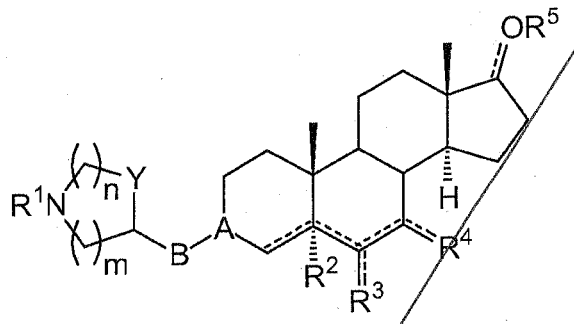
CLAIMS

1. Compounds of formula (I)



I

wherein:

A is CH ~ X, C=N ~ O, CR^6 ~ CH=CH ~, CR^6 ~ CH_2, CR^7 ~ XC=O, CR^7 ~ XC(=O)X', wherein the left end carbon atom in any of these groups is at position 3 of the androstane ring;

where:

X and X', which can be the same or different, are O, $S(O)_x$ or NR^8;

R^6 is hydrogen or hydroxy;

R^7 is H, C_1-C_6 straight or branched alkyl;

R^8 is H, C_1-C_6 straight or branched alkyl,

x is the number 0 or 1 or 2;

B is a C_1-C_4 straight or branched alkylene or can be a single bond so that the A is directly linked to the nitrogen-containing heterocycle;

Y is CH_2, oxygen, sulphur or NR^1, and when two R^1 are present at the same time they can be the same or different;

R^1 is H, C_1-C_6 straight or branched alkyl, optionally substituted by one or more hydroxy, methoxy, ethoxy, or R^1 is phenyl(C_1-C_4)straight or branched alkyl or $C(=NR^9)NHR^{10}$;

R^9 and R^{10}, which can be the same or different, are H, C_1-C_6 straight or branched alkyl group, or R^9 and R^{10} can be taken together

with the nitrogen atoms and the guanidinic carbon atom to form an unsubstituted or substituted saturated or unsaturated mono heterocyclic 5- or 6-membered ring optionally containing another heteroatom selected from the group consisting of oxygen, sulphur or nitrogen;

R^2 is H, C_1-C_6 straight or branched alkyl, ONO_2, OR^{11};

R^{11} is H, C_1-C_6 straight or branched alkyl, optionally substituted by one or more hydroxy, methoxy, ethoxy or R^{11} is allyl or propargyl;

when the bonds ═ linking the carbon atom in position 6 of the androstane skeleton with R^3 and the carbon atom in position 7 with R^4 are independently a double bond, R^3 and R^4, being R^3 and R^4 the same or different, are, O, with the meaning of a keto group, N ~ OR^{12}, or $CR^{13}R^{14}$;

R^{12} is H, C_1-C_6 straight or branched alkyl group, optionally substituted by one or more hydroxy, methoxy, ethoxy groups, or R^{12} is allyl or propargyl;

R^{13} and R^{14}, which can be the same or different, are H, C_1-C_6 straight or branched alkyl group, optionally substituted by one or more hydroxy, methoxy, ethoxy, or R^{13} and R^{14}, which can be the same or different, are allyl, propargyl, F, $COOR^{15}$, CN, $CONR^{16}R^{17}$, or R^{13} and R^{14} taken together form a cycloalkylene substituent;

R^{15} is H, C_1-C_6 straight or branched alkyl, optionally substituted by one or more hydroxy, methoxy, ethoxy;

R^{16} and R^{17}, which can be the same or different, are H, C_1-C_6 straight or branched alkyl group, or R^{16} and R^{17} can optionally be taken together with the nitrogen atom to form a heterocyclic group;

when the bonds ═ linking the carbon atom in position 6 of the androstane skeleton with R^3 and the carbon atom in position 7 with R^4 are independently single bonds, R^3 and R^4, which can be the same or different, are H, C_1-C_6 straight or branched alkyl group, vinyl, ethynyl, $COOR^{15}$, CN, $CONR^{16}R^{17}$, OR^{18}, ONO_2, NHCHO, $NHCOCH_3$, CH=N ~ OH, spirocyclopropane, spirooxirane, where the alkyl group can be optionally substituted by one or more hydroxy, methoxy, ethoxy;

R^{15}, R^{16}, and R^{17} are as above defined,

R^{18} is H, C_1-C_6 straight or branched alkyl optionally substituted by one or more hydroxy, methoxy, ethoxy;

R^5 is H, C_1-C_6 straight or branched alkyl group or C_2-C_6 acyl group when the bond == in position 17 of the androstane skeleton is a single bond and, as a consequence, the remaining substituent in position 17 is H, and R^5 is not present when the bond == in position 17 is a double bond with the meaning of a keto group;

n is the number 0 or 1 or 2 or 3;

m is the number 0 or 1 or 2 or 3;

R^{15}, R^{16}, and R^{17}, when present in the same compound in different positions, can be the same or different,

the symbol ~ is an α or β single bond or an E or Z diastereoisomer when it is linked to a double bond,

the symbol == in positions 4, 5, 6, 7, and 17 is, independently, a single or double bond, and when it is a single exocyclic bond in positions 6, 7, or 17, it can be an α or β single bond;

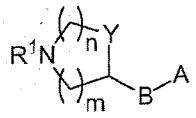
with the following provisos:

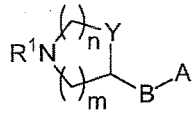
when A is CR^7~XC=O, or CR^8~XC=OX', wherein R^7 and R^8 are hydrogen, X is oxygen and X' is O or NH, and when A is CH~X, wherein X is oxygen, the symbol == in position 6 linking R^3 is a single bond or when the symbol == in position 6 linking R^3 is a double bond R^4 is not oxygen, with the symbol == in position 7 linking R^4 meaning a double bond, or R^4 is not OR^{18}, with the symbol == in position 7 linking R^4 meaning a single bond,

that at least one of R^2, R^3 and R^4 in the same structure is not hydrogen;

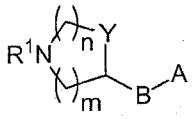
their tautomers, all the possible stereoisomers, Z and E isomers, optical isomers and their mixtures, their metabolites and the metabolic precursors, the pharmaceutically acceptable salts.

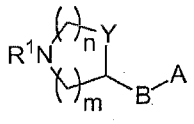
2. Compounds according to claim 1, wherein R^2 and R^4 represent H, the symbol R^3 represents oxygen, with the meaning of keto, methylene, difluoromethylene, hydroxyimino, methoxyimino, when the symbols == in position 6 linking R^3 and in position 17 represent a double bond, while the other symbols == represent single bonds, and

the symbol  represents (R-3-pyrrolidinyloxy)imino, (S-3-pyrrolidinyloxy)imino, (RS-3-pyrrolidinyl-oxy)imino, 3-azetidinyloxyimino, 3α-[3-(S)-pyrrolidinylthio] ,3α-[3-(R)-pyrrolidinylthio], 3α-[3-(RS)-pyrrolidinylthio], 3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl], 3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl], 3α-[2-(azetidin-3-yl)-(Z)-vinyl], 3α-[2-(piperidin-4-yl)-(Z)-vinyl], their tautomers, all the possible stereoisomers, Z and E isomers, optical isomers and their mixtures, their metabolites and the metabolic precursors, the pharmaceutically acceptable salts.

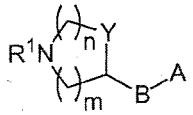
3. Compounds according to claim 1, wherein R^2 and R^4 represent H, the symbol R^3 represents α-hydroxy, α-methyl, α-carbamoyl, α-methoxycarbonyl, α-hydroxymethyl, α-(2-hydroxyethyl), α-methoxymethyl, α-nitroxy, α-formylamino, α-ethynyl, β-hydroxy, the symbol ═ in position 17 represents a double bond while the other symbols ─ represent single bonds, and the symbol  represents (R-3-pyrrolidinyloxy)imino, (S-3-pyrrolidinyloxy)imino, (RS-3-pyrrolidinyl-oxy)imino, 3-azetidinyloxyimino, 3α-[3-(S)-pyrrolidinylthio] ,3α-[3-(R)-pyrrolidinylthio], 3α-[3-(RS)-pyrrolidinylthio], 3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl], 3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl], 3α-[2-(azetidin-3-yl)-(Z)-vinyl], 3α-[2-(piperidin-4-yl)-(Z)-vinyl], their tautomers, all the possible stereoisomers, Z and E isomers, optical isomers and their mixtures, their metabolites and the metabolic precursors, the pharmaceutically acceptable salts.

4. Compounds according to claim 1, wherein R^2 represents hydroxy, the symbol R^4 represents H, the symbol R^3 represents oxygen, with the meaning of keto, methylene, difluoromethylene, hydroxyimino, methoxyimino, when the symbols ═ in position 6 linking R^3 and in position 17 represent double bonds, while the other symbols ─ represent sin-

gle bonds, and the symbol  represents (R-3-pyrrolidinyl-oxy)imino, (S-3-pyrrolidinyloxy)imino, (RS-3-pyrrolidinyl-oxy)imino, 3-azetidinyloxyimino, 3α-[3-(S)-pyrrolidinylthio] ,3α-[3-(R)-pyrrolidinylthio], 3α-[3-(RS)-pyrrolidinylthio], 3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl], 3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl], 3α-[2-(azetidin-3-yl)-(Z)-vinyl], 3α-[2-(piperidin-4-yl)-(Z)-vinyl], their tautomers, all the possible stereoisomers, Z and E isomers, optical isomers and their mixtures, their metabolites and the metabolic precursors, the pharmaceutically acceptable salts.

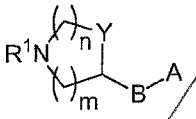
5. Compounds according to claim 1, wherein R^2 represents hydroxy, the symbols R^4 represent H, the symbol R^3 represents α-hydroxy, α-methyl, α-carbamoyl, α-methoxycarbonyl, α-hydroxy-methyl, α-methoxymethyl, α-nitroxy, α-formylamino, α-ethynyl, the symbol ═ in position 17 represents a double bond while the other symbols ═ represent single bonds, and the symbol  represents (R-3-pyrrolidinyloxy)imino, (S-3-pyrrolidinyl-oxy)imino, (RS-3-pyrrolidinyl-oxy)imino, 3-azetidinyloxyimino, 3α-[3-(S)-pyrrolidinylthio] ,3α-[3-(R)-pyrrolidinylthio], 3α-[3-(RS)-pyrrolidinylthio], 3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl], 3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl], 3α-[2-(azetidin-3-yl)-(Z)-vinyl], 3α-[2-(piperidin-4-yl)-(Z)-vinyl], their tautomers, all the possible stereoisomers, Z and E isomers, optical isomers and their mixtures, their metabolites and the metabolic precursors, the pharmaceutically acceptable salts.

6. Compounds according to claim 1, wherein R^2 and R^3 represent H, the symbol R^4 represents oxygen, with the meaning of keto, methylene, difluoromethylene, hydroxyimino, methoxyimino, when the symbols ═ in position 7 linking R^4 and in position 17 represent a double bond, while the other symbols ═ represent single bonds, and the symbol



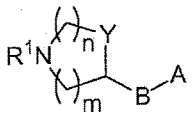
represents (R-3-pyrrolidinyloxy)imino, (S-3-pyrrolidinyloxy)imino, (RS-3-pyrrolidinyloxy)imino, 3-azetidinyloxyimino, 3α-[3-(S)-pyrrolidinylthio] ,3α-[3-(R)-pyrrolidinylthio], 3α-[3-(RS)-pyrrolidinylthio], 3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl], 3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl], 3α-[2-(azetidin-3-yl)-(Z)-vinyl], 3α-[2-(piperidin-4-yl)-(Z)-vinyl], their tautomers, all the possible stereoisomers, Z and E isomers, optical isomers and their mixtures, their metabolites and the metabolic precursors, the pharmaceutically acceptable salts.

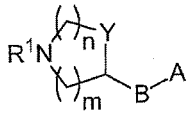
7. Compounds according to claim 1, wherein R^2 and R^3 represent H, the symbol R^4 represents α-hydroxy, α-methyl, α-carbamoyl, α-methoxycarbonyl, α-hydroxymethyl, α-methoxymethyl, α-nitroxy, α-formylamino, α-ethynyl, β-hydroxy, β-methyl, β-carbamoyl, β-methoxycarbonyl, β-hydroxymethyl, β-methoxymethyl, β-nitroxy, β-formylamino, β-ethynyl, the symbol == in position 17 represents a double bond while the other symbols == represent single bonds, and



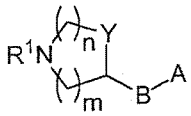
the symbol represents (R-3-pyrrolidinyloxy)imino, (S-3-pyrrolidinyl-oxy)imino, (RS-3-pyrrolidinyloxy)imino, 3-azetidinyloxyimino, 3α-[3-(S)-pyrrolidinylthio] ,3α-[3-(R)-pyrrolidinylthio], 3α-[3-(RS)-pyrrolidinylthio], 3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl], 3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl], 3α-[2-(azetidin-3-yl)-(Z)-vinyl], 3α-[2-(piperidin-4-yl)-(Z)-vinyl], their tautomers, all the possible stereoisomers, Z and E isomers, optical isomers and their mixtures, their metabolites and the metabolic precursors, the pharmaceutically acceptable salts.

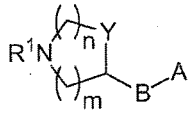
8. Compounds according to claim 1, wherein R^2 represents hydroxy, the symbols R^3 represent H, the symbol R^4 represents oxygen, with the meaning of keto, methylene, hydroxyimino, methoxyimino, when the symbol == in position 7 linking R^4 and in position 17 represents a double bond while the other symbols == represent single bonds, and

the symbol  represents (R-3-pyrrolidinyloxy)imino, (S-3-pyrrolidinyloxy)imino, (RS-3-pyrrolidinyl-oxy)imino, 3-azetidinyloxyimino, 3α-[3-(S)-pyrrolidinylthio] ,3α-[3-(R)-pyrrolidinylthio], 3α-[3-(RS)-pyrrolidinylthio], 3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl], 3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl], 3α-[2-(azetidin-3-yl)-(Z)-vinyl], 3α-[2-(piperidin-4-yl)-(Z)-vinyl], their tautomers, all the possible stereoisomers, Z and E isomers, optical isomers and their mixtures, their metabolites and the metabolic precursors, the pharmaceutically acceptable salts.

9. Compounds according to claim 1, wherein R^2 represents hydroxy, the symbols R^3 represent H, the symbol R^4 represents α-hydroxy, α-methyl, α-carbamoyl, α-methoxycarbonyl, α-hydroxymethyl, α-methoxymethyl, α-nitroxy, α-formylamino, α-ethynyl, β-methyl, β-carbamoyl, β-methoxycarbonyl, β-hydroxymethyl, β-methoxymethyl, β-nitroxy, β-formylamino, β-ethynyl, the symbol ═ in position 17 represents a double bond while the other symbols ═ represent single bonds, and the symbol  represents (R-3-pyrrolidinyloxy)imino, (S-3-pyrrolidinyloxy)imino, (RS-3-pyrrolidinyl-oxy)imino, 3-azetidinyloxyimino, 3α-[3-(S)-pyrrolidinylthio] ,3α-[3-(R)-pyrrolidinylthio], 3α-[3-(RS)-pyrrolidinylthio], 3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl], 3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl], 3α-[2-(azetidin-3-yl)-(Z)-vinyl], 3α-[2-(piperidin-4-yl)-(Z)-vinyl], their tautomers, all the possible stereoisomers, Z and E isomers, optical isomers and their mixtures, their metabolites and the metabolic precursors, the pharmaceutically acceptable salts.

10. Compounds according to claim 1, wherein R^2 represents hydroxy, the symbols R^3 and R^4 represent H, the symbol ═ in position 17 represents a double bond while the other symbols ═ represent single

bonds, and the symbol  represents (R-3-pyrrolidinyloxy)imino, (S-3-pyrrolidinyloxy)imino, (RS-3-pyrrolidinyl-oxy)imino, 3-azetidinyloxyimino, 3α-[3-(S)-pyrrolidinylthio] ,3α-[3-(R)-pyrrolidinylthio], 3α-[3-(RS)-pyrrolidinylthio], 3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl], 3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl], 3α-[2-(azetidin-3-yl)-(Z)-vinyl], 3α-[2-(piperidin-4-yl)-(Z)-vinyl], their tautomers, all the possible stereoisomers, Z and E isomers, optical isomers and their mixtures, their metabolites and the metabolic precursors, the pharmaceutically acceptable salts.

11. Compounds according to claim 1, wherein R^2 represents H, the symbols R^3 represents α-hydroxymethyl, and R^4 represents α-hydroxy or keto, when the symbol ═ in position 17 represents a double bond while the other symbols ═ represent single bonds, and the symbol  represents (R-3-pyrrolidinyloxy)imino, (S-3-pyrrolidinyloxy)imino, (RS-3-pyrrolidinyl-oxy)imino, 3-azetidinyloxyimino, 3α-[3-(S)-pyrrolidinylthio] ,3α-[3-(R)-pyrrolidinylthio], 3α-[3-(RS)-pyrrolidinylthio], 3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl], 3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl], 3α-[2-(azetidin-3-yl)-(Z)-vinyl], 3α-[2-(piperidin-4-yl)-(Z)-vinyl], their tautomers, all the possible stereoisomers, Z and E isomers, optical isomers and their mixtures, their metabolites and the metabolic precursors, the pharmaceutically acceptable salts.

12. Compounds according to claim 1, selected from the group consisting of:

EZ 3-(R-3-pyrrolidinyloxy)imino-6-methyleneandrostane-17-one,
EZ 3-(S-3-pyrrolidinyloxy)imino-6-methyleneandrostane-17-one,
EZ 3-(RS-3-pyrrolidinyloxy)imino-6-methyleneandrostane-17-one,
EZ 3-(3-azetidinyloxyimino)-6-methyleneandrostane-17-one,
3α-[3-(S)-pyrrolidinylthio]-6-methyleneandrostane-17-one,
3α-[3-(R)-pyrrolidinylthio]-6-methyleneandrostane-17-one,

3α-[3-(RS)-pyrrolidinylthio]-6-methyleneandrostane-17-one,
3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl]-6-methyleneandrostane-17-one,
3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl]-6-methyleneandrostane-17-one,
3α-[2-(azetidin-3-yl)-(Z)-vinyl]-6-methyleneandrostane-17-one,
3α-[2-(piperidin-4-yl)-(Z)-vinyl]-6-methyleneandrostane-17-one,
and the corresponding 6-oxo, 6-difluoromethylene, 6-hydroxyimino and 6-methoxyimino derivatives;
EZ 3-(R-3-pyrrolidinyloxy)imino-6α-methylandrostane-17-one,
EZ 3-(S-3-pyrrolidinyloxy)imino-6α-methylandrostane-17-one,
EZ 3-(RS-3-pyrrolidinyloxy)imino-6α-methylandrostane-17-one,
EZ 3-(3-azetidinyloxyimino)-6α-methylandrostane-17-one,
3α-[3-(S)-pyrrolidinylthio]-6α-methylandrostane-17-one,
3α-[3-(R)-pyrrolidinylthio]-6α-methylandrostane-17-one,
3α-[3-(RS)-pyrrolidinylthio]-6α-methylandrostane-17-one,
3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl]-6α-methylandrostane-17-one,
3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl]-6α-methylandrostane-17-one,
3α-[2-(azetidin-3-yl)-(Z)-vinyl]-6α-methylandrostane-17-one,
3α-[2-(piperidin-4-yl)-(Z)-vinyl]-6α-methylandrostane-17-one,
and the corresponding 6α-hydroxy, 6α-carbamoyl, 6α-methoxycarbonyl, 6α-hydroxymethyl, 6α-(2-hydroxyethyl), 6α-methoxymethyl, 6α-nitroxy, 6α-formylamino, 6α-ethynyl, 6β-hydroxy derivatives;
EZ 3-(R-3-pyrrolidinyloxy)imino-5α-hydroxy-6-methyleneandrostan-17-one,
EZ 3-(S-3-pyrrolidinyloxy)imino-5α-hydroxy-6-methyleneandrostan-17-one,
EZ 3-(RS-3-pyrrolidinyloxy)imino-5α-hydroxy-6-methyleneandrostan-17-one,
EZ 3-(3-azetidinyloxyimino)-5α-hydroxy-6-methyleneandrostan-17-one,
3α-[3-(S)-pyrrolidinylthio]-5α-hydroxy-6-methyleneandrostane-17-one,
3α-[3-(R)-pyrrolidinylthio]-5α-hydroxy-6-methyleneandrostane-17-one,
3α-[3-(RS)-pyrrolidinylthio]-5α-hydroxy-6-methyleneandrostane-17-one,
3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl]-5α-hydroxy-6-methyleneandrostane-17-one,
3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl]-5α-hydroxy-6-methyleneandrostane-17-one,

3α-[2-(azetidin-3-yl)-(Z)-vinyl]-5α-hydroxy-6-methyleneandrostane-17-one,
3α-[2-(piperidin-4-yl)-(Z)-vinyl]-5α-hydroxy-6-methyleneandrostane-17-one,
and the corresponding 6-oxo, 6-difluoromethylene, 6-hydroxyimino and 6-methoxyimino derivatives;
EZ 3-(R-3-pyrrolidinyloxy)imino-5α-hydroxy-6α-methylandrostan-17-one,
EZ 3-(S-3-pyrrolidinyloxy)imino-5α-hydroxy-6α-methylandrostan-17-one,
EZ 3-(RS-3-pyrrolidinyloxy)imino-5α-hydroxy-6α-methylandrostan-17-one,
EZ 3-(3-azetidinyloxyimino)-5α-hydroxy-6α-methylandrostan-17-one,
3α-[3-(S)-pyrrolidinylthio]-5α-hydroxy-6α-methylandrostane-17-one,
3α-[3-(R)-pyrrolidinylthio]-5α-hydroxy-6α-methylandrostane-17-one,
3α-[3-(RS)-pyrrolidinylthio]-5α-hydroxy-6α-methylandrostane-17-one,
3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl]-5α-hydroxy-6α-methylandrostane-17-one,
3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl]-5α-hydroxy-6α-methylandrostane-17-one,
3α-[2-(azetidin-3-yl)-(Z)-vinyl]-5α-hydroxy-6α-methylandrostane-17-one,
3α-[2-(piperidin-4-yl)-(Z)-vinyl]-5α-hydroxy-6α-methylandrostane-17-one,
and the corresponding 6α-carbamoyl, 6α-methoxycarbonyl, 6α-hydroxymethyl, 6α-methoxymethyl, 6α-nitroxy, 6α-formylamino, 6α-ethynyl derivatives;
EZ 3-(R-3-pyrrolidinyloxy)imino-7-methyleneandrostan-17-one,
EZ 3-(S-3-pyrrolidinyloxy)imino-7-methyleneandrostan-17-one,
EZ 3-(RS-3-pyrrolidinyloxy)imino-7-methyleneandrostan-17-one,
EZ 3-(3-azetidinyloxyimino)-7-methyleneandrostan-17-one,
3α-[3-(S)-pyrrolidinylthio]-7-methyleneandrostane-17-one,
3α-[3-(R)-pyrrolidinylthio]-7-methyleneandrostane-17-one,
3α-[3-(RS)-pyrrolidinylthio]-7-methyleneandrostane-17-one,
3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl]-7-methyleneandrostane-17-one,

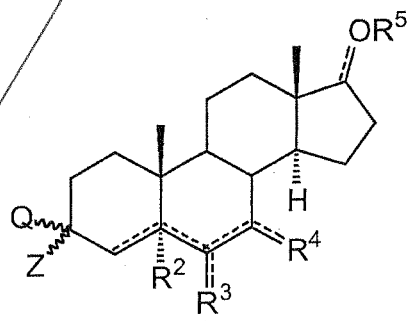
3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl]-7-methyleneandrostane-17-one,
3α-[2-(azetidin-3-yl)-(Z)-vinyl]-7-methyleneandrostane-17-one,
3α-[2-(piperidin-4-yl)-(Z)-vinyl]-7-methyleneandrostane-17-one,
and the corresponding 7-oxo, 7-difluoromethylene, 7-hydroxyimino and 7-methoxyimino derivatives;
EZ 3-(R-3-pyrrolidinyloxy)imino-7α-methylandrostan-17-one,
EZ 3-(S-3-pyrrolidinyloxy)imino-7α-methylandrostan-17-one,
EZ 3-(RS-3-pyrrolidinyloxy)imino-7α-methylandrostan-17-one,
EZ 3-(3-azetidinyloxyimino)-7α-methylandrostan-17-one,
3α-[3-(S)-pyrrolidinylthio]-7α-methylandrostane-17-one,
3α-[3-(R)-pyrrolidinylthio]-7α-methylandrostane-17-one,
3α-[3-(RS)-pyrrolidinylthio]-7α-methylandrostane-17-one,
3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl]-7α-methylandrostane-17-one,
3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl]-7α-methylandrostane-17-one,
3α-[2-(azetidin-3-yl)-(Z)-vinyl]-7α-methylandrostane-17-one,
3α-[2-(piperidin-4-yl)-(Z)-vinyl]-7α-methylandrostane-17-one,
and the corresponding 7α-hydroxy, 7α-carbamoyl, 7α-methoxycarbonyl, 7α-hydroxymethyl, 7α-methoxymethyl, 7α-nitroxy, 7α-formylamino, 7α-ethynyl and 7β-hydroxy, 7β-methyl, 7β-carbamoyl, 7β-methoxycarbonyl, 7β-hydroxymethyl, 7β-methoxymethyl, 7β-nitroxy, 7β-formylamino, 7β-ethynyl derivatives;
EZ 3-(R-3-pyrrolidinyloxy)imino-5α-hydroxy-7-methyleneandrostan-17-one,
EZ 3-(S-3-pyrrolidinyloxy)imino-5α-hydroxy-7-methyleneandrostan-17-one,
EZ 3-(RS-3-pyrrolidinyloxy)imino-5α-hydroxy-7-methyleneandrostan-17-one,
EZ 3-(3-azetidinyloxyimino)-5α-hydroxy-7-methyleneandrostan-17-one,
3α-[3-(S)-pyrrolidinylthio]-5α-hydroxy-7-methyleneandrostane-17-one,
3α-[3-(R)-pyrrolidinylthio]-5α-hydroxy-7-methyleneandrostane-17-one,
3α-[3-(RS)-pyrrolidinylthio]-5α-hydroxy-7-methyleneandrostane-17-one,
3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl]-5α-hydroxy-7-methyleneandrostane-17-one,
3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl]-5α-hydroxy-7-methyleneandrostane-17-one,

3α-[2-(azetidin-3-yl)-(Z)-vinyl]-5α-hydroxy-7-methyleneandrostane-17-one,
3α-[2-(piperidin-4-yl)-(Z)-vinyl]-5α-hydroxy-7-methyleneandrostane-17-one,
and the corresponding 7-hydroxyimino and 7-methoxyimino derivatives;
EZ 3-(R-3-pyrrolidinyloxy)imino-5α-hydroxy-7α-methylandrostan-17-one,
EZ 3-(S-3-pyrrolidinyloxy)imino-5α-hydroxy-7α-methylandrostan-17-one,
EZ 3-(RS-3-pyrrolidinyloxy)imino-5α-hydroxy-7α-methylandrostan-17-one,
EZ 3-(3-azetidinyloxyimino)-5α-hydroxy-7α-methylandrostan-17-one,
3α-[3-(S)-pyrrolidinylthio]-5α-hydroxy-7α-methylandrostane-17-one,
3α-[3-(R)-pyrrolidinylthio]-5α-hydroxy-7α-methylandrostane-17-one,
3α-[3-(RS)-pyrrolidinylthio]-5α-hydroxy-7α-methylandrostane-17-one,
3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl]-5α-hydroxy-7α-methylandrostane-17-one,
3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl]-5α-hydroxy-7α-methylandrostane-17-one,
3α-[2-(azetidin-3-yl)-(Z)-vinyl]-5α-hydroxy-7α-methylandrostane-17-one,
3α-[2-(piperidin-4-yl)-(Z)-vinyl]-5α-hydroxy-7α-methylandrostane-17-one,
and the corresponding 7α-carbamoyl, 7α-methoxycarbonyl, 7α-hydroxymethyl, 7α-methoxymethyl, 7α-nitroxy, 7α-formylamino, 7α-ethynyl and 7β-carbamoyl, 7β-methoxycarbonyl, 7β-hydroxymethyl, 7β-methoxymethyl, 7β-nitroxy, 7β-formylamino, 7β-ethynyl derivatives;
EZ 3-(R-3-pyrrolidinyloxy)imino-5α-hydroxyandrostan-17-one,
EZ 3-(S-3-pyrrolidinyloxy)imino-5α-hydroxyandrostan-17-one,
EZ 3-(RS-3-pyrrolidinyloxy)imino-5α-hydroxyandrostan-17-one,
EZ 3-(3-azetidinyloxyimino)-5α-hydroxyandrostan-17-one,
3α-[3-(S)-pyrrolidinylthio]-5α-hydroxyandrostane-17-one,
3α-[3-(R)-pyrrolidinylthio]-5α-hydroxyandrostane-17-one,
3α-[3-(RS)-pyrrolidinylthio]-5α-hydroxyandrostane-17-one,

3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl]-5α-hydroxyandrostane-17-one,
3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl]-5α-hydroxyandrostane-17-one,
3α-[2-(azetidin-3-yl)-(Z)-vinyl]-5α-hydroxyandrostane-17-one,
3α-[2-(piperidin-4-yl)-(Z)-vinyl]-5α-hydroxyandrostane-17-one,
EZ 3-(R-3-pyrrolidinyloxy)imino-6α-hydroxymetylandrostane-7,17-dione,
EZ 3-(S-3-pyrrolidinyloxy)imino-6α-hydroxymetylandrostane-7,17-dione,
EZ 3-(RS-3-pyrrolidinyloxy)imino-6α-hydroxymetylandrostane-7,17-dione,
EZ 3-(3-azetidinyloxyimino)-6α-hydroxymetylandrostane-7,17-dione,
3α-[3-(S)-pyrrolidinylthio]-6α-hydroxymetylandrostane-7,17-dione,
3α-[3-(R)-pyrrolidinylthio]-6α-hydroxymetylandrostane-7,17-dione,
3α-[3-(RS)-pyrrolidinylthio]-6α-hydroxymetylandrostane-7,17-dione,
3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl]-6α-hydroxymetylandrostane-7,17-dione,
3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl]-6α-hydroxymetylandrostane-7,17-dione,
3α-[2-(azetidin-3-yl)-(Z)-vinyl]-6α-hydroxymetylandrostane-7,17-dione,
3α-[2-(piperidin-4-yl)-(Z)-vinyl]-6α-hydroxymetylandrostane-7,17-dione,
EZ 3-(R-3-pyrrolidinyloxy)imino-6α-hydroxymethyl-7α-hydroxy-androstane-17-one,
EZ 3-(S-3-pyrrolidinyloxy)imino-6α-hydroxymethyl-7α-hydroxy-androstane-17-one,
EZ 3-(RS-3-pyrrolidinyloxy)imino-6α-hydroxymethyl-7α-hydroxy-androstane-17-one,
EZ 3-(3-azetidinyloxyimino)-6α-hydroxymethyl-7α-hydroxyandrostane-17-one,
3α-[3-(S)-pyrrolidinylthio]-6α-hydroxymethyl-7α-hydroxyandrostane-17-one,
3α-[3-(R)-pyrrolidinylthio]-6α-hydroxymethyl-7α-hydroxyandrostane-17-one,
3α-[3-(RS)-pyrrolidinylthio]-6α-hydroxymethyl-7α-hydroxyandrostane-17-one,

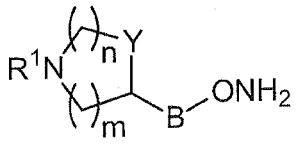
3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl]-6α-hydroxymethyl-7α-hydroxy-androstane-17-one,
3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl]-6α-hydroxymethyl-7α-hydroxy-androstane-17-one,
3α-[2-(azetidin-3-yl)-(Z)-vinyl]-6α-hydroxymethyl-7α-hydroxy-androstane-17-one,
3α-[2-(piperidin-4-yl)-(Z)-vinyl]-6α-hydroxymethyl-7α-hydroxy-androstane-17-one,
and the corresponding pure E and Z isomers of the EZ mixtures reported above.

13. A process for the preparation of compounds of claim 1, wherein the symbols R^1, R^2, R^3, R^4, R^5, B, Y and ═ have the meanings defined above and A is C=N ∿ O can be obtained from compounds of formula (II) where Q and Z represent together a keto group (=O), when the symbols ∿ are taken together with the meaning of double bond, comprising the reaction of a starting from compounds of general formula (II)



II

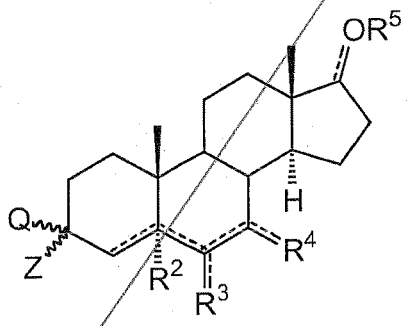
where the symbols R^2, R^3, R^4, R^5, and ═ have the meanings defined above and Q and Z represent together a keto group (=O) when the symbols ∿ are taken together with the meaning of double bond or, when the symbols ∿ are single bonds, Q is hydroxy, mercapto, NHR^8, CHO or a leaving group when Z is hydrogen, or Q is hydroxy, mercapto, NHR^8 when Z is C_1-C_6 straight or branched alkyl group, with a compound of general formula (III),



(III)

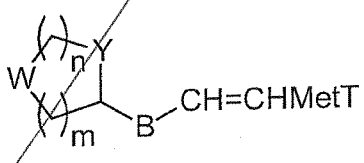
where R^1, B, Y, m and n have the meanings defined above.

14. A process for the preparation of compounds of claim 1, wherein the symbols R^1, R^2, R^3, R^4, R^5, B, Y and ═ have the meanings defined above and A is CR^6 ~ CH=CH ~ , CR^6 ~ CH_2, where R^6 is hydroxy, comprising the reaction of a compound of formula (II)

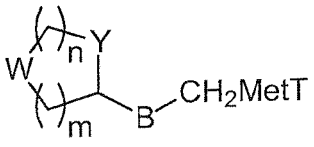


II

where the symbols R^2, R^3, R^4, R^5, and ═ have the meanings defined above and where Q and Z represent together a keto group (=O), when the symbols ~ are taken together with the meaning of double bond, with a compound of general formula (IV) and (V)



(IV)

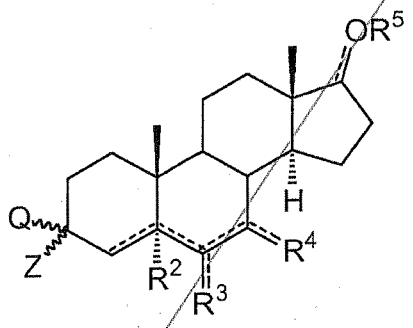


(V)

where B, Y, m, and n have the meanings defined above, Met is a metal atom and T is nothing, halogen or a different metal atom depending on the oxidation state of the Met metal atom, such as, for example, Li, MgCl, MgBr, MgI, and CuLi and W is R^1N or PGN, where R^1 is

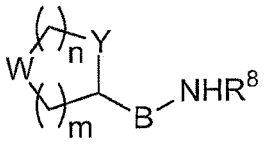
straight or branched alkyl or phenylalkyl, and PG is a protective group, and optional removal of the protective group.

15. A process for the preparation of compounds of claim 1, wherein the symbols R^1, R^2, R^3, R^4, R^5, B, Y and ═ have the meanings defined above and A is CH ~ X, where X is NR^8, comprising the reaction of a compound of formula (**II**)



II

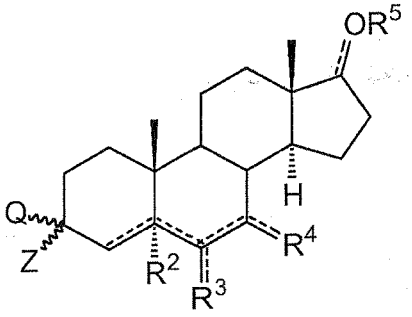
where the symbols R^2, R^3, R^4, R^5, and ═ have the meanings defined above and where Q and Z represent together a keto group (=O) when the symbols ~ are taken together with the meaning of double bond with a compound of general formula (**VI**),



(**VI**)

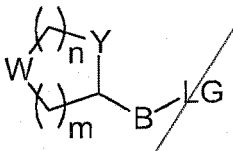
where W is R^1N or PGN, and R^1, PG, Y, m, n, R^8, and B have the meanings defined above, and optional removal of the protective group.

16. A process for the preparation of compounds of claim 1, wherein the symbols R^1, R^2, R^3, R^4, R^5, B, Y and ═ have the meanings defined above and A is CH ~ X, where X is O, S or NR^8, comprising the reaction of a compound of formula (**II**)



II

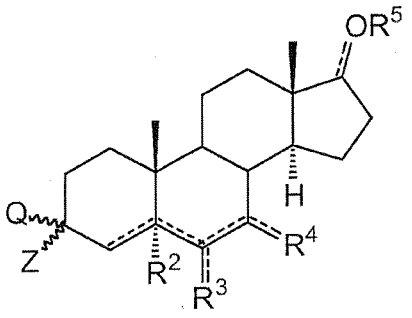
where the symbols R^2, R^3, R^4, R^5, and ═ have the meanings defined above and where Q is hydroxy, mercapto, NHR^8, when Z is hydrogen with a compound of general formula (**VII**),



(VII)

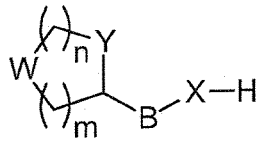
where W is R^1N or PGN, and R^1, Y, m, n, and B are as defined above, PG is a protective group, LG is a leaving group and optional removal of the protecting group.

17. A process for the preparation of compounds of claim 1, wherein the symbols symbols R^1, R^2, R^3, R^4, R^5, B, Y and ═ have the meanings defined above and A is CH ~ X, where X is O, S or NR^8, comprising the reaction of a compound of formula (**II**)



II

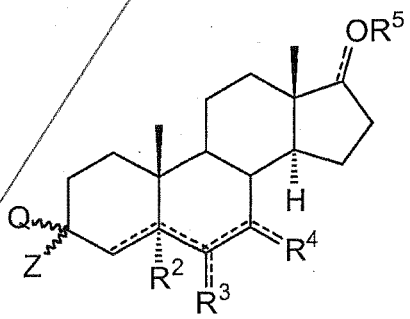
where the symbols R^2, R^3, R^4, R^5, and ═ have the meanings defined above and where Q is Q is a leaving group and Z is hydrogen with a compound of formula (**VIII**),



(**VIII**)

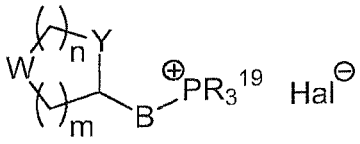
where W is R^1N, PGN, and R^1, Y, m, n, and B are as defined above, PG is a protective group, X is O, S or NR^8, where R^8 is as defined above and optional removal of the protecting group.

18. A process for the preparation of compounds of claim 1, wherein the symbols R^1, R^2, R^3, R^4, R^5, B, Y and ═ have the meanings defined above and A is CR^6 ∿ CH=CH ∿ , where R^6 is hydrogen, comprising the reaction of a compound of formula (**II**)



II

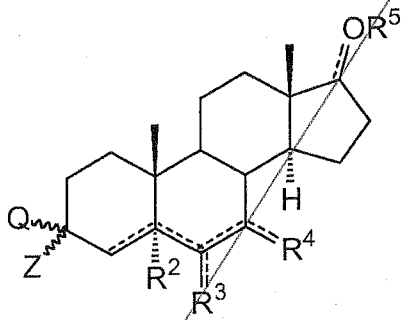
where the symbols R^2, R^3, R^4, R^5, and ═ have the meanings defined above and where Q is CHO and Z is hydrogen, with a compound of by reaction with a compound of general formula (**IX**),



(**IX**)

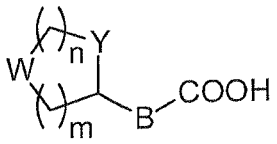
where W is R^1N, PGN, and R^1, Y, m, n, and B are as defined above, PG is a protective group and optional removal of the protecting group.

19. A process for the preparation of compounds of claim 1, wherein the symbols R^1, R^2, R^3, R^4, R^5, B, Y and ═ have the meanings defined above and A is CR^7 ~ XC=O, where R^7 is hydrogen or C_1-C_6 straight or branched alkyl group, X is O, S, or NR^8, comprising the reaction of a compound of formula (**II**)



II

where the symbols R^2, R^3, R^4, R^5, and ═ have the meanings defined above and where Q is hydroxy, mercapto, NHR^8 and Z is hydrogen or C_1-C_6 straight or branched alkyl group, with a compound of by reaction with a compound of general formula (**X**),

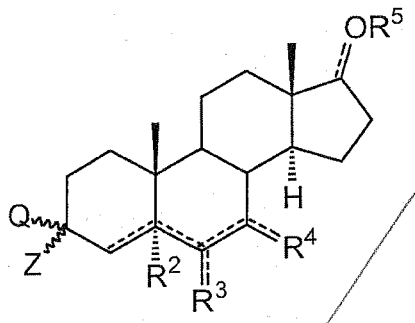


(**X**)

where W is R^1N, PGN, and R^1, Y, m, n, and B are as defined above, PG is a protective group and optional removal of the protecting group.

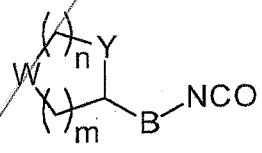
20. A process for the preparation of compounds of claim 1, wherein the symbols R^1, R^2, R^3, R^4, R^5, B, Y and ═ have the meanings defined above and A is CR^7 ~ X(C=O)X', where R^7 is hydrogen or C_1-C_6 straight

or branched alkyl group, X is O, S, or NR^8, and X' is NH, comprising the reaction of a compound of formula (**II**)



II

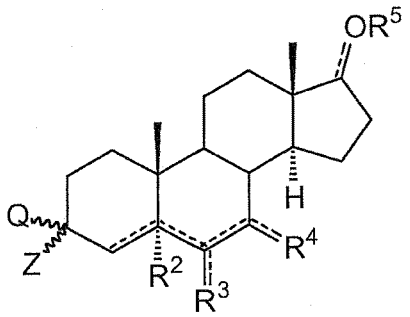
where the symbols R^2, R^3, R^4, R^5, and ═ have the meanings defined above and where Q is hydroxy, mercapto, NHR^8 and Z is hydrogen or C_1-C_6 straight or branched alkyl group, with a compound of general formula (**XI**),



(**XI**)

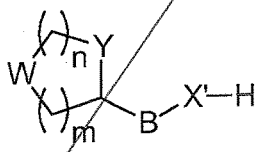
where W is R^1N, PGN, and R^1, Y, m, n, and B are as defined above, PG is a protective group and optional removal of the protecting group.

21. A process for the preparation of compounds of claim 1, wherein the symbols R^1, R^2, R^3, R^4, R^5, B, Y and ═ have the meanings defined above and A is CR^7 ∿ X(C=O)X', where R^7 is hydrogen or C_1-C_6 straight or branched alkyl group, X is O, S, or NR^8, and X' is O, S, NR^8, comprising the reaction of a compound of formula (**II**)



II

where the symbols R^2, R^3, R^4, R^5, and ═ have the meanings defined above and where Q is hydroxy, mercapto, NHR^8 and Z is hydrogen or C_1-C_6 straight or branched alkyl group, with a compound of general formula **(XII)**,



(XII)

where W is R^1N, PGN, and R^1, Y, m, n, B and X' are as defined above, PG is a protective group, and optional removal of the protecting group.

22. A process for the preparation of compounds of claim 1, wherein the symbols R^1, R^2, R^3, R^4, R^5, B, Y and ═ have the meanings defined above and A is CH〰X, CR^7〰XC=O, CR^7〰XC(=O)X', where X and X' are NR^8, and R^8 is C_1-C_6 straight or branched alkyl group, comprising the reaction of a compound of formula **(I)**, as defined in claim 1, where A is CH〰X, CR^7〰XC=O, CR^7〰XC(=O)X', where X and X' are NH, with a compound of formula C_1-C_6 straight or branched alkyl-LG, where LG is a leaving group.

23. A process for the preparation of compounds of claim 1, wherein the symbols R^1, R^2, R^3, R^4, R^5, B, Y and ═ have the meanings defined above and A is CH〰X, where X is NR^8, and R^8 is C_1-C_6 straight or branched alkyl group, comprising the reaction of a compound of for-

mula (**I**), as defined in claim 1, where A is A is CH ~ X, and X is NH, with CH_2O, or C_1-C_5 straight or branched alkyl-CHO.

24. A process for the preparation of compounds of claim 1, wherein the symbols R^1, R^2, R^3, R^4, R^5, B and = have the meanings defined above and A is CH ~ X, where X is $S(O)_x$ and x is 1 or 2, comprising the oxidation of a compound of formula (**I**), as defined in claim 1, whein A is CH ~ X, where X is $S(O)_x$ and x is 0.

25. A process for the preparation of compounds of claim 1, wherein the symbols A, B, R^1, R^2, R^3, R^4, R^5, and Y, have the meanings defined above, and = is a single bond, comprising the reduction of a compound of formula (**I**), as defined in claim 1, wherein the symbol = is double bond.

26. A process for the preparation of compounds of claim 1, wherein the symbols B, R^1, R^2, R^3, R^4, R^5, Y, and = have the meanings defined above, and A is CR^6 ~ CH=CH ~ , CR^6 ~ CH_2, where R^6 is hydrogen, comprising the deoxygenation of a compound of formula (**I**), as defined in claim 1, wherein R^6 is hydroxy.

27. A process for the preparation of compounds of claim 1, wherein the symbols A, B, R^1, R^2, R^3, R^4, R^5, Y, and = have the meanings defined above, R^1 is $C(=NR^9)NHR^{10}$, where R^9 and R^{10} have the meanings reported above, comprising the reaction of a compound of formula (**I**), as defined in claim 1, R^1 is hydrogen with a compound of general formula (**XIII**)

$$TC(=NR^9)NHR^{10} \quad \textbf{(XIII)}$$

where R^9 and R^{10} have the meanings reported above and T is a leaving group.

28. A process for the preparation of compounds of claim 1, wherein the symbols A, B, R^1, R^2, R^5, Y, and = have the meanings defined

above, and R^3 and R^4, independently, are $N\sim OR^{12}$ when the bonds ═ linking the carbon atom in position 6 of the androstane skeleton with R^3 and the carbon atom in position 7 with R^4, independently, are double bonds, comprising the reaction of a compound of formula (**I**), as defined in claim 1, R^3 and R^4, being R^3 and R^4 the same or different, are O, with the meaning of a keto group, with a compound H_2NOR^{12} where R^{12} has the meanings defined above.

29. A process for the preparation of compounds of claim 1, wherein the symbols A, B, R^1, R^2, R^5, Y, and ═ have the meanings defined above, and R^3 and R^4, independently, are $CR^{13}R^{14}$ when the bonds ═ linking the carbon atom in position 6 of the androstane skeleton with R^3 and the carbon atom in position 7 with R^4 are double bonds, comprising the reaction of a compound of formula (**I**), as defined in claim 1, wherein R^3 and R^4, being R^3 and R^4 the same or different, are O, with the meaning of a keto group, with a compound of general formula (**XIV**) or (**XV**),

$$R^{13}R^{14}CH\text{–}P^{+}R_3^{19}\ \ Hal^{-} \qquad \textbf{(XIV)}$$

$$R^{13}R^{14}CH\text{–}P(=O)(OR^{19})_2 \qquad \textbf{(XV)}$$

where R^{13}, R^{14}, and R^{19} are as defined above and Hal is a halogen.

30. A process for the preparation of compounds of claim 1, wherein the symbols A, B, R^1, R^2, R^5, Y, and ═ have the meanings defined above, and R^3 and R^4, independently, are C_1-C_6 straight or branched alkyl groups substituted with a hydroxy group, when the bonds ═ linking the carbon atom in position 6 of the androstane skeleton with R^3 and the carbon atom in position 7 with R^4 are single bonds, comprising the reaction of a compound of formula (**I**), as defined in claim 1, wherein R^3 and R^4, being R^3 and R^4 the same or different, are $CR^{13}R^{14}$, where R^{13} and R^{14} are hydrogens, when the bonds ═ linking the carbon atom in position 6 of the androstane skeleton with R^3 and the carbon atom in position 7 with R^4 are double bonds, with a borane.

31. A process for the preparation of compounds of claim 1, wherein the symbols A, B, R^1, R^2, R^5, Y, and ═ have the meanings defined above, and R^3 and R^4, independently, being R^3 and R^4 the same or different, are O, with the meaning of a keto group, when the bonds ═ linking the carbon atom in position 6 of the androstane skeleton with R^3 and the carbon atom in position 7 with R^4 are double bonds, comprising the oxidation of a compound of formula (**I**), as defined in claim 1, wherein R^3 and R^4, being R^3 and R^4 the same or different, are hydroxy, when the bonds ═ linking the carbon atom in position 6 of the androstane skeleton with R^3 and the carbon atom in position 7 with R^4 are single bonds.

32. Pharmaceutical composition comprising at leat a compound of claims 1-11 in admixture with at elast one pharmaceutically acceptable vehicle and/or excipient.

33. Use of the compounds of claims 1-12 as medicaments.

34. Use of the compounds of claims 1-12 for the preparation of a medicament for the treatment of cardiovascular disorders.

35. Use according to claim 34, wherein said cardiovascular disorders is heart failure.

36. Use according to claim 34, wherein said cardiovascular disorders is hypertension.

37. Use according to claim 34, wherein said cardiovascular disorders is heart failure and/or hypertension.

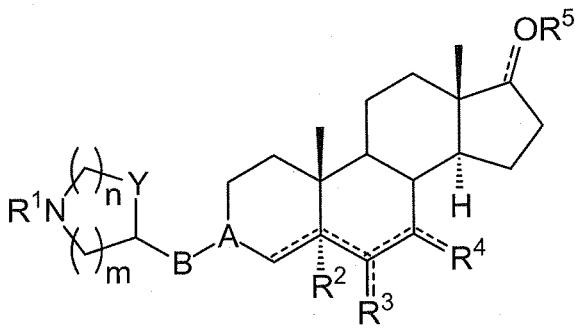
38. Use of the compounds of claims 1-12 for the preparation of a medicament for the inhibition of the enzymatic activity of the Na^+,K^+-ATPase.

39. Use of the compounds of claims 1-12 for the preparation of a medicament for the treatment of a disease caused by the hypertensive effects of endogenous ouabain.

40. Use according to claim 39, in which the disease caused by the hypertensive effects of endogenous ouabain comprise renal failure progression in autosomal dominant polycystic renal disease (ADPKD), preeclamptic hypertension and proteinuria and renal failure progression in patients with adducin polymorphisms.

CLAIMS

1. Compounds of formula (I)



I

wherein:

A is C=N ~ O, or CR^6 ~ CH=CH ~ , wherein the left end carbon atom in any of these groups is at position 3 of the androstane ring;

where:

R^6 is hydrogen or hydroxy;

B is a C_1-C_4 straight or branched alkylene or can be a single bond so that the A is directly linked to the nitrogen-containing heterocycle;

Y is CH_2, oxygen, sulphur or NR^1, and when two R^1 are present at the same time they can be the same or different;

R^1 is H, C_1-C_6 straight or branched alkyl, optionally substituted by one or more hydroxy, methoxy, ethoxy, or R^1 is phenyl(C_1-C_4)straight or branched alkyl or $C(=NR^9)NHR^{10}$;

R^9 and R^{10}, which can be the same or different, are H, C_1-C_6 straight or branched alkyl group, or R^9 and R^{10} can be taken together with the nitrogen atoms and the guanidinic carbon atom to form an unsubstituted or substituted saturated or unsaturated mono heterocyclic 5- or 6-membered ring optionally containing another heteroatom selected from the group consisting of oxygen, sulphur or nitrogen;

R^2 is H, C_1-C_6 straight or branched alkyl, ONO_2, or OR^{11};

R^{11} is H, C_1-C_6 straight or branched alkyl, optionally substituted by one or more hydroxy, methoxy, ethoxy or R^{11} is allyl or propargyl;

when the bonds ═ linking the carbon atom in position 6 of the androstane skeleton with R^3 and/or the carbon atom in position 7 with R^4 are a double bond, R^3 and R^4, being R^3 and R^4 the same or different, are, O, with the meaning of a keto group, N ~ OR^{12} or $CR^{13}R^{14}$;

R^{12} is H, C_1-C_6 straight or branched alkyl group, optionally substituted by one or more hydroxy, methoxy, ethoxy groups, or R^{12} is allyl or propargyl;

R^{13} and R^{14}, which can be the same or different, are H, C_1-C_6 straight or branched alkyl group, optionally substituted by one or more hydroxy, methoxy, ethoxy, or R^{13} and R^{14}, which can be the same or different, are allyl, propargyl, F, $COOR^{15}$, CN, $CONR^{16}R^{17}$, or R^{13} and R^{14} taken together form a cycloalkylene substituent;

R^{15} is H, C_1-C_6 straight or branched alkyl, optionally substituted by one or more hydroxy, methoxy or ethoxy;

R^{16} and R^{17}, which can be the same or different, are H, C_1-C_6 straight or branched alkyl group, or R^{16} and R^{17} can optionally be taken together with the nitrogen atom to form a heterocyclic group;

when the bonds ⩬ linking the carbon atom in position 6 of the androstane skeleton with R^3 and/or the carbon atom in position 7 with R^4 are single bonds, R^3 and/or R^4, which can be the same or different, are H, C_1-C_6 straight or branched alkyl group, vinyl, ethynyl, $COOR^{15}$, CN, $CONR^{16}R^{17}$, OR^{18}, ONO_2, NHCHO, $NHCOCH_3$, CH=N ∿ OH, spirocyclopropane, spirooxirane, where the alkyl group can be optionally substituted by one or more hydroxy, methoxy, ethoxy;

R^{15}, R^{16}, and R^{17} are as above defined,

R^{18} is H, C_1-C_6 straight or branched alkyl optionally substituted by one or more hydroxy, methoxy, ethoxy;

R^5 is H, C_1-C_6 straight or branched alkyl group or C_2-C_6 acyl group when the bond ⩬ in position 17 of the androstane skeleton is a single bond and, as a consequence, the remaining substituent in position 17 is H, and R^5 is not present when the bond ⩬ in position 17 is a double bond with the meaning of a keto group;

n is the number 0 or 1 or 2 or 3;

m is the number 0 or 1 or 2 or 3;

R^{15}, R^{16}, and R^{17}, when present in the same compound in different positions, can be the same or different,

the symbol ∿ is an α or β single bond or an E or Z diastereoisomer when it is linked to a double bond,

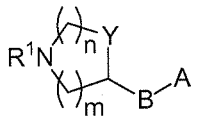
the symbol ⩬ in positions 4, 5, 6, 7, and 17 is, independently, a single or double bond, and when it is a single exocyclic bond in positions 6, 7, or 17, it can be an α or β single bond;

with the following proviso:

that at least one of R^2, R^3 and R^4 in the same structure is not hydrogen;

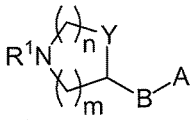
the pharmaceutically acceptable salts.

2. Compounds according to claim 1, wherein R^2 and R^4 represent H, the symbol R^3 represents oxygen, with the meaning of keto; methylene, difluoromethylene, hydroxyimino, methoxyimino, when the symbol ═ in position 17 represent a double bond, while the other symbols ═ represent single bonds, and the symbol



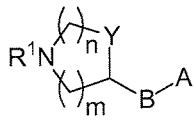
represents (R-3-pyrrolidinyloxy)imino, (S-3-pyrrolidinyloxy)imino, (RS-3-pyrrolidinyl-oxy)imino, 3-azetidinyloxyimino, 3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl], 3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl], 3α-[2-(azetidin-3-yl)-(Z)-vinyl], 3α-[2-(piperidin-4-yl)-(Z)-vinyl], the pharmaceutically acceptable salts.

3. Compounds according to claim 1, wherein R^2 and R^4 represent H, the symbol R^3 represents α-hydroxy, α-methyl, α-carbamoyl, α-methoxycarbonyl, α-hydroxymethyl, α-(2-hydroxyethyl), α-methoxy-methyl, α-nitroxy, α-formylamino, α-ethynyl, β-hydroxy the symbol ═ in position 17 represents a double bond while the other symbols ═ represent single bonds, and the symbol



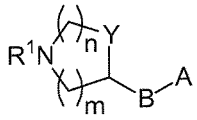
represents (R-3-pyrrolidinyloxy)imino, (S-3-pyrrolidinyloxy)imino, (RS-3-pyrrolidinyl-oxy)imino, 3-azetidinyloxyimino, 3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl], 3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl], 3α-[2-(azetidin-3-yl)-(Z)-vinyl], 3α-[2-(piperidin-4-yl)-(Z)-vinyl], the pharmaceutically acceptable salts.

4. Compounds according to claim 1, wherein R^2 represents hydroxy, the symbol R^4 represents H, the symbol R^3 represents oxygen with the meaning of keto; methylene, difluoromethylene, hydroxyimino, methoxyimino, when the symbols ═ in position 6 linking R^3 and in position 17 represent double bonds, while the other symbols ═ represent single bonds, and the symbol



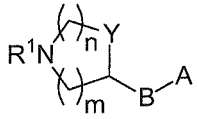
represents (R-3-pyrrolidinyl-oxy)imino, (S-3-pyrrolidinyloxy)imino, (RS-3-pyrrolidinyl-oxy)imino, 3-azetidinyloxyimino, 3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl], 3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl], 3α-[2-(azetidin-3-yl)-(Z)-vinyl], 3α-[2-(piperidin-4-yl)-(Z)-vinyl], the pharmaceutically acceptable salts.

5. Compounds according to claim 1, wherein R^2 and R^3 represent H, the symbol R^4 represents oxygen, with the meaning of keto; methylene, difluoromethylene, hydroxyimino, methoxyimino, when the symbols ═ in position 7 linking R^4 and in position 17 represent a double bond, while the other symbols ═ represent single bonds, and the symbol



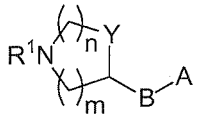
represents (R-3-pyrrolidinyloxy)imino, (S-3-pyrrolidinyloxy)imino, (RS-3-pyrrolidinyloxy)imino, 3-azetidinyloxyimi-no, 3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl], 3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl], 3α-[2-(azetidin-3-yl)-(Z)-vinyl], 3α-[2-(piperidin-4-yl)-(Z)-vinyl], the pharmaceutically acceptable salts.

6. Compounds according to claim 1, wherein R^2 and R^3 represent H, the symbol R^4 represents α-hydroxy, α-methyl, α-carbamoyl, α-methoxycarbonyl, α-hydroxymethyl, α-methoxymethyl, α-nitroxy, α-formylamino, α-ethynyl, β-hydroxy, β-methyl, β-carbamoyl, β-methoxycarbonyl, β-hydroxymethyl, β-methoxymethyl, β-nitroxy, β-formylamino, β-ethynyl, the symbol ═ in position 17 represents a double bond while the other symbols ═ represent single bonds, and the symbol



represents (R-3-pyrrolidinyloxy)imino, (S-3-pyrrolidinyl-oxy)imino, (RS-3-pyrrolidinyloxy)imino, 3-azetidinyloxyimino, 3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl], 3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl], 3α-[2-(azetidin-3-yl)-(Z)-vinyl], 3α-[2-(piperidin-4-yl)-(Z)-vinyl], the pharmaceutically acceptable salts.

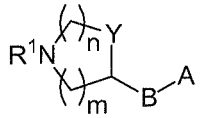
7. Compounds according to claim 1, wherein R^2 represents hydroxy, the symbols R^3 and R^4 represent H, the symbol ═ in position 17 represents a double bond while the other symbols ═ represent single bonds, and the symbol



represents (R-3-pyrrolidinyloxy)imino, (S-3-pyrrolidinyloxy)imino, (RS-3-pyrrolidinyl-oxy)imino, 3-azetidinyloxyimino, 3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-

vinyl], 3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl], 3α-[2-(azetidin-3-yl)-(Z)-vinyl], 3α-[2-(piperidin-4-yl)-(Z)-vinyl], the pharmaceutically acceptable salts.

8. Compounds according to claim 1, wherein R^2 represents H, the symbols R^3 represents α-hydroxymethyl, and R^4 represents α-hydroxy or keto, when the symbol ═ in position 17 represents a double bond while the other symbols ═ represent single bonds, and the symbol



represents (R-3-pyrrolidinyloxy)imino, (S-3-pyrrolidinyloxy)imino, (RS-3-pyrrolidinyl-oxy)imino, 3-azetidinyloxyimino, 3α-[2-(pyrrolidin-3-(R)-yl)-(Z)-vinyl], 3α-[2-(pyrrolidin-3-(S)-yl)-(Z)-vinyl], 3α-[2-(azetidin-3-yl)-(Z)-vinyl], 3α-[2-(piperidin-4-yl)-(Z)-vinyl], the pharmaceutically acceptable salts.

9. Compounds according to claim 1, selected from the group consisting of:
(E) 3-[3'-(R)-(1-methyl)pyrrolidinyl]oxyiminoandrostane-6,17-dione;
(E) 3-(4-piperidyl)oxyiminoandrostane-6,17-dione hydrochloride;
(E,Z) 3-(3-azetidinyl)oxyiminoandrostane-6,17-dione fumarate;
(E) 3-[3-(RS)-pyrrolidinyl]oxyiminoandrostane-6,17-dione hydrochloride;
(E,Z) 3-[3-(S)-pyrrolidinyl]oxyiminoandrostane-6,17-dione hydrochloride;
(E,Z) 3-[3-(R)-pyrrolidinyl]oxyiminoandrostane-6,17-dione hydrochloride;
(E) 3-[3-(R)-pyrrolidinyl]oxyiminoandrostane-6,17-dione hydrochloride;
(Z)-3-[3'-(R)-pyrrolidinyl]oxyiminoandrostane-6,17-dione hydrochloride;
(E) 3-[3'-(R,S)-Piperidinyl]oxyiminoandrostane-6,17-dione hydrochloride;
(E,Z) 3-[3'-(S)-(1-methyl)pyrrolidinyl]oxyiminoandrostane-6,17-dione hydrochloride;
(E,Z) 3-(3-(R)-pyrrolidinyl)oxyimino-5α-hydroxyandrostane-17-one hemifumarate;
(E,Z) 3-[3-(R)-pyrrolidinyl]oxyimino-6α-hydroxyandrostan-17-one hydrochloride;
(E,Z) 3-[3-(S)-pyrrolidinyl]oxyimino-6α-hydroxyandrostan-17-one hydrochloride;
(E,Z) 3-[3-(R)-pyrrolidinyl]oxyimino-17-oxoandrostane-6α-yl nitrate hydrochloride;
(E,Z) 3-[3-(R)-pyrrolidinyl]oxyimino-6-methyleneandrostane-17-one hydrochloride;
(E,Z) 3-[3-(R)-pyrrolidinyl]oxyimino-6α-hydroxymethylandrostan-17-one hydrochloride;

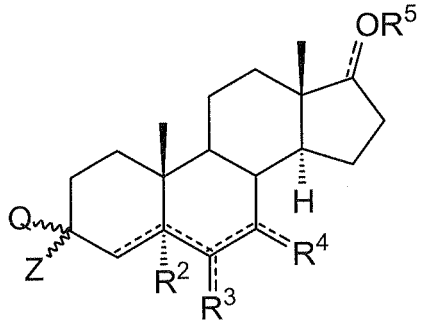
(E,Z) 3-[3-(R)-pyrrolidinyl]oxyimino-6α-methoxymethylandrostane-17-one hydrochloride;
(Z,E) 3-(3-(R)-pyrrolidinyloxyimino)-6α-carbamoylandrostane-17-one hydrochloride;
(Z,E) 3-(3-(R)-pyrrolidinyloxyimino)-6α-methoxycarbonylandrostane-17-one hydrochloride;
(E,Z) 3-[3-(R)-pyrrolidinyl]oxyimino-6(E)-hydroxyiminoandrostan-17-one hydrochloride;
(E) 3-[3-(R)-pyrrolidinyl]oxyimino-6α-methylandrostane-17-one fumarate;
(Z) 3-[3-(R)-pyrrolidinyl]oxyimino-6α-methylandrostane-17-one hydrochloride;
(E,Z) 3-[3-(R)-pyrrolidinyl]oxyimino-6α-formamidoandrostane-17-one hydrochloride;
(E,Z) 3-[3-(R)-pyrrolidinyl]oxyimino-6-difluoromethyleneandrostan-17-one hydrochloride;
(Z,E) 3-(3-(R)-pyrrolidinyloxyimino)-6-(spirocyclopropane)androstane-17-one hydrochloride;
(E,Z) 3-[3'-(R)-pyrrolidinyl]oxyimino-6α-ethynylandrostane-17-one hydrochloride;
(E,Z) 3-[3'-(R)-pyrrolidinyl]oxyimino-6α-(2-hydroxyethyl)androstane-17-one hydrochloride;
(E,Z) 3-(3'-(R)-pyrrolidinyloxyimino)-6-(E)-methoxyiminoandrostan-17-one hydrochloride;
(E,Z) 3-[3'-(S)-pyrrolidinyl]oxyimino-6-(E)-methoxyiminoandrostane-17-one fumarate;
(E,Z) 3-[3'-(S)-(1-methyl)pyrrolidinyl]oxyimino-6-(E)-methoxyimino-androstane-17-one hydrochloride;
(E,Z) 3-[3'-(R)-(1-methyl)pyrrolidinyl]oxyimino-(E)-6-methoxyimino-androstane-17-one hydrochloride;
(E,Z) 3-[3'-(R)-pyrrolidinyl]oxyimino-5α-hydroxy-6-methylenandrostane-17-one hydrochloride;
(Z) 3-[3'-(S)-pyrrolidinyl]oxyimino-5α-hydroxy-6-methyleneandrostane-17-one fumarate;
(E) 3-[3'-(S)-pyrrolidinyl]oxyimino-5α-hydroxy-6-methyleneandrostane-17-one fumarate;
(E,Z) 3-[3'-(S)-pyrrolidinyl]oxyimino-5α-hydroxy-6-methyleneandrostane -17-one fumarate;
(Z) 3-[3'-(R)-(1-methyl)pyrrolidinyl]oxyimino-5α-hydroxy-6-methylene-androstane -17-one fumarate;

(E) 3-[3'-(R)-(1-methyl)pyrrolidinyl]oxyimino-5α-hydroxy-6-methylene-androstane-17-one fumarate;
(Z) 3-[3'-(S)-(1-methyl)pyrrolidinyl]oxyimino)-5α-hydroxy-6-methylene-androstane-17-one fumarate;
(E) 3-[3'-(S)-(1-methyl)pyrrolidinyl]oxyimino)-5α-hydroxy-6-methylene-androstane-17-one fumarate;
(E,Z) 3-[3-(R)-pyrrolidinyl]oxyimino-5α-hydroxy-6-(E)-hydroxyimino-androstane-17-one hydrochloride;
(E,Z) 3-[3-(S)-pyrrolidinyl]oxyimino-5α-hydroxy-6-(E)-hydroxyimino-androstane-17-one hydrochloride;
(Z) 3-[3'-(S)-(1-methyl)pyrrolidinyl]oxyimino-5α-hydroxy-6-(E)-hydroxy-iminoandrostane-17-one hemifumarate;
(E) 3-[3'-(S)-(1-methyl)pyrrolidinyl]oxyimino-5α-hydroxy-6-(E)-hydroxy-iminoandrostane-17-one fumarate;
(Z) 3-[3'-(R)-(1-methyl)pyrrolidinyl]oxyimino-5α-hydroxy-6-(E)-hydroxy-iminoandrostane-17-one fumarate;
(E) 3-[3'-(R)-(1-methyl)pyrrolidinyl]oxyimino-5α-hydroxy-6-(E)-hydroxy-iminoandrostane-17-one fumarate;
(E,Z)-3-(3'-(S)-pyrrolidinyloxyimino)-5α-hydroxy-6-(E)-methoxyimino-androstane-17-one fumarate;
(E,Z) 3-[3'-(R)-pyrrolidinyl]oxyimino-5α-hydroxy-6-(E)-methoxyimino-androstane-17-one fumarate;
(Z) 3-[3'-(S)-(1-methyl)pyrrolidinyl]oxyimino)-5α-hydroxy-6-(E)-methoxy-iminoandrostane-17-one fumarate;
(E) 3-[3'-(S)-(1-methyl)pyrrolidinyl]oxyimino)-5α-hydroxy-6-(E)-methoxy-iminoandrostane-17-one fumarate;
(Z) 3-[3'-(R)-(1-methyl)pyrrolidinyl]oxyimino)-5α-hydroxy-6-(E)-methoxy-iminoandrostane-17-one fumarate;
(E) 3-[3'-(R)-(1-methyl)pyrrolidinyl]oxyimino)-5α-hydroxy-6-(E)-methoxy-iminoandrostane-17-one fumarate;
(E,Z) 3-[3-(R)-pyrrolidinyl]oxyiminoandrostane-7,17-dione fumarate;
(E,Z) 3-[3'-(S)-pyrrolidinyl]oxyiminoandrostane-7,17-dione fumarate;
(E,Z) 3-[3-(R)-pyrrolidinyl]oxyimino-7(E)-hydroxyiminoandrostan-17-one fumarate;
(E,Z) 3-[3-(R)-pyrrolidinyl]oxyimino-7(E)-methoxyiminoandrostan-17-one fumarate;
(E,Z) 3-[3'-(R)-pyrrolidinyl]oxyimino-7-(E)-allyloxyiminoandrostane-17-one fumarate;

(E,Z) 3-[3'-(R)-pyrrolidinyl]oxyimino-7-methyleneandrostane-17-one hydrochloride;
(E,Z) 3-[3'-(R)-pyrrolidinyl]oxyimino-7α-hydroxymethylandrostane-17-one hydrochloride;
(E,Z) 3-[3'-(R)-pyrrolidinyl]oxyimino-7β-hydroxymethylandrostane-17-one hydrochloride;
(E,Z) 3-[3'-(R)-pyrrolidinyl]oxyimino-7α-hydroxyandrostane-17-one fumarate;
(E,Z) 3-[3'-(R)-pyrrolidinyl]oxyimino-7α-methylandrostane-17-one hydrochloride;
(E,Z) 3-[3'-(R)-pyrrolidinyl]oxyimino-7β-methylandrostane-17-one hydrochloride;
(E) 3-[3'-(R)-pyrrolidinyl]oxyimino-7β-methylandrostane-17-one hydrochloride;
(Z) 3-[3'-(R)-pyrrolidinyl]oxyimino-7β-methylandrostane-17-one hydrochloride;
(Z,E) 3-(3'-(R)-pyrrolidinyloxyimino)-7-(spirocyclopropane)androstane-17-one hydrochloride;
(E,Z) 3-[3'-(R)-pyrrolidinyl]oxyimino-7α-formamidoandrostane-17-one hydrochloride;
(E) 3-[3'-(R)-pyrrolidinyl]oxyimino-7α-methoxycarbonylandrostane-17-one hydrochloride;
(E,Z) 3-(3'-(R)-pyrrolidinyloxyimino)-6-(E)-hydroxyimino-7α-hydroxy-androstane-17-one hydrochloride;
(E,Z) 3-[3'-(R)-pyrrolidinyl]oxyimino-6α-hydroxymethylandrostane-7,17-dione fumarate;
(E,Z) 3-[3'-(R)-(1-methyl)pyrrolidinyl]oxyimino-6α-hydroxymethyl-androstane-7,17-dione fumarate;
(E,Z) 3-[3'-(S)-(1-methyl)pyrrolidinyl]oxyimino-6α-hydroxymethyl-androstane-7,17-dione fumarate;
3α-[2-(Pyrrolidin-3-(S)-yl)-(Z)-vinyl]androstane-6,17-dione formate;
3α-[2-(Pyrrolidin-3-(R)-yl)-(Z)-vinyl]androstane-6,17-dione formate;
3α-[2-(Pyperidin-4-yl)-(Z)-vinyl]androstane-6,17-dione formate;
3α-[2-(Azetidin-3-yl)-(Z)-vinyl]androstane-6,17-dione formate;
(Z)-3-[3-(S)-pyrrolidinyl)oxyimino]-6α-hydroxymethylandrostane-7,17-dione fumarate;
(E)-3-[3-(S)-pyrrolidinyl)oxyimino]-6α-hydroxymethylandrostane-7,17-dione fumarate;
(E,Z) 3-[3-(R)-pyrrolidinyl]oxyimino-6•-hydroxymethyl-7•-hydroxy-androstane-17-one hydrochloride;
(E,Z) 3-[3-(S)-pyrrolidinyl]oxyimino-6•-hydroxymethyl-7•-hydroxy-androstane-17-one hydrochoride;

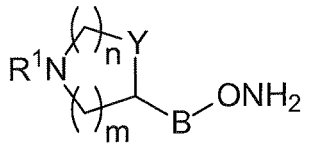
(E,Z) 3-[3-(R)-pyrrolidinyl]oxyimino-7•-methoxymethylandrostane-17-one hydrochoride;
(E,Z) 3-[3-(R)-pyrrolidinyl]oxyimino-7•-methoxyandrostane-17-one fumarate;
(E,Z) 3-[3-(R)-pyrrolidinyl]oxyiminoandrostane-6•,17•-diol hydrochloride;
(E,Z) 3-[3'-(R)-pyrrolidinyl]oxyimino-6•-hydroxyandrostane-17-one hydrochloride;
(E,Z) 3-[3'-(R)-(1-methyl)pyrrolidinyl]oxyimino-5•-hydroxy-6-(E)-hydroxyiminoandrostane-17-one fumarate;
(Z) 3-[3-(R)-pyrrolidinyl]oxyimino-5•-hydroxy-6-(E)-hydroxyimino-androstane-17-one fumarate;
(E) 3-[3-(R)-pyrrolidinyl]oxyimino-5•-hydroxy-6-(E)-hydroxyimino-androstane-17-one fumarate;
(Z) 3-[3-(S)-pyrrolidinyl]oxyimino-5•-hydroxy-6-(E)-hydroxyimino-androstane-17-one fumarate;
(E) 3-[3-(S)-pyrrolidinyl]oxyimino-5•-hydroxy-6-(E)-hydroxyimino-androstane-17-one fumarate;
(E,Z) 3-[3-(S)-pyrrolidinyl]oxyimino-6-(E)-hydroxyiminoandrost-4-ene-17-one fumarate;
(Z) 3-[3-(S)-pyrrolidinyl]oxyimino-6-(E)-hydroxyiminoandrost-4-ene-17-one and
(E) 3-[3-(S)-pyrrolidinyl]oxyimino-6-(E)-hydroxyiminoandrostane-4-ene-17-one.

10. A process for the preparation of compounds of claim 1, wherein A is C=N ~ O can be obtained from the reaction between a compound of formula (**II**)



II

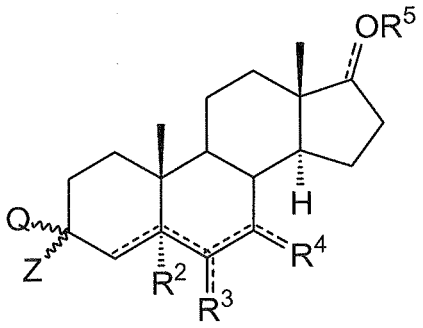
where Q and Z represent together a keto group (=O), R^2, R^3, R^4, R^5 are as defined in claim 1,
with a compound of general formula (**III**),



(**III**)

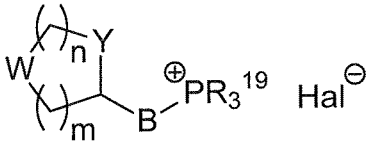
where R^1, B, Y, m and n have the meanings defined as defined in claim 1.

11. A process for the preparation of compounds of claim 1, wherein A is CR^6 ~ CH=CH ~ , where R^6 is hydrogen, comprising the reaction of a compound of formula (**II**)



II

where the symbols R^2, R^3, R^4, R^5, and ═ have the meanings defined in claim 1 and where Q is CHO and Z is hydrogen, with a compound of general formula (**IX**),



(**IX**)

where W is R^1N, PGN, and R^1, Y, m, n, and B are as defined in claim 1, R^{19} is a C_1-C_6 alkyl or aryl, Hal is a halogen, PG is a protective group and optional removal of the protecting group.

12. Pharmaceutical composition comprising at least a compound of claims 1-9 in admixture with at least one pharmaceutically acceptable vehicle and/or excipient.

13. The compound according to claims 1-9 for use as medicaments.

14. The compound according to claim 13 for use in the treatment of cardiovascular disorders.

15. The compound according to claim 14, wherein said cardiovascular disorder is heart failure and/or hypertension.

16. The compound according to claims 1-9 for use in the inhibition of Na^+, K^+-ATPase.

17. The compound according to claims 1-9 for use in the treatment of a disease caused by the hypertensive effects of endogenous ouabain.

18. The compound according to claim 17, for use in the treatment of a disease caused by the hypertensive effects of endogenous ouabain, wherein said disease is chosen from the group comprising renal failure progression in autosomal dominant polycystic renal disease (ADPKD), preeclamptic hypertension and proteinuria and renal failure progression in patients with adducin polymorphisms.