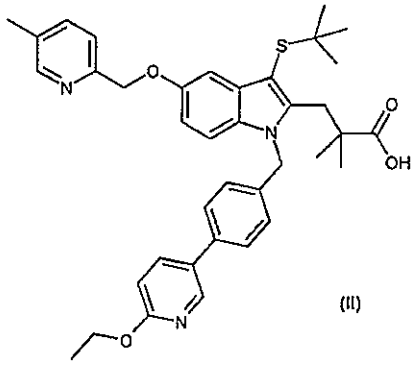
Claims

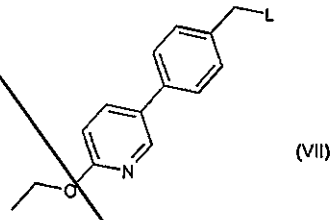
1. A process for preparing a compound of formula (II)



(II)

or a salt thereof;

comprising reacting a compound of formula (VII)

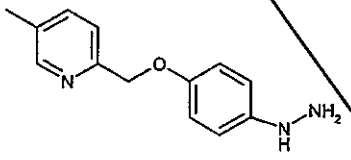


(VII)

or a salt thereof;

wherein L is a leaving group;

with a compound of formula (VI)

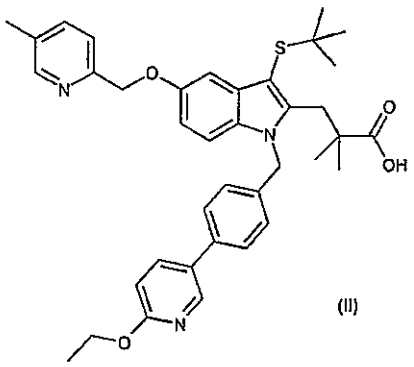


(VI)

or a salt thereof;

in the presence of a base and solvent, and then converting to a compound of formula (II) or a salt thereof.

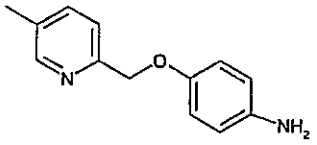
2. A telescoped process for preparing a compound of formula (II)



(II)

or a salt thereof;

comprising a process for preparing a compound of formula (VI) comprising reacting a compound of formula (VIII)

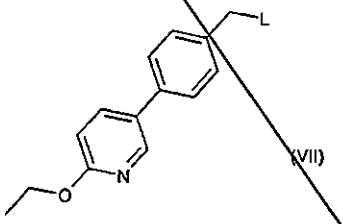


(VIII)

or a salt thereof;

with aqueous sodium nitrite in the presence of hydrochloric acid to form the diazonium salt followed by reduction of the diazonium salt;

followed by a process for preparing a compound of formula (IVa) comprising reacting a compound of formula (VII)

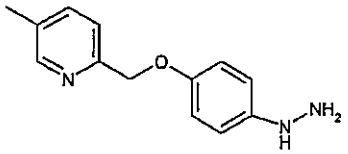


(VII)

or a salt thereof;

wherein L is a leaving group;

with a compound of formula (VI)



(VI)

or a salt thereof;

in the presence of a base and solvent

wherein the compound of formula (VI) is not isolated, and then converting to a compound of formula (II).

3. A process according to claim 1 or claim 2 for preparing a compound of formula (II).

4. A process according to claim 1 or claim 2 for preparing a salt of a compound of formula (II).

5. A process according to any one of claims 1 to 4 wherein L is selected from chlorine and bromine.

6. A process according to claim 5 wherein L is chlorine.

7. A process according to claim 6 wherein the chlorinating agent is added at ≤ 20°C and the mixture then heated at from about 20°C to about 35°C.

8. A process according to any one of claims 1 to 7 wherein the base is selected MOH, M_2CO_3 and $MHCO_3$ wherein M is selected from Li (lithium), Na (sodium), K (potassium) and Cs (caesium); 1,8-diazabicyclo[5.4.0]undec-7-ene; and R'R"R'"N wherein R', R" and R'" are each independently C_1-C_6alkyl.

9. A process according to claim 8 wherein the base is MOH.

10. A process according to claim 9 wherein the base is KOH.

11. A process according to any one of claims 1 to 10 wherein the solvent is selected from C_1-C_6alcohol, tetrahydrofuran, 2-methyltetrahydrofuran, toluene, dichloromethane and mixtures thereof.

12. A process according to claim 11 wherein the solvent is selected from ethanol, 1-propanol, 2-propanol, 2-butanol, *sec*-butanol and mixtures thereof.

13. A process according to any one of claims 1 to 12 wherein the compound of formula (VII) is in the form of the free base.

14. A process according to any one of claims 1 to 13 wherein the compound of formula (VII) is in the form of a salt.

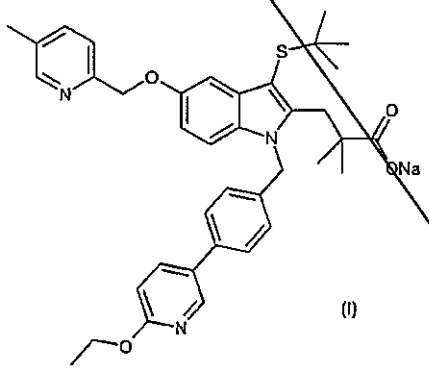
15. A process according to claim 14 wherein the salt of the compound of formula (VII) is selected from hydrogen bromide, hydrogen chloride, hydrogen iodide, *p*-toluenesulfonate, methanesulfonate, trifluoromethanesulfonate and phosphate.

16. A process according to any one of claims 1 to 15 wherein the compound of formula (VI) is in the form of the free base.

17. A process according to any one of claims 1 to 16 wherein the compound of formula (VI) is in the form of a salt.

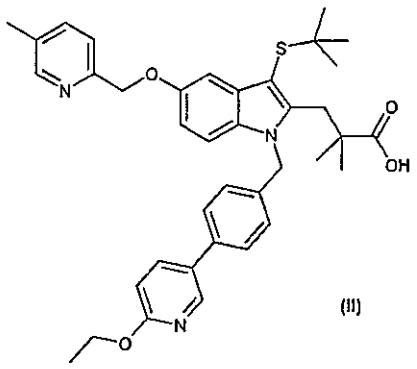
18. A process according to claim 17 wherein the salt of the compound of formula (VI) is the dihydrogen chloride salt.

19. A process for preparing the anhydrous Form C polymorph of a compound of formula (I)



(I)

comprising dissolving a compound of formula (II)

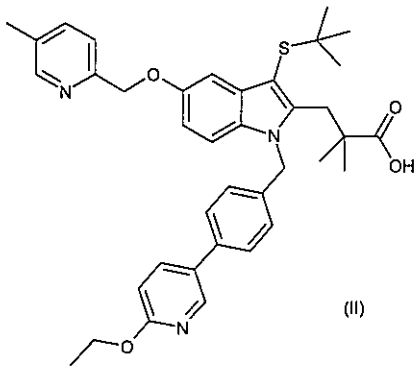


(II)

in methanol and methyl-t-butylether in the presence of solid sodium hydroxide, followed by addition of methyl-t-butylether, wherein the solvent system in the reactant mixture contains 30% or less methanol by volume.

Claims

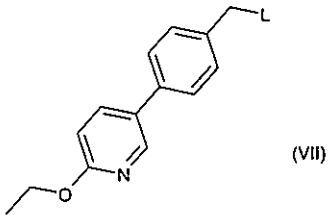
1. A process for preparing a compound of formula (II)



(II)

or a salt thereof;

comprising reacting a compound of formula (VII)

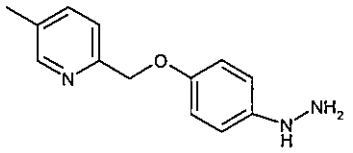


(VII)

or a salt thereof;

wherein L is a leaving group;

with a compound of formula (VI)

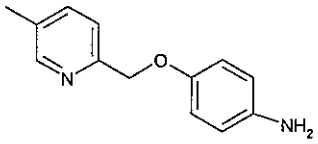


(VI)

or a salt thereof;

in the presence of a base and solvent, and then converting to a compound of formula (II) or a salt thereof.

2. A process of claim 1, wherein the compound of formula (VI) is prepared by reacting a compound of formula (VIII)

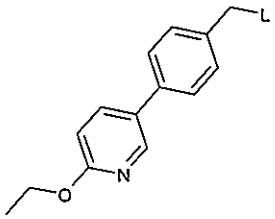


(VIII)

or a salt thereof;

with aqueous sodium nitrite in the presence of hydrochloric acid to form the diazonium salt followed by reduction of the diazonium salt;

followed by a process for preparing a compound of formula (IVa) comprising reacting a compound of formula (VII)

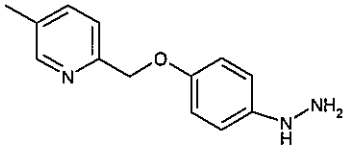


(VII)

or a salt thereof;

wherein L is a leaving group;

with a compound of formula (VI)



(VI)

or a salt thereof;

in the presence of a base and solvent

wherein the compound of formula (VI) is not isolated, and then converting to a compound of formula (II).

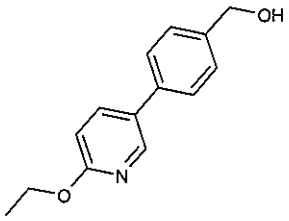
3. A process according to claim 1 or claim 2 for preparing a compound of formula (II).

4. A process according to claim 1 or claim 2 for preparing a salt of a compound of formula (II).

5. A process according to any one of claims 1 to 4 wherein L is selected from chlorine and bromine.

6. A process according to claim 5 wherein L is chlorine.

7. A process according to claim 6 wherein the compound of Formula (VII) is prepared by reacting a chlorinating agent with a compound of Formula (X)



(X)

,

and the chlorinating agent is added at ≤ 20°C and the mixture then heated at from 20°C to 35°C.

8. A process according to any one of claims 1 to 7 wherein the base is selected MOH, M_2CO_3 and $MHCO_3$ wherein M is selected from Li (lithium), Na (sodium), K (potassium) and Cs (caesium); 1,8-diazabicyclo[5.4.0]undec-7-ene; and R'R''R'''N wherein R', R'' and R''' are each independently C_1-C_6alkyl.

9. A process according to claim 8 wherein the base is MOH.

10. A process according to claim 9 wherein the base is KOH.

11. A process according to any one of claims 1 to 10 wherein the solvent is selected from C_1-C_6alcohol, tetrahydrofuran, 2-methyltetrahydrofuran, toluene, dichloromethane and mixtures thereof.

12. A process according to claim 11 wherein the solvent is selected from ethanol, 1-propanol, 2-propanol, 2-butanol, *sec*-butanol and mixtures thereof.

13. A process according to any one of claims 1 to 12 wherein the compound of formula (VII) is in the form of the free base.

14. A process according to any one of claims 1 to 13 wherein the compound of formula (VII) is in the form of a salt.

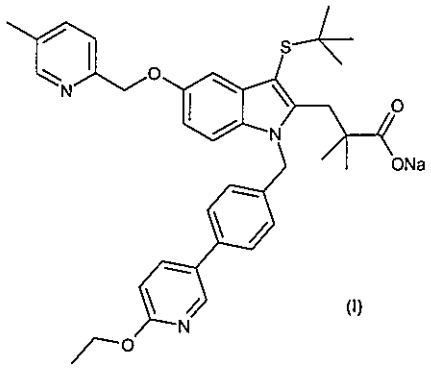
15. A process according to claim 14 wherein the salt of the compound of formula (VII) is selected from hydrogen bromide, hydrogen chloride, hydrogen iodide, *p*-toluenesulfonate, methanesulfonate, trifluoromethanesulfonate and phosphate.

16. A process according to any one of claims 1 to 15 wherein the compound of formula (VI) is in the form of the free base.

17. A process according to any one of claims 1 to 16 wherein the compound of formula (VI) is in the form of a salt.

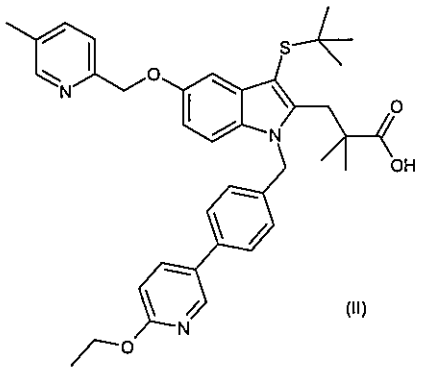
18. A process according to claim 17 wherein the salt of the compound of formula (VI) is the dihydrogen chloride salt.

19. A process according to claim 1 for preparing the anhydrous Form C polymorph of a compound of formula (I)



(I)

comprising dissolving a compound of formula (II)



(II)

in methanol and methyl-t-butylether in the presence of solid sodium hydroxide, followed by addition of methyl-t-butylether, wherein the solvent system in the reactant mixture contains 30% or less methanol by volume.