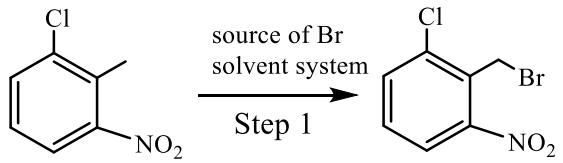
WHAT IS CLAIMED IS:

1. A process for the preparation of compound 093a, the process comprising:

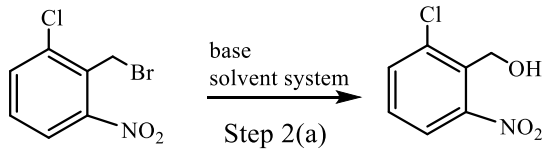
(1) forming compound 181a by step 1 comprising forming a reaction mixture comprising compound 339, a source of Br, optionally a photo- or thermally sensitive radical initiator, and a solvent system, and reacting the reaction mixture under photochemical conditions to form a reaction product mixture comprising compound 181a according to the following reaction scheme



339 181a ;

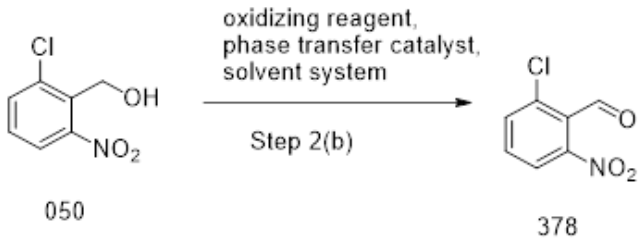
(2) forming compound 378 by the (i) the combination of steps 2(a) and 2(b) or by (ii) step 2,

(i) wherein step 2(a) comprises forming a reaction mixture comprising compound 181a, a base, and a solvent system, and reacting the reaction mixture to form a reaction product mixture comprising compound 050 according to the following reaction scheme



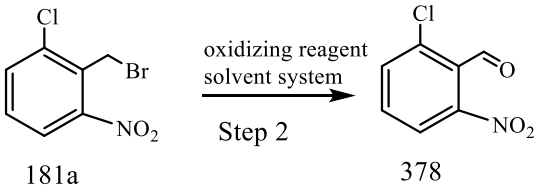
181a 050 ; and

wherein step 2(b) comprises forming a reaction mixture comprising compound 050, an oxidizing reagent, a phase transfer catalyst, and a solvent system, and reacting the reaction mixture to form a reaction product mixture comprising compound 378 according to the following reaction scheme



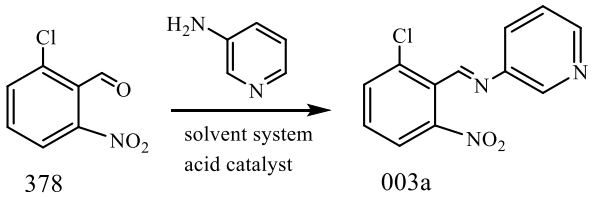
, and

(ii) wherein step 2 comprises forming a reaction mixture comprising compound 181a, an oxidizing reagent, and a solvent system, and reacting the reaction mixture to form a reaction product mixture comprising compound 378 according to the following reaction scheme



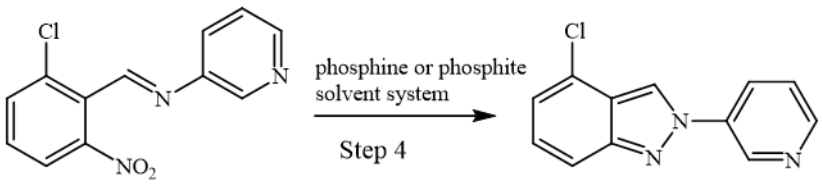
;

(3) forming compound 003a by step 3 comprising forming a reaction mixture comprising compound 378, 3-aminopyridine, an acid catalyst, and a solvent system, and reacting the reaction mixture to form a reaction product mixture comprising compound 003a according to the following reaction scheme



; and

(4) forming compound 093a by step 4 comprising forming a reaction mixture comprising compound 003a, a phosphine or a phosphite, and a solvent system, and reacting the reaction mixture to form a reaction product mixture comprising compound 093a according to the following reaction scheme



003a 093a

wherein the phosphine is selected from tri(C_{1-4}) alkyl phosphine and triaryl phosphine and the phosphite is selected from tri(C_{1-4}) alkyl phosphite and triaryl phosphite.

2. The process of claim 1, wherein for step 1:

(1) the source of Br is (a) selected from N-bromosuccinimide, Br_2, HBr and H_2O_2 or a combination thereof, or (b) N-bromosuccinimide;

(2) (a) the reaction is run under photochemical conditions. (b) the reaction is promoted by a light source, (b) the reaction is promoted by visible light, (c) the reaction is promoted by visible light provided by about 400W of a light source; and/or

(3) (a) A photosensitive or thermally activated radical initiator is used or (b) the radical initiator is azobisisobutyronitrile;

(4) (a) the solvent system comprises at least one polar aprotic solvent (b) the solvent system comprises dichloromethane, (c) the solvent system comprises a combination of least one polar aprotic solvent and at least one polar protic solvent, or (d) the solvent system comprises dichloromethane and water.

3. The process of claim 1 or claim 2, wherein for step 2(a):

(1) the weak base (a) is an inorganic base, (b) is a carbonate or a bicarbonate, (c) is selected from sodium carbonate, sodium bicarbonate, potassium carbonate, potassium bicarbonate, and magnesium carbonate, or (d) sodium carbonate; and/or

(2) (a) the solvent system comprises at least one polar solvent, (b) the solvent system comprises water, (c) the solvent system comprises acetonitrile or (d) the solvent system comprises water and acetonitrile.

4. The process of claim 1 or claim 3, wherein for step 2(b):

(1) the oxidizing reagent is NaOCl;

(2) the phase transfer catalyst is (a) a quarternary ammonium salt or (b) tetrabutylammonium bromide; and/or

(3) the solvent system (a) comprises a non-polar solvent or (b) comprises toluene.

5. The process of any one of claims 1 to 4, wherein for step 2:

(1) the oxidizing reagent is (a) a N-oxide reagent or (b) trimethylamine N-oxide; and/or

(2) the solvent system (a) comprises or predominately comprises at least one polar solvent or (b) comprises DMF.

6. The process of any one of claims 1 to 5, wherein for step 3:

(1) the solvent system (a) comprises a non-polar solvent or (b) comprises toluene; and/or

(2) the reaction is run at reflux with concomitant azeotropic distillation of water.

7. The process of any one of claims 1 to 6, wherein for step 4:

(1) the solvent system (a) comprises or predominately comprises a polar protic solvent, (b) comprises or predominately comprises a C_{1-4} alcohol, (c) comprises or predominately comprises isopropyl alcohol, (d) comprises or predominately comprises a non-polar solvent, or (e) comprises or predominately comprises toluene;

(2) the phosphine or phosphite is triethyl phosphite; and/or

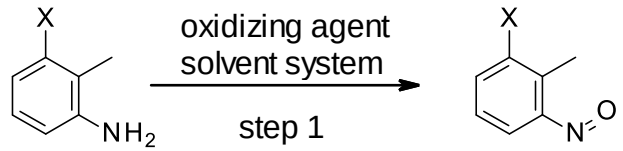
(3) the reaction is run at reflux.

8. The process of any one of claims 1 to 7, wherein any of compounds 181a, 050, 378, 003a, and 093a are optionally isolated from the reaction product mixture.

9. The process of any one of claims 1 to 7, wherein any two sequential reactions, or all of the sequential reactions from compound 339 to compound 093a are done in a one pot scheme.

10. A process for the preparation of compound 093a and 093b according to the following scheme

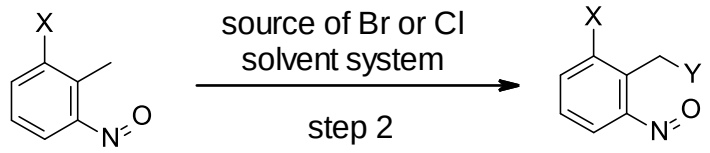
(1) Step 1 comprising forming a reaction mixture comprising compound 114a or 114b, an oxidizing agent, and a solvent system, and reacting the reaction mixture to form a reaction product mixture comprising compound 115a or 115b according to the following reaction scheme



114a X = Cl
114b X = Br

115a X = Cl
115b X = Br ,

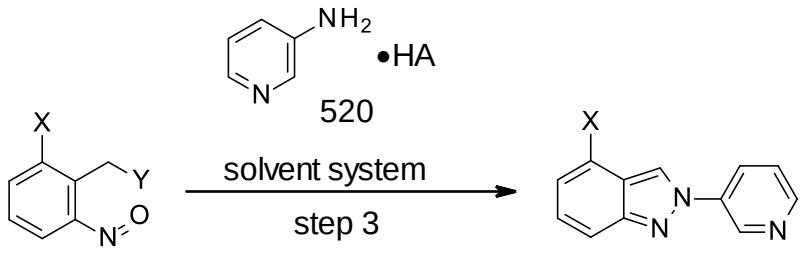
(2) Step 2 comprising forming a reaction mixture comprising compound 115a or 115b, a source of bromine or a source of chlorine, and a solvent system, and reacting the reaction mixture under photochemical conditions to form a reaction product mixture comprising any one of compounds 116a-d according to the following reaction scheme



115a X = Cl
115b X = Br

116a X = Cl, Y = Cl
116b X = Cl, Y = Br
116c X = Br, Y = Cl
116d X = Br, Y = Br , and

(3) Step 3 comprising forming a reaction mixture comprising compound of any one of compounds 116a-d, compound 520, and a solvent system, and reacting the reaction mixture to form a reaction product mixture comprising compound 093a or 093b according to the following reaction scheme



116a X = Cl, Y = Cl
116b X = Cl, Y = Br
116c X = Br, Y = Cl
116d X = Br, Y = Br

093a X = Cl
093b X = Br

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11. The process of claim 10, wherein for step 1 of the first scheme for preparing compound 093a or 093b:

(1) the oxidizing agent is (a) a peroxide containing reagent, (b) selected from potassium peroxymonosulfate, sodium perborate, sodium percarbonate, hydrogen peroxide, peracetic acid, or 3-chloroperbenzoic acid, or (c) potassium peroxymonosulfate; and/or

(2) (a) the solvent system comprises at least one polar aprotic solvent and at least one polar protic solvent or (b) the solvent system comprises dichloromethane and water or the solvent system comprises dichloroethane and water.

12. The process of claim 10 or 11, wherein for step 2 for preparing compound 093a or 093b:

(1) (a) the source of Br is N-bromosuccinimide, Br_2, or HBr and hydrogen peroxide, (b) the source of Br is Br_2, (c) the source of Cl is N-chlorosuccinimide, trichloroisocyanuric acid, Cl_2, or HCl and hydrogen peroxide, or (d) the source of Cl is Cl_2; and/or

(2) (a) the process comprises a light source;

(3) (a) A photosensitive or thermally activated radical initiator is used or (b) the radical initiator is azobisisobutyronitrile;

(4) (a) the solvent system comprises at least one polar aprotic solvent and at least one polar protic solvent or (b) the solvent system comprises dichloromethane and water or dichloroethane and water.

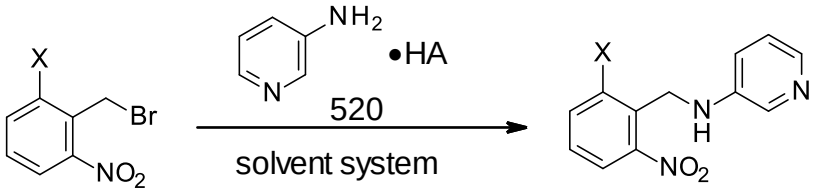
13. The process of any one of claims 10 to 12, wherein for step 3 for preparing compound 093a or 093b:

(1) Compound 520 is (a) a hydrochloride, or hydrobromide, sulfate, methanesulfonate, or *p*-toluenesulfonate salt, (b) a hydrochloride salt, (c) prepared in situ, or (d) prepared and isolated prior to use;

(2) The solvent system comprises at least one polar aprotic solvent and at least one polar protic solvent, or (b) comprises dichloromethane and water, dichloroethane and water, or toluene and water.

14. A process for the preparation of compound 093a or 93b according to the following scheme which comprises two steps:

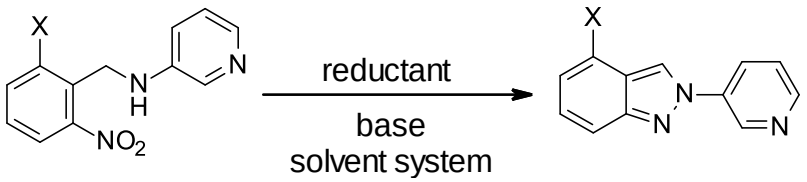
(1) Step 1 comprising forming a reaction mixture comprising compound 181a or 181b, compound 520 (3-aminopyridinium salt), and a solvent system, and reacting the reaction mixture to form a reaction product mixture comprising compound 182a or 182b according to the following reaction scheme first scheme for preparing compound 093a or 93b.



181a X = Cl
181b X = Br

182a X = Cl
182b X = Br

(2) Step 2 comprises forming a reaction mixture comprising compound 182a or 182b, a reductant, a base, and a solvent system, and reacting the reaction mixture to form a reaction product mixture comprising compound 093a or 93b according to the following reaction scheme



182a X = Cl
182b X = Br

093a X = Cl
093b X = Br

15. The process of claim 14, wherein for step 1 of the scheme for preparing compound 093a or 93b

(1) Compound 520 is (a) a inorganic or organic acid salt, (b) a hydrochloride, hydrobromide, sulfate, formic, methanesulfonate, or *p*-toluenesulfonate salt, (c) the methanesulfonate salt, (d) prepared in situ, or (e) prepared and isolated before use;

(2) The solvent system (a) comprises a polar aprotic solvent, (b) is selected from acetonitrile, benzonitrile, sulfolane, (c) comprises a combination of a non-polar solvent and a polar protic solvent, (d) is a combination of toluene and water.

(3) When the solvent system comprises toluene and water (a) a phase transfer catalyst is also included, (b) the phase transfer catalyst included is a quaternary ammonium salt, (c) the phase transfer catalyst included is tetrabutylammonium bromide.

(4) Compound 182a or 182b is (a) isolated as a salt, (b) isolated as the anilinium bromide salt, the di-bromide salt, or a salt mixture of HBr and methanesulfonic acid or *p*-toluenesulfonic acid, or (c) is treated with a base after the reaction and is isolated as the free base.

16. A polymorph of N-(1-methylcyclopropyl)-2-(3-pyridinyl)-2H-indazole 4-carboxamide designated Form A characterized by a X-ray powder diffraction pattern having at least 2θ reflections positions

2θ
7.9
13.6
15.5
17.4
20.4
21.7
22.4
27.2
28.2
34.0

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17. A polymorph of N-(1-methylcyclopropyl)-2-(3-pyridinyl)-2H-indazole 4-carboxamide designated Form B characterized by a X-ray powder diffraction pattern having at least 2θ reflections positions

2θ
8.6
13.1
13.9
16.0
17.2
20.5
20.9
22.4
26.0
29.1

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