(2011/06)

# Enhancements to Classification Searching and Coverage in INPADOCDB and INPAFAMDB

## Content

# 1 First Page Images available

First page images are now available for patent publications of 8 major patent authorities in the INPADOC databases INPADOCDB and INPAFAMDB. This new graphical information greatly supports relevance checking of technology search results.

Generally, one image is provided for each EPO simple family which is most often the image of the first publication of a major country. The coverage of first page images includes the following patent authorities: CH (1978-), DE (1970-), EP (1978-), FR (1969-), GB (1969-), JP (1980-), US (1971-) and WO (1978-). When a complex INPADOC family comprises multiple EPO simple families, several images could be available. Due to the different technical content of these EPO simple families, images could be different.

In a first step, images will be updated on a quarterly basis and will not be available for SDIs. Later this year, access to images will be enhanced for very new documents and for patent publications of additional countries. Please check for future INPADOC announcements.

First page images can be displayed with the standard display format GI and several predefined display formats in both INPADOC files. The predefined formats include file-specific image formats and all family display formats.

### *Image display formats in INPADOCDB and INPAFAMDB*

<table>
<tr><th colspan="2">Image formats in INPADOCDB</th><th colspan="2">Image formats in INPAFAMDB</th></tr>
<tr><td>GI</td><td>one image of the EPO simple family</td><td>GI</td><td rowspan="2">all images of the INPADOC family</td></tr>
<tr><td>GI.F</td><td>all images of the INPADOC family</td><td>BRIEFGI</td></tr>
<tr><td>STDG<br>ALLG<br>IALLG<br>MAXG<br>IMAXG</td><td>one image of the EPO simple family</td><td>STDG<br>ALLG<br>IALLG<br>BRIEFG</td><td>one image of the INPADOC family</td></tr>
<tr><td>FFAMG<br>MFAMG<br>IFAMG</td><td>all images of the INPADOC family</td><td>FFAMG<br>MFAMG<br>IFAMG<br>MAXG<br>IMAXG</td><td>all images of the INPADOC family</td></tr>
</table>

***Sample display of the new BRIEFG-format in INPAFAMDB***

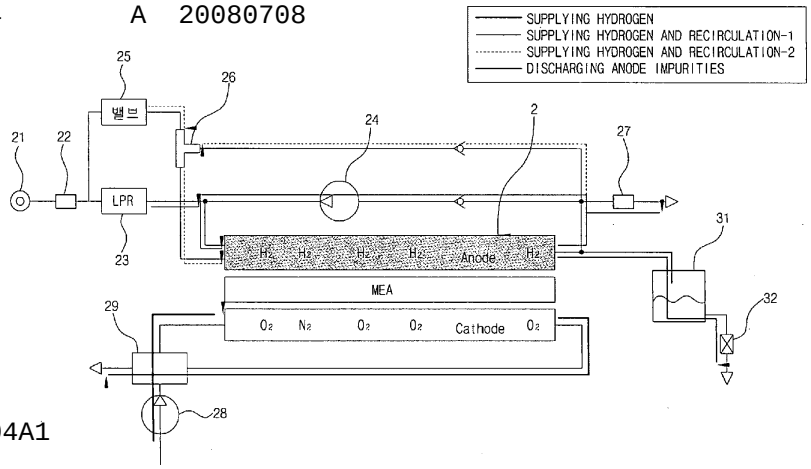
**=> D BRIEFG**

```
L1    ANSWER 1 OF 1       INPAFAMDB COPYRIGHT 2010 EPO/FIZ KA on STN
AN    38757216 INPAFAMDB EDF 20100114 EWF 201002 UPFB 20110505 UWF 201118
TI    Method for controlling output of fuel cell in fuel cell hybrid vehicle.
    - METHOD FOR CONTROLLING FUEL CELL OUTPUT OF FUEL CELL HYBRID VEHICLE.
INS   HO CHOI SEO; WOO LEE NAM; IL JEON SOON; UK KWON SANG; PIL RYU SEONG; SOON
      PARK SUN
    - CHOI SEO HO, KR; LEE NAM WOO, KR; JEON SOON IL, KR; KWON SANG UK, KR; RYU
      SEONG PIL, KR; PARK SUN SOON, KR
PAS   HYUNDAI MOTOR CO LTD
    - HYUNDAI MOTOR CO LTD, KR
IPCI  B60W0010-28     [I,A]; B60L0011-18     [I,A]; B60L0007-10     [I,A];
      H01M0008-04     [I,A]; H01M0008-24     [I,A]
EPC   H01M0016-00F; H01M0008-04H4K6F; H01M0008-04H6K6
NCL   NCLM 429/013.000
AB    (US 20090325004 A1)
      The present invention provides a method for controlling output of a fuel cell
      to improve fuel efficiency of a fuel cell hybrid vehicle, in which the fuel
      cell is operated at a constant power at a maximum efficiency point, wherein the
      fuel cell and a storage means are directly connected if the output and energy
      of the storage means is insufficient, and the power generation of the fuel cell
      is stopped when the level of energy of the storage means is increased during
      stopping or during low power operation such that the fuel cell is intensively
      operated at the maximum efficiency point, thus improving the fuel efficiency of
      the fuel cell and the efficiency of the fuel cell system.

PATENT FAMILY INFORMATION INPAFAMDB

 +-------- Publications --------+      +-------- Applications --------+
 CN 101612939         A  20091230      CN 2008-10246390     A  20081215
 KR 2010001390        A  20100106      KR 2008-61277        A  20080627
 KR 2010005767        A  20100118      KR 2008-65804        A  20080708
 US 20090325004       A1 20091231      US 2008-334747       A  20081215

 +--------- Priorities ---------+
 KR 2008-61277        A  20080627
 KR 2008-65804        A  20080708
```




US20090325004A1

2 priorities, 4 applications, 4 publications

# 2 European Patent Classification Thesauri added

The European patent classifications ECLA and ICO are available for about 50% of all patent applications and build a powerful search tool for the INPADOC databases. A thesaurus has now been added to both European patent classifications to support patent classification searching.

The European patent classification codes are searchable in the fields /EPC (ECLA codes) and /ICO (in computer only codes), respectively. A thesaurus is attached to both search fields and allows to view the definition of the codes and their respective hierarchies. The relationships can also be employed for hierarchical and range searching. The definitions of the codes are searchable, which allows to identify appropriate codes for a certain topic. See HELP THESAURUS and HELP RCODES for further details.

***Identify and search appropriate ECLA classification codes for transdermal patches***

```
=> FIL INPAFAMDB

=> E TRANSDERMAL+KT/EPC
E#      FILE            FREQUENCY  TERM
--      ----            ---------  ----
E1      INPAFAMDB            0   -->  transdermal/EPC
E2      INPAFAMDB            0   KT   A61N0005-12 transdermal delivery devices
                                      A61K0009-70E (N0001)/EPC
E3      INPAFAMDB            0   KT   Sonoferese ultrasonically enhanced
                                      transdermal delivery; Electroporation
                                      (N9701)/EPC
E4      INPAFAMDB            0   KT   Transdermal patches and similar
                                      drug-containing composite devices, e.g.
                                      cataplasms galenical aspects
                                      iontophoretic devices A61K0009-00L8;
                                      buccal patches A61K0009-00M18D/EPC
E5      INPAFAMDB            0   KT   Transdermal patches drug-in-adhesive
                                      type, i.e. comprising drug in
                                      skin-adhesive layer (N1004)/EPC
......

=> E E4+CODE
E#      FILE            FREQUENCY  TERM
--      ----            ---------  ----
E1      INPAFAMDB            0   -->  Transdermal patches and similar
                                      drug-containing composite devices, e.g.
                                      cataplasms galenical aspects
                                      iontophoretic devices A61K0009-00L8;
                                      buccal patches A61K0009-00M18D/EPC
E2      INPAFAMDB          487        A61K0009-70E/EPC
********** END **********
```

look for the appropriate term in the EPC expand list with **+KT**

identify the ECLA-code for the selected term with **+CODE**

**=> E A61K0009-70E+ALL/EPC**

display the complete hierarchy of the relevant classification code with **+ALL**

| E# | FILE | FREQUENCY | TERM | |
|---|---|---|---|---|
| E1 | INPAFAMDB | 0 | BT7 | A/EPC |
| E2 | INPAFAMDB | 0 | BT6 | A61-/EPC<br>Health; amusement |
| E3 | INPAFAMDB | 0 | BT5 | A61/EPC<br>MEDICAL OR VETERINARY SCIENCE; HYGIENE |
| E4 | INPAFAMDB | 222058 | BT4 | A61K/EPC<br>PREPARATIONS FOR MEDICAL, DENTAL, OR TOILET PURPOSES explanation: devices or methods specially adapted for bringing pharmaceutical products into particular physical or administering forms |
| E5 | INPAFAMDB | 5972 | BT3 | A61K0006/EPC |
| E6 | INPAFAMDB | 70 | BT2 | A61K0009-00/EPC<br>Medicinal preparations characterised by special physical form explanation: nuclear magnetic resonance contrast preparations or magnetic resonance imaging contrast preparataions A61K0049-18; |
| E7 | INPAFAMDB | 416 | BT1 | A61K0009-70/EPC<br>Web, sheet or filament bases; comment: Films; Fibres of the matrix type containing drug; explanation: hollow drug-filled fibres A61K0009-00Z4; bandages, dressings or absorbent pads A61F0013-00, |
| E8 | INPAFAMDB | 487 | --> | A61K0009-70E/EPC<br>comment: Transdermal patches and similar drug-containing composite devices, e.g. cataplasms explanation: galenical aspects of iontophoretic devices A61K0009-00L8; buccal patches A61K0009-00M18D |
| E9 | INPAFAMDB | 372 | **NT1** | **A61K0009-70E2/EPC**<br>comment: characterised by shape or structure; Details concerning release liner or backing; Refillable patches; User-activated patches (N1004) |
| E10 | INPAFAMDB | 66 | **NT2** | **A61K0009-70E2B/EPC**<br>comment: Transdermal patches of the drug-in-adhesive type, i.e. comprising drug in the skin-adhesive layer (N1004) |
| E11 | INPAFAMDB | 1 | **NT3** | **A61K0009-70E2B6/EPC**<br>comment: the adhesive comprising macromolecular compounds (N1004) |
| E12 | INPAFAMDB | 540 | **NT4** | **A61K0009-70E2B6B/EPC**<br>comment: obtained by reactions only involving carbon to carbon unsaturated bonds, e.g. polyvinyl, polyisobutylene, polystyrene (N1004) |
| E13 | INPAFAMDB | 798 | **NT5** | **A61K0009-70E2B6B2/EPC**<br>comment: Polyacrylates (N1004) |
| E14 | INPAFAMDB | 265 | **NT4** | **A61K0009-70E2B6D/EPC** |

```
                                        comment: obtained otherwise than by
                                        reactions only involving carbon to carbon
                                        unsaturated bonds, e.g. polysiloxane,
                                        polyesters, polyurethane, polyethylene oxide
E15     INPAFAMDB          176    NT3   A61K0009-70E2B8/EPC
                                        comment: the adhesive comprising
                                        ingredients of undetermined constitution
                                        or reaction products thereof, e.g. rosin
                                        or other plant resins (N1004)
E16     INPAFAMDB          664    NT2   A61K0009-70E2D/EPC
                                        comment: Transdermal patches having a
                                        drug layer or reservoir, and one or more
                                        separate drug-free skin-adhesive layers,
                                        e.g. between drug reservoir and skin, or
                                        surrounding the drug reservoir;
E17     INPAFAMDB          167    NT2   A61K0009-70E2K/EPC
                                        comment: Transdermal patches having
                                        multiple drug layers or reservoirs, e.g.
                                        for obtaining a specific release pattern,
                                        or for combining different drugs (N1004)
********** END **********
```

search for the code and automatically incude all narrower codes with **+NT**

**=> S A61K0009-70E+NT/EPC**

```
L1          2274 A61K0009-70E+NT/EPC  (10 TERMS)
```

**=> D BRIEFG**

the BRIEFG-format includes the ECLA classification codes

```
L3    ANSWER 558 OF 2274     INPAFAMDB COPYRIGHT 2011 EPC
AN    32991552 INPAFAMDB UPFB 20100527 UWF 201021
TI    Patch for transdermal administration of volatile pharmaceutically active
      ingredients of chemically basic nature and a process for preparation.
INS   WOLTER KARIN, DE; MUELLER WALTER, DE; SIMON GUENTER, DE; NALBACH CHRISTA,
      DE; HOFFMANN HANS-RAINER, DE
PAS   LOHMANN THERAPIE SYST LTS, DE
IPCR  A61K0009-70     [I,A]; A61L0015-58     [I,A]
EPC   A61K0009-70E2; A61K0009-70E2B6B2; A61K0009-70E2D; A61L0015-58+C08L33/00
NCL   NCLM 424/449.000
      NCLS 424/448.000; 514/946.000
AB    (US 5462746 A)
      The invention relates to a patch for transdermal administration of volatile
      pharmaceutically active ingredients of chemically basic nature which comprises
      a multi-element system comprising (a) a matrix having distributed therein as
      the drug said volatile active ingredient or a physiologically acceptable salt
      thereof, the matrix comprising a pressure-sensitive adhesive, (b) an element of
      a pressure-sensitive adhesive composition which-where (a) contains a salt-
      contains basic groups to liberate the free base from its salt, (c) a backing
      layer impermeable to the diffusable ingredients of (a) and (b), and (d) a
      release liner impermeable to the diffusable ingredients of (a) and (b), matrix
      (a) or at least a part of (b), whichever is in contact with release liner (d),
      having a tack sufficient for affixing the patch to the skin, any part of (b)
      positioned between matrix (a) and release liner (d) being permeable for the
      deprenyl or the salt thereof or both. The invention also relates to a process
      for preparing such patch and to a process for treating a patient suffering from
      Parkinson's or Alzheimer's disease with such patch.
```

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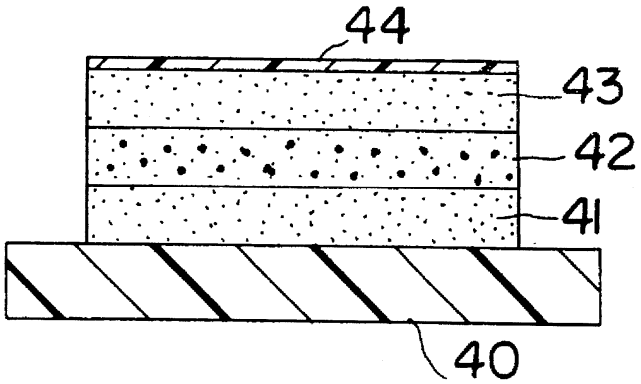
PATENT FAMILY INFORMATION INPAFAMDB

 +-------- Publications --------+      +-------- Applications --------+
 US 5462746           A  19951031      US 1994-226236       A  19940411

 +--------- Priorities ---------+
 US 1992-969895       A  19921102
 US 1994-226236       A  19940411
```




***Use the ICO-thesaurus to display the nanotechnology ICO codes for the class Y01***

**=> FIL INPAFAMDB**

**=> E Y01+ALL/ICO**

| E# | FILE | FREQUENCY | TERM | |
|---|---|---|---|---|
| E1 | INPAFAMDB | 0 | BT2 | y/ICO<br>GENERAL TAGGING OF NEW TECHNOLOGICAL DEVELOPMENTS; GENERAL TAGGING OF CROSS-OVER TECHNOLOGIES SPANNING OVER SEVERAL SECTIONS OF THE IPC (N0403) |
| E2 | INPAFAMDB | 0 | BT1 | Y01:/ICO |
| E3 | INPAFAMDB | 0 | --> | Y01/ICO<br>BROAD TECHNICAL FIELDS CHARACTERISED BY DIMENSIONAL ASPECTS (N0403) |
| E4 | INPAFAMDB | 76 | NT1 | Y01N/ICO<br>NANOTECHNOLOGY (N0403) |
| E5 | INPAFAMDB | 10 | **NT2** | **Y01N0002/ICO** |
| E6 | INPAFAMDB | 10 | **NT3** | **Y01N0002:00/ICO**<br>Nanobiotechnology (N0403) |
| E7 | INPAFAMDB | 19 | **NT3** | **Y01N0004:00/ICO**<br>Nanotechnology for information processing, storage or transmission (N0403) |
| E8 | INPAFAMDB | 36 | **NT3** | **Y01N0006:00/ICO**<br>Nanotechnology for materials or surface science (N0403) |
| E9 | INPAFAMDB | 16 | **NT3** | **Y01N0008:00/ICO**<br>Nanotechnology for interacting, sensing or actuating (N0403) |
| E10 | INPAFAMDB | 7 | **NT3** | **Y01N0010:00/ICO**<br>Nanooptics (N0403) |
| E11 | INPAFAMDB | 6 | **NT3** | **Y01N0012:00/ICO**<br>Nanomagnetics (N0403) |

********** END **********

# 3 Simplification of the International Patent Classification

Since January 2011 the simplification of the IPC has been in force which means that we now have only one level of the IPC instead of two levels as before. The full level of the current IPC corresponds to the old “advanced level”, the old “core level” IPC has been abondoned. Patent authorities can now either classify at full IPC level or optionally at main group or subclass level.

The simplification of the IPC also means that the European Patent Office no longer creates “rolled-up” core codes from advanced level codes. As a consequence of these IPC changes all rolled-up core codes were removed from the INPADOC databases on STN at the beginning of 2011.

The most obvious benefit of the removal of the rolled-up core codes is that the IPC display is now significantly shorter. Often advanced and rolled-up core codes were the same leading to much redundancy.

Another benefit of the IPC-changes in 2011 is that IPC-searching at different hierachical levels is more specific than before. Now an IPC-search only retrieves documents which have been classified or reclassified with a particular IPC code. An IPC search does no longer retrieve documents which have a rolled-up core level code assigned, but do not match the search query with respect to the original classification.

***IPC-display after the IPC-changes in January 2011***

**=> S WO2011063426/PN**

**IPC**-format: short IPC-display with main attributes in brackets

**=> D IPC**

```
IPCI  F27B0003-08     [I,A]; C22B0009-20     [I,A]; F27D0011-00     [I,A]
```

**IPC.TAB**-format: detailed IPC-display providing all attributes

**=> D IPC.TAB**

```
IPC   CODE             VERSION  POS INV LEVEL    CC ASSIGNMENT DATE     STAT
----  ---------------- -------- --- --- -------- -- ---------- -------- ----
IPCI  F27B0003-08      (200601)  F   I  Advanced AT Human      20110526  O
      C22B0009-20      (200601)  L   I  Advanced AT Human      20110526  O
      F27D0011-00      (200601)  L   I  Advanced AT Human      20110526  O
```

# 4 Extended Coverage of Japanese Utility Models

At the end of last year about 860.000 Japanese registered utility models published in the Heisei period from 1989-2002 were added to INPADOC. For these publications basic bibliographic information is available like publication, application and priority details and IPC classification codes.

# 5 Enhanced Coverage of Patent Citations from Japan and Italy

The INPADOC databases currently cover patent citations for 25 patent authorities. The citation coverage has significantly been enhanced in 2011 by

- examiner citations for about 1.1 million Japanese publications:
  - 640.000 JP A publications (1973-1997)
  - 495.000 JP U publications (1972-1989)
  - 4600 JP T publications (1983-1997)
  - 1800 JP C publications (1994-1996)
- new citation data for Italian published applications (IT A1) from 2008 onwards (examiner citations, relevance indicators available)

***Example of patent citations for Japanese published application***

**=> FIL INPADOCDB**

display format **RE** provides all referenced patent and non patent information

**=> D BIB RE**

```
L1   ANSWER 1 OF 1    INPADOCDB COPYRIGHT 2011 EPO/FIZ KA on STN
AN    33278108 INPADOCDB UP 20110120 UW 201103
FN    22105122
TI    INFORMATION PROCESSING SYSTEM HAVING MATRIX DISPLAY DEVICE.
TL    English
IN    MANO HIROYUKI; NISHIOKA KIYOKAZU; FUTAMI TOSHIO; KINUGAWA KIYOSHIGE
INS   MANO HIROYUKI; NISHIOKA KIYOKAZU; FUTAMI TOSHIO; KINUGAWA KIYOSHIGE
PA    HITACHI LTD
PAS   HITACHI LTD
PI    JP 09251283          A  19970922
PIT   JPA  DOC. LAID OPEN TO PUBL. INSPEC. [PUBLISHED FROM 1971 ONWARDS]
DAV   19970922  unexamined-printed-without-grant
STA   PRE-GRANT PUBLICATION
AI    JP 1996-60565        A  19960318
AIT   JPA Patent application
PRAI  JP 1996-60565        A  19960318  (JPA, Y)
PRAIT JPA Patent application
REC   4. THERE ARE 4 CITED REFERENCES (4 PATENT, 0 NON PATENT) AVAILABLE FOR
      THIS RECORD. ALL CITATIONS ARE AVAILABLE IN THE RE FORMAT.
REP   JP 63304229          A  19881212 (SEA, pat)
         SEIKO EPSON CORP
      JP 63161495          A  19880705 (SEA, pat)
         HOSIDEN ELECTRONICS CO
      JP 63115198          A  19880519 (SEA, pat)
         FUJITSU LTD
      JP 62251798          A  19871102 (SEA, pat)
         SEIKO INSTR & ELECTRONICS
REC   4. THERE ARE 4 CITED REFERENCES (4 PATENT, 0 NON PATENT) AVAILABLE FOR
      THIS RECORD.
```

# 6 Enhanced Coverage of US Fee Payment Data

The coverage of US fee payment data has been extended to include 5 more payment events back to 1981. So far, only payment data for US-patents expired due to failure to pay maintanance fee have been covered (code USFP).

***Legal Status Codes covering US fee payments***

```
US FP     -  EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE
US FPAY   +  FEE PAYMENT
US LAPS   -  LAPSE FOR FAILURE TO PAY MAINTENANCE FEES
US REIN   +  REINSTATEMENT AFTER MAINTENANCE FEE PAYMENT CONFIRMED
US REMI      MAINTENANCE FEE REMINDER MAILED
US SULP   +  SURCHARGE FOR LATE PAYMENT
```

# 7 Legal Status Data from Colombia and Slovakia available

At the beginning of 2011, legal status information for Colombian patent publications (CO A1, CO A2) was loaded into INPADOC including 4 different legal status events. The coverage goes back to 2002. PCT-entry into national phase data are currently not available for Colombia.

***Legal Status Codes for Colombia***

```
COFA      - APPLICATION WITHDRAWN
COFC      - APPLICATION REFUSED
COFD      - APPLICATION LAPSED
COFG      + APPLICATION GRANTED
```

Legal status data are now also available for Slovakian patent publications from 1993 onwards including 24 different legal status events referring to patent expiry, lapse of application, fee payment, SPC information and others. Entry into the national phase data for Slovakia are available for PCT-applications from 1992 onwards and also for EP-publications starting in 2004.

***Legal Status Codes for Slovakia***

```
SK BA9A     TRANSLATION OF THE CLAIM INTO SLOVAKIAN
SK FA9A   - SUSPENDED PATENT APPLICATION PROCEDURE AT REQUEST OF AN APPLICANT
SK FB9A   - SUSPENDED PATENT APPLICATION PROCEDURE
SK FC9A   - REFUSED PATENT APPLICATION
SK FD9A   - SUSPENDED PROCEDURES DUE TO NON-PAYMENT OF FEE
SK MC4A   - ANNULEMENT OF PATENT
SK MG4A   - PARTIAL REVOCATION OF INVENTOR'S CERTIFICATE
SK MK4A   - EXPIRY OF PATENT
SK MM4A   - PATENT LAPSED DUE TO NON-PAYMENT OF MAINTENANCE FEES
SK PC4A     ASSIGNMENT AND TRANSFER OF RIGHTS
SK PD4A     LIEN (CHANGE OF THE RIGHTS OF DISPOSAL)
SK QA4A     LICENCE OFFER TO PATENT
SK QB4A     LICENCE CONTRACT REGISTERED OR GRANTED
SK SPCF   + FILING AN SPC
SK SPCG   + GRANT OF AN SPC
SK SPCR   - REJECTION OF AN SPC
SK TA4A     CHANGE OF INVENTOR(S) NAME
SK TB4A     CORRECTION OF NAMES
```

| | | |
|---|---|---|
| SK | TC4A | CHANGE OF OWNER'S NAME |
| SK | TE4A | CHANGE OF OWNER'S ADDRESS |
| SK | TH4A | GENERAL CORRECTION OR CHANGES |
| SK | T3 | + TRANSLATION OF EUROPEAN PATENT SPECIFICATION INTO SLOVAKIAN |
| SK | T4 | CHANGED SLOVAKIAN TRANSLATION OF A EUROPEAN PATENT SPECIFICATION |
| SK | T5 | TRANSLATION OF AN AMENDED EUROPEAN PATENT SPECIFICATION |