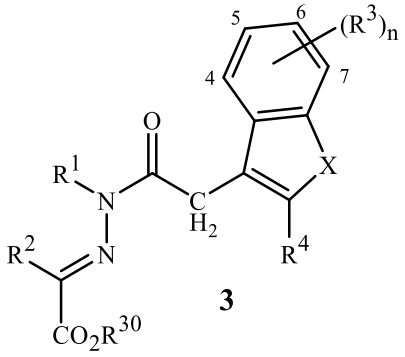
Claims

What is claimed is:

1. A compound selected from Formula **3**, *N*-oxides and salts thereof,



3

wherein

R^1 is H, C_1–C_7 alkyl, C_3–C_8 alkylcarbonylalkyl, C_3–C_8 alkoxycarbonylalkyl, C_4–C_7 alkylcycloalkyl, C_3–C_7 alkenyl, C_3–C_7 alkynyl, C_3–C_7 cycloalkyl, C_4–C_7 cycloalkylalkyl, C_2–C_3 cyanoalkyl, C_1–C_4 nitroalkyl, C_2–C_7 haloalkoxyalkyl, C_1–C_7 haloalkyl, C_3–C_7 haloalkenyl, C_2–C_7 alkoxyalkyl, C_3–C_7 alkylthioalkyl, C_1–C_7 alkoxy, benzyl or phenyl; or a 5-, or 6-membered saturated or partially saturated heterocyclic ring containing ring members selected from carbon and up to 1 O and 1 S;

R^2 is H, halogen, -CN, -CHO, C_1–C_7 alkyl, C_3–C_8 alkylcarbonylalkyl, C_3–C_8 alkoxycarbonylalkyl, C_2–C_4 alkylcarbonyl, C_2–C_7 alkylcarbonyloxy, C_4–C_7 alkylcycloalkyl, C_3–C_7 alkenyl, C_3–C_7 alkynyl, C_1–C_4 alkylsulfinyl, C_1–C_4 alkylsulfonyl, C_1–C_4 alkylamino, C_2–C_8 dialkylamino, C_3–C_7 cycloalkyl, C_4–C_7 cycloalkylalkyl, C_2–C_3 cyanoalkyl, C_1–C_4 nitroalkyl, C_2–C_7 haloalkoxyalkyl, C_1–C_7 haloalkyl, C_3–C_7 haloalkenyl, C_2–C_7 alkoxyalkyl, C_1–C_7 alkoxy, C_1–C_5 alkylthio, C_2–C_3 alkoxycarbonyl; or phenyl optionally substituted by halogen, C_1–C_4 alkyl or C_1–C_4 haloalkyl;

X is O, S or NR^5; or

X is -$C(R^6)$=$C(R^7)$-, wherein the carbon atom bonded to R^6 is also bonded to the carbon atom bonded to R^4, and the carbon atom bonded to R^7 is also bonded to the phenyl ring moiety in Formula **3**;

each R^3 is independently halogen, -CN, nitro, C_1–C_5 alkyl, C_2–C_5 alkenyl, C_2–C_5 alkynyl, C_3–C_5 cycloalkyl, C_4–C_5 cycloalkylalkyl, C_1–C_5 haloalkyl, C_3–C_5 haloalkenyl,

C_3–C_5 haloalkynyl, C_2–C_5 alkoxyalkyl, C_1–C_5 alkoxy, C_1–C_5 haloalkoxy, C_1–C_5 alkylthio, C_1–C_5 haloalkylthio or C_2–C_5 alkoxycarbonyl;

~~R^4,~~ R^4 is halogen, -CN, C_1–C_3 alkyl, C_2–C_4 alkenyl, C_2–C_4 alkynyl, C_3–C_4 cycloalkyl, C_1–C_3 haloalkyl, C_1–C_3 alkoxy, C_1–C_2 haloalkoxy, C_1–C_2 alkylthio or C_1–C_2 haloalkylthio:

R^6 and R^7 are independently H, halogen, nitro, -CN, C_1–C_5 alkyl, C_2–C_5 alkenyl, C_2–C_5 alkynyl, C_3–C_5 cycloalkyl, C_4–C_5 cycloalkylalkyl, C_1–C_5 haloalkyl, C_3–C_5 haloalkenyl, C_3–C_5 haloalkynyl, C_2–C_5 alkoxyalkyl, C_1–C_5 alkoxy, C_1–C_5 haloalkoxy, C_1–C_5 alkylthio, C_1–C_4 alkylsulfinyl, C_1–C_4 alkylsulfonyl, C_1–C_5 haloalkylthio or C_2–C_5 alkoxycarbonyl;

R^5 is H, C_1–C_3 alkyl or C_1–C_3 haloalkyl;

n is 0, 1, 2, 3 or 4; and

R^{30} is alkyl.

2. The compound of Claim 1 wherein

X is O, S, -CH=CH-, -C(CH_3)=CH-, -CH=CF-, -CH=CCl- or -CH=C(CH_3)-;

R^1 is H, C_1–C_7 alkyl, C_3–C_8 alkylcarbonylalkyl, C_3–C_8 alkoxycarbonylalkyl, C_4–C_7 alkylcycloalkyl, C_3–C_7 alkenyl, C_3–C_7 alkynyl, C_3–C_7 cycloalkyl, C_4–C_7 cycloalkylalkyl, C_2–C_3 cyanoalkyl, C_1–C_4 nitroalkyl, C_2–C_7 haloalkoxyalkyl, C_1–C_7 haloalkyl, C_3–C_7 haloalkenyl, C_2–C_7 alkoxyalkyl, C_3–C_7 alkylthioalkyl, C_1–C_7 alkoxy, benzyl or phenyl;

R^2 is H, halogen, -CN, -CHO, C_1–C_7 alkyl, C_3–C_8 alkylcarbonylalkyl, C_3–C_8 alkoxycarbonylalkyl, C_2–C_4 alkylcarbonyl, C_2–C_7 alkylcarbonyloxy, C_4–C_7 alkylcycloalkyl, C_3–C_7 alkenyl, C_3–C_7 alkynyl, C_1–C_4 alkylsulfinyl, C_1–C_4 alkylsulfonyl, C_1–C_4 alkylamino, C_2–C_8 dialkylamino, C_3–C_7 cycloalkyl, C_4–C_7 cycloalkylalkyl, C_2–C_3 cyanoalkyl, C_1–C_4 nitroalkyl, C_2–C_7 haloalkoxyalkyl, C_1–C_7 haloalkyl, C_3–C_7 haloalkenyl, C_2–C_7 alkoxyalkyl, C_1–C_7 alkoxy or C_1–C_5 alkylthio;

each R^3 is independently halogen, -CN, C_1–C_3 alkyl, C_2–C_4 alkenyl, C_2–C_4 alkynyl, C_3–C_4 cycloalkyl, C_1–C_3 haloalkyl, C_1–C_3 alkoxy, C_1–C_2 haloalkoxy, C_1–C_2 alkylthio or C_1–C_2 haloalkylthio;

~~R^4 is halogen, -CN, C_1–C_3 alkyl, C_2–C_4 alkenyl, C_2–C_4 alkynyl, C_3–C_4 cycloalkyl, C_1–C_3 haloalkyl, C_1–C_3 alkoxy, C_1–C_2 haloalkoxy, C_1–C_2 alkylthio or C_1–C_2 haloalkylthio; and~~

and

n is 0, 1, 2 or 3.

_____3. The compound of Claim 2 wherein

X is -CH=CH-, -C(CH_3)=CH-, -CH=CF-, -CH=CCl- or –CH=C(CH_3)-;

R^1 is H, C_1–C_7 alkyl, C_3–C_8 alkoxycarbonylalkyl, C_4–C_7 alkylcycloalkyl, C_3–C_7 cycloalkyl, C_4–C_7 cycloalkylalkyl, C_2–C_3 cyanoalkyl, C_1–C_4 nitroalkyl, C_2–C_7 haloalkoxyalkyl, C_1–C_7 haloalkyl, C_2–C_7 alkoxyalkyl, C_3–C_7 alkylthioalkyl, C_1–C_7 alkoxy or benzyl;

R^2 is H, halogen, -CN, -CHO, C_1–C_7 alkyl, C_2–C_4 alkylcarbonyl, C_2–C_7 alkylcarbonyloxy, C_4–C_7 alkylcycloalkyl, C_1–C_4 alkylsulfinyl, C_1–C_4 alkylsulfonyl, C_1–C_4 alkylamino, C_3–C_7 cycloalkyl, C_4–C_7 cycloalkylalkyl, C_2–C_3 cyanoalkyl, C_1–C_4 nitroalkyl, C_2–C_7 haloalkoxyalkyl, C_1–C_7 haloalkyl, C_2–C_7 alkoxyalkyl or C_1–C_7 alkoxy;

each R^3 is independently halogen, -CN, C_1–C_2 alkyl, -CH=CH_2, -C≡CH, cyclopropyl, C_1–C_2 haloalkyl or C_1–C_2 alkoxy;

R^4 is halogen, -CN, C_1–C_2 alkyl, -CH=CH_2, -C≡CH, cyclopropyl, C_1–C_2 haloalkyl or C_1–C_2 alkoxy.

4. The compound of Claim 3 wherein

X is -CH=CH-, -CH=CF-, -CH=CCl- or –CH=C(CH_3)-;

R^1 is methyl, ethyl, *n*-propyl or 2-methoxyethyl;

R^2 is H, methyl, ethyl, *n*-propyl, CF_3 or methoxy;

each R^3 is independently halogen, -CN, methyl, ethyl, -CH=CH_2, -C≡CH, cyclopropyl, CF_3, methoxy or ethoxy;

R^4 is halogen, -CN, methyl, ethyl, -CH=CH_2, -C≡CH, cyclopropyl, CF_3, methoxy or ethoxy;

n is 1 or 2; and

R^{30} is methyl or ethyl.

5. ~~A~~ The compound of ~~Formula **3** in Claim~~claim 1 wherein

R^{30} is Me~~;~~

, X is -CH=CH-, R^1 is Me~~ and~~, R^2 is Me-, R^4 is Me, and n is 0;

~~$(R^3)_n$~~	~~R^4~~
~~–~~	~~H~~
~~5-Me~~	~~H~~
~~4,6-di-Me~~	~~H~~
~~5,7-di-Me~~	~~H~~
~~–~~	~~Me~~
~~5-Me~~	~~Me~~
~~4,6-di-Me~~	~~Me~~
~~5,7-di-Me~~	~~Me~~
~~–~~	~~Et~~
~~5-Me~~	~~Et~~
~~4,6-di-Me~~	~~Et~~
~~5,7-di-Me~~	~~Et~~

——R^{30} is Me, X is-CH=CH-, R^1 is Me, R^2 is Me, R^3 is 5-Me, and R^4 is Me;

R^{30} is Me, X is -CH=CH-, R^1 is Me, R^2 is Me, R^3 is 4,6-di-Me, and R^4 is Me;

R^{30} is Me, X is -CH=CH-, R^1 is Me, R^2 is Me, R^3 is 5,7-di-Me, and R^4 is Me;

R^{30} is Me, X is -CH=CH-, R^1 is Me, R^2 is Me, R^4 is Et, n is 0;

R^{30} is Me, X is -CH=CH-, R^1 is Me, R^2 is Me, R^3 is 5-Me, and R^4 is Et;

R^{30} is Me, X is -CH=CH-, R^1 is Me, R^2 is Me, R^3 is 4,6-di-Me, and R^4 is Et;

R^{30} is Me, X is -CH=CH-, R^1 is Me, R^2 is Me, R^3 is 5,7-di-Me, and R^4 is Et;

R^{30} is Me, X is -CH=CH-, R^1 is Me, R^2 is Et, R^4 is Me and n is 0;

~~$(R^3)_n$~~	~~R^4~~
~~–~~	~~H~~
~~5-Me~~	~~H~~
~~4,6-di-Me~~	~~H~~
~~5,7-di-Me~~	~~H~~
~~–~~	~~Me~~
~~5-Me~~	~~Me~~
~~4,6-di-Me~~	~~Me~~
~~5,7-di-Me~~	~~Me~~
~~–~~	~~Et~~
~~5-Me~~	~~Et~~
~~4,6-di-Me~~	~~Et~~
~~5,7-di-Me~~	~~Et~~

~~6.~~ R^{30} is Me, X is -CH=CH-, R^1 is Me, R^2 is Et, R^3 is 5-Me, and R^4 is Me;

R^{30} is Me, X is -CH=CH-, R^1 is Me, R^2 is Et, R^3 is 4,6-di-Me, and R^4 is Me;

R^{30} is Me, X is -CH=CH-, R^1 is Me, R^2 is Et, R^3 is 5,7-di-Me, and R^4 is Me;

R^{30} is Me, X is -CH=CH-, R^1 is Me, R^2 is Et, R^4 is Et, n is 0;

R^{30} is Me, X is -CH=CH-, R^1 is Me, R^2 is Et, R^3 is 5-Me, and R^4 is Et;

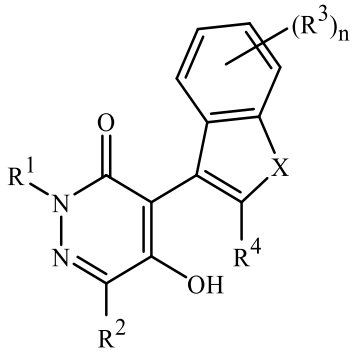
R^{30} is Me, X is -CH=CH-, R^1 is Me, R^2 is Et, R^3 is 4,6-di-Me, and R^4 is Et; or

R^{30} is Me, X is -CH=CH-, R^1 is Me, R^2 is Et, R^3 is 5,7-di-Me, and R^4 is Et.

6. A compound of ~~Formula **3** in~~ Claim 1 selected from

methyl 2-[2-[2-(2,5-dimethylbenzo[b]thien-3yl)acetyl]-2-methylhydrazinylidene]propanoate; methyl 2-[2-[2-(2,5-dimethyl-3-benzofuranyl)acetyl]-2-methylhydrazinylidene]propanoate; and 2,5,7-trimethyl-3-benzofuranacetic acid 2-(2-methoxy-1-methyl-2-oxoethylidene)-1-methylhydrazide.

7. A method for preparing a compound of Formula **1b**



1b

wherein

R^1 is H, C_1–C_7 alkyl, C_3–C_8 alkylcarbonylalkyl, C_3–C_8 alkoxycarbonylalkyl, C_4–C_7 alkylcycloalkyl, C_3–C_7 alkenyl, C_3–C_7 alkynyl, C_3–C_7 cycloalkyl, C_4–C_7 cycloalkylalkyl, C_2–C_3 cyanoalkyl, C_1–C_4 nitroalkyl, C_2–C_7 haloalkoxyalkyl, C_1–C_7 haloalkyl, C_3–C_7 haloalkenyl, C_2–C_7 alkoxyalkyl, C_3–C_7 alkylthioalkyl, C_1–C_7 alkoxy, benzyl or phenyl; or a 5-, or 6-membered saturated or partially saturated

heterocyclic ring containing ring members selected from carbon and up to 1 O and 1 S;

R^2 is H, halogen, -CN, -CHO, C_1–C_7 alkyl, C_3–C_8 alkylcarbonylalkyl, C_3–C_8 alkoxycarbonylalkyl, C_2–C_4 alkylcarbonyl, C_2–C_7 alkylcarbonyloxy, C_4–C_7 alkylcycloalkyl, C_3–C_7 alkenyl, C_3–C_7 alkynyl, C_1–C_4 alkylsulfinyl, C_1–C_4 alkylsulfonyl, C_1–C_4 alkylamino, C_2–C_8 dialkylamino, C_3–C_7 cycloalkyl, C_4–C_7 cycloalkylalkyl, C_2–C_3 cyanoalkyl, C_1–C_4 nitroalkyl, C_2–C_7 haloalkoxyalkyl, C_1–C_7 haloalkyl, C_3–C_7 haloalkenyl, C_2–C_7 alkoxyalkyl, C_1–C_7 alkoxy, C_1–C_5 alkylthio, C_2–C_3 alkoxycarbonyl; or phenyl optionally substituted by halogen, C_1–C_4 alkyl or C_1–C_4 haloalkyl;

X is O, S or NR^5; or

X is $-C(R^6)=C(R^7)-$, wherein the carbon atom bonded to R^6 is also bonded to the carbon atom bonded to R^4, and the carbon atom bonded to R^7 is also bonded to the phenyl ring moiety in Formula **1b**;

each R^3 is independently halogen, -CN, nitro, C_1–C_5 alkyl, C_2–C_5 alkenyl, C_2–C_5 alkynyl, C_3–C_5 cycloalkyl, C_4–C_5 cycloalkylalkyl, C_1–C_5 haloalkyl, C_3–C_5 haloalkenyl, C_3–C_5 haloalkynyl, C_2–C_5 alkoxyalkyl, C_1–C_5 alkoxy, C_1–C_5 haloalkoxy, C_1–C_5 alkylthio, C_1–C_5 haloalkylthio or C_2–C_5 alkoxycarbonyl;

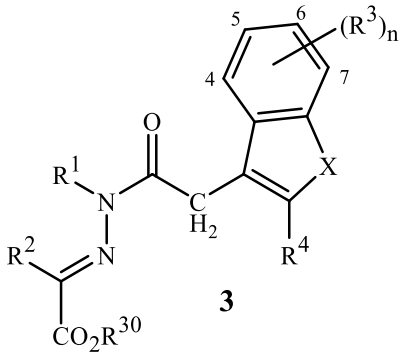
~~R^4,~~ R^4 is halogen, -CN, C_1–C_3 alkyl, C_2–C_4 alkenyl, C_2–C_4 alkynyl, C_3–C_4 cycloalkyl, C_1–C_3 haloalkyl, C_1–C_3 alkoxy, C_1–C_2 haloalkoxy, C_1–C_2 alkylthio or C_1–C_2 haloalkylthio;

R^6 and R^7 are independently H, halogen, nitro, -CN, C_1–C_5 alkyl, C_2–C_5 alkenyl, C_2–C_5 alkynyl, C_3–C_5 cycloalkyl, C_4–C_5 cycloalkylalkyl, C_1–C_5 haloalkyl, C_3–C_5 haloalkenyl, C_3–C_5 haloalkynyl, C_2–C_5 alkoxyalkyl, C_1–C_5 alkoxy, C_1–C_5 haloalkoxy, C_1–C_5 alkylthio, C_1–C_4 alkylsulfinyl, C_1–C_4 alkylsulfonyl, C_1–C_5 haloalkylthio or C_2–C_5 alkoxycarbonyl;

R^5 is H, C_1–C_3 alkyl or C_1–C_3 haloalkyl; and

n is 0, 1, 2, 3 or 4

comprising cyclizing the compound of Formula **3** in the presence of solvent and base



3

wherein

R^1 is H, C_1–C_7 alkyl, C_3–C_8 alkylcarbonylalkyl, C_3–C_8 alkoxycarbonylalkyl, C_4–C_7 alkylcycloalkyl, C_3–C_7 alkenyl, C_3–C_7 alkynyl, C_3–C_7 cycloalkyl, C_4–C_7 cycloalkylalkyl, C_2–C_3 cyanoalkyl, C_1–C_4 nitroalkyl, C_2–C_7 haloalkoxyalkyl, C_1–C_7 haloalkyl, C_3–C_7 haloalkenyl, C_2–C_7 alkoxyalkyl, C_3–C_7 alkylthioalkyl, C_1–C_7 alkoxy, benzyl or phenyl; or a 5-, or 6-membered saturated or partially saturated heterocyclic ring containing ring members selected from carbon and up to 1 O and 1 S;

R^2 is H, halogen, -CN, -CHO, C_1–C_7 alkyl, C_3–C_8 alkylcarbonylalkyl, C_3–C_8 alkoxycarbonylalkyl, C_2–C_4 alkylcarbonyl, C_2–C_7 alkylcarbonyloxy, C_4–C_7 alkylcycloalkyl, C_3–C_7 alkenyl, C_3–C_7 alkynyl, C_1–C_4 alkylsulfinyl, C_1–C_4 alkylsulfonyl, C_1–C_4 alkylamino, C_2–C_8 dialkylamino, C_3–C_7 cycloalkyl, C_4–C_7 cycloalkylalkyl, C_2–C_3 cyanoalkyl, C_1–C_4 nitroalkyl, C_2–C_7 haloalkoxyalkyl, C_1–C_7 haloalkyl, C_3–C_7 haloalkenyl, C_2–C_7 alkoxyalkyl, C_1–C_7 alkoxy, C_1–C_5 alkylthio, C_2–C_3 alkoxycarbonyl; or phenyl optionally substituted by halogen, C_1–C_4 alkyl or C_1–C_4 haloalkyl;

X is O, S or NR^5; or

X is -$C(R^6)$=$C(R^7)$-, wherein the carbon atom bonded to R^6 is also bonded to the carbon atom bonded to R^4, and the carbon atom bonded to R^7 is also bonded to the phenyl ring moiety in Formula **3**;

each R^3 is independently halogen, -CN, nitro, C_1–C_5 alkyl, C_2–C_5 alkenyl, C_2–C_5 alkynyl, C_3–C_5 cycloalkyl, C_4–C_5 cycloalkylalkyl, C_1–C_5 haloalkyl, C_3–C_5 haloalkenyl, C_3–C_5 haloalkynyl, C_2–C_5 alkoxyalkyl, C_1–C_5 alkoxy, C_1–C_5 haloalkoxy, C_1–C_5 alkylthio, C_1–C_5 haloalkylthio or C_2–C_5 alkoxycarbonyl;

~~R4,~~ R4 is halogen, -CN, C1–C3 alkyl, C2–C4 alkenyl, C2–C4 alkynyl, C3–C4 cycloalkyl, C1–C3 haloalkyl, C1–C3 alkoxy, C1–C2 haloalkoxy, C1–C2 alkylthio or C1–C2 haloalkylthio;

R^6 and R^7 are independently H, halogen, nitro, -CN, C_1–C_5 alkyl, C_2–C_5 alkenyl, C_2–C_5 alkynyl, C_3–C_5 cycloalkyl, C_4–C_5 cycloalkylalkyl, C_1–C_5 haloalkyl, C_3–C_5 haloalkenyl, C_3–C_5 haloalkynyl, C_2–C_5 alkoxyalkyl, C_1–C_5 alkoxy, C_1–C_5 haloalkoxy, C_1–C_5 alkylthio, C_1–C_4 alkylsulfinyl, C_1–C_4 alkylsulfonyl, C_1–C_5 haloalkylthio or C_2–C_5 alkoxycarbonyl;

R^5 is H, C_1–C_3 alkyl or C_1–C_3 haloalkyl;

n is 0, 1, 2, 3 or 4; and

R^{30} is alkyl.

8. The method of Claim 7 for preparing a compound of Formula **1b** wherein

R^1 is methyl or ethyl;

R^2 is methyl or ethyl;

X is -C(R^6)=C(R^7)-;

each R^3 is independently F, Cl, Br, methyl, ethyl or methoxy;

R^4 is halogen, -CN, methyl, ethyl, -CH=CH_2, -C≡CH, cyclopropyl, CF_3, methoxy or ethoxy;

R^6 and R^7 are H or halogen; and

n is 0, 1 or 2

comprising cyclizing the compound of Formula **3** in the presence of solvent and base wherein

R^1 is methyl or ethyl;

R^2 is methyl or ethyl;

X is -C(R^6)=C(R^7)-;

each R^3 is independently F, Cl, Br, methyl, ethyl or methoxy;

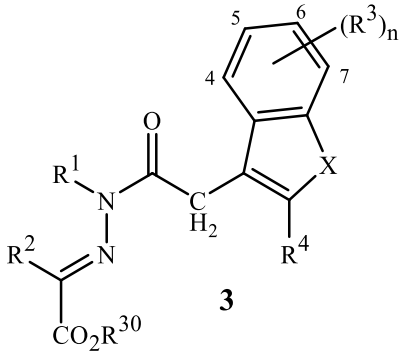
R^4 is halogen, -CN, methyl, ethyl, -CH=CH_2, -C≡CH, cyclopropyl, CF_3, methoxy or ethoxy;

R^6 and R^7 are H or halogen;

n is 0, 1 or 2; and

R^{30} is methyl or ethyl.

_____9. __A method for preparing a compound of Formula **3**



3

wherein

R^1 is H, C_1–C_7 alkyl, C_3–C_8 alkylcarbonylalkyl, C_3–C_8 alkoxycarbonylalkyl, C_4–C_7 alkylcycloalkyl, C_3–C_7 alkenyl, C_3–C_7 alkynyl, C_3–C_7 cycloalkyl, C_4–C_7 cycloalkylalkyl, C_2–C_3 cyanoalkyl, C_1–C_4 nitroalkyl, C_2–C_7 haloalkoxyalkyl, C_1–C_7 haloalkyl, C_3–C_7 haloalkenyl, C_2–C_7 alkoxyalkyl, C_3–C_7 alkylthioalkyl, C_1–C_7 alkoxy, benzyl or phenyl; or a 5-, or 6-membered saturated or partially saturated heterocyclic ring containing ring members selected from carbon and up to 1 O and 1 S;

R^2 is H, halogen, -CN, -CHO, C_1–C_7 alkyl, C_3–C_8 alkylcarbonylalkyl, C_3–C_8 alkoxycarbonylalkyl, C_2–C_4 alkylcarbonyl, C_2–C_7 alkylcarbonyloxy, C_4–C_7 alkylcycloalkyl, C_3–C_7 alkenyl, C_3–C_7 alkynyl, C_1–C_4 alkylsulfinyl, C_1–C_4 alkylsulfonyl, C_1–C_4 alkylamino, C_2–C_8 dialkylamino, C_3–C_7 cycloalkyl, C_4–C_7 cycloalkylalkyl, C_2–C_3 cyanoalkyl, C_1–C_4 nitroalkyl, C_2–C_7 haloalkoxyalkyl, C_1–C_7 haloalkyl, C_3–C_7 haloalkenyl, C_2–C_7 alkoxyalkyl, C_1–C_7 alkoxy, C_1–C_5 alkylthio, C_2–C_3 alkoxycarbonyl; or phenyl optionally substituted by halogen, C_1–C_4 alkyl or C_1–C_4 haloalkyl;

X is O, S or NR^5; or

X is $-C(R^6)=C(R^7)-$, wherein the carbon atom bonded to R^6 is also bonded to the carbon atom bonded to R^4, and the carbon atom bonded to R^7 is also bonded to the phenyl ring moiety in Formula **3**;

each R^3 is independently halogen, -CN, nitro, C_1–C_5 alkyl, C_2–C_5 alkenyl, C_2–C_5 alkynyl, C_3–C_5 cycloalkyl, C_4–C_5 cycloalkylalkyl, C_1–C_5 haloalkyl, C_3–C_5 haloalkenyl, C_3–C_5 haloalkynyl, C_2–C_5 alkoxyalkyl, C_1–C_5 alkoxy, C_1–C_5 haloalkoxy, C_1–C_5 alkylthio, C_1–C_5 haloalkylthio or C_2–C_5 alkoxycarbonyl;

~~R^4,~~ R^4 is halogen, -CN, C_1–C_3 alkyl, C_2–C_4 alkenyl, C_2–C_4 alkynyl, C_3–C_4 cycloalkyl, C_1–C_3 haloalkyl, C_1–C_3 alkoxy, C_1–C_2 haloalkoxy, C_1–C_2 alkylthio or C_1–C_2 haloalkylthio;

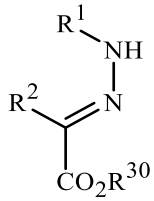
R^6 and R^7 are independently H, halogen, nitro, -CN, C_1–C_5 alkyl, C_2–C_5 alkenyl, C_2–C_5 alkynyl, C_3–C_5 cycloalkyl, C_4–C_5 cycloalkylalkyl, C_1–C_5 haloalkyl, C_3–C_5 haloalkenyl, C_3–C_5 haloalkynyl, C_2–C_5 alkoxyalkyl, C_1–C_5 alkoxy, C_1–C_5 haloalkoxy, C_1–C_5 alkylthio, C_1–C_4 alkylsulfinyl, C_1–C_4 alkylsulfonyl, C_1–C_5 haloalkylthio or C_2–C_5 alkoxycarbonyl;

R^5 is H, C_1–C_3 alkyl or C_1–C_3 haloalkyl;

n is 0, 1, 2, 3 or 4; and

R^{30} is alkyl;

comprising reacting a hydrazine ester of Formula **4**



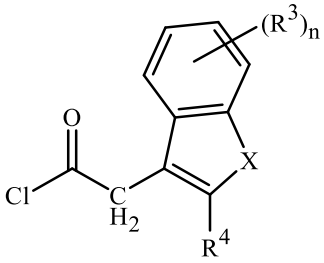
4 wherein

R^1 is H, C_1–C_7 alkyl, C_3–C_8 alkylcarbonylalkyl, C_3–C_8 alkoxycarbonylalkyl, C_4–C_7 alkylcycloalkyl, C_3–C_7 alkenyl, C_3–C_7 alkynyl, C_3–C_7 cycloalkyl, C_4–C_7 cycloalkylalkyl, C_2–C_3 cyanoalkyl, C_1–C_4 nitroalkyl, C_2–C_7 haloalkoxyalkyl, C_1–C_7 haloalkyl, C_3–C_7 haloalkenyl, C_2–C_7 alkoxyalkyl, C_3–C_7 alkylthioalkyl, C_1–C_7 alkoxy, benzyl or phenyl; or a 5-, or 6-membered saturated or partially saturated heterocyclic ring containing ring members selected from carbon and up to 1 O and 1 S;

R^2 is H, halogen, -CN, -CHO, C_1–C_7 alkyl, C_3–C_8 alkylcarbonylalkyl, C_3–C_8 alkoxycarbonylalkyl, C_2–C_4 alkylcarbonyl, C_2–C_7 alkylcarbonyloxy, C_4–C_7 alkylcycloalkyl, C_3–C_7 alkenyl, C_3–C_7 alkynyl, C_1–C_4 alkylsulfinyl, C_1–C_4 alkylsulfonyl, C_1–C_4 alkylamino, C_2–C_8 dialkylamino, C_3–C_7 cycloalkyl, C_4–C_7 cycloalkylalkyl, C_2–C_3 cyanoalkyl, C_1–C_4 nitroalkyl, C_2–C_7 haloalkoxyalkyl, C_1–C_7 haloalkyl, C_3–C_7 haloalkenyl, C_2–C_7 alkoxyalkyl, C_1–C_7 alkoxy, C_1–C_5 alkylthio, C_2–C_3 alkoxycarbonyl; or phenyl optionally substituted by halogen, C_1–C_4 alkyl or C_1–C_4 haloalkyl; and

R^{30} is alkyl;

with an acid chloride of Formula **5**



5

wherein

X is O, S or NR^5; or

X is $-C(R^6)=C(R^7)-$, wherein the carbon atom bonded to R^6 is also bonded to the carbon atom bonded to R^4, and the carbon atom bonded to R^7 is also bonded to the phenyl ring moiety in Formula **5**;

each R^3 is independently halogen, -CN, nitro, C_1–C_5 alkyl, C_2–C_5 alkenyl, C_2–C_5 alkynyl, C_3–C_5 cycloalkyl, C_4–C_5 cycloalkylalkyl, C_1–C_5 haloalkyl, C_3–C_5 haloalkenyl, C_3–C_5 haloalkynyl, C_2–C_5 alkoxyalkyl, C_1–C_5 alkoxy, C_1–C_5 haloalkoxy, C_1–C_5 alkylthio, C_1–C_5 haloalkylthio or C_2–C_5 alkoxycarbonyl;

~~R^4,~~ R^4 is halogen, -CN, C_1–C_3 alkyl, C_2–C_4 alkenyl, C_2–C_4 alkynyl, C_3–C_4 cycloalkyl, C_1–C_3 haloalkyl, C_1–C_3 alkoxy, C_1–C_2 haloalkoxy, C_1–C_2 alkylthio or C_1–C_2 haloalkylthio;

R^6 and R^7 are independently H, halogen, nitro, -CN, C_1–C_5 alkyl, C_2–C_5 alkenyl, C_2–C_5 alkynyl, C_3–C_5 cycloalkyl, C_4–C_5 cycloalkylalkyl, C_1–C_5 haloalkyl, C_3–C_5 haloalkenyl, C_3–C_5 haloalkynyl, C_2–C_5 alkoxyalkyl, C_1–C_5 alkoxy, C_1–C_5 haloalkoxy, C_1–C_5 alkylthio, C_1–C_4 alkylsulfinyl, C_1–C_4 alkylsulfonyl, C_1–C_5 haloalkylthio or C_2–C_5 alkoxycarbonyl;

R^5 is H, C_1–C_3 alkyl or C_1–C_3 haloalkyl; and

n is 0, 1, 2, 3 or 4.

in the presence of solvent and base.

10. The method of Claim 9 for preparing a compound of Formula **3** wherein

R^1 is methyl or ethyl;

R^2 is methyl or ethyl;

X is $-C(R^6)=C(R^7)-$;

each R^3 is independently F, Cl, Br, methyl, ethyl or methoxy;

R^4 is halogen, -CN, methyl, ethyl, $-CH=CH_2$, $-C\equiv CH$, cyclopropyl, CF_3, methoxy or ethoxy;

R^6 and R^7 are H or halogen;

n is 0, 1 or 2; and

R^{30} is methyl or ethyl

comprising reacting a hydrazine ester of Formula **4** wherein

R^1 is methyl or ethyl;

R^2 is methyl or ethyl; and

R^{30} is methyl or ethyl

with an acid chloride of Formula **5** wherein

X is $-C(R^6)=C(R^7)-$;

each R^3 is independently F, Cl, Br, methyl, ethyl or methoxy;

R^4 is halogen, -CN, methyl, ethyl, $-CH=CH_2$, -C≡CH, cyclopropyl, CF_3, methoxy or ethoxy;

R^6 and R^7 are H or halogen; and

n is 0, 1 or 2

in the presence of solvent and base.