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The Cooperative Patent Classification on STN

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and Chemical Abstracts Service, U.S.A.

Cooperative Patent Classification System (CPC)

- Description
 - CPC structure
 - Timeline for implementation
 - Current assigning authorities and timeliness
- Implementation on STN
- CPC Thesaurus
- Search examples

Cooperative Patent Classification (CPC)

- CPC is a new bilateral classification system managed and maintained by European Patent Office (EPO) and United States Patent & Trademark Office (USPTO)
 - Entered into force **January 2013**
- Based on ECLA, CPC incorporates the best classification practices of EPO and USPTO
 - Has an IPC-like structure
 - Includes all EPO classified documents
 - Will include all US utility documents
 - Has many more subdivisions than IPC

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USPTO and EPO Work Toward Joint Patent Classification System

"In view of the significant benefit to stakeholders of developing a transparent and harmonized approach to a global classification system for patent documents; in order to make the search process more effective; and in the belief that cooperation between their two offices will facilitate progress in undertaking classification harmonization projects under the IP5 Common Hybrid Classification initiative, the USPTO and the EPO have agreed together to work toward the formation of a partnership to explore the development of a joint classification system based on the European Classification system (ECLA) that will incorporate the best classification practices of the two offices. This system would be aligned with the World Intellectual Property Organization (WIPO) classification standards and the International Patent Classification (IPC) structure. Accordingly, they have initiated discussions on governance and operational aspects of such a partnership.

The IP5 partner offices will be continually apprised of progress at appropriate IP5 forums. Stakeholders will receive regular updates on the substance and progress of classification partnership discussions between the two offices."

October 25, 2010

A handwritten signature in blue ink, appearing to read "David J. Kappos".

David J. Kappos

A handwritten signature in blue ink, appearing to read "Benoît Battistelli".

Benoît Battistelli

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CPC scheme

- In one scheme CPC incorporates:
 - **ECLA** (~160K entries)
 - **ICO** (EPO indexing codes, ~40K entries)
 - **Expanded G06Q** scheme (Business Methods)
 - Covering most USPC 705 subdivisions
 - USPC special collections and digests
- In total ~250,000 CPC subdivisions

Browse the full CPC scheme here:
<http://worldwide.espacenet.com/classification>

CPC scheme statistics

Sections A - H	Section Y
Main trunk Invention (I) or Additional (A) information 160,496 symbols	Additional (A) information only
Indexing codes (“2000”-series, i.e., ANNA2NNN/NNNNNN) Breakdown & Orthogonal ICO IPC indexing Additional (A) information only 82,223 symbols	Emerging technology USPC XRACs & digests 7,330 symbols

Example: The IPC-like CPC hierarchy

- The "root" of the hierarchically closest IPC symbol is used

IPC	ECLA	CPC
H01L21/027	H01L21/027	H01L21/027
	H01L21/027B	H01L21/02709
	H01L21/027B2	H01L21/02718
	H01L21/027B6	H01L21/02727
	H01L21/027B6B	H01L21/02736
	H01L21/027B6B2	H01L21/02745
	H01L21/027B6B4	H01L21/02754
	H01L21/027B6C	H01L21/02763
	H01L21/027B6D	H01L21/02772
	H01L21/027B6E	H01L21/02781
H01L21/033	H01L21/033	H01L21/033

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CPC also incorporates "attributes"

- Classification value
 - I (Invention), A (Additional)
- Position
 - F (First), L (Later)
- Classification status
 - O (Original), R (Reclassified)
- Source of classification (H, M, G)
- Generating office (EP*, US*, ES, GB, SE)

* As of April 2013, these two codes are not provided in INPADOC files.

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CPC implementation timeline

- **January 2013**
 - EPO only uses CPC
 - USPTO transition period from USPC to CPC begins
- **March 2013**
 - First U.S. publications with USPTO-assigned CPC
- **April 2013**
 - CPC revisions begin (monthly)
- **January 2015**
 - USPTO only uses CPC

CPC implementation for US Utility patents 2013 – 2015

- Newly filed applications receive **both** CPC & USPC beginning 2 January 2013
- Issued patents receive USPC **plus**
 - Any CPCs assigned to the published application
 - Optionally, additional CPCs may be assigned
- Searches are performed with USPC &/or CPC
- By January 2015, CPC will be exclusively used

Until the beginning of 2015, comprehensive and timely searches will require use of **both** USPC and CPC.

Patent offices assigning CPC

Patent Office	Code
European Patent Office (EPO)	EP
United States	US
United Kingdom	GB
Spain	ES
Sweden	SE

The EPO also applies CPC to a subset of *The PCT Minimum Documentation*

Regional system	Begin Date	National Authority	Begin Date
EP	1978 (start)	CH	1920*
WO	1978 (start)	DE	1920*
AP	1984	DE-U	1985
OA	1966	FR	1902
		GB	1909
(* or earliest date)		US	1920*

For historical reasons, coverage is also available for BE, NL and LU, and also partial coverage is available for AT, AU and CA.

Example: CPC codes in INPAFAMDB

L1 ANSWER 1 OF 1 INPAFAMDB COPYRIGHT 2013 EPO/FIZ KA on STN

AN 44133711 INPAFAMDB EWF 201030 UPFB 20121129 UWF

TI Insulated switching power supply device.

- ISOLATED SWITCHING POWER SUPPLY DEVICE.

INS TADAHIKO MATSUMOTO; EITO MOROMIZATO; MATSUMOTO T
MOROMIZATO EITO, JP; MATSUMOTO MASAHIKO; MOROMIZ

PAS MURATA MANUFACTURING CO
- MURATA MANUFACTURING CO, JP

IPCI H02M0003-335 [I,A]; H02M0001-34 [I,A]; H02M0003-337 [I,A];
H02M0003-28 [I,A]

The BRIEFG format includes bibliographic details, abstract and image (drawing).

CPC H02M0001-34; H02M0003-33523; H02M0003-33538; H02M0003-3376;
H02M2001-342; Y02B0070-1491

NCL NCLM 363/021.060
NCLS 363/021.040

INCL INCLM 363/021.060
INCLS 363/021.040

Cooperative Patent Classification (CPC) codes.

FCL H02M0003-28 R; H02M0003-28 T; H02M0003-28 Y

FTRM 5H730/AA14; 5H730/AA15; 5H730/AS01; 5H730/BB23; 5H730/BB26;
5H730/BB43; 5H730/BB57; 5H730/BB61; 5H730/DD04; 5H730/DD12;
5H730/DD41; 5H730/EE02; 5H730/EE07; 5H730/EE08; 5H730/EE13;
5H730/EE59; 5H730/FD01; 5H730/FF19; 5H730/FG05; 5H730/ZZ16

AB (EP 2211451 A2)
An insulated switching power supply device (104) includes a main transformer (T1) having a primary winding (P1) and a secondary coil (S1) on the secondary side are disposed on the secondary winding control circuit

Note: ECLA and ICO have been mapped to corresponding CPC codes, and the CPC codes then added to the entire INPAFAMDB backfile.



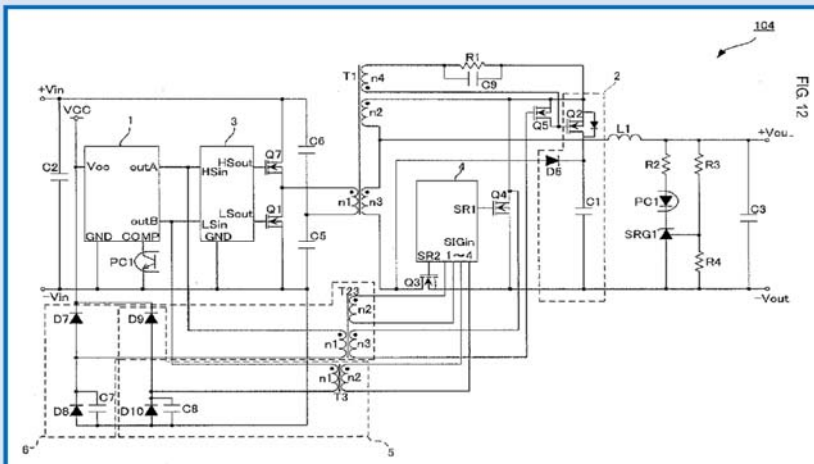
Example: CPC codes in INPAFAMDB (cont.)

PATENT FAMILY INFORMATION INPAFAMDB

Publications			Applications		
CN 101789698	A	20100728	CN 2010-10105025	A	20100127
EP 2211451	A2	20100728	EP 2010-150935	A	20100118
EP 2211451	A3	20100908			
JP 2010178411	A	20100812	JP 2009-15043	A	20090127
JP 4803262B	B2	20111026			
US 20100188872	A1	20100729	US 2009-551585	A	20090901
US 8315073	B2	20121120			

+----- Priorities -----+

JP 2009-15043 A 20090127



Timeliness of CPC

- Available on day of publication for documents published by the CPC-assigning authorities
 - EP, US*, ES, GB and SE publications
 - PCT-publications with the EPO as searching authority
- Up to **6 months after publication** for all other documents classified by the EPO, i.e. the PCT-minimum documentation coverage
 - Other PCT-publications, AP, OA, CH, DE and FR

IMPORTANT, especially when setting up **ALERTS!!**

* For the USPTO implementation will occur gradually throughout the transition period from USPC.

Availability of CPC in STN patent files

		CPC for updated and new documents	CPC for backfile
Multinational value-add patent files	INPADOC files	✓	✓
	CAPLUS	✓	✓
	DWPI files	✓	In progress
National patent files	USPAT files	✓	✓
	CANPATFULL	✓	In progress
	PCTFULL	✓	
	AUPATFULL	✓	
	CNFULL	✓	⋮
	JPFULL	✓	
	FRFULL	✓	
	GBFULL	✓	In progress

Agenda

- Description
 - CPC structure
 - Timeline for implementation
 - Current issuing authorities and timeliness
- Implementation on STN
- CPC Thesaurus
- Search examples

Implementation of CPC on STN

- CPC codes are provided in WIPO ST. 8
 - Same standard as IPC reform codes
 - Attributes are very similar to IPC attributes
- Search and display of CPC is therefore very similar to the implementation of IPC on STN
 - Analogous search, display and analysis options
- An STN CPC thesaurus feature is available!
 - Similar to the IPC and ECLA thesauri
 - Allows for simple hierarchical searching, e.g.
 - => [S A61K0047-48369+NT /CPC](#)

Implementation of CPC on STN (cont.)

- **/CPC** – the search and display field for all codes
 - Including Original and Reclassification codes
- **/CPC.KW** – the search field for CPC attributes
 - Classification value (I,A), classification status (O,R), source of classification (H,M,G), generating office
 - Use the **CPC.TAB** format to display CPC attributes
- For specific CPC searches CPC codes and attributes can be linked with **(S)-proximity***
 - E.g. => **S A61K0047-48384 /CPC (S) I /CPC.KW**

* In CAplus use (T)-proximity.

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Searching CPC on STN

=> **S A61K0047-48384/CPC**

CPC search in **STN-standard format.**

=> **S A61K0047/CPC**

CPC search at **main group level.**

=> **S A61K/CPC**

CPC search at **subclass level.**

=> **S A61K0047-48384/CPC (S) I /CPC.KW**

CPC search + **attributes*.**

=> **S A61K0047-48369+NT/CPC**

CPC search with all **narrower terms.**

* In CAplus use (T)-proximity.

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Displaying CPC on STN

=> D TIEN PA PI IPC CPC

L1 ANSWER 1 OF 1 INPAFAMDB COPYRIG
 TI Combination therapy for the treatment of CD19+ B-cell malignancies symptoms comprising an anti-CD19 maytansinoid immunoconjugate and rituximab.
 PA SANOFI
 PI EP 2550975 A1 20130130
 IPCI A61K0047-48 [I,A]; A61K0039-395 [I,A]; A61P0035-00 [N,A]; C07K0016-28 [I,A]
 CPC A61K0047-48384; A61K0039-39558; A61K0047-48561; C07K0016-2803; C07K0016-2887

CPC is the standard STN display for a simple list of CPC codes.

The CPC display field is included in standard display formats, e.g. ALL.

=> D TI PA PN IPC CPC

L1 ANSWER 1 OF 1 WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
 TI Combustion chamber of turbo engine e.g. gas turbine engine, has spark plug chamber extension, acoustic damper, sensor or valve which is arranged in a recess of combustion chamber main portion and sealed with a seal
 PA (RORO-C) ROLLS-ROYCE DEUT LTD&CO KG
 PI EP 2511613 A2 20121017 (201277)* EN 11[5]
 IPCI F23R0003-00 [I,A]; F23R0003-60 [I,A]; F23R0003-00 [I,A]
 CPC F23R2900-00012; F23R0003-007; F23R0003-60



Displaying CPC attributes on STN

=> D CPC.TAB

L1 ANSWER 1 OF 1 INPAFAMDB CO

CPC CODE	VERSION	POS	INV	CC	ASSIGNMENT	DATE	STAT
A61K0047-48384	(20130101)	F	I	Human		20130101	O
A61K0039-39558	(20130101)	L	I	Human		20130101	O
A61K0047-48561	(20130101)	L	I	Human		20130101	O
C07K0016-2803	(20130101)	L	I	Human		20130101	O
C07K0016-2887	(20130101)	L	I	Human		20130101	O

CPC.TAB is the standard STN display for a complete view of all CPC attributes.

=> D CPC.TAB.M

L1 ANSWER 1 OF 1 WPINDEX CO

Member (0001)

CPC CODE	VERSION	POS	INV	CC	ASSIGNMENT	DATE	STAT
Current							
F23R2900-00012	(20130101)		A	EP	Human	20130101	O
F23R0003-007	(20130101)		I	EP	Human	20130101	O
F23R0003-60	(20130101)		I	EP	Human	20130101	O

In DWPI, attributes are at the *member level*, so CPC.TAB.M is used to provide a complete view of all CPC attributes in this database.



Additional CPC display options in CAplus

=> D TI PA PI IPC CPC.UNIQ

TI Combination therapy for the treatment of anti-CD19 maytansinoid immunoconjugate and rituximab
 PA Sanofi, Fr.
 PATENT NO. KIND DATE APPLICATION NO. DATE

 PI EP 2550975 A1 20130130 EP 2011-305999 20110729
 WO 2013017540 A1 20130207 WO 2012-EP64785 20120727

The **CPC.UNIQ** display provides a simple list of CPC codes.

CPC.UNIQ
 A61K0047-48384; A61K0039-39558; A61K0047-48561; A61K2039-507;
 C07K0016-2803; C07K0016-2887

=> D TI PA PI CPC.HIT

TI Combination therapy for the treatment of anti-CD19 maytansinoid immunoconjugate and rituximab
 PA Sanofi, Fr.
 PATENT NO. KIND DATE APPLICATION NO. DATE

 PI EP 2550975 A1 20130130 EP 2011-305999 20110729
 WO 2013017540 A1 20130207 WO 2012-EP64785 20120727

The **CPC.HIT** display shows only hit CPC search terms.

CPC.HIT
 C07K0016-2803; A61K0047-48384



Searching CPC is very similar to IPC

=> S B23K/IPC,CPC

317607 B23K/IPC
 111984 B23K/CPC
 L1 323679 B23K/IPC,CPC

B23K0026-0003 = trimming metal with a laser beam.

=> S B23K0026/IPC,CPC

48317 B23K0026/IPC
 16679 B23K0026/CPC
 L2 49530 B23K0026/IPC,CPC

Searching CPC codes (/CPC) at the Subclass (L1), Group (L2) and Subgroup (L3) levels is analogous to IPC searching.

=> S B23K0026-00/IPC,CPC

27633 B23K0026-00/IPC
 324 B23K0026-00/CPC
 L3 27671 B23K0026-00/IPC,CPC

Automatically include thesauri narrower terms using +NT (see later).

=> S B23K0026-00+NT/IPC,CPC

48315 B23K0026-00+NT/IPC
 16679 B23K0026-00+NT/CPC
 L4 49528 B23K0026-00+NT/IPC,CPC

The specific CPC code (/CPC) is also searchable (L5).

=> S B23K0026-0003/CPC

L5 130 B23K0026-0003/CPC



The CPC thesaurus on STN

- Hierarchies of terms may be reviewed using EXPAND with a term followed by a plus symbol (+), a Relationship Code, and the appropriate field, i.e. /CPC
 - E.g. => **E A61K0009-00+ALL /CPC**
- Searches may be extended to incorporate Narrower, Broader, Related, or other terms, using SEARCH with a term followed by a plus symbol (+), a Relationship Code, and the appropriate field, i.e. /CPC
 - E.g. => **S A61K0009-7023+NT/CPC (10 TERMS)**

Tip: to learn more about the Relationship codes available for a particular Thesaurus type **HELP RCODE** at the STN prompt (=>).

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Example: CPC thesaurus (A61K0009-00)

```
=> E A61K0009-00+ALL/CPC
E1      0   BT5  A/CPC
        HUMAN NECESSITIES (2)
E2      0   BT4  A61-/CPC
        Health; amusement (2)
E3      0   BT3  A61/CPC
E4      309271 BT2  A61K/CPC
        MEDICAL OR VETERINARY SCIENCE; HYGIENE (2013-01-01)
        A61K/CPC
        PREPARATIONS FOR MEDICAL, DENTAL, OR TOILET PURPOSES
        . . .
E5      5611  BT1  A61K0006/CPC
E6      361  -->  A61K0009-00/CPC
        Medicinal preparations characterised by special
        physical form reference:
. . .
E175    834  NT2  A61K0009-7023/CPC
        CPC-specific-text: Transdermal patches and similar
        drug-containing composite devices, e.g. cataplasms
        reference: galenical aspect
. . .
E184    180  NT4  A61K0009-7092/CPC
        CPC-specific-text: Transdermal preparations characterised by
        multiple drug layers or reservoirs or by means of
        obtaining a specific release pattern, or for
        combining different drugs (2013-01-01)
***** END *****

=> S A61K0009-7023+NT/CPC
L1      2983 A61K0009-7023+NT/CPC (10 TERMS)
```

Review CPC Thesaurus (/CPC) hierarchies and definitions, e.g. using the +ALL Relationship Code.

Codes unique to CPC are identified and the version is given in parentheses.

Use +NT to search a chosen CPC, and all its narrower terms in one step.

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Example: use the relationship +KT (Keyword Terms) to identify classes

```

=> E ANTIBODY+KT/CPC
E1      0  -->  antibody/CPC
E2      0  KT   Antibody antigen-binding fragment thereof that binds
          gram-negative bacteria/CPC
E3      0  KT   Antibody antigen-binding fragment thereof that binds
          gram-positive bacteria/CPC
E4      0  KT   Antibody fragment thereof whose amino acid sequence is
          disclosed in whole part/CPC
E5      0  KT   Antibody fragments/CPC
E6      0  KT   Antibody mimetics scaffolds/CPC
E7      0  KT   Antigen-binding scaffold molecules wherein scaffold is
          not an immunoglobulin variable region antibody
          mimetics/CPC
E8      0  KT   Disulfide-stabilized antibody (dsFv)/CPC
. . .
E60     0  KT   polymer-drug antibody conjugates, e.g.
          mitomycin-dextran-Ab; DNA-polylysine-antibody complex
          conjugate, used therapy/CPC
. . .
E65     0  KT   the carrier being an antibody an immunoglobulin/CPC
E66     0  KT   wherein an antibody conjugate being used at least one
          steps; ligand-antiligand therapy/CPC
***** END *****

```

CPC definitions are included to allow identification of appropriate codes (KT=Keyword Term).

polymer-drug antibody conjugates, e.g. mitomycin-dextran-Ab; DNA-polylysine-antibody complex conjugate, used therapy/CPC

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Example: Use the Relationship +ALL to explore definitions and a full hierarchy

```

=> E E60+CODE
E1      0  -->  polymer-drug antibody conjugates, e.g.
          mitomycin-dextran-Ab; DNA-polylysine-antibody complex
          conjugate, used therapy/CPC
E2      87  A61K0047-48692/CPC
***** END *****

```

Use +CODE to identify the code associated with the definition.

```

=> E E2+ALL
. . .
E8      272  BT2  A61K0047-48369/CPC
          CPC-specific-text: the modifying part being an
          antibody, an immunoglobulin, or a fragment thereof,
          e.g. a Fc-fragment(2013-01-01)
E9      174  BT1  A61K0047-48507/CPC
          CPC-specific-text: the modifying agent being a well
          defined antibody or immunoglobulin bearing at least
          one antigen-binding site(2013-01-01)
E10     87  -->  A61K0047-48692/CPC
          CPC-specific-text: polymer-drug antibody conjugates,
          e.g. mitomycin-dextran-Ab; DNA-polylysine-antibody
          complex or conjugate, used for therapy(2013-01-01)
. . .

```

Use +ALL to explore definitions and the full hierarchy.

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Example: Use the Relationship +TI (Title) to stop at the code listed

```

=> E A61K0047-48692+TI/CPC
E1      0   BT9  a/CPC
        HUMAN NECESSITIES (2013-01-01)
E2      0   BT8  A61-/CPC
        Health; amusement (2013-01-01)
E3      0   BT7  A61/CPC
        MEDICAL OR VETERINARY SCIENCE; HYGIENE (2013-01-01)
E4      309271 BT6  A61K/CPC
        PREPARATIONS FOR MEDICAL, DENTAL, OR TOILET PURPOSES
        reference: devices or methods specially adapted for
        bringing pharmaceutical products into particular
        physical or administering forms A61J0003-00;
. . .
E10     87   --> A61K0047-48692/CPC
        CPC-specific-text: polymer-drug antibody conjugates,
        e.g. mitomycin-dextran-Ab; DNA-polylysine-antibody
        complex or conjugate, used for therapy (2013-01-01)
***** END *****

```

Use +TI (Title) to see just the full title of the code expanded on.

Example: Use the Relationship +HIE to see a condensed list of an entire hierarchy

```

=> E A61K0047-48692+HIE/CPC
E1      0   BT9  a/CPC
E2      0   BT8  A61-/CPC
E3      0   BT7  A61/CPC
E4      309271 BT6  A61K/CPC
E5      5611  BT5  A61K0006/CPC
E6      186  BT4  A61K0047-00/CPC
E7      222  BT3  A61K0047-48/CPC
E8      272  BT2  A61K0047-48369/CPC
E9      174  BT1  A61K0047-48507/CPC
E10     87   --> A61K0047-48692/CPC
        CPC-specific-text: polymer-drug antibody
        conjugates, e.g. mitomycin-dextran-Ab; DNA-
        polylysine-antibody complex or conjugate,
        used for therapy (2013-01-01)
E11     46   NT1  A61K0047-487/CPC

```

Use +HIE (Hierarchy) for a condensed list of all broader and narrower terms.

```

=> S E9+NT

```

```

L1      1363 A61K0047-48507+NT/CPC (27 TERMS)

```

Use +NT to search a chosen CPC, and all its narrower terms in one step.

Example: A61K0047-48507+NT (CPC)

=> D TIEN CPC 1-20

L1 ANSWER ... OF 1363 INPAFAMDB COPYRIGHT 2013 EPO/FIZ KA on STN
 TI Combination therapy for the treatment of CD19+ B-cell malignancies symptoms comprising an anti-CD19 maytansinoid immunoconjugate and rituximab.
 CPC A61K0047-48384; A61K0039-39558; **A61K0047-48561**; C07K0016-2803; C07K0016-2887

L1 ANSWER ... OF 1363 INPAFAMDB COPYRIGHT 2013 EPO/FIZ KA on STN
 TI NOVEL CROSSLINKING REAGENTS, MACROMOLECULES, THERAPEUTIC CONJUGATES, AND SYNTHETIC METHODS THEREOF.
 CPC A61K0047-4823; **A61K0047-48561**

L1 ANSWER ... OF 1363 INPAFAMDB COPYRIGHT 2013 EPO/FIZ KA on STN
 TI P97-ANTIBODY CONJUGATES AND METHODS OF USE.
 CPC **A61K0047-48584**; A61K0047-4843; C12N0009-00

L1 ANSWER ... OF 1363 INPAFAMDB COPYRIGHT 2013 EPO/FIZ KA on STN
 TI NOVEL MAYTANSINOID DERIVATIVES WITH PEPTIDE LINKER AND CONJUGATES THEREOF.
 CPC A61K0047-48384; **A61K0047-48561**; **A61K0047-48615**; A61K0047-48715

L1 ANSWER ... OF 1363 INPAFAMDB COPYRIGHT 2013 EPO/FIZ KA on STN
 TI COMPLEXES COMPRISING MHC CLASS I FUSION POLYPEPTIDES AND ANTIGEN-SPECIFIC ANTIBODIES AND METHODS OF USE.
 CPC A61K0047-4833; **A61K0047-48561**; **A61K0047-48569**; **A61K0047-48661**; C07K0014-70539; C07K0016-28; C07K0016-46; C07K2317-24; C07K2317-54; C07K2317-55; C07K2319-33; C07K2319-74

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Tip: Use +NT (narrower terms) not truncation!

CPC

H01L21/027

H01L21/0271

H01L21/0272

H01L21/0273

H01L21/0274

H01L21/0275

H01L21/0276

H01L21/0277

H01L21/0278

H01L21/0279

H01L21/033

H01L21/0331

H01L21/0332

H01L21/0334

H01L21/0335

H01L21/0337

H01L21/0338

H01L21/04

Truncation is not recommended as it may miss CPC classes from the hierarchy, for example:

Search question: Retrieve H01L21/027 and all narrower term subgroups – use the CPC thesaurus hierarchy (+NT) search.

=> S H01L21/027+NT/CPC

L1 4449 H01L21/027+NT/CPC (17 TERMS)
 (H01L0021-027+NT/CPC) ✓

=> S H01L21/027?/CPC

L2 2250 H01L21/027?/CPC
 (H01L0021-027?/CPC) ✗

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Tip: Use ANALYZE to find CPC equivalent classes to a known USPC (/NCL) class

```
=> S 424/449.000/NCL
L1      2536 424/449.000/NCL
          (424449000/NCL)
```

USPC (/NCL) 424/449.000
= transdermal patches.

```
=> ANALYZE L1 CPC
L2      ANALYZE L1 1- CPC :      2085 TERMS
```

```
=> D
L2      ANALYZE L1 1- CPC :      2085 TERMS
```

TERM #	# OCC	# DOC	% DOC	CPC
1	671	578	22.79	A61K0009-7061
2	532	492	19.40	A61K0009-7084
3	533	434	17.11	A61K0009-0014
4	463	402	15.85	A61K0009-7053
5	283	243	9.58	A61K0009-7023
6	253	225	8.87	A61K0009-7069

Look up the definitions of CPC classes found in the analysis.

Tip: Use ANALYZE to find CPC equivalent classes to a known USPC (/NCL) class (cont.)

```
=> E A61K0009-7061+TI/CPC
```

```
E1      0      BT12 a/CPC
          HUMAN NECESSITIES(2013-01-01)
E2      0      BT11 A61-/CPC
          Health; amusement(2013-01-01)
E3      0      BT10 A61/CPC
          MEDICAL OR VETERINARY SCIENCE; HYGIENE(2013-01-01)
E4      264809 BT9   A61K/CPC
          PREPARATIONS FOR MEDICAL, DENTAL, OR TOILET PURPOSES
...
E8      723    BT5   A61K0009-7023/CPC
          CPC-specific-text: Transdermal patches and similar
          drug-containing composite devices, e.g. cataplasms
          reference: galenical aspects of iontophoretic devices
...
E12     651    BT1   A61K0009-7053/CPC
          CPC-specific-text: obtained by reactions only involving
          carbon to carbon unsaturated bonds, e.g. polyvinyl,
          polyisobutylene, polystyrene(2013-01-01)
E13     926    -->  A61K0009-7061/CPC
          CPC-specific-text: Polyacrylates(2013-01-01)
***** END *****
```

Search example using classification codes

Search Question:

Use patent classifications to find and explore patent records describing diamond coating techniques using chemical vapor deposition

Analyze a preliminary keyword answer set to identify relevant patent classifications

=> S DIAMOND(3A)COAT? AND (CHEMICAL VAPOR DEPOSITION OR CVD)
L1 3618 DIAMOND(3A)COAT? AND (CHEMICAL VAPOR DEPOSITION OR CVD)

=> ANALYZE L1 1- IPC CPC EPC NCL
L2 ANALYZE L1 1- IPC CPC EPC NCL : 3807 TERMS

=> D TOP 5 DOC **IPC**
L2 ANALYZE L1 1- IPC CPC EPC NCL : 3807 TERMS

TERM #	# OCC	# DOC	% DOC	IPC CPC EPC NCL
1	1127	447	12.35	C23C0016-27
2	1065	352	9.73	C23C0016-26
3	611	228	6.30	C30B0029-04
4	530	141	3.90	C23C0016-02
5	266	104	2.87	C23C0016-50

Classification code definitions may be identified using STN classification thesauri.

=> D TOP 5 DOC **CPC**
L2 ANALYZE L1 1- IPC CPC EPC NCL : 3807 TERMS

TERM #	# OCC	# DOC	% DOC	IPC CPC EPC NCL
9	208	73	2.02	C23C0016-27
12	213	57	1.58	C23C0016-26
17	131	45	1.24	C23C0016-0272
24	117	39	1.08	C23C0016-271
31	78	29	0.80	C23C0016-274

Analyze a preliminary keyword answer set to identify relevant patent classifications (cont.)

```
=> D TOP 5 DOC EPC
L2 ANALYZE L1 1- IPC CPC EPC NCL : 3807 TERMS
```

TERM #	# OCC	# DOC	% DOC	IPC CPC EPC NCL
10	203	71	1.96	C23C0016-27
15	208	56	1.55	C23C0016-26
20	123	44	1.22	C23C0016-02H
39	53	23	0.64	C23C0016-27G
46	70	21	0.58	C04B0041-00V

Classification code definitions may be identified using STN classification thesauri.

```
=> D TOP 5 DOC NCL
L2 ANALYZE L1 1- IPC CPC EPC NCL : 3807
```

TERM #	# OCC	# DOC	% DOC	IPC CPC EPC NCL
23	42	40	1.11	427/577.000
26	46	39	1.08	427/249.800
27	42	39	1.08	428/408.000
34	25	25	0.69	428/698.000
38	24	24	0.66	427/249.700

Use STN thesauri to review the definitions of codes identified in the analysis

```
=> E C23C0016-27+TI/IPC
```

```
. . . . .
E6      13445  BT3   C23C0016-00/IPC
        Chemical coating by decomposition of gaseous . . . . .
E7      1318   BT2   C23C0016-22/IPC
        . characterised by the deposition of inorganic
        material, other than metallic material . . . . .
E8      4152   BT1   C23C0016-26/IPC
        . . Deposition of carbon only . . . . .
E9      3114   -->  C23C0016-27/IPC
        . . . Diamond only
        ADVANCED
        VALID FROM 20000101 TO PRESENT ( IPC EDITION: 7-8 )
***** END *****
```

+TI (title) provides the definition of the IPC code and its broader terms.

```
=> E C23C0016-27+TI/CPC
```

```
. . . . .
E8      1298   BT1   C23C0016-26/CPC
        Deposition of carbon only (
E9      409    -->  C23C0016-27/CPC
        Diamond only (2013-01-01)
***** END *****
```

Note: although the CPC hierarchy is similar, there are further narrower terms (+NT) in the CPC system.

Use STN thesauri to review the definitions of codes identified in the analysis (cont.)

```
=> E C23C0016-27+TI/EPC
```

```
. . . . .
```

```
E8      1213   BT1  C23C0016-26/EPC  
          Deposition of carbon only
```

```
E9      861    --> C23C0016-27/EPC  
          Diamond only (0008)
```

```
***** END *****
```

There are relevant codes in all of the classification systems for this search.

```
=> E 427/249.800+TI/NCL
```

```
. . . . .
```

```
E3      721    BT1  427249100/NCL  
          .Carbon or carbide coating
```

```
E4      233    --> 427249800/NCL  
          .Diamond coating
```

```
***** END *****
```

Add all the classification codes to the search

```
=> S L1 OR C23C0016-27+NT/IPC,CPC,EPC OR 427/249.800+NT/NCL
```

```
3114 C23C0016-27+NT/IPC  
876 C23C0016-27+NT/CPC  
861 C23C0016-27+NT/EPC  
360 427/249.800+NT/NCL  
    (427249800+NT/NCL)
```

All of the classification systems contribute unique results to the search.

```
L3      6454 L1 OR C23C0016-27+NT/IPC,CPC,EPC OR 427/249.800+NT/NCL
```

```
=> D TI IPC.UNIQ CPC.UNIQ
```

The CPC.UNIQ display provides a simple list of CPC codes in CAPLUS.

```
L3      ANSWER ... OF 6454 HCAPLUS COPYRIGHT 2013 ACS on STN
```

```
TI      Method for producing diamond layers and diamonds produced by the  
method
```

```
IPC.UNIQ
```

```
C23C0016-27; C23C0016-02; C23C0016-517; C30B0023-04; C30B0025-18;  
C30B0029-04; G21K0001-06; H01L0021-02; C30B0025-02
```

```
CPC.UNIQ
```

```
C23C0016-279; C23C0016-0281; C23C0016-27; C23C0016-277; C30B0023-04;  
C30B0025-183; C30B0029-04; H01L0021-02376; H01L0021-02381;  
H01L0021-02433; H01L0021-02444; H01L0021-02447; H01L0021-02488;  
H01L0021-02491; H01L0021-02516; H01L0021-02527; H01L0021-0262;  
H01L0021-02647
```

Summary

- CPC is a new in-depth hierarchical system provided jointly by EPO and USPTO
- CPC implementation on STN is straightforward, logical, and easy to start using
- Use the STN CPC Thesaurus for browsing and simplified hierarchical searching of CPC codes
- For more details on STN, stay tuned!

Resources

- STN CPC Search and Display Fields
http://www.cas.org/File_Library/Products/STN/CPC-Search-and-Display-Fields.pdf
- CPC in INPADOC News 2012/11:
http://www.stn-international.com/inpadoc_news_201211.html
- EPO CPC Workshop for external users:
<http://www.cooperativepatentclassification.org/publications/WorkshopMarchVienna.pdf>
- U.S. classification (USPC) to CPC lookup
<http://www.uspto.gov/web/patents/classification/>
- Browse the full CPC scheme:
<http://worldwide.espacenet.com/classification>

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