

ECLA**EUROPEAN CLASSIFICATION****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.

Guide heading:

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

C07J1/00

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

- C07J1/00B . [N: Androstane derivatives]
- C07J1/00B1 . . [N: not substituted in position 17]
- C07J1/00B2 . . [N: substituted in position 17 by a keto group]
- C07J1/00B3 . . [N: substituted in position 17 alfa, not substituted in position 17 beta]
- C07J1/00B4 . . [N: substituted in position 17 beta, not substituted in position 17 alfa]
- C07J1/00B4B . . . [N: the substituent being an OH group free esterified or etherified] [N9502]
- C07J1/00B4B1 [N: Esters] [N9502]
- C07J1/00B4B2 [N: Ethers] [N9502]
- C07J1/00B5 . . [N: substituted in position 17 alfa and 17 beta]
- C07J1/00B5B . . . [N: the substituent in position 17 alfa being a saturated hydrocarbon group] [N9502]
- C07J1/00B5C . . . [N: the substituent in position 17 alfa being an unsaturated hydrocarbon group] [N9502]
- C07J1/00B5C1 [N: Alkenyl derivatives] [N9502]
- C07J1/00B5C2 [N: Alkynyl derivatives] [N9502]
- C07J1/00C . [N: Estrane derivatives]
- C07J1/00C1 . . [N: not substituted in position 17]
- C07J1/00C2 . . [N: substituted in position 17 by a keto group]
- C07J1/00C3 . . [N: substituted in position 17 alfa not substituted in position 17 beta]
- C07J1/00C4 . . [N: substituted in position 17 beta not substituted in position 17 alfa]

C07J1/00C4B	. . . [N: the substituent being an OH group free esterified or etherified] [N9502]
C07J1/00C4B1 [N: Esters] [N9502]
C07J1/00C4B2 [N: Ethers] [N9502]
C07J1/00C5	. . [N: Substituted in position 17 alfa and 17 beta]
C07J1/00C5B	. . . [N: the substituent in position 17 alfa being a saturated hydrocarbon group] [N9502]
C07J1/00C5C	. . . [N: the substituent in position 17 alfa being an unsaturated hydrocarbon group] [N9502]
C07J1/00C5C1 [N: Alkenyl derivatives] [N9502]
C07J1/00C5C2 [N: Alkynyl derivatives] [N9502]

C07J3/00 **Normal steroids containing carbon, hydrogen, halogen or oxygen, substituted in position 17 beta by one carbon atom**

C07J3/00B	. [N: the carbon atom being part of a carboxylic function]
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C07J5/00 **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, [N: i.e. only one oxygen bound to position 21 by a single bond]**

C07J5/00B	. [N: not substituted in position 17 alfa]
C07J5/00B1	. . [N: not substituted in position 16]
C07J5/00B2	. . [N: substituted in position 16]
C07J5/00B2B	. . . [N: by a saturated or unsaturated hydrocarbon group including 16-alkylidene substitutes] [N9502]
C07J5/00B2B1 [N: by an alkyl group] [N9502]
C07J5/00C	. [N: substituted in position 17 alfa]
C07J5/00C1	. . [N: not substituted in position 16]
C07J5/00C2	. . [N: substituted in position 16]
C07J5/00C2B	. . . [N: by a saturated or unsaturated hydrocarbon group] [N9502]
C07J5/00C2B1 [N: by an alkyl group] [N9502]
C07J5/00C2B2 [N: by an alkylene group] [N9502]
C07J5/00C2C	. . . [N: by an OH group free esterified or etherified] [N9503]

C07J7/00 **Normal steroids containing carbon, hydrogen, halogen or oxygen substituted in position 17 beta by a chain of two carbon atoms ([C07J5/00](#) takes precedence)**

C07J7/00B	. [N: not substituted in position 21]
C07J7/00B1	. . [N: substituted in position 20 by a keto group]
C07J7/00B1B	. . . [N: not substituted in position 17 alfa] [N9502]
C07J7/00B1B1 [N: not substituted in position 16] [N9502]
C07J7/00B1B2 [N: substituted in position 16] [N9502]
C07J7/00B1B2C [N: by a saturated or unsaturated hydrocarbon group] [N9502]

C07J7/00B1B2D [N: by a hydroxy group free esterified or etherified] [N9502]
C07J7/00B1C	. . . [N: substituted in position 17 alfa] [N9502]
C07J7/00B1C1 [N: not substituted in position 16] [N9502]
C07J7/00B1C2 [N: substituted in position 16] [N9502]
C07J7/00B1C2C [N: by a saturated or unsaturated hydrocarbon group] [N9502]
C07J7/00B1C2D [N: by a hydroxy group free esterified or etherified] [N9502]
C07J7/00B2	. . [N: substituted in position 20 by an OH group free esterified or etherified]
C07J7/00B2B	. . . [N: not substituted in position 17 alfa] [N9502]
C07J7/00B2C	. . . [N: substituted in position 17 alfa] [N9502]
C07J7/00C	. [N: substituted in position 21]
C07J7/00C1	. . [N: by an halogen atom]
C07J7/00C2	. . [N: by only one oxygen atom doubly bound]
C07J7/00C3	. . [N: carbon in position 21 is part of carboxylic group]
C07J9/00	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, coprostane
C07J9/00B	. [N: containing a carboxylic function directly attached or attached by a chain containing only carbon atoms to the cyclopenta[a]hydrophenanthrene skeleton]
C07J11/00	Normal steroids containing carbon, hydrogen, halogen or oxygen, not substituted in position 3
C07J13/00	Normal steroids containing carbon, hydrogen, halogen or oxygen having a carbon-to-carbon double bond from or to position 17 [N: (for carbonyl groups C07J1/00)]
C07J13/00B	. [N: with double bond in position 13 (17)]
C07J13/00C	. [N: with double bond in position 16 (17)]
C07J13/00D	. [N: with double bond in position 17 (20)]
C07J15/00	Stereochemically pure steroids containing carbon, hydrogen, halogen or oxygen having a partially or totally inverted skeleton, e.g. retrosteroids, L-isomers
C07J15/00B	. [N: Retrosteroids (9 beta 10 alfa)]
C07J17/00	Normal steroids containing carbon, hydrogen, halogen or oxygen, having an oxygen-containing hetero ring not condensed with the cyclopenta(a)hydrophenanthrene skeleton (cardanolide, bufanolide C07J19/00)
C07J17/00B	. [N: Glycosides]
C07J19/00	Normal steroids containing carbon, hydrogen, halogen or oxygen, substituted in position 17 by a lactone ring

C07J19/00B . [N: Glycosides]

C07J21/00 Normal steroids containing carbon, hydrogen, halogen or oxygen having an oxygen-containing hetero ring spiro-condensed with the cyclopenta(a)hydrophenanthrene skeleton

C07J21/00B . [N: Lactones]

C07J21/00B1 . . [N: at position 17]

C07J21/00C . [N: Ketals]

C07J21/00C1 . . [N: at position 3]

C07J21/00C2 . . [N: at position 17]

Guide heading: Normal steroids, i.e. cyclopenta(a)hydrophenanthrenes, containing sulfur

C07J31/00 Normal steroids containing one or more sulfur atoms not belonging to a hetero ring

C07J31/00B . [N: the S atom directly linked to a ring carbon atom of the cyclopenta(a)hydrophenanthrene skeleton]

C07J31/00C . [N: not covered by [C07J31/00B](#)]

C07J33/00 Normal steroids having a sulfur-containing hetero ring spiro-condensed or not condensed with the cyclopenta(a)hydrophenanthrene skeleton

C07J33/00B . [N: not condensed]

C07J33/00C . [N: spiro-condensed]

C07J33/00C1 . . [N: Cyclic thioketals]

Guide heading: Normal steroids, i.e. cyclopenta(a)hydrophenanthrenes, containing nitrogen

C07J41/00 Normal steroids containing one or more nitrogen atoms not belonging to a hetero ring

C07J41/00B . [N: the nitrogen atom being directly linked to the cyclopenta(a)hydro phenanthrene skeleton]

C07J41/00B1 . . [N: Unsubstituted amino radicals]

C07J41/00B2 . . [N: Oximes]

C07J41/00B3 . . [N: Isocyanates; Isothiocyanates]

C07J41/00B4 . . [N: Azides]

C07J41/00C . [N: not covered by [C07J41/00B](#)] [C9502]

[N: **Note**

[N9412]In groups [C07J41/00C3](#) to [C07J41/00C70](#) 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]

- [C07J41/00C3](#) . . [N: 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] [N9412]
- [C07J41/00C4](#) . . [N: 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] [N9412]
- [C07J41/00C6](#) . . [N: the 17-beta position being substituted by an uninterrupted chain of only two carbon atoms, e.g. pregnane derivatives] [N9412]
- [C07J41/00C8](#) . . [N: 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] [N9412]
- [C07J41/00C8A](#) . . . [N: one of the carbon atoms being part of an amide group] [N9412]
- [C07J41/00C30](#) . . [N: the 17-beta position being substituted by a carbon atom forming part of an amide group] [N9412]
- [C07J41/00C40](#) . . [N: the A ring of the steroid being aromatic] [N9412]
- [C07J41/00C50](#) . . [N: substituted in position 11-beta by a carbon atom, further substituted by a group comprising at least one further carbon atom] [N9412]
- [C07J41/00C50B](#) . . . [N: substituted in position 11-beta by an optionally substituted phenyl group not further condensed with other rings] [N9412]
- [C07J41/00C60](#) . . [N: containing unsubstituted amino radicals] [N9412]
- [C07J41/00C70](#) . . [N: containing nitrile radicals, including thiocyanide radicals] [N9412]

- [C07J43/00](#)** **Normal steroids having a nitrogen-containing hetero ring spiro-condensed or not condensed with the cyclopenta(a)hydrophenanthrene skeleton**

- [C07J43/00B](#) . [N: not condensed]
- [C07J43/00C](#) . [N: spiro-condensed]

- [C07J51/00](#)** **Normal steroids with unmodified cyclopenta(a)hydrophenanthrene skeleton not provided for in groups [C07J1/00](#) to [C07J43/00](#)**

- [C07J53/00](#)** **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, [N: including carboxyclic rings fused to the cyclopenta(a)hydrophenanthrene skeleton are included in this class]**

- [C07J53/00B](#) . [N: spiro-linked]
- [C07J53/00C](#) . [N: Carbocyclic rings fused]
- [C07J53/00C1](#) . . [N: 3 membered carbocyclic rings]

- C07J53/00C1B . . . [N: in position 12] [N9502]
- C07J53/00C1C . . . [N: in position 6-7] [N9502]
- C07J53/00C1D . . . [N: in position 15/16] [N9502]

Guide heading: **Nor- or homo steroids**

C07J61/00 Steroids in which the cyclopenta(a)hydrophenanthrene skeleton has been modified by contraction of only one ring by one or two atoms

C07J63/00 Steroids in which the cyclopenta(a)hydrophenanthrene skeleton has been modified by expansion of only one ring by one or two atoms

C07J63/00A . [N: Expansion of ring A by one atom, e.g. A homo steroids]

C07J63/00B . [N: Expansion of ring B by one atom, e.g. B homo steroids]

C07J63/00C . [N: Expansion of ring C by one atom, e.g. C homo steroids]

C07J63/00D . [N: Expansion of ring D by one atom, e.g. D homo steroids]

C07J65/00 Steroids in which the cyclopenta(a)hydrophenanthrene skeleton has been modified by contraction of two rings, each by one atom

C07J67/00 Steroids in which the cyclopenta(a)hydrophenanthrene skeleton has been modified by expansion of two rings, each by one atom

C07J69/00 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

C07J71/00 Steroids in which the cyclopenta(a)hydrophenanthrene skeleton is condensed with a heterocyclic ring ([spiro-condensed heterocyclic rings C07J21/00](#), [C07J33/00](#), [C07J43/00](#))

C07J71/00B . [N: Oxygen-containing hetero ring]

C07J71/00B1 . . [N: Oxiranes]

C07J71/00B1B . . . [N: at position 9(11)] [N9502]

C07J71/00B1C . . . [N: at position 14(15)] [N9502]

C07J71/00B2 . . [N: cyclic ketals]

C07J71/00B2B . . . [N: at positions 16, 17] [N9502]

C07J71/00C . [N: Nitrogen-containing hetero ring]

C07J71/00C1 . . [N: Nitrogen only]

C07J71/00C1B . . . [N: at position 2(3)] [N9502]

C07J71/00C1C . . . [N: at position 16(17)] [N9502]

- C07J71/00C2 . . [N: Nitrogen and oxygen]
- C07J71/00C2B . . . [N: at position 2(3)] [N9502]
- C07J71/00C2C . . . [N: at position 16(17)] [N9502]

- C07J71/00D . [N: Sulfur-containing hetero ring]
- C07J71/00D1 . . [N: containing only sulfur]
- C07J71/00D1B . . . [N: Episulfides] [N9502]
- C07J71/00D2 . . [N: containing sulfur and oxygen]
- C07J71/00D3 . . [N: containing sulfur and nitrogen]

C07J73/00 Steroids in which the cyclopenta[a]hydrophenanthrene skeleton has been modified by substitution of one or two carbon atoms by hetero atoms

- C07J73/00B . [N: by one hetero atom]
- C07J73/00B1 . . [N: by oxygen as hetero atom]
- C07J73/00B2 . . [N: by nitrogen as hetero atom]
- C07J73/00B3 . . [N: by sulfur as hetero atom]
- C07J73/00C . [N: by two hetero atoms]

C07J75/00 Processes for the preparation of steroids in general

- C07J75/00B . [N: Preparation of steroids by cyclization of non-steroid compounds]