

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

**CHEMICAL FIELD/
DOMAINE DE LA CHIMIE**



IPC/D 001
ORIGINAL: English/French
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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

DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : PROPOSITION DE :	WG	IPC AREA: DOMAINE DE LA CIB :	A01N
RAPPORTEUR :	US	TECHNICAL FIELD : DOMAINE TECHNIQUE :	C

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Comments	Commentaire	US	03.10.2001
2	Comments	Commentaire	EP	16.10.2001
3	Comments	Commentaire	SE	23.10.2001
4	Comments	Commentaire	JP	23.10.2001
5	Rapporteur report	Rapport du rapporteur	US	08.11.2001
6	Rapporteur proposal	Proposition du rapporteur	US	14.11.2001
7	Comments	Commentaire	EP	06.02.2002
8	Comments	Commentaire	RU	15.02.2002
9	Comments	Commentaire	DE	26.02.2002
10	Rapporteur report	Rapport du rapporteur	US	19.03.2002
11	Rapporteur proposal	Proposition du rapporteur	US	19.03.2002
12	Proposal	Proposition	US	23.04.2002
13	Comments	Commentaire	FR	04.06.2002
14	Working Group decision	Decision du groupe de travail	IB	22.08.2002
15	Rapporteur report	Rapport du rapporteur	US	17.09.2002
16	Rapporteur proposal	Proposition du rapporteur	US	17.09.2002
17	Comments	Commentaire	EP	16.10.2002

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
18	Comments	Commentaire	RU	04.11.2002
19	Comments	Commentaire	DE	07.11.2002
20	Rapporteur report	Rapport du rapporteur	US	14.11.2002
21	Rapporteur proposal	Proposition du rapporteur	US	14.11.2002
22	Rapporteur report	Rapport du rapporteur	US	09.01.2003
23	Rapporteur proposal	Proposition du rapporteur	US	09.01.2003
24	French version	Version francaise	FR	17.04.2003
25	Comments	Commentaire	SE	26.09.2003
26	Rapporteur proposal	Proposition du rapporteur	US	24.10.2003
27	Rapporteur proposal	Proposition du rapporteur	US	01.12.2003
28	Rapporteur proposal	Proposition du rapporteur	US	17.12.2003
29	Indication of Approval		GB	23.12.2003
30	Indication of Approval		EP	28.04.2004
31	French version	Version francaise	FR	08.06.2004

IPC Revision WG – Definition Project	Project: D001
	Class/subclass: A01N
	Date : 08/01/04
USPTO	
Rapporteur Proposal	

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
- Reducing the noxious effect of active ingredients on organisms other than unwanted organisms
- 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 growth through a chemical modification of the metabolism of plants using [plant growth regulators](#), such as auxins.

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

While substances that chemically modify a plant's metabolism are classified in [A01N](#), compositions that affect the growth of a plant solely by supplying nutrients ordinarily required for growth, e.g. fertiliser, plant food, are classified in [C05](#). Materials used to prevent or cure mineral deficiencies in plants, such as iron chelates used to cure iron chlorosis, are also classified in [C05](#).

The activities (e.g. rodenticidal, herbicidal) of biocidal, pest repellent, pest attractant or plant growth regulatory preparations must also be classified in [A01P](#), when such activities are determined to be invention information.

When [biocides](#), pest repellents, pest attractants or [plant growth regulators](#) are compounds or contain compounds which are determined to be invention information, the compounds must also be classified in [C01](#), [C07](#), [C08](#), or [C12N](#). When these compounds are considered to be of interest for search purposes, they may also be classified in [C01](#), [C07](#), [C08](#), or [C12N](#).

References relevant to classification in this subclass

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 fruits or vegetables	A23B7/00
Compositions for medical, dental or toilet purposes which kill or prevent the growth or proliferation of unwanted organisms	A61K
Sex sterilants for animals other than invertebrates	A61K
Mixtures of pesticides with fertilisers	C05G

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
Sterilising 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 sterilisation 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-stabilising 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

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.

A composition, i.e. a mixture of two or more active ingredients is classified in the last of groups [27/00](#) to [65/00](#) that provides for at least one of these active ingredients.

Any part of a composition which is not identified by classification according to the last appropriate place of an active ingredient, and which itself is determined to be novel and non-obvious, must also be classified. The part can be either a single ingredient or a composition in itself.

Any part of a composition which is not identified by the classification according the last appropriate place, and which is considered to represent information of interest for search, may also be classified. This can for example be the case when it is considered of interest to enable searching of compositions using a combination of classification symbols. Such non-obligatory classification should be given as "additional information".

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:

Alkali metal	one of the following elements: Li, Na, K, Rb, Cs, Fr.
Alkaline earth metal	one of the following elements: Ca, Sr, Ba, Ra.
Biocide	any substance or mixture of substances intended for preventing, destroying, or mitigating any living organism (e.g., plant, animal). Examples of a <u>biocide</u> are: acaricide, arthropodicide, fungicide, insecticide, molluscicide, rodenticide (see Synonyms and Keywords).
Disinfectant	any substance or mixture of substances intended for preventing, destroying, or mitigating microorganisms.
Halogen	one of the following elements: F, Cl, Br, I, At.
Heavy metal	a metal other than light metal .
Herbicide	any substance or mixture of substances intended for preventing or destroying plant life or making it less harmful.
Light metal	one of the following elements: alkali metal, alkaline earth metal , Be, Al, Mg.
Metal	an element other than non-metal .
Non-metal	one of the following elements: H, B, C, Si, N, P, O, S, Se, Te, noble gas, halogen .
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 or may affect plant

growth through a chemical modification of the plant metabolism, such as auxins.

Synonyms and Keywords

In patent documents the following abbreviations are often used:

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 moulds 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 molluscs, 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.

FR VERSION FRANCAISE	
Révision de la CIB – Projet de définition- D001, Sous-classe A01N	Date: avril 2003

Titre - A01N

Conservation de corps humains ou animaux ou de végétaux, ou de parties de ceux-ci;

Biocides, p.ex. en tant que désinfectants, pesticides, herbicides;

Produits repoussant ou attirant les animaux nuisibles;

Régulateurs de croissance des végétaux

Énoncé de la définition

La présente sous-classe couvre:

Les compositions, leurs présentations et les procédés d'application ou d'utilisation de substances déterminées, de compositions ou de composés utilisés seuls, aux fins suivantes :

- la conservation de corps humains ou animaux ou de parties de ceux-ci après la mort, la prévention de leur décomposition.
- la conservation de parties vivantes de corps humains ou animaux.
- la conservation ou le maintien de l'état de fraîcheur des végétaux ou de parties de végétaux.
- la réduction des effets nocifs des ingrédients actifs sur les organismes autres que les organismes indésirables.
- la destruction des organismes indésirables (p.ex. les insectes, les mauvaises herbes, les micro-organismes), l'arrêt de leur croissance ou la prévention de leur prolifération ~~par des moyens chimiques ou biologiques.~~
- la répulsion des animaux nuisibles (y compris la résistance ou la protection contre ces animaux) ou l'utilisation de leurres à leur intention.
- la modification de la croissance des végétaux par une modification chimique de leur métabolisme en utilisant des régulateurs de croissance des végétaux comme les auxines.

Les compositions utilisées pour protéger les blessures et les greffons de plantes fraîchement greffées ou pour couvrir les blessures de plantes élaguées (c. à d. le mastic à greffer).

Les agents chimiques utilisés pour la stérilisation sexuelle des invertébrés (p.ex. des insectes).

Liens entre secteurs d'une large portée (p.ex., règles particulières de classement entre sous-classes)

Alors que les substances qui provoquent une modification chimique du métabolisme des végétaux sont classées dans la sous-classe A01N, les compositions qui affectent la croissance des végétaux uniquement par apport de substances nutritives normalement nécessaires à la croissance, p.ex. les engrais ou les aliments pour les végétaux, sont classées en C05. Les substances utilisées pour prévenir les carences en minéraux chez les végétaux, ou pour y remédier, comme les chélates de fer utilisés pour guérir la chlorose, sont aussi classées en C05.

L'activité (p.ex. l'activité rodenticide ou herbicide) des préparations biocides, des préparations répulsives ou attractives pour les animaux nuisibles, ou des préparations régulant la croissance végétale doit également être classée en A01P si cette activité fait partie de l'information d'invention.

Lorsque les biocides, les produits attirant ou repoussant les animaux nuisibles ou les régulateurs de croissance des végétaux sont ou contiennent, des composés ~~ou contiennent~~ des composés qui constituent une information d'invention, ces composés doivent également être classés en C01, C07, C08 ou C12N. Si ces composés présentent simplement un intérêt pour le recherche, ils peuvent également être classés en C01, C07, C08 ou C12N.

Renvois influençant le classement dans la sous-classe A01N

La présente sous-classe ne couvre pas:

Conservation des aliments ou des produits alimentaires, p.ex. pasteurisation, stérilisation	A23B A23K3/00 A23L3/00
Conservation ou mûrissement chimique des fruits ou des légumes récoltés	A23B7/00
Compositions destinées à un usage médical, dentaire ou pour la toilette, qui tuent les organismes indésirables ou empêchent leur croissance ou leur prolifération	A61K
Stérilisants sexuels pour les animaux autres que les invertébrés	A61K
Mélanges de pesticides avec des engrais	C05G

Renvois indicatifs

Il est important de tenir compte des endroits suivants, qui peuvent présenter un intérêt pour la recherche:

Grefte de plantes	A01G1/06
Dispositifs pour la conservation des fleurs	A01G5/06
Traitement électrique ou magnétique des végétaux pour favoriser leur croissance	A01G7/04
Stérilisation du sol par la vapeur	A01G11/00
Protection des végétaux (p.ex. couvertures protectrices ; dispositifs générateurs de chaleur, de fumée ou de brouillard; dispositifs de protection contre les animaux)	A01G13/00
Systèmes pour capturer ou détruire les insectes	A01M1/00-5/00
Appareils pour la destruction de la vermine dans le sol ou dans les denrées alimentaires	A01M17/00
Appareillage pour la destruction des végétaux indésirables	A01M21/00
Épouvantails, p.ex. pour oiseaux	A01M29/00
Leurres pour la chasse	A01M31/06
Procédés ou appareils de désinfection ou de stérilisation de matériaux, qui ne sont pas caractérisés par l'agent utilisé	A61L2/00-12/00
Peintures contenant des biocides, p.ex. des fongicides, des insecticides, des pesticides	C09D5/14
Peintures antisalissures, peintures subaquatiques	C09D5/16
Substances pour conditionner ou stabiliser les sols	C09K17/00
Cellules non différenciées humaines, animales ou végétales, tissus, leur culture ou leur conservation	C12N5/00
Agents biocides (p.ex. agents fongicides, bactéricides ou insecticides) dans ou sur	D21H21/36

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Règles particulières de classement dans la sous-classe A01N

Dans les groupes 27/00 à 65/00, sauf indication contraire, le classement d'un ingrédient actif s'effectue à la dernière place appropriée.

Une composition, c.-à-d. un mélange de plusieurs ingrédients actifs, est classée dans le dernier des groupes 27/00 à 65/00 couvrant au moins un de ces ingrédients actifs.

Tout composant d'une composition qui n'est pas explicitement identifié par le classement en suivant la règle de la dernière place appropriée pour les ingrédients actifs, et qui est considéré comme nouveau et non évident, doit également être classé. Ce composant peut être soit un ingrédient individuel ou une composition en elle-même. Tout composant d'une composition qui n'est pas identifié par le classement en suivant la règle de la dernière place appropriée pour les ingrédients actifs, et qui présente un intérêt pour la recherche, peut également être classé. Cela peut être le cas s'il paraît intéressant de permettre une recherche en utilisant une combinaison de symboles de classement.

Un composé décrit comme existant sous forme de tautomères est classé comme s'il était sous la forme énoncée en dernier lieu dans le système.

Les composés couverts par différents groupes principaux, en raison des parties de leur formule pouvant être choisies parmi différentes possibilités de groupes fonctionnels ou d'autres caractéristiques de structure spécifiées, sont classés dans chacun des groupes principaux concernés.

Les sels formés entre plusieurs composés organiques sont classés comme le composé qui fournit l'ion essentiel, et sont aussi classés comme le composé qui fournit l'autre ion.

Les sels ou les chélates métalliques d'un composé organique sont classés comme le composé.

Dans la présente sous-classe, un aliment n'est pas considéré comme un ingrédient actif.

Des produits différents appliqués dans un certain ordre à des moments différents sont considérés comme un mélange de tous les produits utilisés.

Les compositions synergiques ou potentialisées sont classées comme si le synergiste ou le potentiateur était un ingrédient actif.

Dans les groupes 25/00 à 65/00, le symbole X représente l'azote, l'oxygène, le soufre ou un halogène, Y représente l'azote, l'oxygène ou le soufre. Une ligne en pointillés entre des atomes indique une liaison facultative, p.ex. représente une ou deux liaisons simples ou une double liaison.

Glossaire

Dans la présente sous-classe, les termes ou expressions suivantes sont utilisés avec la signification ci-dessous indiquée:

Métaux alcalins Li, Na, K, Rb, Cs, Fr.

Métaux alcalino-terreux Ca, Sr, Ba, Ra.

Biocide substance ou mélange de substances destiné à éloigner, à détruire ou à affaiblir un organisme vivant (p.ex., une plante, un animal). Exemples de biocides: **acaricide, arthropodicide, fongicide, insecticide, molluscicide, rodenticide** (voir **Synonymes et mots-clés**).

Désinfectant substance ou mélange de substances destiné à éloigner, à détruire ou à affaiblir les micro-organismes.

Halogènes F, Cl, Br, I, At.

Métaux lourds **métaux** autres que les **métaux légers**.

Herbicide substance ou mélange de substances destiné à empêcher ou à détruire la vie d'une plante ou à la rendre moins nuisible.

Métaux légers **métaux alcalins, métaux alcalino-terreux**, Be, Al, Mg.

Métal élément autre qu'un **non-métal**.

Non-métaux H, B, C, Si, N, P, O, S, Se, Te, gaz nobles, **halogènes**.

Pesticide substance ou mélange de substances destiné à éloigner ou à détruire les animaux nuisibles (p.ex. les insectes ou les rongeurs) ou à les rendre moins nuisibles.

Régulateur de croissance des végétaux substance, comme les auxines, qui altère le végétal ou modifie sa croissance par une modification chimique du métabolisme végétal.

Synonymes et mots-clés

Dans les documents de brevet, les termes suivants sont souvent utilisés avec le sens ci-dessous indiqué:

Acaricide Substance, ou mélange de substances, destiné à éloigner ou à détruire les mites et les tiques ou à les rendre moins nuisibles.

Arthropodicide Substance, ou mélange de substances, destiné à éloigner ou à détruire les arthropodes, p.ex. les insectes, les araignées, les crustacés, ou à les rendre moins nuisibles.

Fongicide Substance, ou mélange de substances, destiné à empêcher ou à détruire les moisissures et les champignons ou à les rendre moins nocifs.

Insecticide Substance, ou mélange de substances, destiné à éloigner ou à détruire les insectes ou à les rendre moins nuisibles.

Molluscicide Substance, ou mélange de substances, destiné à éloigner ou à détruire les mollusques, p.ex. les escargots, les coquillages, ou à les rendre moins nuisibles.

Rodenticide Substance, ou mélange de substances, destiné à éloigner ou à détruire les rongeurs, p.ex. les rats, les souris, ou à les rendre moins nuisibles.



IPC/D 002
ORIGINAL: English/French
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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

DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : PROPOSITION DE :	WG	IPC AREA: DOMAINE DE LA CIB :	C07C
RAPPORTEUR :	US	TECHNICAL FIELD : DOMAINE TECHNIQUE :	C

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Proposal	Proposition	US	01.10.2000
2	Comments	Observations	CA	24.10.2000
3	Comments	Observations	RO	24.10.2000
4	Comments	Observations	NL	24.10.2000
5	Comments	Observations	EP	10.10.2000
6	Rapporteur proposal	Proposition du rapporteur	US	06.02.2001
7	Comments	Observations	EP	21.03.2001
8	Comments	Observations	JP	01.10.2001
9	Rapporteur proposal	Proposition du rapporteur	US	11.10.2001
10	Comments	Observations	US	23.10.2001
11	Rapporteur proposal	Proposition du rapporteur	US	23.10.2001
12	Comments	Observations	SE	07.11.2001
13	Rapporteur report	Rapport du rapporteur	US	15.11.2001
14	Rapporteur proposal	Proposition du rapporteur	US	15.11.2001
15	Comments	Observations	RU	15.02.2002
16	Rapporteur report	Rapport du rapporteur	US	19.03.2002
17	Rapporteur proposal	Proposition du rapporteur	US	19.03.2002

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
18	Comments	Observations	US	10.05.2002
19	Working Group decision	Décision du groupe de travail	IB	22.08.2002
20	Rapporteur report	Rapport du rapporteur	US	17.09.2002
21	Rapporteur proposal	Proposition du rapporteur	US	17.09.2002
22	Comments	Observations	DE	11.10.2002
23	Comments	Observations	EP	16.10.2002
24	Comments	Observations	RU	04.11.2002
25	Rapporteur report	Rapport du rapporteur	US	19.11.2002
26	Rapporteur proposal	Proposition du rapporteur	US	19.11.2002
27	Comments	Observations	GB	13.02.2003
28	Comments	Observations	DE	11.04.2003
29	French version	Version française	EP	06.11.2003

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

Title – C07C

Acyclic or carbocyclic compounds

Definition statement

This subclass covers:

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

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

Relationship between large subject matter areas

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

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

In general, Subclass [C07H](#), and not [C07C](#), is intended to cover compounds containing saccharide radicals, except for:

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

Subclass [C07J](#) covers compounds containing a cyclopenta[a]hydrophenanthrene skeleton or a ring structure derived there from (i.e., steroids), except for secosteroids, which are a group of steroids structurally

characterized by the absence of a bond in the cyclopenta[a]hydrophenanthrene nucleus and are covered in subclass [C07C](#).

Limiting references

This subclass does not cover:

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

Informative references

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

Processes or devices for granulating materials, calcining or fusing, chemical processes involving a gas or a liquid, catalysts, cation or anion exchange, and the like	B01J
Processes, in general, for preparing catalysts	B01J37/00
Generic methods and apparatus therefore used in organic chemistry, such as oxidation, reduction, addition, substitution, purification, separation, stabilization, etc.	C07B
Heterocyclic compounds	C07D
Acyclic or carbocyclic organic compounds containing elements other than carbon, hydrogen, halogen, oxygen nitrogen, sulfur, selenium or tellurium	C07F
Peptides, polypeptides and proteins	C07K

Organic macromolecular compounds such as polysaccharides, rubbers, epoxy resins, styrene polymers, acrylamide polymers and the like; their preparation or chemical working-up; compositions thereof	C08
Dyes, paints, polishes, natural resins, adhesives, and miscellaneous compositions containing acyclic or carbocyclic compounds	C09
Production or separation of undefined hydrocarbon mixtures	C10G
Liquid carbonaceous fuels	C10L1/00
Natural gas, synthetic fuel, and liquefied petroleum gas	C10L3/00
Fatty acids from animal or vegetable oils	C11

Special rules of classification

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

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

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

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

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

Salts of a compound, unless specifically provided for, are classified as that compound, e.g. aniline hydrochloride is classified as containing carbon, hydrogen and nitrogen only (in group

C07C 211/46), sodium malonate is classified as malonic acid (in group C07C 55/08), and a mercaptide is classified as the mercaptan. Metal chelates are dealt with in the same way. Similarly, metal alcoholates and metal phenates are classified in subclass C07C and not in subclass C07F, the alcoholates in groups C07C 31/28 to C07C 31/32 and the phenates as the corresponding phenols in group C07C 39/235 or C07C 39/44. Salts, adducts or complexes formed between two or more organic compounds are classified according to all compounds forming the salts, adducts or complexes.

For the classification of compounds in groups C07C 1/00 to C07C 71/00 and C07C 401/00 to C07C 409/00:

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

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

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

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

Glossary

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

Acyclic the absence of a ring structure.

Carbocyclic the presence of a ring or ring system where all ring members are carbons.

Bridged the presence of two rings that share at least three ring members.

Condensed the presence of two rings that share at least one ring member, e.g., spiro and bridged are considered as condensed.

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

Organic compound compound satisfying one of the following criteria:

- **at least two carbon atoms bonded to each other, or**
- **one carbon atom bonded to at least one hydrogen atom or halogen atom, or**

- **one carbon atom bonded to at least one nitrogen atom by a single or double bond.**

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

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

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

Synonyms and Keywords

NONE

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Traduction

Project: D002

4 November 2003

Titre – C07C

Composés acycliques ou carboxyliques

Énoncé de la définition

La présente sous-classe couvre:

Les composés organiques qui comprennent normalement comme éléments constituants uniquement le carbone, l'hydrogène, l'oxygène, l'azote, le soufre, le sélénium ou le tellure. L'unique exception de cette demande est que les composés peuvent contenir un métal, mais seulement comme cation d'un sel d'acide organique, d'un alcoolate, d'un phénate ou d'un mercaptide. Ces composés organiques sont acycliques ou carbocycliques, ou peuvent contenir des entités acycliques et carboxyliques.

La synthèse, le traitement ou la modification de composés organiques acycliques ou carbocycliques de cette sous-classe par des moyens chimiques (c. à d. réaction chimique), par des moyens physiques (p.ex. "prilling"), ou par des moyens chimiques et physiques, à condition toutefois que le produit résultant soit un composé répondant à la définition de la sous-classe.

Liens entre secteurs d'une large portée

La sous-classe [C07C](#) est une sous-classe axée sur la fonction pour les composés eux-mêmes et ne couvre pas l'application ou l'utilisation des composés répondant à la définition de la sous-classe. Pour le classement d'une telle information, d'autres entrées existent dans la CIB, par exemple :

- Les compositions et l'utilisation de ces compositions ou composés pour la préservation de corps humains ou animaux ou de végétaux, ou de parties de ceux-ci, en tant que biocides, p.ex. désinfectants, pesticides, herbicides, en tant que produits repoussant ou attirant les animaux nuisibles, ou en tant que régulateurs de croissance des végétaux sont classés en [A01N](#).
- L'activité des composés chimiques ou préparations biocides, répulsives ou attractives pour animaux nuisibles, ou régulant la croissance végétale est classée en [A01P](#).
- Les préparations et leur utilisation pour usage médical, dentaire ou pour la toilette sont classées en [A61K](#).
- L'activité thérapeutique des composés chimiques est classée en [A61Q](#).
- L'utilisation de cosmétiques ou préparations similaires pour la toilette est classée en [A61Q](#).

En général, la sous-classe [C07H](#) et non [C07C](#), a pour but de couvrir les composés contenant des radicaux saccharides, à l'exception des :

- acides aldoniques per se ou acides sacchariques per se, qui sont couverts par les groupes [C07C59/105](#) et [59/285](#) ;
- dérivés des acides aldoniques ou sacchariques qui sont couverts par les sous-classes [C07C](#) ou [D](#) ; et
- cyanohydrides qui sont couverts par le groupe [C07C255/16](#).

La sous-classe **C07J** couvre les composés contenant le squelette cyclopenta[a]hydrophenanthène ou une structure cyclique qui en est dérivée (c. à. d. stéroïdes), à l'exception des sécostéroïdes, qui sont un groupe de stéroïdes caractérisés structurellement par l'absence d'une liaison dans le noyau cyclopenta[a]hydrophenanthène et qui sont couverts dans la sous-classes **C07C**.

Renvois influençant le classement dans la présente sous-classe

La présente sous-classe ne couvre pas:

L'acide carbamique	C01B21/12
Les fullerènes	C01B31/00
Les phosgènes	C01B31/28
Les carbures	C01B31/30
Les composés cyanogènes tels que l'acide cyanhydrique, l'acide cyanique et thiocyanique, l'acide isocyanique et isothiocyanique, le cyanogène, le cyanamide, et l'halogénure de cyanogène	C01C3/00
Les nucléosides	C07H19/00
Les nucléotides	C07H19/00
Les acides nucléiques	C07H21/00
La préparation des composés acycliques ou carbocycliques utilisant des enzymes ou des procédés de fermentation	C12P
La production électrolytique ou électrophorétique de composés ou de non-métaux	C25B1/00 C25B3/00 C25B7/00
Les procédés de production de composés dans lesquels de l'électricité est générée	C25B5/00

Renvois indicatifs

Il est important de tenir compte des renvois suivants, qui peuvent présenter un intérêt pour la recherche:

Procédés ou dispositifs pour la granulation de substances, la calcination ou la fusion, procédés chimiques faisant intervenir un gaz ou un liquide, catalyseurs, échange de cation ou d'anion, et procédés ou dispositifs similaires	B01J
Procédés, en général, de préparation de catalyseurs	B01J37/00
Méthodes génériques et leurs appareillages utilisés en chimie organique, telles que l'oxydation, la réduction, l'addition, la substitution, la purification, la séparation, la stabilisation, etc...	C07B
Composés hétérocycliques	C07B
Composés organiques acycliques ou carbocycliques contenant des éléments autres que le carbone, l'hydrogène, l'halogène, l'oxygène, l'azote, le soufre, le sélénium ou le tellure	C07D

Peptides, polypeptides et protéines	C07F
Composés macromoléculaires organiques tels que les polysaccharides, les caoutchoucs, les résines époxy, les polymères styréniques, les polymères acrylamides, et similaires ; leur préparation ou leur mise en œuvre chimique ; leurs compositions	C07K
Colorants, peintures, vernis, résines naturelles, adhésifs, et compositions diverses contenant des composés acycliques ou carbocycliques	C08
Production ou séparation de mélanges d'hydrocarbures non-définis	
Combustibles carbonés liquides	
Gaz naturel, gaz de synthèse, et gaz de pétrole liquéfié	C09
Acides gras provenant d'huiles animales ou végétales	
	C10G
	C10L1/00
	C10L3/00
	C11

Règles particulières de classement

Dans la présente sous-classe, sauf indication contraire, et à l'exception mentionnée ci-dessous, un composé est classé à la dernière place appropriée. En général, et sauf indication contraire (telle que mentionnée dans les groupes C07C 59/58, C07C 59/70), les expressions "acycliques" et "aliphatiques" sont utilisées pour décrire des composés ne comportant aucun cycle; s'il y a un cycle, le composé est classé, suivant la règle de la dernière place, au dernier groupe pour les composés cycloaliphatiques ou aromatiques, si de tels groupes existent. Les composés existant sous forme de tautomères sont classés comme s'ils étaient sous la forme énoncée en dernier lieu dans le système, à moins que l'autre forme ne soit expressément mentionnée avant dans le système.

Dans la présente sous-classe, sauf indication contraire, les composés contenant des groupes carboxyle ou thiocarboxyle sont classés avec les acides carboxyliques ou thiocarboxyliques correspondants, sauf si la "règle de la dernière place" impose de classer autrement; un groupe carboxyle étant un atome de carbone comportant trois liaisons, et pas plus de trois, à des hétéro-atomes, autres que les atomes d'azote de groupes nitro ou nitroso, avec au moins une liaison multiple à un même hétéro-atome et un groupe thiocarboxyle étant un groupe carboxyle comportant au moins une liaison à un atome de soufre, p.ex. les amides ou les nitriles des acides carboxyliques, sont classés avec les acides correspondants.

Dans la présente sous-classe, sauf indication contraire, un procédé de préparation d'un composé classé dans cette sous-classe est classé à la dernière classe appropriée.

Dans la présente sous-classe, un composé d'ammonium quaternaire, sauf indication contraire, est classé en tant qu'entité unique, en tenant compte de tous les substituants qui sont liés à

l'azote quaternisé, à l'exception de l'anion salifiant. En d'autres termes, le cation quaternaire est considéré comme un tout ; aucune distinction n'est faite à des fins de classement entre les quatre substituants covalents.

Les composés chimiques et leur préparation sont classés dans les groupes prévus pour le type de composé préparé. Les procédés de préparation sont également classés dans les groupes prévus pour les types de réactions employées, si cela présente un intérêt. Les procédés généraux pour la préparation d'une classe de composés relevant de plusieurs groupes principaux, sont classés dans les groupes prévus pour les procédés employés, lorsque de tels groupes existent. Les composés préparés sont également classés dans les groupes prévus pour ces types de composés, si cela présente un intérêt.

Sauf s'ils sont prévus ailleurs, les sels d'un composé sont classés avec ce composé, p.ex. un chlorhydrate d'aniline est classé comme ne contenant que du carbone, de l'hydrogène et de l'azote (dans le groupe [C07C 211/46](#)), un malonate de sodium est classé avec l'acide malonique (dans le groupe [C07C 55/08](#)) et un mercaptide est classé avec le mercaptan. Les chélates métalliques sont classés de la même manière. De même les alcoolates et les phénates métalliques sont classés dans la sous-classe [C07C](#) et non dans la sous-classe [C07F](#), les alcoolates dans les groupes [C07C 31/28](#) à [C07C 31/32](#) et les phénates avec les phénols correspondants dans le groupe [C07C 39/235](#) ou [C07C 39/44](#). Les sels, adduits ou complexes formés entre plusieurs composés organiques sont classés avec chacun des composés qui forment ces sels, adduits ou complexes.

Pour le classement des composés dans les groupes [C07C 1/00](#) à [C07C 71/00](#) et [C07C 401/00](#) à [C07C 409/00](#) :

- un composé est classé en considérant la molécule dans son ensemble (règle de « l'approche globale de la molécule »);
- un composé est considéré comme étant saturé s'il ne contient pas d'atomes de carbone liés entre eux par des liaisons multiples;
- un composé est considéré comme étant non saturé s'il contient des atomes de carbone liés entre eux par des liaisons multiples, ce qui inclut les cycles aromatiques à six chaînons;

sauf indication contraire ou si cela peut être déduit de la subdivision, comme dans le groupe [C07C 69/00](#), p.ex. [C07C 69/712](#).

Pour le classement des composés dans les groupes [C07C 201/00](#) à [C07C 395/00](#), c. à d. une fois que le groupe fonctionnel a été déterminé selon la "règle de la dernière place", un composé est classé selon les principes suivants:

- les composés sont classés selon la nature de l'atome de carbone auquel le groupe fonctionnel est attaché;
- un squelette carboné est un atome de carbone (autre qu'un atome de carbone d'un groupe carboxyle ou d'un sel, ester, amide, halogénure d'acide ou d'un dérivé fonctionnel d'anhydride d'acide), ou une chaîne d'atomes de carbone liés entre eux ;
- lorsque la molécule contient plusieurs groupes fonctionnels, on prend en considération uniquement les groupes fonctionnels liés au même squelette carboné que celui déterminé en premier;
- un squelette carboné est considéré comme étant saturé s'il ne contient pas d'atomes de carbone liés entre eux par des liaisons multiples;
- un squelette carboné est considéré comme étant non saturé s'il contient des atomes de carbone liés entre eux par des liaisons multiples, ce qui inclut les cycles aromatiques à six chaînons.

Glossaire

Dans la présente sous-classe, les termes ou (expressions) suivant(e)s ont la signification ci-dessous indiquée:

Acyclique	absence de structure cyclique
Carbocyclique	présence d'un cycle ou d'un système cyclique dans lequel tous les atomes du cycle sont des carbones
Ponté	présence de deux cycles qui partagent au moins trois chaînons cycliques
Condensé	présence de deux cycles qui partagent au moins au moins un chaînon cyclique, c. à d. que les cycles "spiro" et "pontés" sont considérés comme condensés

Système cyclique condensé système cyclique dans lequel tous les cycles sont condensés entre eux; le "nombre de cycles", dans un système cyclique condensé, est égal au nombre de coupures nécessaires pour convertir le système cyclique en une chaîne acyclique. Une scission est la cassure d'une liaison entre deux atomes indépendamment du fait que la liaison soit simple ou multiple.

Composé organique composé satisfaisant l'un des critères suivants:

- **au moins deux atomes de carbone sont liés entre eux, ou**
- **un atome de carbone est lié à un atome d'hydrogène ou un atome d'halogène, ou**
- **un atome de carbone est lié à au moins un atome d'azote par une liaison simple ou double.**

Les exceptions aux critères ci-dessus sont: les composés constitués uniquement d'atomes de carbone (p.ex. les fullérènes, etc.), le cyanogène, les halogénures cyanhydriques, le cyanamide, les carbures de métaux, le phosgène, le thiophosgène, l'acide hydrocyanique, l'acide isocyanique, l'acide isothiocyanique, l'acide fulminique, l'acide carbamique non-substitué, et les sels des acides mentionnés précédemment ; ces exceptions sont considérées comme des composés inorganiques pour les besoins du classement.

Préparation couvre la synthèse, la purification, la séparation, la stabilisation ou l'emploi d'additifs, à moins qu'un endroit séparé ne soit prévu pour ceux-ci.

Quinones composés dérivés de composés contenant un cycle aromatique à six chaînons ou un système comportant des cycles aromatiques à six chaînons (ce système pouvant être condensé ou non) en remplaçant deux ou quatre groupes >CH des cycles aromatiques à six chaînons par des groupes >C=O, et en supprimant une, respectivement deux, liaisons doubles carbone-carbone et en réarrangeant les liaisons doubles carbone-carbone subsistantes pour obtenir un cycle ou un système cyclique avec des liaisons doubles alternées, y compris les liaisons carbone-oxygène; cela signifie que l'acénaphthènequinone ou la camphoquinone ne sont pas considérées comme des quinones.

Synonymes et mots clés

Aucun.



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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

DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : PROPOSITION DE :	WG	IPC AREA: DOMAINE DE LA CIB :	C08J
RAPPORTEUR :	RU	TECHNICAL FIELD : DOMAINE TECHNIQUE :	C

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Proposal	Proposition	SE	05.03.2001
2	Comments	Commentaire	EP	21.03.2001
3	Comments	Commentaire	RU	23.03.2001
4	Proposal	Proposition	SE	30.08.2001
5	Comments	Commentaire	EP	24.09.2001
6	Comments	Commentaire	CA	24.09.2001
7	Comments	Commentaire	JP	01.10.2001
8	Comments	Commentaire	US	16.10.2001
9	Comments	Commentaire	GB	18.10.2001
10	Rapporteur report	Rapport du rapporteur	SE	22.11.2001
11	Comments	Commentaire	JP	04.01.2002
12	Comments	Commentaire	EP	06.02.2002
13	Comments	Commentaire	US	11.02.2002
14	Comments	Commentaire	RU	15.02.2002
15	Comments	Commentaire	DE	26.02.2002
16	Rapporteur report	Rapport du rapporteur	SE	20.03.2002
17	Rapporteur proposal	Proposition du rapporteur	SE	03.06.2002

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
18	Comments	Commentaire	JP	24.06.2002
19	Working Group decision	Decision du groupe de travail	IB	22.08.2002
20	Rapporteur proposal	Proposition du rapporteur	SE	03.10.2002
21	Comments	Observations	US	28.10.2002
22	Rapporteur proposal	Proposition du rapporteur	SE	13.11.2002
23	Rapporteur proposal	Proposition du rapporteur	SE	31.01.2003
24	French version	Version francaise	CH	10.04.2003
25	Comments	Commentaire	GB	20.10.2003
26	French version	Version francaise	CH	31.10.2003
27	Comments	Commentaire	US	17.12.2003
28	Rapporteur report	Rapport du rapporteur	SE	08.06.2004
29	Rapporteur proposal	Proposition du rapporteur	SE	08.06.2004
30	Rapporteur proposal	Proposition du rapporteur	SE	08.06.2004

Swedish Patent and Registration Office

IPC Definition Project D003, subclass C08J

Month day, 2003

Rapporteur report

Comments on the proposed definition of Annex 23 of project D003 were received from UK and US.

UK noted that C08J is residual only in relation to after-treatments. They proposed that this fact should be made clearer in the section of “Relationship between large subject-matter areas”.

UK also commented on the first bullet that reads “processes specially adapted for treating macromolecular substances with specified constitution”. UK means that novel and unobvious macromolecular substances already classified in C08B, C, F, G and H should be excluded from C08J, but after-treatments of known macromolecular substances with specified constitution that are not mentioned in the other subclasses, should be classified in C08J.

UK also thinks that it is better to only mention what after-treatments that specified in C08B, C, F, G and H, instead of a more general note.

UK has made a new proposal of the bullets in section “Relationship between large subject-matter areas”.

US thinks that treatment or after-treatment of any polymers or macromolecular substances of subclasses C08B, C, F, G and H are classified in the appropriate subclass for that specific substance. C08J is for processes for specific purposes not provided for elsewhere in C08 or general process that are not specifically adapted for any specified substance.

US have made a proposal partly based on the proposal from UK.

R. agrees to that it should be made clearer that C08J are only residual to C08B, C, F, G and H in relation to after-treatments.

However, we do not agree that only the groups relating to after-treatments in C08B-H should be mentioned in section “Relationship between large subject-matter areas”. There are other subgroups that relates to after-treatments that has not been mentioned in the proposal by UK, for example C08B 3/22. It is better to have a more general remark and give examples of subgroups that are excluded, because it is a risk some subgroup that should be excluded from C08J is forgotten and not mentioned in the list.

Since the views of how to classify in C08J seems to differ from each other, we have discussed with our expert in the field how she classifies in C08J.

The approach here is very straight forward. If there is no subgroup that mentions after-treatment in relevant subclass C08B, C, F, G and H, then the invention concerning after-treatment is classified in C08J. General processes containing different types of macromolecular substances are also classified in C08J.

This approach is similar to the view of UK.

Carolina Gómez Lagerlöf

Title - C08J

Working-up;

General processes 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 covers generic processes or treatments that not already are covered by subclasses C08B, C08C, C08F, C08G and C08H.

C08J is residual to subclasses C08B, C08C, C08F, C08G and C08H in relation to after-treatment of macromolecular substances or polymers, and therefore does not cover:

- Processes specially adapted for treating macromolecular substances or polymers for which after-treatments are specifically mentioned in C08B, C08C, C08F, C08G and C08H (e.g. C08F 6/00)
- Polymerisation processes involving purification or recycling of waste polymers or depolymerisation products of specified macromolecular substances
- Foamed polymeric products of isocyanates or isothiocyanates characterised by the monomers or catalysts used (C08G 18/00)

B29 covers mechanical aspects of 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.

When classifying in this subclass, additional classification(s) are made from subclass C08L, relating to essential or characterising materials used.

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
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
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 oil-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	
Treatment of textiles; laundering; flexible materials not otherwise provided for	D01F D06

Special rules of classification

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



IPC/D 004
ORIGINAL: English/French
DATE: 27.05.2004

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

DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : PROPOSITION DE :	WG	IPC AREA: DOMAINE DE LA CIB :	C09K
RAPPORTEUR :	EP	TECHNICAL FIELD : DOMAINE TECHNIQUE :	C

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Proposal	Proposition	EP	19.03.2001
2	Comments	Commentaire	RU	26.03.2001
3	Proposal	Proposition	EP	30.08.2001
4	Comments	Commentaire	CA	24.09.2001
5	Comments	Commentaire	JP	01.10.2001
6	Comments	Commentaire	US	16.10.2001
7	Comments	Commentaire	RO	22.10.2001
8	Comments	Commentaire	GB	24.10.2001
9	Rapporteur report	Rapport du rapporteur	EP	12.11.2001
10	Rapporteur proposal	Proposition du rapporteur	EP	12.11.2001
11	Comments	Commentaire	US	15.02.2002
12	Comments	Commentaire	DE	18.02.2002
13	Comments	Commentaire	RO	20.02.2002
14	Rapporteur report	Rapport du rapporteur	EP	03.04.2002
15	Rapporteur proposal	Proposition du rapporteur	EP	03.04.2002
16	Proposal	Proposition	EP	17.04.2002
17	Comments	Commentaire	US	16.05.2002

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
18	Working Group decision	Decision du groupe de travail	IB	22.08.2002
19	Comments	Commentaire	EP	13.09.2002
20	Rapporteur report	Rapport du rapporteur	EP	13.09.2002
21	Rapporteur proposal	Proposition du rapporteur	EP	13.09.2002
22	Comments	Commentaire	DE	11.10.2002
23	Comments	Commentaire	EP	17.10.2002
24	Comments	Commentaire	US	28.10.2002
25	Rapporteur report	Rapport du rapporteur	EP	05.02.2003
26	Rapporteur proposal	Proposition du rapporteur	EP	05.02.2003
27	Comments	Commentaire	GB	13.02.2003
28	Comments	Commentaire	DE	11.04.2003
29	Rapporteur report	Rapport du rapporteur	EP	21.05.2003
30	Rapporteur proposal	Proposition du rapporteur	EP	21.05.2003
31	Comments	Commentaire	US	09.10.2003
32	Rapporteur report	Rapport du rapporteur	EP	19.11.2003
33	Rapporteur proposal	Proposition du rapporteur	EP	19.11.2003
34	Rapporteur report	Rapport du rapporteur	EP	01.03.2004
35	Rapporteur proposal	Proposition du rapporteur	EP	01.03.2004
36	French version	Version française	EP	01.03.2004

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Principal Directorate Tools / Documentation

Rapporteur Report

Project: D004

Subclass: C09K

26 February 2004

With some delay (our apologies for this) R has prepared the following Rapporteur Proposals:

* E.V.: the last proposal was updated, by incorporating the WG decisions on the replacement of the word “miscellaneous” (IPC/WG/10/3. annex , p.6). This means that only the subclass title and the title of group C09K3/00 have been amended.

REMARK: in the WG10 document referred to above, only the subclass title has been changed. It seems however that in IPC itself also the title of C09K3/00 must be amended in the same way as in the joined proposal (EV and FV) !!!!

* F.V.: R n’a pas retrouvé une formulation standard pour traduire : « Places in relation to which this group is residual». Dans la proposition jointe, cette phrase a été traduit par :
« *Ce groupe est résiduaire par rapport aux endroits suivants.* » (!?)

Paul Daeleman

D004ep35p (24 February 2004)

Title – C09K

**Materials for applications not otherwise provided for;
Applications of materials not otherwise provided for**

Definition statement

This subclass covers:

- The use of materials for applications not provided for elsewhere, e.g. sealing materials, drilling fluids
- The use of materials in general having specific properties, not provided for elsewhere, e.g. anti-static properties, anti-oxidation properties
- Materials selected for uses or applications not provided for elsewhere

All entries in this subclass relate to specific properties (e.g. C09K3/16 relates to materials with antistatic properties) or specific applications of materials (e.g. C09K17/00 relates to soil-conditioning or soil-stabilizing materials), except for main group C09K3/00 itself, which is the residual place for classifying materials with properties or applications for which no entries exist in C09K itself nor elsewhere in IPC.

Relationship between large subject matter areas**References relevant to classification in this subclass**

This subclass does not cover materials or their applications or uses for which entries are available elsewhere in IPC. Places in relation to which this subclass is residual:

Applications of materials relating to agriculture, foodstuffs, medical or cosmetic preparations, e.g. preparations for medical, dental, or toilet purposes.	Section A A61K
Applications of materials relating to physical or chemical processes in general, e.g. sorbent compositions or catalysts	Section B B01
Chemical treatment of wood or similar materials	B27K
Pure chemistry, which covers compounds and their methods for preparation:	
- inorganic chemistry	C01
- organic chemistry	C07
- organic macromolecular compounds and their compositions	C08
Coating compositions, e.g. paints	C09D
Fuels	C10L
Applications of materials relating to fibrous materials, textiles or paper	Section D
Applications of materials relating to photography, cinematography and analogous techniques	G03

Applications of materials relating to electric or electronic elements	Section H
Selection of materials for their conductive, insulating, or dielectric properties	H01B
Selection of materials for electrochemical generators, e.g. batteries	H01M
Selection of materials for piezo-electric materials	H01L41/16

Informative references

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

Solid sorbent compositions	B01J20/00
Materials for treatment of water, waste water, or sewage	C02F
Fertilisers,	C05
e.g. mixtures of soil-conditioning or soil-stabilising materials with fertilisers characterised by their fertilising activity	C05G

Special rules of classification within this subclass

Glossary of terms

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

materials include compounds, compositions, mixtures and preparations

Synonyms and Keywords

Title - C09K3/00

Materials for applications not otherwise provide;

Applications of materials not otherwise provided for

References relevant to classification in this group

This group does not cover:

Places in relation to which this group is residual

Filling pastes

C09D5/34

Title – C09K3/10

Materials for sealing or packing joints or covers

References relevant to classification in this group

This group does not cover:

Filling pastes

C09D5/34

Title – C09K3/14

**Anti-slip materials;
Abrasives**

References relevant to classification in this group

This group does not cover:

Manufacture of abrasive or friction articles or shaped materials, containing macromolecular substances

C08J5/14

Title – C09K3/18

**Materials for application to surfaces to minimize adherence of ice, mist or water thereto;
Thawing or antifreeze materials for application to surfaces**

Informative references

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

Rendering particulate materials free flowing, in general, e.g. making them hydrophobic [B01J2/30](#)

Thawing or antifreeze materials used in liquids for heat-transfer, heat-exchange or heat-storage or for the production of heat or cold other than by combustion, e.g. radiator liquids [C09K5/00](#)

Title - C09K3/30

Materials for aerosols

Informative references

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

Aerosol containers [B65D83/14](#)

Title - C09K3/32

Materials for treating liquid pollutants, e.g. oil, gasoline, fat

References relevant to classification in this group

This group does not cover:

Places in relation to which this group is residual

Materials for treatment of water, waste water or sewage

C02F

Title - C09K5/20

Antifreeze additives therefor, e.g. for radiator liquids

Informative references

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

Thawing or antifreeze materials for application to surfaces

C09K3/18

Inhibiting corrosion by liquids

C23F11/00

Title – C09K8/54

Compositions for in situ inhibition of corrosion in boreholes or wells

Informative references

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

Inhibiting corrosion of metallic materials by using inhibitors in general

C23F11/00

Title – C09K8/56

Compositions for consolidating loose sand or the like around wells without excessively decreasing the permeability thereof

Informative references

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

Soil-conditioning materials or soil-stabilising materials C09K17/00

Title - C09K13/00

Etching, surface-brightening or pickling compositions

References relevant to classification in this group

This group does not cover:

Places in relation to which this group is residual

Etching of glass	C03C15/00
Etching of natural stone, artificial stone or ceramics	C04B41/52 C04B41/72 C04B41/91
Etching or brightening of metallic material	C23F C23G1/00 C25F1/00

Title - C09K15/00

Anti-oxidant compositions;

Compositions inhibiting chemical change

References relevant to classification in this group

This group does not cover:

Places in relation to which this group is residual

Anti-oxidant compositions or compositions inhibiting chemical change incorporated in:

- Foodstuffs A21D
A23
- in macromolecular compositions C08
- in liquid fuels or lubricants C10
- in fats, fatty substances, fatty oils or waxes C11B5/00
- in detergents C11D
- in pickling compositions for metallic materials C23G

Corrosion inhibiting compositions for metallic materials C23F11/00

Title – C09K17/00

Soil-conditioning materials or soil-stabilising materials

References relevant to classification in this group

This group does not cover:

Soil-stabilising materials specially adapted for boreholes or wells C09K8/00

Informative references

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

Consolidating by placing solidifying or pore-filling substances in the soil

E02D3/12

Title - C09K21/00

Fireproofing materials

References relevant to classification in this group

This group does not cover:

Places in relation to which this group is residual

Fireproofing materials for use in particular applications, e.g.:

- For fireproofing wood
- Of polymers
- Of textiles
- Of paper

B27K

C08

D06M

D21H

Fireproof paints

C09D5/18

D004ep36f (24 Février 2004)

Titre – C09K

Substances pour des applications non prévues ailleurs; Applications de substances non prévues ailleurs

Enoncé de la définition

La présente sous-classe couvre:

- L'utilisation de substances pour des applications non prévues ailleurs, p.ex. substances pour sceller, fluides de forage
- L'utilisation en général de substances ayant des propriétés spécifiques, non prévues ailleurs, p.ex. propriétés antistatiques, propriétés anti-oxydation
- Substances sélectionnées pour des utilisations ou applications non prévues ailleurs.

Tous les entrées de la présente sous-classe ont trait à des propriétés spécifiques (p.ex. C09K3/16 concerne les matériaux ayant des propriétés antistatiques) ou à des applications spécifiques de substances (p.ex. C09K17/00 concerne des substances pour conditionner ou stabiliser les sols), avec l'exception du groupe principal C09K3/00, qui est l'endroit de classement résiduaire pour les substances qui ont des propriétés ou qui sont utilisées pour des applications pour lesquelles il n'existe pas d'entrées dans C09K ou les autres sous-classes de la CIB.

Liens entre secteurs d'une large portée

Renvois influençant le classement dans la sous-classe C09K

La présente sous-classe ne couvre pas les substances ou leurs applications or utilisations pour lesquelles il existe des entrées ailleurs dans la CIB. Elle est résiduaire par rapport au endroits suivants:

Utilisation de substances pour des applications agricoles, alimentaires, médicales ou cosmétiques, p.ex. préparations à usage médical, dentaire, ou pour la toilette.	Section A A61K
Utilisation de substances dans des procédés physique ou chimique en général, p.ex. catalyseurs ou compositions absorbantes ou adsorbantes	Section B B01
Traitement chimique du bois ou des matériaux similaires	B27K
La chimie pure, couvrant les composés chimiques et leurs procédés de préparation:	
- chimie inorganique	C01
- chimie organique	C07
- les composés organiques macromoléculaires et leurs compositions	C08
Compositions de revêtement, p.ex. peintures	C09D

Combustibles	C10L
Utilisation de substances pour des applications concernant les matériaux fibreux, les textiles ou le papier	Section D
Utilisation de substances pour des applications photographiques, cinématographiques ou techniques analogues	G03
Utilisation de substances pour des applications concernant des éléments électriques ou électronique	Section H
Sélection de substances à base de leurs caractéristiques conductrices, isolantes, ou diélectriques	H01B
Sélection de substances pour leur utilisation dans les générateurs électrochimique, p.ex. batteries	H01M
Sélection de substances pour des matériaux piézo-électriques	H01L41/16

Renvois indicatifs

Il est important de tenir compte des endroits suivants, qui peuvent présenter un intérêt pour la recherche:

Compositions absorbantes ou adsorbantes solides	B01J20/00
Substances pour le traitement de l'eau, des eaux résiduaires, des eaux ou boues d'égout	C02F
Engrais	C05
p.ex. mélanges de substances pour conditionner ou stabiliser les sols avec des engrais, caractérisés par leur activité d'engrais	C05G

Règles particulières de classement dans la sous-classe C09K

Glossaire

Dans les documents de brevet, les termes suivant sont souvent utilisé avec le sens ci-dessous indiqué:

substances couvre les composés, les compositions, les mélanges et les préparations

Synonyme et mots-clés

Titre - C09K3/00

**Substances pour des applications non prévues ailleurs ;
Applications de substances non prévues ailleurs**

Renvois influençant le classement dans le groupe C09K3/00

Le présent groupe ne couvre pas:

Ce groupe est résiduaire par rapport aux endroits suivants

Apprêts en pâtes

C09D5/34

Titre – C09K3/10

Substances pour sceller ou étouper des joints ou des couvercles

Renvois influençant le classement dans le groupe C09K3/10

Le présent groupe ne couvre pas:

Apprêts en pâtes

C09D5/34

Titre – C09K3/14

**Substances antidérapantes;
Abrasifs**

Renvois influençant le classement dans le groupe C09K3/14

Le présent groupe ne couvre pas:

Fabrication d'objets ou de matériaux façonnés, abrasifs ou de friction,
contenant des substances macromoléculaires

C08J5/14

Titre – C09K3/18

**Substances à appliquer sur des surfaces pour y minimiser l'adhérence de la glace, du brouillard ou de l'eau;
Substances antigél ou provoquant le dégel pour application sur des surfaces**

Renvois indicatifs

Il est important de tenir compte des endroits suivants, qui peuvent présenter un intérêt pour la recherche:

Traitement de matériaux particuliers leur permettant de s'écouler librement, en général, p.ex. en les rendant hydrophobes B01J2/30

Substances antigél ou provoquant le dégel employées dans des liquides pour le transfert de chaleur, pour l'échange de chaleur ou pour le stockage de la chaleur ou pour la production de chaleur ou de froid autrement que par combustion, p.ex. liquides de radiateurs C09K5/00

Titre - C09K3/30

Substances pour aérosols

Renvois informatifs

Il est important de tenir compte des endroits suivants, qui peuvent présenter un intérêt pour la recherche:

Réceptacles aérosols B65D83/14

Titre - C09K3/32

Substances pour traiter les polluants liquides, p.ex. le pétrole, l'essence, les corps gras

Renvois influençant le classement dans le groupe C09K3/32

Le présent groupe ne couvre pas:

Ce groupe est résiduaire par rapport aux endroits suivants

Substances pour le traitement de l'eau, des eaux résiduaires ou des eaux d'égout C02F

Titre - C09K5/20

Additifs antigél pour ces substances, p.ex. pour liquides de radiateur

Renvois indicatifs

Il est important de tenir compte des endroits suivants, qui peuvent présenter un intérêt pour la recherche:

Substances antigél ou provoquant le dégel pour application sur des surfaces C09K3/18

Inhibition de la corrosion par des liquides C23F11/00

Titre – C09K8/54

Compositions pour inhiber in situ la corrosion dans les puits ou les trous de forage

Renvois indicatifs

Il est important de tenir compte des endroits suivants, qui peuvent présenter un intérêt pour la recherche:

Inhibition de la corrosion de matériaux métalliques en utilisant des inhibiteurs en général [C23F11/00](#)

Titre – C09K8/56

Compositions pour consolider le sable meuble ou similaire autour des puits sans diminuer excessivement sa perméabilité

Renvois indicatifs

Il est important de tenir compte des endroits suivants, qui peuvent présenter un intérêt pour la recherche:

Substances pour conditionner ou stabiliser les sols [C09K17/00](#)

Titre - C09K13/00

Compositions pour l'attaque chimique, la gravure, le brillantage de surface ou le décapage

Renvois influençant le classement dans le groupe C09K13/00

Le présent groupe ne couvre pas:

Ce groupe est résiduaire par rapport aux endroits suivants

Compositions pour l'attaque chimique :

- du verre [C03C15/00](#)
- de la pierre naturelle ou artificielle ou des céramiques [C04B41/52](#)
[C04B41/72](#)
[C04B41/91](#)

- de matériaux métalliques

C23F
C23G1/00
C25F1/00

Titre - C09K15/00

Compositions anti-oxydantes;

Compositions inhibant les modifications chimiques

Renvois influençant le classement dans le groupe C09K15/00

Le présent groupe ne couvre pas:

Ce groupe est résiduaire par rapport aux endroits suivants

Compositions anti-oxydantes ou compositions inhibant les modifications chimiques incorporées dans:

- les aliments A21D
A23
- les compositions macromoléculaires C08
- les combustibles liquides ou les lubrifiants C10
- les huiles, graisses, matières grasses ou cires animales ou végétales C11B5/00
- les détergents C11D
- les compositions pour décaper des matériaux métalliques C23G

Compositions inhibant la corrosion de matériaux métalliques C23F11/00

Titre – C09K17/00

Substances pour conditionner ou stabiliser les sols

Renvois influençant le classement dans le groupe C09K17/00

Le présent group ne couvre pas:

Substances pour stabiliser les sols spécialement adaptées pour les puits et les trous de forage [C09K8/00](#)

Renvois indicatifs

Il est important de tenir compte des endroits suivants, qui peuvent présenter un intérêt pour la recherche:

Consolidation par la mise en place de produits solidifiants ou capable de boucher les pores [E02D3/12](#)

Titre - C09K21/00

Substances ignifugeantes

Renvois influençant le classement dans le groupe C09K21/00

Le présent groupe ne couvre pas:

Ce groupe est résiduaire par rapport aux endroits suivants

Substances ignifugeantes pour utilisation dans une application particulière,
p.ex.:

- pour l'ignifugation du bois B27K
- pour l'ignifugation des polymères C08
- pour l'ignifugation des textiles D06M
- pour l'ignifugation du papier D21H

Peintures ignifuges

C09D5/18



IPC/D 005
ORIGINAL: English/French
DATE: 10.06.2004

WORLD INTELLECTUAL PROPERTY ORGANIZATION
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COMMITTEE OF EXPERTS OF THE IPC UNION
COMITÉ D'EXPERTS DE L'UNION DE L'IPC

DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : PROPOSITION DE :	WG	IPC AREA: DOMAINE DE LA CIB :	C40B
RAPPORTEUR :	EP	TECHNICAL FIELD : DOMAINE TECHNIQUE :	C

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Rapporteur proposal	Proposition du rapporteur	GB	21.09.2001
2	Rapporteur report	Rapport du rapporteur	GB	21.09.2001
3	Comments	Commentaire	JP	24.10.2001
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5	Comments	Commentaire	EP	26.10.2001
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15	Rapporteur proposal	Proposition du rapporteur	EP	20.11.2002
16	Comments	Commentaire	GB	10.03.2003
17	Rapporteur proposal	Proposition du rapporteur	EP	14.03.2003

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18	Comments	Commentaire	DE	11.04.2003
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20	Rapporteur report	Rapport du rapporteur	EP	18.09.2003
21	Rapporteur proposal	Proposition du rapporteur	EP	18.09.2003
22	Comments	Commentaire	DE	26.09.2003
23	Rapporteur report	Rapport du rapporteur	EP	11.05.2004
24	Rapporteur proposal	Proposition du rapporteur	EP	11.05.2004
25	Indication of approval		GB	13.05.2004



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Principal Directorate Tools / Documentation

Rapporteur Report

Project: D005

Subclass: C40B

26 April 2004

Rapporteur was asked to write another proposal, taking into account remarks from US and CA (8/12/03 and 8/1/04 respectively).

Anne Glanddier

Title - C40B

Combinatorial chemistry, libraries, e.g. chemical libraries

Definition statement

This subclass covers:

- Methods of making libraries, e.g. combinatorial synthesis
- *In silico* or virtual conception of libraries; *in silico* or virtual libraries
- Chemical or biological libraries and modifications thereof, i.e. chemically, biologically or physically modified
- Methods of screening libraries or subsets thereof for a desired activity or property, e.g. binding ability
- Methods specially adapted for identifying the exact nature, e.g. chemical structure of a particular library member
- Apparatus specially adapted for use in combinatorial chemistry or library technology to identify library members, to screen libraries or to synthesize libraries; integrated apparatus specially adapted for performing any combination of these three tasks.
- Tags or linkers specially adapted for use in combinatorial chemistry or library technology.
- Other process or products specially adapted for combinatorial chemistry or libraries

Relationship between large subject matter areas

- Individual library members are classified in the appropriate places elsewhere in the IPC, e.g. in Section C, according to established procedure relating to "Markush" -type formulae (see paragraph 101 of the Guide). Subject matter that has a wider utility and may also be used outside combinatorial chemistry, e.g. solid supports and linkers of general utility in solid phase synthesis, general reagents, is classified in the appropriate places elsewhere in the IPC, e.g. [Section C](#).
- Methods or apparatus covered by this subclass are also classified for their biological, chemical, physical or other features in the appropriate places in the IPC, if such features are of interest, e.g.
 - Biocides [A 01 N](#)
 - Preparations for medical, dental or toilet purposes [A 61 K](#)
 - Therapeutic activity of compounds [A 61 P](#)
 - Separation [B 01 D](#)
 - Chemical or physical processes, e.g. catalysis; Apparatus therefor [B 01 J](#)
 - Chemical or physical laboratory apparatus [B 01 L](#)
 - Shaped plastics [B 29](#)
 - Inorganic, organic or organic macromolecular compounds; Methods of preparation or separation thereof [C 01](#), [C 07](#), [C 08](#)
 - Biochemistry, microbiology, enzymology including microorganisms or enzymes, preparing them, using them to synthesize compounds or compositions; Measuring or testing processes involving microorganisms or enzymes; Mutation or genetic engineering [C 12](#)
 - Metal alloys [C 22](#)
 - Chemical or physical analysis [G 01 N](#)
 - Physical measurements methods; Apparatus therefore [G 01 R](#), [G 01 T](#)
 - Photomechanical methods [G 03 F](#)
 - Electrical digital data processing [G 06 F](#)
 - Data processing [G 06 K](#)
 - Image data processing [G 06 T](#)
 - Displaying; Advertising [G 09 F](#)

Limiting references

Informative references

Special rules of classification

- In this subclass, at each level of indentation, in the absence of an indication to the contrary, classification is made in the first appropriate place.
- When classifying in this subclass, additional classifications are made for subject matter which is considered invention information or is considered of interest for search purposes.
- Unless otherwise stated, *in silico* or virtual libraries are classified in main-group C40B7/00 (or its subgroups) as if they were physically existing entities.

Glossary

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

- Array:** Set of compounds maintained in a specified spatial distribution e.g. in the wells of a 96-well plate, in pins held in a rack or at the tip of optical fibers arranged in a bunch.
- Biochemical method:** Process involving the use of *microorganisms*, enzymes, vectors or antibodies.
- Chemical Evolution Process:** Process using *in vitro* selection systems that evolve to enrich mixtures of chemical compounds in those components having selected properties. The terminology “directed molecular evolution” is commonly employed when the process is applied to mixtures of macromolecules (e.g. RNA aptamers). Selected compounds are then amplified (“copied”) using biochemical methods (e.g. enzymatic reverse transcription of RNA aptamers to DNA, PCR amplification and finally retranscription to RNA); This concept has been adapted to organic chemistry and opened a new branch of combinatorial chemistry named “dynamic combinatorial chemistry” wherein the enrichment in the (usually low-molecular weight) compounds having a selected property results from the equilibration process that carries out a preferential destruction and recycling of unselected compounds.
- Coding/encoding:** Strategy whereby a surrogate analyte is associated with each member of a library in order to record its structure and/or the reaction sequence used for its preparation. This is usually achieved by the use of tags/labels attached to the particles of solid support on which the library members are assembled.
- Combinatorial library:** A set of compounds (a library) prepared by combinatorial synthesis. May consist of a collection of pools or sub-libraries.
- Combinatorial synthesis:** Combinatorial synthesis is the preparation of sets of diverse entities by the combination of sets of chemical building blocks, e.g. reagents.

- Contained in:** A library contained in a microorganism, a cell or a vector is a library the members of which are present in the respective biochemical, e.g. in a plasmid.
- Decoding:** Method enabling the determination of the structure of a library member and/or the reaction sequence leading to its preparation, consisting in “reading” (e.g. determining the structure of) a surrogate analyte (code, tag, label) associated with said library-member.
- Deconvolution:** Process consisting of fractionating (normally by resynthesis, or by elaborating a partial library) a pool with some level of the desired activity to give a set of smaller pools. See also *iterative deconvolution*.
- Directed Molecular Evolution:** Directed Molecular Evolution is a process for enriching a library in members having a property or activity of interest. It involves cycles of taking a library, subjecting it to a screen to select for the desired property or activity, amplifying the "hits" to provide the starting library for the subsequent cycle.
- "Mutations" may be introduced at the amplification stage in order to increase the diversity of the library. This subject matter involves aspects of creating and screening libraries.
- Displayed by:** A library displayed by a microorganism is a library present at the surface of such a microorganism, e.g. of a bacteria. See for example Nature Biotechnology (1997), 15, pages 29-34: “Display of heterologous proteins on the surface of microorganisms: from the screening of combinatorial libraries to live recombinant vaccines.
- Dynamic Library:** Collection of compounds (in solution) in dynamic equilibrium (i.e. constantly changing). If the composition of the library is altered by the presence of a target which selectively binds certain library members, then shifting of the equilibrium will lead to an increase in the amount of those components which bind to the target with relatively high affinity. A dynamic library contains all the potentially possible combinations of the components undergoing dynamic random connection, whether these combinations are or are not actually present in the conditions used. It is a virtual library. A real entity is generated in the presence of the target.
- Fluorous Synthesis:** Approach for solution phase synthesis which takes advantage of the ability of highly fluorinated groups to partition out of aqueous and most organic solutions into a third phase consisting in a fluorinated solvent. The fluorinated side chain can act as a soluble support for synthesis.
- Identifying:** Determining the exact nature, e.g. chemical structure or sequence listing, of a particular library member or of a particular subset of library members.

- In silico* library:** A library which has no physical existence, being constructed solely in electronic form or on paper. It is one type of virtual library. The building blocks required for such a library may not exist, and the chemical steps for creating such a library may not have been tested. These libraries are used in the design and evaluation of possible libraries.
- "Integrated" apparatus:** Apparatus specifically designed for performing at least two different operations, e.g. synthesis and screening.
- Iterative deconvolution:** Method for the identification of active library members consisting in repeating the deconvolution strategy a certain number of times. Usually the initial library is divided into non-overlapping subsets. The subsets are tested (screened) separately, and the one with the greatest activity is identified. This subset is re-synthesized as a collection of simpler subsets which are tested for activity. The process is repeated until a unique library-member with (ideally) a high level of activity is identified.
- Library:** A library is a created collection of a plurality of compounds, microorganisms or other substances. The collection is useful as a test vehicle for determining which of its members or its subsets of members possess activities or properties of interest. A library might for example exist as:
- a solution
 - a physical admixture
 - an ordered or unordered array
 - a plurality of members present on a support and affixed thereto, e.g. by chemical bonding, by physical attractive forces or by coating.
- Liquid-phase synthesis:** In the context of C40B, this wording covers both solution phase syntheses (i.e. reactions involving only one liquid phase) as well as syntheses in multiple liquid phase systems (i.e. involving more than one liquid phase). The latter concern for instance syntheses performed on a liquid macromolecular compound such as PEG (polyethylene glycol), on dendrimers, or wherein a fluorocarbon phase is present in the system (*fluorous synthesis*).
- Microorganisms:** bacteria, actinomycetales, fungi (e.g. yeast), virus, human, animal, or plant cells, tissues, protozoa or unicellular algae.
- Particular attachment method:** Specific method of attachment focusing on the way molecules are bound to the solid or liquid support, e.g. by means of electrostatic interactions, formation of covalent bonds by cycloaddition reactions or by irradiation.
- Resin capture:** Method consisting in contacting the reaction medium with a solid support after a reaction performed in solution, in order to attach the reaction product to the resin and thus collect it easily.
- Safety-Catch Linker:** A linker which is cleaved by performing two different reactions instead of only one, thus providing greater control over the timing of compound release. In practice, the resin is "activated" before the actual cleavage takes place (e.g. cleavage by nucleophilic displacement of a previously alkylated sulfonamide resin).
- Screening:** Determining whether a library contains a member or members which have a particular property or activity of interest.

- Solid-phase synthesis:** Synthetic process wherein the reactions are performed on a solid support, usually in the presence of a solvent, i.e. wherein one or more library building blocks are bound to a solid support (e.g. polymer, resin, glass beads) during library creation.
- Solid support:** Insoluble, functionalized, polymeric material to which library members or other reagents may be attached (often via a linker) allowing library members to be readily separated (by filtration, centrifugation, etc.) from excess reagents, soluble reaction by-products or solvents.
- Solution-phase synthesis:** Synthesis performed in solution, i.e. wherein the reactants and reagents are all soluble in the reaction medium (irrespective of the fact that, for instance, a supported catalyst is used during the reaction). It is also called “synthesis in solution”.
- Traceless Linker:** Linker which does not leave any residue on the cleaved compound, i.e. which is replaced by a hydrogen atom.
- Virtual library:** A library which has no physical existence. This terminology encompasses two different types of libraries: *in silico* libraries and dynamic libraries.

Synonyms and Keywords



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COMITÉ D'EXPERTS DE L'UNION DE L'IPC

DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : PROPOSITION DE :	WG	IPC AREA: DOMAINE DE LA CIB :	A61P
RAPPORTEUR :	EP	TECHNICAL FIELD : DOMAINE TECHNIQUE :	C

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Proposal	Proposition	EP	30.08.2001
2	Comments	Commentaire	US	04.10.2001
3	Rapporteur report	Rapport du rapporteur	EP	06.11.2001
4	Comments	Commentaire	US	11.02.2002
5	Comments	Commentaire	DE	26.02.2002
6	Rapporteur report	Rapport du rapporteur	EP	03.04.2002
7	Proposal	Proposition	EP	16.09.2002
8	Rapporteur proposal	Proposition du rapporteur	EP	16.09.2002
9	Comments	Commentaire	RO	01.10.2002
10	Comments	Commentaire	DE	02.10.2002
11	Comments	Commentaire	GB	04.10.2002
12	Comments	Commentaire	US	28.10.2002
13	Rapporteur proposal	Proposition du rapporteur	EP	23.01.2003
14	Comments	Commentaire	GB	13.02.2003
15	Comments	Commentaire	US	20.02.2003
16	Rapporteur report	Rapport du rapporteur	EP	23.09.2003
17	Rapporteur proposal	Proposition du rapporteur	EP	23.09.2003

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Patent Office****Office européen
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Principal Directorate Tools / Documentation

Rapporteur report

Project: D022

Subclass: A61P

23 September 2003

Following the discussions at the Definition Task Force meeting during IPC/WG/9 concerning A61P, and in view of the US comment to project D023 (Annex 13), the proposal of Annex 7 has been modified.

Anne Glanddier

Title - A61P

Therapeutic activity of chemical compounds or medicinal preparations

Definition statement

This subclass covers:

Therapeutic activity of chemical compounds or medicinal preparations.

Relationship between large subject matter areas

For medicinal, dental or cosmetic preparations to be appropriate for this subclass, it must also be appropriate for one of the following: subclasses [A61K](#) or [C12N](#), or classes [C01](#), [C07](#), and [C08](#).

References relevant to classification in this subclass

Informative references

Preparations brought into direct contact with the skin for affording protection against external influences
[A61Q17/00](#)

Special rules of classification within the subclass

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 of terms

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

Drug(s) includes chemical compounds or compositions with therapeutic activity, i.e. having the ability to cause a physiological, pharmacological or biological effect.

Synonyms and Keywords



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DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : PROPOSITION DE :	WG	IPC AREA: DOMAINE DE LA CIB :	A61Q
RAPPORTEUR :	EP	TECHNICAL FIELD : DOMAINE TECHNIQUE :	C

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Proposal	Proposition	EP	30.08.2001
2	Comments	Commentaire	US	04.10.2001
3	Rapporteur report	Rapport du rapporteur	EP	06.11.2001
4	Comments	Commentaire	US	11.02.2002
5	Comments	Commentaire	DE	26.02.2002
6	Rapporteur report	Rapport du rapporteur	EP	03.04.2002
7	Proposal	Proposition	EP	16.09.2002
8	Rapporteur proposal	Proposition du rapporteur	EP	16.09.2002
9	Comments	Commentaire	US	28.10.2002
10	Comments	Commentaire	DE	07.11.2002
11	Rapporteur proposal	Proposition du rapporteur	EP	23.01.2003
12	Comments	Commentaire	GB	13.02.2003
13	Comments	Commentaire	US	11.09.2003
14	Rapporteur report	Rapport du rapporteur	EP	23.09.2003
15	Rapporteur proposal	Proposition du rapporteur	EP	23.09.2003

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Principal Directorate Tools / Documentation

Rapporteur report

Project: D023

Subclass: A61Q

23 September 2003

Following the discussions at the Definition Task Force meeting during IPC/WG/9 concerning A61Q, and in view of the US comment in Annex 13, the proposal of Annex 7 has been modified.

Anne Glanddier

Title - A61Q

Use of cosmetics or similar toilet preparations

Definition statement

This subclass covers:

The use of cosmetics or similar toilet preparations.

Relationship between large subject matter areas

For a cosmetic or similar toilet preparation to be appropriate for this subclass, it must also be appropriate for one of the following: main group [A61K8/00](#) , subclasses [C07C](#), [C07D](#), [C07F](#), [C07G](#), [C07H](#), [C07J](#), [C07K](#), [C11D](#) and [C12N](#) or classes [C01](#) and [C08](#).

References relevant to classification in this subclass

This subclass does not cover:

Drugs for dermatological disorders

[A61P17/02](#)
to
[A61P17/16](#)

Informative references

Special rules of classification

- In this subclass, all uses of cosmetics or similar toilet preparations 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 of terms

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

Cosmetics or similar toilet preparations include compositions or preparations for the skin, hair, nails, teeth or oral cavity which are used to clean them, change their appearance, correct body odours, and protect or keep them in good condition.

Synonyms and Keywords



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**DEFINITION PROJECT FILE
 DOSSIER DE PROJET DÉFINITION**

PROPOSAL BY : PROPOSITION DE :	WG	IPC AREA: DOMAINE DE LA CIB :	B01D
RAPPORTEUR :	GB	TECHNICAL FIELD : DOMAINE TECHNIQUE :	C

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Rapporteur report	Rapport du rapporteur	GB	21.09.2001
2	Rapporteur proposal	Proposition du rapporteur	GB	21.09.2001
3	Comments	Commentaire	CA	24.09.2001
4	Comments	Commentaire	EP	02.10.2001
5	Comments	Commentaire	RO	05.10.2001
6	Comments	Commentaire	JP	25.10.2001
7	Rapporteur report	Rapport du rapporteur	GB	14.11.2001
8	Comments	Commentaire	EP	15.02.2002
9	Comments	Commentaire	EP	15.02.2002
10	Comments	Commentaire	RO	20.02.2002
11	Comments	Commentaire	US	26.02.2002
12	Rapporteur report	Rapport du rapporteur	GB	26.09.2002
13	Rapporteur proposal	Proposition du rapporteur	GB	26.09.2002
14	Comments	Commentaire	RO	01.10.2002
15	Comments	Commentaire	US	28.10.2002
16	Comments	Commentaire	EP	29.10.2002
17	Rapporteur report	Rapport du rapporteur	GB	18.11.2002

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
18	Rapporteur proposal	Proposition du rapporteur	GB	18.11.2002
19	Rapporteur report	Rapport du rapporteur	GB	04.02.2003
20	Rapporteur proposal	Proposition du rapporteur	GB	04.02.2003
21	Comments	Commentaire	US	09.10.2003
22	Rapporteur proposal	Proposition du rapporteur	GB	12.11.2003
23	Rapporteur report	Rapport du rapporteur	GB	12.11.2003

IPC Revision WG – Definition Project GB Rapporteur Proposal	Project: D024
	Class/ <u>subclass</u> : B01D
	Date : 12/11/03

Title – B01D

Separation

Definition statement

This subclass covers:

Processes and apparatus for evaporation, distillation, sublimation, crystallisation, solvent extraction, chromatography, sedimentation, filtration, dust precipitation, gas cleaning, absorption, adsorption, separation of isotopes.

Cold traps, cold baffles.

Treating liquids by displacement, adsorption, separation or degasification.

Treating gases or vapours by separation, recovering, chemical or biological purification of waste gases.

Separation using semi-permeable membranes, dialysis, osmosis, ultrafiltration.

Separation of suspended particles from liquids by sedimentation, flocculation, settling, filtration or other processes.

Separation of dispersed particles from gases or vapours, by filtration, gravity, inertia or centrifugal forces, or using liquid as separating agent.

Similar processes which are not concerned with, or limited to, separation.

Relationship between large subject matter areas

For apparatus used in drying or evaporation, F26B takes precedence over this subclass.

Separation of isotopes of the same chemical element is covered by group B01D 59/00, whatever process or apparatus is employed; this group therefore takes precedence over other subclasses of class B01.

References relevant to classification in this subclass

This subclass does not cover:

Separating solids from solids by wet methods	B03B, B03D
Separating solids from solids using liquids or using pneumatic jigs or tables	B03B
Magnetic or electrostatic separation of solid materials from solid materials or fluids, separation by high-voltage electric fields	B03C

Flotation, differential sedimentation	B03D
Separating solids from solids by dry methods, e.g. sieving, screening, sifting or using gas currents	B07B
Centrifuges	B04B
Vortex apparatus, e.g. cyclones	B04C
Presses <u>per se</u> for squeezing-out liquid from liquid-containing material	B30B 9/02
Treatment of water e.g. softening of water by ion-exchange	C02F C02F 1/42
Arrangement or mounting of filters in air-conditioning, air-humidification or ventilation	F24F 13/28

Examples of places where the subject matter of this class is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Blood or infusion liquid filters	A61M 5/165
Screens or sieves <u>per se</u>	B07B 1/00
Extrusion filters	B29C 47/68
Filtering spinning solution or melt	D01D 1/10
Filtration of lubricants	F16N 39/06
Suction cleaner filters	A47L 9/10
Filters for breathing-protection purposes	A62B 23/00
Filtering air for vehicles	B60H 3/06
Separating pneumatically-conveyed materials from propelling gas	B65G 53/60
Exhaust or silencing apparatus for machines or engines having means for removing solid constituents of exhaust	F01N 3/02
Air cleaners for the intakes of gas-turbine or jet-propulsion plants	F02C 7/05
Air cleaners for the intakes of combustion engines	F02M 35/024
Air cleaners for the intakes of compressors	F04B 39/16
Filtering in air-conditioning	F24F 3/16
Purification or separation of nitrogen	C01B 21/04
Working-up unidentified gaseous mixtures obtained by cracking hydrocarbon oils	C10G 70/00
Cleaning coal gas	C10K
Working-up of natural gas, or synthetic natural gas	C10L 3/10
Separation of difficult-to-condense gases or air by liquefaction	F25J
Investigating materials	G01N 30/00

Treatment of milk by dialysis, reverse osmosis or ultrafiltration	A23C 9/142
Treatment of milk by electro dialysis	A23C 9/144
Artificial kidneys	A61M 1/14
Treatment of water by dialysis, osmosis or reverse osmosis	C02F 1/44
Treatment of water by electro dialysis	C02F 1/469
Apparatus for enzymology or microbiology with dialysis means	C12M 1/12
Production or purification of sugar juices, e.g. by osmosis	C13D 3/16
Extraction of sugar from molasses, e.g. by osmosis	C13J 1/08
Diaphragms for electrolysis	C25B 13/00 C25C 7/04
Osmosis as energy source	F03G 7/00

Places in relation to which this [subclass](#) is residual:

NONE

Informative references

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

NONE

Special rules of classification within this subclass

Group B01D 59/00 (separation of isotopes) takes precedence over other groups of this subclass since it covers separation of isotopes of the same chemical element, whatever process or apparatus is employed.

Glossary of terms

In this [subclass](#), the following terms or expressions are used with the meaning indicated:

Filtration	The separation of a fluid-solid 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.
Filter medium	A porous barrier or porous arrangement of material, which lets a fluid pass while retaining most of the solids which were mixed with it.
Filtering element	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.

Filter housing	The fluid-constraining impervious vessel, whether open or closed, which contains, or is adapted to contain one or more filtering elements or filter media.
Filter chamber	The space within a housing where filtering elements or filter media are located; partitions may divide a single housing into a plurality of chambers.
Filtering apparatus	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

In patent documents the following abbreviations are often used:

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 e.g. chromatography.

Relationship between large subject matter areas

None

References relevant to classification in this subclass

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
Separation of isotopes of the same chemical element	B01D 59/00
Sorbent materials in general	B01J 20/00
Sorbents for chromatography	B01J 20/281
Ion-exchange processes or materials	B01J 39/00 to 49/00
Treatment of water - e.g. softening of water by ion-exchange	C02F 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 particular applications, or relating to treating particular compounds or groups of compounds, may be classified in the following non-exhaustive list:

Modifying dairy products by dialysis, osmosis, filtration or ion-exchange	A23C 9/14
Treating blood or products derived therefrom	A61K 35/14
Separation of optically active compounds	C07B 57/00
Purification of hydrocarbons by adsorption	C07C 7/11
Extraction, separation or purification of peptides by chromatography	C07K 1/16
Refining hydrocarbon oils with solid sorbents	C10G 25/00
Refining fats or fatty oils by adsorption	C11B 3/10
Purification of alcoholic beverages with ion-exchange or adsorption material	C12H 1/04
Separating or purifying micro-organisms or enzymes	C12N 9/00
Purification of sugar juices using adsorption agents	C13D 3/12

Special rules of classification within this main group

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 of terms

In this [subclass](#), the following terms or expressions are used with the meaning indicated:

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. 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

In patent documents the following abbreviations are often used:

NONE

UK Patent Office**Date: 11 November 2003**

Rapporteur Report on Project D024, Subclass B01D

Comments have been made by US in Annex 21, and approvals have come from EP (albeit sympathising with the US position) and from JP. The US comments refer to a set of 34 references to application places, which are present under several guidance headings within the B01D subclass, and which Rapporteur had proposed not to put into the latest proposal of Annex 20.

Rapporteur was reluctant to put all these references into Annex 20, not because of laziness or reluctance to do a considerable amount of typing, but because a long list of references could be regarded as over-long and unwieldy for the user. US disagreed with this position because the definition will be in the electronic layer, making it easy to scroll through parts that are of no interest. EP expressed sympathy with the US position, and therefore R finds it hard to resist the pressure to put these references in.

R has therefore inserted these references into the **“References relevant to classification in this subclass”** section, as required by the guidelines for drafting subclass definitions, under the “specially adapted” sub-heading.

These references have been presented in the same order as they appear under the various guidance headings of the subclass. No attempt has been made to change their order for alphabetical or other reasons since references to similar technical areas were placed next to each other. R feels that switching some of the references around would be unproductive and probably confusing for the user.

R has also placed this definition in the new definition template, and hopes it is now ready for final approval.

Martin Price



IPC/D 025
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DATE: 10.06.2004

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DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : PROPOSITION DE :	WG	IPC AREA: DOMAINE DE LA CIB :	C07F
RAPPORTEUR :	RU	TECHNICAL FIELD : DOMAINE TECHNIQUE :	C

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Proposal	Proposition	RU	06.09.2001
2	Comments	Commentaire	EP	21.09.2001
3	Comments	Commentaire	JP	01.10.2001
4	Comments	Commentaire	SE	09.11.2001
5	Proposal	Proposition	RU	16.11.2001
6	Rapporteur report	Rapport du rapporteur	RU	16.11.2001
7	Comments	Commentaire	EP	06.02.2002
8	Comments	Commentaire	US	15.02.2002
9	Comments	Commentaire	DE	26.02.2002
10	Rapporteur report	Rapport du rapporteur	RU	18.03.2002
11	Rapporteur proposal	Proposition du rapporteur	RU	18.03.2002
12	Proposal	Proposition	RU	23.04.2002
13	Comments	Commentaire	US	16.05.2002
14	Rapporteur proposal	Proposition du rapporteur	RU	19.09.2002
15	Comments	Commentaire	EP	16.10.2002
16	Comments	Commentaire	US	28.10.2002
17	Comments	Commentaire	DE	07.11.2002

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
18	Rapporteur report	Rapport du rapporteur	RU	10.02.2003
19	Rapporteur proposal	Proposition du rapporteur	RU	10.02.2003
20	Comments	Commentaire	EP	14.04.2003
21	Comments	Commentaire	US	28.04.2003
22	Comments	Commentaire	GB	02.05.2003
23	Rapporteur report	Rapport du rapporteur	RU	19.05.2003
24	Rapporteur proposal	Proposition du rapporteur	RU	19.05.2003
25	Comments	Commentaire	EP	22.05.2003
26	French version	Version française	EP	19.11.2003
27	Rapporteur report	Rapport du rapporteur	RU	10.06.2004
28	Rapporteur proposal	Proposition du rapporteur	RU	10.06.2004

Title - C07F

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

Definition Statement

This subclass covers:

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

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

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

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

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

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

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

Preparations for medical, dental, or toilet purposes [A61K](#).

The [last place rule](#) in the whole of Class [C07](#) (thus appearing here as "the last subclass rule") is also effective for this subclass. According to it, e.g. sugar phosphates are classified in group [C07H11/04](#) as sugars and not in group [C07F9/00](#) as phosphorus compounds and peptides containing metals are classified in subclass [C07K](#). *Subject matter concerning inorganic compounds is classified in Class [C01](#). Thus, for example, when silica modified by organic compounds is not relevant to classification in subclass [C07F](#) (for example, when the structure of an organic compound is not disclosed sufficiently) classification may be made in group [C01B 33/00](#).*

Multiple classification

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

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

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

References Relevant to Classification in This Subclass

This subclass does not cover:

Metal-containing porphyrins	C07D487/22
Organic acid salts, alcoholates, phenates, chelates or mercaptides, having no	C07C

elements other than carbon, hydrogen, halogen, oxygen, nitrogen, sulfur, selenium, or tellurium in the parent compounds (attention is drawn to note 5 following the title of class C07 concerning the rules of classification of these compounds)	C07D
Macromolecular compounds	C08
Products obtained from layered base-exchange silicates by ion-exchange with organic compounds such as ammonium, phosphonium or sulfonium compounds or by intercalation of organic compounds	C01B33/44
Fermentation or enzyme-using processes to synthesise a desired chemical compound or composition or to separate optical isomers from a racemic mixture	C12P
Production of organic compounds by electrolysis or electrophoresis	C25B3/00 C25B7/00

Informative References

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

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

Special Rules of Classification Within This Subclass

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

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

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

Glossary of Terms

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

alcoholate product of substitution of hydrogen in hydroxy group of alcohol by metal atom.

chelate intracomplex compound i.e. compound containing intramolecular donor-acceptor bonds.

metallocene *cyclopentadienyl compound of transitional metal, e.g., ferrocenes, constrained geometry-type compounds.*

metallo-organic compound or organometallic compound organic compound containing metal bonded to carbon.

organic compound is defined as satisfying *at least* one of the following criteria:

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

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

phenate product of substitution of hydrogen in hydroxy group of phenol by metal atom.

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

Synonyms and Keywords

arsine compound having chemical formula $AsnH_{n+2}$. (Organic derivatives of arsenic include dichloromethylarsine CH_3AsCl_2 , dimethyldichlorodiarsine $(CH_3)_2As-AsCl_2$ etc.).

cacodyl tetramethyldiarsine $(CH_3)_2As-As(CH_3)_2$.

cacodylic acid compound having chemical formula $(CH_3)_2AsOOH$.

cyclopentadienyl (chemical formula)

fluorenyl (chemical formula)

indenyl (chemical formula)

phosphine compound having chemical formula P_nH_{n+2} . (Organic derivatives of phosphine include dimethylphosphine $(CH_3)_2PH$ etc.).

silamine organic silicon compound containing $R-SiH_2-NH_2$ bonds.

silane compound having chemical formula Si_nH_{2n+2} . (Organic derivatives of silane include methylmonosilane CH_3SiH_3 , dimethyldichlorosilane $Si(CH_3)_2Cl_2$, hexamethyldisilane $(CH_3)_3Si-Si(CH_3)_3$ etc.).

silanol organic silicon compound containing $Si-OH$ bonds, e.g. trimethylsilanole $(CH_3)_3SiOH$, dimethylsilanediol $(CH_3)_2Si(OH)_2$.

silazane organic silicon compound containing $Si-NH-Si$ bonds.

siliconane tetraethylsilane

siloxane organic silicon compound containing $Si-O-Si$ bonds.

siltiane organic silicon compound containing $Si-S-Si$ bonds.

stibine compound having chemical formula Sb_nH_{n+2} . (Organic derivatives of antimony include trimethylstibine $(Sb(CH_3)_3)$, triphenylantimony $(Sb(C_6H_5)_3)$, etc.).

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Principal Directorate Tools / Documentation

Traduction

Project: D025

4 November 2003

Titre - C07F

Composés acycliques, carbocycliques ou hétérocycliques contenant des éléments autres que le carbone, l'hydrogène, les halogènes, l'oxygène, l'azote, le soufre, le sélénium ou le tellure

Énoncé de la définition

La présente sous-classe couvre:

Les composés organiques (acycliques, carbocycliques, hétérocycliques) contenant uniquement des éléments autres que le carbone, l'hydrogène, les halogènes, l'oxygène, l'azote, le soufre, le sélénium, or le tellure (p.ex. composés organiques de métal, composés du bore, composés du silicium, composés phosphorés, composés de l'arsenic).

La préparation des composés classés dans cette sous-classe non prévue ailleurs, comprenant la purification, la séparation, la stabilisation ou l'utilisation d'additifs, comme spécifié ci-dessous.

Le traitement et la modification des composés classés dans la sous-classe à condition toutefois que :

- le traitement ne soit pas classé ailleurs et
- le produit résultant soit un composé classé dans la présente sous-classe.

Liens entre secteurs d'une large portée

La sous-classe [C07F](#) est une sous-classe axée sur la fonction pour les composés eux-mêmes et ne couvre pas l'application ou l'utilisation des composés correspondant à la définition de la sous-classe. Pour le classement d'une telle information, d'autres entrées existent dans la CIB, par exemple:

[Conservation de corps humains ou animaux ou de végétaux, ou de parties de ceux-ci ; Biocides, p.ex. en tant que désinfectants, pesticides, herbicides ; Produits repoussant ou attirant les animaux nuisibles; Régulateurs de croissance des végétaux A01N.](#)

[Préparations à usage médical, dentaire ou pour la toilette A61K.](#)

La [règle de la dernière place](#) dans toute la classe [C07](#) (qui donc apparaît ici comme la règle de la dernière place dans la sous-classe) est aussi appliquée dans cette sous-classe. D'après cette règle, les phosphates de sucre p.ex., sont classés dans le groupe [C07H11/04](#) en tant que sucres et non pas dans le groupe [C07F9/00](#) en tant que composés du phosphore, et les peptides contenant des métaux sont classés dans la sous-classe [C07K](#).

[La matière contenant des composés inorganiques est classée dans la classe C01.](#)

Donc, par exemple, quand de la silice modifiée par des composés organiques ne concerne pas la sous-classe [C07F](#) (par exemple, quand la structure d'un composé organique n'est pas suffisamment décrite) le classement peut être effectué dans le groupe [C01B 33/00](#).

Classement multiple

L'activité des préparations biocides, des préparations répulsives ou attractives pour les animaux nuisibles, ou des préparations régulant la croissance végétale doit également être classée dans la sous-classe [A01P](#).

L'activité thérapeutique des composés doit être également classée dans la sous-classe A61P.
L'activité cosmétique des composés doit être également classée dans la sous-classe A61Q.

Renvois influençant le classement dans la présente sous-classe

La présente sous-classe ne couvre pas:

Porphyrines contenant des métaux	C07D487/22
Sels d'acides organiques, alcoolates, phénates, chélates ou mercaptides, qui ne contiennent pas d'autres éléments que du carbone, de l'hydrogène, des halogènes, de l'oxygène, de l'azote, du soufre, du sélénium ou du tellure dans les composés de base (il est important de tenir compte de la note 5 qui suit le titre de la classe C07 concernant les règles de classement de ces composés)	C07C C07D
Composés macromoléculaires	C08
Produits obtenus à partir de silicates échangeurs de base, en couches, par échange d'ions avec des composés organiques tels que des composés ammonium, phosphonium ou sulfonium ou par insertion de composés organiques	C01B33/44
Procédés de fermentation ou procédés utilisant des enzymes pour la synthèse d'un composé chimique donné ou d'une composition donnée, ou pour la séparation d'isomères optiques à partir d'un mélange racémique	C12P
Production de composés organiques par électrolyse ou électrophorèse	C25B3/00 C25B7/00

Renvois indicatifs

Il est important de tenir compte des endroits suivants, qui peuvent présenter un intérêt pour la recherche

Colorants	C09
Compositions détergentes ; Emploi d'une substance, utilisée seule, comme détergent	C11D
Produits de fermentation	C12

Règles particulières de classement dans la présente sous-classe

Dans la présente classe, sauf indication contraire, le classement est effectué à la dernière place appropriée, p.ex les ferrocènes et les cobaltocènes sont classés dans le groupe [C07F17/00](#) et non dans le groupe [C07F15/00](#) .

Dans cette sous-classe, les sels d'acides organiques, alcoolates, phénates, chélates ou mercaptides, sont classés comme les composés de base.

Les sels, adducts ou complexes formés entre plusieurs composés organiques sont classés avec chacun des composés qui forment ces sels, adducts ou complexes.

Glossaire

Dans la présente sous-classe, les termes ou expressions suivants ont la signification ci-dessous indiquée:

alcoolate produit de substitution de l'hydrogène du groupe hydroxyle d'un alcool par un atome de métal

chélate composé intra complexe c. à d. composé contenant des liaisons intramoléculaires donneur-accepteur.

metallocène composé cyclopentadienyl d'un métal de transition, p.ex. ferrocènes, composés du type à géométrie contrainte

composés organiques métalliques ou composés organométallique composé organique contenant un atome de métal lié à un carbone.

composé organique est défini comme satisfaisant à au moins l'un des critères suivants:

- au moins deux atomes de carbone sont liés entre eux, ou
- un atome de carbone est lié à un atome d'hydrogène ou à un atome d'halogène, ou
- un atome de carbone est lié à au moins un atome d'azote par une liaison simple ou double.

Les exceptions aux critères ci-dessus sont: les composés constitués uniquement d'atomes de carbone (p.ex. les fullérènes, etc.), le cyanogène, les halogénures cyanidriques, le cyanamide, les carbures de métaux, le phosgène, le thiophosgène, l'acide hydrocyanique, l'acide isocyanique, l'acide isothiocyanique, l'acide fulminique, l'acide carbamique non-substitué, et les sels des acides mentionnés précédemment; ces exceptions sont considérées comme des composés inorganiques pour les besoins du classement.

phénate produit de substitution de l'hydrogène dans un groupe hydroxyle d'un phénol par un atome de métal

sel composé consistant en au moins une partie anionique et une partie cationique.

Sels d'acide carboxyliques – produits dans lesquels l'hydrogène d'un groupe carboxyle est remplacé par un ion de métal ou un autre cation.

Synonymes et mots clés

arsine composé de formule chimique As_nH_{n+2} . (Les dérivés organiques de l'arsenic comprennent le dichlorométhylarsine CH_3AsCl_2 , le diméthylchlorodiararsine $(CH_3)_2As-AsCl_2$ etc.).

cacodyle tétraméthylarsine $(CH_3)_2As-As(CH_3)_2$.

Acide cacodylique composé de formule chimique $(CH_3)_2AsOOH$.

cyclopentadienyle (formule chimique)

fluorényle (formule chimique)

indenyle (formule chimique)

phosphine composé de formule chimique P_nH_{n+2} . (Les dérivés organiques de la phosphine comprennent la diméthylphosphine $(CH_3)_2PH$ etc.).

silamine composé organique du silicium contenant des liaisons $R-SiH_2-NH_2$.

silane composé de formule chimique Si_nH_{2n+2} . (Les dérivés organiques du silane comprennent le méthylmonosilane, CH_3SiH_3 , le diméthylchlorosilane $Si(CH_3)_2Cl_2$, l'hexaméthyldisilane $(CH_3)_3Si-Si(CH_3)_3$ etc.).

- silanol** composé organique du silicium contenant des liaisons Si – OH , p.ex. le triméthylsilanole (CH₃)₃SiOH, le diméthylsilanediole (CH₃)₂Si(OH)₂.
- silazane** composé organique du silicium contenant des liaisons Si – NH – Si.
- siliconane** tétraéthylsilane
- siloxane** composé organique du silicium contenant des liaisons Si – O – Si.
- siltiane** composé organique du silicium contenant des Si – S – Si.
- stibine** composé de formule chimique SbnHn+2. (Les dérivés organiques de l'antimoine comprennent le triméthylstibine (Sb (CH₃)₃), le triphénylantimoine (Sb(C₆H₅)₃), etc.).

FEDERAL INSTITUTE OF INDUSTRIAL PROPERTY

RU Rapporteur report	
Project : D025 Class/Subclass : C07F	Date: 10.06.2004

Last place rule note

After interchanging the opinions with the Rapporteurs of C07 subclass definitions we as before think that the Note (2) after C07 class title is enough for selecting appropriate subclass. So R prefers to use it in standard notes for definitions.

US propose (07.06.04) to substitute the last place priority rule for classes C01, C07 and part of subclasses under class C12 by precedence notes. We do not consider that it is the improvement of the IPC. But we support the US proposal to modify the 5th paragraph under the "Universal Procedures for locating a subclass" section of "Where to Classify Guidelines".

R's proposals for standard notes is included in the Rapporteur proposal in italic.

E. Brill

Title - C07F

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

Definition Statement

This subclass covers:

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

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

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

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

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

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

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

Preparations for medical, dental, or toilet purposes [A61K](#).

In class C07, in the absence of an indication to the contrary, a compound is classified in the last appropriate place, i.e. in the last appropriate subclass. For example sugar phosphates are classified in subclass [C07H](#) as sugars and not in subclass [C07F](#) as phosphorus compounds and peptides containing metals are classified in subclass [C07K](#) and not in [C07F](#).

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

Multiple classification

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

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

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

References Relevant to Classification in This Subclass

This subclass does not cover:

Metal-containing porphyrins

[C07D487/22](#)

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

Informative References

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

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

Special Rules of Classification Within This Subclass

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

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

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

Glossary of Terms

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

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

- one carbon atom bonded to at least one hydrogen atom or halogen atom, or
- one carbon atom bonded to at least one nitrogen atom by single or double bond.

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

phenate product of substitution of hydrogen in hydroxy group of phenol by metal atom.

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

Synonyms and Keywords

arsine compound having chemical formula As_nH_{n+2} . (Organic derivatives of arsenic include dichloromethylarsine CH_3AsCl_2 , dimethyldichlorodiarsine $(CH_3)_2As-AsCl_2$ etc.).

cacodyl tetramethyldiarsine $(CH_3)_2As-As(CH_3)_2$.

cacodylic acid compound having chemical formula $(CH_3)_2AsOOH$.

cyclopentadienyl (chemical formula)

fluorenyl (chemical formula)

indenyl (chemical formula)

phosphine compound having chemical formula P_nH_{n+2} . (Organic derivatives of phosphine include dimethylphosphine $(CH_3)_2PH$ etc.).

silamine organic silicon compound containing $R-SiH_2-NH_2$ bonds.

silane compound having chemical formula Si_nH_{2n+2} . (Organic derivatives of silane include methylmonosilane CH_3SiH_3 , dimethyldichlorosilane $Si(CH_3)_2Cl_2$, hexamethyldisilane $(CH_3)_3Si-Si(CH_3)_3$ etc.).

silanol organic silicon compound containing $Si-OH$ bonds, e.g. trimethylsilanole $(CH_3)_3SiOH$, dimethylsilanediol $(CH_3)_2Si(OH)_2$.

silazane organic silicon compound containing $Si-NH-Si$ bonds.

siliconane tetraethylsilane

siloxane organic silicon compound containing $Si-O-Si$ bonds.

siltiane organic silicon compound containing $Si-S-Si$ bonds.

stibine compound having chemical formula Sb_nH_{n+2} . (Organic derivatives of antimony include trimethylstibine $(Sb(CH_3)_3)$, triphenylantimony $(Sb(C_6H_5)_3)$, etc.).



IPC/D 026
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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

DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : PROPOSITION DE :	WG	IPC AREA: DOMAINE DE LA CIB :	C10L
RAPPORTEUR :	EP	TECHNICAL FIELD : DOMAINE TECHNIQUE :	C

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Proposal	Proposition	EP	15.08.2001
2	Rapporteur proposal	Proposition du rapporteur	EP	24.09.2001
3	Comments	Commentaire	CA	24.09.2001
4	Comments	Commentaire	JP	01.10.2001
5	Comments	Commentaire	RO	22.10.2001
6	Comments	Commentaire	SE	26.10.2001
7	Rapporteur report	Rapport du rapporteur	EP	12.11.2001
8	Rapporteur proposal	Proposition du rapporteur	EP	12.11.2001
9	Comments	Commentaire	US	15.02.2002
10	Comments	Commentaire	DE	18.02.2002
11	Comments	Commentaire	RO	20.02.2002
12	Rapporteur report	Rapport du rapporteur	EP	19.03.2002
13	Rapporteur proposal	Proposition du rapporteur	EP	19.03.2002
14	Proposal	Proposition	EP	17.04.2002
15	Comments	Commentaire	US	16.05.2002
16	Rapporteur report	Rapport du rapporteur	EP	16.09.2002
17	Proposal	Proposition	EP	16.09.2002

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
18	Rapporteur proposal	Proposition du rapporteur	EP	16.09.2002
19	Comments	Commentaire	RO	01.10.2002
20	Comments	Commentaire	GB	04.10.2002
21	Comments	Commentaire	US	11.10.2002
22	Rapporteur report	Rapport du rapporteur	EP	22.11.2002
23	Comments	Commentaire	US	28.04.2003
24	Rapporteur report	Rapport du rapporteur	EP	06.05.2003
25	Rapporteur proposal	Proposition du rapporteur	EP	06.05.2003
26	Rapporteur report	Rapport du rapporteur	EP	13.08.2003
27	Rapporteur proposal	Proposition du rapporteur	EP	13.08.2003
28	French version	Version française	FR	13.08.2003
29	Comments	Commentaire	CH	31.10.2003

Titre – C10L

Combustibles non prévus ailleurs;

Gaz naturel;

Gaz naturel de synthèse obtenu par des procédés non prévus dans les sous-classes C10G, C10K;

Gaz de pétrole liquéfié;

Addition de substances à un combustible ou au feu pour réduire la fumée ou les dépôts indésirables, ou pour faciliter l'enlèvement de la suie;

Allume-feux

Enoncé de la définition

La présente sous-classe couvre:

- Compositions qui réagissent chimiquement, ~~normalement~~ ~~généralement~~ avec l'oxygène de l'air, pour produire de la chaleur dans des quantités contrôlables ou qui sont dispersées dans l'air pour la combustion explosive dans un moteur ou qui produisent de la lumière en combinaison avec de la chaleur pendant la combustion, c.à.d. combustibles carbonés liquides, combustibles gazeux, gaz naturel, gaz naturel de synthèse, gaz de pétrole liquéfié, combustibles solides et combustibles produits par solidification de combustibles fluides
- Traitement de combustibles en vue d'améliorer leur combustion
- Utilisation d'additifs à des fins particulières dans les combustibles ou les feux, p.ex. pour réduire l'émission de fumée, pour réduire la corrosion ou l'encrassement, pour faciliter l'enlèvement de la suie ou pour améliorer l'indice d'octane ou les propriétés à basse température des combustibles
- Allume-feux, c.à.d. compositions à combustion facile ou corps façonnés conçus spécialement pour initier la combustion de corps combustibles en quantité plus importante ~~et ainsi que les~~ procédés et appareillage pour leur fabrication

Liens entre secteurs d'une large portée (p.ex., règles particulières de classement entre sous-classes)

Renvois influençant le classement dans cette sous-classe

La présente sous-classe ne couvre pas:

Compositions explosives ou thermiques, p.ex. des combustibles pour engins du type roquette conçu pour réagir avec un oxydant autre que l'air C06B

Combustibles pour la production de gaz sous pression, p.ex. pour airbags ou pour la propulsion de roquettes C06D5/00

Craquage des huiles d'hydrocarbures, production de mélanges d'hydrocarbures liquides, p.ex. par hydrogénation destructive, par oligomérisation, par polymérisation, récupération des huiles d'hydrocarbures à partir de schiste bitumineux, de sable pétrolifère ou de gaz, raffinage des mélanges composés principalement d'hydrocarbures, réformage de l'essence "naphta" C10G

Cires minérales	C10G
Production de gaz de gazogène, de gaz à l'eau, de gaz de synthèse à partir de matières carbonées solides ou de mélanges contenant ces gaz ou la carburation de l'air ou d'autres gaz	C10J
Purification ou modification de la composition chimique des gaz combustibles contenant de l'oxyde de carbone	C10K
Bougies	C11C
Combustibles pour réacteurs nucléaires	G21C3/00

Renvois indicatifs

Il est important de tenir compte des endroits suivants, qui peuvent présenter un intérêt pour la recherche :

Gaz de synthèse produit par décomposition de composés organiques gazeux ou liquides, p.ex. hydrocarbures	C01B3/22
Production de gaz pour le sautage	C06D5/00
Hydrocarbures en soi	C07C
Craquage ou pyrolyse d'hydrocarbures gazeux donnant des hydrocarbures individuels ou leur mélanges de composition définie ou spécifiée	C07C
Distillation destructive des matières carbonées en vue de la production de gaz, coke, goudron ou matières analogues	C10B
Compositions lubrifiantes	C10M
Aménagements ou dispositifs pour ajouter des additifs aux combustibles dans les moteurs à combustion, p.ex.	F02 F02M25/00
Récipients pour contenir ou emmagasiner des gaz comprimés, liquéfiés ou solidifiés	F17C
Liquéfaction des gaz ou des mélanges gazeux par pression et par le froid	F25J

Règles particulières de classement dans cette sous-classe

Glossaire

Dans la présente sous-classe, les termes suivants sont souvent utilisés avec le sens ci-dessous indiqué:

Allume-feu composition à combustion facile ou corps façonné conçu spécialement pour initier la combustion de corps combustibles en quantité plus importante, p.ex. briquelette constituée essentiellement de charbon de bois

Synonymes et mots-clés

Titre – C10L1/00

Combustibles carbonés liquides

Renvois indicatifs

Il est important de tenir compte des endroits suivants, qui peuvent présenter un intérêt pour la recherche:

Préparation de combustibles liquides pour l'alimentation des appareils à combustion

[F23K5/08](#)

~~Titre~~ Titre – C10L1/10

Combustibles carbonés liquides contenant des additifs

Règles particulières de classement dans ce groupe

Dans ce groupe:

- sauf indication contraire, un composé est toujours classé à la dernière place appropriée
- si l'-additif est un mélange de composés, chaque composé qui présente un intérêt doit être classé
- un sel de métal ou d'ammonium d'un composé est classé comme ce composé, p.ex. un sulfonate de chrome est classé comme sulfonate dans le groupe C10L1/24 et non dans le groupe C10L1/30

Titre – C10L5/00

Combustibles solides

Renvois influençant le classement dans ce groupe

Le présent groupe ne couvre pas:

Séchage ou traitement de la tourbe, p.ex. briquetage	C10F
Combustibles solides produits par solidification de combustibles fluides	C10L7/00

Renvois indicatifs

Il est important de tenir compte des endroits suivants, qui peuvent présenter un intérêt pour la recherche:

Presses à briquettes	B30B11/00
Préparation du combustible en morceau ou pulvérulent à introduire dans l'appareil à combustion	F23K1/00

~~Title~~-Titre – C10L10/00

Utilisation d'additifs à des fins particulières dans les combustibles ou les feux

Renvois influençant le classement dans ce groupe

Le présent groupe ne couvre pas:

Utilisation de liants pour former des briquettes de combustibles solides	C10L5/10
Utilisation d'additifs pour améliorer la combustion de combustibles solides	C10L9/10

Renvois indicatifs

Il est important de tenir compte des endroits suivants, qui peuvent présenter un intérêt pour la recherche:

Additifs pour combustibles carbonés liquides caractérisés par leur nature chimique	C10L1/10
Aménagements des dispositifs d'introduction de produits chimiques dans le foyer	F23J7/00

Titre – C10L11/00

Allume-feux

Renvois influençant le classement dans ce groupe

Le présent groupe ne couvre pas:

Allumettes, fabrication des allumettes C06F

Allumage en général, p.ex. briquets pour cigarettes contenant un combustible pour cigarettes F23Q



IPC/D 033

ORIGINAL: English/French

DATE: 19.11.2003

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

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

DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : PROPOSITION DE :	WG	IPC AREA: DOMAINE DE LA CIB :	A01H
RAPPORTEUR :	SE	TECHNICAL FIELD : DOMAINE TECHNIQUE :	C

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Rapporteur proposal	Proposition du rapporteur	SE	15.10.2002
2	Comments	Commentaire	US	28.10.2002
3	Rapporteur report	Rapport du rapporteur	SE	13.11.2002
4	Rapporteur proposal	Proposition du rapporteur	SE	13.11.2002
5	Comments	Commentaire	US	28.04.2003
6	Comments	Commentaire	JP	12.05.2003
7	Rapporteur proposal	Proposition du rapporteur	SE	15.05.2003
8	Rapporteur report	Rapport du rapporteur	SE	15.05.2003
9	French version	Version française	CH	31.10.2003

IPC Revision WG – Definition Project	Projet: D033/00
	Classe/sous-classe: A01H
	Date : 12/11/03
CH	
Traduction	

Titre - A01H

Nouveautés végétales ou procédés pour leur obtention; Reproduction de plantes par des techniques de culture de tissus

Énoncé de la définition

La présente sous-classe couvre:

Nouveautés végétales (y compris les algues multicellulaires, les champignons multicellulaires et les lichens).
Procédés de modification des génotypes ou des phénotypes.
Reproduction de plantes par des techniques de culture de tissus.
Méthodes ou appareils pour modifier le nombre des chromosomes.

Liens entre secteurs d'une large portée

Les mutations spécifiques préparées par génie génétique sur des cellules ou des tissus végétaux sont classées en C12N 15/00.

Renvois influençant le classement dans la présente sous-classe

La présente sous-classe ne couvre pas:

Techniques de mutation ou génie génétique	C12N 15/00
Algues unicellulaires	C12N 1/12
Micro-organismes du type fungi	C12N 1/14

Renvois indicatifs

Il est important de tenir compte des endroits suivants, qui peuvent présenter un intérêt pour la recherche:

Traitements non chimiques pour influencer la croissance des végétaux sans produire des nouveautés végétales	A01G 7/00
Traitements chimiques pour influencer la croissance des végétaux sans produire des nouveautés végétales	A01N 25/00-65/00

Règles particulières de classement dans la présente sous-classe

AUCUN(E).

Glossaire

AUCUN(E).

Synonymes et mots clés

AUCUN(E).



IPC/D 036
ORIGINAL: English/French
DATE: 27.05.2004

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

DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : PROPOSITION DE :	WG	IPC AREA: DOMAINE DE LA CIB :	C04B
RAPPORTEUR :	EP	TECHNICAL FIELD : DOMAINE TECHNIQUE :	C

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Comments	Commentaire	EP	05.06.2002
2	Proposal	Proposition	EP	05.06.2002
3	Comments	Commentaire	EP	13.09.2002
4	Rapporteur proposal	Proposition du rapporteur	EP	13.09.2002
5	Proposal	Proposition	EP	13.09.2002
6	Proposal	Proposition	EP	30.09.2002
7	Comments	Commentaire	JP	25.10.2002
8	Comments	Commentaire	DE	07.11.2002
9	Comments	Commentaire	US	20.11.2002
10	Rapporteur report	Rapport du rapporteur	EP	22.11.2002
11	Comments	Commentaire	JP	05.02.2003
12	Comments	Commentaire	GB	07.02.2003
13	Comments	Commentaire	US	10.02.2003
14	Comments	Commentaire	DE	23.05.2003
15	Rapporteur report	Rapport du rapporteur	EP	27.05.2003
16	Rapporteur proposal	Proposition du rapporteur	EP	27.05.2003
17	Rapporteur report	Rapport du rapporteur	EP	02.09.2003

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
18	New proposal including amendments by the WG	Nouvelle proposition incluant les changements par le groupe de travail	EP	02.09.2003
19	Comments	Commentaire	JP	30.09.2003
20	Comments	Commentaire	US	09.10.2003
21	Comments	Commentaire	GB	17.10.2003
22	Comments	Commentaire	JP	31.10.2003
23	Rapporteur report	Rapport du rapporteur	EP	01.03.2004
24	Rapporteur proposal	Proposition du rapporteur	EP	01.03.2004
25	Comments	Commentaire	US	23.03.2004
26	Comments	Commentaire	RU	14.04.2004
27	Comments	Commentaire	JP	27.04.2004
28	Rapporteur report	Rapport du rapporteur	EP	27.05.2004
29	Rapporteur proposal	Proposition du rapporteur	EP	27.05.2004

USPTO COMMENTS	
DEFINITION PROJECT: D036/02	Date: March 22, 2004
Class/subclass: C04B	

US comments are mainly directed to a question raised by Rapporteur in annex 23 and the “new” matter added to the C04B definition in Annex 24.

In Annex 23, Rapporteur requested assistance in finding the appropriate classification places for “special forming techniques, e.g., rapid prototyping” which are not ceramics or refractories related, e.g., general places. It would appear that there could be many places where these special forming techniques can be found based on the things being formed. It may be difficult coming up with an exhaustive list. However, a tentative list of subclasses is included in these comments as Annex A where special forming techniques such as RP **may** be found as well as subject matter which may have some relation to these special techniques such as computer aided design, 3D image rendering, etc. This list is, no doubt, incomplete and definitely requires review and discussion by the other members of the revision group.

C04B 35/00

Definition statement

Should the introductory statement for Bullet 6 be in a format more like the previous ones, for example, as stated below?

“Shaped ceramic products or refractories characterized by their composition; Processes for their manufacturing”.

US is not certain that all of the indents listed under bullet 6 are intended to be strictly limited by the introductory statement for Bullet 6. It appears they should stand on their own rather than being indented under bullet 6. For example, neither indent 5, **“Processing powders of inorganic compounds preparatory to the manufacturing of ceramic products”** nor indent 6, **“Additives specially adapted for forming the products, e.g. binders”** are necessarily limited to **“shaped ceramic products or refractories characterized by their composition”** according to the title of group 35/00.

If all of the indents under bullet 6 **are to be limited** to “shaped ceramic products” then we propose the following change to the entire bullet 6. This wording will clarify the limitations to users.

- **Shaped ceramic products or refractories characterized by their composition; Processes for manufacturing these shaped ceramic products or refractories including:**
 - Shaped products obtained by a ceramic-forming technique;
 - Shaped products obtained from polymer precursors;
 - Shaped products obtained by Sol-Gel processing;
 - Shaped products obtained by Rapid Prototyping techniques;
 - Processing powders of specific inorganic compounds preparatory to the manufacturing of the shaped products;
 - Additives specially adapted for forming the shaped products, e.g. binders;
 - Shaped products obtained by processes including burning or sintering;
 - Shaped products obtained by processes involving a melting step.

Special rules of classification

In looking in the previous annexes of both D036 and H012, US was unable to find the reasoning for omitting the mention of “monolithic refractories” in bullet 6. Since it is not exactly the same as a “refractory mortar composition” it would appear that it should be included in this bullet. Also, in the original note found before subgroup 35/66, the range of subgroups for dual classification was 7/00-28/00. In the note of annex 24 and

previous annexes, the range is now 7/00-7/24. Is this because groups 26/00 and 28/00 are “composition” groups and dual classification into these groups is not desired?

C04B 35/622

Definition statement

US recommends the addition of a statement relating to the “powder processing” also included in this subgroup.

The following is proposed:

“Preparing or treating powders of organic compounds in preparation to the manufacturing of ceramic products, e.g. coating the powders”.

Glossary

In the last sentence of the “Rapid Prototyping” definition, it should be “**divided** into four groups”.

C04B 38/00

Definition statement

US suggests adding to the end of the statement prior to the full stop, “and the preparation thereof”.

ANNEX A

- A44C 27/00 making jewelry
- B22D casting of metals or other substances
- B27N 3/00 manufacturing of flat articles (e.g., 3/06 layering)
- B29C 41/00 (41/20,22,30,32) shaping by coating or depositing
 - 63/00 applying preformed layers or sheathing
 - 67/00 shaping not covered by 39/00-65/00, 70/00, or 73/00
- B44C 1/00 processes of producing decorative effects (may involve layering)
 - 3/02 superimposing layers
- B81C 1/00 manufacture or treatment of devices or systems in or on a substrate
- C03B Glass; Mineral or Slag Wool—Manufacture, Shaping, or Supplementary Processes--various places, for example,
 - 17/02 forming glass coated with layers
 - 18/12 making multi-layered glass
 - 19/00 other methods of shaping glass
- C23C Coating Metallic Material; Coating Material with Metallic Material; Surface Treatment of Metallic Material....In General---various places, for example,
 - 4/00 Coating by spraying
 - 14/00 Coating by vacuum evaporation, by sputtering or by ion implantation
 - 16/00 Chemical coating
 - 18/00 Chemical coating
 - 20/00 Chemical coating
 - 22/00 Chemical surface treating
 - 24/00 Coating starting from inorganic powder
 - 26/00 Coating not provided for in groups 2/00 to 24/00
 - 28/00 Coating for obtaining at least two superposed coatings
- C23D 5/00 Coating with enamels or vitreous layers
 - 13/00 After-treatment of enameled articles
- C25D Electrolytic or electrophoretic production of coatings
- G03C 1/74 applying photosensitive compositions to a base
- G03F 7/00 photomechanical production of textured or patterned surfaces
- G06F 17/50 CAD
 - 19/00 Digital computing or data processing methods specially adapted for specific applications
- G06T 15/00 3D image rendering

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RU comments	
Project : D 036	Date: 14.04.2004
Class/Subclass : C04B	

We approve Rapporteur proposal (An 24). We believe that the following informative references would be useful for searching:

Cementing or plastering compositions for treating boreholes or wells

C 09K 8/00

Concretes, other hydraulic hardening materials or ceramics for protection against radiation

G 21F 1/00

Japan Patent Office

April 27, 2004

Project: D036

Subclass: C04B

JP Comments on Annexes 24 - 26

The followings are JP comments mainly on the additional matters proposed by Rapporteur in Annex 24, the US comments of Annex 25 and the RU comments of Annex 26:

C04B 35/00**Definition statement**

The US proposes to modify the statements for Bullet 6 and the indents under it. We agree with those modifications as far as the proposed introductory statement “these shaped ceramic products” represents “shaped ceramic products or refractories characterised by their composition.”

C04B 35/622**Definition statement**

In the US proposal, a term “organic” of “preparing or treating powders of *organic* compounds in preparation to the manufacturing of ceramic products, e.g. coating the powders” should be replaced to “inorganic.” We propose to delete the examples given after each proposal (i.e. coating the powders and solid freeform fabrication processes) because those subject matters are covered by the subdivisions.

C04B 35/622**Glossary & Synonyms and Keywords**

As the EP mentioned in Annex 23, we believe that it is improper to describe a general term relating to “rapid prototyping” in groups C04B35/00 and its subdivisions since rapid prototyping is not the art peculiar to ceramics but the art derived from shaping preforms with light hardening resin (e.g. B29C67/) and applied to a general shaping art which is used for foundry moulding or shaping of metalsinter.

US proposed scheme of Annex A

It is preferable to add B22F to this scheme.

C04B 35/453**Title**

We think it is proper to adopt “based on zinc, tin or bismuth oxides or solid solutions thereof with other oxides, e.g. zincates, stannates or bismuthates” rather than the proposed “based on aluminium oxide” by Rapporteur.

C04B 35/46, 35/49**Informative references**

It is preferable to add the following reference to this part:

“Selection of materials for their insulating or dielectric properties H01B 3/12”

C04B

Special rules of classification within this subclass

Bullet 5, Indent 2

The wording “when classifying ...C04B26/00 or C04B32/00” should be replaced to “when classifying ... C04B26/00 to C04B32/00.”

Others

Although C04B covers two technical arts, i.e. cements and ceramics, we feel that some wordings proposed by Rapporteurs are premised on “cements” only, e.g. a term “binder” of “Synonyms and Keywords” part, C04B 38/00 or C04B 41/00. Concerning C04B 41/00, with respect to the “Informative references” part, references to B28B 11/00, B28D and C03C 8/00 should be added to the Rapporteur proposal since the existing references of IPC 7 cover B05, B24, B28B 11/00, B28D, C03C8/00 and C09K 13/00. It is considered that the rest of the Rapporteur proposal should be reviewed from this aspect.

Annex 26

C09K 8/00

C09K 8/00 of Annex 26 should be corrected to “C09K 7/00.”



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Principal Directorate Tools / Documentation

Rapporteur Report

Project: D036

Subclass: C04B

27 May 2004

Ref. : - R report (annex 23) and R proposal (annex 24)
- Comments by US (annex 25), RU (annex 26) and JP (annex 27)

1. Besides correcting some obvious errors, R included in the new joined R proposal, most of the suggestions made by the commenting Offices:

- informative references added for C04B (RU suggestion);
- US version for bullet 6 in the definition statement of C04B35/00;
- title of C04B35/453 corrected (JP suggestion);
- informative references added for C04B35/46, 35/49 and 41/00 (JP suggestion);
- addition to the definition statement for C04B35/622 (US s.), taking into account JP comments and for C04B38/00 (US s.).

2. C04B35/00: US comments on special rules.

Group C04B35/66 deals with “monolithic refractories” (not containing hydraulic binders) and “monolithic refractory mortars (containing hydraulic binders). Bullet 6 under Special Rules for C04B35/00 only relates to the mortars. Therefore in R’s opinion, there is no reason to refer to the “monolytic refractories”.

3. C04B35/622: the “rapid prototyping question”

In the previous R report, R expressed his concern as follows.

“Both Offices (DE and EP) agree however that the special forming techniques, like rapid prototyping, have been overemphasised in the proposal. This might give the wrong impression to classifiers that C04B35 is the home place for these techniques, something that obviously is not the case. Therefore Offices are invited to assist in the appropriate formulation of these entries and in the identifying of the general places for these special techniques.”

It seems no real general place for these techniques exist in IPC. US was so kind to prepare a list with places relating to the application of these techniques for forming specific things.

R’s concern was that the RP item was overdone. As there is no general place to refer to, adding a long list of other application places would only overemphasise even more this item.

For this reason, R did not add any reference to other places where RP is used, BUT he made the definition for RP under the Glossary more restrictive, by referring to ceramics. In this project we are dealing with the definitions for subclass C04B, not for RP processes. An extra reason for not including the list.

4. Annex 26, reference to C09K.

IPC7 main group C09K7/00 will be replaced by IPC8 main group C09K8/00. So the reference is correct.

Paul Daeleman

Title – C04B

Lime;

Magnesia;

Slag;

Cements;

Compositions thereof, e.g. mortars, concrete or like building materials;

Artificial stone;

Ceramics;

Refractories;

Treatment of natural stone

Definition statement

This subclass covers:

- Chemical aspects of the processing of lime, magnesia or dolomite and of molten slag
- Compositional aspects of:
 - inorganic binders, such as hydraulic cements
 - mortars, concrete and artificial stone, e.g. the choice of fillers or active ingredients therefore
 - shaped ceramic products, e.g. clay-wares, refractories, non-oxides
- Physico-chemical aspects of methods for obtaining mortars, concrete, artificial stones or ceramics, e.g. for delaying the setting time of mortar compositions
- Treatment including defibrillating of materials such as fillers, agglomerated or waste materials, or refuse to enhance their filling properties in mortars, concrete or artificial stone
- Porous mortars, concrete, artificial stone or ceramic ware, and the preparation thereof
- Methods and apparatus for:
 - burning or slaking lime
 - obtaining mineral binders, e.g. Portland cement or hemihydrate plaster
 - the expansion of mineral fillers, such as clay, perlite or vermiculite
- After-treatment of artificial stones, mortars, concrete and ceramics, e.g. coating or impregnation of green concrete after primary shaping
- Non-mechanical treatment of natural stone
- Processing powders of inorganic compounds in preparation to the manufacturing of ceramic products
- The joining of burned ceramics with other articles by heating

Relationship between large subject matter areas

None

References relevant to classification in this subclass

This subclass does not cover:

Granulating apparatus	B01J 2/00
Mechanical features relating to the working of mortars, concrete, stone, clay-ware or ceramics, e.g. mixing or shaping ceramic compositions, boring natural stone	B28
Chemical preparation of powders of inorganic compounds	C01
Compositions containing free metal bonded to carbides, diamond, oxides, borides, nitrides, silicides, e.g. cermets, or other metal compounds, such as oxynitrides or sulfides, other than as macroscopic reinforcing agents	C22C
Building elements or constructions; Finishing work on buildings	E04

Informative references

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

Materials for prostheses or for coating prostheses	A61L 27/00
Chemical or biological purification of waste gases	B01D 53/34
Layered products	B32B
Chemical composition of glasses, glazes, or vitreous enamels, e.g. devitrified glass ceramics	C03C
Treating inorganic non-fibrous materials to enhance their pigmenting or filling properties	C09C
Cementing or plastering compositions for boreholes or wells	C09K8/00
Adhesives	C09J
Alloys based on refractory metals	C22C
Kilns in general	F27
Hydraulic hardening materials, e.g. concretes, ceramics or refractories for protection against radiation, i.e. shielding	G21F1/00

Special rules of classification within this subclass

- Active ingredients which react with cement compounds for forming new or modified mineralogical phases and are added before the hardening process, as well as cements added as additives to other cements, are classified in groups C04B7/00 to C04B12/00, e.g. in group C04B7/42
- In each set of groups C04B7/00 to C04B32/00 and C04B41/45 to C04B41/91, in the absence of an indication to the contrary, classification is made in the last appropriate place, e.g. classifiable subject matter relating to:
 - an hydraulic cement is classified in main group C04B7/00
(Example: EP0941974 in C04B7/44)

- an admixture of an additive to a cement after the burning step or in the absence of a burning step is classified in one or more of main groups C04B14/00 to C04B24/00
(Example: US5626666 in C04B24/06, C04B24/10 and C04B24/38)
- an inorganic accelerator for cement is classified in main group C04B22/00
(Example: US5653796 in C04B22/16)
- a mortar composition containing an hydraulic cement, an organic co-binder, fillers and active ingredients, such as surfactants and anti-foam agents, is classified in main group C04B28/00
(Example: US4741777 in C04B28/04)
- Any ingredient of compositions of mortars, concrete or artificial stone, classified in groups C04B26/00 to C04B32/00 in accordance with the previous special rules, and which itself is determined to be novel and non-obvious, must also be classified in groups C04B7/00 to C04B24/00 respecting these previous rules.

This can be the case when, e.g.:

- the actual invention relates to one of the ingredients of the mixture
- a special organic co-binder is used in combination with an hydraulic cement (C04B24/24)

Any ingredient of compositions of mortars, concrete or artificial stone, which is not identified by the classification in groups C04B26/00 to C04B32/00 in accordance with the previous rules, and which is considered to represent information of particular interest for search, may also be classified respecting these previous notes. This can for example be the case when, it is considered of interest to enable searching of compositions using a combination of classification symbols. Such non-obligatory classification should be given as “additional information”. For example:

- the problem-solution aspect of the invention relates to one of the ingredients in particular, such as the corrosion problem of glass fibres in a concrete matrix (additional classification in C04B14/42)
- well defined Portland cement mortar mixture containing clay as an essential or characterising filler (additional classification in C04B14/10)
- unusual ingredients used

Examples:

- US2002019465: C04B28/02 , C04B16/06 , C04B20/10
- US4741777: C04B28/04 , C04B24/20
- Artificial stone compositions containing fibres but no binders, and voids which may occur between the intertwined fibres, are not considered porous in the sense of main group C04B38/00. In the same way, such compositions, where binder is only present on the mutual contact points of the intertwined fibres, are not considered as compositions covered by main groups C04B26/00 to C04B28/00.
- Use of indexing codes:
 - when classifying in main groups C04B22/00 or C04B24/00, it is desirable to add the indexing codes of group C04B103:00 relating to the function or property of the active ingredients
 - when classifying in main groups C04B26/00 to C04B32/00, it is desirable to add the indexing codes of group C04B111:00 relating to the function, property or use of the mortars, concrete or artificial stone

Glossary of terms

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

Cement the binder proper, i.e. excluding any additional ingredient or additive added to the finished binder as such, with the exception of mixtures of binders

Clinker the unground sintered product leaving the cement kiln

Mortar-, concrete- and artificial stone compositions which are considered as a single group of materials, are mixtures of one or more binders with fillers or other ingredients

Fillers inactive ingredients, include pigments, aggregates and fibrous reinforcing materials

Active ingredients ingredients having an effect on the mortar-, concrete- or artificial stone composition during processing or on the characteristics of the final product, e.g. as set accelerator, as dispersant or as gas generating agent. Other examples are processing aids or property improvers, e.g. grinding aids used after the cement burning process or in the absence of such a burning process

Ceramics inorganic, non-metallic products obtained by a process involving a shaping step and a sintering or comparable heat treatment step, with the exclusion of cements, cermets and glasses, glazes, vitreous enamels and devitrified glass ceramics

Fine ceramics ceramics having a polycrystalline fine-grained microstructure, e.g. of dimensions below 100 micrometer

Refractories ceramics or mortars withstanding high temperatures of at least about 1500 degrees C.

Porous materials materials which are deliberately made porous, e.g. by adding gas-forming, foaming, burnable or lightweight additives to the composition they are made of

Synonyms and Keywords

Binder cement

Clinker in patent literature this term might be used literally, i.e. to indicate the unground sintered product leaving the cement kiln, or it might be used to indicate the ground cement without any additive, i.e. not interground with additives such as gypsum

Cement composition in patent literature this term might be used in the sense of “cement” as well as in the sense of a “mortar-, concrete- or artificial stone composition”. For classification and search, the term must be interpreted using the Glossary as guidance.

Hydraulic binder for the purpose of classification and search in this subclass, the terms “cement” and “hydraulic binder” are considered to be equivalent, even if in literature, an hydraulic binder might be defined as a mixture of cement and one or more inorganic additives

Resin mortar or resin concrete mortar or concrete containing resin as a binder instead of cement, i.e. excluding any inorganic binder and containing a considerable amount of inorganic filler compared with the amount of the organic binder

Refractories for classification and search in this subclass, no substantial distinction is made between the terms “refractories” and “ceramics”

Title – C04B5/00

**Treatment of molten slag;
Artificial stone from molten slag**

References relevant to classification in this main group

This main group does not cover:

Manufacture of slag wool	C03B
Treatment of slag in, or for the production of metals	C21B C22B

Title – C04B12/00

Cements not provided for in groups C04B7/00 to C04B11/00

References relevant to classification in this main group

This main group does not cover:

Ammonium silicates per se and their preparation	C01C 1/00
Alkali metal silicates per se and their preparation	C01B 33/32

Title – C04B26/00

Compositions of mortars, concrete or artificial stone, containing only organic binders

Definition statement

This main group covers:

Mortar or concrete compositions that contain resin as a binder instead of cement, i. e. excluding any inorganic binder and containing a considerable amount of inorganic filler compared with the amount of the organic binder. These compositions are often referred to as polymer- or resin mortars or concrete.

References relevant to classification in this main group

This main group does not cover:

Mechanical features relating to the working of plastics, e.g. moulding polymer or resin concrete [B29](#)

Compositions of macromolecular compounds [C08L](#)

Informative references

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

Bituminous compositions [C08L 95/00](#)

Synonyms and Keywords

Resin- or polymer mortars or concrete Mortar and concrete compositions based on organic binders only, i.e. excluding any inorganic binder. In patent literature these terms are sometimes used for compositions also containing an inorganic binder, e.g. Portland cement. If this is the case classification should not be made in this main group but in main group C04B28/00

Title – C04B30/02

Compositions for artificial stone containing fibrous materials, not containing binders

Definition statement

This group covers:

Artificial stone compositions containing fibres, but no binder. Though voids may result between the intertwined fibres these compositions are not considered porous in the sense of main group C04B38/00.

Title – C04B 35/00

**Shaped ceramic products characterised by their composition;
Ceramic compositions;**

Processing powders of inorganic compounds preparatory to the manufacturing of ceramic products;

Definition statement

This main group covers:

- Ceramic compositions or refractories based on oxides or oxide mixtures or solid solutions of two or more oxides; Processes of their manufacturing
- Ceramic compositions based on rare earth compounds or on compounds of actinides; Processes of their manufacturing
- Ceramic compositions or refractories based on non-oxides, e.g. on carbon, sulfides, selenides, fluorides, carbides, borides, nitrides or silicides; Processes of their manufacturing
- Monolithic refractories or refractory mortars, including those whether or not containing clay; Processes for their manufacture
- Ceramic products containing macroscopic reinforcing agents, e.g. shaped metallic or non-metallic materials; Processes for their manufacturing
- Shaped ceramic products or refractories characterised by their composition; Processes for manufacturing these shaped ceramic products or refractories:
 - Shaped products obtained by a ceramic-forming technique;
 - Shaped products obtained from polymer precursors;
 - Shaped products obtained by Sol-Gel processing;
 - Shaped products obtained by Rapid Prototyping techniques;
 - Processing powders of inorganic compounds preparatory to the manufacturing of the shaped products;
 - Additives specially adapted for forming the shaped products, e.g. binders;
 - Processes characterised by the burning or sintering step;
 - Shaped products obtained by processes involving a melting step.

Relationship between large subject matter areas

none

Limiting references

This main group does not cover:

Articles characterised by particular shape, see the relevant classes, e.g. linings for casting ladles, tundishes, cups or the like [B22D 41/02](#)

Mechanical features relating to the working of ceramics, e.g. mixing or shaping ceramic compositions, [B28](#)

Chemical preparation of powders of inorganic compounds	C01
Devitrified glass ceramics	C03C 10/00
Clay-wares	C04B 33/00
Obtaining porous products	C04B 38/00
Compositions containing free metal bonded to carbides, diamond, oxides, borides, nitrides, silicides, e.g. cermets, or other metal compounds, such as oxynitrides or sulfides, other than as macroscopic reinforcing agents	C22C
Manufacture of ceramic fibres	D01F 9/08

Informative references

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

Dental prostheses, e.g. porcelain or ceramic teeth	A61C 13/08
Materials for prostheses or for coating prostheses	A61L 27/00
Materials for catheters or for coating catheters	A61L 29/00
Materials for other surgical articles	A61L 31/00
Filters, membranes for separation processes	B01D
Catalysts	B01J
Producing shaped articles from the material, e.g. by slip-casting	B28B 1/00
Layered products essentially comprising ceramics, e.g. refractory products	B32B 18/00
Chemical composition of glasses, glazes, or vitreous enamels	C03C
Luminescent materials	C09K 11/00
Fireproofing materials	C09K 21/00
Alloys based on carbides, oxides, borides, nitrides or silicides, e.g. cermets	C22C 29/00
Materials for coating by flame or plasma spraying	C23C 4/10
Materials for coating by sputtering, e.g. ceramic targets	C23C 14/06
Single crystals or homogeneous polycrystalline material with defined structure	C30B 29/00
Materials for parts of bearings, e.g. sliding-contact bearings	F16C 33/00
Materials for friction linings	F16D 69/02
Materials for pistons, trunk pistons, plungers	F16J 1/01

Materials for piston-rings or seats therefor	F16J 9/26
Materials for rigid pipes	F16L 9/00
Materials for protection of pipes or pipe fittings against corrosion or incrustation	F16L 58/00
Luminescent materials for light screens	F21V 9/16
Casings, linings, walls of combustion chambers characterised by the shape of the bricks or blocks	F23M 5/02
Arrangement or mounting of linings for fire-boxes, e.g. fire-back	F24B 13/02
Furnaces, kilns, ovens, or retorts in general	F27B
Casings, linings, walls, roofs of furnaces, kilns, ovens, or retorts	F27D 1/00
Basic electric elements	H01
Materials for conductors or conductive bodies	H01B 1/00
Materials for insulators or insulating or dielectric bodies	H01B 3/00
Superconductive or hyperconductive conductors, cables, or transmission lines	H01B 12/00
Materials for varistor cores	H01C 7/105
Materials for magnets or magnetic bodies	H01F 1/00
Superconducting magnets or coils	H01F 6/00
Materials for fixed capacitors, e.g. ceramic dielectrics	H01G 4/12
Details of semiconductor or other solid state devices characterised by the material, e.g. ceramic substrates	H01L 23/00
Materials for superconductive or hyperconductive devices	H01L 39/00
Materials for piezo-electric or electrostrictive elements	H01L 41/00
Materials for inert electrodes with catalytic activity for electrochemical generators, e.g. for fuel cells	H01M 4/86
Materials for solid electrolytes of fuel cells	H01M 8/10
Dielectric resonators of the waveguide type	H01P 7/10

Special rules of classification

- In this group, in the absence of an indication to the contrary, compositions are classified according to the constituent present in the highest proportion by weight.
- In this group, magnesium is considered as an alkaline earth metal.

- In this group, a composite is considered as a sintered mixture of different powdered materials, other than sintering aids, the materials being present as separate phases in the sintered product.
Examples:
 - DE 196 44 678 A1, DE 40 00 298 A1,
 - EP 0 712 819 B1, EP 0 709 352 A1 EP 0 593 240 A2, EP 0 528 416 A1,
 - WO 88/09313 A1,
 - US 5 894 066 A
- In this group, fine ceramics are considered as products having a polycrystalline fine-grained microstructure, e.g. of dimensions below 100 micrometers.
- The production of ceramic powder is classified in this group in so far as it relates to the preparation of powder with specific characteristics
Examples:
 - EP 1 088 802 A1, EP 0 753 493 A1
 - WO 01/32583 A1, WO 98/39269 A1
- Any ingredient of a refractory mortar composition containing a hydraulic cement, e.g. aluminous cement, classified in C04B 35/66, which is considered to represent information of interest for search, may also be classified according to the Last Place Rule of note (2) after the subclass title of C 04 B, in groups C04B 7/00 to C04B 24/00.
This can for example be the case when it is considered of interest to enable searching of compositions using a combination of classification symbols. Such non-obligatory classification should be given as “additional information”. For example, such an additional classification in group C04B 24/00 may be given for an organic retarder added to the refractory mortar composition.
Examples:
 - DE 197 06 743A1, DE 44 33 047C2,
 - EP 0 686 611 A1, EP 0 285 666A1, EP 0 189 258 A2,
 - WO 03/043953 A1, WO 00/44684 A1,
 - US 6 284 688 B1, US 5 858 900 A, US 5 589 426 A, US 5 512 325 A

Glossary

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

Ceramics inorganic, non-metallic products obtained by a process involving *a shaping step and* a sintering or comparable heat treatment step, with the exclusion of cements, cermets and glasses, glazes, vitreous enamels and devitrified glass ceramics.

Fine ceramics ceramics having a polycrystalline fine-grained microstructure, e.g. of dimensions below 100 micrometer.

Refractories ceramics or mortars withstanding high temperatures of at least about 1500 degrees C.

Carbon-carbon composites products consisting of carbon fibres in a carbon matrix are usually referred to as “carbon-carbon composites”.

Porous materials *materials which are deliberately made porous, e.g. by adding gas-forming, foaming, burnable or lightweight additives to the composition they are made of*

Synonyms and Keywords

Refractories for classification and search in this subclass, no substantial distinction is made between the terms “refractories” and “ceramics”.

Title – C04B35/10

based on aluminium oxide

Informative references

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

Abrasives	C09K 3/14
Materials for vessels of gas- or vapour discharge lamps	H01J 61/30

Title – C04B35/26

based on ferrites

Informative references

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

Abrasives	C09K 3/14
Selection of ferrites for their magnetic properties	H01F 1/34

Title – C04B 35/45

based on copper oxide or solid solutions thereof with other oxides;

Definition statement

This subgroup covers:

Precursor materials for ceramic superconductors and high critical-temperature superconductive materials characterised by the ceramic-forming technique or the ceramic composition based on cuprates.

Non superconductive ceramic copper oxides or solid solutions thereof with other oxides

Informative references

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

Single-crystals or homogeneous polycrystalline material with defined structure or crystallographic orientation characterised by the material or by the method	C30B
Superconductive conductors, cables, or transmission lines	H01B 12/00
Superconducting magnets or coils	H01F 6/00
Superconductors characterised by the material	H01L 39/12

Synonyms and Keywords

HTS or **High-T_c** These abbreviations correspond to the term “high critical-temperature superconductor”.

Y-Ba-Cu-O In patent literature this abbreviation is used for the general substance group, which includes e.g. the compounds **Y₁Ba₂Cu₃O_x** or **Y₂Ba₁Cu₁O₅** corresponding to the short cuts **Y-123** or **Y-211**.

Bi-Sr-Ca-Cu-O In patent literature this abbreviation is used for the general substance group, which includes e.g. the compounds **Bi₂Sr₂Ca₂Cu₃O_x** or **Bi₂Sr₂Ca₁Cu₂O_x** corresponding to the short cuts **Bi-2223** or **Bi-2212**.

Hg-Ba-Ca-Cu-O In patent literature this abbreviation is used for the general substance group, which includes e.g. the compound **Hg₁Ba₂Ca₂Cu₃O_x** corresponding to the short cut **Hg-1223**.

Tl-Sr-Ca-Cu-O In patent literature this abbreviation is used for the general substance group, which includes e.g. the compound **Tl₂Sr₂Ca₂Cu₃O_x** corresponding to the short cut **Tl-2223**.

Title – C04B35/453

based on zinc, tin or bismuth oxides or solid solutions thereof with other oxides, e.g. zincates, stannates or bismuthates

Informative references

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

Resistors, e.g. varistors based on ZnO	H01C 7/112
Target materials for coating by Physical Vapour Deposition	C23C 14/08

Title – C04B35/46

based on titanium oxides or titanates

References relevant to classification in this main group

This main group does not cover:

Ceramic compositions based on titanium oxides or titanates, containing also	C04B 35/49
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zirconium or hafnium oxides, zirconates or hafnates

Informative references

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

Ceramic insulating or dielectric materials	H01B3/12
Resistors, e.g. varistors, based on titanium oxide or titanates	H01C 7/115
Ceramic capacitors	H01G 4/12
Piezoelectric ceramics	H01L 41/187
Ceramic dielectric resonators	H01P 7/10

Title – C04B35/49

based on zirconium or hafnium oxides or zirconates or hafnates, containing also titanium oxides or titanates

Informative references

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

Ceramic insulating or dielectric materials	H01B3/12
Resistors, e.g. varistors, based on metal oxides	H01C 7/108
Ceramic capacitors	H01G 4/12
Piezoelectric ceramics	H01L 41/187
Ceramic dielectric resonators	H01P 7/10

Title – C04B 35/50

based on rare earth compounds

Informative references

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

Luminescent materials containing rare earth metals	C09K 11/77
Light filters; Selection of luminescent materials for light screens	F21V 9/16
Luminescent screens	H01J 1/63
Scintillation detectors	G01T 1/20 G01T 3/06

Title – C04B 35/51

based on compounds of actinides

Informative references

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

Nuclear fuel materials	G21C 3/62
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Title – C04B 35/56

based on carbides

Informative references

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

Friction linings F16D 69/12

Title – C04B 35/622

**Forming processes;
Processing powders of inorganic compounds preparatory to the
manufacturing of ceramic products**

Definition statement

This subgroup covers:

- Preparing or treating powders of inorganic compounds in preparation to the manufacturing of ceramic products
- Ceramic-forming techniques, i.e. computer-aided design and manufacturing of three-dimensional ceramic bodies by Rapid Prototyping (RP) techniques.

Limiting references

This subclass does not cover:

Articles characterised by particular shape, e.g. linings for casting ladles, tundishes, cups or the like	B22D 41/02
Mechanical features relating to the shaping of clay or other ceramic compositions, e.g. by injection moulding or by slip-casting	B28B B28B 1/24 B28B 1/26
Preparing clay or like ceramic compositions; Producing mixtures containing clay or like ceramic compositions	B28C
Working stone or stone-like materials	B28D

Chemical preparations of powders of inorganic compounds	C01
After-treatment of ceramics, e.g. coating or impregnation	C04B 41/00

Informative references

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

Patterns; Manufacture thereof so far as not provided for in other classes	B22C 7/00
Manufacture of workpieces or articles from metallic powder characterised by the manner of sintering by using electric current, laser radiation or plasma	B22F 3/105
Working by laser beam	B23K 26/00
Layered products	B32B
Layered products essentially comprising ceramics, e.g. refractory products	B32B 18/00
Photomechanical, e.g. photolithographic, production of textured or patterned surfaces	G03F 7/00
Exposure, e.g. with laser beam	G03F 7/20

Glossary

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

Rapid Prototyping **RP** in ceramic forming methods are material-adding processes, in opposition to material-removing machining techniques. RP devices build up a prototype body layer by layer, rapidly generating a fully three-dimensional free form, requiring no part-specific tooling. Common to all freeform fabrication processes is that a computer-aided designed component is split up into layers with the help of dedicated software. The different techniques differ only in the way the layers are fabricated and bonded to each other. The many RP techniques described in the literature can be divided into four groups:

3D Printing **3DP** has developed from stereolithography, in which light-sensitive monomers are polymerised by a laser beam and solidified by gelation in this way. Through the gelation and solidification of an aqueous ceramic slurry, which contains the light-sensitive monomer, a component is built up in layers.

Layer Manufacturing Techniques **LMT** uses ceramic tapes to built up components. This process also starts with the design of the component at a computer workstation and the breakdown of this design into layers. The individual layer structures are produced by tape casting. The tapes can be structured with the help of lasers, water jets, etc. After the layering of the tapes to form the required shape, organic additives must be burnt out before the component can be sintered.

Shape Deposition Manufacturing **SDM** is also characterised by a layered build-up. In this process, prototypes are manufactured from a blend of ceramic powders and organic thermoplastics or waxes, and the compound formed is then extruded layer by layer through a nozzle. The plastic body chills after leaving the nozzle and solidifies. In doing so, the feed nozzle or the support table can be moved in the X, Y and Z directions.

Laser Assisted Sintering In the **LAS** process, the individual layers of a component designed at CAD workstation are formed by the introduction of energy into powder bed. With the input of energy by a directed laser beam, the ceramic powder particles are bonded to each other and so building up the component layer by layer.

Example: **Selective Laser Sintering (SLS)**

A layer of ceramic powder is deposited on a support, and possibly compacted by a rolling device. A computer-controlled laser beam scans a two-dimensional cross-section of a part, selectively sintering the layer. A new layer of powder is deposited, compacted and sintered. After completion of the part, the unfused or unsintered powder, which helps hold the part during the process, is removed. This technique may allow local composition variations for gradient materials or manufacture of composites.

Synonyms and Keywords

Rapid Prototyping Technologies are otherwise known as
Solid Freeform Fabrication or
Desktop Manufacturing or
Layer Manufacturing Technologies.

Abbreviations for Keywords:

CAD:	Computer-aided design
CAM:	Computer-aided manufacturing
CIM:	Computer-integrated manufacturing
CNC:	Computer numerical control
DLF:	Direct Light Fabrication
3DP:	Slurry Based 3-Dimensional Printing Process
DRT:	Direct Rapid Tooling
FDC:	Fused Deposition of Ceramics
FDM:	Fused Deposition Modelling
FEM:	Finite Element Method
LAS:	Laser Assisted Sintering
LAPS:	Laser-aided Powder Solidification
LG:	Laser Generating methods
LIPA:	Laser Induced Paste Agglomeration
LMT:	Layer Manufacturing Technologies
LOM:	Laminated Object Manufacturing
LDC:	Laser Direct Casting

MJM:	Multi Jet Modelling
MJS:	Multi-phase Jet Solidification
RP:	Rapid Prototyping
RPT:	Rapid Prototyping Technologies
RT:	Rapid Tooling
SALD:	Selective Area Laser Deposition
SCS:	Solid Creation Systems
SDM:	Shape Deposition Manufacturing
SFF:	Solid Freeform Fabrication
SLA:	StereoLithographic Apparatus
SLC:	StereoLithographic Contour
SLRS:	Selective Laser Reaction Sintering
SLS:	Selective Laser Sintering
SOUP:	Solid Object Ultraviolet-laser Plotting

Title – C04B38/00

Porous mortars, concrete, artificial stone or ceramic ware;

Preparation thereof

Definition statement

This main group covers:

Mortars, concrete, artificial stone or ceramic ware which are deliberately made porous, e.g. by adding gas-forming, foaming, lightweight or burnable additives to the compositions they are made of, and the preparation thereof.

References relevant to classification in this main group

This main group does not cover:

Artificial stone compositions containing fibres, and voids which may occur between the intertwined fibres, but no binders C04B 30/02

Informative references

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

Porous or cellular macromolecular materials C08J 9/00

Special rules of classification within this subclass

Porous mortars, concrete, artificial stone or ceramic ware characterised by the ingredients or compositions are also classified in groups C04B2/00 to C04B35/00.

Title – C04B41/00

**After-treatment of mortars, concrete, artificial stone or ceramics;
Treatment of natural stone**

References relevant to classification in this main group

This main group does not cover:

Working stone or stone like materials B28D

Informative references

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

Applying liquids or other fluent materials to surfaces, in general	B05
Grinding or polishing	B24
Glazes, other than cold glazes	C03C8/00
Etching, surface-brightening or pickling compositions in general	C09K 13/00



IPC/D 037
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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

DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : PROPOSITION DE :	WG	IPC AREA: DOMAINE DE LA CIB :	C07J
RAPPORTEUR :	RU	TECHNICAL FIELD : DOMAINE TECHNIQUE :	C

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Rapporteur proposal	Proposition du rapporteur	RU	14.05.2002
2	Rapporteur proposal	Proposition du rapporteur	RU	19.09.2002
3	Comments	Commentaire	JP	16.10.2002
4	Proposal	Proposition	RU	16.10.2002
5	Comments	Commentaire	EP	17.10.2002
6	Comments	Commentaire	US	28.10.2002
7	Rapporteur report	Rapport du rapporteur	RU	11.11.2002
8	Rapporteur proposal	Proposition du rapporteur	RU	11.11.2002
9	Comments	Commentaire	US	15.11.2002
10	Comments	Commentaire	EP	03.02.2003
11	Comments	Commentaire	US	06.02.2003
12	Comments	Commentaire	GB	07.02.2003
13	Rapporteur report	Rapport du rapporteur	RU	10.04.2003
14	Rapporteur proposal	Proposition du rapporteur	RU	10.04.2003
15	Comments	Commentaire	DE	22.05.2003
16	Indication of approval		GB	11.09.2003
17	Indication of approval		US	11.09.2003

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
18	Indication of approval		EP	15.10.2003

FEDERAL INSTITUTE OF INDUSTRIAL PROPERTY

RU rapporteur report	
Project : D 037	Date: 10.04.2003
Subclass : C07J	

Introduction

Comments have been received from EP, US and UK.

Relationships

UK suggest that an entry relating to the subclass A61Q should be present in this section.
R agrees and has introduced the entry in the modified proposal as it was proposed by UK.

Glossary

US and EP point to incorrect spelling of the word «drawn» in definitions of «alpha» and «beta».
R has made necessary changes in the modified proposal.

EP suggest that information concerning bishomo- and bisnorsteroids be reflected in definitions of A,B,C or D - homo- and nor-steroids respectively.

R favors this proposal, however, thinks that separate entries for bishomo- and bisnorsteroids are preferable, so R proposes following wordings:

A,B,CorD–homosteroid *compound in which a cyclopenta[a]hydrophenanthrene skeleton is modified by expansion of rings A,B,C or D correspondingly by one atom (the prefix "homo" may also mean that one methyl or methylene group is added in certain position, e.g. 18-homosteroids).*

A,B,CorD-bishomosteroid *compound in which a cyclopenta[a]hydrophenanthrene skeleton is modified by expansion of rings A,B,C or D correspondingly by two atoms.*

A,B,CorD–norsteroid *compound in which a cyclopenta[a]hydrophenanthrene skeleton is modified by contraction of rings A,B,C or D correspondingly by one atom (the prefix "nor" may also mean that one methyl group in certain position is substituted by hydrogen atom, e.g. 19-norsteroids, or one methylene group among non-ring members in certain position is absent).*

A,B,CorD–bisnorsteroid *compound in which a cyclopenta[a]hydrophenanthrene skeleton is modified by contraction of rings A,B,C or D correspondingly by two atoms.*

US propose modification of definitions of «alpha» and «beta».

R agrees that these definitions could be slightly improved and has elaborated the new ones on the basis of US proposal:

"alpha" *relates to stereoisomers and designates atoms or groups of atoms that are arranged below the plane of a ring system (the bond between such atoms or groups of atoms and a ring system is represented by a dotted line) provided that a cyclopenta[a]hydrophenanthrene skeleton is drawn on the plane so that rings A,B,C and D are arranged from left to right.*

"beta" relates to stereoisomers and designates atoms or groups of atoms that are arranged above the plane of a ring system (the bond between such atoms or groups of atoms and a ring system is represented by a thick or uninterrupted line) provided that a cyclopenta[a]hydrophenanthrene skeleton is drawn on the plane so that rings A,B,C and D are arranged from left to right.

M.Sobolev

Title - C07J

Steroids

Definition statement

This subclass covers:

Compounds containing cyclopenta[a]hydrophenanthrene skeleton or a ring structure derived therefrom:

- by contraction or expansion of one ring by one or two atoms,
- by contraction or expansion of two rings each by one atom,
- by contraction of one ring by one atom and expansion of one ring by one atom,
- by substitution of one or two carbon atoms of the cyclopenta[a]hydrophenanthrene skeleton, which are not shared by rings, by hetero atoms, in combination with the above defined contraction or expansion or not, or
- by condensation with carbocyclic or heterocyclic rings in combination with one or more of the foregoing alterations or not.

Preparation of steroids including purification, separation, stabilisation or use of additives unless provided for elsewhere, as specified below.

Treatment and modification of steroids provided that

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

Relationship between large subject matter areas

Subclass C07J 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 the IPC exist, for example:

Preservation of bodies of humans or animals or plants or parts thereof; biocides, e.g. as disinfectants, as pesticides, as herbicides; pest repellants or attractants; plant growth regulators [A01N](#).

Preparations for medical, dental, or toilet purposes [A61K](#).

The following subclasses are used for multiple classification:

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

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

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

When a steroid forms a salt, an adduct or a complex with another organic compound, classification is also made in the entry in [C07](#) for this organic compound.

Limiting references

This subclass does not cover:

Seco-steroids	C07C
Fermentation or enzyme-using processes to synthesise steroids	C12P 33/00
Electrolytic production of organic compounds	C25B 3/00

Informative references

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

Macromolecular compounds	C08
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Special rules of classification

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

Salts of steroids are classified in the groups for these steroids. Metal chelates containing steroids are dealt with in the same way.

Glossary

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

- A,B,CorD-homosteroid** *compound in which a cyclopenta[a]hydrophenanthrene skeleton is modified by expansion of rings A,B,C or D correspondingly by one atom (the prefix "homo" may also mean that one methyl or methylene group is added in certain position, e.g. 18-homosteroids).*
- A,B,CorD-bishomosteroid** *compound in which a cyclopenta[a]hydrophenanthrene skeleton is modified by expansion of rings A,B,C or D correspondingly by two atoms.*
- A,B,CorD-norsteroid** *compound in which a cyclopenta[a]hydrophenanthrene skeleton is modified by contraction of rings A,B,C or D correspondingly by one atom (the prefix "nor" may also mean that one methyl group in certain position is substituted by hydrogen atom, e.g. 19-norsteroids, or one methylene group among non-ring members in certain position is absent).*
- A,B,CorD-bisnorsteroid** *compound in which a cyclopenta[a]hydrophenanthrene skeleton is modified by contraction of rings A,B,C or D correspondingly by two atoms.*
- "alpha"** *relates to stereoisomers and designates atoms or groups of atoms that are arranged below the plane of a ring system (the bond between such atoms or groups of atoms and a ring system is represented by a dotted line) provided that a*

cyclopenta[a]hydrophenanthrene skeleton is drawn on the plane so that rings A,B,C and D are arranged from left to right.

"beta"

relates to stereoisomers and designates atoms or groups of atoms that are arranged above the plane of a ring system (the bond between such atoms or groups of atoms and a ring system is represented by a thick or uninterrupted line) provided that a cyclopenta[a]hydrophenanthrene skeleton is drawn on the plane so that rings A,B,C and D are arranged from left to right.

normal steroid

compound containing non-modified cyclopenta[a]hydrophenanthrene skeleton.

seco-steroid

compound which can be obtained from steroids by a break of one of the bonds in cyclopenta[a]hydrophenanthrene skeleton.

substitution of steroids in certain position means substitution of hydrogen atom bound to the carbon atom of the cyclopenta[a]hydrophenanthrene skeleton in that position.

Synonyms and Keywords

bile acids steroids having a hydroxy-group and a five-carbon-atom side-chain terminating in a carboxyl group, e.g. cholic acid.

sterols steroid alcohols; contain cyclopenta[a]hydrophenanthrene skeleton plus an 8 to 10-carbon atom side-chain and a hydroxy-group, e.g. cholesterol, ergosterol".



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WORLD INTELLECTUAL PROPERTY ORGANIZATION
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DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : PROPOSITION DE :	WG	IPC AREA: DOMAINE DE LA CIB :	C07K
RAPPORTEUR :	SE	TECHNICAL FIELD : DOMAINE TECHNIQUE :	C

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Rapporteur proposal	Proposition du rapporteur	SE	15.10.2002
2	Comments	Commentaire	RU	21.10.2002
3	Comments	Commentaire	US	28.10.2002
4	Comments	Commentaire	JP	06.11.2002
5	Rapporteur report	Rapport du rapporteur	SE	13.11.2002
6	Rapporteur proposal	Proposition du rapporteur	SE	13.11.2002
7	Comments	Commentaire	EP	23.01.2003
8	Comments	Commentaire	EP	03.02.2003
9	Comments	Commentaire	US	06.02.2003
10	Comments	Commentaire	GB	07.02.2003
11	Comments	Commentaire	DE	11.04.2003
12	Rapporteur proposal	Proposition du rapporteur	SE	15.05.2003
13	Indication of approval		GB	11.09.2003
14	Indication of approval		US	11.09.2003
15	Indication of approval		EP	15.10.2003
16	Rapporteur report	Rapport du rapporteur	SE	08.06.2004
17	Rapporteur proposal	Proposition du rapporteur	SE	08.06.2004

Swedish Patent and Registration Office

IPC Revision Project D038, subclass C07K

08 June, 2004

Rapporteur report

Last place rule notes

The Rapporteurs of the C07 subclass definitions (SE, RU, IE and US) have been having informal discussions on standardizing last place rule notes.

During these discussions a few proposals of standard notes have been made.

US made the following proposal:

Relationship between large subject matter areas

In Class C07, in the absence of an indication to the contrary, if an inventive thing can potentially fit within two or more of the subclasses of C07, then priority is determined by following a reversed alphabetical sequence of their subclass indicator. For example, a sugar phosphate (the inventive thing) could potentially be classified in C07F based on phosphorus or C07H based on the sugar. The sugar phosphate is classified in C07H since C07H has priority according to the reversed alphabetical sequence of the subclass indicators. Following the same reasoning, a peptide that can be acyclic or may contain a heterocyclic ring is classified in C07K rather than C07C or C07D.

Special Rules of Classification

In this subclass, at each indentation level in the absence of an indication to the contrary, the classification practice specified in the Last place priority rule is used for each inventive thing.

RU made a proposal were the first section is the same for all C07 subclasses and the second is specific for the actual subclass:

Relationship between large subject matter areas

In class C07 the last place priority rule is used, i.e. in the absence of an indication to the contrary, a compound is classified in the last appropriate subclass. Class C07 contains the following subclasses:

C07B General methods of organic chemistry; Apparatus therefor

C07C Acyclic or carbocyclic compounds

.....

.....

C07K Peptides

Example for the C07F definition:

"So sugar phosphates are classified in subclass C07H as sugars and not in subclass C07F as phosphorus compounds and peptides containing metals are classified in subclass C07K as peptides and not in C07F".

Example for the C07J definition:

"So cyclopenta[a]hydrophenantrenes are classified in subclass C07J as steroids and not in subclasses C07C or C07D as carbocyclic or heterocyclic compounds".

Special Rules of Classification

In this subclass, in the absence of an indication to the contrary, a compound is classified in the last appropriate place.

Conclusion

R. also suggested a set of standard notes that are included in the rapporteur proposal. We hope that we can discuss these notes during the next meeting.

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](#).

In class C07, in the absence of an indication to the contrary, compounds are classified in the last appropriate subclass, i.e peptides are classified in C07K and not in C07C or C07D.

Limiting references

This subclass does not cover:

Peptides containing β -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
Enzymes	C12N

Genetic engineering processes for obtaining peptides	C12N 15/00
Preparation of peptides or proteins by fermentation or enzyme-using processes.	C12P 21/00
Electrolytic production of organic compounds	C25B 3/00

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

- In this subclass, in the absence of an indication to the contrary, a compound is classified in the last appropriate place.
- 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.

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-OCH₂CO₂H and Gly-OCH₂CO-Ala-Gly are considered as “linear depsipeptides, but HOCH₂CO-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-OCH₂CO;
- (iv) hybrid peptides** are peptides produced through fusion or covalent binding of two or more heterologous peptides.
- Immunoglobulins** proteins produced by B cells, made up of two identical heavy and to identical light chains, held together by interchain disulfide bonds.
- Antibodies** Immunoglobins which interact with antigens.
- Monoclonal antibodies** Antibodies produced from a single clone of cells, and reactive with a single antigen.
- Polyclonal antibodies** Antibodies produced by a variety of cell clones, and reactive with a variety of antigens or with a variety of antigenic determinants (epitopes) on a single antigen.

Synonyms and Keywords

None



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DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : PROPOSITION DE :	WG	IPC AREA: DOMAINE DE LA CIB :	C12N
RAPPORTEUR :	US	TECHNICAL FIELD : DOMAINE TECHNIQUE :	C

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Rapporteur proposal	Proposition du rapporteur	US	15.05.2002
2	Rapporteur report	Rapport du rapporteur	US	17.09.2002
3	Rapporteur proposal	Proposition du rapporteur	US	17.09.2002
4	Proposal	Proposition	US	27.09.2002
5	Comments	Commentaire	JP	10.10.2002
6	Comments	Commentaire	EP	16.10.2002
7	Comments	Commentaire	RU	21.10.2002
8	Rapporteur report	Rapport du rapporteur	US	14.11.2002
9	Rapporteur proposal	Proposition du rapporteur	US	14.11.2002
10	Comments	Commentaire	EP	23.01.2003
11	Comments	Commentaire	GB	13.02.2003
12	Rapporteur report	Rapport du rapporteur	US	08.04.2003
13	Rapporteur proposal	Proposition du rapporteur	US	08.04.2003
14	Comments	Commentaire	JP	08.05.2003
15	Comments	Commentaire	DE	22.05.2003
16	Comments	Commentaire	US	09.09.2003
17	Comments	Commentaire	GB	12.09.2003

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
18	Comments	Commentaire	DE	26.09.2003
19	Comments	Commentaire	JP	10.11.2003
20	Rapporteur report	Rapport du rapporteur	US	13.11.2003
21	Rapporteur proposal	Proposition du rapporteur	US	17.12.2003
22	Comments	Commentaire	CA	13.01.2004
23	Indication of approval		GB	15.03.2004
24	Rapporteur report	Rapport du rapporteur	US	04.06.2004
25	Rapporteur proposal	Proposition du rapporteur	US	04.06.2004

USPTO RAPPORTEUR REPORTIPC Revision WG – Definition Project-
D039/01 - Subclass C12N

Date: June 4, 2004

Comments were received from CA in Annex 22. Though 3 offices have approved the Rapporteur Proposal of Annex 21, R believes that several suggestions made by CA would be beneficial to add to the proposal of Annex 21.

Definition Statement

CA wants a statement added concerning the inclusion of “regulatory elements, per se” in C12N and suggests a title change for C12N 15/63 in an “eventual” Revision project for C12N.

R has included a separate bullet for “non-coding nucleic acid” based on CA’s proposal and terms found in the additional ECLA groups under C12N 15/11.

CA also proposed adding “method of making transgenic animals/plants” to bullet 3 under “Recombinant DNA-technology including”.

Since A01H has a main group for modifying the genotypes of plants, which includes making transgenic plants in R’s opinion, it would not be correct to add CA’s statement to the definition as far as the plants are concerned. However, R is uncertain if a method of making transgenic animals is proper for A01K67/00 or C12N. Comments from other offices on both of these issues are invited.

In Annex 8 of the project, R stated the following:

“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.”

Nevertheless, if it becomes apparent that methods of making transgenic animals are proper for C12N, then it may be necessary to change some references from informative to “limiting” to counteract the confusion of having the animals, per se in A01K and method of making them using genetic engineering in C12N while the plants and methods of making them using genetic engineering are both in A01H.

Informative references

CA suggested the addition of C12P 19/34, C12Q1/00, and C12Q 1/68 as informative references. R has added these since they could be of interest for search.

Glossary

R has added a glossary term for “non-coding nucleic acid sequence” due to the new bullet in the Definition Statement.

Subclass Index

CA proposed adding the term “tissue” to the first entry in the Subclass Index:
“Micro-organisms; Spores; Undifferentiated cells; Viruses”

R suggests that CA submit a proposal to project WG095 (Subclass Indexes for IPC 2005) on the e-forum to have this addition made.

IPC Revision WG – Definition Project USPTO Rapporteur Proposal	Project: D039
	Class/subclass: C12N
	Date : 07/06/04

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;
- non-coding nucleic acid sequences, e.g. promoters, operators, enhancers, suppressors, silencers, locus control regions, antisense nucleic acids, and aptamers, used in regulating gene expression or in other [recombinant DNA technology](#) related methods.
- 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](#).

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

References relevant to classification in this subclass

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	A61K31/7088
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
Organic fertilizers containing added bacterial cultures, mycelia or the like	C05F11/08
Nucleic acids not used in recombinant technology and their chemical preparation	C07H21/00
Enzyme containing detergent compositions	C11D

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

Preparing polynucleotides using enzymes or micro-organisms	C12P19/34
Measuring or testing processes involving enzymes or micro-organisms; Compositions therefor; Preparing such compositions	C12Q1/00
Measuring or testing processes involving enzymes or micro-organisms and nucleic acids; Compositions therefor; Preparing such compositions	C12Q1/68

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

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

Glossary

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

Enzyme	proteinaceous materials, which cause a chemical change in a starting material without being consumed in the reaction
Genetic Engineering	technology used to alter the hereditary apparatus or gene structure of a living cell so that the cell can produce more or different chemicals, or perform completely new functions
Maintaining	supporting or sustaining growth or metabolic activity of micro-organisms
Micro-organism	consists of bacteria, actinomycetales, fungi (e.g., yeast), virus, human, animal, or plant cells, tissues, protozoa, and unicellular algae
Mutation	any change that alters the sequence of bases along the DNA thereby changing the genetic material of a microorganism
Non-coding nucleic acid sequence	nucleic acid sequence which does not contain instructions for making proteins
Preserving	rendering micro-organisms reversibly dormant
Proenzyme	an enzyme precursor
Recombinant DNA Technology	techniques for cutting apart and splicing together pieces of DNA from the same or different sources
Single-cell protein	protein derived from microorganisms, usually bacteria or yeast, that are cultivated on a suitable medium and then harvested and processed for use as a food for livestock or humans. For example, blue-green

bacterium Spirulina is processed and sold as a protein-rich health food.

Vector

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

Synonyms and Keywords

NONE.



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DEFINITION PROJECT FILE
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PROPOSAL BY : PROPOSITION DE :	WG	IPC AREA: DOMAINE DE LA CIB :	C12P
RAPPORTEUR :	US	TECHNICAL FIELD : DOMAINE TECHNIQUE :	C

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1	Rapporteur proposal	Proposition du rapporteur	US	15.05.2002
2	Rapporteur report	Rapport du rapporteur	US	17.09.2002
3	Rapporteur proposal	Proposition du rapporteur	US	17.09.2002
4	Proposal	Proposition	US	27.09.2002
5	Comments	Commentaire	JP	10.10.2002
6	Comments	Commentaire	DE	11.10.2002
7	Comments	Commentaire	EP	16.10.2002
8	Rapporteur report	Rapport du rapporteur	US	14.11.2002
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13	Rapporteur proposal	Proposition du rapporteur	US	08.04.2003
14	Comments	Commentaire	JP	08.05.2003
15	Comments	Commentaire	DE	22.05.2003
16	Comments	Commentaire	US	09.09.2003
17	Comments	Commentaire	GB	12.09.2003

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18	Comments	Commentaire	DE	26.09.2003
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20	Rapporteur report	Rapport du rapporteur	US	13.11.2003
21	Rapporteur proposal	Proposition du rapporteur	US	18.12.2003
22	Indication of approval		GB	15.03.2004
23	Indication of approval		EP	28.04.2004

USPTO RAPPORTEUR REPORT	
IPC Revision WG – Definition Project- D040/01 - Subclass C12P	Date: November 13, 2003

The 8th Revision Working Group invited comments on the remaining open question as to whether the term “tissue” should be replaced by the term “cell culture” as proposed by Germany and Japan (Annexes 14 and 15 of the project file).

Comments were received from US (A-16), GB (A-17), DE (A-18), and JP (A-19).

US, GB, and JP believe it is improper to replace the word “tissue” with “cell culture” and believe the language in Annex 13 is acceptable.

DE would like the words “tissue” and “cell culture” to be used simultaneously.

R would like to make a clarification. There is some confusion as to the comments made by US in Annex 16. US did not intend to imply that C12 does not take cell culture or undifferentiated cells, but agrees with the comments made by DE in Annex 18, sentence 2. R and US interpreted the definition of microorganism [*consists of bacteria, actinomycetales, fungi (e.g., yeast), virus, human, animal, or plant cells, tissues, protozoa, and unicellular algae*] to include cell culture and undifferentiated cells with the statement “**bacteria, actinomycetales, fungi (e.g., yeast), virus, human, animal, or plant cells** in addition to tissues....”.

If this interpretation is agreeable to the RWG, then Rapporteur recommends the approval of the definition of Annex 13.

IPC Revision WG – Definition Project USPTO Rapporteur Proposal	Project: D040
	Class/subclass: C12P
	Date : 08/01/04

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 synthesised 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

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

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

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

References relevant to classification in this subclass

This subclass does not cover:

Treating dough with micro-organisms	<u>A21D8/04</u>
Processes for treating foods or foodstuffs with micro-organisms	<u>A23</u>
Production of methane by anaerobic treatment of sludge	<u>C02F11/04</u>
Preparation of fertilisers characterized by a composting step	<u>C05F17/00</u>
Fermentation processes for beer production	<u>C12C11/00</u>
Fermentation processes for wine making	<u>C12G1/00</u>
Fermentation processes for preparing other alcoholic beverages	<u>C12G3/00</u>

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](#).

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

In this subclass:

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

Glossary

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

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

Synonyms and Keywords

NONE.