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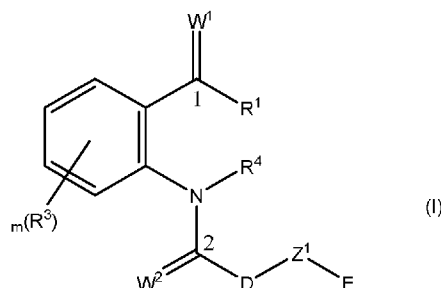
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(54) Title: ANTHRANILAMIDES, THEIR USE AS INSECTICIDE AND PROCESSES FOR PREPARING THE SAME.



(57) Abstract: The present invention provides novel anthranilamides of Formula I, wherein, the definition of W¹, W², D, Z¹, E, R¹, R², R³, R⁴, m is as described in the description. The present invention also relates to the composition, combination, use and method of application of the compounds of Formula I.



Anthranilamides, their use as insecticide and processes for preparing the same.

FIELD OF THE INVENTION:

The present invention relates to novel anthranilamides, to their use as insecticides and acaricides, to their combination with other active compounds, and to processes for their preparation.

5 BACKGROUND:

Anthranilic acid derivatives having insecticidal properties have already been described in the literature. For example in WO2001070671, WO2003015518, WO2003015519, WO2003016284, WO2003024222, WO2003016282, WO2003016283, WO2003062226, WO2003027099, WO2004027042, WO2004033468, WO2004046129, WO2004067528, WO2005118552, WO2005077934, 10 WO2005085234, WO2006023783, WO2006000336, WO2006040113, WO2006062978, WO2006111341, WO2007009661, WO2007006670, WO2007020050, WO2007024833, WO2007020877, WO2007144100, WO2007043677, WO2007093402, WO2008010897, WO2008070158, WO2008072743, WO2008072745, WO2008082502, WO2008126889, WO2008126890, WO2008126933, WO2010069502, WO2011157778, WO2011157654, 15 WO2011157651, WO2011157663, WO2011157664, WO2012010525, WO2012004221, WO2013007604, WO2013030100, WO2014079820, WO2014135588, CN103450154, CN106588870 and CN106810535.

The active compounds reported in the above literature have disadvantages in certain aspects, such as that they exhibit a narrow spectrum of application or they do not have satisfactory insecticidal or acaricidal 20 activity.

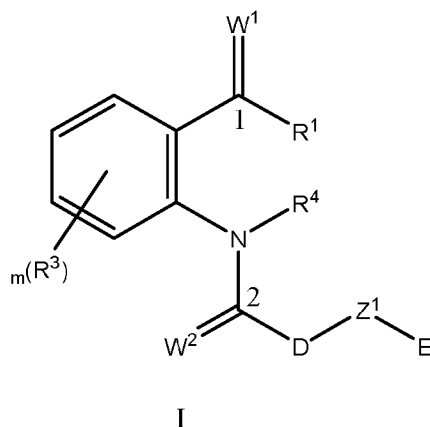
SUMMARY:

The present invention relates to anthranilamides which have now been found to be advantages over the compounds reported in the literature in either of improved insecticidal or acaricidal activity, biological or environmental properties, broader spectrum of application or enhanced plant compatibility.

25 The anthranilamides of the present invention can be used in combination with other biologically active compounds for improving the efficacy particularly against insects which are difficult to control.

The present invention also relates to a plurality of processes for the preparation of anthranilamides.

Accordingly, the present invention provides novel anthranilamides of Formula I,



wherein,

the definition of W^1 , W^2 , D, Z^1 , E, R^1 , R^2 , R^3 , R^4 , m is as described in the following description.

DETAILED DESCRIPTION OF THE INVENTION:

5 DEFINITIONS:

The definitions provided herein for the terminologies used in the present disclosure are for illustrative purpose only and in no manner limit the scope of the present invention disclosed in the present disclosure.

As used herein, the terms “comprises”, “comprising”, “includes”, “including”, “has”, “having”, “contains”, “containing”, “characterized by” or any other variation thereof, are intended to cover a non-exclusive inclusion, subject to any limitation explicitly indicated. For example, a composition, mixture, process or method that comprises a list of elements is not necessarily limited to only those elements but may include other elements not expressly listed or inherent to such composition, mixture, process or method.

15 The transitional phrase “consisting of” excludes any element, step or ingredient not specified. If in the claim, such would close the claim to the inclusion of materials other than those recited except for impurities ordinarily associated therewith. When the phrase “consisting of” appears in a clause of the body of a claim, rather than immediately following the preamble, it limits only the element set forth in that clause; other elements are not excluded from the claim as a whole.

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The transitional phrase “consisting essentially of” is used to define a composition or method that includes materials, steps, features, components or elements, in addition to those literally disclosed, provided that these additional materials, steps, features, components or elements do not materially affect the basic and

novel characteristic(s) of the claimed invention. The term “consisting essentially of” occupies a middle ground between “comprising” and “consisting of”.

Further, unless expressly stated to the contrary, “or” refers to an inclusive “or” and not to an exclusive “or”. For example, a condition A “or” B is satisfied by any one of the following: A is true (or present) and B is false (or not present), A is false (or not present) and B is true (or present), and both A and B are true (or present).

Also, the indefinite articles “a” and “an” preceding an element or component of the present invention are intended to be nonrestrictive regarding the number of instances (i.e. occurrences) of the element or component. Therefore “a” or “an” should be read to include one or at least one, and the singular word form of the element or component also includes the plural unless the number is obviously meant to be singular.

As referred to in this disclosure, the term “invertebrate pest” includes arthropods, gastropods and nematodes of economic importance as pests. The term “arthropod” includes insects, mites, spiders, scorpions, centipedes, millipedes, pill bugs and symphylans. The term “gastropod” includes snails, slugs and other Stylommatophora. The term “nematode” refers to a living organism of the Phylum Nematoda. The term “helminths” includes roundworms, heartworms, phytophagous nematodes (Nematoda), flukes (Tematoda), acanthocephala and tapeworms (Cestoda).

In the context of this disclosure “invertebrate pest control” means inhibition of invertebrate pest development (including mortality, feeding reduction, and/or mating disruption), and related expressions are defined analogously.

The term “agronomic” refers to the production of field crops such as for food and fiber and includes the growth of corn, soybeans and other legumes, rice, cereal (e.g., wheat, oats, barley, rye, rice, maize), leafy vegetables (e.g., lettuce, cabbage, and other cole crops), fruiting vegetables (e.g., tomatoes, pepper, eggplant, crucifers and cucurbits), potatoes, sweet potatoes, grapes, cotton, tree fruits (e.g., pome, stone and citrus), small fruit (berries, cherries) and other specialty crops (e.g., canola, sunflower, olives).

The term “nonagronomic” refers to other than field crops, such as horticultural crops (e.g., greenhouse, nursery or ornamental plants not grown in a field), residential, agricultural, commercial and industrial structures, turf (e.g., sod farm, pasture, golf course, lawn, sports field, etc.), wood products, stored product, agro-forestry and vegetation management, public health (i.e. human) and animal health (e.g.,

domesticated animals such as pets, livestock and poultry, undomesticated animals such as wildlife) applications.

Nonagronomic applications include protecting an animal from an invertebrate parasitic pest by administering a parasitically effective (i.e. biologically effective) amount of a compound of the present invention, typically in the form of a composition formulated for veterinary use, to the animal to be protected. As referred to in the present disclosure and claims, the terms “parasitically” and “parasitically” refers to observable effects on an invertebrate parasite pest to provide protection of an animal from the pest. Parasitically effects typically relate to diminishing the occurrence or activity of the target invertebrate parasitic pest. Such effects on the pest include necrosis, death, retarded growth, diminished mobility or lessened ability to remain on or in the host animal, reduced feeding and inhibition of reproduction. These effects on invertebrate parasite pests provide control (including prevention, reduction or elimination) of parasitic infestation or infection of the animal.

The compounds of the present disclosure may be present either in pure form or as mixtures of different possible isomeric forms such as stereoisomers or constitutional isomers. The various stereoisomers include enantiomers, diastereomers, chiral isomers, atropisomers, conformers, rotamers, tautomers, optical isomers, polymorphs, and geometric isomers. Any desired mixtures of these isomers fall within the scope of the claims of the present disclosure. One skilled in the art will appreciate that one stereoisomer may be more active and/or may exhibit beneficial effects when enriched relative to the other isomer(s) or when separated from the other isomer(s). Additionally, the person skilled in the art knows processes or methods or technology to separate, enrich, and/or to selectively prepare said isomers.

The meaning of various terms used in the description shall now be illustrated.

The term “alkyl”, used either alone or in compound words such as “alkylthio” or “haloalkyl” or -N(alkyl) or alkylcarbonylalkyl or alkylsulfonylamino includes straight-chain or branched C₁ to C₂₄ alkyl, preferably C₁ to C₁₅ alkyl, more preferably C₁ to C₁₀ alkyl, most preferably C₁ to C₆ alkyl. Non limiting examples of alkyl include methyl, ethyl, propyl, 1-methylethyl, butyl, 1-methylpropyl, 2-methylpropyl, 1,1-dimethylethyl, pentyl, 1-methylbutyl, 2-methylbutyl, 3-methylbutyl, 2,2-dimethylpropyl, 1-ethylpropyl, hexyl, 1,1-dimethylpropyl, 1,2-dimethylpropyl, 1-methylpentyl, 2-methylpentyl, 3-methylpentyl, 4-methylpentyl, 1,1-dimethylbutyl, 1,2-dimethylbutyl, 1,3-dimethylbutyl, 2,2-dimethylbutyl, 2,3-dimethylbutyl, 3,3-dimethylbutyl, 1-ethylbutyl, 2-ethylbutyl, 1,1,2-trimethylpropyl, 1,2,2-trimethylpropyl, 1-ethyl-1-methylpropyl and 1-ethyl-2-methylpropyl or the different isomers. If the

alkyl is at the end of a composite substituent, as, for example, in alkylcycloalkyl, the part of the composite substituent at the start, for example the cycloalkyl, may be mono- or polysubstituted identically or differently and independently by alkyl. The same also applies to composite substituents in which other radicals, for example alkenyl, alkynyl, hydroxyl, halogen, carbonyl, carbonyloxy and the like, are at the end.

The term “alkenyl”, used either alone or in compound words includes straight-chain or branched C₂ to C₂₄ alkenes, preferably C₂ to C₁₅ alkenes, more preferably C₂ to C₁₀ alkenes, most preferably C₂ to C₆ alkenes. Non limiting examples of alkenes include ethenyl, 1-propenyl, 2-propenyl, 1-methylethenyl, 1-butenyl, 2-butenyl, 3-butenyl, 1-methyl-1-propenyl, 2-methyl-1-propenyl, 1-methyl-2-propenyl, 2-methyl-2-propenyl, 1-pentenyl, 2-pentenyl, 3-pentenyl, 4-pentenyl, 1-methyl-1-butenyl, 2-methyl-1-butenyl, 3-methyl-1-butenyl, 1-methyl-2-butenyl, 2-methyl-2-butenyl, 3-methyl-2-butenyl, 1-methyl-3-butenyl, 2-methyl-3-butenyl, 3-methyl-3-butenyl, 1,1-dimethyl-2-propenyl, 1,2-dimethyl-1-propenyl, 1,2-dimethyl-2-propenyl, 1-ethyl-1-propenyl, 1-ethyl-2-propenyl, 1-hexenyl, 2-hexenyl, 3-hexenyl, 4-hexenyl, 5-hexenyl, 1-methyl-1-pentenyl, 2-methyl-1-pentenyl, 3-methyl-1-pentenyl, 4-methyl-1-pentenyl, 1-methyl-2-pentenyl, 2-methyl-2-pentenyl, 3-methyl-2-pentenyl, 4-methyl-2-pentenyl, 1-methyl-3-pentenyl, 2-methyl-3-pentenyl, 3-methyl-3-pentenyl, 4-methyl-3-pentenyl, 1-methyl-4-pentenyl, 2-methyl-4-pentenyl, 3-methyl-4-pentenyl, 4-methyl-4-pentenyl, 1,1-dimethyl-2-butenyl, 1,1-dimethyl-3-butenyl, 1,2-dimethyl-1-butenyl, 1,2-dimethyl-2-butenyl, 1,2-dimethyl-3-butenyl, 1,3-dimethyl-1-butenyl, 1,3-dimethyl-2-butenyl, 1,3-dimethyl-3-butenyl, 2,2-dimethyl-3-butenyl, 2,3-dimethyl-1-butenyl, 2,3-dimethyl-2-butenyl, 2,3-dimethyl-3-butenyl, 3,3-dimethyl-1-butenyl, 3,3-dimethyl-2-butenyl, 1-ethyl-1-butenyl, 1-ethyl-2-butenyl, 1-ethyl-3-butenyl, 2-ethyl-1-butenyl, 2-ethyl-2-butenyl, 2-ethyl-3-butenyl, 1,1,2-trimethyl-2-propenyl, 1-ethyl-1-methyl-2-propenyl, 1-ethyl-2-methyl-1-propenyl and 1-ethyl-2-methyl-2-propenyl and the different isomers. “Alkenyl” also includes polyenes such as 1,2-propadienyl and 2,4-hexadienyl. This definition also applies to alkenyl as a part of a composite substituent, for example haloalkenyl and the like, unless defined specifically elsewhere.

Non limiting examples of alkynes include ethynyl, 1-propynyl, 2-propynyl, 1-butylnyl, 2-butylnyl, 3-butylnyl, 1-methyl-2-propynyl, 1-pentylnyl, 2-pentylnyl, 3-pentylnyl, 4-pentylnyl, 1-methyl-2-butylnyl, 1-methyl-3-butylnyl, 2-methyl-3-butylnyl, 3-methyl-1-butylnyl, 1,1-dimethyl-2-propynyl, 1-ethyl-2-propynyl, 1-hexynyl, 2-hexynyl, 3-hexynyl, 4-hexynyl, 5-hexynyl, 1-methyl-2-pentylnyl, 1-methyl-3-pentylnyl, 1-methyl-4-pentylnyl, 2-methyl-3-pentylnyl, 2-methyl-4-pentylnyl, 3-methyl-1-pentylnyl, 3-methyl-4-pentylnyl, 4-methyl-1-pentylnyl, 4-methyl-2-pentylnyl, 1,1-dimethyl-2-butylnyl, 1,1-dimethyl-3-butylnyl, 1,2-dimethyl-3-butylnyl, 2,2-dimethyl-3-butylnyl, 3,3-dimethyl-1-butylnyl, 1-ethyl-2-butylnyl, 1-ethyl-3-butylnyl, 2-ethyl-3-butylnyl and 1-ethyl-1-methyl-2-propynyl and the different isomers. This definition also applies

to alkynyl as a part of a composite substituent, for example haloalkynyl etc., unless specifically defined elsewhere. The term “Alkynyl” can also include moieties comprised of multiple triple bonds such as 2,5-hexadiynyl.

The term “cycloalkyl” means alkyl closed to form a ring. Non limiting examples include cyclopropyl, cyclopentyl and cyclohexyl. This definition also applies to cycloalkyl as a part of a composite substituent, for example cycloalkylalkyl etc., unless specifically defined elsewhere.

The term “cycloalkenyl” means alkenyl closed to form a ring including monocyclic, partially unsaturated hydrocarbyl groups. Non limiting examples include cyclopropenyl, cyclopentenyl and cyclohexenyl. This definition also applies to cycloalkenyl as a part of a composite substituent, for example cycloalkenylalkyl etc., unless specifically defined elsewhere.

The term “cycloalkynyl” means alkynyl closed to form a ring including monocyclic, partially unsaturated groups. Non limiting examples include cyclopropynyl, cyclopentynyl and cyclohexynyl. This definition also applies to cycloalkynyl as a part of a composite substituent, for example cycloalkynylalkyl etc., unless specifically defined elsewhere.

The terms “cycloalkoxy”, “cycloalkenyloxy” and the like are defined analogously. Non limiting examples of cycloalkoxy include cyclopropyloxy, cyclopentyloxy and cyclohexyloxy. This definition also applies to cycloalkoxy as a part of a composite substituent, for example cycloalkoxy alkyl etc., unless specifically defined elsewhere.

The term “halogen”, either alone or in compound words such as “haloalkyl”, includes fluorine, chlorine, bromine or iodine. Further, when used in compound words such as “haloalkyl”, said alkyl may be partially or fully substituted with halogen atoms which may be the same or different. Non-limiting Examples of “haloalkyl” include chloromethyl, bromomethyl, dichloromethyl, trichloromethyl, fluoromethyl, difluoromethyl, trifluoromethyl, chlorofluoromethyl, dichlorofluoromethyl, chlorodifluoromethyl, 1-chloroethyl, 1-bromoethyl, 1-fluoroethyl, 2-fluoroethyl, 2,2-difluoroethyl, 2,2,2-trifluoroethyl, 2-chloro-2-fluoroethyl, 2-chloro-2,2-difluoroethyl, 2,2-dichloro-2-fluoroethyl, 2,2,2-trichloroethyl, pentafluoroethyl, 1,1-dichloro-2,2,2-trifluoroethyl, and 1,1,1-trifluoroprop-2-yl. This definition also applies to haloalkyl as a part of a composite substituent, for example haloalkylaminoalkyl etc., unless specifically defined elsewhere.

The terms “haloalkenyl”, “haloalkynyl” are defined analogously except that, instead of alkyl groups, alkenyl and alkynyl groups are present as a part of the substituent.

The term “haloalkoxy” means straight-chain or branched alkoxy groups where some or all of the hydrogen atoms in these groups may be replaced by halogen atoms as specified above. Non-limiting examples of haloalkoxy include chloromethoxy, bromomethoxy, dichloromethoxy, trichloromethoxy, fluoromethoxy, difluoromethoxy, trifluoromethoxy, chlorofluoromethoxy, dichlorofluoromethoxy, chlorodifluoromethoxy, 1-chloroethoxy, 1-bromoethoxy, 1-fluoroethoxy, 2-fluoroethoxy, 2,2-difluoroethoxy, 2,2,2-trifluoroethoxy, 2-chloro-2-fluoroethoxy, 2-chloro-2,2-difluoroethoxy, 2,2-dichloro-2-fluoroethoxy, 2,2,2-trichloroethoxy, pentafluoroethoxy and 1,1,1-trifluoroprop-2-oxy. This definition also applies to haloalkoxy as a part of a composite substituent, for example haloalkoxyalkyl etc., unless specifically defined elsewhere.

The term “haloalkylthio” means straight-chain or branched alkylthio groups where some or all of the hydrogen atoms in these groups may be replaced by halogen atoms as specified above. Non-limiting examples of haloalkylthio include chloromethylthio, bromomethylthio, dichloromethylthio, trichloromethylthio, fluoromethylthio, difluoromethylthio, trifluoromethylthio, chlorofluoromethylthio, dichlorofluoromethylthio, chlorodifluoromethylthio, 1-chloroethylthio, 1-bromoethylthio, 1-fluoroethylthio, 2-fluoroethylthio, 2,2-difluoroethylthio, 2,2,2-trifluoroethylthio, 2-chloro-2-fluoroethylthio, 2-chloro-2,2-difluoroethylthio, 2,2-dichloro-2-fluoroethylthio, 2,2,2-trichloroethylthio, pentafluoroethylthio and 1,1,1-trifluoroprop-2-ylthio. This definition also applies to haloalkylthio as a part of a composite substituent, for example haloalkylthioalkyl etc., unless specifically defined elsewhere.

Non limiting examples of “haloalkylsulfinyl” include $\text{CF}_3\text{S}(\text{O})$, $\text{CCl}_3\text{S}(\text{O})$, $\text{CF}_3\text{CH}_2\text{S}(\text{O})$ and $\text{CF}_3\text{CF}_2\text{S}(\text{O})$.

Examples of “haloalkylsulfonyl” include $\text{CF}_3\text{S}(\text{O})_2$, $\text{CCl}_3\text{S}(\text{O})_2$, $\text{CF}_3\text{CH}_2\text{S}(\text{O})_2$ and $\text{CF}_3\text{CF}_2\text{S}(\text{O})_2$.

The term “hydroxy” means $-\text{OH}$, Amino means $-\text{NRR}$, wherein R can be H or any possible substituent such as alkyl. Carbonyl means $-\text{C}(\text{O})-$, carbonyloxy means $-\text{OC}(\text{O})-$, sulfinyl means SO , sulfonyl means $\text{S}(\text{O})_2$.

The term “alkoxy” used either alone or in compound words included C_1 to C_{24} alkoxy, preferably C_1 to C_{15} alkoxy, more preferably C_1 to C_{10} alkoxy, most preferably C_1 to C_6 alkoxy. Examples of alkoxy include methoxy, ethoxy, propoxy, 1-methylethoxy, butoxy, 1-methylpropoxy, 2-methylpropoxy, 1,1-dimethylethoxy, pentoxy, 1-methylbutoxy, 2-methylbutoxy, 3-methylbutoxy, 2,2-dimethylpropoxy, 1-ethylpropoxy, hexoxy, 1,1-dimethylpropoxy, 1,2-dimethylpropoxy, 1-methylpentoxy, 2-methylpentoxy, 3-methylpentoxy, 4-methylpentoxy, 1,1-dimethylbutoxy, 1,2-dimethylbutoxy, 1,3-dimethylbutoxy, 2,2-dimethylbutoxy, 2,3-dimethylbutoxy, 3,3-dimethylbutoxy, 1-ethylbutoxy, 2-ethylbutoxy, 1,1,2-trimethylpropoxy, 1,2,2-trimethylpropoxy, 1-ethyl-1-methylpropoxy and 1-ethyl-2-methylpropoxy and the

different isomers. This definition also applies to alkoxy as a part of a composite substituent, for example haloalkoxy, alkynylalkoxy, etc., unless specifically defined elsewhere.

The term “alkoxyalkyl” denotes alkoxy substitution on alkyl. Examples of “alkoxyalkyl” include CH_3OCH_2 , $\text{CH}_3\text{OCH}_2\text{CH}_2$, $\text{CH}_3\text{CH}_2\text{OCH}_2$, $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{OCH}_2$ and $\text{CH}_3\text{CH}_2\text{OCH}_2\text{CH}_2$.

5 The term “alkoxyalkoxy” denotes alkoxy substitution on alkoxy.

The term “alkylthio” includes branched or straight-chain alkylthio moieties such as methylthio, ethylthio, propylthio, 1-methylethylthio, butylthio, 1-methylpropylthio, 2-methylpropylthio, 1,1-dimethylethylthio, pentylthio, 1-methylbutylthio, 2-methylbutylthio, 3-methylbutylthio, 2,2-dimethylpropylthio, 1-ethylpropylthio, hexylthio, 1,1-dimethylpropylthio, 1,2-dimethylpropylthio, 1-methylpentylthio, 2-
10 methylpentylthio, 3-methylpentylthio, 4-methylpentylthio, 1,1-dimethylbutylthio, 1,2-dimethylbutylthio, 1,3-dimethylbutylthio, 2,2-dimethylbutylthio, 2,3-dimethylbutylthio, 3,3-dimethylbutylthio, 1-ethylbutylthio, 2-ethylbutylthio, 1,1,2-trimethylpropylthio, 1,2,2-trimethylpropylthio, 1-ethyl-1-methylpropylthio and 1-ethyl-2-methylpropylthio and the different isomers.

The terms Halocycloalkyl, halocycloalkenyl, alkylcycloalkyl, cycloalkylalkyl, cycloalkoxyalkyl, alkylsulfinylalkyl, alkylsulfonylalkyl, haloalkylcarbonyl, cycloalkylcarbonyl, haloalkoxylalkyl, and the
15 like, are defined analogously to the above examples.

The term “alkylthioalkyl” denotes alkylthio substitution on alkyl. Non limiting examples of “alkylthioalkyl” include $-\text{CH}_2\text{SCH}_2$, $-\text{CH}_2\text{SCH}_2\text{CH}_2$, $\text{CH}_3\text{CH}_2\text{SCH}_2$, $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{SCH}_2$ and $\text{CH}_3\text{CH}_2\text{SCH}_2\text{CH}_2$. “Alkylthioalkoxy” denotes alkylthio substitution on alkoxy. The term
20 “cycloalkylalkylamino” denotes cycloalkyl substitution on alkyl amino.

The terms alkoxyalkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl, cycloalkylaminoalkyl, cycloalkylaminocarbonyl and the like, are defined analogously to “alkylthioalkyl” or cycloalkylalkylamino.

The term “alkoxycarbonyl” is an alkoxy group bonded to a skeleton via a carbonyl group ($-\text{CO}-$). This
25 definition also applies to alkoxycarbonyl as a part of a composite substituent, for example cycloalkylalkoxycarbonyl and the like, unless specifically defined elsewhere.

The term “alkoxycarbonylalkylamino” denotes alkoxy carbonyl substitution on alkyl amino. “Alkylcarbonylalkylamino” denotes alkyl carbonyl substitution on alkyl amino. The terms alkylthioalkoxycarbonyl, cycloalkylalkylaminoalkyl and the like are defined analogously.

Non limiting examples of “alkylsulfinyl” include methylsulphinyl, ethylsulphinyl, propylsulphinyl, 1-methylethylsulphinyl, butylsulphinyl, 1-methylpropylsulphinyl, 2-methylpropylsulphinyl, 1,1-dimethylethylsulphinyl, pentylsulphinyl, 1-methylbutylsulphinyl, 2-methylbutylsulphinyl, 3-methylbutylsulphinyl, 2,2-dimethylpropylsulphinyl, 1-ethylpropylsulphinyl, hexylsulphinyl, 1,1-dimethylpropylsulphinyl, 1,2-dimethylpropylsulphinyl, 1-methylpentylsulphinyl, 2-methylpentylsulphinyl, 3-methylpentylsulphinyl, 4-methylpentylsulphinyl, 1,1-dimethylbutylsulphinyl, 1,2-dimethylbutylsulphinyl, 1,3-dimethylbutylsulphinyl, 2,2-dimethylbutylsulphinyl, 2,3-dimethylbutylsulphinyl, 3,3-dimethylbutylsulphinyl, 1-ethylbutylsulphinyl, 2-ethylbutylsulphinyl, 1,1,2-trimethylpropylsulphinyl, 1,2,2-trimethylpropylsulphinyl, 1-ethyl-1-methylpropylsulphinyl and 1-ethyl-2-methylpropylsulphinyl and the different isomers. The term “arylsulfinyl” includes Ar-S(O), wherein Ar can be any carbocycle or heterocycle. This definition also applies to alkylsulphinyl as a part of a composite substituent, for example haloalkylsulphinyl etc., unless specifically defined elsewhere.

Non limiting examples of “alkylsulfonyl” include methylsulphonyl, ethylsulphonyl, propylsulphonyl, 1-methylethylsulphonyl, butylsulphonyl, 1-methylpropylsulphonyl, 2-methylpropylsulphonyl, 1,1-dimethylethylsulphonyl, pentylsulphonyl, 1-methylbutylsulphonyl, 2-methylbutylsulphonyl, 3-methylbutylsulphonyl, 2,2-dimethylpropylsulphonyl, 1-ethylpropylsulphonyl, hexylsulphonyl, 1,1-dimethylpropylsulphonyl, 1,2-dimethylpropylsulphonyl, 1-methylpentylsulphonyl, 2-methylpentylsulphonyl, 3-methylpentylsulphonyl, 4-methylpentylsulphonyl, 1,1-dimethylbutylsulphonyl, 1,2-dimethylbutylsulphonyl, 1,3-dimethylbutylsulphonyl, 2,2-dimethylbutylsulphonyl, 2,3-dimethylbutylsulphonyl, 3,3-dimethylbutylsulphonyl, 1-ethylbutylsulphonyl, 2-ethylbutylsulphonyl, 1,1,2-trimethylpropylsulphonyl, 1,2,2-trimethylpropylsulphonyl, 1-ethyl-1-methylpropylsulphonyl and 1-ethyl-2-methylpropylsulphonyl and the different isomers. The term “arylsulfonyl” includes Ar-S(O)₂, wherein Ar can be any carbocycle or heterocycle. This definition also applies to alkylsulphonyl as a part of a composite substituent, for example alkylsulphonylalkyl etc., unless defined elsewhere.

The term “alkylamino”, “dialkylamino”, and the like, are defined analogously to the above examples.

The term “carbocycle” includes “aromatic carbocyclic ring system” and “nonaromatic carbocyclic ring system” or polycyclic or bicyclic (spiro, fused, bridged, nonfused) ring compounds in which ring may be aromatic or non-aromatic (where aromatic indicates that the Huckel rule is satisfied and non-aromatic indicates that the Huckel rule is not statisfied).

The term “hetero” in connection with rings refers to a ring in which at least one ring atom is not carbon and which can contain 1 to 4 heteroatoms independently selected from the group consisting of nitrogen,

oxygen and sulfur, provided that each ring contains no more than 4 nitrogens, no more than 2 oxygens and no more than 2 sulfurs.

The term "heteroaryl" or "aromatic heterocyclic" means 5 or 6-membered, fully unsaturated monocyclic ring system containing one to four heteroatoms from the group of oxygen, nitrogen and sulphur; if the ring contains more than one oxygen atom, they are not directly adjacent; 5-membered heteroaryl containing one to four nitrogen atoms or one to three nitrogen atoms and one sulphur or oxygen atom: 5-membered heteroaryl groups which, in addition to carbon atoms, may contain one to four nitrogen atoms or one to three nitrogen atoms and one sulphur or oxygen atom as ring members, for example (but not limited thereto) furyl, thienyl, pyrrolyl, isoxazolyl, isothiazolyl, pyrazolyl, oxazolyl, thiazolyl, imidazolyl, 1,2,4-oxadiazolyl, 1,2,4-thiadiazolyl, 1,2,4-triazolyl, 1,3,4-oxadiazolyl, 1,3,4-thiadiazolyl, 1,3,4-triazolyl, tetrazolyl; nitrogen-bonded 5-membered heteroaryl containing one to four nitrogen atoms, or benzofused nitrogen-bonded 5-membered heteroaryl containing one to three nitrogen atoms: 5-membered heteroaryl groups which, in addition to carbon atoms, may contain one to four nitrogen atoms or one to three nitrogen atoms as ring members and in which two adjacent carbon ring members or one nitrogen and one adjacent carbon ring member may be bridged by a buta-1,3-diene-1,4-diyl group in which one or two carbon atoms may be replaced by nitrogen atoms, where these rings are attached to the skeleton via one of the nitrogen ring members, for example (but not limited to) 1-pyrrolyl, 1-pyrazolyl, 1,2,4-triazol-1-yl, 1-imidazolyl, 1,2,3-triazol-1-yl and 1,3,4-triazol-1-yl.

6-membered heteroaryl which contains one to four nitrogen atoms: 6-membered heteroaryl groups which, in addition to carbon atoms, may contain, respectively, one to three and one to four nitrogen atoms as ring members, for example (but not limited thereto) 2-pyridinyl, 3-pyridinyl, 4-pyridinyl, 3-pyridazinyl, 4-pyridazinyl, 2-pyrimidinyl, 4-pyrimidinyl, 5-pyrimidinyl, 2-pyrazinyl, 1,3,5-triazin-2-yl, 1,2,4-triazin-3-yl and 1,2,4,5-tetrazin-3-yl; benzofused 5-membered heteroaryl containing one to three nitrogen atoms or one nitrogen atom and one oxygen or sulphur atom: for example (but not limited to) indol-1-yl, indol-2-yl, indol-3-yl, indol-4-yl, indol-5-yl, indol-6-yl, indol-7-yl, benzimidazol-1-yl, benzimidazol-2-yl, benzimidazol-4-yl, benzimidazol-5-yl, indazol-1-yl, indazol-3-yl, indazol-4-yl, indazol-5-yl, indazol-6-yl, indazol-7-yl, indazol-2-yl, 1-benzofuran-2-yl, 1-benzofuran-3-yl, 1-benzofuran-4-yl, 1-benzofuran-5-yl, 1-benzofuran-6-yl, 1-benzofuran-7-yl, 1-benzothiophen-2-yl, 1-benzothiophen-3-yl, 1-benzothiophen-4-yl, 1-benzothiophen-5-yl, 1-benzothiophen-6-yl, 1-benzothiophen-7-yl, 1,3-benzothiazol-2-yl, 1,3-benzothiazol-4-yl, 1,3-benzothiazol-5-yl, 1,3-benzothiazol-6-yl, 1,3-benzothiazol-7-yl, 1,3-benzoxazol-2-yl, 1,3-benzoxazol-4-yl, 1,3-benzoxazol-5-yl, 1,3-benzoxazol-6-yl and 1,3-benzoxazol-7-yl; benzofused 6-membered heteroaryl which contains one to three nitrogen atoms: for example (but not limited to) quinolin-2-yl, quinolin-3-yl, quinolin-4-yl, quinolin-5-yl, quinolin-6-yl, quinolin-7-yl, quinolin-8-yl,

isoquinolin-1-yl, isoquinolin-3-yl, isoquinolin-4-yl, isoquinolin-5-yl, isoquinolin-6-yl, isoquinolin-7-yl and isoquinolin-8-yl.

This definition also applies to heteroaryl as a part of a composite substituent, for example heteroarylalkyl etc., unless specifically defined elsewhere.

- 5 The term “aromatic” indicates that the Huckel rule is satisfied and the term “non-aromatic” indicates that the Huckel rule is not satisfied.

The term “heterocycle” or “heterocyclic” includes “aromatic heterocycle” or “heteroaryl ring system” and “nonaromatic heterocycle ring system” or polycyclic or bicyclic (spiro, fused, bridged, non-fused) ring compounds in which ring may be aromatic or non-aromatic, wherein the heterocycle ring contains at least
10 one heteroatom selected from N, O, S(O)₀₋₂, and or C ring member of the heterocycle may be replaced by C(=O), C(=S), C(=CR*R*) and C=NR*, * indicates integers.

The term “non-aromatic heterocycle” or “non-aromatic heterocyclic” means three- to fifteen-membered, preferably three- to twelve-membered, saturated or partially unsaturated heterocycle containing one to four heteroatoms from the group of oxygen, nitrogen and sulphur: mono, bi- or tricyclic heterocycles
15 which contain, in addition to carbon ring members, one to three nitrogen atoms and/or one oxygen or sulphur atom or one or two oxygen and/or sulphur atoms; if the ring contains more than one oxygen atom, they are not directly adjacent; for example (but not limited to) oxetanyl, oxiranyl, aziridinyl, 2-tetrahydrofuranyl, 3-tetrahydrofuranyl, 2-tetrahydrothienyl, 3-tetrahydrothienyl, 1-pyrrolidinyl, 2-pyrrolidinyl, 3-pyrrolidinyl, 3-isoxazolidinyl, 4-isoxazolidinyl, 5-isoxazolidinyl, 3-isothiazolidinyl, 4-isothiazolidinyl, 5-isothiazolidinyl, 1-pyrazolidinyl, 3-pyrazolidinyl, 4-pyrazolidinyl, 5-pyrazolidinyl, 2-oxazolidinyl, 4-oxazolidinyl, 5-oxazolidinyl, 2-thiazolidinyl, 4-thiazolidinyl, 5-thiazolidinyl, 1-imidazolidinyl, 2-imidazolidinyl, 4-imidazolidinyl, 1,2,4-oxadiazolidin-3-yl, 1,2,4-oxadiazolidin-5-yl, 1,2,4-thiadiazolidin-3-yl, 1,2,4-thiadiazolidin-5-yl, 1,2,4-triazolidin-1-yl, 1,2,4-triazolidin-3-yl, 1,3,4-oxadiazolidin-2-yl, 1,3,4-thiadiazolidin-2-yl, 1,3,4-triazolidin-1-yl, 1,3,4-triazolidin-2-yl, 2,3-dihydrofur-
20 2-yl, 2,3-dihydrofur-3-yl, 2,4-dihydrofur-2-yl, 2,4-dihydrofur-3-yl, 2,3-dihydrothien-2-yl, 2,3-dihydrothien-3-yl, 2,4-dihydrothien-2-yl, 2,4-dihydrothien-3-yl, pyrrolinyl, 2-pyrrolin-2-yl, 2-pyrrolin-3-yl, 3-pyrrolin-2-yl, 3-pyrrolin-3-yl, 2-isoxazolin-3-yl, 3-isoxazolin-3-yl, 4-isoxazolin-3-yl, 2-isoxazolin-4-yl, 3-isoxazolin-4-yl, 4-isoxazolin-4-yl, 2-isoxazolin-5-yl, 3-isoxazolin-5-yl, 4-isoxazolin-5-yl, 2-isothiazolin-3-yl, 3-isothiazolin-3-yl, 4-isothiazolin-3-yl, 2-isothiazolin-4-yl, 3-isothiazolin-4-yl, 4-isothiazolin-4-yl, 2-isothiazolin-5-yl, 3-isothiazolin-5-yl, 4-isothiazolin-5-yl, 2,3-dihydropyrazol-1-yl, 2,3-dihydropyrazol-2-yl, 2,3-dihydropyrazol-3-yl, 2,3-dihydropyrazol-4-yl, 2,3-dihydropyrazol-5-yl, 3,4-dihydropyrazol-1-yl, 3,4-dihydropyrazol-3-yl, 3,4-dihydropyrazol-4-yl, 3,4-dihydropyrazol-5-yl, 4,5-

dihydropyrazol-1-yl, 4,5-dihydropyrazol-3-yl, 4,5-dihydropyrazol-4-yl, 4,5-dihydropyrazol-5-yl, 2,3-dihydrooxazol-2-yl, 2,3-dihydrooxazol-3-yl, 2,3-dihydrooxazol-4-yl, 2,3-dihydrooxazol-5-yl, 3,4-dihydrooxazol-2-yl, 3,4-dihydrooxazol-3-yl, 3,4-dihydrooxazol-4-yl, 3,4-dihydrooxazol-5-yl, 3,4-dihydrooxazol-2-yl, 3,4-dihydrooxazol-3-yl, 3,4-dihydrooxazol-4-yl, piperidinyl, 2-piperidinyl, 3-piperidinyl, 4-piperidinyl, pyrazynyl, morpholinyl, thiomorphlinyl, 1,3-dioxan-5-yl, 2-tetrahydropyran-4-yl, 4-tetrahydropyran-2-yl, 2-tetrahydrothienyl, 3-hexahydropyridazinyl, 4-hexahydropyridazinyl, 2-hexahydropyrimidinyl, 4-hexahydropyrimidinyl, 5-hexahydropyrimidinyl, 2-piperazinyl, 1,3,5-hexahydrotriazin-2-yl, 1,2,4-hexahydrotriazin-3-yl, cycloserines, 2,3,4,5-tetrahydro[1H]azepin-1- or -2- or -3- or -4- or -5- or -6- or -7- yl, 3,4,5,6-tetrahydro[2H]azepin-2- or -3- or -4- or -5- or -6- or -7-yl, 2,3,4,7-tetrahydro[1H]azepin-1- or -2- or -3- or -4- or -5- or -6- or -7- yl, 2,3,6,7-tetrahydro[1H]azepin-1- or -2- or -3- or -4- or -5- or -6- or -7- yl, hexahydroazepin-1- or -2- or -3- or -4- yl, tetra- and hexahydrooxepinyl such as 2,3,4,5-tetrahydro[1 H]oxepin-2- or -3- or -4- or -5- or -6- or -7- yl, 2,3,4,7-tetrahydro[1H]oxepin-2- or -3- or -4- or -5- or -6- or -7- yl, 2,3,6,7-tetrahydro[1H]oxepin-2- or -3- or -4- or -5- or -6- or -7- yl, hexahydroazepin-1- or -2- or -3- or -4- yl, tetra- and hexahydro-1,3-diazepinyl, tetra- and hexahydro-1,4-diazepinyl, tetra- and hexahydro-1,3-oxazepinyl, tetra- and hexahydro-1,4-oxazepinyl, tetra- and hexahydro-1,3-dioxepinyl, tetra- and hexahydro-1,4-dioxepinyl. This definition also applies to heterocyclyl as a part of a composite substituent, for example heterocyclylalkyl etc., unless specifically defined elsewhere.

The term “trialkylsilyl” includes 3 branched and/or straight-chain alkyl radicals attached to and linked through a silicon atom such as trimethylsilyl, triethylsilyl and t-butyl-dimethylsilyl. The term “halotrialkylsilyl” denotes at least one of the three alkyl radicals is partially or fully substituted with halogen atoms which may be the same or different. The term “alkoxytrialkylsilyl” denotes at least one of the three alkyl radicals is substituted with one or more alkoxy radicals which may be the same or different. The term “trialkylsilyloxy” denotes a trialkylsilyl moiety attached through oxygen.

Non limiting examples of “alkylcarbonyl” include $C(O)CH_3$, $C(O)CH_2CH_2CH_3$ and $C(O)CH(CH_3)_2$. Examples of “alkoxycarbonyl” include $CH_3OC(=O)$, $CH_3CH_2OC(=O)$, $CH_3CH_2CH_2OC(=O)$, $(CH_3)_2CHOC(=O)$ and the different butoxy -or pentoxycarbonyl isomers. Examples of “alkylaminocarbonyl” include $CH_3NHC(=O)$, $CH_3CH_2NHC(=O)$, $CH_3CH_2CH_2NHC(=O)$, $(CH_3)_2CHNHC(=O)$ and the different butylamino -or pentylaminocarbonyl isomers. Non limiting examples of “dialkylaminocarbonyl” include $(CH_3)_2NC(=O)$, $(CH_3CH_2)_2NC(=O)$, $CH_3CH_2(CH_3)NC(=O)$, $CH_3CH_2CH_2(CH_3)NC(=O)$ and $(CH_3)_2CHN(CH_3)C(=O)$. Examples of “alkoxyalkylcarbonyl” include $CH_3OCH_2C(=O)$, $CH_3OCH_2CH_2C(=O)$, $CH_3CH_2OCH_2C(=O)$, $CH_3CH_2CH_2CH_2OCH_2C(=O)$ and $CH_3CH_2OCH_2CH_2C(=O)$. Non limiting examples of “alkylthioalkylcarbonyl” include $CH_3SCH_2C(=O)$,

$\text{CH}_3\text{SCH}_2\text{CH}_2\text{C}(=\text{O})$, $\text{CH}_3\text{CH}_2\text{SCH}_2\text{C}(=\text{O})$, $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{SCH}_2\text{C}(=\text{O})$ and $\text{CH}_3\text{CH}_2\text{SCH}_2\text{CH}_2\text{C}(=\text{O})$. The term haloalkylsulfonylaminocarbonyl, alkylsulfonylaminocarbonyl, alkylthioalkoxycarbonyl, alkoxycarbonylalkyl amino and the like are defined analogously

Non limiting examples of "alkylaminoalkylcarbonyl" include $\text{CH}_3\text{NHCH}_2\text{C}(=\text{O})$, $\text{CH}_3\text{NHCH}_2\text{CH}_2\text{C}(=\text{O})$,
5 $\text{CH}_3\text{CH}_2\text{NHCH}_2\text{C}(=\text{O})$, $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{NHCH}_2\text{C}(=\text{O})$ and $\text{CH}_3\text{CH}_2\text{NHCH}_2\text{CH}_2\text{C}(=\text{O})$.

The term "amide" means $\text{A-R}'\text{C}=\text{ONR}''\text{-B}$, wherein R' and R'' indicates substituents and A and B indicate any group.

The term "thioamide" means $\text{A-R}'\text{C}=\text{SNR}''\text{-B}$, wherein R' and R'' indicates substituents and A and B indicate any group.

10 The total number of carbon atoms in a substituent group is indicated by the " $\text{C}_i\text{-C}_j$ " prefix where i and j are numbers from 1 to 21. For example, $\text{C}_1\text{-C}_3$ alkylsulfonyl designates methylsulfonyl through propylsulfonyl; C_2 alkoxyalkyl designates CH_3OCH_2 ; C_3 alkoxyalkyl designates, for example, $\text{CH}_3\text{CH}(\text{OCH}_3)$, $\text{CH}_3\text{OCH}_2\text{CH}_2$ or $\text{CH}_3\text{CH}_2\text{OCH}_2$; and C_4 alkoxyalkyl designates the various isomers of
15 an alkyl group substituted with an alkoxy group containing a total of four carbon atoms, examples including $\text{CH}_3\text{CH}_2\text{CH}_2\text{OCH}_2$ and $\text{CH}_3\text{CH}_2\text{OCH}_2\text{CH}_2$. In the above recitations, when a compound of Formula I is comprised of one or more heterocyclic rings, all substituents are attached to these rings through any available carbon or nitrogen by replacement of a hydrogen on said carbon or nitrogen.

When a compound is substituted with a substituent bearing a subscript that indicates the number of said substituents can exceed 1, said substituents (when they exceed 1) are independently selected from the
20 group of defined substituents. Further, when the subscript m in $(\text{R})_m$ indicates an integer ranging from for example 0 to 4 then the number of substituents may be selected from the integers between 0 and 4 inclusive.

When a group contains a substituent which can be hydrogen, then, when this substituent is taken as hydrogen, it is recognized that said group is being un-substituted.

25 The embodiments herein and the various features and advantageous details thereof are explained with reference to the non-limiting embodiments in the description. Descriptions of well-known components and processing techniques are omitted so as to not unnecessarily obscure the embodiments herein. The examples used herein are intended merely to facilitate an understanding of ways in which the embodiments herein may be practiced and to further enable those of skilled in the art to practice the

embodiments herein. Accordingly, the examples should not be construed as limiting the scope of the embodiments herein.

The description of the specific embodiments will so fully reveal the general nature of the embodiments herein that others can, by applying current knowledge, readily modify and/or adapt for various applications such specific embodiments without departing from the generic concept, and, therefore, such adaptations and modifications should and are intended to be comprehended within the meaning and range of equivalents of the disclosed embodiments. It is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation. Therefore, while the embodiments herein have been described in terms of preferred embodiments, those skilled in the art will recognize that the embodiments herein can be practiced with modification within the spirit and scope of the embodiments as described herein.

Any discussion of documents, acts, materials, devices, articles and the like that has been included in this specification is solely for the purpose of providing a context for the disclosure. It is not to be taken as an admission that any or all of these matters form a part of the prior art base or were common general knowledge in the field relevant to the disclosure as it existed anywhere before the priority date of this application.

The numerical values mentioned in the description and the description/claims though might form a critical part of the present invention of the present invention, any deviation from such numerical values shall still fall within the scope of the present invention if that deviation follows the same scientific principle as that of the present invention disclosed in the present invention. The inventive compounds of the present invention may, if appropriate, be present as mixtures of different possible isomeric forms, especially of stereoisomers, for example E and Z, threo and erythro, and also optical isomers, but if appropriate also of tautomers. Both the E and the Z isomers, and also the threo and erythro isomers, and the optical isomers, any desired mixtures of these isomers and the possible tautomeric forms are disclosed and claimed.

The term “pest” for the purpose of the present disclosure includes but is not limited to fungi, stramenopiles (oomycetes), bacteria, nematodes, mites, ticks, insects and rodents.

The term “plant” is understood here to mean all plants and plant populations, such as desired and undesired wild plants or crop plants (including naturally occurring crop plants). Crop plants may be plants which can be obtained by conventional breeding and optimization methods or by biotechnological and genetic engineering methods or combinations of these methods, including the transgenic plants and including the plant cultivars which are protectable and non-protectable by plant breeders’ rights.

For the purpose of the present disclosure the term “plant” includes a living organism of the kind exemplified by trees, shrubs, herbs, grasses, ferns, and mosses, typically growing in a site, absorbing water and required substances through its roots, and synthesizing nutrients in its leaves by photosynthesis.

Examples of “plant” for the purpose of the present invention include but are not limited to agricultural crops such as wheat, rye, barley, triticale, oats or rice; beet, e.g. sugar beet or fodder beet; fruits and fruit trees, such as pomes, stone fruits or soft fruits, e.g. apples, pears, plums, peaches, almonds, cherries, strawberries, raspberries, blackberries or gooseberries; leguminous plants, such as lentils, peas, alfalfa or soybeans; oil plants, such as rape, mustard, olives, sunflowers, coconut, cocoa beans, castor oil plants, oil palms, ground nuts or soybeans; cucurbits, such as squashes, cucumber or melons; fiber plants, such as cotton, flax, hemp or jute; citrus fruit and citrus trees, such as oranges, lemons, grapefruits or mandarins; any horticultural plants, vegetables, such as spinach, lettuce, asparagus, cabbages, carrots, onions, tomatoes, potatoes, cucurbits or paprika; lauraceous plants, such as avocados, cinnamon or camphor; cucurbitaceae; oleaginous plants; energy and raw material plants, such as cereals, corn, soybean, other leguminous plants, rape, sugar cane or oil palm; tobacco; nuts; coffee; tea; cacao; bananas; peppers; vines (table grapes and grape juice grape vines); hop; turf; sweet leaf (also called Stevia); natural rubber plants or ornamental and forestry plants, such as flowers, shrubs, broad-leaved trees or evergreens, e.g. conifers; and on the plant propagation material, such as seeds, and the crop material of these plants.

Preferably, the plant for the purpose of the present invention include but is not limited to cereals, corn, rice, soybean and other leguminous plants, fruits and fruit trees, grapes, nuts and nut trees, citrus and citrus trees, any horticultural plants, cucurbitaceae, oleaginous plants, tobacco, coffee, tea, cacao, sugar beet, sugar cane, cotton, potato, tomato, onions, peppers and vegetables, ornamentals, any floricultural plants and other plants for use of human and animals.

The term “plant parts” is understood to mean all parts and organs of plants above and below the ground. For the purpose of the present disclosure the term plant parts includes but is not limited to cuttings, leaves, twigs, tubers, flowers, seeds, branches, roots including taproots, lateral roots, root hairs, root apex, root cap, rhizomes, slips, shoots, fruits, fruit bodies, bark, stem, buds, auxillary buds, meristems, nodes and internodes.

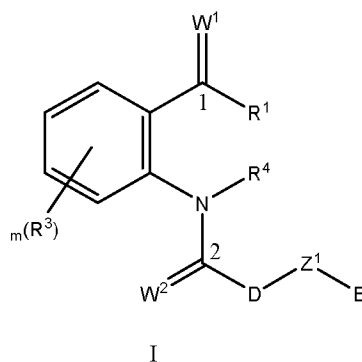
The term “locus thereof” includes soil, surroundings of plant or plant parts and equipment or tools used before, during or after sowing/planting a plant or a plant part.

Application of the compounds of the present disclosure or the compound of the present disclosure in a composition optionally comprising other compatible compounds to a plant or a plant material or locus

thereof include application by a technique known to a person skilled in the art which include but is not limited to spraying, coating, dipping, fumigating, impregnating, injecting and dusting.

The term “applied” means adhered to a plant or plant part either physically or chemically including impregnation.

5 The present invention relates to a compound of formula (I),



The definition of each component of Formula I is provided herein below in detail.

R^1 is $NR^{10}R^{11}$.

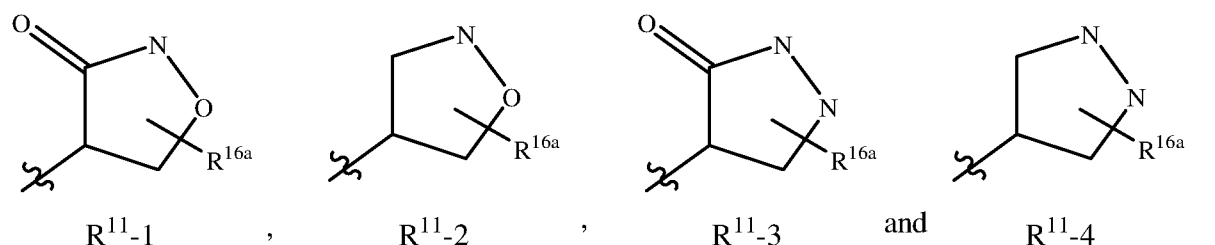
10 The substituent R^{10} is selected from the group consisting of hydrogen, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_3 - C_8 cycloalkyl, C_3 - C_8 cycloalkyl- C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_3 - C_6 halocycloalkyl, C_1 - C_6 alkoxy and C_1 - C_6 haloalkoxy.

Particularly, the substituent R^{10} is selected from the group consisting of hydrogen, C_1 - C_4 alkyl, C_3 - C_8 cycloalkyl, and C_3 - C_8 cycloalkyl- C_1 - C_6 alkyl.

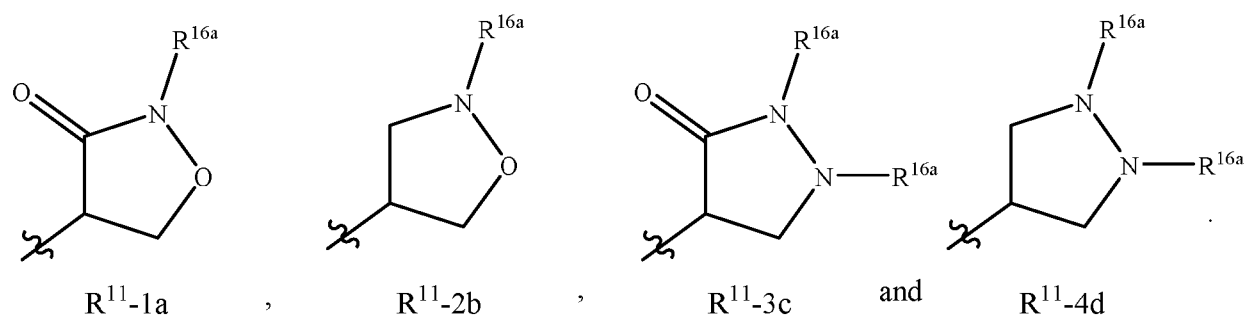
15 The substituent R^{11} is a 5-, 6- or 7- membered heterocyclyl ring attached to N of R^1 through C atom; said heterocyclyl ring comprises one or two hetero atoms selected from N, O or S; and one or more C of the heterocyclyl ring may be optionally replaced with $C(=O)$ or $C(=S)$ or $C(=NR^{19})$; said heterocyclyl ring may be optionally substituted with one or more R^{16a} .

20 Particularly, the substituent R^{11} is a 5- membered heterocyclyl ring attached to N of R^1 through C atom; said heterocyclyl ring comprises two hetero atoms selected from N and O; and one or more C of the heterocyclyl ring may be optionally replaced with $C(=O)$; said heterocyclyl ring may be optionally substituted with one or more R^{16a} .

More particularly, the substituent R^{11} is selected from the group consisting of



Most particularly, R¹¹ is selected from the group consisting of:



5

The substituents R^{16a} and R^{16b} is selected from the group of consisting of hydrogen, halogen, cyano, nitro, hydroxy, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy-C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₃-C₆ halocycloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ haloalkoxycarbonyl, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ alkylamino, C₁-C₆ dialkylamino, C₃-C₆ cycloalkylamino, C₁-C₆ alkyl-C₃-C₆-cycloalkylamino, C₁-C₆ alkylcarbonyl, C₁-C₆ alkoxy carbonyl, C₁-C₆ alkylaminocarbonyl, C₁-C₆ dialkylaminocarbonyl, C₁-C₆ alkoxy carbonyloxy, C₁-C₆ alkylaminocarbonyloxy, C₁-C₆ dialkylaminocarbonyloxy and C₁-C₆ trialkylsilyl. The substituent R^{16a} and R^{16b} may be optionally further substituted with C₁-C₆ alkyl, C₃-C₈ cycloalkyl, C₁-C₆ alkoxy, and C₁-C₆ alkoxy-C₁-C₆ alkyl.

15

Particularly, the substituent R^{16a} is selected from the group consisting of hydrogen, halogen, C₁-C₆ alkyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy-C₁-C₆ alkyl, C₁-C₆ alkylcarbonyl and C₁-C₆ alkylsulfonyl.

20

W¹ and W² are independently O or S. Particularly, W¹ and W² are O.

Two R³ substituents together with the carbon atoms to which they are attached may form a 5- to 11-membered carbocycle, or aryl or heterocyclyl or heteroaryl ring or ring system which may be optionally substituted with R².

5 The substituents R² and R³ are independently selected from the group consisting of hydrogen, halogen, cyano, nitro, hydroxy, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy-C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₃-C₆ halocycloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ haloalkoxycarbonyl, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfanyl, C₁-C₆ haloalkylsulfonyl, C₁-C₆ alkylsulfanyl, C₁-C₆ alkylsulfonyl, C₁-C₆ alkylamino, C₁-C₆ dialkylamino, C₃-C₆ cycloalkylamino, C₁-C₆ alkyl-C₃-C₆-cycloalkylamino, C₁-C₆ alkylcarbonyl, C₁-C₆ alkoxycarbonyl, C₁-C₆ alkylaminocarbonyl, C₁-C₆ dialkylaminocarbonyl, C₁-C₆ alkoxycarbonyloxy, C₁-C₆ alkylaminocarbonyloxy, C₁-C₆ dialkylaminocarbonyloxy, C₁-C₆ trialkylsilyl, amino, formyl, C₂-C₆ cyanoalkenyl, phenylcarbonylamino and phenyloxycarbonyl; wherein each of R² and R³ may optionally be substituted with halogen, cyano, nitro, hydroxy, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy-C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₃-C₆ halocycloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfanyl, C₁-C₆ haloalkylsulfonyl, C₁-C₆ alkylsulfanyl, C₁-C₆ alkylsulfonyl, C₁-C₆ alkylamino, C₁-C₆ dialkylamino, C₃-C₆ cycloalkylamino, C₁-C₆ alkyl-C₃-C₆ cycloalkylamino, C₁-C₆ alkylcarbonyl, C₁-C₆ alkoxycarbonyl, C₁-C₆ alkylaminocarbonyl, C₁-C₆ dialkylaminocarbonyl, C₁-C₆ alkoxycarbonyloxy, C₁-C₆ alkylaminocarbonyloxy, C₁-C₆ dialkylaminocarbonyloxy and C₁-C₆ trialkylsilyl.

Alternatively, the substituents R² and R³ are independently selected from the group consisting of phenyl, benzyl, phenoxy or 4- to 6- heterocyclyl; each phenyl, benzyl, phenoxy or 4- to 6- heterocyclyl may optionally be substituted with one or more substituent selected from halogen, cyano, nitro, hydroxy, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy-C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₃-C₆ halocycloalkyl, C₁-C₆ alkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ alkylamino, C₁-C₆ dialkylamino, C₃-C₆ cycloalkylamino, C₁-C₆ alkyl-C₃-C₆-cycloalkylamino, C₁-C₆ alkylcarbonyl, C₁-C₆ alkoxycarbonyl, C₁-C₆ alkylaminocarbonyl, C₁-C₆ dialkylaminocarbonyl, C₁-C₆ alkoxycarbonyloxy, C₁-C₆ alkylaminocarbonyloxy, C₁-C₆ dialkylaminocarbonyloxy, C₁-C₆ trialkylsilyl, 2-, 3- or 4 pyridylcarbonylamino which can be mono-, di- or tri- substituted by halogen, cyano, nitro, hydroxy, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy-C₁-C₆ alkyl, C₁-C₆

hydroxyalkyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₃-C₆ halocycloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ alkylamino, C₁-C₆ dialkylamino, C₃-C₆ cycloalkylamino, C₁-C₆ alkyl-C₃-C₆ cycloalkylamino, C₁-C₆ alkylcarbonyl, C₁-C₆ alkoxycarbonyl, C₁-C₆ alkylaminocarbonyl, C₁-C₆ dialkylaminocarbonyl, C₁-C₆ alkoxycarbonyloxy, C₁-C₆ alkylaminocarbonyloxy, C₁-C₆ dialkylaminocarbonyloxy, C₁-C₆ trialkylsilyl, C₁-C₆ alkoxycarbonylamino, C₁-C₆ alkylaminocarbonylamino, C₁-C₆ dialkylaminocarbonylamino, C₁-C₆ haloalkylcarbonyl and R_xON=C(R_y). R_x and R_y independently are hydrogen or C₁-C₆ alkyl.

10 Particularly, R³ is selected from the group consisting of hydrogen, halogen, cyano, nitro, hydroxy, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ alkyl-C₃-C₈, cycloalkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkylthio and C₁-C₆ haloalkylthio.

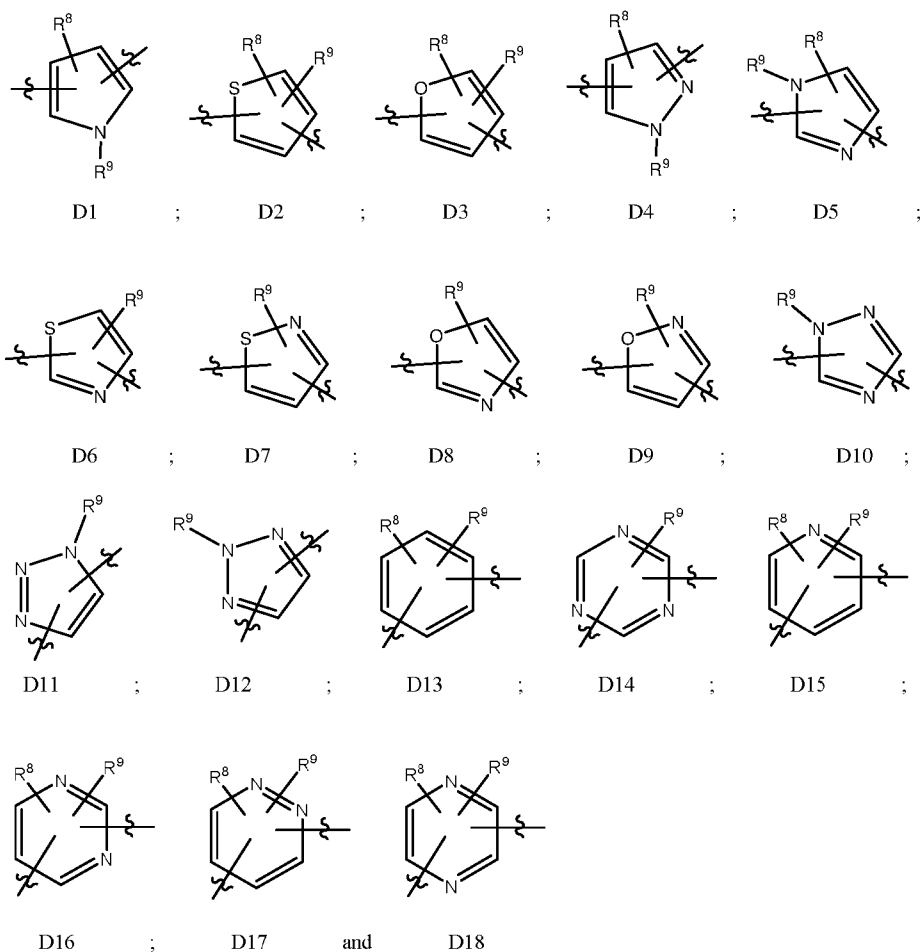
15 More particularly, the substituent R³ is selected from the group consisting of hydrogen, halogen, cyano and C₁-C₄ alkyl.

The integer “m” is ranging from 0 to 4. Particularly, the integer “m” is ranging from 0 to 2.

20 The substituent R⁴ is selected from the group consisting of hydrogen, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₁-C₆ alkylcarbonyl and C₁-C₆ alkoxycarbonyl; each of C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₁-C₆ alkylcarbonyl, C₁-C₆ alkoxycarbonyl may optionally be substituted by one or more substituents selected from halogen nitro, cyano, hydroxy, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ alkylamino, C₁-C₆ dialkylamino, C₃-C₈ cycloalkyl, C₃-C₆ cycloalkylamino and C₁-C₆ alkyl-C₃-C₆ cycloalkylamino.

Particularly, the substituent R⁴ is selected from the group consisting of hydrogen, C₁-C₆ alkyl and C₃-C₈ cycloalkyl. More particularly, the substituent R⁴ is hydrogen.

30 D is selected from the group consisting of;

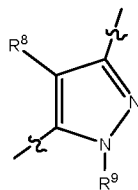


wherein;

the bond on the right is attached to Z^1 and the bond on the left is attached to carbon marked with 2; or the

5 bond on the right is attached to Z^1 and the bond on the left is attached to carbon marked with 2.

Particularly, D is D4 and the bond on the right is attached to Z^1 and the bond on the left is attached to



carbon marked with 2. More particularly, D is D4-1 wherein;

the bond on the right is attached to Z^1 and the bond on the left is attached to carbon marked with 2.

10 The substituents R^8 and R^9 may be attached to one or more possible position/s.

The substituent R⁸ is selected from the group consisting of hydrogen, C₁-C₆ alkyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, halogen, cyano, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkoxycarbonyl, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ haloalkylsulfinyl and C₁-C₆ haloalkylsulfonyl.

Particularly, the substituent R⁸ is selected from the group consisting of hydrogen, C₁-C₄ alkyl, C₃-C₅ cycloalkyl, halogen, cyano, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy and C₁-C₄ alkylthio. More particularly, the substituent R⁸ is hydrogen.

The substituent R⁹ is selected from a phenyl ring, a benzyl ring, a 5- or 6-membered aromatic or heteroaromatic ring, a naphthyl ring system, an 8-, 9- or 10-membered fused heterobicyclic ring system, each ring or ring system optionally substituted with at least one substituent independently selected from the group consisting of halogen, C₁-C₆ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₄ haloalkenyl, C₂-C₄ haloalkynyl, C₃-C₆ halocycloalkyl, cyano, nitro, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkoxycarbonyl, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl, C₁-C₆ alkylamino, C₁-C₈ dialkylamino, C₁-C₆ cycloalkylamino, C₃-C₈ cycloalkyl-C₁-C₆-alkylamino, C₁-C₆ alkylcarbonyl, C₁-C₆ alkoxycarbonyl, C₁-C₆ alkylaminocarbonyl, C₁-C₈ dialkylaminocarbonyl and C₁-C₆ trialkylsilyl.

Particularly, the substituent R⁹ is selected from a phenyl ring, a benzyl ring, a 5- or 6-membered heteroaromatic ring, each ring or ring system optionally substituted with one or more substituent independently selected from the group consisting of halogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, cyano and nitro. More particularly, the substituent R⁹ is a 5- or 6-membered heteroaromatic ring optionally substituted with one or more halogen.

Z¹ is a direct bond or CR⁶R⁷ or C(O) or NR¹⁸ or O or S(O)₀₋₂. Particularly, Z¹ is a direct bond or CR⁶R⁷ or O.

The substituents R⁶ and R⁷ are independently selected from the group consisting of hydrogen, halogen, cyano, hydroxy, formyl, C₁-C₆ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₆ haloalkyl, C₂-C₄ haloalkenyl, C₂-C₄ haloalkynyl, C₁-C₆ alkoxy-C₁-C₆ alkyl, C₁-C₆ alkylthioalkyl, C₁-C₆ alkylsulfinylalkyl, C₁-C₆ alkylsulfonylalkyl, C₁-C₆ alkylcarbonyl, C₁-C₆ haloalkylcarbonyl, C₁-C₆ alkoxycarbonyl, C₁-C₆

alkoxycarbonyl-C₁-C₆ -alkyl, C₁-C₆ alkylaminocarbonyl, C₁-C₅ dialkylaminocarbonyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl.

- 5 Particularly, the substituents R⁶ and R⁷ are independently selected from the group consisting of hydrogen, halogen, cyano, hydroxy, formyl, C₁-C₄ alkyl and C₁-C₄ haloalkyl.

The substituents R¹⁸ and R¹⁹ is selected from the group consisting of hydrogen, halogen, cyano, hydroxy, formyl, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy-C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₃-C₆ halocycloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆-alkylcarbonyl, C₁-C₆ haloalkoxycarbonyl, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl, C₁-C₆ alkylsulfinyl and C₁-C₆ alkylsulfonyl.

- 15 E is selected from the group consisting of hydrogen, halogen, cyano, C₁-C₆ alkyl, C₃-C₆ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy and C₃-C₆ heterocyclyl; said heterocyclyl ring comprise one or more hetero atoms selected from N, O and S(O)₀₋₂; and one or more C of the heterocyclyl ring or ring system may be replaced with C(=O), C(=S) or C(=NR¹⁹); said heterocyclyl ring may be optionally substituted with one or more R^{16b}.

20 Particularly, E is selected from the group consisting of hydrogen, halogen, cyano, C₁-C₆ alkyl, C₃-C₆ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy and C₃-C₆ heterocyclyl; said heterocyclyl ring comprise one or more hetero atoms selected from N, O and S(O)₀₋₂; and one or more C of the heterocyclyl ring or ring system may be replaced with C(=O), C(=S) or C(=NR¹⁹); said heterocyclyl ring may be optionally substituted with one or more substituents selected from the group consisting of hydrogen, halogen, cyano and nitro.

30 More particularly, E is selected from the group consisting of halogen, cyano, C₁-C₆ alkyl, C₃-C₆ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy and C₃-C₆ heterocyclyl; said heterocyclyl ring comprise one or more hetero atoms selected from N, O and S(O)₀₋₂; said heterocyclyl ring may be optionally substituted with one or more halogen.

Alternatively, E is selected from 5- or 6- membered aromatic or heteroaromatic ring or an 8-, 9- or 10-membered heterobicyclic ring systems; wherein the heteroatoms in heteroaromatic ring may be selected

- from N, O, and S; wherein the heteroatoms in the heterobicyclic ring systems may be selected from N, O and S(O)₀₋₂; and C atom of the heterobicyclic ring system may be replaced with C(=O), C(=S) or C(=NR¹⁹); wherein the aromatic, heteroaromatic or heterobicyclic ring or the ring system may be optionally substituted with hydrogen, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₃-C₆ halocycloalkyl, halogen, cyano, carboxyl, aminocarboxyl, nitro, hydroxy, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulphonyl, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl, phenyl or a 5- or 6- membered heteroaromatic ring; wherein said phenyl or the heteroaromatic ring is optionally substituted with at least one group selected from C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₃-C₆ halocycloalkyl, halogen, cyano, carboxyl, aminocarboxyl, nitro, hydroxy, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulphonyl, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl or C₁-C₆ haloalkylsulfonyl.
- Particularly, E is 5- or 6- membered heteroaromatic ring, wherein the heteroatoms in heteroaromatic ring may be selected from one or more N, O and S; and heteroaromatic ring may be optionally substituted with hydrogen, C₁-C₆ alkyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-C₆ halocycloalkyl, halogen, cyano, carboxyl, aminocarboxyl, nitro, hydroxy, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulphonyl, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl and C₁-C₆ haloalkylsulfonyl.

The present invention also relates to the salts, metal complexes, N-oxides, isomers or polymorphs of compound of formula (I).

- The compounds selected from 1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((4,5-dihydrothiazol-2-yl)carbamoyl)-6-methylphenyl)-3-((5-(perfluoroethyl)-2H-tetrazol-2-yl)methyl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((4,5-dihydrothiazol-2-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-((5-(perfluoroethyl)-2H-tetrazol-2-yl)methyl)-1H-pyrazole-5-carboxamide; 1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((4,5-dihydrothiazol-2-yl)carbamoyl)-6-methylphenyl)-3-((5-(trifluoromethyl)-2H-tetrazol-2-yl)methyl)-1H-pyrazole-5-carboxamide; and N-(4-chloro-2-((4,5-dihydrothiazol-2-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-((5-(trifluoromethyl)-2H-tetrazol-2-yl)methyl)-1H-pyrazole-5-carboxamide are excluded from the definition of formula (I).

Particularly, the compound of formula (I) is selected from 3-bromo-N-(4-chloro-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-methyl-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-methyl-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-(2,2-difluoroethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-(2,2-difluoroethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-methyl-6-((1-methyl-3-oxopyrazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((1-methyl-3-oxopyrazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((1-methyl-3-oxopyrazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-((2-(2,2-difluoroethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((1-methyl-3-oxopyrazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-((2-(2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-(2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-

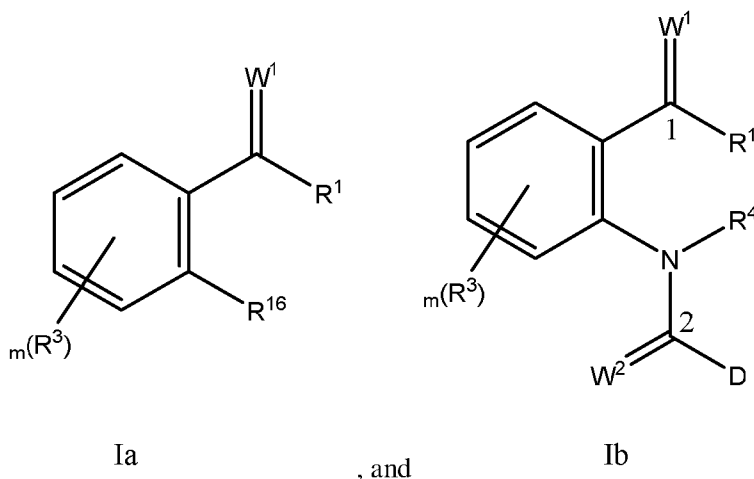
carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((1-methyl-3-oxopyrazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-(methylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-methyl-6-((2-(methylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-(methylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-(methylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-(ethylsulfonyl)isoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-((2-(ethylsulfonyl)isoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-(ethylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-(ethylsulfonyl)isoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-((2-acetylisoaxazolidin-4-yl)carbamoyl)-6-bromo-4-chlorophenyl)-3-bromo-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(2-((2-acetylisoaxazolidin-4-yl)carbamoyl)-4-chloro-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(2-((2-acetylisoaxazolidin-4-yl)carbamoyl)-4-chloro-6-methylphenyl)-3-bromo-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(2-((2-acetylisoaxazolidin-4-yl)carbamoyl)-4-chloro-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-((2-acetylisoaxazolidin-4-yl)carbamoyl)-4-cyano-6-methylphenyl)-3-bromo-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-propionylisoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-propionylisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-propionylisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-propionylisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-methyl-6-((2-propionylisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-(methylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-(ethylsulfonyl)isoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-isopropyl-3-

oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(2-bromo-4-

chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-
5 (2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-
10 pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide; rac-(R)-3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide; rac-(R)-N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-
15 methoxy-1H-pyrazole-5-carboxamide; rac-(R)-N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; rac-(R)-N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; rac-(R)-N-(2-bromo-4-chloro-
20 6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; rac-(R)-3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; rac-(R)-3-bromo-N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; rac-(R)-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-3-(thietan-3-yloxy)-1H-pyrazole-5-carboxamide; rac-(R)-N-(4-chloro-2-methyl-6-
25 ((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; rac-(R)-3-bromo-N-(4-chloro-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; rac-(R)-N-(4-chloro-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-
30 carboxamide; rac-(R)-3-bromo-N-(4-chloro-2-methyl-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; rac-(R)-3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; 1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-3-methoxy-1H-pyrazole-5-carboxamide; 1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-isopropyl-3-

oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-3-methoxy-1H-pyrazole-5-carboxamide; 1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(2,4-dichloro-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; 1-(3-chloropyridin-2-yl)-N-(2,4-dichloro-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; rac-(R)-1-(3-chloropyridin-2-yl)-N-(2,4-dichloro-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-3-(3,3-difluoroazetidin-1-yl)-1H-pyrazole-5-carboxamide and 1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-3-methoxy-1H-pyrazole-5-carboxamide.

The present invention also relates to compounds of Formulae Ia and Ib;



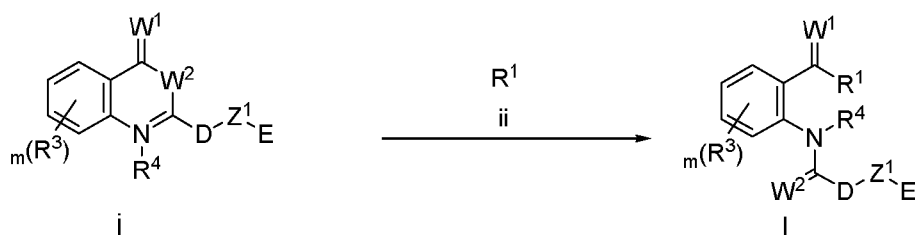
wherein, R^{16} is $N(R^4)_2$ or nitro; W^1 , W^2 , D, R^1 , R^3 , R^4 and m are as defined herein before.

The present invention also relates to a process for preparing the compounds of formula Ia, and Ib.

The present invention further relates to a process for preparing compound of formula (I) comprising the steps of:

- a) preparing compound of formula (i) by using any of the methods known in the prior art; and

- b) reacting compound of formula (i) with compound of formula (ii) to afford compound of formula I according to the reaction scheme as depicted below;



wherein, W^1 , W^2 , D, E, Z^1 , R^1 , R^3 , R^4 and m are as defined herein before.

- 5 Compounds of the present invention can exist as one or more stereoisomers. The various stereoisomers include enantiomers, diastereomers, atropisomers and geometric isomers. One skilled in the art will appreciate that one stereoisomer may be more active and/or may exhibit beneficial effects when enriched relative to the other stereoisomer(s) or when separated from the other stereoisomer(s). Additionally, the skilled artisan knows how to separate, enrich, and/or to selectively prepare said stereoisomers. The
 10 compounds of the present invention may be present as a mixture of stereoisomers, individual stereoisomers or as an optically active form.

An anion part of the salt in case the compound of Formula I is a cationic or capable of forming a cation can be inorganic or organic. Alternatively, a cation part of the salt in case the compound of Formula I is an anionic or capable of forming anion can be inorganic or organic. Examples of inorganic anion part of the
 15 salt include but are not limited to chloride, bromide, iodide, fluoride, sulfate, phosphate, nitrate, nitrite, hydrogen carbonates, hydrogen sulfate. Examples of organic anion part of the salt include but are not limited to formate, alkanoates, carbonates, acetates, trifluoroacetate, trichloroacetate, propionate, glycolate, thiocyanate, lactate, succinate, malate, citrates, benzoates, cinnamates, oxalates, alkylsulphates, alkylsulphonates, arylsulphonates, aryldisulphonates, alkylphosphonates, arylphosphonates, aryldiphosphonates, p-toluenesulphonate, and salicylate. Examples of inorganic cation part of the salt
 20 include but are not limited to alkali and alkaline earth metals. Examples of organic cation part of the salt include but are not limited to pyridine, methyl amine, imidazole, benzimidazole, histidine, phosphazene, tetramethyl ammonium, tetrabutylammonium, choline and trimethylamine.

Metal ions in metal complexes of the compound of Formula I are especially the ions of the elements of
 25 the second main group, especially calcium and magnesium, of the third and fourth main group, especially aluminium, tin and lead, and also of the first to eighth transition groups, especially chromium, manganese, iron, cobalt, nickel, copper, zinc and others. Particular preference is given to the metal ions of

the elements of the fourth period and the first to eighth transition groups. Here, the metals can be present in the various valencies that they can assume.

In one another embodiment of present invention discloses the compound of Formula I agriculturally acceptable salts, metal complexes, constitutional isomers, stereo-isomers, diastereoisomers, enantiomers, 5 chiral isomers, atropisomers, conformers, rotamers, tautomers, optical isomers, polymorphs, geometric isomers, or N-oxides thereof composition with the excipient, inert carrier or any other essential ingredient such as surfactants, additives, solid diluents and liquid diluents.

Compounds selected from Formula I, (including all stereoisomers, N-oxides, and salts thereof), typically exist in more than one form, and Formula I thus includes all crystalline and non-crystalline forms of the 10 compounds that Formula I represents. Non-crystalline forms include embodiments which are solids such as waxes and gums as well as embodiments which are liquids such as solutions and melts. Crystalline forms include embodiments which represent essentially a single crystal type and embodiments which represent a mixture of polymorphs (i.e. different crystalline types). The term "polymorph" refers to a particular crystalline form of a chemical compound that can crystallize in different crystalline forms, 15 these forms having different arrangements and/or conformations of the molecules in the crystal lattice. Although polymorphs can have the same chemical composition, they can also differ in composition due to the presence or absence of co-crystallized water or other molecules, which can be weakly or strongly bound in the lattice. Polymorphs can differ in such chemical, physical and biological properties as crystal shape, density, hardness, color, chemical stability, melting point, hygroscopicity, suspensibility, 20 dissolution rate and biological availability. One skilled in the art will appreciate that a polymorph of a compound represented by Formula I can exhibit beneficial effects (e.g., suitability for preparation of useful formulations, improved biological performance) relative to another polymorph or a mixture of polymorphs of the same compound represented by Formula I. Preparation and isolation of a particular polymorph of a compound represented by Formula I can be achieved by methods known to those skilled 25 in the art including, for example, crystallization using selected solvents and temperatures.

The present invention also relates to a composition for controlling or preventing insect and mite pests. The composition comprises a biologically effective amount of the compound of Formula I and at least one additional component selected from the group consisting of surfactants and auxiliaries.

In one another embodiment of present invention relates a compound of Formula I or its N-oxides and salts into customary types of agrochemical compositions, e. g. solutions, emulsions, suspensions, dusts, powders, pastes, granules, pressings, capsules, and mixtures thereof. Examples for composition types are suspensions (e.g. SC, OD, FS), emulsifiable concentrates (e.g. EC), emulsions (e.g. EW, EO, ES, ME), capsules (e.g. CS, ZC), pastes, pastilles, wettable powders or dusts (e.g. WP, SP, WS, DP, DS), pressings (e.g. BR, TB, DT), granules (e.g. WG, SG, GR, FG, GG, MG), insecticidal articles (e.g. LN), as well as gel formulations for the treatment of plant propagation materials such as seeds (e.g. GF). These and further compositions types are defined in the "Catalogue of pesticide formulation types and international coding system", Technical Monograph No. 2, 6th Ed. May 2008, CropLife International.

The compositions are prepared in a known manner, such as described by Mollet and Grubemann, Formulation technology, Wiley VCH, Weinheim, 2001; or Knowles, New developments in crop protection product formulation, Agrow Reports DS243, Tand F Informa, London, 2005.

Examples for suitable auxiliaries are solvents, liquid carriers, solid carriers or fillers, surfactants, dispersants, emulsifiers, wetters, adjuvants, solubilizers, penetration enhancers, protective colloids, adhesion agents, thickeners, humectants, repellents, attractants, feeding stimulants, compatibilizers, bactericides, anti-freezing agents, anti-foaming agents, colorants, tackifiers and binders.

Suitable solvents and liquid carriers are water and organic solvents, such as mineral oil fractions of medium to high boiling point, e.g. kerosene, diesel oil; oils of vegetable or animal origin; aliphatic, cyclic and aromatic hydrocarbons, e. g. toluene, paraffin, tetrahydronaphthalene, alkylated naphthalenes; alcohols, e.g. ethanol, propanol, butanol, benzylalcohol, cyclohexanol; glycols; DMSO; ketones, e.g. cyclohexanone; esters, e.g. lactates, carbonates, fatty acid esters, gamma-butyrolactone; fatty acids; phosphonates; amines; amides, e.g. N-methylpyrrolidone, fatty acid dimethylamides; and mixtures thereof.

Suitable solid carriers or fillers are mineral earths, e.g. silicates, silica gels, talc, kaolins, limestone, lime, chalk, clays, dolomite, diatomaceous earth, bentonite, calcium sulfate, magnesium sulfate, magnesium oxide; polysaccharide powders, e.g. cellulose, starch; fertilizers, e.g. ammonium sulfate, ammonium phosphate, ammonium nitrate, ureas; products of vegetable origin, e.g. cereal meal, tree bark meal, wood meal, nutshell meal, and mixtures thereof.

Suitable surfactants are surface-active compounds, such as anionic, cationic, nonionic and amphoteric surfactants, block polymers, polyelectrolytes, and mixtures thereof. Such surfactants can be used as emulsifier, dispersant, solubilizer, wetter, penetration enhancer, protective colloid, or adjuvant. Examples of surfactants are listed in McCutcheon's, Vol.1: Emulsifiers and Detergents, McCutcheon's Directories, Glen Rock, USA, 2008 (International Ed. or North American Ed.).

Suitable anionic surfactants are alkali, alkaline earth or ammonium salts of sulfonates, sulfates, phosphates, carboxylates, and mixtures thereof. Examples of sulfonates are alkylarylsulfonates, diphenylsulfonates, alpha-olefin sulfonates, lignine sulfonates, sulfonates of fatty acids and oils, sulfonates of ethoxylated alkylphenols, sulfonates of alkoxyated arylphenols, sulfonates of condensed naphthalenes, sulfonates of dodecyl and tridecylbenzenes, sulfonates of naphthalenes and alkylnaphthalenes, sulfosuccinates or sulfosuccinamates. Examples of sulfates are sulfates of fatty acids and oils, of ethoxylated alkylphenols, of alcohols, of ethoxylated alcohols, or of fatty acid esters. Examples of phosphates are phosphate esters. Examples of carboxylates are alkyl carboxylates, and carboxylated alcohol or alkylphenol ethoxylates.

Suitable nonionic surfactants are alkoxyates, N-substituted fatty acid amides, amine oxides, esters, sugar-based surfactants, polymeric surfactants, and mixtures thereof. Examples of alkoxyates are compounds such as alcohols, alkylphenols, amines, amides, arylphenols, fatty acids or fatty acid esters which have been alkoxyated with 1 to 50 equivalents. Ethylene oxide and/or propylene oxide may be employed for the alkoxylation, preferably ethylene oxide. Examples of N-substituted fatty acid amides are fatty acid glucamides or fatty acid alkanolamides. Examples of esters are fatty acid esters, glycerol esters or monoglycerides. Examples of sugarbased surfactants are sorbitans, ethoxylated sorbitans, sucrose and glucose esters or alkylpolyglucosides. Examples of polymeric surfactants are homopolymers or copolymers of vinylpyrrolidone, vinylalcohols, or vinylacetate.

Suitable cationic surfactants are quaternary surfactants, for example quaternary ammonium compounds with one or two hydrophobic groups, or salts of long-chain primary amines. Suitable amphoteric surfactants are alkylbetains and imidazolines. Suitable block polymers are block polymers of the A-B or A-B-A type comprising blocks of polyethylene oxide and polypropylene oxide, or of the A-B-C type comprising alkanol, polyethylene oxide and polypropylene oxide. Suitable polyelectrolytes are polyacids or polybases. Examples of polyacids are alkali salts of polyacrylic acid or polyacid comb polymers. Examples of polybases are polyvinylamines or polyethyleneamines.

Suitable adjuvants are compounds, which have a neglectable or even no pesticidal activity themselves, and which improve the biological performance of the compound I on the target. Examples are surfactants, mineral or vegetable oils, and other auxiliaries. Further examples are listed by Knowles, Adjuvants and additives, Agrow Reports DS256, T and F Informa UK, 2006, chapter 5.

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Suitable thickeners are polysaccharides (e.g. xanthan gum, carboxymethylcellulose), anorganic clays (organically modified or unmodified), polycarboxylates, and silicates. Suitable bactericides are bronopol and isothiazolinone derivatives such as alkylisothiazolinones and benzisothiazolinones. Suitable anti-freezing agents are ethylene glycol, propylene glycol, urea and glycerin. Suitable anti-foaming agents are
10 silicones, long chain alcohols, and salts of fatty acids. Suitable colorants (e.g. in red, blue, or green) are pigments of low water solubility and watersoluble dyes. Examples are inorganic colorants (e.g. iron oxide, titan oxide, iron hexacyanoferrate) and organic colorants (e.g. alizarin-, azoand phthalocyanine colorants). Suitable tackifiers or binders are polyvinylpyrrolidone, polyvinylacetates, polyvinyl alcohols, polyacrylates, biological or synthetic waxes, and cellulose ethers.

15

Examples for composition types and their preparation are:

i) Water-soluble concentrates (SL, LS)

10-60 wt% of a compound I or an N-oxide or salt thereof and 5-15 wt% wetting agent (e.g. alcohol alkoxyates) are dissolved in water and/or in a water-soluble solvent (e.g. alcohols) up to 100 wt%. The
20 active substance dissolves upon dilution with water.

ii) Dispersible concentrates (DC)

5-25 wt% of a compound I or an N-oxide or salt thereof and 1-10 wt% dispersant (e. g. polyvinylpyrrolidone) are dissolved in up to 100 wt% organic solvent (e.g. cyclohexanone). Dilution with water gives a dispersion.

25

iii) Emulsifiable concentrates (EC)

15-70 wt% of a compound I or an N-oxide or salt thereof and 5-10 wt% emulsifiers (e.g. calcium dodecylbenzenesulfonate and castor oil ethoxylate) are dissolved in up to 100 wt% waterinsoluble organic solvent (e.g. aromatic hydrocarbon). Dilution with water gives an emulsion. iv) Emulsions (EW, EO, ES)

5-40 wt% of a compound I or an N-oxide or salt thereof and 1 -10 wt% emulsifiers (e.g. calcium dodecylbenzenesulfonate and castor oil ethoxylate) are dissolved in 20-40 wt% water-insoluble organic solvent (e.g. aromatic hydrocarbon). This mixture is introduced into up to 100 wt% water by means of an emulsifying machine and made into a homogeneous emulsion. Dilution with water gives an emulsion.

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v) Suspensions (SC, OD, FS)

In an agitated ball mill, 20-60 wt% of a compound I or an N-oxide or salt thereof are comminuted with addition of 2-10 wt% dispersants and wetting agents (e.g. sodium lignosulfonate and alcohol ethoxylate), 0,1 -2 wt% thickener (e.g. xanthan gum) and up to 100 wt% water to give a fine active substance suspension. Dilution with water gives a stable suspension of the active substance. For FS type composition up to 40 wt% binder (e.g. polyvinylalcohol) is added.

vi) Water-dispersible granules and water-soluble granules (WG, SG)

50-80 wt% of a compound I or an N-oxide or salt thereof are ground finely with addition of up to 100 wt% dispersants and wetting agents (e.g. sodium lignosulfonate and alcohol ethoxylate) and prepared as water-dispersible or water-soluble granules by means of technical appliances (e. g. extrusion, spray tower, fluidized bed). Dilution with water gives a stable dispersion or solution of the active substance.

vii) Water-dispersible powders and water-soluble powders (WP, SP, WS)

50-80 wt% of a compound I or an N-oxide or salt thereof are ground in a rotor-stator mill with addition of 1 -5 wt% dispersants (e.g. sodium lignosulfonate), 1-3 wt% wetting agents (e.g. alcohol ethoxylate) and up to 100 wt% solid carrier, e.g. silica gel. Dilution with water gives a stable dispersion or solution of the active substance.

viii) Gel (GW, GF)

In an agitated ball mill, 5-25 wt% of a compound I or an N-oxide or salt thereof are comminuted with addition of 3-10 wt% dispersants (e.g. sodium lignosulfonate), 1-5 wt% thickener (e.g. carboxymethylcellulose) and up to 100 wt% water to give a fine suspension of the active substance. Dilution with water gives a stable suspension of the active substance,

iv) Microemulsion (ME) 5-20 wt% of a compound I or an N-oxide or salt thereof are added to 5-30 wt% organic solvent blend (e.g. fatty acid dimethylamide and cyclohexanone), 10-25 wt% surfactant blend (e.g. alcohol ethoxylate and arylphenol ethoxylate), and water up to 100 %. This mixture is stirred for 1 h to produce spontaneously a thermodynamically stable microemulsion.

iv) Microcapsules (CS)

An oil phase comprising 5-50 wt% of a compound I or an N-oxide or salt thereof, 0-40 wt% water insoluble organic solvent (e.g. aromatic hydrocarbon), 2-15 wt% acrylic monomers (e.g. methylmethacrylate, methacrylic acid and a dior triacrylate) are dispersed into an aqueous solution of a protective colloid (e.g. polyvinyl alcohol). Radical polymerization initiated by a radical initiator results in the formation of poly(methyl acrylate) microcapsules. Alternatively, an oil phase comprising 5-50 wt% of a compound I according to the present invention, 0-40 wt% water insoluble organic solvent (e.g. aromatic hydrocarbon), and an isocyanate monomer (e.g. diphenylmethene-4,4'-diisocyanatae) are dispersed into

an aqueous solution of a protective colloid (e.g. polyvinyl alcohol). The addition of a polyamine (e.g. hexamethylenediamine) results in the formation of polyurea microcapsules. The monomers amount to 1 - 10 wt%. The wt% relate to the total CS composition,

ix) Dustable powders (DP, DS) 1-10 wt% of a compound I or an N-oxide or salt thereof are ground finely and mixed intimately with up to 100 wt% solid carrier, e.g. finely divided kaolin.

x) Granules (GR, FG) 0.5-30 wt% of a compound I or an N-oxide or salt thereof is ground finely and associated with up to 100 wt% solid carrier (e.g. silicate). Granulation is achieved by extrusion, spray-drying or the fluidized bed.

xi) Ultra-low volume liquids (UL) 1-50 wt% of a compound I or an N-oxide or salt thereof are dissolved in up to 100 wt% organic solvent, e.g. aromatic hydrocarbon.

The compositions types i) to xi) may optionally comprise further auxiliaries, such as 0.1-1 wt% bactericides, 5-15 wt% anti-freezing agents, 0.1-1 wt% anti-foaming agents, and 0.1 -1 wt% colorants.

In one another embodiment of present invention provides a agrochemical compositions compound of Formula I, which comprise active substance between 0.01 and 95% by weight, preferably between 0.1 and 90%, and more preferably between 1 and 70 %, in particular between 10 and 60 by weight of active substance. The active substances are employed in a purity of from 90% to 100%, preferably from 95% to 100% (according to NMR spectrum).

Water-soluble concentrates (LS), Suspoemulsions (SE), flowable concentrates (FS), powders for dry treatment (DS), water-dispersible powders for slurry treatment (WS), water-soluble powders (SS), emulsions (ES), emulsifiable concentrates (EC) and gels (GF) are usually employed for the purposes of treatment of plant propagation materials, particularly seeds. The compositions in question give, after two-to-tenfold dilution, active substance concentrations of from 0.01 to 60% by weight, preferably from 0.1 to 40% by weight, in the ready-to-use preparations. Application can be carried out before or during sowing.

Methods for applying or treating compound I and compositions thereof, respectively, on to plant propagation material, especially seeds include dressing, coating, pelleting, dusting, soaking and in-furrow application methods of the propagation material. Preferably, compound I or the compositions thereof, respectively, are applied on to the plant propagation material by a method such that germination is not induced, e. g. by seed dressing, pelleting, coating and dusting.

When employed in plant protection, the amounts of active substances applied are, depending on the kind of effect desired, from 0.001 to 2 kg per ha, preferably from 0.005 to 2 kg per ha, more preferably from 0.05 to 0.9 kg per ha, in particular from 0.1 to 0.75 kg per ha.

- 5 In treatment of plant propagation materials such as seeds, e. g. by dusting, coating or drenching seed, amounts of active substance of from 0.1 to 1000 g, preferably from 1 to 1000 g, more preferably from 1 to 100 g and most preferably from 5 to 100 g, per 100 kilogram of plant propagation material (preferably seed) are generally required.
- 10 When used in the protection of materials or stored products, the amount of active substance applied depends on the kind of application area and on the desired effect. Amounts customarily applied in the protection of materials are 0.001 g to 2 kg, preferably 0.005 g to 1 kg, of active substance per cubic meter of treated material.
- 15 Various types of oils, wetters, adjuvants, fertilizer, or micronutrients, and other pesticides (e.g. herbicides, insecticides, fungicides, growth regulators, safeners) may be added to the active substances or the compositions comprising them as premix or, if appropriate not until immediately prior to use (tank mix). These agents can be admixed with the compositions according to the present invention in a weight ratio of 1:100 to 100:1, preferably 1:10 to 10:1.
- 20 The user can apply the composition according to the present invention usually from a predosage device, a knapsack sprayer, a spray tank, a spray plane, or an irrigation system. Usually, the agrochemical composition is made up with water, buffer, and/or further auxiliaries to the desired application concentration and the ready-to-use spray liquor or the agrochemical composition according to the present invention is thus obtained. Usually, 20 to 2000 liters, preferably 50 to 400 liters, of the ready-to-use spray liquor are applied per hectare of agricultural useful area.
- 25 According to one embodiment, individual components of the composition according to the present invention such as parts of a kit or parts of a binary or ternary mixture may be mixed by the user himself in a spray tank and further auxiliaries may be added, if appropriate.
- 30

The compounds and compositions of the present invention are thus useful agronomically for protecting field crops from phytophagous invertebrate pests, and also nonagronomically for protecting other horticultural crops and plants from phytophagous invertebrate pests. This utility includes protecting crops

and other plants (i.e. both agronomic and nonagronomic) that contain genetic material introduced by genetic engineering (i.e. transgenic) or modified by mutagenesis to provide advantageous traits.

Compounds of the present invention are characterized by favorable metabolic and/or soil residual patterns and exhibit activity controlling a spectrum of agronomic and non-agronomic invertebrate pests. The compounds of the present invention are preventively and/or curatively valuable active ingredients in the field of pest control, even at low rates of application, which can be used against pesticide resistant pests such as insects and fungi, and/or have a very favorable biocidal spectrum and are well tolerated by warm-blooded species, fish and plants.

In the context of the present invention “invertebrate pest control” means inhibition of invertebrate pest development (including mortality) that causes significant reduction in feeding or other injury or damage caused by the pest; related expressions are defined analogously.) As referred to in the present invention, the term “invertebrate pest” includes arthropods, gastropods and nematodes of economic importance as pests. The term “arthropod” includes insects, mites, spiders, scorpions, centipedes, millipedes, pill bugs and symphylans.

The term “gastropod” includes snails, slugs and other Stylommatophora. The term “nematode” includes all of the helminths, such as: roundworms, heartworms, and phytophagous nematodes (Nematoda), flukes (Tematoda), Acanthocephala, and tapeworms (Cestoda). Those skilled in the art will recognize that not all compounds are equally effective against all pests.

Compounds of the present invention display activity against economically important agronomic, forest, greenhouse, nursery, ornamentals, food and fiber, public and animal health, domestic and commercial structure, household, and stored product pests. These include larvae of the order Lepidoptera, such as armyworms, cutworms, loopers, and heliothines in the family Noctuidae (e.g., fall armyworm (*Spodoptera fugiperda* J. E. Smith), beet armyworm (*Spodoptera exigua* Hubner), black cutworm (*Agrotis ipsilon* Hufnagel), cabbage looper (*Trichoplusia ni* Hubner), tobacco budworm (*Heliothis virescens* Fabricius)); borers, casebearers, webworms, coneworms, cabbageworms and skeletonizers from the family Pyralidae (e.g., European corn borer (*Ostrinia nubilalis* Hubner), navel orangeworm (*Amyelois transitella* Walker), corn root webworm (*Crambus caliginosellus* Clemens), sod webworm (*Herpetogramma licarsisalis* Walker)); leafrollers, budworms, seed worms, and fruit worms in the family Tortricidae (e.g., codling moth (*Cydia pomonella* Linnaeus), grape berry moth (*Endopiza viteana* Clemens), oriental fruit moth (*Grapholita molesta* Busck)); and many other economically important lepidoptera (e.g., diamondback moth (*Plutella xylostella* Linnaeus), pink bollworm (*Pectinophora*

gossypiella Saunders), gypsy moth (*Lymantria dispar* Linnaeus)); nymphs and adults of the order Blattodea including cockroaches from the families Blattellidae and Blattidae (e.g., oriental cockroach (*Blatta orientalis* Linnaeus), Asian cockroach (*Blattella asahinai* Mizukubo), German cockroach (*Blattella germanica* Linnaeus), brownbanded cockroach (*Supella longipalpa* Fabricius), American cockroach (*Periplaneta americana* Linnaeus), brown cockroach (*Periplaneta brunnea* Burmeister), Madeira cockroach (*Leucophaea maderae* Fabricius)); foliar feeding larvae and adults of the order Coleoptera including weevils from the families Anthribidae, Bruchidae, and Curculionidae (e.g., boll weevil (*Anthonomus grandis* Boheman), rice water weevil (*Lissorhoptrus oryzophilus* Kuschel), granary weevil (*Sitophilus granarius* Linnaeus), rice weevil (*Sitophilus oryzae* Linnaeus)); flea beetles, cucumber beetles, rootworms, leaf beetles, potato beetles, and leafminers in the family Chrysomelidae (e.g., Colorado potato beetle (*Leptinotarsa decemlineata* Say), western corn rootworm (*Diabrotica virgifera virgifera* LeConte)); chafers and other beetles from the family Scarabaeidae (e.g., Japanese beetle (*Popillia japonica* Newman) and European chafer (*Rhizotrogus majalis* Razoumowsky)); carpet beetles from the family Dermestidae; wireworms from the family Elateridae; bark beetles from the family Scolytidae and flour beetles from the family Tenebrionidae. In addition it includes: adults and larvae of the order Dermaptera including earwigs from the family Forficulidae (e.g., European earwig (*Forficula auricularia* Linnaeus), black earwig (*Chelisoches mono* Fabricius)); adults and nymphs of the orders Hemiptera and Homoptera such as, plant bugs from the family Miridae, cicadas from the family Cicadidae, leafhoppers (e.g. *Empoasca* spp.) from the family Cicadellidae, planthoppers from the families Fulgoroidae and Delphacidae, treehoppers from the family Membracidae, psyllids from the family Psyllidae, whiteflies from the family Aleyrodidae, aphids from the family Aphididae, phylloxera from the family Phylloxeridae, mealybugs from the family Pseudococcidae, scales from the families Coccidae, Diaspididae and Margarodidae, lace bugs from the family Tingidae, stink bugs from the family Pentatomidae, cinch bugs (e.g., *Blissus* spp.) and other seed bugs from the family Lygaeidae, spittlebugs from the family Cercopidae squash bugs from the family Coreidae, and red bugs and cotton stainers from the family Pyrrhocoridae. Also included are adults and larvae of the order Acari (mites) such as spider mites and red mites in the family Tetranychidae (e.g., European red mite (*Panonychus ulmi* Koch), two spotted spider mite (*Tetranychus urticae* Koch), McDaniel mite (*Tetranychus mcdanieli* McGregor)), flat mites in the family Tenuipalpidae (e.g., citrus flat mite (*Brevipalpus lewisi* McGregor)), rust and bud mites in the family Eriophyidae and other foliar feeding mites and mites important in human and animal health, i.e. dust mites in the family Epidermoptidae, follicle mites in the family Demodicidae, grain mites in the family Glycyphagidae, ticks in the order Ixodidae (e.g., deer tick (*Ixodes scapularis* Say), Australian paralysis tick (*Ixodes holocyclus* Neumann), American dog tick (*Dermacentor variabilis* Say), lone star tick (*Amblyomma americanum* Linnaeus) and scab and itch mites in the families Psoroptidae,

Pyemotidae, and Sarcoptidae; adults and immatures of the order Orthoptera including grasshoppers, locusts and crickets (e.g., migratory grasshoppers (e.g., *Melanoplus sanguinipes* Fabricius, *M. differentialis* Thomas), American grasshoppers (e.g., *Schistocerca americana* Drury), desert locust (*Schistocerca gregaria* Forskal), migratory locust (*Locusta migratoria* Linnaeus), house cricket (*Acheta domesticus* Linnaeus), mole crickets (*Gryllotalpa* spp.)); adults and immatures of the order Diptera including leafminers, midges, fruit flies (Tephritidae), frit flies (e.g., *Oscinella frit* Linnaeus), soil maggots, house flies (e.g., *Musca domestica* Linnaeus), lesser house flies (e.g., *Fannia canicularis* Linnaeus, *F. femoralis* Stein), stable flies (e.g., *Stomoxys calcitrans* Linnaeus), face flies, horn flies, blow flies (e.g., *Chiysomya* spp., *Phonnia* spp.), and other muscoid fly pests, horse flies (e.g., *Tabanus* spp.), botflies (e.g., *Gastrophilus* spp., *Oestrus* spp.), cattle grubs (e.g., *Hypoderma* spp.), deer flies (e.g., *Chrysops* spp.), keds (e.g., *Melophagus ovinus* Linnaeus) and other Brachycera, mosquitoes (e.g., *Aedes* spp., *Anopheles* spp., *Culex* spp.), black flies (e.g., *Prosimulium* spp., *Simulium* spp.), biting midges, sand flies, sciarids, and other Nematocera; adults and immatures of the order Thysanoptera including onion thrips (*Thrips tabaci* Lindeman) and other foliar feeding thrips; insect pests of the order Hymenoptera including ants (e.g., red carpenter ant (*Camponotus ferrugineus* Fabricius), black carpenter ant (*Camponotus pennsylvanicus* De Geer), Pharaoh ant (*Monomorium pharaonis* Linnaeus), little fire ant (*Wasmannia auropunctata* Roger), fire ant (*Solenopsis geminata* Fabricius), red imported fire ant (*Solenopsis invicta* Buren), Argentine ant (*Iridomyrmex humilis* Mayr), crazy ant (*Paratrechina longicornis* Latreille), pavement ant (*Tetramorium caespitum* Linnaeus), cornfield ant (*Lasius alienus* Förster), odorous house ant (*Tapinoma sessile* Say)), bees (including carpenter bees), hornets, yellow jackets and wasps; insect pests of the order Isoptera including the eastern subterranean termite (*Reticulitermes flavipes* Kollar), western subterranean termite (*Reticulitermes hesperus* Banks), Formosan subterranean termite (*Coptotermes formosanus* Shiraki), West Indian drywood termite (*Incisitermes immigrans* Snyder) and other termites of economic importance; insect pests of the order Thysanura such as silverfish (*Lepisma saccharina* Linnaeus) and firebrat (*Thermobia domestica* Packard); insect pests of the order Mallophaga and including the head louse (*Pediculus humanus capitis* De Geer), body louse (*Pediculus humanus humanus* Linnaeus), chicken body louse (*Menacanthus stramineus* Nitzsch), dog biting louse (*Trichodectes canis* De Geer), fluff louse (*Goniocotes gallinae* De Geer), sheep body louse (*Bovicola ovis* Schrank), short-nosed cattle louse (*Haematopinus eurysternus* Nitzsch), long-nosed cattle louse (*Linognathus vituli* Linnaeus) and other sucking and chewing parasitic lice that attack man and animals; insect pests of the order Siphonoptera including the oriental rat flea (*Xenopsylla cheopis* Rothschild), cat flea (*Ctenocephalides felis* Bouche), dog flea (*Ctenocephalides canis* Curtis), hen flea (*Ceratophyllus gallinae* Schrank), sticktight flea (*Echidnophaga gallinacea* Westwood), human flea (*Pulex irritans* Linnaeus) and other fleas afflicting mammals and birds. Additional arthropod pests

covered include: spiders in the order Araneae such as the brown recluse spider (*Loxosceles reclusa* Gertsch and Mulaik) and the black widow spider (*Latrodectus mactans* Fabricius), and centipedes in the order Scutigermorpha such as the house centipede (*Scutigera coleoptrata* Linnaeus). Activity also includes members of the Classes Nematoda, Cestoda, Trematoda, and Acanthocephala including economically important members of the orders Strongylida, Ascaridida, Oxyurida, Rhabditida, Spirurida, and Enoplida such as but not limited to economically important agricultural pests (i.e. root knot nematodes in the genus *Meloidogyne*, lesion nematodes in the genus *Pratylenchus*, stubby root nematodes in the genus *Trichodorus*, etc.) and animal and human health pests (i.e. all economically important flukes, tapeworms, and roundworms, such as *Strongylus vulgaris* in horses, *Toxocara canis* in dogs, *Haemonchus contortus* in sheep, *Dirofilaria immitis* Leidy in dogs, *Anoplocephala peifoliata* in horses, *Fasciola hepatica* Linnaeus in ruminants, etc.).

Compounds of the present invention show particularly high activity against pests in the order Lepidoptera (e.g., *Alabama argillacea* Hubner (cotton leaf worm), *Archips argyrospila* Walker (fruit tree leaf roller), *A. rosana* Linnaeus (European leaf roller) and other *Archips* species, *Chilo suppressalis* Walker (rice stem borer), *Cnaphalocrosis medinalis* Guenee (rice leaf roller), *Crambus caliginosellus* Clemens (corn root webworm), *Crambus teterrellus* Zincken (bluegrass webworm), *Cydia pomonella* Linnaeus (codling moth), *Earias insulana* Boisduval (spiny bollworm), *Earias vittella* Fabricius (spotted bollworm), *Helicoverpa armigera* Hübner (American bollworm), *Helicoverpa zea* Boddie (corn earworm), *Heliothis virescens* Fabricius (tobacco budworm), *Herpetogramma licarsisalis* Walker (sod webworm), *Lobesia botrana* Denis and Schiffenmüller (grape berry moth), *Pectinophora gossypiella* Saunders (pink bollworm), *Phyllocnistis citrella* Stainton (citrus leafminer), *Pieris brassicae* Linnaeus (large white butterfly), *Pieris rapae* Linnaeus (small white butterfly), *Plutella xylostella* Linnaeus (diamondback moth), *Spodoptera exigua* Hubner (beet armyworm), *Spodoptera litura* Fabricius (tobacco cutworm, cluster caterpillar), *Spodoptera frugiperda* J. E. Smith (fall armyworm), *Trichoplusia ni* Hübner (cabbage looper) and *Tuta absoluta* Meyrick (tomato leafminer)). Compounds of the present invention also have commercially significant activity on members from the order Homoptera including: *Acyrtosiphon pisum* Harris (pea aphid), *Aphis craccivora* Koch (cowpea aphid), *Aphis fabae* Scopoli (black bean aphid), *Aphis gossypii* Glover (cotton aphid, melon aphid), *Aphis pomi* De Geer (apple aphid), *Aphis spiraeicola* Patch (spirea aphid), *Aulacorthum solani* Kaltenbach (foxglove aphid), *Chaetosiphon fragaefolii* Cockerell (strawberry aphid), *Diuraphis noxia* Kurdjumov/Mordvilko (Russian wheat aphid), *Dysaphis plantaginea* Paaserini (rosy apple aphid), *Eriosoma lanigerum* Hausmann (woolly apple aphid), *Hyalopterus pruni* Geoffroy (mealy plum aphid), *Lipaphis erysimi* Kaltenbach (tarnip aphid), *Metopolophium dirrhodum* Walker (cereal aphid), *Macrosiphum euphorbiae* Thomas (potato aphid),

Myzus persicae Sulzer (peach-potato aphid, green peach aphid), *Nasonovia ribisnigri* Mosley (lettuce aphid), *Pemphigus* spp. (root aphids and gall aphids), *Rhopalosiphum maidis* Fitch (corn leaf aphid), *Rhopalosiphum padi* Linnaeus (bird cherry-oat aphid), *Schizaphis graminum* Rondani (greenbug), *Sitobion avenae* Fabricius (English grain aphid), *Therioaphis maculata* Buckton (spotted alfalfa aphid),
 5 *Toxoptera aurantii*, Boyer de Fonscolombe (black citrus aphid), and *Toxoptera citiicida* Kirkaldy (brown citrus aphid); *Adelges* spp. (adelgids); *Phylloxera devastatrix* Pergande (pecan phylloxera); *Bemisia tabaci* Gennadius (tobacco whitefly, sweetpotato whitefly), *Bemisia argentifolii* Bellows and Perring (silverleaf whitefly), *Dialeurodes citri* Ashmead (citrus whitefly) and *Trialeurodes vaporariorum* Westwood (greenhouse whitefly); *Empoasca fabae* Harris, (potato leafhopper), *Laodelphax striatellus*
 10 Fallen (smaller brown planthopper), *Macrolestes quadrilineatus* Forbes (aster leafhopper), *Nephotettix cincticeps* Uhler (green leafhopper), *Nephotettix nigropictus* Stal (rice leafhopper), *Nilaparvata lugens* Stal (brown planthopper), *Peregrinus maidis* Ashmead (corn planthopper), *Sogatella furcifera* Horvath (white-backed planthopper), *Sogatodes orizicola* Muir (rice delphacid), *Typhlocyba pomaria* McAfee white apple leafhopper, *Erythroneoura* spp. (grape leafhoppers); *Magicidada septendecim* Linnaeus
 15 (periodical cicada); *Icerya purchasi* Maskell (cottony cushion scale), *Quadraspidiotus perniciosus* Comstock (San Jose scale); *Planococcus citri* Risso (citrus mealybug); *Pseudococcus* spp. (other mealybug complex); *Cacopsylla pyricola* Foerster (pear psylla), *Trioza diospyri* Ashmead (persimmon psylla).

These compounds also have activity on members from the order Hemiptera including: *Acrostemum hilare*
 20 Say (green stink bug), *Anasa tristis* De Geer (squash bug), *Blissus leucopterus* leucopterus Say (chinch bug), *Corythuca gossypii* Fabricius (cotton lace bug), *Cyrtopeltis modesta* Distant (tomato bug), *Dysdercus suturellus* Herrich-S chaffer (cotton stainer), *Euchistus servus* Say (brown stink bug), *Euchistus variolarius* Palisot deBeauvois (one-spotted stink bug), *Graptosthetus* spp. (complex of seed bugs), *Leptoglossus corculus* Say (leaf- footed pine seed bug), *Lygus lineolaris* Palisot de Beauvois
 25 (tarnished plant bug), *Nezara viridula* Linnaeus (southern green stink bug), *Oebalus pugnax* Fabricius (rice stink bug), *Oncopeltus fasciatus* DaEas (large milkweed bug), *Pseudatomoscelis seriatus* Reuter (cotton fleahopper).

Other insect orders controlled by compounds of the present invention include Thysanoptera (e.g., *Frankliniella occidentalis* Pergande (western flower thrip), *Scirtothrips citri* Moulton (citrus thrip),
 30 *Sericothrips variabilis* Beach (soybean thrip), and *Thrips tabaci* Lindeman (onion thrip); and the order Coleoptera (e.g., *Leptinotarsa decemlineata* Say (Colorado potato beetle), *Epilachna varivestis* Mulsant (Mexican bean beetle) and wireworms of the genera Agriotes, Athous or Limonius).

- Particularly, the compounds of Formula I, their N-oxides, their isomers, their polymorphs and their salts are especially suitable for efficiently combating the following pests: Insects from the order of the lepidopterans (Lepidoptera), for example *Agrotis ypsilon*, *Agrotis segetum*, *Alabama argillacea*, *Anticarsia gemmatilis*, *Argyresthia conjugella*, *Autographa gamma*, *Bupalus piniarius*, *Cacoecia*
- 5 *murinana*, *Capua reticulana*, *Cheimatobia brumata*, *Chilo infuscatellus*, *Choristoneura fumiferana*, *Choristoneura occidentalis*, *Cirphis unipuncta*, *Cydia pomonella*, *Dendrolimus pini*, *Diaphania nitidalis*, *Diatraea grandiosella*, *Earias insulana*, *Earias vittella*, *Elasmopalpus lignosellus*, *Eupoecilia ambiguella*, *Evetria bouliana*, *Feltia subterranea*, *Galleria mellonella*, *Grapholita funebrana*, *Grapholita molesta*, *Helicoverpa armigera*, *Helicoverpa virescens*, *Helicoverpa zea*, *Hellula undalis*, *Hibernia*
- 10 *defoliaria*, *Hyphantria cunea*, *Hyponomeuta malinellus*, *Keiferia lycopersicella*, *Lambdina fiscellaria*, *Laphygma exigua*, *Leucoptera coffeella*, *Leucoptera scitella*, *Lithocolletis blancardella*, *Lobesia botrana*, *Loxostege sticticalis*, *Leucinodes orbonalis*, *Lymantria dispar*, *Lymantria monacha*, *Lyonetia clerkella*, *Malacosoma neustria*, *Mamestra brassicae*, *Orgyia pseudotsugata*, *Ostrinia nubilalis*, *Panolis flammea*, *Pectinophora gossypiella*, *Peridroma saucia*, *Phalera bucephala*, *Phthorimaea operculella*, *Phyllocnistis*
- 15 *citrella*, *Pieris brassicae*, *Plathypena scabra*, *Plutella xylostella*, *Pseudoplusia includens*, *Rhyacionia frustrana*, *Scirpophaga incertulas*, *Scrobipalpula absoluta*, *Sitotroga cerealella*, *Sparganothis pilleriana*, *Spodoptera frugiperda*, *Spodoptera littoralis*, *Spodoptera litura*, *Spodoptera exigua*, *Thaumatopoea pityocampa*, *Tortrix viridana*, *Trichoplusia ni* and *Zeiraphera canadensis*; and
- 20 Beetles (Coleoptera), for example *Agrilus sinuatus*, *Agriotes lineatus*, *Agriotes obscurus*, *Amphimallus solstitialis*, *Anisandrus dispar*, *Anthonomus grandis*, *Anthonomus pomorum*, *Aphthona euphoridae*, *Athous haemorrhoidalis*, *Atomaria linearis*, *Blastophagus piniperda*, *Blitophaga undata*, *Bruchus rufimanus*, *Bruchus pisorum*, *Bruchus lentis*, *Byctiscus betulae*, *Cassida nebulosa*, *Cerotoma trifurcata*, *Cetonia aurata*, *Ceuthorrhynchus assimilis*, *Ceuthorrhynchus napi*, *Chaetocnema tibialis*, *Conoderus*
- 25 *vespertinus*, *Crioceris asparagi*, *Ctenicera ssp.*, *Diabrotica longicornis*, *Diabrotica semipunctata*, *Diabrotica undecimpunctata*, *Diabrotica speciosa*, *Diabrotica virgifera*, *Epilachna varivestis*, *Epitrix hirtipennis*, *Eutinobothrus brasiliensis*, *Hylobius abietis*, *Hypera brunneipennis*, *Hypera postica*, *Ips typographus*, *Lema bilineata*, *Lema melanopus*, *Leptinotarsa decemlineata*, *Limonius californicus*, *Lissorhoptrus oryzophilus*, *Melanotus communis*, *Meligethes aeneus*, *Melolontha hippocastani*,
- 30 *Melolontha melolontha*, *Oulema oryzae*, *Otiorrhynchus sulcatus*, *Otiorrhynchus ovatus*, *Phaedon cochleariae*, *Phyllobius pyri*, *Phyllotreta chrysocephala*, *Phyllophaga sp.*, *Phyllopertha horticola*, *Phyllotreta nemorum*, *Phyllotreta striolata*, *Popillia japonica*, *Sitona lineatus* and *Sitophilus granaria*; flies, mosquitoes (Diptera), e.g. *Aedes aegypti*, *Aedes albopictus*, *Aedes vexans*, *Anastrepha ludens*, *Anopheles maculipennis*, *Anopheles crucians*, *Anopheles albimanus*, *Anopheles gambiae*, *Anopheles*

freeborni, *Anopheles leucosphyrus*, *Anopheles minimus*, *Anopheles quadrimaculatus*, *Calliphora vicina*,
Ceratitis capitata, *Chrysomya bezziana*, *Chrysomya hominivorax*, *Chrysomya macellaria*, *Chrysops*
discalis, *Chrysops silacea*, *Chrysops atlanticus*, *Cochliomyia hominivorax*, *Contarinia sorghicola*,
Cordylobia anthropophaga, *Culicoides furens*, *Culex pipiens*, *Culex nigripalpus*, *Culex quinquefasciatus*,
5 *Culex tarsalis*, *Culiseta inornata*, *Culiseta melanura*, *Dacus cucurbitae*, *Dacus oleae*, *Dasineura*
brassicae, *Delia antique*, *Delia coarctata*, *Delia platura*, *Delia radicum*, *Dermatobia hominis*, *Fannia*
canicularis, *Geomyza Tripunctata*, *Gasterophilus intestinalis*, *Glossina morsitans*, *Glossina palpalis*,
Glossina fuscipes, *Glossina tachinoides*, *Haematobia irritans*, *Haplodiplosis equestris*, *Hippelates* spp.,
Hylemyia platura, *Hypoderma lineata*, *Leptoconops torrens*, *Liriomyza sativae*, *Liriomyza trifolii*, *Lucilia*
10 *caprina*, *Lucilia cuprina*, *Lucilia sericata*, *Lycoria pectoralis*, *Mansonia titillanus*, *Mayetiola destructor*,
Musca autumnalis, *Musca domestica*, *Muscina stabulans*, *Oestrus ovis*, *Opomyza florum*, *Oscinella frit*,
Pegomya hysocyami, *Phorbia antiqua*, *Phorbia brassicae*, *Phorbia coarctata*, *Phlebotomus argentipes*,
Psorophora columbiae, *Psila rosae*, *Psorophora discolor*, *Prosimulium mixtum*, *Rhagoletis cerasi*,
Rhagoletis pomonella, *Sarcophaga haemorrhoidalis*, *Sarcophaga* spp., *Simulium vittatum*, *Stomoxys*
15 *calcitrans*, *Tabanus bovinus*, *Tabanus atratus*, *Tabanus lineola*, and *Tabanus similis*, *Tipula oleracea*,
and *Tipula paludosa*; termites (Isoptera), e.g. *Calotermes flavicollis*, *Leucotermes flavipes*, *Heterotermes*
aureus, *Reticulitermes flavipes*, *Reticulitermes virginicus*, *Reticulitermes lucifugus*, *Reticulitermes*
santonensis, *Reticulitermes grassei*, *Termes natalensis*, and *Coptotermes formosanus*; cockroaches
(Blattaria Blattodea), e.g. *Blattella germanica*, *Blattella asahinae*, *Periplaneta americana*, *Periplaneta*
20 *japonica*, *Periplaneta brunnea*, *Periplaneta fuliginosa*, *Periplaneta australasiae*, and *Blatta orientalis*;
ants, bees, wasps, sawflies (Hymenoptera), e.g. *Athalia rosae*, *Atta cephalotes*, *Atta capiguara*, *Atta*
cephalotes, *Atta laevigata*, *Atta robusta*, *Atta sexdens*, *Atta texana*, *Crematogaster* spp., *Hoplocampa*
minuta, *Hoplocampa testudinea*, *Lasius niger*, *Monomorium pharaonis*, *Solenopsis geminata*, *Solenopsis*
invicta, *Solenopsis richteri*, *Solenopsis xyloni*, *Pogonomyrmex barbatus*, *Pogonomyrmex californicus*,
25 *Pheidole megacephala*, *Dasymutilla occidentalis*, *Bombus* spp., *Vespula squamosa*, *Paravespula vulgaris*,
Paravespula pennsylvanica, *Paravespula germanica*, *Dolichovespula maculata*, *Vespa crabro*, *Polistes*
rubiginosa, *Camponotus floridanus*, and *Linepithema humile*; crickets, grasshoppers, locusts
(Orthoptera), e.g. *Acheta domestica*, *Gryllotalpa gryllotalpa*, *Locusta migratoria*, *Melanoplus bivittatus*,
Melanoplus femurrubrum, *Melanoplus mexicanus*, *Melanoplus sanguinipes*, *Melanoplus spretus*,
30 *Nomadacris septemfasciata*, *Schistocerca americana*, *Schistocerca gregaria*, *Dociostaurus maroccanus*,
Tachycines asynamorus, *Oedaleus senegalensis*, *Zonozelus variegatus*, *Hieroglyphus daganensis*,
Kraussaria angulifera, *Calliptamus italicus*, *Chortoicetes terminifera*, and *Locustana pardalina*;
Araneida, e.g. *Latrodectus mactans*, and *Loxosceles reclusa*; fleas (Siphonaptera), e.g. *Ctenocephalides*
felis, *Ctenocephalides canis*, *Xenopsylla cheopis*, *Pulex irritans*, *Tunga penetrans*, and *Nosopsyllus*

fasciatus, silverfish, firebrat (*Thysanura*), e.g. *Lepisma saccharina* and *Thermobia domestica*, centipedes (*Chilopoda*), e.g. *Scutigera oleoptrata*, millipedes (*Diplopoda*), e.g. *Narceus* spp., Earwigs (*Dermaptera*), e.g. *forficula auricularia*, lice (*Phthiraptera*), e.g. *Pediculus humanus capitis*, *Pediculus humanus corporis*, *Pthirus pubis*, *Haematopinus eurysternus*, *Haematopinus suis*, *Linognathus vituli*, *Bovicola bovis*, *Menopon allinae*, *Menacanthus stramineus* and *Solenopotes capillatus*. *Collembola* (springtails), e.g. *Onychiurus* ssp.

They are also suitable for controlling Nematodes: plant parasitic nematodes such as root knot nematodes, *Meloidogyne hapla*, *Meloidogyne incognita*, *Meloidogyne javanica*, and other *Meloidogyne* species; cyst-forming nematodes, *Globodera rostochiensis* and other *Globodera* species; *Heterodera avenae*, *Heterodera glycines*, *Heterodera schachtii*, *Heterodera trifolii*, and other *Heterodera* species; Seed gall nematodes, *Anguina* species; Stem and foliar nematodes, *Aphelenchoides* species; Sting nematodes, *Belonolaimus longicaudatus* and other *Belonolaimus* species; Pine nematodes, *Bursaphelenchus xylophilus* and other *Bursaphelenchus* species; Ring nematodes, *Criconema* species, *Criconemella* species, *Criconemoides* species, *Mesocriconema* species; Stem and bulb nematodes, *Ditylenchus destructor*, *Ditylenchus dipsaci* and other *Ditylenchus* species; Awl nematodes, *Dolichodorus* species; Spiral nematodes, *Helicotylenchus multicinctus* and other *Helicotylenchus* species; Sheath and sheathoid nematodes, *Hemicyclophora* species and *Hemicriconemoides* species; *Hirshmanniella* species; Lance nematodes, *Hoploaimus* species; false rootknot nematodes, *Nacobbus* species; Needle nematodes, *Longidorus elongatus* and other *Longidorus* species; Lesion nematodes, *Pratylenchus neglectus*, *Pratylenchus penetrans*, *Pratylenchus curvatus*, *Pratylenchus goodeyi* and other *Pratylenchus* species; Burrowing nematodes, *Radopholus similis* and other *Radopholus* species; Reniform nematodes, *Rotylenchus robustus* and other *Rotylenchus* species; *Scutellonema* species; Stubby root nematodes, *Trichodorus primitivus* and other *Trichodorus* species, *Paratrichodorus* species; Stunt nematodes, *Tylenchorhynchus claytoni*, *Tylenchorhynchus dubius* and other *Tylenchorhynchus* species; Citrus nematodes, *Tylenchulus* species; Dagger nematodes, *Xiphinema* species; and other plant parasitic nematode species.

The compounds of Formula I and their salts are also useful for controlling arachnids (*Arachnoidea*), such as acarians (*Acarina*), e.g. of the families *Argasidae*, *Ixodidae* and *Sarcoptidae*, such as *Amblyomma americanum*, *Amblyomma variegatum*, *Argas persicus*, *Boophilus annulatus*, *Boophilus decoloratus*, *Boophilus microplus*, *Dermacentor silvarum*, *Hyalomma truncatum*, *Ixodes ricinus*, *Ixodes rubicundus*, *Ornithodoros moubata*, *Otobius megnini*, *Dermanyssus gallinae*, *Psoroptes ovis*, *Rhipicephalus appendiculatus*, *Rhipicephalus evertsi*, *Sarcoptes scabiei*, and *Eriophyidae* spp. such as *Aculus*

schlechtendali, *Phyllocoptrata oleivora* and *Eriophyes sheldoni*; Tarsonemidae spp. such as *Phytonemus pallidus* and *Polyphagotarsonemus latus*; Tenuipalpidae spp. such as *Brevipalpus phoenicis*; Tetranychidae spp. such as *Tetranychus cinnabarinus*, *Tetranychus kanzawai*, *Tetranychus pacificus*, *Tetranychus telarius* and *Tetranychus urticae*, *Panonychus ulmi*, *Panonychus citri*, and *oligonychus pratensis*.

In one another embodiment of present invention provides the compound of Formula I is useful for controlling insects selected from sucking or piercing insects such as insects from the genera Thysanoptera, Diptera and Hemiptera, in particular the following species:

Thysanoptera: *Frankliniella fusca*, *Frankliniella occidentalis*, *Frankliniella tritici*, *Scirtothrips citri*, *Thrips oryzae*, *Thrips palmi* and *Thrips tabaci*, Diptera, e.g. *Aedes aegypti*, *Aedes albopictus*, *Aedes vexans*, *Anastrepha ludens*, *Anopheles maculipennis*, *Anopheles crucians*, *Anopheles albimanus*, *Anopheles gambiae*, *Anopheles freeborni*, *Anopheles leucosphyrus*, *Anopheles minimus*, *Anopheles quadrimaculatus*, *Calliphora vicina*, *Ceratitis capitata*, *Chrysomya bezziana*, *Chrysomya hominivorax*, *Chrysomya macellaria*, *Chrysops discalis*, *Chrysops silacea*, *Chrysops atlanticus*, *Cochliomyia hominivorax*, *Contarinia sorghicola*, *Cordylobia anthropophaga*, *Culicoides furens*, *Culex pipiens*, *Culex nigripalpus*, *Culex quinquefasciatus*, *Culex tarsalis*, *Culiseta inornata*, *Culiseta melanura*, *Dacus cucurbitae*, *Dacus oleae*, *Dasineura brassicae*, *Delia antique*, *Delia coarctata*, *Delia platura*, *Delia radicum*, *Dermatobia hominis*, *Fannia canicularis*, *Geomyza Tripunctata*, *Gasterophilus intestinalis*, *Glossina morsitans*, *Glossina palpalis*, *Glossina fuscipes*, *Glossina tachinoides*, *Haematobia irritans*, *Haplodiplosis equestris*, *Hippelates* spp., *Hylemyia platura*, *Hypoderma lineata*, *Leptoconops torrens*, *Liriomyza sativae*, *Liriomyza trifolii*, *Lucilia caprina*, *Lucilia cuprina*, *Lucilia sericata*, *Lycoria pectoralis*, *Mansonia titillanus*, *Mayetiola destructor*, *Musca autumnalis*, *Musca domestica*, *Muscina stabulans*, *Oestrus ovis*, *Opomyza florum*, *Oscinella frit*, *Pegomya hysocyami*, *Phorbia antiqua*, *Phorbia brassicae*, *Phorbia coarctata*, *Phlebotomus argentipes*, *Psorophora columbiae*, *Psila rosae*, *Psorophora discolor*, *Prosimulium mixtum*, *Rhagoletis cerasi*, *Rhagoletis pomonella*, *Sarcophaga haemorrhoidalis*, *Sarcophaga* spp., *Simulium vittatum*, *Stomoxys calcitrans*, *Tabanus bovinus*, *Tabanus atratus*, *Tabanus lineola*, and *Tabanus similis*, *Tipula oleracea*, and *Tipula paludosa*; Hemiptera, in particular aphids: *Acyrtosiphon onobrychis*, *Adelges laricis*, *Aphidula nasturtii*, *Aphis fabae*, *Aphis forbesi*, *Aphis pomi*, *Aphis gossypii*, *Aphis grossulariae*, *Aphis schneideri*, *Aphis spiraeicola*, *Aphis sambuci*, *Acyrtosiphon pisum*, *Aulacorthum solani*, *Brachycaudus cardui*, *Brachycaudus helichrysi*, *Brachycaudus persicae*, *Brachycaudus prunicola*, *Brevicoryne brassicae*, *Capitophorus horni*, *Cerosiphia gossypii*, *Chaetosiphon fragaefolii*, *Cryptomyzus ribis*, *Dreyfusia nordmannianae*, *Dreyfusia piceae*, *Dysaphis radicola*,

Dysaulacorthum pseudosolani, *Dysaphis plantaginea*, *Dysaphis pyri*, *Empoasca fabae*, *Hyalopterus pruni*, *Hyperomyzus lactucae*, *Macrosiphum avenae*, *Macrosiphum euphorbiae*, *Macrosiphon rosae*, *Megoura viciae*, *Melanaphis pyrarius*, *Metopolophium dirhodum*, *Myzodes persicae*, *Myzus ascalonicus*, *Myzus cerasi*, *Myzus varians*, *Nasonovia ribis-nigri*, *Nilaparvata lugens*, *Pemphigus bursarius*,
5 *Perkinsiella saccharicida*, *Phorodon humuli*, *Psylla mali*, *Psylla piri*, *Rhopalomyzus ascalonicus*,
Rhopalosiphum maidis, *Rhopalosiphum padi*, *Rhopalosiphum insertum*, *Sappaphis mala*, *Sappaphis mali*,
Schizaphis graminum, *Schizoneura lanuginosa*, *Sitobion avenae*, *Trialeurodes vaporariorum*, *Toxoptera aurantiiand*, and *Viteus vitifolii*.

10 The present invention further relates to a composition comprising a biologically effective amount of the compound of Formula I and at least one additional biological active compatible compound selected from fungicides, insecticides, nematocides, acaricides, biopesticides, herbicides, plant growth regulators, antibiotics, fertilizers and nutrients. The compounds used in the composition and in combination with the compound of Formula I are also termed as active compatible compounds.

15 The known and reported fungicides, insecticides, nematocides, acaricides, biopesticides, herbicides, plant growth regulators, antibiotics and nutrients can be combined with at least one compound of the Formula I of the present disclosure. For example, fungicides, insecticides, nematocides, acaricides, biopesticides, herbicides, plant growth regulators, antibiotics, fertilizers and nutrients disclosed and reported in
20 WO2016156129 and or WO2017153200 can be combined with at least one compound of the Formula I of the present disclosure.

The fungicides, insecticides, nematocides, acaricides, biopesticides, herbicides, plant growth regulators, antibiotics, fertilizers and nutrients reported in WO2016156129 and or WO2017153200 are incorporated herein by way of reference as non-limiting examples to be combined with at least one compound of the
25 Formula I of the present disclosure.

Particularly, the compounds of the present invention can be mixed with at least one additional biological active compatible compound which includes but is not limited to insecticides, fungicides, nematocides, bactericides, acaricides, growth regulators such as rooting stimulants, chemosterilants, semiochemicals,
30 repellents, attractants, pheromones, feeding stimulants, other biologically active compounds or entomopathogenic bacteria, virus or fungi to form a multi-component pesticide giving an even broader spectrum of agricultural utility.

Examples of such biologically active compounds or agents with which compounds of the present invention can be formulated are:

insecticides such as abamectin, acephate, acetamiprid, amidoflomet (S-1955), avermectin, azadirachtin, azinphos-methyl, bifenthrin, binfenazate, buprofezin, carbofuran, chlorfenapyr, chlorfluazuron, chlorpyrifos, chlorpyrifos-methyl, chromafenozide, clothianidin, cyfluthrin, beta-cyfluthrin, cyhalothrin, lambda-cyhalothrin, cypermethrin, cyromazine, delta ethrin, diafenthiuron, diazinon, diflubenzuron, dimethoate, diofenolan, emamectin, endosulfan, esfenvalerate, ethiprole, fenothicarb, fenoxycarb, fenpropathrin, fenproximate, fenvalerate, fipronil, flonicamid, flucythrinate, tau-fluvalinate, flufenimer (UR-50701), flufenoxuron, fonophos, halofenozide, hexaflumuron, imidacloprid, indoxacarb, isofenphos, lufenuron, malathion, metaldehyde, methamidophos, methidathion, methomyl, methoprene, methoxychlor, monocrotophos, methoxyfenozide, nithiazin, novaluron, noviflumuron (XDE-007), oxamyl, parathion, parathion-methyl, permethrin, phorate, phosalone, phosmet, phosphamidon, pirimicarb, profenofos, pymetrozine, pyridalyl, pyriproxyfen, rotenone, spinosad, spiromesifin (BSN 2060), sulprofos, tebufenozide, teflubenzuron, tefluthrin, terbufos, tetrachlorvinphos, thiacloprid, thiamethoxam, thiodicarb, thiosulfate-sodium, tralomeethrin, trichlorfon and triflumuron;

fungicides such as acibenzolar, azoxystrobin, benomyl, blasticidin-S, Bordeaux mixture (tribasic copper sulfate), bromuconazole, carpropamid, captan, carbendazim, chloroneb, chlorothalonil, copper oxychloride, copper salts, cyflufenamid, cymoxanil, cyproconazole, cyprodinil, (S)-3,5-dichloro-N-(3-chloro-1-ethyl-1-methyl-2-oxopropyl)-4-methylbenzamide (RH 7281), diclocymet (S-2900), diclomezine, dicloran, difenoconazole, (S)-3,5-dihydro-5-methyl-2-(methyl-5-phenyl-3-(phenylartino)-4H-imidazol-4-one (RP 407213), dimethomorph, dimoxystrobin, diniconazole, diniconazole-M, dodine, edifenphos, epoxiconazole, famoxadone, fenamidone, fenarimol, fenbuconazole, iprovalicarb (SZX0722), fenpiclonil, fenpropidin, fenpropimorph, fentin acetate, fentin hydroxide, fluazinam, fludioxonil, flumetover (RPA 403397), flumorf/flumorlin (SYP- L190), fluoxastrobin (HEC 5725), fluquinconazole, flusilazole, flutolanil, flutriafol, folpet, fosetyl-aluminum, furalaxyl, furametapir (S-82658), hexaconazole, ipconazole, iprobenfos, iprodione, isoprothiolane, kasugamycin, kresoxim-methyl, mancozeb, maneb, mefenoxam, mepronil, metalaxyl, metconazole, metomastrobilin/fenominostrobilin (SSF-126), metrafenone (AC 375839), myclobutanil, neo-asozin (ferric methanearsonate), nicobifen (BAS 510), oryastrobin, oxadixyl, penconazole, pencycuron, probenazole, prochloraz, propamocarb, propiconazole, proquinazid (DPX-KQ926), prothioconazole (JAU 6476),

pyrifenox, pyraclostrobin, pyrimethanil, pyroquilon, quinoxifen, spiroxamine, sulfur, tebuconazole, tetraconazole, thiabendazole, thifluzamide, thiophanate-methyl, thiram, tiadinil, triadimefon, tiadimenol, tricyclazole, trifloxystrobin, triticonazole, validamycin and Vinclozolin;

nematocides such as aldicarb, oxamyl and fenamiphos;

5 bactericides such as streptomycin;

acaricides such as amitraz, chinomethionat, chlorobenzilate, cyhexatin, dicofol, dienochlor, etoxazole, fenazaquin, fenbutatin oxide, fenpropathrin, fenpyroximate, hexythiazox, propargite, pyridaben and tebufenpyrad; and

10 biological agents such as *Bacillus thuringiensis* including ssp. *aizawai* and *kurstaki*, *Bacillus thuringiensis* delta endotoxin, baculovirus, and entomopathogenic bacteria, virus and fungi.

A general reference for these agricultural protectants is *The Pesticide Manual*, 12th Edition, C. D. S. Tomlin, Ed., British Crop Protection Council, Farnham, Surrey, U.K., 2000.

In one embodiment insecticides and acaricides for mixing with compounds of the present invention include

15 pyrethroids such as cypermethrin, cyhalothrin, cyfluthrin and beta-cyfluthrin, esfenvalerate, fenvalerate and tralomethrin;

carbamates such as fenothicarb, methomyl, oxamyl and thiodicarb;

20 neonicotinoids such as clothianidin, imidacloprid and thiacloprid, neuronal sodium channel blockers such as indoxacarb, insecticidal macrocyclic lactones such as spinosad, abamectin, avermectin and emamectin;

γ -aminobutyric acid (GABA) antagonists such as endosulfan, ethiprole and fipronil;

insecticidal ureas such as flufenoxuron and triflumuron,

juvenile hormone mimics such as diofenolan and pyriproxyfen;

pymetrozine; and

25 amitraz.

In one embodiment biological agents for mixing with compounds of the present invention include *Bacillus thuringiensis*, *Bacillus thuringiensis* delta endotoxin as well as naturally occurring and genetically modified viral insecticides including members of the family *Baculoviridae* as well as entomophagous fungi.

5 In another embodiment mixtures include a mixture of a compound of the present invention with cyhalothrin; a mixture of a compound of the present invention with beta-cyfluthrin; a mixture of a compound of the present invention with esfenvalerate; a mixture of a compound of the present invention with methomyl; a mixture of a compound of the present invention with imidacloprid; a mixture of a compound of the present invention with thiacloprid; a mixture of a compound of the present invention
10 with indoxacarb; a mixture of a compound of the present invention with abamectin; a mixture of a compound of the present invention with endosulfan; a mixture of a compound of the present invention with ethiprole; a mixture of a compound of the present invention with fipronil; a mixture of a compound of the present invention with flufenoxuron; a mixture of a compound of the present invention with pyriproxyfen; a mixture of a compound of the present invention with pymetrozine; a mixture of a compound of the present invention with amitraz; a mixture of a compound of the present invention with *Bacillus thuringiensis* and a mixture of a compound of the present invention with *Bacillus thuringiensis* delta endotoxin.

In certain instances, combinations with other invertebrate pest control compounds or agents having a similar spectrum of control but a different mode of action will be particularly advantageous for resistance
20 management. Thus, compositions of the present invention can further comprise a biologically effective amount of at least one additional invertebrate pest control compounds or agents having a similar spectrum of control but a different mode of action. Contacting a plant genetically modified to express a plant protection compound (e.g., protein) or the locus of the plant with a biologically effective amount of a compound of invention can also provide a broader spectrum of plant protection and be advantageous for
25 resistance management.

In one embodiment of the present invention, the biologically effective amount of the compound of Formula I in the compositions ranges from 0.1 % to 99% by weight with respect to the total weight of the composition, preferably from 5 to 50% by weight with respect to the total weight of the composition.

30 The present invention furthermore relates to a method of combating insect and mite pests, said method comprising contacting the insect and mite pests, their habit, breeding ground, food supply, plant, seed, soil, area, material or environment in which the insect and mite pests are growing or may grow, or the

materials, plants, seeds, soils, surfaces or spaces to be protected from pest attack or infestation with a biologically effective amount of the compound or the composition of the present invention.

Invertebrate pests are controlled and protection of agronomic, horticultural and specialty crops, animal and human health is achieved by applying one or more of the compounds of the present invention, in an effective amount, to the environment of the pests including the agronomic and/or nonagronomic locus of infestation, to the area to be protected, or directly on the pests to be controlled. Thus, the present invention further comprises a method for the control of foliar- and soil-inhabiting invertebrates and protection of agronomic and/or nonagronomic crops, comprising contacting the invertebrates or their environment with a biologically effective amount of one or more of the compounds of the present invention, or with a composition comprising at least one such compound or a composition comprising at least one such compound and an effective amount of at least one additional biologically active compound or agent. A one embodiment method of contact is by spraying. Alternatively, a granular composition comprising a compound of the present invention can be applied to the plant foliage or the soil. Compounds of the present invention are effective in delivery through plant uptake by contacting the plant with a composition comprising a compound of the present invention applied as a soil drench of a liquid formulation, a granular formulation to the soil, a nursery box treatment or a dip of transplants. Other methods of contact include application of a compound or a composition of the present invention by direct and residual sprays, aerial sprays, seed coats, microencapsulations, systemic uptake, baits, eartags, boluses, foggers, fumigants, aerosols, dusts and many others.

The compounds of the present invention can be incorporated into baits that are consumed by the invertebrates or within devices such as traps and the like. Granules or baits comprising between 0.01-5% active ingredient, 0.05-10% moisture retaining agent(s) and 40-99% vegetable flour are effective in controlling soil insects at very low application rates, particularly at doses of active ingredient that are lethal by ingestion rather than by direct contact. The compounds of the present invention can be applied in their pure state, but most often application will be of a formulation comprising one or more compounds with suitable carriers, diluents, and surfactants and possibly in combination with a food depending on the contemplated end use. A preferred method of application involves spraying a water dispersion or refined oil solution of the compounds. Combinations with spray oils, spray oil concentrations, spreader stickers, adjuvants, other solvents, and synergists such as piperonyl butoxide often enhance compound efficacy.

The rate of application required for effective control (i.e. "biologically effective amount") will depend on such factors as the species of invertebrate to be controlled, the pest's life cycle, life stage, its size, location, time of year, host crop or animal, feeding behavior, mating behavior, ambient moisture,

temperature, and the like. Under normal circumstances, application rates of about 0.01 to 2 kg of active ingredient per hectare are sufficient to control pests in agronomic ecosystems, but as little as 0.0001 kg hectare may be sufficient or as much as 8 kg/hectare may be required. For nonagronomic applications, effective use rates will range from about 1.0 to 50 mg/square meter but as little as 0.1 mg/square meter may be sufficient or as much as 150 mg/square meter may be required. One skilled in the art can easily determine the biologically effective amount necessary for the desired level of invertebrate pest control.

The animal pest, i.e. the insects, arachnids and nematodes, the plant, soil or water in which the plant is growing can be contacted with compounds of Formula I, their N-oxides and salts or composition(s) containing them by any application method known in the art. As such, "contacting" includes both direct contact (applying the compounds/compositions directly on the animal pest or plant typically to the foliage, stem or roots of the plant) and indirect contact (applying the compounds/compositions to the locus of the animal pest or plant).

The compounds of the present invention or the pesticidal compositions comprising them may be used to protect growing plants and crops from attack or infestation by animal pests, especially insects, acaridae or arachnids by contacting the plant/crop with a pesticidally effective amount of at least one compound of the present invention. The term "crop" refers both to growing and harvested crops.

Accordingly, the present invention relates to a method for protecting crops from attack or infestation by insect and mite pests, which comprises contacting the crop with a biologically effective amount of the compound or the composition of the present invention, isomer, polymorph, N-oxide or salt thereof.

The compounds of the present invention are employed as such or in form of compositions by treating the insects or the plants, plant propagation materials, such as seeds, soil, surfaces, materials or rooms to be protected from insecticidal attack with insecticidally effective amount of the active compounds. The application can be carried out both before and after the infection of the plants, plant propagation materials, such as seeds, soil, surfaces, materials or rooms by the insects.

Accordingly, the present invention also relates to a method for the protection of seeds from soil insects and of the seedlings roots and shoots from soil and foliar insects comprising contacting the seeds before sowing and/or after pre-germination with the compound or the composition of the present invention, N-oxide or salt thereof.

Furthermore, the present invention relates to a method for treating or protecting animals against infestation or infection by parasites which comprises orally, topically or parenterally administering or applying to the animals a biologically effective amount of compound or composition of the present invention, isomer, polymorph, N-oxide or veterinary acceptable salt thereof.

- 5 For use in treating crop plants, the rate of application (applying effective dosages) of the compound of the present invention may be in the range of 1 gai to 5000 gai per hectare in agricultural or horticultural crops, preferably from 25 g to 600 g per hectare, more preferably from 50 g to 500 g per hectare.

10 The compounds and the compositions of the present invention are particularly useful in the control of a multitude of insects on various cultivated plants, such as cereal, root crops, oil crops, vegetables, spices, ornamentals, for example seed of durum and other wheat, barley, oats, rye, maize (fodder maize and sugar maize / sweet and field corn), soybeans, oil crops, crucifers, cotton, sunflowers, bananas, rice, oilseed rape, turnip rape, sugarbeet, fodder beet, eggplants, potatoes, grass, lawn, turf, fodder grass, tomatoes, leeks, pumpkin/squash, cabbage, iceberg lettuce, pepper, cucumbers, melons, Brassica species, melons,
15 beans, peas, garlic, onions, carrots, tuberous plants such as potatoes, sugar cane, tobacco, grapes, petunias, geranium/pelargoniums, pansies and impatiens.

Particularly, the compound or the composition of the present invention are useful in protecting agricultural crops such as cereals, corn, rice, soybean and other leguminous plants, fruits and fruit trees,
20 grapes, nuts and nut trees, citrus and citrus trees, any horticultural plants, cucurbitaceae, oleaginous plants, tobacco, coffee, tea, cacao, sugar beet, sugar cane, cotton, potato, tomato, onions, peppers and other vegetables, and ornamentals.

The present invention still further relates to processes for preparing the compound selected from Formula
25 I.

The compounds of the present invention are effective through both contact (via soil, glass, wall, bed net, carpet, plant parts or animal parts), and ingestion (bait or plant part).

30 The compounds of the present invention may also be applied against non-crop insect and mite pests, such as ants, termites, wasps, flies, mosquitos, crickets, or cockroaches. For use against said non-crop pests, compounds of the present invention are preferably used in a bait composition.

The bait can be a liquid, a solid or a semisolid preparation (e.g. a gel). Solid baits can be formed into various shapes and forms suitable to the respective application e.g. granules, blocks, sticks, disks. Liquid baits can be filled into various devices to ensure proper application, e.g. open containers, spray devices, droplet sources, or evaporation sources. Gels can be based on aqueous or oily matrices and can be formulated to particular necessities in terms of stickyness, moisture retention or aging characteristics.

The bait employed in the composition is a product, which is sufficiently attractive to incite insects such as ants, termites, wasps, flies, mosquitos, crickets etc. or cockroaches to eat it. The attractiveness can be manipulated by using feeding stimulants or sex pheromones. Food stimulants are chosen, for example, but not exclusively, from animal and/or plant proteins (meat-, fish or blood meal, insect parts, egg yolk), from fats and oils of animal and/or plant origin, or mono-, oligo or polyorganosaccharides, especially from sucrose, lactose, fructose, dextrose, glucose, starch, pectin or even molasses or honey. Fresh or decaying parts of fruits, crops, plants, animals, insects or specific parts thereof can also serve as a feeding stimulant. Sex pheromones are known to be more insect specific. Specific pheromones are described in the literature and are known to those skilled in the art.

For use in bait compositions, the typical content of active ingredient is from 0.001 weight % to 15 weight %, desirably from 0.001 weight % to 5% weight % of active compound.

Formulations of compounds of the present invention as aerosols (e.g. in spray cans), oil sprays or pump sprays are highly suitable for the non-professional user for controlling pests such as flies, fleas, ticks, mosquitos or cockroaches. Aerosol recipes are preferably composed of the active compound, solvents such as lower alcohols (e.g. methanol, ethanol, propanol, butanol), ketones (e.g. acetone, methyl ethyl ketone), paraffin hydrocarbons (e.g. kerosenes) having boiling ranges of approximately 50 to 250 °C, dimethylformamide, N-methylpyrrolidone, dimethyl sulfoxide, aromatic hydrocarbons such as toluene, xylene, water, furthermore auxiliaries such as emulsifiers such as sorbitol monooleate, oleyl ethoxylate having 3-7 mol of ethylene oxide, fatty alcohol ethoxylate, perfume oils such as ethereal oils, esters of medium fatty acids with lower alcohols, aromatic carbonyl compounds, if appropriate stabilizers such as sodium benzoate, amphoteric surfactants, lower epoxides, triethyl orthoformate and, if required, propellants such as propane, butane, nitrogen, compressed air, dimethyl ether, carbon dioxide, nitrous oxide, or mixtures of these gases.

The oil spray formulations differ from the aerosol recipes in that no propellants are used. For use in spray compositions, the content of active ingredient is from 0.001 to 80 weights %, preferably from 0.01 to 50 weight % and most preferably from 0.01 to 15 weight %.

- 5 The compounds of the present invention and their respective compositions can also be used in mosquito and fumigating coils, smoke cartridges, vaporizer plates or long-term vaporizers and also in moth papers, moth pads or other heat-independent vaporizer systems.

Methods to control infectious diseases transmitted by insects (e.g. malaria, dengue and yellow fever, lymphatic filariasis, and leishmaniasis) with compounds of Formula I and its respective compositions also comprise treating surfaces of huts and houses, air spraying and impregnation of curtains, tents, clothing items, bed nets, tsetse-fly trap or the like. Insecticidal compositions for application to fibers, fabric, knitgoods, nonwovens, netting material or foils and tarpaulins preferably comprise a mixture including the insecticide, optionally a repellent and at least one binder. Suitable repellents for example are N,N-Diethyl-meta-toluamide (DEET), N,N-diethylphenylacetamide (DEPA), 1-(3-cyclohexan-1-yl-carbonyl)-2-methylpiperine, (2-hydroxymethylcyclohexyl) acetic acid lactone, 2-ethyl-1,3-hexandiol, indalone, Methylneodecanamide (MNDA), a pyrethroid not used for insect control such as {(+/-)-3-allyl-2-methyl-4-oxocyclopent-2-(+)-enyl-(+)-trans-chrysanthemate (Esbiothrin), a repellent derived from or identical with plant extracts like limonene, eugenol, (+)-Eucamadol (1), (-)-1-epi-eucamadol or crude plant extracts from plants like Eucalyptus maculata, Vitex rotundifolia, Cymbopogon martinii, Cymbopogon citratus (lemon grass), Cymbopogon nardus (citronella). Suitable binders are selected for example from polymers and copolymers of vinyl esters of aliphatic acids (such as vinyl acetate and vinyl versate), acrylic and methacrylic esters of alcohols, such as butyl acrylate, 2-ethylhexylacrylate, and methyl acrylate, mono and di-ethylenically unsaturated hydrocarbons, such as styrene, and aliphatic dienes, such as butadiene.

The impregnation of curtains and bednets is done in general by dipping the textile material into emulsions or dispersions of the insecticide or spraying them onto the nets.

- 30 The compounds of the present invention and their compositions can be used for protecting wooden materials such as trees, board fences, sleepers, etc. and buildings such as houses, outhouses, factories, but also construction materials, furniture, leathers, fibers, vinyl articles, electric wires and cables etc. from ants and/or termites, and for controlling ants and termites from doing harm to crops or human being (e.g. when the pests invade into houses and public facilities). The compounds of the present invention are

applied not only to the surrounding soil surface or into the under-floor soil in order to protect wooden materials but it can also be applied to lumbered articles such as surfaces of the under-floor concrete, alcove posts, beams, plywoods, furniture, etc., wooden articles such as particle boards, half boards, etc. and vinyl articles such as coated electric wires, vinyl sheets, heat insulating material such as styrene foams, etc.

In case of application against ants doing harm to crops or human beings, a compound of the present invention is applied to the crops or the surrounding soil, or is directly applied to the nest of ants or the like.

Seed treatment

The present invention still further relates to a treated seed comprising the compounds of the present invention, particularly in an amount ranging from about 0.0001% to about 1% by weight of the seed before treatment.

The compounds of the present invention are also suitable for the treatment of seeds in order to protect the seed from insect pest, in particular from soil-living insect and mite pests and the resulting plant's roots and shoots against soil pests and foliar insects.

The compounds of the present invention are particularly useful for the protection of the seed from soil pests and the resulting plant's roots and shoots against soil pests and foliar insects. The protection of the resulting plant's roots and shoots is preferred. More preferred is the protection of resulting plant's shoots from piercing and sucking insects, wherein the protection from aphids is most preferred.

The present invention therefore comprises a method for the protection of seeds from insects, in particular from soil insects and of the seedlings roots and shoots from insects, in particular from soil and foliar insects, said method comprising contacting the seeds before sowing and/or after pregermination with a compound of the present invention thereof. Particularly preferred is a method, wherein the plant's roots and shoots are protected, more preferably a method, wherein the plants shoots are protected from piercing and sucking insects, most preferably a method, wherein the plants shoots are protected from aphids.

The term seed embraces seeds and plant propagules of all kinds including but not limited to true seeds, seed pieces, suckers, corms, bulbs, fruit, tubers, grains, cuttings, cut shoots.

The term seed treatment comprises all suitable seed treatment techniques known in the art, such as seed dressing, seed coating, seed dusting, seed soaking and seed pelleting.

5 The present invention also comprises seeds coated with or containing the active compound. The seeds can be coated with seed coating compositions containing the compounds of the present invention. For example, seed coating compositions reported in EP3165092, EP3158864, WO2016198644, WO2016039623, WO2015192923, CA2940002, US2006150489, US2004237395, WO2011028115, EP2229808, WO2007067042, EP1795071, EP1273219, WO200178507, EP1247436, NL1012918 and
10 CA2083415.

The term “coated with and/or containing” generally signifies that the active ingredient is for the most part on the surface of the propagation product at the time of application, although a greater or lesser part of the ingredient may penetrate into the propagation product, depending on the method of application. When the
15 said propagation product is (re)planted, it may absorb the active ingredient.

Suitable seed is seed of cereals, root crops, oil crops, vegetables, spices, ornamentals, for example seed of durum and other wheat, barley, oats, rye, maize (fodder maize and sugar maize / sweet and field corn), soybeans, oil crops, crucifers, cotton, sunflowers, bananas, rice, oilseed rape, turnip rape, sugarbeet,
20 fodder beet, eggplants, potatoes, grass, lawn, turf, fodder grass, tomatoes, leeks, pumpkin/squash, cabbage, iceberg lettuce, pepper, cucumbers, melons, Brassica species, melons, beans, peas, garlic, onions, carrots, tuberous plants such as potatoes, sugar cane, tobacco, grapes, petunias, geranium/pelargoniums, pansies and impatiens.

25 In addition, the compounds of the present invention may be used for treating seed from plants, which tolerate the action of herbicides or fungicides or insecticides owing to breeding, including genetic engineering methods.

For example, the compound of the present invention can be employed in treatment of seeds from plants,
30 which are resistant to herbicides from the group consisting of the sulfonylureas, imidazolinones, glufosinate-ammonium or glyphosate-isopropylammonium and analogous active substances (see for example, EP242236, EP242246) (WO92/00377) (EP257993, US5013659) or in transgenic crop plants, for example cotton, with the capability of producing *Bacillus thuringiensis* toxins (Bt toxins) which make the plants resistant to certain pests (EP142924, EP193259),

Furthermore, the compound of the present invention can be used for the treatment of seed from plants, which have modified characteristics in comparison with existing plants consist, which can be generated for example by traditional breeding methods and/or the generation of mutants, or by recombinant procedures). For example, a number of cases have been described of recombinant modifications of crop plants for the purpose of modifying the starch synthesized in the plants (e.g. WO92/11376, WO92/14827, WO91/19806) or of transgenic crop plants having a modified fatty acid composition (WO91/13972).

The seed treatment application of the compound of the present invention is carried out by spraying or by dusting the seeds before sowing of the plants and before emergence of the plants.

Compositions which are especially useful for seed treatment are e.g.:

- A. Soluble concentrates (SL, LS)
- B. Emulsions (EW, EO, ES)
- C. Suspensions (SC, OD, FS)
- D. Water-dispersible granules and water-soluble granules (WG, SG)
- E. Water-dispersible powders and water-soluble powders (WP, SP, WS)
- F. Gel-Formulations (GF)
- G. Dustable powders (DP, DS)

Conventional seed treatment formulations include for example flowable concentrates FS, solutions LS, powders for dry treatment DS, water dispersible powders for slurry treatment WS, water-soluble powders SS and emulsion ES and EC and gel formulation GF. These formulations can be applied to the seed diluted or undiluted. Application to the seeds is carried out before sowing, either directly on the seeds or after having pregerminated the latter

In a one embodiment a FS formulation is used for seed treatment. Typically, a FS formulation may comprise 1-800 g/l of active ingredient, 1-200 g/l Surfactant, 0 to 200 g/l antifreezing agent, 0 to 400 g/l of binder, 0 to 200 g/l of a pigment and up to 1 liter of a solvent, preferably water.

Especially FS formulations of compounds of the present invention for seed treatment usually comprise from 0.1 to 80% by weight (1 to 800 g/l) of the active ingredient, from 0.1 to 20 % by weight (1 to 200 g/l) of at least one surfactant, e.g. 0.05 to 5 % by weight of a wetter and from 0.5 to 15 % by weight of a dispersing agent, up to 20 % by weight, e.g. from 5 to 20 % of an anti-freeze agent, from 0 to 15 % by weight, e.g. 1 to 15 % by weight of a pigment and/or a dye, from 0 to 40 % by weight, e.g. 1 to 40 % by

weight of a binder (sticker /adhesion agent), optionally up to 5 % by weight, e.g. from 0.1 to 5 % by weight of a thickener, optionally from 0.1 to 2 % of an anti-foam agent, and optionally a preservative such as a biocide, antioxidant or the like, e.g. in an amount from 0.01 to 1 % by weight and a filler/vehicle up to 100 % by weight.

5 Seed treatment formulations may additionally comprise binders and optionally colorants.

Binders can be added to improve the adhesion of the active materials on the seeds after treatment. Suitable binders are homoand copolymers from alkylene oxides like ethylene oxide or propylene oxide, polyvinylacetate, polyvinylalcohols, polyvinylpyrrolidones, and copolymers thereof, ethylene-vinyl acetate copolymers, acrylic homoand copolymers, polyethyleneamines, polyethyleneamides and
10 polyethylenepyrimidines, polysaccharides like celluloses, tylose and starch, polyolefin homoand copolymers like olefin/maleic anhydride copolymers, polyurethanes, polyesters, polystyrene homo and copolymers

Optionally, also colorants can be included in the formulation. Suitable colorants or dyes for seed
15 treatment formulations are Rhodamin B, C.I. Pigment Red 1 12, C.I. Solvent Red 1 , pigment blue 15:4, pigment blue 15:3, pigment blue 15:2, pigment blue 15:1 , pigment blue 80, pigment yellow 1 , pigment yellow 13, pigment red 1 12, pigment red 48:2, pigment red 48:1 , pigment red 57:1 , pigment red 53:1 , pigment orange 43, pigment orange 34, pigment orange 5, pigment green 36, pigment green 7, pigment white 6, pigment brown 25, basic violet 10, basic violet 49, acid red 51 , acid red 52, acid red 14, acid
20 blue 9, acid yellow 23, basic red 10, basic red 108.

An example of a gelling agent is carrageen (Satiagel®)

In the treatment of seed, the application rates of the compounds of the present invention are generally from 0.1 g to 10 kg per 100 kg of seed, preferably from 1 g to 5 kg per 100 kg of seed, more preferably
25 from 1 g to 1000 g per 100 kg of seed and in particular from 1 g to 200 g per 100 kg of seed. The present invention therefore also provides to seed comprising a compound of the Formula I, or an agriculturally useful salt of I, as defined herein. The amount of the compound I or the agriculturally useful salt thereof will in general vary from 0.1 g to 10 kg per 100 kg of seed, preferably from 1 g to 5 kg per 100 kg of seed, in particular from 1 g to 1000 g per 100 kg of seed. For specific crops such as lettuce the rate can be
30 higher.

Animal health

- 5 The present invention also provides an agricultural and/or veterinary composition comprising at least one compound of the present invention.

10 The present invention still further relates to a use of the compound, N-oxide or veterinarily acceptable salt thereof or the composition of the present invention, for the preparation of a medicament for treating or protecting animals against infestation or infection by insect and mite pests or parasites.

15 The compounds of Formula I, their N-oxides and/or veterinarily acceptable salts thereof are in particular also suitable for being used for combating parasites in and on animals.

- 20 One object of the present invention is therefore to provide new methods to control parasites in and on animals. Another object of the present invention is to provide safer pesticides for animals. Another object of the present invention is to provide pesticides for animals that may be used in lower doses than existing pesticides. Another object of the present invention is to provide pesticides for animals, which provide a long residual control of parasites.

25 The present invention also relates to compositions containing a parasitically effective amount of at least one compound of Formula I, N-oxide or veterinarily acceptable salt thereof and an acceptable carrier, for combating parasites in and on animals.

- 30 The present invention also provides a method for treating, controlling, preventing and protecting animals against infestation and infection by parasites, which comprises orally, topically, or parenteral administering or applying to the animals a parasitically effective amount of a compound of the present invention or a composition comprising it.

35 The present invention also provides a process for the preparation of a composition for treating, controlling, preventing or protecting animals against infestation or infection by parasites which comprises a parasitically effective amount of a compound of the present invention or a composition comprising it.

Activity of compounds against agricultural pests does not suggest their suitability for control of endo and ectoparasites in and on animals which requires, for example, low, non-emetic dosages in the case of oral application, metabolic compatibility with the animal, low toxicity, and a safe handling.

Surprisingly it has now been found that compounds of the present invention are suitable for combating endo and ectoparasites in and on animals.

Compounds of the present invention and compositions comprising them are preferably used for controlling and preventing infestations and infections animals including warm-blooded animals (including humans) and fish. They are for example suitable for controlling and preventing infestations and infections in mammals such as cattle, sheep, swine, camels, deer, horses, pigs, poultry, rabbits, goats, dogs and cats, water buffalo, donkeys, fallow deer and reindeer, and also in fur-bearing animals such as mink, chinchilla and raccoon, birds such as hens, geese, turkeys and ducks and fish such as fresh and salt-water fish such as trout, carp and eels.

Compounds of the present invention and compositions comprising them are preferably used for controlling and preventing infestations and infections in domestic animals, such as dogs or cats.

Infestations in warm-blooded animals and fish include, but are not limited to, lice, biting lice, ticks, nasal bots, keds, biting flies, muscoid flies, flies, myiasitic fly larvae, chiggers, gnats, mosquitoes and fleas.

The compounds of the present invention and compositions comprising them are suitable for systemic and/or non-systemic control of ecto and/or endoparasites. They can be active against all or some stages of development.

The compounds of the present invention are especially useful for combating ectoparasites.

The compounds of the present invention are especially useful for combating parasites of the following orders and species, respectively: fleas (*Siphonaptera*), e.g. *Ctenocephalides felis*, *Ctenocephalides canis*, *Xenopsylla cheopis*, *Pulex irritans*, *Tunga penetrans*, and *Nosopsyllus fasciatus*, cockroaches (*Blattaria* *Blattodea*), e.g. *Blattella germanica*, *Blattella orientalis*, *Periplaneta americana*, *Periplaneta japonica*, *Periplaneta brunnea*, *Periplaneta fuliginosa*, *Periplaneta australasiae*, and *Blatta orientalis*, flies, mosquitoes (*Diptera*), e.g. *Aedes aegypti*, *Aedes albopictus*, *Aedes vexans*, *Anastrepha ludens*, *Anopheles maculipennis*, *Anopheles crucians*, *Anopheles albimanus*, *Anopheles gambiae*, *Anopheles freeborni*, *Anopheles leucosphyrus*, *Anopheles minimus*, *Anopheles quadrimaculatus*, *Calliphora vicina*, *Chrysomya bezziana*, *Chrysomya hominivorax*, *Chrysomya macellaria*, *Chrysops discalis*, *Chrysops silacea*,

Chrysops atlanticus, *Cochliomyia hominivorax*, *Cordylobia anthropophaga*, *Culicoides furens*, *Culex pipiens*, *Culex nigripalpus*, *Culex quinquefasciatus*, *Culex tarsalis*, *Culiseta inornata*, *Culiseta melanura*, *Dermatobia hominis*, *Fannia canicularis*, *Gasterophilus intestinalis*, *Glossina morsitans*, *Glossina palpalis*, *Glossina fuscipes*, *Glossina tachinoides*, *Haematobia irritans*, *Haplodiplosis equestris*,
5 *Hippelates* spp., *Hypoderma lineata*, *Leptoconops torrens*, *Lucilia caprina*, *Lucilia cuprina*, *Lucilia sericata*, *Lycoria pectoralis*, *Mansonia* spp., *Musca domestica*, *Muscina stabulans*, *Oestrus ovis*, *Phlebotomus argentipes*, *Psorophora columbiae*, *Psorophora discolor*, *Prosimulium mixtum*, *Sarcophaga haemorrhoidalis*, *Sarcophaga* sp., *Simulium vittatum*, *Stomoxys calcitrans*, *Tabanus bovinus*, *Tabanus atratus*, *Tabanus lineola*, and *Tabanus similis*, lice (Phthiraptera), e.g. *Pediculus humanus capitis*,
10 *Pediculus humanus corporis*, *Pthirus pubis*, *Haematopinus eurysternus*, *Haematopinus suis*, *Linognathus vituli*, *Bovicola bovis*, *Menopon gallinae*, *Menacanthus stramineus* and *Solenopotes capillatus*. ticks and parasitic mites (Parasitiformes): ticks (Ixodida), e.g. *Ixodes scapularis*, *Ixodes holocyclus*, *Ixodes pacificus*, *Rhiphicephalus sanguineus*, *Dermacentor andersoni*, *Dermacentor variabilis*, *Amblyomma americanum*, *Amblyomma maculatum*, *Ornithodoros hermsi*, *Ornithodoros turicata* and parasitic mites
15 (Mesostigmata), e.g. *Ornithonyssus bacoti* and *Dermanyssus gallinae*, Actiniedida (Prostigmata) und Acaridida (Astigmata) e.g. *Acarapis* spp., *Cheyletiella* spp., *Ornithocheyletia* spp., *Myobia* spp., *Psorergates* spp., *Demodex* spp., *Trombicula* spp., *Listrophorus* spp., *Acarus* spp., *Tyrophagus* spp., *Caloglyphus* spp., *Hypodectes* spp., *Pterolichus* spp., *Psoroptes* spp., *Chorioptes* spp., *Otodectes* spp., *Sarcoptes* spp., *Notoedres* spp., *Knemidocoptes* spp., *Cytodites* spp., and *Laminosioptes* spp, Bugs
20 (Heteroptera): *Cimex lectularius*, *Cimex hemipterus*, *Reduvius senilis*, *Triatoma* spp., *Rhodnius* spp., *Panstrongylus* spp. and *Arilus critatus*, Anoplurida, e.g. *Haematopinus* spp., *Linognathus* spp., *Pediculus* spp., *Pthirus* spp., and *Solenopotes* spp, Mallophagida (suborders Amblycerina and Ischnocerina), e.g. *Trimenopon* spp., *Menopon* spp., *Trinoton* spp., *Bovicola* spp., *Werneckiella* spp., *Lepikentron* spp., *Trichodectes* spp., and *Felicola* spp.

25

Roundworms Nematoda:

Wipeworms and Trichinosis (Trichosyringida), e.g. *Trichinellidae* (*Trichinella* spp.), (*Trichuridae*,) *Trichuris* spp., *Capillaria* spp, Rhabditida, e.g. *Rhabditis* spp, *Strongyloides* spp., *Helicephalobus* spp, *Strongylida*, e.g. *Strongylus* spp., *Ancylostoma* spp., *Necator americanus*, *Bunostomum* spp. (Hookworm),
30 *Trichostrongylus* spp., *Haemonchus contortus*, *Ostertagia* spp., *Cooperia* spp., *Nematodirus* spp., *Dictyocaulus* spp., *Cyathostoma* spp., *Oesophagostomum* spp., *Stephanurus dentatus*, *Ollulanus* spp., *Chabertia* spp., *Stephanurus dentatus* , *Syngamus trachea*, *Ancylostoma* spp., *Uncinaria* spp., *Globocephalus* spp., *Necator* spp., *Metastrongylus* spp., *Muellerius capillaris*, *Protostrongylus* spp., *Angiostrongylus* spp., *Parelaphostrongylus* spp. *Aleurostrongylus abstrusus*, and *Dioctophyma renale*,

Intestinal roundworms (Ascaridida), e.g. Ascaris lumbricoides, Ascaris suum, Ascaridia galli, Parascaris equorum, Enterobius vermicularis (Threadworm), Toxocara canis, Toxascaris leonine, Skrjabinema spp., and Oxyuris equi, Camallanida, e.g. Dracunculus medinensis (guinea worm) Spirurida, e.g. Thelazia spp. Wuchereria spp., Brugia spp., Onchocerca spp., Dirofilaria spp. a, Dipetalonema spp., Setaria spp., Elaeophora spp., Spirocerca lupi, and Habronema spp, Thorny headed worms (Acanthocephala), e.g. Acanthocephalus spp., Macracanthorhynchus hirudinaceus and Oncicola spp, Planarians (Plathelminthes): Flukes (Trematoda), e.g. Fasciola spp., Fascioloides magna, Paragonimus spp., Dicrocoelium spp., Fasciolopsis buski, Clonorchis sinensis, Schistosoma spp., Trichobilharzia spp., Alaria a lata, Paragonimus spp., and Nanocyetes spp, Cercomeromorpha, in particular Cestoda (Tapeworms), e.g. Diphyllbothrium spp., Tenia spp., Echinococcus spp., Dipylidium caninum, Multiceps spp., Hymenolepis spp., Mesocestoides spp., Vampirolepis spp., Moniezia spp., Anoplocephala spp., Sirometra spp., Anoplocephala spp., and Hymenolepis spp. The compounds of Formula I and compositions containing them are particularly useful for the control of pests from the orders Diptera, Siphonaptera and Ixodida.

Moreover, the use of the compounds of Formula I and compositions containing them for combating mosquitoes is one embodiment of the present invention.

The use of the compounds of the present invention and compositions containing them for combating flies is another embodiment of the present invention.

Furthermore, the use of the compounds of the present invention and compositions containing them for combating fleas is one embodiment of the present invention.

The use of the compounds of the present invention and compositions containing them for combating ticks is also an embodiment of the present invention.

The compounds of the present invention also are especially useful for combating endoparasites (roundworms nematoda, thorny headed worms and planarians).

Administration can be carried out both prophylactically and therapeutically.

Administration of the compounds of the present invention is carried out directly or in the form of suitable preparations, orally, topically/dermally or parenterally.

For oral administration to warm-blooded animals, compounds of the present invention may be formulated as animal feeds, animal feed premixes, animal feed concentrates, pills, solutions, pastes, suspensions, drenches, gels, tablets, boluses and capsules. In addition, the compounds of the present invention may be administered to the animals in their drinking water. For oral administration, the dosage form chosen
5 should provide the animal with 0.01 mg/kg to 100 mg/kg of animal body weight per day of the compound of the present invention, preferably with 0.5 mg/kg to 100 mg/kg of animal body weight per day.

Alternatively, the compounds of the present invention may be administered to animals parenterally, for example, by intraruminal, intramuscular, intravenous or subcutaneous injection. The compounds of the
10 present invention may be dispersed or dissolved in a physiologically acceptable carrier for subcutaneous injection. Alternatively, the compounds of the present invention may be formulated into an implant for subcutaneous administration. In addition the compound of the present invention may be transdermally administered to animals. For parenteral administration, the dosage form chosen should provide the animal with 0.01 mg/kg to 100 mg/kg of animal body weight per day of the compound of the present invention.

The compounds of the present invention may also be applied topically to the animals in the form of dips,
15 dusts, powders, collars, medallions, sprays, shampoos, spot-on and pour-on formulations and in ointments or oil-in-water or water-in-oil emulsions. For topical application, dips and sprays usually contain 0.5 ppm to 5,000 ppm and preferably 1 ppm to 3,000 ppm of the compound of the present invention. In addition,
20 the compounds of the present invention may be formulated as ear tags for animals, particularly quadrupeds such as cattle and sheep.

Suitable preparations are: Solutions such as oral solutions, concentrates for oral administration after
25 dilution, solutions for use on the skin or in body cavities, pouring-on formulations, gels; Emulsions and suspensions for oral or dermal administration; semi-solid preparations; Formulations in which the active compound is processed in an ointment base or in an oil-in-water or water-in-oil emulsion base; Solid preparations such as powders, premixes or concentrates, granules, pellets, tablets, boluses, capsules; aerosols and inhalants, and active compound-containing shaped articles.

30 Compositions suitable for injection are prepared by dissolving the active ingredient in a suitable solvent and optionally adding further ingredients such as acids, bases, buffer salts, preservatives, and solubilizers.

The solutions are filtered and filled sterile.

Suitable solvents are physiologically tolerable solvents such as water, alkanols such as ethanol, butanol, benzyl alcohol, glycerol, propylene glycol, polyethylene glycols, N-methylpyrrolidone, 2-pyrrolidone, and mixtures thereof.

- 5 The active compounds can optionally be dissolved in physiologically tolerable vegetable or synthetic oils which are suitable for injection.

Suitable solubilizers are solvents which promote the dissolution of the active compound in the main solvent or prevent its precipitation. Examples are polyvinylpyrrolidone, polyvinyl alcohol,
10 polyoxyethylated castor oil, and polyoxyethylated sorbitan ester.

Suitable preservatives are benzyl alcohol, trichlorobutanol, p-hydroxybenzoic acid esters, and n-butanol.

- 15 Oral solutions are administered directly. Concentrates are administered orally after prior dilution to the use concentration. Oral solutions and concentrates are prepared according to the state of the art and as described above for injection solutions, sterile procedures not being necessary.

Solutions for use on the skin are trickled on, spread on, rubbed in, sprinkled on or sprayed on.

- 20 Solutions for use on the skin are prepared according to the state of the art and according to what is described above for injection solutions, sterile procedures not being necessary.

Further suitable solvents are polypropylene glycol, phenyl ethanol, phenoxy ethanol, ester such as ethyl or butyl acetate, benzyl benzoate, ethers such as alkylene glycol alkylether, e.g. dipropylenglycol
25 monomethylether, ketons such as acetone, methylethylketone, aromatic hydrocarbons, vegetable and synthetic oils, dimethylformamide, dimethylacetamide, transcitol, solketal, propylencarbonate, and mixtures thereof.

- 30 It may be advantageous to add thickeners during preparation. Suitable thickeners are inorganic thickeners such as bentonites, colloidal silicic acid, aluminium monostearate, organic thickeners such as cellulose derivatives, polyvinyl alcohols and their copolymers, acrylates and methacrylates.

Gels are applied to or spread on the skin or introduced into body cavities. Gels are prepared by treating solutions which have been prepared as described in the case of the injection solutions with sufficient

thickener that a clear material having an ointment-like consistency results. The thickeners employed are the thickeners given above.

Pour-on formulations are poured or sprayed onto limited areas of the skin, the active compound
5 penetrating the skin and acting systemically. Pour-on formulations are prepared by dissolving, suspending or emulsifying the active compound in suitable skin-compatible solvents or solvent mixtures. If appropriate, other auxiliaries such as colorants, bioabsorption-promoting substances, antioxidants, light stabilizers, adhesives are added.

10 Suitable solvents which are: water, alkanols, glycols, polyethylene glycols, polypropylene glycols, glycerol, aromatic alcohols such as benzyl alcohol, phenylethanol, phenoxyethanol, esters such as ethyl acetate, butyl acetate, benzyl benzoate, ethers such as alkylene glycol alkyl ethers such as dipropylene glycol monomethyl ether, diethylene glycol mono-butyl ether, ketones such as acetone, methyl ethyl ketone, cyclic carbonates such as propylene carbonate, ethylene carbonate, aromatic and/or aliphatic
15 hydrocarbons, vegetable or synthetic oils, DMF, dimethylacetamide, n-alkylpyrrolidones such as methylpyrrolidone, n-butylpyrrolidone or noctylpyrrolidone, N-methylpyrrolidone, 2-pyrrolidone, 2,2-dimethyl-4-oxy-methylene-1,3-dioxolane and glycerol formal.

Suitable colorants are all colorants permitted for use on animals and which can be dissolved or suspended.

20 Suitable absorption-promoting substances are, for example, DMSO, spreading oils such as isopropyl myristate, dipropylene glycol pelargonate, silicone oils and copolymers thereof with polyethers, fatty acid esters, triglycerides, fatty alcohols.

25 Suitable antioxidants are sulfites or metabisulfites such as potassium metabisulfite, ascorbic acid, butylhydroxytoluene, butylhydroxyanisole, tocopherol.

Suitable light stabilizers are, for example, novantisolic acid. Suitable adhesives are, for example, cellulose derivatives, starch derivatives, polyacrylates, natural polymers such as alginates, gelatin. Emulsions can
30 be administered orally, dermally or as injections. Emulsions are either of the water-in-oil type or of the oil-in-water type.

They are prepared by dissolving the active compound either in the hydrophobic or in the hydrophilic phase and homogenizing this with the solvent of the other phase with the aid of suitable emulsifiers and,

if appropriate, other auxiliaries such as colorants, absorption-promoting substances, preservatives, antioxidants, light stabilizers, viscosity-enhancing substances.

Suitable hydrophobic phases (oils) are:

5

Liquid paraffins, silicone oils, natural vegetable oils such as sesame oil, almond oil, castor oil, synthetic triglycerides such as caprylic/capric triglyceride, triglyceride mixture with vegetable fatty acids of the chain length C₈-C₁₂ or other specially selected natural fatty acids, partial glyceride mixtures of saturated or unsaturated fatty acids possibly also containing hydroxyl groups, mono and diglycerides of the C₈-do fatty acids, fatty acid esters such as ethyl stearate, di-n-butyl adipate, hexyl laurate, dipropylene glycol perlargonate, esters of a branched fatty acid of medium chain length with saturated fatty alcohols of chain length C₁₆-C₁₈, isopropyl myristate, isopropyl palmitate, caprylic/capric acid esters of saturated fatty alcohols of chain length C₁₂-C₁₈, isopropyl stearate, oleyl oleate, decyl oleate, ethyl oleate, ethyl lactate, waxy fatty acid esters such as synthetic duck coccygeal gland fat, dibutyl phthalate, diisopropyl adipate, and ester mixtures related to the latter, fatty alcohols such as isotridecyl alcohol, 2-octyldodecanol, cetylstearyl alcohol, oleyl alcohol, and fatty acids such as oleic acid and mixtures thereof. Suitable hydrophilic phases are: water, alcohols such as propylene glycol, glycerol, sorbitol and mixtures thereof. Suitable emulsifiers are: non-ionic surfactants, e.g. polyethoxylated castor oil, polyethoxylated sorbitan monooleate, sorbitan monostearate, glycerol monostearate, polyoxyethyl stearate, alkylphenol polyglycol ether; ampholytic surfactants such as di-sodium N-lauryl-p-iminodipropionate or lecithin.

20

Suitable Anionic surfactants are sodium lauryl sulfate, fatty alcohol ether sulfates, mono/dialkyl polyglycol ether orthophosphoric acid ester monoethanolamine salt; suitable cation-active surfactants are cetyltrimethylammonium chloride.

25

Suitable further auxiliaries are: substances which enhance the viscosity and stabilize the emulsion, such as carboxymethylcellulose, methylcellulose and other cellulose and starch derivatives, polyacrylates, alginates, gelatin, gum arabic, polyvinylpyrrolidone, polyvinyl alcohol, copolymers of methyl vinyl ether and maleic anhydride, polyethylene glycols, waxes, colloidal silicic acid or mixtures of the substances mentioned.

30

Suspensions can be administered orally or topically/dermally. They are prepared by suspending the active compound in a suspending agent, if appropriate with addition of other auxiliaries such as wetting agents, colorants, bioabsorption-promoting substances, preservatives, antioxidants, light stabilizers.

Liquid suspending agents are all homogeneous solvents and solvent mixtures.

Suitable wetting agents (dispersants) are the emulsifiers given above.

Other auxiliaries which may be mentioned are those given above.

- 5 Semi-solid preparations can be administered orally or topically/dermally. They differ from the suspensions and emulsions described above only by their higher viscosity.

For the production of solid preparations, the active compound is mixed with suitable excipients, if appropriate with addition of auxiliaries, and brought into the desired form.

10

Suitable excipients are all physiologically tolerable solid inert substances. Those used are inorganic and organic substances. Inorganic substances are, for example, sodium chloride, carbonates such as calcium carbonate, hydrogencarbonates, aluminium oxides, titanium oxide, silicic acids, argillaceous earths, precipitated or colloidal silica, or phosphates. Organic substances are, for example, sugar, cellulose,
15 foodstuffs and feeds such as milk powder, animal meal, grain meals and shreds, starches.

Suitable auxiliaries are preservatives, antioxidants, and/or colorants which have been mentioned above.

- Other suitable auxiliaries are lubricants and glidants such as magnesium stearate, stearic acid, talc, bentonites, disintegration-promoting substances such as starch or crosslinked polyvinylpyrrolidone,
20 binders such as starch, gelatin or linear polyvinylpyrrolidone, and dry binders such as microcrystalline cellulose.

- In general, "parasitically effective amount" means the amount of active ingredient needed to achieve an observable effect on growth, including the effects of necrosis, death, retardation, prevention, and removal,
25 destruction, or otherwise diminishing the occurrence and activity of the target organism. The parasitically effective amount can vary for the various compounds/compositions used in the present invention. A parasitically effective amount of the compositions will also vary according to the prevailing conditions such as desired parasitidal effect and duration, target species, mode of application, and the like. The compositions which can be used in the present invention generally comprise from about
30 0.001 to 95% of the compound of the present invention.

Generally it is favorable to apply the compounds of the present invention in total amounts of 0.5 mg/kg to 100 mg/kg per day, preferably 1 mg/kg to 50 mg/kg per day. Ready-to-use preparations contain the compounds acting against parasites, preferably ectoparasites, in concentrations of 10 ppm to 80 per cent

by weight, preferably from 0.1 to 65 per cent by weight, more preferably from 1 to 50 per cent by weight, most preferably from 5 to 40 per cent by weight. Preparations are diluted before use contains the compounds acting against ectoparasites in concentrations of 0.5 to 90 per cent by weight, preferably of 1 to 50 per cent by weight. Furthermore, the preparations comprise the compounds of the present invention
5 against endoparasites in concentrations of 10 ppm to 2 per cent by weight, preferably of 0.05 to 0.9 per cent by weight, very particularly preferably of 0.005 to 0.25 per cent by weight.

In one embodiment, the compositions comprising the compounds of the present invention are applied dermally/topically.

10 In another embodiment, the topical application is conducted in the form of compound-containing shaped articles such as collars, medallions, ear tags, bands for fixing at body parts, and adhesive strips and foils.

Generally it is favorable to apply solid formulations which release compounds of the present invention in
15 total amounts of 10 mg/kg to 300 mg/kg, preferably 20 mg/kg to 200 mg/kg, most preferably 25 mg/kg to 160 mg/kg body weight of the treated animal in the course of three weeks.

For the preparation of the shaped articles, thermoplastic and flexible plastics as well as elastomers and thermoplastic elastomers are used. Suitable plastics and elastomers are polyvinyl resins, polyurethane,
20 polyacrylate, epoxy resins, cellulose, cellulose derivatives, polyamides and polyester which are sufficiently compatible with the compounds of the present invention. A detailed list of plastics and elastomers as well as preparation procedures for the shaped articles is given e.g. in WO 2003/086075.

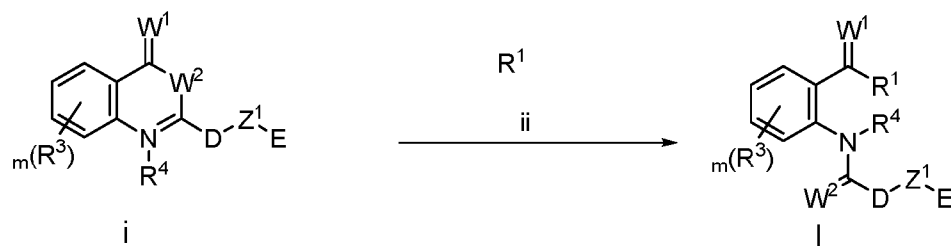
Positive crop response:

25 The compounds of the present invention not only control insect and mite pests effectively but also show positive crop response such as plant growth enhancement effects like enhanced crop vigour, enhanced root growth, enhanced tolerant to drought, high salt, high temperature, chill, frost or light radiation, improved flowering, efficient water and nutrient utilization (such as improved nitrogen assimilation),
30 enhanced quality plant product, more number of productive tillers, enhanced resistance to fungi, insects, pests and the like, which results in higher yields.

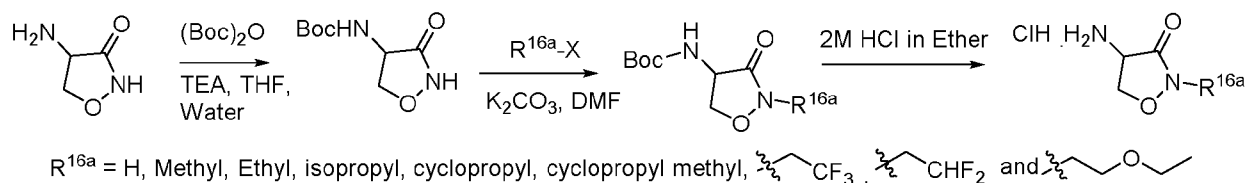
The invention is now illustrated in further details by the following examples, without imposing any limitation thereto.

CHEMISTRY EXAMPLES:

General Scheme 1: Synthesis of (Cycloserine) diamides



General Scheme 2: Synthesis of n-alkyl cycloserine



Example 1: Synthesis of n-ethyl cycloserine:

a) Preparation of tert-butyl (3-oxoisoxazolidin-4-yl)carbamate:

To a stirred solution of 4-aminoisoxazolidin-3-one (4 g, 39 mmol) in tetrahydrofuran (70 mL) and water (10.0 mL), triethylamine (5.5 mL, 39 mmol) was added at 0 °C and stirred it for 15 min. Boc-anhydride (9.6 mL, 41 mmol) in tetrahydrofuran (70 mL) was added slowly. The reaction mixture was stirred at 25 °C for 24 h. Tetrahydrofuran was removed under reduced pressure, acidified with hydrochloric acid (pH 2) and extracted three times with ethyl acetate (250 mL). The combined ethyl acetate layer was washed with brine and dried over anhydrous sodium sulphate. The tetrahydrofuran was removed under reduced pressure to obtain crude tert-butyl (3-oxoisoxazolidin-4-yl)carbamate (6 g, 29.7 mmol, 76 % yield), ¹H-NMR (400 MHz, DMSO-D6) δ 11.38 (s, 1H), 7.37 (d, J = 7.9 Hz, 1H), 4.43-4.53 (m, 2H), 3.89 (dd, J = 9.7, 7.9 Hz, 1H), 3.07 (dd, J = 7.3, 4.8 Hz, 1H), 1.34-1.44 (m, 9H).

b) Preparation of tert-butyl -(2-ethyl-3-oxoisoxazolidin-4-yl)carbamate:

To a solution of tert-butyl (3-oxoisoxazolidin-4-yl)carbamate (200 mg, 1.0 mmol) in *N,N*-dimethylformamide (3 mL), potassium carbonate (273 mg, 2.0 mmol) and iodoethane (154 mg, 1.0

mmol) were added at 25 °C and stirred for 16 h at 25 °C. The *N,N*-dimethylformamide was removed under reduced pressure and the reaction mixture was diluted with water (20 mL) and extracted three times with ethyl acetate (25 mL). The combined ethyl acetate layer was washed with brine and dried over anhydrous sodium sulphate. *N,N*-dimethylformamide was removed under reduced pressure to obtain a crude product, which was purified by combiflash (40% ethyl acetate in hexane) to obtain tert-butyl -(2-ethyl-3-oxoisoxazolidin-4-yl)carbamate (150 mg, 0.7 mmol, 66 % yield). ¹H-NMR (400 MHz, DMSO-D₆) δ 7.42 (d, J = 7.9 Hz, 1H), 4.39-4.54 (m, 2H), 3.84-3.90 (m, 1H), 3.41-3.52 (m, 2H), 1.38 (d, J = 6.6 Hz, 9H), 1.09 (t, J = 7.1 Hz, 3H).

c) Preparation of 4-amino-2-ethylisoxazolidin-3-one hydrochloride:

A mixture of tert-butyl (2-ethyl-3-oxoisoxazolidin-4-yl)carbamate (2 g, 8.7 mmol) and 2M hydrochloric acid in ether (10 mL) was stirred at 25 °C for 10 h. Ether was removed under reduced pressure to obtain a salt of 4-amino-2-ethylisoxazolidin-3-one hydrochloride (1.3 g, 7.80 mmol, 90 % yield).

Example 2: Synthesis of compound of formula I:

a) (*S*)-3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide:

To a stirred solution of 2-(3-bromo-1-(3-chloropyridin-2-yl)-1H-pyrazol-5-yl)-8-methyl-4-oxo-4H-benzo[d][1,3]oxazine-6-carbonitrile (300 mg, 0.7 mmol) in tetrahydrofuran, (5 mL) (*S*)-4-amino-2-ethylisoxazolidin-3-one hydrochloride (169 mg, 1.0 mmol) were added at 0 °C. The resulting reaction mixture was stirred for 16 h at 25 °C. After completion of the reaction, tetrahydrofuran was removed under reduced pressure to obtain a crude compound, which was subjected to combiflash chromatography by using 60% ethyl acetate in hexane to obtain 90% pure compound and preparative HPLC to obtain (*S*)-3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide (160 mg, 0.3 mmol, 41% yield).

b) (*R*)-3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide:

To a stirred solution of 2-(3-bromo-1-(3-chloropyridin-2-yl)-1H-pyrazol-5-yl)-8-methyl-4-oxo-4H-benzo[d][1,3]oxazine-6-carbonitrile (300 mg, 0.7 mmol) in tetrahydrofuran (5 mL), (*R*)-4-amino-2-ethylisoxazolidin-3-one hydrochloride (169 mg, 1.0 mmol) and *N,N*-diisopropylethylamine (0.2 mL, 1.0 mmol) was added at 0 °C. The resulting reaction mixture was stirred for 16 h at 25 °C. After completion of the reaction, tetrahydrofuran was removed under reduced pressure to obtain a crude product, which was further purified by combi flash followed by preparative HPLC to obtain (*R*)-3-bromo-1-(3-

chloropyridin-2-yl)-N-(4-cyano-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide (155 mg, 0.3 mmol, 40 % yield).

Table 1: Representative compounds of the present disclosure prepared according to the suitable method as described in schemes and examples using suitable corresponding reactants.

Compound No	Name	¹ H-NMR	LCMS
1	3-bromo-N-(4-chloro-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.22 (s, 1H), 8.92 (d, J = 7.8 Hz, 1H), 8.47-8.51 (m, 1H), 8.17 (td, J = 7.8, 1.4 Hz, 1H), 7.59-7.63 (m, 1H), 7.52 (d, J = 2.1 Hz, 1H), 7.39 (s, 1H), 7.35 (d, J = 2.3 Hz, 1H), 4.83 (q, J = 8.5 Hz, 1H), 4.41 (t, J = 8.4 Hz, 1H), 3.88 (t, J = 8.7 Hz, 1H), 3.46-3.56 (m, 2H), 2.17 (s, 3H), 1.14 (q, J = 7.1 Hz, 3H)	582.8
2	3-bromo-N-(4-chloro-2-methyl-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.24 (s, 1H), 9.01 (d, J = 7.9 Hz, 1H), 8.48 (dd, J = 4.7, 1.5 Hz, 1H), 8.16 (dd, J = 8.1, 1.5 Hz, 1H), 7.60 (dd, J = 8.1, 4.7 Hz, 1H), 7.53 (d, J = 2.3 Hz, 1H), 7.38 (s, 1H), 7.35 (d, J = 2.3 Hz, 1H), 4.93 (dd, J = 16.9, 8.8 Hz, 1H), 4.47 (t, J = 8.6 Hz, 1H), 4.33-4.42 (m, 2H), 3.98 (t, J = 8.9 Hz, 1H), 2.18 (s, 3H)	636.2
3	3-bromo-N-(4-chloro-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.22 (s, 1H), 8.93 (d, J = 7.9 Hz, 1H), 8.48 (dd, J = 4.7, 1.5 Hz, 1H), 8.16 (dd, J = 8.0, 1.5 Hz, 1H), 7.60 (dd, J = 8.1, 4.7 Hz, 1H), 7.52 (d, J = 2.1 Hz, 1H), 7.35-7.39 (m, 2H), 4.85 (q, J = 8.6 Hz, 1H), 4.43 (t, J = 8.5 Hz, 1H), 3.90 (t, J = 8.9 Hz, 1H), 3.36 (t, J = 6.8 Hz, 2H), 2.16 (d, J = 10.2 Hz, 3H), 0.99-1.04 (m, 1H), 0.46-0.51 (m, 2H), 0.23-0.27 (m, 2H)	609.3
4	N-(4-chloro-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.05 (s, 1H), 8.89 (d, J = 7.8 Hz, 1H), 8.44 (dd, J = 4.7, 1.5 Hz, 1H), 8.09 (dd, J = 8.1, 1.5 Hz, 1H), 7.50-7.54 (m, 2H), 7.34 (d, J = 2.1 Hz, 1H), 6.74 (s, 1H), 4.86 (q, J = 8.6 Hz, 1H), 4.43 (t, J = 8.5 Hz, 1H), 3.86-3.93 (m, 4H), 3.34-3.42 (m, 2H), 2.17 (t, J = 10.6 Hz, 3H), 0.99-1.05 (m, 1H), 0.46-0.51 (m, 2H), 0.23-0.26 (m, 2H)	559.15

5	3-bromo-N-(4-chloro-2-methyl-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 11.51 (s, 1H), 10.21 (s, 1H), 8.88 (d, J = 7.3 Hz, 1H), 8.48 (dd, J = 4.7, 1.5 Hz, 1H), 8.16 (dd, J = 8.1, 1.4 Hz, 1H), 7.60 (dd, J = 8.1, 4.7 Hz, 1H), 7.51 (d, J = 2.1 Hz, 1H), 7.40 (s, 1H), 7.35 (d, J = 2.3 Hz, 1H), 4.80 (d, J = 8.9 Hz, 1H), 4.40 (t, J = 8.5 Hz, 1H), 3.89 (t, J = 9.1 Hz, 1H), 2.17 (s, 3H)	555.05
6	N-(4-chloro-2-methyl-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.07 (s, 1H), 8.98 (d, J = 7.9 Hz, 1H), 8.43 (dd, J = 4.7, 1.4 Hz, 1H), 8.09 (dd, J = 8.0, 1.5 Hz, 1H), 7.51-7.54 (m, 2H), 7.34 (d, J = 2.3 Hz, 1H), 6.74 (s, 1H), 4.92 (d, J = 8.3 Hz, 1H), 4.46 (t, J = 8.6 Hz, 1H), 4.36-4.40 (m, 2H), 3.98 (t, J = 8.9 Hz, 1H), 3.86 (s, 3H), 2.19 (d, J = 6.4 Hz, 3H)	587.15
7	N-(4-chloro-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.14 (s, 1H), 8.91 (d, J = 7.8 Hz, 1H), 8.45 (dd, J = 4.7, 1.4 Hz, 1H), 8.12 (dd, J = 8.0, 1.3 Hz, 1H), 7.51-7.57 (m, 2H), 7.34 (d, J = 2.3 Hz, 1H), 6.86 (s, 1H), 4.81-4.93 (m, 3H), 4.41 (t, J = 8.5 Hz, 1H), 3.88 (t, J = 8.7 Hz, 1H), 3.47-3.54 (m, 2H), 2.16 (d, J = 10.7 Hz, 3H), 1.12 (t, J = 7.1 Hz, 3H)	601.15
8	N-(4-chloro-2-methyl-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.16 (s, 1H), 9.00 (d, J = 7.9 Hz, 1H), 8.45 (dd, J = 4.7, 1.5 Hz, 1H), 8.12 (dd, J = 7.9, 1.5 Hz, 1H), 7.52-7.57 (m, 2H), 7.35 (d, J = 2.4 Hz, 1H), 6.85 (s, 1H), 4.86-4.94 (m, 3H), 4.47 (t, J = 8.6 Hz, 1H), 4.38 (dd, J = 8.9, 7.4 Hz, 2H), 3.99 (t, J = 8.9 Hz, 1H), 2.18 (s, 3H)	655.15
9	N-(4-chloro-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.14 (s, 1H), 8.92 (d, J = 7.9 Hz, 1H), 8.45 (dd, J = 4.7, 1.5 Hz, 1H), 8.12 (dd, J = 8.1, 1.6 Hz, 1H), 7.55 (dd, J = 8.0, 4.7 Hz, 1H), 7.51 (d, J = 2.0 Hz, 1H), 7.35 (d, J = 2.3 Hz, 1H), 6.86 (s, 1H), 4.83-4.93 (m, 3H), 4.44 (t, J = 8.5 Hz, 1H), 3.91 (t, J = 8.9 Hz, 1H), 3.34-3.42 (m, 2H), 2.18 (s, 3H), 1.00-1.04 (m, 1H), 0.46-0.50 (m, 2H), 0.23-0.26 (m, 2H)	627.05

10	3-bromo-N-(2-bromo-4-chloro-6-((2-(2,2-difluoroethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.50 (s, 1H), 9.09 (d, J = 6.6 Hz, 1H), 8.49 (ddd, J = 10.0, 4.7, 1.5 Hz, 1H), 8.16 (dd, J = 7.9, 1.4 Hz, 1H), 8.02 (d, J = 1.5 Hz, 1H), 7.58-7.63 (m, 1H), 7.51 (dd, J = 6.9, 2.3 Hz, 1H), 7.45 (s, 1H), 6.21 (tt, J = 54.7, 3.5 Hz, 1H), 4.86 (q, J = 8.4 Hz, 1H), 4.43 (t, J = 8.6 Hz, 1H), 3.88-3.96 (m, 3H)	682.9
11	3-bromo-N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.48 (s, 1H), 9.01 (d, J = 7.8 Hz, 1H), 8.48 (dd, J = 4.5, 1.6 Hz, 1H), 8.16 (dd, J = 8.0, 1.5 Hz, 1H), 8.01 (d, J = 2.3 Hz, 1H), 7.60 (dd, J = 8.0, 4.7 Hz, 1H), 7.51 (d, J = 2.4 Hz, 1H), 7.45 (s, 1H), 4.80 (q, J = 8.4 Hz, 1H), 4.39 (t, J = 8.5 Hz, 1H), 3.83 (t, J = 8.7 Hz, 1H), 3.45-3.53 (m, 2H), 1.12 (t, J = 7.1 Hz, 3H)	648.75
12	N-(4-chloro-2-((2-(2,2-difluoroethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.15 (s, 1H), 8.98 (d, J = 7.9 Hz, 1H), 8.45 (dd, J = 4.7, 1.5 Hz, 1H), 8.11 (dd, J = 8.1, 1.5 Hz, 1H), 7.55 (dd, J = 8.0, 4.7 Hz, 1H), 7.52 (d, J = 2.1 Hz, 1H), 7.35 (d, J = 2.3 Hz, 1H), 6.86 (s, 1H), 6.21 (tt, J = 54.7, 3.5 Hz, 1H), 4.90 (q, J = 8.9 Hz, 3H), 4.44 (t, J = 8.5 Hz, 1H), 3.88-3.97 (m, 3H), 2.17 (d, J = 12.2 Hz, 3H)	638
13	3-bromo-N-(2-bromo-4-chloro-6-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.48 (s, 1H), 9.03 (d, J = 7.8 Hz, 1H), 8.49 (dd, J = 4.7, 1.5 Hz, 1H), 8.16 (dd, J = 8.1, 1.5 Hz, 1H), 8.01 (d, J = 2.3 Hz, 1H), 7.60 (dd, J = 8.1, 4.7 Hz, 1H), 7.51 (d, J = 2.3 Hz, 1H), 7.45 (s, 1H), 4.82 (dd, J = 16.7, 8.6 Hz, 1H), 4.41 (t, J = 8.5 Hz, 1H), 3.85 (t, J = 8.8 Hz, 1H), 3.34-3.38 (m, 2H), 1.00-1.04 (m, 1H), 0.46-0.51 (m, 2H), 0.23-0.26 (m, 2H)	672.9
14	3-bromo-N-(4-chloro-2-methyl-6-((1-methyl-3-oxopyrazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.20 (s, 1H), 9.76 (s, 1H), 8.63 (d, J = 7.6 Hz, 1H), 8.48 (dd, J = 4.7, 1.5 Hz, 1H), 8.16 (dd, J = 8.1, 1.4 Hz, 1H), 7.59-7.63 (m, 1H), 7.50 (d, J = 2.1 Hz, 1H), 7.42 (s, 1H), 7.35 (d, J = 2.3 Hz, 1H), 4.75 (d, J = 10.2 Hz, 1H), 3.38 (s, 2H), 2.84-2.89 (m, 1H), 2.51 (d, J = 5.8 Hz, 3H), 2.15 (d, J = 14.5 Hz, 3H)	568

15	N-(4-chloro-2-methyl-6-((1-methyl-3-oxopyrazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.12 (s, 1H), 9.71 (s, 1H), 8.62 (d, J = 7.5 Hz, 1H), 8.45 (dd, J = 4.7, 1.4 Hz, 1H), 8.11 (dd, J = 8.1, 1.4 Hz, 1H), 7.55 (dd, J = 8.1, 4.7 Hz, 1H), 7.50 (d, J = 2.0 Hz, 1H), 7.35 (d, J = 2.3 Hz, 1H), 6.88 (s, 1H), 4.90 (q, J = 8.9 Hz, 2H), 4.76 (s, 1H), 3.30-3.21 (1H), 2.66-2.88 (m, 1H), 2.49 (s, 3H), 2.19 (d, J = 14.7 Hz, 3H)	586.15
16	N-(4-chloro-2-methyl-6-((1-methyl-3-oxopyrazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.04 (s, 1H), 9.71 (s, 1H), 8.59 (d, J = 7.9 Hz, 1H), 8.44 (dd, J = 4.6, 1.5 Hz, 1H), 8.09 (dd, J = 7.9, 1.5 Hz, 1H), 7.52 (dd, J = 8.1, 4.7 Hz, 1H), 7.49 (d, J = 2.0 Hz, 1H), 7.34 (d, J = 2.3 Hz, 1H), 6.76 (s, 1H), 4.77 (d, J = 5.3 Hz, 1H), 4.02 (q, J = 7.1 Hz, 1H), 3.88 (d, J = 15.0 Hz, 3H), 2.50 (s, 3H), 2.17 (t, J = 14.9 Hz, 3H), 1.98 (s, 1H), 1.16 (t, J = 7.1 Hz, 1H)	518.15
17	3-bromo-N-(4-chloro-2-((2-(2,2-difluoroethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.23 (s, 1H), 8.99 (d, J = 7.8 Hz, 1H), 8.48 (d, J = 3.7 Hz, 1H), 8.16 (d, J = 7.6 Hz, 1H), 7.60 (dd, J = 7.9, 4.7 Hz, 1H), 7.52 (s, 1H), 7.37 (d, J = 14.1 Hz, 2H), 6.22 (t, J = 54.7 Hz, 1H), 4.89 (q, J = 8.5 Hz, 1H), 4.44 (t, J = 8.5 Hz, 1H), 3.88-3.97 (m, 3H), 2.18 (s, 3H)	618.85
18	3-bromo-N-(2-bromo-4-chloro-6-((1-methyl-3-oxopyrazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.44 (s, 1H), 9.72 (s, 1H), 8.70 (d, J = 7.6 Hz, 1H), 8.48 (dd, J = 4.7, 1.5 Hz, 1H), 8.16 (dd, J = 8.1, 1.5 Hz, 1H), 8.00 (d, J = 2.3 Hz, 1H), 7.60 (dd, J = 8.1, 4.7 Hz, 1H), 7.50 (d, J = 2.3 Hz, 1H), 7.46 (s, 1H), 4.71 (s, 1H), 3.28 (s, 1H)	631.9
19	3-bromo-N-(4-chloro-2-((2-(2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.22 (s, 1H), 8.92 (d, J = 7.9 Hz, 1H), 8.48 (dd, J = 4.7, 1.5 Hz, 1H), 8.16 (dd, J = 8.1, 1.4 Hz, 1H), 7.60 (dd, J = 8.0, 4.7 Hz, 1H), 7.52 (d, J = 2.3 Hz, 1H), 7.39 (s, 1H), 7.35 (d, J = 2.2 Hz, 1H), 4.84 (q, J = 8.7 Hz, 1H), 4.41 (t, J = 8.5 Hz, 1H), 3.87 (t, J = 8.9 Hz, 1H), 3.64-3.70 (m, 1H), 3.39-3.60 (m, 5H), 2.17 (s, 3H), 1.08 (t, J = 7.0 Hz, 3H)	627.05

20	3-bromo-N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.48 (s, 1H), 9.03 (d, J = 7.5 Hz, 1H), 8.48 (d, J = 3.5 Hz, 1H), 8.16 (d, J = 8.1 Hz, 1H), 8.01 (d, J = 1.5 Hz, 1H), 7.60 (dd, J = 8.1, 4.7 Hz, 1H), 7.51 (d, J = 1.8 Hz, 1H), 7.46 (s, 1H), 4.79 (q, J = 8.3 Hz, 1H), 4.37 (t, J = 8.4 Hz, 1H), 3.83 (t, J = 8.6 Hz, 1H), 3.07 (s, 3H)	632.9
21	3-bromo-N-(2-bromo-4-chloro-6-((2-(2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.48 (s, 1H), 9.03 (d, J = 7.8 Hz, 1H), 8.48 (dd, J = 4.7, 1.5 Hz, 1H), 8.16 (dd, J = 8.0, 1.5 Hz, 1H), 8.01 (d, J = 2.3 Hz, 1H), 7.60 (dd, J = 8.1, 4.7 Hz, 1H), 7.51 (d, J = 2.4 Hz, 1H), 7.45 (s, 1H), 4.81 (q, J = 8.5 Hz, 1H), 4.39 (t, J = 8.5 Hz, 1H), 3.83 (t, J = 8.9 Hz, 1H), 3.48-3.70 (m, 4H), 3.39-3.47 (m, 2H), 1.08 (t, J = 7.0 Hz, 3H)	
22	3-bromo-N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.22 (s, 1H), 8.93 (d, J = 7.9 Hz, 1H), 8.48 (dd, J = 4.7, 1.5 Hz, 1H), 8.16 (dd, J = 8.1, 1.5 Hz, 1H), 7.60 (dd, J = 8.1, 4.7 Hz, 1H), 7.52 (d, J = 2.0 Hz, 1H), 7.40 (s, 1H), 7.34 (d, J = 2.4 Hz, 1H), 4.82 (q, J = 8.4 Hz, 1H), 4.39 (t, J = 8.5 Hz, 1H), 3.87 (t, J = 8.6 Hz, 1H), 3.07 (s, 3H), 2.17 (s, 3H)	568.9
23	3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((1-methyl-3-oxopyrazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.27 (s, 1H), 9.74 (s, 1H), 8.88 (s, 1H), 8.48 (dd, J = 4.7, 1.3 Hz, 1H), 8.16 (dd, J = 8.0, 1.3 Hz, 1H), 7.87 (s, 1H), 7.76 (s, 1H), 7.60 (dd, J = 8.0, 4.7 Hz, 1H), 7.42 (d, J = 10.7 Hz, 1H), 4.74 (s, 1H), 2.79-2.89 (m, 1H), 2.51 (d, J = 13.8 Hz, 2H), 2.22 (d, J = 14.7 Hz, 3H), 1.90 (s, 1H)	558.95
24	3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-(methylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.45 (s, 1H), 8.92 (d, J = 6.4 Hz, 1H), 8.48 (dd, J = 4.7, 1.5 Hz, 1H), 8.16 (dd, J = 8.0, 1.5 Hz, 1H), 7.90 (s, 1H), 7.80 (d, J = 1.4 Hz, 1H), 7.61 (dd, J = 8.1, 4.7 Hz, 1H), 7.43 (s, 1H), 4.72-4.74 (m, 1H), 4.21 (dd, J = 8.2, 6.6 Hz, 1H), 3.86-3.97 (m, 2H), 3.25-3.32 (m, 4H), 2.24 (d, J = 6.9 Hz, 3H)	609.85

25	3-bromo-N-(4-chloro-2-methyl-6-((2-(methylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.23 (s, 1H), 8.84 (d, J = 6.4 Hz, 1H), 8.48 (dd, J = 4.7, 1.4 Hz, 1H), 8.15 (dd, J = 8.1, 1.5 Hz, 1H), 7.60 (dd, J = 8.1, 4.7 Hz, 1H), 7.50 (d, J = 2.0 Hz, 1H), 7.40 (s, 1H), 7.37 (d, J = 2.4 Hz, 1H), 4.71-4.75 (m, 1H), 4.21 (dd, J = 8.3, 6.7 Hz, 1H), 3.94 (dd, J = 12.0, 7.7 Hz, 1H), 3.88 (dd, J = 8.3, 3.9 Hz, 1H), 3.26-3.31 (m, 2H), 3.18 (s, 3H), 2.19 (s, 3H)	618.9
26	3-bromo-N-(2-bromo-4-chloro-6-((2-(methylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.51 (s, 1H), 8.96 (d, J = 6.4 Hz, 1H), 8.48 (dd, J = 4.6, 1.4 Hz, 1H), 8.15 (dd, J = 7.9, 1.4 Hz, 1H), 7.99 (d, J = 2.3 Hz, 1H), 7.57-7.62 (m, 2H), 7.47 (s, 1H), 4.70-4.72 (m, 1H), 4.18-4.22 (m, 1H), 3.94 (dd, J = 12.0, 7.7 Hz, 1H), 3.84 (dd, J = 8.3, 3.6 Hz, 1H), 3.24 (dd, J = 11.9, 4.7 Hz, 1H), 3.18 (s, 3H)	684.75
27	N-(4-chloro-2-methyl-6-((2-(methylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.15 (s, 1H), 8.84 (d, J = 6.4 Hz, 1H), 8.45 (dd, J = 4.7, 1.5 Hz, 1H), 8.10 (dd, J = 8.0, 1.5 Hz, 1H), 7.55 (dd, J = 8.1, 4.7 Hz, 1H), 7.49 (d, J = 2.0 Hz, 1H), 7.37 (d, J = 2.1 Hz, 1H), 6.86 (s, 1H), 4.90 (q, J = 8.9 Hz, 2H), 4.74 (d, J = 6.4 Hz, 1H), 4.22 (dd, J = 8.2, 6.8 Hz, 1H), 3.95 (dd, J = 12.0, 7.7 Hz, 1H), 3.89 (dd, J = 8.3, 3.8 Hz, 1H), 3.27-3.30 (m, 1H), 3.18 (s, 3H), 2.19 (s, 3H)	637.1
28	3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-(ethylsulfonyl)isoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.45 (s, 1H), 8.91 (d, J = 6.4 Hz, 1H), 8.48 (dd, J = 4.7, 1.5 Hz, 1H), 8.15 (dd, J = 8.0, 1.5 Hz, 1H), 7.90 (d, J = 1.2 Hz, 1H), 7.79 (d, J = 1.5 Hz, 1H), 7.60 (dd, J = 8.1, 4.7 Hz, 1H), 7.43 (s, 1H), 4.70-4.74 (m, 1H), 4.20 (dd, J = 8.2, 7.0 Hz, 1H), 3.97 (dd, J = 12.2, 7.7 Hz, 1H), 3.87 (dd, J = 8.3, 3.8 Hz, 1H), 3.37 (qd, J = 7.4, 1.9 Hz, 2H), 3.25 (dd, J = 12.1, 5.0 Hz, 1H), 2.25 (s, 3H), 1.28 (t, J = 7.3 Hz, 3H)	623.9

29	3-bromo-N-(4-chloro-2-((2-(ethylsulfonyl)isoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.22 (s, 1H), 8.82 (d, J = 6.3 Hz, 1H), 8.47 (dd, J = 4.7, 1.5 Hz, 1H), 8.15 (dd, J = 8.1, 1.5 Hz, 1H), 7.60 (dd, J = 8.0, 4.7 Hz, 1H), 7.50 (d, J = 2.0 Hz, 1H), 7.40 (s, 1H), 7.37 (d, J = 2.4 Hz, 1H), 4.71 (dd, J = 11.2, 5.0 Hz, 1H), 4.20 (dd, J = 8.0, 7.0 Hz, 1H), 3.97 (dd, J = 12.1, 7.8 Hz, 1H), 3.87 (q, J = 4.1 Hz, 1H), 3.36 (qd, J = 7.3, 2.1 Hz, 2H), 3.26 (dd, J = 12.1, 5.2 Hz, 1H), 2.19 (s, 3H), 1.28 (t, J = 7.4 Hz, 3H)	632.85
30	3-bromo-N-(2-bromo-4-chloro-6-((2-(ethylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.50 (s, 1H), 8.93 (d, J = 6.4 Hz, 1H), 8.47 (dd, J = 4.6, 1.4 Hz, 1H), 8.14 (dd, J = 8.1, 1.4 Hz, 1H), 7.99 (d, J = 2.3 Hz, 1H), 7.60 (dd, J = 8.1, 4.7 Hz, 1H), 7.57 (d, J = 2.3 Hz, 1H), 7.47 (s, 1H), 4.68-4.71 (m, 1H), 4.17-4.21 (m, 1H), 3.97 (dd, J = 12.2, 7.7 Hz, 1H), 3.84 (q, J = 4.0 Hz, 1H), 3.34-3.40 (m, 2H), 3.21 (dd, J = 12.2, 5.1 Hz, 1H), 1.28 (t, J = 7.4 Hz, 3H)	698.7
31	N-(4-chloro-2-((2-(ethylsulfonyl)isoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.15 (s, 1H), 8.82 (d, J = 6.3 Hz, 1H), 8.45 (dd, J = 4.7, 1.5 Hz, 1H), 8.10 (dd, J = 8.1, 1.5 Hz, 1H), 7.55 (dd, J = 8.1, 4.7 Hz, 1H), 7.49 (d, J = 2.1 Hz, 1H), 7.37 (d, J = 2.3 Hz, 1H), 6.86 (s, 1H), 4.90 (q, J = 8.9 Hz, 2H), 4.73 (dd, J = 11.3, 4.9 Hz, 1H), 4.21 (dd, J = 8.0, 7.0 Hz, 1H), 3.98 (dd, J = 12.2, 7.7 Hz, 1H), 3.88 (q, J = 4.0 Hz, 1H), 3.34-3.39 (m, 2H), 3.25-3.28 (m, 1H), 2.19 (s, 3H), 1.28 (t, J = 7.3 Hz, 3H)	650.95
32	N-(2-((2-acetyl)isoxazolidin-4-yl)carbamoyl)-6-bromo-4-chlorophenyl)-3-bromo-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.50 (s, 1H), 8.95 (d, J = 6.6 Hz, 1H), 8.48-8.51 (m, 1H), 8.14-8.19 (m, 1H), 7.98-8.02 (m, 1H), 7.60 (dd, J = 8.1, 4.7 Hz, 1H), 7.54 (d, J = 2.3 Hz, 1H), 7.46 (s, 1H), 5.75 (s, 1H), 4.60-4.65 (m, 1H), 3.89-3.95 (m, 2H), 3.76 (dd, J = 8.5, 2.8 Hz, 1H), 3.60 (d, J = 5.5 Hz, 1H), 3.25-3.29 (m, 1H), 2.00 (d, J = 15.4 Hz, 3H), 1.21-1.25 (m, 1H)	646.8

33	N-(2-((2-acetylisoxazolidin-4-yl)carbamoyl)-4-chloro-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.05 (s, 1H), 8.83 (d, J = 6.4 Hz, 1H), 8.44 (dd, J = 4.7, 1.5 Hz, 1H), 8.08 (dd, J = 8.1, 1.5 Hz, 1H), 7.52 (dd, J = 8.1, 4.7 Hz, 1H), 7.48 (d, J = 2.3 Hz, 1H), 7.32 (d, J = 2.3 Hz, 1H), 6.74 (s, 1H), 4.64 (dd, J = 7.3, 3.1 Hz, 1H), 3.86-3.97 (m, 5H), 3.80 (dd, J = 8.5, 3.1 Hz, 1H), 3.39-3.41 (m, 2H), 2.18 (s, 3H), 2.02 (d, J = 5.8 Hz, 3H), 1.22 (d, J = 4.3 Hz, 2H)	533.05
34	N-(2-((2-acetylisoxazolidin-4-yl)carbamoyl)-4-chloro-6-methylphenyl)-3-bromo-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.22 (s, 1H), 8.84 (d, J = 6.4 Hz, 1H), 8.48 (dd, J = 4.7, 1.5 Hz, 1H), 8.16 (dd, J = 8.1, 1.4 Hz, 1H), 7.60 (dd, J = 8.0, 4.7 Hz, 1H), 7.49 (d, J = 2.1 Hz, 1H), 7.39 (s, 1H), 7.34 (d, J = 2.3 Hz, 1H), 4.63-4.64 (m, 1H), 3.88-3.96 (m, 2H), 3.79 (dd, J = 8.6, 3.1 Hz, 1H), 3.39 (d, J = 11.6 Hz, 1H), 2.18 (s, 3H), 2.02 (s, 3H)	582.9
35	N-(2-((2-acetylisoxazolidin-4-yl)carbamoyl)-4-chloro-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.14 (s, 1H), 8.84 (d, J = 6.4 Hz, 1H), 8.45 (dd, J = 4.7, 1.5 Hz, 1H), 8.11 (dd, J = 8.1, 1.5 Hz, 1H), 7.55 (dd, J = 8.0, 4.7 Hz, 1H), 7.49 (d, J = 2.0 Hz, 1H), 7.34 (d, J = 2.3 Hz, 1H), 6.87 (d, J = 11.9 Hz, 1H), 4.90 (q, J = 8.9 Hz, 2H), 4.62-4.67 (m, 1H), 3.89-3.97 (m, 2H), 3.80 (dd, J = 8.6, 3.1 Hz, 1H), 3.40 (d, J = 9.8 Hz, 1H), 2.18 (s, 3H), 2.01 (s, 3H), 1.18-1.32 (m, 1H)	601
36	N-(2-((2-acetylisoxazolidin-4-yl)carbamoyl)-4-cyano-6-methylphenyl)-3-bromo-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.45 (s, 1H), 8.92 (d, J = 6.6 Hz, 1H), 8.49 (dd, J = 4.6, 1.4 Hz, 1H), 8.17 (dd, J = 8.1, 1.4 Hz, 1H), 7.90 (s, 1H), 7.76 (d, J = 1.4 Hz, 1H), 7.61 (dd, J = 8.0, 4.7 Hz, 1H), 7.42 (s, 1H), 4.64 (d, J = 3.2 Hz, 1H), 3.90-3.95 (m, 2H), 3.78 (dd, J = 8.6, 2.9 Hz, 1H), 3.37 (d, J = 9.0 Hz, 1H), 2.24 (s, 3H), 2.05 (d, J = 21.7 Hz, 3H)	574.1
37	3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-propionylisoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.45 (s, 1H), 8.91 (d, J = 6.6 Hz, 1H), 8.49 (dd, J = 4.6, 1.5 Hz, 1H), 8.16 (dd, J = 8.1, 1.5 Hz, 1H), 7.90 (d, J = 1.2 Hz, 1H), 7.75 (d, J = 1.5 Hz, 1H), 7.61 (dd, J = 8.2, 4.8 Hz, 1H), 7.42 (s, 1H), 4.62-4.65 (m, 1H), 3.90-3.95 (m, 2H), 3.78 (dd, J = 8.6, 2.9 Hz, 1H), 3.38-3.41 (m, 1H), 2.32-2.39 (m, 1H), 2.24 (s, 3H), 1.00 (t, J = 7.5 Hz, 3H)	588

38	N-(4-chloro-2-methyl-6-((2-propionylisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.14 (s, 1H), 8.83 (d, J = 6.4 Hz, 1H), 8.45 (dd, J = 4.6, 1.7 Hz, 1H), 8.11 (dd, J = 8.1, 1.5 Hz, 1H), 7.48-7.57 (m, 2H), 7.33 (d, J = 2.4 Hz, 1H), 6.85 (s, 1H), 4.90 (q, J = 8.9 Hz, 2H), 4.64 (dd, J = 10.6, 2.8 Hz, 1H), 3.79-3.95 (m, 3H), 3.43 (dd, J = 11.1, 2.6 Hz, 1H), 2.38 (s, 1H), 2.18 (s, 3H), 0.99 (t, J = 7.5 Hz, 3H)	615.2
39	N-(4-chloro-2-methyl-6-((2-propionylisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.07 (s, 1H), 8.83 (d, J = 6.6 Hz, 1H), 8.45 (dd, J = 4.6, 1.5 Hz, 1H), 8.10 (dd, J = 8.1, 1.5 Hz, 1H), 7.49-7.56 (m, 2H), 7.33 (d, J = 2.4 Hz, 1H), 6.76 (s, 1H), 4.65 (dd, J = 10.5, 2.9 Hz, 1H), 3.80-3.97 (m, 6H), 3.44 (dd, J = 10.9, 2.8 Hz, 1H), 2.36 (d, J = 22.7 Hz, 1H), 2.20 (s, 3H), 1.01 (t, J = 7.5 Hz, 3H)	547.15
40	3-bromo-N-(2-bromo-4-chloro-6-((2-propionylisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.52 (s, 1H), 8.95 (d, J = 6.6 Hz, 1H), 8.50 (dd, J = 4.6, 1.5 Hz, 1H), 8.17 (dd, J = 8.2, 1.6 Hz, 1H), 8.00 (d, J = 2.4 Hz, 1H), 7.48-7.64 (m, 3H), 4.62-4.64 (m, 1H), 3.90-3.95 (m, 2H), 3.77 (dd, J = 8.6, 2.9 Hz, 1H), 3.38-3.41 (m, 1H), 1.01 (t, J = 7.5 Hz, 3H)	660.9
41	3-bromo-N-(4-chloro-2-methyl-6-((2-propionylisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.22 (s, 1H), 8.83 (d, J = 6.4 Hz, 1H), 8.48 (dd, J = 4.8, 1.6 Hz, 1H), 8.16 (dd, J = 8.1, 1.5 Hz, 1H), 7.60 (dd, J = 8.1, 4.6 Hz, 1H), 7.49 (d, J = 1.7 Hz, 1H), 7.39 (s, 1H), 7.33 (d, J = 2.4 Hz, 1H), 4.63 (d, J = 10.8 Hz, 1H), 3.88-3.94 (m, 2H), 3.79 (dd, J = 8.4, 3.1 Hz, 1H), 3.42 (dd, J = 11.0, 2.7 Hz, 1H), 1.98-2.18 (m, 3H), 1.00 (t, J = 7.5 Hz, 3H)	597.05
42	N-(4-chloro-2-methyl-6-((2-(methylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.06 (s, 1H), 8.82 (d, J = 6.0 Hz, 1H), 8.43 (d, J = 3.9 Hz, 1H), 8.08 (d, J = 7.8 Hz, 1H), 7.48-7.63 (m, 2H), 7.36 (s, 1H), 6.75 (s, 1H), 5.75 (s, 0H), 4.73 (s, 1H), 4.22 (t, J = 7.3 Hz, 1H), 3.86-3.98 (m, 5H), 3.27 (d, J = 4.9 Hz, 1H), 3.18 (s, 3H), 2.19 (s, 3H)	569

43	N-(4-chloro-2-((2-(ethylsulfonyl)isoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.08 (s, 1H), 8.82 (d, J = 6.1 Hz, 1H), 8.43 (dd, J = 4.8, 1.6 Hz, 1H), 8.07 (dd, J = 8.1, 1.7 Hz, 1H), 7.48-7.54 (m, 2H), 7.36 (d, J = 2.2 Hz, 1H), 6.75 (s, 1H), 4.72 (d, J = 6.1 Hz, 1H), 4.21 (dd, J = 8.2, 7.0 Hz, 1H), 3.98 (dd, J = 12.2, 7.8 Hz, 1H), 3.87 (q, J = 4.2 Hz, 4H), 3.24-3.39 (m, 1H), 2.18 (s, 3H), 1.27 (t, J = 7.3 Hz, 3H)	585
44	3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.46 (s, 1H), 9.01 (d, J = 7.6 Hz, 1H), 8.49 (dd, J = 4.6, 1.5 Hz, 1H), 8.17 (d, J = 6.8 Hz, 1H), 7.92 (s, 1H), 7.75 (s, 1H), 7.61 (dd, J = 8.1, 4.6 Hz, 1H), 7.41 (s, 1H), 4.82 (d, J = 8.1 Hz, 1H), 4.42 (t, J = 8.3 Hz, 1H), 4.22 (t, J = 6.7 Hz, 1H), 3.85 (t, J = 8.8 Hz, 1H), 2.22 (s, 3H), 1.18 (q, J = 6.5 Hz, 6H)	587.9
45	3-bromo-N-(4-chloro-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.23 (s, 1H), 8.91 (d, J = 7.8 Hz, 1H), 8.49 (dd, J = 4.8, 1.6 Hz, 1H), 8.17 (dd, J = 8.1, 1.5 Hz, 1H), 7.61 (dd, J = 8.2, 4.8 Hz, 1H), 7.52 (d, J = 2.0 Hz, 1H), 7.35-7.39 (m, 2H), 4.83 (q, J = 8.6 Hz, 1H), 4.43 (t, J = 8.3 Hz, 1H), 4.19-4.25 (m, 1H), 3.86 (t, J = 8.9 Hz, 1H), 2.17 (s, 3H), 1.20 (d, J = 6.6 Hz, 3H), 1.16 (d, J = 6.8 Hz, 3H)	596.9
46	N-(4-chloro-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.13 (s, 1H), 8.90 (d, J = 7.3 Hz, 1H), 8.45 (dd, J = 4.6, 1.5 Hz, 1H), 8.11 (dd, J = 8.1, 1.5 Hz, 1H), 7.50-7.56 (m, 2H), 7.34 (d, J = 2.2 Hz, 1H), 6.85 (s, 1H), 4.80-4.93 (m, 3H), 4.42 (t, J = 8.4 Hz, 1H), 4.18-4.24 (m, 1H), 3.86 (t, J = 8.9 Hz, 1H), 2.16 (d, J = 6.6 Hz, 3H), 1.19 (d, J = 6.6 Hz, 3H), 1.15 (d, J = 6.6 Hz, 3H)	616.9
47	N-(4-chloro-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.06 (s, 1H), 8.88 (d, J = 7.8 Hz, 1H), 8.44 (dd, J = 4.6, 1.5 Hz, 1H), 8.09 (dd, J = 8.1, 1.5 Hz, 1H), 7.50-7.54 (m, 2H), 7.34 (d, J = 2.2 Hz, 1H), 6.74 (s, 1H), 4.83 (q, J = 8.6 Hz, 1H), 4.42 (t, J = 8.4 Hz, 1H), 4.18-4.25 (m, 1H), 3.84-3.88 (m, 4H), 2.17 (s, 3H), 1.19 (d, J = 6.8 Hz, 3H), 1.16 (d, J = 6.6 Hz, 3H)	547.45

48	N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.14 (s, 1H), 8.93 (d, J = 8.1 Hz, 1H), 8.45 (dd, J = 4.6, 1.5 Hz, 1H), 8.11 (dd, J = 7.9, 1.6 Hz, 1H), 7.51-7.57 (m, 2H), 7.33 (d, J = 2.2 Hz, 1H), 6.86 (s, 1H), 4.81-4.93 (m, 3H), 4.38 (t, J = 8.6 Hz, 1H), 3.88 (t, J = 8.6 Hz, 1H), 3.06 (s, 3H), 2.18 (s, 3H)	588.95
49	N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.06 (s, 1H), 8.91 (d, J = 7.1 Hz, 1H), 8.44 (d, J = 4.2 Hz, 1H), 8.09 (d, J = 7.8 Hz, 1H), 7.53 (dd, J = 8.2, 5.0 Hz, 2H), 7.33 (s, 1H), 6.75 (s, 1H), 4.82 (q, J = 8.4 Hz, 1H), 4.38 (t, J = 8.4 Hz, 1H), 3.86-3.90 (m, 4H), 3.07 (s, 3H), 2.18 (s, 3H)	519
50	3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.46 (s, 1H), 9.04 (d, J = 7.8 Hz, 1H), 8.49 (dd, J = 4.6, 1.5 Hz, 1H), 8.17 (dd, J = 8.2, 1.3 Hz, 1H), 7.92 (s, 1H), 7.59-7.74 (m, 2H), 7.43 (s, 1H), 4.81 (q, J = 8.2 Hz, 1H), 4.38 (t, J = 8.4 Hz, 1H), 3.86 (t, J = 8.6 Hz, 1H), 3.08 (s, 3H), 2.23 (s, 3H)	559.9
51	3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.46 (s, 1H), 9.03 (d, J = 7.1 Hz, 1H), 8.48 (d, J = 3.4 Hz, 1H), 8.17 (d, J = 7.8 Hz, 1H), 7.92 (s, 1H), 7.75 (s, 1H), 7.61 (dd, J = 8.1, 4.6 Hz, 1H), 7.42 (s, 1H), 4.83 (q, J = 8.6 Hz, 1H), 4.41 (t, J = 8.4 Hz, 1H), 3.87 (t, J = 8.8 Hz, 1H), 3.39-3.70 (m, 6H), 2.23 (s, 3H), 1.08 (t, J = 7.0 Hz, 3H)	617.95
52	N-(4-chloro-2-((2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6, 80 °C) δ 9.93 (s, 1H), 8.65 (d, J = 7.5 Hz, 1H), 8.44 (dd, J = 4.7, 1.5 Hz, 1H), 8.07 (dd, J = 7.9, 1.5 Hz, 1H), 7.53 (dd, J = 8.1, 4.7 Hz, 1H), 7.46 (d, J = 2.1 Hz, 1H), 7.39 (d, J = 2.3 Hz, 1H), 6.82 (s, 1H), 4.86 (q, J = 8.9 Hz, 3H), 4.46 (t, J = 8.5 Hz, 1H), 3.96 (t, J = 8.9 Hz, 1H), 3.52-3.70 (m, 4H), 3.42-3.51 (m, 2H), 2.18 (d, J = 5.8 Hz, 3H), 1.06-1.12 (m, 3H)	645.05
53	3-bromo-N-(2-bromo-4-chloro-6-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.48 (s, 1H), 9.00 (d, J = 7.8 Hz, 1H), 8.49 (dd, J = 4.8, 1.6 Hz, 1H), 8.16 (dd, J = 8.1, 1.5 Hz, 1H), 8.01 (d, J = 2.4 Hz, 1H), 7.60 (dd, J = 8.1, 4.9 Hz, 1H), 7.51 (d, J = 2.4 Hz, 1H), 7.45 (s, 1H), 4.78 (t, J = 8.4 Hz, 1H), 4.40 (t, J = 8.4 Hz, 1H), 4.21 (t, J = 6.6 Hz, 1H), 3.81 (t, J = 8.8 Hz, 1H), 1.17 (dd, J = 12.2, 6.6 Hz, 6H)	662.8

54	N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.65 (s, 1H), 9.06 (d, J = 7.8 Hz, 1H), 8.52 (dd, J = 4.9, 1.5 Hz, 1H), 8.21 (dd, J = 8.2, 1.6 Hz, 1H), 8.03 (d, J = 2.4 Hz, 1H), 7.82 (s, 1H), 7.66 (dd, J = 8.2, 4.8 Hz, 1H), 7.52 (d, J = 2.4 Hz, 1H), 4.79 (d, J = 8.3 Hz, 1H), 4.38 (t, J = 8.6 Hz, 1H), 3.83 (t, J = 8.6 Hz, 1H), 3.06 (s, 3H)	622.95
55	N-(4-chloro-2-((2-(2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.06 (s, 1H), 8.91 (d, J = 8.1 Hz, 1H), 8.44 (dd, J = 4.6, 1.5 Hz, 1H), 8.09 (dd, J = 8.1, 1.5 Hz, 1H), 7.50-7.54 (m, 2H), 7.34 (d, J = 2.2 Hz, 1H), 6.75 (s, 1H), 4.84 (q, J = 8.6 Hz, 1H), 4.40 (t, J = 8.6 Hz, 1H), 3.86-3.90 (m, 4H), 3.38-3.70 (m, 6H), 2.17 (s, 3H), 1.08 (t, J = 7.0 Hz, 3H)	577.1
56	N-(2-bromo-4-chloro-6-((2-(2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.37 (s, 1H), 9.01 (d, J = 7.8 Hz, 1H), 8.46 (dd, J = 4.7, 1.5 Hz, 1H), 8.11 (dd, J = 8.1, 1.5 Hz, 1H), 8.01 (d, J = 2.4 Hz, 1H), 7.55 (dd, J = 7.9, 4.7 Hz, 1H), 7.51 (d, J = 2.3 Hz, 1H), 6.92 (s, 1H), 4.90 (q, J = 8.9 Hz, 2H), 4.81 (q, J = 8.6 Hz, 1H), 4.39 (t, J = 8.5 Hz, 1H), 3.83 (t, J = 8.9 Hz, 1H), 3.64-3.70 (m, 1H), 3.39-3.59 (m, 5H), 1.06-1.10 (m, 3H)	710.85
57	N-(2-bromo-4-chloro-6-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.37 (s, 1H), 8.97 (d, J = 7.6 Hz, 1H), 8.46 (dd, J = 4.7, 1.5 Hz, 1H), 8.11 (dd, J = 8.1, 1.5 Hz, 1H), 8.01 (d, J = 2.3 Hz, 1H), 7.56 (dd, J = 8.1, 4.7 Hz, 1H), 7.50 (d, J = 2.3 Hz, 1H), 6.92 (s, 1H), 4.90 (q, J = 8.9 Hz, 2H), 4.80 (dd, J = 16.7, 8.6 Hz, 1H), 4.40 (t, J = 8.5 Hz, 1H), 4.18-4.25 (m, 1H), 3.82 (t, J = 8.8 Hz, 1H), 1.15-1.23 (m, 6H)	680.85
58	N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.38 (s, 1H), 9.02 (d, J = 7.8 Hz, 1H), 8.46 (dd, J = 4.8, 1.6 Hz, 1H), 8.11 (dd, J = 8.1, 1.7 Hz, 1H), 8.01 (d, J = 2.2 Hz, 1H), 7.56 (dd, J = 8.1, 4.6 Hz, 1H), 7.50 (d, J = 2.4 Hz, 1H), 6.93 (s, 1H), 4.90 (q, J = 8.9 Hz, 2H), 4.79 (q, J = 8.3 Hz, 1H), 4.37 (t, J = 8.4 Hz, 1H), 3.83 (t, J = 8.6 Hz, 1H), 3.07 (s, 3H)	652.8

59	N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.38 (s, 1H), 9.01 (d, J = 7.8 Hz, 1H), 8.46 (dd, J = 4.6, 1.5 Hz, 1H), 8.11 (dd, J = 7.9, 1.6 Hz, 1H), 8.01 (d, J = 2.4 Hz, 1H), 7.56 (dd, J = 8.1, 4.6 Hz, 1H), 7.50 (d, J = 2.4 Hz, 1H), 6.92 (s, 1H), 4.90 (q, J = 8.9 Hz, 2H), 4.79 (t, J = 8.3 Hz, 1H), 4.39 (t, J = 8.4 Hz, 1H), 3.83 (t, J = 8.7 Hz, 1H), 3.47-3.53 (m, 2H), 1.12 (t, J = 7.1 Hz, 3H)	666.95
60	N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.37 (s, 1H), 8.96 (d, J = 8.1 Hz, 1H), 8.52 (dd, J = 4.6, 1.5 Hz, 1H), 8.22 (dd, J = 8.1, 1.5 Hz, 1H), 7.76 (s, 1H), 7.66 (dd, J = 8.1, 4.9 Hz, 1H), 7.53 (d, J = 2.0 Hz, 1H), 7.35 (d, J = 2.4 Hz, 1H), 4.82 (q, J = 8.3 Hz, 1H), 4.38 (t, J = 8.6 Hz, 1H), 3.87 (t, J = 8.7 Hz, 1H), 3.06 (s, 3H), 2.18 (s, 3H)	557.05
61	N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.66 (s, 1H), 9.06 (d, J = 7.8 Hz, 1H), 8.52 (d, J = 3.4 Hz, 1H), 8.22 (d, J = 7.6 Hz, 1H), 8.03 (s, 1H), 7.82 (s, 1H), 7.66 (dd, J = 8.2, 4.8 Hz, 1H), 7.53 (s, 1H), 4.81 (q, J = 8.4 Hz, 1H), 4.40 (t, J = 8.3 Hz, 1H), 3.84 (t, J = 8.7 Hz, 1H), 3.45-3.55 (m, 2H), 1.12 (t, J = 7.1 Hz, 3H)	636.8
62	3-bromo-N-(2-bromo-4-chloro-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.51 (s, 1H), 9.11 (d, J = 7.9 Hz, 1H), 8.48 (dd, J = 4.7, 1.5 Hz, 1H), 8.16 (dd, J = 8.1, 1.5 Hz, 1H), 8.03 (d, J = 2.3 Hz, 1H), 7.60 (dd, J = 8.1, 4.7 Hz, 1H), 7.52 (d, J = 2.3 Hz, 1H), 7.45 (s, 1H), 4.90 (dd, J = 16.8, 8.7 Hz, 1H), 4.33-4.47 (m, 3H), 3.93 (t, J = 8.8 Hz, 1H)	700.7
63	N-(4-chloro-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.37 (s, 1H), 8.95 (d, J = 7.8 Hz, 1H), 8.52 (dd, J = 4.6, 1.5 Hz, 1H), 8.22 (dd, J = 8.1, 1.5 Hz, 1H), 7.75 (s, 1H), 7.66 (dd, J = 8.1, 4.6 Hz, 1H), 7.53 (d, J = 2.0 Hz, 1H), 7.36 (d, J = 2.4 Hz, 1H), 4.85 (q, J = 8.6 Hz, 1H), 4.43 (t, J = 8.6 Hz, 1H), 3.90 (t, J = 8.8 Hz, 1H), 3.34-3.39 (m, 2H), 2.17 (d, J = 11.2 Hz, 3H), 1.00-1.03 (m, 1H), 0.45-0.50 (m, 2H), 0.22-0.26 (m, 2H)	597.3
64	N-(2-bromo-4-chloro-6-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-	¹ H-NMR (400 MHz, DMSO-D6) δ 10.65 (s, 1H), 9.06 (d, J = 7.8 Hz, 1H), 8.52 (dd, J = 4.6, 1.5 Hz, 1H), 8.21 (dd, J = 8.1, 1.5 Hz, 1H), 8.03 (d, J = 2.2 Hz, 1H), 7.81 (s, 1H), 7.66 (dd, J = 8.1, 4.6 Hz, 1H), 7.53 (d, J = 2.4 Hz, 1H), 4.82 (q, J = 8.5 Hz, 1H),	662.8

	(trifluoromethyl)-1H-pyrazole-5-carboxamide	4.42 (t, J = 8.6 Hz, 1H), 3.86 (t, J = 8.9 Hz, 1H), 3.37 (s, 2H), 1.00 (d, J = 7.8 Hz, 1H), 0.45-0.50 (m, 2H), 0.24 (dd, J = 10.5, 4.6 Hz, 2H)	
65	N-(2-bromo-4-chloro-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.66 (s, 1H), 9.14 (d, J = 7.6 Hz, 1H), 8.52 (dd, J = 4.6, 1.5 Hz, 1H), 8.21 (dd, J = 8.1, 1.5 Hz, 1H), 8.04 (d, J = 2.4 Hz, 1H), 7.80 (s, 1H), 7.66 (dd, J = 8.1, 4.9 Hz, 1H), 7.54 (d, J = 2.2 Hz, 1H), 4.90 (dd, J = 16.6, 8.8 Hz, 1H), 4.35-4.48 (m, 3H), 3.94 (t, J = 8.8 Hz, 1H)	690.95
66	N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.28 (s, 1H), 8.98 (d, J = 7.8 Hz, 1H), 8.44 (d, J = 3.7 Hz, 1H), 8.09 (d, J = 7.9 Hz, 1H), 8.00 (d, J = 1.8 Hz, 1H), 7.49-7.55 (m, 2H), 6.82 (s, 1H), 4.80 (q, J = 8.4 Hz, 1H), 4.38 (t, J = 8.4 Hz, 1H), 3.81-3.86 (m, 4H), 3.45-3.53 (m, 2H), 1.12 (t, J = 7.1 Hz, 3H)	598.8
67	N-(2-bromo-4-chloro-6-((2-(2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.29 (s, 1H), 8.99 (d, J = 7.8 Hz, 1H), 8.44 (dd, J = 4.7, 1.5 Hz, 1H), 8.08 (dd, J = 8.1, 1.5 Hz, 1H), 8.00 (d, J = 2.3 Hz, 1H), 7.53 (dd, J = 8.0, 4.7 Hz, 1H), 7.49 (d, J = 2.4 Hz, 1H), 6.82 (s, 1H), 4.80 (q, J = 8.6 Hz, 1H), 4.38 (t, J = 8.5 Hz, 1H), 3.80-3.86 (m, 4H), 3.64-3.69 (m, 1H), 3.39-3.59 (m, 5H), 1.08 (t, J = 7.0 Hz, 3H)	642.9
68	N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.29 (s, 1H), 8.99 (d, J = 7.8 Hz, 1H), 8.44 (dd, J = 4.6, 1.2 Hz, 1H), 8.09 (dd, J = 8.0, 1.1 Hz, 1H), 8.00 (d, J = 2.0 Hz, 1H), 7.48-7.55 (m, 2H), 6.83 (s, 1H), 4.78 (q, J = 8.3 Hz, 1H), 4.36 (t, J = 8.5 Hz, 1H), 3.80-3.86 (m, 4H), 3.06 (s, 3H)	584.9
69	N-(2-bromo-4-chloro-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.31 (s, 1H), 9.08 (d, J = 7.8 Hz, 1H), 8.44 (dd, J = 4.7, 1.3 Hz, 1H), 8.09 (dd, J = 8.1, 1.4 Hz, 1H), 8.01 (d, J = 2.1 Hz, 1H), 7.50-7.54 (m, 2H), 6.83 (s, 1H), 4.89 (dd, J = 16.8, 8.7 Hz, 1H), 4.32-4.46 (m, 3H), 3.93 (t, J = 8.9 Hz, 1H), 3.86 (s, 3H)	652.8

70	N-(2-bromo-4-chloro-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.40 (s, 1H), 9.10 (d, J = 7.8 Hz, 1H), 8.46 (dd, J = 4.6, 1.2 Hz, 1H), 8.10-8.12 (m, 1H), 8.02 (d, J = 2.1 Hz, 1H), 7.51-7.57 (m, 2H), 6.92 (s, 1H), 4.90 (q, J = 8.8 Hz, 3H), 4.32-4.47 (m, 3H), 3.94 (t, J = 8.9 Hz, 1H)	720.7
71	N-(2-bromo-4-chloro-6-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.38 (s, 1H), 9.01 (d, J = 7.8 Hz, 1H), 8.46 (dd, J = 4.6, 1.5 Hz, 1H), 8.11 (dd, J = 7.9, 1.6 Hz, 1H), 8.01 (d, J = 2.4 Hz, 1H), 7.56 (dd, J = 8.1, 4.6 Hz, 1H), 7.51 (d, J = 2.4 Hz, 1H), 6.92 (s, 1H), 4.86 (dq, J = 29.7, 8.7 Hz, 3H), 4.41 (t, J = 8.4 Hz, 1H), 3.85 (t, J = 8.8 Hz, 1H), 3.36 (t, J = 6.8 Hz, 1H), 1.00-1.02 (m, 1H), 0.46-0.50 (m, 2H), 0.22-0.26 (m, 2H)	692.9
72	N-(2-bromo-4-chloro-6-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.29 (s, 1H), 8.99 (d, J = 7.8 Hz, 1H), 8.44 (dd, J = 4.8, 1.6 Hz, 1H), 8.09 (dd, J = 8.1, 1.5 Hz, 1H), 8.00 (d, J = 2.4 Hz, 1H), 7.49-7.55 (m, 2H), 6.82 (s, 1H), 4.82 (q, J = 8.5 Hz, 1H), 4.40 (t, J = 8.4 Hz, 1H), 3.82-3.87 (m, 4H), 3.34-3.41 (m, 1H), 1.00-1.04 (m, 1H), 0.46-0.50 (m, 2H), 0.22-0.26 (m, 2H)	624.95
73	3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.46 (s, 1H), 9.02 (d, J = 7.8 Hz, 1H), 8.49 (dd, J = 4.8, 1.6 Hz, 1H), 8.17 (dd, J = 8.1, 1.7 Hz, 1H), 7.92 (d, J = 1.2 Hz, 1H), 7.75 (d, J = 1.5 Hz, 1H), 7.61 (dd, J = 8.1, 4.6 Hz, 1H), 7.42 (s, 1H), 4.82 (d, J = 8.1 Hz, 1H), 4.41 (t, J = 8.4 Hz, 1H), 3.87 (t, J = 8.7 Hz, 1H), 3.48-3.55 (m, 2H), 2.23 (s, 3H), 1.11-1.16 (m, 3H)	573.9
74	3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.47 (s, 1H), 9.10 (d, J = 7.6 Hz, 1H), 8.48 (dd, J = 4.7, 1.4 Hz, 1H), 8.17 (dd, J = 8.1, 1.4 Hz, 1H), 7.93 (s, 1H), 7.76 (d, J = 1.2 Hz, 1H), 7.60 (dd, J = 8.0, 4.7 Hz, 1H), 7.41 (s, 1H), 4.92 (dd, J = 16.7, 8.6 Hz, 1H), 4.32-4.49 (m, 3H), 3.97 (t, J = 8.9 Hz, 1H), 2.25 (d, J = 10.9 Hz, 3H)	628

75	3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.46 (s, 1H), 9.02 (d, J = 7.8 Hz, 1H), 8.49 (dd, J = 4.7, 1.1 Hz, 1H), 8.17 (dd, J = 8.1, 1.1 Hz, 1H), 7.92 (s, 1H), 7.75 (s, 1H), 7.61 (dd, J = 8.1, 4.7 Hz, 1H), 7.42 (s, 1H), 4.83 (t, J = 8.3 Hz, 1H), 4.43 (t, J = 8.5 Hz, 1H), 3.89 (t, J = 8.8 Hz, 1H), 3.35-3.41 (m, 2H), 2.23 (s, 3H), 1.01-1.05 (m, 1H), 0.46-0.51 (m, 2H), 0.25 (dd, J = 10.1, 4.6 Hz, 2H)	599.9
76	rac-(R)-3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.46 (s, 1H), 9.02 (d, J = 7.8 Hz, 1H), 8.48 (dd, J = 4.6, 1.5 Hz, 1H), 8.17 (dd, J = 8.1, 1.5 Hz, 1H), 7.92 (d, J = 1.2 Hz, 1H), 7.74 (d, J = 1.5 Hz, 1H), 7.60 (dd, J = 8.2, 4.8 Hz, 1H), 7.42 (s, 1H), 4.82 (q, J = 8.4 Hz, 1H), 4.40 (t, J = 8.6 Hz, 1H), 3.86 (t, J = 8.7 Hz, 1H), 3.46-3.56 (m, 2H), 2.23 (s, 3H), 1.13 (t, J = 7.2 Hz, 3H)	573.8
77	rac-(R)-N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.28 (s, 1H), 8.98 (d, J = 7.8 Hz, 1H), 8.44 (dd, J = 4.8, 1.6 Hz, 1H), 8.09 (dd, J = 8.1, 1.5 Hz, 1H), 8.00 (d, J = 2.2 Hz, 1H), 7.49-7.55 (m, 2H), 6.82 (s, 1H), 4.80 (q, J = 8.4 Hz, 1H), 4.38 (t, J = 8.6 Hz, 1H), 3.80-3.86 (m, 4H), 3.47-3.53 (m, 2H), 1.12 (t, J = 7.1 Hz, 3H)	596.8
78	rac-(R)-N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.38 (s, 1H), 9.00 (d, J = 7.8 Hz, 1H), 8.46 (dd, J = 4.8, 1.6 Hz, 1H), 8.11 (dd, J = 8.1, 1.5 Hz, 1H), 8.01 (d, J = 2.4 Hz, 1H), 7.56 (dd, J = 8.1, 4.9 Hz, 1H), 7.50 (d, J = 2.4 Hz, 1H), 6.92 (s, 1H), 4.90 (q, J = 8.9 Hz, 2H), 4.79 (t, J = 8.3 Hz, 1H), 4.39 (t, J = 8.4 Hz, 1H), 3.83 (t, J = 8.7 Hz, 1H), 3.47-3.53 (m, 2H), 1.12 (t, J = 7.1 Hz, 3H)	666.9
79	rac-(R)-N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.38 (s, 1H), 9.01 (d, J = 7.3 Hz, 1H), 8.46 (q, J = 2.0 Hz, 1H), 8.11 (dd, J = 7.9, 1.2 Hz, 1H), 8.01 (d, J = 2.4 Hz, 1H), 7.56 (q, J = 4.2 Hz, 1H), 7.50 (d, J = 2.4 Hz, 1H), 6.93 (s, 1H), 4.90 (q, J = 9.0 Hz, 2H), 4.79 (q, J = 8.2 Hz, 1H), 4.37 (t, J = 8.3 Hz, 1H), 3.83 (t, J = 8.6 Hz, 1H), 3.07 (s, 3H)	652.9

80	rac-(R)-N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D ₆) δ 10.28 (s, 1H), 8.99 (d, J = 7.9 Hz, 1H), 8.44 (dd, J = 4.9, 1.2 Hz, 1H), 8.09 (dd, J = 7.9, 1.2 Hz, 1H), 8.00 (d, J = 2.4 Hz, 1H), 7.53 (q, J = 4.3 Hz, 1H), 7.48 (d, J = 2.4 Hz, 1H), 6.83 (s, 1H), 4.77 (t, J = 8.3 Hz, 1H), 4.36 (t, J = 8.6 Hz, 1H), 3.80-3.86 (m, 4H), 3.06 (s, 3H)	584.9
81	rac-(R)-3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D ₆) δ 10.46 (s, 1H), 9.03 (d, J = 7.3 Hz, 1H), 8.49 (d, J = 4.3 Hz, 1H), 8.17 (d, J = 8.6 Hz, 1H), 7.92 (s, 1H), 7.74 (s, 1H), 7.61 (q, J = 4.3 Hz, 1H), 7.42 (s, 1H), 4.81 (q, J = 8.2 Hz, 1H), 4.38 (t, J = 8.6 Hz, 1H), 3.87 (t, J = 8.3 Hz, 1H), 3.08 (s, 3H), 2.23 (s, 3H)	559.95
82	rac-(R)-3-bromo-N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D ₆) δ 10.22 (s, 1H), 8.93 (d, J = 7.9 Hz, 1H), 8.48 (d, J = 4.9 Hz, 1H), 8.16 (d, J = 7.9 Hz, 1H), 7.60 (dd, J = 7.6, 5.2 Hz, 1H), 7.52 (s, 1H), 7.40 (s, 1H), 7.34 (s, 1H), 4.82 (q, J = 8.6 Hz, 1H), 4.39 (t, J = 8.3 Hz, 1H), 3.87 (t, J = 8.9 Hz, 1H), 3.07 (s, 3H), 2.15 (d, J = 16.5 Hz, 3H)	568.95
83	rac-(R)-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-3-(thietan-3-yloxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D ₆) δ 10.31 (s, 1H), 9.02 (d, J = 7.9 Hz, 1H), 8.44 (d, J = 4.3 Hz, 1H), 8.11 (d, J = 7.9 Hz, 1H), 7.92 (s, 1H), 7.73 (s, 1H), 7.54 (q, J = 4.3 Hz, 1H), 6.78 (s, 1H), 5.43-5.51 (m, 1H), 4.81 (q, J = 8.2 Hz, 1H), 4.38 (t, J = 8.3 Hz, 1H), 3.88 (t, J = 8.6 Hz, 1H), 3.52 (t, J = 8.6 Hz, 2H), 3.40 (t, J = 8.3 Hz, 2H), 3.08 (s, 3H), 2.20 (t, J = 10.9 Hz, 3H)	568.1
84	rac-(R)-N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D ₆) δ 10.06 (s, 1H), 8.91 (d, J = 7.8 Hz, 1H), 8.44 (dd, J = 4.6, 1.5 Hz, 1H), 8.09 (dd, J = 8.1, 1.7 Hz, 1H), 7.50-7.54 (m, 2H), 7.33 (d, J = 2.2 Hz, 1H), 6.75 (s, 1H), 4.82 (q, J = 8.4 Hz, 1H), 4.38 (t, J = 8.6 Hz, 1H), 3.86-3.90 (m, 4H), 3.07 (s, 3H), 2.06-2.18 (m, 3H)	519.1

85	rac-(R)-3-bromo-N-(4-chloro-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR(400 MHz, DMSO-D6) δ 10.22 (s, 1H), 8.92 (d, J = 7.9 Hz, 1H), 8.48 (dd, J = 4.9, 1.2 Hz, 1H), 8.16 (dd, J = 8.3, 1.5 Hz, 1H), 7.60 (q, J = 4.3 Hz, 1H), 7.52 (d, J = 1.8 Hz, 1H), 7.39 (s, 1H), 7.32-7.35 (m, 1H), 4.83 (q, J = 8.6 Hz, 1H), 4.41 (t, J = 8.6 Hz, 1H), 3.88 (t, J = 8.6 Hz, 1H), 3.51 (dq, J = 20.6, 6.7 Hz, 2H), 2.17 (s, 3H), 1.13 (t, J = 7.0 Hz, 3H)	582.9
86	rac-(R)-N-(4-chloro-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.06 (s, 1H), 8.90 (d, J = 7.8 Hz, 1H), 8.44 (dd, J = 4.6, 1.5 Hz, 1H), 8.09 (dd, J = 8.1, 1.5 Hz, 1H), 7.50-7.54 (m, 2H), 7.34 (d, J = 2.2 Hz, 1H), 6.75 (s, 1H), 4.83 (d, J = 8.1 Hz, 1H), 4.41 (t, J = 8.6 Hz, 1H), 3.86-3.90 (m, 4H), 3.47-3.54 (m, 2H), 2.18 (s, 3H), 1.12 (t, J = 7.1 Hz, 3H)	533.05
87	rac-(R)-3-bromo-N-(4-chloro-2-methyl-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 11.51 (s, 1H), 10.21 (s, 1H), 8.88 (d, J = 8.1 Hz, 1H), 8.48 (dd, J = 4.6, 1.5 Hz, 1H), 8.16 (dd, J = 8.1, 1.7 Hz, 1H), 7.60 (dd, J = 8.1, 4.6 Hz, 1H), 7.51-7.51 (m, 1H), 7.40 (s, 1H), 7.35 (d, J = 2.0 Hz, 1H), 4.80 (s, 1H), 4.40 (t, J = 8.4 Hz, 1H), 3.89 (t, J = 9.0 Hz, 1H), 2.17 (s, 3H)	554.65
88	rac-(R)-3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 11.53 (s, 1H), 10.45 (s, 1H), 8.98 (d, J = 6.8 Hz, 1H), 8.48 (dd, J = 4.8, 1.6 Hz, 1H), 8.16 (dd, J = 8.1, 1.5 Hz, 1H), 7.91 (d, J = 1.2 Hz, 1H), 7.74 (d, J = 1.7 Hz, 1H), 7.60 (dd, J = 8.1, 4.6 Hz, 1H), 7.43 (s, 1H), 4.80 (s, 1H), 4.40 (t, J = 8.6 Hz, 1H), 3.88 (t, J = 8.9 Hz, 1H), 2.07-2.23 (m, 3H)	545.65
89	1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.29 (s, 1H), 9.00 (d, J = 7.8 Hz, 1H), 8.44 (dd, J = 4.6, 1.5 Hz, 1H), 8.09 (dd, J = 8.1, 1.5 Hz, 1H), 7.90 (s, 1H), 7.72 (d, J = 1.5 Hz, 1H), 7.53 (dd, J = 8.1, 4.9 Hz, 1H), 6.77 (s, 1H), 4.80 (t, J = 8.2 Hz, 1H), 4.37 (t, J = 8.4 Hz, 1H), 3.85-3.89 (m, 4H), 3.07 (s, 3H), 2.23 (s, 3H)	510

90	1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.30 (s, 1H), 8.97 (d, J = 7.6 Hz, 1H), 8.44 (dd, J = 4.8, 1.6 Hz, 1H), 8.09 (dd, J = 8.1, 1.5 Hz, 1H), 7.90 (d, J = 1.2 Hz, 1H), 7.73 (d, J = 1.5 Hz, 1H), 7.53 (dd, J = 8.1, 4.6 Hz, 1H), 6.76 (s, 1H), 4.82 (dd, J = 16.6, 8.8 Hz, 1H), 4.41 (t, J = 8.4 Hz, 1H), 4.21 (q, J = 6.7 Hz, 1H), 3.83-3.88 (m, 4H), 2.22 (s, 3H), 1.17 (dd, J = 12.5, 6.8 Hz, 6H)	538.1
91	1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.38 (s, 1H), 9.02 (d, J = 7.8 Hz, 1H), 8.46 (dd, J = 4.8, 1.6 Hz, 1H), 8.12 (dd, J = 8.1, 1.7 Hz, 1H), 7.92 (d, J = 1.2 Hz, 1H), 7.74 (d, J = 1.7 Hz, 1H), 7.56 (dd, J = 8.1, 4.6 Hz, 1H), 6.89 (s, 1H), 4.81-4.94 (m, 3H), 4.39 (t, J = 8.4 Hz, 1H), 3.88 (t, J = 8.6 Hz, 1H), 3.08 (s, 3H), 2.22 (d, J = 10.5 Hz, 3H)	578.05
92	1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.39 (s, 1H), 9.00 (d, J = 7.6 Hz, 1H), 8.46 (dd, J = 4.6, 1.5 Hz, 1H), 8.13 (dd, J = 8.1, 1.5 Hz, 1H), 7.92 (d, J = 1.2 Hz, 1H), 7.75 (d, J = 1.7 Hz, 1H), 7.56 (dd, J = 8.1, 4.6 Hz, 1H), 6.89 (s, 1H), 4.80-4.94 (m, 3H), 4.43 (t, J = 8.4 Hz, 1H), 4.19-4.26 (m, 1H), 3.87 (t, J = 8.8 Hz, 1H), 2.23 (s, 3H), 1.18 (dd, J = 12.6, 6.7 Hz, 6H)	606.1
93	1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.39 (s, 1H), 9.09 (d, J = 7.8 Hz, 1H), 8.45 (dd, J = 4.8, 1.6 Hz, 1H), 8.11 (dd, J = 8.1, 1.5 Hz, 1H), 7.92 (d, J = 1.2 Hz, 1H), 7.75 (d, J = 1.5 Hz, 1H), 7.55 (dd, J = 8.1, 4.6 Hz, 1H), 6.87 (s, 1H), 4.90 (q, J = 8.9 Hz, 3H), 4.36-4.48 (m, 3H), 3.98 (t, J = 8.8 Hz, 1H), 2.23 (s, 3H)	646.05
94	3-bromo-1-(3-chloropyridin-2-yl)-N-(2,4-dichloro-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 11.55 (s, 1H), 10.50 (s, 1H), 9.02 (d, J = 7.6 Hz, 1H), 8.50 (dd, J = 4.6, 1.5 Hz, 1H), 8.18 (dd, J = 8.1, 1.7 Hz, 1H), 7.90 (d, J = 2.4 Hz, 1H), 7.62 (dd, J = 8.1, 4.9 Hz, 1H), 7.47-7.51 (m, 2H), 4.78 (d, J = 9.8 Hz, 1H), 4.41 (t, J = 8.4 Hz, 1H), 3.88 (t, J = 8.9 Hz, 1H)	574.9

95	1-(3-chloropyridin-2-yl)-N-(2,4-dichloro-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 11.54 (d, J = 8.3 Hz, 1H), 10.67 (d, J = 8.8 Hz, 1H), 9.05 (s, 1H), 8.51 (dd, J = 4.6, 1.5 Hz, 1H), 8.21 (dd, J = 8.1, 1.5 Hz, 1H), 7.89 (d, J = 2.4 Hz, 1H), 7.81 (s, 1H), 7.66 (dd, J = 8.2, 4.8 Hz, 1H), 7.50 (d, J = 2.4 Hz, 1H), 4.79 (s, 1H), 4.40 (t, J = 8.4 Hz, 1H), 3.86 (t, J = 8.9 Hz, 1H)	562.9
96	rac-(R)-1-(3-chloropyridin-2-yl)-N-(2,4-dichloro-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-3-(3,3-difluoroazetidin-1-yl)-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 11.53 (s, 1H), 10.27 (s, 1H), 8.95 (d, J = 6.8 Hz, 1H), 8.43 (dd, J = 4.6, 1.5 Hz, 1H), 8.08 (dd, J = 8.1, 1.5 Hz, 1H), 7.86 (d, J = 2.4 Hz, 1H), 7.46-7.53 (m, 2H), 6.76 (s, 1H), 4.77 (s, 1H), 4.31-4.40 (m, 5H), 3.86 (t, J = 8.9 Hz, 1H)	587.95
97	1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-3-methoxy-1H-pyrazole-5-carboxamide	¹ H-NMR (400 MHz, DMSO-D6) δ 10.30 (s, 1H), 9.01 (d, J = 7.8 Hz, 1H), 8.44 (dd, J = 4.8, 1.6 Hz, 1H), 8.10 (dd, J = 8.1, 1.5 Hz, 1H), 7.91 (d, J = 1.2 Hz, 1H), 7.74 (d, J = 2.0 Hz, 1H), 7.53 (dd, J = 8.1, 4.6 Hz, 1H), 6.77 (s, 1H), 4.85 (dd, J = 16.6, 8.8 Hz, 1H), 4.43 (t, J = 8.4 Hz, 1H), 3.87-3.92 (m, 4H), 3.35-3.42 (m, 2H), 2.23 (s, 3H), 1.01-1.05 (m, 1H), 0.46-0.51 (m, 2H), 0.23-0.27 (m, 2H)	550.15

BIOLOGY EXAMPLES:

Test solutions were prepared according to the procedure described herein below (500 PPM):

EQUIPMENTS AND GRINDING AID:

- 5 1. Eppendorf Vortex mixer (ThermoMixer C) and 1.5 mL Eppendorf tubes
2. Zirconia (Zirconium-Yttrium) beads having diameter of 0.8 to 1.0 mm
3. Microscope
4. Beaker – 100 mL
5. Micro-pipette

10 REAGENTS:

1. Surfactant Solution
2. De-mineralized (DM) Water

1. Weigh 10 mg of the compound of present invention to be tested in an Eppendorf Tube.
- 15 2. Add 200 mg of the Surfactant Solution into the tube.

3. Add 600 mg of Zirconia beads into the above mixture.
4. Fix the tube in Eppendorf Vortex mixer and start vortexing at 2000 rpm.
5. Mix on Vortex mixer for 30 min. After 30 min, observe the sample over a microscope at 400 x resolution.
- 5 6. If the Maximum particle size is more than 5 μm or average particle size is more than 2 μm or the particle size distribution is uneven, continue vortexing for another 30 minutes and again check the particle size using the microscope. Continue till the average particle size is below 2 microns.
7. When the required particle size is achieved, add 1.0 mL DM water into the tube, close the cap, Shake the tube thoroughly and transfer the contents, alongwith the beads, into a beaker.
- 10 8. To rinse the tube, add another 1.0 mL of DM Water into the tube, close the cap, shake well and transfer this also to the same beaker.
9. Repeat Step no. 8 one more time so that the tube is rinsed well and the compound of the present invention to be tested is transferred to the beaker.
10. Add 16.8 mL of DM water into the beaker and stir well.
- 15 11. The homogeneous dispersion can then be decanted into a Glass Vial, immediately, to separate the Zirconia beads.
12. Immediately use this sample for biological testing of the compounds of present invention.
13. Further dilutions can be prepared by taking appropriate quantity of the aliquot of Step 10, immediately after stirring, and diluting as per requirement. The sample solution must be well mixed just before
- 20 biological testing.

Example A: *Helicoverpa armigera*

Diet incorporation method was used, in which the semi-synthetic diet was incorporated into the test solution when the temperature is approximately 50 °C in the bioassay containers and stirred thoroughly for properly mixing and then was allowed to cool for 30 min. The solidified diet was cut into equal

25 pieces, and then each piece was transferred in one cell in Bio-assay trays. A single third instar starved larva was released into each of these cells of bioassay trays and the tray was covered with the lid. The bio-assay trays were kept under laboratory conditions at a temperature of 25 °C and Relative Humidity of 70%. Observations on dead, moribund and live larvae were recorded at 96 h after the release of larvae. Percent mortality was calculated by combining dead and moribund larvae. The following compound

30 numbers 1 3 5 6 7 11 25 32 39 40 42 47
 51 52 70 79 80 82 84 87 and 91 recorded for more than
 70% mortality @ 300PPM.

Example B: *Spodoptera litura*

Diet incorporation method was used, in which semi-synthetic diet was incorporated into the test solutions when the temperature is approximately 50 °C in the bioassay containers and stirred thoroughly for properly mixing and then was allowed to cool for 30 min. The solidified diet was cut into equal pieces, and then each piece was transferred in one cell in Bio-assay trays. A single third instar starved larva was released into each of these cells of bioassay trays and the tray was covered with the lid. The bio-assay trays were kept under laboratory conditions at a temperature of 25 °C and Relative Humidity of 70%. Observations on dead, moribund and live larvae were recorded at 96 h after the release of larvae. Percent mortality was calculated by combining dead and moribund larvae. The following compound numbers 1

3 5 6 7 11 25 29 32 39 40 42 47

48 51 52 70 79 80 82 84 87 and 91 recorded for more than 70% mortality @ 300PPM.

Example C: *Plutella xylostella*

Leaf dip method was used for screening, wherein the required quantity of the compounds were weighed and dissolved in the test solution into the tube and vortex at 2000 rpm with Zirconia beads for 90 min for proper mixing, then mixed with 0.01% Triton-X solution to get the desired test concentration. and Cabbage leaves were dipped in the solution for 10 seconds, shade dried for 20 min and then transferred to bioassay trays. Single second instar larvae were released into each cell and the tray was covered with lid. The bio-assay trays were kept under laboratory conditions at a temperature of 25 °C and Relative Humidity of 70%. Observations on dead, moribund and live larvae were recorded at 72 h after the release. Percent mortality was calculated by combining dead and moribund larvae. The following compound numbers

1 2 4 5 6 7 8 9 10 11 12 13 14
15 16 17 18 19 20 21 22 23 24 26 27
28 29 30 31 32 33 34 35 36 37 38 39
40 41 42 43 44 45 46 47 48 50 51 52
53 54 55 56 57 58 59 60 61 62 63 64
65 68 70 71 73 76 78 79 80 82 83 85
87 91 93 94 and 97 recorded for more than 70% mortality @ 300PPM.

Example D: *Bemisia tabaci*

Leaf dip method was used for screening, wherein the required quantity of the compounds were weighed and dissolved in the test solution into the tube and vortex at 2000 rpm with Zirconia beads for 90 min

and for proper mixing, then mixed with 0.01% Triton-X solution to get the desired test concentration. Cotton leaves were dipped in the solution for 10 seconds, shade dried for 20 min and then leaves were kept in glass units with petiole dipped in water. Known numbers of freshly emerged adults were released and were kept in the plant growth chamber at a temperature of 25 °C and Relative Humidity of 70%.

- 5 Observations on dead, moribund and live larvae were recorded at 72 h after the release. Percent mortality was calculated by combining dead and moribund adults.

Example E: *Myzus persicae*

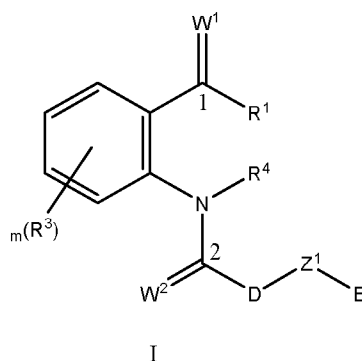
Leaf dip method was used for screening, wherein the required quantity of the compounds were weighed and dissolved in the test solution into the tube and vortex at 2000 rpm with Zirconia beads for 90 min and for proper mixing, then mixed with 0.01% Triton-X solution to get the desired test concentration. Capsicum leaves were dipped in the solution for 10 seconds, shade dried for 20 min and then leaves were kept in glass units with petiole dipped in water. Known numbers of third instar nymphs were released and were kept in the plant growth chamber at a temperature of 25 °C and Relative Humidity of 70%. Observations on dead, moribund and live nymphs were recorded at 72 h after the release. Percent mortality was calculated by combining dead and moribund nymphs.

Example F: *Nilaparvata lugens*

Seedling dip method was used for screening, wherein the required quantity of the compounds were weighed and dissolved in the test solution into the tube and vortex at 2000 rpm with Zirconia beads for 90 min and for proper mixing, then mixed with 0.01% Triton-X solution to get the desired test concentration. Paddy seedlings were dipped in the solution for 10 seconds, shade dried for 20 min and then seedlings were kept in glass test tubes with roots kept in water. Known numbers of third instar nymphs were released and were kept in the plant growth chamber at a temperature of 25 °C and Relative Humidity of 75%. Observations on dead, moribund and live Nymphs were recorded at 72 h after the release. Percent mortality was calculated by combining dead and moribund nymphs.

WE CLAIM:

1. A compound of formula (I),



wherein;

R^1 is $NR^{10}R^{11}$;

R^{10} is selected from the group consisting of hydrogen, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_3 - C_8 cycloalkyl, C_3 - C_8 cycloalkyl- C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_3 - C_6 halocycloalkyl, C_1 - C_6 alkoxy and C_1 - C_6 haloalkoxy;

R^{11} is a 5-, 6- or 7- membered heterocyclyl ring attached to N of R^1 through C atom; said heterocyclyl ring comprises one or two hetero atoms selected from N, O or S; and one or more C of the heterocyclyl ring may be optionally replaced with $C(=O)$ or $C(=S)$ or $C(=NR^{19})$; said heterocyclyl ring may be optionally substituted with one or more R^{16a} ;

R^{16a} and R^{16b} is selected from the group of consisting of hydrogen, halogen, cyano, nitro, hydroxy, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_3 - C_8 cycloalkyl, C_3 - C_8 cycloalkyl- C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkoxy- C_1 - C_6 alkyl, C_1 - C_6 hydroxyalkyl, C_2 - C_6 haloalkenyl, C_2 - C_6 haloalkynyl, C_3 - C_6 halocycloalkyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_1 - C_6 haloalkoxycarbonyl, C_1 - C_6 alkylthio, C_1 - C_6 haloalkylthio, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 haloalkylsulfonyl, C_1 - C_6 alkylsulfinyl, C_1 - C_6 alkylsulfonyl, C_1 - C_6 alkylamino, C_1 - C_6 dialkylamino, C_3 - C_6 cycloalkylamino, C_1 - C_6 alkyl- C_3 - C_6 -cycloalkylamino, C_1 - C_6 alkylcarbonyl, C_1 - C_6 alkoxycarbonyl, C_1 - C_6 alkylaminocarbonyl, C_1 - C_6

dialkylaminocarbonyl, C₁-C₆ alkoxy carbonyloxy, C₁-C₆ alkylaminocarbonyloxy, C₁-C₆ dialkylaminocarbonyloxy and C₁-C₆ trialkylsilyl; wherein, R^{16a} and R^{16b} may be optionally further substituted with C₁-C₆ alkyl, C₃-C₈ cycloalkyl, C₁-C₆ alkoxy, and C₁-C₆ alkoxy-C₁-C₆ alkyl;

5

W¹ and W² are independently O or S;

Two R³ together with the carbon atoms to which they are attached may form a 5- to 11-membered carbocycle, or aryl or heterocyclyl or heteroaryl ring or ring system which may be optionally substituted with R²;

10

each of R² and R³ are independently selected from the group consisting of hydrogen, halogen, cyano, nitro, hydroxy, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy-C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₃-C₆ halocycloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ haloalkoxycarbonyl, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ alkylamino, C₁-C₆ dialkylamino, C₃-C₆ cycloalkylamino, C₁-C₆ alkyl-C₃-C₆-cycloalkylamino, C₁-C₆ alkylcarbonyl, C₁-C₆ alkoxy carbonyl, C₁-C₆ alkylaminocarbonyl, C₁-C₆ dialkylaminocarbonyl, C₁-C₆ alkoxy carbonyloxy, C₁-C₆ alkylaminocarbonyloxy, C₁-C₆ dialkylaminocarbonyloxy, C₁-C₆ trialkylsilyl, amino, formyl, C₂-C₆ cyanoalkenyl, phenylcarbonylamino, and phenyloxycarbonyl; wherein each of R² and R³ may optionally be substituted with halogen, cyano, nitro, hydroxy, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy-C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₃-C₆ halocycloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ alkylamino, C₁-C₆ dialkylamino, C₃-C₆ cycloalkylamino, C₁-C₆ alkyl-C₃-C₆-cycloalkylamino, C₁-C₆ alkylcarbonyl, C₁-C₆ alkoxy carbonyl, C₁-C₆ alkylaminocarbonyl, C₁-C₆ dialkylaminocarbonyl, C₁-C₆ alkoxy carbonyloxy, C₁-C₆ alkylaminocarbonyloxy, C₁-C₆ dialkylaminocarbonyloxy and C₁-C₆ trialkylsilyl; or

15

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Each of R² and R³ are independently selected from the group consisting of phenyl, benzyl, phenoxy or 4- to 6- heterocyclyl; each phenyl, benzyl, phenoxy or 4- to 6- heterocyclyl may optionally be substituted with one or more substituent selected from halogen, cyano, nitro,

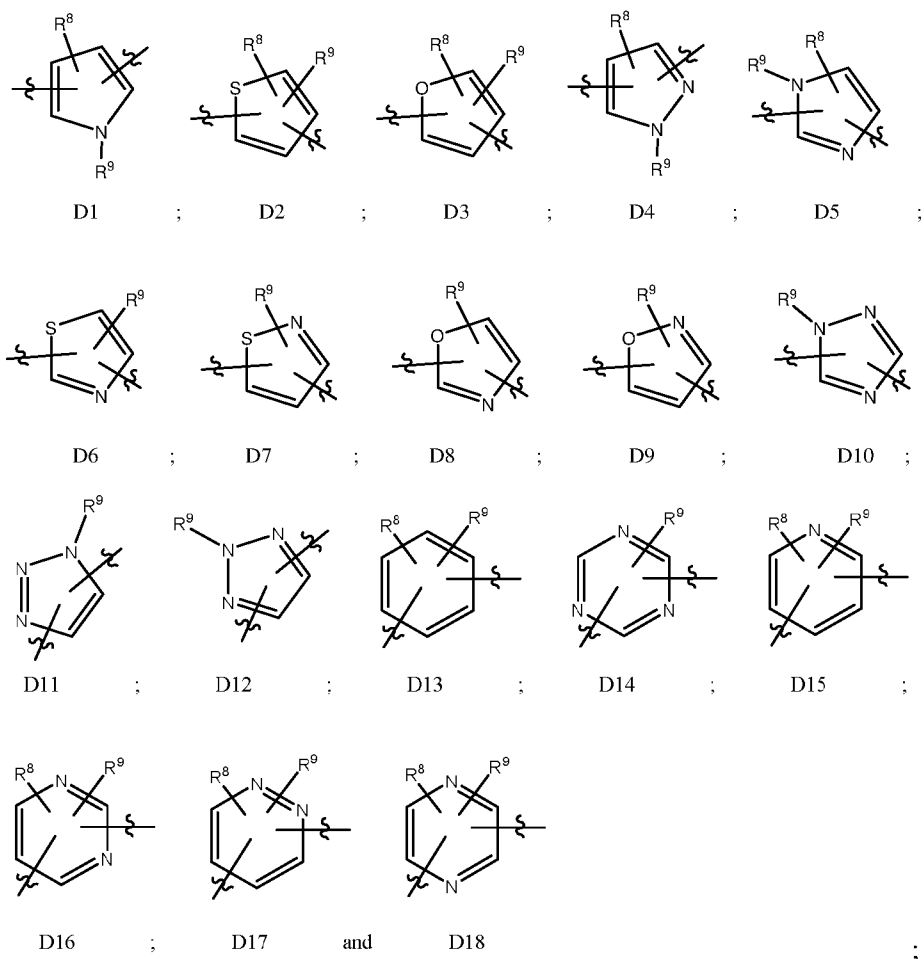
hydroxy, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy-C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₃-C₆ halocycloalkyl, C₁-C₆ alkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ alkylamino, C₁-C₆ dialkylamino, C₃-C₆ cycloalkylamino, C₁-C₆ alkyl-C₃-C₆-cycloalkylamino, C₁-C₆ alkylcarbonyl, C₁-C₆ alkoxy carbonyl, C₁-C₆ alkylaminocarbonyl, C₁-C₆ dialkylaminocarbonyl, C₁-C₆ alkoxy carbonyloxy, C₁-C₆ alkylaminocarbonyloxy, C₁-C₆ dialkylaminocarbonyloxy, C₁-C₆ trialkylsilyl, 2-, 3- or 4 pyridylcarbonylamino which can be mono-, di- or tri- substituted by halogen, cyano, nitro, hydroxy, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy-C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₃-C₆ halocycloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ alkylamino, C₁-C₆ dialkylamino, C₃-C₆ cycloalkylamino, C₁-C₆ alkyl-C₃-C₆ cycloalkylamino, C₁-C₆ alkylcarbonyl, C₁-C₆ alkoxy carbonyl, C₁-C₆ alkylaminocarbonyl, C₁-C₆ dialkylaminocarbonyl, C₁-C₆ alkoxy carbonyloxy, C₁-C₆ alkylaminocarbonyloxy, C₁-C₆ dialkylaminocarbonyloxy, C₁-C₆ trialkylsilyl, C₁-C₆ alkoxy carbonylamino, C₁-C₆ alkylaminocarbonylamino, C₁-C₆ dialkylaminocarbonylamino, C₁-C₆ haloalkylcarbonyl and R_xON=C(R_y)-,

R_x and R_y independently are hydrogen or C₁-C₆ alkyl;

“m” is an integer ranging from 0 to 4;

R⁴ is selected from the group consisting of hydrogen, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₁-C₆ alkylcarbonyl and C₁-C₆ alkoxy carbonyl; each of C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₁-C₆ alkylcarbonyl, C₁-C₆ alkoxy carbonyl may be optionally substituted by one or more substituents selected from halogen nitro, cyano, hydroxy, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ alkylamino, C₁-C₆ dialkylamino, C₃-C₈ cycloalkyl, C₃-C₆ cycloalkylamino and C₁-C₆ alkyl-C₃-C₆ cycloalkylamino;

D is selected from the group consisting of;



wherein;

the bond on the right is attached to Z^1 and the bond on the left is attached to carbon marked with 2; or the bond on the right is attached to Z^1 and the bond on the left is attached to carbon marked with 2; and

R^8 and R^9 may be attached to one or more possible position/s,

R^8 is selected from the group consisting of hydrogen, C_1 - C_6 alkyl, C_3 - C_8 cycloalkyl, C_3 - C_8 cycloalkyl- C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, halogen, cyano, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_1 - C_6 alkoxycarbonyl, C_1 - C_6 alkylthio, C_1 - C_6 haloalkylthio, C_1 - C_6 alkylsulfinyl, C_1 - C_6 alkylsulfonyl, C_1 - C_6 haloalkylsulfinyl and C_1 - C_6 haloalkylsulfonyl;

R^9 is selected from a phenyl ring, a benzyl ring, a 5- or 6-membered aromatic or heteroaromatic ring, a naphthyl ring system, an 8-, 9- or 10-membered fused heterobicyclic ring system, each ring or ring system optionally substituted with at least one substituent independently selected from the group consisting of halogen, C₁-C₆ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₄ haloalkenyl, C₂-C₄ haloalkynyl, C₃-C₆ halocycloalkyl, cyano, nitro, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkoxycarbonyl, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl, C₁-C₆ alkylamino, C₁-C₈ dialkylamino, C₁-C₆ cycloalkylamino, C₃-C₈ cycloalkyl-C₁-C₆-alkylamino, C₁-C₆ alkylcarbonyl, C₁-C₆ alkoxycarbonyl, C₁-C₆ alkylaminocarbonyl, C₁-C₈ dialkylaminocarbonyl and C₁-C₆ trialkylsilyl;

Z^1 is a direct bond or CR^6R^7 or C(O) or NR^{18} or O or S(O)₀₋₂;

R^6 and R^7 are independently selected from the group consisting of hydrogen, halogen, cyano, hydroxy, formyl, C₁-C₆ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₆ haloalkyl, C₂-C₄ haloalkenyl, C₂-C₄ haloalkynyl, C₁-C₆ alkoxy-C₁-C₆ alkyl, C₁-C₆ alkylthioalkyl, C₁-C₆ alkylsulfinylalkyl, C₁-C₆ alkylsulfonylalkyl, C₁-C₆ alkylcarbonyl, C₁-C₆ haloalkylcarbonyl, C₁-C₆ alkoxycarbonyl, C₁-C₆ alkoxycarbonyl-C₁-C₆ -alkyl, C₁-C₆ alkylaminocarbonyl, C₁-C₅ dialkylaminocarbonyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

R^{18} and R^{19} is selected from the group consisting of hydrogen, halogen, cyano, hydroxy, formyl, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy-C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₃-C₆ halocycloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆-alkylcarbonyl, C₁-C₆ haloalkoxycarbonyl, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl, C₁-C₆ alkylsulfinyl and C₁-C₆ alkylsulfonyl;

E is selected from the group consisting of hydrogen, halogen, cyano, C₁-C₆ alkyl, C₃-C₆ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy and C₃-C₆ heterocyclyl; said heterocyclyl ring comprise one or more hetero atoms selected from N, O

and S(O)₀₋₂; and one or more C of the heterocyclyl ring or ring system may be replaced with C(=O), C(=S) or C(=NR¹⁹); said heterocyclyl ring may be optionally substituted with one or more R^{16b}, or

E is selected from 5- or 6- membered aromatic or heteroaromatic ring or an 8-, 9- or 10-membered heterobicyclic ring systems; wherein the heteroatoms in heteroaromatic ring may be selected from N, O, and S; wherein the heteroatoms in the heterobicyclic ring systems may be selected from N, O and S(O)₀₋₂; and C atom of the heterobicyclic ring system may be replaced with C(=O), C(=S) or C(=NR¹⁹); wherein the aromatic, heteroaromatic or heterobicyclic ring or the ring system may be optionally substituted with hydrogen, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₃-C₆ halocycloalkyl, halogen, cyano, carboxyl, aminocarboxyl, nitro, hydroxy, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulphonyl, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl, phenyl or a 5- or 6- membered heteroaromatic ring; wherein said phenyl or the heteroaromatic ring is optionally substituted with at least one group selected from C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₃-C₆ halocycloalkyl, halogen, cyano, carboxyl, aminocarboxyl, nitro, hydroxy, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulphonyl, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl or C₁-C₆ haloalkylsulfonyl;

or salts, metal complexes, N-oxides, isomers or polymorphs thereof;

provided that the following compounds are excluded from the definition of Formula I,

1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((4,5-dihydrothiazol-2-yl)carbamoyl)-6-methylphenyl)-3-((5-(perfluoroethyl)-2H-tetrazol-2-yl)methyl)-1H-pyrazole-5-carboxamide;
N-(4-chloro-2-((4,5-dihydrothiazol-2-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-((5-(perfluoroethyl)-2H-tetrazol-2-yl)methyl)-1H-pyrazole-5-carboxamide;
1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((4,5-dihydrothiazol-2-yl)carbamoyl)-6-methylphenyl)-3-((5-(trifluoromethyl)-2H-tetrazol-2-yl)methyl)-1H-pyrazole-5-carboxamide; and
N-(4-chloro-2-((4,5-dihydrothiazol-2-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-((5-(trifluoromethyl)-2H-tetrazol-2-yl)methyl)-1H-pyrazole-5-carboxamide.

2. The compound according to claim 1, wherein

R^1 is $NR^{10}R^{11}$;

R^{10} is selected from the group consisting of hydrogen, C_1 - C_4 alkyl, C_3 - C_8 cycloalkyl, and C_3 - C_8 cycloalkyl- C_1 - C_6 alkyl;

5

R^{11} is a 5-membered heterocyclyl ring attached to N of R^1 through C atom; said heterocyclyl ring comprises two hetero atoms selected from N and O; and one or more C of the heterocyclyl ring may be optionally replaced with $C(=O)$; said heterocyclyl ring may be optionally substituted with one or more R^{16a} ;

10

R^{16a} is selected from the group consisting of hydrogen, halogen, C_1 - C_6 alkyl, C_3 - C_8 cycloalkyl, C_3 - C_8 cycloalkyl- C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkoxy- C_1 - C_6 alkyl, C_1 - C_6 alkylcarbonyl and C_1 - C_6 alkylsulfonyl;

15

W^1 and W^2 are O;

R^3 is selected from the group consisting of hydrogen, halogen, cyano, nitro, hydroxy, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_3 - C_8 cycloalkyl, C_3 - C_8 cycloalkyl- C_1 - C_6 alkyl, C_1 - C_6 alkyl- C_3 - C_8 cycloalkyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_1 - C_6 alkylthio, and C_1 - C_6 haloalkylthio;

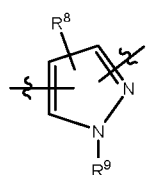
20

"m" is an integer ranging from 0 to 2;

R^4 is selected from the group consisting of hydrogen, C_1 - C_6 alkyl and C_3 - C_8 cycloalkyl;

25

D is



D4 ;

wherein;

the bond on the right is attached to Z^1 and the bond on the left is attached to carbon marked with 2; and

30

R⁸ is selected from the group consisting of hydrogen, C₁-C₄ alkyl, C₃-C₅ cycloalkyl, halogen, cyano, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy and C₁-C₄ alkylthio;

5 R⁹ is selected from a phenyl ring, a benzyl ring, a 5- or 6-membered heteroaromatic ring, each ring or ring system optionally substituted with one or more substituent independently selected from the group consisting of halogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, cyano and nitro;

10 Z¹ is a direct bond or CR⁶R⁷ or O;

R⁶ and R⁷ are independently selected from the group consisting of hydrogen, halogen, cyano, hydroxy, formyl, C₁-C₄ alkyl and C₁-C₄ haloalkyl;

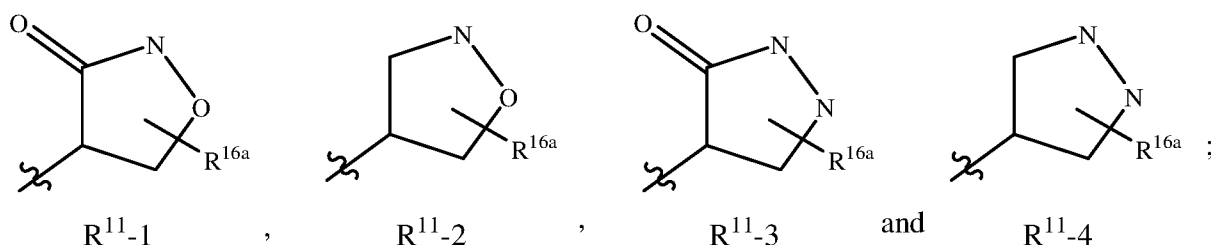
15 E is selected from the group consisting of hydrogen, halogen, cyano, C₁-C₆ alkyl, C₃-C₆ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy and C₃-C₆ heterocyclyl; said heterocyclyl ring comprise one or more hetero atoms selected from N, O and S(O)₀₋₂; and one or more C of the heterocyclyl ring or ring system may be replaced with C(=O), C(=S) or C(=NR¹⁹); said heterocyclyl ring may be optionally substituted with one or more
20 substituents selected from the group consisting of hydrogen, halogen, cyano and nitro; or

E is 5- or 6- membered heteroaromatic ring, wherein the heteroatoms in heteroaromatic ring may be selected from one or more N, O and S; and heteroaromatic ring may be optionally substituted with hydrogen, C₁-C₆ alkyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₃-
25 C₆ halocycloalkyl, halogen, cyano, carboxyl, aminocarboxyl, nitro, hydroxy, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulphonyl, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl and C₁-C₆ haloalkylsulfonyl.

3. The compound according to claim 1, wherein

30

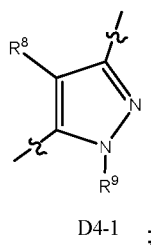
R¹¹ is selected from the group consisting of



R^3 is selected from the group consisting of hydrogen, halogen, cyano and C_1 - C_4 alkyl;

5 R^4 is hydrogen;

D is



wherein;

10 the bond on the right is attached to Z^1 and the bond on the left is attached to carbon marked with 2; and

R^8 is hydrogen;

15 R^9 is a 5- or 6-membered heteroaromatic ring optionally substituted with one or more halogen;

E is selected from the group consisting of halogen, cyano, C_1 - C_6 alkyl, C_3 - C_6 cycloalkyl, C_3 - C_8 cycloalkyl- C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy and C_3 - C_6 heterocyclyl;
 20 said heterocyclyl ring comprise one or more hetero atoms selected from N, O and $S(O)_{0-2}$; said heterocyclyl ring may be optionally substituted with one or more halogen.

4. The compound as claimed in claim 1, wherein said compound of formula (I) is selected from 3-bromo-N-(4-chloro-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide;
 25 3-bromo-N-(4-chloro-2-methyl-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-

5-carboxamide; 3-bromo-N-(4-chloro-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-methyl-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-(2,2-difluoroethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-(2,2-difluoroethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-methyl-6-((1-methyl-3-oxopyrazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((1-methyl-3-oxopyrazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((1-methyl-3-oxopyrazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-((2-(2,2-difluoroethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((1-methyl-3-oxopyrazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-((2-(2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-(2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-

chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((1-methyl-3-oxopyrazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-(methylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-methyl-6-((2-(methylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-(methylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-(methylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-(ethylsulfonyl)isoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-((2-(ethylsulfonyl)isoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-(ethylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-(ethylsulfonyl)isoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-((2-acetylisoxazolidin-4-yl)carbamoyl)-6-bromo-4-chlorophenyl)-3-bromo-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(2-((2-acetylisoxazolidin-4-yl)carbamoyl)-4-chloro-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(2-((2-acetylisoxazolidin-4-yl)carbamoyl)-4-chloro-6-methylphenyl)-3-bromo-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(2-((2-acetylisoxazolidin-4-yl)carbamoyl)-4-chloro-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-((2-acetylisoxazolidin-4-yl)carbamoyl)-4-cyano-6-methylphenyl)-3-bromo-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-propionylisoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-propionylisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-propionylisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-propionylisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-methyl-6-((2-propionylisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-(methylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-(ethylsulfonyl)isoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-

isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-

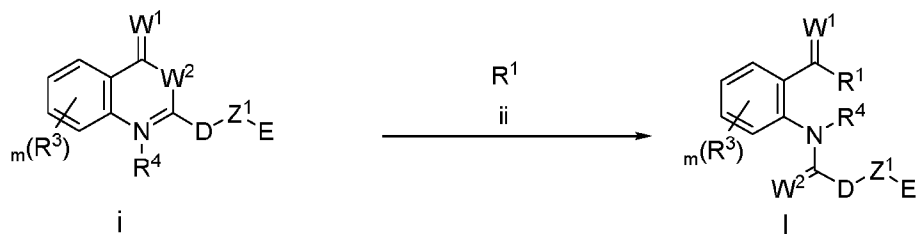
(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-(2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide; rac-(R)-3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide; rac-(R)-N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; rac-(R)-N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; rac-(R)-N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; rac-(R)-N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; rac-(R)-3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; rac-(R)-3-bromo-N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; rac-(R)-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-3-(thietan-3-yloxy)-1H-pyrazole-5-carboxamide; rac-

- (R)-N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; rac-(R)-3-bromo-N-(4-chloro-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; rac-(R)-N-(4-chloro-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; rac-(R)-3-bromo-N-(4-chloro-2-methyl-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; rac-(R)-3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; 1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-3-methoxy-1H-pyrazole-5-carboxamide; 1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-3-methoxy-1H-pyrazole-5-carboxamide; 1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(2,4-dichloro-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; 1-(3-chloropyridin-2-yl)-N-(2,4-dichloro-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; rac-(R)-1-(3-chloropyridin-2-yl)-N-(2,4-dichloro-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-3-(3,3-difluoroazetidin-1-yl)-1H-pyrazole-5-carboxamide and 1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-3-methoxy-1H-pyrazole-5-carboxamide.
5. A composition for controlling or preventing insects and/or mite pests comprising a biologically effective amount of compound of formula (I) or salts, metal complexes, N-oxides, isomers, or polymorphs thereof according to claim 1 and at least one additional component selected from the group consisting of surfactants and auxiliaries.
6. The composition according to claim 5, wherein said composition is used for agricultural and/or veterinary applications.
7. The composition according to claim 5, wherein said composition additionally comprises at least one additional biological active compatible compound selected from fungicides, insecticides,

nematicides, acaricides, biopesticides, herbicides, plant growth regulators, antibiotics, fertilizers or nutrients.

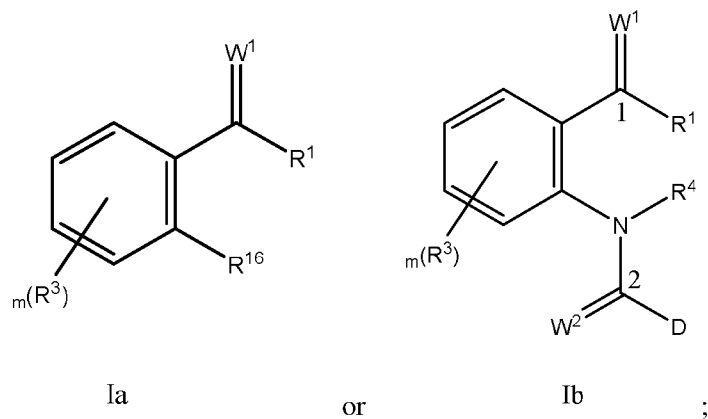
- 5 8. A combination comprising biologically effective amount of compound of formula (I) or salts, metal complexes, N-oxides, isomers or polymorphs thereof according to claim 1 and at least one additional biological active compatible compound selected from fungicides, insecticides, nematicides, acaricides, biopesticides, herbicides, plant growth regulators, antibiotics, fertilizers or nutrients.
- 10 9. The composition or combination according to claim 5 or 8, wherein said biologically effective amount of compound of formula (I) ranges from 0.1 % to 99% by weight with respect to the total weight of the composition, preferably ranges from 5 to 50% by weight with respect to the total weight of the composition.
- 15 10. A method of combating insects and mite pests comprising contacting the insects and mite pests, their habit, breeding ground, food supply, plant, seed, soil, area, material or environment in which the insect and mite pests are growing or may grow, or the materials, plants, seeds, soils, surfaces or spaces to be protected from pest attack or infestation with a biologically effective amount of compound of formula (I) or salts, metal complexes, N-oxides, isomers, polymorphs, composition or combination thereof according to claim 1 or 5 or 8.
- 20 11. A method for protecting crops from attack or infestation by insects and mite pests comprises contacting the crop with a biologically effective amount of the compound or salts, metal complexes, N-oxides, isomers, polymorphs, composition or combination thereof according to claim 1 or 5 or 8.
- 25 12. The method according to claim 11, wherein said method comprises applying effective dosages of compound of formula (I) in amounts ranging from 1 gai to 5000 gai per hectare in agricultural or horticultural crops.
- 30 13. A method for the protection of seeds from soil insects and of the seedlings roots and shoots from soil and foliar insects comprising contacting the seeds before sowing and/or after pre-germination with the compound of formula (I) or salts, metal complexes, N-oxides, isomers, polymorphs, composition or combination thereof according to claim 1 or 5 or 8.

14. A method for treating or protecting animals against infestation or infection by parasites which comprises orally, topically or parenterally administering or applying to the animals a biologically effective amount of the compound of formula (I) or salts, metal complexes, N-oxides, isomers, polymorphs, composition or combination thereof according to claim 1 or 5 or 8.
15. Use of the compound of formula (I) or salts, metal complexes, N-oxides, isomers, polymorphs, composition or combination thereof according to claim 1 or 5 or 8, for combating insects and mite pests in agricultural crops and/or horticultural crops or parasites on animals.
16. The use of the compound of formula (I) according to claim 15, for the preparation of a medicament for treating or protecting animals against infestation or infection by insect and mite pests or parasites.
17. The use of the compound of formula (I) according to claim 15, wherein said agricultural crops are cereals, corn, rice, soybean and other leguminous plants, fruits and fruit trees, grapes, nuts and nut trees, citrus and citrus trees, any horticultural plants, cucurbitaceae, oleaginous plants, tobacco, coffee, tea, cacao, sugar beet, sugar cane, cotton, potato, tomato, onions, peppers, other vegetables and ornamentals.
18. A seed comprising a compound of formula (I) or salts, metal complexes, N-oxides, isomers, polymorphs, composition or combination thereof according to claim 1 or 5 or 8, wherein the amount of compound of formula (I) in said seed ranging from about 0.0001% to about 1% by weight.
19. A process for preparing compound of formula (I) according to claim 1, wherein said process comprising the steps of:
- c) reacting compound of formula (i) with compound of formula (ii) to afford the compound of formula (I);



wherein, W^1 , W^2 , D , E , Z^1 , R^1 , R^3 , R^4 and m are as defined in Claim 1.

20. A compound of formulae Ia or Ib;



wherein, R¹⁶ is N(R⁴)₂ or nitro; W¹, W², D, R¹, R³, R⁴, and m are as defined in claim 1.

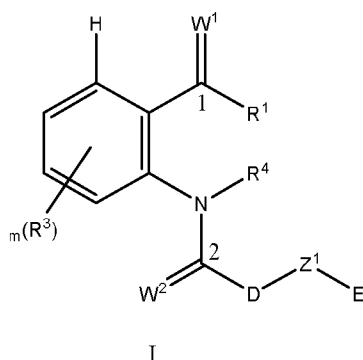
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AMENDED CLAIMS
received by the International Bureau on 29 April 2019

1. A compound of formula (I),



wherein;

R^1 is $NR^{10}R^{11}$;

R^{10} is selected from the group consisting of hydrogen, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_3 - C_8 cycloalkyl, C_3 - C_8 cycloalkyl- C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_3 - C_6 halocycloalkyl, C_1 - C_6 alkoxy and C_1 - C_6 haloalkoxy;

R^{11} is a 5- membered non-aromatic heterocyclyl ring attached to N of R^1 through C atom; said heterocyclyl ring comprises two hetero atoms selected from N and O; and one or more C of the heterocyclyl ring may be optionally replaced with $C(=O)$; said heterocyclyl ring may be optionally substituted with one or more R^{16a} ,

R^{16a} and R^{16b} is selected from the group of consisting of hydrogen, halogen, cyano, nitro, hydroxy, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_3 - C_8 cycloalkyl, C_3 - C_8 cycloalkyl- C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkoxy- C_1 - C_6 alkyl, C_1 - C_6 hydroxyalkyl, C_2 - C_6 haloalkenyl, C_2 - C_6 haloalkynyl, C_3 - C_6 halocycloalkyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_1 - C_6 haloalkoxycarbonyl, C_1 - C_6 alkylthio, C_1 - C_6 haloalkylthio, C_1 - C_6 haloalkylsulfinyl, C_1 - C_6 haloalkylsulfonyl, C_1 - C_6 alkylsulfinyl, C_1 - C_6 alkylsulfonyl, C_1 - C_6 alkylamino, C_1 - C_6 dialkylamino, C_3 - C_6 cycloalkylamino, C_1 - C_6 alkyl- C_3 - C_6 -cycloalkylamino, C_1 - C_6 alkylcarbonyl, C_1 - C_6 alkoxycarbonyl, C_1 - C_6 alkylaminocarbonyl, C_1 - C_6

dialkylaminocarbonyl, C₁-C₆ alkoxy carbonyloxy, C₁-C₆ alkylaminocarbonyloxy, C₁-C₆ dialkylaminocarbonyloxy and C₁-C₆ trialkylsilyl; wherein, R^{16a} and R^{16b} may be optionally further substituted with C₁-C₆ alkyl, C₃-C₈ cycloalkyl, C₁-C₆ alkoxy, and C₁-C₆ alkoxy-C₁-C₆ alkyl;

W¹ and W² are independently O or S;

Two R³ together with the carbon atoms to which they are attached may form a 5- to 11-membered carbocycle, or heterocyclyl ring or ring system which may be optionally substituted with R²;

each of R² and R³ are independently selected from the group consisting of hydrogen, halogen, cyano, nitro, hydroxy, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy-C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₃-C₆ halocycloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ haloalkoxycarbonyl, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ alkylamino, C₁-C₆ dialkylamino, C₃-C₆ cycloalkylamino, C₁-C₆ alkyl-C₃-C₆-cycloalkylamino, C₁-C₆ alkylcarbonyl, C₁-C₆ alkoxy carbonyl, C₁-C₆ alkylaminocarbonyl, C₁-C₆ dialkylaminocarbonyl, C₁-C₆ alkoxy carbonyloxy, C₁-C₆ alkylaminocarbonyloxy, C₁-C₆ dialkylaminocarbonyloxy, C₁-C₆ trialkylsilyl, amino, formyl, C₂-C₆ cyanoalkenyl, phenylcarbonylamino, and phenyloxycarbonyl; wherein each of R² and R³ may optionally be substituted with halogen, cyano, nitro, hydroxy, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy-C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₃-C₆ halocycloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ alkylamino, C₁-C₆ dialkylamino, C₃-C₆ cycloalkylamino, C₁-C₆ alkyl-C₃-C₆ cycloalkylamino, C₁-C₆ alkylcarbonyl, C₁-C₆ alkoxy carbonyl, C₁-C₆ alkylaminocarbonyl, C₁-C₆ dialkylaminocarbonyl, C₁-C₆ alkoxy carbonyloxy, C₁-C₆ alkylaminocarbonyloxy, C₁-C₆ dialkylaminocarbonyloxy and C₁-C₆ trialkylsilyl; or

Each of R² and R³ are independently selected from the group consisting of phenyl, benzyl, phenoxy or 4- to 6- heterocyclyl; each phenyl, benzyl, phenoxy or 4- to 6- heterocyclyl may optionally be substituted with one or more substituent selected from halogen, cyano, nitro,

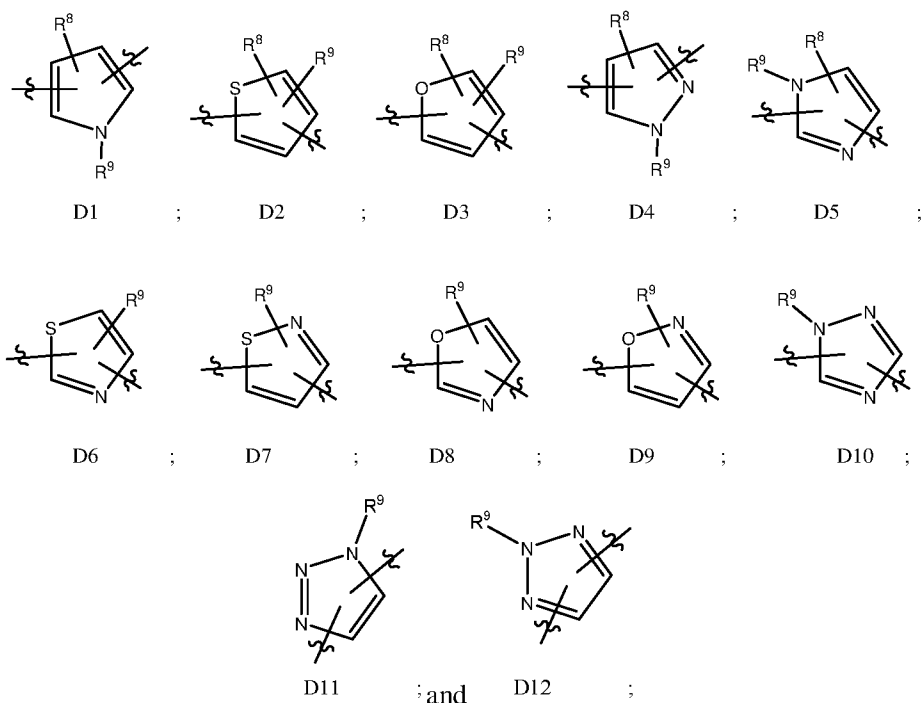
hydroxy, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy-C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₃-C₆ halocycloalkyl, C₁-C₆ alkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ alkylamino, C₁-C₆ dialkylamino, C₃-C₆ cycloalkylamino, C₁-C₆ alkyl-C₃-C₆-cycloalkylamino, C₁-C₆ alkylcarbonyl, C₁-C₆ alkoxy carbonyl, C₁-C₆ alkylaminocarbonyl, C₁-C₆ dialkylaminocarbonyl, C₁-C₆ alkoxy carbonyloxy, C₁-C₆ alkylaminocarbonyloxy, C₁-C₆ dialkylaminocarbonyloxy, C₁-C₆ trialkylsilyl, 2-, 3- or 4 pyridylcarbonylamino which can be mono-, di- or tri- substituted by halogen, cyano, nitro, hydroxy, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy-C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₃-C₆ halocycloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ alkylamino, C₁-C₆ dialkylamino, C₃-C₆ cycloalkylamino, C₁-C₆ alkyl-C₃-C₆ cycloalkylamino, C₁-C₆ alkylcarbonyl, C₁-C₆ alkoxy carbonyl, C₁-C₆ alkylaminocarbonyl, C₁-C₆ dialkylaminocarbonyl, C₁-C₆ alkoxy carbonyloxy, C₁-C₆ alkylaminocarbonyloxy, C₁-C₆ dialkylaminocarbonyloxy, C₁-C₆ trialkylsilyl, C₁-C₆ alkoxy carbonylamino, C₁-C₆ alkylaminocarbonylamino, C₁-C₆ dialkylaminocarbonylamino, C₁-C₆ haloalkylcarbonyl and R_xON=C(R_y)-,

R_x and R_y independently are hydrogen or C₁-C₆ alkyl;

“m” is an integer ranging from 0 to 3;

R⁴ is selected from the group consisting of hydrogen, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₁-C₆ alkylcarbonyl and C₁-C₆ alkoxy carbonyl; each of C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₁-C₆ alkylcarbonyl, C₁-C₆ alkoxy carbonyl may be optionally substituted by one or more substituents selected from halogen nitro, cyano, hydroxy, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ alkylamino, C₁-C₆ dialkylamino, C₃-C₈ cycloalkyl, C₃-C₆ cycloalkylamino and C₁-C₆ alkyl-C₃-C₆ cycloalkylamino;

D is selected from the group consisting of;



wherein;

the bond on the right is attached to Z^1 and the bond on the left is attached to carbon marked with 2; or the bond on the right is attached to Z^1 and the bond on the left is attached to carbon marked with 2; and

R^8 and R^9 may be attached to one or more possible position/s,

R^8 is selected from the group consisting of hydrogen, C_1 - C_6 alkyl, C_3 - C_8 cycloalkyl, C_3 - C_8 cycloalkyl- C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, halogen, cyano, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_1 - C_6 alkoxycarbonyl, C_1 - C_6 alkylthio, C_1 - C_6 haloalkylthio, C_1 - C_6 alkylsulfanyl, C_1 - C_6 alkylsulfonyl, C_1 - C_6 haloalkylsulfinyl and C_1 - C_6 haloalkylsulfonyl;

R^9 is selected from a phenyl ring, a benzyl ring, a 5- or 6-membered aromatic or heteroaromatic ring, a naphthyl ring system, an 8-, 9- or 10-membered fused heterobicyclic ring system, each ring or ring system optionally substituted with at least one substituent independently selected from the group consisting of halogen, C_1 - C_6 alkyl, C_2 - C_4 alkenyl, C_2 - C_4 alkynyl, C_3 - C_8 cycloalkyl, C_3 - C_8 cycloalkyl- C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_2 - C_4 haloalkenyl, C_2 - C_4 haloalkynyl, C_3 - C_6 halocycloalkyl, cyano, nitro, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_1 - C_6 alkoxycarbonyl, C_1 - C_6 alkylthio, C_1 - C_6 haloalkylthio,

C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl, C₁-C₆ alkylamino, C₁-C₈ dialkylamino, C₁-C₆ cycloalkylamino, C₃-C₈ cycloalkyl-C₁-C₆-alkylamino, C₁-C₆ alkylcarbonyl, C₁-C₆ alkoxycarbonyl, C₁-C₆ alkylaminocarbonyl, C₁-C₈ dialkylaminocarbonyl and C₁-C₆ trialkylsilyl;

Z¹ is a direct bond or CR⁶R⁷ or C(O) or NR¹⁸ or O or S(O)₀₋₂;

R⁶ and R⁷ are independently selected from the group consisting of hydrogen, halogen, cyano, hydroxy, formyl, C₁-C₆ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₆ haloalkyl, C₂-C₄ haloalkenyl, C₂-C₄ haloalkynyl, C₁-C₆ alkoxy-C₁-C₆ alkyl, C₁-C₆ alkylthioalkyl, C₁-C₆ alkylsulfinylalkyl, C₁-C₆ alkylsulfonylalkyl, C₁-C₆ alkylcarbonyl, C₁-C₆ haloalkylcarbonyl, C₁-C₆ alkoxycarbonyl, C₁-C₆ alkoxycarbonyl-C₁-C₆ -alkyl, C₁-C₆ alkylaminocarbonyl, C₁-C₅ dialkylaminocarbonyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl and C₁-C₆ haloalkylsulfonyl;

R¹⁸ and R¹⁹ is selected from the group consisting of hydrogen, halogen, cyano, hydroxy, formyl, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy-C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ haloalkenyl, C₂-C₆ haloalkynyl, C₃-C₆ halocycloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₁-C₆-alkylcarbonyl, C₁-C₆ haloalkoxycarbonyl, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl, C₁-C₆ haloalkylsulfonyl, C₁-C₆ alkylsulfinyl and C₁-C₆ alkylsulfonyl;

E is selected from the group consisting of hydrogen, halogen, cyano, C₁-C₆ alkyl, C₃-C₆ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy and 3- or 4- membered heterocyclyl ring; said heterocyclyl ring comprise one or more hetero atoms selected from N, O and S(O)₀₋₂; and one or more C of the heterocyclyl ring or ring system may be replaced with C(=O), C(=S) or C(=NR¹⁹); said heterocyclyl ring may be optionally substituted with one or more R^{16b};

or salts, metal complexes, N-oxides, isomers or polymorphs thereof;

provided that the following compounds are excluded from the definition of Formula I,

1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((4,5-dihydrothiazol-2-yl)carbamoyl)-6-methylphenyl)-3-((5-(perfluoroethyl)-2H-tetrazol-2-yl)methyl)-1H-pyrazole-5-carboxamide;
N-(4-chloro-2-((4,5-dihydrothiazol-2-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-((5-(perfluoroethyl)-2H-tetrazol-2-yl)methyl)-1H-pyrazole-5-carboxamide;
1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((4,5-dihydrothiazol-2-yl)carbamoyl)-6-methylphenyl)-3-((5-(trifluoromethyl)-2H-tetrazol-2-yl)methyl)-1H-pyrazole-5-carboxamide; and
N-(4-chloro-2-((4,5-dihydrothiazol-2-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-((5-(trifluoromethyl)-2H-tetrazol-2-yl)methyl)-1H-pyrazole-5-carboxamide.

2. The compound according to claim 1, wherein

R^1 is $NR^{10}R^{11}$;

R^{10} is selected from the group consisting of hydrogen, C_1 - C_4 alkyl, C_3 - C_8 cycloalkyl, and C_3 - C_8 cycloalkyl- C_1 - C_6 alkyl;

R^{16a} is selected from the group consisting of hydrogen, halogen, C_1 - C_6 alkyl, C_3 - C_8 cycloalkyl, C_3 - C_8 cycloalkyl- C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkoxy- C_1 - C_6 alkyl, C_1 - C_6 alkylcarbonyl and C_1 - C_6 alkylsulfonyl;

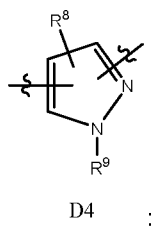
W^1 and W^2 are O;

R^3 is selected from the group consisting of hydrogen, halogen, cyano, nitro, hydroxy, C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_3 - C_8 cycloalkyl, C_3 - C_8 cycloalkyl- C_1 - C_6 alkyl, C_1 - C_6 alkyl- C_3 - C_8 , cycloalkyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy, C_1 - C_6 alkylthio, and C_1 - C_6 haloalkylthio;

"m" is an integer ranging from 0 to 2;

R^4 is selected from the group consisting of hydrogen, C_1 - C_6 alkyl and C_3 - C_8 cycloalkyl;

D is



wherein;

the bond on the right is attached to Z^1 and the bond on the left is attached to carbon marked with 2; and

R^8 is selected from the group consisting of hydrogen, C_1 - C_4 alkyl, C_3 - C_5 cycloalkyl, halogen, cyano, C_1 - C_4 alkoxy, C_1 - C_4 haloalkoxy and C_1 - C_4 alkylthio;

R^9 is selected from a phenyl ring, a benzyl ring, a 5- or 6-membered heteroaromatic ring, each ring or ring system optionally substituted with one or more substituent independently selected from the group consisting of halogen, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, cyano and nitro;

Z^1 is a direct bond or CR^6R^7 or O;

R^6 and R^7 are independently selected from the group consisting of hydrogen, halogen, cyano, hydroxy, formyl, C_1 - C_4 alkyl and C_1 - C_4 haloalkyl;

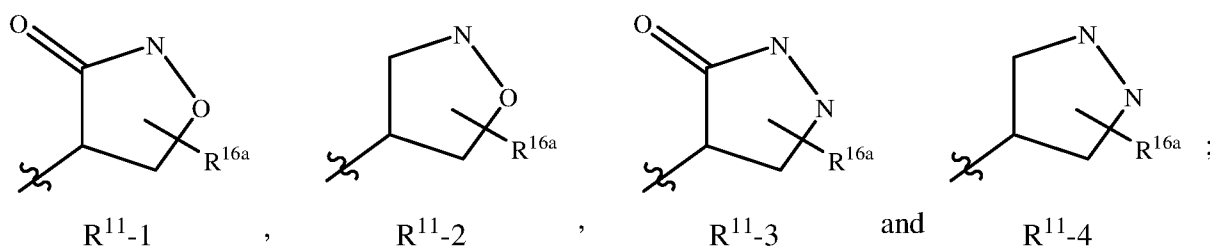
E is selected from the group consisting of hydrogen, halogen, cyano, C_1 - C_6 alkyl, C_3 - C_6 cycloalkyl, C_3 - C_8 cycloalkyl- C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkoxy and C_3 - C_6 heterocyclyl; said heterocyclyl ring comprise one or more hetero atoms selected from N, O and $S(O)_{0-2}$; and one or more C of the heterocyclyl ring or ring system may be replaced with $C(=O)$, $C(=S)$ or $C(=NR^{19})$; said heterocyclyl ring may be optionally substituted with one or more substituents selected from the group consisting of hydrogen, halogen, cyano and nitro; or

E is 5- or 6- membered heteroaromatic ring, wherein the heteroatoms in heteroaromatic ring may be selected from one or more N, O and S; and heteroaromatic ring may be optionally substituted with hydrogen, C_1 - C_6 alkyl, C_3 - C_8 cycloalkyl, C_3 - C_8 cycloalkyl- C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_3 - C_6 halocycloalkyl, halogen, cyano, carboxyl, aminocarboxyl, nitro, hydroxy, C_1 - C_6 alkoxy, C_1 - C_6

haloalkoxy, C₁-C₆ alkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ alkylsulphonyl, C₁-C₆ haloalkylthio, C₁-C₆ haloalkylsulfinyl and C₁-C₆ haloalkylsulfonyl.

3. The compound according to claim 1, wherein

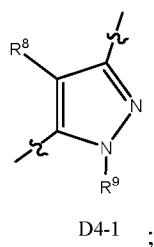
R¹¹ is selected from the group consisting of



R³ is selected from the group consisting of hydrogen, halogen, cyano and C₁-C₄ alkyl;

R⁴ is hydrogen;

D is



wherein;

the bond on the right is attached to Z¹ and the bond on the left is attached to carbon marked with 2; and

R⁸ is hydrogen;

R⁹ is a 5- or 6-membered heteroaromatic ring optionally substituted with one or more halogen;

E is selected from the group consisting of halogen, cyano, C₁-C₆ alkyl, C₃-C₆ cycloalkyl, C₃-C₈ cycloalkyl-C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy and C₃-C₆ heterocyclyl;

said heterocyclyl ring comprise one or more hetero atoms selected from N, O and S(O)₀₋₂; said heterocyclyl ring may be optionally substituted with one or more halogen.

4. The compound as claimed in claim 1, wherein said compound of formula (I) is selected from 3-bromo-N-(4-chloro-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-methyl-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-methyl-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-(2,2-difluoroethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-(2,2-difluoroethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-methyl-6-((1-methyl-3-oxopyrazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((1-methyl-3-oxopyrazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((1-methyl-3-oxopyrazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-((2-(2,2-difluoroethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((1-methyl-3-oxopyrazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-

pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-((2-(2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-(2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((1-methyl-3-oxopyrazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-(methylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-methyl-6-((2-(methylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-(methylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-(methylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-(ethylsulfonyl)isoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-((2-(ethylsulfonyl)isoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-(ethylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-(ethylsulfonyl)isoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-((2-acetylisoaxazolidin-4-yl)carbamoyl)-6-bromo-4-chlorophenyl)-3-bromo-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(2-((2-acetylisoaxazolidin-4-yl)carbamoyl)-4-chloro-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(2-((2-acetylisoaxazolidin-4-yl)carbamoyl)-4-chloro-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-((2-acetylisoaxazolidin-4-yl)carbamoyl)-4-cyano-6-methylphenyl)-3-bromo-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-propionylisoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-propionylisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-propionylisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; 3-

bromo-N-(2-bromo-4-chloro-6-((2-propionylisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-methyl-6-((2-propionylisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-(methylsulfonyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-(ethylsulfonyl)isoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(4-chloro-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-(2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-(2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-(2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-(2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-methyl-6-((2-methyl-3-

oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; 3-bromo-N-(2-bromo-4-chloro-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; N-(4-chloro-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-(2-ethoxyethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; N-(2-bromo-4-chloro-6-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide; rac-(R)-3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1H-pyrazole-5-carboxamide; rac-(R)-N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; rac-(R)-N-(2-bromo-4-chloro-6-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; rac-(R)-N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-

carboxamide; rac-(R)-N-(2-bromo-4-chloro-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; rac-(R)-3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; rac-(R)-3-bromo-N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; rac-(R)-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-3-(thietan-3-yloxy)-1H-pyrazole-5-carboxamide; rac-(R)-N-(4-chloro-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; rac-(R)-3-bromo-N-(4-chloro-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; rac-(R)-N-(4-chloro-2-((2-ethyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-1-(3-chloropyridin-2-yl)-3-methoxy-1H-pyrazole-5-carboxamide; rac-(R)-3-bromo-N-(4-chloro-2-methyl-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxamide; rac-(R)-3-bromo-1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; 1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-3-methoxy-1H-pyrazole-5-carboxamide; 1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-3-methoxy-1H-pyrazole-5-carboxamide; 1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((2-methyl-3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-isopropyl-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 1-(3-chloropyridin-2-yl)-N-(4-cyano-2-methyl-6-((3-oxo-2-(2,2,2-trifluoroethyl)isoxazolidin-4-yl)carbamoyl)phenyl)-3-(2,2,2-trifluoroethoxy)-1H-pyrazole-5-carboxamide; 3-bromo-1-(3-chloropyridin-2-yl)-N-(2,4-dichloro-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-1H-pyrazole-5-carboxamide; 1-(3-chloropyridin-2-yl)-N-(2,4-dichloro-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide; rac-(R)-1-(3-chloropyridin-2-yl)-N-(2,4-dichloro-6-((3-oxoisoxazolidin-4-yl)carbamoyl)phenyl)-3-(3,3-difluoroazetidin-1-yl)-1H-pyrazole-5-carboxamide and 1-(3-chloropyridin-2-yl)-N-(4-cyano-2-((2-(cyclopropylmethyl)-3-oxoisoxazolidin-4-yl)carbamoyl)-6-methylphenyl)-3-methoxy-1H-pyrazole-5-carboxamide.

5. A compound of formula (I) or salts, metal complexes, N-oxides, isomers, or polymorphs thereof according to claim 1 in a biologically effective amount in a composition comprising at least one

additional component selected from the group consisting of surfactants and auxiliaries for controlling or preventing insects and/or mite pests of .

6. The compound of formula (I) or salts, metal complexes, N-oxides, isomers, or polymorphs thereof according to claim 1 in a biologically effective amount in a composition for agricultural and/or veterinary applications.
7. The compound according to claim 5, wherein said composition additionally comprises at least one additional biological active compatible compound selected from fungicides, insecticides, nematocides, acaricides, biopesticides, herbicides, plant growth regulators, antibiotics, fertilizers or nutrients.
8. A combination comprising biologically effective amount of compound of formula (I) or salts, metal complexes, N-oxides, isomers or polymorphs thereof according to claim 1 and at least one additional biological active compatible compound selected from fungicides, insecticides, nematocides, acaricides, biopesticides, herbicides, plant growth regulators, antibiotics, fertilizers or nutrients.
9. The compound or combination according to claim 5 or 8, wherein said biologically effective amount of compound of formula (I) ranges from 0.1 % to 99% by weight with respect to the total weight of the composition, preferably ranges from 5 to 50% by weight with respect to the total weight of the composition.
10. A compound of formula (I) or salts, metal complexes, N-oxides, isomers, polymorphs, composition or combination thereof according to claim 1 or 5 or 8 for combating insects and mite pests by contacting the insects and mite pests, their habit, breeding ground, food supply, plant, seed, soil, area, material or environment in which the insect and mite pests are growing or may grow, or the materials, plants, seeds, soils, surfaces or spaces to be protected from pest attack or infestation with a biologically effective amount of said compound or said composition or said combination.
11. A method for protecting crops from attack or infestation by insects and mite pests comprises contacting the crop with a biologically effective amount of the compound or salts, metal

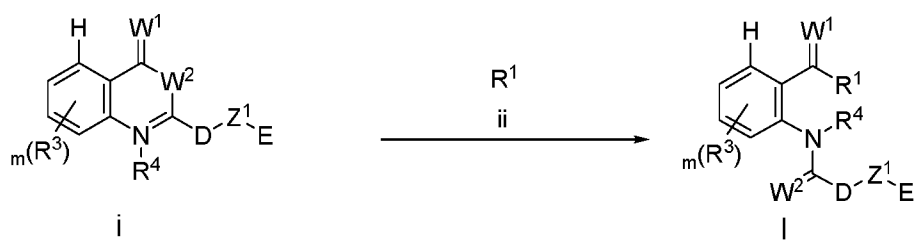
complexes, N-oxides, isomers, polymorphs, composition or combination thereof according to claim 1 or 5 or 8.

12. The method according to claim 11, wherein said method comprises applying effective dosages of compound of formula (I) in amounts ranging from 1 gai to 5000 gai per hectare in agricultural or horticultural crops.
13. A method for the protection of seeds from soil insects and of the seedlings roots and shoots from soil and foliar insects comprising contacting the seeds before sowing and/or after pre-germination with the compound of formula (I) or salts, metal complexes, N-oxides, isomers, polymorphs, composition or combination thereof according to claim 1 or 5 or 8.
14. A compound of formula (I) or salts, metal complexes, N-oxides, isomers, polymorphs, composition or combination thereof according to claim 1 or 5 or 8 for treating or protecting animals against infestation or infection by parasites which comprises orally, topically or parenterally administering or applying to the animals a biologically effective amount of said compound or said composition or said combination.
15. The compound of formula (I) or salts, metal complexes, N-oxides, isomers, polymorphs, or combination thereof according to claim 1 or 5 or 8 in a composition for combating insects and mite pests in agricultural crops and/or horticultural crops or parasites on animals.
16. The compound of formula (I) according to claim 15 in the medicament for treating or protecting animals against infestation or infection by insect and mite pests or parasites.
17. The use of the compound of formula (I) according to claim 15, wherein said agricultural crops are cereals, corn, rice, soybean and other leguminous plants, fruits and fruit trees, grapes, nuts and nut trees, citrus and citrus trees, any horticultural plants, cucurbitaceae, oleaginous plants, tobacco, coffee, tea, cacao, sugar beet, sugar cane, cotton, potato, tomato, onions, peppers, other vegetables and ornamentals.
18. A seed comprising a compound of formula (I) or salts, metal complexes, N-oxides, isomers, polymorphs, composition or combination thereof according to claim 1 or 5 or 8, wherein the

amount of compound of formula (I) in said seed ranging from about 0.0001% to about 1% by weight.

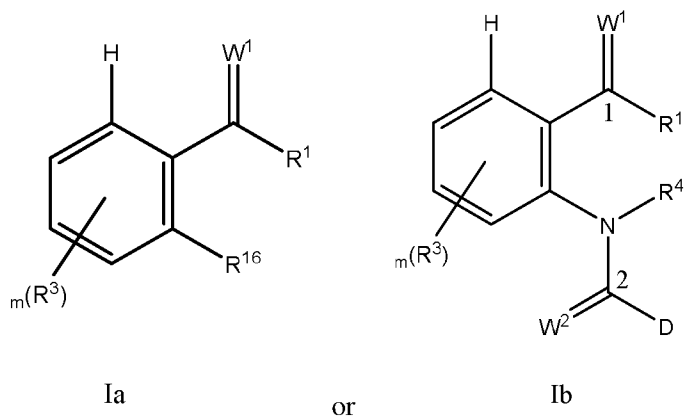
19. A process for preparing compound of formula (I) according to claim 1, wherein said process comprising the steps of:

- a) reacting compound of formula (i) with compound of formula (ii) to afford the compound of formula (I);

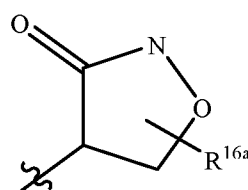


wherein, W¹, W², D, E, Z¹, R¹, R³, R⁴ and m are as defined in Claim 1.

20. A compound of formulae Ia or Ib;



wherein, R¹⁶ is N(R⁴)₂ or nitro; W¹, W², D, R¹, R³, R⁴, R^{16a} and m are as defined in claim 1, with the



proviso that R¹ in Ia is not NHR¹¹⁻¹, wherein R¹¹⁻¹ is

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2018/060162

A. CLASSIFICATION OF SUBJECT MATTER INV. C07D401/14 C07D413/14 A01N43/58 A01N43/80 A61K31/4523 ADD.														
According to International Patent Classification (IPC) or to both national classification and IPC														
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) C07D A01N A61K Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EPO-Internal, CHEM ABS Data, WPI Data														
C. DOCUMENTS CONSIDERED TO BE RELEVANT <table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>WO 2011/157651 A1 (BAYER CROPSCIENCE AG [DE]; FISCHER RUEDIGER [DE]; GRONDAL CHRISTOPH [D]) 22 December 2011 (2011-12-22) claims 1-5, 8-11; compounds 29-44, 49-59, 72,73 -----</td> <td>1-19</td> </tr> <tr> <td>X</td> <td>CN 106 588 870 A (HAILIR PESTICIDES & CHEM GROUP) 26 April 2017 (2017-04-26) Page 165 Intermediates of formula VI; claims 1-10; compounds 1-26, 1-29, 1-41, 1-43, 1-44 -----</td> <td>1-20</td> </tr> <tr> <td>X</td> <td>WO 03/024222 A1 (DU PONT [US]; BERGER RICHARD ALAN [US]; FLEXNER JOHN LINDSEY [US]) 27 March 2003 (2003-03-27) claims 1-23; compounds 558, 559, 608, 609, 615, 616, 647 ----- -/-</td> <td>1-20</td> </tr> </tbody> </table>			Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X	WO 2011/157651 A1 (BAYER CROPSCIENCE AG [DE]; FISCHER RUEDIGER [DE]; GRONDAL CHRISTOPH [D]) 22 December 2011 (2011-12-22) claims 1-5, 8-11; compounds 29-44, 49-59, 72,73 -----	1-19	X	CN 106 588 870 A (HAILIR PESTICIDES & CHEM GROUP) 26 April 2017 (2017-04-26) Page 165 Intermediates of formula VI; claims 1-10; compounds 1-26, 1-29, 1-41, 1-43, 1-44 -----	1-20	X	WO 03/024222 A1 (DU PONT [US]; BERGER RICHARD ALAN [US]; FLEXNER JOHN LINDSEY [US]) 27 March 2003 (2003-03-27) claims 1-23; compounds 558, 559, 608, 609, 615, 616, 647 ----- -/-	1-20
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X	WO 03/024222 A1 (DU PONT [US]; BERGER RICHARD ALAN [US]; FLEXNER JOHN LINDSEY [US]) 27 March 2003 (2003-03-27) claims 1-23; compounds 558, 559, 608, 609, 615, 616, 647 ----- -/-	1-20												
☒ Further documents are listed in the continuation of Box C. ☒ See patent family annex.														
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016		Authorized officer Sotoca Usina, E												

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2018/060162

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2013/324560 A1 (ALIG BERND [DE] ET AL) 5 December 2013 (2013-12-05) paragraph [0095] - paragraph [0100]; claims 1-3; compounds I-1-196, I-1-201, I-1-208 -----	1-20
X	WO 2009/058348 A1 (SIRTRIS PHARMACEUTICALS INC [US]; OALMANN CHRISTOPHER [US]; PERNI ROBE) 7 May 2009 (2009-05-07) compounds 166, 167, 172-175 -----	1
X	US 2017/050964 A1 (PINTO DONALD J P [US] ET AL) 23 February 2017 (2017-02-23) examples 81, 83, 85, 114 -----	1,20
X	DATABASE REGISTRY [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; 21 January 2016 (2016-01-21), "Benzamide, 2-amino-N-(3-oxo-4-isoxazolidinyl)-", XP002789152, Database accession no. 1849965-36-1 the whole document -----	20
X	DATABASE REGISTRY [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; 24 June 2015 (2015-06-24), "Benzamide, 2-amino-5-bromo-N-[(4R)-3-oxo-4-isoxazolid inyl]-", XP002789153, Database accession no. 1787464-03-2 Compounds with Registry numbers: 1787464-03-2, 178434-16-5; 1787423-03-3; 1787303-92-7; -----	20
X	DATABASE REGISTRY [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; 23 June 2015 (2015-06-23), "Benzamide, 2-[(1-methylethyl)amino]-N-[(4R)-3-oxo-4-i soxazolidinyl]-", XP002789154, Database accession no. 1787173-72-1 Compounds with Registry numbers: 1787173-72-1; 1787073-11-3; 1786955-53-0; 1786856-48-1; 176814-77-4; 1786797-77-0; 1786768-79-3; 1786625-79-3; 1786595-37-6; 1786463-56-6 ----- -/--	20

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2018/060162

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE REGISTRY [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; 13 March 2014 (2014-03-13), "Benzamide, 2-amino-N-[(4R)-3-oxo-4-isoxazolidinyl]-", XP002789155, Database accession no. 1568064-78-7 the whole document -----	20

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2018/060162

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2011157651	A1	22-12-2011	BR 112012032238 A2 15-09-2015
		CN 103249729 A	14-08-2013
		EP 2582695 A1	24-04-2013
		ES 2554903 T3	28-12-2015
		JP 6046035 B2	14-12-2016
		JP 2013534916 A	09-09-2013
		KR 20130112864 A	14-10-2013
		US 2012010249 A1	12-01-2012
		WO 2011157651 A1	22-12-2011

CN 106588870	A	26-04-2017	NONE

WO 03024222	A1	27-03-2003	AR 036606 A1 22-09-2004
		AT 370656 T	15-09-2007
		BR 0212993 A	17-08-2004
		CA 2458163 A1	27-03-2003
		CN 1713819 A	28-12-2005
		DE 60221994 T2	15-05-2008
		DK 1427285 T3	05-11-2007
		EP 1427285 A1	16-06-2004
		ES 2291500 T3	01-03-2008
		HU 0401893 A2	28-01-2005
		IL 159947 A	24-12-2009
		IN 218482 B	09-05-2008
		IN 218604 B	09-05-2008
		JP 3770495 B2	26-04-2006
		JP 2005502716 A	27-01-2005
		KR 20040035857 A	29-04-2004
		MX 248274 B	23-08-2007
		MY 136698 A	28-11-2008
		NZ 532269 A	28-10-2005
		PL 206331 B1	30-07-2010
		PT 1427285 E	27-11-2007
		RU 2292138 C2	27-01-2007
		TW 1283164 B	01-07-2007
		TW 200724033 A	01-07-2007
		US 2004209923 A1	21-10-2004
		US 2010152194 A1	17-06-2010
		US 2013031677 A1	31-01-2013
		US 2014141972 A1	22-05-2014
		WO 03024222 A1	27-03-2003
		ZA 200400413 B	30-03-2005

US 2013324560	A1	05-12-2013	AR 061374 A1 20-08-2008
		AU 2007260270 A1	21-12-2007
		CL 2007001722 A1	09-05-2008
		DE 102006032168 A1	20-12-2007
		DK 2032556 T3	26-10-2015
		EP 2032556 A1	11-03-2009
		ES 2547383 T3	05-10-2015
		HU E027959 T2	28-11-2016
		JP 5628517 B2	19-11-2014
		JP 2009539902 A	19-11-2009
		KR 20090016514 A	13-02-2009
		KR 20150031492 A	24-03-2015
		NZ 573510 A	24-02-2012
		PT 2032556 E	19-10-2015
		SI 2032556 T1	30-11-2015

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2018/060162

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
		TW 200815406 A	01-04-2008	
		US 2010029478 A1	04-02-2010	
		US 2012094830 A1	19-04-2012	
		US 2013324560 A1	05-12-2013	
		WO 2007144100 A1	21-12-2007	
		ZA 200810396 B	24-02-2010	

WO 2009058348	A1	07-05-2009	AU 2008319267 A1	07-05-2009
			BR PI0819093 A2	02-05-2017
			CA 2704336 A1	07-05-2009
			CN 101918371 A	15-12-2010
			EA 201070551 A1	30-12-2010
			EP 2215066 A1	11-08-2010
			JP 2011502984 A	27-01-2011
			KR 20100092000 A	19-08-2010
			US 2011039847 A1	17-02-2011
			WO 2009058348 A1	07-05-2009

US 2017050964	A1	23-02-2017	AR 037092 A1	20-10-2004
			AR 067965 A2	28-10-2009
			AT 439360 T	15-08-2009
			AT 544750 T	15-02-2012
			AU 2002341693 B2	29-05-2008
			AU 2008207537 A1	18-09-2008
			BR 0212726 A	03-08-2004
			CA 2461202 A1	03-04-2003
			CA 2726702 A1	03-04-2003
			CN 1578660 A	09-02-2005
			CN 101357914 A	04-02-2009
			CN 102617567 A	01-08-2012
			CN 104744461 A	01-07-2015
			CO 5560567 A2	30-09-2005
			CY 1110509 T1	29-04-2015
			DE 122011100050 I1	15-03-2012
			DK 1427415 T3	23-11-2009
			EP 1427415 A1	16-06-2004
			EP 2105436 A1	30-09-2009
			ES 2329881 T3	02-12-2009
			GE P20074098 B	10-05-2007
			HK 1061973 A1	05-02-2010
			HR P20040280 A2	30-09-2007
			HR P20080382 A2	31-12-2008
			HU 0402463 A2	28-04-2005
			HU S1300014 I1	30-10-2017
			IL 160693 A	30-06-2011
			IL 203533 A	29-12-2011
			IS 7184 A	16-03-2004
			IS 8803 A	26-02-2009
			JP 4249621 B2	02-04-2009
			JP 4889705 B2	07-03-2012
			JP 2005507889 A	24-03-2005
			JP 2009079059 A	16-04-2009
			KR 20040041167 A	14-05-2004
			KR 20080075927 A	19-08-2008
			LU 91888 I2	19-12-2011
			ME P8708 A	10-06-2010
			ME 00384 B	10-05-2011
			MX PA04002526 A	31-05-2004

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2018/060162

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
		MY 137830 A	31-03-2009
		NO 328558 B1	22-03-2010
		NO 2011021 I1	10-10-2011
		NZ 531616 A	22-12-2006
		PL 204263 B1	31-12-2009
		PL 204653 B1	29-01-2010
		PT 1427415 E	29-10-2009
		RS 20040227 A	15-12-2006
		RS 20080517 A	15-07-2009
		RU 2345993 C2	10-02-2009
		SI 1427415 T1	31-12-2009
		UA 78232 C2	15-03-2007
		US 2005267097 A1	01-12-2005
		US 2008090807 A1	17-04-2008
		US 2009176758 A1	09-07-2009
		US 2010119510 A1	13-05-2010
		US 2011212930 A1	01-09-2011
		US 2012201816 A1	09-08-2012
		US 2014113892 A1	24-04-2014
		US 2015210691 A1	30-07-2015
		US 2017050964 A1	23-02-2017
		US 2018244673 A1	30-08-2018
		WO 03026652 A1	03-04-2003
		ZA 200402184 B	27-07-2005
