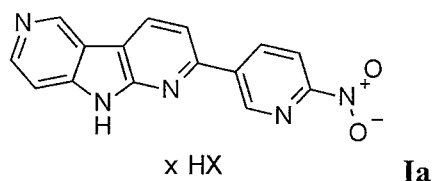
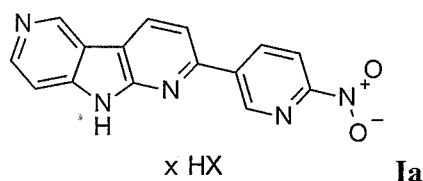


to afford the compound of formula **Ia**

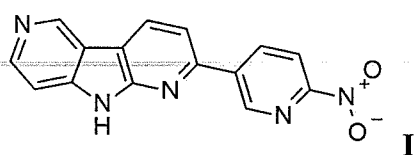


and

b) converting the obtained acid addition salt of formula **Ia**

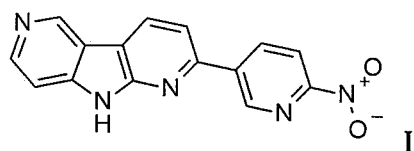


wherein the acid HX comprises any suitable organic or inorganic acids, such as acetic acid, trifluoroacetic acid, cinnamic acid, oxalic acid, tartaric acid, hydrochloric acid, hydrobromic acid, sulfuric acid, phosphoric acid and the like,
into the compound of formula **I**



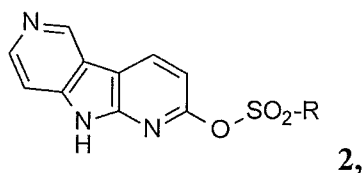
by treatment with at least a stoichiometric equivalent of a suitable base, such as sodium or potassium hydroxide, trimethylamine, potassium carbonate, sodium bicarbonate, ammonia, triethylamine and the like.

In one aspect of the present disclosure, there is provided a process for preparation of the compound of formula **I**



which processes comprise

a) coupling a compound of formula **2**

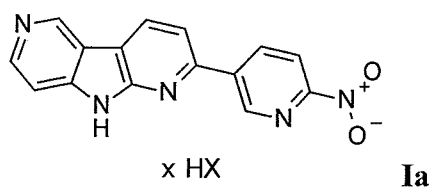


wherein a leaving group O-SO₂-R is selected from the triflate group, the tosylate group, the mesylate group, the besylate group, the nosylate group or the brosylate group,

with a suitable boronic acid, a trifluoroborate or a boronic acid ester

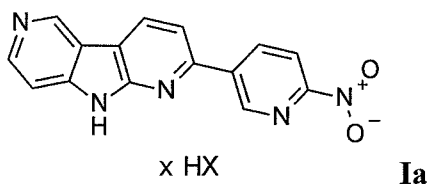
under argon condition and in the presence of a catalyst and a base in a suitable solvent and then isolating the product as an acid addition salt

to afford the compound of formula **Ia**

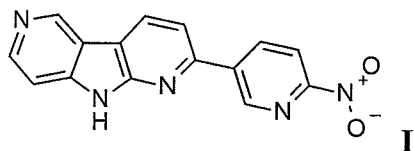


and

b) converting the acid addition salt of formula **Ia**

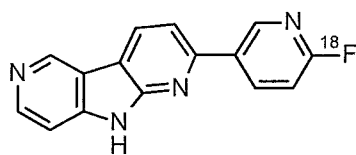


wherein the acid HX comprises suitable organic or inorganic acids into the compound of formula **I**

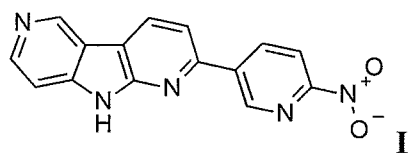


by treatment with at least a stoichiometric equivalent of a suitable base.

The end product [^{18}F]-2-(6-fluoro-pyridin-3-yl)-9H-dipyrido[2,3-b;3',4'-d]pyrrole



may then be obtained as described in WO2015/052105 by
dissolving a compound of formula **I**



in dimethylsulfoxide and treating it with [^{18}F]fluoride/ $\text{K}[2,2,2]/\text{K}_2\text{CO}_3$

The following scheme 1 describes the processes for the preparation of a compound of formula **I** in more detail. The starting materials are known compounds or may be prepared according to methods known in the art.

The preparation of a compound of formula **I** of the present disclosure may be carried out in sequential or convergent synthetic routes. The skills required for carrying out the reactions and purifications of the resulting products are known to those skilled in the art. The substituents and indices used in the following description of the processes have the significance given herein before unless indicated to the contrary.

In more detail, the compound of formula **I** can be manufactured by the methods given below, by the methods given in the examples or by analogous methods. Appropriate reaction conditions for the individual reaction steps are known to a person skilled in the art. The reaction sequence is not limited to the one displayed in scheme 1, however, depending on the starting materials and their respective reactivity the sequence of reaction steps can be freely altered. Starting materials are either commercially available or can be prepared by methods analogous to the methods given below, by methods described in references cited in the description or in the examples, or by methods known in the art.

Abbreviations

Tf = Triflyl group, -SO₂CF₃

Ts = Tosyl group, -SO₂C₆H₄CH₃

Ms = Mesyl group, -SO₂CH₃

Besyl group = -SO₂C₆H₅

Ns = Nosyl group, -SO₂C₆H₄-o-NO₂

Bs = Brosyl group, -SO₂C₆H₄-p-Br

PdCl₂(xantphos) = Dichloro[9,9-dimethyl-4,5-bis(diphenylphosphino)xanthene]palladium(II)

Pd₂dba₃ = Tris(dibenzylideneacetone)dipalladium(0)