

**IPC DEFINITION PROJECT FILES/  
DOSSIERS DE PROJET DE DÉFINITION DE LA CIB**

**CHEMICAL FIELD/  
DOMAINE DE LA CHIMIE**

Project	Rap	Tech	Indication of approval by
D002	US	C	DE, GB, EP
D025	RU	C	EP, GB, JP, US (conditionally)
D026	EP	C	US, GB
D033	SE	C	US (cond.), GB
D039	US	C	EP, GB, JP (cond.), DE (cond.)
D040	US	C	EP, GB, JP (cond.), DE (cond.)



IPC/D 002/00  
ORIGINAL: English/French  
DATE: May 14, 2003

**WORLD INTELLECTUAL PROPERTY ORGANIZATION**  
**ORGANISATION MONDIALE DE LA PROPRIÉTÉ INTELLECTUELLE**  
GENEVA/GENÈVE

**COMMITTEE OF EXPERTS OF THE IPC UNION**  
**COMITÉ D'EXPERTS DE L'UNION DE L'IPC**

**IPC DEFINITION PROJECT FILE/DOSSIER DE PROJET DE DÉFINITION DE LA CIB**

<b>PROPOSAL BY:</b> <b>PROPOSITION DE :</b>	<b>US</b>	<b>IPC AREA:</b> <b>DOMAINE DE LA CIB :</b>	<b>C 07 C</b>
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<b>ANNEX/ ANNEXE</b>	<b>CONTENT/CONTENU</b>	<b>ORIGIN/ ORIGINE</b>	<b>DATE</b>
1	Proposal / Proposition	US	12.01
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3	Comments / Observations	RO	12.01
4	Comments / Observations	NL	12.01
5	Comments / Observations	EP	12.01
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14	Rapporteur proposal / Proposition du rapporteur	US	12.01
15	Comments / Observations	RU	02.02
16	Rapporteur report / Rapport du rapporteur	US	03.02

**RAPPORTEUR : US      TECHNICAL FIELD/DOMAINE TECHNIQUE : C**

<b>ANNEX/ ANNEXE</b>	<b>CONTENT/CONTENU</b>	<b>ORIGIN/ ORIGINE</b>	<b>DATE</b>
17	Rapporteur proposal / Proposition du rapporteur	US	03.02
18	Comments / Observations	US	05.02
19	Decision of the Working Group / Décision du groupe de travail	IB	08.02
20	Rapporteur report / Rapport du rapporteur	US	09.02
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25	Rapporteur report / Rapport du rapporteur	US	11.02
26	Rapporteur proposal / Proposition du rapporteur	US	11.02
27	Comments / Observations	GB	05.03
28	Comments / Observations	DE	05.03

<b>USPTO RAPPORTEUR REPORT</b>	
IPC Revision WG – Definition Project- D002/00 - Subclass C07C	Date: November 18, 2002

Comments were received from DE (Annex 22), EP (Annex 23), and RU (Annex 24) on Rapporteur's definition proposal in Annex 21.

EP agrees with Rapporteur's proposal of Annex 21. EP believes C10G should remain an informative reference, but would like "such as petroleum oil" deleted. Since no other comments were received concerning the status of C10G as an informative reference, it will stay in the informative reference section. R has made the wording deletion requested by EP in the revised proposal, though this was the language used in the note before C07C 1/00.

#### **Relationship between large subject matter areas**

RU noted that A61P was missing from this area. R has added it in the revised proposal. R also slightly modified the wording of A01N and A61K in the new proposal.

RU also expressed concerns over Rapporteur's omission of the word "further" in the notes concerning multiple classification. R believes the use of this word is not technically correct. For example, "therapeutic activity" is not **further** classified in A61P, "therapeutic activity" **is** classified in A61P because that is the subclass providing for therapeutic activity. What is **further** classified in A61P are the **compounds** of C07C which have a novel therapeutic activity or are of interest.

RU proposed using a separate heading under the Relationships section for multiple classification areas. R believes that a standardized heading included in this section when multiple classification is an issue could be helpful. A phrase such as suggested by RU in Annex 24 could be used. Perhaps this can be discussed at the upcoming Revision Group meeting. Until then, R has maintained the wording of Annex 21 in the modified proposal.

#### **Informative references**

Since A01N, A01P, A61K, A61P and A61Q have been included in the "Relationship between large subject matter areas" section, it is doubtful they are needed in the "informative reference" section, so R has deleted them in the modified proposal.

#### **Special rules of classification**

DE wanted to be certain that "six-membered rings" in the last bullet of this section is mentioned only as an example and not as a restriction to such rings.

R intended this to be an example only and has changed the language in the revised proposal to better reflect this. Since this same language is used in bullet 3 of paragraph 7 of this section, R also modified this.

RU suggested simplified wording for paragraph 4 concerning quaternary ammonium compounds. Though Rapporteur understands and sympathizes with RU's desire for simplicity, it is our experience that the wording proposed by R in Annex 21 is necessary. This original wording was chosen for the definition because the user of this subclass should not be put in a position of having to determine which groups pendant to the quaternary nitrogen derive from the parent amine and which derive from the quaternizing agent. RU's proposal

does not appear to help with this problem. R has maintained the wording of Annex 21 in the modified proposal.

RU expressed their satisfaction with the definition of carbon skeleton given in existing note (6) after the C07C subclass title with their suggested modification rather than the one proposed by Rapporteur (A-21, paragraph 8, bullet 2). The existing note (6) and the RU modified proposal don't appear to take into account salts, esters, amides, acid halides, or acid anhydrides. In the modified proposal, R has attempted to simplify bullet 2, yet maintain information which R believes is important to the carbon skeleton explanation.

### **Glossary**

RU asked that the definition for "Condensed" read similarly to the three terms above it. R agrees and has made this change.

RU suggested a wording change for the definition of "Condensed ring system." RU combined the explanation of scission with the explanation of the "number of rings". R believes the explanation of the condensed ring system is easier to understand when it is broken up into 2 sentences as done in A-21 and would prefer to keep the definition as it is. If it is considered clearer, R could change the second sentence of the definition as follows:

*"A single scission is the breaking of any number of bond connections between two atoms."*

USPTO RAPPORTEUR PROPOSAL	
IPC Revision WG – Definition Project-D002, Subclass C07C	Date: November 18, 2002

## Title – C07C

### Acyclic or carbocyclic compounds

### Definition statement

*This subclass covers:*

Organic compounds which normally may contain as constituent elements only carbon, hydrogen, halogen, oxygen, nitrogen, sulfur, selenium, or tellurium. The only exception to this requirement is that the compounds may contain a metal, but only as the cation of an organic acid salt, alcoholate, phenate, or mercaptide, or as a chelating atom. These organic compounds are acyclic or carbocyclic, or may contain both acyclic and carbocyclic entities.

The synthesis, treatment or modification of the acyclic or carbocyclic organic compounds of this subclass by chemical means (i.e., chemical reaction), by physical means (e.g., prilling), or by both chemical and physical means, provided that the resultant product is a compound under the subclass definition.

### Relationship between large subject matter areas

Subclass C07C is a function oriented entry for the compounds themselves and does not cover the application or use of the compounds under the subclass definition. For classifying such information other entries in IPC exist, for example:

- Compositions and use of these compositions or compounds for preservation of bodies of humans, animals, plants, or parts thereof, as biocides, e.g. disinfectants, pesticides, herbicides, as pest repellants or attractants, and as plant growth regulators are classified in A01N.
- Biocidal, pest attractant, or plant growth regulatory activity of chemical compounds or preparations is classified in A01P.
- Preparations and their use for medical, dental, or toilet purposes are classified in A61K.
- Therapeutic activity of chemical compounds is classified in A61P.
- Uses of cosmetics or similar toilet preparations are classified in A61Q.

In general, Subclass C07H, and not C07C, is intended to cover compounds containing saccharide radicals, except for:

- aldonic acids, per se or saccharic acids, per se which are covered by groups [C07C 59/105](#) and [59/285](#);
- derivatives of aldonic or saccharic acids which are covered by subclasses [C07C or D](#); and
- cyanohydrins which are covered by group [C07C 255/16](#).

Subclass [C07J](#) covers compounds containing a cyclopenta[a]hydrophenanthrene skeleton or a ring structure derived there from (i.e., steroids), except for secosteroids, which are a group of steroids structurally characterized by the absence of a bond in the cyclopenta[a]hydrophenanthrene nucleus and are covered in subclass [C07C](#).

## Limiting references

*This subclass does not cover:*

Carbamic acid	<a href="#">C01B21/12</a>
Fullerenes	<a href="#">C01B31/00</a>
Phosgenes	<a href="#">C01B31/28</a>
Carbides	<a href="#">C01B31/30</a>
Cyanogen compounds such as hydrogen cyanide, cyanic and thiocyanic acid, isocyanic and isothiocyanic acid, cyanogen, cyanamide, and cyanogen halide	<a href="#">C01C3/00</a>
Nucleosides	<a href="#">C07H19/00</a>
Nucleotides	<a href="#">C07H19/00</a> <a href="#">C07H21/00</a>
Nucleic acids	<a href="#">C07H21/00</a>
Preparation of acyclic or carbocyclic organic compounds using enzymes or fermentation processes	<a href="#">C12P</a>
Electrolytic or electrophoretic production of compounds or non-metals	<a href="#">C25B1/00</a> <a href="#">C25B3/00</a> <a href="#">C25B7/00</a>
Processes for producing compounds in which simultaneously electricity is generated	<a href="#">C25B5/00</a>

## Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Processes or devices for granulating materials, calcining or fusing, chemical [B01J](#)



processes involving a gas or a liquid, catalysts, cation or anion exchange, and the like

Processes, in general, for preparing catalysts	B01J37/00
Generic methods and apparatus therefore used in organic chemistry, such as oxidation, reduction, addition, substitution, purification, separation, stabilization, etc.	C07B
Heterocyclic compounds	C07D
Acyclic or carbocyclic organic compounds containing elements other than carbon, hydrogen, halogen, oxygen nitrogen, sulfur, selenium or tellurium	C07F
Peptides, polypeptides and proteins	C07K
Organic macromolecular compounds such as polysaccharides, rubbers, epoxy resins, styrene polymers, acrylamide polymers and the like; their preparation or chemical working-up; compositions thereof	C08
Dyes, paints, polishes, natural resins, adhesives, and miscellaneous compositions containing acyclic or carbocyclic compounds	C09
Production or separation of undefined hydrocarbon mixtures	C10G
Liquid carbonaceous fuels	C10L1/00
Natural gas, synthetic fuel, and liquefied petroleum gas	C10L3/00
Fatty acids from animal or vegetable oils	C11

## Special rules of classification

In this subclass, in the absence of an indication to the contrary, and with the exception referred to below, a compound is classified in the [last appropriate place](#). In general, and in the absence of an indication to the contrary (such as groups [C07C 59/58](#), [C07C 59/70](#)), the terms "acyclic" and "aliphatic" are used to describe compounds in which there is no ring; and, if a ring is present, the compound is taken by the "last place rule" to a later group for cycloaliphatic or aromatic compounds, if such a group exists. Where a compound or an entire group of compounds exists in tautomeric forms, it is classified as though existing in the form which is classified last in the system, unless the other form is specifically mentioned earlier in the system.

In this subclass, in the absence of an indication to the contrary, the compounds containing carboxyl or thiocarboxyl groups are classified as the relevant carboxylic or thiocarboxylic acids, unless the "last place rule" dictates otherwise; a carboxyl group being a carbon atom having three bonds, and no more than three, to hetero atoms, other than nitrogen atoms of nitro or nitroso groups, with at least one multiple bond to the same hetero atom and a thiocarboxyl group being a carboxyl group having at least one bond to a sulfur atom, e.g. amides or nitriles of carboxylic acids, are classified with the corresponding acids.

In this subclass, in the absence of an indication to the contrary, a process of making a compound appropriate for this subclass is classified in the [last appropriate place](#).

In this subclass, a quaternary ammonium compound, unless specifically provided for elsewhere or in the absence of an indication to the contrary, is classified as a single entity, taking into account all substituents that are attached to the quaternised nitrogen, except the salifying anion. In other words, the quaternary cation is considered as a whole; no distinction for classification purposes is made among its four covalent substituents.

Chemical compounds and their preparation are classified in the groups for the type of compound prepared. The processes of preparation are also classified in the groups for the types of reaction employed, if of interest. General processes for the preparation of a class of compounds falling into more than one main group are classified in the groups for the processes employed, when such groups exist. The compounds prepared are also classified in the groups for the types of compounds prepared, if of interest.

Salts of a compound, unless specifically provided for, are classified as that compound, e.g. aniline hydrochloride is classified as containing carbon, hydrogen and nitrogen only (in group [C07C 211/46](#)), sodium malonate is classified as malonic acid (in group [C07C 55/08](#)), and a mercaptide is classified as the mercaptan. Metal chelates are dealt with in the same way. Similarly, metal alcoholates and metal phenates are classified in subclass [C07C](#) and not in subclass [C07F](#), the alcoholates in groups [C07C 31/28](#) to [C07C 31/32](#) and the phenates as the corresponding phenols in group [C07C 39/235](#) or [C07C 39/44](#). Salts, adducts or complexes formed between two or more organic compounds are classified according to all compounds forming the salts, adducts or complexes.

For the classification of compounds in groups [C07C 1/00](#) to [C07C 71/00](#) and [C07C 401/00](#) to [C07C 409/00](#):

- a compound is classified considering the molecule as a whole (rule of the "whole molecule approach");
- a compound is considered to be saturated if it does not contain carbon atoms bound to each other by multiple bonds;
- a compound is considered to be unsaturated if it contains carbon atoms bound to each other by multiple bonds, e.g. a six-membered aromatic ring,

unless otherwise specified or implicitly derivable from the subdivision, as in group [C07C 69/00](#), e.g. group [C07C 69/712](#).

For the classification of compounds in groups [C07C 201/00](#) to [C07C 395/00](#), i.e. after the functional group has been determined according to the "last place rule", a compound is classified according to the following principles:

- compounds are classified in accordance with the nature of the carbon atom to which the functional group is attached;
- a carbon skeleton is a carbon atom (other than the carbonyl carbon atom of a carboxyl group or of a salt, ester, amide, acid halide, or acid anhydride functional derivative thereof) or a chain of such carbon atoms directly bonded to each other;
- when the molecule contains several functional groups, only functional groups linked to the same carbon skeleton as the one first determined are considered;
- a carbon skeleton is considered to be saturated if it does not contain carbon atoms bound to each other by multiple bonds;

- a carbon skeleton is considered to be unsaturated if it contains carbon atoms bound to each other by multiple bonds, e.g. a six-membered aromatic ring.

## Glossary

*In this subclass, the following terms or expressions are used with the meaning indicated:*

- Acyclic** the absence of a ring structure.
- Carbocyclic** the presence of a ring or ring system where all ring members are carbons.
- Bridged** the presence of two rings that share at least three ring members.
- Condensed** the presence of two rings that share at least one ring member, e.g., spiro and bridged are considered as condensed.

**Condensed ring system** a ring system in which all rings are condensed among themselves; the “number of rings” in a condensed ring system equals the number of scissions necessary to convert the ring system into one acyclic chain. A scission is the breaking of a bond connection between two atoms irrespective of whether the bond is single or multiple.

**Organic compound** compound satisfying one of the following criteria:

- at least two carbon atoms bonded to each other, or
- one carbon atom bonded to at least one hydrogen atom or halogen atom, or
- one carbon atom bonded to at least one nitrogen atom by a single or double bond.

Exceptions to the above criteria are: compounds consisting of only carbon atoms (e.g., fullerenes, etc.), cyanogen, cyanogen halides, cyanamide, metal carbides, phosgene, thiophosgene, hydrocyanic acid, isocyanic acid, isothiocyanic acid, fulminic acid, unsubstituted carbamic acid, and salts of the previously mentioned acids; these exceptions are considered to be inorganic compounds for classification purposes.

**Preparation** covers synthesis, purification, separation, stabilisation or use of additives, unless a separate place is provided in the classification scheme.

**Quinones** compounds derived from compounds containing a six-membered aromatic ring or a system comprising six-membered aromatic rings (which system may be condensed or not condensed) by replacing two or four >CH groups of the six-membered aromatic rings by >C=O groups, and by removing one or two carbon-to-carbon double bonds, respectively, and rearranging the remaining carbon-to-carbon double bonds to give a ring or ring system with alternating double bonds, including the carbon-to-oxygen bonds; this means that acenaphthenequinone or camphorquinone are not considered as quinones.

## Synonyms and Keywords

NONE

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**UK Patent Office**

**Date: 12 February 2003**

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**Comments on Project D002 , Subclass C07C**

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We support the Rapporteur proposal of Annex 26, but note that the section titles of the definition will need to be amended to correspond with the titles adopted by the 8<sup>th</sup> Revision Working Group.

Martin Price

<b>DEUTSCHES PATENT- UND MARKENAMT</b> German Patent and Trade Mark Office	Class/Subcl.: <b>C07C</b>
	Date : 10. April 2003
<b>DE - Comments — D 002</b>	

**Re: Definition Project D002**

We support the Rapporteur proposal of Annex 26.





IPC/D 025/01  
ORIGINAL: English/French  
DATE: May 22, 2003

**WORLD INTELLECTUAL PROPERTY ORGANIZATION**  
**ORGANISATION MONDIALE DE LA PROPRIÉTÉ INTELLECTUELLE**  
GENEVA/GENÈVE

**COMMITTEE OF EXPERTS OF THE IPC UNION**  
**COMITÉ D'EXPERTS DE L'UNION DE L'IPC**

**IPC DEFINITION PROJECT FILE/DOSSIER DE PROJET DE DÉFINITION DE LA CIB**

<b>PROPOSAL BY:</b> RU <b>PROPOSITION DE :</b>	<b>IPC AREA:</b> C 07 F <b>DOMAINE DE LA CIB :</b>
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<b>ANNEX/ ANNEXE</b>	<b>CONTENT/CONTENU</b>	<b>ORIGIN/ ORIGINE</b>	<b>DATE</b>
1	Proposal / Proposition	RU	12.01
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4	Comments / Observations	SE	12.01
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12	Proposal / Proposition	RU	04.02
13	Comments / Observations	US	05.02
14	Rapporteur proposal / Proposition du rapporteur	RU	09.02
15	Comments / Observations	EP	10.02
16	Comments / Observations	US	10.02

**RAPPORTEUR : RU      TECHNICAL FIELD/DOMAINE TECHNIQUE : C**

<b>ANNEX/ ANNEXE</b>	<b>CONTENT/CONTENU</b>	<b>ORIGIN/ ORIGINE</b>	<b>DATE</b>
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18	Rapporteur report / Rapport du rapporteur	RU	05.03
19	Rapporteur proposal / Proposition du rapporteur	RU	05.03
20	Comments / Observations	EP	05.03
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22	Comments / Observations	GB	05.03
23	Rapporteur report / Rapport du rapporteur	RU	05.03
24	Rapporteur proposal / Proposition du rapporteur	RU	05.03
25	Comments / Observations	EP	05.03



## FEDERAL INSTITUTE OF INDUSTRIAL PROPERTY

<b>RU rapporteur report</b>	
Project : D 025	Date: 10.02.2003
Subclass : C07F	

**Introduction**

Comments have been received from EP, US and DE.

R has taken all the remarks made into account and modified the titles of the sections of the Definition according to the new "Guidelines" approved at the last session of the Revision Working Group. The modified proposal also contains a few changes relating to the section "Relationships". Thus, to improve consistency all the indications to multiple classification were collected under a special subtitle "Multiple classification". Indications to subclasses A01N and A61K were included to illustrate entries covering "the application or use of the compounds under the subclass definition". Also all the references to the current notes in the IPC (in brackets) were removed.

EP comments.

**Limiting references: "modified silica"**

R has studied patent documents relating to modified silica and concluded that such documents might have varied classifications. For example, when it is the coating of silica that is disclosed, classification is made according to the coating; when the things like pore size characterize claimed silica, such document may belong within group C01B 33/00. Many of the like documents may also be classified according to particular application of modified silica (e.g., as a catalyst or a sorbent for chromatography). Group C07F 7/00 appears to be the one where individual compounds that are formed in the process of modification of silica may be found.

Therefore subject matter concerning modified silica is classified in entries that *best describe it*, and R is not sure whether such relationships can be expressed by limiting references.

What we can propose is to introduce the following in the section "Relationships":

*"Subject matter concerning inorganic compounds is classified in Class C01. Thus, for example, when silica modified by organic compounds is not relevant to classification in subclass C07F (for example, when the structure of an organic compound is not disclosed sufficiently), classification may be made in group C01B 33/00".*

**Special Rules of Classification: "C07F 19/00"**

Unfortunately, R cannot take responsibility for exactly defining the scope of this group, since the wording thereof seems to be not quite correct. The wording requires that all the documents to be classified in more than one of the main groups 1/00 to 17/00 are actually to belong within group 19/00. However, as the analysis of the documentation shows, it is not

always followed. Therefore this problem is rather to be considered either in the scope of Revision procedure or, at least, when elaborating Classification definitions for group 19/00.

So far we would simply exclude the respective rule from the Definitions.

Glossary: "metallocene"

R agrees with the proposed definition of "metallocene".

Synonyms and Keywords: "silanole"

R agrees that "silanole" should be "silanol".

**US comments.**

Relationships Between Large Subject Matter Areas

R has revised paragraph 2 so that it reads "classified".

Harmonization of all definition projects concerning class C07

R supports the procedure proposed by US

**DE comments**

DE has no remarks.

M.Sobolev

## **Title - C07F**

**Acyclic, carbocyclic or heterocyclic compounds containing elements other than carbon, hydrogen, halogen, oxygen, nitrogen, sulfur, selenium, or tellurium**

### **Definition Statement**

*This subclass covers:*

Organic (acyclic, carbocyclic, heterocyclic) compounds containing elements only other than or in addition to carbon, hydrogen, halogen, oxygen, nitrogen, sulfur, selenium, or tellurium (e.g. metallo-organic compounds, boron compounds, silicon compounds, phosphorus compounds, arsenic compounds).

The preparation of compounds under the subclass definition including purification, separation, stabilisation or use of additives unless provided for elsewhere, as specified below.

The treatment and modification of compounds under the subclass definition provided that:

- the treatment is not provided for elsewhere and
- the resultant product is a compound under the subclass definition.

### **Relationships Between Large Subject Matter Areas (e.g. Special Rules of Classification Between Subclasses)**

Subclass **C07F** is a function-oriented entry for the compounds themselves and does not cover the application or use of the compounds under the subclass definition. For classifying such information other entries in IPC exist, for example:

Preservation of bodies of humans or animals or plants or parts thereof; Biocides, e.g. as disinfectants, as pesticides, as herbicides; Pest repellants or attractants; Plant growth regulators **A01N**.

Preparations for medical, dental, or toilet purposes **A61K**.

The **last place rule** in whole Class **C07** (thus appearing here as "the last subclass rule") is also effective for this subclass. According to it, e.g. sugar phosphates are classified in group **C07H11/04** as sugars and not in group **C07F9/00** as phosphorus compounds and peptides containing metals are classified in subclass **C07K**.

*Subject matter concerning inorganic compounds is classified in Class **C01**. Thus, for example, when silica modified by organic compounds is not relevant to classification in subclass **C07F** (for example, when the structure of an organic compound is not disclosed sufficiently) classification may be made in group **C01B 33/00**.*

### Multiple classification

Biocidal, pest repellent, pest attractant or plant growth regulatory activity of compounds or preparations is further classified in subclass **A01P**.

Therapeutic activity of compounds is further classified in subclass **A61P**.

## References Relevant to Classification in This Subclass

*This subclass does not cover:*

Metal-containing porphyrins	C07D487/22
Organic acid salts, alcoholates, phenates, chelates or mercaptides, having no elements other than carbon, hydrogen, halogen, oxygen, nitrogen, sulfur, selenium, or tellurium in the parent compounds (attention is drawn to <a href="#">note 5</a> following the title of class <b>C07</b> concerning the rules of classification of these compounds)	C07C C07D
Macromolecular compounds	C08
Products obtained from layered base-exchange silicates by ion-exchange with organic compounds such as ammonium, phosphonium or sulfonium compounds or by intercalation of organic compounds	C01B33/44
Fermentation or enzyme-using processes to synthesise a desired chemical compound or composition or to separate optical isomers from a racemic mixture	C12P
Production of organic compounds by electrolysis or electrophoresis	C25B3/00 C25B7/00

## Informative References

*Attention is drawn to the following places, which may be of interest for search:*

Dyes	C09
Detergent compositions; Use of single substances as detergents	C11D
Fermentation products	C12

## Special Rules of Classification Within This Subclass

In this subclass, in the absence of an indication to the contrary, classification is made in the **last appropriate place**, e.g. ferrocenes and cobaltocenes are classified in group **C07F17/00** and not in group **C07F15/00**

In this subclass, organic acid salts, alcoholates, phenates, chelates or mercaptides are classified as the parent compounds

Salts, adducts or complexes formed between two or more organic compounds are classified according to all compounds forming the salts, adducts or complexes

## Glossary of Terms

In this subclass, the following terms or expressions are used with the meaning indicated:

- alcoholate** product of substitution of hydrogen in hydroxy group of alcohol by metal atom.
- chelate** intracomplex compound i.e. compound containing intramolecular donor-acceptor bonds.
- metallocene** *cyclopentadienyl compound of transitional metal, e.g., ferrocenes, constrained geometry-type compounds.*
- metallo-organic compound or organometallic compound** organic compound containing metal bonded to carbon.
- organic compound** is defined as satisfying one of the following criteria:
- at least two carbon atoms bonded to each other, or
  - one carbon atom bonded to at least one hydrogen atom or halogen atom, or
  - one carbon atom bonded to at least one nitrogen atom by single or double bond.
- Exceptions to the above criteria are: compounds consisting of only carbon atoms (e.g., fullerenes, etc.), cyanogen, cyanogen halides, cyanamide, metal carbides, phosgene, thiophosgene, hydrocyanic acid, isocyanic acid, isothiocyanic acid, fulminic acid, unsubstituted carbamic acid, salts thereof; these exceptions are considered to be inorganic compounds for classification purposes.
- phenate** product of substitution of hydrogen in hydroxy group of phenol by metal atom.
- salt** product of substitution of hydrogen in carboxyl group of acid by ion of metal or other cation.

## Synonyms and Keywords

- arsine** compound having chemical formula  $As_nH_{n+2}$ . (Organic derivatives of arsenic include dichloromethylarsine  $CH_3AsCl_2$ , dimethyldichlorodiarsine  $(CH_3)_2As-AsCl_2$  etc.).
- cacodyl** tetramethyldiarsine  $(CH_3)_2As-As(CH_3)_2$ .
- cacodylic acid** compound having chemical formula  $(CH_3)_2AsOOH$ .
- cyclopentadienyl** (chemical formula)
- fluorenyl** (chemical formula)
- indenyl** (chemical formula)
- phosphine** compound having chemical formula  $P_nH_{n+2}$ . (Organic derivatives of phosphine include dimethylphosphine  $(CH_3)_2PH$  etc.).
- silamine** organic silicon compound containing  $R-SiH_2-NH_2$  bonds.

<b>silane</b>	compound having chemical formula $\text{Si}_n\text{H}_{2n+2}$ . (Organic derivatives of silane include methylmonosilane $\text{CH}_3\text{SiH}_3$ , dimethyldichlorosilane $\text{Si}(\text{CH}_3)_2\text{Cl}_2$ , hexamethyldisilane $(\text{CH}_3)_3\text{Si} - \text{Si}(\text{CH}_3)_3$ etc.).
<b><i>silanol</i></b>	organic silicon compound containing Si – OH bonds, e.g. trimethylsilanole $(\text{CH}_3)_3\text{SiOH}$ , dimethylsilanediol $(\text{CH}_3)_2\text{Si}(\text{OH})_2$ .
<b>silasane</b>	organic silicon compound containing Si – NH – Si bonds.
<b>siliconane</b>	tetraethylsilane
<b>siloxane</b>	organic silicon compound containing Si – O – Si bonds.
<b>siltane</b>	organic silicon compound containing Si – S – Si bonds.
<b>stibine</b>	compound having chemical formula $\text{Sb}_n\text{H}_{n+2}$ . (Organic derivatives of antimony include trimethylstibine $(\text{Sb}(\text{CH}_3)_3)$ , triphenylantimony $(\text{Sb}(\text{C}_6\text{H}_5)_3)$ , etc.).

**Europäisches  
Patentamt****European  
Patent Office****Office européen  
des brevets**

Principal Directorate Tools / Documentation

**Comments**

Project: D025

Subclass: C07F

14 May 2003

We only have a few remarks about the Rapporteur proposal :

- glossary of terms:

alcoholate: --- group of alcohol --- <no e>

organic compound: "bonded" should be replaced by "bound"

- definition of salt: this is not a general definition, maybe it should be modified or deleted.

Anne Glanddier

<b>USPTO COMMENTS</b>	
<b>REVISION PROJECT: D025/01</b>	<b>Date: April 25, 2003</b>
<b>Class/subclass: C07F</b>	

US supports Rapporteur's proposal of Annex 19 with 2 minor changes.

In the Glossary, delete "e" from "alcohol" in the "alcoholate" definition.

Concerning the definition of "salt", R's definition does seem to be to a specific type of salt (carboxylate?) as mentioned by EP in Annex 20. R should either make the definition more general for "salt" or change the term to agree with the existing definition.

EP recommended changing "bonded" to "bound" in the glossary term, "organic compound". Since the term "bonded" is correct, we only see a need for the change if "bound" is more generally used in the IPC.



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**UK Patent Office****Date: 2 May 2003**

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**Comments on Project D025 , Subclass C07F**

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A number of small comments:

- **Delete “e” from “alcohol”**: we agree with US and EP.
- **“Organic compound”**: we think “bonded” is correct, so no changes required.
- **Definition of salt**: the definition is indeed that of a carboxylate salt, not a salt in general. There is no need to define a salt in general. We suggest amending the wording as follows:  
**salt** includes carboxylate salts, i.e. products where the hydrogen in a carboxyl group is replaced by an ion of metal or other cation.
- **Relationships between large subject matter areas**: line 8 should refer to “the last place rule in *the whole of* class C07. Also the “Multiple classification” section at the top of the second page should include an entry for A61Q, under the entry for A61P.
- **Glossary, definition of “organic compound”**: “is defined as satisfying *at least* one of the following criteria.
- **Synonyms and Keywords**: is it clear to have a compound name (e.g. “Cyclopentadienyl”) followed by “(chemical formula)”?
- **Synonyms and Keywords**: “**silasane**” should read “silazane” (“z” instead of “s”).

Martin Price

## FEDERAL INSTITUTE OF INDUSTRIAL PROPERTY

<b>RU rapporteur report</b>	
Project : D 025	Date: 19.05.2003
Subclass : C07F	

*Introduction*

Comments have been received from UK.

*«Organic compound»*

R agrees with UK that the present definition of a salt in essence relates only to carboxylate salts. However, they are not the only organic salts. Thus, there are organic salts of inorganic acids, e.g., HCL. Therefore, R believes that the definition of a salt in general is needed besides that proposed by UK. So the wording could be as follows:

*"Salt – compound consisting of at least one anionic part and at least one cationic part. Carboxylate salts – products where the hydrogen in a carboxyl group is replaced by an ion of metal or other cation".*

*«An entry for A61Q»*

R has inserted the respective entry in a modified proposal.

*Glossary («organic compound»)*

R agrees with UK that «at least» is needed in the definition and supports the change of the wording proposed by UK.

*Synonyms and Keywords*

R feels that compound names followed by their chemical formulae might be helpful as keywords, and to use them a user might as well need to know their meanings. That is why R believes introducing of chemical formulae in the section to be rather important.

*Other points*

R also thanks UK for pointing to a few spelling mistakes, which have been corrected in the modified proposal.

M.Sobolev



## **Title - C07F**

**Acyclic, carbocyclic or heterocyclic compounds containing elements other than carbon, hydrogen, halogen, oxygen, nitrogen, sulfur, selenium, or tellurium**

### **Definition Statement**

*This subclass covers:*

Organic (acyclic, carbocyclic, heterocyclic) compounds containing elements only other than or in addition to carbon, hydrogen, halogen, oxygen, nitrogen, sulfur, selenium, or tellurium (e.g. metallo-organic compounds, boron compounds, silicon compounds, phosphorus compounds, arsenic compounds).

The preparation of compounds under the subclass definition including purification, separation, stabilisation or use of additives unless provided for elsewhere, as specified below.

The treatment and modification of compounds under the subclass definition provided that:

- the treatment is not provided for elsewhere and
- the resultant product is a compound under the subclass definition.

### **Relationships Between Large Subject Matter Areas (e.g. Special Rules of Classification Between Subclasses)**

Subclass C07F is a function-oriented entry for the compounds themselves and does not cover the application or use of the compounds under the subclass definition. For classifying such information other entries in IPC exist, for example:

Preservation of bodies of humans or animals or plants or parts thereof; Biocides, e.g. as disinfectants, as pesticides, as herbicides; Pest repellants or attractants; Plant growth regulators A01N.

Preparations for medical, dental, or toilet purposes A61K.

The **last place rule** in the whole of Class C07 (thus appearing here as "the last subclass rule") is also effective for this subclass. According to it, e.g. sugar phosphates are classified in group C07H11/04 as sugars and not in group C07F9/00 as phosphorus compounds and peptides containing metals are classified in subclass C07K.

*Subject matter concerning inorganic compounds is classified in Class C01. Thus, for example, when silica modified by organic compounds is not relevant to classification in subclass C07F (for example, when the structure of an organic compound is not disclosed sufficiently) classification may be made in group C01B 33/00.*

### Multiple classification

Biocidal, pest repellent, pest attractant or plant growth regulatory activity of compounds or preparations is further classified in subclass [A01P](#).

Therapeutic activity of compounds is further classified in subclass [A61P](#).

*Cosmetic activity of compounds is further classified in subclass [A61Q](#).*

## References Relevant to Classification in This Subclass

*This subclass does not cover:*

Metal-containing porphyrins	<a href="#">C07D487/22</a>
Organic acid salts, alcoholates, phenates, chelates or mercaptides, having no elements other than carbon, hydrogen, halogen, oxygen, nitrogen, sulfur, selenium, or tellurium in the parent compounds (attention is drawn to <a href="#">note 5</a> following the title of class <a href="#">C07</a> concerning the rules of classification of these compounds)	<a href="#">C07C</a> <a href="#">C07D</a>
Macromolecular compounds	<a href="#">C08</a>
Products obtained from layered base-exchange silicates by ion-exchange with organic compounds such as ammonium, phosphonium or sulfonium compounds or by intercalation of organic compounds	<a href="#">C01B33/44</a>
Fermentation or enzyme-using processes to synthesise a desired chemical compound or composition or to separate optical isomers from a racemic mixture	<a href="#">C12P</a>
Production of organic compounds by electrolysis or electrophoresis	<a href="#">C25B3/00</a> <a href="#">C25B7/00</a>

## Informative References

*Attention is drawn to the following places, which may be of interest for search:*

Dyes	<a href="#">C09</a>
Detergent compositions; Use of single substances as detergents	<a href="#">C11D</a>
Fermentation products	<a href="#">C12</a>

## Special Rules of Classification Within This Subclass

In this subclass, in the absence of an indication to the contrary, classification is made in the **last appropriate place**, e.g. ferrocenes and cobaltocenes are classified in group [C07F17/00](#) and not in group [C07F15/00](#)

In this subclass, organic acid salts, alcoholates, phenates, chelates or mercaptides are classified as the parent compounds

Salts, adducts or complexes formed between two or more organic compounds are classified according to all compounds forming the salts, adducts or complexes

## Glossary of Terms

In this subclass, the following terms or expressions are used with the meaning indicated:

- alcoholate** product of substitution of hydrogen in hydroxy group of alcohol by metal atom.
- chelate** intracomplex compound i.e. compound containing intramolecular donor-acceptor bonds.
- metallocene** *cyclopentadienyl compound of transitional metal, e.g., ferrocenes, constrained geometry-type compounds.*
- metallo-organic compound or organometallic compound** organic compound containing metal bonded to carbon.
- organic compound** is defined as satisfying *at least* one of the following criteria:
- at least two carbon atoms bonded to each other, or
  - one carbon atom bonded to at least one hydrogen atom or halogen atom, or
  - one carbon atom bonded to at least one nitrogen atom by single or double bond.

Exceptions to the above criteria are: compounds consisting of only carbon atoms (e.g., fullerenes, etc.), cyanogen, cyanogen halides, cyanamide, metal carbides, phosgene, thiophosgene, hydrocyanic acid, isocyanic acid, isothiocyanic acid, fulminic acid, unsubstituted carbamic acid, salts thereof; these exceptions are considered to be inorganic compounds for classification purposes.

- phenate** product of substitution of hydrogen in hydroxy group of phenol by metal atom.
- salt** *compound consisting of at least one anionic part and at least one cationic part. Carboxylate salts – products where the hydrogen in a carboxyl group is replaced by an ion of metal or other cation".*

## Synonyms and Keywords

- arsine** compound having chemical formula  $As_nH_{n+2}$ . (Organic derivatives of arsenic include dichloromethylarsine  $CH_3AsCl_2$ , dimethyldichlorodiarsine  $(CH_3)_2As-AsCl_2$  etc.).
- cacodyl** tetramethyldiarsine  $(CH_3)_2As-As(CH_3)_2$ .
- cacodylic acid** compound having chemical formula  $(CH_3)_2AsOOH$ .
- cyclopentadienyl** (chemical formula)
- fluorenyl** (chemical formula)
- indenyl** (chemical formula)
- phosphine** compound having chemical formula  $P_nH_{n+2}$ . (Organic derivatives of phosphine include dimethylphosphine  $(CH_3)_2PH$  etc.).
- silamine** organic silicon compound containing  $R-SiH_2-NH_2$  bonds.

<b>silane</b>	compound having chemical formula $\text{Si}_n\text{H}_{2n+2}$ . (Organic derivatives of silane include methylmonosilane $\text{CH}_3\text{SiH}_3$ , dimethyldichlorosilane $\text{Si}(\text{CH}_3)_2\text{Cl}_2$ , hexamethyldisilane $(\text{CH}_3)_3\text{Si} - \text{Si}(\text{CH}_3)_3$ etc.).
<b><i>silanol</i></b>	organic silicon compound containing Si – OH bonds, e.g. trimethylsilanole $(\text{CH}_3)_3\text{SiOH}$ , dimethylsilanediol $(\text{CH}_3)_2\text{Si}(\text{OH})_2$ .
<b>silazane</b>	organic silicon compound containing Si – NH – Si bonds.
<b>siliconane</b>	tetraethylsilane
<b>siloxane</b>	organic silicon compound containing Si – O – Si bonds.
<b>siltane</b>	organic silicon compound containing Si – S – Si bonds.
<b>stibine</b>	compound having chemical formula $\text{Sb}_n\text{H}_{n+2}$ . (Organic derivatives of antimony include trimethylstibine $(\text{Sb}(\text{CH}_3)_3)$ , triphenylantimony $(\text{Sb}(\text{C}_6\text{H}_5)_3)$ , etc.).

**Project: D025      Subclass: C07F**

We approve Rapporteur Proposal of Annex 24.

To come back to our comment of Annex 20 concerning the term "bonded", it appears that in IPC7, "bound" is used over 2000 times, and "bonded" less than 200. Therefore we still suggest that it should be changed.

Anne Glanddier.





IPC/D 026/01  
ORIGINAL: English/French  
DATE: May 14, 2003

**WORLD INTELLECTUAL PROPERTY ORGANIZATION**  
**ORGANISATION MONDIALE DE LA PROPRIÉTÉ INTELLECTUELLE**  
GENEVA/GENÈVE

**COMMITTEE OF EXPERTS OF THE IPC UNION**  
**COMITÉ D'EXPERTS DE L'UNION DE L'IPC**

**IPC DEFINITION PROJECT FILE/DOSSIER DE PROJET DE DÉFINITION DE LA CIB**

<b>PROPOSAL BY:</b> <b>PROPOSITION DE :</b>	<b>IPC AREA:</b> <b>DOMAINE DE LA CIB :</b>
EP	C 10 L

<b>ANNEX/ ANNEXE</b>	<b>CONTENT/CONTENU</b>	<b>ORIGIN/ ORIGINE</b>	<b>DATE</b>
1	Proposal / Proposition	EP	12.01
2	Rapporteur proposal / Proposition du rapporteur	EP	12.01
3	Comments / Observations	CA	12.01
4	Comments / Observations	JP	12.01
5	Comments / Observations	RO	12.01
6	Comments / Observations	SE	12.01
7	Rapporteur report / Rapport du rapporteur	EP	12.01
8	Rapporteur proposal / Proposition du rapporteur	EP	12.01
9	Comments / Observations	US	02.02
10	Comments / Observations	DE	02.02
11	Comments / Observations	RO	02.02
12	Rapporteur report / Rapport du rapporteur	EP	03.02
13	Rapporteur proposal / Proposition du rapporteur	EP	03.02
14	Proposal / Proposition	EP	04.02
15	Comments / Observations	US	05.02
16	Rapporteur report / Rapport du rapporteur	EP	09.02

**RAPPORTEUR : EP      TECHNICAL FIELD/DOMAINE TECHNIQUE : C**

<b>ANNEX/ ANNEXE</b>	<b>CONTENT/CONTENU</b>	<b>ORIGIN/ ORIGINE</b>	<b>DATE</b>
17	Proposal / Proposition	EP	09.02
18	Rapporteur proposal / Proposition du rapporteur	EP	09.02
19	Comments / Observations	RO	10.02
20	Comments / Observations	GB	10.02
21	Comments / Observations	US	10.02
22	Rapporteur report / Rapport du rapporteur	EP	11.02
23	Comments / Observations	US	05.03
24	Rapporteur report / Rapport du rapporteur	EP	05.03
25	Rapporteur proposal / Proposition du rapporteur	EP	05.03

<b>USPTO COMMENTS</b>	
<b>REVISION PROJECT: D026/01</b>	<b>Date: April 25, 2003</b>
<b>Class/subclass: C10L</b>	

US supports the Definition (Annexes 17 and 22) proposal submitted by EP, keeping in mind the needed modification of the section titles based on those adopted by the 8<sup>th</sup> Revision Working Group.

**Europäisches  
Patentamt****European  
Patent Office****Office européen  
des brevets**

Principal Directorate Tools / Documentation

**Rapporteur Report**

Project: D026/01

Subclass: C10L

6 May 2003

To facilitate the approval of project D026, R prepared a new rapporteur proposal which is the synthesis of annexes 17 and 22 and which (thus) takes into account:

- the correction to be made as proposed in annex 22, point 2
- the correction of an “obvious” error: the informative reference in main group C10L11/00 (see annex 17, p.6) pointing to F23K5/08 should be moved to main group C10L1/00.
- The US comments (message part) about the new section titles as approved at WG8.

Concerning the GB comments of 2/5/03 (message part), R intentionally did not add these notes under the rules-section of group C10L1/10, because in the opinion of R, the definition layer – by definition – should give extra information and not just repeat what is already present in IPC itself.

D026ep14r

## **Title – C10L**

**Fuels not otherwise provided for;**

**Natural gas;**

**Synthetic natural gas obtained by processes not covered by subclasses**

**C10G, K;**

**Liquefied petroleum gas;**

**Adding materials to fuels or fires to reduce smoke or undesirable deposits**

**or to facilitate soot removal;**

**Fire-lighters**

## **Definition statement**

*This subclass covers:*

- Compositions which react chemically, usually with oxygen in air, to produce heat in controllable amounts or which are dispersed in air for explosive combustion in an engine or which produce light along with heat upon combustion, i.e. liquid carbonaceous fuels, gaseous fuels, natural gas, synthetic natural gas, liquefied petroleum gas, solid fuels and fuels produced by solidifying fuels
- Treatment of fuels to improve their combustion
- Use of additives to fuels or fires for particular purposes, e.g. for reducing smoke development, for minimising corrosion or incrustation, for facilitating soot removal or for improving the octane number or the low temperature properties of the fuel
- Fire-lighters, i.e. easily-combustible compositions or shaped products which are designed to initiate the combustion of a larger body of fuel and methods or apparatus for their manufacture

## **Relationship between large subject matter areas**

### **References relevant to classification in this subclass**

*This subclass does not cover:*

Explosives or thermic compositions, e.g. fuels for rocket engines intended for reaction with an oxidant other than air	C06B
Fuels for generating pressure gas, e.g. for airbags or for propulsion f rockets	C06D5/00
Cracking hydrocarbon oils, production of liquid hydrocarbon mixtures, e.g. by destructive hydrogenation, oligomerisation or polymerisation, recovery of hydrocarbon oils from oil-shale, oil-sand, or gases, refining mixtures mainly consisting of hydrocarbons and to reforming of naphta	C10G
Mineral waxes	C10G
Production of producer gas, water-gas, synthesis gas from solid carbonaceous	C10J

materials, or mixtures containing these gases or carburetted air or other gases	
Purifying or modifying the chemical compositions of combustible gases containing carbon monoxide	C10K
Candles	C11C
Nuclear reactor fuels	G21C3/00

## Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Synthesis gas produced by decomposition of gaseous or liquid organic compounds, e.g. hydrocarbons	C01B3/22
Generation of gas for blasting	C06D5/00
Hydrocarbons per se	C07C
Cracking or pyrolysis of hydrocarbon gases to individual hydrocarbons or mixtures thereof of definite or specified constitution	C07C
Destructive distillation of carbonaceous materials for producing of gas, coke, tar, or similar materials	C10B
Lubricating compositions	C10M
Arrangements or devices for supplying additives to fuels in combustion engines, e.g.	F02 F02M25/00
Vessels for containing or storing compressed, liquefied or solidified gases	F17C
Liquefying gases or gaseous mixtures by pressure and cold treatment	F25J

## Special rules of classification within this subclass

### Glossary of terms

*In this subclass, the following terms or expressions are used with the meaning indicated:*

**Fire-lighter** easily-combustible composition or shaped product which is designed to initiate the combustion of a larger body of fuel, e.g. briquettes mainly consisting of charcoal

### Synonyms and Keywords

**Title – C10L1/00**

**Liquid carbonaceous fuels**

**Informative references**

*Attention is drawn to the following places, which may be of interest for search:*

Preparation of liquid fuel to be fed to combustion apparatus

**F23K5/08**



**Title – C10L5/00**

**Solid fuels**

**References relevant to classification in this group**

*This subclass does not cover:*

Drying or working of peat, e.g. briquetting

C10F

Solid fuels produced by solidifying fluid fuels

C10L7/00

**Informative references**

*Attention is drawn to the following places, which may be of interest for search:*

Briquetting presses

B30B11/00

## **Title – C10L10/00**

### **Use of additives to fuels or fires for particular purposes**

### **References relevant to classification in this group**

*This subclass does not cover:*

Use of binders for briquetting solid fuels C10L5/10

Use of additives to improve the combustion of solid fuels C10L9/10

### **Informative references**

*Attention is drawn to the following places, which may be of interest for search:*

Additives for liquid carbonaceous fuels characterised by their chemical nature C10L1/10

Arrangements or devices for applying chemicals to fire F23J7/00

**Title – C10L11/00**

**Fire- lighters**

**References relevant to classification in this group**

*This subclass does not cover:*

Matches, manufacture thereof

C06F

Igniters in general, e.g. lighters containing fuel for cigarettes

F23Q





IPC/D 033/01  
ORIGINAL: English/French  
DATE: May 16, 2003

**WORLD INTELLECTUAL PROPERTY ORGANIZATION**  
**ORGANISATION MONDIALE DE LA PROPRIÉTÉ INTELLECTUELLE**  
GENEVA/GENÈVE

**COMMITTEE OF EXPERTS OF THE IPC UNION**  
**COMITÉ D'EXPERTS DE L'UNION DE L'IPC**

**IPC DEFINITION PROJECT FILE/DOSSIER DE PROJET DE DÉFINITION DE LA CIB**

<b>PROPOSAL BY:</b> <b>PROPOSITION DE :</b>	<b>SE</b>	<b>IPC AREA:</b> <b>DOMAINE DE LA CIB :</b>	<b>A 01 H</b>

<b>ANNEX/ ANNEXE</b>	<b>CONTENT/CONTENU</b>	<b>ORIGIN/ ORIGINE</b>	<b>DATE</b>
1	Rapporteur proposal / Proposition du rapporteur	SE	10.02
2	Comments / Observations	US	10.02
3	Rapporteur report / Rapport du rapporteur	SE	11.02
4	Rapporteur proposal / Proposition du rapporteur	SE	11.02
5	Comments / Observations	US	05.03
6	Comments / Observations	JP	05.03
7	Rapporteur proposal / Proposition du rapporteur	SE	05.03
8	Rapporteur report / Rapport du rapporteur	SE	05.03

**RAPPORTEUR : SE      TECHNICAL FIELD/DOMAINE TECHNIQUE : SE**



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# Swedish Patent and Registration Office

IPC Definition Project D033, subclass A01H

November 12th, 2002

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## Rapporteur report

Comments were received from US.

Most of the suggestions made by US have now been incorporated in the proposal.

However, R does not think it is necessary to mention all the main group titles in the definition statement, but has extended the definition of *new plants*.

Carolina Gómez Lagerlöf

## **Title - A01H**

### **New plants or processes for obtaining them; Plant reproduction by tissue culture**

#### **Definition statement**

*This subclass covers:*

- New plants (including multicellular algae, multicellular fungi and lichens).
- Processes for modifying genotypes or phenotypes.
- Plant reproduction by tissue culture techniques.
- Methods or apparatus for producing changes in chromosome number.

#### **Relationship between large subject matter areas**

None

#### **Limiting references**

*This subclass does not cover:*

Mutation or genetic engineering	C12N 15/00
Unicellular algae	C12N 1/12
Fungal micro-organisms	C12N 1/14

#### **Informative references**

*Attention is drawn to the following places, which may be of interest for search:*

Influencing the growth of plants without producing new plants, non-chemically	A01G 7/00
Influencing the growth of plants without producing new plants, chemically	A01N 25/00-65/00

#### **Special rules of classification**

None

#### **Glossary**

None



## **Synonyms and Keywords**

None

USPTO COMMENTS	
<b>REVISION PROJECT: D033/00</b> <b>Class/subclass: A01H</b>	<b>Date: April 25, 2003</b>

US approves the majority of Rapporteur's Annex 4 definition proposal. However, we suggest deletion of the bullet marks in the "**Definition Statement**" and modification of section titles of the definition based on the titles adopted by the 8<sup>th</sup> Revision Working Group.

US also recommends the addition of an explanation of the subject matter proper for A01H versus C12N 15/00 to be placed in "**Relationships between large subject matter areas (e.g., special rules of classification between subclasses)**" section. For example, A01H includes modification of the genotype and phenotype of a whole plant while C12N 15/00 is concerned with modification of the genotype and phenotype of plant cells and tissue...or something like that.

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**Japan Patent Office**

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May 12 , 2003

Project: D033

Subclass:A01H

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**JP Comments on US Comments of Annexes 2 and 5****US Comments of Annex 2**

Regarding the US proposal on the addition of C12N 15/00 to the limiting references, JP does not endorse this opinion because this is unnecessary at present and C12N 15/00 should be excluded from "Limiting reference" section of the definition of subclass A01H.

A reference to C12N 15/00 is described in the title of A01H1/06. We think that the reference of A01H1/06 should be interpreted as that a technology concerning a process of producing mutations should be excluded from the technologies classified in C12N15/00. In view of the present classification, it is hard to regard this reference as a complete preclusion of all technologies concerning modifying genotypes in general from A01H. When we search "A01H1/00 AND C12N15/00" by the [esp@ce](mailto:esp@ce) net and the like, we can find many international documents including US documents.

In addition, A01H5/00 does not exclude any plants created by genetic engineering. According to the existing classification, any plants produced by modifying genotypes are classified in A01H5/00 and C12N15/00 whose documents can be also searched by the [esp@ce](mailto:esp@ce) net and the like.

**US Comments of Annex 5**

Regarding the US proposal about the relationship between A01H and C12N15/00 of "Relationships between large subject matter areas" section, we understand the US concern and will endorse the recommendation if it is clearly indicated that A01H covers differentiated tissues and parts thereof, e.g. leaf and seed, and C12N covers plant cells or cell cultures alone.

As it is found in the title of A01H encompassing "plant" rather than "plant cells," C12N covers microorganisms and cells or cell cultures, e.g. callus, and A01H covers multi-cellular whole plants and differentiated tissue thereof, e.g. leaf and seed. We think the difference between these two places is clearly provided.

Some subject matters concerning processes for producing plants by genetic engineering may multi-classified in both A01H and C12N15/00, but A01H and C12N15/00 are not incoherent since it is possible to provide the technology to create a whole plant from a plant cell produced by modifying genotypes.

## **Title - A01H**

### **New plants or processes for obtaining them; Plant reproduction by tissue culture**

#### **Definition statement**

*This subclass covers:*

New plants (including multicellular algae, multicellular fungi and lichens).

Processes for modifying genotypes or phenotypes.

Plant reproduction by tissue culture techniques.

Methods or apparatus for producing changes in chromosome number.

### **Relationship between large subject matter areas**

Specific mutations prepared by genetic engineering on plant cells or plant tissues are classified in C12N 15/00.

### **Limiting references**

*This subclass does not cover:*

Mutation or genetic engineering	C12N 15/00
Unicellular algae	C12N 1/12
Fungal micro-organisms	C12N 1/14

### **Informative references**

*Attention is drawn to the following places, which may be of interest for search:*

Influencing the growth of plants without producing new plants, non-chemically	A01G 7/00
Influencing the growth of plants without producing new plants, chemically	A01N 25/00-65/00

### **Special rules of classification**

None

## **Glossary**

None

## **Synonyms and Keywords**

None

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# Swedish Patent and Registration Office

IPC Definition Project D033, subclass A01H

May 15, 2003

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## Rapporteur report

Comments were received from US and JP.

US suggested that a reference concerning the difference between A01H and C12N 15 should be included under "Relationships between large subject matter...".

JP agreed to that recommendation but objected to have C12N15 as a limiting reference.

The difference between A01H and C12N is not only that A01H refers to processes for producing mutations on the whole plant, but also that the processes are general processes where the mutations appear randomly. In C12N 15 the processes for producing mutations are more specific and made by genetic engineering.

A explanation about the difference between A01H and C12N has been included under "Relationships..".

R thinks that the reference to C12N should remain as a limiting reference.

Carolina Gómez Lagerlöf



IPC/D 039/02  
ORIGINAL: English/French  
DATE: May 23, 2003

**WORLD INTELLECTUAL PROPERTY ORGANIZATION**  
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GENEVA/GENÈVE

**COMMITTEE OF EXPERTS OF THE IPC UNION**  
**COMITÉ D'EXPERTS DE L'UNION DE L'IPC**

**IPC DEFINITION PROJECT FILE/DOSSIER DE PROJET DE DÉFINITION DE LA CIB**

<b>PROPOSAL BY:</b> <b>PROPOSITION DE :</b>	<b>US</b>	<b>IPC AREA:</b> <b>DOMAINE DE LA CIB :</b>	<b>C12N</b>
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<b>ANNEX/ ANNEXE</b>	<b>CONTENT/CONTENU</b>	<b>ORIGIN/ ORIGINE</b>	<b>DATE</b>
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15	Comments / Observations	DE	05.03

**RAPPORTEUR : US      TECHNICAL FIELD/DOMAINE TECHNIQUE : C**





<b>USPTO RAPPORTEUR REPORT</b>	
IPC Revision WG – Definition Project- D039/01 - Subclass C12N	Date: April 7, 2003

Comments were received from EP (Annex 10) and UK (Annex 11) on Rapporteur's Proposal (Annex 9) for the definition of Subclass C12N.

EP and UK requested that "undifferentiated" be removed from prior to "human, animal, or plant cells". As mentioned in Annex 8, R took this language from C12, notes (2) and (3), but based on the comments of EP and UK, will remove it from the "Special rules" section (paragraphs 2 and 3) as well as our glossary definition of micro-organism.

R added a statement under "Relationships between large subject matter areas (e.g., special rules of classification between subclasses)" which reflects the existence of indexing scheme C12R. This scheme is part of project H024 and the recommendation by the Rapporteur of this project was to retain it as an indexing scheme. Three commenting offices agreed. Therefore, R decided to include the statement in our final definition proposal.

R modified the section titles based on those adopted at the 8<sup>th</sup> Revision Working Group.

These changes should put C12N in condition for approval.

<b>USPTO RAPPORTEUR PROPOSAL</b>	
IPC Revision WG – Definition Project-D039/01, Subclass C12N	Date: April 7, 2003

**Title – C12N**

**Micro-organisms or enzymes;  
Compositions thereof;  
Propagating, preserving, or maintaining micro-organisms;  
Mutation or genetic engineering; culture media**

**Definition statement**

*This subclass covers:*

Micro-organisms (e.g. protozoa, bacteria, fused plant cells, hybridomas, viruses) and enzymes or proenzymes and compositions containing micro-organisms and enzymes or proenzymes.

Processes for preparing, activating, inhibiting, separating, or purifying enzymes.

Treatment of micro-organisms or enzymes with electrical or wave energy.

Processes of reproducing, maintaining, or preserving microorganisms or compositions thereof.

Processes of preparing or isolating a composition containing micro-organisms.

Preparing mutants and screening processes therefor.

Processes of fusing two or more cells to each other.

Recombinant DNA-technology including:

- processes for manipulating genetic material;
- processes of preparing, isolating and purifying nucleic acids;
- methods for the introduction of genetic material into microorganisms using vectors or other expression systems, using micro-encapsulation, using micro-injection, and other ways;
- methods of regulating gene expression;
- genes, per se; and
- vectors and expression systems, per se.

Media for supporting or sustaining the growth of micro-organisms.

## **Relationships between large subject matter areas (e.g., special rules of classification between subclasses)**

Biocidal, pest repellent, pest attractant or plant growth regulatory activity of compounds or preparations containing micro-organisms and enzymes is classified in subclass [A01P](#).

Therapeutic activity of compounds containing micro-organisms, single cell proteins, or enzymes, is classified in subclass [A61P](#).

The use of cosmetics or similar toilet preparations containing micro-organisms or enzymes is classified in subclass [A61Q](#).

It is desirable to add the indexing codes of subclass C12R for micro-organisms which are considered to be of interest for search.

## **References relevant to classification in this subclass (group)**

*This subclass does not cover:*

Compositions and use of the compositions and compounds for preservation of bodies of humans or animals or parts thereof	<a href="#">A01N1/00</a>
Compositions and use of the compositions and compounds for preservation of plants or parts thereof	<a href="#">A01N3/00</a>
Biocides, pest repellents or attractants or plant growth regulators containing micro-organisms, viruses, microbial fungi, enzymes, fermentates, or substances produced by, or extracted from, micro-organisms or animal material	<a href="#">A01N63/00</a>
Bakery products which may contain micro-organisms or enzymes	<a href="#">A21D10/00</a> <a href="#">A21D13/00</a>
Foods or foodstuffs containing micro-organisms or enzymes	<a href="#">A23</a>
Body treating or pharmaceutical preparations containing micro-organisms or enzymes	<a href="#">A61K</a>
Medicinal preparations containing nucleic acids	<a href="#">A61K</a> <a href="#">31/7088</a>
Medicinal preparations containing genetic material for gene therapy	<a href="#">A61K48/00</a>
Bandages, dressings or absorbent pads for physiological fluids containing micro-organisms	<a href="#">A61L15/36</a>
Bandages, dressings or absorbent pads for physiological fluids containing enzymes	<a href="#">A61L15/38</a>
Biological compost	<a href="#">C05F9/04</a>
Organic fertilizers containing added bacterial cultures, mycelia or the like	<a href="#">C05F11/08</a>
Nucleic acids not used in recombinant technology and their chemical preparation	<a href="#">C07H21/00</a>
Enzyme containing detergent compositions	<a href="#">C11D</a>

## Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Plants and processes of obtaining them	A01H
New breeds of animals	A01K67/00
Compositions, characterized by the use of bacteria, which are used to enhance recovery of hydrocarbons from underground formations	C09K8/582

## Special rules of classification within this subclass (group)

In the absence of an indication to the contrary, classification is made in the [last appropriate place](#).

In this subclass, viruses, human, animal, or plant cells, protozoa, tissues, and unicellular algae are considered as micro-organisms.

In this subclass, unless specifically provided for, human, animal or plant cells, protozoa, tissues and unicellular algae are classified together with micro-organisms. Sub-cellular parts, unless specifically provided for, are classified with the whole cell.

## Glossary of terms

*In this subclass, the following terms or expressions are used with the meaning indicated:*

- Enzyme** proteinaceous materials, which cause a chemical change in a starting material without being consumed in the reaction.
- Genetic Engineering** technology used to alter the hereditary apparatus or gene structure of a living cell so that the cell can produce more or different chemicals, or perform completely new functions.
- Maintaining** supporting or sustaining growth or metabolic activity of micro-organisms
- Micro-organism** consists of bacteria, actinomycetales, fungi (e.g., yeast), virus, human, animal, or plant cells, tissues, protozoa, and unicellular algae.
- Mutation** any change that alters the sequence of bases along the DNA thereby changing the genetic material of a microorganism.
- Preserving** rendering micro-organisms reversibly dormant
- Proenzyme** an enzyme precursor
- Recombinant DNA Technology** techniques for cutting apart and splicing together pieces of DNA from the same or different sources.

**Single-cell protein** protein derived from microorganisms, usually bacteria or yeast, that are cultivated on a suitable medium and then harvested and processed for use as a food for livestock or humans. For example, blue-green bacterium Spirulina is processed and sold as a protein-rich health food.

**Vector** a DNA sequence (e.g., plasmid, phage DNA) which may be employed to introduce a foreign gene into a host cell and is able to replicate autonomously in the host cell

## **Synonyms and Keywords**

NONE

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**Japan Patent Office**

May 8 , 2003

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Project: D039Subclass:C12N

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**JP Comments on Rapporteur Report of Annex 12**

JP agrees with Rapporteur Report of Annex 12 except one point.

Regarding the removal of term “undifferentiated” from the glossary definition of microorganism, JP understands the problem caused by a strict interpretation of “undifferentiated” pointed out by EP, and JP proposes to change the term “tissue” into “cell culture” in addition to this removal of “undifferentiated.”

The term “undifferentiated” basically means a collection of cells that is not functionalized or systematized yet. In this sense, undifferentiated tissue implies cell culture, e.g. plant callus, rather than differentiated plant tissue, e.g. a leaf.

However, the term “tissue” without “undifferentiated” would be a collection of cells that is already functionalized or systematized. We afraid that undifferentiated plant tissue ordinary classified in A01H or differentiated cutaneous tissue on a scaffold which should belong to prosthesis (A61L) would be covered by C12N and the boundary between C12N and other classifications places would become unclear as a result.

We propose to change the term “tissue” into “cell culture” to keep C12N consistent with other classifications.

<b>DEUTSCHES PATENT- UND MARKENAMT</b> German Patent and Trade Mark Office	Class/Subcl.: <b>C 12 N</b>
	Date : 21. May 2003
<b>DE - Comments — D39/01</b>	

**Re: Definition Project D039/01**

In accordance with JP we think that under „Glossary of terms“ in the explanation of a „micro-organism“ the term „tissue“ should be changed into „cell culture“, because of the reasons mentioned by JP in Annex 14.

In addition we would welcome to add under “Informative references” subclass E21B 43/22 (“Use of chemical and bacterial activity”), because in C09K 8/582 there is no reference to this subclass and E21B 43/22 deals as well with bacteria and could be therefore of interest for search.







IPC/D 040/02

ORIGINAL: English/French

DATE: May 23, 2003

**WORLD INTELLECTUAL PROPERTY ORGANIZATION**  
**ORGANISATION MONDIALE DE LA PROPRIÉTÉ INTELLECTUELLE**  
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**COMMITTEE OF EXPERTS OF THE IPC UNION**  
**COMITÉ D'EXPERTS DE L'UNION DE L'IPC**

**IPC DEFINITION PROJECT FILE/DOSSIER DE PROJET DE DÉFINITION DE LA CIB**

<b>PROPOSAL BY:</b> <b>PROPOSITION DE :</b>	<b>US</b>	<b>IPC AREA:</b> <b>DOMAINE DE LA CIB :</b>	<b>C12P</b>
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<b>ANNEX/ ANNEXE</b>	<b>CONTENT/CONTENU</b>	<b>ORIGIN/ ORIGINE</b>	<b>DATE</b>
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**RAPPORTEUR : US**

**TECHNICAL FIELD/DOMAINE TECHNIQUE :**

**C**



<b>USPTO RAPPORTEUR REPORT</b>	
IPC Revision WG – Definition Project-D040/01 - Subclass C12P	Date: April 7, 2003

Comments were received from EP (Annex 10) and UK (Annex 11) on Rapporteur's Proposal (Annex 9) for the definition of Subclass C12P.

### **Glossary**

EP and UK requested that “undifferentiated” be removed from the definition of “microorganism.” As mentioned in Annex 8, R took the language for this definition from C12, notes (2) and (3), but based on the comments from EP and UK, will remove it from our glossary definition.

R moved the statement “If a particular reaction is considered of interest, it may also be classified in the relevant chemical compound class, e.g., C07, C08.” from the “Special rules of classification within this subclass (group)” section to “Relationships between large subject matter areas (e.g., special rules of classification between subclasses)”.

R also added a statement under this “Relationships” section that reflects the existence of indexing scheme C12R. This scheme is part of project H024 and the recommendation by the Rapporteur of this project was to retain it as an indexing scheme. Three commenting offices agreed. Therefore, R decided to include the statement in our final definition proposal.

R modified the section titles based on those adopted at the 8<sup>th</sup> Revision Working Group.

These changes should put C12P in condition for approval.

<b>USPTO RAPPORTEUR PROPOSAL</b>	
IPC Revision WG – Definition Project-D040/01, Subclass C12P	Date: April 7, 2003

**Title – C12P**

**Fermentation or enzyme-using processes to synthesise a desired chemical compound or composition or to separate optical isomers from a racemic mixture**

**Definition statement**

*This subclass covers:*

Processes wherein the product (compound or composition) is synthesized by a biochemical transformation of matter performed by using enzymes or micro-organisms.

Processes of separating enantiomers (optical isomers) from a racemic mixture by using enzymes or micro-organisms.

Explanatory Note:

This subclass covers both major and minor chemical modifications.

**Relationships between large subject matter areas (e.g., special rules of classification between subclasses)**

If a particular reaction is considered of interest, it may also be classified in the relevant chemical compound class, e.g., C07, C08.

Processes using enzymes or micro-organisms which are already provided for in other subclasses are also classified in C12S when considered relevant for search purposes.

It is desirable to add the indexing codes of subclass C12R for micro-organisms which are considered to be of interest for search.

**References relevant to classification in this subclass (group)**

*This subclass does not cover:*

Treating dough with micro-organisms

A21D8/04

Processes for treating foods or foodstuffs with micro-organisms

A23

Production of methane by anaerobic treatment of sludge	C02F11/04
Preparation of fertilisers characterized by a composting step	C05F17/00
Fermentation processes for beer production	C12C11/00
Fermentation processes for wine making	C12G1/00
Fermentation processes for preparing other alcoholic beverages	C12G3/00
Pasteurisation, sterilisation, preservation, purification, clarification, ageing of alcoholic beverages or removal of alcohol therefrom involving enzymes	C12H1/15
Preparing vinegar by fermentation of starting materials	C12J
Processes of preparing enzymes	C12N9/00
DNA or RNA concerning genetic engineering, vectors, e.g. plasmids, or their isolation, preparation or purification	C12N15/00

## Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Methods of preparing compounds without using enzymes or micro-organisms	C01 C07 C08
Methods for enhanced recovery of hydrocarbons using bacteria	E21B43/22

## Special rules of classification within this subclass (group)

In the absence of an indication to the contrary, classification is made in the last appropriate place.

Group **C12P 1/00** covers general processes using micro-organisms or enzymes for preparing compounds or compositions and processes using micro-organisms or enzymes for producing compositions and compounds not sufficiently identified to be classified in groups **C12P 3/00** to **C12P 37/00**. Compounds identified only by their empirical formulae are not considered to be sufficiently identified to be classified in groups **C12P 3/00** to **C12P 37/00**.

In this subclass, sub-cellular parts of micro-organisms, unless specifically provided for elsewhere, are classified with the whole cell

In this subclass:

- metal or ammonium salts of a compound are classified as that compound.
- compositions are classified in the relevant compound groups.

## Glossary of terms

*In this subclass, the following terms or expressions are used with the meaning indicated:*

**Micro-organism** consists of bacteria, actinomycetales, fungi (e.g., yeast), virus, human, animal, or plant cells, tissues, protozoa, and unicellular algae.

**Synthesized or Synthesis** involves the preparation of a compound or composition which did not exist in the starting material, and does not include an ancillary operation wherein a material is chemically modified by an enzyme or micro-organism so as to degrade or change the chemical structure thereof so that another material which is in initial intimate contact with the modified material can be recovered in a non-modified form.

## **Synonyms and Keywords**

NONE

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**Japan Patent Office**

May 8 , 2003

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Project: D040Subclass:C12P

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**JP Comments on Rapporteur Report of Annex 12**

JP agrees with Rapporteur Report of Annex 12 except one point.

Regarding the removal of term “undifferentiated” from the glossary definition of microorganism, JP understands the problem caused by a strict interpretation of “undifferentiated” pointed out by EP, and JP proposes to change the term “tissue” into “cell culture” in addition to this removal of “undifferentiated.”

The term “undifferentiated” basically means a collection of cells that is not functionalized or systematized yet. In this sense, undifferentiated tissue implies cell culture, e.g. plant callus, rather than differentiated plant tissue, e.g. a leaf.

However, the term “tissue” without “undifferentiated” would be a collection of cells that is already functionalized or systematized. We afraid that undifferentiated plant tissue ordinary classified in A01H or differentiated cutaneous tissue on a scaffold which should belong to prosthesis (A61L) would be covered by C12N and the boundary between C12N and other classification places would become unclear as a result.

We propose to change the term “tissue” into “cell culture” to keep a consistency in class C12.

<b>DEUTSCHES PATENT- UND MARKENAMT</b> German Patent and Trade Mark Office	Class/Subcl.: <b>C 12 P</b>
	Date : 21. May 2003
<b>DE - Comments — D40/01</b>	

**Re: Definition Project D40 /01**

We support the Rapporteur Proposal of Annex 13, but we are in agreement with JP, that „tissue“ is not the right term in connection with “undifferentiated cells”.

Therefore we would welcome to change “tissue” into “cell culture” like it was proposed by JP in Annex 14.