

CPC COOPERATIVE PATENT CLASSIFICATION

A HUMAN NECESSITIES

HEALTH; AMUSEMENT

A61 MEDICAL OR VETERINARY SCIENCE; HYGIENE

A61K PREPARATIONS FOR MEDICAL, DENTAL, OR TOILET PURPOSES (devices or methods specially adapted for bringing pharmaceutical products into particular physical or administering forms [A61J 3/00](#); chemical aspects of, or use of materials for deodorisation of air, for disinfection or sterilisation, or for bandages, dressings, absorbent pads or surgical articles [A61L](#); soap compositions [C11D](#))

NOTES

1. This subclass covers the following subject matter, whether set forth as a composition (mixture), process of preparing the composition or process of treating using the composition:
 - a. Drug or other biological compositions which are capable of:
 - preventing, alleviating, treating or curing abnormal or pathological conditions of the living body by such means as destroying a parasitic organism, or limiting the effect of the disease or abnormality by chemically altering the physiology of the host or parasite (biocides [A01N 25/00](#) - [A01N 65/00](#));
 - maintaining, increasing, decreasing, limiting, or destroying a physiological body function, e.g. vitamin compositions, sex sterilants, fertility inhibitors, growth promoters, or the like (sex sterilants for invertebrates, e.g. insects, [A01N](#); plant growth regulators [A01N 25/00](#) - [A01N 65/00](#));
 - diagnosing a physiological condition or state by an *in vivo* test, e.g. X-ray contrast or skin patch test compositions (measuring or testing processes involving enzymes or microorganisms [C12Q](#); *in vitro* testing of biological material, e.g. blood, urine, [G01N](#), e.g. [G01N 33/48](#))
 - b. Body treating compositions generally intended for deodorising, protecting, adorning or grooming the body, e.g. cosmetics, dentifrices, tooth filling materials.
2. Attention is drawn to the definitions of groups of chemical elements following the title of section [C](#).
3. Attention is drawn to the notes in class [C07](#), for example the notes following the title of the subclass [C07D](#), setting forth the rules for classifying organic compounds in that class, which rules are also applicable, if not otherwise indicated, to the classification of organic compounds in [A61K](#).
4. In this subclass, with the exception of group [A61K 8/00](#), the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place.
5. Therapeutic activity of medicinal preparations is further classified in subclass [A61P](#).

WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

A61K 9/133	covered by	A61K 9/127
A61K 9/18	covered by	A61K 9/14
A61K 9/22	covered by	A61K 9/20
A61K 9/24	covered by	A61K 9/209
A61K 9/26	covered by	A61K 9/2077 , A61K 9/2081
A61K 9/30	covered by	A61K 9/28
A61K 9/32	covered by	A61K 9/28
A61K 9/34	covered by	A61K 9/28
A61K 9/36	covered by	A61K 9/28
A61K 9/38	covered by	A61K 9/28
A61K 9/40	covered by	A61K 9/28
A61K 9/42	covered by	A61K 9/28
A61K 9/44	covered by	A61K 9/2072
A61K 9/46	covered by	A61K 9/0007
A61K 9/52	covered by	A61K 9/50
A61K 9/54	covered by	A61K 9/5073 , A61K 9/5078 , A61K 9/5084
A61K 9/56	covered by	A61K 9/50
A61K 9/58	covered by	A61K 9/50
A61K 9/60	covered by	A61K 9/50
A61K 9/62	covered by	A61K 9/50
A61K 9/64	covered by	A61K 9/50
A61K 9/66	covered by	A61K 9/48

A61K

A61K

(continued)

[A61K 9/68](#)
[A61K 9/72](#)
[A61K 39/108](#)
[A61K 39/112](#)
[A61K 45/08](#)
[A61K 47/04](#)
[A61K 50/00](#)

covered by
covered by
covered by
covered by
covered by
covered by
covered by

[A61K 9/0058](#)
[A61K 9/0073](#)
[A61K 39/0258](#), [A61K 39/0266](#)
[A61K 39/0275](#), [A61K 39/0283](#)
[A61K 31/00](#), [A61K 47/00](#)
[A61K 47/02](#)
[A61K 9/0009](#), [C09J 9/02](#)

The following IPC indexing codes are not in the CPC scheme:

[A61K 101/00](#) - [A61K 103/00](#)
[A61K 125/00](#) - [A61K 135/00](#)

covered by
covered by

[A61K 51/00](#) - [A61K 51/1296](#)
[A61K 36/00](#) - [A61K 36/9068](#)

2. Subgroups of [A61K 48/00](#) are incomplete (Jan. 2003). Documents are being reclassified from [A61K 48/00](#) to its subgroups
3. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

6/00 Preparations for dentistry

NOTE

In groups [A61K 6/00](#) - [A61K 6/58](#) and [A61K 6/887](#) - [A61K 6/90](#), combination sets [C-Sets] are used, e.g. compositions for taking dental impressions containing alginates are classified as ([A61K 6/90](#), [C08L 5/04](#))

- 6/15 . Compositions characterised by their physical properties
- 6/16 . . Refractive index
- 6/17 . . Particle size
- 6/18 . . causing dental retraction, e.g. compositions for widening the sulcus for making dental impressions or removing teeth
- 6/19 . . Self-expanding, e.g. for filling teeth
- 6/20 . Protective coatings for natural or artificial teeth, e.g. sealings, dye coatings or varnish
- 6/25 . Compositions for detecting or measuring, e.g. of irregularities on natural or artificial teeth
- 6/30 . Compositions for temporarily or permanently fixing teeth or palates, e.g. primers for dental adhesives
- 6/35 . . Preparations for stabilising dentures in the mouth
- 6/40 . Primers (for dental adhesives [A61K 6/30](#))
- 6/50 . Preparations specially adapted for dental root treatment
- 6/52 . . Cleaning; Disinfecting
- 6/54 . . Filling; Sealing
- 6/56 . . Apical treatment
- 6/58 . . specially adapted for dental implants
- 6/60 . comprising organic or organo-metallic additives
- 6/61 . . Cationic, anionic or redox initiators
- 6/62 . . Photochemical radical initiators
- 6/64 . . Thermal radical initiators
- 6/65 . . Dyes
- 6/66 . . . Photochromic dyes
- 6/68 . . . Thermochromic dyes
- 6/69 . . Medicaments
- 6/70 . comprising inorganic additives
- 6/71 . . Fillers
- 6/72 . . . comprising nitrogen-containing compounds
- 6/73 . . . comprising sulfur-containing compounds
- 6/74 . . . comprising phosphorus-containing compounds
- 6/75 Apatite
- 6/76 . . . comprising silicon-containing compounds
- 6/77 . . . Glass
- 6/78 . . Pigments

- 6/79 . . Initiators
- 6/80 . Preparations for artificial teeth, for filling teeth or for capping teeth
- 6/802 . . comprising ceramics
- 6/804 . . . comprising manganese oxide
- 6/807 . . . comprising magnesium oxide
- 6/809 . . . comprising beryllium oxide
- 6/811 . . . comprising chromium oxide
- 6/813 . . . comprising iron oxide
- 6/816 . . . comprising titanium oxide
- 6/818 . . . comprising zirconium oxide
- 6/82 . . . comprising hafnium oxide
- 6/822 . . . comprising rare earth metal oxides
- 6/824 . . . comprising transition metal oxides
- 6/827 . . . Leucite
- 6/829 . . comprising cermet composites
- 6/831 . . comprising non-metallic elements or compounds thereof, e.g. carbon
- 6/833 . . . Glass-ceramic composites
- 6/836 . . . Glass
- 6/838 . . . Phosphorus compounds, e.g. apatite
- 6/84 . . comprising metals or alloys
- 6/842 . . . Rare earth metals
- 6/844 . . . Noble metals
- 6/847 . . . Amalgams
- 6/849 . . comprising inorganic cements
- 6/851 . . . Portland cements
- 6/853 . . . Silicates
- 6/856 . . . Pozzolans
- 6/858 . . . Calcium sulfates, e.g. gypsum
- 6/86 . . . Al-cements
- 6/862 . . . Ca-Al-sulfate-cements
- 6/864 . . . Phosphate cements ([apatite A61K 6/838](#))
- 6/867 . . . Ammonium cements
- 6/869 . . . Zeolites
- 6/871 . . . Quartz; SiO₂
- 6/873 . . . Carbonates
- 6/876 . . . Calcium oxide
- 6/878 . . . Zirconium oxide
- 6/88 . . . Chromium oxide
- 6/882 . . . Carbides
- 6/884 . . comprising natural or synthetic resins
- 6/887 . . . Compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds
- 6/889 Polycarboxylate cements; Glass ionomer cements

- 6/891 . . . Compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds
- 6/893 Polyurethanes
- 6/896 Polyorganosilicon compounds
- 6/898 . . . Polysaccharides
- 6/90 . Compositions for taking dental impressions

8/00 Cosmetics or similar toilet preparations

NOTES

1. Use of cosmetics or similar toilet preparations is further classified in subclass [A61Q](#).
2. Use of cosmetics or similar toilet preparations is mandatorily further classified in subclass [A61Q](#).
3. Attention is drawn to the Notes in class [C07](#), for example the notes following the title of subclass [C07D](#), setting forth the rules for classifying organic compounds in that class, which rules are also applicable, if not otherwise indicated, to the classification of organic compounds in group [A61K 8/00](#).
4. Salts or complexes of organic compounds are classified according to the base compounds. If a complex is formed between two or more compounds, classification is made for each compound.

- 8/02 . characterised by special physical form

NOTE

In this group, the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place.

- 8/0204 . . {Specific forms not provided for by any of groups [A61K 8/0208](#) - [A61K 8/14](#)}
- 8/0208 . . {Tissues; Wipes; Patches}
- 8/0212 . . {Face masks}
- 8/0216 . . {Solid or semisolid forms}
- 8/022 . . . {Powders; Compacted Powders}
- 8/0225 {Granulated powders}
- 8/0229 . . . {Sticks}
- 8/0233 . . . {Distinct layers, e.g. core/shell sticks}
- 8/0237 {Striped compositions}
- 8/0241 . . {Containing particulates characterized by their shape and/or structure (see also [A61K 8/04](#), [A61K 8/11](#), and [A61K 8/14](#), further aspects are classified in [A61K 2800/40](#) and subcodes)}
- 8/0245 . . . {Specific shapes or structures not provided for by any of the groups of [A61K 8/0241](#)}
- 8/025 . . . {Explicitly spheroidal or spherical shape}
- 8/0254 . . . {Platelets; Flakes}
- 8/0258 {Layered structure}
- 8/0262 {Characterized by the central layer}
- 8/0266 {Characterized by the sequence of layers}
- 8/027 . . . {Fibers; Fibrils}
- 8/0275 . . . {Containing agglomerated particulates}
- 8/0279 . . . {Porous; Hollow}
- 8/0283 . . . {Matrix particles}
- 8/0287 {the particulate containing a solid-in-solid dispersion}
- 8/0291 . . {Micelles}

- 8/0295 . . {Liquid crystals}
- 8/03 . . Liquid compositions with two or more distinct layers
- 8/04 . . Dispersions; Emulsions
- 8/042 . . . {Gels}
- 8/044 . . . {Suspensions}
- 8/046 . . . {Aerosols; Foams}
- 8/06 . . . Emulsions
- 8/062 {Oil-in-water emulsions}
- 8/064 {Water-in-oil emulsions, e.g. Water-in-silicone emulsions}
- 8/066 {Multiple emulsions, e.g. water-in-oil-in-water}
- 8/068 {Microemulsions}
- 8/11 . . Encapsulated compositions
- 8/14 . . Liposomes; Vesicles
- 8/18 . characterised by the composition

NOTE

In this group, the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place.

- 8/19 . . containing inorganic ingredients
- 8/20 . . . Halogens; Compounds thereof
- 8/21 Fluorides; Derivatives thereof
- 8/22 . . . Peroxides; Oxygen; Ozone
- 8/23 . . . Sulfur; Selenium; Tellurium; Compounds thereof
- 8/24 . . . Phosphorous; Compounds thereof
- 8/25 . . . Silicon; Compounds thereof
- 8/26 . . . Aluminium; Compounds thereof
- 8/27 . . . Zinc; Compounds thereof
- 8/28 . . . Zirconium; Compounds thereof
- 8/29 . . . Titanium; Compounds thereof
- 8/30 . . containing organic compounds
- 8/31 . . . Hydrocarbons
- 8/315 {Halogenated hydrocarbons}
- 8/33 . . . containing oxygen
- 8/34 Alcohols
- 8/342 {Alcohols having more than seven atoms in an unbroken chain}
- 8/345 {containing more than one hydroxy group}
- 8/347 {Phenols}
- 8/35 Ketones, e.g. benzophenone
- 8/355 {Quinones}
- 8/36 Carboxylic acids; Salts or anhydrides thereof
- 8/361 {Carboxylic acids having more than seven carbon atoms in an unbroken chain; Salts or anhydrides thereof}
- 8/362 Polycarboxylic acids
- 8/365 Hydroxycarboxylic acids; Ketocarboxylic acids
- 8/368 with carboxyl groups directly bound to carbon atoms of aromatic rings
- 8/37 Esters of carboxylic acids
- 8/375 {the alcohol moiety containing more than one hydroxy group}
- 8/38 Percompounds, e.g. peracids
- 8/39 Derivatives containing from 2 to 10 oxyalkylene groups

8/40	. . . containing nitrogen (quinones containing nitrogen A61K 8/355)	8/606	. . . . {Nucleosides; Nucleotides; Nucleic acids}
8/41	. . . . Amines	8/608	. . . . {Derivatives containing from 2 to 10 oxyalkylene groups}
8/411	. . . . {Aromatic amines, i.e. where the amino group is directly linked to the aromatic nucleus}	8/63	. . . Steroids; Derivatives thereof
8/413	. . . . {Indoanilines; Indophenol; Indoamines}	NOTE	
8/415	. . . . {Aminophenols}	This group <u>covers</u> steroids, as defined in Note (1) after the title of subclass C07J .	
8/416	. . . . {Quaternary ammonium compounds (A61K 8/35 takes precedence)}	8/64	. . . Proteins; Peptides; Derivatives or degradation products thereof
8/418	. . . . {containing nitro groups}	8/645	. . . . {Proteins of vegetable origin; Derivatives or degradation products thereof}
8/42	. . . . Amides	8/65	. . . . Collagen; Gelatin; Keratin; Derivatives or degradation products thereof
8/43	. . . . Guanidines	8/66	. . . . Enzymes
8/44	. . . . Aminocarboxylic acids or derivatives thereof, e.g. aminocarboxylic acids containing sulfur; Salts; Esters or N-acylated derivatives thereof	8/67	. . . Vitamins
8/442	. . . . {substituted by amido group(s)}	8/671	. . . . {Vitamin A; Derivatives thereof, e.g. ester of vitamin A acid, ester of retinol, retinol, retinal}
8/445	. . . . {aromatic, i.e. the carboxylic acid directly linked to the aromatic ring}	8/673	. . . . {Vitamin B group}
8/447	. . . . {containing sulfur}	8/675	. . . . {Vitamin B3 or vitamin B3 active, e.g. nicotinamide, nicotinic acid, nicotiny aldehyde (tocopheryl nicotinate A61K 8/678)}
8/45	. . . . Derivatives containing from 2 to 10 oxyalkylene groups	8/676	. . . . {Ascorbic acid, i.e. vitamin C}
8/46	. . . containing sulfur (A61K 8/44 takes precedence)	8/678	. . . . {Tocopherol, i.e. vitamin E}
8/463	. . . . {containing sulfuric acid derivatives, e.g. sodium lauryl sulfate}	8/68	. . . Sphingolipids, e.g. ceramides, cerebrosides, gangliosides
8/466	. . . . {containing sulfonic acid derivatives; Salts}	8/69	. . . containing fluorine
8/49	. . . containing heterocyclic compounds	8/70	. . . . containing perfluoro groups, e.g. perfluoroethers
8/4906	. . . . {with one nitrogen as the only hetero atom}	8/72	. . containing organic macromolecular compounds
8/4913	. . . . {having five membered rings, e.g. pyrrolidone carboxylic acid}	8/73	. . . Polysaccharides
8/492	. . . . . {having condensed rings, e.g. indol}	8/731	. . . . {Cellulose; Quaternized cellulose derivatives}
8/4926	. . . . . {having six membered rings}	8/732	. . . . {Starch; Amylose; Amylopectin; Derivatives thereof}
8/4933	. . . . . {having sulfur as an exocyclic substituent, e.g. pyridinethione}	8/733	. . . . {Alginic acid; Salts thereof}
8/494	. . . . {with more than one nitrogen as the only hetero atom}	8/735	. . . . {Mucopolysaccharides, e.g. hyaluronic acid; Derivatives thereof}
8/4946	. . . . . {Imidazoles or their condensed derivatives, e.g. benzimidazoles}	8/736	. . . . {Chitin; Chitosan; Derivatives thereof}
8/4953	. . . . . {containing pyrimidine ring derivatives, e.g. minoxidil}	8/737	. . . . {Galactomannans, e.g. guar; Derivatives thereof}
8/496	. . . . . {Triazoles or their condensed derivatives, e.g. benzotriazoles}	8/738	. . . . {Cyclodextrins}
8/4966	. . . . . {Triazines or their condensed derivatives}	8/81	. . . obtained by reactions involving only carbon-to-carbon unsaturated bonds
8/4973	. . . . {with oxygen as the only hetero atom}	8/8105	. . . . {Compositions of homopolymers or copolymers of unsaturated aliphatic hydrocarbons having only one carbon-to-carbon double bond; Compositions of derivatives of such polymers}
8/498	. . . . . {having 6-membered rings or their condensed derivatives, e.g. coumarin}	8/8111	. . . . . {Homopolymers or copolymers of aliphatic olefines, e.g. polyethylene, polyisobutene; Compositions of derivatives of such polymers}
8/4986	. . . . {with sulfur as the only hetero atom}	8/8117	. . . . . {Homopolymers or copolymers of aromatic olefines, e.g. polystyrene; Compositions of derivatives of such polymers}
8/4993	. . . . {Derivatives containing from 2 to 10 oxyalkylene groups}		
8/55	. . . Phosphorus compounds		
8/553	. . . . {Phospholipids, e.g. lecithin}		
8/556	. . . . {Derivatives containing from 2 to 10 oxyalkylene groups}		
8/58	. . . containing atoms other than carbon, hydrogen, halogen, oxygen, nitrogen, sulfur or phosphorus		
8/585	. . . . {Organosilicon compounds}		
8/60	. . . Sugars; Derivatives thereof		
8/602	. . . . {Glycosides, e.g. rutin}		
8/604	. . . . {Alkylpolyglycosides; Derivatives thereof, e.g. esters}		

- 8/8123 {Compositions of homopolymers or copolymers of compounds having one carbon-to-carbon double bond, and at least one being terminated by a halogen; Compositions of derivatives of such polymers, e.g. PVC, PTFE}
- 8/8129 {Compositions of homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an alcohol, ether, aldehydo, ketonic, acetal or ketal radical; Compositions of hydrolysed polymers or esters of unsaturated alcohols with saturated carboxylic acids; Compositions of derivatives of such polymers, e.g. polyvinylmethylether}
- 8/8135 {Compositions of homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an acyloxy radical of a saturated carboxylic acid, of carbonic acid or of a haloformic acid; Compositions of derivatives of such polymers, e.g. vinyl esters (polyvinylacetate)}
- 8/8141 {Compositions of homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by only one carboxyl radical, or of salts, anhydrides, esters, amides, imides or nitriles thereof; Compositions of derivatives of such polymers}
- 8/8147 {Homopolymers or copolymers of acids; Metal or ammonium salts thereof, e.g. crotonic acid, (meth)acrylic acid; Compositions of derivatives of such polymers}
- 8/8152 {Homopolymers or copolymers of esters, e.g. (meth)acrylic acid esters; Compositions of derivatives of such polymers}
- 8/8158 {Homopolymers or copolymers of amides or imides, e.g. (meth) acrylamide; Compositions of derivatives of such polymers}
- 8/8164 {Compositions of homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a carboxyl radical, and containing at least one other carboxyl radical in the molecule, or of salts, anhydrides, esters, amides, imides or nitriles thereof; Compositions of derivatives of such polymers, e.g. poly (methyl vinyl ether-co-maleic anhydride)}
- 8/817 {Compositions of homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a single or double bond to nitrogen or by a heterocyclic ring containing nitrogen; Compositions or derivatives of such polymers, e.g. vinylimidazol, vinylcaprolactame, allylamines (Polyquaternium 6)}
- 8/8176 {Homopolymers of N-vinyl-pyrrolidones. Compositions of derivatives of such polymers}
- 8/8182 {Copolymers of vinyl-pyrrolidones. Compositions of derivatives of such polymers}
- 8/8188 {Compositions of homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bonds, and at least one being terminated by a bond to sulfur or by a heterocyclic ring containing sulfur; Compositions of derivatives of such polymers}
- 8/8194 {Compositions of homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, at least one having two or more carbon-to-carbon double bonds; Compositions of derivatives of such polymers}
- 8/84 obtained by reactions otherwise than those involving only carbon-carbon unsaturated bonds
- 8/85 Polyesters
- 8/86 Polyethers
- 8/87 Polyurethanes
- 8/88 Polyamides
- 8/89 Polysiloxanes
- 8/891 saturated, e.g. dimethicone, phenyl trimethicone, C24-C28 methicone or stearyl dimethicone
- 8/892 modified by a hydroxy group, e.g. dimethiconol
- 8/893 modified by an alkoxy or aryloxy group, e.g. behenoxy dimethicone or stearoxy dimethicone
- 8/894 modified by a polyoxyalkylene group, e.g. cetyl dimethicone copolyol
- 8/895 containing silicon bound to unsaturated aliphatic groups, e.g. vinyl dimethicone
- 8/896 containing atoms other than silicon, carbon, oxygen and hydrogen, e.g. dimethicone copolyol phosphate
- 8/897 containing halogen, e.g. fluorosilicones
- 8/898 containing nitrogen, e.g. amodimethicone, trimethyl silyl amodimethicone or dimethicone propyl PG-betaine
- 8/899 containing sulfur, e.g. sodium PG-propyldimethicone thiosulfate copolyol
- 8/90 Block copolymers ([A61K 8/89 takes precedence](#))
- 8/91 Graft copolymers ([A61K 8/89 takes precedence](#))

- 8/92 . . Oils, fats or waxes; Derivatives thereof, e.g. hydrogenation products thereof
- 8/922 . . . {of vegetable origin}
- 8/925 . . . {of animal origin}
- 8/927 . . . {of insects, e.g. shellac}
- 8/96 . . containing materials, or derivatives thereof of undetermined constitution
- 8/965 . . . {of inanimate origin}
- 8/97 . . . from algae, fungi, lichens or plants; from derivatives thereof
- 8/9706 Algae
- 8/9711 Phaeophycota or Phaeophyta [brown algae], e.g. Fucus
- 8/9717 Rhodophycota or Rhodophyta [red algae], e.g. Porphyra
- 8/9722 Chlorophycota or Chlorophyta [green algae], e.g. Chlorella
- 8/9728 Fungi, e.g. yeasts
- 8/9733 Lichens
- 8/9739 Bryophyta [mosses]
- 8/9741 Pteridophyta [ferns]
- 8/9749 Filicopsida or Pteridopsida
- 8/9755 Gymnosperms [Coniferophyta]
- 8/9761 Cupressaceae [Cypress family], e.g. juniper or cypress
- 8/9767 Pinaceae [Pine family], e.g. pine or cedar
- 8/9771 Ginkgophyta, e.g. Ginkgoaceae [Ginkgo family]
- 8/9778 Gnetophyta, e.g. Ephedraceae [Mormon-tea family]
- 8/9783 Angiosperms [Magnoliophyta]
- 8/9789 Magnoliopsida [dicotyledons]
- 8/9794 Liliopsida [monocotyledons]
- 8/98 . . . of animal origin
- 8/981 {of mammals or bird}
- 8/982 {Reproductive organs; Embryos, Eggs}
- 8/983 {Blood, e.g. plasma}
- 8/985 {Skin or skin outgrowth, e.g. hair, nails}
- 8/986 {Milk; Derivatives thereof, e.g. butter}
- 8/987 {of species other than mammals or birds}
- 8/988 {Honey; Royal jelly, Propolis}
- 8/99 . . . from microorganisms other than algae or fungi, e.g. protozoa or bacteria

9/00 Medicinal preparations characterised by special physical form {(nuclear magnetic resonance contrast preparations or magnetic resonance imaging contrast preparations [A61K 49/18](#); preparations containing radioactive substances [A61K 51/12](#))}

NOTE

Among the one-dot groups of [A61K 9/00](#), classification is not made in the last appropriate place.

[A61K 9/00](#) is subdivided according to the following concepts:

- the drug release technique ([A61K 9/0002](#) and subgroups),
- the site of application ([A61K 9/0012](#) and subgroups), and
- the physical form ([A61K 9/0087](#) - [A61K 9/7023](#)).

Where relevant, documents are classified in more than one of these subdivisions.

- 9/0002 . . {Galenical forms characterised by the drug release technique; Application systems commanded by energy}
- 9/0004 . . {Osmotic delivery systems; Sustained release driven by osmosis, thermal energy or gas}
- 9/0007 . . {Effervescent ([A61K 9/0065](#) takes precedence)}
- 9/0009 . . {involving or responsive to electricity, magnetism or acoustic waves; Galenical aspects of sonophoresis, iontophoresis, electroporation or electroosmosis ([microelectromechanical systems A61K 9/0097](#))}
- 9/0012 . . {Galenical forms characterised by the site of application}
- 9/0014 . . {Skin, i.e. galenical aspects of topical compositions ([non-active ingredients are additionally classified in A61K 47/00](#); [A61K 9/0009](#), [A61K 9/0021](#), [A61K 9/7015](#), [A61K 9/7023](#) take precedence; cosmetic preparations [A61K 8/00](#), [A61Q](#); preparations for wound dressings or bandages [A61L 26/00](#))}
- 9/0017 . . . {Non-human animal skin, e.g. pour-on, spot-on}
- 9/0019 . . {Injectable compositions; Intramuscular, intravenous, arterial, subcutaneous administration; Compositions to be administered through the skin in an invasive manner ([non-active ingredients are additionally classified in A61K 47/00](#))}
- 9/0021 . . . {Intradermal administration, e.g. through microneedle arrays, needleless injectors ([mechanical aspects A61M](#))}
- 9/0024 . . . {Solid, semi-solid or solidifying implants, which are implanted or injected in body tissue ([compositions for intravenous administration, normal injectable solutions or dispersions for, e.g. subcutaneous administration A61K 9/0019](#); [brain implants A61K 9/0085](#); [coated prostheses, catheters or stents A61L](#))}
- 9/0026 . . . {Blood substitute; Oxygen transporting formulations; Plasma extender}
- 9/0029 . . . {Parenteral nutrition; Parenteral nutrition compositions as drug carriers}
- 9/0031 . . {Rectum, anus}
- 9/0034 . . {Urogenital system, e.g. vagina, uterus, cervix, penis, scrotum, urethra, bladder; Personal lubricants}
- 9/0036 . . . {Devices retained in the vagina or cervix for a prolonged period, e.g. intravaginal rings, medicated tampons, medicated diaphragms}
- 9/0039 . . . {Devices retained in the uterus for a prolonged period, e.g. intrauterine devices for contraception}
- 9/0041 . . {Mammary glands, e.g. breasts, udder; Intramammary administration}
- 9/0043 . . {Nose}
- 9/0046 . . {Ear}
- 9/0048 . . {Eye, e.g. artificial tears}
- 9/0051 . . . {Ocular inserts, ocular implants}
- 9/0053 . . {Mouth and digestive tract, i.e. intraoral and peroral administration ([rectal administration A61K 9/0031](#))}

- 9/0056 . . . {Mouth soluble or dispersible forms; Suckable, eatable, chewable coherent forms; Forms rapidly disintegrating in the mouth; Lozenges; Lollipops; Bite capsules; Baked products; Baits or other oral forms for animals}
- 9/0058 {Chewing gums (non-medicinal aspects, preparing chewing gum [A23G 4/00](#); chewing gum for care of the teeth or oral cavity, e.g. with breath freshener [A61Q 11/00](#))}
- 9/006 . . . {Oral mucosa, e.g. mucoadhesive forms, sublingual droplets; Buccal patches or films; Buccal sprays}
- 9/0063 . . . {Periodont}
- 9/0065 . . . {Forms with gastric retention, e.g. floating on gastric juice, adhering to gastric mucosa, expanding to prevent passage through the pylorus}
- 9/0068 . . . {Rumen, e.g. rumen bolus}
- 9/007 . . {Pulmonary tract; Aromatherapy}
- 9/0073 . . . {Sprays or powders for inhalation; Aerolised or nebulised preparations generated by other means than thermal energy; (nasal sprays [A61K 9/0043](#); inhalation of vapours of volatile or heated drugs, e.g. essential oils or nicotine, [A61K 9/007](#); devices [A61M](#))}
- 9/0075 {for inhalation via a dry powder inhaler [DPI], e.g. comprising micronized drug mixed with lactose carrier particles}
- 9/0078 {for inhalation via a nebulizer such as a jet nebulizer, ultrasonic nebulizer, e.g. in the form of aqueous drug solutions or dispersions}
- 9/008 {comprising drug dissolved or suspended in liquid propellant for inhalation via a pressurized metered dose inhaler [MDI]}
- 9/0082 . . . {Lung surfactant, artificial mucus}
- 9/0085 . . {Brain, e.g. brain implants; Spinal cord}
- 9/0087 . {Galenical forms not covered by [A61K 9/02](#) - [A61K 9/7023](#)}
- 9/009 . . {Sachets, pouches characterised by the material or function of the envelope (with gastric retention [A61K 9/0065](#); sachets which are not administered but function merely as a container are classified according to the content, e.g. sachets comprising powder for reconstitution of a drink [A61K 9/0095](#))}
- 9/0092 . . {Hollow drug-filled fibres, tubes of the core-shell type, coated fibres, coated rods, microtubules or nanotubes}
- 9/0095 . . {Drinks; Beverages; Syrups; Compositions for reconstitution thereof, e.g. powders or tablets to be dispersed in a glass of water; Veterinary drenches ([A61K 9/0007](#) takes precedence; eatable gels or foams [A61K 9/0056](#); oral mucosa adhesive forms [A61K 9/006](#))}
- 9/0097 . . {Micromachined devices; Microelectromechanical systems [MEMS]; Devices obtained by lithographic treatment of silicon; Devices comprising chips (intradermal microneedle arrays [A61K 9/0021](#); MEMS in general [B81B 7/02](#))}
- 9/02 . . Suppositories; Bougies; Bases therefor; {Ovules}{apparatus for making [A61J 3/08](#); devices for introducing into the body [A61M 31/00](#)}
- 9/025 . . {characterised by shape or structure, e.g. hollow layered, coated}
- 9/06 . . Ointments; Bases therefor; {Other semi-solid forms, e.g. creams, sticks, gels (composition of ointments, creams or gels [A61K 47/00](#))}
- 9/08 . . Solutions {(composition of solutions [A61K 47/00](#))}
- 9/10 . . Dispersions; Emulsions {([A61K 9/06](#) takes precedence; composition of dispersions, emulsions [A61K 47/00](#))}
- 9/107 . . Emulsions {; Emulsion preconcentrates; Micelles (composition of emulsions [A61K 47/00](#))}
- 9/1075 . . . {Microemulsions or submicron emulsions; Preconcentrates or solids thereof; Micelles, e.g. made of phospholipids or block copolymers ([A61K 9/0026](#) takes precedence)}
- 9/113 . . . Multiple emulsions, e.g. oil-in-water-in-oil {([A61K 9/0026](#) takes precedence)}
- 9/12 . . Aerosols; Foams {([A61K 9/0043](#), [A61K 9/0056](#), [A61K 9/006](#), [A61K 9/0073](#) take precedence; spray-films [A61K 9/7015](#))}
- 9/122 . . . {Foams; Dry foams (edible foams [A61K 9/0056](#))}
- 9/124 . . . {characterised by the propellant}
- 9/127 . . Liposomes
- 9/1271 . . . {Non-conventional liposomes, e.g. PEGylated liposomes, liposomes coated with polymers (liposome as conjugate [A61K 47/6911](#))}
- 9/1272 {with substantial amounts of non-phosphatidyl, i.e. non-acylglycerophosphate, surfactants as bilayer-forming substances, e.g. cationic lipids (with cholesterol as the only non-phosphatidyl surfactant [A61K 9/127](#); lipids as modifying agent [A61K 47/543](#))}
- 9/1273 {Polymersomes; Liposomes with polymerisable or polymerised bilayer-forming substances (polymers grafted or coated on phosphatidyl liposomes [A61K 9/1271](#), on non-phosphatidyl liposomes [A61K 9/1272](#))}
- 9/1274 . . . {Non-vesicle bilayer structures, e.g. liquid crystals, tubules, cubic phases, cochleates; Sponge phases}
- 9/1275 . . . {Lipoproteins; Chylomicrons; Artificial HDL, LDL, VLDL, protein-free species thereof; Precursors thereof}
- 9/1276 . . . {Globules of milk or constituents thereof}
- 9/1277 . . . {Processes for preparing; Proliposomes}
- 9/1278 {Post-loading, e.g. by ion or pH gradient}
- 9/14 . . Particulate form, e.g. powders, {Processes for size reducing of pure drugs or the resulting products, Pure drug nanoparticles (microspheres [A61K 9/16](#); microcapsules [A61K 9/50](#); nanocapsules, nanoparticles of the matrix type [A61K 9/51](#))}
- 9/141 . . {Intimate drug-carrier mixtures characterised by the carrier, e.g. ordered mixtures, adsorbates, solid solutions, eutectica, co-dried, co-solubilised, co-kneaded, co-milled, co-ground products, co-precipitates, co-evaporates, co-extrudates, co-melts; Drug nanoparticles with adsorbed surface modifiers ((co) spray-dried products [A61K 9/16](#), (co) lyophilised products [A61K 9/19](#); the carrier being chemically bound to the active ingredient [A61K 47/50](#))}
- 9/143 . . . {with inorganic compounds}

- 9/145 . . . {with organic compounds}
- 9/146 . . . {with organic macromolecular compounds}
- 9/148 . . . {with compounds of unknown constitution, e.g. material from plants or animals (with oils, fats, waxes, shellac [A61K 9/145](#))}
- 9/16 . . Agglomerates; Granulates; Microbeadlets {; Microspheres; Pellets; Solid products obtained by spray drying, spray freeze drying, spray congealing, (multiple) emulsion solvent evaporation or extraction ([A61K 9/20](#) takes precedence if the final form is a tablet; microspheres with drug-free outer coating, microcapsules [A61K 9/50](#); mixture of different granules, microcapsules, (coated) microparticles [A61K 9/5084](#); nanoparticles [A61K 9/51](#))}
- 9/1605 . . . {Excipients; Inactive ingredients}
- 9/1611 {Inorganic compounds}
- 9/1617 {Organic compounds, e.g. phospholipids, fats}
- 9/1623 {Sugars or sugar alcohols, e.g. lactose; Derivatives thereof; Homeopathic globules}
- 9/1629 {Organic macromolecular compounds}
- 9/1635 {obtained by reactions only involving carbon-to-carbon unsaturated bonds, e.g. polyvinyl pyrrolidone, poly(meth)acrylates}
- 9/1641 {obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds, e.g. polyethylene glycol, poloxamers}
- 9/1647 {Polyesters, e.g. poly(lactide-co-glycolide)}
- 9/1652 {Polysaccharides, e.g. alginate, cellulose derivatives; Cyclodextrin (homeopathic globules [A61K 9/1623](#))}
- 9/1658 {Proteins, e.g. albumin, gelatin}
- 9/1664 {Compounds of unknown constitution, e.g. material from plants or animals (oils, fats, waxes, shellac [A61K 9/1617](#))}
- 9/167 . . . {with an outer layer or coating comprising drug; with chemically bound drugs or non-active substances on their surface (with further drug-free outer coating [A61K 9/5073](#))}
- 9/1676 {having a drug-free core with discrete complete coating layer containing drug (adsorbates of liquid drug formulations on inert powders without simultaneous granulation step [A61K 9/141](#); with further drug-free outer coating [A61K 9/5078](#); drug conjugated to non-active particles [A61K 47/6921](#))}
- 9/1682 . . . {Processes}
- 9/1688 {resulting in pure drug agglomerate optionally containing up to 5% of excipient}
- 9/1694 {resulting in granules or microspheres of the matrix type containing more than 5% of excipient}
- 9/19 . . lyophilised {, i.e. freeze-dried, solutions or dispersions (lyophilised products with subsequent particle size reduction [A61K 9/14](#); granules or pellets made by lyophilisation [A61K 9/1682](#); solid oral dosage forms made by lyophilisation [A61K 9/2095](#); lyophilisation additives [A61K 47/00](#))}
- 9/20 . Pills, tablets, {discs, rods ([A61K 9/0004](#), [A61K 9/0007](#), [A61K 9/0056](#), [A61K 9/0065](#) take precedence; for reconstitution of a drink [A61K 9/0095](#))}
- 9/2004 . . {Excipients; Inactive ingredients}
- 9/2009 . . . {Inorganic compounds}
- 9/2013 . . . {Organic compounds, e.g. phospholipids, fats}
- 9/2018 {Sugars, or sugar alcohols, e.g. lactose, mannitol; Derivatives thereof, e.g. polysorbates}
- 9/2022 . . . {Organic macromolecular compounds}
- 9/2027 {obtained by reactions only involving carbon-to-carbon unsaturated bonds, e.g. polyvinyl pyrrolidone, poly(meth)acrylates}
- 9/2031 {obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds, e.g. polyethylene glycol, polyethylene oxide, poloxamers}
- 9/2036 {Silicones; Polysiloxanes}
- 9/204 {Polyesters, e.g. poly(lactide-co-glycolide)}
- 9/2045 {Polyamides; Polyaminoacids, e.g. polylysine}
- 9/205 {Polysaccharides, e.g. alginate, gums; Cyclodextrin}
- 9/2054 {Cellulose; Cellulose derivatives, e.g. hydroxypropyl methylcellulose}
- 9/2059 {Starch, including chemically or physically modified derivatives; Amylose; Amylopectin; Dextrin}
- 9/2063 {Proteins, e.g. gelatin}
- 9/2068 . . . {Compounds of unknown constitution, e.g. material from plants or animals (oils, fats, waxes, shellac [A61K 9/2013](#))}
- 9/2072 . . {characterised by shape, structure or size; Tablets with holes, special break lines or identification marks; Partially coated tablets; Disintegrating flat shaped forms ([A61K 9/0004](#), [A61K 9/0056](#), [A61K 9/0065](#) take precedence)}
- 9/2077 . . . {Tablets comprising drug-containing microparticles in a substantial amount of supporting matrix; Multiparticulate tablets}
- 9/2081 {with microcapsules or coated microparticles according to [A61K 9/50](#)}
- 9/2086 . . . {Layered tablets, e.g. bilayer tablets; Tablets of the type inert core-active coat (active cores with a complete drug-free outer coat [A61K 9/28](#))}
- 9/209 {containing drug in at least two layers or in the core and in at least one outer layer}
- 9/2095 . . {Tabletting processes; Dosage units made by direct compression of powders or specially processed granules, by eliminating solvents, by melt-extrusion, by injection molding, by 3D printing (mechanical aspects [A61J 3/00](#))}
- 9/28 . . Dragees; Coated pills or tablets {, e.g. with film or compression coating ([A61K 9/2072](#) takes precedence, e.g. partially coated tablets [A61K 9/2072](#), coated multilayer tablets [A61K 9/2086](#), tablets with drug-coated core [A61K 9/209](#))}
- 9/2806 . . . {Coating materials}
- 9/2813 {Inorganic compounds}
- 9/282 {Organic compounds, e.g. fats}

9/2826	. . . . .	{Sugars or sugar alcohols, e.g. sucrose; Derivatives thereof}	9/5015	. . . . .	{Organic compounds, e.g. fats, sugars}
9/2833	. . . . .	{Organic macromolecular compounds}	9/5021	. . . . .	{Organic macromolecular compounds}
9/284	. . . . .	{obtained by reactions only involving carbon-to-carbon unsaturated bonds, e.g. polyvinyl pyrrolidone}	9/5026	. . . . .	{obtained by reactions only involving carbon-to-carbon unsaturated bonds, e.g. polyvinyl pyrrolidone, poly(meth)acrylates}
9/2846	. . . . .	{Poly(meth)acrylates}	9/5031	. . . . .	{obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds, e.g. polyethylene glycol, poly(lactide-co-glycolide)}
9/2853	. . . . .	{obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds, e.g. polyethylene glycol, polyethylene oxide, poloxamers, poly(lactide-co-glycolide)}	9/5036	. . . . .	{Polysaccharides, e.g. gums, alginate; Cyclodextrin}
9/286	. . . . .	{Polysaccharides, e.g. gums; Cyclodextrin}	9/5042	. . . . .	{Cellulose; Cellulose derivatives, e.g. phthalate or acetate succinate esters of hydroxypropyl methylcellulose}
9/2866	. . . . .	{Cellulose; Cellulose derivatives, e.g. hydroxypropyl methylcellulose}	9/5047	. . . . .	{Cellulose ethers containing no ester groups, e.g. hydroxypropyl methylcellulose}
9/2873	. . . . .	{Proteins, e.g. gelatin}	9/5052	. . . . .	{Proteins, e.g. albumin}
9/288	. . . . .	{Compounds of unknown constitution, e.g. material from plants or animals (oils, fats, waxes, shellac A61K 9/282)}	9/5057	. . . . .	{Gelatin}
9/2886	. . . . .	{having two or more different drug-free coatings; Tablets of the type inert core-drug layer-inactive layer (of the type active core-drug layer-inactive layer A61K 9/209)}	9/5063	. . . . .	{Compounds of unknown constitution, e.g. material from plants or animals (oils, fats, waxes, shellac A61K 9/5015)}
9/2893	. . . . .	{Tablet coating processes (mechanical aspects A61J 3/06)}	9/5068	. . . . .	{Cell membranes or bacterial membranes enclosing drugs (with additional exogenous lipids A61K 9/127 ; virus envelopes A61K 9/5184)}
9/48	. . . . .	Preparations in capsules, e.g. of gelatin, of chocolate {(A61K 9/0004 takes precedence; bite capsules A61K 9/0056)}	9/5073	. . . . .	{having two or more different coatings optionally including drug-containing subcoatings}
9/4808	. . . . .	{characterised by the form of the capsule or the structure of the filling; Capsules containing small tablets; Capsules with outer layer for immediate drug release (capsules filled with granules or microparticles A61K 9/16 ; filled with microcapsules or coated microparticles A61K 9/50 ; with mixture of different granules, microcapsules, (coated) microparticles A61K 9/5084)}	9/5078	. . . . .	{with drug-free core}
9/4816	. . . . .	{Wall or shell material}	9/5084	. . . . .	{Mixtures of one or more drugs in different galenical forms, at least one of which being granules, microcapsules or (coated) microparticles according to A61K 9/16 or A61K 9/50 , e.g. for obtaining a specific release pattern or for combining different drugs (tablets containing such a mixture A61K 9/2077)}
9/4825	. . . . .	{Proteins, e.g. gelatin (gelatin capsule shells with substantial amounts of other macromolecular substances A61K 9/4816)}	9/5089	. . . . .	{Processes}
9/4833	. . . . .	{Encapsulating processes; Filling of capsules (mechanical aspects A61J 3/07)}	9/5094	. . . . .	{Microcapsules containing magnetic carrier material, e.g. ferrite for drug targeting}
9/4841	. . . . .	{Filling excipients; Inactive ingredients}	9/51	. . . . .	Nanocapsules; {Nanoparticles; (nanotubes A61K 9/0092 ; polymeric micelles A61K 9/1075 ; polymersomes A61K 9/1273 ; pure drug nanoparticles A61K 9/14 ; drug nanoparticles with adsorbed surface modifiers A61K 9/141 ; conjugates, e.g. between drug and non-active nanoparticles, A61K 47/50 ; preparations for <i>in vivo</i> diagnosis A61K 49/00 ; with radioactive substances A61K 51/00)}
9/485	. . . . .	{Inorganic compounds}	9/5107	. . . . .	{Excipients; Inactive ingredients}
9/4858	. . . . .	{Organic compounds}	9/5115	. . . . .	{Inorganic compounds}
9/4866	. . . . .	{Organic macromolecular compounds}	9/5123	. . . . .	{Organic compounds, e.g. fats, sugars}
9/4875	. . . . .	{Compounds of unknown constitution, e.g. material from plants or animals (oils, fats, waxes, shellac A61K 9/4858)}	9/513	. . . . .	{Organic macromolecular compounds; Dendrimers}
9/4883	. . . . .	{Capsule finishing, e.g. dyeing, aromatising, polishing}	9/5138	. . . . .	{obtained by reactions only involving carbon-to-carbon unsaturated bonds, e.g. polyvinyl pyrrolidone, poly(meth)acrylates}
9/4891	. . . . .	{Coated capsules; Multilayered drug free capsule shells (with drug coating for immediate release A61K 9/4808 ; osmotic devices A61K 9/0004)}	9/5146	. . . . .	{obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds, e.g. polyethylene glycol, polyamines, polyanhydrides}
9/50	. . . . .	Microcapsules {having a gas, liquid or semi-solid filling; Solid microparticles or pellets surrounded by a distinct coating layer, e.g. coated microspheres, coated drug crystals (A61K 9/2081 takes precedence; particles with a single coating comprising drug A61K 9/167)}	9/5153	. . . . .	{Polyesters, e.g. poly(lactide-co-glycolide)}
9/5005	. . . . .	{Wall or coating material}			
9/501	. . . . .	{Inorganic compounds}			

- 9/5161 {Polysaccharides, e.g. alginate, chitosan, cellulose derivatives; Cyclodextrin}
- 9/5169 {Proteins, e.g. albumin, gelatin}
- 9/5176 {Compounds of unknown constitution, e.g. material from plants or animals (oils, fats, waxes, shellac [A61K 9/5123](#))}
- 9/5184 {Virus capsids or envelopes enclosing drugs (with additional exogenous lipids [A61K 9/127](#); bacterial membranes [A61K 9/5068](#))}
- 9/5192 {Processes}
- 9/70 Web, sheet or filament bases {; Films; Fibres of the matrix type containing drug (hollow drug-filled fibres [A61K 9/0092](#))}
- 9/7007 . . . {Drug-containing films, membranes or sheets ([A61K 9/0041](#), [A61K 9/0043](#), [A61K 9/006](#), [A61K 9/0063](#) take precedence)}
- 9/7015 . . . {Drug-containing film-forming compositions, e.g. spray-on}
- 9/7023 . . . {Transdermal patches and similar drug-containing composite devices, e.g. cataplasms (galenical aspects of iontophoretic devices [A61K 9/0009](#); microneedle arrays [A61K 9/0021](#); buccal patches [A61K 9/006](#))}
- 9/703 . . . {characterised by shape or structure; Details concerning release liner or backing; Refillable patches; User-activated patches}
- 9/7038 {Transdermal patches of the drug-in-adhesive type, i.e. comprising drug in the skin-adhesive layer}
- 9/7046 {the adhesive comprising macromolecular compounds}
- 9/7053 {obtained by reactions only involving carbon to carbon unsaturated bonds, e.g. polyvinyl, polyisobutylene, polystyrene}
- 9/7061 {Polyacrylates}
- 9/7069 {obtained otherwise than by reactions only involving carbon to carbon unsaturated bonds, e.g. polysiloxane, polyesters, polyurethane, polyethylene oxide}
- 9/7076 {the adhesive comprising ingredients of undetermined constitution or reaction products thereof, e.g. rosin or other plant resins}
- 9/7084 {Transdermal patches having a drug layer or reservoir, and one or more separate drug-free skin-adhesive layers, e.g. between drug reservoir and skin, or surrounding the drug reservoir; Liquid-filled reservoir patches}
- 9/7092 {Transdermal patches having multiple drug layers or reservoirs, e.g. for obtaining a specific release pattern, or for combining different drugs}

31/00 Medicinal preparations containing organic active ingredients

NOTES

- When classifying in groups [A61K 31/00](#) - [A61K 41/00](#) the symbol [A61K 2300/00](#) may be added, using Combination Sets, to indicate a mixture of active ingredients.
- In the preparation of new organic compounds and their use in medicinal preparations, classification is only made in the relevant subclasses [C07C](#) - [C07J](#)

according to the type of compound. However, the inventions dealing with medicinal preparations containing at least two active organic ingredients are always classified in this group in addition to the classification for the type of compounds in [C07C](#) - [C07J](#).

- Attention is drawn to the notes in class [C07](#), particularly to the definition of steroids given in Note (1) following the title of [C07J](#) and to the definition of carbohydrates and sugars given in the notes following the title of [C07H](#).
- Salts and complexes of organic active compounds are always classified according to the free active compounds. If a complex is formed between two or more active compounds, then they are classified according to all compounds forming the salts or complexes followed by the symbol [A61K 2300/00](#) (i.e. as a mixture of active organic compounds). According to the last place rule, organic active compounds forming salts with heavy metals should be classified in [A61K 33/24](#) - [A61K 33/38](#) and not in subgroups [A61K 31/28](#) - [A61K 31/32](#), [A61K 31/555](#) or [A61K 31/714](#).
This does not apply to complexes, as apparent from the [A61K 31/00](#) scheme, wherein the complexes hemin and hematin are classified in [A61K 31/555](#) and cyanocobalamin in [A61K 31/714](#).
- From January 2003 onwards, the EPO copies into CPC the IPC classification of the first document received (family representative). However, blends of active ingredients receive the additional symbol [A61K 2300/00](#) as Combination Set.

- 31/01 . . . Hydrocarbons
- 31/015 . . . carbocyclic
- 31/02 . . . Halogenated hydrocarbons
- 31/025 . . . carbocyclic
- 31/03 . . . aromatic
- 31/035 . . . having aliphatic unsaturation
- 31/04 . . . Nitro compounds
- 31/045 . . . Hydroxy compounds, e.g. alcohols; Salts thereof, e.g. alcoholates
- 31/047 . . . having two or more hydroxy groups, e.g. sorbitol
- 31/05 . . . Phenols
- 31/055 . . . the aromatic ring being substituted by halogen
- 31/06 . . . the aromatic ring being substituted by nitro groups
- 31/065 . . . Diphenyl-substituted acyclic alcohols
- 31/07 . . . Retinol compounds, e.g. vitamin A ([retinoic acids](#) [A61K 31/203](#))
- 31/075 . . . Ethers or acetals
- 31/08 . . . acyclic, e.g. paraformaldehyde
- 31/085 . . . having an ether linkage to aromatic ring nuclear carbon
- 31/09 . . . having two or more such linkages
- 31/095 . . . Sulfur, selenium, or tellurium compounds, e.g. thiols
- 31/10 . . . Sulfides; Sulfoxides; Sulfones
- 31/105 . . . Persulfides ([thiuram disulfides](#) [A61K 31/145](#); [thiosulfonic acids](#) [A61K 31/185](#))
- 31/11 . . . Aldehydes
- 31/115 . . . Formaldehyde
- 31/12 . . . Ketones

- 31/121 . . acyclic
- 31/122 . . having the oxygen directly attached to a ring, e.g. quinones, vitamin K₁, anthralin
- 31/125 . . . Camphor; Nuclear substituted derivatives thereof
- 31/13 . Amines {([A61K 31/04](#) takes precedence)}
- 31/131 . . acyclic
- 31/132 . . having two or more amino groups, e.g. spermidine, putrescine
- 31/133 . . having hydroxy groups, e.g. sphingosine
- 31/135 . . having aromatic rings {, e.g. ketamine, nortriptyline ([methadone A61K 31/137](#))}
- 31/136 . . . having the amino group directly attached to the aromatic ring, e.g. benzeneamine
- 31/137 . . . Arylalkylamines, e.g. amphetamine, epinephrine, salbutamol, ephedrine {or [methadone](#)}
- 31/138 . . . Aryloxyalkylamines, e.g. propranolol, tamoxifen, phenoxybenzamine ([atenolol A61K 31/165](#); [pindolol A61K 31/404](#); [timolol A61K 31/5377](#))
- 31/14 . . Quaternary ammonium compounds, e.g. edrophonium, choline ([betaines A61K 31/205](#))
- 31/145 . . having sulfur, e.g. thiurams (>N—C(S)—S—C(S)—N< and >N—C(S)—S—S—C(S)—N<), Sulfinylamines (—N=SO), Sulfonylamines (—N=SO₂) ([isothiouraea A61K 31/155](#))
- 31/15 . . Oximes (>C=N—O—); Hydrazines (>N—N<); Hydrazones (>N—N=) {; [Imines \(C—N=C\)](#)}
- 31/155 . . Amidines ($\begin{array}{c} \text{I} \\ | \\ \text{—N=C—N—} \end{array}$), e.g. guanidine (H₂N—C(=NH)—NH₂), isourea (N=C(OH)—NH₂), isothiouraea (—N=C(SH)—NH₂)
- 31/16 . Amides, e.g. hydroxamic acids
- 31/164 . . of a carboxylic acid with an aminoalcohol, e.g. ceramides
- 31/165 . . having aromatic rings, e.g. colchicine, atenolol, progabide
- 31/166 . . . having the carbon of a carboxamide group directly attached to the aromatic ring, e.g. procainamide, procarbazine, metoclopramide, labetalol
- 31/167 . . . having the nitrogen of a carboxamide group directly attached to the aromatic ring, e.g. lidocaine, paracetamol
- 31/17 . . having the group >N—C(O)—N< or >N—C(S)—N<, e.g. urea, thiourea, carmustine ([isoureas, isothiouraea A61K 31/155](#); [sulfonylureas A61K 31/64](#))
- 31/175 . . . having the group $\begin{array}{c} \text{I} \\ | \\ \text{>N—C(O)—N—} \end{array}$ or $\begin{array}{c} \text{I} \\ | \\ \text{>N—C(O)—N=N—} \end{array}$, e.g. carbonohydrazides, carbazones, semicarbazides, semicarbazones; Thioanalogues thereof
- 31/18 . . Sulfonamides ([compounds containing a para-N-benzene-sulfonyl-N- group A61K 31/63](#))
- 31/185 . . Acids; Anhydrides, halides or salts thereof, e.g. sulfur acids, imidic, hydrazonic, hydroxamic acids ([hydroxamic acids A61K 31/16](#); [peroxy acids A61K 31/327](#))
- NOTE**
- Cyclic anhydrides are considered to be heterocyclic rings
- 31/19 . . Carboxylic acids, e.g. valproic acid ([salicylic acid A61K 31/60](#))
- 31/191 . . . having two or more hydroxy groups, e.g. gluconic acid
- 31/192 . . . having aromatic groups, e.g. sulindac, 2-arylpropionic acids, ethacrynic acid
- 31/194 . . . having two or more carboxyl groups, e.g. succinic, maleic or phthalic acid
- 31/195 . . . having an amino group
- 31/196 the amino group being directly attached to a ring, e.g. anthranilic acid, mefenamic acid, diclofenac, chlorambucil
- 31/197 the amino and the carboxyl groups being attached to the same acyclic carbon chain, e.g. gamma-aminobutyric acid [GABA], beta-alanine, epsilon-aminocaproic acid, pantothenic acid ([carnitine A61K 31/205](#))
- 31/198 Alpha-aminoacids, e.g. alanine, edetic acids [EDTA], ([betaine A61K 31/205](#); [proline A61K 31/401](#); [tryptophan A61K 31/405](#); [histidine A61K 31/4172](#); [peptides not degraded to individual aminoacids A61K 38/00](#))
- 31/20 . . . having a carboxyl group bound to a chain of seven or more carbon atoms, e.g. stearic, palmitic, arachidic acids
- 31/201 having one or two double bonds, e.g. oleic, linoleic acids
- 31/202 having three or more double bonds, e.g. linolenic ([eicosanoids, e.g. leukotrienes A61K 31/557](#))
- 31/203 Retinoic acids ([Salts thereof](#))
- 31/205 . . Amine addition salts of organic acids; Inner quaternary ammonium salts, e.g. betaine, carnitine
- 31/21 . Esters, e.g. nitroglycerine, selenocyanates
- 31/215 . . of carboxylic acids
- 31/216 . . . of acids having aromatic rings, e.g. benactizyne, clofibrate
- 31/22 . . . of acyclic acids, e.g. pravastatin
- 31/221 with compounds having an amino group, e.g. acetylcholine, acetylcarnitine
- 31/222 with compounds having aromatic groups, e.g. dipivefrine, ibopamine
- 31/223 of alpha-aminoacids
- 31/225 Polycarboxylic acids
- 31/23 of acids having a carboxyl group bound to a chain of seven or more carbon atoms
- 31/231 having one or two double bonds
- 31/232 having three or more double bonds, e.g. etretinate
- 31/235 . . . having an aromatic ring attached to a carboxyl group
- 31/24 having an amino or nitro group

- 31/245 Amino benzoic acid types, e.g. procaine, novocaine ([salicylic acid esters A61K 31/60](#))
- 31/25 . . . with polyoxyalkylated alcohols, e.g. esters of polyethylene glycol
- 31/255 . . of sulfoxy acids or sulfur analogues thereof
- 31/26 . . Cyanate or isocyanate esters; Thiocyanate or isothiocyanate esters
- 31/265 . . of carbonic, thiocarbonic, or thiocarboxylic acids, e.g. thioacetic acid, xanthogenic acid, trithiocarbonic acid
- 31/27 . . of carbamic or thiocarbamic acids, meprobamate, carbachol, neostigmine
- 31/275 . Nitriles; Isonitriles
- 31/277 . . having a ring, e.g. verapamil
- 31/28 . Compounds containing heavy metals
- 31/282 . . Platinum compounds
- 31/285 . . Arsenic compounds
- 31/29 . . Antimony or bismuth compounds
- 31/295 . . Iron group metal compounds
- 31/30 . . Copper compounds
- 31/305 . . Mercury compounds
- 31/31 . . . containing nitrogen
- 31/315 . . Zinc compounds
- 31/32 . . Tin compounds
- 31/325 . Carbamic acids; Thiocarbamic acids; Anhydrides or salts thereof ([thiurams A61K 31/145](#))
- 31/327 . Peroxy compounds, e.g. hydroperoxides, peroxides, peroxyacids
- 31/33 . Heterocyclic compounds
- 31/335 . . having oxygen as the only ring hetero atom, e.g. fungichromin
- 31/336 . . . having three-membered rings, e.g. oxirane, fumagillin
- 31/337 . . . having four-membered rings, e.g. taxol
- 31/34 . . . having five-membered rings with one oxygen as the only ring hetero atom, e.g. isosorbide
- 31/341 not condensed with another ring, e.g. ranitidine, furosemide, bufetolol, muscarine
- 31/343 condensed with a carbocyclic ring, e.g. coumaran, bufuralol, befunolol, clobenfurol, amiodarone
- 31/345 Nitrofurans ([nitrofurantoin A61K 31/4178](#))
- 31/35 . . . having six-membered rings with one oxygen as the only ring hetero atom
- 31/351 not condensed with another ring
- 31/352 condensed with carbocyclic rings, e.g. cannabinoids, methantheline
- 31/353 3,4-Dihydrobenzopyrans, e.g. chroman, catechin
- 31/355 Tocopherols, e.g. vitamin E
- 31/357 . . . having two or more oxygen atoms in the same ring, e.g. crown ethers, guanadrel
- 31/36 Compounds containing methylenedioxyphenyl groups, e.g. sesamin
- 31/365 . . . Lactones
- 31/366 having six-membered rings, e.g. delta-lactones
- 31/37 Coumarins, e.g. psoralen
- 31/375 Ascorbic acid, i.e. vitamin C; Salts thereof
- 31/38 . . having sulfur as a ring hetero atom
- 31/381 . . . having five-membered rings
- 31/382 . . . having six-membered rings, e.g. thioxanthenes ([thiotixene A61K 31/496](#))
- 31/385 . . . having two or more sulfur atoms in the same ring
- 31/39 . . . having oxygen in the same ring
- 31/395 . . having nitrogen as a ring hetero atom, e.g. guanethidine or rifamycins
- WARNING**
- Group [A61K 31/395](#) is impacted by reclassification into group [A61K 31/5545](#). Groups [A61K 31/395](#) and [A61K 31/5545](#) should be considered in order to perform a complete search.
- 31/396 . . . having three-membered rings, e.g. aziridine
- 31/397 . . . having four-membered rings, e.g. azetidine
- 31/40 . . . having five-membered rings with one nitrogen as the only ring hetero atom, e.g. sulpiride, succinimide, tolmetin, buflomedil
- 31/401 Proline; Derivatives thereof, e.g. captopril
- 31/4015 having oxo groups directly attached to the heterocyclic ring, e.g. piracetam, ethosuximide
- 31/402 1-aryl substituted, e.g. piretanide
- 31/4025 not condensed and containing further heterocyclic rings, e.g. cromakalim
- 31/403 condensed with carbocyclic rings, e.g. carbazole
- 31/4035 Isoindoles, e.g. phthalimide
- 31/404 Indoles, e.g. pindolol
- 31/4045 Indole-alkylamines; Amides thereof, e.g. serotonin, melatonin
- 31/405 Indole-alkanecarboxylic acids; Derivatives thereof, e.g. tryptophan, indomethacin
- 31/407 condensed with other heterocyclic ring systems, e.g. ketorolac, physostigmine
- 31/409 having four such rings, e.g. porphine derivatives, bilirubin, biliverdine ([hemin, hematin A61K 31/555](#))
- 31/41 . . . having five-membered rings with two or more ring hetero atoms, at least one of which being nitrogen, e.g. tetrazole
- 31/415 1,2-Diazoles
- 31/4152 having oxo groups directly attached to the heterocyclic ring, e.g. antipyrine, phenylbutazone, sulfipyrazone
- 31/4155 non condensed and containing further heterocyclic rings
- 31/416 condensed with carbocyclic ring systems, e.g. indazole
- 31/4162 condensed with heterocyclic ring systems
- 31/4164 1,3-Diazoles
- 31/4166 having oxo groups directly attached to the heterocyclic ring, e.g. phenytoin
- 31/4168 having a nitrogen attached in position 2, e.g. clonidine
- 31/417 Imidazole-alkylamines, e.g. histamine, phenolamine
- 31/4172 Imidazole-alkanecarboxylic acids, e.g. histidine
- 31/4174 Arylalkylimidazoles, e.g. oxymetazolin, naphazoline, miconazole

- 31/4178 not condensed 1,3-diazoles and containing further heterocyclic rings, e.g. pilocarpine, nitrofurantoin
- 31/4184 condensed with carbocyclic rings, e.g. benzimidazoles
- 31/4188 condensed with other heterocyclic ring systems, e.g. biotin, sorbinil
- 31/4192 1,2,3-Triazoles
- 31/4196 1,2,4-Triazoles
- 31/42 Oxazoles
- 31/421 1,3-Oxazoles, e.g. pemoline, trimethadione
- 31/422 not condensed and containing further heterocyclic rings
- 31/423 condensed with carbocyclic rings
- 31/424 condensed with heterocyclic ring systems, e.g. clavulanic acid
- 31/4245 Oxadiazoles
- 31/425 Thiazoles
- 31/426 1,3-Thiazoles
- 31/427 not condensed and containing further heterocyclic rings
- 31/428 condensed with carbocyclic rings
- 31/429 condensed with heterocyclic ring systems
- 31/43 Compounds containing 4-thia-1-azabicyclo [3.2.0] heptane ring systems, i.e. compounds containing a ring system of the formula
- , e.g.
- penicillins, penems
- 31/431 containing further heterocyclic rings, e.g. ticarcillin, azlocillin, oxacillin
- 31/433 Thidiazoles
- 31/435 having six-membered rings with one nitrogen as the only ring hetero atom
- 31/4353 ortho- or peri-condensed with heterocyclic ring systems
- 31/4355 the heterocyclic ring system containing a five-membered ring having oxygen as a ring hetero atom
- 31/436 the heterocyclic ring system containing a six-membered ring having oxygen as a ring hetero atom, e.g. rapamycin
- 31/4365 the heterocyclic ring system having sulfur as a ring hetero atom, e.g. ticlopidine
- 31/437 the heterocyclic ring system containing a five-membered ring having nitrogen as a ring hetero atom, e.g. indolizine, beta-carboline
- 31/4375 the heterocyclic ring system containing a six-membered ring having nitrogen as a ring heteroatom, e.g. quinolizines, naphthyridines, berberine, vincamine
- 31/438 The ring being spiro-condensed with carbocyclic or heterocyclic ring systems
- 31/439 the ring forming part of a bridged ring system, e.g. quinuclidine (8-azabicyclo [3.2.1] octanes [A61K 31/46](#))
- 31/44 Non condensed pyridines; Hydrogenated derivatives thereof
- 31/4402 only substituted in position 2, e.g. pheniramine, bisacodyl
- 31/4406 only substituted in position 3, e.g. zimeldine ([nicotinic acid A61K 31/455](#))
- 31/4409 only substituted in position 4, e.g. isoniazid, iproniazid
- 31/4412 having oxo groups directly attached to the heterocyclic ring
- 31/4415 Pyridoxine, i.e. Vitamin B₆ ([pyridoxal phosphate A61K 31/675](#))
- 31/4418 having a carbocyclic group directly attached to the heterocyclic ring, e.g. cyproheptadine
- 31/4422 1,4-Dihydropyridines, e.g. nifedipine, nicardipine
- 31/4425 Pyridinium derivatives, e.g. pralidoxime, pyridostigmine
- 31/4427 containing further heterocyclic ring systems
- 31/443 containing a five-membered ring with oxygen as a ring hetero atom
- 31/4433 containing a six-membered ring with oxygen as a ring hetero atom
- 31/4436 containing a heterocyclic ring having sulfur as a ring hetero atom
- 31/4439 containing a five-membered ring with nitrogen as a ring hetero atom, e.g. omeprazole ([nicotine A61K 31/465](#))
- 31/444 containing a six-membered ring with nitrogen as a ring heteroatom, e.g. amrinone
- 31/445 Non condensed piperidines, e.g. piperocaine
- 31/4453 only substituted in position 1, e.g. propipocaine, dipiperodon
- 31/4458 only substituted in position 2, e.g. methylphenidate
- 31/4462 only substituted in position 3
- 31/4465 only substituted in position 4
- 31/4468 having a nitrogen directly attached in position 4, e.g. clebopride, fentanyl
- 31/45 having oxo groups directly attached to the heterocyclic ring, e.g. cycloheximide
- 31/451 having a carbocyclic group directly attached to the heterocyclic ring, e.g. glutethimide, meperidine, loperamide, phencyclidine, piminodine
- 31/4515 having a butyrophenone group in position 1, e.g. haloperidol ([pipamperone A61K 31/4545](#))
- 31/452 Piperidinium derivatives ([pancuronium A61K 31/58](#))
- 31/4523 containing further heterocyclic ring systems
- 31/4525 containing a five-membered ring with oxygen as a ring hetero atom
- 31/453 containing a six-membered ring with oxygen as a ring hetero atom
- 31/4535 containing a heterocyclic ring having sulfur as a ring hetero atom, e.g. pizotifen
- 31/454 containing a five-membered ring with nitrogen as a ring hetero atom, e.g. pimozone, domperidone
- 31/4545 containing a six-membered ring with nitrogen as a ring hetero atom, e.g. pipamperone, anabesine

31/455	. . . . . Nicotinic acids, e.g. niacin; Derivatives thereof, e.g. esters, amides	31/502	. . . . . ortho- or peri-condensed with carbocyclic ring systems, e.g. cinnoline, phthalazine
31/46	. . . . . 8-Azabicyclo [3.2.1] octane; Derivatives thereof, e.g. atropine, cocaine	31/5025	. . . . . ortho- or peri-condensed with heterocyclic ring systems
31/465	. . . . . Nicotine; Derivatives thereof	31/503	. . . . . spiro-condensed
31/47	. . . . . Quinolines; Isoquinolines	31/504	. . . . . forming part of bridged ring systems
31/4704	. . . . . 2-Quinolines, e.g. carbostyryl	31/505	. . . . . Pyrimidines; Hydrogenated pyrimidines, e.g. trimethoprim
31/4706	. . . . . 4-Aminoquinolines; 8-Aminoquinolines, e.g. chloroquine, primaquine	31/506	. . . . . not condensed and containing further heterocyclic rings
31/4709	. . . . . Non-condensed quinolines and containing further heterocyclic rings	31/51	. . . . . Thiamines, e.g. vitamin B ₁
31/472	. . . . . Non-condensed isoquinolines, e.g. papaverine	31/513	. . . . . having oxo groups directly attached to the heterocyclic ring, e.g. cytosine
31/4725	. . . . . containing further heterocyclic rings	31/515	. . . . . Barbituric acids; Derivatives thereof, e.g. sodium pentobarbital
31/473	. . . . . ortho- or peri-condensed with carbocyclic ring systems, e.g. acridines, phenanthridines	31/517	. . . . . ortho- or peri-condensed with carbocyclic ring systems, e.g. quinazoline, perimidine
31/4738	. . . . . ortho- or peri-condensed with heterocyclic ring systems	31/519	. . . . . ortho- or peri-condensed with heterocyclic rings
31/4741	. . . . . condensed with ring systems having oxygen as a ring hetero atom, e.g. tubocurarine derivatives, noscapine, bicuculline	31/52	. . . . . Purines, e.g. adenine
31/4743	. . . . . condensed with ring systems having sulfur as a ring hetero atom	31/522	. . . . . having oxo groups directly attached to the heterocyclic ring, e.g. hypoxanthine, guanine, acyclovir
31/4745	. . . . . condensed with ring systems having nitrogen as a ring hetero atom, e.g. phenantrolines (yohimbine derivatives , vinblastine A61K 31/475 ; ergoline derivatives A61K 31/48)	31/525	. . . . . Isoalloxazines, e.g. riboflavins, vitamin B ₂
31/4747	. . . . . spiro-condensed	31/527	. . . . . spiro-condensed
31/4748	. . . . . forming part of bridged ring systems (strychnine A61K 31/475 ; morphinan derivatives A61K 31/485)	31/529	. . . . . forming part of bridged ring systems
31/475	. . . . . having an indole ring, e.g. yohimbine, reserpine, strychnine, vinblastine (vincamine A61K 31/4375)	31/53	. . . . . having six-membered rings with three nitrogens as the only ring hetero atoms, e.g. chlorazanic, melamine (melarsoprol A61K 31/555 (; with four nitrogen atoms A61K 31/495))
31/48	. . . . . Ergoline derivatives, e.g. lysergic acid, ergotamine	31/535	. . . . . having six-membered rings with at least one nitrogen and one oxygen as the ring hetero atoms, e.g. 1,2-oxazines
31/485	. . . . . Morphinan derivatives, e.g. morphine, codeine	31/5355	. . . . . Non-condensed oxazines and containing further heterocyclic rings
31/49	. . . . . Cinchonan derivatives, e.g. quinine	31/536	. . . . . ortho- or peri-condensed with carbocyclic ring systems
31/495	. . . . . having six-membered rings with two {or more} nitrogen atoms as the only ring heteroatoms, e.g. piperazine {or tetrazines } (A61K 31/48 takes precedence (; with three nitrogen atoms A61K 31/53))	31/5365	. . . . . ortho- or peri-condensed with heterocyclic ring systems
31/496	. . . . . Non-condensed piperazines containing further heterocyclic rings, e.g. rifampin, thiothixene	31/537	. . . . . spiro-condensed or forming part of bridged ring systems
31/4965	. . . . . Non-condensed pyrazines	31/5375	. . . . . 1,4-Oxazines, e.g. morpholine
31/497	. . . . . containing further heterocyclic rings	31/5377	. . . . . not condensed and containing further heterocyclic rings, e.g. timolol
31/498	. . . . . Pyrazines or piperazines ortho- and peri-condensed with carbocyclic ring systems, e.g. quinoxaline, phenazine	31/538	. . . . . ortho- or peri-condensed with carbocyclic ring systems
31/4985	. . . . . Pyrazines or piperazines ortho- or peri-condensed with heterocyclic ring systems	31/5383	. . . . . ortho- or peri-condensed with heterocyclic ring systems
31/499	. . . . . Spiro-condensed pyrazines or piperazines	31/5386	. . . . . spiro-condensed or forming part of bridged ring systems
31/4995	. . . . . Pyrazines or piperazines forming part of bridged ring systems	31/539	. . . . . having two or more oxygen atoms in the same ring, e.g. dioxazines
31/50	. . . . . Pyridazines; Hydrogenated pyridazines	31/5395	. . . . . having two or more nitrogen atoms in the same ring, e.g. oxadiazines
31/501	. . . . . not condensed and containing further heterocyclic rings	31/54	. . . . . having six-membered rings with at least one nitrogen and one sulfur as the ring hetero atoms, e.g. sulthiame
		31/541	. . . . . Non-condensed thiazines containing further heterocyclic rings
		31/5415	. . . . . ortho- or peri-condensed with carbocyclic ring systems, e.g. phenothiazine, chlorpromazine, piroxicam

- 31/542 ortho- or peri-condensed with heterocyclic ring systems
- 31/545 Compounds containing 5-thia-1-azabicyclo [4.2.0] octane ring systems, i.e. compounds containing a ring system of the formula:
-
- , e.g. cephalosporins, {cefaclor, or cephalaxine}
- 31/546 containing further heterocyclic rings, e.g. cephalothin
- 31/547 spiro-condensed or forming part of bridged ring systems
- 31/548 having two or more sulfur atoms in the same ring
- 31/549 having two or more nitrogen atoms in the same ring, e.g. hydrochlorothiazide
- 31/55 having seven-membered rings, e.g. azelastine, pentylenetetrazole
- 31/551 having two nitrogen atoms, e.g. dilazep
- 31/5513 1,4-Benzodiazepines, e.g. diazepam {or clozapine}
- 31/5517 condensed with five-membered rings having nitrogen as a ring hetero atom, e.g. imidazobenzodiazepines, triazolam
- 31/553 having at least one nitrogen and one oxygen as ring hetero atoms, e.g. loxapine, staurosporine
- 31/554 having at least one nitrogen and one sulfur as ring hetero atoms, e.g. chlothiapine, diltiazem
- 31/5545 . . . {having eight-membered rings not containing additional condensed or non-condensed nitrogen-containing 3-7 membered rings}

NOTE

This subgroup does not cover N-containing eight-membered rings which also contain additional condensed and non-condensed nitrogen containing 3-7 membered rings, which are covered by subgroups [A61K 31/396](#) - [A61K 31/554](#).

WARNING

Group [A61K 31/5545](#) is incomplete pending reclassification of documents from group [A61K 31/395](#).

Groups [A61K 31/395](#) and [A61K 31/5545](#) should be considered in order to perform a complete search.

- 31/56 . Compounds containing cyclopenta[a]hydrophenanthrene ring systems; Derivatives thereof, e.g. steroids
- NOTE**
- Attention is drawn to Note (1) following the title of subclass [C07J](#) which explains what is covered by the term "steroids"
- 31/565 . . . not substituted in position 17 beta by a carbon atom, e.g. estrane, estradiol
- 31/566 . . . having an oxo group in position 17, e.g. estrone
- 31/567 . . . substituted in position 17 alpha, e.g. mestranol, norethandrolone
- 31/568 . . . substituted in positions 10 and 13 by a chain having at least one carbon atom, e.g. androstanes, e.g. testosterone
- 31/5685 having an oxo group in position 17, e.g. androsterone
- 31/569 substituted in position 17 alpha, e.g. ethisterone
- 31/57 . . substituted in position 17 beta by a chain of two carbon atoms, e.g. pregnane or progesterone
- 31/573 . . . substituted in position 21, e.g. cortisone, dexamethasone, prednisone or aldosterone
- 31/575 . . substituted in position 17 beta by a chain of three or more carbon atoms, e.g. cholane, cholestane, ergosterol, sitosterol
- 31/58 . . containing heterocyclic rings, e.g. danazol, stanozolol, pancuronium or digitogenin ([digitoxin A61K 31/7048](#))
- 31/585 . . . containing lactone rings, e.g. oxandrolone, bufalin
- 31/59 . Compounds containing 9, 10- seco-cyclopenta[a]hydrophenanthrene ring systems
- 31/592 . . 9,10-Secoergostane derivatives, e.g. ergocalciferol, i.e. vitamin D₂
- 31/593 . . 9,10-Secocholestane derivatives, e.g. cholecalciferol, i.e. vitamin D₃
- 31/60 . Salicylic acid; Derivatives thereof
- 31/603 . . having further aromatic rings, e.g. diflunisal
- 31/606 . . having amino groups
- 31/609 . . Amides, e.g. salicylamide {(labetalol, metoclopramide [A61K 31/166](#))}
- 31/612 . . having the hydroxy group in position 2 esterified, e.g. salicylsulfuric acid ([fosfosal A61K 31/661](#))
- 31/616 . . . by carboxylic acids, e.g. acetylsalicylic acid
- 31/618 . . having the carboxyl group in position 1 esterified, e.g. salsalate
- 31/621 . . . having the hydroxy group in position 2 esterified, e.g. benorylate
- 31/625 . . having heterocyclic substituents, e.g. 4-salicyloylmorpholine, ([sulfasalazine A61K 31/635](#))
- 31/63 . Compounds containing para-N-benzenesulfonyl-N-groups, e.g. sulfanilamide, p-nitrobenzenesulfonyl hydrazide
- 31/635 . . having a heterocyclic ring, e.g. sulfadiazine
- 31/64 . Sulfonyleureas, e.g. glibenclamide, tolbutamide, chlorpropamide
- 31/65 . Tetracyclines
- 31/655 . Azo (—N=N—), diazo (=N₂), azoxy (>N—O—N< or N(=O)—N<), azido (—N₃) or diazoamino (—N=N—N<) compounds
- 31/66 . Phosphorus compounds

- 31/661 . . Phosphorus acids or esters thereof not having P—C bonds, e.g. fosfosal, dichlorvos, malathion {or mevinphos}
- 31/6615 . . . Compounds having two or more esterified phosphorus acid groups, e.g. inositol triphosphate, phytic acid
- 31/662 . . Phosphorus acids or esters thereof having P—C bonds, e.g. foscarnet, trichlorfon
- 31/663 . . . Compounds having two or more phosphorus acid groups or esters thereof, e.g. clodronic acid, pamidronic acid
- 31/664 . . Amides of phosphorus acids
- 31/665 . . having oxygen as a ring hetero atom, e.g. fosfomycin
- 31/67 . . having sulfur as a ring hetero atom
- 31/675 . . having nitrogen as a ring hetero atom, e.g. pyridoxal phosphate
- 31/683 . . Diesters of a phosphorus acid with two hydroxy compounds, e.g. phosphatidylinositols
- 31/685 . . . one of the hydroxy compounds having nitrogen atoms, e.g. phosphatidylserine, lecithin
- 31/688 . . . both hydroxy compounds having nitrogen atoms, e.g. sphingomyelins
- 31/69 . Boron compounds
- 31/695 . Silicon compounds
- 31/70 . Carbohydrates; Sugars; Derivatives thereof (sorbitol [A61K 31/047](#))
- NOTE**
- In this group, the expressions are used with the meanings indicated in Note (3) following the title of the subclass [C07H](#)
- 31/7004 . . Monosaccharides having only carbon, hydrogen and oxygen atoms
- 31/7008 . . Compounds having an amino group directly attached to a carbon atom of the saccharide radical, e.g. D-galactosamine, ranimustine
- 31/7012 . . Compounds having a free or esterified carboxyl group attached, directly or through a carbon chain, to a carbon atom of the saccharide radical, e.g. glucuronic acid, neuraminic acid ([gluconic acid A61K 31/191](#); [ascorbic acid A61K 31/375](#))
- 31/7016 . . Disaccharides, e.g. lactose, lactulose ([lactobionic acid A61K 31/7032](#))
- 31/702 . . Oligosaccharides, i.e. having three to five saccharide radicals attached to each other by glycosidic linkages
- 31/7024 . . Esters of saccharides
- 31/7028 . . Compounds having saccharide radicals attached to non-saccharide compounds by glycosidic linkages
- 31/7032 . . . attached to a polyol, i.e. compounds having two or more free or esterified hydroxy groups, including the hydroxy group involved in the glycosidic linkage, e.g. monoglucosyldiacylglycerides, lactobionic acid, gangliosides
- 31/7034 . . . attached to a carbocyclic compound, e.g. phloridzin
- 31/7036 having at least one amino group directly attached to the carbocyclic ring, e.g. streptomycin, gentamycin, amikacin, validamycin, fortimicins
- 31/704 attached to a condensed carbocyclic ring system, e.g. sennosides, thiocolchicosides, escin, daunorubicin {(digitoxin [A61K 31/7048](#))}
- 31/7042 . . Compounds having saccharide radicals and heterocyclic rings
- 31/7048 . . . having oxygen as a ring hetero atom, e.g. leucoglucosan, hesperidin, erythromycin, nystatin {, digitoxin or digoxin}
- 31/7052 . . . having nitrogen as a ring hetero atom, e.g. nucleosides, nucleotides
- 31/7056 containing five-membered rings with nitrogen as a ring hetero atom
- 31/706 containing six-membered rings with nitrogen as a ring hetero atom
- 31/7064 containing condensed or non-condensed pyrimidines
- 31/7068 having oxo groups directly attached to the pyrimidine ring, e.g. cytidine, cytidylic acid
- 31/7072 having two oxo groups directly attached to the pyrimidine ring, e.g. uridine, uridylic acid, thymidine, zidovudine
- 31/7076 containing purines, e.g. adenosine, adenylic acid
- 31/708 having oxo groups directly attached to the purine ring system, e.g. guanosine, guanylic acid
- 31/7084 . . Compounds having two nucleosides or nucleotides, e.g. nicotinamide-adenine dinucleotide, flavine-adenine dinucleotide
- 31/7088 . . Compounds having three or more nucleosides or nucleotides
- 31/7105 . . . Natural ribonucleic acids, i.e. containing only riboses attached to adenine, guanine, cytosine or uracil and having 3'-5' phosphodiester links
- 31/711 . . . Natural deoxyribonucleic acids, i.e. containing only 2'-deoxyriboses attached to adenine, guanine, cytosine or thymine and having 3'-5' phosphodiester links
- 31/7115 . . . Nucleic acids or oligonucleotides having modified bases, i.e. other than adenine, guanine, cytosine, uracil or thymine
- 31/712 . . . Nucleic acids or oligonucleotides having modified sugars, i.e. other than ribose or 2'-deoxyribose
- 31/7125 . . . Nucleic acids or oligonucleotides having modified internucleoside linkage, i.e. other than 3'-5' phosphodiester
- 31/713 . . . Double-stranded nucleic acids or oligonucleotides
- 31/7135 . . Compounds containing heavy metals
- 31/714 . . . Cobalamins, e.g. cyanocobalamin, i.e. vitamin B₁₂
- 31/715 . . Polysaccharides, i.e. having more than five saccharide radicals attached to each other by glycosidic linkages; Derivatives thereof, e.g. ethers, esters
- 31/716 . . . Glucans
- 31/717 . . . Celluloses
- 31/718 Starch or degraded starch, e.g. amylose, amylopectin
- 31/719 Pullulans

- 31/721 Dextrans
 31/722 Chitin, chitosan
 31/723 Xanthans
 31/724 Cyclodextrins
 31/726 . . . Glycosaminoglycans, i.e. mucopolysaccharides (chondroitin sulfate, dermatan sulfate [A61K 31/737](#))
 31/727 Heparin; Heparan
 31/728 Hyaluronic acid
 31/729 . . . Agar; Agarose; Agaropectin
 31/731 . . . Carrageenans
 31/732 . . . Pectin
 31/733 . . . Fructosans, e.g. inulin
 31/734 . . . Alginic acid
 31/736 . . . Glucomannans or galactomannans, e.g. locust bean gum, guar gum
 31/737 . . . Sulfated polysaccharides, e.g. chondroitin sulfate, dermatan sulfate ([A61K 31/727](#) takes precedence)
 31/738 . . . Cross-linked polysaccharides
 31/739 . . . Lipopolysaccharides
 31/74 . Synthetic polymeric materials
 31/745 . . Polymers of hydrocarbons
 31/75 . . . of ethene
 31/755 . . Polymers containing halogen
 31/76 . . . of vinyl chloride
 31/765 . . Polymers containing oxygen
 31/77 . . . of oxiranes
 31/775 . . . Phenolic resins
 31/78 . . . of acrylic acid or derivatives thereof
 31/785 . . Polymers containing nitrogen
 31/787 . . . containing heterocyclic rings having nitrogen as a ring hetero atom
 31/79 Polymers of vinyl pyrrolidone
 31/795 . . Polymers containing sulfur
 31/80 . . Polymers containing hetero atoms not provided for in groups [A61K 31/755](#) - [A61K 31/795](#)
- 33/00 Medicinal preparations containing inorganic active ingredients**
 33/02 . Ammonia; Compounds thereof
 33/04 . Sulfur, selenium or tellurium; Compounds thereof
 33/06 . Aluminium, calcium or magnesium; Compounds thereof {, e.g. clay}
 33/08 . . Oxides; Hydroxides
 33/10 . . Carbonates; Bicarbonates
 33/12 . . Magnesium silicate
 33/14 . Alkali metal chlorides; Alkaline earth metal chlorides
 33/16 . Fluorine compounds
 33/18 . Iodine; Compounds thereof
 33/20 . Elemental chlorine; Inorganic compounds releasing chlorine
 33/22 . Boron compounds
- 33/24 . Heavy metals; Compounds thereof
WARNING
 Group [A61K 33/24](#) is impacted by reclassification into groups [A61K 33/241](#), [A61K 33/242](#), [A61K 33/243](#), [A61K 33/244](#) and [A61K 51/00](#) - [A61K 51/1296](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- 33/241 . . Lead; Compounds thereof
WARNING
 Group [A61K 33/241](#) is incomplete pending reclassification of documents from group [A61K 33/24](#).
 Groups [A61K 33/24](#) and [A61K 33/241](#) should be considered in order to perform a complete search.
- 33/242 . . Gold; Compounds thereof
WARNING
 Group [A61K 33/242](#) is incomplete pending reclassification of documents from group [A61K 33/24](#).
 Groups [A61K 33/24](#) and [A61K 33/242](#) should be considered in order to perform a complete search.
- 33/243 . . Platinum; Compounds thereof
WARNING
 Group [A61K 33/243](#) is incomplete pending reclassification of documents from group [A61K 33/24](#).
 Groups [A61K 33/24](#) and [A61K 33/243](#) should be considered in order to perform a complete search.
- 33/244 . . Lanthanides; Compounds thereof (medicinal preparations containing radioactive lanthanides for use in therapy or testing *in vivo* [A61K 51/00](#))
WARNING
 Group [A61K 33/244](#) is incomplete pending reclassification of documents from group [A61K 33/24](#).
 Groups [A61K 33/24](#) and [A61K 33/244](#) should be considered in order to perform a complete search.
- 33/245 . . Bismuth; Compounds thereof
 33/26 . . Iron; Compounds thereof
 33/28 . . Mercury; Compounds thereof
 33/30 . . Zinc; Compounds thereof
 33/32 . . Manganese; Compounds thereof
 33/34 . . Copper; Compounds thereof
 33/36 . . Arsenic; Compounds thereof
 33/38 . . Silver; Compounds thereof
 33/40 . Peroxides
 33/42 . Phosphorus; Compounds thereof
 33/44 . Elemental carbon, e.g. charcoal, carbon black

35/00	Medicinal preparations containing materials or reaction products thereof with undetermined constitution		
	NOTES		
	1. In this group, classification is made for each active component or material. For each active component or material, classification is then made in the last appropriate place.		
	2. When classifying in this group, classification is also made in group B01D 15/08 insofar as subject matter of general interest relating to chromatography is concerned.		
35/02	. from inanimate materials (carbon A61K 33/44)	35/22	. . Urine; Urinary tract, e.g. kidney or bladder; Intraglomerular mesangial cells; Renal mesenchymal cells; Adrenal gland
35/04	. . Tars; Bitumens; Mineral oils; Ammonium bituminosulfonate	35/24	. . Mucus; Mucous glands; Bursa; Synovial fluid; Arthral fluid; Excreta; Spinal fluid (saliva A61K 35/38)
35/06	. . . Mineral oils, e.g. paraffinic oils or aromatic oils based on aromatic hydrocarbons	35/26	. . Lymph; Lymph nodes; Thymus; Spleen; Splenocytes; Thymocytes
35/08	. . Mineral waters; Sea water	35/28	. . Bone marrow; Haematopoietic stem cells; Mesenchymal stem cells of any origin, e.g. adipose-derived stem cells
35/10	. . Peat; Amber; Turf; Humus	35/30	. . Nerves; Brain; Eyes; Corneal cells; Cerebrospinal fluid; Neuronal stem cells; Neuronal precursor cells; Glial cells; Oligodendrocytes; Schwann cells; Astroglia; Astrocytes; Choroid plexus; Spinal cord tissue
2035/11	. {Medicinal preparations comprising living procariotic cells}	35/32	. . Bones; Osteocytes; Osteoblasts; Tendons; Tenocytes; Teeth; Odontoblasts; Cartilage; Chondrocytes; Synovial membrane
2035/115	. . {Probiotics}	35/33	. . Fibroblasts
35/12	. Materials from mammals; Compositions comprising non-specified tissues or cells; Compositions comprising non-embryonic stem cells; Genetically modified cells (vaccines or medicinal preparations containing antigens or antibodies A61K 39/00)	35/34	. . Muscles; Smooth muscle cells; Heart; Cardiac stem cells; Myoblasts; Myocytes; Cardiomyocytes (vascular smooth muscle A61K 35/44)
	NOTE	35/35	. . Fat tissue; Adipocytes; Stromal cells; Connective tissues (adipose-derived stem cells A61K 35/28 ; collagen A61K 38/39)
	If the cells are characterised, classification is made in the group covering the corresponding tissue or tissue of origin.	35/36	. . Skin; Hair; Nails; Sebaceous glands; Cerumen; Epidermis; Epithelial cells; Keratinocytes; Langerhans cells; Ectodermal cells (islets of Langerhans A61K 35/39)
2035/122	. . {for inducing tolerance or suppression of immune responses}	35/37	. . Digestive system
2035/124	. . {the cells being hematopoietic, bone marrow derived or blood cells}	35/38	. . . Stomach; Intestine; Goblet cells; Oral mucosa; Saliva
2035/126	. . {Immunoprotecting barriers, e.g. jackets, diffusion chambers}	35/39	. . . Pancreas; Islets of Langerhans (Langerhans cells of epidermis A61K 35/36)
2035/128	. . . {capsules, e.g. microcapsules}	35/407	. . . Liver; Hepatocytes
35/13	. . Tumour cells, irrespective of tissue of origin (tumour vaccines A61K 39/00)	35/413	. . . Gall bladder; Bile
35/14	. . Blood; Artificial blood (perfluorocarbons A61K 31/02 ; umbilical cord blood A61K 35/51 ; haemoglobin A61K 38/42)	35/42	. . Respiratory system, e.g. lungs, bronchi or lung cells
35/15	. . . Cells of the myeloid line, e.g. granulocytes, basophils, eosinophils, neutrophils, leucocytes, monocytes, macrophages or mast cells; Myeloid precursor cells; Antigen-presenting cells, e.g. dendritic cells (presenting a specific antigen A61K 39/00 ; therapeutic combinations of antibodies, or fragments thereof, and blood-derived cells A61K 39/00)	35/44	. . Vessels; Vascular smooth muscle cells; Endothelial cells; Endothelial progenitor cells
35/16	. . . Blood plasma; Blood serum (umbilical cord blood A61K 35/51)	35/48	. . Reproductive organs
35/17	. . . Lymphocytes; B-cells; T-cells; Natural killer cells; Interferon-activated or cytokine-activated lymphocytes (when activated by a specific antigen A61K 39/00)	35/50	. . . Placenta; Placental stem cells; Amniotic fluid; Amnion; Amniotic stem cells
35/18	. . . Erythrocytes (haemoglobin A61K 38/42)	35/51	. . . Umbilical cord; Umbilical cord blood; Umbilical stem cells
35/19	. . . Platelets; Megacaryocytes	35/52	. . . Sperm; Prostate; Seminal fluid; Leydig cells of testes
35/20	. . Milk; Whey; Colostrum	35/54	. . . Ovaries; Ova; Ovules; Embryos; Foetal cells; Germ cells
		35/545	. . . . Embryonic stem cells; Pluripotent stem cells; Induced pluripotent stem cells; Uncharacterised stem cells
		35/55	. . Glands not provided for in groups A61K 35/22 - A61K 35/545 , e.g. thyroids, parathyroids or pineal glands
		35/56	. Materials from animals other than mammals
		35/57	. . Birds; Materials from birds, e.g. eggs, feathers, egg white, egg yolk or endothelium corneum gigeriae galli
		35/58	. . Reptiles (antigens from snakes A61K 39/38)
		35/583	. . . Snakes; Lizards, e.g. chameleons (therapeutic use of a snake venom protein A61K 38/00)

35/586	. . . Turtles; Tortoises, e.g. terrapins	36/04	. . Rhodophycota or rhodophyta (red algae), e.g. Porphyra
35/60	. . Fish, e.g. seahorses; Fish eggs	36/05	. . Chlorophycota or chlorophyta (green algae), e.g. Chlorella
35/612	. . Crustaceans, e.g. crabs, lobsters, shrimps, krill or crayfish; Barnacles	36/06	. Fungi, e.g. yeasts
35/614	. . Cnidaria, e.g. sea anemones, corals, coral animals or jellyfish	36/062	. . . Ascomycota
35/616	. . Echinodermata, e.g. starfish, sea cucumbers or sea urchins	36/064	. . . . Saccharomycetales, e.g. baker's yeast
35/618	. . Molluscs, e.g. fresh-water molluscs, oysters, clams, squids, octopus, cuttlefish, snails or slugs	36/066	. . . . Clavicipitaceae
35/62	. . Leeches; Worms, e.g. cestodes, tapeworms, nematodes, roundworms, earth worms, ascarids, filarias, hookworms, trichinella or taenia	36/068	. . . . . Cordyceps
35/63	. . Arthropods (aquatic crustaceans A61K 35/612)	36/07	. . Basidiomycota, e.g. Cryptococcus
35/64	. . . Insects, e.g. bees, wasps or fleas	36/074	. . . . Ganoderma
35/644	. . . . Beeswax; Propolis; Royal jelly; Honey	36/076	. . . . Poria
35/646	. . . . Arachnids, e.g. spiders, scorpions, ticks or mites	36/09	. Lichens
35/648	. . . Myriapods, e.g. centipedes or millipedes	36/10	. Bryophyta
35/65	. . Amphibians, e.g. toads, frogs, salamanders or newts	36/11	. Pteridophyta or Filicophyta (ferns)
35/655	. . Aquatic animals other than those covered by groups A61K 35/57 - A61K 35/65	36/12	. . Filicopsida or Pteridopsida
35/66	. Microorganisms or materials therefrom (fungi, yeasts or candida A61K 36/06)	36/126	. . . Drynaria
35/68	. . Protozoa, e.g. flagella, amoebas, sporozoans, plasmodium or toxoplasma	36/13	. Coniferophyta (gymnosperms)
35/74	. . Bacteria (therapeutic use of a bacterial protein A61K 38/00)	36/14	. . Cupressaceae (Cypress family), e.g. juniper or cypress
35/741	. . . Probiotics (probiotic yeast, e.g. saccharomyces A61K 36/06)	36/15	. . Pinaceae (Pine family), e.g. pine or cedar
35/742	. . . . Spore-forming bacteria, e.g. Bacillus coagulans, Bacillus subtilis, clostridium or Lactobacillus sporogenes	36/16	. Ginkgophyta, e.g. Ginkgoaceae (Ginkgo family)
35/744	. . . . Lactic acid bacteria, e.g. enterococci, pediococci, lactococci, streptococci or leuconostocs	36/17	. Gnetophyta, e.g. Ephedraceae (Mormon-tea family)
35/745	. . . . . Bifidobacteria	36/18	. Magnoliophyta (angiosperms)
35/747	. . . . . Lactobacilli, e.g. L. acidophilus or L. brevis	36/185	. . Magnoliopsida (dicotyledons)
35/748	. . . Cyanobacteria, i.e. blue-green bacteria or blue-green algae, e.g. spirulina (algae, microalgae or microphytes A61K 36/02)	36/19	. . . Acanthaceae (Acanthus family)
35/76	. . Viruses; Subviral particles; Bacteriophages	36/195	. . . . Strobilanthes
35/761	. . . Adenovirus	36/20	. . . . Aceraceae (Maple family)
35/763	. . . Herpes virus	36/21	. . . . Amaranthaceae (Amaranth family), e.g. pigweed, rockwort or globe amaranth
35/765	. . . Reovirus; Rotavirus	36/22	. . . . Anacardiaceae (Sumac family), e.g. smoketree, sumac or poison oak
35/766	. . . Rhabdovirus, e.g. vesicular stomatitis virus	36/23	. . . . Apiaceae or Umbelliferae (Carrot family), e.g. dill, chervil, coriander or cumin
35/768	. . . Oncolytic viruses not provided for in groups A61K 35/761 - A61K 35/766	36/232	. . . . . Angelica
36/00	Medicinal preparations of undetermined constitution containing material from algae, lichens, fungi or plants, or derivatives thereof, e.g. traditional herbal medicines {(antigens from pollen A61K 39/36)}	36/233	. . . . . Bupleurum
	NOTE	36/234	. . . . . Cnidium (snowparsley)
	In this group, common names of plants, where given, are presented in brackets following their corresponding Latin names.	36/235	. . . . . Foeniculum (fennel)
36/02	. Algae	36/236	. . . . . Ligusticum (licorice-root)
36/03	. . Phaeophycota or phaeophyta (brown algae), e.g. Fucus	36/237	. . . . . Notopterygium
		36/238	. . . . . Saposhnikovia
		36/24	. . . . Apocynaceae (Dogbane family), e.g. plumeria or periwinkle
		36/25	. . . . Araliaceae (Ginseng family), e.g. ivy, aralia, schefflera or tetrapanax
		36/254	. . . . . Acanthopanax or Eleutherococcus
		36/258	. . . . . Panax (ginseng)
		36/26	. . . . Aristolochiaceae (Birthwort family), e.g. heartleaf
		36/264	. . . . . Aristolochia (Dutchman's pipe)
		36/268	. . . . . Asarum (wild ginger)
		36/27	. . . . Asclepiadaceae (Milkweed family), e.g. hoyo
		36/28	. . . . Asteraceae or Compositae (Aster or Sunflower family), e.g. chamomile, feverfew, yarrow or echinacea
		36/282	. . . . . Artemisia, e.g. wormwood or sagebrush
		36/284	. . . . . Atractylodes
		36/285	. . . . . Aucklandia
		36/286	. . . . . Carthamus (distaff thistle)
		36/287	. . . . . Chrysanthemum, e.g. daisy
		36/288	. . . . . Taraxacum (dandelion)
		36/289	. . . . . Vladimiria

36/29	. . . Berberidaceae (Barberry family), e.g. barberry, cohosh or mayapple	36/53	. . . Lamiaceae or Labiatae (Mint family), e.g. thyme, rosemary or lavender
36/296	. . . . Epimedium	36/532	. . . . Agastache, e.g. giant hyssop
36/30	. . . Boraginaceae (Borage family), e.g. comfrey, lungwort or forget-me-not	36/533	. . . . Leonurus (motherwort)
36/31	. . . Brassicaceae or Cruciferae (Mustard family), e.g. broccoli, cabbage or kohlrabi	36/534	. . . . Mentha (mint)
36/315	. . . . Isatis, e.g. Dyer's woad	36/535	. . . . Perilla (beefsteak plant)
36/32	. . . Burseraceae (Frankincense family)	36/536	. . . . Prunella or Brunella (selfheal)
36/324	. . . . Boswellia, e.g. frankincense	36/537	. . . . Salvia (sage)
36/328	. . . . Commiphora, e.g. mecca myrrh or balm of Gilead	36/538	. . . . Schizonepeta
36/33	. . . Cactaceae (Cactus family), e.g. pricklypear or Cereus	36/539	. . . . Scutellaria (skullcap)
36/34	. . . Campanulaceae (Bellflower family)	36/54	. . . Lauraceae (Laurel family), e.g. cinnamon or sassafras
36/342	. . . . Adenophora	36/55	. . . Linaceae (Flax family), e.g. Linum
36/344	. . . . Codonopsis	36/56	. . . Loganiaceae (Logania family), e.g. trumpetflower or pinkroot
36/346	. . . . Platycodon	36/57	. . . Magnoliaceae (Magnolia family)
36/35	. . . Caprifoliaceae (Honeysuckle family)	36/575	. . . . Magnolia
36/355	. . . . Lonicera (honeysuckle)	36/58	. . . Meliaceae (Chinaberry or Mahogany family), e.g. Azadirachta (neem)
36/36	. . . Caryophyllaceae (Pink family), e.g. baby's breath or soapwort	36/59	. . . Menispermaceae (Moonseed family), e.g. hyperbaena or coralbead
36/37	. . . Celastraceae (Staff-tree or Bittersweet family), e.g. tripterygium or spindletree	36/60	. . . Moraceae (Mulberry family), e.g. breadfruit or fig
36/38	. . . Clusiaceae, Hypericaceae or Guttiferae (Hypericum or Mangosteen family), e.g. common St. Johnswort	36/605	. . . . Morus (mulberry)
36/39	. . . Convolvulaceae (Morning-glory family), e.g. bindweed	36/61	. . . Myrtaceae (Myrtle family), e.g. teatree or eucalyptus
36/40	. . . Cornaceae (Dogwood family)	36/62	. . . Nymphaeaceae (Water-lily family)
36/41	. . . Crassulaceae (Stonecrop family)	36/63	. . . Oleaceae (Olive family), e.g. jasmine, lilac or ash tree
36/42	. . . Cucurbitaceae (Cucumber family)	36/634	. . . . Forsythia
36/424	. . . . Gynostemma	36/638	. . . . Ligustrum, e.g. Chinese privet
36/428	. . . . Trichosanthes	36/64	. . . Orobanchaceae (Broom-rape family)
36/43	. . . Cuscutaceae (Dodder family), e.g. Cuscuta epithymum or greater dodder	36/65	. . . Paeoniaceae (Peony family), e.g. Chinese peony
36/44	. . . Ebenaceae (Ebony family), e.g. persimmon	36/66	. . . Papaveraceae (Poppy family), e.g. bloodroot
36/45	. . . Ericaceae or Vacciniaceae (Heath or Blueberry family), e.g. blueberry, cranberry or bilberry	36/67	. . . Piperaceae (Pepper family), e.g. Jamaican pepper or kava
36/46	. . . Eucommiaceae (Eucommia family), e.g. hardy rubber tree	36/68	. . . Plantaginaceae (Plantain Family)
36/47	. . . Euphorbiaceae (Spurge family), e.g. Ricinus (castorbean)	36/69	. . . Polygalaceae (Milkwort family)
36/48	. . . Fabaceae or Leguminosae (Pea or Legume family); Caesalpiniaceae; Mimosaceae; Papilionaceae	36/70	. . . Polygonaceae (Buckwheat family), e.g. spinyflower or dock
36/481	. . . . Astragalus (milkvetch)	36/704	. . . . Polygonum, e.g. knotweed
36/482	. . . . Cassia, e.g. golden shower tree	36/708	. . . . Rheum (rhubarb)
36/483	. . . . Gleditsia (locust)	36/71	. . . Ranunculaceae (Buttercup family), e.g. larkspur, hepatica, hydrastis, columbine or goldenseal
36/484	. . . . Glycyrrhiza (licorice)	36/714	. . . . Aconitum (monkshood)
36/485	. . . . Gueldenstaedtia	36/716	. . . . Clematis (leather flower)
36/486	. . . . Millettia	36/718	. . . . Coptis (goldthread)
36/487	. . . . Psoralea	36/72	. . . Rhamnaceae (Buckthorn family), e.g. buckthorn, chewstick or umbrella-tree
36/488	. . . . Pueraria (kudzu)	36/725	. . . . Ziziphus, e.g. jujube
36/489	. . . . Sophora, e.g. necklacepod or mamani	36/73	. . . Rosaceae (Rose family), e.g. strawberry, chokeberry, blackberry, pear or firethorn
36/49	. . . Fagaceae (Beech family), e.g. oak or chestnut	36/732	. . . . Chaenomeles, e.g. flowering quince
36/50	. . . Fumariaceae (Fumitory family), e.g. bleeding heart	36/734	. . . . Crataegus (hawthorn)
36/505	. . . . Corydalis	36/736	. . . . Prunus, e.g. plum, cherry, peach, apricot or almond
36/51	. . . Gentianaceae (Gentian family)	36/738	. . . . Rosa (rose)
36/515	. . . . Gentiana	36/739	. . . . Sanguisorba (burnet)
36/52	. . . Juglandaceae (Walnut family)	36/74	. . . Rubiaceae (Madder family)
		36/744	. . . . Gardenia
		36/746	. . . . Morinda

36/748	. . . . Oldenlandia or Hedyotis	36/8994	. . . . Coix (Job's tears)
36/75	. . . Rutaceae (Rue family)	36/8998	. . . . Hordeum (barley)
36/752	. . . . Citrus, e.g. lime, orange or lemon	36/90	. . . Smilacaceae (Catbrier family), e.g. greenbrier or sarsaparilla
36/754	. . . . Evodia	36/902	. . . Sparganiaceae (Bur-reed family)
36/756	. . . . Phellodendron, e.g. corktree	36/904	. . . Stemonaceae (Stemona family), e.g. croomia
36/758	. . . . Zanthoxylum, e.g. pricklyash	36/906	. . . Zingiberaceae (Ginger family)
36/76	. . . Salicaceae (Willow family), e.g. poplar	36/9062	. . . . Alpinia, e.g. red ginger or galangal
36/77	. . . Sapindaceae (Soapberry family), e.g. lychee or soapberry	36/9064	. . . . Amomum, e.g. round cardamom
36/78	. . . Saururaceae (Lizard's-tail family)	36/9066	. . . . Curcuma, e.g. common turmeric, East Indian arrowroot or mango ginger
36/79	. . . Schisandraceae (Schisandra family)	36/9068	. . . . Zingiber, e.g. garden ginger
36/80	. . . Scrophulariaceae (Figwort family)	38/00	Medicinal preparations containing peptides
36/804	. . . . Rehmannia		(peptides containing beta-lactam rings A61K 31/00 ; cyclic dipeptides not having in their molecule any other peptide link than those which form their ring, e.g. piperazine-2,5-diones, A61K 31/00 ; ergot alkaloids of the cyclic peptide type A61K 31/48 ; containing macromolecular compounds having statistically distributed amino acid units A61K 31/74 ; medicinal preparations containing antigens or antibodies A61K 39/00 ; medicinal preparations characterised by the non-active ingredients, e.g. peptides as drug carriers, A61K 47/00)
36/808	. . . . Scrophularia (figwort)		NOTES
36/81	. . . Solanaceae (Potato family), e.g. tobacco, nightshade, tomato, belladonna, capsicum or jimsonweed		1. The terms or expressions used in this group follow exactly the definitions given in Note (1) following the title of subclass C07K .
36/815	. . . . Lycium (desert-thorn)		2. Preparations containing fragments of peptides or 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 preparations containing parent peptides. However, preparations containing fragments of peptides having only four or less amino acids are also classified in groups A61K 38/05 - A61K 38/07 .
36/82	. . . Theaceae (Tea family), e.g. camellia		3. Preparations containing peptides prepared by recombinant DNA technology are not classified according to the host, but according to the original peptide expressed, e.g. preparations containing HIV peptide expressed in E. coli are classified with the preparations containing HIV peptides.
36/83	. . . Thymelaeaceae (Mezereum family), e.g. leatherwood or false ohelo		4. This group <u>covers</u> also medicinal preparation containing DNA or RNA encoding for peptides as active ingredient.
36/835	. . . . Aquilaria		5. Documents relating to new peptides, e.g. enzymes, or new DNA or RNA encoding for peptides and their use in medicinal preparations are classified in subclass C07K or in group C12N 9/00 according to the peptides, with the appropriate indexing codes relating to their medical uses.
36/84	. . . Valerianaceae (Valerian family), e.g. valerian		
36/85	. . . Verbenaceae (Verbena family)		
36/855	. . . . Clerodendrum, e.g. glorybower		
36/86	. . . Violaceae (Violet family)		
36/87	. . . Vitaceae or Ampelidaceae (Vine or Grape family), e.g. wine grapes, muscadine or peppervine		
36/88	. . Liliopsida (monocotyledons)		
36/882	. . . Acoraceae (Calamus family), e.g. sweetflag or Acorus calamus		
36/884	. . . Alismataceae (Water-plantain family)		
36/886	. . . Aloeaceae (Aloe family), e.g. aloe vera		
36/888	. . . Araceae (Arum family), e.g. caladium, calla lily or skunk cabbage		
36/8884	. . . . Arisaema, e.g. Jack in the pulpit		
36/8888	. . . . Pinellia		
36/889	. . . Arecaceae, Palmae or Palmaceae (Palm family), e.g. date or coconut palm or palmetto		
36/8895	. . . . Calamus, e.g. rattan		
36/89	. . . Cyperaceae (Sedge family)		
36/8905	. . . . Cyperus (flatsedge)		
36/894	. . . Dioscoreaceae (Yam family)		
36/8945	. . . . Dioscorea, e.g. yam, Chinese yam or water yam		
36/896	. . . Liliaceae (Lily family), e.g. daylily, plantain lily, Hyacinth or narcissus		
36/8962	. . . . Allium, e.g. garden onion, leek, garlic or chives		
36/8964	. . . . Anemarrhena		
36/8965	. . . . Asparagus, e.g. garden asparagus or asparagus fern	38/005	. {Enzyme inhibitors (protease inhibitors A61K 38/55)}
36/8966	. . . . Fritillaria, e.g. checker lily or mission bells	38/01	. Hydrolysed proteins; Derivatives thereof
36/8967	. . . . Lilium, e.g. tiger lily or Easter lily	38/011	. . {from plants}
36/8968	. . . . Ophiopogon (Lilyturf)	38/012	. . {from animals}
36/8969	. . . . Polygonatum (Solomon's seal)	38/014	. . . {from connective tissue peptides, e.g. gelatin, collagen}
36/898	. . . Orchidaceae (Orchid family)	38/015	. . . . {from keratin}
36/8984	. . . . Dendrobium	38/017	. . . . {from blood}
36/8988	. . . . Gastrodia	38/018	. . . . {from milk}
36/899	. . . Poaceae or Gramineae (Grass family), e.g. bamboo, corn or sugar cane		

38/02	• Peptides of undefined number of amino acids; Derivatives thereof	38/1751	• • • • • {Bactericidal/permeability-increasing protein [BPI]}
38/03	• Peptides having up to 20 amino acids in an undefined or only partially defined sequence; Derivatives thereof	38/1754	• • • • • {Insulin-like growth factor binding proteins}
38/04	• Peptides having up to 20 amino acids in a fully defined sequence; Derivatives thereof ({enzyme inhibitors A61K 38/005 }; gastrins { A61K 38/2207 } somatostatins A61K 38/31 , melanotropins A61K 38/34 ; {protease inhibitors A61K 38/55 })	38/1758	• • • • • {p53}
38/043	• • {Kallidins; Bradykinins; Related peptides}	38/1761	• • • • • {Apoptosis related proteins, e.g. Apoptotic protease-activating factor-1 (APAF-1), Bax, Bax-inhibitory protein(s)(BI; bax-I), Myeloid cell leukemia associated protein (MCL-1), Inhibitor of apoptosis [IAP] or Bcl-2}
38/046	• • {Tachykinins, e.g. eledoisins, substance P; Related peptides}	38/1767	• • • {from invertebrates}
38/05	• • Dipeptides	38/177	• • • {Receptors; Cell surface antigens; Cell surface determinants}
38/06	• • Tripeptides	38/1774	• • • • {Immunoglobulin superfamily (e.g. CD2, CD4, CD8, ICAM molecules, B7 molecules, Fc-receptors, MHC-molecules)}
38/063	• • • {Glutathione}	38/1777	• • • • {Integrin superfamily}
38/066	• • • {TRH, thyroliberin, thyrotropin releasing hormone}	38/178	• • • • {Lectin superfamily, e.g. selectins}
38/07	• • Tetrapeptides	38/1783	• • • • {Nuclear receptors, e.g. retinoic acid receptor [RAR], RXR, nuclear orphan receptors}
38/08	• • Peptides having 5 to 11 amino acids ({ A61K 38/043 - A61K 38/046 take precedence})	38/1787	• • • • {for neuromediators, e.g. serotonin receptor, dopamine receptor}
38/085	• • • {Angiotensins}	38/179	• • • • {for growth factors; for growth regulators}
38/09	• • • Luteinising hormone-releasing hormone [LHRH] {, i.e. Gonadotropin-releasing hormone [GnRH]}; Related peptides	38/1793	• • • • {for cytokines; for lymphokines; for interferons}
38/095	• • • Oxytocins; Vasopressins; Related peptides	38/1796	• • • • {for hormones (for neuromediators A61K 38/1787)}
38/10	• • Peptides having 12 to 20 amino acids ({ A61K 38/043 - A61K 38/046 take precedence})	38/18	• • • Growth factors; Growth regulators
38/105	• • • {Bombesin; Related peptides}	38/1808	• • • • {Epidermal growth factor [EGF] urogastrone}
38/12	• • Cyclic peptides {, e.g. bacitracins; Polymyxins; Gramicidins S, C; Tyrocidins A, B or C (A61K 38/043 - A61K 38/046 take precedence)}	38/1816	• • • • {Erythropoietin [EPO]}
38/13	• • • Cyclosporins	38/1825	• • • • {Fibroblast growth factor [FGF]}
38/14	• • Peptides containing saccharide radicals; Derivatives thereof {, e.g. bleomycin, phleomycin, muramylpeptides or vancomycin}	38/1833	• • • • {Hepatocyte growth factor; Scatter factor; Tumor cytotoxic factor II}
38/15	• • Depsipeptides; Derivatives thereof	38/1841	• • • • {Transforming growth factor [TGF]}
38/16	• Peptides having more than 20 amino acids; Gastrins; Somatostatins; Melanotropins; Derivatives thereof ({enzyme inhibitors A61K 38/005 })	38/185	• • • • {Nerve growth factor [NGF]; Brain derived neurotrophic factor [BDNF]; Ciliary neurotrophic factor [CNTF]; Glial derived neurotrophic factor [GDNF]; Neurotrophins, e.g. NT-3}
38/162	• • {from virus}	38/1858	• • • • {Platelet-derived growth factor [PDGF]}
38/164	• • {from bacteria}	38/1866	• • • • • {Vascular endothelial growth factor [VEGF]}
38/166	• • • {Streptokinase}	38/1875	• • • • • {Bone morphogenic factor; Osteogenins; Osteogenic factor; Bone-inducing factor}
38/168	• • {from plants}	38/1883	• • • • • {Neuregulins, e.g.. p185erbB2 ligands, glial growth factor, heregulin, ARIA, neu differentiation factor}
38/17	• • from animals; from humans ({enzyme inhibitors A61K 38/005 })	38/1891	• • • • • {Angiogenesis factors; Angiogenin}
38/1703	• • • {from vertebrates}	38/19	• • • Cytokines; Lymphokines; Interferons
38/1706	• • • • {from fish}	38/191	• • • • {Tumor necrosis factors [TNF], e.g. lymphotoxin [LT], i.e. TNF-beta}
38/1709	• • • • {from mammals}	38/193	• • • • {Colony stimulating factors [CSF]}
38/1716	• • • • • {Amyloid plaque core protein}	38/195	• • • • {Chemokines, e.g. RANTES}
38/1719	• • • • • {Muscle proteins, e.g. myosin or actin}	38/196	• • • • {Thrombopoietin}
38/1722	• • • • • {Plasma globulins, lactoglobulins}	38/20	• • • • Interleukins [IL]
38/1725	• • • • • {Complement proteins, e.g. anaphylatoxin, C3a or C5a}	38/2006	• • • • • {IL-1}
38/1729	• • • • • {Cationic antimicrobial peptides, e.g. defensins}	38/2013	• • • • • {IL-2}
38/1732	• • • • • {Lectins}	38/202	• • • • • {IL-3}
38/1735	• • • • • {Mucins, e.g. human intestinal mucin}	38/2026	• • • • • {IL-4}
38/1738	• • • • • {Calcium binding proteins, e.g. calmodulin}	38/2033	• • • • • {IL-5}
38/1741	• • • • • {alpha-Glycoproteins}	38/204	• • • • • {IL-6}
38/1745	• • • • • {C-reactive proteins}		
38/1748	• • • • • {Keratin; Cytokeratin}		

38/2046 {IL-7}
 38/2053 {IL-8}
 38/206 {IL-9}
 38/2066 {IL-10}
 38/2073 {IL-11}
 38/208 {IL-12}
 38/2086 {IL-13 to IL-16}
 38/2093 {Leukaemia inhibitory factor [LIF]}
 38/21 Interferons {[IFN]}
 38/212 {IFN-alpha}
 38/215 {IFN-beta}
 38/217 {IFN-gamma}
 38/22 Hormones (derived from pro-opiomelanocortin, pro-enkephalin or pro-dynorphin [A61K 38/33](#), e.g. corticotropin [A61K 38/35](#))
 38/2207 {Gastrins; Cholecystokinins [CCK]}
 38/2214 {Motilins}
 38/2221 {Relaxins}
 38/2228 {Corticotropin releasing factor [CRF] (Urotensin)}
 38/2235 {Secretins}
 38/2242 {Atrial natriuretic factor complex: Atriopetins, atrial natriuretic protein [ANP]; Cardionatin, Cardiodilatin}
 38/225 {Calcitonin gene related peptide}
 38/2257 {Prolactin}
 38/2264 {Obesity-gene products, e.g. leptin}
 38/2271 {Neuropeptide Y}
 38/2278 {Vasoactive intestinal peptide [VIP]; Related peptides (e.g. Exendin)}
 38/2285 {Endothelin, vasoactive intestinal contractor [VIC]}
 38/2292 {Thymosin; Related peptides}
 38/23 Calcitonins
 38/24 Follicle-stimulating hormone [FSH]; Chorionic gonadotropins, e.g. HCG; Luteinising hormone [LH]; Thyroid-stimulating hormone [TSH]
 38/25 Growth hormone-releasing factor [GH-RF] (Somatoliberin)
 38/26 Glucagons
 38/27 Growth hormone [GH] (Somatotropin)
 38/28 Insulins
 38/29 Parathyroid hormone (parathormone); Parathyroid hormone-related peptides
 38/30 Insulin-like growth factors (Somatomedins), e.g. IGF-1, IGF-2 ({[insulin-like growth factor binding protein A61K 38/1754](#)})
 38/31 Somatostatins
 38/32 Thymopietins
 38/33 derived from pro-opiomelanocortin, pro-enkephalin or pro-dynorphin
 38/34 Melanocyte stimulating hormone [MSH], e.g. alpha- or beta-melanotropin
 38/35 Corticotropin [ACTH]
 38/36 Blood coagulation or fibrinolysis factors
 38/363 {Fibrinogen}
 38/366 {Thrombomodulin}
 38/37 Factors VIII
 38/38 Albumins
 38/385 {Serum albumin}

38/39 Connective tissue peptides, e.g. collagen, elastin, laminin, fibronectin, vitronectin, cold insoluble globulin [CIG]
 38/395 {Alveolar surfactant peptides; Pulmonary surfactant peptides}
 38/40 Transferrins, e.g. lactoferrins, ovotransferrins
 38/41 Porphyrin- or corrin-ring-containing peptides
 38/415 {Cytochromes}
 38/42 Haemoglobins; Myoglobins
 38/43 Enzymes; Proenzymes; Derivatives thereof

NOTE

In this group,

1. proenzymes are classified with the corresponding enzymes;
2. enzymes are generally categorised according to the "Nomenclature and Classification of Enzymes" of the International Commission of Enzymes. Where appropriate, this designation appears in the subgroups below in parenthesis.
3. the specific enzyme(s) used are additionally classified in [C12Y](#).

38/44 Oxidoreductases (1)
 38/443 {acting on CH-OH groups as donors, e.g. glucose oxidase, lactate dehydrogenase (1.1)}
 38/446 {Superoxide dismutase (1.15)}
 38/45 Transferases (2)
 38/46 Hydrolases (3)
 38/465 {acting on ester bonds (3.1), e.g. lipases, ribonucleases}
 38/47 acting on glycosyl compounds (3.2), e.g. cellulases, lactases
 38/48 acting on peptide bonds (3.4)
 38/4806 {from animals other than mammals, e.g. snakes}
 38/4813 {Exopeptidases (3.4.11. to 3.4.19)}
 38/482 {Serine endopeptidases (3.4.21)}
 38/4826 {Trypsin (3.4.21.4) Chymotrypsin (3.4.21.1)}
 38/4833 {Thrombin (3.4.21.5)}
 38/484 {Plasmin (3.4.21.7)}
 38/4846 {Factor VII (3.4.21.21); Factor IX (3.4.21.22); Factor Xa (3.4.21.6); Factor XI (3.4.21.27); Factor XII (3.4.21.38)}
 38/4853 {Kallikrein (3.4.21.34 or 3.4.21.35)}
 38/486 {Elastase (3.4.21.36 or 3.4.21.37)}
 38/4866 {Protein C (3.4.21.69)}
 38/4873 {Cysteine endopeptidases (3.4.22), e.g. stem bromelain, papain, ficin, cathepsin H}
 38/488 {Aspartic endopeptidases (3.4.23), e.g. pepsin, chymosin, renin, cathepsin E}
 38/4886 {Metalloendopeptidases (3.4.24), e.g. collagenase}
 38/4893 {Botulinum neurotoxin (3.4.24.69)}
 38/49 Urokinase; Tissue plasminogen activator
 38/50 acting on carbon-nitrogen bonds, other than peptide bonds (3.5), e.g. asparaginase
 38/51 Lyases (4)
 38/52 Isomerases (5)
 38/53 Ligases (6)

- 38/54 . . . Mixtures of enzymes or proenzymes covered by more than a single one of groups [A61K 38/44](#) - [A61K 38/46](#) or [A61K 38/51](#) - [A61K 38/53](#)
- 38/55 . . . Protease inhibitors
- 38/553 . . . {Renin inhibitors}
- 38/556 . . . {Angiotensin converting enzyme inhibitors}
- 38/56 . . . from plants
- 38/57 . . . from animals; from humans {([A61K 38/553](#), [A61K 38/556](#) take precedence)}
- 38/58 from leeches, e.g. hirudin, eglin
- 39/00 Medicinal preparations containing antigens or antibodies (materials for immunoassay [G01N 33/53](#))**
- NOTES**
1. Groups [A61K 39/002](#) - [A61K 39/295](#) cover preparations containing protozoa, bacteria, viruses, or subunits thereof, e.g. membrane parts.
 2. Preparation of antigen or antibody compositions is also classified in subclass [C12N](#), if the step of cultivating the microorganism is of interest.
 3. Documents relating to new peptides, e.g. enzymes, or new DNA or RNA encoding for peptides and their use in medicinal preparations are classified in subclass [C07K](#) or in group [C12N 9/00](#) according to the peptides, with the appropriate indexing codes relating to their medical uses.
 4. Documents relating to antibodies or DNA or RNA encoding for antibodies and their use in medicinal preparations are classified in group [C07K 16/00](#) or in group [C12N 9/0002](#) according to the antibodies, with the appropriate indexing codes relating to their medical uses.
 5. Documents relating to new therapeutical uses of antibodies or DNA or RNA encoding for antibodies are classified in group [C07K 16/00](#) or in group [C12N 9/0002](#) according to the antibodies, with the appropriate indexing codes relating to their medical uses.
 6. Documents relating to medicinal preparations containing different antibodies as active ingredients are classified in group [C07K 16/00](#) according to the different active antibodies, with the appropriate indexing codes relating to their medical uses. However, documents relating to medicinal preparations containing antibodies and other compounds as active ingredients are classified in groups [A61K 39/395](#) - [A61K 39/42](#), in association with symbol [A61K 2300/00](#) in Combination Sets.
- 39/0001 . {Archaeal antigens}
- 39/0002 . {Fungal antigens, e.g. Trichophyton, Aspergillus, Candida}
- 39/0003 . {Invertebrate antigens}
- 39/0005 . {Vertebrate antigens (from snakes [A61K 39/38](#))}
- 39/0006 . . {Contraceptive vaccins; Vaccines against sex hormones}
- 39/0007 . . {Nervous system antigens; Prions}
- 39/0008 . . {Antigens related to auto-immune diseases; Preparations to induce self-tolerance}
- 39/001 . . {Preparations to induce tolerance to non-self, e.g. prior to transplantation}
- 39/0011 . . {Cancer antigens}
- 39/001102 . . . {Receptors, cell surface antigens or cell surface determinants}
- 39/001103 {Receptors for growth factors}
- 39/001104 {Epidermal growth factor receptors [EGFR]}
- 39/001106 {Her-2/neu/ErbB2, Her-3/ErbB3, Her 4/ErbB4}
- 39/001107 {Fibroblast growth factor receptors [FGFR]}
- 39/001108 {Platelet-derived growth factor receptors [PDGFR]}
- 39/001109 {[Vascular endothelial growth factor receptors [VEGFR]]}
- 39/00111 {Hepatocyte growth factor receptor [HGFR or c-met]}
- 39/001111 {Immunoglobulin superfamily}
- 39/001112 {CD19, B4}
- 39/001113 {CD22, BL-CAM, siglec-2, sialic acid-binding Ig-related lectin 2}
- 39/001114 {CD74, Ii, MHC class II invariant chain, MHC class II gamma chain}
- 39/001116 {Receptors for cytokines}
- 39/001117 {Receptors for tumor necrosis factors [TNF], e.g. lymphotoxin receptor [LTR], CD30}
- 39/001118 {Receptors for colony stimulating factors [CSF]}
- 39/001119 {Receptors for interleukins [IL]}
- 39/00112 {Receptors for interferons [IFN]}
- 39/001121 {Receptors for chemokines }
- 39/001122 {Ephrin Receptors [Eph]}
- 39/001124 {CD20}
- 39/001126 {CD38 not IgG}
- 39/001128 {CD44 not IgG}
- 39/001129 {Molecules with a "CD" designation not provided for elsewhere}
- 39/00113 {Growth factors}
- 39/001131 {Epidermal growth factor [EGF]}
- 39/001132 {Fibroblast growth factors [FGF]}
- 39/001133 {Platelet-derived growth factor [PDGF]}
- 39/001134 {Transforming growth factor [TGF]}
- 39/001135 {Vascular endothelial growth factor [VEGF]}
- 39/001136 {Cytokines}
- 39/001138 {Tumor necrosis factors [TNF], CD70}
- 39/001139 {Colony stimulating factors [CSF]}
- 39/00114 {Interleukins [IL]}
- 39/001141 {Interferons [IFN]}
- 39/001142 {Chemokines}
- 39/001144 {Hormones, e.g. calcitonin}
- 39/001148 {Regulators of development}
- 39/001149 {Cell cycle regulated proteins, e.g. cyclin, CDC, CDK, INK-CCR}
- 39/00115 {Apoptosis related proteins, e.g. survivin, livin}
- 39/001151 {p53}
- 39/001152 {Transcription factors, e.g. SOX, c-MYC}
- 39/001153 {Wilms tumor 1 [WT1]}
- 39/001154 {Enzymes}
- 39/001156 {Tyrosinase and tyrosinase related proteinases [TRP-1, TRP-2]}
- 39/001157 {Telomerase, TERT [telomerase reverse transcriptase]}

39/001158	{Proteinases}	39/0225 . .	{Spirochetes, e.g. Treponema, Leptospira, Borrelia}
39/001159	{Matrix metalloproteinases [MMP]}	39/0233 . .	{Rickettsiales, e.g. Anaplasma}
39/00116	{Serine proteases, e.g. kallikrein}	39/0241 . .	{Mollicutes, e.g. Mycoplasma, Erysipelothrix}
39/001161	{Caspases}	39/025 . .	{Enterobacteriales, e.g. Enterobacter}
39/001162	{Kinases, e.g. Raf, Src}	39/0258 . . .	{Escherichia}
39/001163	{Phosphatases}	39/0266 . . .	{Klebsiella}
39/001164	{GTPases, e.g. Ras, Rho}	39/0275 . . .	{Salmonella}
39/001166 . . .	{Adhesion molecules, e.g. NRCAM, EpCAM, cadherins}	39/0283 . . .	{Shigella}
39/001168	{Mesothelin [MSLN]}	39/0291 . . .	{Yersinia}
39/001169 . . .	{Tumor associated carbohydrates}	39/04 . .	Mycobacterium, e.g. Mycobacterium tuberculosis
39/00117	{Mucins, e.g. MUC-1}	39/05 . .	{Actinobacteria, e.g. Actinomyces, Streptomyces, Nocardia, Bifidobacterium, Gardnerella}, Corynebacterium; Propionibacterium (Mycobacterium A61K 39/04)
39/001171	{Gangliosides, e.g. GM2, GD2, GD3}	39/07 . .	Bacillus
39/001172	{sialyl Thomson-nouvelle antigen [sTN]}	39/08 . .	Clostridium, e.g. Clostridium tetani
39/001173	{Globo-H}	39/085 . .	Staphylococcus
39/001174 . . .	{Proteoglycans, e.g. glypican, brevican, CSPG4}	39/09 . .	{Lactobacillales, e.g. aerococcus, enterococcus, lactobacillus, lactococcus}, streptococcus
39/001176 . . .	{Heat shock proteins}	39/092 . . .	{Streptococcus}
39/001178 . . .	{Tumor rejection antigen precursor [TRAP]}	39/095 . .	Neisseria
39/00118 . . .	{from embryonic or fetal origin}	39/098 . .	{Brucella}
39/001181	{Alpha-feto protein}	39/099 . .	{Bordetella}
39/001182	{Carcinoembryonic antigen [CEA]}	2039/10 . .	{Brucella; Bordetella, e.g. Bordetella pertussis; Not used, see subgroups}
39/001184 . . .	{Cancer testis antigens, e.g. SSX, BAGE, GAGE, SAGE}	39/102 . .	{Pasteurellales, e.g. Actinobacillus}, Pasteurella; Haemophilus
39/001186	{MAGE}	39/104 . .	{Pseudomonadales, e.g.} Pseudomonas
39/001188	{NY-ESO}	39/1045 . . .	{Moraxella}
39/001189	{PRAME}	39/105 . .	{Delta proteobacteriales, e.g. Lawsonia; Epsilon proteobacteriales, e.g. campylobacter, helicobacter}
39/00119 . . .	{Melanoma antigens}	2039/106 . .	{Vibrio; Campylobacter; Not used, see subgroups}
39/001191	{Melan-A/MART}	39/107 . .	{Vibrio}
39/001192	{Glycoprotein 100 [Gp100]}	39/114 . .	Fusobacterium
39/001193 . . .	{Prostate associated antigens e.g. Prostate stem cell antigen [PSCA]; Prostate carcinoma tumor antigen [PCTA]; PAP, PSGR}	39/116 . .	Polyvalent bacterial antigens
39/001194	{Prostate specific antigen [PSA]}	39/118 . .	Chlamydiaceae, e.g. Chlamydia trachomatis or Chlamydia psittaci
39/001195	{Prostate specific membrane antigen [PSMA]}	39/12 . .	Viral antigens
39/001196 . . .	{Fusion proteins originating from gene translocation in cancer cells}	39/125 . .	Picornaviridae, e.g. calicivirus
39/001197	{Breakpoint cluster region-abelson tyrosine kinase [BCR-ABL]}	39/13 . . .	Poliovirus
39/001198	{Pml-RARalpha}	39/135 . . .	Foot- and mouth-disease virus
39/0012 . . .	{Lipids; Lipoproteins}	39/145 . .	Orthomyxoviridae, e.g. influenza virus
39/0013 . .	{Therapeutic immunisation against small organic molecules, e.g. cocaine, nicotine}	39/15 . .	Reoviridae, e.g. calf diarrhea virus
39/0015 . .	{Combination vaccines based on measles-mumps-rubella}	39/155 . .	Paramyxoviridae, e.g. parainfluenza virus
39/0016 . .	{Combination vaccines based on diphtheria-tetanus-pertussis}	39/165 . . .	Mumps or measles virus
39/0017 . .	{Combination vaccines based on whole cell diphtheria-tetanus-pertussis}	39/17 . . .	Newcastle disease virus
39/0018 . .	{Combination vaccines based on acellular diphtheria-tetanus-pertussis}	39/175 . . .	Canine distemper virus
39/002 . .	Protozoa antigens	39/187 . .	Hog cholera virus
39/005 . .	Trypanosoma antigens	39/193 . .	Equine encephalomyelitis virus
39/008 . .	Leishmania antigens	39/20 . .	Rubella virus
39/012 . .	Coccidia antigens	39/205 . .	Rhabdoviridae, e.g. rabies virus
39/015 . .	Hemosporidia antigens, e.g. Plasmodium antigens	39/21 . .	Retroviridae, e.g. equine infectious anemia virus
39/018 . . .	Babesia antigens, e.g. Theileria antigens	39/215 . .	Coronaviridae, e.g. avian infectious bronchitis virus
39/02 . .	Bacterial antigens	39/225 . . .	Porcine transmissible gastroenteritis virus
39/0208 . . .	{Specific bacteria not otherwise provided for}	39/23 . .	Parvoviridae, e.g. feline panleukopenia virus
39/0216 . . .	{Bacteroidetes, e.g. Bacteroides, Ornithobacter, Porphyromonas}	39/235 . .	Adenoviridae
		39/245 . .	Herpetoviridae, e.g. herpes simplex virus
		39/25 . . .	Varicella-zoster virus

39/255	. . . Marek's disease virus	2039/542	. . . {oral/gastrointestinal}
39/265	. . . Infectious rhinotracheitis virus	2039/543	. . . {intranasal}
39/27	. . . Equine rhinopneumonitis virus	2039/544	. . . {to the airways (intranasal A61K 2039/543)}
39/275	. . Poxviridae, e.g. avipoxvirus	2039/545	. {characterised by the dose, timing or administration schedule}
39/285	. . . Vaccinia virus or variola virus	2039/55	. {characterised by the host/recipient, e.g. newborn with maternal antibodies}
39/29	. . Hepatitis virus	2039/552	. . {Veterinary vaccine}
39/292	. . . {Serum hepatitis virus, hepatitis B virus, e.g. Australia antigen}	2039/555	. {characterised by a specific combination antigen/adjuvant}
39/295	. . Polyvalent viral antigens (vaccinia virus or variola virus A61K 39/285); Mixtures of viral and bacterial antigens	2039/55505	. . {Inorganic adjuvants}
39/35	. Allergens	2039/55511	. . {Organic adjuvants}
39/36	. . from pollen	2039/55516	. . . {Proteins; Peptides}
39/38	. Antigens from snakes	2039/55522	. . . {Cytokines; Lymphokines; Interferons}
39/385	. Haptens or antigens, bound to carriers	2039/55527	. . . . {Interleukins}
39/39	. characterised by the immunostimulating additives, e.g. chemical adjuvants	2039/55533	. . . . . {IL-2}
39/395	. Antibodies (agglutinins A61K 38/36 {; as drug carriers A61K 47/50 }); Immunoglobulins; Immune serum, e.g. antilymphocytic serum	2039/55538	. . . . . {IL-12}
39/39508	. . {from milk, i.e. lactoglobulins}	2039/55544	. . . {Bacterial toxins}
39/39516	. . {from serum, plasma}	2039/5555	. . . {Muramyl dipeptides}
39/39525	. . . {Purification}	2039/55555	. . . {Liposomes; Vesicles, e.g. nanoparticles; Spheres, e.g. nanospheres; Polymers}
39/39533	. . {against materials from animals}	2039/55561	. . . {CpG containing adjuvants; Oligonucleotide containing adjuvants}
39/39541	. . . {against normal tissues, cells}	2039/55566	. . . {Emulsions, e.g. Freund's adjuvant, MF59}
39/3955	. . . {against proteinaceous materials, e.g. enzymes, hormones, lymphokines}	2039/55572	. . . {Lipopolysaccharides; Lipid A; Monophosphoryl lipid A}
39/39558	. . . {against tumor tissues, cells, antigens}	2039/55577	. . . {Saponins; Quil A; QS21; ISCOMS}
39/39566	. . . {against immunoglobulins, e.g. anti-idiotypic antibodies}	2039/55583	. . . {Polysaccharides}
39/39575	. . {against materials from other living beings excluding bacteria and viruses, e.g. protozoa, fungi, plants}	2039/55588	. . {Adjuvants of undefined constitution}
39/39583	. . {against materials not provided for elsewhere, e.g. haptens, coenzymes}	2039/55594	. . . {from bacteria}
39/39591	. . {Stabilisation, fragmentation}	2039/57	. {characterised by the type of response, e.g. Th1, Th2}
39/40	. . bacterial	2039/572	. . {cytotoxic response}
39/42	. . viral	2039/575	. . {humoral response}
39/44	. . Antibodies bound to carriers	2039/577	. . {tolerising response}
2039/505	. {comprising antibodies}	2039/58	. {raising an immune response against a target which is not the antigen used for immunisation}
2039/507	. . {Comprising a combination of two or more separate antibodies}	2039/585	. . {wherein the target is cancer}
2039/51	. {comprising whole cells, viruses or DNA/RNA}	2039/60	. {characteristics by the carrier linked to the antigen}
2039/515	. . {Animal cells}	2039/6006	. . {Cells (recombinantly expressing antigens A61K 2039/5156 , A61K 2039/523)}
2039/5152	. . . {Tumor cells}	2039/6012	. . {Haptens, e.g. di- or trinitrophenyl (DNP, TNP)}
2039/5154	. . . {Antigen presenting cells [APCs], e.g. dendritic cells, macrophages}	2039/6018	. . {Lipids, e.g. in lipopeptides}
2039/5156	. . . {expressing foreign proteins}	2039/6025	. . {Nucleotides}
2039/5158	. . . {Antigen-pulsed cells, e.g. T-cells}	2039/6031	. . {Proteins}
2039/517	. . {Plant cells}	2039/6037	. . . {Bacterial toxins, e.g. diphtheria toxoid [DT], tetanus toxoid [TT]}
2039/52	. . {Bacterial cells; Fungal cells; Protozoal cells}	2039/6043	. . . {Heat shock proteins}
2039/521	. . . {inactivated (killed)}	2039/605	. . . {MHC molecules or ligands thereof}
2039/522	. . . {avirulent or attenuated}	2039/6056	. . . {Antibodies}
2039/523	. . . {expressing foreign proteins}	2039/6062	. . . {Muramyl peptides}
2039/525	. . {Virus}	2039/6068	. . . {Other bacterial proteins, e.g. OMP}
2039/5252	. . . {inactivated (killed)}	2039/6075	. . . {Viral proteins}
2039/5254	. . . {avirulent or attenuated}	2039/6081	. . . {Albumin; Keyhole limpet haemocyanin [KLH]}
2039/5256	. . . {expressing foreign proteins}	2039/6087	. . {Polysaccharides; Lipopolysaccharides [LPS]}
2039/5258	. . . {Virus-like particles}	2039/6093	. . {Synthetic polymers, e.g. polyethyleneglycol [PEG], Polymers or copolymers of (D) glutamate and (D) lysine}
2039/53	. . {DNA (RNA) vaccination}	2039/62	. {characterised by the link between antigen and carrier}
2039/54	. {characterised by the route of administration}	2039/622	. . {non-covalent binding}
2039/541	. . {Mucosal route}		

2039/625	. . {binding through the biotin-streptavidin system or similar}	41/0042	. {Photocleavage of drugs <u>in vivo</u> , e.g. cleavage of photolabile linkers <u>in vivo</u> by UV radiation for releasing the pharmacologically-active agent from the administered agent; photothrombosis or photoocclusion}
2039/627	. . {characterised by the linker}		
2039/64	. {characterised by the architecture of the carrier-antigen complex, e.g. repetition of carrier-antigen units}	41/0047	. {Sonophoresis, i.e. ultrasonically-enhanced transdermal delivery, electroporation of a pharmacologically active agent}
2039/645	. . {Dendrimers; Multiple antigen peptides}		NOTE To be classified in A61K 9/0009 when it is in relation to the galenic form
2039/70	. {Multivalent vaccine}	41/0052	. {Thermotherapy; Hyperthermia; Magnetic induction; Induction heating therapy}
2039/80	. {Vaccine for a specifically defined cancer}	41/0057	. {Photodynamic therapy with a photosensitizer, i.e. agent able to produce reactive oxygen species upon exposure to light or radiation, e.g. UV or visible light; photocleavage of nucleic acids with an agent}
2039/804	. . {Blood cells [leukemia, lymphoma]}	41/0061	. . {5-aminolevulinic acid-based PDT: 5-ALA-PDT involving porphyrins or precursors of protoporphyrins generated <u>in vivo</u> from 5-ALA}
2039/812	. . {Breast}	41/0066	. . {Psoralene-activated UV-A photochemotherapy (PUVA-therapy), e.g. for treatment of psoriasis or eczema, extracorporeal photopheresis with psoralens or fucocoumarins}
2039/82	. . {Colon}	41/0071	. . {PDT with porphyrins having exactly 20 ring atoms, i.e. based on the non-expanded tetrapyrrolic ring system, e.g. bacteriochlorin, chlorin-e6, or phthalocyanines}
2039/828	. . {Stomach}	41/0076	. . {PDT with expanded (metallo)porphyrins, i.e. having more than 20 ring atoms, e.g. texaphyrins, sapphyrins, hexaphyrins, pentaphyrins, porphocyanines}
2039/836	. . {Intestine}	41/008	. . {Two-Photon or Multi-Photon PDT, e.g. with upconverting dyes or photosensitisers}
2039/844	. . {Liver}	41/0085	. {Mössbauer effect therapy based on mossbauer effect of a material, i.e. re-emission of gamma rays after absorption of gamma rays by the material; selective radiation therapy, i.e. involving re-emission of ionizing radiation upon exposure to a first ionizing radiation}
2039/852	. . {Pancreas}	41/009	. {Neutron capture therapy, e.g. using uranium or non-boron material}
2039/86	. . {Lung}	41/0095	. . {Boron neutron capture therapy, i.e. BNCT, e.g. using boronated porphyrins}
2039/868	. . {kidney}	41/10	. Inactivation or decontamination of a medicinal preparation prior to administration to an animal or a person
2039/876	. . {Skin, melanoma}	41/13	. . by ultrasonic waves
2039/884	. . {prostate}	41/17	. . by ultraviolet [UV] or infrared [IR] light, X-rays or gamma rays
2039/892	. . {Reproductive system [uterus, ovaries, cervix, testes]}	45/00	Medicinal preparations containing active ingredients not provided for in groups A61K 31/00 - A61K 41/00
41/00	Medicinal preparations obtained by treating materials with wave energy or particle radiation {; Therapies using these preparations}	45/05	. {Immunological preparations stimulating the reticulo-endothelial system, e.g. against cancer}
41/0004	. {Homeopathy; Vitalisation; Resonance; Dynamisation, e.g. esoteric applications; Oxygenation of blood}	45/06	. Mixtures of active ingredients without chemical characterisation, e.g. antiphlogistics and cardiaca
41/0023	. {Aggression treatment or altering}	47/00	Medicinal preparations characterised by the non-active ingredients used, e.g. carriers or inert additives; Targeting or modifying agents chemically bound to the active ingredient
	NOTE This groups covers aggression treatment or altering <ul style="list-style-type: none"> • of a medicinal preparation prior to administration to the human/animal, e.g. altering a binding specificity of a monoclonal antibody used in a medicinal agent with an oxidizing agent or an electric potential; • of a tissue/organ prior to graft, e.g. destroying immunodominant epitopes; • the permeability of cell membranes or biological barriers <u>in vivo</u>, e.g. by ultrasound, prior to the administration of a medicinal preparation to the animal/human; • for inducing the production of stress response proteins or heat shock proteins in order to reduce subsequent response to injuries 	47/02	. Inorganic compounds
41/0028	. {Disruption, e.g. by heat or ultrasounds, sonophysical or sonochemical activation, e.g. thermosensitive or heat-sensitive liposomes, disruption of calculi with a medicinal preparation and ultrasounds}		
41/0033	. . {Sonodynamic cancer therapy with sonochemically active agents or sonosensitizers, having their cytotoxic effects enhanced through application of ultrasounds (ultrasound therapy per se A61N 7/00)}		
41/0038	. {Radiosensitizing, i.e. administration of pharmaceutical agents that enhance the effect of radiotherapy (radiotherapy per se A61N 5/10)}		

- 47/06 . Organic compounds, e.g. natural or synthetic hydrocarbons, polyolefins, mineral oil, petrolatum or ozokerite
- 47/08 . . containing oxygen, {e.g. ethers, acetals, ketones, quinones, aldehydes, peroxides}
- 47/10 . . . Alcohols; Phenols; Salts thereof, e.g. glycerol; Polyethylene glycols [PEG]; Poloxamers; PEG/POE alkyl ethers
- 47/12 . . . Carboxylic acids; Salts or anhydrides thereof
- 47/14 . . . Esters of carboxylic acids, e.g. fatty acid monoglycerides, medium-chain triglycerides, parabens or PEG fatty acid esters
- 47/16 . . containing nitrogen, {e.g. nitro-, nitroso-, azo-compounds, nitriles, cyanates}
- 47/18 . . . Amines; Amides; Ureas; Quaternary ammonium compounds; Amino acids; Oligopeptides having up to five amino acids
- 47/183 {Amino acids, e.g. glycine, EDTA or aspartame}
- 47/186 {Quaternary ammonium compounds, e.g. benzalkonium chloride or cetrimide}
- 47/20 . . containing sulfur, e.g. dimethyl sulfoxide [DMSO], docusate, sodium lauryl sulfate or aminosulfonic acids
- 47/22 . . Heterocyclic compounds, e.g. ascorbic acid, tocopherol or pyrrolidones
- 47/24 . . containing atoms other than carbon, hydrogen, oxygen, halogen, nitrogen or sulfur, e.g. cyclomethicone or phospholipids
- 47/26 . . Carbohydrates, e.g. sugar alcohols, amino sugars, nucleic acids, mono-, di- or oligo-saccharides; Derivatives thereof, e.g. polysorbates, sorbitan fatty acid esters or glycyrrhizin
- 47/28 . . Steroids, e.g. cholesterol, bile acids or glycyrrhetic acid
- 47/30 . Macromolecular organic or inorganic compounds, e.g. inorganic polyphosphates
- 47/32 . . Macromolecular compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds, e.g. carbomers {, poly(meth)acrylates, or polyvinyl pyrrolidone}
- 47/34 . . Macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds, e.g. polyesters, polyamino acids, polysiloxanes, polyphosphazines, copolymers of polyalkylene glycol or poloxamers ([A61K 47/10 takes precedence](#))
- 47/36 . . Polysaccharides; Derivatives thereof, e.g. gums, starch, alginate, dextrin, hyaluronic acid, chitosan, inulin, agar or pectin
- 47/38 . . . Cellulose; Derivatives thereof
- 47/40 . . . Cyclodextrins; Derivatives thereof
- 47/42 . . Proteins; Polypeptides; Degradation products thereof; Derivatives thereof, e.g. albumin, gelatin or zein ([oligopeptides having up to five amino acids {A61K 47/183}](#); [polyamino acids A61K 47/34](#))
- 47/44 . Oils, fats or waxes according to two or more groups of [A61K 47/02-A61K 47/42](#); Natural or modified natural oils, fats or waxes, e.g. castor oil, polyethoxylated castor oil, montan wax, lignite, shellac, rosin, beeswax or lanolin ([synthetic glycerides, e.g. medium-chain triglycerides, A61K 47/14](#))
- 47/46 . Ingredients of undetermined constitution or reaction products thereof, e.g. skin, bone, milk, cotton fibre, eggshell, oxgall or plant extracts
- 47/50 . the non-active ingredient being chemically bound to the active ingredient, e.g. polymer-drug conjugates
- 47/51 . . the non-active ingredient being a modifying agent
- 47/52 . . . the modifying agent being an inorganic compound, e.g. an inorganic ion that is complexed with the active ingredient
- 47/54 . . . the modifying agent being an organic compound
- 47/541 {Organic ions forming an ion pair complex with the pharmacologically or therapeutically active agent}
- 47/542 {Carboxylic acids, e.g. a fatty acid or an amino acid}
- 47/543 {Lipids, e.g. triglycerides; Polyamines, e.g. spermine or spermidine}
- 47/544 {Phospholipids}
- 47/545 {Heterocyclic compounds ([A61K 47/558 takes precedence](#))}
- 47/546 {Porphyrines; Porphyrine with an expanded ring system, e.g. texaphyrine}
- 47/547 {Chelates, e.g. Gd-DOTA or Zinc-amino acid chelates; Chelate-forming compounds, e.g. DOTA or ethylenediamine being covalently linked or complexed to the pharmacologically- or therapeutically-active agent}
- 47/548 {Phosphates or phosphonates, e.g. bone-seeking ([phospholipids A61K 47/544](#))}
- 47/549 {Sugars, nucleosides, nucleotides or nucleic acids}
- 47/55 the modifying agent being also a pharmacologically or therapeutically active agent, i.e. the entire conjugate being a codrug, i.e. a dimer, oligomer or polymer of pharmacologically or therapeutically active compounds
- 47/551 {one of the codrug's components being a vitamin, e.g. niacinamide, vitamin B3, cobalamin, vitamin B12, folate, vitamin A or retinoic acid}
- 47/552 {one of the codrug's components being an antibiotic}
- 47/554 {the modifying agent being a steroid plant sterol, glycyrrhetic acid, enoxolone or bile acid}
- 47/555 {pre-targeting systems involving an organic compound, other than a peptide, protein or antibody, for targeting specific cells}
- 47/556 {enzyme catalyzed therapeutic agent [ECTA]}
- 47/557 {the modifying agent being biotin}
- 47/558 {the modifying agent being a chemiluminescent acceptor}
- 47/559 {Redox delivery systems, e.g. dihydropyridine pyridinium salt redox systems}
- 47/56 . . the modifying agent being an organic macromolecular compound, e.g. an oligomeric, polymeric or dendrimeric molecule

- 47/58 obtained by reactions only involving carbon-to-carbon unsaturated bonds, e.g. poly[meth]acrylate, polyacrylamide, polystyrene, polyvinylpyrrolidone, polyvinylalcohol or polystyrene sulfonic acid resin
- 47/585 {Ion exchange resins, e.g. polystyrene sulfonic acid resin}
- 47/59 obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds, e.g. polyureas or polyurethanes
- 47/593 {Polyesters, e.g. PLGA or polylactide-co-glycolide}
- 47/595 {Polyamides, e.g. nylon (polyamino acids [A61K 47/62](#))}
- 47/60 the organic macromolecular compound being a polyoxyalkylene oligomer, polymer or dendrimer, e.g. PEG, PPG, PEO or polyglycerol
- 47/605 {the macromolecule containing phosphorus in the main chain, e.g. poly-phosphazene}
- 47/61 the organic macromolecular compound being a polysaccharide or a derivative thereof
- 47/62 . . . the modifying agent being a protein, peptide or polyamino acid
- 47/64 Drug-peptide, drug-protein or drug-polyamino acid conjugates, i.e. the modifying agent being a peptide, protein or polyamino acid which is covalently bonded or complexed to a therapeutically active agent ([peptidic linkers A61K 47/65](#))
- 47/641 {Branched, dendritic or hypercomb peptides}
- 47/6415 {Toxins or lectins, e.g. clostridial toxins or Pseudomonas exotoxins}
- 47/642 {the peptide or protein in the drug conjugate being a cytokine, e.g. IL2, chemokine, growth factors or interferons being the inactive part of the conjugate}
- 47/6425 {the peptide or protein in the drug conjugate being a receptor, e.g. CD4, a cell surface antigen, i.e. not a peptide ligand targeting the antigen, or a cell surface determinant, i.e. a part of the surface of a cell}
- 47/643 {Albumins, e.g. HSA, BSA, ovalbumin or a Keyhole Limpet Hemocyanin [KHL]}
- 47/6435 {the peptide or protein in the drug conjugate being a connective tissue peptide, e.g. collagen, fibronectin or gelatin}
- 47/644 {Transferrin, e.g. a lactoferrin or ovotransferrin}
- 47/6445 {Haemoglobin}
- 47/645 {Polycationic or polyanionic oligopeptides, polypeptides or polyamino acids, e.g. polylysine, polyarginine, polyglutamic acid or peptide TAT}
- 47/6455 {Polycationic oligopeptides, polypeptides or polyamino acids, e.g. for complexing nucleic acids}
- 47/646 {the entire peptide or protein drug conjugate elicits an immune response, e.g. conjugate vaccines}
- 47/65 Peptidic linkers, binders or spacers, e.g. peptidic enzyme-labile linkers
- 47/66 the modifying agent being a pre-targeting system involving a peptide or protein for targeting specific cells
- 47/665 {the pre-targeting system, clearing therapy or rescue therapy involving biotin-(strept) avidin systems}
- 47/67 {Enzyme prodrug therapy, e.g. gene directed enzyme drug therapy [GDEPT] or VDEPT}
- 47/68 . . . the modifying agent being an antibody, an immunoglobulin or a fragment thereof, e.g. an Fc-fragment
- 47/6801 {Drug-antibody or immunoglobulin conjugates defined by the pharmacologically or therapeutically active agent}
- 47/6803 {Drugs conjugated to an antibody or immunoglobulin, e.g. cisplatin-antibody conjugates}
- 47/6805 {the drug being a vinca alkaloid}
- 47/6807 {the drug or compound being a sugar, nucleoside, nucleotide, nucleic acid, e.g. RNA antisense}
- 47/6809 {Antibiotics, e.g. antitumor antibiotics anthracyclins, adriamycin, doxorubicin or daunomycin}
- 47/6811 {the drug being a protein or peptide, e.g. transferrin or bleomycin}
- 47/6813 {the drug being a peptidic cytokine, e.g. an interleukin or interferon}
- 47/6815 {Enzymes}
- 47/6817 {Toxins}
- 47/6819 {Plant toxins}
- 47/6821 {Plant heterodimeric toxins, e.g. abrin or modeccin}
- 47/6823 {Double chain ricin}
- 47/6825 {Ribosomal inhibitory proteins, i.e. RIP-I or RIP-II, e.g. Pap, gelonin or dianthin}
- 47/6827 {Ricin A}
- 47/6829 {Bacterial toxins, e.g. diphtheria toxins or Pseudomonas exotoxin A}
- 47/6831 {Fungal toxins, e.g. alpha sarcine, mitogillin, zinniol or restrictocin}
- 47/6833 {Viral toxins}
- 47/6835 {the modifying agent being an antibody or an immunoglobulin bearing at least one antigen-binding site}
- 47/6839 {the antibody targeting material from viruses}
- 47/6841 {the antibody targeting a RNA virus}
- 47/6843 {the antibody targeting a material from animals or humans}
- 47/6845 {the antibody targeting a cytokine, e.g. growth factors, VEGF, TNF, a lymphokine or an interferon}
- 47/6847 {the antibody targeting a hormone or a hormone-releasing or -inhibiting factor}
- 47/6849 {the antibody targeting a receptor, a cell surface antigen or a cell surface determinant}
- 47/6851 {the antibody targeting a determinant of a tumour cell}

47/6853	. . . . .	{Carcino-embryonic antigens}	47/6895	. . . . .	{Rescue therapy; Agonist-antagonist; Antidotes; Targeted rescue or protection, e.g. by folic acid-folinic acid or conjugated to antibodies}
47/6855	. . . . .	{the tumour determinant being from breast cancer cell}	47/6897	. . . . .	{Pre-targeting systems with two or three steps using antibody conjugates; Ligand-antiligand therapies}
47/6857	. . . . .	{the tumour determinant being from lung cancer cell}	47/6898	. . . . .	{using avidin- or biotin-conjugated antibodies}
47/6859	. . . . .	{the tumour determinant being from liver or pancreas cancer cell}	47/6899	. . . . .	{Antibody-Directed Enzyme Prodrug Therapy [ADEPT]}
47/6861	. . . . .	{the tumour determinant being from kidney or bladder cancer cell}	47/69	. .	the conjugate being characterised by physical or galenical forms, e.g. emulsion, particle, inclusion complex, stent or kit
47/6863	. . . . .	{the tumour determinant being from stomach or intestines cancer cell}	47/6901	. . .	{Conjugates being cells, cell fragments, viruses, ghosts, red blood cells or viral vectors}
47/6865	. . . . .	{the tumour determinant being from skin, nerves or brain cancer cell}	47/6903	. . .	{the form being semi-solid, e.g. an ointment, a gel, a hydrogel or a solidifying gel}
47/6867	. . . . .	{the tumour determinant being from a cell of a blood cancer}	47/6905	. . .	{the form being a colloid or an emulsion}
47/6869	. . . . .	{the tumour determinant being from a cell of the reproductive system: ovaria, uterus, testes, prostate}	47/6907	. . . . .	{the form being a microemulsion, nanoemulsion or micelle}
47/6871	. . . . .	{the antibody targeting an enzyme}	47/6909	. . . . .	{Micelles formed by phospholipids}
47/6873	. . . . .	{the antibody targeting an immunoglobulin; the antibody being an anti-idiotypic antibody}	47/6911	. . . . .	{the form being a liposome}
47/6875	. . . . .	{the antibody being a hybrid immunoglobulin}	47/6913	. . . . .	{the liposome being modified on its surface by an antibody}
47/6877	. . . . .	{the antibody being an immunoglobulin containing regions, domains or residues from different species}	47/6915	. . . . .	{the form being a liposome with polymerisable or polymerized bilayer-forming substances, e.g. polymersomes}
47/6879	. . . . .	{the immunoglobulin having two or more different antigen-binding sites, e.g. bispecific or multispecific immunoglobulin}	47/6917	. . . . .	{the form being a lipoprotein vesicle, e.g. HDL or LDL proteins}
47/6881	. . . . .	{Cluster-antibody conjugates, i.e. the modifying agent consists of a plurality of antibodies covalently linked to each other or of different antigen-binding fragments covalently linked to each other}	47/6919	. . . . .	{the form being a ribbon or a tubule cochleate}
47/6883	. . . . .	{Polymer-drug antibody conjugates, e.g. mitomycin-dextran-Ab; DNA-polylysine-antibody complex or conjugate used for therapy}	47/6921	. . .	{the form being a particulate, a powder, an adsorbate, a bead or a sphere}
47/6885	. . . . .	{the conjugate or the polymer being a starburst, a dendrimer, a cascade}	47/6923	. . . . .	{the form being an inorganic particle, e.g. ceramic particles, silica particles, ferrite or synsorb}
47/6887	. . . . .	{Antibody-chelate conjugates using chelates for therapeutic purposes (radioactive substances, e.g. for use in radio diagnosis or radiotherapy, A61K 51/10 ; antibody-chelates for use in MRI A61K 49/14)}	47/6925	. . . . .	{the form being a microcapsule, nanocapsule, microbubble or nanobubble}
47/6889	. . . . .	{Conjugates wherein the antibody being the modifying agent and wherein the linker, binder or spacer confers particular properties to the conjugates, e.g. peptidic enzyme-labile linkers or acid-labile linkers, providing for an acid-labile immuno conjugate wherein the drug may be released from its antibody conjugated part in an acidic, e.g. tumoural or environment}	47/6927	. . . . .	{the form being a solid microparticle having no hollow or gas-filled cores}
47/6891	. . . . .	{Pre-targeting systems involving an antibody for targeting specific cells}	47/6929	. . . . .	{the form being a nanoparticle, e.g. an immuno-nanoparticle}
47/6893	. . . . .	{clearing therapy or enhanced clearance, i.e. using an antibody clearing agents in addition to T-A and D-M}	47/6931	. . . . .	{the material constituting the nanoparticle being a polymer}
			47/6933	. . . . .	{the polymer being obtained by reactions only involving carbon to carbon, e.g. poly(meth)acrylate, polystyrene, polyvinylpyrrolidone or polyvinylalcohol}
			47/6935	. . . . .	{the polymer being obtained otherwise than by reactions involving carbon to carbon unsaturated bonds, e.g. polyesters, polyamides or polyglycerol}
			47/6937	. . . . .	{the polymer being PLGA, PLA or polyglycolic acid}
			47/6939	. . . . .	{the polymer being a polysaccharide, e.g. starch, chitosan, chitin, cellulose or pectin}
			47/6941	. . . . .	{the form being a granulate or an agglomerate}
			47/6943	. . .	{the form being a pill, a tablet, a lozenge or a capsule}

- 47/6949 . . . {inclusion complexes, e.g. clathrates, cavities or fullerenes}
- 47/6951 {using cyclodextrin ([cyclodextrins used as simple excipients A61K 47/40](#))}
- 47/6953 . . . {the form being a fibre, a textile, a slab or a sheet}
- 47/6955 . . . {the form being a plaster, a bandage, a dressing or a patch}
- 47/6957 . . . {the form being a device or a kit, e.g. stents or microdevices}

48/00 Medicinal preparations containing genetic material which is inserted into cells of the living body to treat genetic diseases; Gene therapy

NOTES

1. In this group the following expression is used with the meaning indicated:
"gene therapy" means *in vivo* delivery of nucleic acids encoding for peptides by administration of these nucleic acids or by implanting cells transfected *ex vivo* with the nucleic acids encoding for the peptides.
2. Documents relating to new nucleic acids encoding for peptides, e.g. enzymes, and their use in gene therapy are classified in subclass [C07K](#) or in group [C12N 9/00](#) according to the encoded peptides, with the appropriate indexing codes relating to gene therapy.
3. Documents relating to new vectors and their use in gene therapy are classified in groups [C12N 15/85](#) - [C12N 15/90](#) according to the vectors, and the appropriate indexing codes, including those relating to gene therapy.
4. Documents describing cells genetically modified to express a gene of interest and their use in gene therapy are classified in [C12N 5/06](#) according to the cells, with the appropriate indexing codes relating to gene therapy.
5. Documents relating to new medical uses of peptides *per se*, which peptides may be encoded by nucleic acids, and wherein the nucleic acids may be administered directly or by implanting cells transfected *ex vivo* with the nucleic acids, are classified in the appropriate groups [A61K 38/00](#) or [A61K 39/00](#) according to the encoded peptides, with the indexing codes relating, *inter alia*, to gene therapy.

- 48/0008 . {characterised by an aspect of the 'non-active' part of the composition delivered, e.g. wherein such 'non-active' part is not delivered simultaneously with the 'active' part of the composition}
- 48/0016 . . {wherein the nucleic acid is delivered as a 'naked' nucleic acid, i.e. not combined with an entity such as a cationic lipid}
- 48/0025 . . {wherein the non-active part clearly interacts with the delivered nucleic acid}
- 48/0033 . . . {the non-active part being non-polymeric}
- 48/0041 . . . {the non-active part being polymeric}
- 48/005 . {characterised by an aspect of the 'active' part of the composition delivered, i.e. the nucleic acid delivered}
- 48/0058 . . {Nucleic acids adapted for tissue specific expression, e.g. having tissue specific promoters as part of a construct}

- 48/0066 . . {Manipulation of the nucleic acid to modify its expression pattern, e.g. enhance its duration of expression, achieved by the presence of particular introns in the delivered nucleic acid}
- 48/0075 . {characterised by an aspect of the delivery route, e.g. oral, subcutaneous}
- 48/0083 . {characterised by an aspect of the administration regime}
- 48/0091 . {Purification or manufacturing processes for gene therapy compositions}

49/00 Preparations for testing *in vivo*

- 49/0002 . {General or multifunctional contrast agents, e.g. chelated agents}
- 49/0004 . {Screening or testing of compounds for diagnosis of disorders, assessment of conditions, e.g. renal clearance, gastric emptying, testing for diabetes, allergy, rheuma, pancreas functions}
- 49/0006 . . {Skin tests, e.g. intradermal testing, test strips, delayed hypersensitivity}
- 49/0008 . . {Screening agents using (non-human) animal models or transgenic animal models or chimeric hosts, e.g. Alzheimer disease animal model, transgenic model for heart failure}
- 49/001 . {Preparation for luminescence or biological staining}
 - 49/0013 . . {Luminescence}
 - 49/0015 . . . {Phosphorescence}
 - 49/0017 . . . {Fluorescence *in vivo*}
 - 49/0019 {characterised by the fluorescent group}
 - 49/0021 {the fluorescent group being a small organic molecule (*oligomeric, polymeric, dendritic molecules*: [A61K 49/0019](#))}

NOTE

if this fluorescent group is complexed or covalently linked to a carrier, classification is also made according to the nature of the carrier in the appropriate [A61K 49/005](#) subgroup

- 49/0023 {Di- or triarylmethane dye (*xanthene dyes* [A61K 49/0041](#))}
- 49/0026 {Acridine dyes}
- 49/0028 {Oxazine dyes}
- 49/003 {Thiazine dyes}
- 49/0032 {Methine dyes, e.g. cyanine dyes}
- 49/0034 {Indocyanine green, i.e. ICG, cardiogreen}
- 49/0036 {Porphyrins (*used in photodynamic therapy* [A61K 41/0071](#) or [A61K 41/0076](#); used as targeting group or modifying agent for targeting a therapeutic compound [A61K 47/546](#))}
- 49/0039 {Coumarin dyes}
- 49/0041 {Xanthene dyes, used *in vivo*, e.g. administered to a mice, e.g. rhodamines, rose Bengal (*in vivo* [G01N](#))}
- 49/0043 {Fluorescein, used *in vivo*}
- 49/0045 {the fluorescent agent being a peptide or protein used for imaging or diagnosis *in vivo*}
- 49/0047 {Green fluorescent protein [GFP]}

- 49/005 {characterised by the carrier molecule carrying the fluorescent agent}
- NOTE**
- Classification is also made according to the nature of the fluorescent group in the appropriate subgroup of [A61K 49/0019](#)
- 49/0052 {Small organic molecules (oligomers, polymers, dendrimers [A61K 49/0054](#))}
- 49/0054 {Macromolecular compounds, i.e. oligomers, polymers, dendrimers}
- 49/0056 {Peptides, proteins, polyamino acids}
- 49/0058 {Antibodies}
- 49/006 . . {Biological staining of tissues *in vivo*, e.g. methylene blue or toluidine blue O administered in the buccal area to detect epithelial cancer cells, dyes used for delineating tissues during surgery}

NOTE

If the dye used for staining is fluorescent, classification is also given for the appropriate subgroup of [A61K 49/0019](#)

- 49/0063 . . {characterised by a special physical or galenical form, e.g. emulsions, microspheres}

NOTE

Note Classification is also made according to the nature of the luminescent or fluorescent agent and/or the carrier carrying the fluorescent agent

- 49/0065 . . . {the luminescent/fluorescent agent having itself a special physical form, e.g. gold nanoparticle}
- 49/0067 {quantum dots, fluorescent nanocrystals}

NOTE

Quantum dots modified on their surface by an antibody are also classified in [A61K 49/0058](#))

- 49/0069 . . . {the agent being in a particular physical galenical form}

NOTE

If the physical or galenical form containing a fluorescent agent is modified by a particular agent, classification is also made according to the nature of this agent in the appropriate [A61K 49/005](#) subgroup

- 49/0071 {solution, solute}
- 49/0073 {semi-solid, gel, hydrogel, ointment}
- 49/0076 {dispersion, suspension, e.g. particles in a liquid, colloid, emulsion}
- 49/0078 {microemulsion, nanoemulsion}

NOTE

Microemulsion means that the dispersed phase is in the form of globules having a diameter above or equal to 1 micrometer. Nanoemulsion means that the dispersed phase is in the form of globules having a diameter below 1 micrometer

- 49/008 {lipoprotein vesicle, e.g. HDL or LDL proteins}
- 49/0082 {micelle, e.g. phospholipidic micelle and polymeric micelle}

NOTE

Micelles comprise a monolayer of surfactant molecules that are aggregated head-to-head and tail-to-tail, thus forming a small spherical particle; micelles can be normal, i.e., the surfactant heads are hydrophilic, or inverse

- 49/0084 {liposome, i.e. bilayered vesicular structure}

NOTE

When the surface of the liposome encapsulating a fluorescent agent and used *in vivo* is functionalised by a modifying agent, classification is also made according to the nature of this modifying agent: e.g. a liposome modified on its surface by a peptide is classified in [A61K 49/0084](#) and [A61K 49/0056](#). Liposomes encapsulating a fluorescent agent, used *in vivo* and modified on their surface by a polymer because they incorporate a polymer-lipid conjugate, are only additionally classified in [A61K 49/0054](#) if the polymer modifying the lipid is unusual. Liposomes encapsulating a fluorescent agent which are pegylated because they incorporate a pegylated lipid are only classified in [A61K 49/0084](#), not in [A61K 49/0054](#)

- 49/0086 {Polymersome, i.e. liposome with polymerisable or polymerized bilayered-forming substances}
- 49/0089 {Particulate, powder, adsorbate, bead, sphere}
- 49/0091 {Microparticle, microcapsule, microbubble, microsphere, microbead, i.e. having a size or diameter higher or equal to 1 micrometer}

NOTE

When the surface of the microparticle encapsulating a fluorescent agent and used *in vivo* is functionalised by a modifying agent, classification is also made according to the nature of this modifying agent, e.g. a microparticle modified on its surface by a peptide is classified in [A61K 49/0091](#) and [A61K 49/0056](#)

- 49/0093 {Nanoparticle, nanocapsule, nanobubble, nanosphere, nanobead, i.e. having a size or diameter smaller than 1 micrometer, e.g. polymeric nanoparticle}
- 49/0095 {Nanotubes}

- 49/0097 {Cells, viruses, ghosts, red blood cells, viral vectors, used for imaging or diagnosis in vivo}
- 49/04 . X-ray contrast preparations
- NOTE**
- In the preparation of new organic compounds and their use in X-ray contrast preparations, classification is only made in the relevant subclasses [C07C](#) - [C07J](#) according to the type of compound
- 49/0404 . . {containing barium sulfate}
- 49/0409 . . {Physical forms of mixtures of two different X-ray contrast-enhancing agents, containing at least one X-ray contrast-enhancing agent which is not a halogenated organic compound}
- 49/0414 . . . {Particles, beads, capsules or spheres}
- 49/0419 {Microparticles, microbeads, microcapsules, microspheres, i.e. having a size or diameter higher or equal to 1 micrometer}
- 49/0423 {Nanoparticles, nanobeads, nanospheres, nanocapsules, i.e. having a size or diameter smaller than 1 micrometer}
- 49/0428 {Surface-modified nanoparticles, e.g. immuno-nanoparticles}
- 49/0433 . . {containing an organic halogenated X-ray contrast-enhancing agent}
- 49/0438 . . . {Organic X-ray contrast-enhancing agent comprising an iodinated group or an iodine atom, e.g. iopamidol}
- 49/0442 . . . {Polymeric X-ray contrast-enhancing agent comprising a halogenated group}
- 49/0447 . . . {Physical forms of mixtures of two different X-ray contrast-enhancing agents, containing at least one X-ray contrast-enhancing agent which is a halogenated organic compound}
- 49/0452 {Solutions, e.g. for injection}
- 49/0457 {Semi-solid forms, ointments, gels, hydrogels}
- 49/0461 {Dispersions, colloids, emulsions or suspensions}
- 49/0466 {Liposomes, lipoprotein vesicles, e.g. HDL or LDL lipoproteins, phospholipidic or polymeric micelles}
- 49/0471 {Perflubron, i.e. perfluorooctylbromide, C₈F₁₇Br emulsions}
- 49/0476 {Particles, beads, capsules, spheres}
- 49/048 {Microparticles, microbeads, microcapsules, microspheres, i.e. having a size or diameter higher or equal to 1 micrometer}
- 49/0485 {Nanoparticles, nanobeads, nanospheres, nanocapsules, i.e. having a size or diameter smaller than 1 micrometer}
- 49/049 {Surface-modified nanoparticles, e.g. immune-nanoparticles}
- 49/0495 {intended for oral administration}
- 49/06 . Nuclear magnetic resonance [NMR] contrast preparations; Magnetic resonance imaging [MRI] contrast preparations
- NOTE**
- characterised only by the (inorganic) MRI-active nucleus, e.g. ¹²⁹Xe
- 49/08 . . characterised by the carrier
- NOTE**
- {characterised by the carrier carrying the MRI-active nucleus, e.g. inorganic carrier}
- 49/085 . . . {conjugated systems}
- NOTE**
- The MRI-active nucleus being complexed to a complex-forming compound (e.g. chelating group) or being covalently linked to a molecule, which being further covalently linked or conjugated to a carrier, e.g. polymer. Classification being also made according to the nature of the carrier, e.g. [Gd3+]DOTA-polymer to be classified in [A61K 49/085](#) and in the appropriate [A61K 49/12](#) adequate subgroup
- 49/10 . . . Organic compounds
- NOTE**
- the carrier being an organic compound, e.g. ¹³C-labelled molecule or perfluorinated alkane, used as MRI in vivo probe, or a small organic molecule, e.g. a sugar, linked to a Gd-chelate
- 49/101 {the carrier being a complex-forming compound able to form MRI-active complexes with paramagnetic metals}
- NOTE**
- In the [A61K 49/101](#) subgroups, the MRI-active nucleus being complexed to a complex-forming compound, e.g. chelating group. Classification being made according to the nature of this complex-forming agent, if it being either an uncommon or new complexing agent (not the usual DTPA, DOTA, DOTP, etc...groups) that forms the real contribution to the claimed MRI invention, or if it being not conjugated to any further molecule, e.g. which being not conjugated to a polymer, peptide, protein or antibody. In that latter case, the MRI probe being e.g. a paramagnetic metal chelate
- 49/103 {the complex-forming compound being acyclic, e.g. DTPA}
- 49/105 {the metal complex being Gd-DTPA}
- 49/106 {the complex-forming compound being cyclic, e.g. DOTA}
- 49/108 {the metal complex being Gd-DOTA}
- 49/12 Macromolecular compounds
- NOTE**
- the carrier being an organic macromolecular compound, i.e. an oligomeric, polymeric, dendrimeric molecule (not being a peptide, protein, polyamino acid (see [A61K 49/00](#)) or an antibody (see [A61K 49/00](#) or [A61K 49/16](#))

- 49/122 {dimers of complexes or complex-forming compounds}
- 49/124 {dendrimers, dendrons, hyperbranched compounds}

NOTE

Said compounds are either complexes or complex-forming compounds, or they form a backbone to which MRI active nuclei are complexed or covalently linked through chelating groups. In that latter case, the subgroup [A61K 49/085](#) being also given. Dendrimeric, dendronised or hyperbranched polyamino acids used as carriers are also classified in [A61K 49/146](#)

- 49/126 {Linear polymers, e.g. dextran, inulin, PEG}
- 49/128 {comprising multiple complex or complex-forming groups, being either part of the linear polymeric backbone or being pending groups covalently linked to the linear polymeric backbone}

NOTE

In that latter case, classification is also made in [A61K 49/085](#)

- 49/14 Peptides, e.g. proteins

NOTE

the carrier being a peptide (polyamino acid, [A61K 49/146](#)) or protein (not an antibody, see [A61K 49/16](#)). If the MRI-active nucleus being linked to the peptide or protein or polyamino acid via a complexing or chelating group, the subgroup [A61K 49/085](#) should also be given. If the peptide or protein or polyamino acid being a dendrimer, a dendron, or hyperbranched, then the [A61K 49/124](#) being also given

- 49/143 {the protein being an albumin, e.g. HSA, BSA, ovalbumin}
- 49/146 {the peptide being a polyamino acid, e.g. poly-lysine}
- 49/16 Antibodies; Immunoglobulins; Fragments thereof

NOTE

the protein being an antibody, an immunoglobulin or a fragment thereof. If the MRI-active nucleus being linked to the antibody via a complexing or chelating group, the subgroup [A61K 49/085](#) should also be given

- 49/18 . . characterised by a special physical form, e.g. emulsions, microcapsules, liposomes

NOTE

Classification being also made according to the molecule complexing or bearing the MRI-active nucleus

- 49/1803 {Semi-solid preparations, e.g. ointments, gels, hydrogels}
- 49/1806 {Suspensions, emulsions, colloids, dispersions}
- 49/1809 {Micelles, e.g. phospholipidic or polymeric micelles}
- 49/1812 {liposomes, polymersomes, e.g. immunoliposomes}

NOTE

If the paramagnetic metal complexes are covalently linked to the bilayered membrane, then the [A61K 49/085](#) subgroup being also given. Liposomes modified on their external surface by a targeting agent, e.g. an antibody are classified in [A61K 49/1812](#) without further indication for the targeting agent

- 49/1815 {compo-inhalant, e.g. breath tests}
- 49/1818 {particles, e.g. uncoated or non-functionalised microparticles or nanoparticles}

NOTE

For nanoparticles, i.e. having a size or diameter smaller than 1 micrometer, the subgroups [B82Y 5/00](#) and [B82Y 15/00](#) are also given

- 49/1821 {coated or functionalised microparticles or nanoparticles}
- 49/1824 {coated or functionalised nanoparticles (liposomes [A61K 49/1812](#); nanoemulsions [A61K 49/1806](#); micelles [A61K 49/1809](#))}
- 49/1827 {having a (super)(para)magnetic core, being a solid MRI-active material, e.g. magnetite, or composed of a plurality of MRI-active, organic agents, e.g. Gd-chelates, or nuclei, e.g. Eu3+, encapsulated or entrapped in the core of the coated or functionalised nanoparticle}
- 49/183 {having a (super)(para)magnetic core coated or functionalised with an inorganic material or being composed of an inorganic material entrapping the MRI-active nucleus, e.g. silica core doped with a MRI-active nucleus}
- 49/1833 {having a (super)(para)magnetic core coated or functionalised with a small organic molecule (oligomeric, polymeric, dendrimeric [A61K 49/1851](#))}
- 49/1836 {the small organic molecule being a carboxylic acid having less than 8 carbon atoms in the main chain}
- 49/1839 {the small organic molecule being a lipid, a fatty acid having 8 or more carbon atoms in the main chain, or a phospholipid}
- 49/1842 {the small organic molecule being a phosphate or a phosphonate, not being a phospholipid}
- 49/1845 {the small organic molecule being a carbohydrate (monosaccharides, disaccharides)}

- 49/1848 {the small organic molecule being a silane}
- 49/1851 {having a (super)(para)magnetic core coated or functionalised with an organic macromolecular compound, i.e. oligomeric, polymeric, dendrimeric organic molecule (peptide or protein [A61K 49/1866](#); polyamino acid [A61K 49/1872](#); antibody [A61K 49/1875](#))}
- 49/1854 {the organic macromolecular compound being obtained by reactions only involving carbon-to-carbon unsaturated bonds, e.g. poly(meth)acrylate, polyacrylamide, polyvinylpyrrolidone, polyvinylalcohol}
- 49/1857 {the organic macromolecular compound being obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds, e.g. PLGA}
- 49/186 {the organic macromolecular compound being polyethyleneglycol [PEG]}
- 49/1863 {the organic macromolecular compound being a polysaccharide or derivative thereof, e.g. chitosan, chitin, cellulose, pectin, starch}
- 49/1866 {the nanoparticle having a (super)(para)magnetic core coated or functionalised with a peptide, e.g. protein, polyamino acid}
- 49/1869 {coated or functionalised with a protein being an albumin, e.g. HSA, BSA, ovalbumin}
- 49/1872 {coated or functionalised with a polyamino acid, e.g. polylysine, polyglutamic acid}
- 49/1875 {coated or functionalised with an antibody}
- 49/1878 {the nanoparticle having a magnetically inert core and a (super)(para)magnetic coating}
- 49/1881 {wherein the coating consists of chelates, i.e. chelating group complexing a (super)(para)magnetic ion, bound to the surface}
- 49/1884 {Nanotubes, nanorods or nanowires}
- 49/1887 {Agglomerates, clusters, i.e. more than one (super)(para)magnetic microparticle or nanoparticle are aggregated or entrapped in the same matrix}
- 49/189 . . . {Host-guest complexes, e.g. cyclodextrins}
- 49/1893 . . . {Molecular sieves}
- 49/1896 . . . {not provided for elsewhere, e.g. cells, viruses, ghosts, red blood cells, virus capsids}
- 49/20 . . containing free radicals {, e.g. trityl radical for overhauser}
- 49/22 . Echographic preparations; Ultrasound imaging preparation {Optoacoustic imaging preparations}
- 49/221 . . {characterised by the targeting agent or modifying agent linked to the acoustically-active agent}
- 49/222 . . {characterised by a special physical form, e.g. emulsions, liposomes}
- 49/223 . . . {Microbubbles, hollow microspheres, free gas bubbles, gas microspheres}
- 49/225 . . . {Microparticles, microcapsules (gas-filled to be classified in [A61K 49/223](#))}
- 49/226 . . . {Solutes, emulsions, suspensions, dispersions, semi-solid forms, e.g. hydrogels}
- 49/227 . . . {Liposomes, lipoprotein vesicles, e.g. LDL or HDL lipoproteins, micelles, e.g. phospholipidic or polymeric}
- 49/228 . . . {Host-guest complexes, clathrates, chelates}
- 51/00 Preparations containing radioactive substances for use in therapy or testing in vivo**
- WARNING**
- Groups [A61K 51/00](#) - [A61K 51/1296](#) are incomplete pending reclassification of documents from group [A61K 33/24](#).
- All groups listed in this Warning should be considered in order to perform a complete search.
- 51/02 . characterised by the carrier {, i.e. characterised by the agent or material covalently linked or complexing the radioactive nucleus}
- 51/025 . . {inorganic Tc complexes or compounds}
- 51/04 . . Organic compounds
- NOTE**
- Organic compounds used as carriers
- 51/0402 . . . {carboxylic acid carriers, fatty acids (amino acids [A61K 51/0406](#))}
- 51/0404 . . . {Lipids, e.g. triglycerides; Polycationic carriers (polycationic carriers being oligomers, polymers, dendrimers [A61K 47/56](#); fatty acids [A61K 51/0402](#); cholesterol [A61K 51/0493](#))}
- 51/0406 {Amines, polyamines, e.g. spermine, spermidine, amino acids, (bis)guanidines}
- 51/0408 {Phospholipids (liposomes encapsulating the radioactive probe or having no radiolabelled phospholipids [A61K 51/1231](#))}
- 51/041 . . . {Heterocyclic compounds}
- NOTE**
- Under this group, the last place rule is followed
- 51/0412 {having oxygen as the only ring hetero atom, e.g. fungichromin}
- 51/0414 {having three-membered rings, e.g. oxirane, fumagillin}
- 51/0417 {having four-membered rings, e.g. taxol}
- 51/0419 {having five-membered rings with one oxygen as the only ring hetero atom, e.g. isosorbide}
- 51/0421 {having six-membered rings with one oxygen as the only ring hetero atom}
- 51/0423 {having two or more oxygen atoms in the same ring, e.g. crown ethers, guanadrel}
- 51/0425 {compounds containing methylenedioxyphenol groups, e.g. sesamin}
- 51/0427 {Lactones}
- 51/0429 {having sulfur as a ring hetero atom}

- 51/0431 {having five-membered rings}
- 51/0434 {having six-membered rings, e.g. thioxanthenes ([thiotixene A61K 51/0459](#))}
- 51/0436 {having two or more sulfur atoms in the same ring}
- 51/0438 {having oxygen in the same ring}
- 51/044 {having nitrogen as a ring hetero atom, e.g. guanethidine, rifamycins ([rifampin A61K 51/0459](#))}
- 51/0442 {having three-membered rings, e.g. aziridine}
- 51/0444 {having four-membered rings, e.g. azetidine}
- 51/0446 {having five-membered rings with one nitrogen as the only ring hetero atom, e.g. sulpiride, succinimide, tolmetin, bufloxedil}
- 51/0448 {tropane or nortropane groups, e.g. cocaine}
- 51/0451 {having four such rings, e.g. porphyrine derivatives, bilirubin, biliverdine ([hemin, hematin A61K 51/0472](#))}

NOTE

Porphyrins or texaphyrins used as complex-forming compounds, i.e. wherein the nitrogen atoms forming the central ring system complex the radioactive metal, are classified in [A61K 51/0485](#)

- 51/0453 {having five-membered rings with two or more ring hetero atoms, at least one of which being nitrogen, e.g. tetrazole}
- 51/0455 {having six-membered rings with one nitrogen as the only ring hetero atom}
- 51/0457 {Vesamicol}
- 51/0459 {having six-membered rings with two nitrogen atoms as the only ring hetero atoms, e.g. piperazine}
- 51/0461 {having six-membered rings with three nitrogens as the only ring hetero atoms, e.g. chlorazani, melamine ([melarsoprol A61K 51/0472](#))}
- 51/0463 {having six-membered rings with at least one nitrogen and one oxygen as the ring hetero atoms, e.g. 1,2-oxazines}
- 51/0465 {having six-membered rings with at least one nitrogen and one sulfur as the ring hetero atoms, e.g. sulthiame}
- 51/0468 {having seven-membered rings, e.g. azelastine, pentylenetetrazole}
- 51/047 {Benzodiazepines}
- 51/0472 {containing heavy metals, e.g. hemin, hematin, melarsoprol}
- 51/0474 {complexes or complex-forming compounds, i.e. wherein a radioactive metal (e.g. $^{111}\text{In}^{3+}$) is complexed or chelated by, e.g. a N_2S_2 , N_3S , NS_3 , N_4 chelating group}

NOTE

Classification is made according to the nature of this complex-forming agent, if it is either an uncommon or new complexing agent (not the usual DTPA, DOTA, DOTP, MAG3 etc...groups) that forms the real

contribution to the claimed invention (radioimaging or radiotherapeutic agent), or if it is not conjugated to any further molecule, e.g. which is not conjugated to a polymer, peptide, protein or antibody. In that latter case, the radioactive agent is e.g. a radioactive metal chelate

- 51/0476 {complexes from monodendate ligands, e.g. sestamibi}
- 51/0478 {complexes from non-cyclic ligands, e.g. EDTA, MAG3}
- 51/048 {DTPA (diethylenetriamine tetraacetic acid)}
- 51/0482 {chelates from cyclic ligands, e.g. DOTA}
- 51/0485 {Porphyrins, texaphyrins wherein the nitrogen atoms forming the central ring system complex the radioactive metal}

NOTE

Porphyrins used as simple heterocyclic carriers containing a radioactive nucleus (e.g. ^{11}C) or substituted with a radioactive nucleus (e.g. ^{18}F), are classified in [A61K 51/0451](#)

- 51/0487 {Metallocenes, i.e. complexes based on a radioactive metal complexed by two cyclopentadienyl anions}
- 51/0489 {Phosphates or phosphonates, e.g. bone-seeking phosphonates; ([phospholipids: A61K 51/0408](#); [nucleotides or nucleic acids: A61K 51/0491](#))}
- 51/0491 {Sugars, nucleosides, nucleotides, oligonucleotides, nucleic acids, e.g. DNA, RNA, nucleic acid aptamers}
- 51/0493 {Steroids, e.g. cholesterol, testosterone}
- 51/0495 {Pretargeting}

NOTE

Pretargeting is the administration of an agent X bearing the radioisotope or radioactive nucleus and of an agent Y capable of binding X and a cell Y in several steps, e.g. the radiolabelled agent is a radiolabelled biotin and the agent Y is a (strept)avidin molecule targeting specific cells. Classification is also made according to the nature of the carrier bearing/linked to the radioactive nucleus, e.g. an antibody

- 51/0497 {conjugates with a carrier being an organic compounds}

NOTE

The compound which bears, complexes or chelates the radioactive nucleus, is covalently linked or complexed to the carrier being another (small) organic molecule, i.e. not oligomeric, polymeric, dendrimeric. Classification is also made according to the nature of this small organic molecule. In case of a conjugate comprising a complex-forming compound (chelating group) complexing a radioactive metal linked to the carrier (organic compound in [A61K 51/0497](#)), the nature of this complex-

A61K

A61K 51/0497

(continued)

forming compound is not classified except if the complexing/chelating group is the subject of the invention and is uncommon, e.g. ¹¹¹In-DTPA-glucose is classified in [A61K 51/0497](#) (not in [A61K 51/048](#)) and in [A61K 51/0491](#)

complex-forming compound (chelating group) complexing a radioactive metal linked to the carrier (peptide, protein or polyamino acid in [A61K 51/088](#)), the nature of this complex-forming compound is not classified except if it is the real contribution of the claimed invention and it is an uncommon complexing or chelating group, e.g. ¹¹¹In-DTPA-interleukin 2 is classified in [A61K 51/088](#); new DTPA-like derivatives conjugated to interleukin 2 and complexing ¹¹¹In for use in vivo is classified in [A61K 51/0478](#) and [A61K 51/088](#)

51/06 . . . Macromolecular compounds {, carriers being organic macromolecular compounds, i.e. organic oligomeric, polymeric, dendrimeric molecules (peptides, proteins, polyamino acids [A61K 51/08](#); antibodies [A61K 51/10](#))}

51/065 . . . {conjugates with carriers being macromolecules}

NOTE

The compound which bears, complexes or chelates the radioactive nucleus, is covalently linked or complexed to the carrier being a macromolecule (not being a peptide, polyamino acid, protein, antibody). In case of a conjugate comprising a complex-forming compound (chelating group) complexing a radioactive metal linked to the carrier (organic macromolecular compound in [A61K 51/065](#)), the nature of this complex-forming compound is not classified except if it is the real contribution of the claimed invention and it is an uncommon complexing/chelating group, e.g. ¹¹¹In-DTPA-PEG is classified in [A61K 51/065](#) and new DTPA-like derivatives conjugated to PEG and complexing ¹¹¹In for use in vivo is classified in [A61K 51/0478](#) and [A61K 51/065](#)

51/08 . . . Peptides, e.g. proteins {, carriers being peptides, polyamino acids, proteins}

51/081 . . . {the protein being an albumin, e.g. human serum albumin [HSA], bovine serum albumin [BSA], ovalbumin}

51/082 . . . {the peptide being a RGD-containing peptide}

51/083 . . . {the peptide being octreotide or a somatostatin-receptor-binding peptide}

51/084 . . . {the peptide being oxytocin}

51/085 . . . {the peptide being neurotensin}

51/086 . . . {the peptide being alphaMSH, alpha melanocyte stimulating hormone}

51/087 . . . {the peptide being an annexin, e.g. annexin V}

51/088 . . . {conjugates with carriers being peptides, polyamino acids or proteins (antibodies [A61K 51/10](#))}

NOTE

The compound which bears, complexes or chelates the radioactive nucleus, is covalently linked/complexed to the carrier being a peptide, polyamino acid or protein (not being an antibody). Classification is also made according to the nature of the peptide or protein (e.g. if it is BSA, then [A61K 51/081](#) is also indicated). In case of a conjugate comprising a

51/10 Antibodies or immunoglobulins; Fragments thereof {, the carrier being an antibody, an immunoglobulin or a fragment thereof, e.g. a camelised human single domain antibody or the Fc fragment of an antibody}

51/1006 {the antibody being against or targeting material from viruses}

51/1009 {against material from bacteria}

51/1012 {against material from fungi, lichens or algae}

51/1015 {against material from plants}

51/1018 {against material from animals or humans}

51/1021 {against cytokines, e.g. growth factors, VEGF, TNF, lymphokines or interferons}

51/1024 {against hormones, hormone-releasing or hormone-inhibiting factors}

51/1027 {against receptors, cell-surface antigens or cell-surface determinants}

51/103 {against receptors for growth factors or receptors for growth regulators}

51/1033 {against receptors for cytokines, lymphokines or interferons}

51/1036 {against hormone receptors}

51/1039 {against T-cell receptors}

51/1042 {against T-cell receptor (TcR)-CD3 complex}

51/1045 {against animal or human tumor cells or tumor cell determinants}

51/1048 {the tumor cell determinant being a carcino embryonic antigen}

51/1051 {the tumor cell being from breast, e.g. the antibody being herceptin}

51/1054 {the tumor cell being from lung}

51/1057 {the tumor cell being from liver or pancreas}

51/106 {the tumor cell being from kidney or bladder}

51/1063 {the tumor cell being from stomach or intestines}

51/1066 {the tumor cell being from skin}

51/1069 {the tumor cell being from blood cells, e.g. the cancer being a myeloma}

51/1072 {the tumor cell being from the reproductive system, e.g. ovaria, uterus, testes or prostate}

51/1075 {the antibody being against an enzyme}

51/1078 {the antibody being against an immunoglobulin, i.e. being an (anti)-anti-idiotypic antibody}

- 51/1084 {the antibody being a hybrid immunoglobulin}
- 51/1087 {the immunoglobulin comprises domains from different animal species, e.g. chimeric immunoglobulins}
- 51/109 {immunoglobulins having two or more different antigen-binding sites or multifunctional antibodies}
- 51/1093 {conjugates with carriers being antibodies}
- NOTE**
- The compound which bears, complexes or chelates the radioactive nucleus, being covalently linked or complexed to the carrier being an antibody. Classification being also made according to the appropriate [A61K 51/10](#) subgroup. In case of a conjugate comprising a complex-forming compound (chelating group) complexing a radioactive metal linked to the carrier (antibody in [A61K 51/1093](#)), the nature of this complex-forming compound being not classified except if it being the real contribution of the claimed invention and it being an uncommon complexing/chelating group, e.g. ¹¹¹In-DTPA-herceptin being classified in [A61K 51/1093](#) and [A61K 51/1051](#), new DTPA-like derivatives conjugated to herceptin and complexing ¹¹¹In for use *in vivo* being classified in [A61K 51/0478](#), [A61K 51/1093](#) and [A61K 51/1051](#)
- 51/1096 {radioimmunotoxins, i.e. conjugates being structurally as defined in [A61K 51/1093](#), and including a radioactive nucleus for use in radiotherapeutic applications}
- 51/12 characterised by a special physical form, e.g. emulsion, microcapsules, liposomes {, characterized by a special physical form, e.g. emulsions, dispersions, microcapsules ([liposomes A61K 51/1234](#))}
- 51/1203 {in a form not provided for by groups [A61K 51/1206](#) - [A61K 51/1296](#), e.g. cells, cell fragments, viruses, virus capsides, ghosts, red blood cells, viral vectors}
- 51/1206 {Administration of radioactive gases, aerosols or breath tests}
- 51/121 {Solutions, i.e. homogeneous liquid formulation}
- 51/1213 {Semi-solid forms, gels, hydrogels, ointments, fats and waxes that are solid at room temperature}
- 51/1217 {Dispersions, suspensions, colloids, emulsions, e.g. perfluorinated emulsion, sols}
- 51/122 {Microemulsions, nanoemulsions}
- 51/1224 {Lipoprotein vesicles, e.g. HDL and LDL proteins}
- 51/1227 {Micelles, e.g. phospholipidic or polymeric micelles}
- 51/1231 {Aerosols or breath tests, e.g. administration of gasses, emanators}

- 51/1234 {Liposomes}

NOTE

Liposomes modified on their external surface by a targeting agent, e.g. an antibody, are not additionally classified with the symbol of the targeting agent

- 51/1237 {Polymersomes, i.e. liposomes with polymerisable or polymerized bilayer-forming substances}
- 51/1241 {particles, powders, lyophilizates, adsorbates, e.g. polymers or resins for adsorption or ion-exchange resins}
- 51/1244 {microparticles or nanoparticles, e.g. polymeric nanoparticles}
- 51/1248 {nanotubes}
- 51/1251 {micro- or nanospheres, micro- or nanobeads, micro- or nanocapsules}
- 51/1255 {Granulates, agglomerates, microspheres}
- 51/1258 {Pills, tablets, lozenges}
- 51/1262 {Capsules}
- 51/1265 {Microcapsules}
- 51/1268 {host-guest, closed hollow molecules, inclusion complexes, e.g. with cyclodextrins, clathrates, cavitates, fullerenes}
- 51/1272 {Sponges}
- 51/1275 {Fibers, textiles, slabs, or sheets}
- 51/1279 {Plasters, bandages, dressings, patches or adhesives}
- 51/1282 {Devices used *in vivo* and carrying the radioactive therapeutic or diagnostic agent, therapeutic or *in vivo* diagnostic kits, stents}
- 51/1286 {Ampoules, glass carriers carrying the therapeutic or *in vivo* diagnostic agent}
- 51/1289 {Devices or containers for impregnation, for emanation, e.g. bottles or jars for radioactive water for use in radiotherapy}
- 51/1293 {Radioactive cosmetics, e.g. radioactive bathsalts, soaps}
- 51/1296 {Radioactive food, e.g. chocolates, drinks}

2121/00 Preparations for use in therapy**2123/00 Preparations for testing *in vivo*****2236/00 Isolation or extraction methods of medicinal preparations of undetermined constitution containing material from algae, lichens, fungi or plants, or derivatives thereof, e.g. traditional herbal medicine****NOTE**

If the isolation or extraction method is considered relevant, at least one symbol of [A61K 36/30](#) should always be given. The method can be further characterized by additional [A61K 36/10](#) and/or [A61K 36/50](#) symbols. The last place priority rule does not apply in this part of the scheme

- 2236/10 Preparation or pretreatment of starting material
- 2236/11 involving culturing conditions, e.g. cultivation in the dark or under defined water stress
- 2236/13 involving cleaning, e.g. washing or peeling
- 2236/15 involving mechanical treatment, e.g. chopping up, cutting or grinding

2236/17	. . involving drying, e.g. sun-drying or wilting	2800/33	. . . Free of surfactant
2236/19	. . involving fermentation using yeast, bacteria or both; enzymatic treatment (fermentation or enzyme-using processes in general C12P)	2800/34	. . . Free of silicones
2236/30	. Extraction of the material	2800/40	. Chemical, physico-chemical or functional or structural properties of particular ingredients
2236/31	. . involving untreated material, e.g. fruit juice or sap obtained from fresh plants	2800/41	. . Particular ingredients further characterized by their size
2236/33	. . involving extraction with hydrophilic solvents, e.g. lower alcohols, esters or ketones	2800/412	. . . Microsized, i.e. having sizes between 0.1 and 100 microns
2236/331	. . . using water, e.g. cold water, infusion, tea, steam distillation, decoction (subcritical water extraction A61K 2236/37)	2800/413	. . . Nanosized, i.e. having sizes below 100 nm
2236/333	. . . using mixed solvents, e.g. 70% EtOH	2800/42	. . Colour properties
2236/35	. . Extraction with lipophilic solvents, e.g. Hexane or petrol ether	2800/43	. . . Pigments; Dyes
2236/37	. . Extraction at elevated pressure or temperature, e.g. pressurized solvent extraction [PSE], supercritical carbon dioxide extraction or subcritical water extraction	2800/432	. . . . Direct dyes
2236/39	. . Complex extraction schemes, e.g. fractionation or repeated extraction steps	2800/4322	. . . . . in preparations for temporarily coloring the hair further containing an oxidizing agent
2236/50	. Methods involving additional extraction steps	2800/4324	. . . . . in preparations for permanently dyeing the hair
2236/51	. . Concentration or drying of the extract, e.g. Lyophilisation, freeze-drying or spray-drying	2800/434	. . . . Luminescent, Fluorescent; Optical brighteners; Photosensitizers
2236/53	. . Liquid-solid separation, e.g. centrifugation, sedimentation or crystallization	2800/436	. . . . Interference pigments, e.g. Iridescent, Pearlescent
2236/55	. . Liquid-liquid separation; Phase separation	2800/437	. . . . Diffractive phenomena; Photonic arrays
2300/00	Mixtures or combinations of active ingredients, wherein at least one active ingredient is fully defined in groups A61K 31/00 - A61K 41/00	2800/438	. . . . Thermochromatic; Photochromic; Phototropic
NOTE		2800/45	. . . Colour indicators, e.g. pH- or Redox indicators
This code is meant to be allocated in combination with the CPC classification symbol of the active ingredients, and replaces the former +M Combi symbols used in this subclass		2800/47	. . Magnetic materials; Paramagnetic compounds
2800/00	Properties of cosmetic compositions or active ingredients thereof or formulation aids used therein and process related aspects	2800/48	. . Thickener, Thickening system
NOTE		2800/49	. . Solubiliser, Solubilising system
This subclass is a secondary classification, e.g. obligatory supplementary classification when already classified in group A61K 8/00 or subclass A61Q		2800/51	. . Chelating agents
2800/10	. General cosmetic use	2800/52	. . Stabilizers
2800/20	. Chemical, physico-chemical or functional or structural properties of the composition as a whole	2800/522	. . . Antioxidants; Radical scavengers
2800/21	. . Emulsions characterized by droplet sizes below 1 micron	2800/524	. . . Preservatives
2800/22	. . Gas releasing	2800/526	. . . Corrosion inhibitors
2800/222	. . . Effervescent	2800/54	. . Polymers characterized by specific structures/properties
2800/24	. . Thermal properties	2800/542	. . . characterized by the charge
2800/242	. . . Exothermic; Self-heating; Heating sensation	2800/5422	. . . . nonionic
2800/244	. . . Endothermic; Cooling; Cooling sensation	2800/5424	. . . . anionic
2800/26	. . Optical properties	2800/5426	. . . . cationic
2800/262	. . . Transparent; Translucent	2800/5428	. . . . amphoteric or zwitterionic
2800/28	. . Rubbing or scrubbing compositions; Peeling or abrasive compositions; Containing exfoliants	2800/544	. . . Dendrimers, Hyperbranched polymers
2800/30	. . Characterized by the absence of a particular group of ingredients	2800/546	. . . Swellable particulate polymers
2800/31	. . . Anhydrous	2800/548	. . . Associative polymers
		2800/56	. . Compounds, absorbed onto or entrapped into a solid carrier, e.g. encapsulated perfumes, inclusion compounds, sustained release forms
		2800/57	. . Compounds covalently linked to a(n inert) carrier molecule, e.g. conjugates, pro-fragrances
		2800/58	. . Metal complex; Coordination compounds
		2800/59	. . Mixtures
		2800/591	. . . Mixtures of compounds not provided for by any of the codes A61K 2800/592 - A61K 2800/596
		2800/592	. . . Mixtures of compounds complementing their respective functions
		2800/5922	. . . . At least two compounds being classified in the same subclass of A61K 8/18
		2800/594	. . . Mixtures of polymers
		2800/596	. . . Mixtures of surface active compounds
		2800/60	. . Particulates further characterized by their structure or composition
		2800/61	. . . Surface treated
		2800/612	. . . . By organic compounds

A61K

2800/614	. . . .	By macromolecular compounds
2800/62	. . . .	Coated
2800/621	. . . . .	by inorganic compounds
2800/622	. . . . .	by organic compounds
2800/623	. . . . .	Coating mediated by organosilicone compounds
2800/624	. . . . .	by macromolecular compounds
2800/63	. . . . .	More than one coating
2800/65	. . .	Characterized by the composition of the particulate/core
2800/651	. . . .	The particulate/core comprising inorganic material
2800/652	. . . .	The particulate/core comprising organic material
2800/654	. . . .	The particulate/core comprising macromolecular material
2800/70	.	Biological properties of the composition as a whole
2800/72	. .	Hypo-allergenic
2800/74	.	Biological properties of particular ingredients
2800/75	. .	Anti-irritant
2800/77	. .	Perfumes having both deodorant and antibacterial properties
2800/78	. .	Enzyme modulators, e.g. Enzyme agonists
2800/782	. . .	Enzyme inhibitors; Enzyme antagonists
2800/80	.	Process related aspects concerning the preparation of the cosmetic composition or the storage or application thereof
2800/805	. .	Corresponding aspects not provided for by any of codes A61K 2800/81 - A61K 2800/95
2800/81	. .	Preparation or application process involves irradiation
2800/82	. .	Preparation or application process involves sonication or ultrasonication
2800/83	. .	Electrophoresis; Electrodes; Electrolytic phenomena
2800/84	. .	Products or compounds obtained by lyophilisation, freeze-drying
2800/85	. .	Products or compounds obtained by fermentation, e.g. yoghurt, beer, wine
2800/86	. .	Products or compounds obtained by genetic engineering
2800/87	. .	Application Devices; Containers; Packaging
2800/872	. . .	Pencils; Crayons; Felt-tip pens
2800/874	. . .	Roll-on
2800/88	. .	Two- or multipart kits
2800/882	. . .	Mixing prior to application
2800/884	. . .	Sequential application
2800/91	. .	Injection
2800/92	. .	Oral administration
2800/94	. .	Involves covalent bonding to the substrate
2800/95	. .	Involves in-situ formation or cross-linking of polymers