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PATENTSCOPE

Overview and practical example

Kigali
June 26, 2018

Andrew Czajkowski

Head, Innovation and Technology Support Section

Figures

Patent documents	70 million
Patent collections	53
- National	49
- Regional	3
- International (PCT)	1
Cost	None!

Features

- Flexible interfaces
- Powerful translation
- Rapid data analysis
- Extensive data export
- Customizable options

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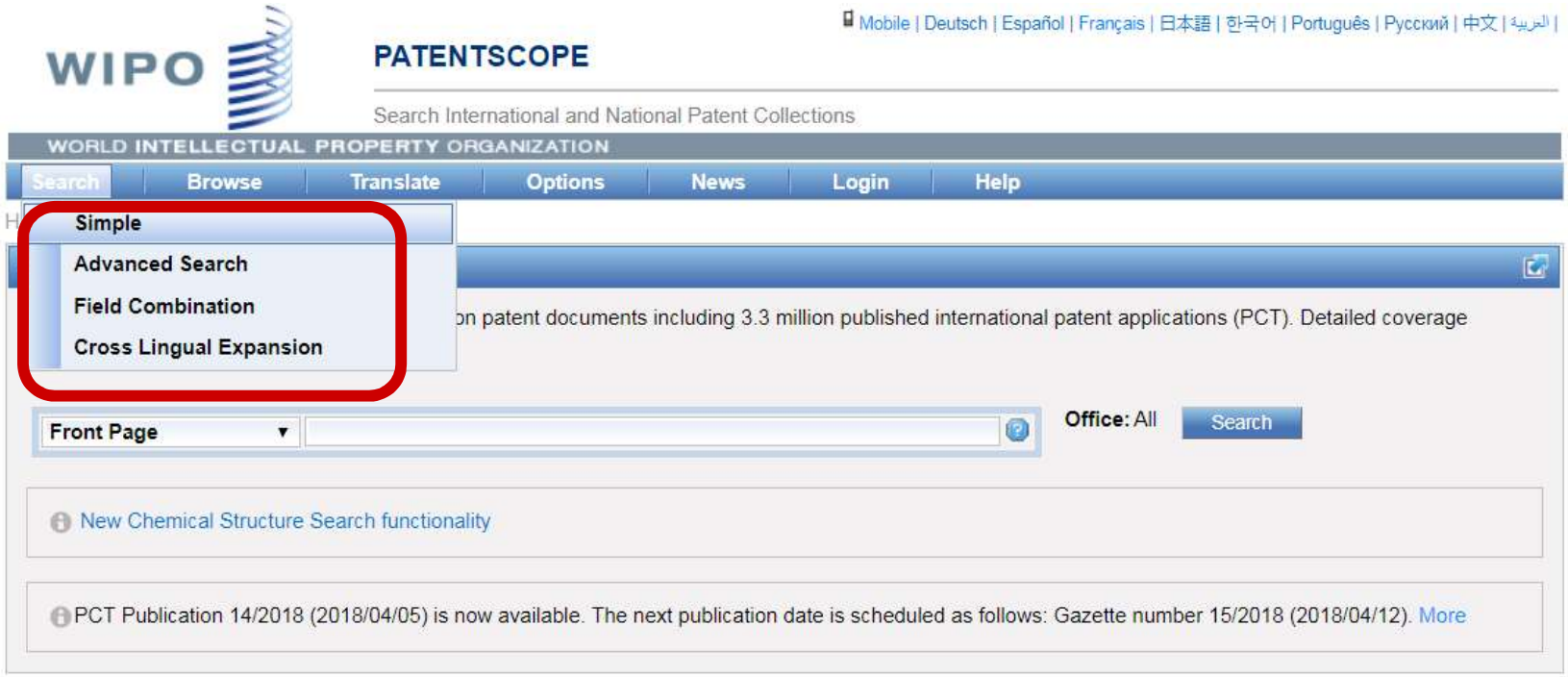
Search interfaces

- Simple
- Advanced Search
- Field Combination
- Cross Lingual Expansion

Search interfaces



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Translation

Sort by: Relevance View All List Length 10 **Machine translation**

Int.Class	Appl.No	Applicant	Ctr	PubDate / Inventor
21. 1059863 **RATON INFORMATICO.**			es	16.06.2005
G06F 3/033	200500601	GUERRERO GALAN ANTONIO	GUERRERO GALAN ANTONIO	

1. Ratón informático, del tipo de los utilizados como dispositivo apuntador en un ordenador o análogo, constituido por una carcasa (1) o cuerpo de asido, unos botones de accionamiento (2) sobre dicha carcasa (1), unos medios (4) de medición del desplazamiento, un circuito controlador (3) de señales y comunicaciones y opcionalmente un cable de comunicación o un transmisor inalámbrico, caracterizado porque comprende: un dispositivo de vibración mecánica (6) conectado al circuito controlador (3) y activable por la pulsación de al menos uno de los botones de accionamiento (2) y, unos interruptores (5) de desconexión selectiva del dispositivo de vibración (6), conectados al circuito controlador (3) y asociados a los respectivos botones de accionamiento (2). 2. Ratón, según la reivindicación 1, caracterizado porque el dispositivo de vibración mecánica (6) es un motor eléctrico con un eje de masa excéntrica.

Int.Class	Appl.No	Applicant	Ctr	PubDate / Inventor
22. H054252 **マウス**			JP	22.01.1993
G06F 3/33	4953591U	株式会社東芝	天間 正之	

【目的】 マウスを使用中にマウス本体から手を離した際、マウスカーソルが移動するのを防止する。

【構成】 マウス本体が押圧されたとき、ボールは回転可能状態となる。
マウス本体を移動させたときに、ボールが回転して表示装置上のマウスカーソルが移動する。
また、マウス本体が押圧されないときには、ボールが回転せずマウスカーソルは移動しない。
したがって、マウス本体から手を離した際、マウスカーソルがずれなどにより移動するのが防止される。

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Translation

- WIPO Translate
- WIPO Pearl
- Google Translate
- Bing Translate
- Baidu Translate

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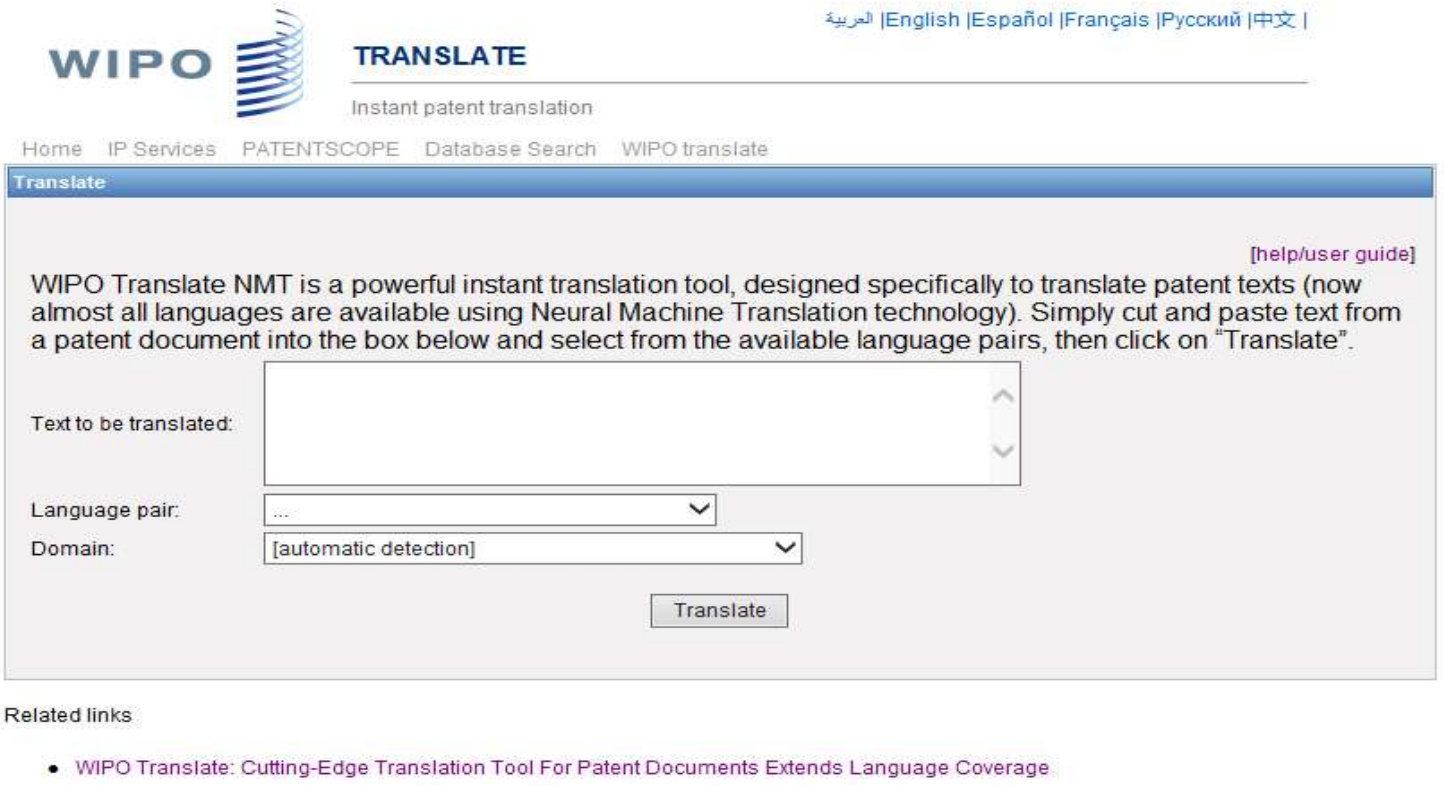
WIPO Translate



- Based on patent documentation → **Accurate**
- Administered by WIPO → **Secure**

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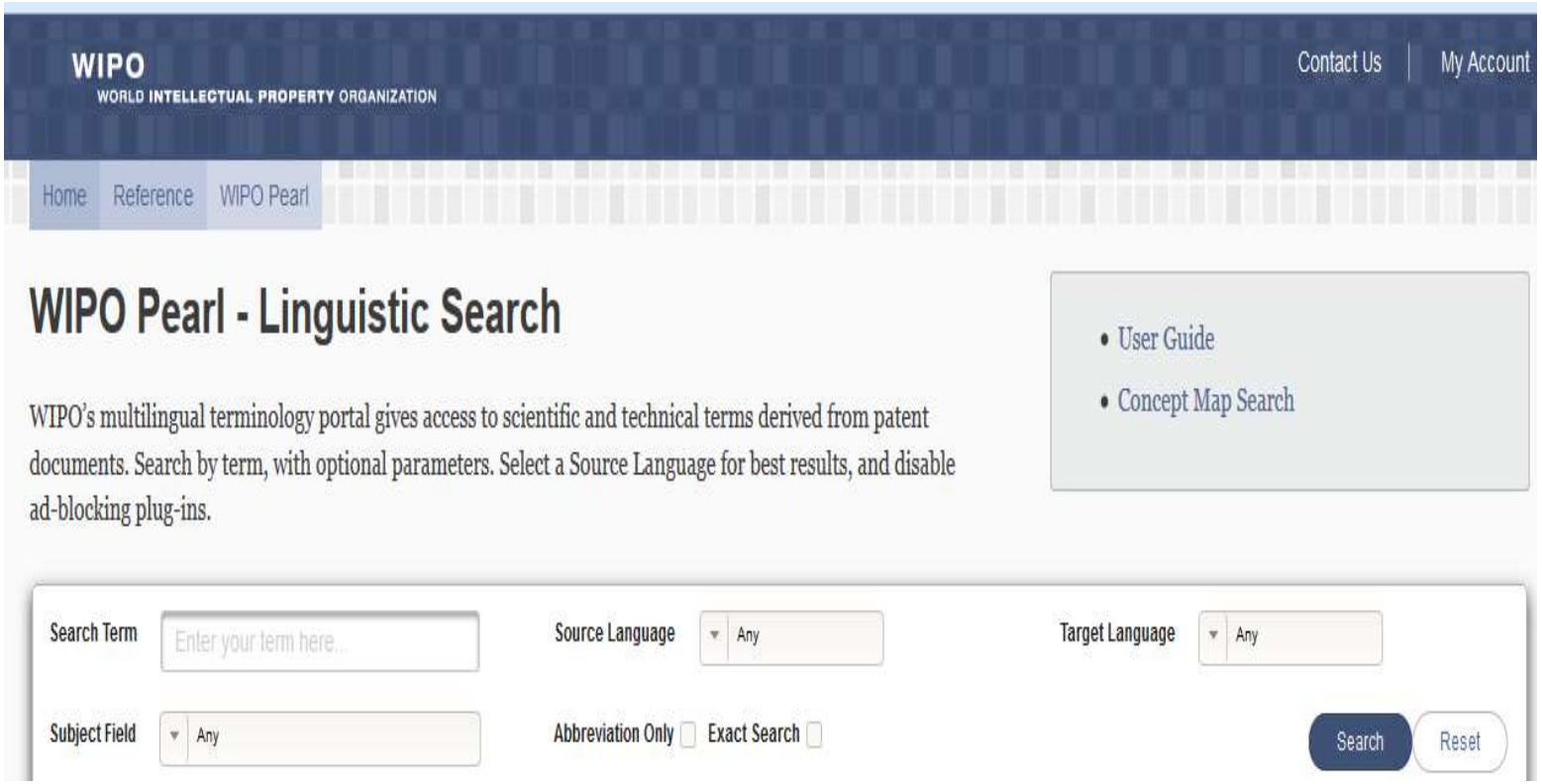
WIPO Pearl



- Translate scientific and technical terms

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Results analysis

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Results analysis

Analysis

Options Tabl Graph Options bar pie Line

Countries		Main IPC		Main Inventor		Main Applicant		Pub Date	
Name	No	Name	No	Name	No	Name	No	Date	No
Russian Federation	46689	G06F	22156	Кочетов Олег Савельевич (RU)	559	株式会社日立製作所	406	2005	3921
Russian Federation (USSR data)	31020	A61K	11926	Kochetov Oleg Savel'evich (RU)	412	キヤノン株式会社	337	2006	4124
Japan	13635	C12N	9195	Стареева Мария Олеговна (RU)	252	КВЭЛКОММ ИНКОРПОРЕЙТЕД (US)	318	2007	3866
China	11182	G01N	8380	Stareeva Marija Olegovna (RU)	185	株式会社東芝	307	2008	4321
United States	9062	C07K	7488	Стареева Мария Михайловна (RU)	174	日本電気株式会社	297	2009	5318
PCT	5247	A61P	7359	LODUS EVGENIJ VASILEVICH	168	International Business Machines Corporation	296	2010	5327
Republic of Korea	4147	A61B	4160	ЛОДУС ЕВГЕНИЙ ВАСИЛЬЕВИЧ	168	ソニー株式会社	291	2011	6843
European Patent Office	3180	A01K	3826	Kochetova Marija Olegovna (RU)	145	SONY CORP	282	2012	7846
EAPO	1757	G09G	3064	Кочетова Мария Олеговна (RU)	145	HITACHI LTD	269	2013	8265
Canada	1480	C12P	2721			松下電器産業株式会社	254	2014	9754
Germany	1390							2015	5390
United Kingdom	940								

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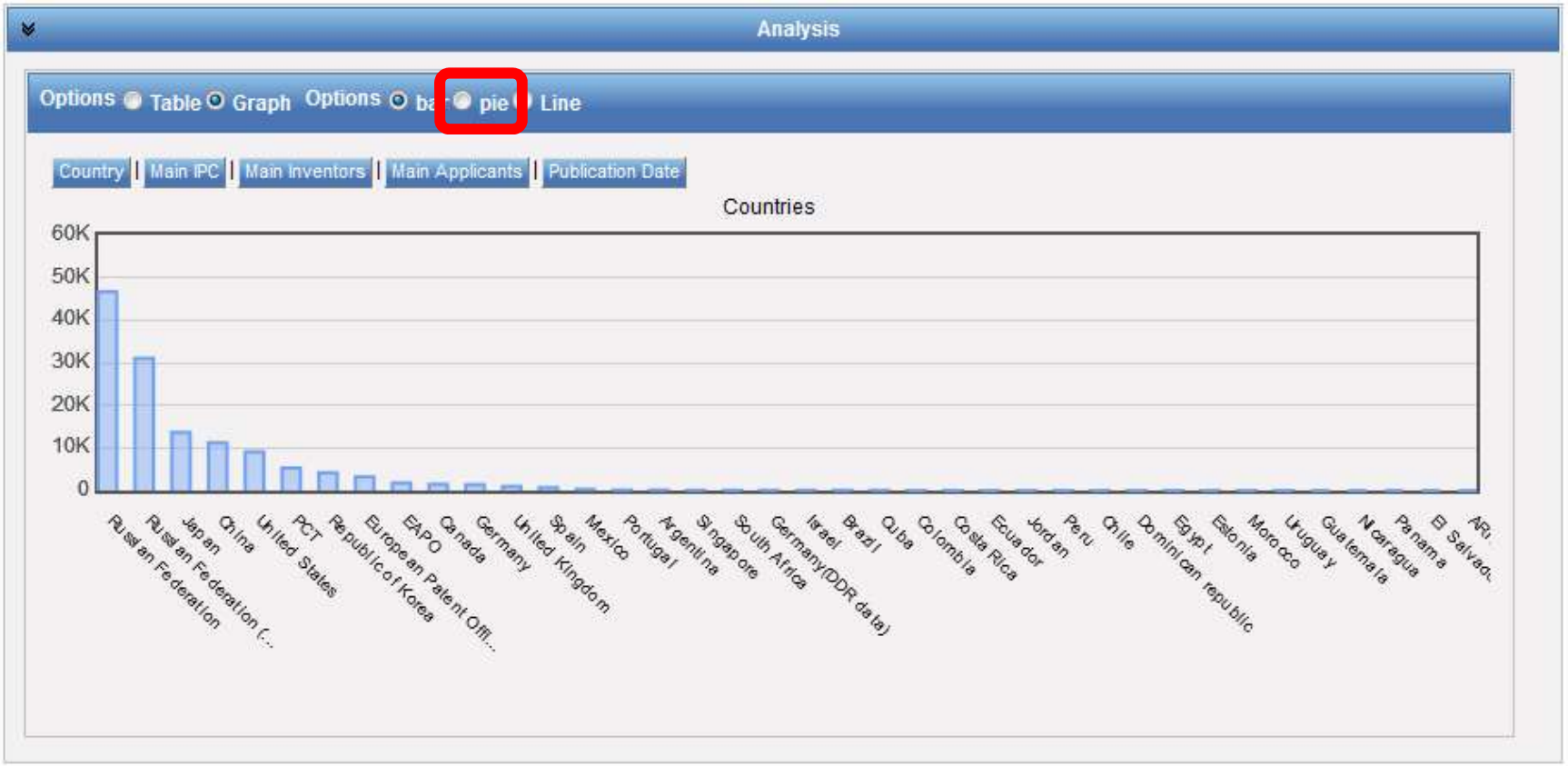
Results analysis



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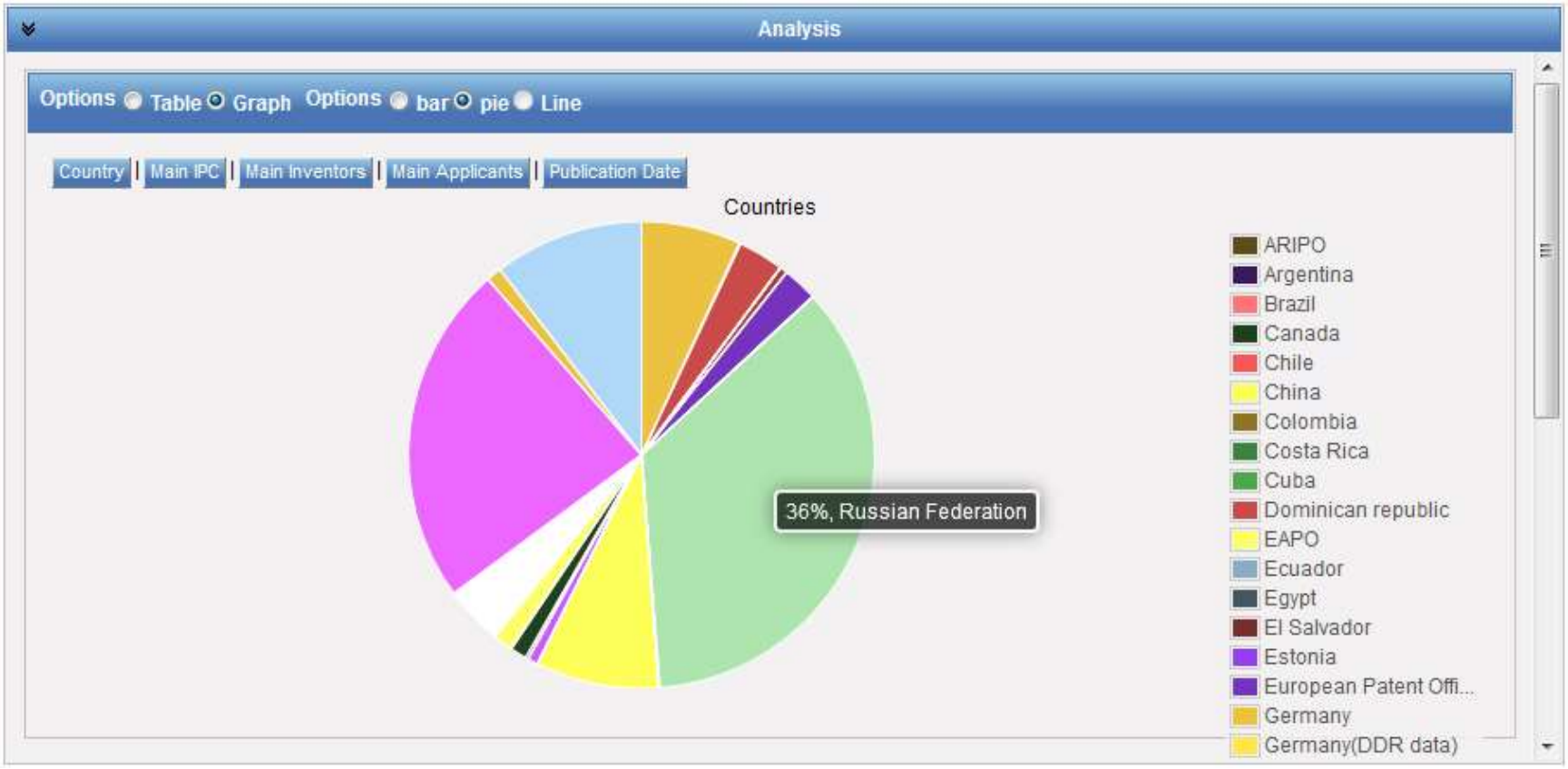
Results analysis



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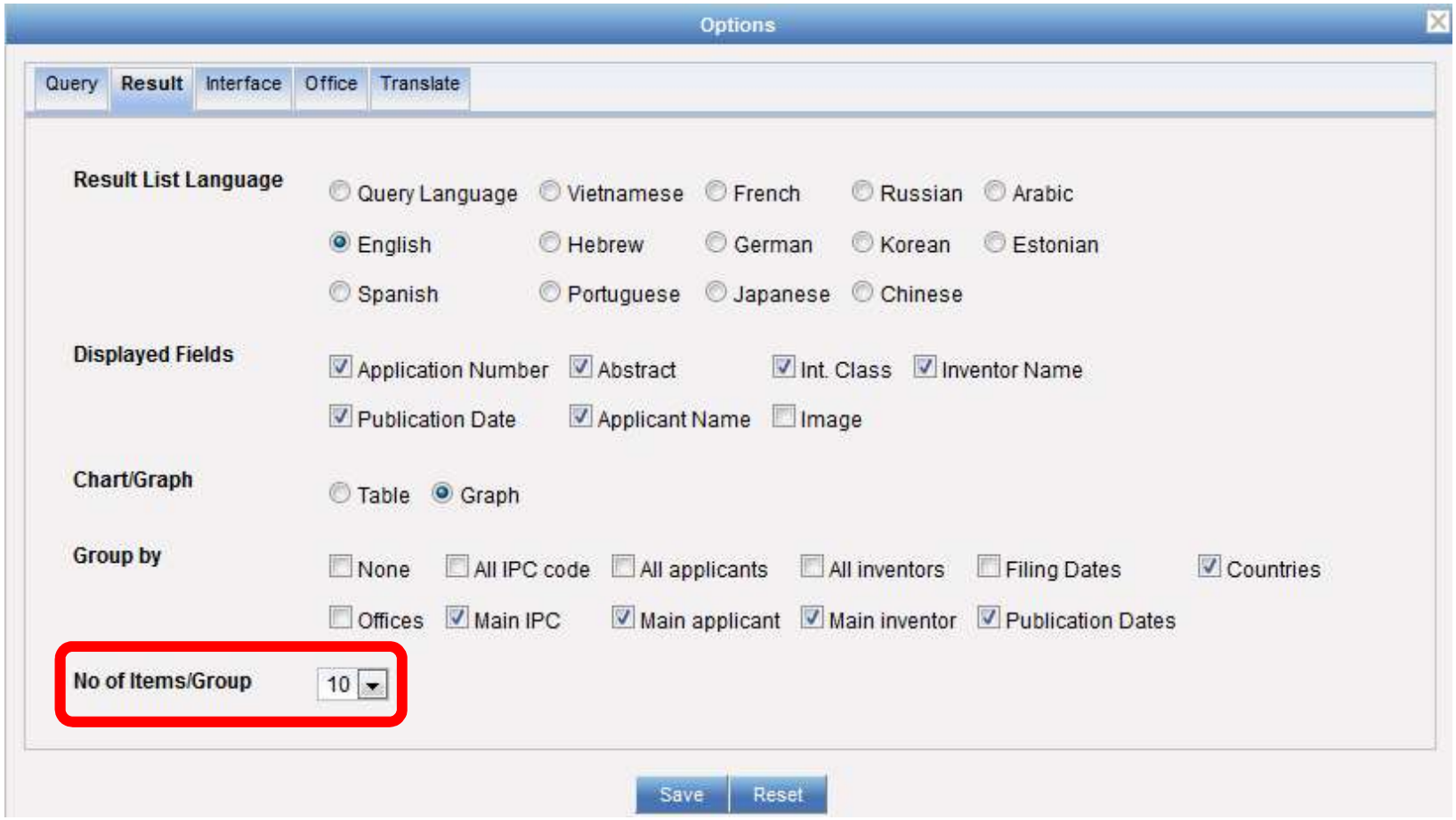
Customizable options



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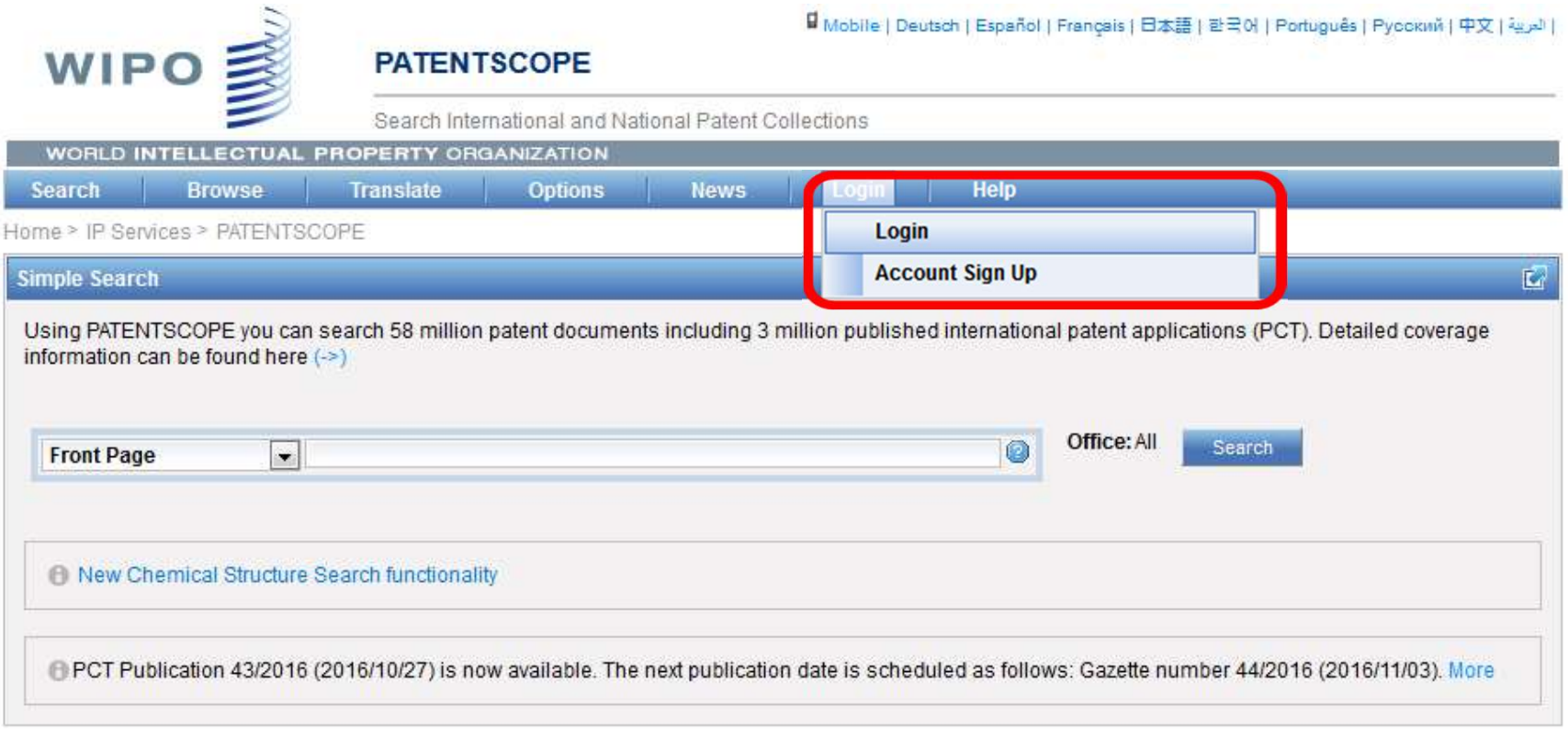
PATENTSCOPE Accounts



PATENTSCOPE Accounts

- Save customization options
- View and save session queries
- Export data
- Chemical structure search

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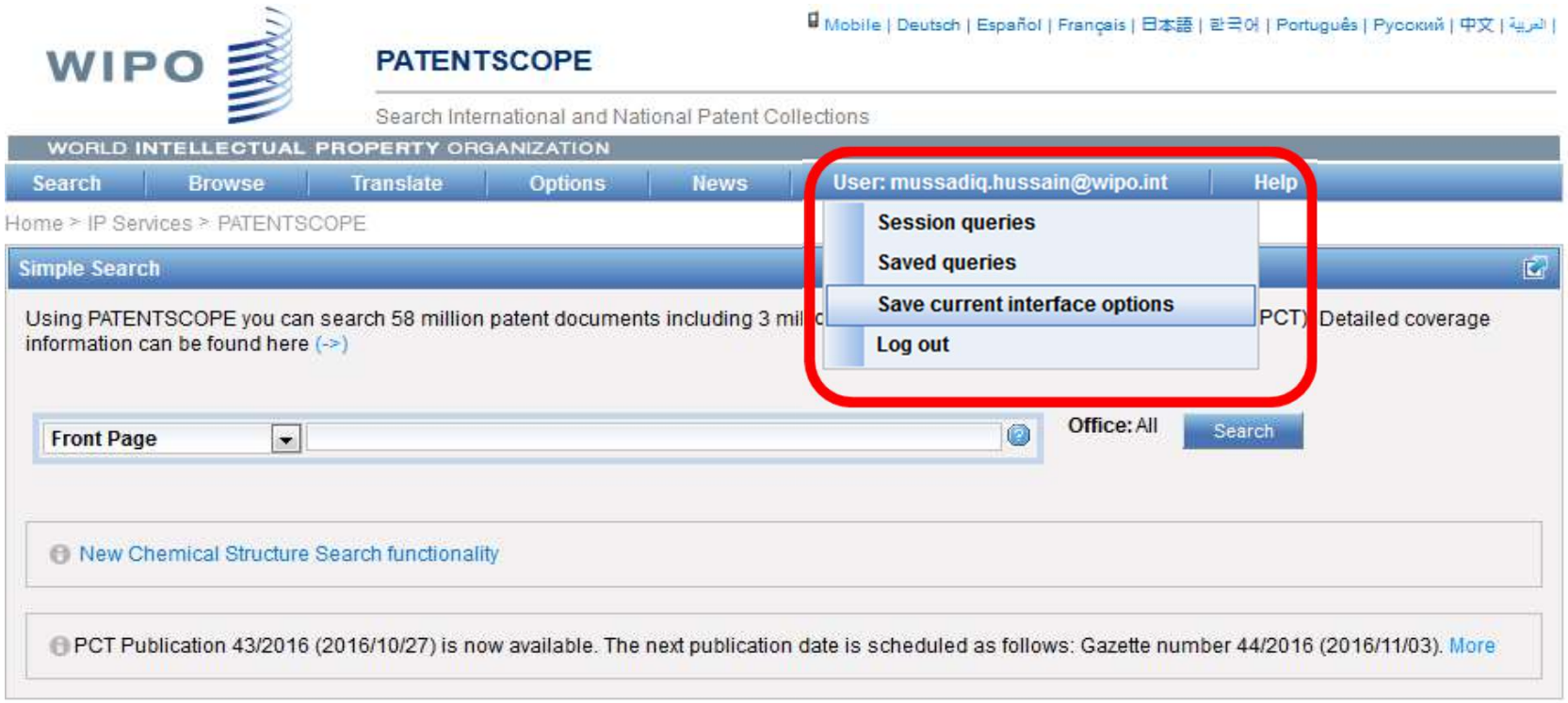
View query history, save customization



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Save queries, export results

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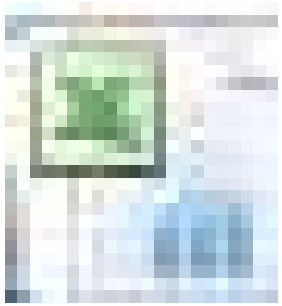
Save and export

- Save query



- Export 100 results (with detailed data)

- Export 10,000 results (with limited data)

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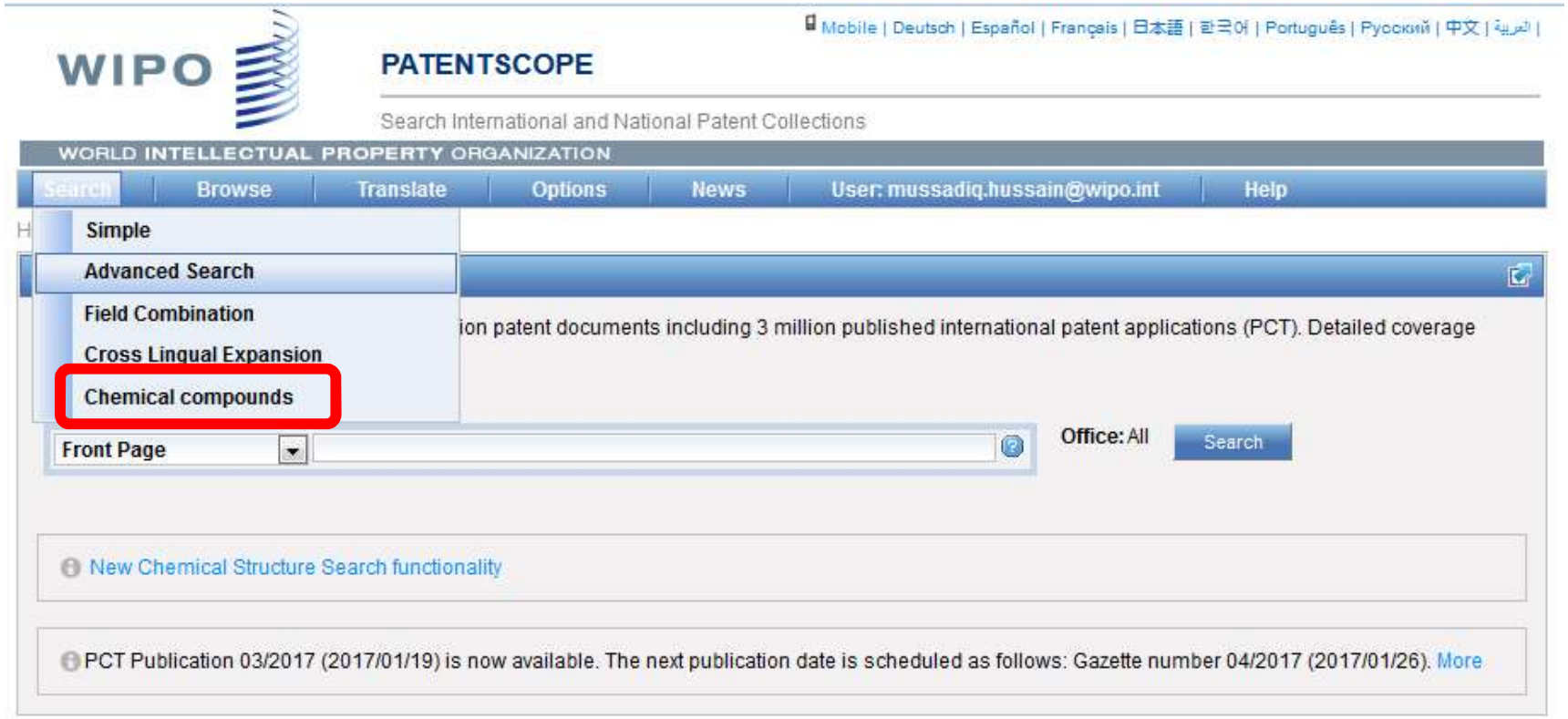
Chemical structure search



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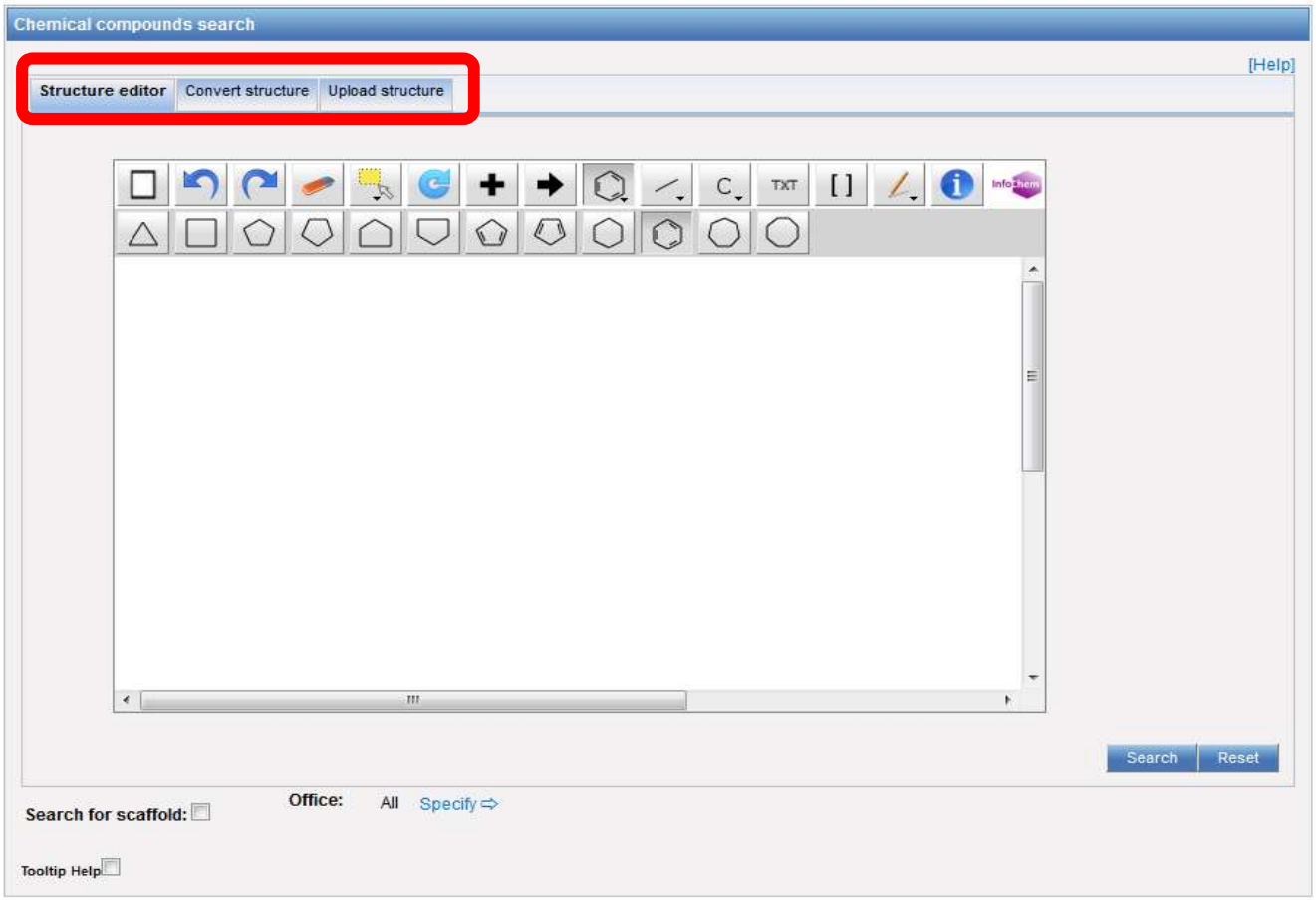
Chemical structure search interface



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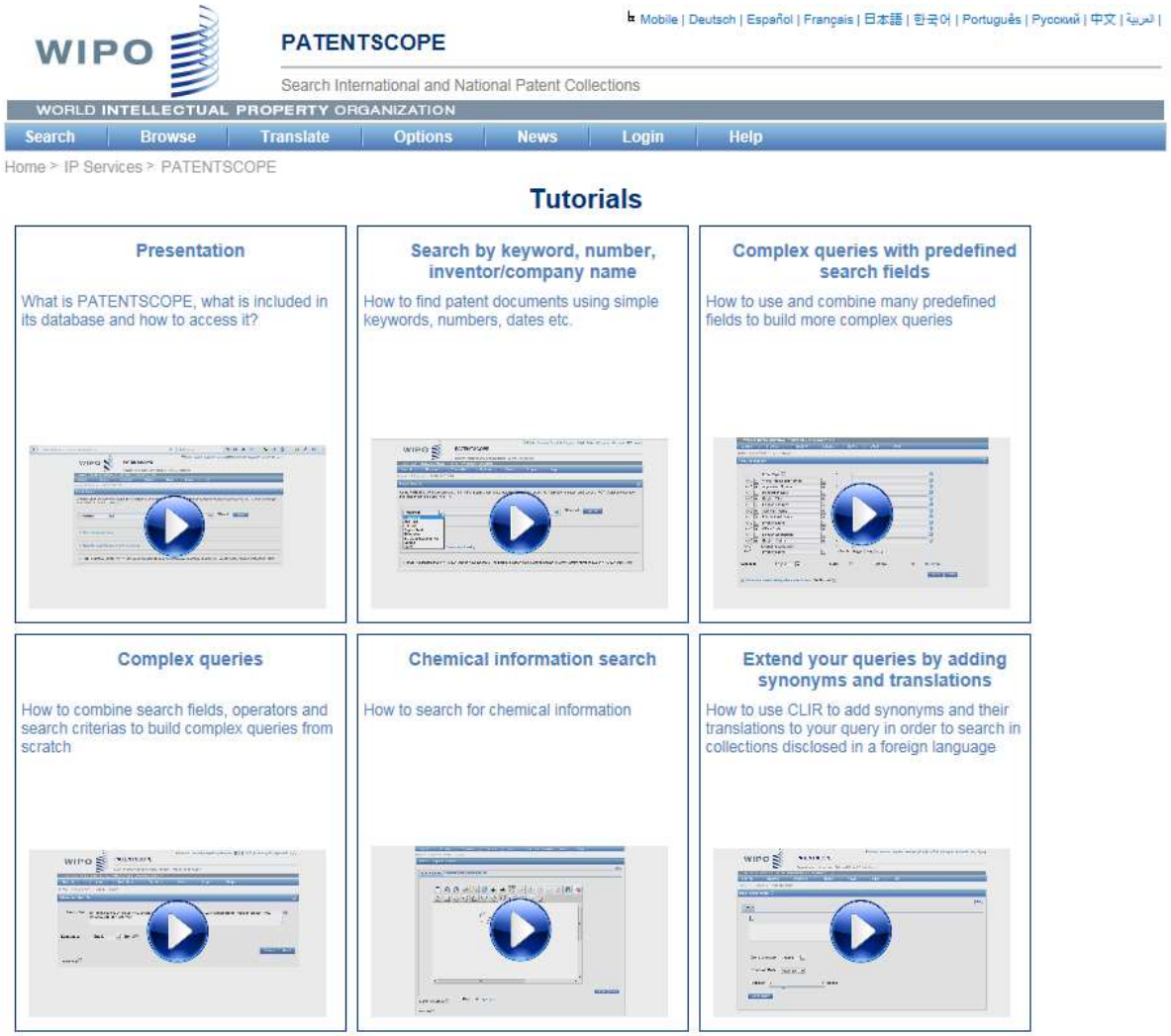
PATENTSCOPE: Tutorials



- Introduction
- Browsing
- Interfaces
- Results

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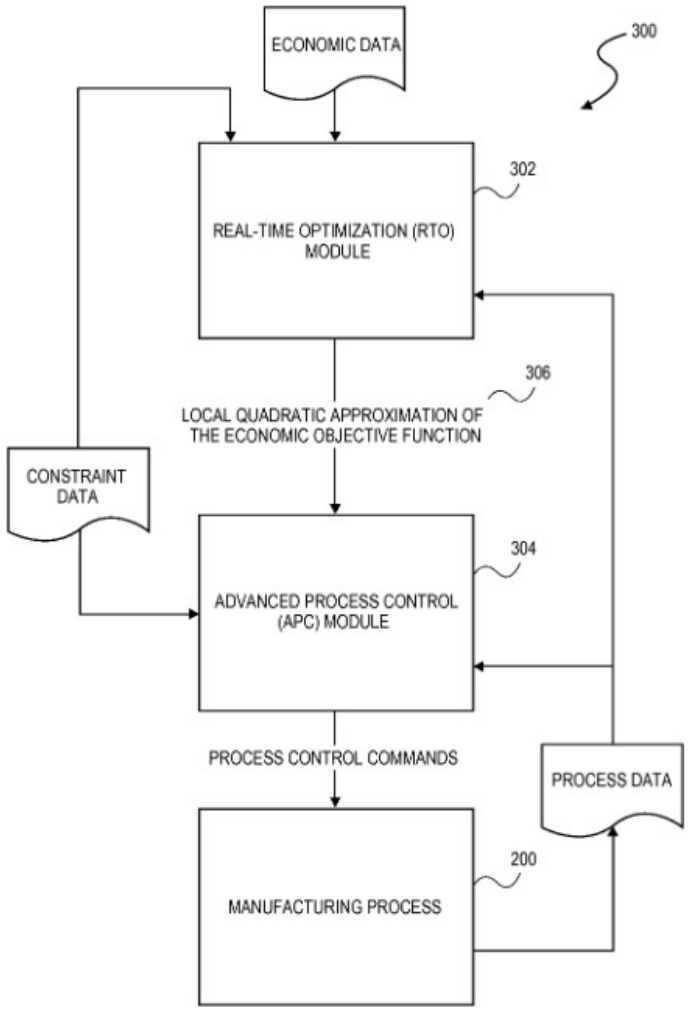
Scenario

- A researcher at a systems development laboratory is considering a direction for her research into adaptive control systems.



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Scenario

- Your task is to determine:
  - which technologies already exist in this area
  - which organizations or individuals are particularly active in this area (in terms of patenting)

Task breakdown

- Access the PATENTSCOPE search service
- Retrieve patent documents based on
  - keywords
  - classification
- Examine a specific patent document and its related documents within the results
- Analyze the whole set of results according to applicants and inventors
- Keep the researcher up-to-date on new patent documents

Task breakdown

- **Access the PATENTSCOPE search service**
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http://www.wipo.int

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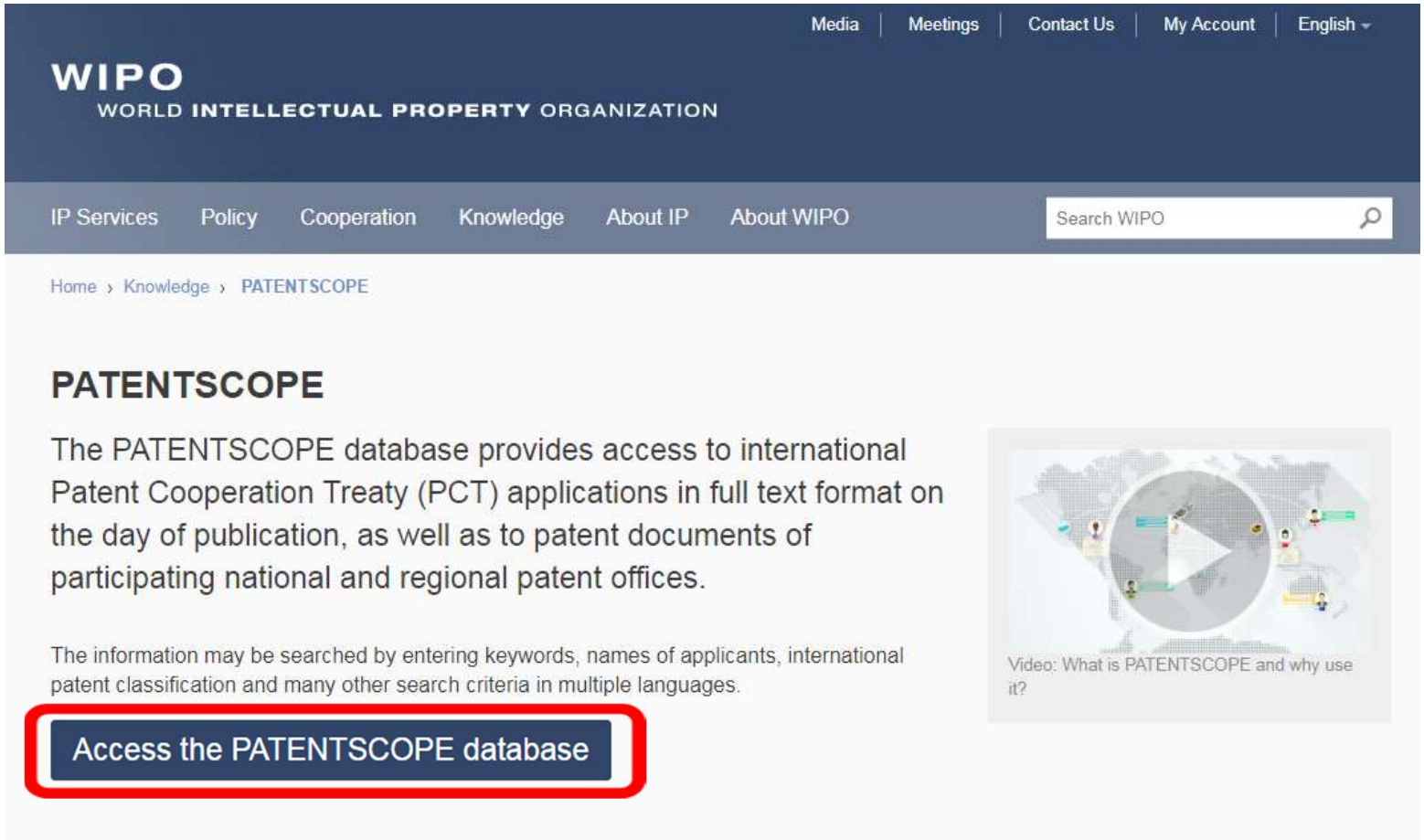
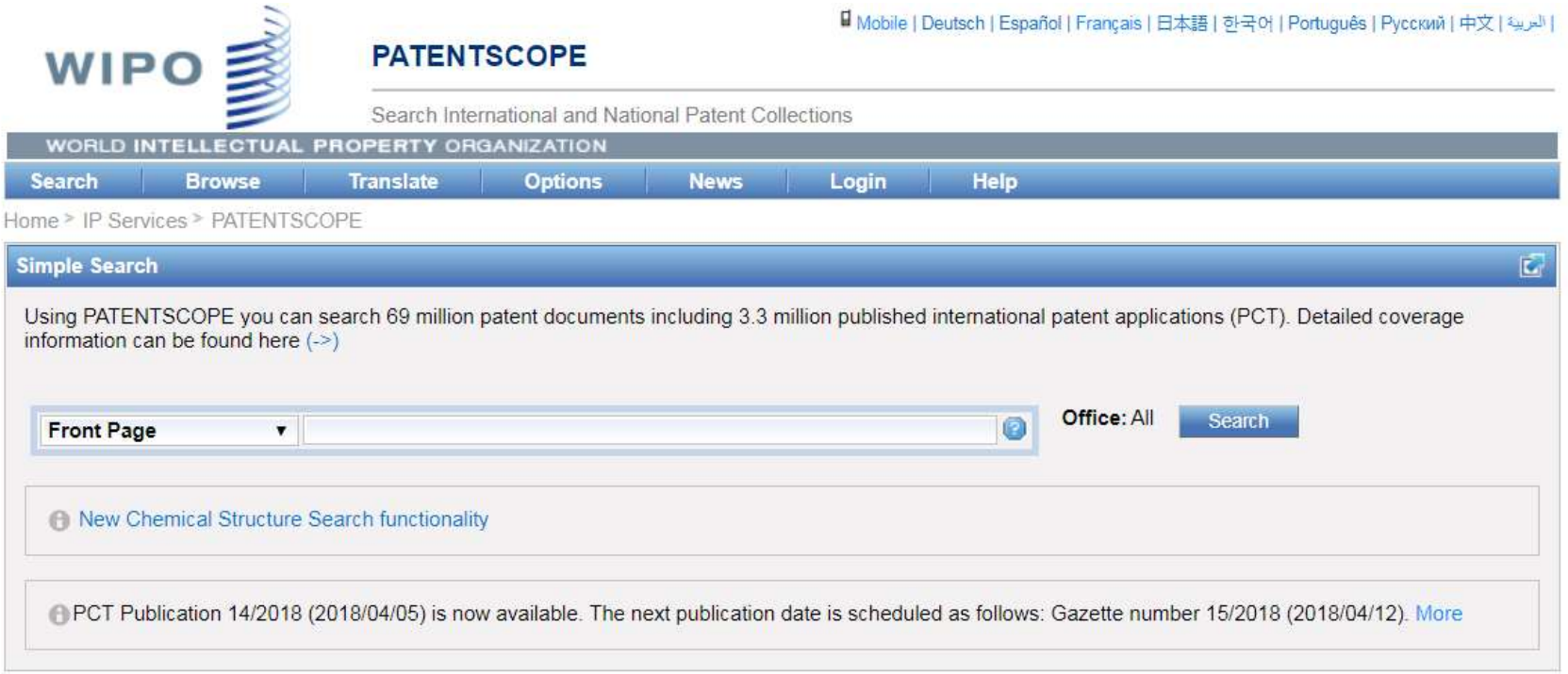
WIPO homepage: PATENTSCOPE



WIPO PATENTSCOPE



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Task breakdown

- Access the PATENTSCOPE search service
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  - **keywords**
  - classification
- Analyze the whole set of results according to applicants and inventors
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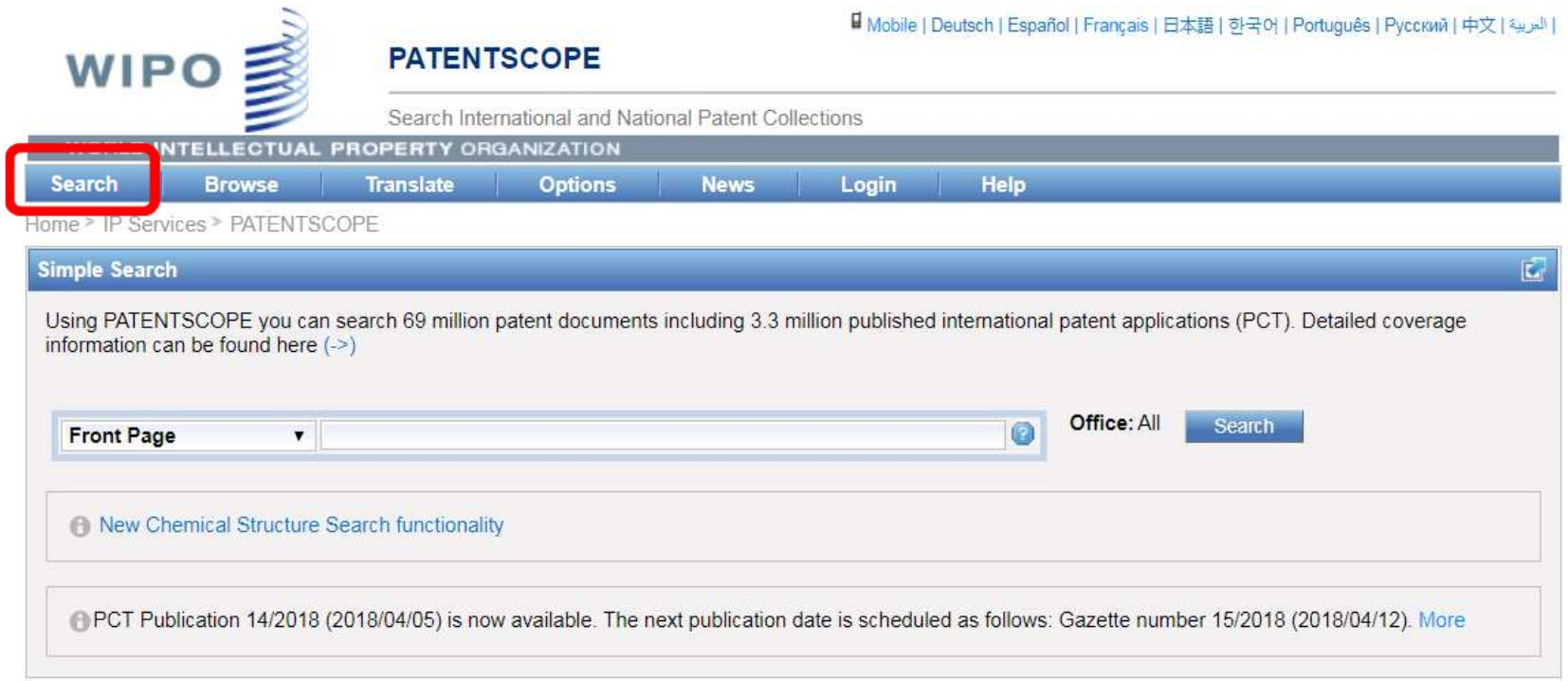
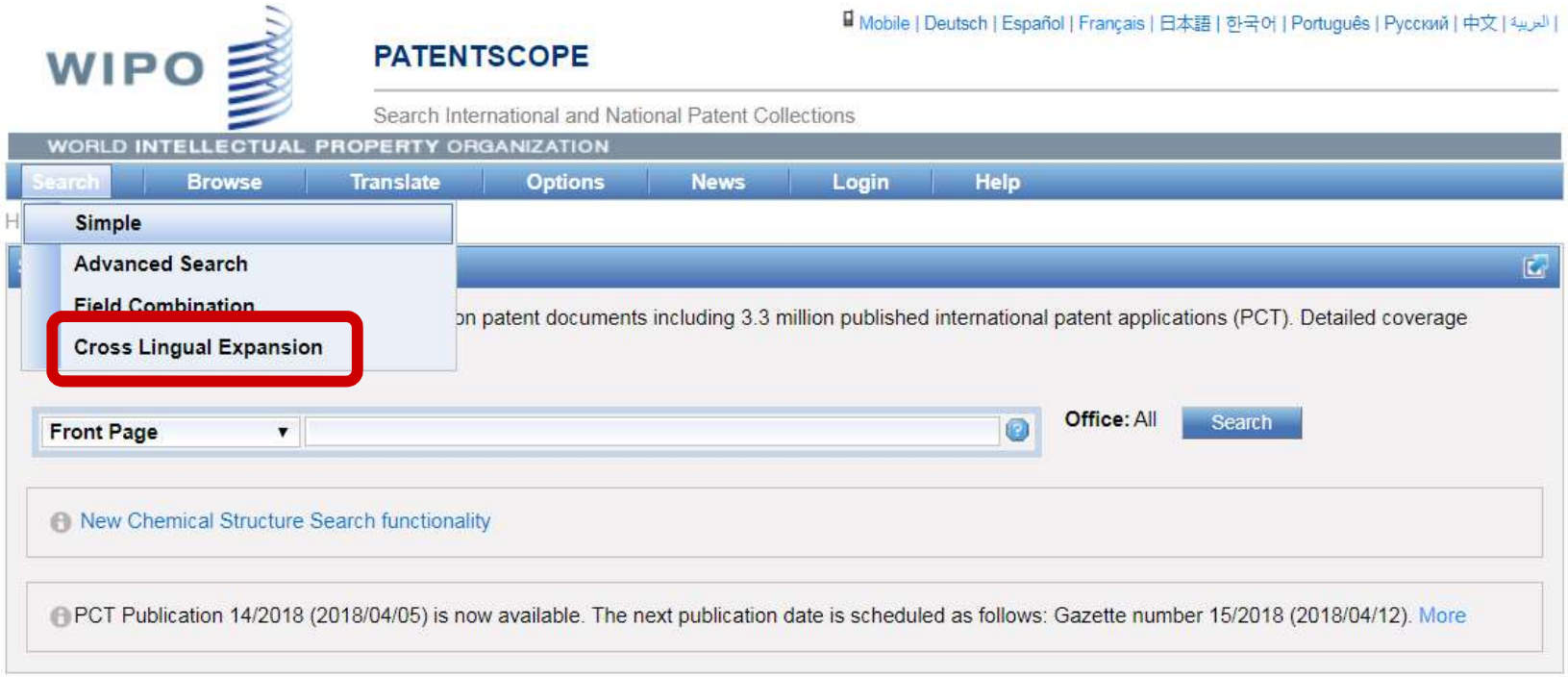
Search interfaces



Search interface: CLIR



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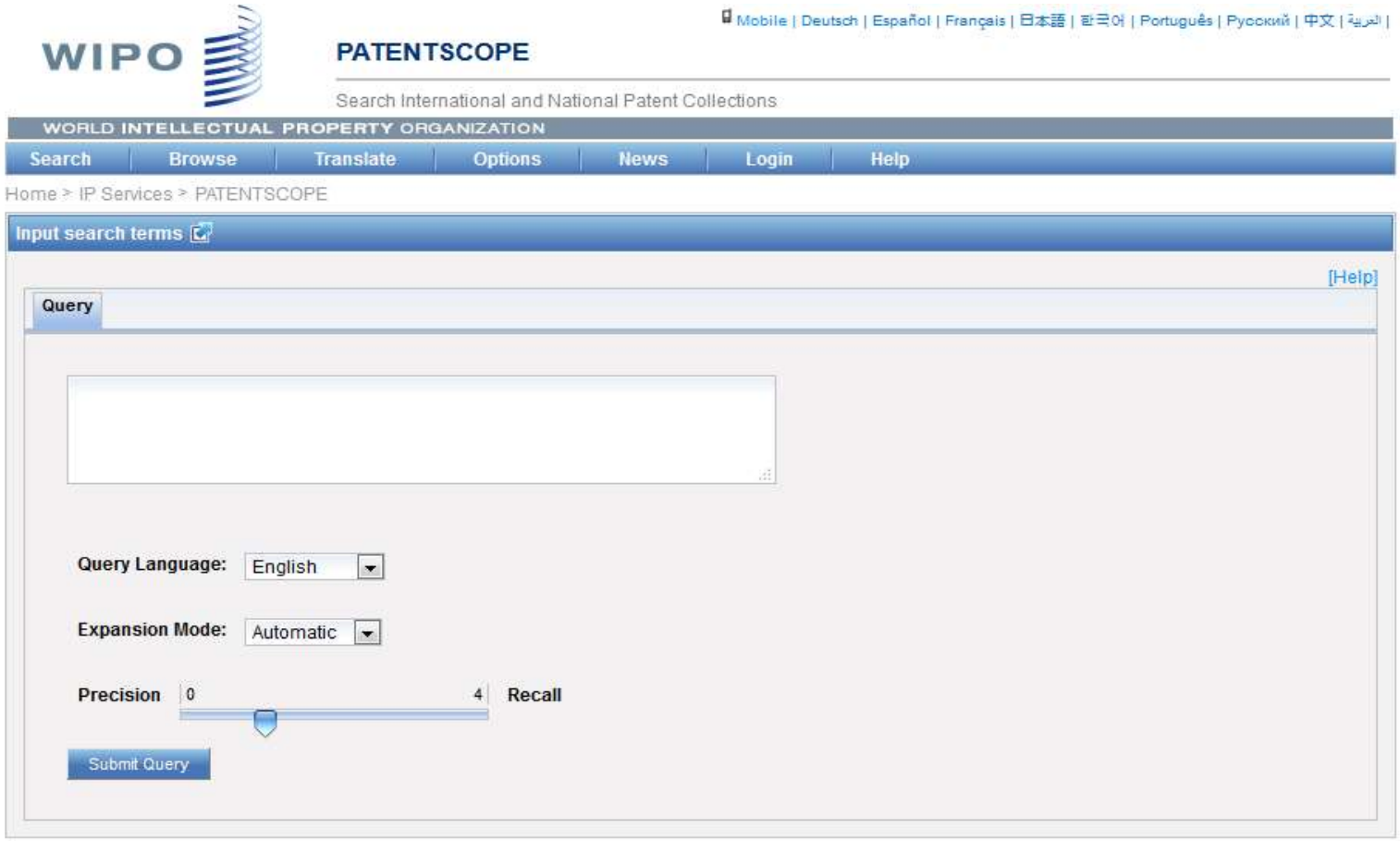
CLIR



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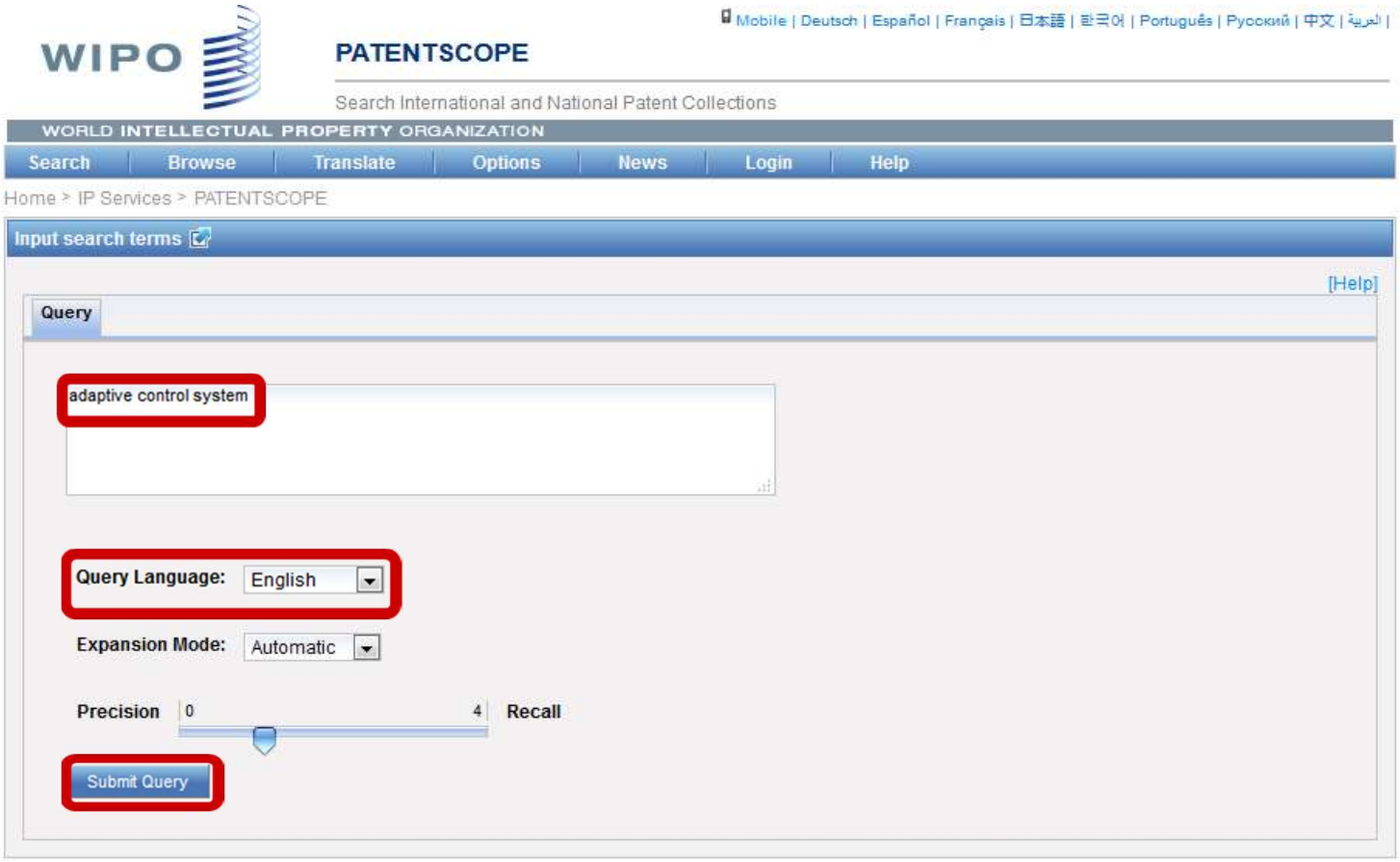
CLIR: Automatic mode



→ Query language is the language in which your query is entered

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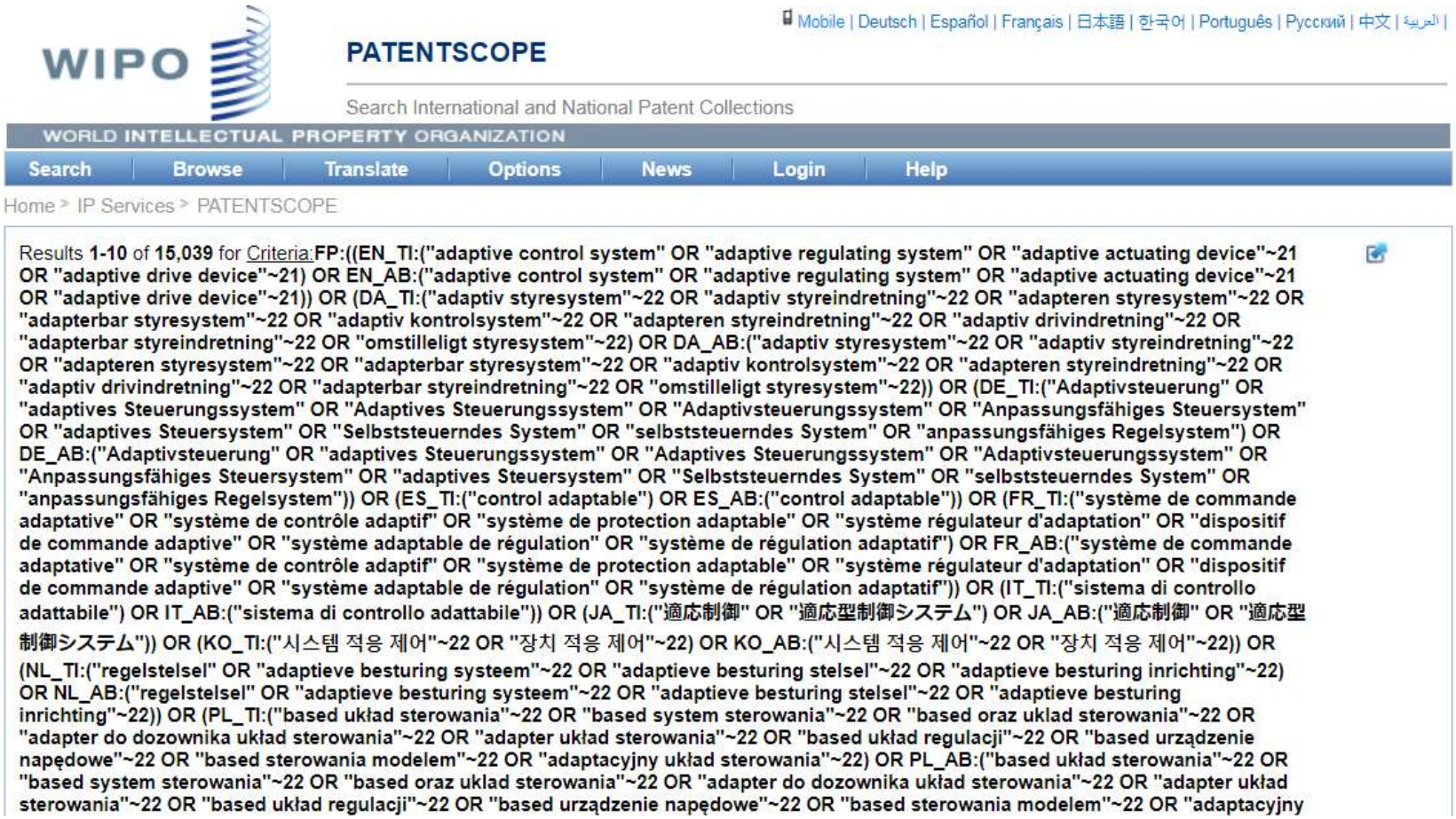
Automatic mode: Query and results



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Search International and National Patent Collections

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Home > IP Services > PATENTSCOPE

Results **1-10** of **15,039** for Criteria:**FP:((EN_TI:("adaptive control system" OR "adaptive regulating system" OR "adaptive actuating device"~21 OR "adaptive drive device"~21) OR EN_AB:("adaptive control system" OR "adaptive regulating system" OR "adaptive actuating device"~21 OR "adaptive drive device"~21)) OR (DA_TI:("adaptiv styresystem"~22 OR "adaptiv styreindretning"~22 OR "adapteren styresystem"~22 OR "adapterbar styresystem"~22 OR "adaptiv kontrolsystem"~22 OR "adapteren styreindretning"~22 OR "adaptiv drivindretning"~22 OR "adapterbar styreindretning"~22 OR "omstilleligt styresystem"~22) OR DA_AB:("adaptiv styresystem"~22 OR "adaptiv styreindretning"~22 OR "adapteren styresystem"~22 OR "adapterbar styresystem"~22 OR "adaptiv kontrolsystem"~22 OR "adapteren styreindretning"~22 OR "adaptiv drivindretning"~22 OR "adapterbar styreindretning"~22 OR "omstilleligt styresystem"~22)) OR (DE_TI:("Adaptivsteuerung" OR "adaptives Steuerungssystem" OR "Adaptives Steuerungssystem" OR "Adaptivsteuerungssystem" OR "Anpassungsfähiges Steuersystem" OR "adaptives Steuersystem" OR "Selbststeuerndes System" OR "selbststeuerndes System" OR "anpassungsfähiges Regelsystem") OR DE_AB:("Adaptivsteuerung" OR "adaptives Steuerungssystem" OR "Adaptives Steuerungssystem" OR "Adaptivsteuerungssystem" OR "Anpassungsfähiges Steuersystem" OR "adaptives Steuersystem" OR "Selbststeuerndes System" OR "selbststeuerndes System" OR "anpassungsfähiges Regelsystem")) OR (ES_TI:("control adaptable") OR ES_AB:("control adaptable")) OR (FR_TI:("système de commande adaptative" OR "système de contrôle adaptif" OR "système de protection adaptable" OR "système régulateur d'adaptation" OR "dispositif de commande adaptive" OR "système adaptable de régulation" OR "système de régulation adaptatif") OR FR_AB:("système de commande adaptative" OR "système de contrôle adaptif" OR "système de protection adaptable" OR "système régulateur d'adaptation" OR "dispositif de commande adaptive" OR "système adaptable de régulation" OR "système de régulation adaptatif")) OR (IT_TI:("sistema di controllo adattabile") OR IT_AB:("sistema di controllo adattabile")) OR (JA_TI:("適応制御" OR "適応型制御システム") OR JA_AB:("適応制御" OR "適応型制御システム")) OR (KO_TI:("시스템 적응 제어"~22 OR "장치 적응 제어"~22) OR KO_AB:("시스템 적응 제어"~22 OR "장치 적응 제어"~22)) OR (NL_TI:("regelstelsel" OR "adaptieve besturing systeem"~22 OR "adaptieve besturing stelsel"~22 OR "adaptieve besturing inrichting"~22) OR NL_AB:("regelstelsel" OR "adaptieve besturing systeem"~22 OR "adaptieve besturing stelsel"~22 OR "adaptieve besturing inrichting"~22)) OR (PL_TI:("based układ sterowania"~22 OR "based system sterowania"~22 OR "based oraz uklad sterowania"~22 OR "adapter do dozownika układ sterowania"~22 OR "adapter układ sterowania"~22 OR "based układ regulacji"~22 OR "based urządzenie napędowe"~22 OR "based sterowania modelem"~22 OR "adaptacyjny układ sterowania"~22) OR PL_AB:("based układ sterowania"~22 OR "based system sterowania"~22 OR "based oraz uklad sterowania"~22 OR "adapter do dozownika układ sterowania"~22 OR "adapter układ sterowania"~22 OR "based układ regulacji"~22 OR "based urządzenie napędowe"~22 OR "based sterowania modelem"~22 OR "adaptacyjny**

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CLIR: Synonyms and variants

- Original language

  adaptive control system → adaptive regulating system, …

- Other languages

  adaptive control system → système de régulation adaptatif, …

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

Automatic mode: Query and results

制御システム")) OR (KO_TI:("시스템 적응 제어"~22 OR "장치 적응 제어"~22) OR KO_AB:("시스템 적응 제어"~22 OR "장치 적응 제어"~22)) OR (NL_TI:("regelstelsel" OR "adaptieve besturing systeem"~22 OR "adaptieve besturing stelsel"~22 OR "adaptieve besturing inrichting"~22) OR NL_AB:("regelstelsel" OR "adaptieve besturing systeem"~22 OR "adaptieve besturing stelsel"~22 OR "adaptieve besturing inrichting"~22)) OR (PL_TI:("based układ sterowania"~22 OR "based system sterowania"~22 OR "based oraz uklad sterowania"~22 OR "adapter do dozownika układ sterowania"~22 OR "adapter układ sterowania"~22 OR "based układ regulacji"~22 OR "based urządzenie napędowe"~22 OR "based sterowania modelem"~22 OR "adaptacyjny układ sterowania"~22) OR PL_AB:("based układ sterowania"~22 OR "based system sterowania"~22 OR "based oraz uklad sterowania"~22 OR "adapter do dozownika układ sterowania"~22 OR "adapter układ sterowania"~22 OR "based układ regulacji"~22 OR "based urządzenie napędowe"~22 OR "based sterowania modelem"~22 OR "adaptacyjny układ sterowania"~22)) OR (PT_TI:("sistema controle adaptador"~22) OR PT_AB:("sistema controle adaptador"~22)) OR (RU_TI:("адаптивная система управления" OR "система адаптивного управления" OR "адаптивная система регулирования") OR RU_AB:("адаптивная система управления" OR "система адаптивного управления" OR "адаптивная система регулирования")) OR (SV_TI:("adaptiv reglersystem"~22 OR "adaptiv regleranordning"~22 OR "adaptivt reglersystem"~22 OR "adaptiv styrningssystem"~22 OR "adaptiv ventilmanovreringsanordning"~22 OR "adaptiv påverkningsanordning"~22 OR "adaptiv reglerapparat"~22 OR "adaptivt regleranordning"~22 OR "adapter reglersystem"~22) OR SV_AB:("adaptiv reglersystem"~22 OR "adaptiv regleranordning"~22 OR "adaptivt reglersystem"~22 OR "adaptiv styrningssystem"~22 OR "adaptiv ventilmanovreringsanordning"~22 OR "adaptiv påverkningsanordning"~22 OR "adaptiv reglerapparat"~22 OR "adaptivt regleranordning"~22 OR "adapter reglersystem"~22)) OR (ZH_TI:("自适应控制" OR "自适应控制系统及") OR ZH_AB:("自适应控制" OR "自适应控制系统及"))) Office(s):all Language: EN Stemming: true

prev 1 2 3 4 5 6 7 8 9 10 next Page: 1 / 1504 Go >

→ Stemming includes, e.g. plural forms

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Results

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Int.Class	Appl.No	Applicant	Ctr	PubDate
			Inventor	

1. 101286058 **Robot modularized distribution type adaptive control system and method**

G05B 19/418	200810036571.5	Shanghai Jiao Tong University	CN	15.10.2008
			Cao Qixin	

The invention provides a robot modularization distribution typed self-adaptive control system and method, belonging to the technical field of robots. The system comprises an equipment pool module, an equipment management module and an application module; the self-adaptive control method comprises robot system customization, electric control circuit connection, equipment online registration, online query on the equipment in the system by the application module, adjusting the zero offset of the equipment, arranging the initial gesture of the robot, carrying out the programming by a programming control module, memorizing program script files, 3D simulation verification, downloading the program script file of practical robots, and controlling the practical robot to carry out the program script file. The robot modularization distribution typed self-adaptive control system and the method realize the smart customization and integration of the user on the robot functions, realize the self-adaptive connection, configuration and controlling function of the robot modularization system on different function modules, and lead the design and development of the robot to be more convenient and faster.

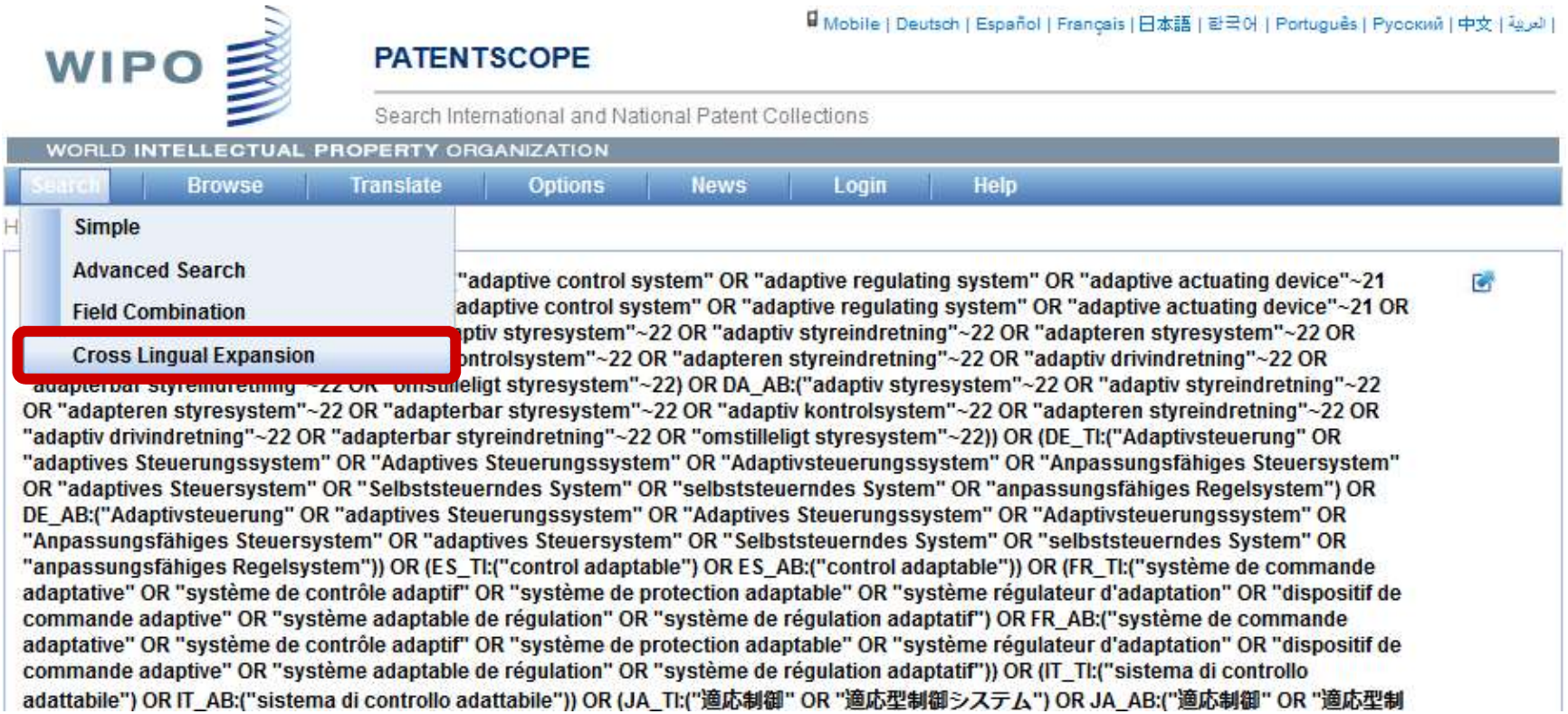
2. 101977155 **Virtual bandwidth adaptive control system and control method thereof**

H04L 12/56	201010548456.3	Wuxi Yuanqing Hi-tech Research Institute Co., Ltd.	CN	16.02.2011
			Wang Hao	

The invention discloses a virtual bandwidth adaptive control system and a control method thereof in the technical field of network engineering. The system comprises a data acquisition and processing module, a virtual bandwidth control module and a parameter on-line adjusting module, wherein the data acquisition and processing module is responsible for acquiring queue length, data stream rate and other information and preprocesses the information to obtain a flow rate error e(t) and change rates of delta e(t) and delta 2e(t); the virtual bandwidth control module performs weighted combination on the error and change rates so as to control the virtual bandwidth; and the parameter on-line adjusting module is responsible for controlling the adjusting configuration of parameters so as to enhance the adaptability and robustness of the system. The virtual bandwidth adaptive control system has simple structure and high expansibility, is applied to a parameter varying dynamic network environment, and can achieve good robustness in a wide-range network environment.

Automatic mode: Query and results

Automatic mode: Query and results



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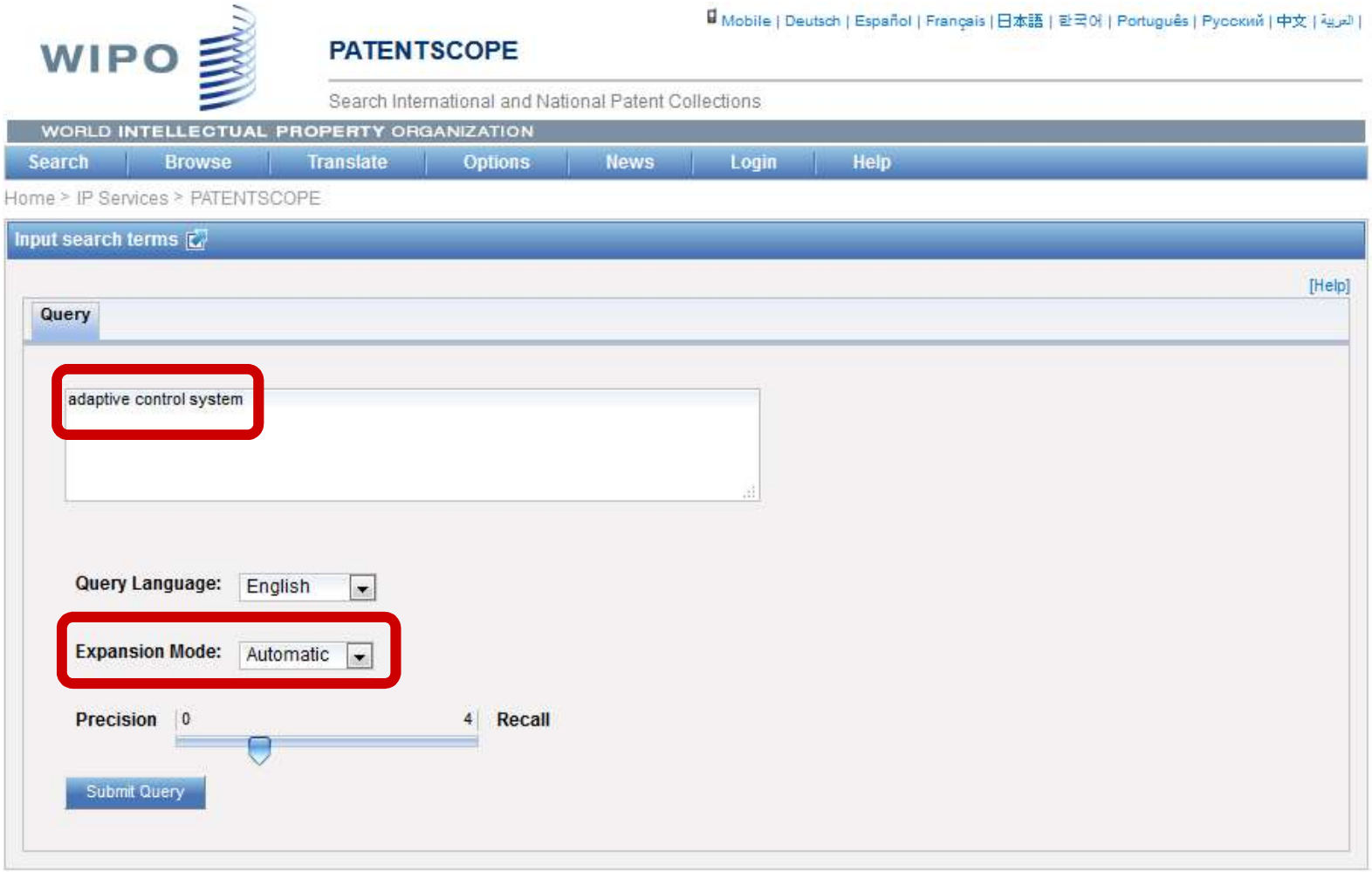

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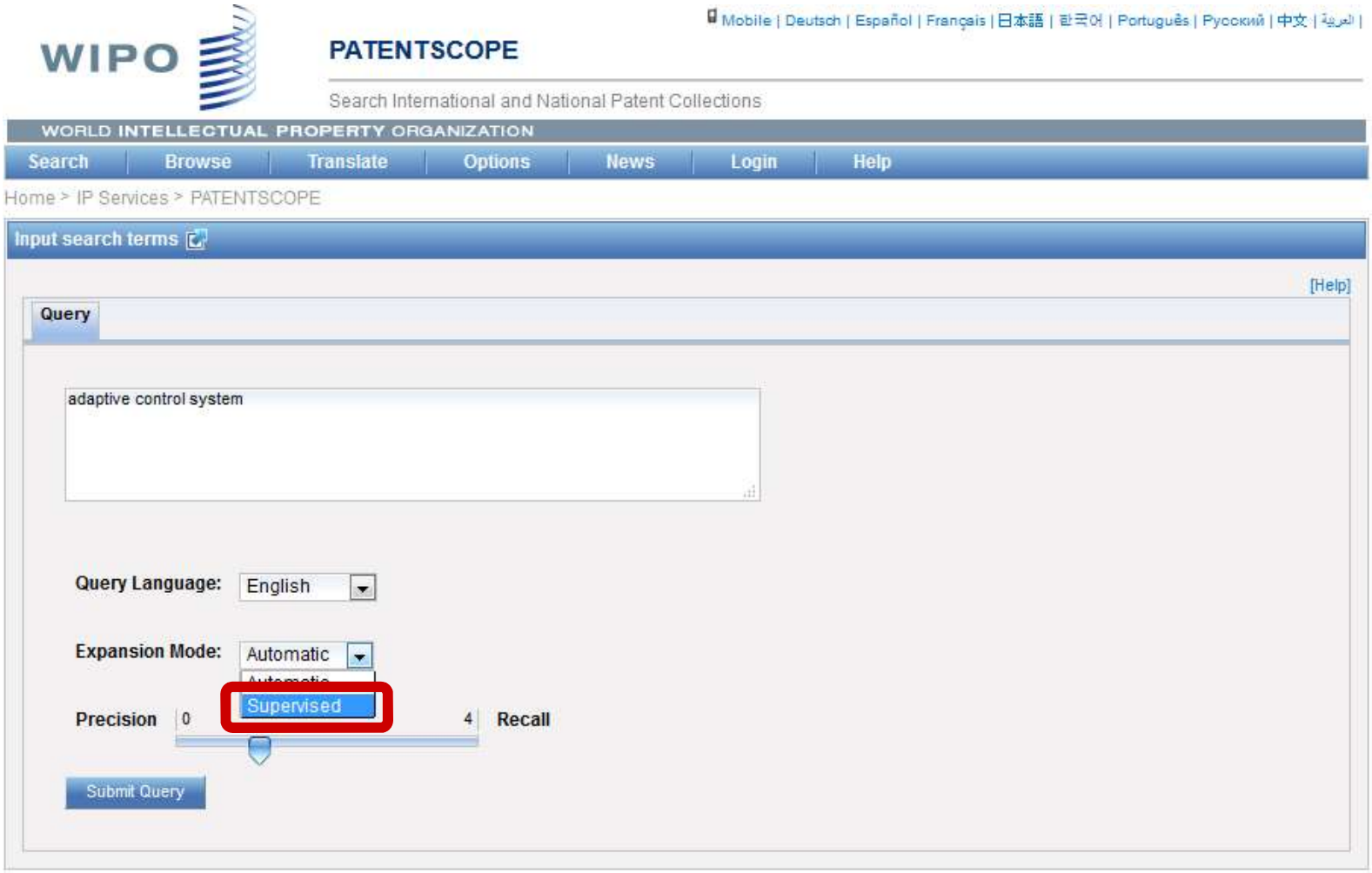

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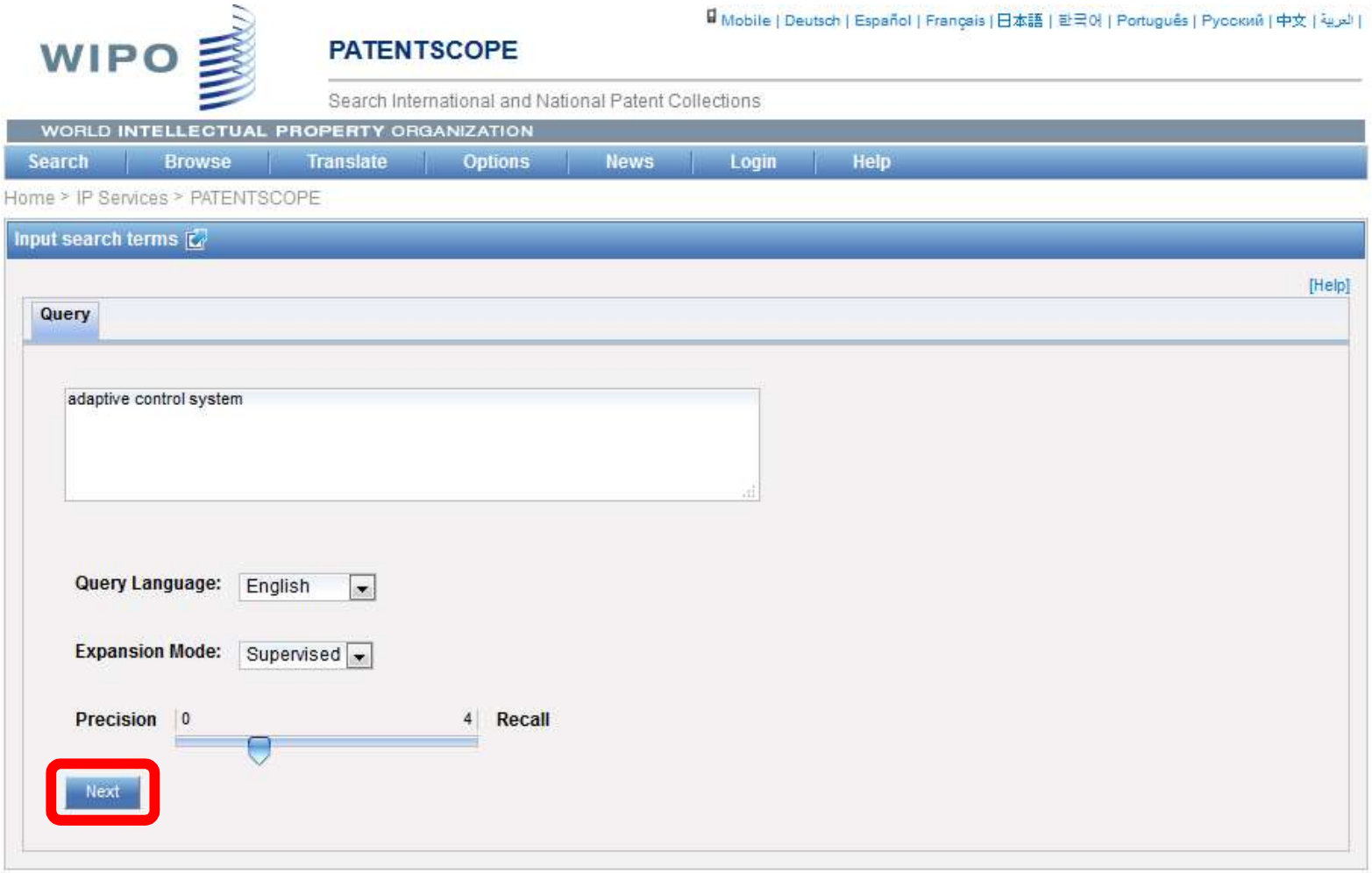

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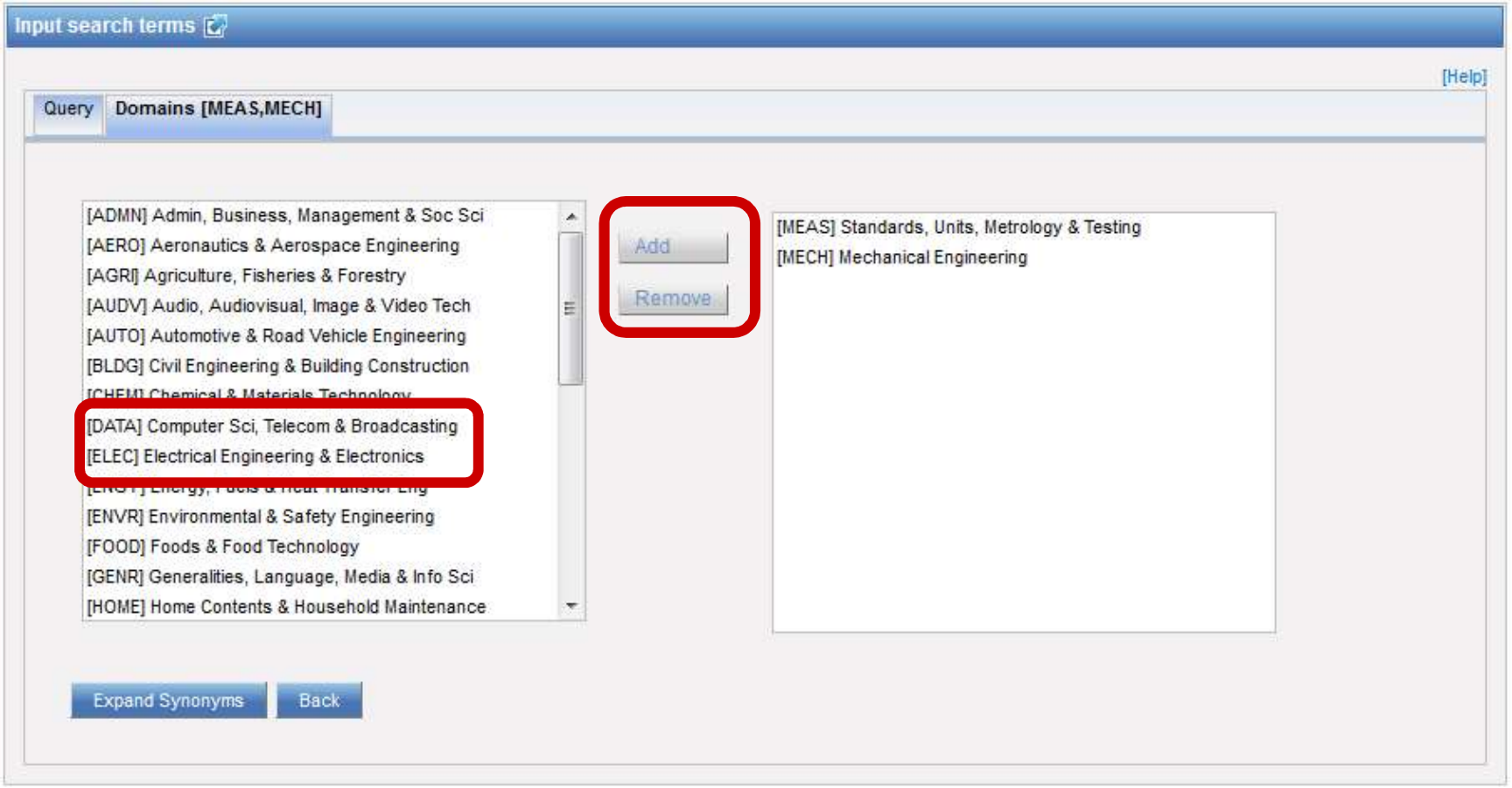

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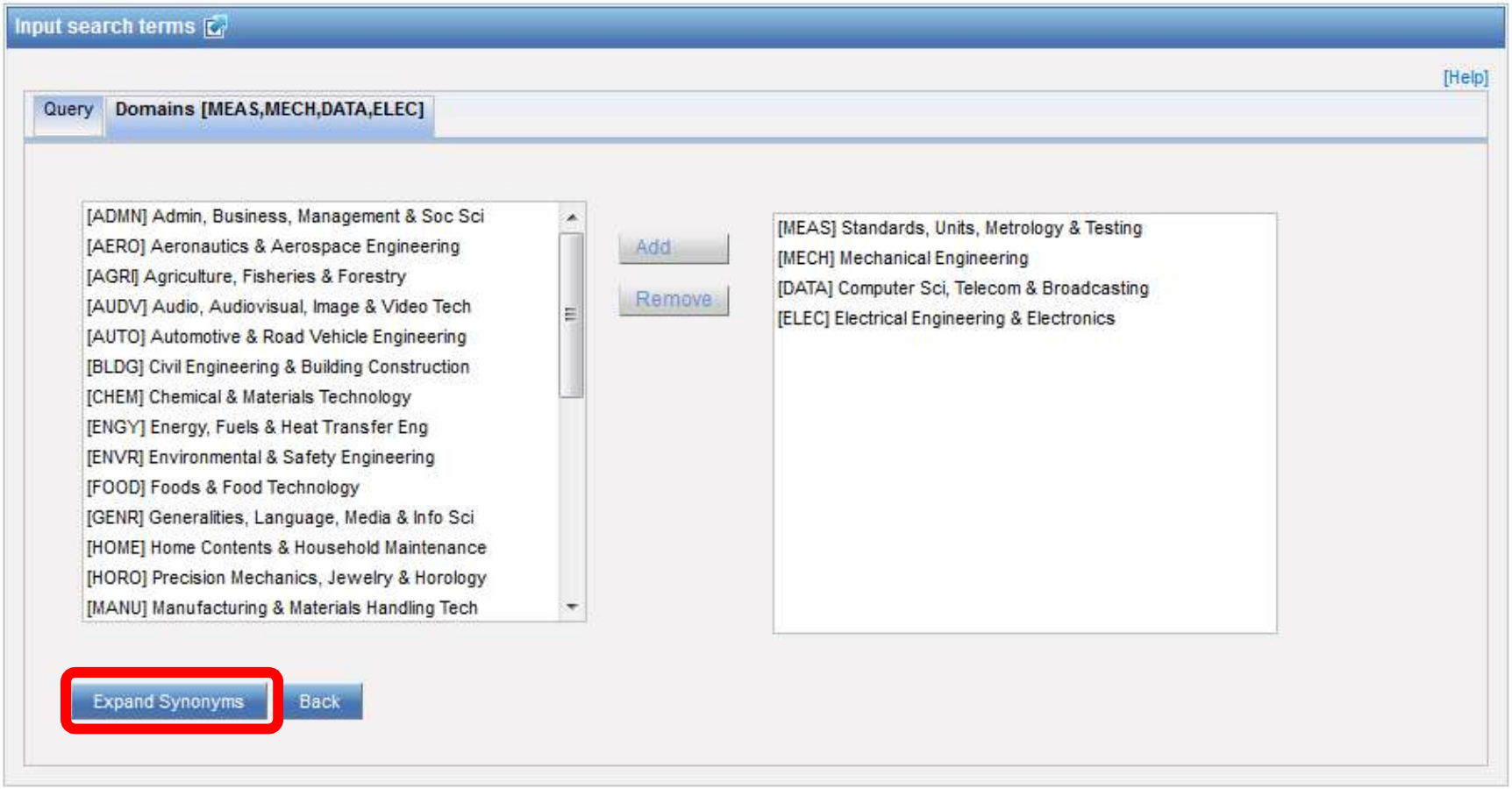
Supervised mode: Domain selection



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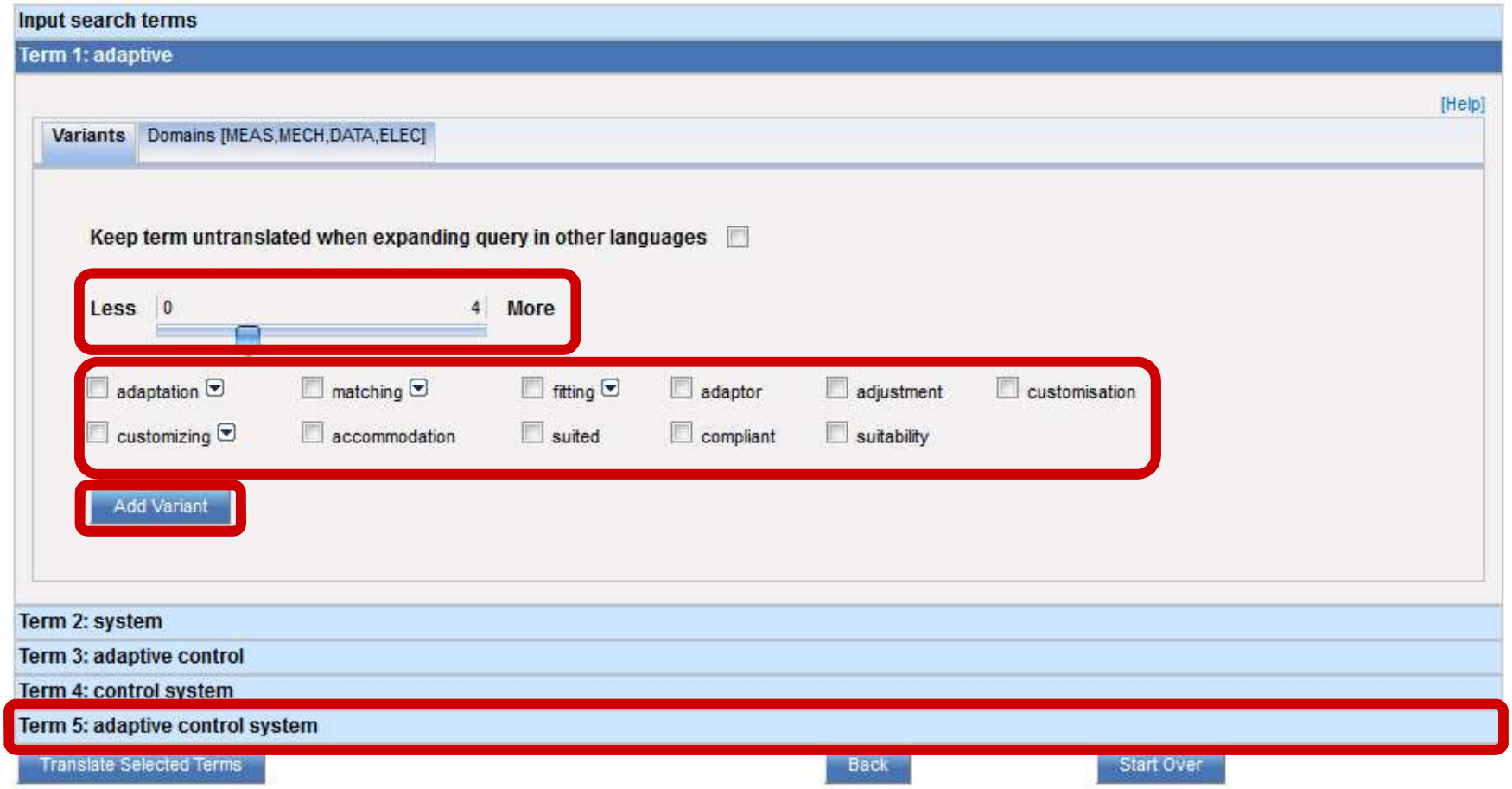
Supervised mode: Variant selection



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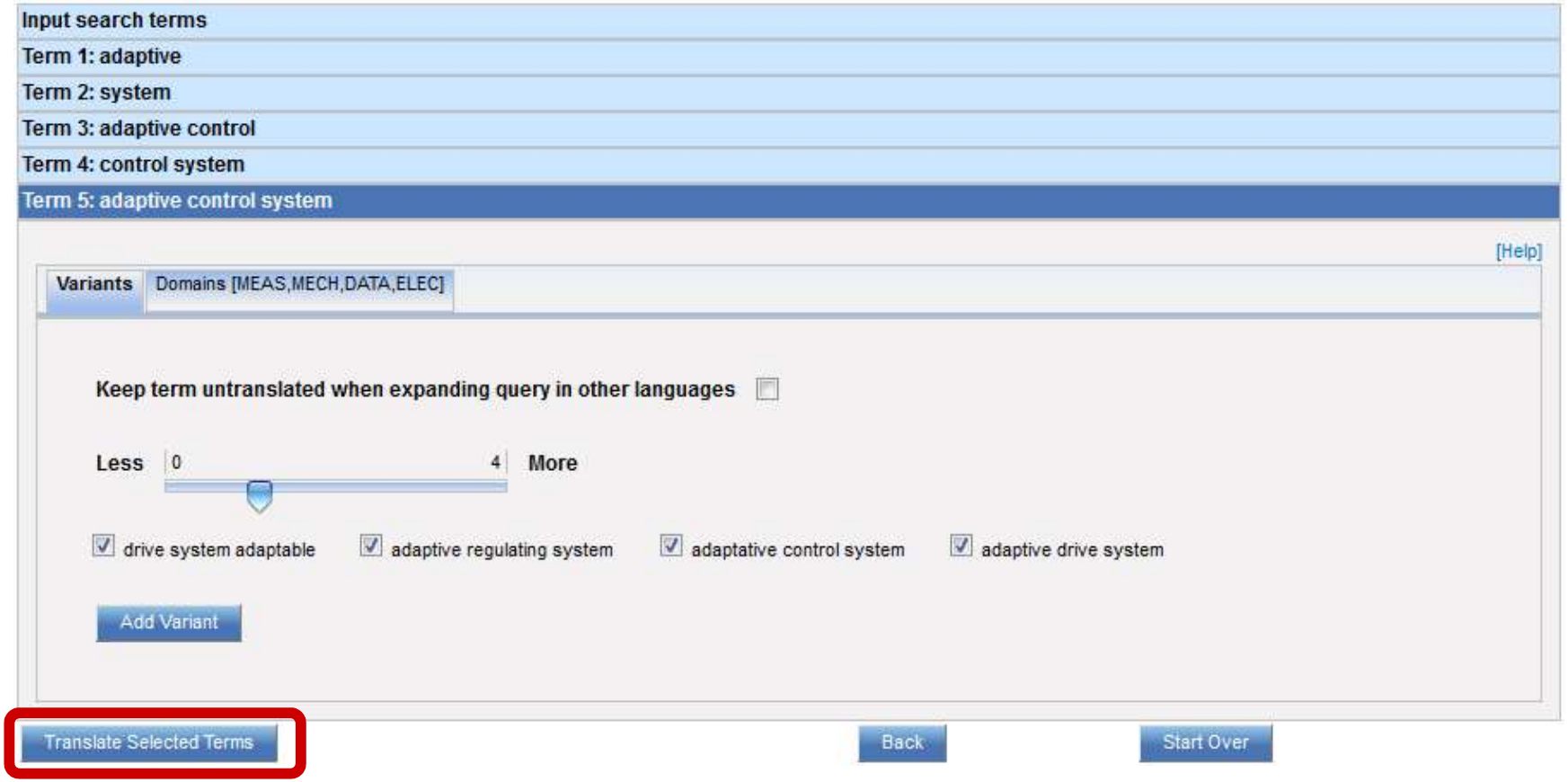
Supervised mode: Variant selection



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Supervised mode: Field and distance selection

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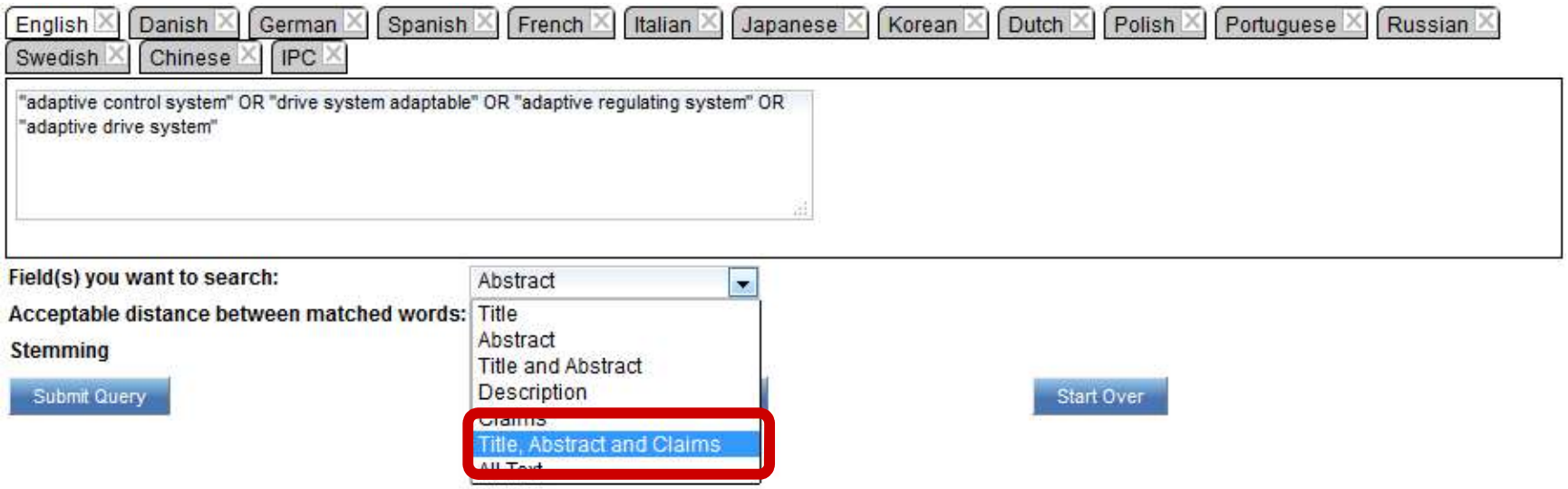
Supervised mode: Field and distance selection



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Supervised mode: Field and distance selection

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Supervised mode: Query and results

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Results **1-10** of **6,294** for Criteria:**FP:(((EN_TI:("adaptive control system" OR "drive system adaptable" OR "adaptive regulating system" OR "adaptive drive system") OR EN_AB:("adaptive control system" OR "drive system adaptable" OR "adaptive regulating system" OR "adaptive drive system") OR EN_CL:("adaptive control system" OR "drive system adaptable" OR "adaptive regulating system" OR "adaptive drive system")) OR (DA_TI:("adaptiv styresystem"~22 OR "adaptiv styringssystem"~22 OR "adaptiv kontrolsystem"~22 OR "tilpasset styresystem"~22 OR "adaptiv styreindretning"~22 OR "adaptivt styresystem"~22 OR "adapterbar styresystem"~22 OR "adaptiv system til kontrol"~22 OR "tilpasset styringssystem"~22 OR "tilpasset kontrolsystem"~22 OR "adaptivt styringssystem"~22 OR "adaptivt kontrolsystem"~22 OR "adapterbar styringssystem"~22 OR "adapterbar kontrolsystem"~22) OR DA_AB:("adaptiv styresystem"~22 OR "adaptiv styringssystem"~22 OR "adaptiv kontrolsystem"~22 OR "tilpasset styresystem"~22 OR "adaptiv styreindretning"~22 OR "adaptivt styresystem"~22 OR "adapterbar styresystem"~22 OR "adaptiv system til kontrol"~22 OR "tilpasset styringssystem"~22 OR "tilpasset kontrolsystem"~22 OR "adaptivt styringssystem"~22 OR "adaptivt kontrolsystem"~22 OR "adapterbar styringssystem"~22 OR "adapterbar kontrolsystem"~22) OR DA_CL:("adaptiv styresystem"~22 OR "adaptiv styringssystem"~22 OR "adaptiv kontrolsystem"~22 OR "tilpasset styresystem"~22 OR "adaptiv styreindretning"~22 OR "adaptivt styresystem"~22 OR "adapterbar styresystem"~22 OR "adaptiv system til kontrol"~22 OR "tilpasset styringssystem"~22 OR "tilpasset kontrolsystem"~22 OR "adaptivt styringssystem"~22 OR "adaptivt kontrolsystem"~22 OR "adapterbar styringssystem"~22 OR "adapterbar kontrolsystem"~22)) OR (DE_TI:("adaptives Steuerungsanordnung" OR "adaptives Regulierungssystem" OR "Adaptivsteuerung" OR "adaptives Steuerungssystem" OR "Adaptives Steuerungssystem" OR "Adaptivsteuerungssystem" OR "Anpassungsfähiges Steuersystem" OR "adaptives Steuersystem" OR "Selbststeuerndes System" OR "selbststeuerndes System" OR "anpassungsfähiges Regelsystem" OR "adaptives Regelungssystem" OR "lernendes Steuerungssystem" OR "anpassungsfähiges Steuersystem") OR DE_AB:("adaptives Steuerungsanordnung" OR "adaptives Regulierungssystem" OR "Adaptivsteuerung" OR "adaptives Steuerungssystem" OR "Adaptives Steuerungssystem" OR "Adaptivsteuerungssystem" OR "Anpassungsfähiges Steuersystem" OR "adaptives Steuersystem" OR "Selbststeuerndes System" OR "selbststeuerndes System" OR "anpassungsfähiges Regelsystem" OR "adaptives Regelungssystem" OR "lernendes Steuerungssystem" OR "anpassungsfähiges Steuersystem") OR DE_CL:("adaptives Steuerungsanordnung" OR "adaptives Regulierungssystem" OR "Adaptivsteuerung" OR "adaptives Steuerungssystem" OR "Adaptives Steuerungssystem" OR "Adaptivsteuerungssystem" OR "Anpassungsfähiges Steuersystem" OR "adaptives Steuersystem" OR "Selbststeuerndes System" OR "selbststeuerndes System" OR "anpassungsfähiges Regelsystem" OR "adaptives Regelungssystem" OR "lernendes Steuerungssystem" OR "anpassungsfähiges Steuersystem")) OR (ES_TI:("control adaptable") OR ES_AB:("control adaptable") OR ES_CL:("control adaptable")) OR (FR_TI:("système de commande adaptative" OR "système de contrôle**

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Results

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Int.Class	Appl.No	Applicant	Ctr	PubDate
		Title		Inventor
21. 106870485 **Hydraulic constant-power self-adaptive control system**			CN	20.06.2017
F15B 11/17	102015000913149	SHEN JIUZHU	SHEN JIUZHU	
The invention discloses a hydraulic constant-power self-adaptive control system, and the system is composed of three sets of oil ways, wherein a main system is a closed type hydraulic circuit. According to the system, the pressure of a working cavity of an executive component is fed back to a variable control mechanism of a pump through a constant-power valve, and the sensitivity, the precision, the vibration resistance stability and the working stability of the control system are improved. By means of the constant-power self-adaptive control system, the rotation speed of a hydraulic motor is automatically adjusted along with change of torque, the system achieves constant-power self-adaptive control, and the power utilization rate and the working timeliness of the executive element are improved.				
22. 105186948 **一种人体3D扫描转速自适应控制系统及其控制方法**			CN	23.12.2015
H02P 7/18	201510461580.9	摩多数据（深圳）有限公司	冷如锋	
本发明公开了一种人体3D扫描转速自适应控制系统及其控制方法，包括MCU芯片、转盘电机驱动模块、霍尔测速传感器、电源模块及转盘电机，其中，？MCU芯片与转盘电机驱动模块连接；霍尔测速传感器及转盘电机分别与转盘电机驱动模块连接，霍尔测速传感器与MCU芯片连接，形成闭环控制系统；控制方法包括以下步骤：MCU芯片预设转盘转速预设值；MCU芯片发送命令至转盘电机驱动模块；转盘电机以预设值匀速旋转；人体站到转动的旋转转盘上；霍尔测速传感器感应转盘转速变化；MCU芯片根据反馈信号算出偏差值，形成转盘电机功率改变量；转盘电机驱动模块控制转盘电机功率。本发明减小了转速变化值到预设值之间的相应时间，避免了转盘因转速变化而影响扫描质量。				

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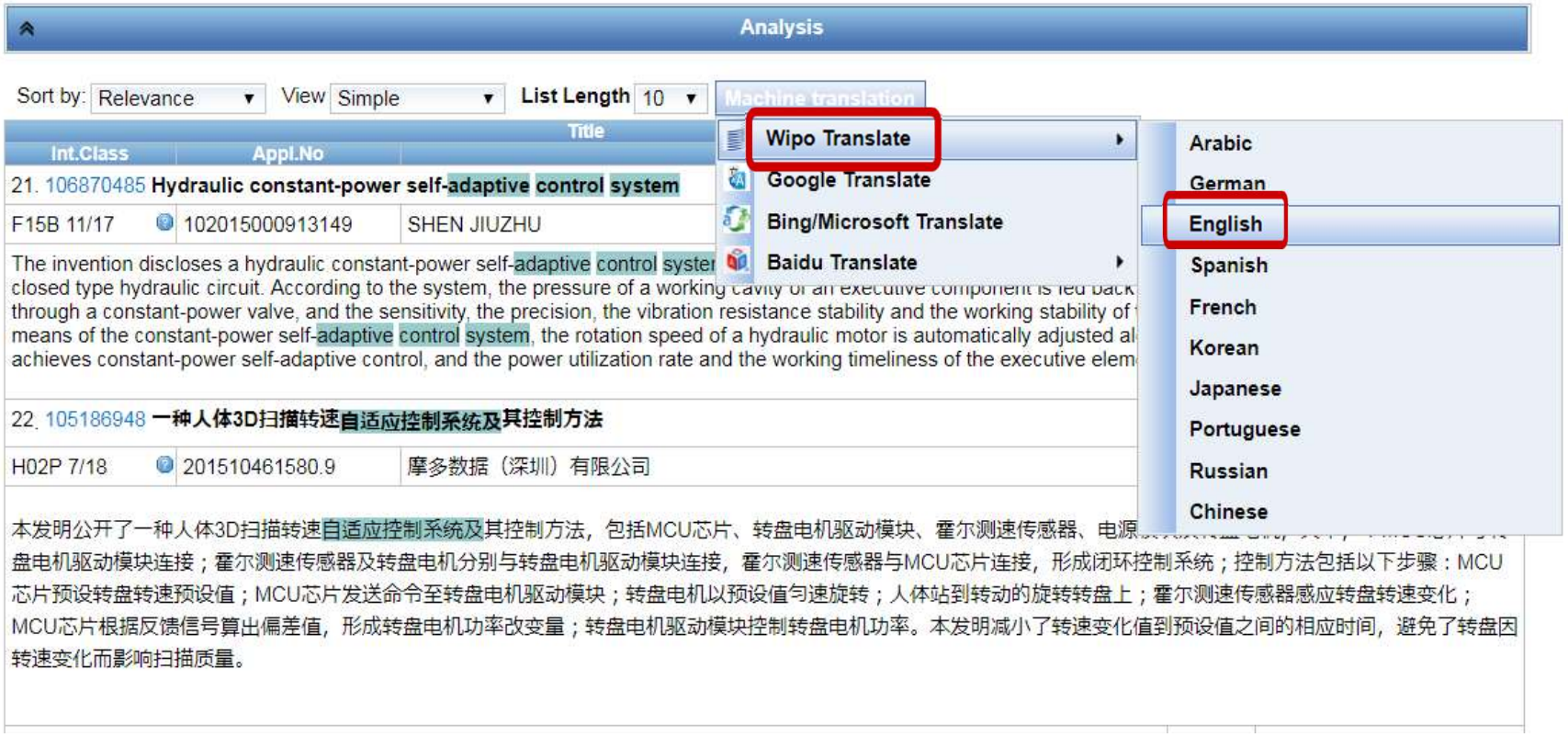

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Analysis

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Int.Class	Appl.No	Applicant	Ctr / Inventor	PubDate
21. 106870485 Hydraulic constant-power self-adaptive control system			CN	20.06.2017
F15B 11/17	102015000913149	SHEN JIUZHU	SHEN JIUZHU	
The invention discloses a hydraulic constant-power self-adaptive control system, and the system is composed of three sets of oil ways, wherein a main system is a closed type hydraulic circuit. According to the system, the pressure of a working cavity of an executive component is fed back to a variable control mechanism of a pump through a constant-power valve, and the sensitivity, the precision, the vibration resistance stability and the working stability of the control system are improved.By means of the constant-power self-adaptive control system, the rotation speed of a hydraulic motor is automatically adjusted along with change of torque, the system achieves constant-power self-adaptive control, and the power utilization rate and the working timeliness of the executive element are improved.				
22. 105186948 Human body 3d scanning rotating speed self-adaptive control system and control method thereof			CN	23.12.2015
H02P 7/18	201510461580.9	摩多数据（深圳）有限公司	冷如锋	
The invention discloses a human body 3d scanning rotating speed self-adaptive control system and a control method thereof, a rotating disc motor driving module, a hall speed measuring sensor, a power supply module and a rotating disc motor,? The MCU chip is connected with the turntable motor driving module, and the hall speed measuring sensor and the turntable motor are respectively connected with the turntable motor driving module, the hall speed measuring sensor is connected with the MCU chip to form a closed-loop control system; the control method comprises the following steps: presetting a rotating speed preset value of the rotating disc by the MCU chip; the MCU chip sends a command to the turntable motor driving module; the turntable motor rotates at a constant speed at a preset value; the human body stands on the rotating rotating disc which rotates, and the hall speed measuring sensor senses the rotating speed change of the rotating disc; the MCU chip calculates a deviation value according to the feedback signal, and the power of the rotating disc motor is changed; the rotating disc motor driving module controls the power of the rotating disc motor. According to the invention, the corresponding time between the rotating speed change value and the preset value is reduced, so that the influence on the scanning quality caused by the change of the rotation speed of the turntable is avoided.				

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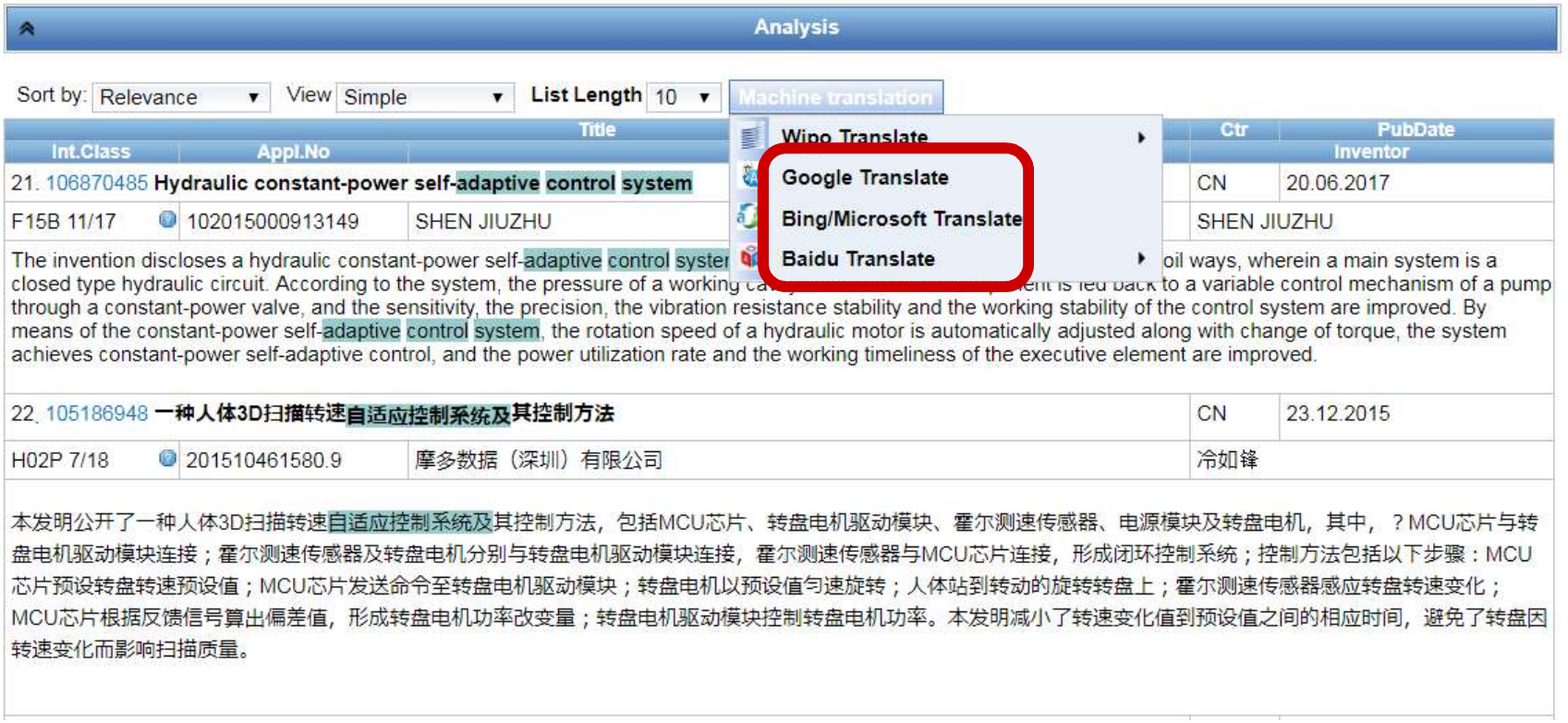

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Task breakdown

- Access the PATENTSCOPE search service
- **Retrieve patent documents based on**
  - keywords
  - **classification**
- Analyze the whole set of results according to applicants and inventors
- Examine a specific patent document and its related documents within the results
- Keep the researcher up-to-date on new patent documents

Results

Analysis

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Int.Class	Appl.No	Applicant	Ctr	PubDate
1. 101286058 **Robot modularized distribution type adaptive control system and method**			CN	15.10.2008
G05B 19/418	200810036571.5	Shanghai Jiao Tong University	Inventor: Cao Qixin	

The invention provides a robot modularization distribution typed self-adaptive control system and method, belonging to the technical field of robots. The system comprises an equipment pool module, an equipment management module and an application module; the self-adaptive control method comprises robot system customization, electric control circuit connection, equipment online registration, online query on the equipment in the system by the application module, adjusting the zero offset of the equipment, arranging the initial gesture of the robot, carrying out the programming by a programming control module, memorizing program script files, 3D simulation verification, downloading the program script file of practical robots, and controlling the practical robot to carry out the program script file. The robot modularization distribution typed self-adaptive control system and the method realize the smart customization and integration of the user on the robot functions, realize the self-adaptive connection, configuration and controlling function of the robot modularization system on different function modules, and lead the design and development of the robot to be more convenient and faster.

2. 106877774 **Servo self-adaptive control system and method for supersonic wave motor in input saturation conditions**			CN	20.06.2017
H02P 23/04	102017000268740	MINJIANG UNIVERSITY	Inventor: FU PING	

The invention relates to a servo self-adaptive control system and method for a supersonic wave motor in input saturation conditions. The system comprises a pedestal and a supersonic wave motor fixing rack used for fixing the supersonic wave motor, wherein the supersonic wave motor fixing rack is arranged on the pedestal, an output shaft on one side of the supersonic wave motor is connected with a photoelectric encoder, an output shaft on the other side is connected with a flywheel inertia load, the output shaft of the flywheel inertia load is connected with a force moment sensor via a shaft coupling device, and a signal output end of the photoelectric encoder and a signal output part of the force moment sensor are respectively connected to a control system. The control system consists of a backstepping controller and a motor, a whole controller system is built based on backstepping calculation, and therefore good control effects can be obtained. The servo self-adaptive control system and method for the supersonic wave motor in the input saturation conditions put forward in the invention is high in control accuracy, simple and compact in structure and good in using effects.

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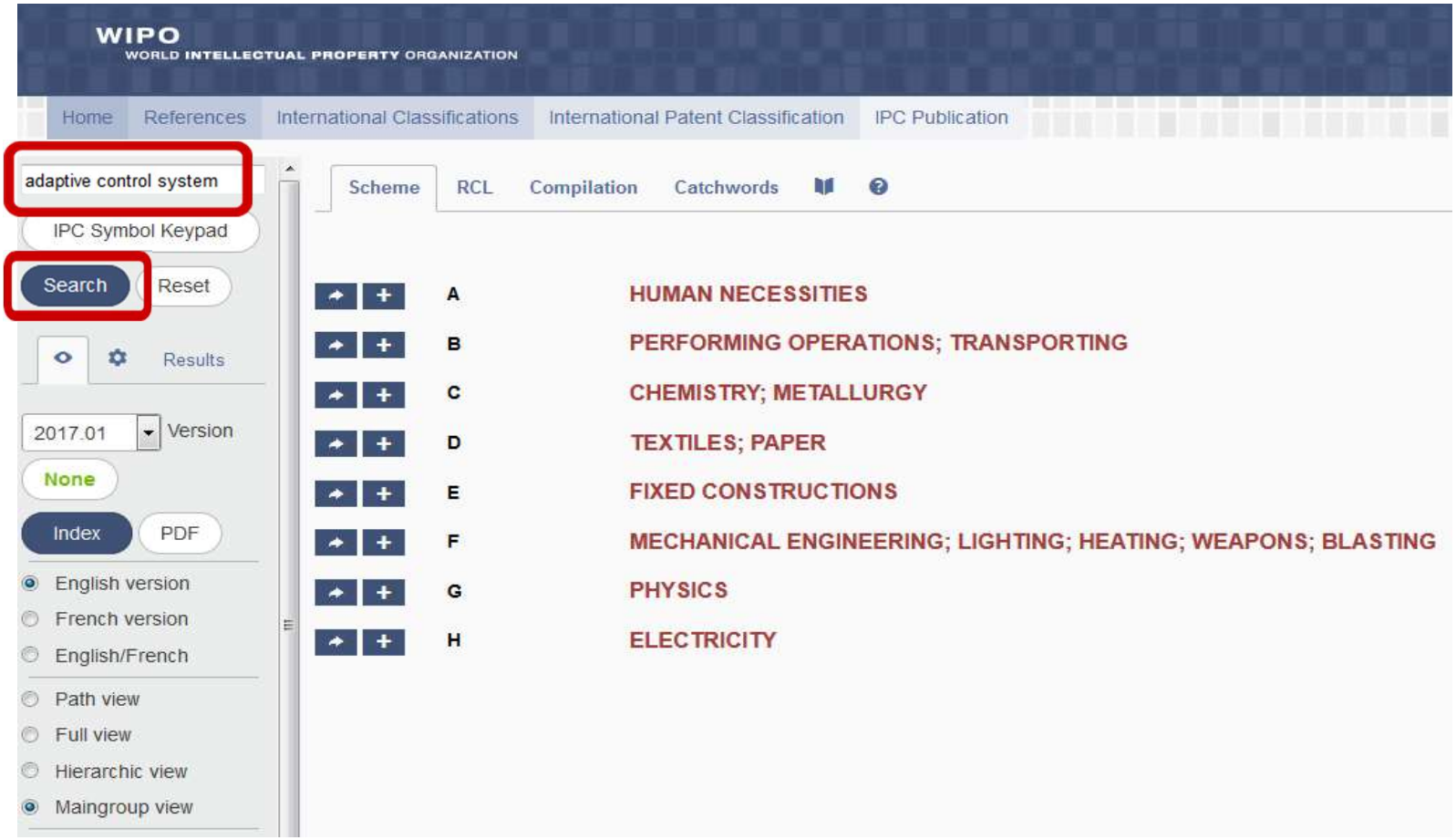

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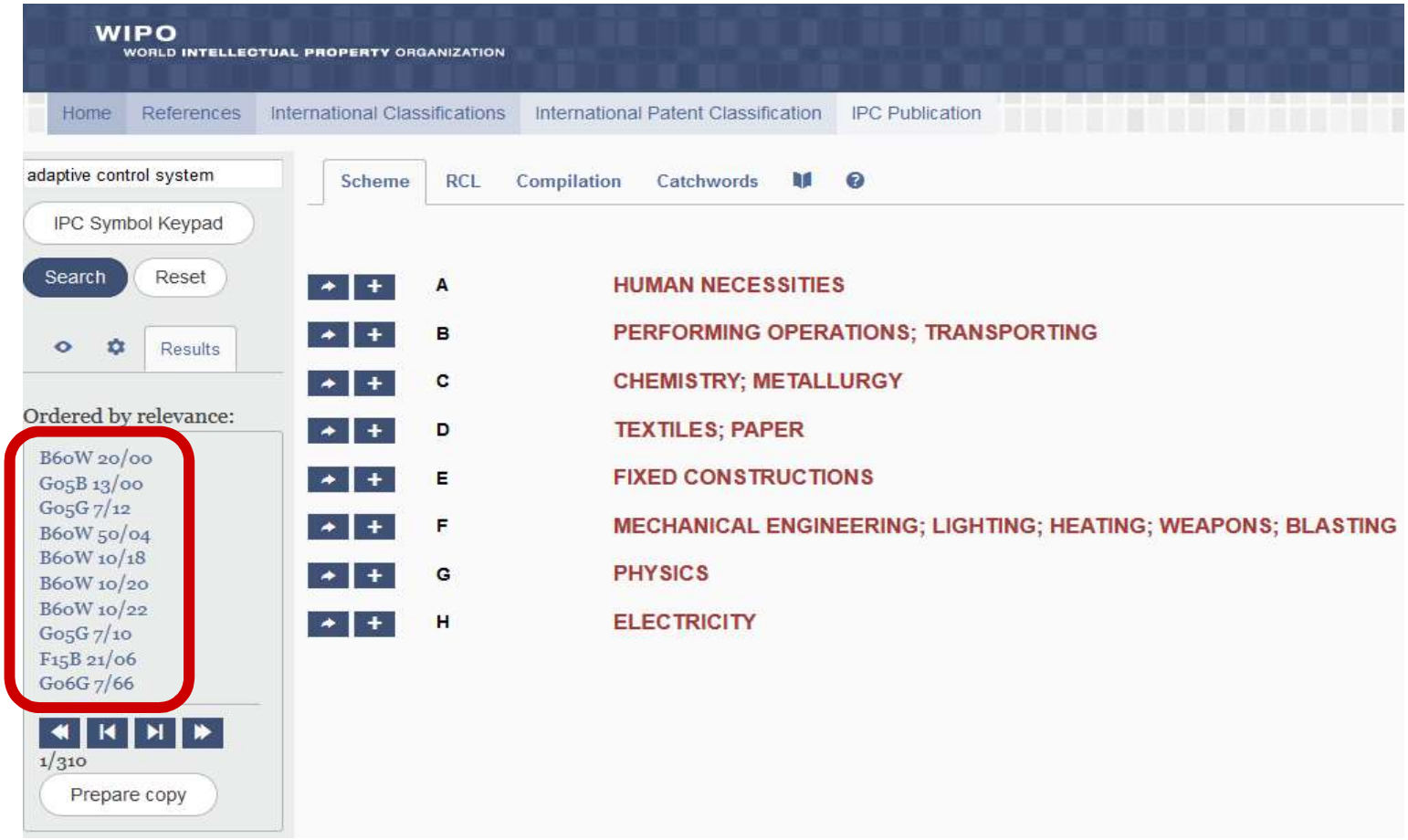
IPC search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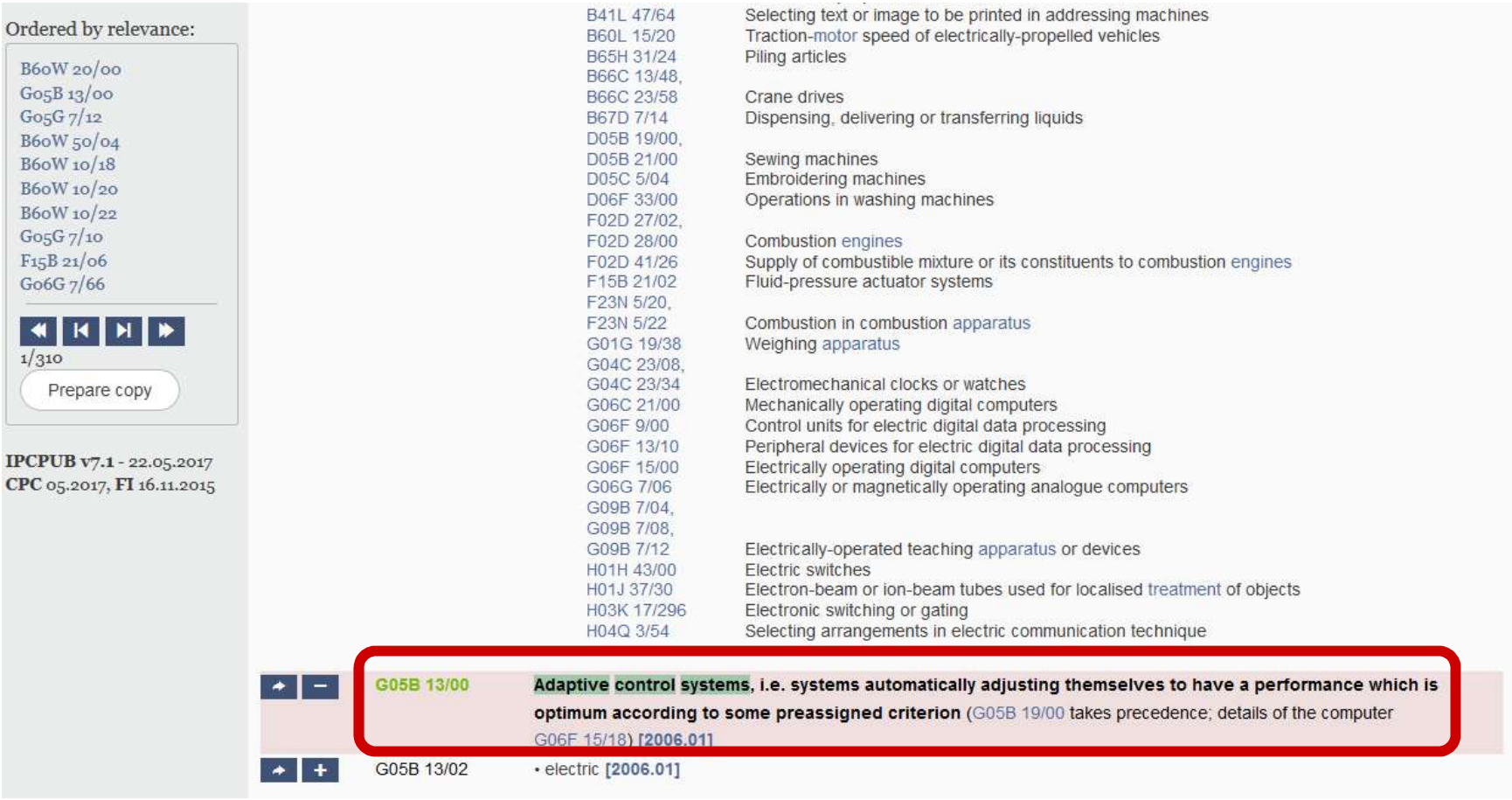
B60W 10/20
B60W 10/22
G05G 7/10
F15B 21/06
G06G 7/66
1/310
Prepare copy
Scheme
RCL
Compilation
Catchwords
A HUMAN NECESSITIES
B PERFORMING OPERATIONS; TRANSPORTING
C CHEMISTRY; METALLURGY
D TEXTILES; PAPER
E FIXED CONSTRUCTIONS
F MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING
G PHYSICS
H ELECTRICITY

Classification view



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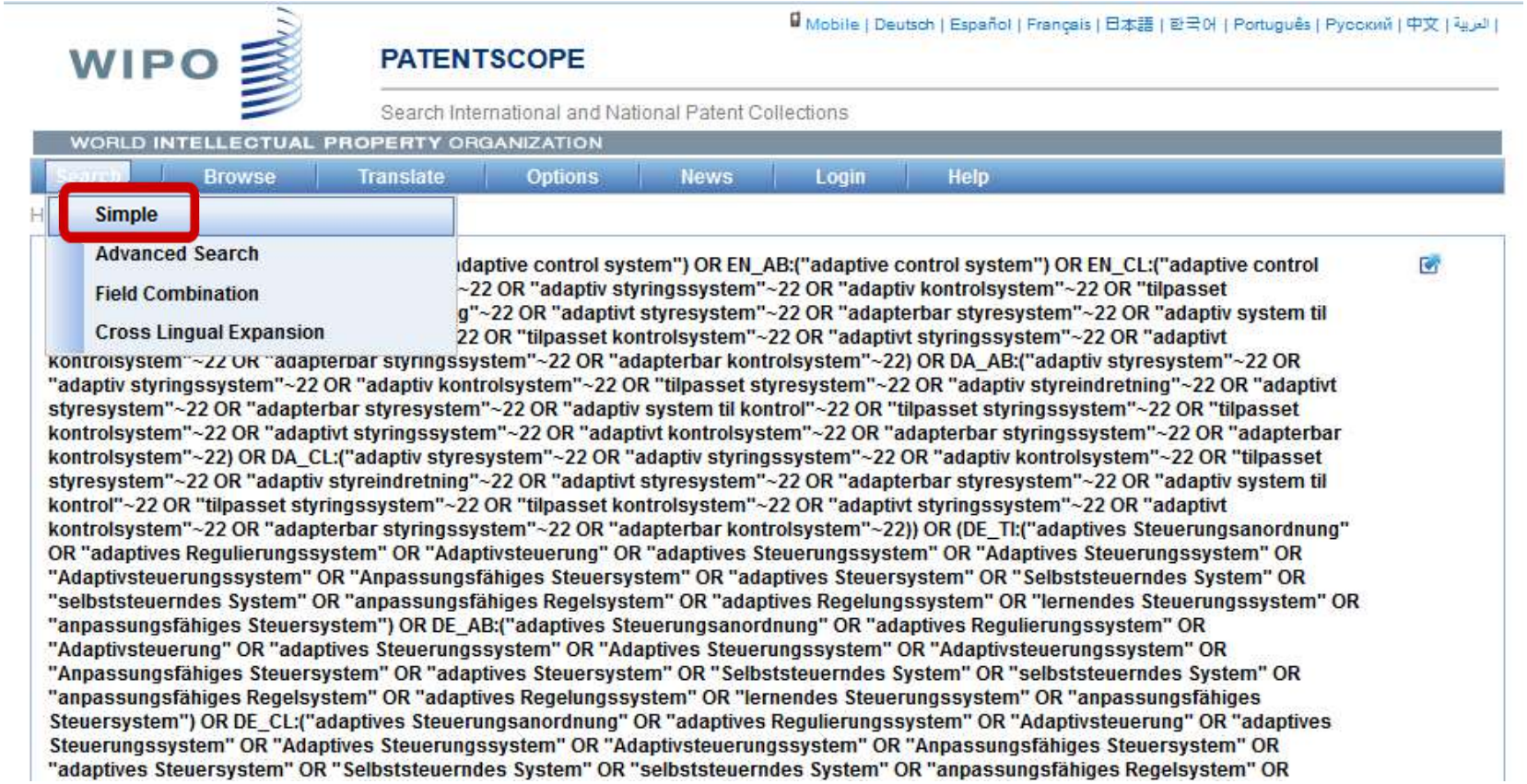

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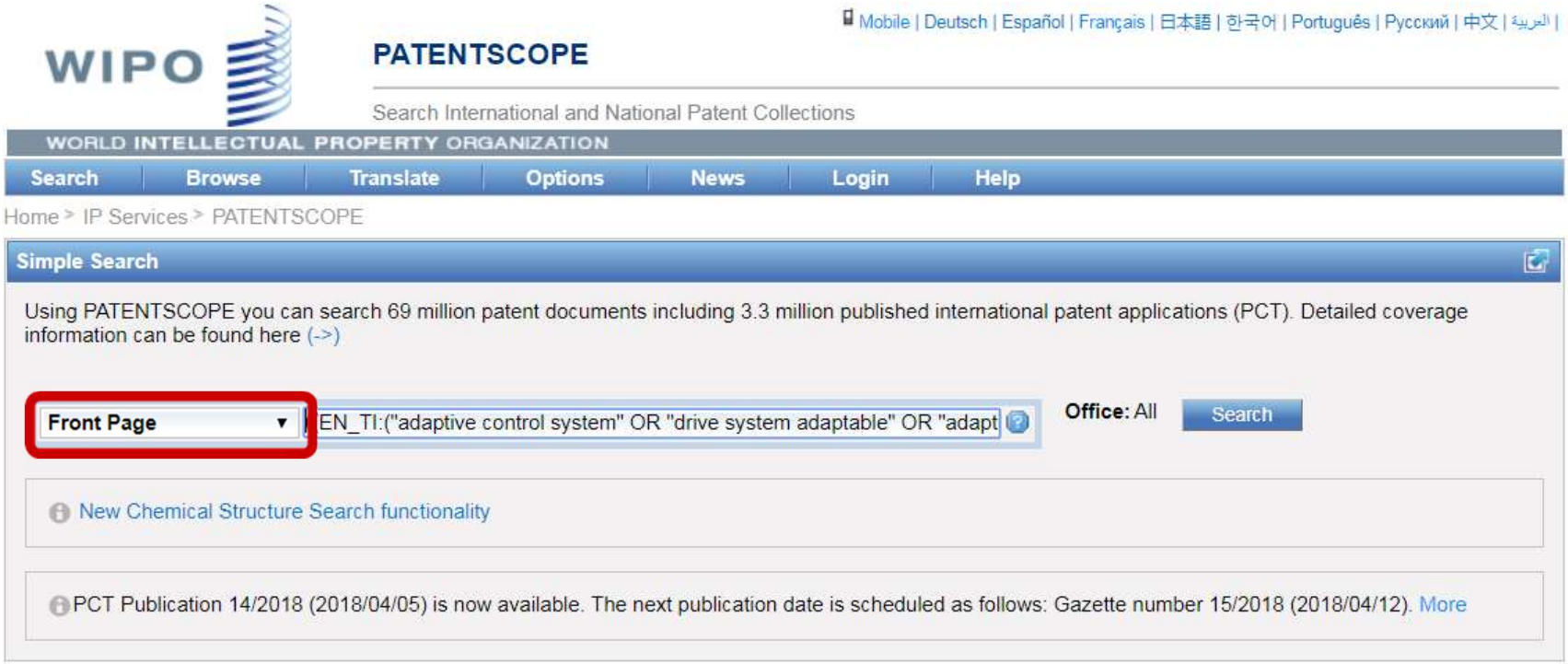

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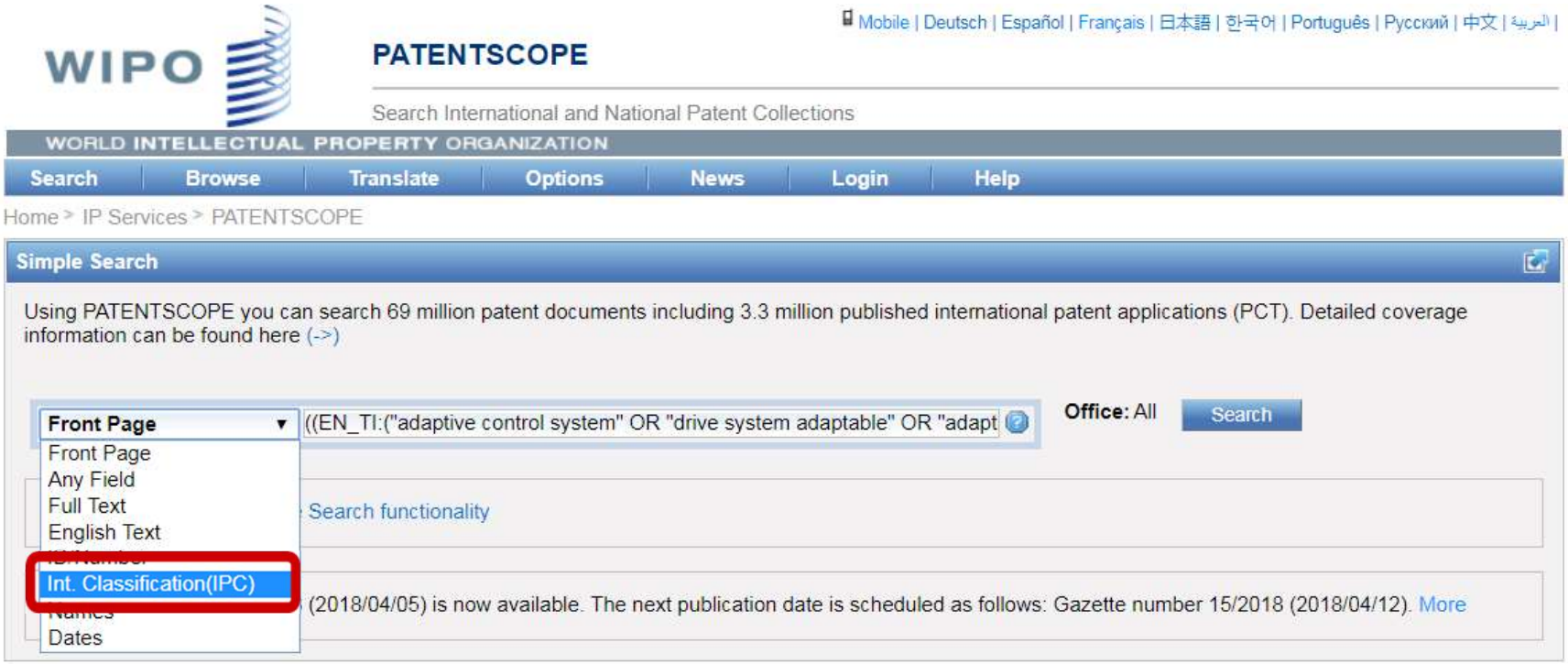
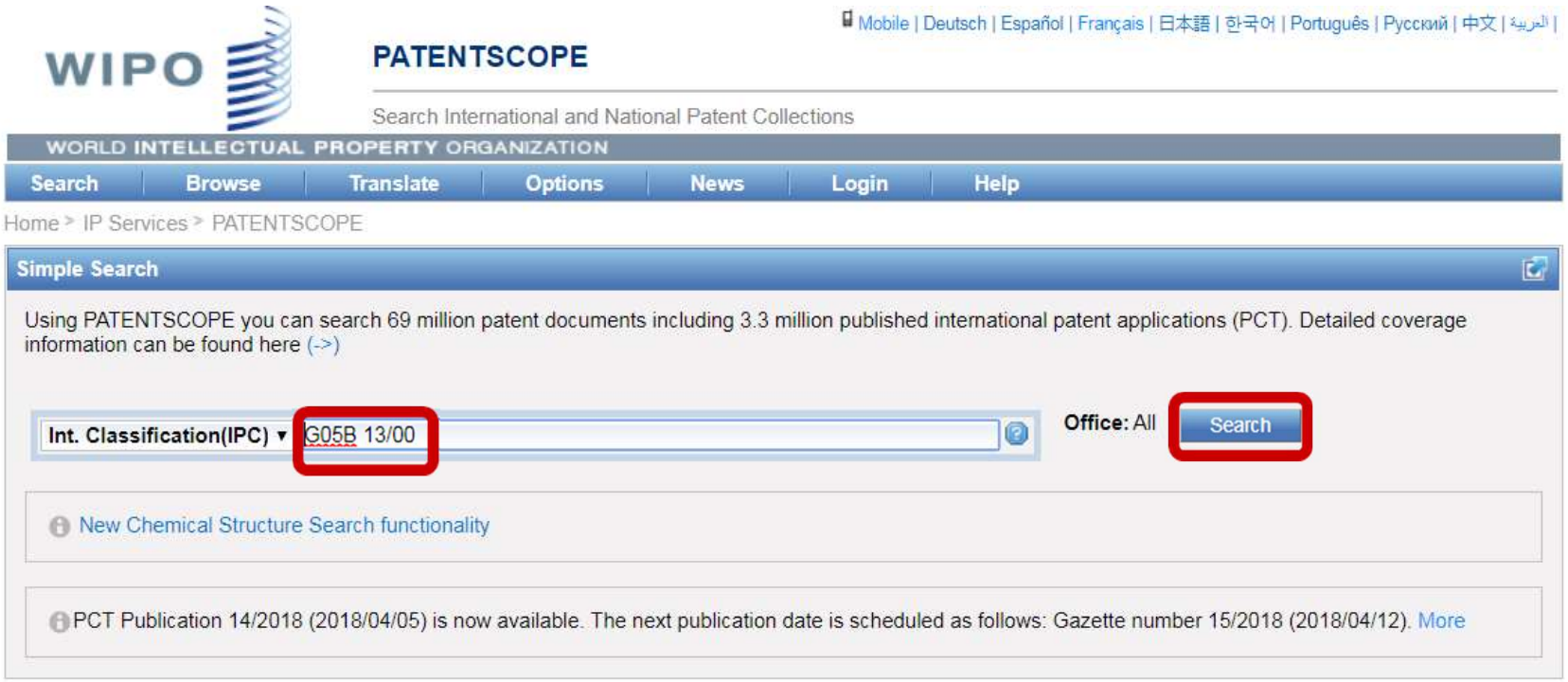
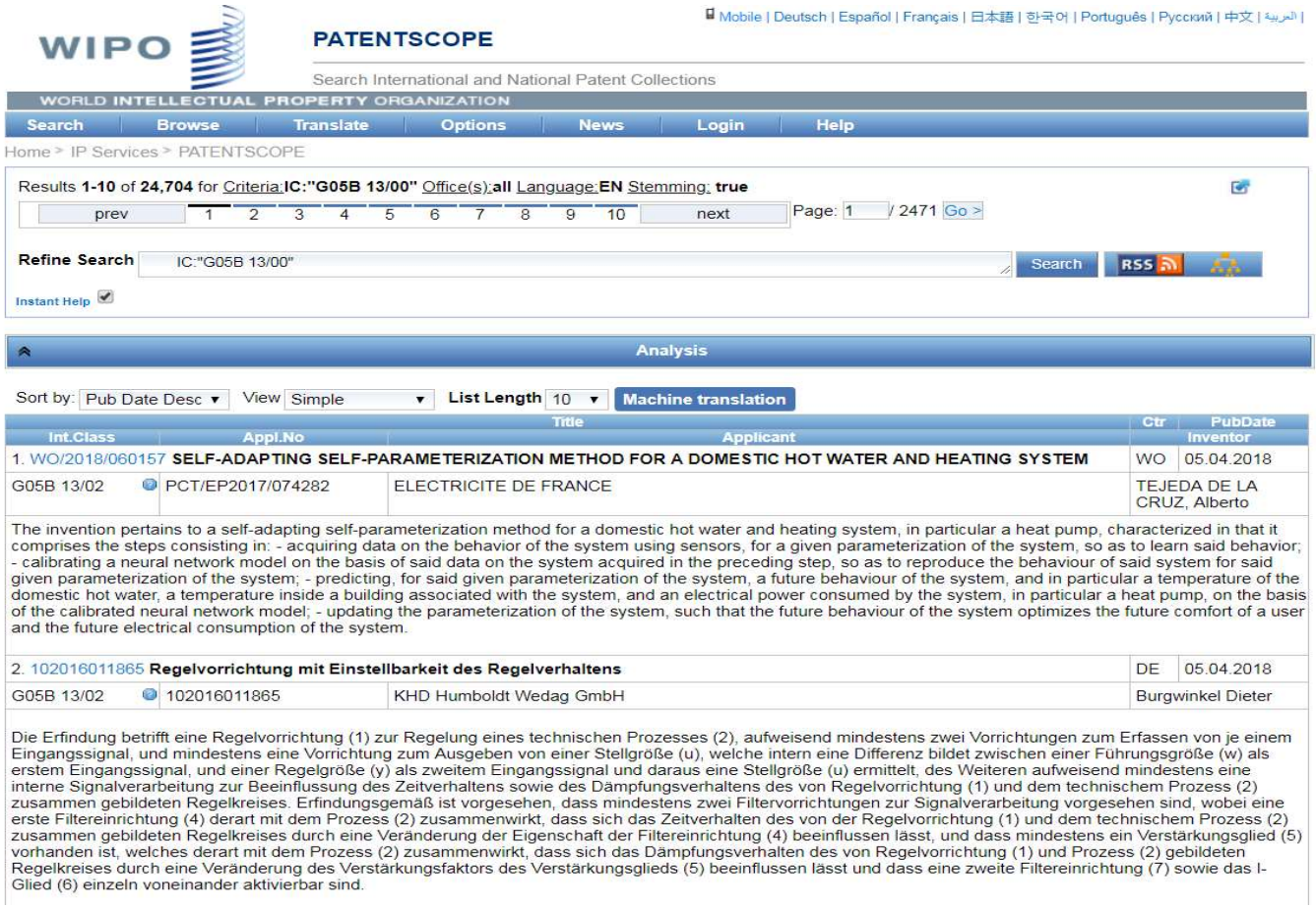


Simple search: IPC



Simple search: Query and results



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Results **1-10** of **24,704** for Criteria:**IC:"G05B 13/00"** Office(s):**all** Language:**EN** Stemming: **true**

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Analysis

Sort by: Pub Date Desc View Simple **List Length** 10 **Machine translation**

Int.Class	Appl.No	Title / Applicant	Ctr	PubDate / Inventor
1. WO/2018/060157 **SELF-ADAPTING SELF-PARAMETERIZATION METHOD FOR A DOMESTIC HOT WATER AND HEATING SYSTEM**			WO	05.04.2018
G05B 13/02	PCT/EP2017/074282	ELECTRICITE DE FRANCE		TEJEDA DE LA CRUZ, Alberto
The invention pertains to a self-adapting self-parameterization method for a domestic hot water and heating system, in particular a heat pump, characterized in that it comprises the steps consisting in: - acquiring data on the behavior of the system using sensors, for a given parameterization of the system, so as to learn said behavior; - calibrating a neural network model on the basis of said data on the system acquired in the preceding step, so as to reproduce the behaviour of said system for said given parameterization of the system; - predicting, for said given parameterization of the system, a future behaviour of the system, and in particular a temperature of the domestic hot water, a temperature inside a building associated with the system, and an electrical power consumed by the system, in particular a heat pump, on the basis of the calibrated neural network model; - updating the parameterization of the system, such that the future behaviour of the system optimizes the future comfort of a user and the future electrical consumption of the system.				
2. 102016011865 **Regelvorrichtung mit Einstellbarkeit des Regelverhaltens**			DE	05.04.2018
G05B 13/02	102016011865	KHD Humboldt Wedag GmbH		Burgwinkel Dieter
Die Erfindung betrifft eine Regelvorrichtung (1) zur Regelung eines technischen Prozesses (2), aufweisend mindestens zwei Vorrichtungen zum Erfassen von je einem Eingangssignal, und mindestens eine Vorrichtung zum Ausgeben von einer Stellgröße (u), welche intern eine Differenz bildet zwischen einer Führungsgröße (w) als erstem Eingangssignal, und einer Regelgröße (y) als zweitem Eingangssignal und daraus eine Stellgröße (u) ermittelt, des Weiteren aufweisend mindestens eine interne Signalverarbeitung zur Beeinflussung des Zeitverhaltens sowie des Dämpfungsverhaltens des von Regelvorrichtung (1) und dem technischem Prozess (2) zusammen gebildeten Regelkreises. Erfindungsgemäß ist vorgesehen, dass mindestens zwei Filtervorrichtungen zur Signalverarbeitung vorgesehen sind, wobei eine erste Filtereinrichtung (4) derart mit dem Prozess (2) zusammenwirkt, dass sich das Zeitverhalten des von der Regelvorrichtung (1) und dem technischem Prozess (2) zusammen gebildeten Regelkreises durch eine Veränderung der Eigenschaft der Filtereinrichtung (4) beeinflussen lässt, und dass mindestens ein Verstärkungsglied (5) vorhanden ist, welches derart mit dem Prozess (2) zusammenwirkt, dass sich das Dämpfungsverhalten des von Regelvorrichtung (1) und Prozess (2) gebildeten Regelkreises durch eine Veränderung des Verstärkungsfaktors des Verstärkungsglieds (5) beeinflussen lässt und dass eine zweite Filtereinrichtung (7) sowie das I-Glied (6) einzeln voneinander aktivierbar sind.				

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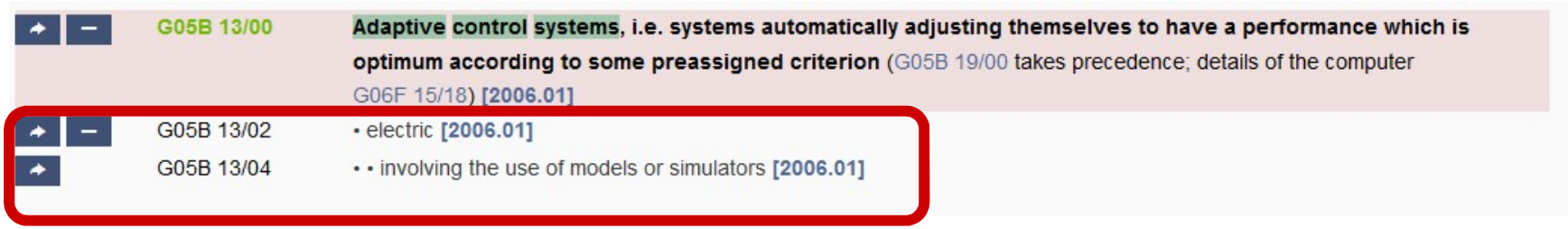
Scenario: A twist

- The researcher contacts you again: She tells you that she is actually most interested in adaptive control systems adapted for the oil industry.

Classification: G05B 13/00



G05B 13/00	**Adaptive control systems, i.e. systems automatically adjusting themselves to have a performance which is optimum according to some preassigned criterion** (G05B 19/00 takes precedence; details of the computer G06F 15/18) **[2006.01]**
G05B 13/02	• electric **[2006.01]**
G05B 13/04	• • involving the use of models or simulators **[2006.01]**

→ No classification available for “Adaptive control systems … oil industry"

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Task breakdown

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  - keywords
  - classification
  - **keywords and classification**
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- Examine a specific patent document and its related documents within the results
- Keep the researcher up-to-date on new patent documents

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Simple search: Query and results

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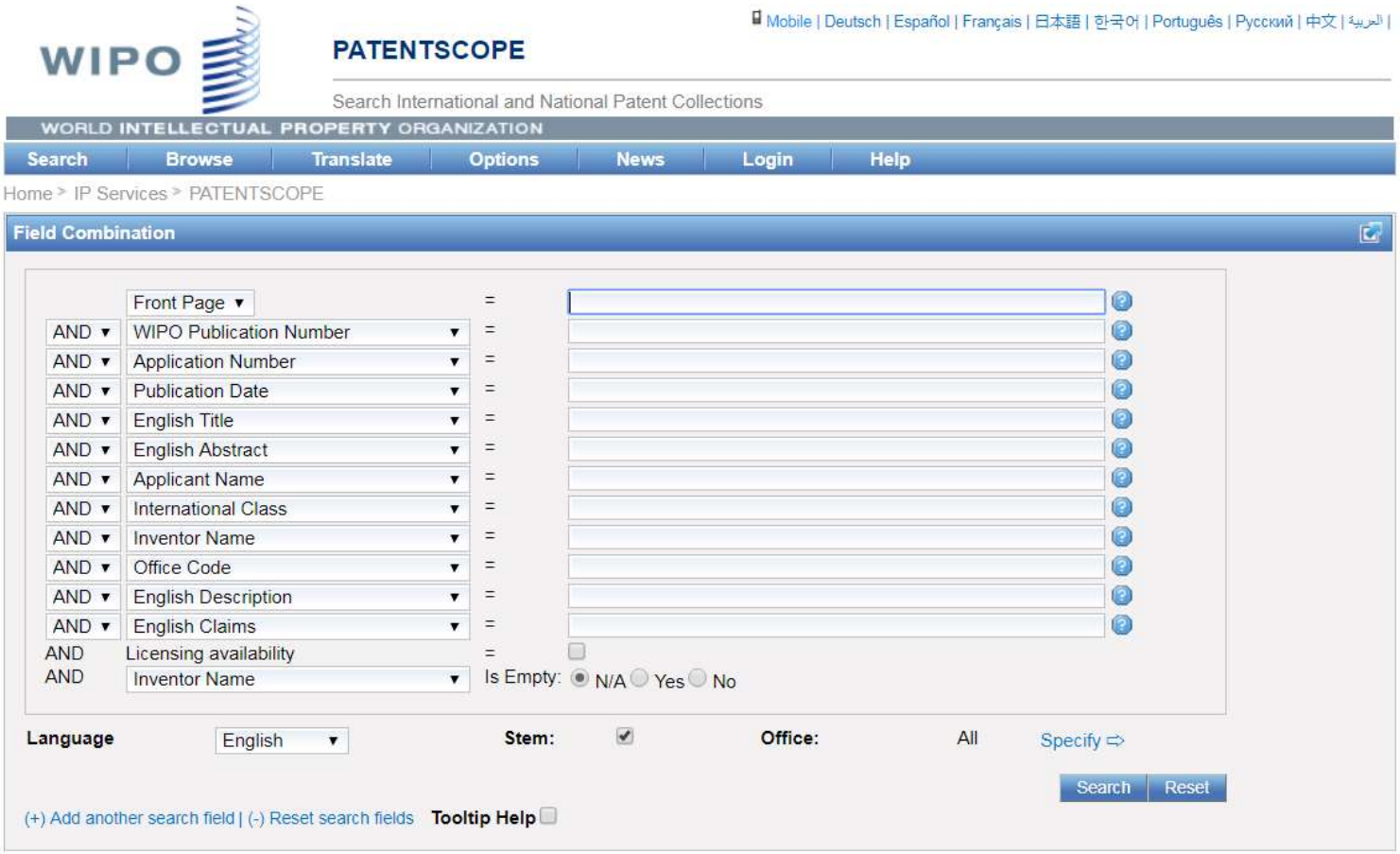
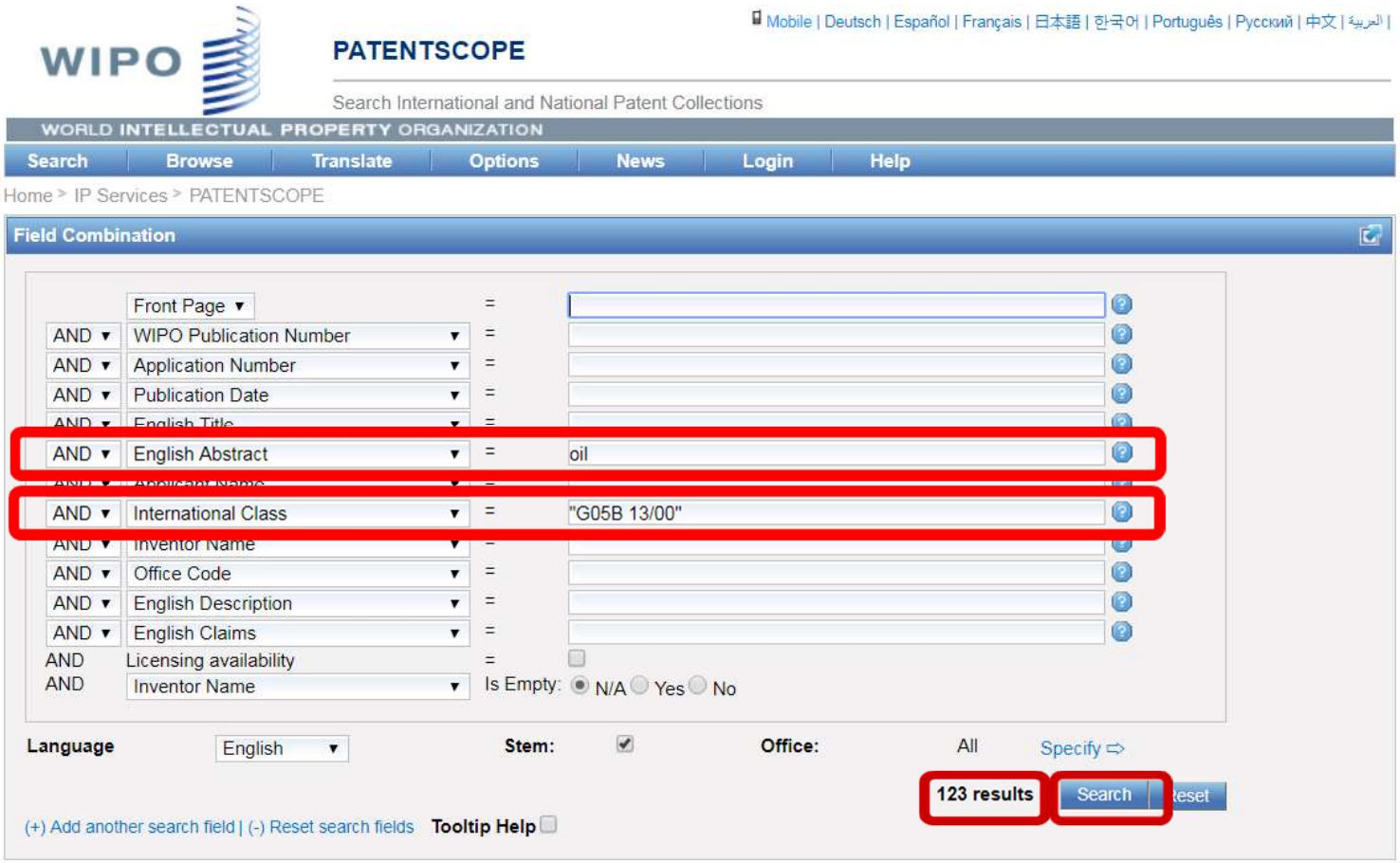
Interfaces: Field combination



Field combination: Query



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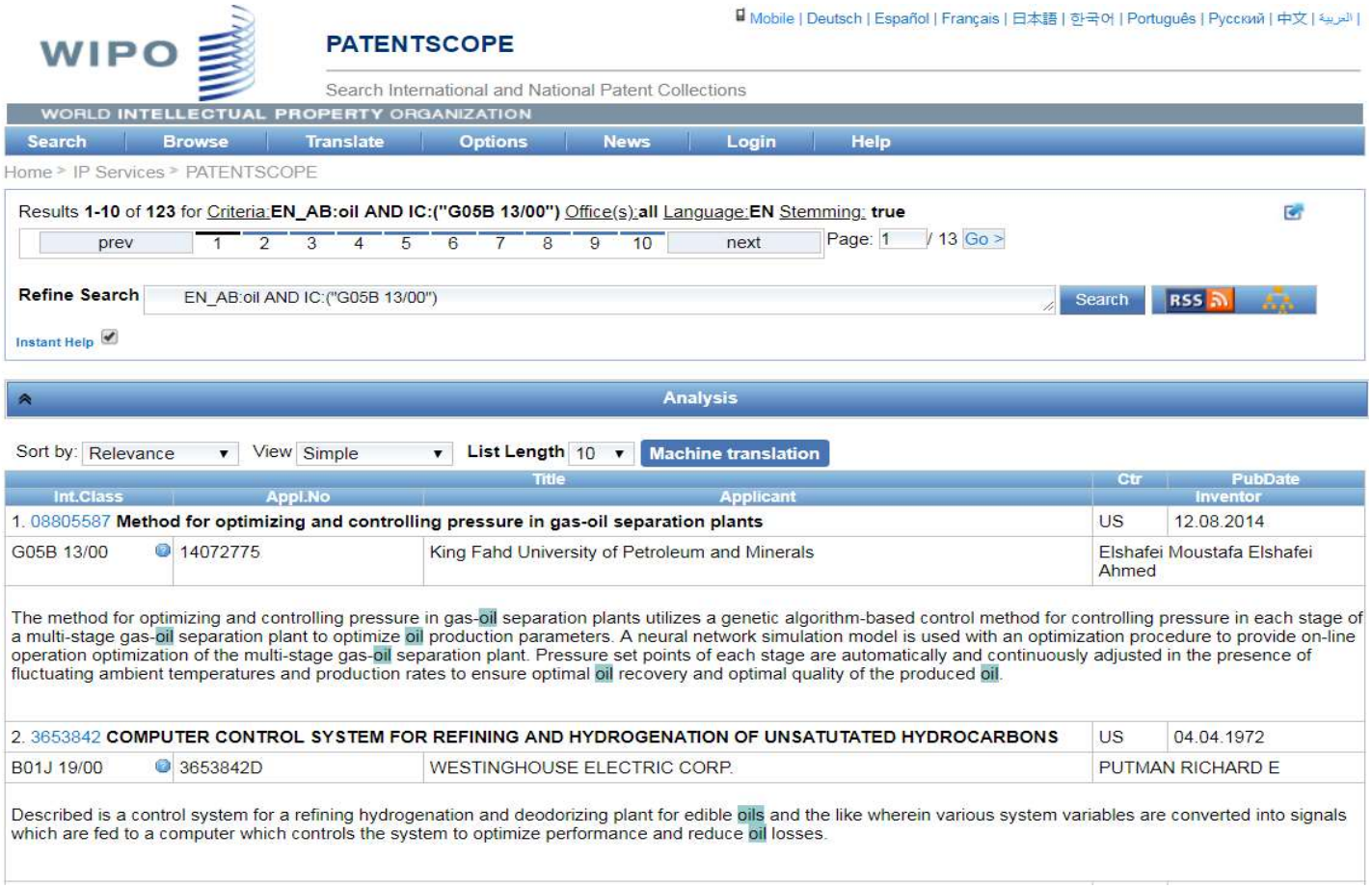
Field combination: Query and results



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Results **1-10** of **123** for Criteria:**EN_AB:oil AND IC:("G05B 13/00")** Office(s):**all** Language:**EN** Stemming: **true**

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Refine Search EN_AB:oil AND IC:("G05B 13/00") Search RSS

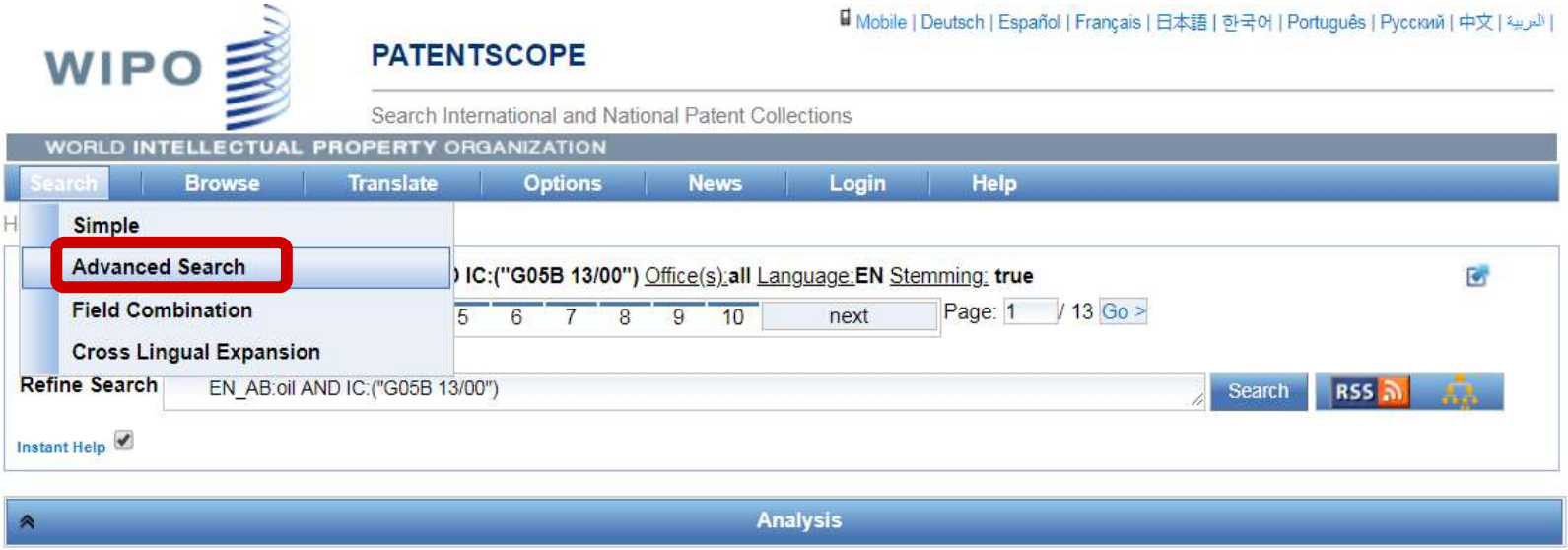
Instant Help

Analysis

Sort by: Relevance View Simple **List Length** 10 **Machine translation**

Int.Class	Appl.No	Title / Applicant	Ctr / Inventor	PubDate
1. 08805587 **Method for optimizing and controlling pressure in gas-oil separation plants**			US	12.08.2014
G05B 13/00	14072775	King Fahd University of Petroleum and Minerals	Elshafei Moustafa Elshafei Ahmed	
The method for optimizing and controlling pressure in gas-oil separation plants utilizes a genetic algorithm-based control method for controlling pressure in each stage of a multi-stage gas-oil separation plant to optimize oil production parameters. A neural network simulation model is used with an optimization procedure to provide on-line operation optimization of the multi-stage gas-oil separation plant. Pressure set points of each stage are automatically and continuously adjusted in the presence of fluctuating ambient temperatures and production rates to ensure optimal oil recovery and optimal quality of the produced oil.				
2. 3653842 **COMPUTER CONTROL SYSTEM FOR REFINING AND HYDROGENATION OF UNSATUTATED HYDROCARBONS**			US	04.04.1972
B01J 19/00	3653842D	WESTINGHOUSE ELECTRIC CORP.	PUTMAN RICHARD E	
Described is a control system for a refining hydrogenation and deodorizing plant for edible oils and the like wherein various system variables are converted into signals which are fed to a computer which controls the system to optimize performance and reduce oil losses.				

Field combination: Query and results

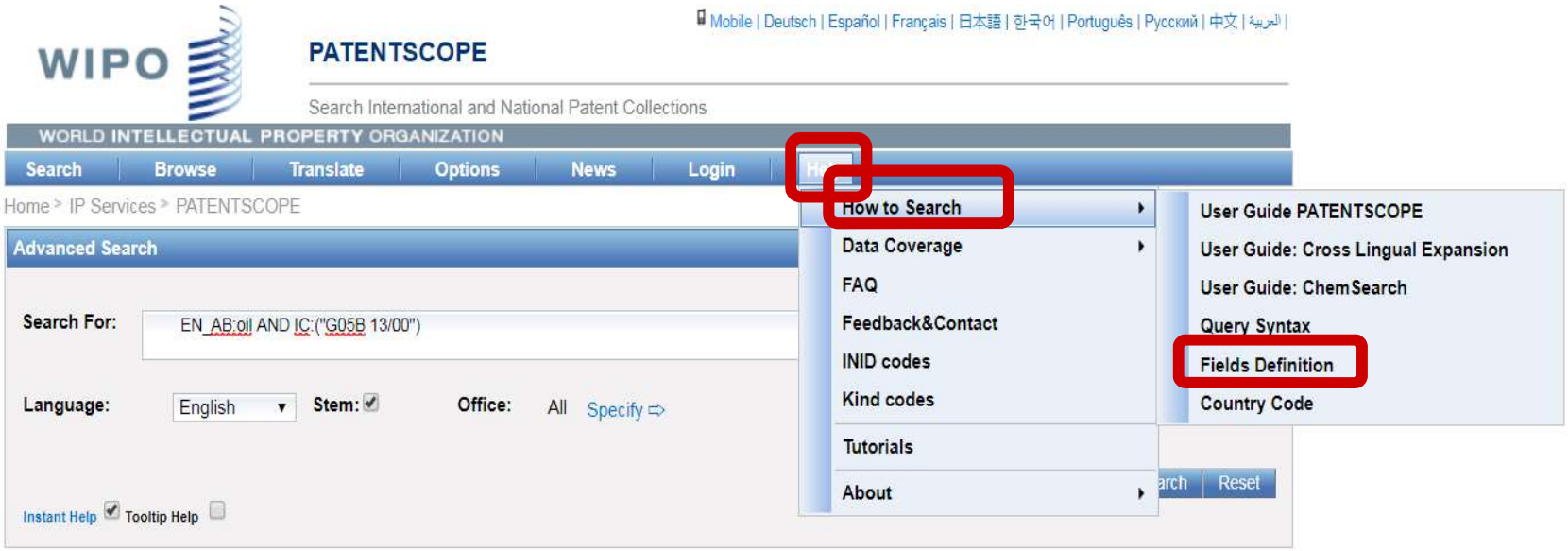


Interfaces: Advanced search

Advanced search interface: Field codes

- International classification → IC:(…)
- English title → EN_TI:(…)
- English abstract → EN_AB:(…)
- English claims → EN_CL:(…)

Advanced search interface: Field codes (Help)



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Concepts and synonyms

- oil: petroleum

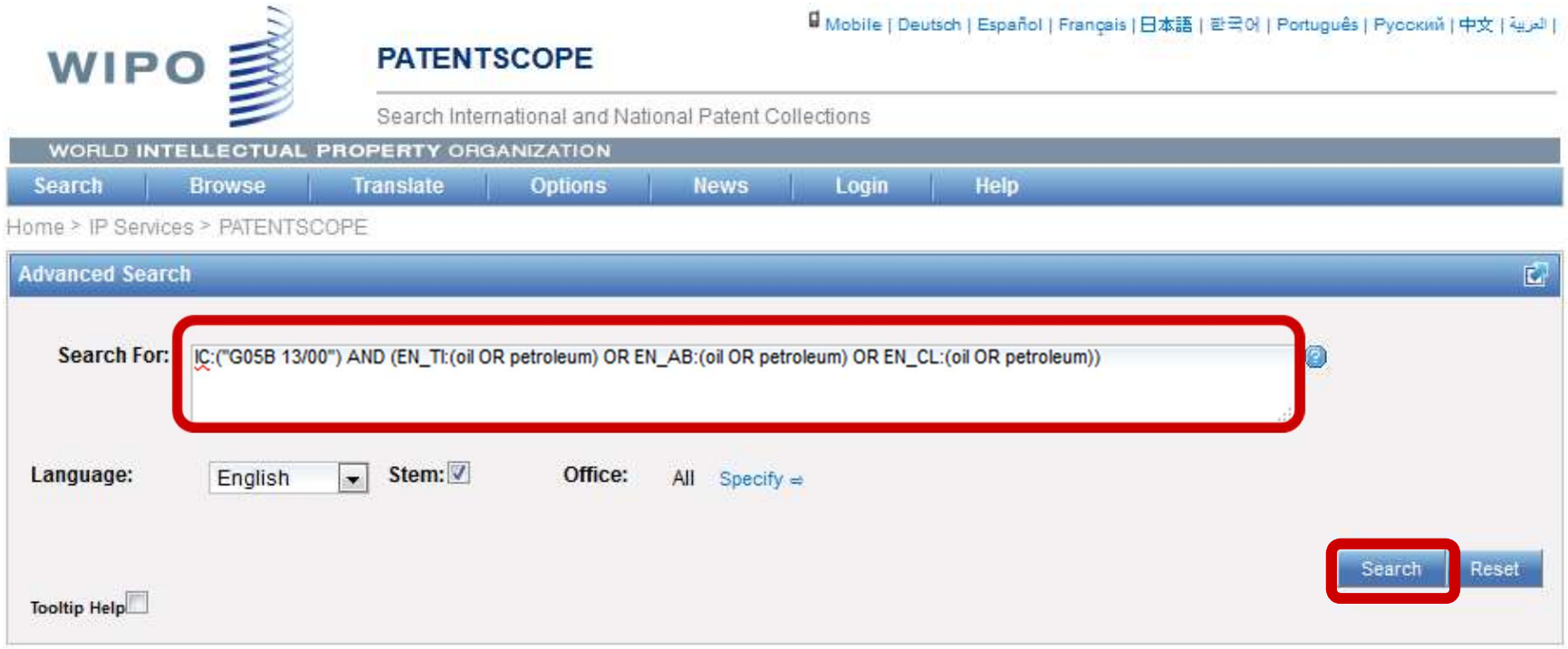
→ oil OR petroleum

→ EN_TI:(oil OR petroleum) OR EN_AB:(oil OR petroleum) OR EN_CL:(oil OR petroleum)

Query

→ IC:("G05B 13/00") AND (EN_TI:(oil OR petroleum) OR EN_AB:(oil OR petroleum) OR EN_CL:(oil OR petroleum))

Advanced search: Query



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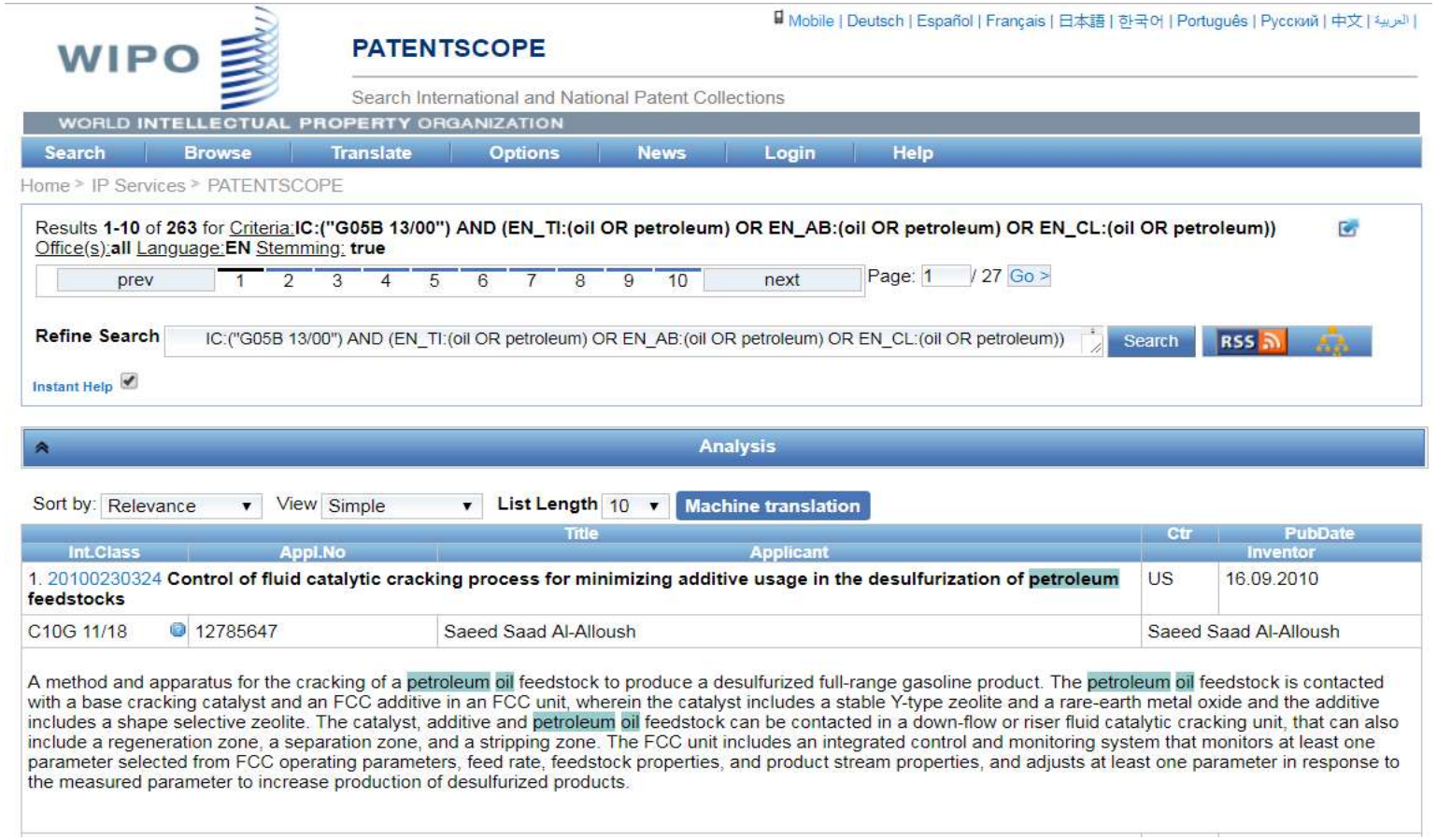
Advanced search: Query and results



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Results **1-10** of **263** for Criteria:**IC:("G05B 13/00") AND (EN_TI:(oil OR petroleum) OR EN_AB:(oil OR petroleum) OR EN_CL:(oil OR petroleum))** Office(s):**all** Language:**EN** Stemming: **true**

prev 1 2 3 4 5 6 7 8 9 10 next Page: 1 / 27 Go >

Refine Search IC:("G05B 13/00") AND (EN_TI:(oil OR petroleum) OR EN_AB:(oil OR petroleum) OR EN_CL:(oil OR petroleum)) Search RSS

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Analysis

Sort by: Relevance View Simple **List Length** 10 **Machine translation**

Int.Class	Appl.No	Applicant	Ctr / Inventor	PubDate
1. 20100230324 **Control of fluid catalytic cracking process for minimizing additive usage in the desulfurization of petroleum feedstocks**			US	16.09.2010
C10G 11/18	12785647	Saeed Saad Al-Alloush	Saeed Saad Al-Alloush	

A method and apparatus for the cracking of a petroleum oil feedstock to produce a desulfurized full-range gasoline product. The petroleum oil feedstock is contacted with a base cracking catalyst and an FCC additive in an FCC unit, wherein the catalyst includes a stable Y-type zeolite and a rare-earth metal oxide and the additive includes a shape selective zeolite. The catalyst, additive and petroleum oil feedstock can be contacted in a down-flow or riser fluid catalytic cracking unit, that can also include a regeneration zone, a separation zone, and a stripping zone. The FCC unit includes an integrated control and monitoring system that monitors at least one parameter selected from FCC operating parameters, feed rate, feedstock properties, and product stream properties, and adjusts at least one parameter in response to the measured parameter to increase production of desulfurized products.

Task breakdown

- Access the PATENTSCOPE search service
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  - keywords and classification
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Results

Analysis

Sort by: Relevance ▾ View Simple ▾ List Length 10 ▾ Machine translation

Int.Class	Appl.No	Applicant	Ctr	PubDate
			Inventor	
1. 20100230324 **Control of fluid catalytic cracking process for minimizing additive usage in the desulfurization of petroleum feedstocks**			US	16.09.2010
C10G 11/18	12785647	Saeed Saad Al-Alloush	Saeed Saad Al-Alloush	
A method and apparatus for the cracking of a petroleum oil feedstock to produce a desulfurized full-range gasoline product. The petroleum oil feedstock is contacted with a base cracking catalyst and an FCC additive in an FCC unit, wherein the catalyst includes a stable Y-type zeolite and a rare-earth metal oxide and the additive includes a shape selective zeolite. The catalyst, additive and petroleum oil feedstock can be contacted in a down-flow or riser fluid catalytic cracking unit, that can also include a regeneration zone, a separation zone, and a stripping zone. The FCC unit includes an integrated control and monitoring system that monitors at least one parameter selected from FCC operating parameters, feed rate, feedstock properties, and product stream properties, and adjusts at least one parameter in response to the measured parameter to increase production of desulfurized products.				
2. 6236894 **Petroleum production optimization utilizing adaptive network and genetic algorithm techniques**			US	22.05.2001
G05B 13/02	08994975	Atlantic Richfield Company	Stoisits, Richard F.	
A computer system and method of operating the same to optimize the operating conditions of a petroleum production field, in which a plurality of wells are arranged according to drill sites, and connected to one or more central processing facilities, is disclosed. In this disclosed embodiment, gas compression capacity is a significant constraint on the operation of the complex production field, and surface line hydraulic effects of well production are to be considered in the optimization. A genetic algorithm is used to generate, and iteratively evaluate solution vectors, which are combinations of field operating parameters such as incremental gas-oil ratio cutoff and formation gas-oil ratio cutoff values. The evaluation includes the operation of an adaptive network to determine production header pressures, followed by modification of well output estimates to account for changes in the production header pressure. Convergence of the genetic algorithm identifies one of the solution vectors as containing an optimal combination of field operating parameters that may be used by production personnel to set the operating conditions of the field.				

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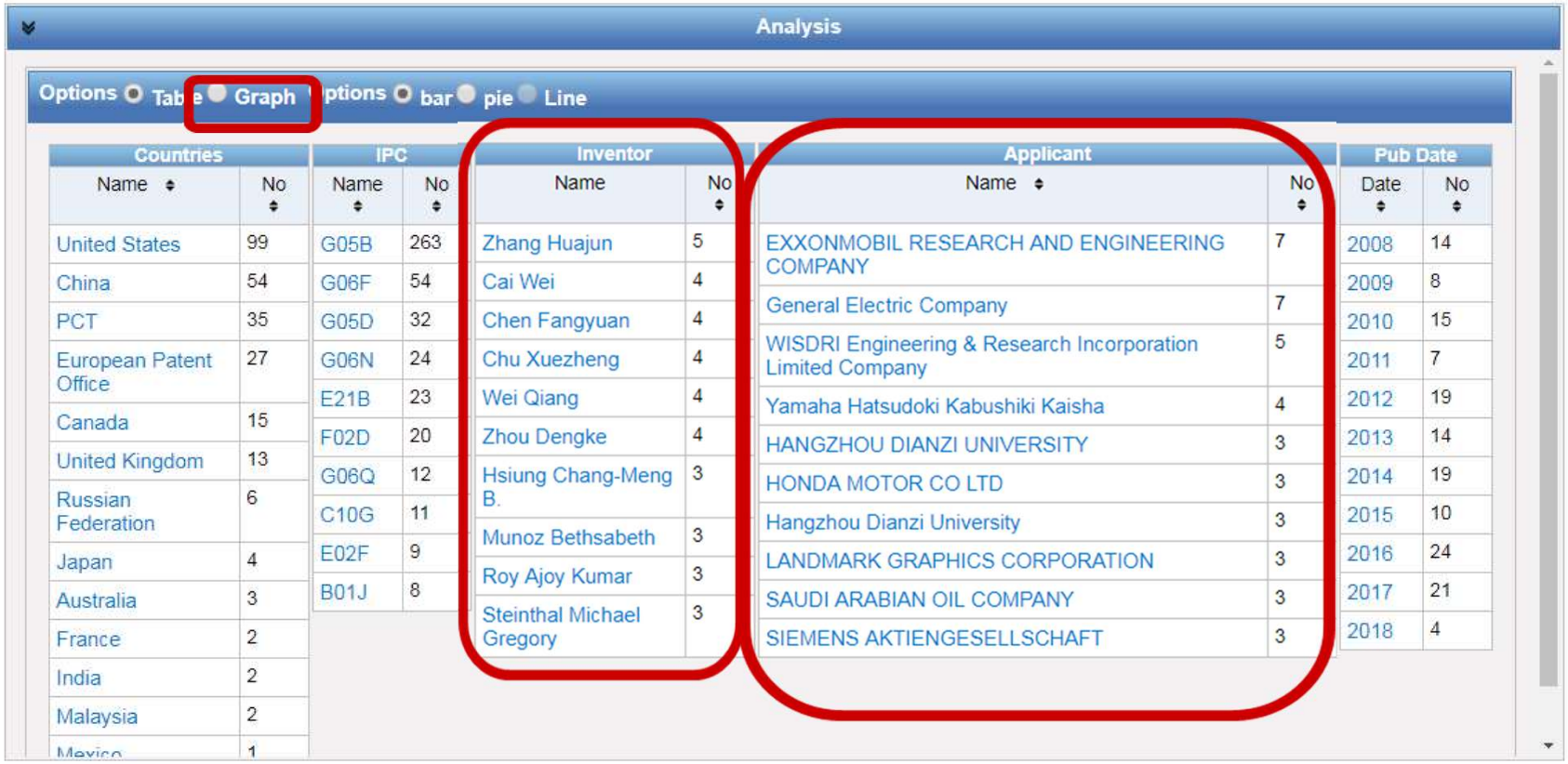
Results: Analysis



Analysis

Options Table Graph Options bar pie Line

Countries	
Name	No
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China	54
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European Patent Office	27
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Russian Federation	6
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IPC	
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G05B	263
G06F	54
G05D	32
G06N	24
E21B	23
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C10G	11
E02F	9
B01J	8

Inventor	
Name	No
Zhang Huajun	5
Cai Wei	4
Chen Fangyuan	4
Chu Xuezheng	4
Wei Qiang	4
Zhou Dengke	4
Hsiung Chang-Meng B.	3
Munoz Bethsabeth	3
Roy Ajoy Kumar	3
Steinthal Michael Gregory	3

Applicant	
Name	No
EXXONMOBIL RESEARCH AND ENGINEERING COMPANY	7
General Electric Company	7
WISDRI Engineering & Research Incorporation Limited Company	5
Yamaha Hatsudoki Kabushiki Kaisha	4
HANGZHOU DIANZI UNIVERSITY	3
HONDA MOTOR CO LTD	3
Hangzhou Dianzi University	3
LANDMARK GRAPHICS CORPORATION	3
SAUDI ARABIAN OIL COMPANY	3
SIEMENS AKTIENGESELLSCHAFT	3

Pub Date	
Date	No
2008	14
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2016	24
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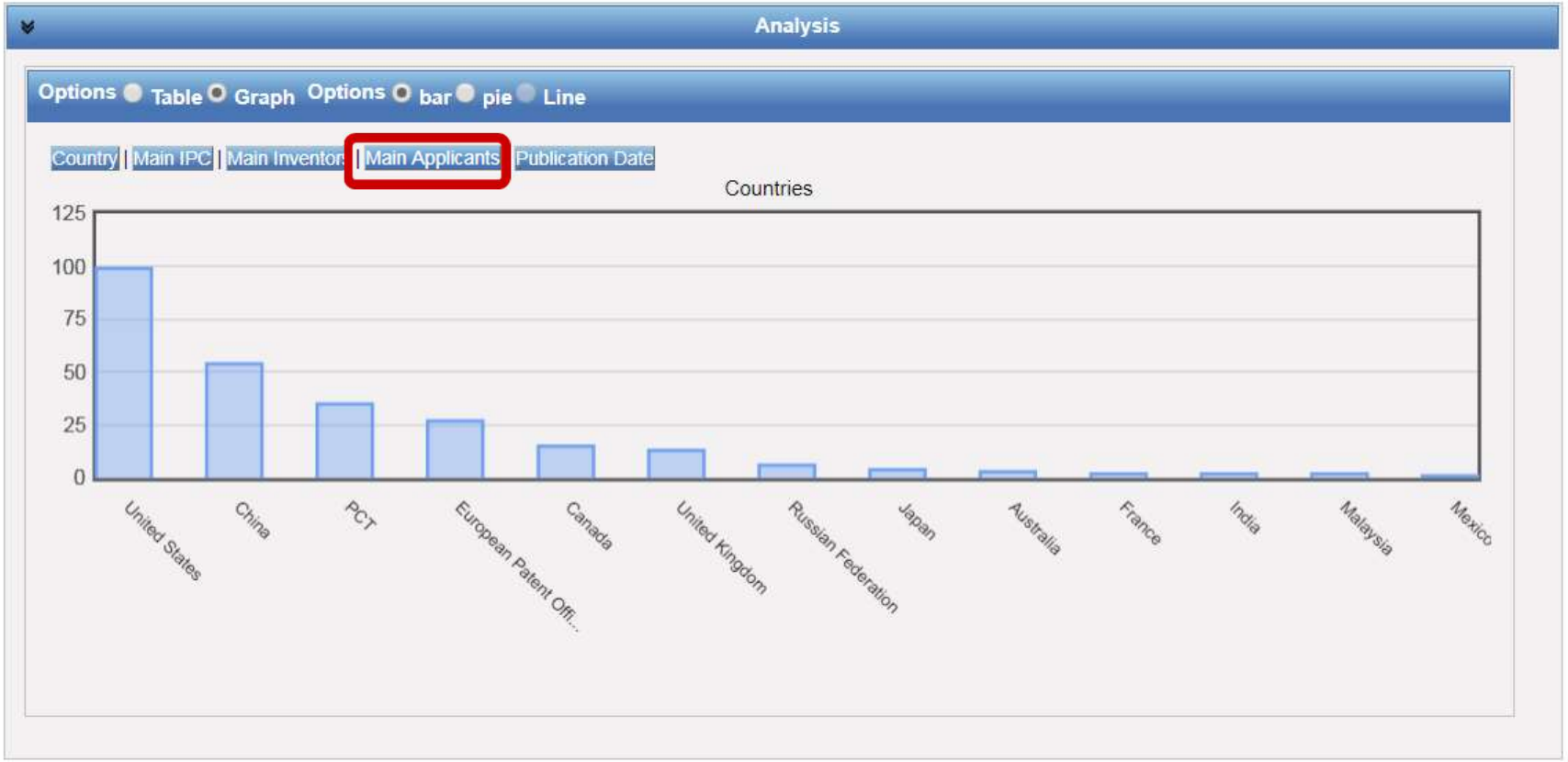
2018	4

Results: Analysis



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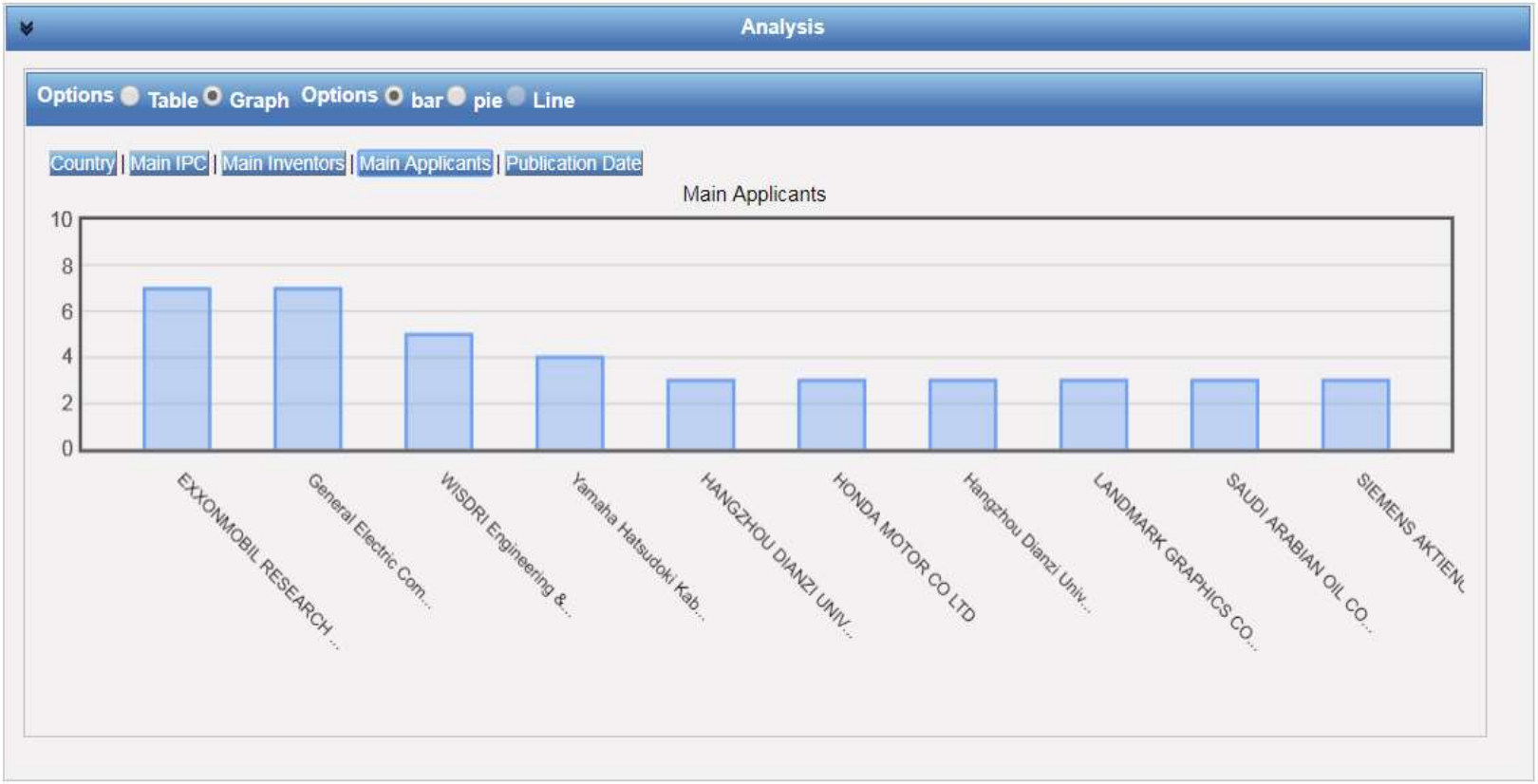

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Results

4. WO/2010/151668	**TOOLS FOR ASSISTING IN PETROLEUM PRODUCT TRANSPORTATION LOGISTICS**		WO	29.12.2010
G05B 13/00	PCT/US2010/039821	EXXONMOBIL RESEARCH AND ENGINEERING COMPANY	BALASUBRAMANIAN, Jayanth	
A tool to assist decision-making in the logistics of bulk product transportation. For example, the tool may be used to solve a problem involving the transportation and the inventory management of crude oil, in which the transportation of crude oil between supply ports and discharge ports are performed by a fleet of ships. The tool is capable of handling a typical petroleum product transportation problem, which can be quite complex. The tool uses advanced modeling and optimization technology to find a solution (either optimal or near optimal) for the allocation of bulk products, vehicle routing, vehicle scheduling, and/or bulk product blending operations.				
5. PI 2011005835	**TOOL FOR ASSISTING IN PETROLEUM PRODUCT TRANSPORTATION LOGISTICS**		MY	24.12.2010
G05B 13/00	PI 2011005835	EXXONMOBIL RESEARCH AND ENGINEERING COMPANY	BALASUBRAMANIAN,JAYANTH	
A TOOL TO ASSIST DECISION-MAKING IN THE LOGISTICS OF BULK PRODUCT TRANSPORTATION. FOR EXAMPLE, THE TOOL MAY BE USED TO SOLVE A PROBLEM INVOLVING THE TRANSPORTATION AND THE INVENTORY MANAGEMENT OF CRUDE OIL, IN WHICH THE TRANSPORTATION OF CRUDE OIL BETWEEN SUPPLY PORTS AND DISCHARGE PORTS ARE PERFORMED BY A FLEET OF SHIPS. THE TOOL IS CAPABLE OF HANDLING A TYPICAL PETROLEUM PRODUCT TRANSPORTATION PROBLEM, WHICH CAN BE QUITE COMPLEX. THE TOOL USES ADVANCED MODELING AND OPTIMIZATION TECHNOLOGY TO FIND A SOLUTION (EITHER OPTIMAL OR NEAR OPTIMAL) FOR THE ALLOCATION OF BULK PRODUCTS, VEHICLE ROUTING, VEHICLE SCHEDULING, AND/OR BULK PRODUCT BLENDING OPERATIONS.				
6. 8707/CHENP/2011	**TOOL FOR ASSISTING IN PETROLEUM PRODUCT TRANSPORTATION LOGISTICS**		IN	22.03.2013
G05B 13/00	8707/CHENP/2011	EXXONMOBIL RESEARCH AND ENGINEERING COMPANY	JAYANTH BALASUBRAMANIAN	
A tool to assist decision-making in the logistics of bulk product transportation. For example, the tool may be used to solve a problem involving the transportation and the inventory management of crude oil, in which the transportation of crude oil between supply ports and discharge ports are performed by a fleet of ships. The tool is capable of handling a typical petroleum product ransportation problem, which can be quite complex. The tool uses advanced modeling and optimization technology to find a solution (either optimal or near optimal) for the allocation of bulk products, vehicle routing, vehicle scheduling, and/or bulk product blending operations.				
7. 2010266073	**Tools for assisting in petroleum product transportation logistics**		AU	19.01.2012
G05B 13/00	2010266073	ExxonMobil Research and Engineering Company		
A tool to assist decision-making in the logistics of bulk product transportation. For example, the tool may be used to solve a problem involving the transportation and the inventory management of crude oil, in which the transportation of crude oil between supply ports and discharge ports are performed by a fleet of ships. The tool is capable of handling a typical petroleum product transportation problem, which can be quite complex. The tool uses advanced modeling and optimization technology to find a solution (either optimal or near optimal) for the allocation of bulk products, vehicle routing, vehicle scheduling, and/or bulk product blending operations.				

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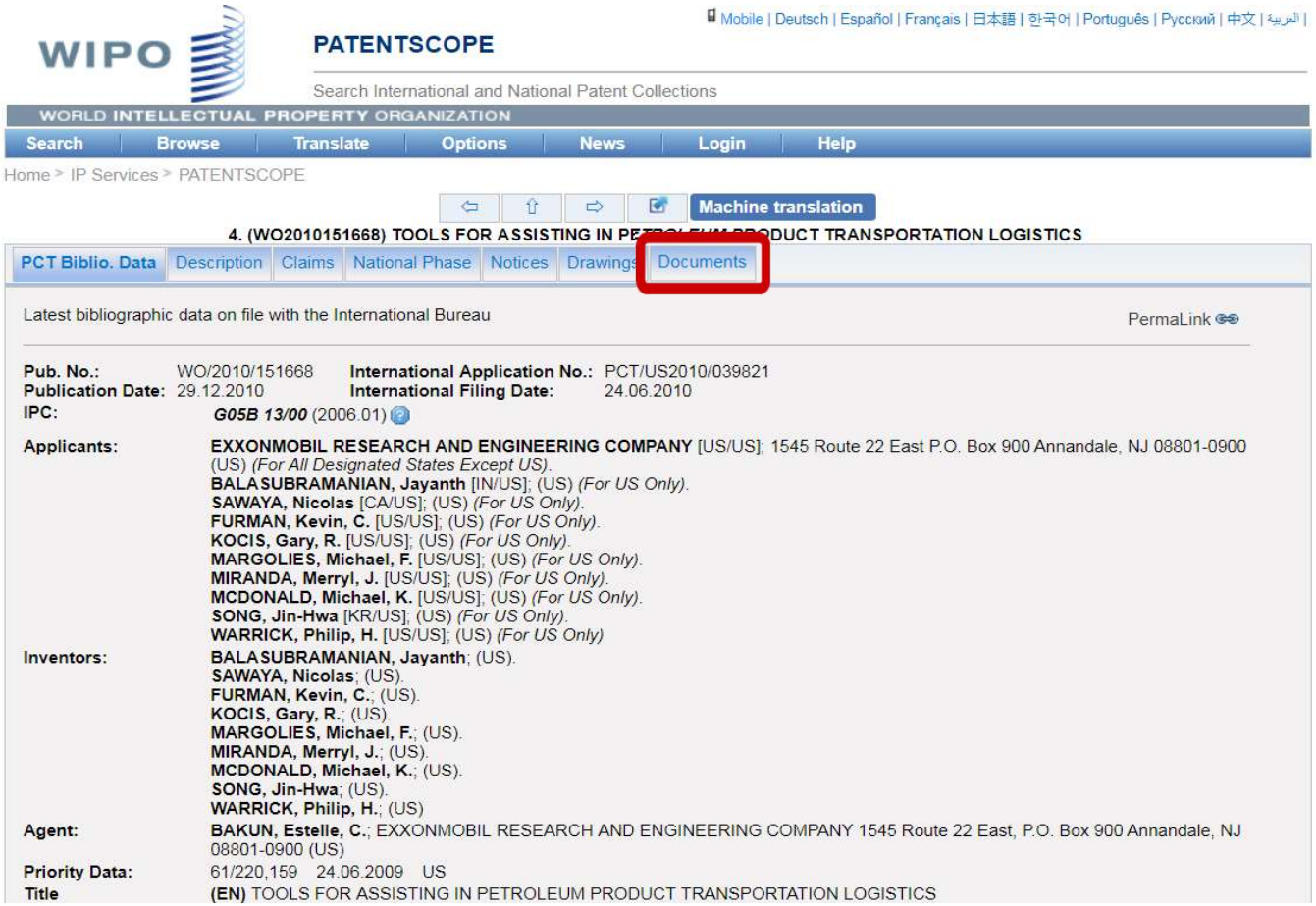

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4. (WO2010151668) TOOLS FOR ASSISTING IN PE[illegible]ODUCT TRANSPORTATION LOGISTICS

PCT Biblio. Data | Description | Claims | National Phase | Notices | Drawings | Documents

Latest bibliographic data on file with the International Bureau

PermaLink

Pub. No.: WO/2010/151668 **International Application No.:** PCT/US2010/039821
Publication Date: 29.12.2010 **International Filing Date:** 24.06.2010
IPC: ***G05B 13/00*** (2006.01)

Applicants: **EXXONMOBIL RESEARCH AND ENGINEERING COMPANY** [US/US]; 1545 Route 22 East P.O. Box 900 Annandale, NJ 08801-0900 (US) *(For All Designated States Except US)*.
BALASUBRAMANIAN, Jayanth [IN/US]; (US) *(For US Only)*.
SAWAYA, Nicolas [CA/US]; (US) *(For US Only)*.
FURMAN, Kevin, C. [US/US]; (US) *(For US Only)*.
KOCIS, Gary, R. [US/US]; (US) *(For US Only)*.
MARGOLIES, Michael, F. [US/US]; (US) *(For US Only)*.
MIRANDA, Merryl, J. [US/US]; (US) *(For US Only)*.
MCDONALD, Michael, K. [US/US]; (US) *(For US Only)*.
SONG, Jin-Hwa [KR/US]; (US) *(For US Only)*.
WARRICK, Philip, H. [US/US]; (US) *(For US Only)*

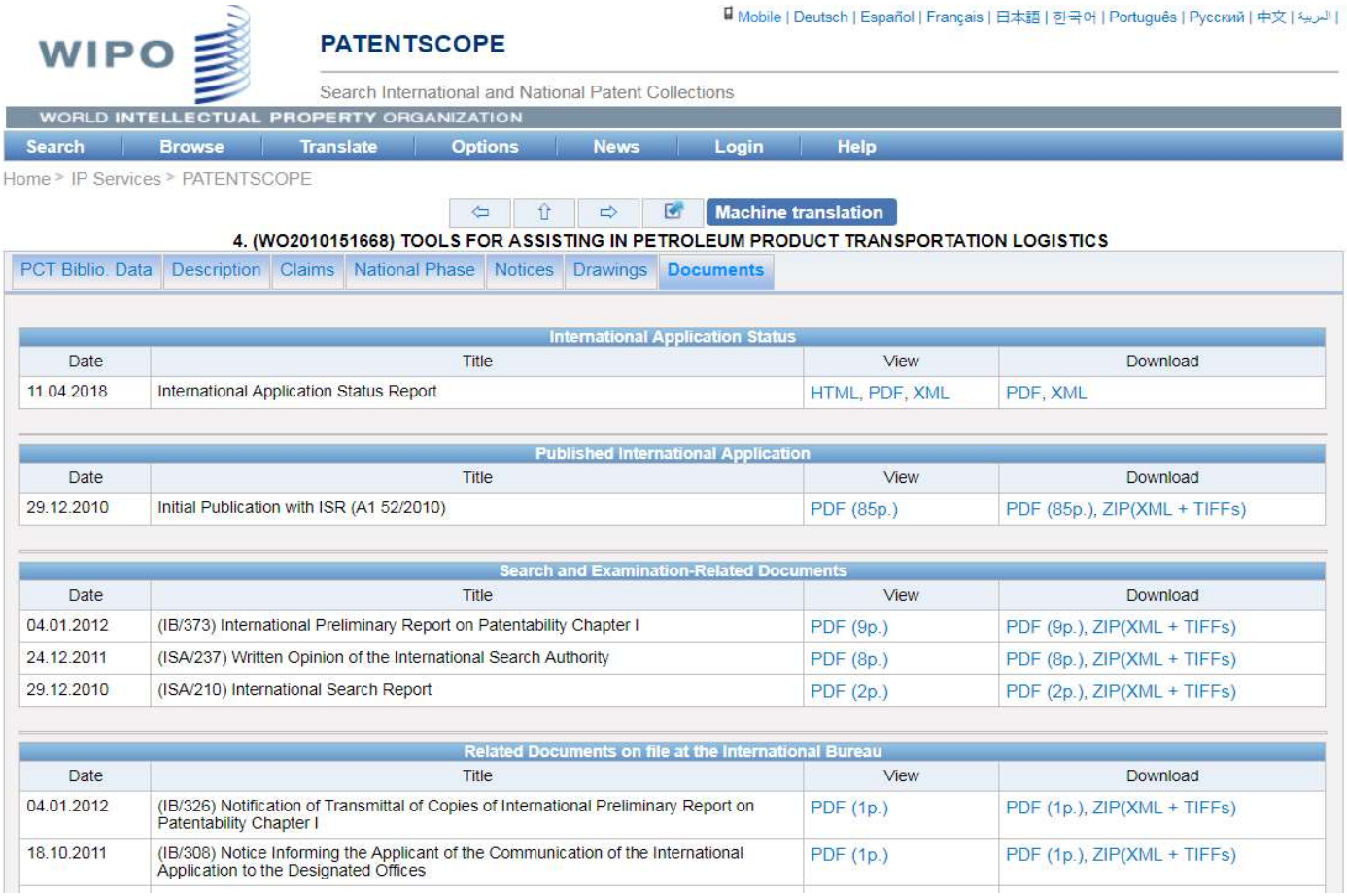
Inventors: **BALASUBRAMANIAN, Jayanth**; (US).
SAWAYA, Nicolas; (US).
FURMAN, Kevin, C.; (US).
KOCIS, Gary, R.; (US).
MARGOLIES, Michael, F.; (US).
MIRANDA, Merryl, J.; (US).
MCDONALD, Michael, K.; (US).
SONG, Jin-Hwa; (US).
WARRICK, Philip, H.; (US)

Agent: **BAKUN, Estelle, C.**; EXXONMOBIL RESEARCH AND ENGINEERING COMPANY 1545 Route 22 East, P.O. Box 900 Annandale, NJ 08801-0900 (US)

Priority Data: 61/220,159 24.06.2009 US

Title **(EN)** TOOLS FOR ASSISTING IN PETROLEUM PRODUCT TRANSPORTATION LOGISTICS

Record: Documents



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4. (WO2010151668) TOOLS FOR ASSISTING IN PETROLEUM PRODUCT TRANSPORTATION LOGISTICS

PCT Biblio. Data | Description | Claims | National Phase | Notices | Drawings | Documents

International Application Status

Date	Title	View	Download
11.04.2018	International Application Status Report	HTML, PDF, XML	PDF, XML

Published International Application

Date	Title	View	Download
29.12.2010	Initial Publication with ISR (A1 52/2010)	PDF (85p.)	PDF (85p.), ZIP(XML + TIFFs)

Search and Examination-Related Documents

Date	Title	View	Download
04.01.2012	(IB/373) International Preliminary Report on Patentability Chapter I	PDF (9p.)	PDF (9p.), ZIP(XML + TIFFs)
24.12.2011	(ISA/237) Written Opinion of the International Search Authority	PDF (8p.)	PDF (8p.), ZIP(XML + TIFFs)
29.12.2010	(ISA/210) International Search Report	PDF (2p.)	PDF (2p.), ZIP(XML + TIFFs)

Related Documents on file at the International Bureau

Date	Title	View	Download
04.01.2012	(IB/326) Notification of Transmittal of Copies of International Preliminary Report on Patentability Chapter I	PDF (1p.)	PDF (1p.), ZIP(XML + TIFFs)
18.10.2011	(IB/308) Notice Informing the Applicant of the Communication of the International Application to the Designated Offices	PDF (1p.)	PDF (1p.), ZIP(XML + TIFFs)

Documents: Application, search report

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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
29 December 2010 (29.12.2010)

PCT

(10) International Publication Number
WO 2010/151668 A1

(51) International Patent Classification:
G05B 13/00 (2006.01)

(21) International Application Number:
PCT/US2010/039821

(22) International Filing Date:
24 June 2010 (24.06.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/220,159 24 June 2009 (24.06.2009) US

(71) Applicant *(for all designated States except US)*: **EXXONMOBIL RESEARCH AND ENGINEERING COMPANY** [US/US]; 1545 Route 22 East, P.O. Box 900, Annandale, NJ 08801-0900 (US).

(72) Inventors; and

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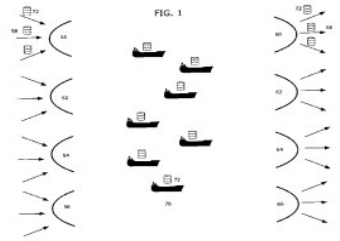
(74) Agents: **BAKUN, Estelle, C.** et al.; EXXONMOBIL RESEARCH AND ENGINEERING COMPANY, 1545 Route 22 East, P.O. Box 900, Annandale, NJ 08801-0900 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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

[Continued on next page]

(54) Title: TOOLS FOR ASSISTING IN PETROLEUM PRODUCT TRANSPORTATION LOGISTICS



(57) Abstract: A tool to assist decision-making in the logistics of bulk product transportation. For example, the tool may be used to solve a problem involving the transportation and the inventory management of crude oil, in which the transportation of crude oil between supply ports and discharge ports are performed by a fleet of ships. The tool is capable of handling a typical petroleum product transportation problem, which can be quite complex. The tool uses advanced modeling and optimization technology to find a solution (either optimal or near optimal) for the allocation of bulk products, vehicle routing, vehicle scheduling, and/or bulk product blending operations.

WO 2010/151668 A1

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2010/039821

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - G05B 13/00 (2010.01)
USPC - 705/8
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - G05B 13/00, 13/04, 19/418 (2010.01)
USPC - 705/8, 7; 700/28, 29, 31, 33, 34, 36

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2008/0294484 A1 (FURMAN et al) 27 November 2008 (27.11.2008) entire document	1-28
Y	US 2007/0260333 A1 (PEUREUX et al) 08 November 2007 (08.11.2007) entire document	1-28
A	US 2008/0127654 A1 (DARLING et al) 05 June 2008 (05.06.2008) entire document	1-28
A	US 2002/0087371 A1 (ABENDROTH) 04 July 2002 (04.07.2002) entire document	1-28

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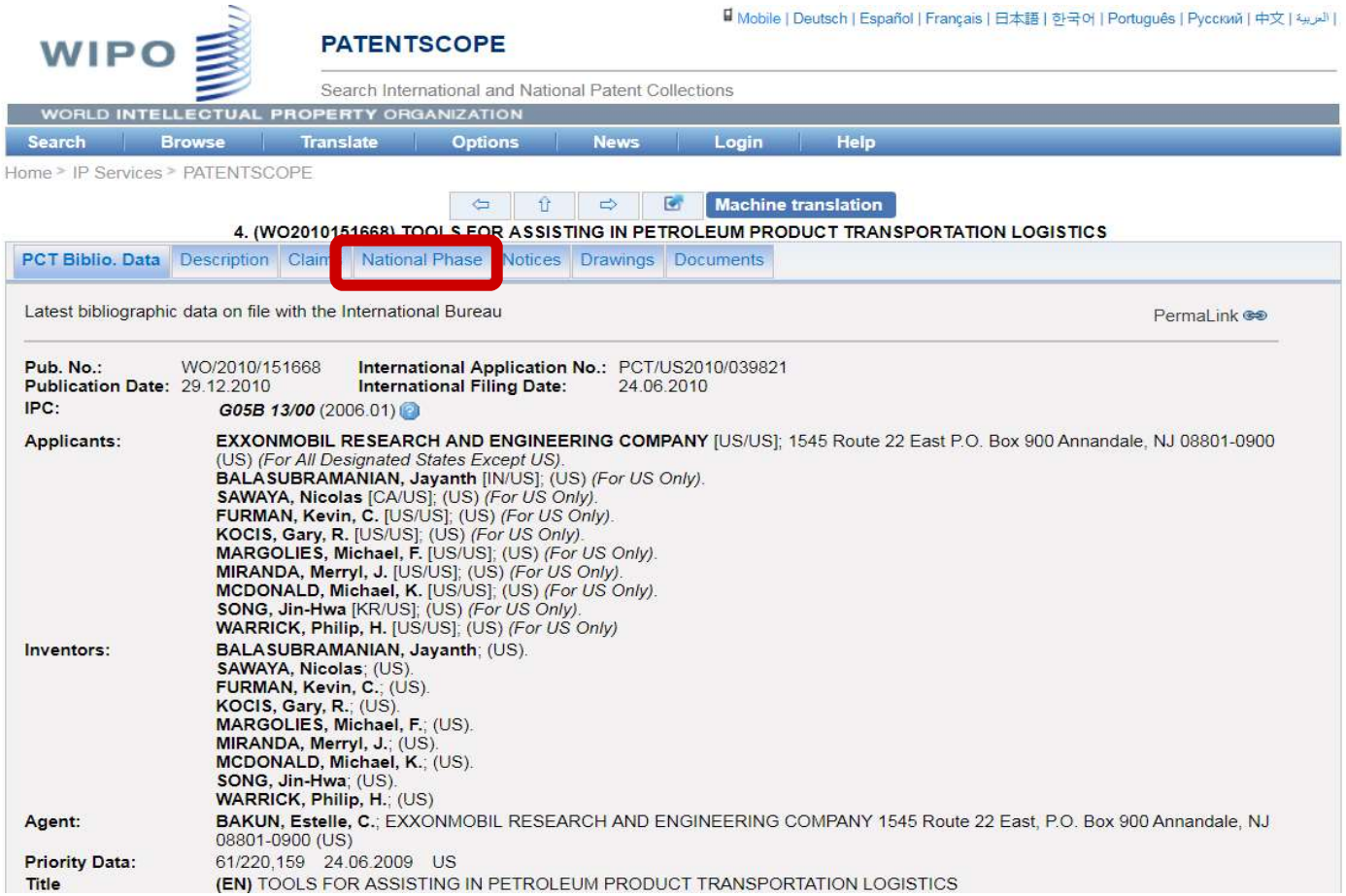
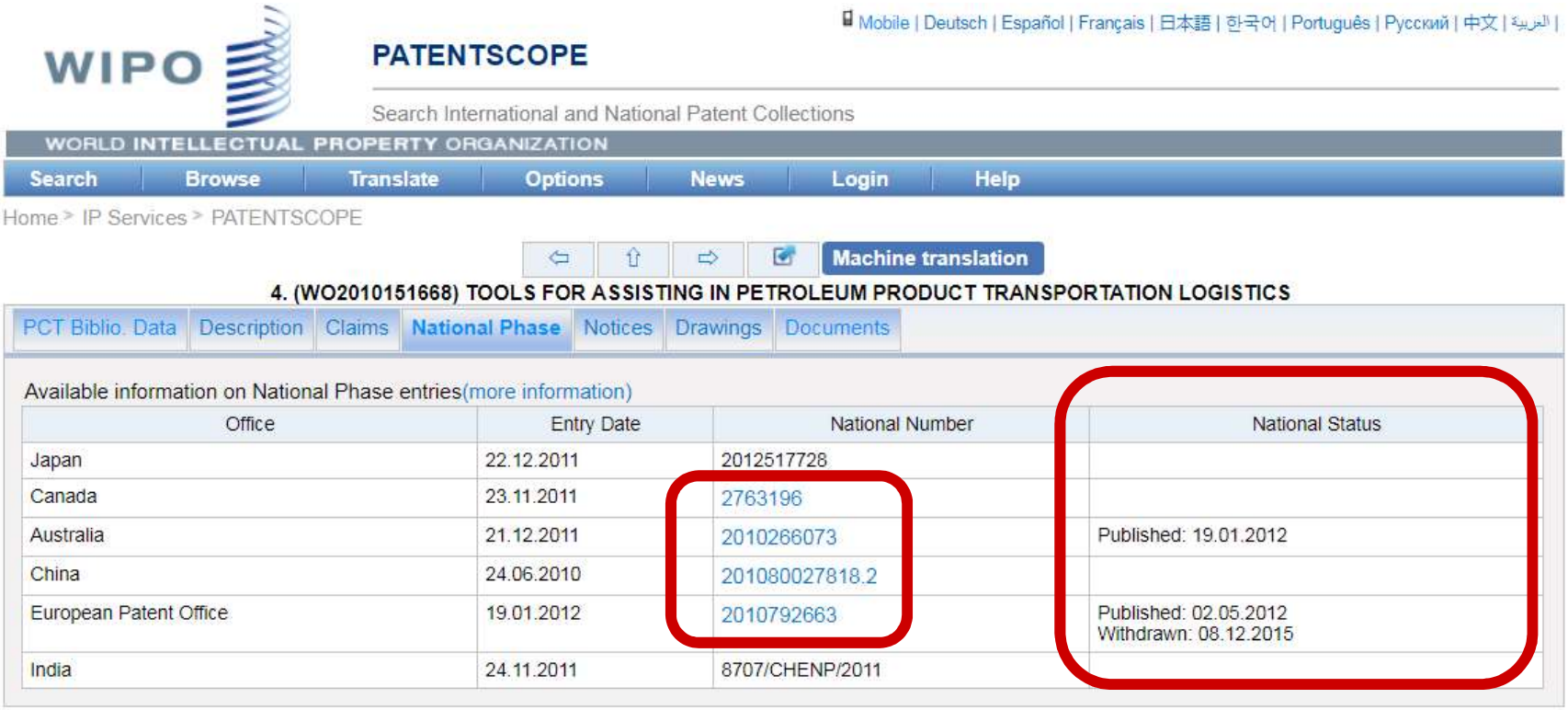
Scenario

- The researcher is interested in this invention and would like to know whether she can freely exploit this technology.

Record: Documents



Record: National phase



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4. (WO2010151668) TOOLS FOR ASSISTING IN PETROLEUM PRODUCT TRANSPORTATION LOGISTICS

PCT Biblio. Data | Description | Claims | National Phase | Notices | Drawings | Documents

Available information on National Phase entries(more information)

Office	Entry Date	National Number	National Status
Japan	22.12.2011	2012517728	
Canada	23.11.2011	2763196	
Australia	21.12.2011	2010266073	Published: 19.01.2012
China	24.06.2010	201080027818.2	
European Patent Office	19.01.2012	2010792663	Published: 02.05.2012 Withdrawn: 08.12.2015
India	24.11.2011	8707/CHENP/2011	

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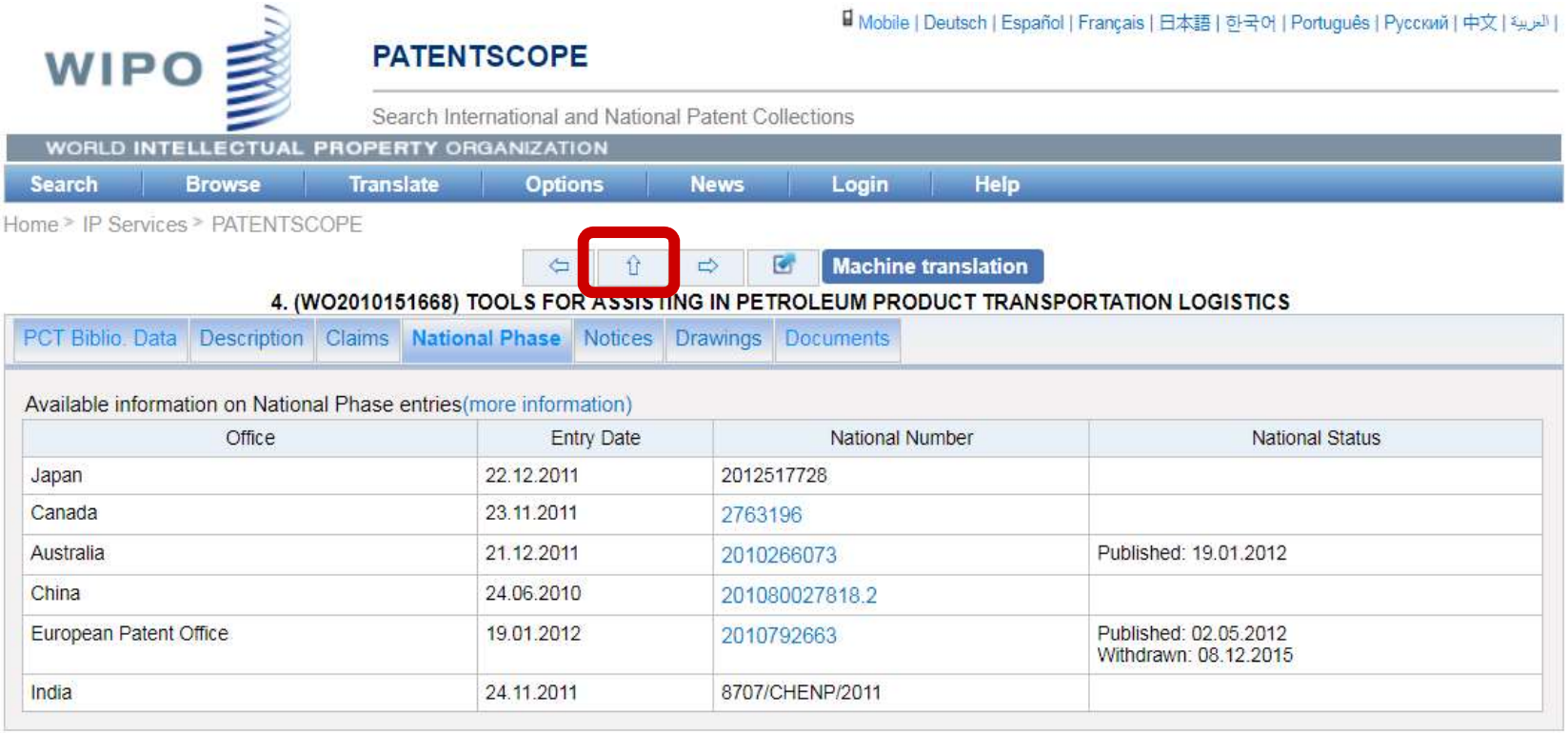
Task breakdown

- Access the PATENTSCOPE search service
- Retrieve patent documents based on
  - keywords
  - classification
  - keywords and classification
- Analyze the whole set of results according to applicants and inventors
- Examine a specific patent document and its related documents within the results
- **Keep the researcher up-to-date on new patent documents**

Record



Office	Entry Date	National Number	National Status
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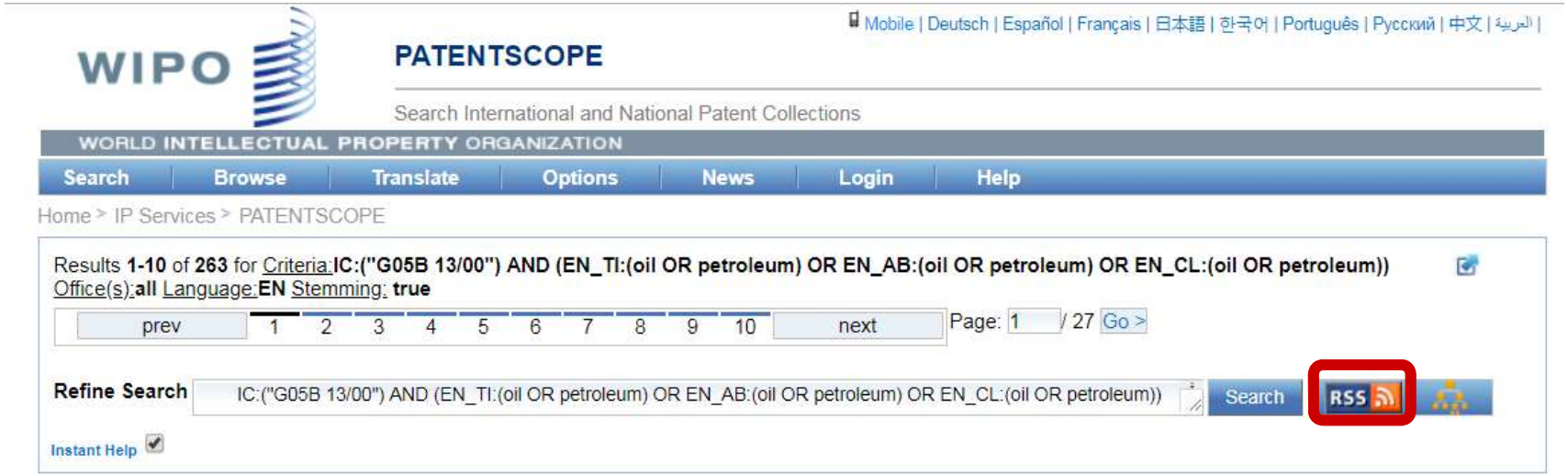
India	24.11.2011	8707/CHENP/2011	

Advanced search: Query and results



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PATENTSCOPE: IC:("G05B 13/00") AND (EN_TI:(oil OR petroleum) OR EN_AB:(oil OR petroleum) OR EN_CL:(oil OR petroleum))

Search For IC:("G05B 13/00") AND (EN_TI:(oil OR petroleum) OR EN_AB:(oil OR petroleum) OR EN_CL:(oil OR petroleum))

SMART LIQUID FUEL SYSTEM WITH ABILITY TO SELF-DIAGNOSTICS
Thursday, March 22, 2018, 7:00 AM

A system 50 for predicting performance of a liquid fuel system includes a processor 58 and a memory 60 communicatively coupled to the processor, wherein the memory stores instructions which when executed by the processor perform operations. The operations include establishing a baseline parameter for at least one physical parameter of a nozzle or a valve associated with at least one combustor of the liquid fuel system 16 with at least one time. The operations also include obtaining one or more operational parameters associated with the liquid fuel system from one or more sensors 62 during operation of a gas turbine engine 22. The operations further include utilizing an operational model of a fuel flow divider to output an action associated with the liquid fuel system based at least on the baseline parameter and the one or more operational parameters.

METHOD FOR CONTROLLING COOLING SYSTEM OF OIL-FILLED POWER TRANSFORMER
Friday, March 16, 2018, 7:00 AM

FIELD: control systems. SUBSTANCE: invention relates to control systems that automatically selects the optimum operating mode. Method for controlling the cooling system of an oil-filled transformer with a frequency-controlled drive of oil and air coolers comprises the following. On the basis of thermohydraulic models of the transformer, an array of possible modes of the transformer and the corresponding array of cooling modes are formed. During operation, currents in the transformer windings and environmental parameters are measured and the transformer mode sub-array corresponding to the measured currents is selected, and for each selected mode of the transformer, a sub-array of cooling modes corresponding to the measured environmental parameters. For each selected cooling mode, the total electric power consumption for cooling and for losses in the transformer is calculated, and the cooling mode minimising said consumption is set, keeping the temperature of the most heated point within the permissible limits. EFFECT: technical result of the invention is to reduce the total energy consumption for cooling the transformer and for losses therein. 5 cl, 1 dwg

Review

- Interfaces
  - CLIR (cross-lingual)
  - Simple search
  - Field combination
  - Advanced search
- Machine translation
- Results analysis
- Documents
- National phase (PCT)
- RSS feeds

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