

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

**CHEMICAL FIELD/  
DOMAINE DE LA CHIMIE**





IPC/D 001/00  
ORIGINAL: English/French  
DATE: November 15, 2002

**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>A 01 N</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
2	Comments / Observations	EP	12.01
3	Comments / Observations	SE	12.01
4	Comments / Observations	JP	12.01
5	Rapporteur report / Rapport du rapporteur	US	12.01
6	Rapporteur proposal / Proposition du rapporteur	US	12.01
7	Comments / Observations	EP	02.02
8	Comments / Observations	RU	02.02
9	Comments / Observations	DE	02.02
10	Rapporteur report / Rapport du rapporteur	US	03.02
11	Rapporteur proposal / Proposition du rapporteur	US	03.02
12	Proposal / Proposition	US	04.02
13	Comments / Observations	FR	06.02
14	Decision of the Working Group / Décision du groupe de travail	IB	08.02
15	Rapporteur report / Rapport du rapporteur	US	09.02
16	Rapporteur proposal / Proposition du rapporteur	US	09.02

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

<b>ANNEX/ ANNEXE</b>	<b>CONTENT/CONTENU</b>	<b>ORIGIN/ ORIGINE</b>	<b>DATE</b>
17	Comments / Observations	EP	10.02
18	Comments / Observations	RU	11.02
19	Comments / Observations	DE	11.02
20	Rapporteur report / Rapport du rapporteur	US	11.02
21	Rapporteur proposal / Proposition du rapporteur	US	11.02

**USPTO RAPPORTEUR REPORT**IPC Revision WG – Definition Project-  
D001/00 - Subclass A01N

Date: September 15, 2002

**Introduction**

Based on general recommendations by the Definitions Task Force, Rapporteur has reformatted the A01N definition. R has also made changes based on specific recommendations (Annex 14) made by the Task Force.

**Comments**

The Task Force requested that R consider splitting A01N into several subclasses and make a recommendation for a revision project(s). Though this request seems beyond the scope of the definition project task and appropriate only as a possible suggestion for the advanced level to investigate, R can make suggestions. These suggestions are not based on actual patent document review.

Though it would require a major review of patent documents to create a scheme and also reclassification of these documents, plant growth regulators and herbicides could be separated out as a subclass in a manner similar to the USPC. It would also seem logical to add the plant preservation subject matter (3/00) to this same subclass. It would appear to R that the subject matter of 1/00 could be easily separated from the rest of A01N as a subclass of its own or perhaps this subject matter could be added to another existing subclass such as A61K.

In the USPC, some of these subject matter areas have already been placed in different US classes. Class 504 is the place for herbicides, plant growth regulators, and cut flower preservation. Other biocide compositions such as disinfectants, bactericides, fungicides, pesticides, etc., are mostly found in class 424 or class 514 as well as embalming and undertaking compositions, and some pest attractants and repellents. Class 435 has a classification place for preservation of living differentiated tissue.

Concerning the “Explanatory Notes” at the end of the Definition Statement in Annex 11, R did as recommended by the Task Force, except for putting Note 2 under the glossary. R doesn’t believe this is appropriate for a glossary term since “foodstuff” is not being defined. Instead the note says “a foodstuff is not considered to be an active ingredient.” If this cannot be put in an explanatory note, it would seem more appropriate for the “Special Rules” section. The Task Force made no recommendation for Note 1 so that was also included under the “Special Rules” section.

In the third paragraph of the Special Rules of Classification of Annex 11, the use of the term “alternatively” was questioned. R believes “alternatively” is the correct term to use in that it means a “choice between two or more things.” The meaning of this rule is that if a compound has a part of its formula which can be either A, B, or C, then the compound should be classified into each main group covering A, B, or C.

The rest of the Task Force’s recommendations have been incorporated into the new proposal.

<b>USPTO RAPPORTEUR PROPOSAL</b>	
IPC Revision WG – Definition Project-D001, Subclass A01N	Date: September 15, 2002

## **Title - A01N**

**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**

## **Definition statement**

*This subclass covers:*

Compositions, physical forms thereof, and the application or method of use of specific materials, compositions, or single compounds for the following purposes:

- Preserving or preventing the decay of dead human or animal bodies or parts thereof
- Preserving living parts of human or animal bodies
- Preserving or maintaining the freshness of plants or plant parts
- Destroying living organisms (e.g., insects, weeds, micro-organisms) other than for medical, dental or toilet purposes
- Repelling (i.e., resisting, warding off) or luring pests
- Affecting plant (terrestrial or aquatic) growth through a chemical modification of the metabolism of plants (e.g., auxins) brought about by plant growth regulators rather than by supplying nutrients, i.e., plant food, ordinarily required for growth or by preventing or curing mineral deficiencies (e.g., by addition of iron chelates to cure iron chlorosis).

Compositions used to protect the wound and scions of newly grafted plants or to cover the wounds on pruned plants (i.e., grafting wax).

Chemical agents used for the sexual sterilization of invertebrates (e.g., insects).

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

NONE

## **Limiting references**

*This subclass does not cover:*

Preventing the spoilage of particular foods that are to be eaten	A23B
Preservation or chemical ripening of fruit or vegetables	A23B7/00
Preservation of materials to produce animal feeding-stuff	A23K3/00
Preservation of foods or foodstuffs in general, e.g. pasteurising, sterilising, specially adapted for foods or foodstuffs	A23L3/00
Sex sterilants for animals other than invertebrates	A61K
Chemical agents brought into direct contact with the skin of living human or animal bodies for affording protection against insect bites or stings	A61K8/00
Compositions having a nutrient action on plant growth and substances which prevent or cure mineral or plant food deficiencies	C05

## Informative references

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

Plant grafting	A01G1/06
Devices for preserving flowers	A01G5/06
Electric or magnetic treatment of plants for promoting growth	A01G7/04
Sterilizing soil by steam	A01G11/00
Protecting plants (e.g. protective covers, devices for generating heat, smoke or fog, devices protecting against animals)	A01G13/00
Means for catching or killing insects	A01M1/00 A01M3/00 A01M5/00
Apparatus for destroying vermin in soil or food stuffs	A01M17/00
Apparatus for the destruction of vegetation	A01M21/00
Scaring devices (e.g., bird-scaring apparatus)	A01M29/00
Hunting decoys	A01M31/06
Compositions for medical, dental or toilet purposes, processes of preparing the compositions, or processes of treating using the compositions or single compound	A61K
Drug or other biological compositions which are capable of preventing, alleviating, treating or curing abnormal or pathological conditions of the living body or maintaining, increasing, decreasing, limiting, or destroying a physiological body function, e.g. vitamin compositions, sex sterilants, or the like	A61K9/00 A61K31/00 A61K33/00 A61K35/00 A61K38/00 A61K39/00 A61K41/00 A61K45/00

	A61K47/00
	A61K48/00
	A61K51/0
Body treating compositions generally intended for deodorising, protecting, adorning or grooming a body, e.g. cosmetics, dentifrices, tooth filling materials	A61K6/00 A61K8/00
Medicinal preparations containing materials from mammals or birds, e.g. blood, sperm	A61K35/12
Medicinal preparations containing materials from animals other than mammals or birds, e.g. snakes, insects	A61K35/56
Preparations for <u>in vivo</u> diagnosing	A61K49/00 A61K51/0
Methods or apparatus for disinfection or sterilization of materials not characterized by the agent employed	A61L2/00 A61L9/00 A61L11/00 A61L12/00
Inorganic compounds, per se	C01
Organic compounds, per se	C07 C08
Paints containing biocides, e.g. fungicides, insecticides, pesticides	C09D5/14
Anti-fouling paints and underwater paints	C09D5/16
Soil-conditioning materials or soil-stabilizing materials	C09K17/00
Undifferentiated human, animal or plant cells or tissues and their cultivation and maintenance	C12N5/00
Biocidal agents, e.g., fungicidal, bactericidal, or insecticidal agents which are in or on paper	D21H21/36

## Special rules of classification

Attention is drawn to the definitions of groups of chemical elements following the title of section C.

In groups 27/00 to 65/00, in the absence of an indication to the contrary, classification is made in the [last appropriate place](#) for an active ingredient.

Where a compound is described as existing in tautomeric forms, it is classified as if existing in the form which is classified last in the system.

Compounds that are covered by different main groups because of *alternatively* specified functional groups or other structural features of their formulae are classified in each relevant main group.



Salts formed between two or more organic compounds are classified as the compound providing the essential ion and is also classified as the compound providing the other ion.

Salts or metal chelates of an organic compound are classified as the compound.

In this subclass, a foodstuff is not considered to be an active ingredient.

Different materials applied in sequence, at different times, are considered to be a mixture of all materials employed.

Synergistic or potentiated compositions are classified as if the synergist or potentiator is an active ingredient.

In groups 25/00 to 65/00, the symbol X means nitrogen, oxygen, sulfur or a halogen; Y means nitrogen, oxygen or sulfur. A dotted line between atoms indicates an optional bond, e.g., .... indicates one or two single bonds or a double bond.

## Glossary

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

**Biocide** any substance or mixture of substances intended for preventing, destroying, or mitigating any living organism (e.g., plant, animal).

**Disinfectant** any substance or mixture of substances intended for preventing, destroying, or mitigating microorganisms.

**Herbicide** any substance or mixture of substances intended for preventing or destroying plant life or making it less harmful.

**Pesticide** any substance or mixture of substances intended for preventing or destroying any pest (e.g., insects, rodents) or making it less harmful.

**Plant growth regulator** materials which alter the plant through a chemical modification of the plant metabolism, such as auxins.

## Synonyms and Keywords

**Fungicide** any substance or mixture of substances intended for preventing or destroying molds and fungi or making them less harmful.

**Insecticide** any substance or mixture of substances intended for preventing or destroying insects or making them less harmful.



**Project: D001/00    Subclass: A01N**

Re: Proposal of Annex 16

We generally agree with the proposal but would like to make a few remarks:

- *Definition statement:*

\$ Instead of "Destroying living organisms ---" we would prefer:  
"Killing or preventing the growth or proliferation of unwanted organisms (e.g., insects, weeds, micro-organisms) other than for medical, dental or toilet purposes"

This would make it clear that fungistatic activity is also included.

We think that the last part of the sentence "other than for medical, dental or toilet purposes" should be transferred to the limiting references.

\$ "Affecting plant growth--- "

We think that this is partly a description of the meaning of plant regulator, which should perhaps appear in the glossary and also as a the limiting reference to C05C.

- *Relationship between large subject matter areas:*

We wonder whether the references to C01, C07 and C08 should not be there instead of in the limiting references.

- *Limiting references:*

The references to A23B , A23K3/00 and A23L3/00 could perhaps be combined under:  
"Preservation of food or foodstuff                  A23"

The reference to A23B7/00 can be maintained because it refers to chemical ripening. However, the word "harvested" should be inserted before fruit to make it clear the pre-harvested treatment is classified in A01N (plant growth regulation).

- *Informative references:*

"Compositions for medical, dental or toilet purposes ---" should be a limiting reference.  
Pharmaceutical compositions containing for example antibacterials are biocidal but not classified in A01N-

- *Glossary:*

We do not think that there is a need to define biocide, disinfectant, herbicide or pesticide. The only difference with the common usage of these terms is that the activity is not restricted to killing only.  
The incorporation of a broader meaning in this sense in the definition could avoid the repetition.

- *Synonyms and Keywords:*

We think that the paragraphs for fungicide and insecticide should belong in the glossary. Useful keywords can in fact be found in A01P.

Answer to the question asked by FR in Annex 13:

We think that pests control by means of other animals should be classify in A01N63/00.

Compositions for medical, dental or toilet purposes,  
Re: Proposal of Annex 12:

We agree with the sequence of the main groups as proposed by US.

Anne Glanddier.

**FEDERAL INSTITUTE OF INDUSTRIAL PROPERTY**

<b>RU comments</b>	
<b>Project : D 001</b>	<b>Date: 4.11.2002</b>
<b>Class/Subclass : A01N</b>	

We agree with the Definition proposed by the USPTO in general. Our remarks are following:

1. It seems that the section "Relationship" should be stated similarly to that in A61K Definition, i.e., there is relationship between A01N and A01P (?), A61K, C01, C07, C08, C12N (subclass A01P is missing in the proposed Definition).

2. In our opinion, it is sufficient to have an informative reference to subclass A61K only instead of several references to its entries.

We are not quite sure if references to A61K 35/12, 35/56, 49/00, 51/00 are necessary.

We agree with the sequence of the main groups as proposed by USPTO.

M.Sobolev

<b>DEUTSCHES PATENT- UND MARKENAMT</b> German Patent and Trade Mark Office	Class/Subcl.: <b>A01N</b>
	Date : 31/10/2002
<b>DE - Comments — D001/00</b>	

We support the solution proposed by the US in Annex 12 and 16 and have no further comment on the proposal.

Martina Fritzsche

<b>USPTO RAPPORTEUR REPORT</b>	
IPC Revision WG – Definition Project- D001/00 - Subclass A01N	Date: November 12, 2002

Comments were received from FR (Annex13), EP (Annex 17), RU (Annex 18) and DE (Annex 19) on Rapporteur's definition proposal of Annex 16 and subclass index proposal of Annex 12.

FR submitted a general question concerning the classification location for subject matter including pest control by other animals. FR would like clarification and if it is decided this subject matter should go in A01N, in particular 63/00, a title change may be required as well as inclusion of this subject matter in the definition.

EP believes this subject matter is proper for A01N 63/00.

Rapporteur does not believe it is obvious from the title that pest control using animals is classified in A01N 63/00. R agrees with FR that clarification is needed and a possible title change may be necessary. R welcomes the opinions of other members of the Revision group.

DE supports the solutions proposed by R in Annexes 12 and 16 and has no further comments. EP and RU agree with the sequence of main groups proposed by R in Annex 12.

#### **Definition statement**

EP recommended wording changes to bullet 4 which R has made.

EP believes the wording used in bullet 6, 'Affecting plant growth....' should appear in the glossary and as a limiting reference to C05C. R is not certain we completely understand the changes suggested by EP, but we have made an attempt to incorporate them.

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

EP and RU made suggestions for subclasses we should include in this section and for limiting references they believe would go better in this section. R has included most of these suggestions in the new proposal.

#### **Limiting references**

EP recommended combining the references relating to food preservation and additional clarifying wording for A23B 7/00. R agrees and has made these changes.

#### **Informative references**

EP believes the reference to A61K (Compositions for medical, dental, or toilet purposes...) should be included under limiting references. Since R already has A61K under limiting references, R will add the additional wording proposed by EP to the reference.

RU suggested ways of simplifying certain parts of the informative references. R has modified this section accordingly.

#### **Glossary**

EP does not see the need for defining several of the terms listed in the glossary. R incorporated these terms into the glossary upon the request of RU and believes they are helpful. Therefore, R would like to keep these terms in the glossary.

### **Synonyms and Keywords**

EP believes the terms “fungicide” and “insecticide” belong in the glossary rather than in this section. R agrees with EP. R would prefer to have these terms in the glossary, however the Guidelines for drafting subclass definitions appear to imply that the Glossary section is only for terms that are found in the titles or definition statements of the subclasses. Neither of these terms is stated in the subclass titles or definition statement (other than being in this section). This is why we put them under keywords and synonyms.

EP mentioned the presence of useful keywords in A01P. R will add some of these to the modified proposal along with definitions.

<b>USPTO RAPPORTEUR PROPOSAL</b>	
IPC Revision WG – Definition Project-D001, Subclass A01N	Date: November 12, 2002

## **Title - A01N**

**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**

## **Definition statement**

*This subclass covers:*

Compositions, physical forms thereof, and the application or method of use of specific materials, compositions, or single compounds for the following purposes:

- Preserving or preventing the decay of dead human or animal bodies or parts thereof
- Preserving living parts of human or animal bodies
- Preserving or maintaining the freshness of plants or plant parts
- Killing or preventing the growth or proliferation of unwanted organisms (e.g. insects, weeds, micro-organisms)
- Repelling (i.e., resisting, warding off) or luring pests
- Affecting plant (terrestrial or aquatic) growth through a chemical modification of the metabolism of plants (e.g., auxins) brought about by plant growth regulators rather than by supplying nutrients, i.e., plant food, ordinarily required for growth or by preventing or curing mineral deficiencies (e.g., by addition of iron chelates to cure iron chlorosis).

Compositions used to protect the wound and scions of newly grafted plants or to cover the wounds on pruned plants (i.e., grafting wax).

Chemical agents used for the sexual sterilization of invertebrates (e.g., insects).

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

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

When biocides, pest repellents, pest attractants or plant growth regulators are compounds or contain compounds which are considered to be invention information or considered to be of interest, the compounds are classified in C01, C07, C08, or C12N.



## Limiting references

*This subclass does not cover:*

Preservation of food or foodstuff, e.g. pasteurising, sterilising	A23B A23K3/00 A23L3/00
Preservation or chemical ripening of harvested fruit or vegetables	A23B7/00
Sex sterilants for animals other than invertebrates; Compositions for medical, dental or toilet purposes which kill or prevent the growth or proliferation of unwanted organisms	A61K
Compositions having a nutrient action on plant growth (e.g. affect plant growth) and substances which prevent or cure mineral or plant food deficiencies	C05

## Informative references

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

Plant grafting	A01G1/06
Devices for preserving flowers	A01G5/06
Electric or magnetic treatment of plants for promoting growth	A01G7/04
Sterilizing soil by steam	A01G11/00
Protecting plants (e.g. protective covers, devices for generating heat, smoke or fog, devices protecting against animals)	A01G13/00
Means for catching or killing insects	A01M1/00-5/00
Apparatus for destroying vermin in soil or food stuffs	A01M17/00
Apparatus for the destruction of vegetation	A01M21/00
Scaring devices (e.g., bird-scaring apparatus)	A01M29/00
Hunting decoys	A01M31/06
Methods or apparatus for disinfection or sterilization of materials not characterized by the agent employed	A61L2/00-12/00
Paints containing biocides, e.g. fungicides, insecticides, pesticides	C09D5/14
Anti-fouling paints and underwater paints	C09D5/16
Soil-conditioning materials or soil-stabilizing materials	C09K17/00
Undifferentiated human, animal or plant cells or tissues and their cultivation and maintenance	C12N5/00

Biocidal agents, e.g., fungicidal, bactericidal, or insecticidal agents which are in or on paper D21H21/36

## Special rules of classification

Attention is drawn to the definitions of groups of chemical elements following the title of section C.

In groups 27/00 to 65/00, in the absence of an indication to the contrary, classification is made in the last appropriate place for an active ingredient.

Where a compound is described as existing in tautomeric forms, it is classified as if existing in the form which is classified last in the system.

Compounds that are covered by different main groups because of *alternatively* specified functional groups or other structural features of their formulae are classified in each relevant main group.

Salts formed between two or more organic compounds are classified as the compound providing the essential ion and is also classified as the compound providing the other ion.

Salts or metal chelates of an organic compound are classified as the compound.

In this subclass, a foodstuff is not considered to be an active ingredient.

Different materials applied in sequence, at different times, are considered to be a mixture of all materials employed.

Synergistic or potentiated compositions are classified as if the synergist or potentiator is an active ingredient.

In groups 25/00 to 65/00, the symbol X means nitrogen, oxygen, sulfur or a halogen; Y means nitrogen, oxygen or sulfur. A dotted line between atoms indicates an optional bond, e.g., .... indicates one or two single bonds or a double bond.

## Glossary

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

- |                               |   |
|-------------------------------|---|
| <b>Biocide</b>                | any substance or mixture of substances intended for preventing, destroying, or mitigating any living organism (e.g., plant, animal).      |
| <b>Disinfectant</b>           | any substance or mixture of substances intended for preventing, destroying, or mitigating microorganisms.                                 |
| <b>Herbicide</b>              | any substance or mixture of substances intended for preventing or destroying plant life or making it less harmful.                        |
| <b>Pesticide</b>              | any substance or mixture of substances intended for preventing or destroying any pest (e.g., insects, rodents) or making it less harmful. |
| <b>Plant growth regulator</b> | materials which alter the plant or may affect plant growth through a chemical modification of the plant metabolism, such as auxins.       |

## Synonyms and Keywords

- Acaricide** any substance or mixture of substances intended for preventing or destroying mites and ticks or making them less harmful.
- Arthropodicide** any substance or mixture of substances intended for preventing or destroying arthropods, e.g. insects, arachnids, crustaceans or making them less harmful.
- Fungicide** any substance or mixture of substances intended for preventing or destroying molds and fungi or making them less harmful.
- Insecticide** any substance or mixture of substances intended for preventing or destroying insects or making them less harmful.
- Molluscicide** any substance or mixture of substances intended for preventing or destroying mollusks, e.g. snails, clams or making them less harmful.
- Rodenticide** any substance or mixture of substances intended for preventing or destroying rodents, e.g. rats, mice or making them less harmful.





IPC/D 003/00

ORIGINAL: English/French

DATE: November 14, 2002

**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>C 08 J</b>
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**RAPPORTEUR : SE**

**TECHNICAL FIELD/DOMAINE TECHNIQUE :**

**C**

<b>ANNEX/ ANNEXE</b>	<b>CONTENT/CONTENU</b>	<b>ORIGIN/ ORIGINE</b>	<b>DATE</b>
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## **Title - C08J**

### **Working-up;**

### **General process of compounding;**

### **After-treatment not covered by subclasses C08B, C08C, C08F, C08G or C08H**

## **Definition statement**

*This subclass covers:*

- Chemical aspects of processes for treating, compounding, working-up or recovery of macromolecular substances unless the treatment, compounding, working-up or recovery is provided for elsewhere as indicated below in the relationship section.
- Chemical features of manufacture, treatment or coating of articles or shaped materials containing macromolecular substances unless the manufacture, treatment or coating is provided for elsewhere as indicated below in the relationship section.
- Chemical aspects of working-up of macromolecular substances to porous or cellular articles or materials and after-treatment thereof unless provided for elsewhere as indicated below in the relationship section.
- Chemical aspects of recovery or working-up of waste materials, i.e. macromolecular materials (e.g. polymers), solvents and unreacted monomers, unless provided for elsewhere as indicated below in the relationship section.

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

C08J is residual in relation to subclasses C08B, C08C, C08F, C08G and C08H, and therefore does not cover:

- Processes specially adapted for treating macromolecular substances with specified constitution.
- Polymerisation processes involving purification or recycling of waste polymers or depolymerisation products of specified macromolecular substances
- Preparatory processes of porous cellular materials, in which monomers or catalysts with specified constitution are used, e.g. foamed polymeric products of isocyanates or isothiocyanates characterised by the monomers or catalysts used in C08G18/00.

B29 covers mechanical aspects for working up, after-treatment and compounding of plastics or materials in a plastic state. If a process for working up, after-treatment and compounding of plastics contains both chemical and mechanical aspects, it should be classified in both B29 and C08J.

## **Limiting references**

*This subclass does not cover:*

- Manufacture of semi-permeable membranes for separation processes or apparatus [B01D 67/00-71/00](#)
- Making microcapsules or microballoons, which is covered by [B01J13/02 to 13/22](#)
- Depolymerisation of the molecular chains of a polymer to the original monomer is considered as a manufacture method of the original monomer [C07](#)
- Coating articles of macromolecular substances with metallic materials [C23C](#)  
[C25D](#)

## **Informative references**

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

- Shaping or working of foodstuffs, [A01J](#),  
[A21C](#),  
[A22C](#),  
[A47J](#)  
[B02C](#)
- Mechanical aspects of shaping of plastics or substances in a plastic state including the production of porous or cellular articles [B29C](#)
- Treatment of macromolecular material specially adapted to enhance its filling properties in mortars, concrete or artificial stone and for chemical aspects relating to resin concrete [C04B](#)
- Coating compositions, e. g. paints, varnishes; lacquers; filling pastes; chemical paint or ink removers; inks; correcting fluids; woodstains; pastes or solids for colouring or printing and use of materials therefor [C09D](#)
- Destructive distillation of carbonaceous materials for production of gas, coke, tar or similar materials [C10B](#)
- Processes of working-up tar, pitch asphalt and bitumen and production of pyroligneous acid [C10C](#)
- Cracking hydrocarbon oils, production of liquid hydrocarbon mixtures, e.g. by destructive hydrogenation, oligomerisation, polymerisation; recovery of hydrocarbon oils from oils-shale, oil-sand or gases; refining mixtures mainly consisting of hydrocarbons; reforming naphtha; mineral waxes [C10G](#)
- Manufacture of artificial filaments, threads, fibres, bristles or ribbons [D01F](#)  
[D06](#)
- Treatment of textiles; laundering; flexible materials not otherwise provided for



## **Special rules of classification**

- (1) In this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.**

## **Glossary**

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

**“expandable” includes expanding, pre-expanded or expanded**

## **Synonyms and Keywords**

USPTO COMMENTS	
<b>REVISION PROJECT: D003/00</b> <b>Class/subclass: C08J</b>	<b>Date: 22, October 2002</b>

US agrees with Rapporteur's proposal. We have a few very minor changes to suggest.

**Limiting References:**

Bullet marks are not needed. Under the second bullet, the phrase “, which is covered by....to 113/22” doesn't appear to be needed.

**Informative References:**

The commas after A21C and A22C are not needed.

In reference to C10G delete “s” so that it reads “oil-shale.”

## **Title - C08J**

### **Working-up;**

### **General process of compounding;**

### **After-treatment not covered by subclasses C08B, C08C, C08F, C08G OR C08H**

## **Definition statement**

*This subclass covers:*

- Chemical aspects of processes for treating, compounding, working-up or recovery of macromolecular substances unless the treatment, compounding, working-up or recovery is provided for elsewhere as indicated below in the relationship section.
- Chemical features of manufacture, treatment or coating of articles or shaped materials containing macromolecular substances unless the manufacture, treatment or coating is provided for elsewhere as indicated below in the relationship section.
- Chemical aspects of working-up of macromolecular substances to porous or cellular articles or materials and after-treatment thereof unless provided for elsewhere as indicated below in the relationship section.
- Chemical aspects of recovery or working-up of waste materials, i.e. macromolecular materials (e.g. polymers), solvents and unreacted monomers, unless provided for elsewhere as indicated below in the relationship section.

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

C08J is residual in relation to subclasses C08B, C08C, C08F, C08G and C08H, and therefore does not cover:

- Processes specially adapted for treating macromolecular substances with specified constitution.
- Polymerisation processes involving purification or recycling of waste polymers or depolymerisation products of specified macromolecular substances
- Preparatory processes of porous cellular materials, in which monomers or catalysts with specified constitution are used, e.g. foamed polymeric products of isocyanates or isothiocyanates characterised by the monomers or catalysts used in C08G18/00.

B29 covers mechanical aspects for working up, after-treatment and compounding of plastics or materials in a plastic state. If a process for working up, after-treatment and compounding of plastics contains both chemical and mechanical aspects, it should be classified in both B29 and C08J.

## **Limiting references**

*This subclass does not cover:*

Manufacture of semi-permeable membranes for separation processes or apparatus	B01D 67/00-71/00
Making microcapsules or microballoons	B01J13/02- 13/22
Depolymerisation of the molecular chains of a polymer to the original monomer is considered as a manufacture method of the original monomer	C07
Coating articles of macromolecular substances with metallic materials	C23C C25D

## Informative references

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

Shaping or working of foodstuffs	A01J A21C A22C A47J B02C
Mechanical aspects of shaping of plastics or substances in a plastic state including the production of porous or cellular articles	B29C
Treatment of macromolecular material specially adapted to enhance its filling properties in mortars, concrete or artificial stone and for chemical aspects relating to resin concrete	C04B
Coating compositions, e. g. paints, varnishes; lacquers; filling pastes; chemical paint or ink removers; inks; correcting fluids; woodstains; pastes or solids for colouring or printing and use of materials therefor	C09D
Destructive distillation of carbonaceous materials for production of gas, coke, tar or similar materials	C10B
Processes of working-up tar, pitch asphalt and bitumen and production of pyrolygneous acid	C10C
Cracking hydrocarbon oils, production of liquid hydrocarbon mixtures, e.g. by destructive hydrogenation, oligomerisation, polymerisation; recovery of hydrocarbon oils from oil-shale, oil-sand or gases; refining mixtures mainly consisting of hydrocarbons; reforming naphta; mineral waxes	C10G
Manufacture of artificial filaments, threads, fibres, bristles or ribbons	D01F
Treatment of textiles; laundering; flexible materials not otherwise provided for	D06

## Special rules of classification

**(1) In this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.**

## **Glossary**

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

“expandable”                      **includes expanding, pre-expanded or expanded**

## **Synonyms and Keywords**

SE/13-NOV-02 :Please indicate if you believe Annex 22 is ready for approval!  
/Anders & Carolina

EP/14-NOV-02 :We approve the Rapporteur's proposal.

Does this mean that project C415 will now be redundant?

GB/15-NOV-02 :We also approve the Rapporteur's proposal. We don't think project C415 will be redundant since the proposed amendments are minor, and we also have a consequential change to propose. Let's see what the WG thinks.

US/15-NOV-02 :US approves



IPC/D 022/01

ORIGINAL: English/French

DATE: October 30, 2002

**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>EP</b>	<b>IPC AREA:</b> <b>DOMAINE DE LA CIB :</b>	<b>A 61 P</b>
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<b>ANNEX/ ANNEXE</b>	<b>CONTENT/CONTENU</b>	<b>ORIGIN/ ORIGINE</b>	<b>DATE</b>
1	Proposal / Proposition	EP	12.01
2	Comments / Observations	US	12.01
3	Rapporteur report / Rapport du rapporteur	EP	12.01
4	Comments / Observations	US	02.02
5	Comments / Observations	DE	02.02
6	Rapporteur report / Rapport du rapporteur	EP	04.02
7	Proposal / Proposition	EP	09.02
8	Rapporteur proposal / Proposition du rapporteur	EP	09.02
9	Comments / Observations	RO	10.02
10	Comments / Observations	DE	10.02
11	Comments / Observations	GB	10.02
12	Comments / Observations	US	10.02

RAPPORTEUR : EP

TECHNICAL FIELD/DOMAINE TECHNIQUE :

C





## **Title - A61P**

### **Therapeutic activity of chemical compounds or medicinal preparations**

#### **Definition statement**

*This subclass covers:*

This subclass covers therapeutic activity of chemical compounds or medicinal preparations already classified as such in subclasses [A 61 K](#) or [C 12 N](#), or in classes [C 01](#), [C 07](#) or [C 08](#).

This subclass is appropriate only as a secondary classification for these chemical compounds or medicinal preparations with therapeutic activity.

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

The medicinal preparations and dental or cosmetic preparations with therapeutic activity which are proper for [A61K](#) are further classified in [A61P](#).

The enzymes or microorganisms with therapeutic activity which are proper for [C12N](#) are further classified in [A61P](#).

The inorganic chemicals, organic chemicals, and macromolecular compounds with therapeutic activity which are proper for [C01](#), [C07](#), and [C08](#), respectively, are further classified in [A61P](#).

#### **Limiting references**

#### **Informative references**

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

In this subclass, all of the different therapeutic activities stated in the claims or significantly disclosed as examples in the disclosure are classified in all appropriate places.

The classification symbols of this subclass are not listed first when assigned to patent documents.

**Glossary**

**Synonyms and Keywords**

**STATE OFFICE FOR INVENTIONS  
AND TRADEMARKS**

**De**

:1 October 2002

**Page: 1**

**RO COMMENTS**

PROJECT :**D022/00**

Subclass : **A61 P**

We support the solution proposed by EP in Annex 7 and 8.

However, we consider as useful a definition for the term **Adrug@** inserted in the **AGlossary of terms@** because the whole definition project refers to therapeutic activity of chemical compounds, medicinal preparations , cosmetic preparations , enzymes or microorganisms, while the subclass index is focused on **@drugs** for disorders ... **A** or agents.

Mirela Georgescu

<b>DEUTSCHES PATENT- UND MARKENAMT</b> German Patent and Trade Mark Office	Class/Subcl.: <b>A61P</b>
	Date : 30/09/2002
<b>DE - Comments — D022/01</b>	

We support the solution proposed by EP in Annex 7/8 and have no further comment on the proposal.

Martina Fritzsche

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**UK Patent Office****Date: 3 October 2002**

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**Comments on Project D022 , Subclass A61P**

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We support this proposal more or less as it stands. However we tend to agree with RO and US who would like a definition of ADrug@ in the Glossary section.

We think the matter in brackets in US's Annex 4 proposal for defining drugs could be the cause of any confusion mentioned by R in Annex 6, since the *physiological* or *biological* effects mentioned may include the use as a pesticide, thereby erroneously taking the scope of A61P closer to that of A01N.

Removing this matter leaves us with the wording of Note (2) under the subclass title; those present in Geneva in 1996 when the Working Group adopted the A61P scheme may remember that this Note was proposed by the undersigned after some discussions. We therefore naturally favour the inclusion of the wording of this Note in the Glossary section of this definition project. We also do not think any serious confusion will be caused by this inclusion because *therapeutic* activity is well differentiated, in the mind of the majority, from *pesticidal* or *biocidal* activity.

We therefore propose, in the Glossary:

**ADrug(s)** includes chemical compounds or compositions with therapeutic activity@

Martin Price

## USPTO COMMENTS

<b>REVISION PROJECT: D022/00</b> <b>Class/subclass: A61P</b>	<b>Date: October 3, 2002</b>
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US supports the definition proposal for A61P submitted by Rapporteur (Annex 7), but recommends a change in the **Definition statement, first paragraph:**

We recommend the deletion of “This subclass covers” from the statement since it is already stated in the heading under the section title. We hope the slight wording change we are suggesting helps in the clarity of the definition statement.

*“Therapeutic activity of chemical compounds or medicinal preparations when these chemical compounds or medicinal preparations are already obligatorily classified in subclasses A61K..... C08 for the chemical aspects of the invention information.”*

Concerning RO’s comment in Annex 9 concerning including the term “drug” in the glossary, we have no objections to including this term since it is part of the group titles. It can certainly be of help to novice users of the IPC. We suggest the following wording:

**Drug** chemical compounds or compositions with therapeutic activity, i.e., having the ability to cause a physiological, pharmacological, or biological affect.

As for Annex 8, we can support the ordering of the groups in the subclass index as proposed by Rapporteur. This is a subclass where multiple classification is used and the groups are not necessarily mutually exclusive nor are their degrees of complexity or specialization easy to determine from the titles alone. If the groups are defined in the future, a rearrangement according to the standardized sequence of main groups could possibly be done.



IPC/D 024/01

ORIGINAL: English/French

DATE: November 19, 2002

**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>GB</b>	<b>IPC AREA:</b> <b>DOMAINE DE LA CIB :</b>	<b>B 01 D</b>
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<b>ANNEX/ ANNEXE</b>	<b>CONTENT/CONTENU</b>	<b>ORIGIN/ ORIGINE</b>	<b>DATE</b>
1	Rapporteur report / Rapport du rapporteur	GB	12.01
2	Rapporteur proposal / Proposition du rapporteur	GB	12.01
3	Comments / Observations	CA	12.01
4	Comments / Observations	EP	12.01
5	Comments / Observations	RO	12.01
6	Comments / Observations	JP	12.01
7	Rapporteur report / Rapport du rapporteur	GB	12.01
8	Comments / Observations	EP	02.02
9	Comments / Observations	EP	02.02
10	Comments / Observations	RO	02.02
11	Comments / Observations	US	02.02
12	Rapporteur report / Rapport du rapporteur	GB	09.02
13	Rapporteur proposal / Proposition du rapporteur	GB	09.02
14	Comments / Observations	RO	10.02
15	Comments / Observations	US	10.02
16	Comments / Observations	EP	10.02

**RAPPORTEUR : GB**

**TECHNICAL FIELD/DOMAINE TECHNIQUE :**

**C**

<b>ANNEX/ ANNEXE</b>	<b>CONTENT/CONTENU</b>	<b>ORIGIN/ ORIGINE</b>	<b>DATE</b>
17	Rapporteur report / Rapport du rapporteur	GB	11.02
18	Rapporteur proposal / Proposition du rapporteur	GB	11.02



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**UK Patent Office****Date: 26 September 2002**

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**Rapporteur Report on Project D024, Subclass B01D**

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We refer to our original proposal of Annex 2, our rapporteur reports of Annexes 1 and 7, and comments from EP, RO, US, JP and CA in Annexes 3-6 and 8-11.

We have placed the original proposal in the correct format according to the standardised template provided by the IB. Our proposal is in the next Annex.

We have made changes to the original proposal in response to the comments from the above Offices, as detailed below. The subclass index that was present in the earlier proposal has been removed since it is not clear that it is required here.

**B01D****Definition statement**

We have added some further descriptors of processes/apparatus, generally from some of the main groups of the subclass, in response to US comments; we have also shortened the **A**similar processes@ clause in response to comments.

**Limiting references**

We have changed **A**class F26" to **AF26B**@, as suggested by US, but kept the shorter wording instead of the wordier US proposal. We have moved the reference to B01D 59/00 into the **ASpecial Rules**@ section (agreeing here with US and RO because this reference *looks* more like a special rule than a reference).

**Glossary**

We have changed the **A**filtration@ and **A**filtering medium@ entries in line with the RO comments, as agreed by most other Offices.

**B01D 15/00****Title**

We have changed the title to match the main group title in the IPC.

**Definition statement**

We have shortened the definition as suggested by the comments from most Offices, generally in line with one-dot group titles. Since revision project C413 is nearing completion, this appears to be a safe thing to do.

We do not agree with US's statement that *the content of a group must be fully explained no matter how lengthy the explanation*. Undoubtedly there have to be limits as to length.

## **Special Rules**

We have left the rule relating to B01D 15/08 in its originally-proposed form, unsure as we are as to why the US proposed a special rule differing in wording from the special rule under 15/08 in the IPC itself.

## **Glossary**

US suggest that more entries would be welcome, in the interests of providing extra help for the user of the IPC. We agree. We have found definitions relating to *A*sorbent@ and *A*chromatography@ on the US Office's website, and feel they would be useful here, so they are included in our proposal. RO also propose an entry for *A*dsorption@, which we have also put into the Glossary.

## **Need for further main group definitions in this subclass**

This definition project stated at its outset that *the scope of subclass B01D is so broad that a detailed description of the subject matter appropriate for this place is feasible only at main group level. IPC definitions at main group level follow this overall subclass definition.*@

There are 38 main groups in this subclass (if we count correctly), and providing definitions for all of them would be a huge task. A vast amount of reading material would also be generated. In view of project C413, we feel it was appropriate to provide a definition of B01D 15/00 which has undergone substantial changes, but we question whether any other main groups in B01D need a separate definition in this format. Most of the main groups appear reasonably self-explanatory in the IPC, and are quite well covered by the main subclass definition attached - see also EP's opinion (*A*Summary of experiences with D-projects@) that *four experts did not see the need to write definitions when in their opinion the area in question was well-defined by the existing titles and references*@. Furthermore comments by SE, DE and EP on this subject counsel correctly against excessive length of definition projects, which may discourage the user from even looking at the subclass definition.

If it is confirmed that further main group definitions are indeed required here, it will be understood that it will take time.

Martin Price

**Title - B01D****Separation****Definition statement**

*This subclass covers:*

Processes and apparatus for evaporation, distillation, sublimation, solvent extraction, chromatography, crystallisation, filtration, dust precipitation, gas cleaning, absorption and adsorption, and similar processes which are not concerned with, or limited to, separation.

**Relationship between large subject matter areas**

None

**Limiting references**

*This subclass does not cover:*

For apparatus used in drying or evaporation, F26B takes precedence over this subclass	F26B
Separating solids from solids by wet methods	B03B B03D
by pneumatic jigs or tables	B03B
by other dry methods	B07
Magnetic or electrostatic separation of solid materials from solid materials or fluids, separation by high-voltage electric fields	B03C
Centrifuges, vortex apparatus	B04
Presses per se for squeezing-out liquid from liquid-containing material	B30B 9/02
Treatment of water e.g. softening by ion-exchange	C02F C02F 1/42
Arrangement or mounting of filters in air-conditioning, air-humidification or ventilation	F24F 13/28

**Informative references**

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

None

## Special rules of classification

Group B01D 59/00 takes precedence over other groups of this subclass, and over other subclasses.

## Glossary

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

<b>Filtration</b>	the separation of a fluids-solids mixture, involving passage of most of the fluid through a porous barrier which retains most of the solid particulates contained in the mixture; includes straining solids from fluids.
<b>Filter medium</b>	a porous barrier or porous arrangement of material, which lets a fluid pass while retaining most of the solids which were mixed with it.
<b>Filtering element</b>	a section of filter medium in addition to parts to which the medium is demountably or permanently fixed, including other sections of medium, end caps, peripheral frames or edge strips, but excluding housings.
<b>Filter housing</b>	the fluid-constraining impervious vessel, whether open or closed, which contains, or is adapted to contain one or more filtering elements of filter media.
<b>Filter chamber</b>	the space within a housing where filtering elements or filter media are located; partitions may divide a single housing into a plurality of chambers.
<b>Filtering apparatus</b>	filtering elements combined with housings, cleaning arrangements, motor or like parts, which are characteristic of the particular type of apparatus. Ancillary devices such as pumps or valves are considered part of a filtering apparatus when inside the apparatus. Ancillary devices performing similar or different unit operations such as comminutors, mixers or non-filtering separators, whether or not inside the apparatus, are not considered part of a filtering apparatus. The term does not extend to apparatus, e.g. washing machines, of which the filter forms only a part.

## Synonyms and Keywords

None

## **Title - B01D 15/00**

### **Separating processes and apparatus involving the treatment of liquids with solid sorbents**

#### **Definition statement**

*This main group covers:*

Treating liquids with moving adsorbents;

non-selective adsorption treatment of liquids with ion-exchange materials in processes where no ion-exchange occurs;

selective treatments of liquids with ion-exchange materials as adsorbents;

separation processes and apparatus using selective adsorption eg chromatography.

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

None

#### **Limiting references**

*This main group does not cover:*

Separating processes involving the treatment of liquids with liquid sorbents	B01D 11/00
Preparative gas chromatography	B01D 53/02
Sorbent materials in general-	B01J 20/00 to 20/292
- e.g. sorbents for chromatography	B01J 20/281
- ion-exchange processes or materials	B01J 39/00 to 49/00
Treatment of water –	C02F
- e.g. softening by ion-exchange	C02F 1/42

Investigative or analytical chromatography

G01N 30/00

## Informative references

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

Sorption and chromatography relating to treating particular applications, compounds or groups of compounds may be classified in the following:

Blood and products derived therefrom	A61K 35/14
Dairy products	A23C 9/149
Optically active compounds	C07B 57/00
Hydrocarbons by adsorption	C07C 7/11
Peptides	C07K 1/16
Refining hydrocarbon oils with solid sorbents	C10G 25/00
Refining fats by adsorption	C11B 3/10
Purification of alcoholic beverages with adsorption material	C12H 1/04
Micro-organisms and enzymes	C12N 9/00
Purification of sugar juices using adsorption agents	C13D 3/12

## Special rules of classification

Group B01D 59/00 takes precedence over other groups of this subclass, and over other subclasses.

In order that group 15/08 may provide a basis for a complete search with respect to chromatography in general, all subject matter of general interest is classified in this group even if it is classified primarily in the application-oriented groups (see Informative References).

## Glossary

### Adsorption

a separation process which involves the transfer and resulting equilibrium distribution of one or more solutes between a fluid phase and adsorbing particles.

### Chromatography

a process in which a liquid is flowed along a linear path comprising a sorbent, with which the liquid competes in affinity for a constituent of the liquid. The constituent is sorbed from the moving liquid by the relatively immobile sorbent and re-dissolved by a later passing portion of the liquid until an equilibrium of the sorbing-dissolving step is set up causing the constituent to concentrate in a specific volume of the sorbent and to move along the path of the liquid at a rate slower than such liquid. A comprehensive treatise on chromatography can be found in Kirk-Othmer Encyclopaedia of Chemical Technology 2<sup>nd</sup>. Ed., Vol. 5, pp 413-450.

**Sorbent**

a material which separates a constituent from a fluid mixture containing such constituents in a “quasi-chemical” manner. The action in most instances is that of selective retention (i.e. the sorbent removes only the part of the fluid mixture for which it has the greatest affinity). The retained constituent cannot be removed by shaking, brushing or similar mechanical action, but generally can be removed by heating, pressure reduction, or use of a stripping or denuding fluid.

**Synonyms and Keywords**

None

**STATE OFFICE FOR INVENTIONS  
AND TRADEMARKS**

**Da**

: 1 October 2002

**Page: 1**

**RO COMMENTS**

PROJECT :**D024**

Subclass : **B01D**

We generally

**B01D 15/00**

Definition statement

We are still of the opinion that the statement about this main group is too wordy, the more so as the intention of providing appropriate definitions for new groups 15/10, 15/26 and 15/42 was not achieved, and therefore we consider more appropriate our proposed definition from annex i.e.:

@This main group covers processes and apparatus for the selective and non-selective adsorption@ giving examples either for selective adsorption or non-selective adsorption.

In case the statement definition remains like in Annex 13 we suggest the following:

- to give an example, for a better understanding, of an **A**non-selective adsorption treatment of liquids with ion -exchange materials, in processes where no ion -exchange occurs@;

-to add the word **A**adsorption@ to the third definition between words **A**selective@ and **A**treatments@; i.e. **A**selective adsorption treatments of liquids with ion-exchange materials as adsorbents@;



**B01D15/00**

Informative references

We suggest to add to the informative references the subgroup A61M 1/36 referring to Aother treatments of the blood ...@

Mirela Georgescu

## USPTO COMMENTS

<b>REVISION PROJECT: D024/01</b> <b>Class/subclass: B01D</b>	<b>Date: October 28, 2002</b>
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US has several small suggestions concerning Rapporteur's proposal of Annex 13 which follow.

**In B01D under Limiting References:**

In the first reference, delete "For" and capitalize the "a" in "apparatus"

**In B01D 15/00 under Special rules of classification, 2<sup>nd</sup> paragraph:**

US believes the note proposed by Rapporteur implies that obligatory classification of all application-oriented chromatography subject matter into B01D, which is a "general" classification place, is required. US believes this should be a discretionary (i.e. nonobligatory) classification and should therefore only be a recommendation. Please note the "Guidelines for Determining Subject Matter Appropriate for Obligatory and Nonobligatory Classification (i.e., "what" to classify within patent document disclosures)" which is Annex VI in IPC/REF/7/3 [especially the section titled Discretionary (i.e., nonobligatory) Classification, part (c)]. US would prefer the note to read as follows:

*"In order that group 15/08 may provide a basis for a complete search with respect to chromatography, all subject matter of interest should also be classified in this group even when it is already classified in the application-oriented groups (See Informative references)."*

**Project: D024      Subclass: B01D**

Re.: Rapporteur Report and Proposal of 26 September 2002 (annexes 12 and 13 to the project file)

**1. General:**

- \* We fully agree with R's general remark about the **length** of definitions.
- \* For the time being, we see no need for **further main group definitions** in B01D.
- \* Will it become a (general) practice to refer in the Definitions to existing publications (e.g. to Kirk-Othmer as R did for this project) and if so, wouldn't the Rapporteurs need some guidance to standardize such references ???

**2. B01D Definition**

- \* Limiting references:  
We would prefer the reference to **F26B** to have a more standard appearance.
- \* Special rules:  
to avoid ambiguity (also in the B01D15/00 Definition), we suggest to add:  
*---other subclasses of class B01.*
- \* Glossary:  
\*\* Taking into account the subject matter present in B01D as well as existing and generally accepted definitions for filtration, we would like to suggest to change the wording as follows:  
***Filtration** the separation of particulate matter from fluids, involving passage - - - - retain most of the particulate matter; includes straining particulate matter from fluids.*
- \*\* And thus the following entry should be added:  
***Particulate matter** matter in the form of small liquid or solid particles*

**3. B01D15/00 Definition**

- \* We agree with R's proposal.
- \* It might be useful to further include some IUPAC definitions relating to particular types of chromatography as mentioned in the title of a number of the newly created subgroups in project C413. Such IUPAC definitions can be found, e.g. in the following articles:
  - 1) LC-GC INTERNATIONAL (LIQUID AND GAS CHROMATOGRAPHY), Eugene, OR, US, 1993, Vol 11, nr. 7, p. 502,504,506: "The new IUPAC nomenclature for chromatography", by ETTRE L S.
  - 2) PURE & APPLIED CHEMISTRY, Pergamon Press, Oxford, GB, 1993, Vol. 65, nr. 4, p. 819 - 872 (ISSN 0033-4545): "Nomenclature for chromatography", by ETTRE L S.

Paul Daeleman

d024ep04c

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**UK Patent Office****Date: 18 November 2002**

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**Rapporteur Report on Project D024, Subclass B01D**

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Even though the last Rapporteur Report and Proposal of Annex 12/13 were submitted only 2 months ago, several comments have been received since then and this project will be discussed by the Definitions Task Force at the 8<sup>th</sup> Session of the Revision Working Group, and therefore it appears useful to submit another Rapporteur Report now.

It is noted that the earlier RR promised several informative references relating to B01J in the context of this project. This is of course not possible since this project relates to B01D only; *perhaps a new definition project for B01J should be initiated as a priority in the next round of definition projects.*

Comments on the last RR came from RO, US and EP (Annexes 14-16).

**RO Comments**

RO still think that the definition statement of main group 15/00 is too wordy, but make 2 suggestions in case R leaves the basic wording unchanged - both have been inserted. They also suggest an additional informative reference, but R prefers not to because ~~Another~~ treatments of the blood@ (ie not sorption or chromatography) is rather remote art from B01D 15/00.

**US Comments**

US (and EP) suggest a change on the presentation of the first limiting reference under B01D - agreed by R.

US also suggest changing the second Special Rule of classification under B01D 15/00, to reflect non-obligatory classification, noting the ~~A~~What to classify@ guidelines. R is agreeable to this (with a slight variation) since the generality of chromatography is not invention information in the case of application-oriented disclosures, and therefore wording relating to non-obligatory classification in multiple classification schemes, as decided by the 8<sup>th</sup> Reform Working Group, can be used. A corresponding change will also be made in project C413.

**EP Comments**

R welcomes EP's comment that no further main group definitions are needed in B01D.

EP also suggest a change in the Special Rules by mentioning other subclasses of class B01 - agreed. A corresponding change will also be made in project C413. EP further suggest a change in the

Glossary definition for **Filtration**, which defines the solids to be separated as **Particulate matter**, more specifically as **Small liquid or solid particles**. R does not agree with this idea because (i) filtration can involve separating **fairly large** particles, not just small ones, and (ii) R also disagrees with including liquids in this definition. R points to liquid/liquid and liquid/gas separation, which are provided for in the B01D 1/00 to 21/00 area (e.g. 17/00 and 19/00), whereas filtration is in 24/00 onwards. Therefore the term **Filtration** cannot involve separating liquids from fluids. R prefers to keep the definition of **Filtration** unchanged.

EP suggest adding IUPAC definitions for particular types of chromatography as mentioned in some newly-created subgroups in project C413. EP mention 2 documents where such definitions can be found. R has included 5 definitions from one of the documents, and deleted the reference to an existing publication (Kirk-Othmer) previously mentioned by R, following an EP query.

## **Proposals**

Changes that reflect the above discussions are included in the next Annex, and a separate proposal for project C413, to take into account the above EP and US suggestions, is also submitted to the e-forum.

Martin Price

**Title - B01D****Separation****Definition statement**

*This subclass covers:*

Processes and apparatus for evaporation, distillation, sublimation, solvent extraction, chromatography, crystallisation, filtration, dust precipitation, gas cleaning, absorption and adsorption, and similar processes which are not concerned with, or limited to, separation.

**Relationship between large subject matter areas**

None

**Limiting references**

*This subclass does not cover:*

Apparatus used in drying or evaporation (F26B takes precedence over this subclass)	F26B
Separating solids from solids by wet methods	B03B B03D
by pneumatic jigs or tables	B03B
by other dry methods	B07
Magnetic or electrostatic separation of solid materials from solid materials or fluids, separation by high-voltage electric fields	B03C
Centrifuges, vortex apparatus	B04
Presses per se for squeezing-out liquid from liquid-containing material	B30B 9/02
Treatment of water e.g. softening by ion-exchange	C02F C02F 1/42
Arrangement or mounting of filters in air-conditioning, air-humidification or ventilation	F24F 13/28

**Informative references**

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

None

## Special rules of classification

Group B01D 59/00 takes precedence over other groups of this subclass, and over other subclasses of class B01.

## Glossary

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

<b>Filtration</b>	the separation of a fluids-solids mixture, involving passage of most of the fluid through a porous barrier which retains most of the solid particulates contained in the mixture; includes straining solids from fluids.
<b>Filter medium</b>	a porous barrier or porous arrangement of material, which lets a fluid pass while retaining most of the solids which were mixed with it.
<b>Filtering element</b>	a section of filter medium in addition to parts to which the medium is demountably or permanently fixed, including other sections of medium, end caps, peripheral frames or edge strips, but excluding housings.
<b>Filter housing</b>	the fluid-constraining impervious vessel, whether open or closed, which contains, or is adapted to contain one or more filtering elements or filter media.
<b>Filter chamber</b>	the space within a housing where filtering elements or filter media are located; partitions may divide a single housing into a plurality of chambers.
<b>Filtering apparatus</b>	filtering elements combined with housings, cleaning arrangements, motor or like parts, which are characteristic of the particular type of apparatus. Ancillary devices such as pumps or valves are considered part of a filtering apparatus when inside the apparatus. Ancillary devices performing similar or different unit operations such as comminutors, mixers or non-filtering separators, whether or not inside the apparatus, are not considered part of a filtering apparatus. The term does not extend to apparatus, e.g. washing machines, of which the filter forms only a part.

## Synonyms and Keywords

None



## **Title - B01D 15/00**

### **Separating processes and apparatus involving the treatment of liquids with solid sorbents**

#### **Definition statement**

*This main group covers:*

Treating liquids with moving adsorbents;

non-selective adsorption treatment of liquids with ion-exchange materials in processes where no ion-exchange occurs (e.g. purification or regeneration treatments);

selective adsorption treatments of liquids with ion-exchange materials as adsorbents;

separation processes and apparatus using selective adsorption eg chromatography.

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

None

#### **Limiting references**

*This main group does not cover:*

Separating processes involving the treatment of liquids with liquid sorbents	B01D 11/00
Preparative gas chromatography	B01D 53/02
Sorbent materials in general-	B01J 20/00 to 20/292
- e.g. sorbents for chromatography	B01J 20/281
- ion-exchange processes or materials	B01J 39/00 to 49/00
Treatment of water –	C02F
- e.g. softening by ion-exchange	C02F 1/42
Investigative or analytical chromatography	G01N 30/00

## Informative references

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

Sorption and chromatography relating to treating particular applications, compounds or groups of compounds may be classified in the following:

Blood and products derived therefrom	A61K 35/14
Dairy products	A23C 9/149
Optically active compounds	C07B 57/00
Hydrocarbons by adsorption	C07C 7/11
Peptides	C07K 1/16
Refining hydrocarbon oils with solid sorbents	C10G 25/00
Refining fats by adsorption	C11B 3/10
Purification of alcoholic beverages with adsorption material	C12H 1/04
Micro-organisms and enzymes	C12N 9/00
Purification of sugar juices using adsorption agents	C13D 3/12

## Special rules of classification

Group B01D 59/00 takes precedence over other groups of this subclass, and over other subclasses of class B01.

In order that group 15/08 may provide a basis for a complete search with respect to chromatography, all subject matter of interest should also be classified in this group even when it is classified primarily in application-oriented place(s) (see Informative References).

## Glossary

### Adsorption

a separation process which involves the transfer and resulting equilibrium distribution of one or more solutes between a fluid phase and adsorbing particles.

### Sorbent

a material which separates a constituent from a fluid mixture containing such constituents in a “quasi-chemical” manner. The action in most instances is that of selective retention (i.e. the sorbent removes only the part of the fluid mixture for which it has the greatest affinity). The retained constituent cannot be removed by shaking, brushing or similar mechanical action, but

generally can be removed by heating, pressure reduction, or use of a stripping or denuding fluid.

**Chromatography**

a process in which a liquid is flowed along a linear path comprising a sorbent, with which the liquid competes in affinity for a constituent of the liquid. The constituent is sorbed from the moving liquid by the relatively immobile sorbent and re-dissolved by a later passing portion of the liquid until an equilibrium of the sorbing-dissolving step is set up causing the constituent to concentrate in a specific volume of the sorbent and to move along the path of the liquid at a rate slower than such liquid.

**Adsorption chromatography**

Separation is based mainly on differences between the adsorption affinities of the sample components for the surface of an active solid.

**Partition chromatography**

Separation is based mainly on differences between the solubilities of the sample components in the stationary phase (gas chromatography) or on differences between the solubilities of the components in the mobile and stationary phases (liquid chromatography).

**Exclusion chromatography**

Separation is based mainly on exclusion effects, such as differences in molecular size (size-exclusion chromatography) and/or shape or charge.

**Affinity chromatography**

The particular variant of chromatography in which the unique biological specificity of the analyte and ligand interaction is utilised for the separation.

**Bonded phase**

A stationary phase which is covalently bonded to the support particles or to the inside wall of the column tubing.

**Synonyms and Keywords**

None

GB/26-SEP-02 :We would welcome a new round of comments as to whether any further main groups of this subclass need a separate definition, added to this definition. The subclass definition and main group 15/00 definition are hopefully ready for adoption.

JP/28-OCT-02 :JP approves of the last Rapporteur Proposal of the ANNEX 13.



IPC/D 026/01

ORIGINAL: English/French

DATE: October 14, 2002

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

**Project: D026    Subclass: C10L**

## 1. (Ref.: - IPC/WG/7/7, par. 11- 17 and annex F)

In accordance with the decisions of the WG and the Definition Task Force, the IPC Definition for C10L has been rewritten, taking into account the recommendations in annex F of the document mentioned above and using the new definition template. Also taken into account, are the amendments to IPC7 adopted by the IPC Revision Working group (see annexes 50 and 55 of the project file C363).

References (informative as well as limiting ones) relating to only one main- or subgroup, have been transferred to the IPC Definition for that group.

Rules relating to only one (main-)group have not been repeated in the Definition proposals as they will be kept in the IPC scheme itself.

See the joined proposals.

## 2. (Ref.: IPC/WG/7/2, annex I, point d)

Also in accordance with the decisions of the WG and the Definition Task Force, a list of references in the scheme of subclass C10L that should be deleted (informative references) or adapted, has been prepared. See the document called "Recommendations".

Discussion of that paper can be postponed, as the implementation of the removal or changes will only begin at the next revision period.

## **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**

### **Limiting references**

*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 of rockets	C06D5/00
Cracking hydrocarbon oils, production of liquid hydrocarbon mixtures, e.g. by destructive hydrogenation, oligomerisation or polymerisation, recovery of	C10G



hydrocarbon oils from oil-shale, oil-sand, or gases, refining mixtures mainly consisting of hydrocarbons and to reforming of naphta

Mineral waxes	C10G
Production of producer gas, water-gas, synthesis gas from solid carbonaceous materials, or mixtures containing these gases or carburetting air or other gases	C10J
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

### Glossary

*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**

**Title – C10L5/00**

**Solid fuels**

**Limiting references**

*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**

#### **Limiting references**

*This subclass does not cover:*

- |  |          |
|--|----------|
| Using binders for briquetting solid fuels                | C10L5/10 |
| Using 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**

**Limiting references**

*This subclass does not cover:*

Matches, manufacture thereof	C06F
Igniters in general, e.g. lighters containing fuel for cigarettes	F23Q

**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
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**Project: D026      Subclass: C10L**

Ref.: - IPC/WG/7/7, par. 11 and annex F  
- IPC/WG/7/2, annex I, p.2, point d

At the next revision period, informative references (IR) will be removed from the classification scheme, as they will appear in the Definition layer of the IPC.

In the case of subclass C10L, EP has the following remarks/proposals to make, not all of them relating to IR:

- 1) **Group 5/06:** reference should better **NOT** be removed, to avoid mis-interpretation of par. 66 of the guide to the IPC (in some places in IPC, processes include apparatus)
- 2) **Groups 5/02 and 5/08:** in group 5/02 as well as in its subgroup 5/08 reference is made to the subclass for peat. These are clearly limiting references so they should stay, but only one seems sufficient: therefore we propose to **delete the reference in 5/08** and to change the reference in 5/02 as follows:

**C 5/02                      -----*mineral origin (peat briquettes or briquetting peat C10F)***

- 3) **Group 7/02: delete reference**
- 4) **IPC8 group 10/00: delete reference pointing to C10L1/10**

**STATE OFFICE FOR INVENTIONS  
AND TRADEMARKS**

**De**

:1 October 2002

**Page: 1**

**RO COMMENTS**

PROJECT :**D026/01**

Subclass : **C10L**

We agree with the proposal for the project D026 submitted by EPO .

We suggest the following wording for :

C10L 10/00

Limiting reference

Use of binders for briquetting solid fuels **A** C10L5/10

Use of additives to improve the combustion of solid fuels<sup>@</sup> C10L9/10

We totally agree with the recommendations made by EPO in annex 18 of the Definition Project.

Mirela Georgescu

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**UK Patent Office**

**Date: 3 October 2002**

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**Comments on Project D026 , Subclass C10L**

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We support the Rapporteur proposal of Annex 17 and the recommendations of Annex 18 regarding references.

We slightly prefer the wording proposed by RO (Annex 19) for the limiting references (*Ause of@* instead of *Ausing@*), but are not terribly exercised by the matter.

Martin Price



USPTO COMMENTS	
<b>REVISION PROJECT: D026/01</b> <b>Class/subclass: C10L</b>	<b>Date: October 4, 2002</b>

US supports the Definition (Annex 17) proposal submitted by EP. The recommendations made by EP in Annex 18 regarding the references are also acceptable to the US.





IPC/D 033/01

ORIGINAL: English/French

DATE: November 14, 2002

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**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

**RAPPORTEUR : SE**

**TECHNICAL FIELD/DOMAINE TECHNIQUE :**

**SE**



## **Title - A01H**

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

#### **Definition statement**

*This subclass covers:*

New plants.

Processes for modifying genotypes or phenotypes.

Plant reproduction by tissue culture techniques.

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

**None**

#### **Limiting references**

*This subclass does not cover:*

Unicellar 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: 18, October 2002</b>

US has several suggestions and questions concerning Rapporteur's definition proposal.

**Title:**

Insert a semi-colon (;) after the first part of the title.

**Definition Statement:**

US believes the following additions to the definition statement would be helpful, especially to new users of the IPC.

After "New plants" we believe it would be helpful to list angiosperms, gymnosperms, pteridophytes, bryophytes, "higher" algae or "multicellular" algae (whichever terminology is preferred), "higher" or "multicellular" fungi, and lichens.

For the same reason, we would suggest adding the following line to the definition statement: "*Apparatus for performing hybridisation and producing changes in chromosome number.*"

**Limiting References:**

US believes that C12N 15/00 should be added to the limiting references, at least until a definition of A01H 1/00 can be written. C12N 15/00 is the classification place for mutating and genetically engineering. A01H 1/00 is titled processes of modifying genotypes with group 1/06 taking processes of producing mutations. It is unclear to US what the dividing line is between A01H 1/00 and C12N 15/00. The Note prior to C12N 15/01 states that the modification of the genetic material must produce a change which can be passed on to succeeding generations. Perhaps A01H only takes mutating processes which can't be passed on from generation to generation? Is the dividing line that C12N is only mutating plant cells per se and A01H is mutating the plant as a whole. Something is needed in the definition and/or the references to clarify this confusion in.

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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



IPC/D 038/02

ORIGINAL: English/French

DATE: November 14, 2002

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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>SE</b>	<b>IPC AREA:</b> <b>DOMAINE DE LA CIB :</b>	<b>C07K</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	RU	10.02
3	Comments / Observations	US	10.02
4	Comments / Observations	JP	11.02
5	Rapporteur report / Rapport du rapporteur	SE	11.02
6	Rapporteur proposal / Proposition du rapporteur	SE	11.02

**RAPPORTEUR :SE**

**TECHNICAL FIELD/DOMAINE TECHNIQUE : C**



## Title - C07K

### Peptides

#### Definition statement

*This subclass covers:*

General processes for the preparation of peptides.

Peptides

Immunoglobulins

Carrier-bound or immobilised peptides

Hybrid peptides

#### Relationship between large subject matter areas

Subclass [C07K](#) 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 are classified in [A01N](#).
- Biocidal, pest attractant, or plant growth regulatory activity of chemical compounds or preparations are classified in [A01P](#).
- Preparations for medical, dental, or toilet purposes are further classified in [A61K](#).
- Therapeutic activity of chemical compounds or medicinal preparation is further classified in [A61P](#).
- Uses of cosmetics or similar toilet preparations are further classified in [A61Q](#).
- Amino acids or derivatives thereof are classified in [C07C](#) or [C07D](#).
- Enzymes, or mutation or genetic engineering are classified in [C12N](#).

#### Limiting references

*This subclass does not cover:*

Peptides containing  $\beta$ -lactam rings. [C07D](#)

Cyclic dipeptides not having in their molecule any other peptide link than those which form their ring; e.g. piperazine-2,5-diones. [C07D](#)

Ergot alkaloids of the cyclic peptide type. [C07D](#)  
[519/02](#)

Carrier-bound or immobilised enzymes.

## Informative references

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

Peptides in foodstuffs.	A23
Macromolecular compounds having statistically distributed amino acid units in their molecules, i.e. when the preparation does not provide for a specific, but for a random sequence of the amino acid units, homopolyamides and block copolyamids derived from amino acids.	C08G 69/00
Macromolecular products derived from proteins.	C08H 1/00
Preparation of glue or gelatine.	C09H
Single cell proteins.	C12N
Compositions for measuring or testing processes involving enzymes.	C12Q
Investigation or analysis of biological material.	G01N 33/00

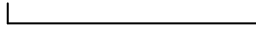
## Special rules of classification

- Fragments of peptides modified by removal or addition of amino acids, by substitution of amino acids by others, or by combination of these modifications are classified as the parent peptides. However, fragments of peptides having only four or less amino acids are also classified in group 5/00.
- Peptides prepared by chemical processes or having an amino acid sequence derived from naturally occurring peptides are classified in the natural one.
- Peptides prepared by recombinant DNA technology are not classified according to the host, but according to the original peptide expressed, e.g. HIV peptide expressed in *E. coli* is classified with HIV peptides.
- In this subclass, it is desirable to add indexing codes of groups 101:00 to 123:00.
- In this subclass, it is desirable to add indexing codes of subclass C07M.

## Glossary

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

<b>Amino acid</b>	are compounds in which at least one amino acid group and at least one carboxylic group are bound to the same carbon skeleton and the nitrogen atom of the amino group may form a ring.
<b>Normal peptide link</b>	is one between an alpha-amino group of an amino acid and the carboxylic group – in position 1 – of another alpha-amino acid.
<b>Abnormal peptide link</b>	is a link where at least one of the linked amino acids is not an alpha-amino acid or a link formed by at least one carboxyl or amino group being a part of the side chain of an alpha-amino acid.

- Peptides** are compounds containing at least two amino acids units, which are bound through at least one normal peptide link, including oligopeptides, polypeptides and proteins, where
- (i) Linear peptides** may comprise rings form through S-S bridges, or through an hydroxy or a mercapto group of an hydroxy- or a mercapto- amino acid and the carboxyl group of another amino acid (e.g. peptide lactones) but do not comprise rings which are formed only through peptide links;
- (ii) Cyclic peptides** are peptides comprising at least one ring formed only through peptide links; the cyclisation may occur only through normal peptide links or through abnormal peptide links, e.g. through the 4-amino group of 2,4-diamino-butanoic acid. Thus, cyclic compounds in which at least one link in the ring is a non-peptide link are considered as “linear peptides”;
- (iii) Depsipeptides** are compounds containing a sequence of at least two alpha-amino acids and at least one alpha-hydroxy carboxylic acid, which are bound through at least one normal peptide link and ester links, derived from the hydroxy carboxylic acids, where
- a) **Linear depsipeptides** may comprise rings formed through S-S bridges, or through an hydroxy or a mercapto group of an hydroxy-, or mercapto –amino acid and the carboxyl group of another amino- or hydroxy-acid but do not comprise rings formed only through peptide or ester links derived from hydroxy carboxylic acids, e.g. Gly-Ala-Gly-OCH<sub>2</sub>CO<sub>2</sub>H and Gly-OCH<sub>2</sub>CO-Ala-Gly are considered as “linear depsipeptides, but HOCH<sub>2</sub>CO-Gly-Ala-Gly does not contain an ester link, and is thus a derivative of Gly-Ala-Gly which is covered by 5/08;
- b) **Cyclic depsipeptides** are peptides containing at least one ring formed only through peptide or ester links- derived from hydroxy carboxylic acids-, e.g. Gly-Ala-Gly-OCH<sub>2</sub>CO;  

- (iv) Hybrid peptides** are peptides produced through fusion or covalent binding of two or more heterologous peptides.

## Synonyms and Keywords

None

## FEDERAL INSTITUTE OF INDUSTRIAL PROPERTY

## RU comments

Project : D 038

Date: 21.10.2002

Class/Subclass : C07K

As to the Subclass C07K Definition proposed by the Rapporteur we have some following remarks:

**Definition statement**

Our feeling is that the Definition statement should be slightly extended to make the scope of the subclass somewhat clearer. It might be as follows:

*This subclass covers:*

*Peptides:*

- *low-molecular peptides, e.g., dipeptides, tripeptides, tetrapeptides.*
- *oligopeptides,*
- *polypeptides,*
- *proteines,*
- *immunoglobulins, e.g., monoclonal or polyclonal antibodies,*
- *carrier-bound or immobilised peptides,*
- *hybrid peptides,*

*Preparation of peptides,*

*General processes for the preparation, treatment or modification of peptides.*

**Relationship between large subject matter areas**

In accordance with the general text of this section the word "further" should be deleted in the references to A61K and A61P.

**Limiting references**

Since references in C07 Class title are to be considered valid for all C07 subclasses, including C07K, references to C12P 21/00 and C25 3/00 might be considered.

**Glossary**

We feel the definitions of the terms "*immunoglobulins*", "*monoclonal antibodies*" and "*polyclonal antibodies*" may be very useful to the user in addition to those stated in the Glossary by the Rapporteur.

E.Brill,  
M.Sobolev



## USPTO COMMENTS

<b>REVISION PROJECT: D038/00</b> <b>Class/subclass: C07K</b>	<b>Date: 21, October 2002</b>
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US has several suggestions and questions concerning Rapporteur's definition proposal.

**Definition Statement:**

US recommends adding "*and preparation thereof*" after "*Carrier-bound or immobilized peptides*".

For clarification, where are the "non-general chemical processes for preparation of peptides" classified? We assume they go with the peptide per se based on paragraph 65 of the Guide. However, it would be helpful to have this information in the Definition Statement. We believe RU in Annex 2 has also suggested this.

**Relationship between large subject matter areas:**

In bullets 3 and 4, US recommends the deletion of "*further*" prior to "*classified*." It is not really needed.

**Limiting References:**

US believes that C12P 21/00 (use of enzymes or microorganisms to produce peptides or proteins) should be added to the limiting references. We also agree with RU (Annex 2) that C25B 3/00 (electrolytic production of organic compounds) should also be considered for addition to the limiting references.

**Special rules of classification:**

In bullet 2, US suggests a wording change to make the statement clearer:

*"Peptides prepared by chemical processes or having an amino acid sequence derived from naturally occurring peptides are classified with the naturally occurring peptide."*

**Glossary:**

US has the following suggestions:

Amino Acid: delete the first "are"

Normal peptide link: replace "is one" with "a link"

Abnormal peptide link: delete first "is", delete "s" to read "alpha-amino acid"

Peptides, Cyclic peptides and Depsipeptides: delete first "are"

Linear peptides: change to "formed" in first line of definition

US supports RU's suggestions in Annex 2 for additional glossary terms.

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**Japan Patent Office**

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November 6 , 2002

Project: D038

Subclass: C07K

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**JP Comments on Rapporteur Proposal Dated October 15, 2002**

Concerning the term “single cell” of the “Informative reference” part, the term, which is present in C12N of the IPC 7, is not defined in the definition of the subclass C12N (C039). Also, its relation with “microorganism” is not stated explicitly though their definitions are both encompassed by a similar concept. Therefore, we propose to replace “single cell” with “microorganism” for a consistent terminology.

[See JP comments “Special Rules of Classification” in Annex 5 of D039: “We have concerned about the discrepancy of terminology between ‘single-cell’ and ‘microorganism’ (There is no definition of the “single-cell” in the IPC to see their difference). We propose to apply ‘microorganism’ alone.”]

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# Swedish Patent and Registration Office

IPC Definition Project D038/00, subclass C07K

November 12th, 2002

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## Rapporteur report

Comments from RU, US and JP were received. Most of the remarks made by the commenting offices are now incorporated in the new proposal.

RU suggested extending the scope of the definition statement. R does not think it is necessary to mention all main group titles in the definition statement, but has extended the definition of the word peptides with a few examples.

Carolina Gómez Lagerlöf

## Title - C07K

### Peptides

#### Definition statement

*This subclass covers:*

- General processes for the preparation of peptides.
- Peptides e.g oligopeptides, proteins.
- Immunoglobulins
- Carrier-bound or immobilised peptides and preparation thereof
- Hybrid peptides.

#### Relationship between large subject matter areas

Subclass [C07K](#) 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 are classified in [A01N](#).
- Biocidal, pest attractant, or plant growth regulatory activity of chemical compounds or preparations are classified in [A01P](#).
- Preparations for medical, dental, or toilet purposes are classified in [A61K](#).
- Therapeutic activity of chemical compounds or medicinal preparation in [A61P](#).
- Uses of cosmetics or similar toilet preparations are classified in [A61Q](#).
- Amino acids or derivatives thereof are classified in [C07C](#) or [C07D](#).
- Enzymes, or mutation or genetic engineering are classified in [C12N](#).

#### Limiting references

*This subclass does not cover:*

Peptides containing $\beta$ -lactam rings	<a href="#">C07D</a>
Cyclic dipeptides not having in their molecule any other peptide link than those which form their ring; e.g. piperazine-2,5-diones	<a href="#">C07D</a>
Ergot alkaloids of the cyclic peptide type	<a href="#">C07D</a> <a href="#">519/02</a>
Carrier-bound or immobilised enzymes	<a href="#">C12N 11/00</a>
Preparation of peptides or proteins by fermentation or enzyme-using processes	<a href="#">C12N 21/00</a>
Electrolytic production of organic compounds	<a href="#">C25B 3/00</a>

## Informative references

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

Peptides in foodstuffs	A23
Macromolecular compounds having statistically distributed amino acid units in their molecules, i.e. when the preparation does not provide for a specific, but for a random sequence of the amino acid units, homopolyamides and block copolyamids derived from amino acids	C08G 69/00
Macromolecular products derived from proteins	C08H 1/00
Preparation of glue or gelatine	C09H
Micro-organisms	C12N
Compositions for measuring or testing processes involving enzymes	C12Q
Investigation or analysis of biological material	G01N 33/00

## Special rules of classification

- Fragments of peptides modified by removal or addition of amino acids, by substitution of amino acids by others, or by combination of these modifications are classified as the parent peptides. However, fragments of peptides having only four or less amino acids are also classified in group 5/00.
- Peptides prepared by chemical processes or having an amino acid sequence derived from naturally occurring peptides are classified with the naturally occurring peptide.
- Peptides prepared by recombinant DNA technology are not classified according to the host, but according to the original peptide expressed, e.g. HIV peptide expressed in *E. coli* is classified with HIV peptides.
- In this subclass, it is desirable to add indexing codes of groups 101:00 to 123:00.
- In this subclass, it is desirable to add indexing codes of subclass C07M.

## Glossary

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

**Amino acid** compounds in which at least one amino acid group and at least one carboxylic group are bound to the same carbon skeleton and the nitrogen atom of the amino group may form a ring.

**Normal peptide link** a link between an alpha-amino group of an amino acid and the carboxylic group – in position 1 – of another alpha-amino acid.

**Abnormal peptide link** a link where at least one of the linked amino acids is not an alpha-amino acid or a link formed by at least one carboxyl or amino group being a part of the side chain of an alpha-amino acid.


**Peptides** compounds containing at least two amino acid units, which are bound through at least one normal peptide link, including oligopeptides, polypeptides and proteins, where

**(i) Linear peptides** may comprise rings formed through S-S bridges, or through an hydroxy or a mercapto group of an hydroxy- or a mercapto- amino acid and the carboxyl group of another amino acid (e.g. peptide lactones) but do not comprise rings which are formed only through peptide links;

**(ii) Cyclic peptides** peptides comprising at least one ring formed only through peptide links; the cyclisation may occur only through normal peptide links or through abnormal peptide links, e.g. through the 4-amino group of 2,4-diamino-butanoic acid. Thus, cyclic compounds in which at least one link in the ring is a non-peptide link are considered as “linear peptides”;

**(iii) Depsipeptides** compounds containing a sequence of at least two alpha-amino acids and at least one alpha-hydroxy carboxylic acid, which are bound through at least one normal peptide link and ester links, derived from the hydroxy carboxylic acids, where

**a) Linear depsipeptides** may comprise rings formed through S-S bridges, or through an hydroxy or a mercapto group of an hydroxy-, or mercapto –amino acid and the carboxyl group of another amino- or hydroxy-acid but do not comprise rings formed only through peptide or ester links derived from hydroxy carboxylic acids, e.g. Gly-Ala-Gly-OCH<sub>2</sub>CO<sub>2</sub>H and Gly-OCH<sub>2</sub>CO-Ala-Gly are considered as “linear depsipeptides, but HOCH<sub>2</sub>CO-Gly-Ala-Gly does not contain an ester link, and is thus a derivative of Gly-Ala-Gly which is covered by 5/08;

**b) Cyclic depsipeptides** are peptides containing at least one ring formed only through peptide or ester links- derived from hydroxy carboxylic acids-, e.g. Gly-Ala-Gly-OCH<sub>2</sub>CO;  


**(iv) hybrid peptides** are peptides produced through fusion or covalent binding of two or more heterologous peptides.

**Immunoglobulins** soluble proteins produced by B cells, which interacts with antigens.

**Monoclonal antibodies** antibodies produced from a single clone of cells.

**Polyclonal antibodies** serum sample that contains antibodies to a variety of antigens or to a variety of determinants on a single antigen.

## Synonyms and Keywords

None



IPC/D 039/02  
ORIGINAL: English/French  
DATE: November 15, 2002

**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>C12N</b>

<b>ANNEX/ ANNEXE</b>	<b>CONTENT/CONTENU</b>	<b>ORIGIN/ ORIGINE</b>	<b>DATE</b>
1	Rapporteur proposal / Proposition du rapporteur	US	05.02
2	Rapporteur report / Rapport du rapporteur	US	09.02
3	Rapporteur proposal / Proposition du rapporteur	US	09.02
4	Proposal / Proposition	US	09.02
5	Comments / Observations	JP	10.02
6	Comments / Observations	EP	10.02
7	Comments / Observations	RU	10.02
8	Rapporteur report / Rapport du rapporteur	US	11.02
9	Rapporteur proposal / Proposition du rapporteur	US	11.02

**RAPPORTEUR : US**

**TECHNICAL FIELD/DOMAINE TECHNIQUE : C**





<b>USPTO RAPPORTEUR PROPOSAL</b>	
IPC Revision WG – Definition Project-D039/01, Subclass C12N	Date: May 13, 2002

## **Subclass C12N Definition**

### **Title**

MICRO-ORGANISMS OR ENZYMES; COMPOSITIONS THEREOF; PROPAGATING, PRESERVING, OR MAINTAINING MICRO-ORGANISMS; MUTATION OR GENETIC ENGINEERING\*; CULTURE MEDIA

*[An asterisk (\*) following a word or phrase located anywhere within this definition indicates that reference should be made to the 'Glossary of Terms' of this subclass for the specific meaning thereof.]*

### **Definition Statement**

This subclass covers:

- A. Micro-organisms\* and enzymes\* or proenzymes\* and compositions containing micro-organisms and enzymes or proenzymes.
- B. Processes for preparing, activating, inhibiting, separating, or purifying enzymes.
- C. Treatment of micro-organisms or enzymes with electrical or wave energy.
- D. Processes of reproducing, maintaining, or preserving microorganisms or compositions thereof.
- E. Processes of preparing or isolating a composition containing micro-organisms.
- F. Media for supporting or sustaining the growth of micro-organisms.
- G. Mutation\* processes (methods of producing mutants without inserting foreign genetic material into the micro-organism) and screening processes therefor.
- H. Processes of fusing two or more micro-organisms together.
- I. Recombinant DNA-technology\* including:
  1. processes of preparing, isolating and purifying nucleic acids;
  2. methods for the introduction of genetic material into microorganisms using vectors or other expression systems, using micro-encapsulation, using micro-injection, and other ways;
  3. methods of regulating gene expression;
  4. genes, per se; and
  5. vectors and expression systems, per se.

### **Relationships Between Large Subject Matter Areas (e.g., Subclasses)**

NONE

### **Limiting References**

A01N - PRESERVATION OF BODIES OF HUMANS OR ANIMALS OR PLANTS OR PARTS THEREOF; BIOCIDES, e.g. AS DISINFECTANTS, AS PESTICIDES, AS HERBICIDES, groups 1/00 for compositions and use of the compositions and compounds for preservation of bodies of humans or animals or parts thereof, 3/00 for compositions and use of

the compositions and compounds for preservation of plants or parts thereof, and 63/00 for 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.

A21D – TREATMENT, e.g., PRESERVATION, OF FLOUR OR DOUGH, e.g., BY ADDITION OR MATERIALS; BAKING; BAKERY PRODUCTS; PRESERVATION THEREOF – groups 10/00 and 13/00 for bakery products which may contain micro-organisms or enzymes.

A23 – FOODS OR FOODSTUFFS; THEIR TREATMENT; NOT COVERED BY OTHER CLASSES - various subclasses for foods or foodstuffs containing micro-organisms or enzymes.

A61K - PREPARATIONS FOR MEDICAL, DENTAL, OR TOILET PURPOSES - various groups for body treating or pharmaceutical preparations containing micro-organisms or enzymes, subgroup 31/7088 for medicinal preparations containing nucleic acids, and group 48/00 for medicinal preparations containing genetic material for gene therapy.

A61L – METHODS OR APPARATUS FOR STERILISING MATERIALS OR OBJECTS IN GENERAL; DISINFECTION, STERILISATION, OR DEODORISATION OF AIR; CHEMICAL ASPECTS OF BANDAGES, DRESSINGS, ABSORBENT PADS, OR SURGICAL ARTICLES; MATERIALS FOR BANDAGES, DRESSINGS, ABSORBENT PADS, OR SURGICAL ARTICLES – subgroups 15/36 and 15/38 for bandages, dressings or absorbent pads for physiological fluids containing micro-organisms or enzymes, respectively.

C05F – ORGANIC FERTILISERS NOT COVERED BY SUBCLASSES C05B, C, E.G., FERTILISERS FROM WASTE OR REFUSE – subgroup 9/04 for biological compost.

C07H – SUGARS; DERIVATIVES THEREOF; NUCLEOSIDES; NUCLEOTIDES; NUCLEIC ACIDS – group 21/00 for nucleic acids not used in recombinant technology and their chemical preparation.

C11D – DETERGENT COMPOSITIONS; USE OF SINGLE SUBSTANCES AS DETERGENTS; SOAP OR SOAP-MAKING; RESIN SOAPS; RECOVERY OF GLYCEROL – enzyme containing detergent compositions.

C12P – FERMENTATION OR ENZYME-USING PROCESSES TO SYNTHESISE A DESIRED CHEMICAL COMPOUND OR COMPOSITION OR TO SEPARATE OPTICAL ISOMERS FROM A RACEMIC MIXTURE – subgroup 19/34 for preparation on non-structural polynucleotides from micro-organisms or with enzymes.

C12Q – MEASURING OR TESTING PROCESSES INVOLVING ENZYMES OR MICRO-ORGANISMS; COMPOSITIONS OR TEST PAPERS THEREFOR; PROCESSES OF PREPARING SUCH COMPOSITIONS; CONDITION-RESPONSIVE CONTROL IN MICROBIOLOGICAL OR ENZYMOLOGICAL PROCESSES – group 1/00 for measuring and testing processes involving enzymes or micro-organisms and testing media therefore.

### **Informative References**

A01H – NEW PLANTS OR PROCESSES FOR OBTAINING THEM; PLANT REPRODUCTION BY TISSURE CULTURE TECHNIQUES – for plants and processes of obtaining them.

A01K – ANIMAL HUSBANDRY; CARE OF BIRDS, FISHES, INSECTS; FISHING; REARING OR BREEDING ANIMALS, NOT OTHERWISE PROVIDED FOR; NEW BREEDS OF ANIMALS – group 67/00 for new breeds of animals.

C09K – MATERIALS FOR MISCELLANEOUS APPLICATIONS, NOT PROVIDED FOR ELSEWHERE – *group 8/582 (new in 8<sup>th</sup> edition) for compositions, characterized by the use of bacteria, which are used to enhance recovery of hydrocarbons from underground formations.*

### **Special Rules of Classification**

1. In the absence of an indication to the contrary, classification is made in the last appropriate place.
1. In this subclass, sub-cellular parts of micro-organisms, unless specifically provided for elsewhere, are classified with the whole cell.
2. Therapeutic activity of single-cell proteins or enzymes is further classified in subclass A61P.

### **Glossary of Terms**

To ensure consistency, repetitive terms or phrases that are used in the titles, definitions, or notes of this subclass and its dependent groups in a special or limited sense are set forth below with the meaning each is to have.

**Enzyme** – proteinaceous materials, which cause a chemical change in a starting material without being consumed in the reaction.

**Genetic Engineering** – A 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.

**Micro-organism** - consists of bacteria, actinomycetales, fungi (e.g., yeast), virus, undifferentiated 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, but with no insertion of foreign genetic material into the micro-organism.

**Proenzyme** – an enzyme precursor

**Recombinant DNA Technology** – techniques for cutting apart and splicing together pieces of DNA from the same or different sources.

**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

<b>USPTO RAPPORTEUR REPORT</b>	
IPC Revision WG – Definition Project- D039/01 - Subclass C12N	Date: September 15, 2002

**Comments**

Based on general recommendations by the Definitions Task Force, Rapporteur has reformatted the C12N definition and made several minor changes to the Annex 1 version.

<b>USPTO RAPPORTEUR PROPOSAL</b>	
IPC Revision WG – Definition Project-D039/01, Subclass C12N	Date: September 15, 2002

**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 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.

Mutation processes (methods of producing mutants without inserting foreign genetic material into the micro-organism) and screening processes therefore.

Processes of fusing two or more micro-organisms together.

Recombinant DNA-technology including:

- 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.

## Relationship between large subject matter areas

NONE

## Limiting references

*This subclass does not cover:*

Compositions and use of the compositions and compounds for preservation of bodies of humans or animals or parts thereof	A01N1/00
Compositions and use of the compositions and compounds for preservation of plants or parts thereof	A01N3/00
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	A01N63/00
Bakery products which may contain micro-organisms or enzymes	A21D10/00 A21D13/00
Foods or foodstuffs containing micro-organisms or enzymes	A23
Body treating or pharmaceutical preparations containing micro-organisms or enzymes	A61K
Medicinal preparations containing nucleic acids	A61K 31/7088
Medicinal preparations containing genetic material for gene therapy	A61K48/00
Bandages, dressings or absorbent pads for physiological fluids containing micro-organisms	A61L15/36
Bandages, dressings or absorbent pads for physiological fluids containing enzymes	A61L15/38
Biological compost	C05F9/04
Nucleic acids not used in recombinant technology and their chemical preparation	C07H21/00
Enzyme containing detergent compositions	C11D
Preparation of non-structural polynucleotides from micro-organisms or with enzymes	C12P19/34
Measuring and testing processes involving enzymes or micro-organisms and testing media therefore	C12Q1/00

## 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

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

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

Therapeutic activity of single-cell proteins or enzymes is further classified in subclass [A61P](#).

## Glossary

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

<b>Enzyme</b>	proteinaceous materials, which cause a chemical change in a starting material without being consumed in the reaction.
<b>Genetic Engineering</b>	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.
<b>Maintaining</b>	supporting or sustaining growth or metabolic activity of micro-organisms
<b>Micro-organism</b>	consists of bacteria, actinomycetales, fungi (e.g., yeast), virus, undifferentiated human, animal, or plant cells, tissues, protozoa and unicellular algae.
<b>Mutation</b>	any change that alters the sequence of bases along the DNA thereby changing the genetic material of a microorganism, but with no insertion of foreign genetic material into the micro-organism.
<b>Preserving</b>	rendering micro-organisms reversibly dormant
<b>Proenzyme</b>	an enzyme precursor
<b>Recombinant DNA Technology</b>	techniques for cutting apart and splicing together pieces of DNA from the same or different sources.
<b>Vector</b>	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**

October 9, 2002

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Project: D039Subclass: C12N

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**JP Comments on Rapporteur Proposal Dated May 13, 2002****Definition Statement**

We are not sure what these categories A to I are based on. They do not seem to be arranged even by the order of the IPC.

**Limiting References**

We do not understand the relationship between the proposed C05F9/04 and C12N or the reason why this subgroup is present here. It is preferable to describe C05F11/08 instead.

**Special Rules of Classification**

We have concerned about the discrepancy of terminology between “single-cell” and “microorganism.” (There is no definition of the “single-cell” in the IPC to see their difference.) We propose to apply “microorganism” alone.

**Project: D039/01    Subclass: C12N**

Comments on the proposal of Annex 3.

*Definition statement:*

We would like to delete "without inserting foreign genetic material into the micro-organism" from the 6th statement. It should read:

"Mutation processes (method of producing mutants) and screening processes therefor".

We also would like to add a point under " Recombinant DNA-technology including:"

\$    process for manipulation of genetic material.

*Special rules of classification:*

We agree with JP comment and would like to change the "single-cell" to "micro-organism".

*Glossary:*

**Micro-organism:**    we would like to delete "undifferentiated".

**Mutation:**            we would like to delete "but with no insertion --- into the micro-organism".

Anne Glanddier.

## FEDERAL INSTITUTE OF INDUSTRIAL PROPERTY

<b>RU comments</b>	
Project : D 039	Date: 21.10.2002
Class/Subclass : C12N	

As to the Subclass C12N Definition proposed by the Rapporteur we have some following remarks:

**Definition statement**

In relation to the line "Processes of fusing two or more micro-organisms together" we think the phrase "*Fused cells; preparation thereof*" would be somewhat better with regard to the wordings of entries 15/02 and 5/12.

**Relationship between large subject matter areas**

We believe the indication to multiple classification in subclass A61P to be cited in this very section, as it has been agreed upon that rules concerning multiple classification are to be placed here according to the new "Guidelines for drafting subclass definition proposals". For the same reason, the similar rule "*Biocidal, pest repellent, pest attractant or plant growth regulatory activity of compounds or preparations is further classified in subclass A01P*", which is missing in the Definitions, should be present in this section.

**Limiting references**

In our opinion, and taking into account some other projects as well, e.g., D002, all references listed by the Rapporteur do not seem to be limiting. Some of them we would like to have in the section "Relationship between large subject matter areas", e.g.:

*"This subclass does not cover compositions containing micro-organisms or enzymes for special applications, e.g...."*, otherwise all these references should be viewed as informative.

As to the references to C12P 19/34 and C12Q 1/00, we think they are unnecessary because in Class C12 the last place rule is applied.

Also, to our mind, the references to A01H and A01K 67/00 are limiting.

**Special rules of classification**

We guess Notes (2) and (3) after C12 Class title should be cited in this section as they are in the IPC now.

E.Brill,  
M.Sobolev

<b>USPTO RAPPORTEUR REPORT</b>	
IPC Revision WG – Definition Project-D039/01 - Subclass C12N	Date: November 8, 2002

Comments were received from JP (Annex 5), EP (Annex 6) and RU (Annex 7) on Rapporteur's Proposal (Annex 3) for the definition of Subclass C12N.

### **Definition Statement**

JP is concerned with the order of categories A-I in Annex 1 definition proposal. Rapporteur had rearranged these categories in the proposal of Annex 3 and put them in the order of C12N subject matter. R hopes this has solved JP's concern.

EP would like “without inserting foreign genetic material into the micro-organism” deleted from the 6<sup>th</sup> phrase and the phrase reworded as:

***“Mutation processes (method of producing mutants) and screening processes therefor.”***

Rapporteur agrees with the deletion but would prefer the new phrase to read:

***“Preparing of mutants and screening processes therefor”***

EP suggested an additional bullet under “Recombinant DNA-technology including:” which R will include.

RU recommended a change to the wording of phrase 7.

R used a modified version of RU's suggestion in the Rapporteur proposal. Since the fused cells per se are not classified with the “preparation thereof”, we kept them separate from “preparation of” and included them in an “e.g.” in phrase 1 to reflect the order of the groups in this subclass.

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

RU believes the A61P reference from the “Special rules” section should be moved to the “Relationship” section. RU also recommended the addition of a statement relating to A01P. R agrees with these suggestions, has made the changes, and additionally added a statement related to A61Q.

### **Limiting references**

JP does not understand the relationship between C05F 9/04 (biological compost) and C12N. JP also suggested the addition of C05F 11/08 as a limiting reference.

Rapporteur believes that biological compost contains microorganisms and possibly enzymes, which is why it is “biological” compost. Therefore, in R's opinion, it can be considered a microbial composition. This is why it was included under limiting references. R would like to keep it under limiting references, but welcomes other opinions on this.

R will add C05F 11/08 to the limiting references.

RU believes “all references listed by Rapporteur do not seem to be limiting.” RU would like to see some of the references listed in the “Relationship between large subject matter areas.”

According to the “Guidelines for drafting subclass definitions” as seen in IPC/WG/7/7 Annex F, the “Relationship” section “should only explain relationships that cannot be expressed in the form of references.” Based on this, R believes the citations included under “Limiting references” are proper.

RU believes the references to C12P and C12Q are unnecessary since C12 is using the last place rule.

R agrees and has removed these references.

RU believes A01H (new plants) and A01K 67/00 (new breeds of animals) should be limiting rather than informative.

Based on the explanation [C12, note (2)] of what is considered a micro-organism, R would not consider that plants and animals are covered under C12N thereby needing limiting references to these two areas. R therefore put these two areas into the informative reference section. However, we would welcome opinions from the Revision group members on this matter and will modify the definition proposal as needed.

### **Special rules of classification**

JP and EP are concerned with “the discrepancy of terminology between “single-cell proteins” and “micro-organism” in note (3).

Rapporteur took this exact wording directly from C12N (2) note. We will however try to modify the note. Based on RU’s comments, this note is to be moved to the “Relationship” section.

According to several dictionaries, “single-cell protein” is a common term. It is defined as protein produced by microorganisms, such a bacteria, yeasts, unicellular algae, that is extracted for use as a component of human or animal foods. A second definition is that it is a 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. R will add a definition to the Glossary for single-cell proteins and would welcome comments on this issue.

RU believes Notes (2) and (3) after C12 Class title should be included in this section as they are now worded.

R has made this change in the new proposal.

### **Glossary**

EP requested modifications for the definitions of “microorganism” and “mutation.” EP wants “undifferentiated” removed from the definition of “microorganism.”

R took the language for this definition from C12, note (3) and would prefer to keep “undifferentiated. However, R welcomes other opinions on this matter.

R has deleted the phrase from the mutation definition as suggested by EP.

<b>USPTO RAPPORTEUR PROPOSAL</b>	
IPC Revision WG – Definition Project-D039/01, Subclass C12N	Date: November 8, 2002

**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.

## Relationship between large subject matter areas

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](#).

## Limiting references

*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

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

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

In this subclass, unless specifically provided for, undifferentiated 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

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

<b>Enzyme</b>	proteinaceous materials, which cause a chemical change in a starting material without being consumed in the reaction.
<b>Genetic Engineering</b>	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.
<b>Maintaining</b>	supporting or sustaining growth or metabolic activity of micro-organisms
<b>Micro-organism</b>	consists of bacteria, actinomycetales, fungi (e.g., yeast), virus, undifferentiated human, animal, or plant cells, tissues, protozoa and unicellular algae.
<b>Mutation</b>	any change that alters the sequence of bases along the DNA thereby changing the genetic material of a microorganism.
<b>Preserving</b>	rendering micro-organisms reversibly dormant
<b>Proenzyme</b>	an enzyme precursor
<b>Recombinant DNA Technology</b>	techniques for cutting apart and splicing together pieces of DNA from the same or different sources.
<b>Single-cell protein</b>	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 <i>Spirulina</i> 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



IPC/D 040/02  
ORIGINAL: English/French  
DATE: November 15, 2002

**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>C12P</b>

<b>ANNEX/ ANNEXE</b>	<b>CONTENT/CONTENU</b>	<b>ORIGIN/ ORIGINE</b>	<b>DATE</b>
1	Rapporteur proposal / Proposition du rapporteur	US	05.02
2	Rapporteur report / Rapport du rapporteur	US	09.02
3	Rapporteur proposal / Proposition du rapporteur	US	09.02
4	Proposal / Proposition	US	09.02
5	Comments / Observations	JP	10.02
6	Comments / Observations	DE	10.02
7	Comments / Observations	EP	10.02
8	Rapporteur report / Rapport du rapporteur	US	11.02
9	Rapporteur proposal / Proposition du rapporteur	US	11.02

RAPPORTEUR : US

TECHNICAL FIELD/DOMAINE TECHNIQUE : C



<b>USPTO RAPPORTEUR PROPOSAL</b>	
IPC Revision WG – Definition Project-D040/01, Subclass C12P	Date: May 13, 2002

## Subclass C12P Definition

### Title

FERMENTATION OR ENZYME-USING PROCESSES TO SYNTHESISE A DESIRED CHEMICAL COMPOUND OR COMPOSITION OR TO SEPARATE OPTICAL ISOMERS FROM A RACEMIC MIXTURE

*[An asterisk (\*) following a word located anywhere within this definition indicates that reference should be made to the 'Glossary of Terms' of this subclass for the specific meaning thereof.]*

### Definition Statement

This subclass covers:

- A. Processes wherein the product (compound or composition) is synthesized\* by a biochemical transformation of matter performed by a micro-organism\* or enzyme.
- B. Processes of separating enantiomers (optical isomers) from a racemic mixture.

#### Explanatory Notes:

This subclass covers both major and minor chemical modifications.

### Relationships Between Large Subject Matter Areas (e.g., Subclasses)

NONE

### Limiting References

A21D – TREATMENT, e.g., PRESERVATION, OF FLOUR OR DOUGH, e.g., BY ADDITION OR MATERIALS; BAKING; BAKERY PRODUCTS; PRESERVATION THEREOF – subgroup 8/04 for treating dough with micro-organisms or enzymes.

A23 – FOODS OR FOODSTUFFS; THEIR TREATMENT; NOT COVERED BY OTHER CLASSES - various subclasses include processes for treating foods or foodstuffs with micro-organisms or enzymes.

C02F – TREATMENT OF WATER, WASTE WATER, SEWAGE, OR SLUDGE – subgroup 11/04 for production of methane by anaerobic treatment of sludge.

C05F – ORGANIC FERTILISERS NOT COVERED BY SUBCLASSES C05B, C, E.G., FERTILISERS FROM WASTE OR REFUSE – 17/00 for preparation of fertilizers characterized by the composting step.

C12C – BREWING OF BEER – group 11/00 for fermentation processes for beer production.

C12 G – WINE; OTHER ALCOHOLIC BEVERAGES; PREPARATION THEREOF – group 1/00 for wine making fermentation processes and group 3/00 for fermentation processes for preparing other alcoholic beverages.

C12H – PASTEURISATION, STERILISATION, PRESERVATION, PURIFICATION, CLARIFICATION, AGEING OF ALCOHOLIC BEVERAGES OR REMOVAL OF ALCOHOL THEREFROM – subgroup 1/15 involving enzymes.

C12J – VINEGAR; ITS PREPARATION – for preparing vinegar by fermentation of starting materials.

C12N - MICRO-ORGANISMS OR ENZYMES; COMPOSITIONS THEREOF; PROPAGATING, PRESERVING, OR MAINTAINING MICRO-ORGANISMS; MUTATION OR GENETIC ENGINEERING; CULTURE MEDIA – group 9/00 for processes of preparing enzymes.

### **Informative References**

C01 - INORGANIC CHEMISTRY, C07 - ORGANIC CHEMISTRY, and C08 - ORGANIC MACROMOLECULAR COMPOUNDS; THEIR PREPARATION OR CHEMICAL WORKING-UP; COMPOSITIONS BASED THEREON – for methods of preparing compounds without using micro-organisms or enzymes and the compounds per se.

C12S – PROCESSES USING ENZYMES OR MICRO-ORGANISMS TO LIBERATE, SEPARATE OR PURIFY A PRE-EXISTING COMPOUND OR COMPOSITION; PROCESSES USING ENZYMES OR MICRO-ORGANISMS TO TREAT TEXTILES OR TO CLEAN SOLID SURFACES OR MATERIALS – processes using enzymes or microorganisms which are already provided for in other subclasses but due to the relevance of the subject matter are also classified here.

E21B – EARTH OR ROCK DRILLING; OBTAINING OIL, GAS, WATER, SOLUBLE OR MELTABLE MATERIALS OR A SLURRY OR MINERALS FROM WELLS – group 43/22 for methods of enhanced recovery of hydrocarbons using bacteria.

### **Special Rules of Classification**

1. In the absence of an indication to the contrary, classification is made in the last appropriate place.
2. Group C12P 1/00 covers processes for producing 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.
3. In this subclass, sub-cellular parts of micro-organisms, unless specifically provided for elsewhere, are classified with the whole cell
4. If a particular reaction is considered of interest, it may also be classified in the relevant chemical compound class, e.g., C07, C08.
5. 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**

To ensure consistency, repetitive terms that are used in the titles, definitions, or notes of this subclass and its dependent groups in a special or limited sense are set forth below with the meaning each is to have.

**Micro-organism** - consists of bacteria, actinomycetales, fungi (e.g., yeast), virus, undifferentiated 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

<b>USPTO RAPPORTEUR REPORT</b>	
IPC Revision WG – Definition Project- D040/01 - Subclass C12P	Date: September 15, 2002

**Comments**

Based on general recommendations by the Definitions Task Force, Rapporteur has reformatted the C12P definition and also slightly modified the Annex 1 submission.



<b>USPTO RAPPORTEUR PROPOSAL</b>	
IPC Revision WG – Definition Project-D040/01, Subclass C12P	Date: September 15, 2002

**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 a micro-organism or enzyme.

Processes of separating enantiomers (optical isomers) from a racemic mixture.

Explanatory Note:

This subclass covers both major and minor chemical modifications.

**Relationship between large subject matter areas**

NONE

**Limiting references**

*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

## 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
Processes using enzymes or micro-organisms which are already provided for in other subclasses	C12S
Methods for enhanced recovery of hydrocarbons using bacteria	E21B43/22

## Special rules of classification

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](#). *[This note will be moved or duplicated under the definition of group 1/00 once it is written]*

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

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

In this subclass:

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

## Glossary

*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, undifferentiated 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

<b>USPTO PROPOSAL</b>	
<b>REVISION PROJECT: D040/01</b>	<b>Date: September 19, 2002</b>
<b>Class/subclass: C12P</b>	

As requested by the WG {IPC/WG/7/7, paragraph 17, (e)}, the US proposal for the rearrangement of the subclass index of Subclass C12P follows. We have ordered the groups in a sequence for “top-down priority” use.

### **Subclass Index**

SEPARATION OF OPTICAL ISOMERS USING ENZYMES OR MICRO-ORGANISMS.....	41/00
BIOSYNTHESIS OF CHEMICAL SUBSTANCES	
Involving micro-organisms of different genera, simultaneously.....	39/00
Penicillins.....	37/00
Cephalosporins.....	35/00
Steroids.....	33/00
Prostaglandins .....	31/00
Tetracyclines.....	29/00
Gibberellins.....	27/00
Riboflavins.....	25/00
Carotenes.....	23/00
Peptides or proteins.....	21/00
Compounds containing saccharide radicals.....	19/00
Heterocyclic compounds with only O, N, S, Se, or Te as ring hetero atoms.....	17/00
Compounds containing at least three condensed carbocyclic rings.....	15/00
Nitrogen-containing organic compounds.....	13/00
Sulfur-containing organic compounds.....	11/00
Organic compounds containing a metal or atom other than H, N, C, O, S, or halogen.....	9/00

Oxygen containing organic compounds.....	7/00
Hydrocarbons.....	5/00
Elements or inorganic compounds except carbon dioxide.....	3/00
OTHER BIOSYNTHESIS PROCESSES.....	1/00

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**Japan Patent Office**

October 9, 2002

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**Project: D040****Subclass:C12P**

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**JP Comments on Rapporteur Proposal Dated September 15, 2002****Definition Statement**

JP prefers to add the wording “by a biochemical transformation of matter performed by a micro-organism or enzyme” into “Processes of separating enantiomers (optical isomers) from a racemic mixture” for more precise definition. We concern the proposed definition would cover the process using “a micro-organism or enzyme” and change its original scope.

**Limiting Reference**

- It is unclear whether the process using a micro-organism or enzyme, would be covered by C05F17/00, and we are not sure the reason why this subgroup is present here. It is preferable to describe C05F11/08 instead.
- We would like to know the reason for the deletion of “C12N15/00.” This would cause an inconsistency with the present operation of the IPC, and C12N15/00 should be present in this part.

<b>DEUTSCHES PATENT- UND MARKENAMT</b> German Patent and Trade Mark Office	Class/Subcl.: <b>C12P</b>
	Date : 10.10.2002
<b>DE - Comments — D 040/01</b>	

## Re: IPC Definition for Subclass C12P

In our opinion the US proposal is well structured and in regard to its content it seems to be complete as well.

But concerning the "LIMITING REFERENCES" we propose not to delete the reference to C12N 15/00 in connection with C12N 9/00 to avoid that such documents will be classified preferably to C12P 21/00 in which recombinant DNA-technology is used with the aim to produce peptides or proteins.

**Project: D040/01    Subclass: C12P**

Comments on the proposal of Annex 3.

*Definition statement:*

We would like to add the following wording:

" Processes wherein the product (compound or composition) is synthesized by a biochemical transformation of matter performed by a micro-organism or enzyme, **using enzymes or micro-organisms**"

*Limiting references:*

We agree with DE and JP comments, and wonder why the reference to C12N15/00 does not appear anymore.

*Glossary:*

**Micro-organism:**    we would like to delete "undifferentiated".

Comments on the proposal of Annex 4.

We have no further comment on the subclass index.

Anne Glanddier.



<b>USPTO RAPPORTEUR REPORT</b>	
IPC Revision WG – Definition Project- D040/01 - Subclass C12P	Date: November 8, 2002

Comments were received from JP (Annex 5), DE (Annex 6) and EP (Annex 7) on Rapporteur's Proposal (Annex 3) for the definition of Subclass C12P. EP (Annex 7) also commented on Rapporteur's subclass index proposal of Annex 4.

### **Definition Statement**

JP suggested additional wording for the second phrase of the definition statement in order to make it clear that the process is being done by micro-organisms or enzymes.

Rapporteur will clarify this statement to reflect JP's concern.

EP suggested additional wording for the first phrase of the definition statement.

It appears to Rapporteur that this additional wording is repeating what has already been stated. However, R modified the statement in such a way that hopefully will alleviate EP's concerns.

### **Limiting references**

JP, DE, and EP would like the reference to C12N 15/00 added.

Rapporteur will add this reference, but has several questions. Where would a method of producing a protein using a recombinant bacteria be classified? Where would a method of producing a non-structural polynucleotide using a recombinant bacteria be classified? What is a "non-structural" polynucleotide (see note in C12N 15/10)?

JP questions the validity of C05F 17/00 (preparing fertilizers using a composting step) as a limiting reference.

R believes the process of composting involves the use of microorganisms to make the compost. Therefore, it could be considered a fermentation process for making a composition and is a useful limiting reference.

JP prefers the addition of C05F 11/08 as a limiting reference.

Since C05F 11/08 appears to Rapporteur to be a "product" group and therefore would not be useful as a limiting reference for the process subclass C12P, it was not included. However, if this is an area where the process is found with the product, R can add C05F 11/08 to the limiting references. R is not as familiar with the IPC as others are and would welcome comments on this.

### **Informative references**

Rapporteur has decided that the reference to C12S should be moved to the "Relationship between large subject matter areas" section since it deals with multiple classification between subclasses. This is reflected in R's proposal.

### **Glossary**

EP requested that "undifferentiated" be removed from the definition of "microorganism."

R took the language for this definition from C12, note (3) and would prefer to keep "undifferentiated. However, R welcomes other opinions on this matter.

EP stated they have no further comment on the subclass index of Annex 4.

<b>USPTO RAPPORTEUR PROPOSAL</b>	
IPC Revision WG – Definition Project-D040/01, Subclass C12P	Date: November 8, 2002

## **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.

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

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.

## **Limiting references**

*This subclass does not cover:*

Treating dough with micro-organisms	<a href="#">A21D8/04</a>
Processes for treating foods or foodstuffs with micro-organisms	<a href="#">A23</a>
Production of methane by anaerobic treatment of sludge	<a href="#">C02F11/04</a>
Preparation of fertilisers characterized by a composting step	<a href="#">C05F17/00</a>
Fermentation processes for beer production	<a href="#">C12C11/00</a>
Fermentation processes for wine making	<a href="#">C12G1/00</a>

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

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. *[This note will be moved or duplicated under the definition of group 1/00 once it is written]*

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

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

In this subclass:

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

## Glossary

*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, undifferentiated 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