

Study Note: The study of this module will take you around ten hours.

MODULE 5: EFFICIENT AND EFFECTIVE SEARCHING

Important Note:

In the exercises and drills that follow, the number of hits (i.e., the number of results or documents found upon your searching) may be given. However, these numbers should be regarded as indicative only, since online databases are updated frequently and the number of hits will therefore continually change than the one you may see in our drills.

It should also be noted that functionality and screen layout also change regularly, what you may see on the screen of search databases may differ from what is shown in the Module which has been collected recently. Tutors appreciate your informing them immediately if you find additional differences to help us update our screens and numbers of the search results when they are done in the exact manner as prescribed in the module.

Learning outcomes.

On successful completion of this module, students will be:

- aware of the main factors to take into account when approaching a patent search, particularly those affecting the cost
- aware of the risks of not carrying out a patent search
- able to address language barriers that exist in patent information searching by using:
 - classification systems
 - patent family data
 - automatic translation
- able to implement the comprehensive range of tips for efficient and effective searching set out in this module, including:
 - preparing for the search and deciding what to search for
 - taking account of the advantages and disadvantages of searching using words and using classifications
 - approaching unfamiliar technology
 - handling thousands of hits
 - learning and adjusting as the search proceeds
 - knowing when to call a halt
 - being aware of potential errors – yours and the database host's

- using RSS for automatic updating
- being aware of factors that affect the overall results

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5.1 Efficient and effective searching - some factors to consider

5.1.1 Introduction

In many avenues in life one needs to balance competing resources; the art of patent searching is no exception. Patent searching can sometimes be likened to searching for a needle in a haystack. On some occasions needles are attracted to a magnet all too readily; other times the needle is elusive. A professional, budding, or occasional patent searcher must balance a budget, time, and available resources against the risk of not finding something relevant if it is there to be found.

5.1.2 Purpose

We saw in previous modules that the purpose of your search (Module 2) will determine what type of search you will perform. For example, there is a big difference between a patent infringement search and a state-of-the-art search. These are two extremes in terms of the expected results. An infringement search will typically have a narrower focus than a state-of-the-art search and have a specific well defined objective to find whether it is possible to make a product or perform a process within a specific country, in case that product or process is under patent protection.

5.1.3 Budget

Another consideration is budget. Perhaps you are responsible for performing a due diligence search to ascertain the value of the Intellectual Property assets of a company before deciding the terms of a merger and acquisition. Due diligence is a term used in some countries to refer to the care a reasonable person should take before entering into an agreement or a transaction with another party.. If your budget to perform the due diligence search is small, and your access to resources is limited, you may need to work out some optimal solutions within the limited resources you have.

5.1.4 Time

Time can also be a limited resource. Most people new to patent information searching are surprised by how long it can (and does) take to perform a search, particularly if the search, such as a state-of-the-art search, has a wide remit.

5.1.5 Skill and resources

A professional patent searcher is likely to have access to, and be familiar with, resources such as paid subscription databases which can be chosen in accordance with the particular search being made. The providers of these databases will have put a lot of effort into collating patent information and making the data available in one place. Sometimes this “one stop shop” for data is called data aggregation. This means the searcher need only use one search query in one place rather than going

to several different databases online and using different search strategies for each one. Duplicate records are avoided in aggregated data. Of course having all the data in one place means the search will take less time.

That said, the free databases are making great strides in data coverage and search functionality. However although they have similarities, they all differ in some respects and it is important to familiarise yourself with different databases and to carry out checks before doing a search. Different databases use different search syntax, different field codes etc; and differ in the countries they cover and the amount of patent information they have from those countries.

Module 3 at section 3.1.2 gives full details of free and fee-based databases. Two major databases are Patentscope, hosted by WIPO, and Espacenet, hosted by the EPO. These are accessible to both beginners and experts at no charge and there is a great deal of information on these websites to help both the beginner and the expert.

In Patentscope (<https://patentscope.wipo.int/search/en/search.jsf>) you can search over 59 million patent documents including three million published international patent applications (WO documents published under the PCT). Also included are documents from China, Germany (and the DDR), the Republic of Korea, the Russian Federation (and the USSR), Singapore, Spain, UK, US, and the regional authorities – ARIPO, the Eurasian Patent Office and the European Patent Office; together with various other national collections from around the world.

In Espacenet (<https://worldwide.espacenet.com/>) you can search more than 90 million patent documents from around the world, and supporting information on whether a patent has been granted, if it is still in force, details of any family members etc.

Espacenet also offers **Latipat** which allows searching of patents from many Latin American countries (and 2.5 million documents from Spain). These documents cannot be searched using the English language.

Performing a professional comprehensive search through multiple databases (patent and non-patent literature in various languages, and industrial designs and utility models for some technical areas), internet search engines, and paper records (file wrapper and amended claims) can require a great deal of experience and skill. However, because of the increasing coverage and functionality of free databases, a search can often be limited to just one of them, if good hits are found. Whatever, it is essential even for experienced searchers, to keep up to date with ever-changing databases and resources.

The modern free databases like PatentScope, Lens.org, etc..., have successfully added many of the features as freeservices. The pace of the growth of fee-based and free databases has been moving at an increasingly faster rate in recent

years thanks to interest from R&D departments, policy makers, institutions, professional searchers and ICTs. As a result most patent databases (both fee-based and free) attempt to upgrade their services to remain relevant in the market. Generally, focus has shifted to building stronger search queries and to mining the best results considering that 5 years ago, an online chart of search results would have been a feature that you would spend a few thousand \$\$, and the current databases provide it at no additional charge of fees. Also, few of the databases are targeting the provision of customized and specific industry specific search tools such as biotechnology, chemical, mechanical, IC chips, and software patents. Similarly, in future the capabilities of the free and fee-based databases are likely to grow with the growing market needs and provide ease to search techniques using cloud based systems. .

Performing a thorough, comprehensive search throughout multiple databases (patent and non-patent literature in multiple languages, and industrial designs for some technical areas), internet search engines, and paper records (file wrapper and amended claims) can require a great deal of experience and skill. An experienced searcher must keep up-to-date with ever-changing databases and resources.

5.1.6 Security

The searcher should also be aware that when searching online, there is a small risk that the search string could be discovered by a third party who might then know details of the invention being searched. **An unsecured online search environment is one where the search string is unencrypted. If you do not need a log on and password, or if there is no *https://* in front of the internet address, that is the sign of an unencrypted search site.**

5.1.7 General considerations

Professional searchers are reluctant to guarantee that they have found everything within the framework of the search parameters. This is in part due to the ever-changing data (including the fact that patent applications are published only after 18 months from the earliest filing date), search interfaces and nature of the search resources available on many and varied databases. Data is added, sometimes as frequently as daily, onto large databases and aggregating data providers. This means that the search you did yesterday may have more results if repeated tomorrow. You may have noticed you found more results from your searches than were shown in the search drills we exemplified earlier in this course. This shows the number of data records in patent information is growing rapidly.

Patent information searching is often not straightforward. It requires lateral thinking, a bit of detective work, perseverance, organization, and patience. It also helps to be able to hold inventive concepts in mind and compare these concepts with what is described in patent documents. The searcher must compare one (combination of)

concepts against another (combination of) concepts make a yes/no/maybe decision, then move quickly on to the next decision. As the searcher moves through lists of documents, sometimes in multiple databases / search interfaces, the searcher will see the same or a similar document appearing over and over again. Being organized and keeping written track of patent documents previously considered will help save time in considering the same patent document in detail multiple times.

Patent information searching can be very rewarding, particularly when you have that “Eureka” moment and find the patent document(s) you know exist out there somewhere.

5.2 The risks of not carrying out a patent information search

There is a cost to patent searching in terms of time and sometimes money. It is a step that some business people can sometimes, or perhaps don't know enough about. The cost of a patent search however can be a drop in the ocean when compared to all the money spent on developing and getting a new product or process into the marketplace.

In the pursuit of moving a project forward (such as development of a new product, or acquisition of a company) a busy business person or company may skimp on - or simply skip altogether - the step of performing an adequate patent search. The company may spend a lot of money on developing a product, performing trials, marketing, branding, finding distribution channels and many other costly processes only to find after having spent a lot of money that the product has already been described in an earlier journal or patent publication, or even worse protected by a patent owned by a rival firm.

There may be valid business reasons to neglect a thorough patent search, but the risk of should always be considered. The cost of not performing a thorough patent search may far outweigh the cost of performing a patent search at the beginning of a development cycle. Businesses should also consider whether employing a professional search company may be a wise investment at the start of a costly development cycle.

Note This topic is also discussed in Module 1, sections 1.6.1 and 1.6.2

Case Study 1; Importance of a comprehensive search

SEB SA, a French manufacturer of home appliances, invented and patented (US4995312) a “cool-touch” deep fryer in which the outside surfaces remain cool during use.

Sunbeam Products, a US company, asked *Pentalpha* (a wholly-owned subsidiary of *Global-Tech*) to provide it with deep fryers of a certain specification. *Pentalpha* purchased an *SEB* deep fryer in Hong Kong that was not marked with the *SEB*'s US

patent number. Except for the cosmetic appearance, *Pentalpha* copied *SEB*'s design.

Thereafter *Pentalpha* retained a US patent lawyer to conduct a patent search, but did not inform the lawyer that *Pentalpha* had copied *SEB*'s design. Failing to discover *SEB*'s patent, the attorney issued a non-infringement opinion letter, stating that *Pentalpha*'s product did not infringe any US patents that he had found.

Pentalpha began manufacturing and selling its fryer to *Sunbeam*, which sold them in the United States. *SEB* sued *Sunbeam* for patent infringement, and *Sunbeam* notified *Pentalpha* of the lawsuit. Despite having notice of the lawsuit, *Pentalpha* continued selling its fryer to other customers. After settling with *Sunbeam*, *SEB* went on to sue *Pentalpha*.

The case went all the way up to the US Supreme Court¹ which found that there was no legitimate reason for *Pentalpha* failing to tell its patent attorney that it copied *SEB*'s design. The judgment went against *Pentalpha*.

From the patent search perspective it is important to note that a) no patent search is exhaustive - the US patent lawyer missed the *SEB* patent, and b) it is important to have as strong an initial starting point as possible - if the US patent lawyer had been informed about the *SEB* design, the search would have been more specific and both the legal advice and eventual outcome of the lawsuit could have been different.

An excellent case to demonstrate the importance of patent searching and potential risks associated with an ineffective search.

Case Study 2: Risk of failing to disclose the result of a patent search

Filing and prosecuting a patent application in the United States requires disclosure of all information material to patentability known to the inventor. Failure to do this may make the patent unenforceable. This duty of disclosure exists throughout prosecution, and covers all information, including the results of patent searches done by the inventor himself, his attorney, or an examiner in related cases involving the same inventor or applicant. Hence, the duty of disclosure extends to related patent applications pending in the Patent Office, search reports, and Patent Office letters issued on pending applications and corresponding foreign applications.

In a recent case, Court of Appeals for the Federal Circuit (CAFC), USA found inequitable conduct for failure to provide the references cited in a family member case²

¹ *Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754 (2011)

² *McKesson Information Solutions Inc. v. Bridge Medical Inc.*, 487 F.3d 897 (Fed. Cir. 2007).

McKesson's had US 4857716 ('716), which concerns a patient identification system for relating specific items with specific patients (such as medication) and ensuring that an identified item corresponds to an identified patient.

At the time McKesson filed the '716 patent application, a prior related application ("the '149 application") was pending before a different Patent Office Examiner. The '149 application involved a similar invention and McKesson did disclose the pending '149 application at the time he filed the '278 application.

Before the '716 patent issued, the Examiner in the '149 application rejected the claims as obvious in light of a combination of several prior art references – including a new reference a US Patent ("the Baker patent") – which had not been previously cited in any of the other related applications. McKesson acknowledged this reference and amended the claims to overcome this prior art but, he did not disclose the rejection or the Baker patent to the Examiner in the '716 patent before it issued.

The court found the '716 patent unenforceable, due to, amongst other reasons, failure to disclose the Baker patent, found in a patent search conducted by the examiner during prosecution of the '716 patent. Additional details about this case are available online.

5.3 Language barriers

Patent documents are published in many languages, with a notable growth in documents from China and Korea. There are a number of different ways that the patent searcher can approach this challenge.

5.3.1 Classification systems

Classification systems are language independent; the same symbol should be used to classify an invention whatever the publication language of the document describing it. So, if you are searching using IPC or CPC symbols, a document published in Spanish, Russian, English or any other language will still be found and translation can follow using both online and offline tools.

5.3.2 Patent families

Many applicants with an important invention will apply for patents in more than one country. A bunch of patents in different countries that cover the same invention is known as a *patent family*.

This means that if in your search you find a document in a language that is not familiar to you, you might be able to find a family equivalent that you can understand. To find an English version of the claims and description, it is sometimes possible to find a patent family equivalent (use INPADOC family on ESpaceNet as done in

previous exercises) which has a translated copy in English as required by specific national laws.

For instance, suppose you were interested in the document WO/2005/008073 relating to a *Motor vehicle with thermal electric power generation apparatus*. On the Patentscope site, the abstract is in English and French, but description (and the claims) and are in Japanese. To find an English version, it is sometimes possible to find a patent family equivalent in English.

In this example, go to Espacenet and search for the document in the format WO2005008073, we get:

The screenshot shows the Espacenet Patent search interface. At the top, there is a header with the Espacenet logo and navigation options in German, English, and French. Below the header, there is a search bar and a navigation menu with options like 'Search', 'Result list', 'My patents list (0)', 'Query history', 'Settings', and 'Help'. The main content area displays the search results for the query 'WO2005008073'. A single result is shown, titled '1. MOTOR VEHICLE WITH THERMAL ELECTRIC POWER GENERATION APPARATUS'. The result details include the inventor (AKAMATSU NORIO [JP] and NISHIKADO HIROSHI [JP]), the applicant (AKAMATSU NORIO [JP] and NISHIKADO HIROSHI [JP]), the CPC classification (B82Y10/00, F02B43/10, F02G5/02), the IPC classification (F04D29/44, F04D5/00, H01J45/00), the publication info (WO 2005008073 (A1) 2005-01-27), and the priority date (2003-07-18).

Click on the document title, and we get:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Espacenet
Patent search

Deutsch English Français
Contact
Change country ▾

← About Espacenet Other EPO online services ▾

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

Refine search → Results → WO2005008073 (A1)

WO2005008073 (A1)
Bibliographic data

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

Quick help —

- What is meant by high quality text as facsimile?
- What does A1, A2, A3 and B stand for after a European publication number?
- What happens if I click on "In my patents list"?
- What happens if I click on the "Register" button?
- Why are some sidebar options deactivated for certain documents?
- How can I bookmark this page?

Bibliographic data: WO2005008073 (A1) — 2005-01-27

★ In my patents list EP Register Report data error Print

MOTOR VEHICLE WITH THERMAL ELECTRIC POWER GENERATION APPARATUS

Page bookmark [WO2005008073 \(A1\) - MOTOR VEHICLE WITH THERMAL ELECTRIC POWER GENERATION APPARATUS](#)

Inventor(s): AKAMATSU NORIO [JP]; NISHIKADO HIROSHI [JP]; YANO KENSUKE [JP] ±

Applicant(s): AKAMATSU NORIO [JP]; NISHIKADO HIROSHI [JP]; YANO KENSUKE [JP] ±

Classification: - international: [F04D29/44](#); [F04D5/00](#); [H01J45/00](#); [H01L37/00](#); [H01M14/00](#); [H01M6/36](#); [H01M8/00](#); [H01M10/06](#); (IPC1-7): [F04D29/44](#); [F04D5/00](#); [H01L37/00](#)

- cooperative: [B82Y10/00](#); [F02B43/10](#); [F02G5/02](#); [H01J45/00](#); [H01J2201/30469](#); [H01M10/06](#); [Y02E60/126](#); [Y02E60/366](#); [Y02T10/166](#); [Y02T10/32](#)

Application number: [WO](#) 2003JP09174 20030718 [Global Dossier](#)

Priority number(s): WO2003JP09174 20030718

Also published as: [US](#) 2007034426 (A1) [EP](#) 1647717 (A1) [EP](#) 1647717 (A4) [CN](#) 1829863 (A) [CA](#) 2532757 (A1) → more

Abstract of WO2005008073 (A1)

Translate this text into [patenttranslate](#) powered by EPO and Google

pacenet.com/publicationDetails/biblio?II=0&ND=3&adjacent=true&locale=en_EP&FT=D&date=20050127&CC=WO&NR=2005008073A1&KC=A1#

Then click on 'INPADOC patent family', and we get:

INPADOC patent family

Quick help —

- Can I export this list?
- What happens if I click on "Download covers"?
- Can I sort the list?
- What happens if I click on the star icon?
- What is a patent family?
- What happens if I tick the "show citations" box?
- What is an INPADOC patent family?
- Are all the documents in an INPADOC family equivalents?
- Why is the same document published several times in the same country?

1. MOTOR VEHICLE WITH THERMAL ELECTRIC POWER GENERATION APPARATUS

| Inventor: | Applicant: | CPC: | IPC: | Publication info: | Priority date: |
|---|---|--|--|---|----------------|
| ★ AKAMATSU NORIO [JP] NISHIKADO HIROSHI [JP] (+1) | AKAMATSU NORIO [JP] NISHIKADO HIROSHI [JP] (+1) | B82Y10/00 F02B43/10 F02G5/02 (+7) | F04D29/44 F04D5/00 H01J45/00 (+8) | WO2005008073 (A1) 2005-01-27 Global Dossier | 2003-07-18 |

2. MOTOR VEHICLE WITH THERMAL ELECTRIC POWER GENERATION APPARATUS

| Inventor: | Applicant: | CPC: | IPC: | Publication info: | Priority date: |
|---|---|--|--|---------------------------------|----------------|
| ★ NISHIKADO HIROSHI YANO KENSUKE (+1) | AKAMATSU NORIO NISHIKADO HIROSHI (+1) | B82Y10/00 F02B43/10 F02G5/02 (+7) | F04D29/44 F04D5/00 H01J45/00 (+8) | AU2003304358 (A1) 2005-02-04 | 2003-07-18 |

3. MOTOR VEHICLE WITH THERMAL ELECTRIC POWER GENERATION APPARATUS

| Inventor: | Applicant: | CPC: | IPC: | Publication info: | Priority date: |
|--|---|--|--|------------------------------|----------------|
| ★ YANO KENSUKE [JP] AKAMATSU NORIO [JP] (+1) | AKAMATSU NORIO [JP] NISHIKADO HIROSHI [JP] (+1) | B82Y10/00 F02B43/10 F02G5/02 (+7) | F04D29/44 F04D5/00 H01J45/00 (+5) | CA2532757 (A1) 2005-01-27 | 2003-07-18 |

4. Automobile with thermal power generation device

| Inventor: | Applicant: | CPC: | IPC: | Publication info: | Priority date: |
|--|---------------------|--|--|-----------------------------|----------------|
| ★ KENNORI AKAMATSU NORIO NISHIZU [JP] | AKAMATSU NORIO [JP] | B82Y10/00 F02B43/10 F02G5/02 (+7) | F04D29/44 F04D5/00 H01J45/00 (+5) | CN1829863 (A) 2006-09-06 | 2003-07-18 |

5. MOTOR VEHICLE WITH THERMAL ELECTRIC POWER GENERATION APPARATUS

| Inventor: | Applicant: | CPC: | IPC: | Publication info: | Priority date: |
|---|---|--|--|--|----------------|
| ★ AKAMATSU NORIO [JP] NISHIKADO HIROSHI [JP] (+1) | AKAMATSU NORIO [JP] NISHIKADO HIROSHI [JP] (+1) | B82Y10/00 F02B43/10 F02G5/02 (+7) | F02G5/00 F04D29/44 F04D5/00 (+11) | EP1647717 (A1) 2006-04-19 EP1647717 (A4) 2008-01-23 Global Dossier | 2003-07-18 |

6. Motor vehicle with thermal electric power generation apparatus

| Inventor: | Applicant: | CPC: | IPC: | Publication info: | Priority date: |
|-----------------------|-------------------|---------------------------|-----------|---------------------------------|----------------|
| ★ AKAMATSU NORIO [JP] | NISHIKADO HIROSHI | B82Y10/00 | F04D29/44 | US2007034426 (A1) 2007-02-15 | 2003-07-18 |

pacenet.com/publicationDetails/inpadocPatentFamily?CC=WO&NR=2005008073A1&KC=A1&FT=D&ND=3&date=20050127&DB=&locale=en_EP#

And this gives a list of six family members, including some in English.

One note of caution however, this technique may work very well as regards the description, since that's likely to be pretty much the same from one family member to another, but that may not necessarily apply to the claims. Differences in law, drafting practice, patent examination standards and commercial considerations between one country and another can lead to significant differences between the claims of one family member and those of another.

The subject of patent families is also covered in Module 3, section 3.11.

5.3.3 Automatic translation

Automatic or machine translation will often be good enough to provide you with an adequate understanding of a document and avoid the need for a professional translation. Automatic translation also has the advantage of providing instant results. Some websites provide free translation facilities within their search engines, such Patentscope and Espacenet.

Other websites have a different approach for English speakers. Important free databases offering English language searching can be found at:

http://211.157.104.77:8080/sipo_EN/search/tabSearch.do?method=init

for documents from the People's Republic of China.

<https://www.j-platpat.inpit.go.jp/web/all/top/BTmTopEnglishPage> for Japanese documents

<http://eng.kipris.or.kr/enghome/main.jsp> for documents from the Republic of Korea

Examples

Let's return to WO/2005/008073, which we looked at in section 5.3.2. We can get a translation of for instance the claims by searching for WO/2005/008073 in Patentscope:

Machine translation

1. (WO2005008073) MOTOR VEHICLE WITH THERMAL ELECTRIC POWER GENERATION APPARATUS

PCT Biblio. Data Description Claims National Phase Notices Drawings Documents

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

Pub. No.: WO/2005/008073 International Application No.: PCT/JP2003/009174
 Publication Date: 27.01.2005 International Filing Date: 18.07.2003

IPC: F04D 5/00 (2006.01), F04D 29/44 (2006.01), H01L 37/00 (2006.01)

Applicants: AKAMATSU, Norio [JP/JP]; (JP).
 NISHIKADO, Hiroshi [JP/JP]; (JP).
 YANO, Kensuke [JP/JP]; (JP) (For US Only)

Inventors: AKAMATSU, Norio; (JP).
 NISHIKADO, Hiroshi; (JP).
 YANO, Kensuke; (JP)

Agent: ARAFUNE, Hiroshi, 5F, Nikko Kagurazaka Bldg., 18, Iwatocho, Shinjuku-ku, Tokyo 162-0832 (JP)

Priority Data:

Title: (EN) MOTOR VEHICLE WITH THERMAL ELECTRIC POWER GENERATION APPARATUS
 (FR) VEHICULE A MOTEUR COMPORTANT UN GENERATEUR THERMIQUE D'ENERGIE ELECTRIQUE
 (JA) 熱発電装置装備自動車

Abstract: (EN) A thermal electric power generation apparatus (100) has an electron emitting member (2) that emits electrons (e) when heat is applied to the member and electron collecting member (3) that collects electrons emitted from the electron emitting member. In the apparatus, the electron collecting member works as the negative electrode and the electron emitting member as the positive electrode. The apparatus generates electric power by causing electrons to move from the electron collecting member. The apparatus is provided on a motor vehicle (200, 300) with a thermal electric power generation apparatus at a position to which heat based on the heat produced by an engine (50) is transmitted, and electric power generated by the thermal electric power generation apparatus is supplied to the vehicle.

Click on 'Claims'

Machine translation

1. (WO2005008073) MOTOR VEHICLE WITH THERMAL ELECTRIC POWER GENERATION APPARATUS

PCT Biblio. Data Description Claims National Phase Notices Drawings Documents

Note: Text based on automatic Optical Character Recognition processes. Please use the PDF version for legal matters

請求の範囲

1. 熱を加えることにより電子を放出する電子放出部材と、前記電子放出部材との間で電界をかけて前記電子放出部材から放出された電子を加速する電子加速部材と、前記電子放出部材から放出され、前記電子加速部材により加速された電子を収集する電子収集部材と、前記電子収集部材と前記電子加速部材とを電気的に絶縁する絶縁部材と、を有し、
 前記電子収集部材を負極とし、前記電子放出部材を正極とすることにより、前記電子収集部材から電子を移動させて発電を行う熱発電装置を備える熱発電装置装備自動車であって、
 当該熱発電装置装備自動車のエンジンの発熱に基づく熱が伝達される位置に配設された前記熱発電装置により発電した電気エネルギーを、前記エンジンを駆動するための駆動エネルギーの少なくとも一部として利用することを特徴とする熱発電装置装備自動車。

2. 熱を加えることにより電子を放出する電子放出部材と、前記電子放出部材との間で電界をかけて前記電子放出部材から放出された電子を加速する電子加速部材と、前記電子放出部材から放出され、前記電子加速部材により加速された電子を収集する電子収集部材と、前記電子収集部材と前記電子加速部材とを電気的に絶縁する絶縁部材と、を有し、
 前記電子収集部材を負極とし、前記電子放出部材を正極とすることにより、前記電子収集部材から電子を移動させて発電を行う熱発電装置を備える熱発電装置装備自動車であって、
 当該熱発電装置装備自動車のエンジンの発熱に基づく熱が伝達される位置に配設された前記熱発電装置により発電した電気エネルギーを、当該熱発電装置装備自動車の電気系統を動作させるための電気エネルギーの少なくとも一部として利用することを特徴とする熱発電装置装備自動車。

3. 前記熱発電装置は、前記エンジンに接した状態で配設されることを特徴とする請求項 1又は 2に記載の熱発電装置装備自動車。

4. 前記エンジンはロータリーエンジンであることを特徴とする請求項 1~3の何れか一項に記載の熱発電装置装備自動車。

These are in Japanese. To get a translation, click on ‘Machine translation’ and you will be offered a choice:

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1. (WO2005008073) MOTOR VEHICLE WITH THERMAL ENGINE

Note: Text based on automatic Optical Character Recognition processes. Please use with caution.

請求の範囲

1. 熱を加えることにより電子を放出する電子放出部材と、前記電子放出部材との間で電界をかけて前記電子放出部材から放出された電子を加速する電子加速部材と、前記電子放出部材から放出され、前記電子加速部材により加速された電子を収集する電子収集部材と、前記電子収集部材と前記電子加速部材とを電気的に絶縁する絶縁部材と、を有し、

前記電子収集部材を負極とし、前記電子放出部材を正極とすることにより、前記電子収集部材から電子を移動させて発電を行う熱発電装置を備える熱発電装置装備自動車であって、

当該熱発電装置装備自動車のエンジンの発熱に基づく熱が伝達される位置に配設された前記熱発電装置により発電した電気エネルギーを、前記エンジンを駆動するための駆動エネルギーの少なくとも一部として利用することを特徴とする熱発電装置装備自動車。

2. 熱を加えることにより電子を放出する電子放出部材と、前記電子放出部材との間で電界をかけて前記電子放出部材から放出された電子を加速する電子加速部材と、前記電子放出部材から放出され、前記電子加速部材により加速された電子を収集する電子収集部材と、前記電子収集部材と前記電子加速部材とを電気的に絶縁する絶縁部材と、を有し、

前記電子収集部材を負極とし、前記電子放出部材を正極とすることにより、前記電子収集部材から電子を移動させて発電を行う熱発電装置を備える熱発電装置装備自動車であって、

当該熱発電装置装備自動車のエンジンの発熱に基づく熱が伝達される位置に配設された前記熱発電装置により発電した電気エネルギーを、当該熱発電装置装備自動車の電気系統を動作させるための電気エネルギーの少なくとも一部として利用することを特徴とする熱発電装置装備自動車。

3. 前記熱発電装置は、前記エンジンに接した状態で配設されることを特徴とする請求項1又は2に記載の熱発電装置装備自動車。

4. 前記エンジンはロータリーエンジンであることを特徴とする請求項1～3の何れか一項に記載の熱発電装置装備自動車。

Choosing ‘WIPO translate’ for instance, gives the following choice of languages:

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- Baidu Translate

1. (WO2005008073) MOTOR VEHICLE WITH THERMAL ENGINE

Note: Text based on automatic Optical Character Recognition processes. Please use with caution.

請求の範囲

1. 熱を加えることにより電子を放出する電子放出部材と、前記電子放出部材との間で電界をかけて前記電子放出部材から放出された電子を加速する電子加速部材と、前記電子放出部材から放出され、前記電子加速部材により加速された電子を収集する電子収集部材と、前記電子収集部材と前記電子加速部材とを電気的に絶縁する絶縁部材と、を有し、

前記電子収集部材を負極とし、前記電子放出部材を正極とすることにより、前記電子収集部材から電子を移動させて発電を行う熱発電装置を備える熱発電装置装備自動車であって、

当該熱発電装置装備自動車のエンジンの発熱に基づく熱が伝達される位置に配設された前記熱発電装置により発電した電気エネルギーを、前記エンジンを駆動するための駆動エネルギーの少なくとも一部として利用することを特徴とする熱発電装置装備自動車。

2. 熱を加えることにより電子を放出する電子放出部材と、前記電子放出部材との間で電界をかけて前記電子放出部材から放出された電子を加速する電子加速部材と、前記電子放出部材から放出され、前記電子加速部材により加速された電子を収集する電子収集部材と、前記電子収集部材と前記電子加速部材とを電気的に絶縁する絶縁部材と、を有し、

前記電子収集部材を負極とし、前記電子放出部材を正極とすることにより、前記電子収集部材から電子を移動させて発電を行う熱発電装置を備える熱発電装置装備自動車であって、

当該熱発電装置装備自動車のエンジンの発熱に基づく熱が伝達される位置に配設された前記熱発電装置により発電した電気エネルギーを、当該熱発電装置装備自動車の電気系統を動作させるための電気エネルギーの少なくとも一部として利用することを特徴とする熱発電装置装備自動車。

3. 前記熱発電装置は、前記エンジンに接した状態で配設されることを特徴とする請求項1又は2に記載の熱発電装置装備自動車。

4. 前記エンジンはロータリーエンジンであることを特徴とする請求項1～3の何れか一項に記載の熱発電装置装備自動車。

And if you choose 'English' then the claims are translated accordingly.

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1. (WO2005008073) MOTOR VEHICLE WITH THERMAL ELECTRIC POWER GENERATION APPARATUS

Note: Text based on automatic Optical Character Recognition processes. Please use the PDF version for legal matters

Claim

1. SOLUTION: the electronic device includes: an electron emission member for emitting electrons by applying heat; and an electron emission member for emitting electrons by applying heat to the electron emission member, an electron acceleration member for accelerating electrons emitted from the electron emission member by applying an electric field between the electron emission member and the electron emission member, and is discharged from the electron emission member, an electronic collection member for collecting the electric elements accelerated by the electron acceleration member, and an insulating member for electrically insulating the electron collecting member and the electron accelerating member,

The electron collection member is used as a negative electrode, and the electron emission member is a positive electrode, and a heat power generation device for generating power by moving the electrons from the electronic collection member,

Electric energy generated by the thermal power generation device disposed at a position where heat based on heat generation of the engine of the vehicle with the thermal power generation device is transmitted, and is used as at least a part of driving energy for driving the engine

2. SOLUTION: the electronic device includes: an electron emission member for emitting electrons by applying heat; and an electron emission member for emitting electrons by applying heat to the electron emission member, an electron acceleration member for accelerating electrons emitted from the electron emission member by applying an electric field between the electron emission member and the electron emission member, and is discharged from the electron emission member, an electronic collection member for collecting the electric elements accelerated by the electron acceleration member, and an insulating member for electrically insulating the electron collecting member and the electron accelerating member,

The electron collection member is used as a negative electrode, and the electron emission member is a positive electrode, and a heat power generation device for generating power by moving the electrons from the electronic collection member,

Electric energy generated by the thermal power generation device disposed at a position where heat based on heat generation of the engine of the vehicle with the thermal power generation device is transmitted, and is used as at least a part of electric energy for operating the electric system of the automobile having the thermoelectric power generation device

3. The thermal power generation device is disposed in contact with the engine (1) or (2)

Similarly in **Espacenet**, if you returning to the screen we got in 5.3.2 by clicking on the document title, you will see the words '*patent translate*' in a red box.

Espacenet Patent search

Deutsch English Français Contact Change country

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Refine search → Results → WO2005008073 (A1)

Bibliographic data: WO2005008073 (A1) — 2005-01-27

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MOTOR VEHICLE WITH THERMAL ELECTRIC POWER GENERATION APPARATUS

Page bookmark WO2005008073 (A1) - MOTOR VEHICLE WITH THERMAL ELECTRIC POWER GENERATION APPARATUS

Inventor(s): AKAMATSU NORIO [JP]; NISHIKADO HIROSHI [JP]; YANO KENSUKE [JP] ±

Applicant(s): AKAMATSU NORIO [JP]; NISHIKADO HIROSHI [JP]; YANO KENSUKE [JP] ±

Classification: - international: F04D29/44; F04D5/00; H01J45/00; H01L37/00; H01M14/00; H01M6/36; H01M8/00; H01M10/06; (IPC1-7): F04D29/44; F04D5/00; H01L37/00

- cooperative: B82Y10/00; F02B43/10; F02G5/02; H01J45/00; H01J2201/30469; H01M10/06; Y02E60/128; Y02E60/366; Y02T10/166; Y02T10/32

Application number: WO2003JP09174 20030718 Global Dossier

Priority number(s): WO2003JP09174 20030718

Also published as: US2007034426 (A1) EP1647717 (A1) EP1647717 (A4) CN1829863 (A) CA2532757 (A1) → more

Abstract of WO2005008073 (A1)

Translate this text into Select language patenttranslate powered by EPO and Google

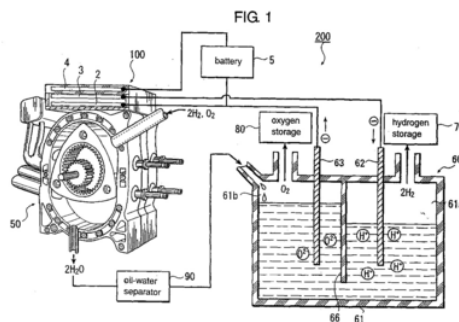
pacenet.com/publicationDetails/biblio?II=0&ND=3&adjacent=true&locale=en_EP&FT=D&date=20050127&CC=WO&NR=2005008073A1&KC=A1#

Clicking on the drop-down menu next to the red box enables you to select a language which the abstract will be translated into – for example Chinese. Click on the red box to get the translation and also the full list of languages available (French and German are also included).

- Albanian
 - Bulgarian
 - Croatian
 - Czech
 - Danish
 - Dutch
 - Estonian
 - Finnish
 - Greek
 - Hungarian
 - Icelandic
 - Italian
 - Latvian
 - Lithuanian
 - Macedonian
 - Norwegian
 - Polish
 - Portuguese
 - Romanian
 - Serbian
 - Slovak
 - Slovene
 - Spanish
 - Swedish
 - Turkish
-
- Chinese**
 - Japanese
 - Korean
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摘要 WO2005008073

一种热发电装置(100)，具有电子发射部件(2)，当热施加到收集从电子发射部件发射的电子的部件和电子部件(3)，其发射电子(e)。在该设备中，电子收集构件作为负电极和电子发射构件作为正极。该装置通过使电子从电子收集部件移动产生电力。该装置的位置处设置在机动车辆(200，300)具有热发电装置，其基于由发动机产生的热(50)被发送，并且由热发电产生的电力装置被提供给车辆。



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- Acceptable
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This technique can be used for other parts of the document. For instance to get a translation into Chinese of the claims, return to the screen of 5.3.2, click on 'Claims', then on the drop-down box, and select 'Chinese'.



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通告

本译文是机器产生的，不能保证它是易于理解的、准确的、完整的、可靠的或符合法律要求的。关键性的决定，如要获得法律性或商业性决定，不应仅靠机器翻译的结果。

说明 US2007034426

权利要求是:

1.

机动车具有一个热发电装置，包括热发电装置：用于当热施加到所述电子发射器发射的电子的电子发射器。通过应用之间的电场加速从所述电子发射器发射的电子的电子加速器所述电子发射器和所述电子加速器。所述电子加速器用于收集从所述电子发射器发射的电子，并通过对电子的电子收集器和对于电绝缘的绝缘部件表示，从电子收集器到电子加速器，其中，所述热发电装置产生的电子从所述电子收集器通过使用由此产生的电力，所述电子收集器作为负电极和所述电子发射器作为正极连接，并与热发电装置，其中所述机动车辆通过所述具有热发电装置的机动车辆就发送的引擎使电子发射器于发热其中热安装的位置处的热发电装置所产生电能所述，作为至少一个用于驱动机动车辆的一部分所述发动机。

2.

机动车具有一个热发电装置，包括热发电装置：用于当热施加到所述电子发射器发射的电子的电子发射器。通过应用之间的电场加速从所述电子发射器发射的电子的电子加速器所述电子发射器和所述电子加速器。所述电子加速器用于收集从所述电子发射器发射的电子，并通过对电子的电子收集器和对于电绝缘的绝缘部件表示，从电子收集器到电子加速器，其中，所述热发电装置产生的电子从所述电子收集器，从而产生电力所述，并与热发电装置，其中所述机动车辆通过由所产生的电能所述安装在热发电装置，以将热基础上的发动机的所述具有热发电装置的机动车辆发送，作为至少一个用于操作的电气系统所述电能的一部分所述机动车辆具有热发电装置。

3.

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[PDF \(only translation\)](#)

[PDF \(original and translation\)](#)

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Your opinion on this translation:

- Human translation
- Very good
- Good
- Acceptable
- Rather bad
- Very bad

Your reason for this translation:

- Overall information
- Patent search
- Patent examination

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Some other translation tools:WIPO pearl and ‘Cross Lingual Expansion’

WIPO Pearl at <http://www.wipo.int/wipopearl/search/linguisticSearch.html> translates scientific and technical terms derived from patent documents, for instance:

The screenshot shows the WIPO Pearl Linguistic Search interface. The search term is 'digital', source language is 'Any', and target language is 'Any'. The results show 52 hits for 'digital' with translations in EN, FR, and JA. The results are displayed in a table with columns for language, term, and a star rating.

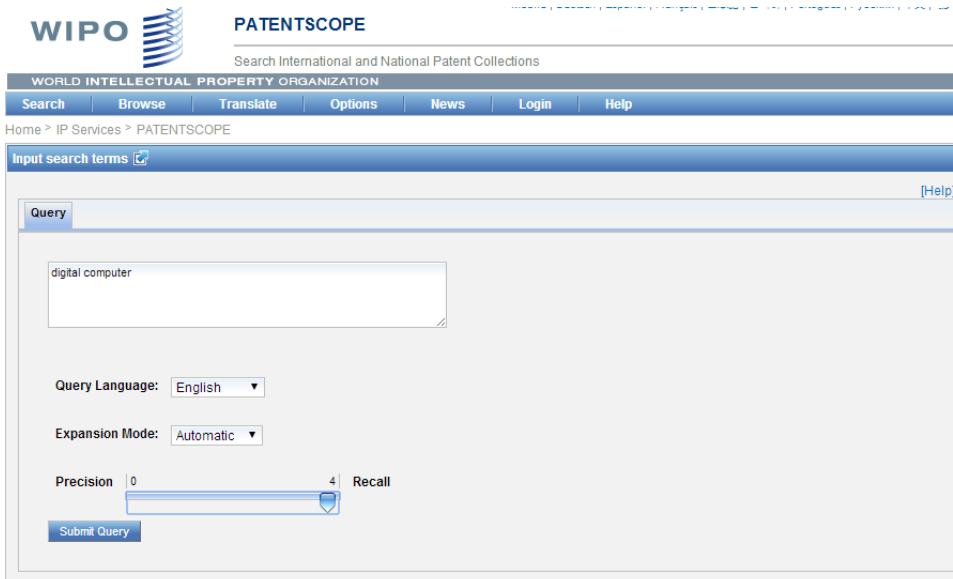
| Language | Term | Rating |
|----------|---------------------|---------|
| EN | digital signage | 5 stars |
| FR | affichage dynamique | 5 stars |
| JA | デジタルサイネージ | 5 stars |

Patentscope also has a ‘Cross Lingual Expansion’ tool which finds documents in the original language of the search query and in other languages. All the documents are listed in the original language using automatic translation.

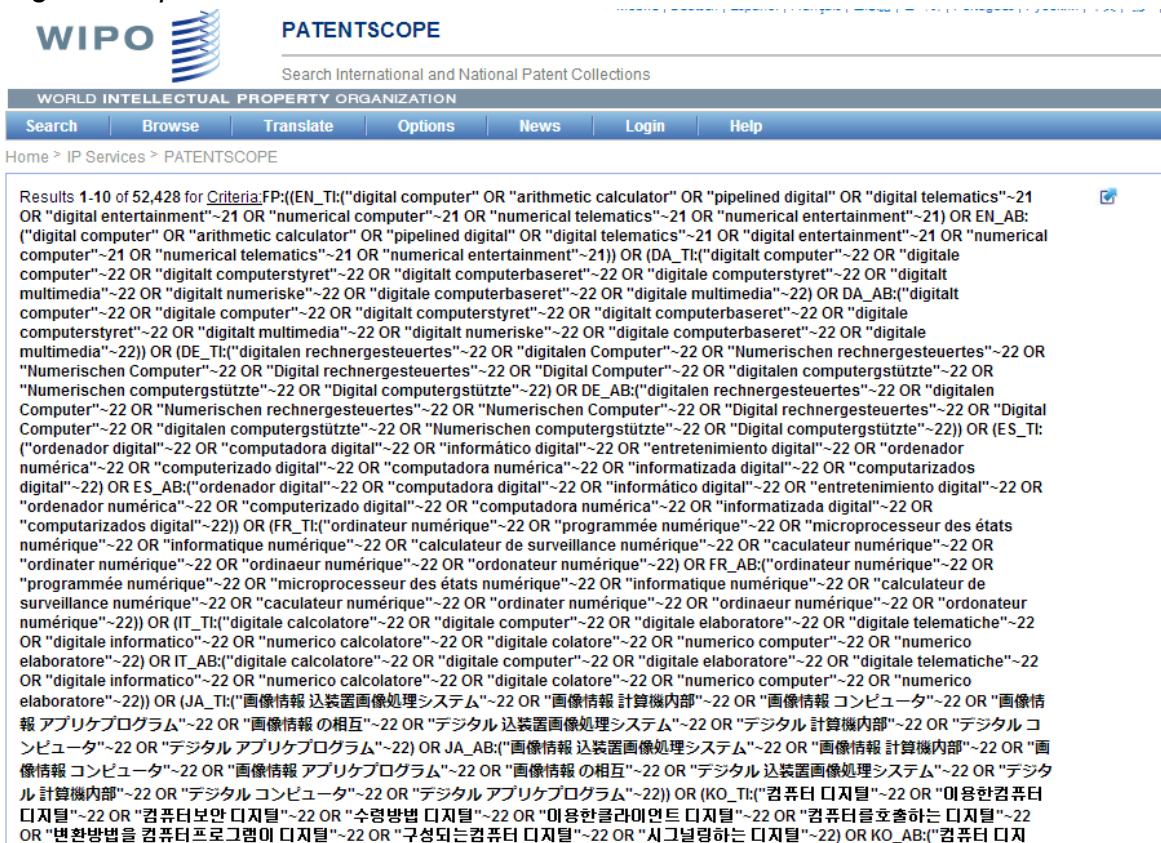
Example In Patentscope, select ‘Cross Lingual Expansion’ from the drop-down menu shown below:

The screenshot shows the WIPO Patentscope search interface. The search term is 'digital computer', and the search options are set to 'Cross Lingual Expansion'. The interface includes a search bar, a search button, and a search options menu.

Enter a search term eg ‘digital computer’:



Click on 'Submit query' and the following screen appears filled with translations of 'digital computer':



Scroll down and the result of searching with these translations appears.

| NO. | CLASS. | APP. NO. | INVENTOR | NO. | DATE |
|---|------------|---|-------------------------------------|----------------------|------|
| 1. | 1849575 | Input device for portable digital computers and portable digital computer with a multi-functional mouse | CN | 18.10.2006 | |
| | G06F 3/033 | 200480025730.1 | Borgward Glenn Rolus | Borgward Glenn Rolus | |
| <p>The invention relates to a portable digital computer with an in-built coupling device which is arranged in order to receive mouse signals from a radio mouse provided with a battery and fed by said battery. Said digital computer comprises an in-built current source and an electric interface which is installed in a fixed manner and which is connected to the current source, the electric interface being arranged such that the battery can be charged. The invention also relates to an input device for a portable digital computer comprising a radio mouse and an additional slide pad which is arranged on the top side of said radio mouse. The invention further relates to a special coupling bay comprising a recess which is arranged on three sides of a foldable functional part of a notebook. Said coupling bay is used for mechanically coupling a cursor control device which is disposed below a notebook keyboard and in order to reconfigure the cursor control device in a rear-sided operation in order to use a notebook in a book-type and handheld form, whereby a flat mouse with annular-shaped finger supports is provided in order to improve the handling and operation thereof, in addition to a cursor control device which is provided with an identification and locking function. Additionally, a notebook is disclosed, comprising a decoupling cursor control device and a keyboard which can be decoupled. A desktop PC can be configured by means of a configuration via a hinge foldable functional part of a notebook.</p> | | | | | |
| 2. | 101689068 | Portable digital computer | CN | 31.03.2010 | |
| | G06F 1/16 | 200880022105.X | Walter Henning | Walter Henning | |
| <p>The invention relates to a portable digital computer having a housing on which a keyboard, a removable mouse, and a swiveling screen are located. The housing (10, 11) is made of two parts and comprises only the rechargeable batteries. The two housing parts can be swiveled by means of a further hinge (12, 13) parallel to the first, and the keyboard (15) can be removed from the housing. A CD-ROM player (30) and the data processor are accommodated behind the monitor (14). The two housing parts (10, 11) are designed to be laid on top of one another, and serve as a support structure for the monitor.</p> | | | | | |
| 3. | 101279131 | Digital entertainment rehabilitation apparatus for arm | CN | 08.10.2008 | |
| | A63B 22/10 | 200810028149.5 | South China Agricultural University | Zou Xiangjun | |
| <p>The invention discloses a digital entertainment arm recovery device which comprises a bottom frame (1) and a mechanical arm recovery mechanism arranged on the bottom frame (1). The digital entertainment arm recovery device is characterized in that the arm recovery device further comprises a signal collecting device (11), a communication interface circuit (10), a computer control system and a display (9). The signal collecting device is used for collecting a movement state signal of the mechanical arm recovery mechanism; the movement state signal is converted to an electrical signal by the signal collecting device (11), and is converted to a digital signal by the communication interface circuit (10), then the digital signal is sent to a computer control system; a computer is driven by the digital signal to control entertainment games internally installed in the system, and the entertainment games are displayed by the display (9). The digital entertainment arm recovery device can greatly improve interest and entertainment when patients take exercises.</p> | | | | | |
| 4. | 101614545 | Resonance type optical fiber gyro signal detecting device based on coordinate rotation digital computer algorithm | CN | 30.12.2009 | |
| | G01C 19/72 | 200910149274.6 | Zhejiang University | Yang Zhihui | |
| <p>The invention discloses a resonance type optical fiber gyro signal detecting device based on a coordinate rotation digital computer algorithm. A detecting method comprises a modulating signal generating method and a signal demodulating method which are both realized by a phase/amplitude converting module based on the coordinate rotation digital computer algorithm. The detecting device comprises a laser, a coupler, a phase modulator, an optical fiber circulator, a photoelectric</p> | | | | | |

You will need to experiment with this tool, for instance with the different settings available on the ‘Submit query’ page.

5.4 Efficient and effective searching - some tips

5.5 Introduction

In this section, some of the points introduced above are further developed, whilst additional techniques to help you search efficiently and effectively are explained. You will need to practice these techniques until they become familiar to you.

5.6 Preparation

- Think about the objectives and requirements of the search
- Consider the different types of search – Patentability, Validity, State of the art, Freedom to operate
- Be aware of the strengths of searching patent databases– structured and flexible worldwide access to enormous volumes of detailed technical data across all technical fields
- Be aware of the weaknesses – no guarantee that every reference will be found; challenges in certain specialised fields
- Take stock of what you already know - prior art, names of inventors and companies, patent numbers, trade marks

5.7 What to search for

- Depends on the type of search – Patentability, Validity, State of the art, Freedom to operate
- Depends on what you already know
- Can supplement this knowledge by doing a quick online review to:
 - gain some familiarity with the technology
 - become aware of any specialised vocabulary
 - find synonyms, classifications etc
 - find out who is working in the field
- If you are aware of who's working in the field – inventors, or applicants – you can start with a name search
- If you are aware of an existing patent number, you can start with a number search
- Can look for suitable classifications eg in the International Patent Classification
- Use available search tools and fields to focus searches, eg Boolean operators AND, OR, NOT and others; fields of search – eg title, abstracts, full text, numbers, IPC
- Try different strategies with a low number of words/classifications to explore the technology step by step
- Prepare any long search strings offline and paste into the search window
- Where? Patentscope (WIPO), Espacenet (EPO), USPTO, PAJ (Patent Abstracts of Japan), local databases or registers...Again may depend on type of search

5.8 Words or classifications?

5.8.1 Advantages of searching with words

- can be used in most databases
- easy to use
- infinitely flexible
- can use singly or – by using operators AND, OR etc - in specified combinations/orders/separations
- in many databases, the user can select whether to search the full text or restrict the search to titles/abstracts/claims

5.8.2 Disadvantages of searching with words

- different languages (obviously) generally use different words for the same thing
- need to be aware of possible synonyms (*cellphone* or *cell phone* or *mobile phone*; *lift* or *elevator*)
- need to be aware of words that can have more than one meaning (*beam* - optical or building?; *mouse* – computer or transgenic?)

- need to be aware of words that can have more than one spelling (eg *color* and *colour*, *plough* and *plow*)
- need to be aware of any specialist terminology in the technical field you are exploring

5.8.3 Advantages of searching with classifications

- independent of language
- independent of synonyms and of words with more than one meaning
- independent of alternative spellings
- independent of terminology
- independent of typing errors in the database
- comprehensive and detailed; *a spot-on classification symbol – if there is one - can be the quickest and best way of doing a search*

5.8.4 Disadvantages of searching with classifications

- not universally applied – except for the IPC
- can be complex and challenging to understand beyond an elementary level
- may not have any symbols which are a good fit for a particular search
- may be applied with varying skill and accuracy by different authorities
- may generate too many hits if used at a general level

5.8.5 Words and classifications?

- Can use words to find classifications by doing a quick word search and looking at the classifications that have been applied to the best hits
- Can use the two in combination, eg “*B62K19/04 AND magnesium*” – to search for bicycle frames made of a magnesium alloy; “*G02B AND beam*” – to restrict the search to optical beams and exclude beams used in the construction industry

5.9 Carrying out the search

- Unfamiliar with the technology or the database? *Do some quick experimental searching to get familiar with the database and obtain a preliminary view*
- Thousands of hits? *Don't get bogged down*
 - *try limiting word searches to the abstracts or titles*
 - *narrow down what you're searching for by limiting the search to an example rather than a general principle (eg search for 'aluminium chair' instead of 'metal furniture')*
 - *but be cautious, you may need to go back and widen the scope of your search in the light of what you find*
- Learn as the search proceeds - *adjust your search in the light what you find*

- Know when to stop – *again this depends on the type of search*
 - Freedom to operate searches – need to be very thorough
 - State of the art searches – depends on the nature of the query and what you find; and whether you intend to analyze the results individually (*qualitative*); or statistically (*quantitative*)
 - Patentability and validity searches - if you've knocked out all of the claims, or have reached a point where the claims diverge widely from a central idea and it is not clear which is the preferred direction, it may be legitimate to stop
 - Remember, to destroy novelty, only one comprehensive document is required to knock out a claim
 - If on the other hand you've found little or nothing, there may be a temptation to keep going on and on. Here you will need to use experience and common sense – some ideas are actually new!

5.10 Errors – yours and theirs

These comprise:

- errors in databases – which *are outside* the searcher's control, eg typing errors, spelling mistakes in documents, wrongly applied classifications, incorrect data
- errors made by the searcher - which are *within* the searcher's control, eg typing errors and spelling mistakes in search queries, misunderstandings as to what a database contains or how its operators etc work - most importantly of all: faulty search syntax

Faulty search syntax - the problem

- Operators, such as Boolean (AND, OR etc), enable complex search queries to be constructed – a powerful search tool
- However, the more complex the syntax the greater the chance of error
- Sometimes, the system will warn of errors – “*Cannot parse query!*”
- Sometimes errors are not obvious, eg search *Go2B21* instead of *G02B21* – zero hits and you will suspect that something is wrong; search the correct symbol *G02B21* – thousands of hits. Or search ‘*microscope OR Go2B21*’ – this gives about 40,000 hits in Patentscope, which might inspire confidence, but in fact the system is only searching for ‘*microscope*’

Faulty search syntax - the solution

- Be alert to the reasons behind unexpected results eg zero hits
- If in doubt, experiment with simple search queries and syntax
- Don't complicate search strings unnecessarily eg do you need to put in 10 alternative IPC symbols all beginning with G08B, or could you just simply use G08B?
- Every searcher - however experienced - needs to be continually aware of the possibilities of faulty syntax.

5.11 Automatic updates of searches using RSS

RSS stands for "Really Simple Syndication" and is used to share content from a web site or web log. An increasing number of web sites with regular updates now publish information using RSS. It is typically used by news web sites and by web logs, but is equally applicable to search results and databases - such as patent searches. RSS can be used in databases such as: Patentscope, Espacenet and freepatentsonline.

For instance, when you search in Patentscope, an RSS icon appears on the search results page. Clicking on the icon takes you to a page from which you can either copy and paste the URL into your RSS reader, or add the search to popular web-based readers using the buttons provided. Once you have done this, the search results will be automatically updated in your RSS reader weekly.

In Espacenet, to use the RSS of the result list, all you have to do is to run a search. For example, use the Advanced search function to combine several search criteria (eg applicant, classification symbol) and, when the result list appears, click on the RSS icon next to the words "Result list". The URL of the result list will then be added as a feed to the RSS client installed on your machine. Each click creates a new RSS feed. You will then be notified when new documents appear in the database that match your search criteria.

5.12 What factors affect the results of a search?

Relevant factors will include:

- Budget
- Time available
- Skill
- Resources ie available databases and search tools
- Subject matter .. whether simple or complex; mature or just developing
- Search terms available for a particular search, especially words and classifications

HOWEVER, ABOVE ALL THE QUALITY OF THE SEARCH RESULT IS DETERMINED BY THE SEARCHER AND HIS OR HER KNOWLEDGE AND METHODOLOGY

Searchers need to develop *knowledge* and a clear *understanding* of databases and search tools

Equally, searchers need to develop *technique*; careful *analysis*, *judgement*, *feel* and *flexibility* are vital

PRACTICE, EXPERIMENT ENJOY DELIVER!!!!

5.13 Suggestions for further reading:

WIPO e-tutorial on Using and Exploiting Patent Information. This is a comprehensive guide to patent searching which covers:

- Patent Basics;
- Patent Search and Retrieval; and
- Patent Analysis

The tutorial is available free of charge on DVD from WIPO or online from the WIPO website at: <http://www.wipo.int/tisc/en/etutorial.html>

Using Patent Information for the Benefit of your SME from the WIPO website at http://www.wipo.int/sme/en/ip_business/patents/patent_information.htm

Technological Powerhouse or Diluted Competence: Techniques for Assessing Mergers via Patent Analysis.

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.25.1286&rep=rep1&type=pdf>

[End of Module 5]