

CPC COOPERATIVE PATENT CLASSIFICATION

C CHEMISTRY; METALLURGY

(NOTES omitted)

CHEMISTRY

C07 ORGANIC CHEMISTRY (such compounds as the oxides, sulfides, or oxysulfides of carbon, cyanogen, phosgene, hydrocyanic acid or salts thereof [C01](#); products obtained from layered base-exchange silicates by ion-exchange with organic compounds such as ammonium, phosphonium or sulfonium compounds or by intercalation of organic compounds [C01B 33/44](#); macromolecular compounds [C08](#); dyes [C09](#); fermentation products [C12](#); fermentation or enzyme-using processes to synthesise a desired chemical compound or composition or to separate optical isomers from a racemic mixture [C12P](#); production of organic compounds by electrolysis or electrophoresis [C25B 3/00](#), [C25B 7/00](#))
(NOTES omitted)

C07J STEROIDS (seco-steroids [C07C](#))

NOTE

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

Normal steroids, i.e. cyclopenta(a)hydrophenanthrenes, containing carbon, hydrogen, halogen or oxygen

1/00 Normal steroids containing carbon, hydrogen, halogen or oxygen, not substituted in position 17 beta by a carbon atom, e.g. estrane, androstane

- 1/0003 . {Androstane derivatives}
- 1/0007 . . {not substituted in position 17}
- 1/0011 . . {substituted in position 17 by a keto group}
- 1/0014 . . {substituted in position 17 alfa, not substituted in position 17 beta}
- 1/0018 . . {substituted in position 17 beta, not substituted in position 17 alfa}
- 1/0022 . . . {the substituent being an OH group free esterified or etherified}
- 1/0025 {Esters}
- 1/0029 {Ethers}
- 1/0033 . . {substituted in position 17 alfa and 17 beta}
- 1/0037 . . . {the substituent in position 17 alfa being a saturated hydrocarbon group}
- 1/004 . . . {the substituent in position 17 alfa being an unsaturated hydrocarbon group}
- 1/0044 {Alkenyl derivatives}
- 1/0048 {Alkynyl derivatives}
- 1/0051 . {Estrane derivatives}
- 1/0055 . . {not substituted in position 17}
- 1/0059 . . {substituted in position 17 by a keto group}
- 1/0062 . . {substituted in position 17 alfa not substituted in position 17 beta}

1/0066 . . {substituted in position 17 beta not substituted in position 17 alfa}

1/007 . . . {the substituent being an OH group free esterified or etherified}

1/0074 {Esters}

1/0077 {Ethers}

1/0081 . . {Substituted in position 17 alfa and 17 beta}

1/0085 . . . {the substituent in position 17 alfa being a saturated hydrocarbon group}

1/0088 . . . {the substituent in position 17 alfa being an unsaturated hydrocarbon group}

1/0092 {Alkenyl derivatives}

1/0096 {Alkynyl derivatives}

3/00 Normal steroids containing carbon, hydrogen, halogen or oxygen, substituted in position 17 beta by one carbon atom

3/005 . {the carbon atom being part of a carboxylic function}

5/00 Normal steroids containing carbon, hydrogen, halogen or oxygen, substituted in position 17 beta by a chain of two carbon atoms, e.g. pregnane and substituted in position 21 by only one singly bound oxygen atom, {i.e. only one oxygen bound to position 21 by a single bond}

5/0007 . {not substituted in position 17 alfa}

5/0015 . . {not substituted in position 16}

5/0023 . . {substituted in position 16}

- 5/003 . . . {by a saturated or unsaturated hydrocarbon group including 16-alkylidene substitutes}
- 5/0038 {by an alkyl group}
- 5/0046 . {substituted in position 17 alfa}
- 5/0053 . . {not substituted in position 16}
- 5/0061 . . {substituted in position 16}
- 5/0069 . . . {by a saturated or unsaturated hydrocarbon group}
- 5/0076 {by an alkyl group}
- 5/0084 {by an alkylene group}
- 5/0092 . . . {by an OH group free esterified or etherified}
- 7/00 Normal steroids containing carbon, hydrogen, halogen or oxygen substituted in position 17 beta by a chain of two carbon atoms (C07J 5/00 takes precedence)**
- 7/0005 . {not substituted in position 21}
- 7/001 . . {substituted in position 20 by a keto group}
- 7/0015 . . . {not substituted in position 17 alfa}
- 7/002 {not substituted in position 16}
- 7/0025 {substituted in position 16}
- 7/003 {by a saturated or unsaturated hydrocarbon group}
- 7/0035 {by a hydroxy group free esterified or etherified}
- 7/004 . . . {substituted in position 17 alfa}
- 7/0045 {not substituted in position 16}
- 7/005 {substituted in position 16}
- 7/0055 {by a saturated or unsaturated hydrocarbon group}
- 7/006 {by a hydroxy group free esterified or etherified}
- 7/0065 . . {substituted in position 20 by an OH group free esterified or etherified}
- 7/007 . . . {not substituted in position 17 alfa}
- 7/0075 . . . {substituted in position 17 alfa}
- 7/008 . {substituted in position 21}
- 7/0085 . . {by an halogen atom}
- 7/009 . . {by only one oxygen atom doubly bound}
- 7/0095 . . {carbon in position 21 is part of carboxylic group}
- 9/00 Normal steroids containing carbon, hydrogen, halogen or oxygen substituted in position 17 beta by a chain of more than two carbon atoms, e.g. cholane, cholestane, coprostanone**
- 9/005 . {containing a carboxylic function directly attached or attached by a chain containing only carbon atoms to the cyclopenta[a]hydrophenanthrene skeleton}
- 11/00 Normal steroids containing carbon, hydrogen, halogen or oxygen, not substituted in position 3**
- 13/00 Normal steroids containing carbon, hydrogen, halogen or oxygen having a carbon-to-carbon double bond from or to position 17 {(for carbonyl groups C07J 1/00)}**
- 13/002 . {with double bond in position 13 (17)}
- 13/005 . {with double bond in position 16 (17)}
- 13/007 . {with double bond in position 17 (20)}
- 15/00 Stereochemically pure steroids containing carbon, hydrogen, halogen or oxygen having a partially or totally inverted skeleton, e.g. retrosteroids, L-isomers**
- 15/005 . {Retrosteroids (9 beta 10 alfa)}
- 17/00 Normal steroids containing carbon, hydrogen, halogen or oxygen, having an oxygen-containing hetero ring not condensed with the cyclopenta(a)hydrophenanthrene skeleton (cardanolide, bufanolide C07J 19/00)**
- 17/005 . {Glycosides}
- 19/00 Normal steroids containing carbon, hydrogen, halogen or oxygen, substituted in position 17 by a lactone ring**
- 19/005 . {Glycosides}
- 21/00 Normal steroids containing carbon, hydrogen, halogen or oxygen having an oxygen-containing hetero ring spiro-condensed with the cyclopenta(a)hydrophenanthrene skeleton**
- 21/001 . {Lactones}
- 21/003 . . {at position 17}
- 21/005 . {Ketals}
- 21/006 . . {at position 3}
- 21/008 . . {at position 17}
- Normal steroids, i.e. cyclopenta(a)hydrophenanthrenes, containing sulfur**
- 31/00 Normal steroids containing one or more sulfur atoms not belonging to a hetero ring**
- 31/003 . {the S atom directly linked to a ring carbon atom of the cyclopenta(a)hydrophenanthrene skeleton}
- 31/006 . {not covered by C07J 31/003}
- 33/00 Normal steroids having a sulfur-containing hetero ring spiro-condensed or not condensed with the cyclopenta(a)hydrophenanthrene skeleton**
- 33/002 . {not condensed}
- 33/005 . {spiro-condensed}
- 33/007 . . {Cyclic thioketals}
- Normal steroids, i.e. cyclopenta(a)hydrophenanthrenes, containing nitrogen**
- 41/00 Normal steroids containing one or more nitrogen atoms not belonging to a hetero ring**
- 41/0005 . {the nitrogen atom being directly linked to the cyclopenta(a)hydro phenanthrene skeleton}
- 41/0011 . . {Unsubstituted amino radicals}
- 41/0016 . . {Oximes}
- 41/0022 . . {Isocyanates; Isothiocyanates}
- 41/0027 . . {Azides}
- 41/0033 . {not covered by C07J 41/0005}
- NOTE**
- In groups C07J 41/0038 - C07J 41/0094 all references to substituents in position 17-beta of the steroid skeleton include substituents at the 17-position when there is a double bond to or from position 17, and all references to an amide group include all nitrogen substituted carbonyl groups
- 41/0038 . . {with an androstane skeleton, including 18- or 19-substituted derivatives, 18-nor derivatives and also derivatives where position 17-beta is substituted by a carbon atom not directly bonded to a further carbon atom and not being part of an amide group}

- 41/0044 . . {with an estrane or gonane skeleton, including 18-substituted derivatives and derivatives where position 17-beta is substituted by a carbon atom not directly bonded to another carbon atom and not being part of an amide group}
- 41/005 . . {the 17-beta position being substituted by an uninterrupted chain of only two carbon atoms, e.g. pregnane derivatives}
- 41/0055 . . {the 17-beta position being substituted by an uninterrupted chain of at least three carbon atoms which may or may not be branched, e.g. cholane or cholestane derivatives, optionally cyclised, e.g. 17-beta-phenyl or 17-beta-furyl derivatives}
- 41/0061 . . . {one of the carbon atoms being part of an amide group}
- 41/0066 . . {the 17-beta position being substituted by a carbon atom forming part of an amide group}
- 41/0072 . . {the A ring of the steroid being aromatic}
- 41/0077 . . {substituted in position 11-beta by a carbon atom, further substituted by a group comprising at least one further carbon atom}
- 41/0083 . . . {substituted in position 11-beta by an optionally substituted phenyl group not further condensed with other rings}
- 41/0088 . . {containing unsubstituted amino radicals}
- 41/0094 . . {containing nitrile radicals, including thiocyanide radicals}
- 43/00 Normal steroids having a nitrogen-containing hetero ring spiro-condensed or not condensed with the cyclopenta(a)hydrophenanthrene skeleton**
- 43/003 . {not condensed}
- 43/006 . {spiro-condensed}
- 51/00 Normal steroids with unmodified cyclopenta(a)hydrophenanthrene skeleton not provided for in groups [C07J 1/00](#) - [C07J 43/00](#)**
- 53/00 Steroids in which the cyclopenta(a)hydrophenanthrene skeleton has been modified by condensation with a carbocyclic rings or by formation of an additional ring by means of a direct link between two ring carbon atoms, {including carboxylic rings fused to the cyclopenta(a)hydrophenanthrene skeleton are included in this class}**
- 53/001 . {spiro-linked}
- 53/002 . {Carbocyclic rings fused}
- 53/004 . . {3 membered carbocyclic rings}
- 53/005 . . . {in position 12}
- 53/007 . . . {in position 6-7}
- 53/008 . . . {in position 15/16}
- Nor- or homo steroids**
- 61/00 Steroids in which the cyclopenta(a)hydrophenanthrene skeleton has been modified by contraction of only one ring by one or two atoms**
- 63/00 Steroids in which the cyclopenta(a)hydrophenanthrene skeleton has been modified by expansion of only one ring by one or two atoms**
- 63/002 . {Expansion of ring A by one atom, e.g. A homo steroids}
- 63/004 . . {Expansion of ring B by one atom, e.g. B homo steroids}
- 63/006 . . {Expansion of ring C by one atom, e.g. C homo steroids}
- 63/008 . . {Expansion of ring D by one atom, e.g. D homo steroids}
- 65/00 Steroids in which the cyclopenta(a)hydrophenanthrene skeleton has been modified by contraction of two rings, each by one atom**
- 67/00 Steroids in which the cyclopenta(a)hydrophenanthrene skeleton has been modified by expansion of two rings, each by one atom**
- 69/00 Steroids in which the cyclopenta(a)hydrophenanthrene skeleton has been modified by contraction of only one ring by one atom and expansion of only one ring by one atom**
- 71/00 Steroids in which the cyclopenta(a)hydrophenanthrene skeleton is condensed with a heterocyclic ring (spiro-condensed heterocyclic rings [C07J 21/00](#), [C07J 33/00](#), [C07J 43/00](#))**
- 71/0005 . {Oxygen-containing hetero ring}
- 71/001 . . {Oxiranes}
- 71/0015 . . . {at position 9(11)}
- 71/0021 . . . {at position 14(15)}
- 71/0026 . . {cyclic ketals}
- 71/0031 . . . {at positions 16, 17}
- 71/0036 . {Nitrogen-containing hetero ring}
- 71/0042 . . {Nitrogen only}
- 71/0047 . . . {at position 2(3)}
- 71/0052 . . . {at position 16(17)}
- 71/0057 . . {Nitrogen and oxygen}
- 71/0063 . . . {at position 2(3)}
- 71/0068 . . . {at position 16(17)}
- 71/0073 . {Sulfur-containing hetero ring}
- 71/0078 . . {containing only sulfur}
- 71/0084 . . . {Episulfides}
- 71/0089 . . {containing sulfur and oxygen}
- 71/0094 . . {containing sulfur and nitrogen}
- 73/00 Steroids in which the cyclopenta[a]hydrophenanthrene skeleton has been modified by substitution of one or two carbon atoms by hetero atoms**
- 73/001 . {by one hetero atom}
- 73/003 . . {by oxygen as hetero atom}
- 73/005 . . {by nitrogen as hetero atom}
- 73/006 . . {by sulfur as hetero atom}
- 73/008 . {by two hetero atoms}
- 75/00 Processes for the preparation of steroids in general**
- 75/005 . {Preparation of steroids by cyclization of non-steroid compounds}