



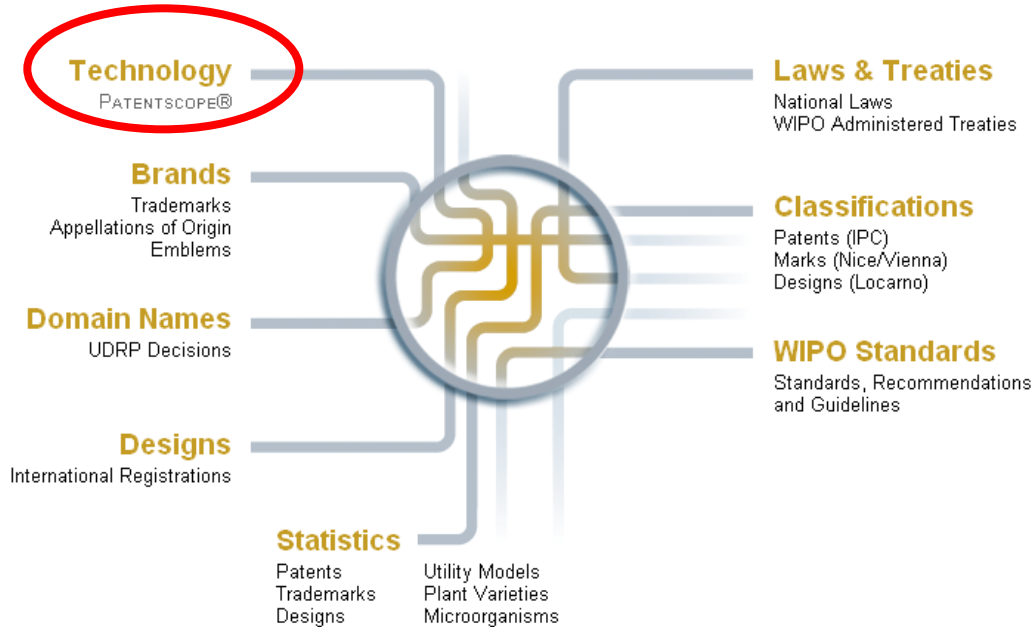
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Gregory Sadyalunda, Project Manager
Infrastructure Modernization Division

Manila, Philippines
7 - 9 December
2010

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- Structured Search

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» Keywords Front Page▼ =

AND▼ Publication Number▼ =

AND▼ Application Number▼ =

AND▼ Publication Date▼ =

AND▼ English Title▼ =

AND▼ English Abstract▼ =

AND▼ Applicant Name▼ =

AND▼ Int. Class▼ =

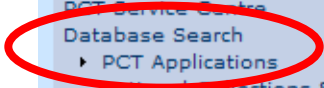
AND▼ Inventor Name▼ =

AND▼ National Phase Country▼ =

AND▼ Description▼ =

AND▼ Claims▼ =

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» Keywords Front Page ▾ =

AND ▾	Publication Number ▾	=	<input type="text"/>
AND ▾	Application Number ▾	=	<input type="text"/>
AND ▾	Publication Date ▾	=	<input type="text"/>
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AND ▾	English Abstract ▾	=	<input type="text"/>
AND ▾	Applicant Name ▾	=	<input type="text"/>
AND ▾	Int. Class ▾	=	<input type="text"/>
AND ▾	Inventor Name ▾	=	<input type="text"/>
AND ▾	National Phase Country ▾	=	<input type="text"/>
AND ▾	Description ▾	=	<input type="text"/>
AND ▾	Claims ▾	=	<input type="text"/>

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Simple Search

This system enables you to do searches in over 1.7 million published international patent applications (PCT) and in more than 3 million when including patent documents from Regional and National collections. Detailed information about data coverage can be found here.(->)

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<input type="checkbox"/> Cuba	<input type="checkbox"/> Mexico	<input type="checkbox"/> South Africa	<input type="checkbox"/> Spain	
<input type="checkbox"/> Argentina	<input type="checkbox"/> Singapore	<input type="checkbox"/> Israel	<input type="checkbox"/> PCT	

Examples:
 The entered value is searched against the Title, Abstract, Numbers and Names.
 ↓ "electric car"~50
 ↓ Smith or Klein
 ↓ WO2010000001
 ↓ "sol* panel"~5
 ↓ elect?icit?
 ↓ electric^10 and car^2



New PATENTSCOPE®

- ▶ New search engine (open source) with new features:
 - more powerful search query engine (**Lucene**)
 - **word stemming** (electric, electrical, electricity, ...)
 - search supported in multiple languages
 - **automatic statistical analysis** of results
 - better **relevance ranking**
 - **machine translation** of titles and abstracts
 - full text descriptions and claims with embedded images
- ▶ New enhanced coverage: PCT and national collections from **AR**, AP, CU, ES, KR, IL, MO, MX, SG, VN and ZA
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- Show Log

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more search fields

Search

Structured Search

Language

Fields

Int Class =

AND All Numbers and IDs =

AND All Names =

AND Int Class =

Office

ARIPO Cuba Mexico Vietnam Israel PCT ALL

Argentina Korea Singapore South Africa Mexico Australia

Search Reset

(+) Add another search field | (-) Reset search fields



Search Results – Tabular Analysis Clusters

Analysis

Options: Table Graph Options: bar pie

Offices		Main IPC		Main Applicant		Main Inventor		Pub Date	
Name	No	Name	No	Name	No	Name	No	Date	No
PCT	219371	A61K	38215	HYUNDAI MOTOR COMPANY	19167	QUAY, Steven, C.	107	1999	13707
Korea	78508	B60R	14564	ROBERT BOSCH GMBH	4376	BAE, HAN	103	2000	15715
Israel	9389	C07D	10218	KIA MOTORS CORPORATION	4165	KIM, GI CHANG	98	2001	18221
South Africa	6723	B62D	9812	DAEWOO MOTOR CO., LTD.	3115	KIM, TAE GU	85	2002	20395
Mexico	3688	B60K	7266	TOYOTA JIDOSHA KABUSHIKI KAISHA	2527	QUEVEAU, Gérard	84	2003	21471
Singapore	243	B60T	5751	HYUNDAI MOBIS CO., LTD.	23				
ARIPO	90	B60N	5102	MANDO CORPORATION	14				
		B60J	4637	KIA MOTORS CO., LTD.	13				
		F16H	4627	DAIMLERCHRYSLER AG	12				
		G06F	4586	SIEMENS AKTIENGESELLSCHAFT	11				

2009 19211

Links, add additional search filter

Sort by: Relevance Google translate: Original

No	Ctr	Title	Pub.Date	Int.Class	App.Number	Applicant	Inventor
1.	WO	WO/2007/025096 -HYBRID VEHICLE WITH MODULAR SOLAR PANEL AND BATTERY CHARGING SYSTEM TO SUPPLEMENT REGENERATIVE BRAKING	01.03.2007	B60L 8/00	PCT/US2006/033166	WARD, Thomas, A.	WARD, Thomas, A.

Solar cells are attached to vehicle components such as a moon roof (2) or truck bed cover (9) to create modular solar panels. An adjustable mount (4, 10) can be attached to the solar panels to adjust the angle of the solar cells in a direction of the sun. A system for connection of the solar panel to charge a high

► Instant analysis of thousands of search results by **cluster** (e.g. office, IPC, applicant, inventor, and filing date)

Search Results – Tabular Analysis Clusters

Analysis

Options: Table Graph Options: bar pie

Offices		Main IPC		Main Applicant		Main Inventor		Pub Date	
Name	No	Name	No	Name	No	Name	No	Date	No
PCT	219371	A61K	38215	HYUNDAI MOTOR COMPANY	19167	QUAY, Steven, C.	107	1999	13707
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Singapore	243	B60T	5751	HYUNDAI MOBIS CO., LTD.	2375	OH, MAN JU	84	2004	22378
ARIPO	90	B60N	5102	MANDO CORPORATION	1435	JANG, JAE DEOK	80	2005	26497
		B60J	4637	KIA MOTORS CO., LTD.	1397	BEVEC, Dorian	79	2006	26822
		F16H	4627	DAIMLERCHRYSLER AG	1278	PETERS, Dan	74	2007	27375
		G06F	4586	SIEMENS AKTIENGESELLSCHAFT	1156	KIM, YONG HUI	71	2008	24707
								2009	19211

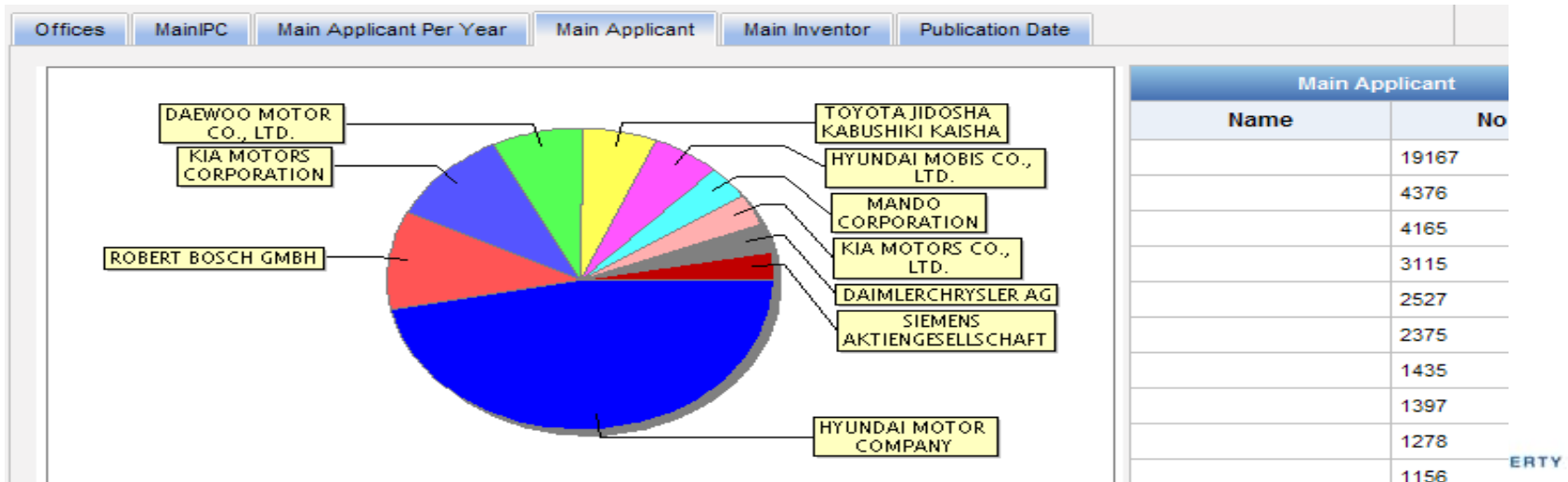
Sort by: Relevance Google translate: Original

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Graphical Analysis – Bar or Pie Chart



Search Results – Google translate

No	Ctr	Title	Original	App.Number	Applicant	Inventor
1.	WO	WO/2007/025096 -vehículo híbrido con paneles solares modulares y carga de la batería del sistema para completar el frenado regenera	original-->spanish	PCT/US2006/033166	WARD, Thomas, A.	WARD, Thomas, A.
		<p>Las células solares se unen a los componentes del vehículo con paneles solares. un soporte ajustable (4, 10) se puede conectar a los p conexión de los paneles solares para cargar una batería de alta tensión (42) con un pequeño panel solar de bajo voltaje, el siste para conectar los terminales del panel solar a través de las células</p>		<p>cubierta de la cama camión (9) para crear módulos de paneles en un ángulo de las células solares en la dirección del sol. un sistema de sustitución y reparación, así como la adaptabilidad de los paneles mercado de accesorios de un vehículo. los paneles solares se encuentran en los vehículos híbridos. para cargar una batería de alta tensión (80). el cargador de la serie (80) proporciona los interruptores a la batería conectado (341-N), una célula a la vez.</p>		
2.	WO	WO/2008/115479 -sistema y método para crear una plataforma de distribución de la infraestructura de red fija de los dispositivos de generación solar híbrida de la energía eólica y las hojas de	original-->spanish	PCT/US2008/003513	GENEDICS CLEAN ENERGY, LLC	FEIN, Gene
		<p>un sistema de carreteras para la generación y distribución de energía se presenta. de acuerdo con una realización de la invención, el sistema vial comprende una pluralidad de base terrestre híbrido de energía solar los dispositivos de la generación de viento, uno o más caminos, carreteras y un sistema de red de electricidad. los dispositivos de generación de energía están conectados a la red eléctrica, sistema vial y de manera sustancial todos los terrestres híbrido de energía solar los dispositivos de la generación eólica se sitúa en el marco de una de las carreteras o cerca de uno o más de los caminos para permitir así la generación de energía a partir del viento creado a partir de paso de vehículos, además de la generación de energía de viento atmosférico. también dio a conocer es una hoja de recogida de energía que aprovecha y proporciona energía a varios destinos. la hoja de recogida de la energía está configurado para recibir los dispositivos de generación de energía pequeñas, que están montados en una sola hoja. los dispositivos de generación de energía puede ser configurado para aprovechar la energía eólica y solar. la única hoja de dispositivos instalables puede ser libremente laminados o apilada para proteger la integridad de los dispositivos, y es capaz de ser desplegado para la instalación eficiente.</p>				
3.	WO	WO/2009/105587 -sistemas de recogida de radiación solar	original-->spanish	PCT/US2009/034580	BUCKY SOLAR, INC.	LIU, Tricia
		<p>27.08.2009 F24J 2/10</p>				

► Option to translate titles and abstracts

More powerful search language

▶ Boolean operators

- AND (Default)

electric car = electric AND car ≠ "electric car"

- +

+electric +car = electric car

- OR

- NOT

- ANDNOT

- -



More powerful search language

▶ **Fields, e.g.**

- EN_CL > English claims
EN_CL:"solar heating"
- FR_DE > French description
FR_DE/chauffage
- Default: EN_ALL
- valid only for immediately following term

▶ **Date searches**

- DP:01.02.2010
- DP:20100201
- DP/201002



More powerful search language

▶ Grouping/Nesting

- ()
- For fields and operators:
EN_CL:("fuel cell" "electric vehicle") ≠
EN_CL:"fuel cell" "electric vehicle"

CL:(razor OR rasierer) AND (battery OR batterie)

CL:((razor OR rasierer) AND (battery OR batterie))



More powerful search language

▶ Wildcards

- zero or one character: ?
- any number of characters: *
- te?t
> test, text
- electric*
> electricity, electrical,...
- no left truncation !
- induces non-stemming of respective term



More powerful search language

▶ Ranges

- inclusive: [...TO...]
- e.g.: DP:[01.01.2009 TO 01.01.2010]
DP:[20090101 TO 20100101]
- exclusive: {...TO...}

▶ Empty fields

- DP:2010 NOT IC:[A* TO H*]



Proximity searching – using “~”

EN_TI:“battery car”~4

4.	KR	100167497 -CIRCUIT FOR SAVING CAR PHONE BATTERY USING CAR BATTERY	28.09.1998	H04B 7/26	1019950062446	DAEWOO MOTOR CO., LTD.	KIM, TAE GU
<p>PURPOSE: A circuit for saving a car phone battery using a car battery is provided to reduce power consumption of a car phone battery by using a car battery instead of the car phone battery.</p> <p>CONSTITUTION: A circuit for saving a car phone battery using a car battery comprises a first relay(8) a voltage distributor(9), a second relay(10), and a car battery(11). The first relay is connected between a resistance(8) and a hook switch(1) to receive a supply power from a car battery instead of a car phone battery. The voltage distributor connected between the first relay and the car battery to provide a supply power of 3 volt to a car phone circuit. The second relay is connected between the relay and a dial IC to provide the supply power of the car battery to the dial IC. The car battery provides the supply power to the car phone circuit when the second relay is switched to a terminal of the first relay.</p> <p>COPYRIGHT 2000 KIPO</p>							
5.	WO	WO/1987/002512 -SOLAR CAR BATTERY	23.04.1987	B60J 1/00	PCT/RO1985/000002	INTREPRINDEREA DE CALCULATOARE ELECTRONICE	DOICARU, Vladimir
<p>The patent refers to the duplex windscreen which contains a solar cells chain, 2 or 3 inches, that are injecting the electrical current to different car electrical consumers as air conditioning, refrigerator, ventilator, radio-telephone station, printer for cellular radio. The system gives maximum performances as voltage at peak power 17.5V and current at peak power between 0.8-1.6A as function of insolation, temperature, altitude etc. The solar cells chain internal resistor is used as a radio car antenna or a burglar alarm antenna using two inductances (L1 and L2) and a condenser (C) which allow the high frequency and DC component separation.</p>							
8.	WO	WO/2002/022388 -BATTERY POWERED SHUTTLE CAR	21.03.2002	E21F 13/02	PCT/US2001/028369	PHILLIPS MACHINE SERVICE, INC.	ALLEN, Claude, R.
<p>A battery powered shuttle car (10) incorporates features and components that facilitate use and operation and effect efficient application in a mining environment. The shuttle car (10) incorporates at least one battery (20) that is secured to the vehicle frame (11) between one of a left front wheel (17) and a left rear wheel (17) or the right front wheel (17) and the right rear wheel (17). A battery change-over mechanism (51) facilitates battery replacement. Additionally, the shuttle car (10) may be provided with an integral discharge end (81) having a substantially fixed height (82). A full load indicator mechanism</p>							



Relevance weighting – using “^”

“air condition” vehicle solar

Result List. Sort by: <input checked="" type="radio"/> Relevance <input type="radio"/> Pub Date <input type="radio"/> App Date						
No	Ctr	Title	Pub.Date	Int.Class	App.Number	Applicant
1.	WO	2007025096-HYBRID VEHICLE WITH MODULAR SOLAR PANEL AND BATTERY CHARGING SYSTEM TO SUPPLEMENT REGENERATIVE BRAKING	01.03.2007	B60L 8/00	US2006033166	WARD, Thomas, A.
<p>Solar cells are attached to vehicle components such as a moon roof (2) or truck bed cover (9) to create modular solar panels. An adjustable mount (4, 10) can be attached to the solar panels to adjust the angle of the solar cells in a direction of the sun. A system for connection of the solar panel to charge a high voltage battery (42) enables easy replacement and repair, as well as adaptability of the solar panel and battery connection system to be provided as an aftermarket component for a vehicle. The solar panels can supplement charge provided by regenerative braking, typically used in hybrid vehicles. To charge a high voltage battery (42) with a small low voltage solar panel, the system includes a series charger (80). The series charger (80) provides switches to connect solar panel terminals across individual series connected battery cells (341-n), one cell at a time.</p>						
2.	WO	2005034666-PROCEDURE AND FACILITY FOR PROCESSING AGRICULTURAL PRODUCE, ESPECIALLY FRUITS, AND SOLAR COLLECTOR, PRE-DRIER, GRINDING PLANT, SECONDARY DRIER AND AIR-CONDITIONING PLANT ESPECIALLY FOR THE FACILITY	21.04.2005	B02C 9/04	HU2004000067	CSORBA, István
<p>In the course of the procedure the agricultural produce - after it is prepared for drying, especially after it is sorted and/or washed and/or chopped in a given case - is dried, and powdered final product is made from the dried produce. The procedure is based on that the produce is predried using heat gained from solar collector(s) (12), and then it is powdered by air-jet grinding; and the powdered product is submitted to secondary drying. The facility has drying and grinding units, and it is based on that - it has one or more decentralised processing units (2), which contain a fix indoor drying equipment (7) and - in a given case - outdoor mobile drying equipment, and - it has a centralised processing unit (11) provided with an air-jet grinding plant and secondary dryer (19) and with a compressor connected to this equipment. Also the facility has solar collectors (12) belonging to the processing units (2; 11), for the purpose of producing hot air that can be used for the drying operations, for making hot water for use and/or for heating the building.</p>						
3.	WO	2007023340-VEHICULAR AIR CONDITIONING SYSTEM AND AIR CONDITIONING METHOD	01.03.2007	B60H 1/00	IB2006002078	TOYOTA JIDOSHA KABUSHIKI KAISHA
<p>When there is a command for pre-air conditioning to be performed, an inlet switches to an inside air recirculating mode and a compressor and a blower fan are driven to blow air that was drawn in toward a lower portion in a vehicle cabin (130 to 136). Then when a door switch detects that an occupant may get into the vehicle (100, 102), air is blown from an outlet toward the upper portion in the vehicle cabin while the inlet remains in the inside air recirculation mode (114 to 124). That is, cooled air in the lower portion in the vehicle cabin is drawn in, cooled, and then blown toward the occupant. Also, when starting the pre-air conditioning, the battery state-of-charge is detected and pre-air conditioning is prohibited if the battery state-of-charge is less than a predetermined value (116, 126, 128).</p>						
4.	WO	2006076792-TRANSPORTATION SYSTEM WITH SELF-ELEVATING VEHICLES	27.07.2006	B61B 13/04	CA2006000050	PRUTTON, Richard
<p>A transportation vehicle, system and method are disclosed. A transportation region is accessible by a first network of roadways, generally at grade, and a second network of guideways, generally not at grade. A dual-purpose vehicle is adapted to alternately operate along the guideways and park at grade, optionally operating along the roadways as well. The vehicle is adapted to operate on the roadways analogously to a conventional automobile; however, the vehicle also includes means for releasably engaging the guideways for travel there along. Desirably, the outside surface of the vehicle may include one or more solar cells for converting solar energy into electrical energy to power the</p>						

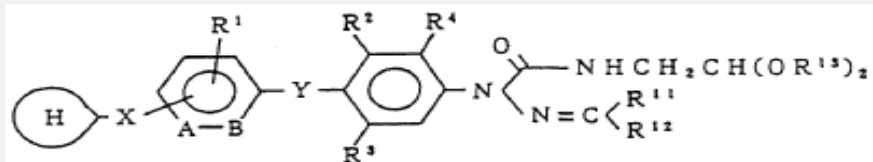
“air condition” vehicle^5 solar

Result List. Sort by: <input checked="" type="radio"/> Relevance <input type="radio"/> Pub Date <input type="radio"/> App Date						
No	Ctr	Title	Pub.Date	Int.Class	App.Number	Applicant
1.	WO	2008154088-SYSTEM AND METHOD FOR USING VEHICLE ATTRIBUTES TO IDENTIFY A VEHICLE UNDER SERVICE	18.12.2008	G06F 7/40	US2008062491	SNAP-ON INCORPORATED
<p>A system and method directed to determining vehicle attributes associated with a vehicle under service so as to eliminate the need for a user of a vehicle service tool to enter the vehicle attributes or to reduce the quantity of vehicle attributes that the user has to enter in order for the vehicle service tool to identify the vehicle under service and, in turn, to retrieve vehicle reference data associated with the vehicle under service. The vehicle service tool may include vehicle service applications for servicing various systems and/or components of the vehicle under service. A vehicle service application selected by the user may function as a requestor application that queries other applications and/or data storage for the vehicle attributes needed by the requestor application to identify the vehicle under service.</p>						
2.	WO	2006076792-TRANSPORTATION SYSTEM WITH SELF-ELEVATING VEHICLES	27.07.2006	B61B 13/04	CA2006000050	PRUTTON, Richard
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3.	WO	2003036192-FLUID HEAT EXCHANGER ASSEMBLY	01.05.2003	F01P 9/06	US2002032100	VAN WINKLE, John
<p>A vehicle system for transferring thermal energy in relation to a vehicle fluid (32-36, 94) comprising at least one thermoelectric device (10), having at least two surfaces (12,14), concurrently dissipating thermal energy on a warmer surface and absorbing thermal energy on a cooler surface, mounted in proximity to a contained vehicle fluid, and providing thermal communication between the contained vehicle fluid and at least one of the warmer and cooler surfaces of the thermoelectric device, wherein the cooler surface of the thermoelectric device is adjacent to a vehicle fluid reservoir (94), and wherein the vehicle system is mounted such that the cooler surface of the thermoelectric device is in thermal communication with the vehicle fluid reservoir, wherein the vehicle fluid reservoir includes a thermal energy transfer rod (102), extending at least partially therein, which is in thermal communication with the cooler surface of the thermoelectric device.</p>						
4.	WO	2007025096-HYBRID VEHICLE WITH MODULAR SOLAR PANEL AND BATTERY CHARGING SYSTEM TO SUPPLEMENT REGENERATIVE BRAKING	01.03.2007	B60L 8/00	US2006033166	WARD, Thomas, A.
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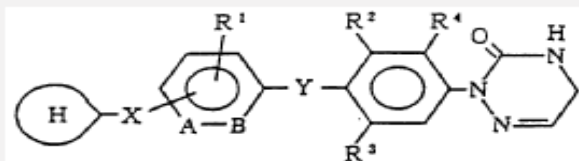
Description - Embedded Images

described in [13] above or a salt thereof, which comprises subjecting a compound of the formula: 4

11

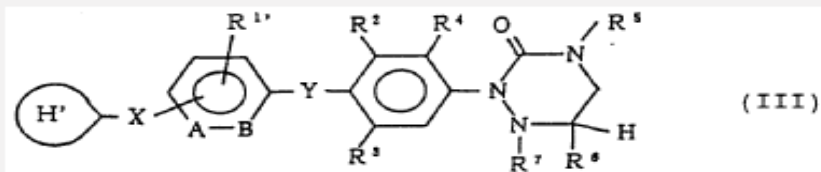


wherein R, R¹¹ and R¹² have the same meanings as defined in [12] above, and the other symbols have the same meanings as defined in [13] above; or a salt thereof to a cyclization reaction to provide a compound of the formula:

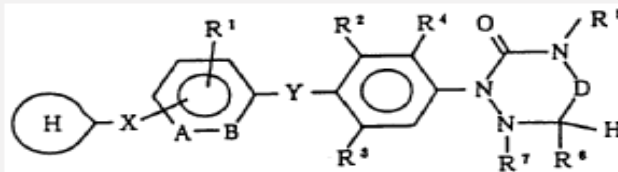


wherein each symbol has the same meaning as defined in [13] above, or a salt thereof, and if necessary, subjecting the resulting compound to a reduction reaction or a substitution reaction,

[15] a compound represented by the formula:



wherein **ring** H' has the same meaning as defined in [13] above, R^{1'} is a C₁₋₆ alkyl group, and the other symbols have the same meanings as defined in [1]



above, or a salt thereof, namely a compound represented by the formula:

Cross-lingual search

- ▶ Enter a search query in either EN, DE, ES, FR or JP and it will be **expanded** in the original language and **translated** into the other languages (keywords translation)
- ▶ Automatic or **supervised** mode
- ▶ Sliding bar to balance between precision and recall
- ▶ Disambiguation by **technical domains** and by selection of appropriate synonyms
- ▶ Built from bilingual **dictionaries** extracted statistically from Patent corpuses




CLIR: Walkthrough in automatic mode

Input search terms

Query

» Query Language: English

» Expansion Mode: Supervised

» Precision  Recall

Next

- 1) Select expansion mode
- 2) Enter keywords
- 3) Select search precision level
- 4) Submit Query
- 5) View Results



CLIR: Walkthrough in automatic mode

Input search terms

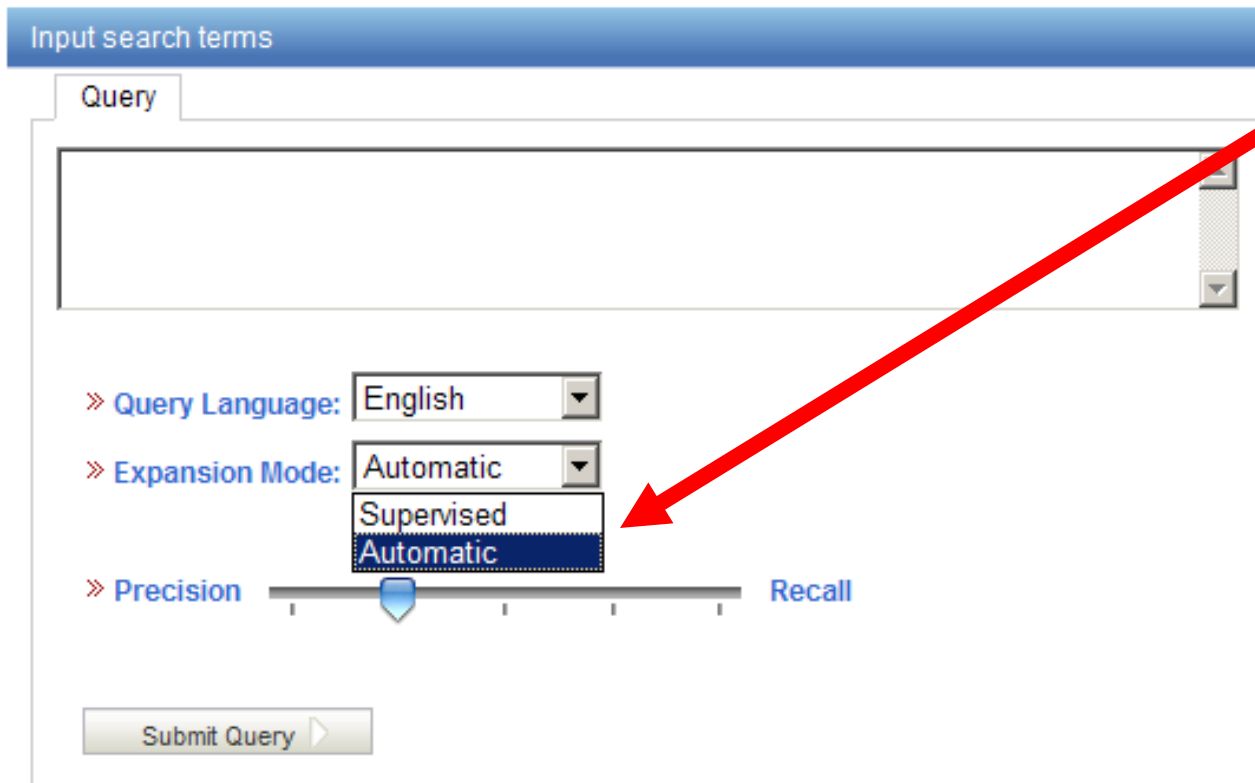
Query

» Query Language: English

» Expansion Mode: Automatic

» Precision Recall

Submit Query



- 1) Select expansion mode
- 2) Enter keywords
- 3) Select search precision level
- 4) Submit Query
- 5) View Results



CLIR: Walkthrough automatic mode


Input search terms

Query


hybrid engine

» Query Language: English

» Expansion Mode: Automatic

» Precision  Recall

Submit Query



- 1) Select expansion mode
- 2) Enter keywords
- 3) Select search precision level
- 4) Submit Query
- 5) View Results



CLIR: Walkthrough automatic mode


Input search terms

Query

hybrid engine

» Query Language: English

» Expansion Mode: Automatic

» Precision  Recall

Submit Query

- 1) Select expansion mode
- 2) Enter keywords
- 3) Select search precision level
- 4) Submit Query
- 5) View Results



CLIR: Walkthrough automatic mode


Input search terms

Query

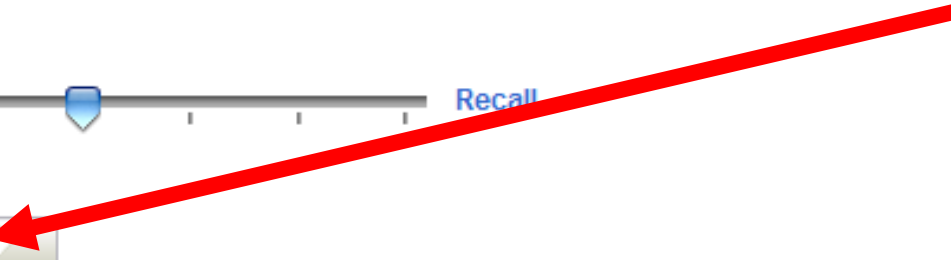
hybrid engine

» Query Language: English

» Expansion Mode: Automatic

» Precision  Recall

Submit Query



- 1) Select expansion mode
- 2) Enter keywords
- 3) Select search precision level
- 4) Submit Query
- 5) View Results



CLIR: Walkthrough automatic mode

Sort by: Relevance		Google translate: Original					
No	Ctr	Title	PubDate	Int.Class	App.No	Applicant	Inventor
1.	WO	WO/2008/059681 -HYBRID ENGINE ASSIST SYSTEM FOR VEHICLE	22.05.2008	F02B 37/10	PCT/JP2007/069744	mitsubishi electric corporation	INOUE, Masaya
<p>Provided is a hybrid engine assist system for a vehicle, that mounts both an idling stop system and an electric turbo system at the same time so that it is reduced in size, weight and price and improved in mileage. A power generating motor and a super-high speed rotary machine have their three-phase power terminals connected individually through a high-current wiring line (16) with an inverter (15). A power-direction changing switch (17) is arranged in the path of the high-current wiring line (16), thereby to switch the connection of the inverter (15) to the side of the power generating motor or the super-high speed rotary machine.</p>							
2.	WO	WO/2005/073005 -HYBRID ENGINE	11.08.2005	B60K 6/04	PCT/EP2005/001012	FEV MOTORENTECHNIK GMBH	JANSSEN, Peter
<p>The invention relates to a hybrid engine comprising an internal combustion engine (E) and an electric engine (EM), which are connected to each other by means of a planetary gear. A clutch (5) is arranged in such a way that the internal combustion engine and the electric engine are connected to each other by means of a sun wheel and a planetary carrier (6). The invention also relates to a method for operating said hybrid engine.</p>							
3.	WO	WO/2000/071375 -HYBRID ENGINE	30.11.2000	B60L 11/12	PCT/DE2000/001613	IQ BATTERY RESEARCH & DEVELOPMENT GMBH	BAUER, Günther
<p>The invention relates to an emission-free hybrid engine which comprises an electric motor (1), a battery (4) that drives the electric motor (1), a compressed-air engine (6), a tank (7) for the compressed air that drives the compressed-air engine (6), a generator (10) for generating electric energy and a decision and control device (5) for controlling different operational modes. The compressed-air engine drives the generator that charges the battery. The temperature decrease that occurs at the delivery pipe when the compressed air is delivered is used to cool the battery. The hybrid engine is preferably used for power-driven vehicles but also for lawn mowers and wheel chairs.</p>							
4.	WO	WO/2009/055928 -HYBRID ENGINE	07.05.2009	F02G 5/02	PCT/CA2008/001922	14007 MINING INC.	THOMPSON, Thomas A.
<p>A hybrid engine that uses a primary internal combustion engine portion and a secondary external combustion engine portion. In a preferred arrangement, the secondary external combustion engine portion operates as a reciprocating steam engine. The heated exhaust gases of the internal combustion engine portion are used to generate steam, and the steam is used to power the steam engine portion adding the steam engine's power output to that of the internal combustion engine. The thermal efficiency of the hybrid engine may be higher than the thermal efficiency of an internal combustion engine without use of the exhaust gas heat. The hybrid engine uses a configuration in which steam is generated directly in the steam engine and a mechanical link between the internal combustion engine portion and the steam engine portion with the result that the hybrid engine is simple and inexpensive to construct and maintain.</p>							
5.	WO	WO/2009/003304 -HYBRID MOTOR VEHICLE	08.01.2009	B62B 3/00	PCT/CH2008/000302	ASSYSTEM S.A.	SBARRO, Francesco
<p>The invention relates to a highly manoeuvrable hybrid motor vehicle (10) comprising a chassis (11), a body (12) mounted on this chassis and two steered and driven wheels (17, 27). The chassis (11) supports a front driving and steering unit (13) and a rear driving and steering unit (14), and each unit (13, 14) is provided with a supporting member (15, 25) that forms an independent module. This supporting member is constructed to support a motor (16, 26) and a wheel (17, 27) driven by this motor and is articulated with respect to the chassis (11). The vehicle also includes two free-rolling stabiliser wheels (40, 41) disposed on either side of the longitudinal axis of symmetry of the chassis (11). The supporting members (15, 25) of the two driving and steering units (13, 14) can move about a substantially vertical axis and have an angle of rotation of 360 degrees.</p>							

- 1) Select expansion mode
- 2) Enter keywords
- 3) Select search precision level
- 4) Submit Query
- 5) View Results



CLIR: Walkthrough supervised mode


Input search terms

Query

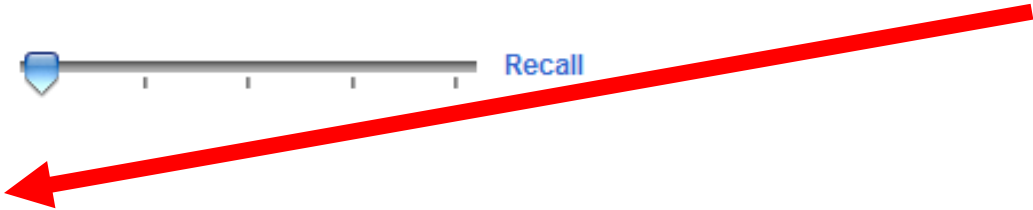
jackhammer

» Query Language: English

» Expansion Mode: Supervised

» Precision  Recall

Next



- 1) Select expansion mode
- 2) Enter keywords
- 3) Select search precision level
- 4) Next
- ...



CLIR: Walkthrough supervised mode

Input search terms

Query Domains [BLDG,MECH]

<p>[ADMN] Admin, Business, Management & Soc Sci</p> <p>[AERO] Aeronautics & Aerospace Engineering</p> <p>[AGRI] Agriculture, Fisheries & Forestry</p> <p>[AUDV] Audio, Audiovisual, Image & Video Tech</p> <p>[AUTO] Automotive & Road Vehicle Engineering</p> <p>[CHEM] Chemical & Materials Technology</p> <p>[DATA] Computer Sci, Telecom & Broadcasting</p> <p>[ELEC] Electrical Engineering & Electronics</p> <p>[ENGY] Energy, Fuels & Heat Transfer Eng</p> <p>[ENVR] Environmental & Safety Engineering</p> <p>[FOOD] Foods & Food Technology</p> <p>[GENR] Generalities, Language, Media & Info Sci</p> <p>[HOME] Home Contents & Household Maintenance</p> <p>[HORO] Precision Mechanics, Jewelry & Horology</p> <p>[MANU] Manufacturing & Materials Handling Tech</p> <p>[MARI] Marine Engineering</p> <p>[MEAS] Standards, Units, Metrology & Testing</p> <p>[MEDJ] Medical Technology</p> <p>[METL] Metallurgy</p> <p>[MILI] Military Technology</p> <p>[MINE] Mining, Oil & Gas Extraction & Minerals</p> <p>[NANO] Nano Technology</p> <p>[PACK] Packaging & Distribution of Goods</p> <p>[PRNT] Printing & Paper</p> <p>[RAIL] Railway Engineering</p> <p>[SCIE] Optical Engineering</p> <p>[SPRT] Sports, Leisure, Tourism & Hospitality Ind</p> <p>[TEXT] Textile & Clothing Industries</p> <p>[TRAN] Transportation</p>	<p>Add ▶▶</p> <p>◀◀ Remove</p>	<p>[BLDG] Civil Engineering & Building Construction</p> <p>[MECH] Mechanical Engineering</p>
--	--------------------------------	--

Expand Synonyms ▶

- 5) Select technical domains
- 6) For each term, select variants
- 7) Review expansions
- 8) Choose parameters
- 9) Submit query




CLIR: Walkthrough supervised mode

Input search terms

Term 1: jackhammer

Variants Domains [BLDG,MECH]

» Keep term untranslated when expanding query in other languages

» Less  More

Add Variant +

Translate Selected Terms Start Over


- 5) Select technical domains
- 6) For each term, select variants
- 7) Review expansions
- 8) Choose parameters
- 9) Submit query

CLIR: Walkthrough supervised mode

Input search terms

Term 1: jackhammer

» Keep term untranslated when expanding query in other languages

» Less  More

concrete breaking

 concrete demolisher

 drill

rotary hammer

 rotary demolition hammer

 paving breaker

breaking hammer

- 5) Select technical domains
- 6) For each term, select variants
- 7) Review expansions
- 8) Choose parameters
- 9) Submit query

CLIR: Walkthrough supervised mode

English German French IPC

"jackhammer" OR "concrete breaking" OR "concrete demolisher" OR "paving breaker" OR "rotary demolition hammer"

» Field(s) you want to search:

» Acceptable distance between matched words:

» Stemming

- 5) Select technical domains
- 6) For each term, select variants
- 7) Review expansions
- 8) Choose parameters
- 9) Submit query

CLIR: Walkthrough supervised mode

English German French IPC

"Bohrhammer" OR "Brechen von Beton"
OR "Strassendeckenaufbruchgerät"

» Field(s) you want to search: Abstract

» Acceptable distance between matched words:: Sentence

» Stemming

Submit Query Start Over

- 5) Select technical domains
- 6) For each term, select variants
- 7) Review expansions
- 8) Choose parameters
- 9) Submit query

CLIR: Walkthrough supervised mode

English German French IPC

"brise béton" OR "marteau piqueur"

» Field(s) you want to search: Abstract

» Acceptable distance between matched words:: Sentence

» Stemming

Submit Query Start Over

- 5) Select technical domains
- 6) For each term, select variants
- 7) Review expansions
- 8) Choose parameters
- 9) Submit query

CLIR: Walkthrough supervised mode

English German French IPC

IPC Filter Domains [BLDG,MECH]

B02 OR B03 OR B04 OR B05 OR B06 OR B07 OR B25 OR
 B26 OR B28 OR B30 OR B66 OR C04 OR E02 OR E0? OR
 F0? OR F15 OR F16 OR F17 OR F26

» Field(s) you want to search: Abstract

» Acceptable distance between matched words:: Sentence

» Stemming

Submit Query Start Over

- 5) Select technical domains
- 6) For each term, select variants
- 7) Review expansions
- 8) Choose parameters
- 9) Submit query

CLIR: Walkthrough supervised mode

English IPC +

IPC Filter Domains [BLDG,MECH]

B02 OR B03 OR B04 OR B05 OR B06 OR B07 OR B25 OR
 B26 OR B28 OR B30 OR B66 OR C04 OR E02 OR E0? OR
 F0? OR F15 OR F16 OR F17 OR F26

» Field(s) you want to search:

» Acceptable distance between matched words::

» Stemming

- 5) Select technical domains
- 6) For each term, select variants
- 7) Review expansions
- 8) Choose parameters
- 9) Submit query

CLIR: Walkthrough supervised mode

English German Spanish French IPC

"jackhammer" OR "breaking hammer" OR "concrete breaking" OR "concrete demolisher" OR "paving breaker" OR "rotary demolition hammer" OR "rotary hammer"

» Field(s) you want to search: Abstract

» Acceptable distance between matched words::

» Stemming

Submit Query

Start Over

Title
Abstract
Title and Abstract
Description
Claims
Title, Abstract and Claims
All Text

- 5) Select technical domains
- 6) For each term, select variants
- 7) Review expansions
- 8) Choose parameters
- 9) Submit query

CLIR: Walkthrough supervised mode

English German Spanish French IPC

"jackhammer" OR "breaking hammer" OR "concrete breaking" OR "concrete demolisher" OR "paving breaker" OR "rotary demolition hammer" OR "rotary hammer"

» Field(s) you want to search: Title and Abstract

» Acceptable distance between matched words:: Sentence

» Stemming

Submit Query

Start Over

Minimal
Sentence
Paragraph
Page
Unconstrained

- 5) Select technical domains
- 6) For each term, select variants
- 7) Review expansions
- 8) Choose parameters
- 9) Submit query

CLIR: Walkthrough supervised mode

English German Spanish French IPC

"jackhammer" OR "breaking hammer" OR "concrete breaking" OR "concrete demolisher" OR "paving breaker" OR "rotary demolition hammer" OR "rotary hammer"

» Field(s) you want to search:

» Acceptable distance between matched words:

» Stemming

- 5) Select technical domains
- 6) For each term, select variants
- 7) Review expansions
- 8) Choose parameters
- 9) Submit query



CLIR: Walkthrough supervised mode

Results 1-10 of 140 for Criteria:((DE_Tl:("Bohrhammer" OR "Schlaghammer" OR "Brechhammer" OR "Brecherhammer" OR "Brechen von Beton" OR "Strassendeckenaufbruchgerät" OR "Rotationshammer" OR "Drehhammer") OR DE_AB:("Bohrhammer" OR "Schlaghammer" OR "Brechhammer" OR "Brecherhammer" OR "Brechen von Beton" OR "Strassendeckenaufbruchgerät" OR "Rotationshammer" OR "Drehhammer")) OR (EN_Tl:("jackhammer" OR "breaking hammer" OR "concrete breaking" OR "concrete demolisher" OR "paving breaker" OR "rotary demolition hammer" OR "rotary hammer") OR EN_AB:("jackhammer" OR "breaking hammer" OR "concrete breaking" OR "concrete demolisher" OR "paving breaker" OR "rotary demolition hammer" OR "rotary hammer")) OR (ES_Tl:("martillo rompedor" OR "trituradoras de hormigón" OR "martillo rotativo") OR ES_AB:("martillo rompedor" OR "trituradoras de hormigón" OR "martillo rotativo")) OR (FR_Tl:("brise béton" OR "marteau piqueur" OR "marteau de démolition" OR "broyer le béton" OR "marteau rotatif") OR FR_AB:("brise béton" OR "marteau piqueur" OR "marteau de démolition" OR "broyer le béton" OR "marteau rotatif"))) AND ICF:("B82B 3" OR "C06F 1" OR "C06F 3" OR A46D OR B02 OR B03 OR B04 OR B05 OR B06 OR B07 OR B23 OR B24 OR B25 OR B26 OR B27 OR B28 OR B29 OR B30 OR B3? OR B65 OR B66 OR C03 OR C04 OR C14 OR E02 OR E0? OR F0? OR F15 OR F16 OR F17 OR F26) Office(s):all Language:EN Stemming: true

prev 1 2 3 4 5 6 7 8 9 10 next

((DE_Tl:("Bohrhammer" OR "Schlaghammer" OR "Brechhammer" OR "Bre

Refine Search



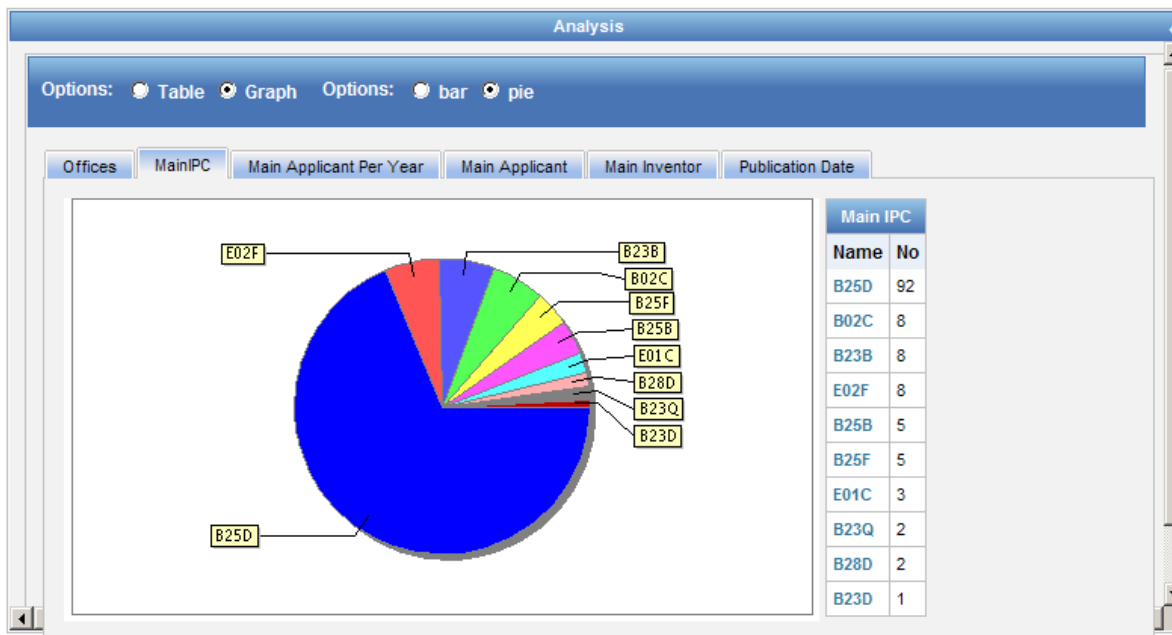
5) Select technical domains

6) For each term, select variants

7) Review expansions

8) Choose parameters

9) Submit query



Cross-lingual search: an example

- Search « shaver rotating head »
- ▶ Step 2: synonym selection
- ▶ For example:
 - select « rotary », « rotatable », « revolving », « rotational » for the sub-expression « **rotating** »
 - select « razor » for the sub-expression « **shaver** » and so on



Cross-lingual search: an example

- Search « shaver rotating head »
- ▶ Step 3: obtain expanded query
 - English expansion:
 - ((razor OR shaver) AND ("rotating head" OR "rotary head")) OR ((razor OR shaver) AND (revolving OR rotating OR rotary) AND head)



Cross-lingual search: an example

- Search « shaver rotating head »
- ▶ Step 3: obtain expanded query
 - German expansion:
 - ((Rasiergerät OR Rasierapparat OR raiser OR Rasierer) AND ("drehbarem Kopf" OR Rotationskopf OR "rotierenden Kopf" OR Drehkopf OR "Rotierender Schleifkopf"))



Cross-lingual search: an example

- Search « shaver rotating head »
- ▶ Step 3: obtain expanded query
 - Spanish expansion:
 - (afeitar AND ("cabezal rotatorio" OR "cabeza rotatoria"))



Cross-lingual search: an example

- Search « shaver rotating head »
- ▶ Step 3: obtain expanded query
 - French expansion:
 - (rasoir AND ("tête rotative" OR "tête tournante"))



Cross-lingual search: an example

■ Search « shaver rotating head »

▶ Step 3: obtain expanded query

• Japanese expansion:

• (("シェーバ" OR "シェーバー" OR "かみそり" OR "式
髭" OR "そり" OR "シェイバー" OR "剃刀") AND ("回
転頭" OR "回転ヘッド" OR "回転ヘッド付き" OR "回転
可能なヘッド")) OR (("シェーバ" OR "シェーバー"
OR "かみそり" OR "式髭" OR "そり" OR "シェイバー"
OR "剃刀") AND ("アン" OR "レボルビング" OR "旋回
" OR "回転") AND "ヘッド")



Cross-lingual search: an example

- Search « shaver rotating head »
- ▶ Step 3: obtain expanded query
 - IPC filter:
 - [MANU], [MECH]:
 - A46D OR B07 OR "B82B 3" OR B23 OR B24 OR B25 OR B26 OR B27 OR B28 OR B29 OR B3? OR B65 OR B66 OR C03 OR C04 OR "C06F 1" OR "C06F 3" OR C14 OR B02 OR B03 OR B04 OR B05 OR B06 OR B07 OR B25 OR B26 OR B30 OR E02 OR F0? OR F15 OR F16 OR F26



Cross-lingual search: what does it change?

- Search « **shaver rotating head** » in abstracts
 - ▶ Level 1: shaver and rotating and head:
4 hits
 - ▶ Level 2: shaver and rotating and head (stemming):
14 hits
 - ▶ Level 3: English monolingual expansion with stemming:
44 hits
 - ▶ Level 3: cross lingual expansion with stemming:
45 hits



Cross-lingual search: what does it change?

- Search « **Rasiergerät Drehkopf** » in abstracts
 - ▶ Level 1: Rasiergerät and Drehkopf:
0 hits
 - ▶ Level 2: Rasiergerät and Drehkopf (stemming):
0 hits
 - ▶ Level 3: German monolingual expansion with stemming:
0 hits
 - ▶ Level 3: cross lingual expansion with stemming:
25 hits



Cross-lingual search: what does it change?

- Search « **afeitadora cabeza rotatoria** » in abstracts
 - ▶ Level 1: afeitadora and cabeza and rotatoria :
0 hits
 - ▶ Level 2: afeitadora and cabeza and rotatoria (stemming):
0 hits
 - ▶ Level 3: Spanish monolingual expansion with stemming:
3 hits
 - ▶ Level 3: cross lingual expansion with stemming:
33 hits



Known limitations of current system

1. Maximum length of queries around 10'000 characters using Firefox and 250 characters with Internet Explorer (larger queries induce navigation and performance issues) => use Firefox for CLIR
2. Maximum number of keywords 5, 10 characters for Japanese

Next considered languages

- Korean
 - Chinese
 - Portuguese
 - Russian
-
- Difficult to predict when they will be available