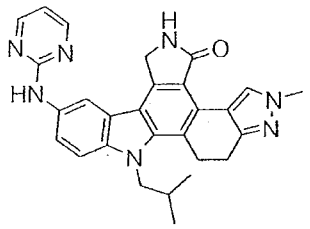
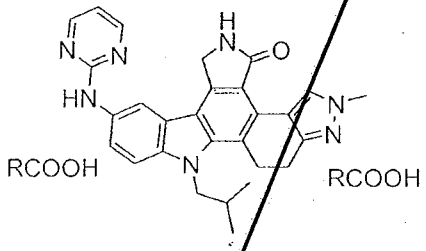
CLAIMS

1. An acid complex of a compound of formula (I) :



(I)

said acid complex having the following formula (Ia) :



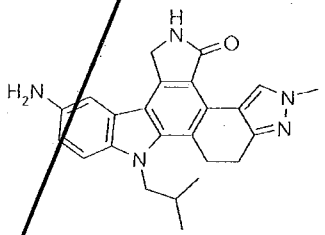
(Ia)

wherein R represents C_1-C_8 alkyl.

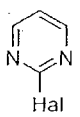
2. The acid complex according to claim 1, wherein RCOOH represents acetic acid.

3. A method of preparation of an acid complex of formula (Ia) as defined in claims 1 or 2, comprising the steps of :

i) contacting a compound of formula (II) with a compound of formula (III) in the presence of a base and in a solvent ;



(II)



(III)

wherein Hal represents Br, Cl, or I ;

ii) contacting the resulting compound of formula (I) with an acid RCOOH as defined in claims 1 or 2 ; and optionally

iii) recovering the resulting acid complex of formula (Ia).

4. The method according to claim 3, wherein the solvent is an alcohol having a boiling point above 100°C.

5. The method according to claim 4, wherein the solvent is n-butanol.

6. The method according to claims 3 to 5, wherein the base is a tertiary amine.

7. The method according to claim 6, wherein the base is a trialkylamine.

8. The method according to claim 7, wherein the base is triethylamine.

9. The method according to claims 3 to 8, wherein the step of recovering the resulting acid complex of formula (Ia) comprises the steps of :

a) crystallizing the complex of formula (Ia) ; and

b) recovering the crystallized complex of formula (Ia).

10. An acid complex of formula (Ia) obtainable according to the method according to claim 9.

11. An use of an acid complex of formula (Ia) as defined in any of claims 1 or 2, for purifying or in a method for purifying the corresponding compound of formula (I) or a pharmaceutically acceptable salt thereof.

12. The use according to claim 11, wherein the purified compound of formula (I) has a purity of more than 98%.

13. The use according to claim 12, wherein the purified compound of formula (I) has a purity of more than 99%.

14. A method for the purification of a compound of formula (I) as defined in any of claims 1 or 2, comprising the steps of :

i) converting the acid complex of formula (Ia) according to claim 10 into the corresponding compound of formula (I) ;

ii) contacting the resulting compound of formula (I) with a decolorizing agent ; and optionally

iii) recovering the purified compound of formula (I).

15. A method for the purification of a compound of formula (I) as defined in any of claims 1 or 2, comprising the steps of :

i) contacting the acid complex of formula (Ia) according to claim 10 with a decolorizing agent in a solvent ;

ii) converting the resulting acid complex of formula (Ia), into the corresponding compound of formula (I) ; and optionally

iii) recovering the purified compound of formula (I).

16. The method according to claims 14 or 15, wherein the step of converting the acid complex of formula (Ia) into the compound of formula (I) is carried out by drying the complex at a temperature comprised in the range of 70°C to 90°C.

17. The method according to claims 14 or 15, wherein the step of converting the acid complex of formula (Ia) into the compound of formula (I) is carried out by dissolving the complex of formula (Ia) in a solvent selected in the list consisting of 1-butanol; 1-pentanol; 1-propanol; 2-butanol; 2-butanone; 2-pentanone; 3-pentanone; acetone; acetonitrile; butyronitrile; chlorobenzene; cyclohexane; dichloromethane; di-isopropyl-amine; dimethyl-sulfoxide; EGDE; ethanol; ethyl acetate; ethylene glycol; heptane; iPrOH; isopropyl acetate; methanol; methyl acetate; methyl ethyl ketone; methyl isopropyl ketone; methyl tert-butyl ether; n-butyl-acetate; pentanol; propanitrile; pyridine; sec-butanol; tetrahydrofuran; tetrahydropyrane; toluene; triethylamine; water; xylene; and mixtures thereof, including 6:4 N-methylpyrrolidone : water; 1:1 N-methylpyrrolidone: water; 9:1 1-2 dichloromethane: N-methylpyrrolidone; 7:3 1-2 dichloromethane: isopropyl acetate.

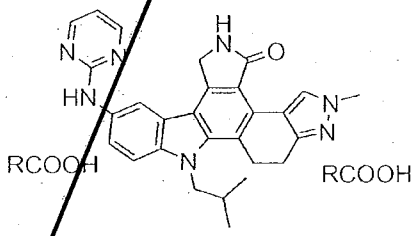
18. The method according to claims 14 to 15, wherein the step of contacting the compound of formula (I) or the acid complex of formula (Ia) with a decolorizing agent is carried out in a solvent selected in the list consisting of dichloromethane, methanol, ethanol or any solvent capable to solubilise compound (I) or any binary or ternary mixture thereof

19. The method according to claims 14 to 18, wherein the decolorizing agent is an activated charcoal.

20. The method according to claims 14 or 19, wherein the resulting purified compound of formula (I) is further reacted with an acid so as to obtain an acid addition salt.

21. The method according to claim 20, wherein the acid is a monoacid addition salt.

22. A crystalline form of an acid complex of formula (Ia):



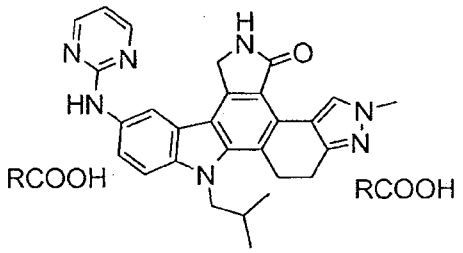
(Ia)

wherein R represents C_1 alkyl, characterized by an X-ray powder diffractogram comprising one or more of the following peaks: 5,19 ± 0.2 degrees 2-Theta; 6,17 ± 0.2 degrees 2-Theta; 6,44 ± 0.2 degrees 2-Theta; 14,36 ± 0.2 degrees 2-Theta; and 26,09 ± 0.2 degrees 2-Theta, when measured using Cu-Kα radiation.

23. The crystalline form according to claim 22 having a purity of at least about 92%.

Claims

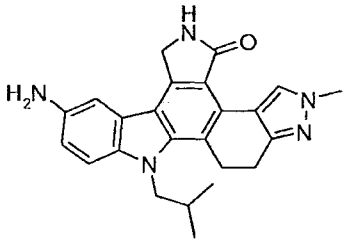
1. A method of preparing an acid complex of formula (Ia)



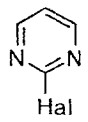
(Ia)

wherein R is C_1-C_8 alkyl, comprising the steps of:

i) contacting a compound of formula (II) with a compound of formula (III) in the presence of a base and a solvent;



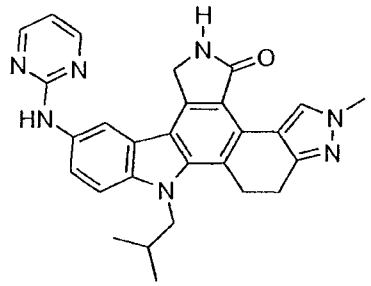
(II)



(III)

wherein Hal is selected from Br, Cl, or I;

ii) contacting the resulting compound of formula (I)



(I)

with an acid RCOOH; and optionally
iii) recovering the resulting acid complex of formula (Ia).

2. The method according to claim 1, wherein the solvent is an alcohol having a boiling point above 100°C.

3. The method according to claim 2, wherein the solvent is n-butanol.

4. The method according to claims 1 to 3, wherein the base is a tertiary amine.

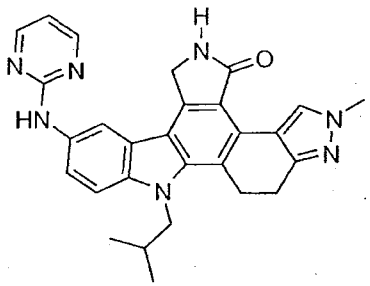
5. The method according to claim 4, wherein the base is a trialkylamine.

6. The method according to claim 5, wherein the base is triethylamine.

7. The method according to claims 1 to 6, wherein the optional step of recovering the resulting acid complex of formula (Ia) comprises:

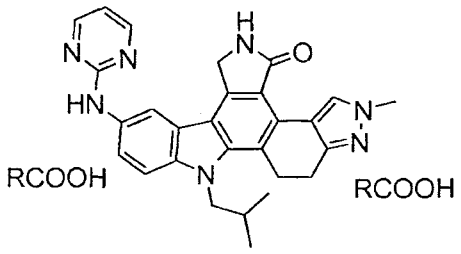
a) crystallizing the complex of formula (Ia); and
b) recovering the crystallized complex of formula (Ia).

8. A method for preparing a compound of formula (I)



(I)

or a pharmaceutically acceptable salt thereof, from a compound of formula (Ia)



(Ia)

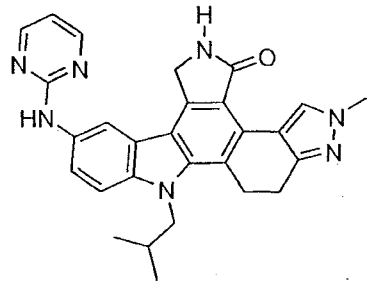
wherein R is C_1-C_8 alkyl, comprising the steps of:

i) converting an acid complex of formula (Ia) into the corresponding compound of formula (I) either by:

drying the complex at a temperature comprised in the range of 70°C to 90°C; or,
dissolving the complex of formula (Ia) in a solvent selected from the list consisting of 1-butanol; 1-pentanol; 1-propanol; 2-butanol; 2-butanone; 2-pentanone; 3-pentanone; acetone; acetonitrile; butyronitrile; chlorobenzene; cyclohexane; dichloromethane; di-isopropyl-amine; dimethyl-sulfoxide; EGDE; ethanol; ethyl acetate; ethylene glycol; heptane; iPrOH; isopropyl acetate; methanol; methyl acetate; methyl ethyl ketone; methyl isopropyl ketone; methyl tert-butyl ether; n-butyl-acetate; pentanol; propanitrile; pyridine; sec-butanol; tetrahydrofuran; tetrahydropyrane; toluene; triethylamine; water; xylene; and mixtures thereof, including 6:4 N-methylpyrrolidone : water; 1:1 N-methylpyrrolidone: water; 9:1 1-2 dichloromethane: N-methylpyrrolidone; 7:3 1-2 dichloromethane: isopropyl acetate;

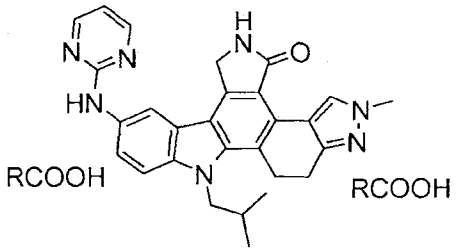
ii) contacting the resulting compound of formula (I) with a decolorizing agent; and optionally
iii) recovering the purified compound of formula (I).

9. A method for preparing a compound of formula (I)



(I)

or a pharmaceutically acceptable salt thereof, from a compound of formula (Ia)



(Ia)

wherein R is C_1-C_8 alkyl, comprising the steps of:

i) contacting an acid complex of formula (Ia) with a decolorizing agent in a solvent;
ii) converting the resulting acid complex of formula (Ia) into the corresponding compound of formula (I), either by:

drying the complex at a temperature comprised in the range of 70°C to 90°C; or
dissolving the complex of formula (Ia) in a solvent selected in the list consisting of 1-butanol; 1-pentanol; 1-propanol; 2-butanol; 2-butanone; 2-pentanone; 3-pentanone; acetone; acetonitrile; butyronitrile; chlorobenzene; cyclohexane; dichloromethane; di-isopropyl-amine; dimethyl-sulfoxide; EGDE; ethanol; ethyl acetate; ethylene glycol; heptane; iPrOH; isopropyl acetate; methanol; methyl acetate; methyl ethyl ketone; methyl isopropyl ketone; methyl tert-butyl ether; n-butyl-acetate; pentanol; propanitrile; pyridine; sec-butanol; tetrahydrofuran; tetrahydropyrane; toluene; triethylamine; water; xylene; and mixtures thereof, including 6:4 N-methylpyrrolidone : water; 1:1 N-methylpyrrolidone: water; 9:1 1-2 dichloromethane: N-methylpyrrolidone; 7:3 1-2 dichloromethane: isopropyl acetate; and optionally

iii) recovering the purified compound of formula (I).

10. The method according to claim 9, wherein the purified compound of formula (I) has a purity of more than 98%.

11. The method according to claim 8 or 9, wherein the compound of formula (I) has a purity of more than 99%.

12. The method according to claim 8 or 9, wherein the step of converting the acid complex of formula (Ia) into the compound of formula (I) is carried out by drying the complex at a temperature comprised in the range of 70°C to 90°C.

13. The method according to claim 8 or 9, wherein the step of converting the acid complex of formula (Ia) into the compound of formula (I) is carried out by dissolving the complex of formula (Ia) in a solvent selected in the list consisting of 1-butanol; 1-pentanol; 1-propanol; 2-butanol; 2-butanone; 2-pentanone; 3-pentanone; acetone; acetonitrile; butyronitrile; chlorobenzene; cyclohexane; dichloromethane; di-isopropyl-amine; dimethyl-sulfoxide; EGDE; ethanol; ethyl acetate; ethylene glycol; heptane; iPrOH; isopropyl acetate; methanol; methyl acetate; methyl ethyl ketone; methyl isopropyl ketone; methyl tert-butyl ether; n-butyl-acetate; pentanol; propanitrile; pyridine; sec-butanol; tetrahydrofuran; tetrahydropyrane; toluene; triethylamine; water; xylene; and mixtures thereof, including 6:4 N-methylpyrrolidone : water; 1:1 N-methylpyrrolidone: water; 9:1 1-2 dichloromethane: N-methylpyrrolidone; 7:3 1-2 dichloromethane: isopropyl acetate.

14. The method according to claim 8 or 9, wherein the step of contacting the compound of formula (I) or the acid complex of formula (Ia) with a decolorizing agent is carried out in a solvent selected in the list consisting of dichloromethane, methanol, ethanol or any solvent capable to solubilise compound (I) or any binary or ternary mixture thereof.

15. The method according to claims 8 to 14, wherein the decolorizing agent is an activated charcoal.

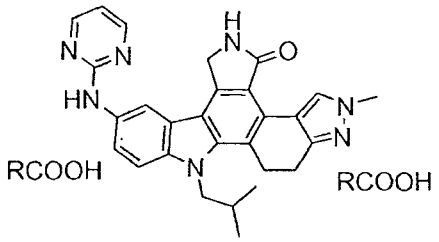
16. The method according to claim 9 or claim 15, further comprising the step of:

i) reacting the purified compound of formula (I) with an acid so as to obtain an acid addition salt of the compound of formula (I).

17. The method according to claim 16, wherein the acid addition salt of the compound of formula (I) is a monoacid

addition salt.

18. A crystalline acid complex of formula (Ia):



(Ia)

wherein R represents methyl, **characterized by** an X-ray powder diffractogram comprising one or more of the following peaks: 5.19 ± 0.2 degrees 2-Theta; 6.17 ± 0.2 degrees 2-Theta; 6.44 ± 0.2 degrees 2-Theta; 14.36 ± 0.2 degrees 2-Theta; and 26.09 ± 0.2 degrees 2-Theta, when measured using Cu-Kα radiation.