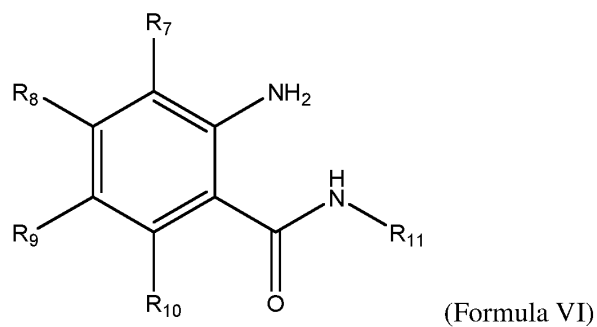


WHAT IS CLAIMED IS:

1. A method of preparing a compound of Formula VI, wherein



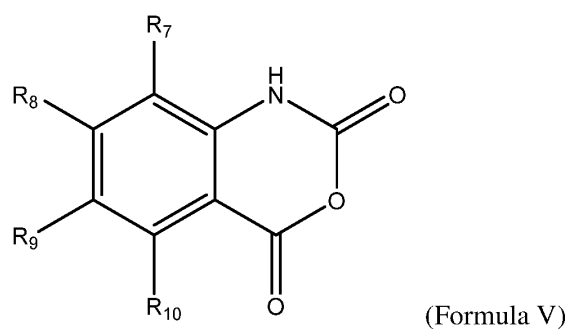
each of $R_7 - R_{10}$ is independently selected from hydrogen, halogen, halogenated C_1-C_5 alkyl, and C_1-C_5 alkyl;

wherein at least one of R_7-R_{10} is a halogen; and

wherein R_{11} is selected from branched C_1-C_{10} alkyl and unbranched C_1-C_{10} alkyl, the method comprising

- I) forming a mixture comprising

- A) a compound of Formula V, wherein



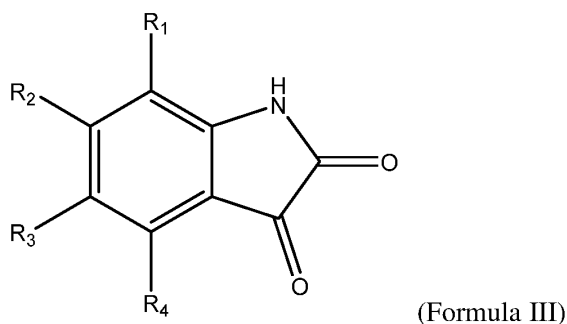
each of $R_7 - R_{10}$ is independently selected from hydrogen, halogen, halogenated C_1-C_5 alkyl, and C_1-C_5 alkyl;

wherein at least one of R₇-R₁₀ is a halogen; and

wherein the compound of Formula V is prepared according to a method comprising

i) forming a first mixture comprising

a) a compound of Formula III, wherein



each of R₁ – R₄ is independently selected from hydrogen, halogen, and C₁-C₅ alkyl;

b) a solvent; and

c) a halogenation reagent;

ii) reacting the first mixture;

iii) introducing a second mixture to the first mixture to form a third mixture, the second mixture comprising

d) an oxidation agent; and

e) a catalyst; and

iv) reacting the third mixture;

B) an alkylamine; and

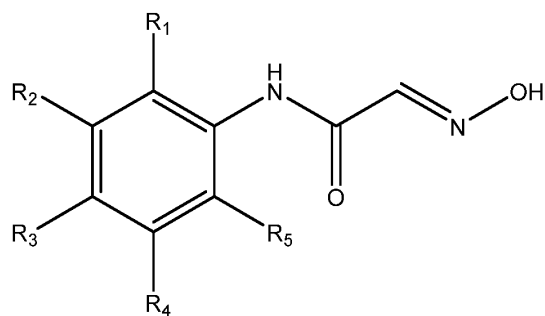
C) a solvent; and

II) reacting the mixture.

2. The method of claim 1, wherein the alkylamine comprises a functional group selected from branched C₁-C₁₀ alkyl and unbranched C₁-C₁₀ alkyl.
3. The method of claim 1, wherein the solvent C) is selected from acetonitrile, dichloroethane, toluene, chlorobenzene, xylene, methanol, ethanol, isopropanol, ethyl acetate, isopropyl acetate, and combinations thereof.
4. The method of claim 1, wherein the method step II) of reacting the mixture occurs at a reaction temperature in the range of about 0 °C to about 100 °C.
5. The method of claim 1, wherein the solvent b) is selected from acetonitrile, dichloroethane, toluene, chlorobenzene, xylene, acetic acid, acetic anhydride, propionic acid, butyric acid, and combinations thereof.
6. The method of claim 1, wherein the halogenation reagent is selected from a chlorination reagent, a bromination reagent, an iodination reagent, and combinations thereof.
7. The method of claim 1, wherein the method step ii) of reacting the first mixture occurs at a reaction temperature in the range of about 20 °C to about 140 °C.
8. The method of claim 1, wherein the oxidation agent is selected from oxygen, chlorine, sodium hypochlorite, chromium trioxide, 3-chloroperoxybenzoic acid, hydrogen peroxide, peroxyacetic acid, potassium peroxymonosulfate, potassium permanganate, and combinations thereof.
9. The method of claim 1, wherein the catalyst is selected from sulfuric acid, hydrogen chloride, nitric acid, and combinations thereof.
10. The method of claim 1, wherein the method step iv) of reacting the third mixture occurs at a reaction temperature in the range of about 20 °C to about 100 °C.
11. The method of claim 1, wherein the compound of Formula III is prepared according to a method comprising

I) forming a mixture comprising

A) a compound of Formula II, wherein



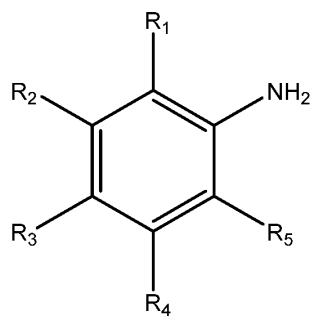
(Formula II)

each of R₁ – R₅ is independently selected from hydrogen, halogen, and C₁-C₅ alkyl; and

wherein the compound of Formula II is prepared according to a method comprising

i) forming a mixture comprising

a) a compound of Formula I, wherein



(Formula I)

each of R₁ – R₅ is independently selected from hydrogen, halogen, and C₁-C₅ alkyl;

b) chloral hydrate;

c) a hydroxylamine derivative;

d) a solvent;

e) an inorganic salt; and

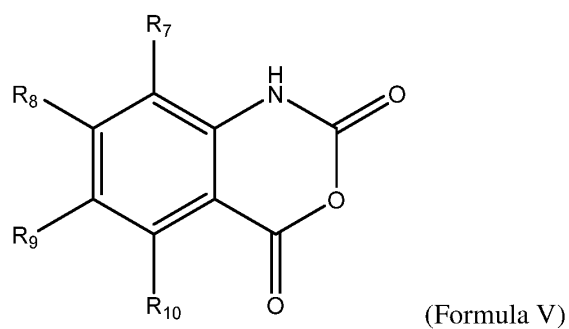
f) an acid; and

ii) reacting the mixture; and

B) an acid; and

II) reacting the mixture.

12. A method of preparing a compound of Formula V, wherein

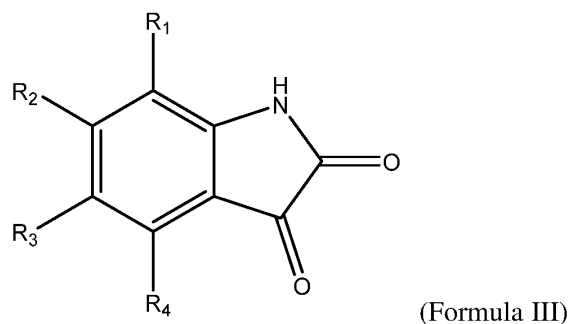


each of R₇ – R₁₀ is independently selected from hydrogen, halogen, halogenated C₁-C₅ alkyl, and C₁-C₅ alkyl; and

wherein at least one of R₇-R₁₀ is a halogen, the method comprising

I) forming a first mixture comprising

A) a compound of Formula III, wherein



each of $R_1 - R_4$ is independently selected from hydrogen, halogen, and C_1 - C_5 alkyl;

B) a solvent; and

C) a halogenation reagent;

II) reacting the first mixture;

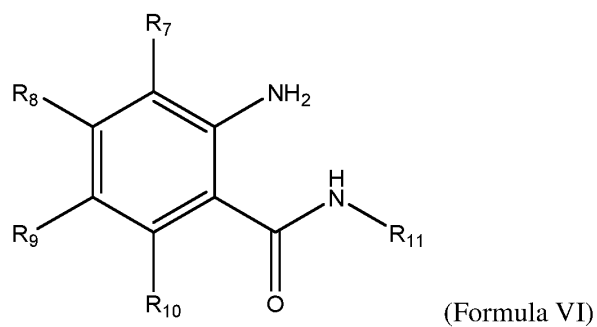
III) introducing a second mixture to the first mixture to form a third mixture, the second mixture comprising

D) an oxidation agent; and

E) a catalyst; and

IV) reacting the third mixture.

13. A method of preparing a compound of Formula VI, wherein



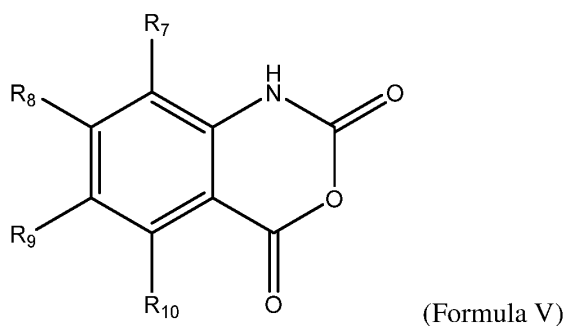
each of $R_7 - R_{10}$ is independently selected from hydrogen, halogen, halogenated C_1-C_5 alkyl, and C_1-C_5 alkyl;

wherein at least one of R_7-R_{10} is a halogen; and

wherein R_{11} is selected from branched C_1-C_{10} alkyl and unbranched C_1-C_{10} alkyl, the method comprising

I) forming a mixture comprising

A) a compound of Formula V, wherein



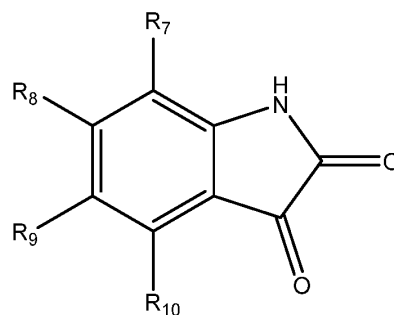
each of $R_7 - R_{10}$ is independently selected from hydrogen, halogen, halogenated C_1-C_5 alkyl, and C_1-C_5 alkyl;

wherein at least one of R_7-R_{10} is a halogen; and

wherein the compound of Formula V is prepared according to a method comprising

i) forming a mixture comprising

a) a compound of Formula IV, wherein



(Formula IV)

each of $R_7 - R_{10}$ is independently selected from hydrogen, halogen, halogenated C_1-C_5 alkyl, and C_1-C_5 alkyl; and

wherein at least one of R_7-R_{10} is a halogen;

b) an oxidation agent;

c) a solvent; and

d) a catalyst; and

ii) reacting the mixture;

B) an alkylamine; and

C) a solvent; and

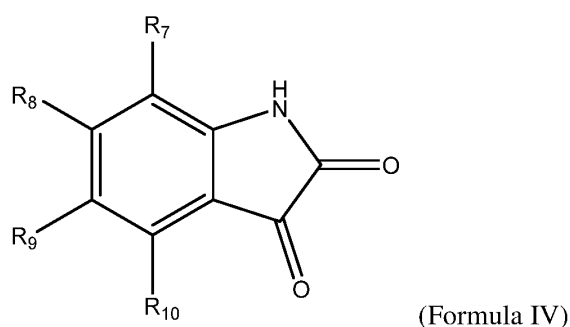
II) reacting the mixture.

14. The method of claim 13, wherein the alkylamine comprises a functional group selected from branched C_1-C_{10} alkyl and unbranched C_1-C_{10} alkyl.

15. The method of claim 13, wherein the solvent C) is selected from acetonitrile, dichloroethane, toluene, chlorobenzene, xylene, methanol, ethanol, isopropanol, ethyl acetate, isopropyl acetate, and combinations thereof.

16. The method of claim 13, wherein the method step II) of reacting the mixture occurs at a reaction temperature in the range of about $0\text{ }^{\circ}\text{C}$ to about $100\text{ }^{\circ}\text{C}$.

17. The method of claim 13, wherein the oxidation agent is selected from oxygen, chlorine, sodium hypochlorite, chromium trioxide, 3-chloroperoxybenzoic acid, hydrogen peroxide, peroxyacetic acid, potassium peroxymonosulfate, potassium permanganate, and combinations thereof.
18. The method of claim 13, wherein the catalyst is selected from sulfuric acid, hydrogen chloride, nitric acid, and combinations thereof.
19. A method of preparing a compound of Formula IV, wherein

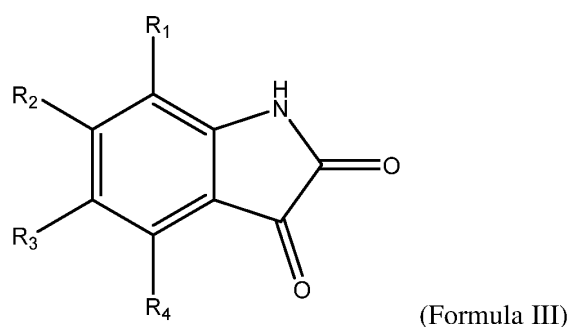


each of $R_7 - R_{10}$ is independently selected from hydrogen, halogen, halogenated C_1-C_5 alkyl, and C_1-C_5 alkyl;

wherein at least one of R_7-R_{10} is a halogen, the method comprising

I) forming a mixture comprising

A) a compound of Formula III, wherein



each of $R_1 - R_4$ is independently selected from hydrogen, halogen, and C_1-C_5 alkyl;

B) a solvent;

C) a halogenation reagent; and

II) reacting the mixture.

20. The method of claim 19, wherein the solvent is selected from acetonitrile, dichloroethane, toluene, chlorobenzene, xylene, acetic acid, acetic anhydride, propionic acid, butyric acid, and combinations thereof.