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Search Tools and Strategies

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Innovation and Technology Support Section

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Search Fields

- A patent document comprises, amongst others parts:
  - **Bibliographic data** – on the front page is printed bibliographic data, which includes title and abstract, but also dates, names and classifications
  - **Text**: title, abstract, description and claims – collectively the full text

Bibliographic data

2. (WO2009077567) SOLAR POWERED ELECTRIC MOTOR VEHICLE

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

Latest bibliographic data on file with the International Bureau

Pub. No.: WO/2009/077567 **International Application No.:** PCT/EP2008/067767
Publication Date: 25.06.2009 **International Filing Date:** 17.12.2008
Chapter 2 Demand Filed: 18.02.2010

IPC: ***B60L 8/00*** (2006.01)

Applicants: **HAYEK ENGINEERING AG** [CH/CH]; Delphinweg 19 CH-5616 Meisterschwanden (CH) *(For All Designated States Except US)*.
HAYEK, Nicolas, Georges [CH/CH]; (CH) *(For US Only)*

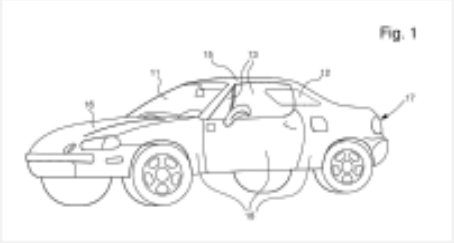
Inventors: **HAYEK, Nicolas, Georges**; (CH)

Agent: **ICB INGÉNIEURS CONSEILS EN BREVETS SA**; Fbg de l'Hôpital 3 CH-2001 Neuchâtel (CH)

Priority Data: 01975/07 18.12.2007 CH

Title
(EN) SOLAR POWERED ELECTRIC MOTOR VEHICLE
(FR) VEHICULE AUTOMOBILE ELECTRIQUE SOLAIRE

Abstract:
(EN) The electric car is almost entirely covered with solar cells. In addition, transparent solar cells are incorporated into the windshield and into the other windows of the car. The various features of the car give it considerable autonomy.
(FR) La voiture électrique est pratiquement complètement recouverte de cellules solaires. De plus, des cellules solaires transparentes sont intégrées au pare-brise ainsi qu'aux autres vitres de la voiture. Les différentes caractéristiques de la voiture lui confère une autonomie considérable.



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Searching patent document reference numbers and dates

- Application or filing number
- Publication number
- Priority number
- Application date or filing date
- Publication date
- Priority date

Searching applicants' or inventors' names

- Search an applicant or inventor's name:
  - Novartis, BMW, Sony, Mittal, etc.
  - Dyson, Smith, etc.

    - *Careful since same applicant may use different versions of their name, e.g. International Business Machines Corporation, IBM, IBM Ltd., IBM GmbH, etc.*

Searching by patent classification

- Similarly you can search using patent classification:
  - IPC
  - ECLA
  - F/FI Terms
  - USPC
  - Others

Combining search fields or criteria

- Fields can be combined eg: *IC:H01Q1/24 and AB:protect (H01Q1/24 deals with aerial mounting means for mobile phones)*
- *This will search documents classified in IC:H01Q1/24 and having the word "protect" in the abstract*
- Results: **19** for Criteria: **IC:H01Q1/24 and AB:protect**

Keywords and phrases

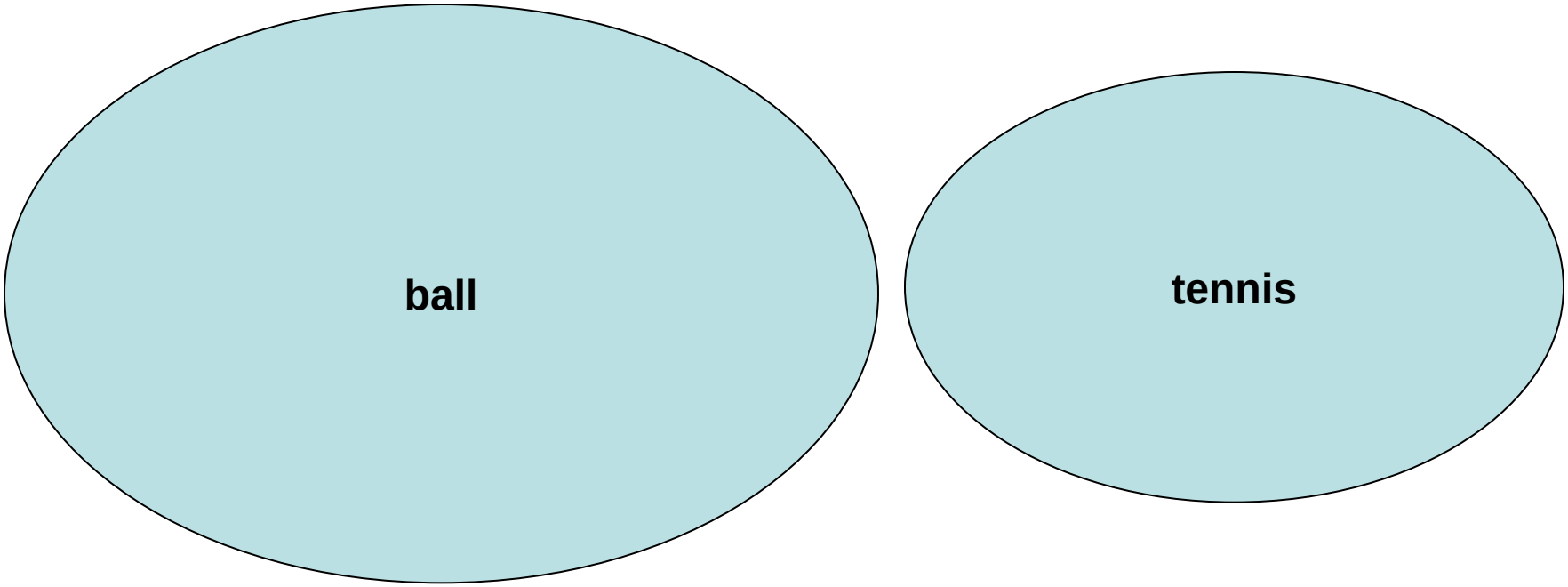
- Single words such as *tennis* or *ball* - are searched individually
- Phrases such as "*tennis ball*" - are searched together but nothing else, i.e. "*soft tennis ball*" *or "tennis ball or racket"*
- Searching a word or phrase in different fields also has an effect on the relative importance of that word, e.g.:
  - The full text for any mention of a "tennis ball" is general
  - The abstract mentioning of a "tennis ball" is fairly significant
  - The titles mentioning of a "tennis ball" is much more significant

Operators

- Operators are used to widen or to narrow the search of keywords or phrases beyond the actual keywords or phrases entered into the search query

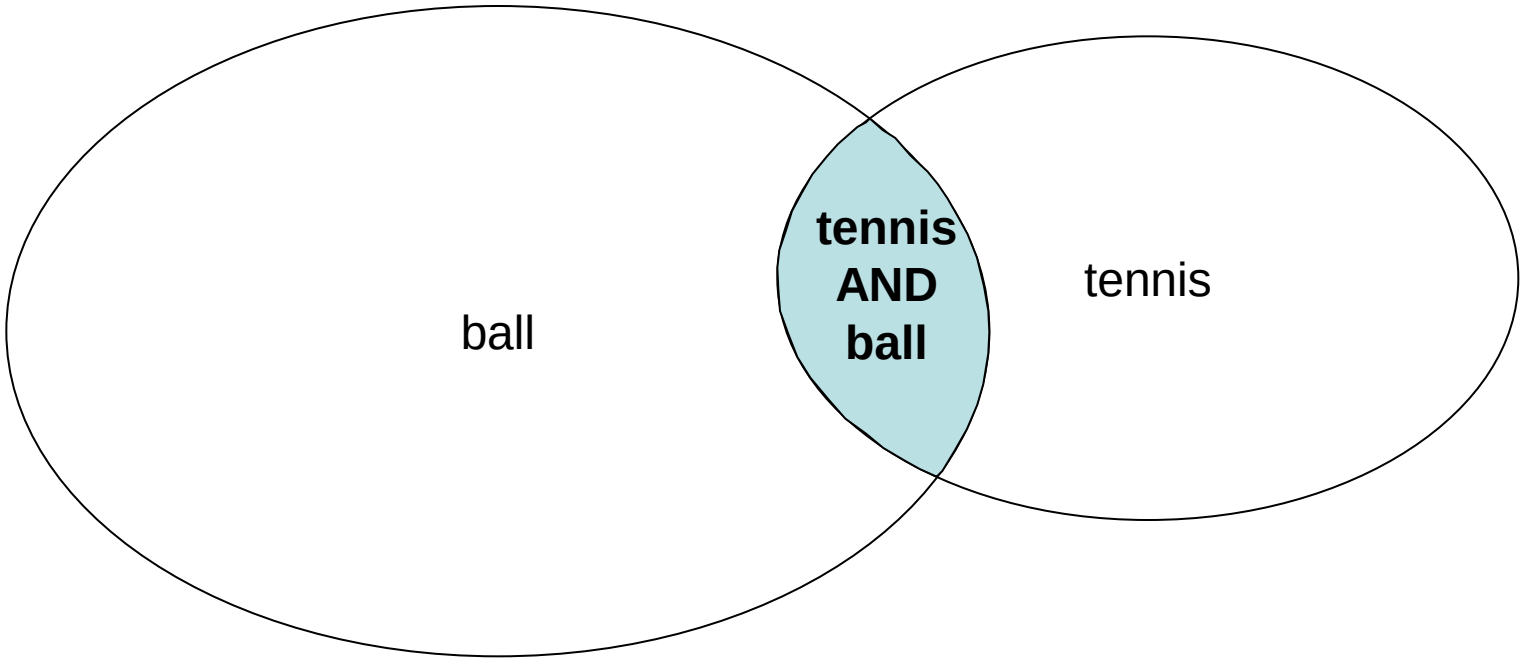
- Boolean operators : AND, OR, ANDNOT (or NOT), XOR
- Proximity operators : NEAR
- Range operators : *term1* TO *term2*
- Wildcard operators : ? , *, $

Boolean operators



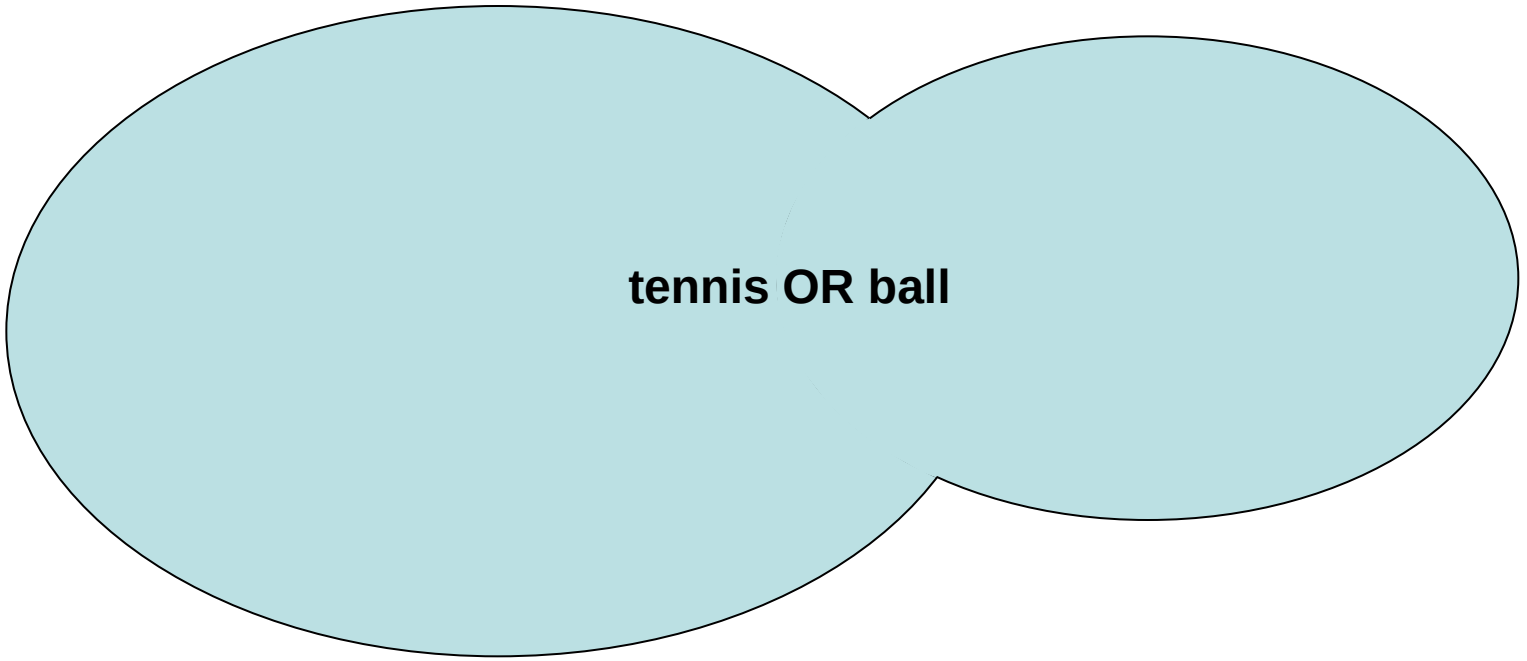
- Results in PCT collection (English titles):
  - **195** (tennis)
  - **2,454** (ball)
  - **2,649 total**

Boolean operators : AND



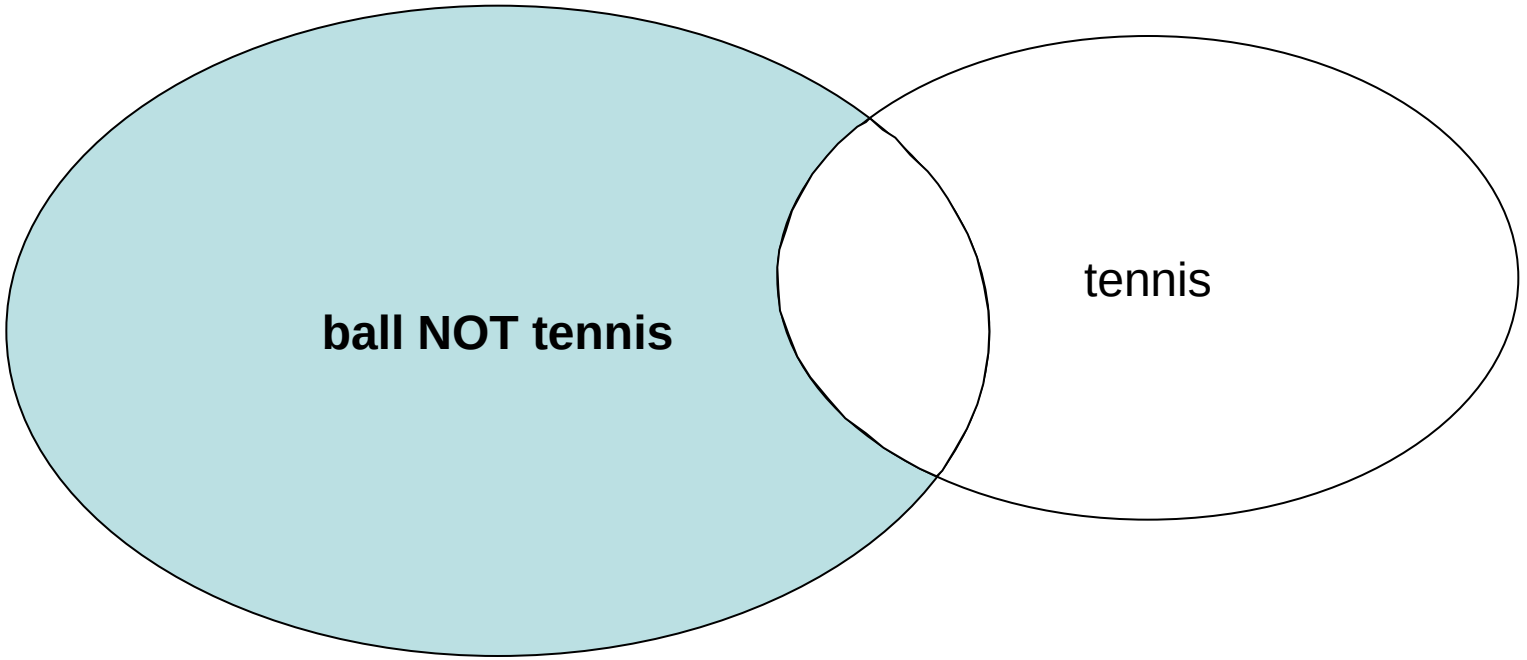
- Results in PCT collection (English titles)
  - **34** (tennis AND ball)

Boolean operators : OR



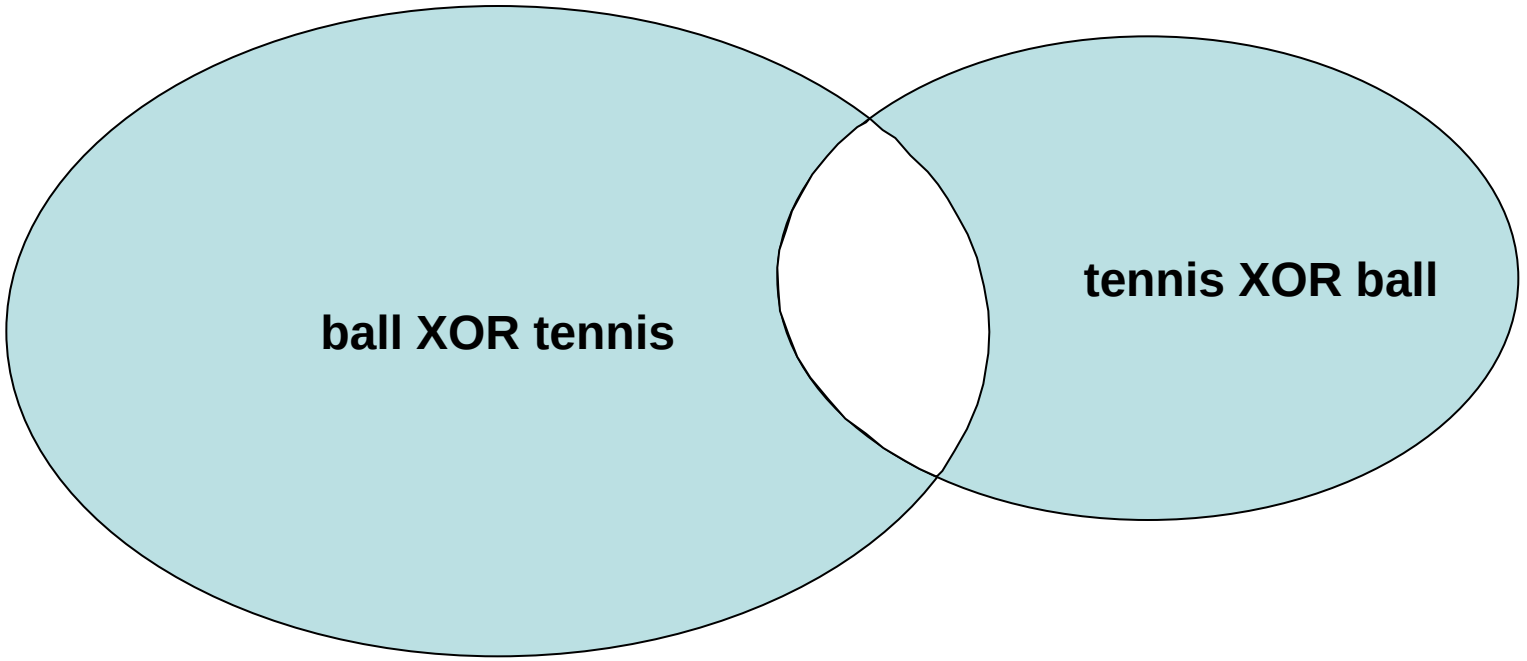
- Results in PCT collection (English titles)
  - **2,615** (tennis OR ball)

Boolean operators : NOT (or ANDNOT)



- Results in PCT collection (English titles)
  - **161** (tennis NOT ball)

Boolean operators : XOR



- Results in PCT collection (English titles)
  - **2,581** (tennis XOR ball)

Proximity operators

- Operators : NEAR
- Search terms within a certain range of each other and in some cases (not all) in any order
- Example :

concrete NEAR building

- **concrete building**
- **building** made of **concrete**
- **building** containing elements made of **concrete**

*NOT : **building** construction being made of certain elements containing **concrete***

Wildcard operators

- Operators: * , ?, $
- Unlimited characters : *, $

  elect* → electric, electronic, electron, election …
- Single character (stackable) : ?

  coll?sion → collision, collusion …

  foc?? → focus, focal …
- However, *, ? and $ cannot be used as the first character of a term

Patent databases : Special operators

- PATENTSCOPE® search service
  - Date and number ranges : ->
  - Date and number ranges : [xxx TO yyy]
  - Search term weighting : ^
- USPTO
  - Date ranges : ->

Parentheses and nesting

- Parentheses can be used to group words to form nested queries:
  - search for either *solar* or *wind*, together with *turbine* use the query: *(wind OR solar) and turbine*
  - This will find documents containing *wind and turbine* and also documents containing *solar and turbine*

Using citations and references

- Application description prior art explanation
- Search report citations
  - Document categories:
    - X: novelty destroying
    - Y: inventive step destroying
    - A: state of the art technical background

INTERNATIONAL SEARCH REPORT

International Application No
PCT/AT 02/00172

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B62M3/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B62M

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

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	FR 516 494 A (DANEL FRANCOIS-LEOPOLD-AUG) 19 April 1921 (1921-04-19) abstract; figures	1 4
Y	US 5 628 710 A (HERVIG DANA P) 13 May 1997 (1997-05-13) abstract; figures	4
X	FR 2 753 953 A (FRECHAUT JEAN) 3 April 1998 (1998-04-03) abstract; figures	1
A	WO 00 68067 A (BADARNEH ZIAD) 16 November 2000 (2000-11-16) abstract; figures	1,4,5

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
10 September 2002	17/09/2002

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Wagner, H

Form PCT/ISA/210 (second sheet) (July 1992)

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Basic Search Strategy (I) (applicable to any patent search)

1. Find keywords expressing the essential concept of invention *(alternatively, start with IPC, i.e. in step 4. and then use keywords)*
2. Find synonyms of these keywords from:
   - technical dictionaries
   - documents already found in this technical field
   - patents classifications
   - Tools such as CLIR
3. Carry search to see first broad results indicating also more synonyms and classifications

Basic Search Strategy (II)

4. Find useful patent classification symbols
5. Use keyword search to find the most relevant classification (compare different classifications if necessary as regards their relevance to your search)
    - IPC TACSY: http://www.wipo.int/tacsy/
    - espacenet: http://v3.espacenet.com/eclasrch?locale=en_EP
    - USPTO: http://www.uspto.gov/go/classification/
6. Carry out search to find relevant classified documents

Basic Search Strategy (III)

7. Combine the results of the classification search with additional features of the searched technology using keywords
8. Iterate this procedure
9. In general, start broadly (recall) and narrow down (precision) to relevant documents as search progresses
10. Read carefully a manageable number of documents

Thank you for your kind attention!

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