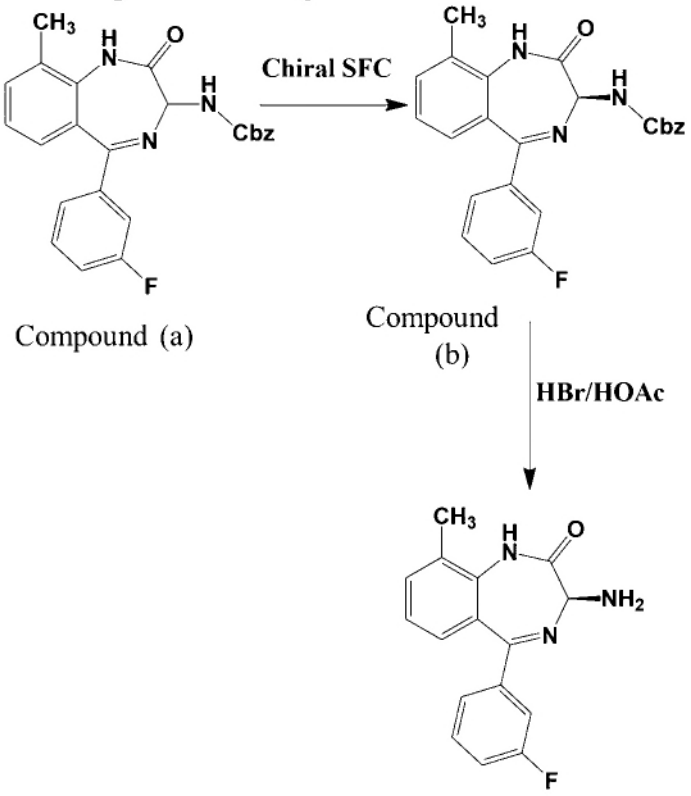
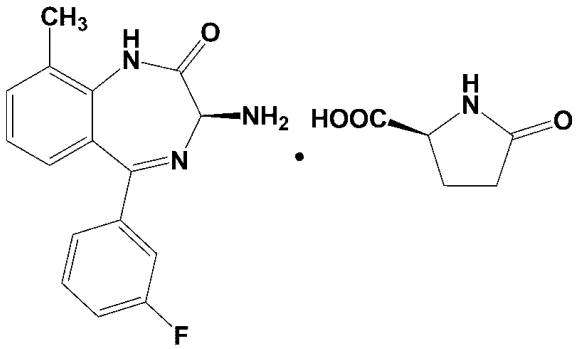
Scheme 1: Preparation of Compound (3) using chiral SFC conditions.



Compound (1).

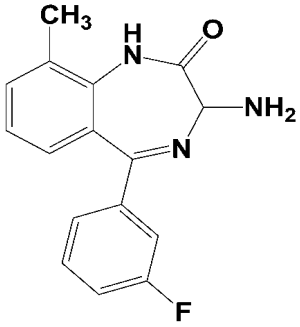
SUMMARY

[006a] In one aspect of the present disclosure, there is provided a method of preparing Compound (1b),



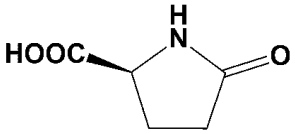
Compound (1b)

comprising the step of: reacting Compound (1a)



Compound (1a)

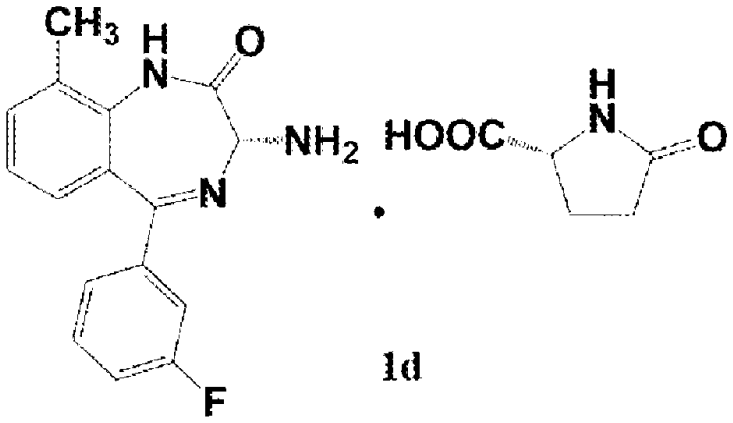
with L-pyroglutamic acid (L-PGA),



L-pyroglutamic acid (L-PGA),

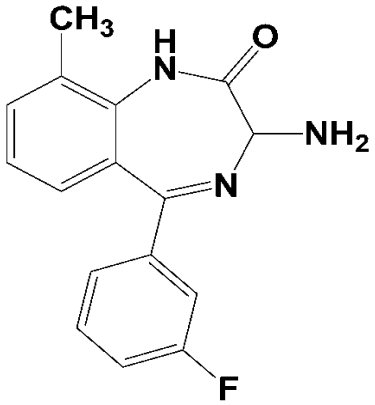
in the presence of solvent; with or without catalyst to obtain Compound (1b); and optionally wherein the yield of Compound (1b) is greater than 50%.

[006b] In another aspect of the present disclosure, there is provided a method of preparing Compound (1d),



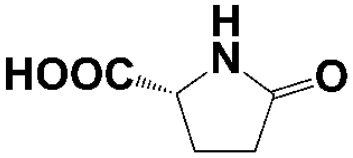
Compound (1d)

comprising the steps of: reacting Compound (1a)



Compound (1a)

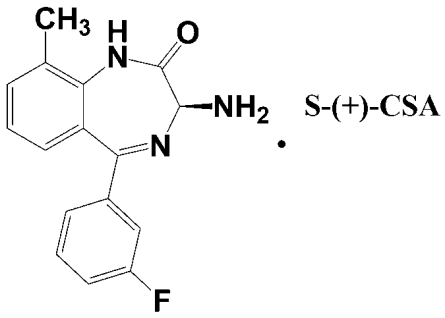
with D-pyroglutamic acid (D-PGA),



D-pyroglutamic acid (D-PGA)

in the presence of solvent; with or without catalyst to obtain Compound (1d); and optionally wherein the yield of Compound (1d) is greater than 50%.

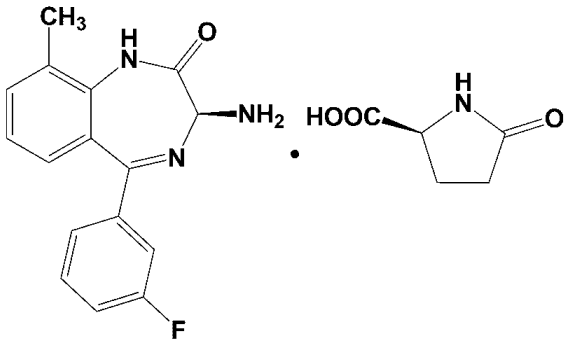
[006c] In a further aspect of the present disclosure, there is provided a method of preparing Compound (1c),



Compound (1c)

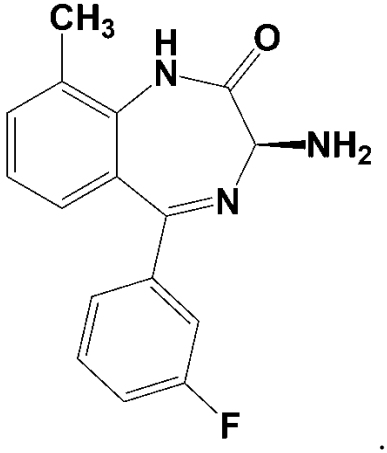
comprising the steps of:

a) reacting Compound (1b):



Compound (1b)

with a base and solvent to provide Compound (1); and



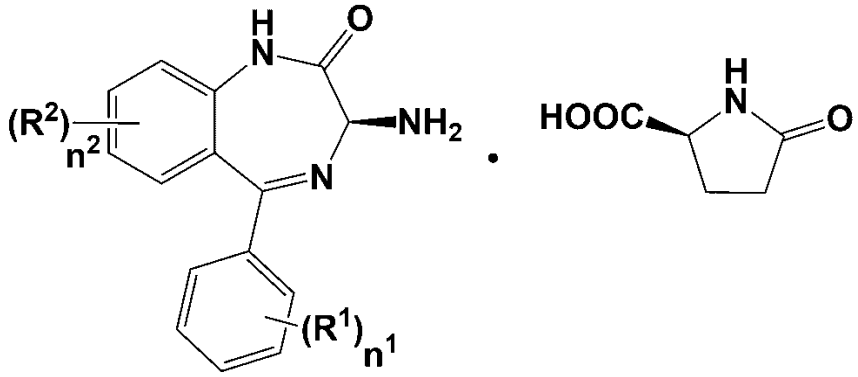
Compound (1)

b) reacting Compound (1) with

S (+) camphor sulfonic acid (CSA)

to provide Compound (1c).

[007] In one example, the present disclosure provides a method of preparing the compound of Formula (Ib),



Formula (Ib)