	BIOCENTURY TRANSGENE [CHINA] CO., LTD					
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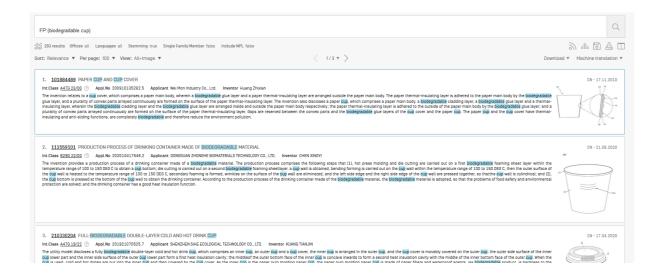
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SEARCH RESULTS

DISPLAY OF THE SEARCH RESULTS

The search query, whether you performed a SIMPLE; ADVANCED; FIELD COMBINATION, CLIR or CHEMICAL COMPOUNDS search, will return a list of results in a window as shown below.

It provides bibliographic data with search terms highlighted and allows accessing of detailed records by clicking on publication number and title.



The first component of this window:

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- A Refine Search button allows you to refine your search
- B Sort result button: by relevance or other criterias

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C Define the number of results per page: The list length option allows you to increase the number of displayed results per page (10 by default) to up to 200.

D Select the preferred display of the results

View:	All 🔻
	Simple
	Double
	All
ŀ	All+Image
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The view option allows you to select the components displayed in the result list: *simple*, *double*, *all*, *all+image*, *image* and *multi-columns*. *Simple* displays only the number, the title, the collection and the

publication date; *Double* the simple display and the applicant and inventor names, the IPC code; *Image* will display only images, *Multi*-columns will display the different language version of the abstract available, Images can be also made visible for example

E Buttons to move through the result list

F Download button to download the result list (for logged-in users)



G Machine translation button to translate the result page in different languages

Machine translation 💌
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H RSS notifications for the search query to monitor patenting activity and updates in area of interest

I Query tree shows the breakdown of the results

QUERY TREE

+(+FP:biodegradable +FP:cup) +(GN:paper PAA:paper INA:paper IRA:paper ICS:paper AN:paper PN:paper EN_TI:paper EN_AB:paper EN_CL:paper EN_DE:paper)> 151	
+FP:biodegradable +FP:cup> 294	
FP:biodegradable> 59033	
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GN:paper PAA:paper INA:paper RPA:paper ICS:paper AN:paper VO:paper PN:paper EN_TI:paper EN_AB:paper EN_CL:paper EN_DE:paper> 2750262	
GN:paper> 0	
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INA:paper> 562	
RPA:paper> 1751	
ICS:paper> 0	
AN:paper> 0	
W0:paper> 0	
PN:paper> 0	

- J Save query button for logged-in users
- K Summary of the documents selected for download

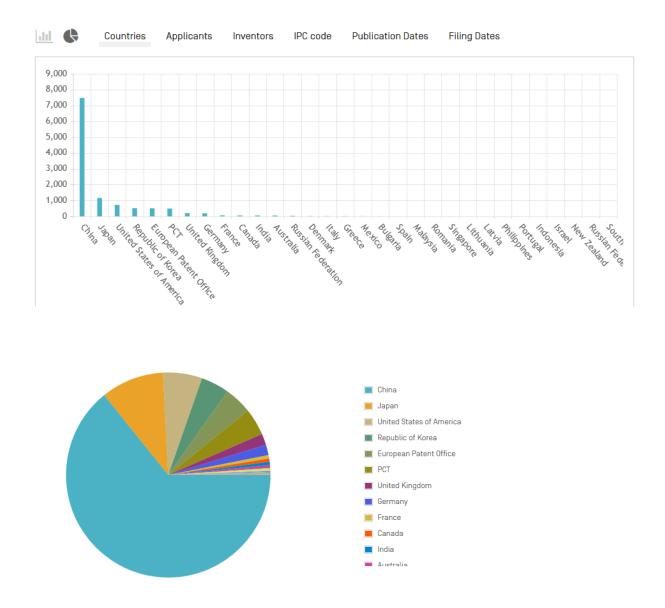
L Side-by-side view: displays the result list next to one document opened

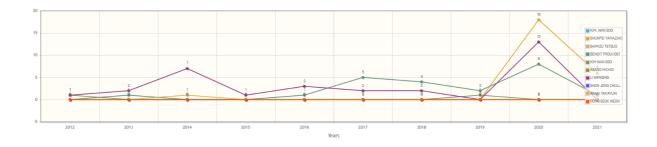
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• The graph button gives access to statistics

NALYSIS													Clos
Iters Charts Times Offices	series	Applicants		Inventors			IPC code	CF	°C code		Publication Dates		Kind code
China	25,585,818	SAMSUNG ELECTRONICS CO	451,248	THE INVENTOR HAS WAIVED THE RIGHT TO BE MENTIONED	117,231	G06F	4,135,393	a61p 43/00	527,118	2012	2,878,509	A	38.051.74
Japan	18,897,175					A61K	3,742,588	a61p 35/00	487,805	2013	2,963,385	U	18,030,46
Inited States of America	14,543,440	SIEMENS AG	329,690	WANG WEI	55,478	H01L	3,091,084	y02e 60/10	458,479	2014	3,138,298	B2	8,848,18
Sermany	8.210.304	SONY CO	298,943	ZHANG WEI	48,358	G01N	2,262,238	a61p 29/00	311.131	2015	3.240.774	A1	8.649.35
Republic of Korea	5.013.677	HITACHI LTD	238,254	LI WEI	40,700	H04N	2.093.603	a61k	299.383	2016	3.704.438	B1	7.218.8
European Patent Office	4.160.143	LG ELECTRONICS INC	230,338	WANG LEI	37,428	H04L	1,954,305	a61p 25/00	288.872	2017	4,081,054	в	5,419,4
		CANON INC	222,338	LIU WEI	38,389								
PCT	4,010,641	MATSUSHITA ELECTRIC IND	211,855	ZHANG LEI	35,873	A61P	1,781,707	g06f	257,847	2018	4,823,812	Y	1,445,58
Canada	2,741,211	CO LTD		WANG JUN	33,459	C07D	1,711,818	h04l	237,738	2019	4,898,522	С	1,285,83
France	2,472,924	INTERNATIONAL BUSINESS MACHINES CO	207,141	LIJUN	30,482	A61B	1,579,559	a61p	237,499	2020	5,598,881	01	970,48
Inited Kingdom	2,432,715	MITSUBISHI ELECTRIC CO	205,998	LIU YANG	29,423	B65D	1,653,482	a61p 9/00	217,313	2021	1,078,888	C2	712,58
		TOSHIBA CO	184.955										

Filters show the statistics in a table format; *Charts* show the same information in a graph format, either bar or pie and *Timeseries* show the statistics over time.





2 The charts can be saved in GIF format for inclusion in documents or reports by right clicking in a corner of the image and selecting "Copy image" or "Save image". ×\$

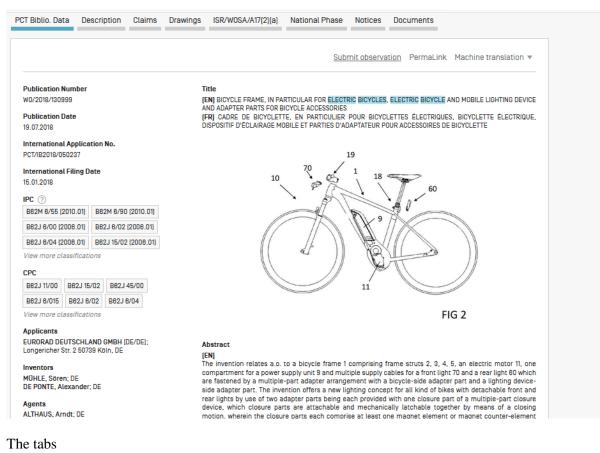
The filters and number of items can be customized in the Settings menu, in the Result tab

ETTINGS		Reset Close Sav
Result List Language Query Language		
Analysis tab open		Group by * Countries
Table	•	✓ Onices ✓ Applicants ✓ Inventors
Analysis graph pie	*	
No of Items/Group 10	-	Hung Dates Kind code

Click on Offices or Languages or Stemming or Single Family Member or Include NPL to open Refine Options to define the collections (Offices); Language (of search); Stemming active or inactive, the grouping of the results by family and the inclusion of non-patent literature in the result list:

REFINE OPTIONS	Close Search
Offices All	v
Languages All	*
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Single Family Member	
Include NPL	

READING THE RESULT PAGE



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PCT Biblio. Data

: Refers generally to the various data appearing on the front page of a patent document or the corresponding applications and may comprise document identification data, domestic filing data, priority data, publication data, classification data, and other concise data relating to the technical content of the document;

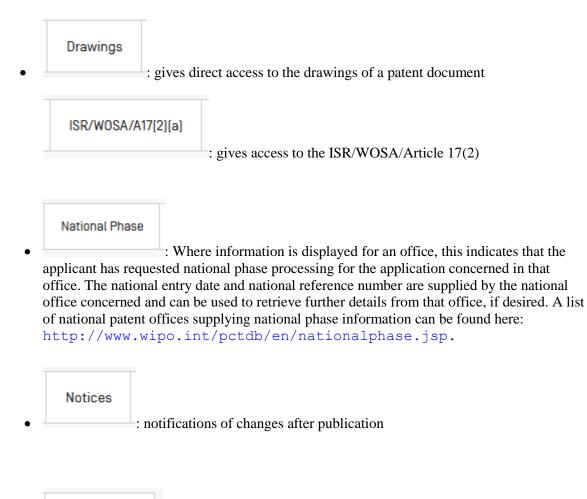
Description

Clear and concise explanation of known existing technologies related to the new invention and explanation of how this invention could be applied to solve problems not addressed by the existing technologies; specific embodiments of the new technology are also usually given. Integrated machine translation tools allow translation of the document.

Claims

: Legal definition of the subject matter which the applicant regards as his invention and for which protection is sought or granted; each claim is a single sentence in a

legalistic form that defines an invention and its unique technical features; claims must be clear and concise and fully supported by the description. Integrated machine translation tools allow translation of the document.



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•: family member information and timeline

- Compounds
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Field Search terms	Q. Query Examples

WIPO TRANSLATE

This translation tool is available for the translation of patent texts. Developed and trained internally on bilingual patent corpuses, it incorporates neural machine translation technology. It takes into account 32 technical domains derived from the IPC:

[ADMN] Admin, Business, Management & Soc Sci [AERO] Aeronautics & Aerospace Engineering [AGRI] Agriculture, Fisheries & Forestry [AUDV] Audio, Audiovisual, Image & Video Tech [AUTO] Automotive & Road Vehicle Engineering [BLDG] Civil Engineering & Building Construction [CHEM] Chemical & Materials Technology [DATA] Computer Sci, Telecom & Broadcasting [ELEC] Electrical Engineering & Electronics [ENGY] Energy, Fuels & Heat Transfer Eng [ENVR] Environmental & Safety Engineering [FOOD] Foods & Food Technology [GENR] Generalities, Language, Media & Info Sci [HOME] Home Contents & Household Maintenance [HORO] Precision Mechanics, Jewelry & Horology [MANU] Manufacturing & Materials Handling Tech

18 language combinations are available:

English-Chinese English-French English-German English-Italian English-Japanese English-Korean English-Russian English-Spanish

[MARI]	Marine Engineering
[MEAS]	Standards, Units, Metrology & Testing
[MECH]	Mechanical Engineering
[MEDI]	Medical Technology
[METL]	Metallurgy
[MILI]	Military Technology
[MINE]	Mining, Oil & Gas Extraction & Minerals
[NANO]	Nano Technology
[PACK]	Packaging & Distribution of Goods
[PRNT]	Printing & Paper
[RAIL]	Railway Engineering
[SCIE]	Optical Engineering
[SPRT]	Sports, Leisure, Tourism & Hospitality
[TEXT]	Textile & Clothing Industries
[TRAN]	Transportation

Chinese-English French-English German-English Italian - English Japanese-English Korean-English Russian-English Spanish-English

	-
Translate	
(now almo paste text	[Terms & conditions/User guide] Instate NMT is a powerful instant translation tool, designed specifically to translate patent texts st all languages are available using Neural Machine Translation technology). Simply cut and from a patent document into the box below and select from the available language pairs, then ranslate" (Note that there is a limit of 2000 characters).
	Translate not be used for translating undisclosed patent information or other sensitive data as data transmitted lation tool is not encrypted)
FIG LICE LIGHT	
Text to be translated:	A
Language pair:	
Domain:	[automatic detection]

To use this tool:

A: Enter your text in the *Text to be translated* box;

B: Select the *Language pair*. The system will automatically detect the language pair to be used if you do not select an option;

C. Select the *Domain*. The system will automatically detect the domain if you do not select an option; D: Click the *Translate* button.

The result will appear as shown below:

Text to be translated:	polymers which can be used in p-type mate photovoltaic cells, compounds, monomers, formula (I) and/or formula (VIII) are pre	dimers, trimers and polymers comprising
Language pair:	English->Chinese (Neural MT)	
Domain:	CHEM-Chemical & Materials Technology	v.
any juridic • Plea • Click		ay contain discrepancies or mistakes and does not have
devices ar dimers, tri		制备可用于有机器件和光伏电池的p型材料,化合物,单 体,二聚体,三聚体和包含式(i)和/或式(viii)的聚合 物的聚合物
Edit trans	slation	IChoose among proposals, or edit the text 制备 可 用于 有机 器件 和 光 伏 电池 的 p 型 ▲ 材料, 化合物, 单 体, 二 聚 体, 三 聚 体 ↓ 和 包含 式 (i) 和/或 式 (viii) 的 聚合物 d
WIPO Tr Intereste	ranslate: Cutting-Edge Translation Tool For Patent Do ed in your own version of WIPO Translate? Find out me	
		制备可用于有机装置和光伏电池的 p 型材料, 化合物, 单体, 二聚体, 三聚体和包含 式 () 和 或式 (viii) 的聚合物的聚合物
		制备可用于有机器件和光伏电池的 p 型材料,化合物,单体,二聚体,三聚体和包含式()和10或1(viii)的聚合物的聚合物
		制备可用于有机装置和光伏电池的 p 型材料, 化合物, 单体, 二聚体, 三聚体和包含 式(i)和/或式(viii)的聚合物的聚合物 制备可用于有机器件和光伏电池的 o 型材料中的聚合物, 包括式(i)和 或式
		制度"计用了带心器并补过几年记载"户至约并并相关后语。但AGL WAPSGL (viii)的化合物,单体、二聚体、三聚体和聚合物 制度可用于有机器件和光伏电池的。显标料、化合物、单体、二聚体、三聚体以及包
		制度可用于有机器件和光伏电池的。整料料的聚合物,包括式()和或式(viii)
		的化合物、单体、二聚体、三聚体和聚合物 制备可用于有机装置和光伏电池的 p 型材料、化合物、单体、二聚体、三聚体以及包
		含式 (i) 和或式 (viii) 的聚合物的聚合物

The tool splits the text into different segments, highlighted in red. For each segment, it suggests alternative translations. The user can also edit the proposed translations.

WIPO PEARL

WIPO's multilingual terminology portal gives access to scientific and technical terms derived from patent documents. It helps promote accurate and consistent use of terms across different languages, and makes it easier to search and share scientific and technical knowledge.

Key features

- Developed by WIPO language experts and terminologists.
- 10 languages Arabic, Chinese, English, French, German, Japanese, Korean, Portuguese, Russian and Spanish.
- All the content has been validated and given a term reliability score.
- If there is no equivalent in the target language in the database, WIPO's machine translation engine may offer you a translation proposal.

• Integrated with PATENTSCOPE so you can search the entire PATENTSCOPE corpus for terms and their equivalents in other languages.

Linguistic search

Search by term, with optional parameters. Select a Source Language for best results, and disable adblocking plug-ins.

More information on how to use it available here: https://www.wipo.int/reference/en/wipopearl/guide.html

			Select a Source Language for best results		×			
WIPO	MENU	WIPO Pea	d	What is this? $ imes$	HELP	ENGLISH	LOGIN	WIPO
			LINGUISTIC SEARCH CONCEPT MAP SEARCH					
			Enter your term here		Q			
			Search options Reset					

1	HITS for bicycle fork <u>Filters</u>			
ç	ource language All	Target language All	Subject field All	
•	Terms bicycle fork (ROAD)			
RO	AD / CYCLES & NON-POWERED	VEHICLES Show full record		
•	DE > Fahrradgabel	Reliability 3/4		
Þ	EN→ <mark>bicycle</mark> fork	Reliability 3/4		
►	ES > horquilla	Reliability 3/4		
Þ	FR > fourche de bicyclette	Reliability 3/4		
•	JA>フォーク	Reliability 3/4		
Þ	K0,포크	Reliability 3/4		•••
•	PT v narfo	Reliability 3/4		

Concept map search

Search by concept, or by subject field/subfield by clicking on the bubbles; click on a concept to open the terminology record. Select a second concept to view the concept path, and click on the "Export concept path" button to perform a combined keyword search in.



IPC GREEN INVENTORY

The IPC Green Inventory attempts to collect Environmentally Sound Technologies (ESTs as listed by the United Nations Framework Convention on Climate Change (UNFCCC)) in one place as they are currently scattered widely across the IPC in numerous technical fields.

ESTs are presented in a hierarchical structure (A). For each technology, the links in the IPC column direct the user to the corresponding place in the scheme. The links in the PATENTSCOPE column (B) allow the user to automatically search and display all international patent applications available through PATENTSCOPE that are classified in the relevant IPC place.

ТОРІС	IPC	PATENTSCOPE
► ALTERNATIVE ENERGY PRODUCTION		
► TRANSPORTATION		
► ENERGY CONSERVATION		
▶ WASTE MANAGEMENT		
► AGRICULTURE / FORESTRY		
► ADMINISTRATIVE, REGULATORY OR DESIGN ASPECTS		
► NUCLEAR POWER GENERATION		

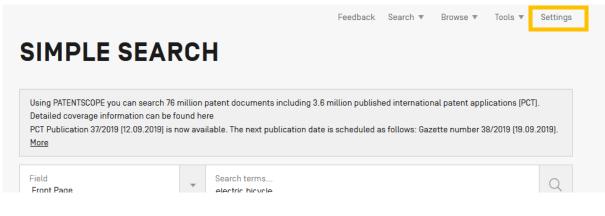
TOPIC	IPC	PATENTSCOPE
* ALTERNATIVE ENERGY PRODUCTION		
▶ BIO-FUELS		
INTEGRATED GASIFICATION COMBINED CYCLE [IGCC]	C10L 3/00 F02C 3/28	C10L3/00 F02C3/28
▶ FUEL CELLS	H01M 4/86-4/98, 8/00-8/24, 12/00-12/08	H01M 4/86-4/98, 8/00-8/24, 12/00-12/08
PYROLYSIS OR GASIFICATION OF BIOMASS	<u>C108 53/00</u> C10J	<u>C108 52/00</u> C10J
► HARNESSING ENERGY FROM MANMADE WASTE		
► HYDRO ENERGY		
OCEAN THERMAL ENERGY CONVERSION [OTEC]	F036 7/05	F036 7/05
► WIND ENERGY	F03D	F03D

PORTAL TO PATENT REGISTERS

The portal aims to facilitate the verification of legal status of patents and related SPCs by compiling relevant information of national registers of various jurisdictions, e.g. availability of online access to a national or regional register.



SETTINGS



Query tab: Define the defaults for query language, the stemming option, the sorting of the results and the number of results to be included in the list.

ETTINGS Office Result Download Interface Others					Reset	Close	Save
Query Language All							*
Stemming		Single Family Member		Include NPL			
Sort by: Relevance	Ŧ	List Length 100	Ŧ	Result List View All+Image			Ŧ

The Office tab: Select the patent collection/s for your patent searches.

TTINGS			Reset Close Save
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iffice II			T
411			
PCT			
Africa			
African Regional Intellectual Property Organization (ARIPO)	Kenya	South Africa	
ARABPAT			
Egypt	Jordan	Morocco	
Saudi Arabia	Tunisia		
Americas			
Canada	United States of America		
LATIPAT			
Argentina Argentina	Brazil	Chile	
Colombia	Costa Rica	Cuba	
 Dominican Republic 	Ecuador	El Salvador	
Guatemala	Honduras	Mexico	
Nicaragua	Panama	Peru	
Uruguay			
Asia-Europe			
Australia	Bahrain	Bulgaria	
China China	Czech Republic	Czechoslovakia	
Denmark	Estonia	Eurasian Patent Organization	
European Patent Office	Finland	France	
Georgia	Germany	Germany(DDR data)	
Greece	🗌 India	Srael	
Taly Italy	Japan	Latvia	
Lithuania	Netherlands	New Zealand	
Portugal	Republic of Korea	Romania	
Russian Federation	Russian Federation(USSR data)	Serbia	
Slovakia	Spain	Sweden	
United Arab Emirates	United Kingdom		
Asean			
Brunei Darussalam	Cambodia	Indonesia	
Lao People's Democratic Republic	Malaysia	Philippines	
Singapore	Thailand	Viet Nam	

The Result tab: Define the defaults for the language of the result list, the fields that will be displayed, the presentation of the results analysis, the groups to be included in the results analysis and the number of items in those groups. It also gives access to the document downloading option:

Ouery Office Result ownload Interface Others			Reset	Close	Save
Result List Language Query Language					-
Analysis tab open Analysis type Table	Ŧ	Group by * Countries Offices			
Analysis graph pie	-	✓ Inventors ✓ IPC code ○ CPC code			
No of Items/Group 10	~	 ✓ Publication Dates ☐ Filing Dates ✓ Kind code 			

The Download tab: to enable the downloading of multiple documents, as well as to select the downloaded fields for the report

SETTINGS	Reset Close Sove
Query Office Result Download Interface Others	
I Enable multi documents download	
Download Fields	
Application Number	
Application Date Dublication Numer	
✓ Publication Date	
Country Code	
✓ Title	
Abstract	
IPC IPC	
Applicants	
✓ Inventors	
Priority Data	
National Phase Entries	
✓ Image	

The Interface tab: Select the default search interface and enable Google Translate. You can also select whether to activate Tooltip Help, Advanced Search Instant Help and IPC Help through this tab.

Advanced Search Instant Help Default Search Form Field Combination * Mare Field Combination * <th>SETTINGS Query Office Result Download Interface Others</th> <th>Reset Close 5</th> <th>Save</th>	SETTINGS Query Office Result Download Interface Others	Reset Close 5	Save
Advanced Search Instant Help Default Search Form Field Combination * Mare Field Combination * <th>Toottip Help</th> <th>Result and detail side by side</th> <th></th>	Toottip Help	Result and detail side by side	
Mane Field Combination	☑ IPC Tooltip Help	Multiple Windows Interface	
			Ŧ
	Show Google Translate		

The Others tab allows you to subscribe to notifications

SETTINGS	Reset Close Seve
C Keep me informed	

NAVIGATION BAR

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	Using PATENTSCOPE you can search 83 million patent documents including 3.7 million published international patent applications (PCT). <u>Datailed coverage information</u> PCT publication 07/2020 (13.02.2020) is now available <u>hore</u> . The next PCT publication 08/2020 is scheduled for 20.02.2020. <u>More</u> Check out the new PATENTSCOPE features: CPC, PCT families <u>More</u>						
	Help shape <u>WIPO's newest IP service</u> : Tell						
	Field Front Page	▼ Search terms	Q				
			Query Examples				

In the Navigation bar, you will find:

- The Help menu
- The language of your interface
- The login menuThe WIPO buttor
- The WIPO button to access the WIPO website

HELP

In the Help menu, are available:

- the latest news about PATENTSCOPE are posted
- guides on how to search, query syntax, field definition and country codes
- the data coverage
- the terms and conditions as well as the disclaimer

HOW TO SEARCH NEWS NEWSLETTER DATA COVERAGE CODES ABOUT

HELP

HOW TO SEARCH

- User's Guide
- PCT Families
- Query Syntax
 Fields Definition
- IPC/CPC classification fields
- Wildcard vs Stemming
- <u>Tutorials</u>
 <u>Webinars</u>

PATENTSCOPE NEWS

- National Collections of Finland and New Zealand now Available in Patentscope (Mar 16, 2021)
- Extended Patent Family Information Now Available in PATENTSCOPE [Mar 10, 2021]
- Non-Patent Literature Now Available in PATENTSCOPE [Mar 2, 2021]
 New National Collections and Global Dossier Information Now Available in Patentscope [Dec 15, 2020]
 WIPO IP Portal: New MENU Features for PATENSCOPE Users [Dec 7, 2020]

LATEST NEWSLETTER

09.03.2021 - [WIPO webinar] 2 upcoming PATENTSCOPE webinars

DATA COVERAGE

- PCT applications
- PCT national phase entry
- National collections
- Global Dossier public
- <u>Chemical documents</u>
- Standard ST37 Authority Definition File

CODES

- INID codes
- Kind codes
- <u>Country Code</u>

ABOUT

Version 1.4.5

LANGUAGES

The language of the interface can be selected from the drop-down menu English:

Or from your account once logged-in

PATENTSCOPE	What is this? ×		HELP		LOGIN	WIP
	Feedback Se	iearch 🔻 🛛 E	Browse	ENGLISH		
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ing PATENTSCOPE you can search 83 millio verage information	on patent documents including 3.7 million published internation	ional patent a	pplicati	ESPAÑOL		
T publication 08/2020 (20.02.2020) is now	available <u>here</u> . The next PCT publication 09/2020 is schedule	ed for 27.02.20	20. <u>Mor</u> i	PORTUGUÊS		
eck out the new PATENTSCOPE features: 0 Ip shape <u>WIPO's newest IP service</u> : Tell us				РУССКИЙ		
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20.02.2020] is now available <u>here</u> . The next PCT publication	on 09/2020 is sched	duled for 27.0	DEUTSCH		
TSCOPE features: CPC, PCT families, <u>More</u> t <u>IP service</u> : Tell us what you think in this <u>short survey</u>			ESPAÑOL		
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			SAVED QUERIES		
			LOGOUT		

LOGIN

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Feedback	Search 🔻	Browse v	Tools	5 ▼	Settings		

Account Sign up

Provide the mandatory information (*) in order to create your free-of-charge PATENTSCOPE account.

Login

Once logged into the WIPO account, new icons will be available in the refine search box that will allow users to

1. Save their queries :

1,849 results Offices All Language All Stemming True	ジ 瑞 回
SAVE QUERY	Close
Duery Name *	
Query Text * FP:(electric bicycle)	
Private Query	

After clicking this icon (in the red rectangle above), users will be asked to give a name to their query in this dialog box

By default, your saved queries are *Private* that means that only you, when logged-in, can see them. You cannot share them or subscribe to the RSS feed.

If you would like to share your queries and use RSS feed you need to untick the *private Query* box and you will be able to share them and subscribe to RSS feed.

1	EN_ALL:"human space flight" OR "manned space flight" OR "crewed space flight" OR "human spaceflight" OR "manned spaceflight" OR "crewed spaceflight"	All	Relevance		1	10	₫ <i>"</i>) Q		
chem search	CHEM:(BNRNXUUZRGQAQC-UHFFFAOYSA-N)	WD	Relevance	\checkmark	1	10	Ū	-	
bicycle	en_ab:bicycle	All	Pub Date Desc		1	10	ロック		
cat	ALLTXT:(cat) AND IC: ("A23K 50/40" OR "B62B 9/14" OR "A63H 13/02" OR "B32B" OR "B65D")	All	Relevance	\checkmark	2	10	ロック		

2. Download the result lists up to 10,000 records using the *Download* button above the result list. After clicking the icon, the downloading will automatically start and open an Excel sheet with either 1000 (simple icon) result or 10,000 (icon 10k).



3. Download one or more documents by selecting in the *Settings* menu, in the *Result* tab, the *enable multi document download* can be activated for logged-in users in order to download one or more documents.

SETTINGS		Reset Close Bave	
Result List Language Query Language	٣	Result List View All-Image *	Y
Analysis tab open		Group by * ☑ Countries	
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No of tems/Group 50	Ŧ	CPC codes	
		Filing Dates	
Demiction Finitia Application Number Application Date Application Date Country Code Title Association Date Association Date Association Ass			
Enable multi documente download			

4. Once logged-in, users will also have access to the chemical structure search in the *Search* menu, as well as Save their preferred settings, such as the search interface by default, the length of the search result list, etc.in the *Options* menu.

ANNEX

SEARCH SYNTAX

The search syntax allows you to search for specific information in the advanced search. A query is a logical sentence that consists of elements joined by special symbols called <u>operators</u> used to define the relationship between words or groups of words.

An "element" can be:

- a single term ("engine");
- a phrase (a group of words surrounded by quotes to search for multiple words in exact order:

"magnetic cup"); or

- several of these grouped together with parentheses.

^		
Operators	Example	Explanation
BOOLEAN		always use in capital
AND	train AND plane	Returns all documents that contain both the first term and
		the second term.
OR	train OR plane	Returns all documents that contain either the first term or
		the second term or both.
NOT	NOT plane	Returns all documents that do not contain the term
		following NOT.
ANDNOT	train ANDNOT plane	Returns all documents that contain the first term and not
		the term following NOT.
WILDCARD		
?	te?t	Returns all documents that contain test or text. Wildcard
		search uses? to search terms with one single character
		replaced. It is possible to use for example 2? to replace 2
		characters
*	electr*	Returns all documents that contain electric, electrics,
		electrical, electricity.
	elec*try	Returns all documents that contain electricity.
		Wildcard search uses * to search terms with 0 or more
		characters replaced either in the middle of the term or at
		the end of the term
		(* as the 1 st character of the term is not supported).
OTHERS		
٨	power^10 nuclear	Returns all documents in which "power" is considered to
		be more relevant (10 times in the example) than
		"nuclear". The caret assigns importance values to
		individual query terms.
+/-	+electric-power	Returns all documents that contain electric and that do
		not contain power <u>Filtered searching</u> allows to require (+)
		a query term and to prohibit (-) one.
~	r00~	Fuzzy search returns all documents that contain room,
		roof, root, etc.
()	(spaghetti OR plate)	Returns all documents that contain spaghetti or plate and
	AND fork	fork. <u>Grouping</u> is used to group clauses to form sub-
		queries.
~/NEAR	"heart	Proximity search allows specifying a distance between
	monitoring"~10	words. In the example with tilde "heart" and
		<u> </u>

List of operators supported in the PATENTSCOPE search service:

	Heart NEAR	"monitoring" are separated by 10 other words; NEAR
	monitoring	separates words by 5 words by default
[]	[01.01.2000 TO	Returns all documents that contain dates between
	01.01.2001]	01.01.2000 and 01.01.2001. Range search uses [] to
		include the bounds.
{ }	{Smith TO	Returns all documents that contain names between Smith
	Townsend}	and Townsend, but not including Smith and Townsend.
		Range search uses { } to exclude the bounds.

FIELD CODES

Field codes are used in the Advanced Search interface to limit your search to specific fields. For example:

To search for documents that contain the terms "precipitated calcium carbonate", "carbon dioxide", and variants of the word inject (using a wildcard operator) in any English text and belong to the fields of technology of papermaking or cellulose production, as represented by the IPC subclass D21, you can use the query:

EN_ALLTXT:("precipitated calcium carbonate" AND "carbon dioxide" AND inject*) AND IC:D21

The EN_ALLTXT field code represents a combination of the English title, abstract, description, and claims fields, while the IC field code represents the International Patent Classification field. You should use parentheses (brackets) to enclose all search terms for a given field; and make sure not to put any spaces between the field code and the brackets!

The list of supported field codes in the PATENTSCOPE search service is available here: https://patentscope.wipo.int/search/en/help/fieldsHelp.jsf