

P-2017/13858

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIRECCIÓN DE NUEVAS CREACIONES

E. S. D.

Re: Expediente No. **NC2017/0007841**
Solicitud de patente de Invención a nombre de **BAYER CROPSCIENCE**
AKTIENGESELLSCHAFT

Yo, CAROLINA DAZA MONTALVO identificada como aparece al pie de mi firma, domiciliada en la Carrera 11 No. 86-53, piso 3, obrando como apoderada de la sociedad solicitante **BAYER CROPSCIENCE AKTIENGESELLSCHAFT**, en respuesta al oficio No. **11410** notificado por fijación en lista el 9 de agosto de 2017, relacionado con el resultado de examen de forma, me permito presentar la siguiente información:

1. En relación con las objeciones a **las reivindicaciones**, me permito informar lo siguiente:

Con fundamento en la facultad que confiere el artículo 34 de la Decisión 486 al solicitante para modificar la solicitud de patente en cualquier momento del trámite, presento junto con este memorial, un nuevo pliego reivindicatorio que comprende siete (7) reivindicaciones, en donde únicamente se realizaron modificaciones por concepto de claridad, en un esfuerzo por acelerar el trámite.

2. **Uso**

Con respecto a dicha objeción, se le informa al presente Despacho que se han eliminado las antiguas reivindicaciones 10 y 11 que hacían referencia a uso de acuerdo con la sugerencia del señor examinador.

3. **Claridad**

El artículo 30 de la Decisión 486 de la Comunidad Andina establece:

***Artículo 30.-** Las reivindicaciones definirán la materia que se desea proteger mediante la patente. Deben ser claras y concisas y estar enteramente sustentadas por la descripción.*

3.1 Se eliminaron las reivindicaciones 1 y 2 con el fin de restringir la solicitud a los compuestos que han sido sintetizados o probados de acuerdo a las sugerencias del señor examinador. Por tanto, la antigua reivindicación 3 ahora corresponde a la nueva reivindicación 1.

De acuerdo con lo anterior, se modificó la numeración y dependencia de las demás reivindicaciones de acuerdo con las modificaciones indicadas previamente.

3.2 Se reemplazó el término “*al menos un*” por “*uno o más*” con el fin de especificar que el mínimo es uno, lo cual es claro y entendible para una persona versada en la materia.

3.3 Se reemplazó el término “*opcionalmente*” por “*no sustituido o sustituido*” con el fin de definir el término referido como impreciso y así superar las objeciones del señor examinador.

3.4 Respecto a los términos “*compuesto activo*”, “*diluyentes*” y “*surfactantes*”, la solicitante desea manifestar respetuosamente su desacuerdo ya que la característica esencial de la formulación agroquímica reclamada es el hecho de comprender compuestos de fórmula (I) según la reivindicación 1, mientras que la definición específica de los componentes adicionales, es decir, los diluyentes, surfactantes y el compuesto agroquímicamente activo, no es relevante para el propósito de la invención. Por tanto, se solicita amablemente se mantengan dentro del capítulo reivindicatorio.

3.5 Se eliminó el término “*adicionalmente*” de la antigua reivindicación 9 (nueva reivindicación 7), el cual fue objetado por el señor examinador.

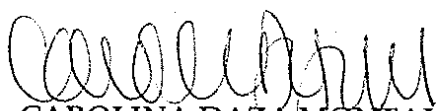
De esta manera, se considera que se ha respondido a las observaciones hechas por el señor Examinador en este respecto, por tanto, se superan las objeciones planteadas y en consecuencia, el nuevo pliego reivindicatorio de la presente solicitud, cumple a cabalidad con este requisito.

Habiendo atendido cabalmente las objeciones presentadas por ese Despacho en el Oficio No. 11410 solicito atentamente sea tenida en cuenta la información aquí presentada y continuar con el trámite de la presente solicitud.

4. Anexo

- Nuevo capítulo reivindicatorio compuesto por 7 reivindicaciones.

Señor Director,



CAROLINA DAZA MONTALVO

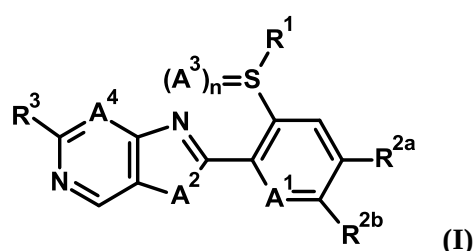
C.C. 66.783.790 de Palmira Valle

TP-141563 CSJ

notificaciones@clarkemodet.com.co

REIVINDICACIONES

1. Compuestos de la fórmula (I)



en los cuales

A¹ representa nitrógeno o =C-R⁴,

A² representa -N-R⁵ o oxígeno,

A³ representa oxígeno,

A⁴ representa nitrógeno o =C-R⁴,

R¹ representa (C₁-C₄)alquilo, (C₁-C₄)hidroxialquilo, (C₁-C₄)haloalquilo, (C₂-C₄)alquenilo, (C₂-C₄)halógenoalquenilo, (C₂-C₄)alquinilo, (C₂-C₄)halógenoalquinilo, (C₃-C₆)cicloalquilo, (C₁-C₄)alquiltio-(C₁-C₄)alquilo, (C₁-C₄)alquilsulfinil-(C₁-C₄)alquilo o (C₁-C₄)alquilsulfonyl-(C₁-C₄)alquilo,

R^{2a} representa hidrógeno, ciano, aminocarbonil, halógeno, (C₁-C₄)alquilo, (C₁-C₄)haloalquilo, (C₁-C₄)halógenoalcoxi, (C₁-C₄)alquiltio, (C₁-C₄)alquilsulfinil, (C₁-C₄)alquilsulfonyl, (C₁-C₄)haloalquiltio, (C₁-C₄)haloalquilsulfinil o (C₁-C₄)haloalquilsulfonyl,

R^{2b} representa en cada caso un anillo de 5 o 6 miembros saturado, parcialmente saturado o heteroaromático no sustituido o sustituido en forma simple, doble o triple, idéntico o diferente, en el que al menos un átomo C está sustituido por un heteroátomo del grupo N, O o S, donde en cada caso puede contener el menos un grupo carbonilo y/o donde como sustituyentes se pueden considerar: ciano, halógeno, nitro, acetilo, amino, (C₁-C₄)alquilo, (C₁-C₄)haloalquilo, (C₁-C₄)cianoalquilo, (C₁-C₄)alcoxi-(C₁-

(C₄)alquilo, (C₂-C₄)alquenilo, (C₂-C₄)halógenoalquenilo, (C₂-C₄)alquinilo, (C₂-C₄)halógenoalquinilo, (C₃-C₆)cicloalquilo, (C₃-C₆)cicloalquilo-(C₃-C₆)cicloalquilo, (C₁-C₄)alquilo-(C₃-C₆)cicloalquilo, (C₁-C₄)alcoxi, (C₁-C₄)halógenoalcoxi, (C₁-C₄)alcoxi-(C₁-C₄)alcoxi, (C₁-C₄)alcoxiimino, -N=C(H)-O(C₁-C₄)alquilo, -C(H)=N-O(C₁-C₄)alquilo, (C₁-C₄)alquiltio, (C₁-C₄)haloalquiltio, (C₁-C₄)alquiltio-(C₁-C₄)alquilo, (C₁-C₄)alquilsulfinil, (C₁-C₄)haloalquilsulfinil, (C₁-C₄)alquilsulfinil-(C₁-C₄)alquilo, (C₁-C₄)alquilsulfonil, (C₁-C₄)haloalquilsulfonil, (C₁-C₄)alquilsulfonil-(C₁-C₄)alquilo, (C₁-C₄)alquilsulfoniloxi, (C₁-C₄)alquilocarbonil, (C₁-C₄)haloalquilocarbonil, aminocarbonil, (C₁-C₄)alquiloaminocarbonil, Di-(C₁-C₄)alquilo-aminocarbonil, (C₁-C₄)alquilsulfonilamino, (C₁-C₄)alquiloamino, Di-(C₁-C₄)alquiloamino, aminosulfonil, (C₁-C₄)alquiloaminosulfonil, Di-(C₁-C₄)alquiloaminosulfonil, (C₁-C₄)alquilocarbonilamino,

R³ representa hidrógeno, halógeno, (C₁-C₄)alquilo, (C₁-C₄)haloalquilo, (C₁-C₄)halógenoalcoxi, (C₁-C₄)alquiltio, (C₁-C₄)alquilsulfinil, (C₁-C₄)alquilsulfonil, (C₁-C₄)haloalquiltio, (C₁-C₄)haloalquilsulfinil o (C₁-C₄)haloalquilsulfonil,

R⁴ representa hidrógeno, halógeno, ciano o (C₁-C₄)alquilo,

R⁵ representa (C₁-C₄)alquilo o (C₁-C₄)alcoxi-(C₁-C₄)alquilo,

n representa 0, 1 o 2.

2 Compuestos de la fórmula (I) según reivindicación 1, en los cuales

A¹ representa nitrógeno o =C-R⁴,

A² representa -N-R⁵ o oxígeno,

A³ representa oxígeno,

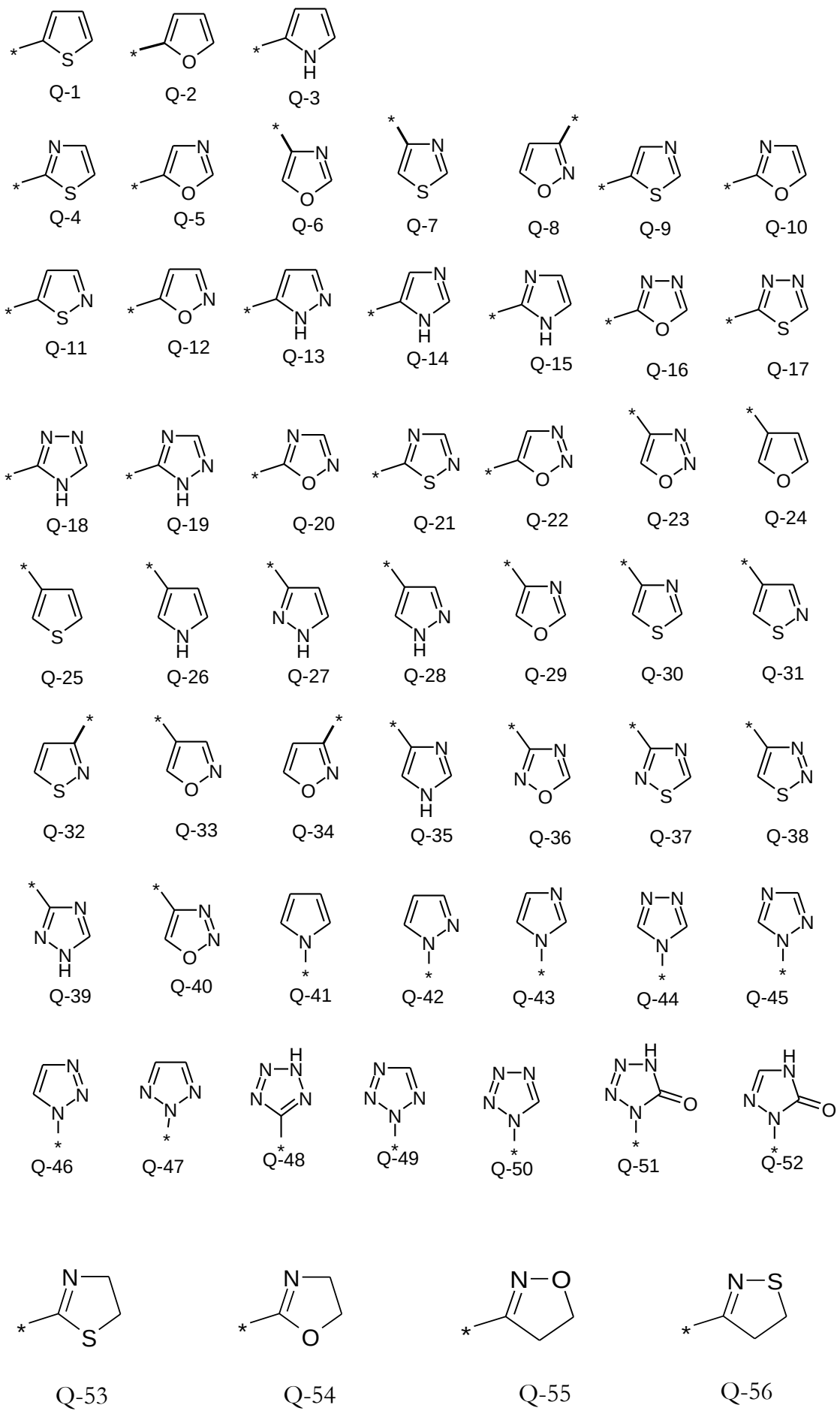
A⁴ representa nitrógeno o =C-H,

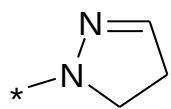
R¹ representa metilo, etilo, n-propilo, i-propilo, ciclo-propilo, n-butilo, i-butilo, tert.-butilo, ciclo-butilo, fluorometilo, difluormetilo, trifluormetilo, fluoroetilo, difluoroetilo, trifluoroetilo, tetrafluoroetilo o pentafluoroetilo,

R^{2a} representa hidrógeno, ciano, metilo, etilo, fluorometilo, difluormetilo,

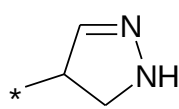
trifluormetilo, fluoroetilo, difluoroetilo, trifluoroetilo, tetrafluoroetilo, pentafluoroetilo, trifluormetoxi, difluormetoxi, diclorofluormetoxi, trifluormetilotio, trifluormetilosulfonil, trifluormetilosulfinil, flúor o cloro,

R^{2b} representa en cada caso un anillo de 5 o 6 miembros saturado, parcialmente saturado o heteroaromático, sustituido en forma simple, doble o triple, idéntico o diferente, de la serie Q1 a Q104, donde en cada caso puede contener uno o más grupo carbonilo y/o donde como sustituyentes se pueden considerar: ciano, (C₁-C₄)cianoalquilo, (C₁-C₄)alcoxi-(C₁-C₄)alquilo, halógeno, amino, (C₁-C₄)alquilo, (C₁-C₄)haloalquilo, (C₂-C₄)alquenilo, (C₂-C₄)halógenoalquenilo, (C₂-C₄)alquinilo, (C₂-C₄)halógenoalquinilo, (C₃-C₆)cicloalquilo, (C₃-C₆)cicloalquilo-(C₃-C₆)cicloalquilo, (C₁-C₄)alquilo-(C₃-C₆)cicloalquilo, (C₁-C₄)alcoxi, (C₁-C₄)halógenoalcoxi, (C₁-C₄)alcoxiimino, -C(H)=N-O(C₁-C₄)alquilo, (C₁-C₄)alquiltio, (C₁-C₄)haloalquiltio, (C₁-C₄)alquilsulfinil, (C₁-C₄)haloalquilsulfinil, (C₁-C₄)alquilsulfonil, (C₁-C₄)haloalquilsulfonil, (C₁-C₄)alquilsulfoniloxi, (C₁-C₄)alquilocarbonil, (C₁-C₄)haloalquilocarbonil, aminocarbonil, (C₁-C₄)alquiloaminocarbonil, Di-(C₁-C₄)alquilo-aminocarbonil, (C₁-C₄)alquilsulfonilamino, (C₁-C₄)alquiloamino, Di-(C₁-C₄)alquiloamino, aminosulfonil, (C₁-C₄)alquiltio-(C₁-C₄)alquilo, (C₁-C₄)alquilsulfinil-(C₁-C₄)alquilo, (C₁-C₄)alquilsulfonil-(C₁-C₄)alquilo, (C₁-C₄)alquiloaminosulfonil, Di-(C₁-C₄)alquiloaminosulfonil, (C₁-C₄)alquilocarbonilamino,

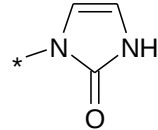




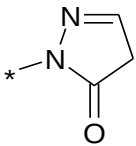
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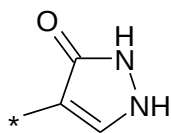
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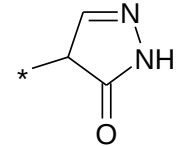
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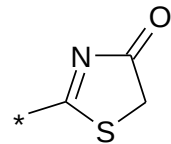
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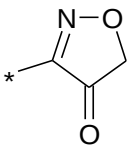
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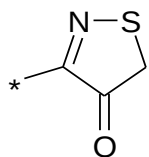
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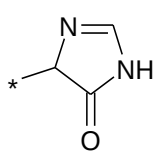
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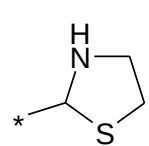
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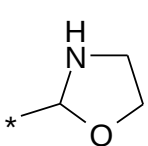
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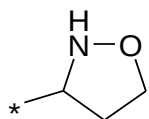
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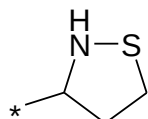
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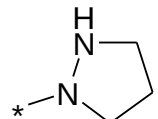
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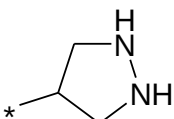
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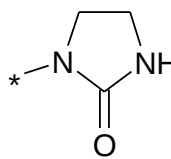
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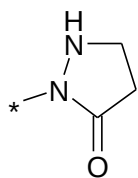
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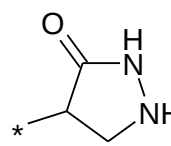
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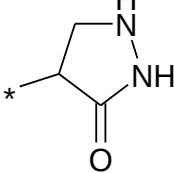
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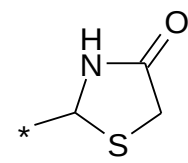
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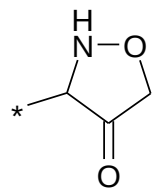
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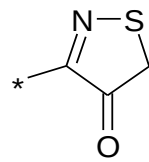
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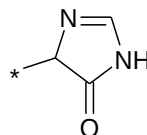
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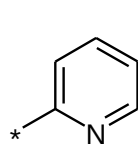
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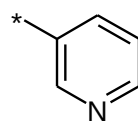
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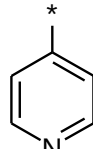
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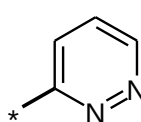
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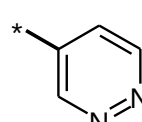
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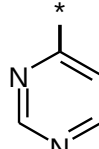
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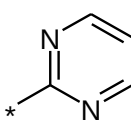
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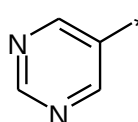
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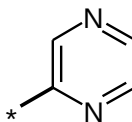
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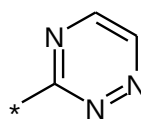
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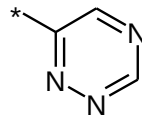
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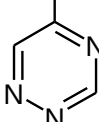
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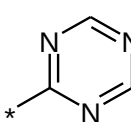
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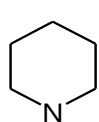
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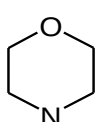
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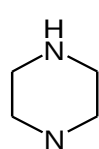
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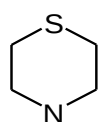
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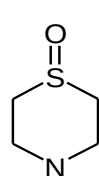
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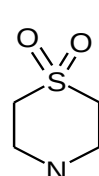
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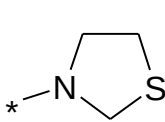
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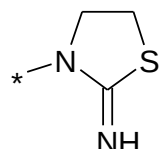
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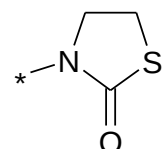
Q-99



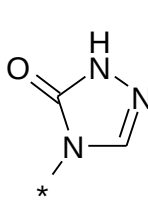
Q-100



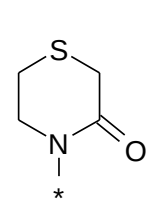
Q-101



Q-102



Q-103



Q-104

donde la unión con la molécula residual está marcada con un asterisco *,

R³ representa flúor, cloro, fluorometilo, difluormetilo, trifluormetilo, fluoroetilo, difluoroetilo, trifluoroetilo, tetrafluoroetilo, pentafluoroetilo, trifluormetoxi, difluormetoxi, diclorofluormetoxi, trifluormetilotio, trifluormetilosulfonil o trifluormetilosulfinil ,

R⁴ representa hidrógeno, flúor, cloro, bromo o ciano,

R⁵ representa metilo, etilo, i-propilo, metoximetilo o metoxietilo,

n representa 0, 1 o 2.

3. Compuestos de la fórmula (I) según reivindicación 1, en los cuales

A¹ representa nitrógeno,

A² representa -N-R⁵,

A³ representa oxígeno,

A⁴ representa =C-H ,

R¹ representa metilo, etilo, n-propilo, i-propilo, n-butilo, i-butilo o tert.-butilo,

R^{2a} representa hidrógeno,

R^{2b} representa un anillo de 5 o 6 miembros saturado, parcialmente saturado o heteroaromático de la serie Q-1, Q-2, Q-3, Q-9, Q-13, Q-14, Q-24, Q-25, Q-26, Q-28, Q-41, Q-42, Q-43, Q-45, Q-46, Q-47, Q-49, Q-51, Q-52, Q-59, Q-73, Q-81, Q-82, Q-83, Q-95, Q-97, Q-99, Q-100, Q-101, Q-102, Q-103, Q-104, no sustituido o sustituido en forma simple, doble o triple, idéntico o diferente, donde como sustituyentes se pueden considerar en cada caso: ciano, (C₁-C₄)cianoalquilo, (C₁-C₄)alcoxi-(C₁-C₄)alquilo, halógeno, (C₁-C₄)alquilo, (C₂-C₄)alquinilo, (C₁-C₄)alcoxi, (C₁-C₄)haloalquilo, (C₃-C₆)cicloalquilo, (C₁-C₄)alquiltio, (C₁-C₄)haloalquiltio, (C₁-C₄)alquilsulfonil, (C₁-C₄)alquiltio-(C₁-C₄)alquilo, (C₁-C₄)alquilsulfinil-(C₁-C₄)alquilo, (C₁-C₄)alquilsulfonil-(C₁-C₄)alquilo, (C₁-C₄)alquiloaminocarbonil, (C₁-C₄)alquilocarbonilamino,

R³ representa fluorometilo, difluormetilo, trifluormetilo, fluoroetilo, difluoroetilo, trifluoroetilo, tetrafluoroetilo o pentafluoroetilo,

R⁵ representa metilo, etilo o i-propilo,

n representa 2.

4. Compuestos de la fórmula (I) según reivindicación 1, en los cuales

A¹ representa nitrógeno,

A² representa -N-R⁵,

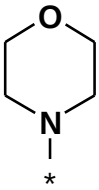
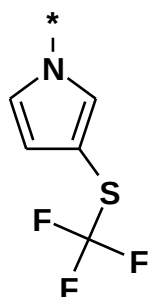
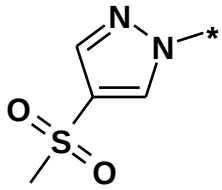
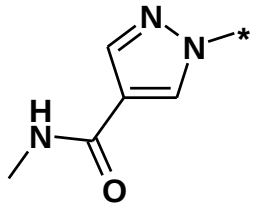
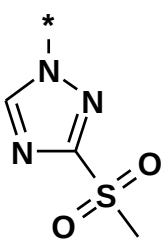
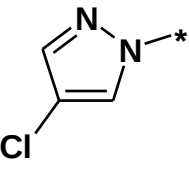
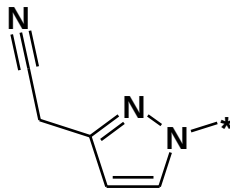
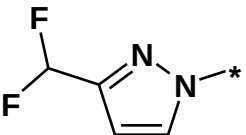
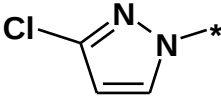
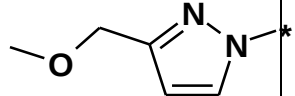
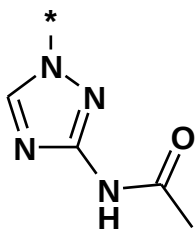
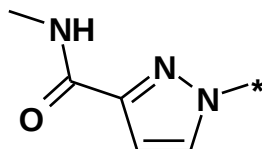
A³ representa oxígeno

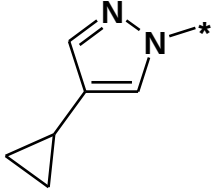
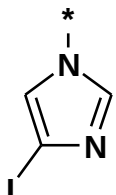
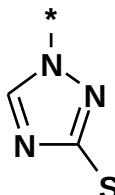
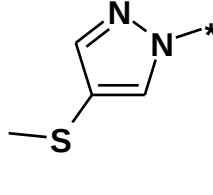
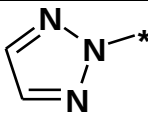
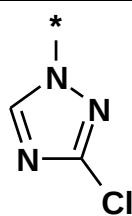
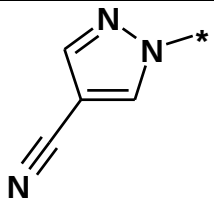
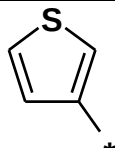
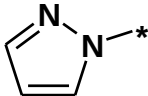
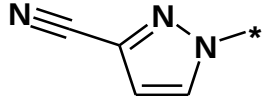
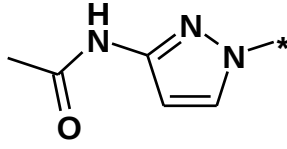
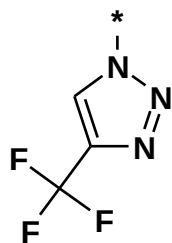
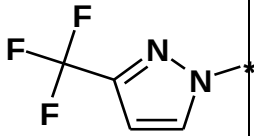
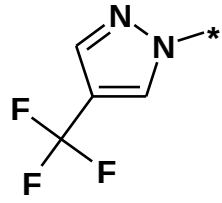
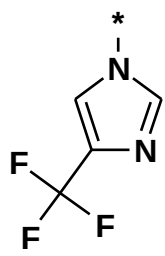
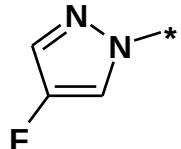
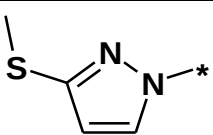
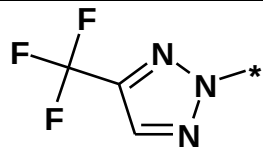
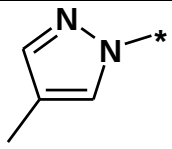
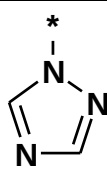
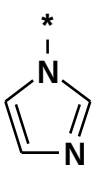
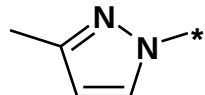
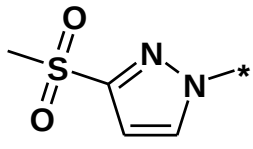
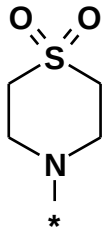
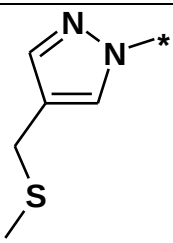
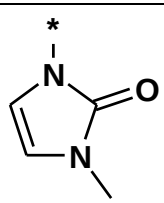
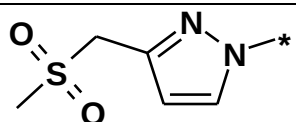
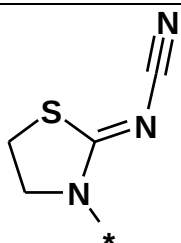
A⁴ representa =C-H,

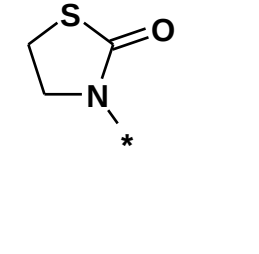
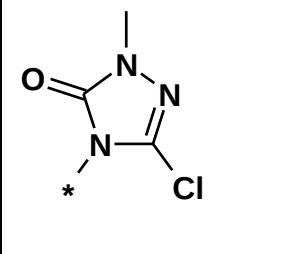
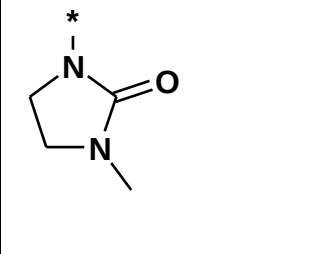
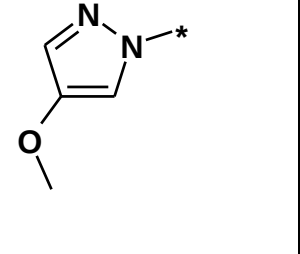
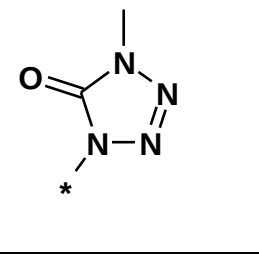
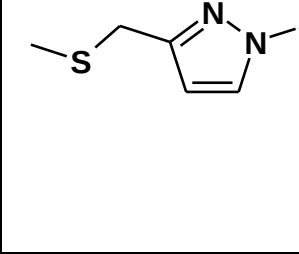
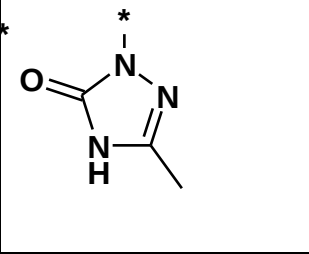
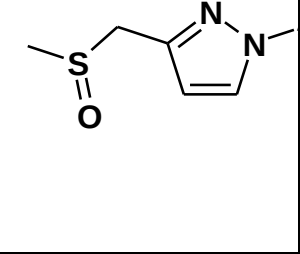
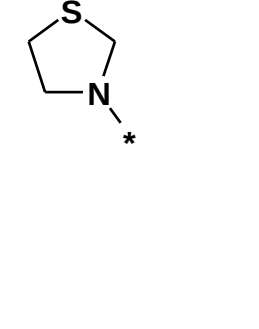
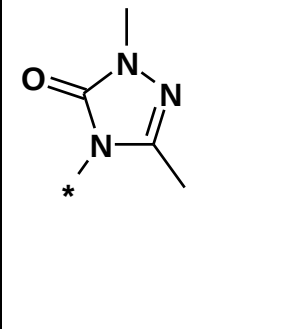
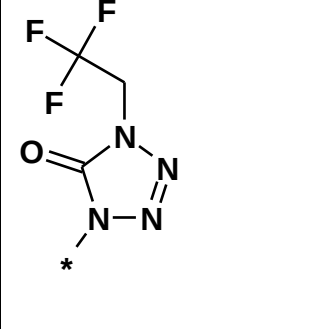
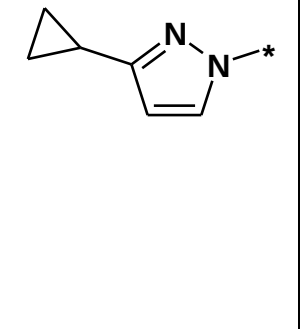
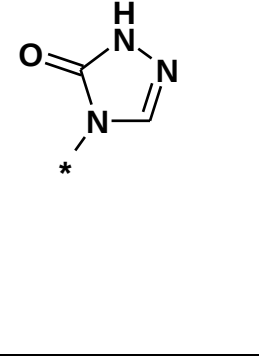
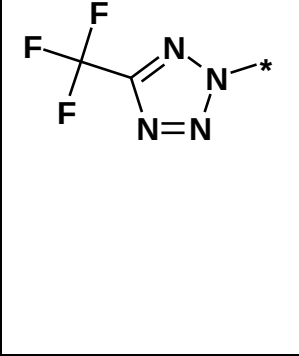
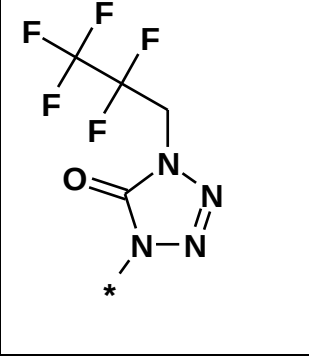
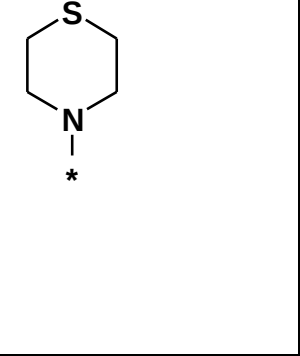
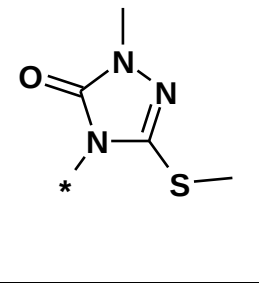
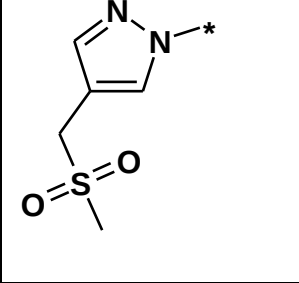
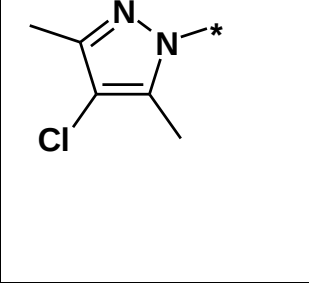
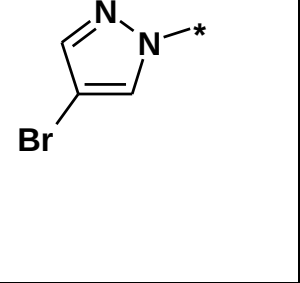
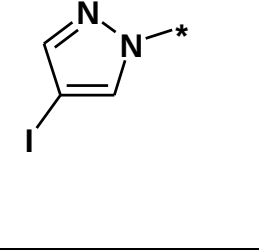
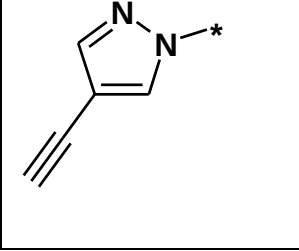
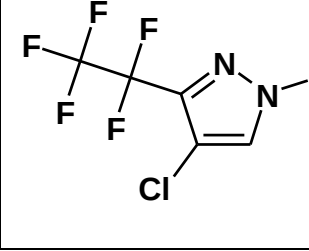
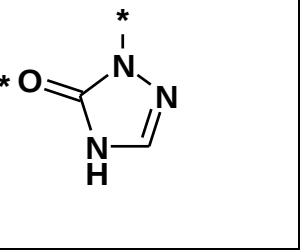
R¹ representa metilo, etilo, n-propilo, i-propilo, n-butilo, i-butilo o tert.-butilo,

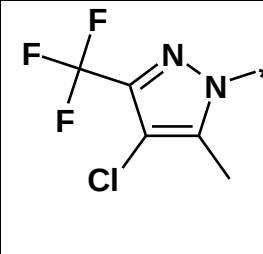
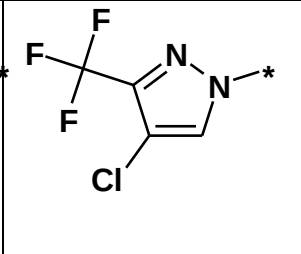
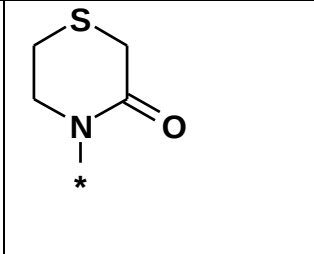
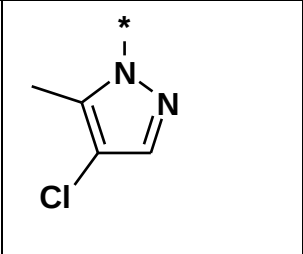
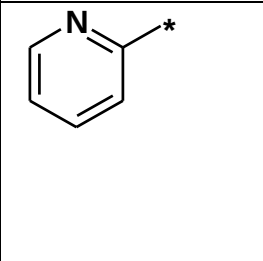
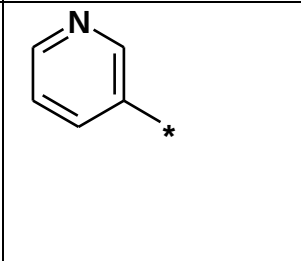
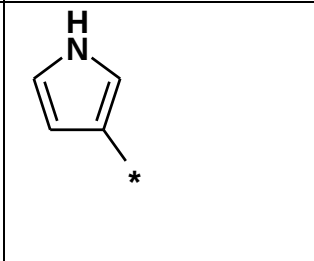
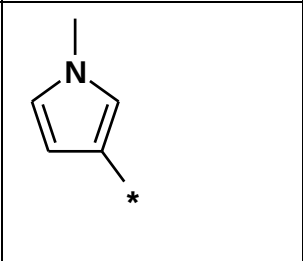
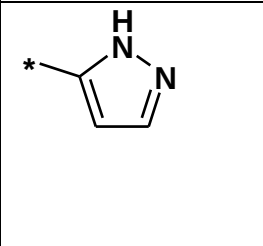
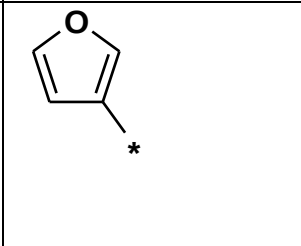
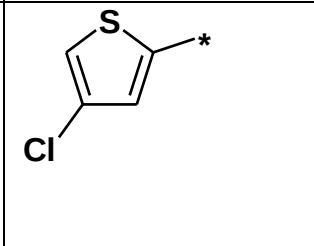
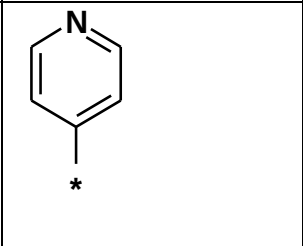
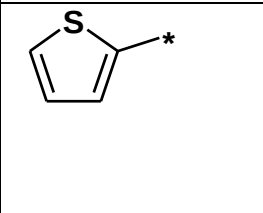
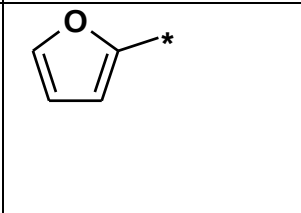
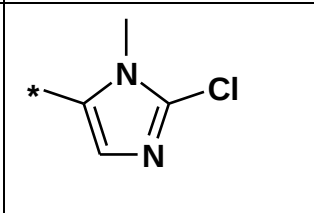
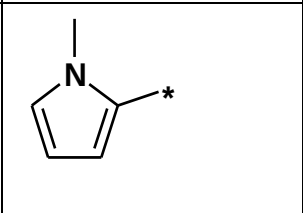
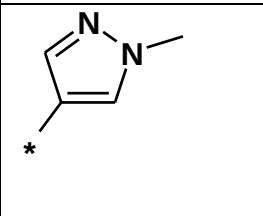
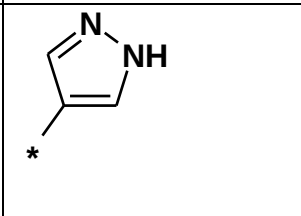
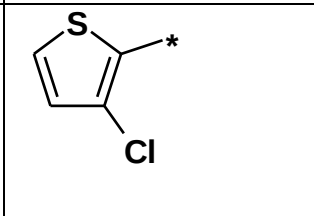
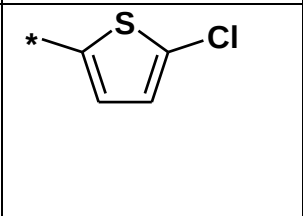
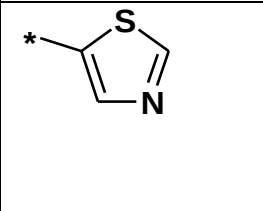
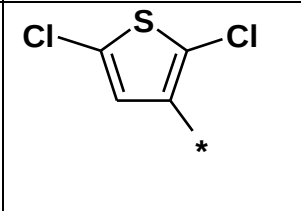
R^{2a} representa hidrógeno,

R^{2b} representa uno de los siguientes anillos:

R³ representa fluorometilo, difluormetilo, trifluormetilo, fluoroetilo, difluoroetilo, trifluoroetilo, tetrafluoroetilo o pentafluoroetilo,

R⁵ representa metilo, etilo o i-propilo,

n representa 2.

5. Compuestos de la fórmula (I) según reivindicación 1, en los cuales

A¹, A², A³, A⁴, R^{2a}, R^{2b} y n tienen los significados indicados en la reivindicación 4

y

R¹ representa etilo,

R³ representa trifluormetilo o pentafluoroetilo,

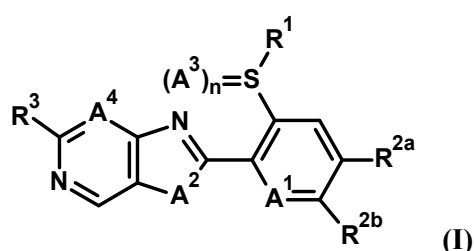
R⁵ representa metilo.

6. Formulación agroquímica que contiene compuestos de la fórmula (I) según reivindicación 1, así como sustancias diluyentes y/o surfactantes.

7. Formulación agroquímica según reivindicación 6 conteniendo como principio activo un agroquímico adicional.

REIVINDICACIONES

1. Compuestos de la fórmula (I)



en los cuales

A¹ representa nitrógeno o =C-R⁴,

A² representa -N-R⁵ o oxígeno,

A³ representa oxígeno,

A⁴ representa nitrógeno o =C-R⁴,

R¹ representa (C₁-C₄)alquilo, (C₁-C₄)hidroxialquilo, (C₁-C₄)haloalquilo, (C₂-C₄)alquenilo, (C₂-C₄)halógenoalquenilo, (C₂-C₄)alquinilo, (C₂-C₄)halógenoalquinilo, (C₃-C₆)cicloalquilo, (C₁-C₄)alquiltio-(C₁-C₄)alquilo, (C₁-C₄)alquilsulfinil-(C₁-C₄)alquilo o (C₁-C₄)alquilsulfonil-(C₁-C₄)alquilo,

R^{2a} representa hidrógeno, ciano, aminocarbonil, halógeno, (C₁-C₄)alquilo, (C₁-C₄)haloalquilo, (C₁-C₄)halógenoalcoxi, (C₁-C₄)alquiltio, (C₁-C₄)alquilsulfinil, (C₁-C₄)alquilsulfonil, (C₁-C₄)haloalquiltio, (C₁-C₄)haloalquilsulfinil o (C₁-C₄)haloalquilsulfonil,

R^{2b} representa en cada caso un anillo de 5 o 6 miembros saturado, parcialmente saturado o heteroaromático no sustituido o sustituido en forma simple, doble o triple, idéntico o diferente, en el que al menos un átomo C está sustituido por un heteroátomo del grupo N, O o S, donde en cada caso puede contener el menos un grupo carbonilo y/o donde como sustituyentes se pueden considerar: ciano, halógeno, nitro, acetilo, amino, (C₁-C₄)alquilo, (C₁-C₄)haloalquilo, (C₁-C₄)cianoalquilo, (C₁-C₄)alcoxi-(C₁-

(C₄)alquilo, (C₂-C₄)alquenilo, (C₂-C₄)halógenoalquenilo, (C₂-C₄)alquinilo, (C₂-C₄)halógenoalquinilo, (C₃-C₆)cicloalquilo, (C₃-C₆)cicloalquilo-(C₃-C₆)cicloalquilo, (C₁-C₄)alquilo-(C₃-C₆)cicloalquilo, (C₁-C₄)alcoxi, (C₁-C₄)halógenoalcoxi, (C₁-C₄)alcoxi-(C₁-C₄)alcoxi, (C₁-C₄)alcoxiimino, -N=C(H)-O(C₁-C₄)alquilo, -C(H)=N-O(C₁-C₄)alquilo, (C₁-C₄)alquiltio, (C₁-C₄)haloalquiltio, (C₁-C₄)alquiltio-(C₁-C₄)alquilo, (C₁-C₄)alquilsulfinil, (C₁-C₄)haloalquilsulfinil, (C₁-C₄)alquilsulfinil-(C₁-C₄)alquilo, (C₁-C₄)alquilsulfonil, (C₁-C₄)haloalquilsulfonil, (C₁-C₄)alquilsulfonil-(C₁-C₄)alquilo, (C₁-C₄)alquilsulfoniloxi, (C₁-C₄)alquilocarbonil, (C₁-C₄)haloalquilocarbonil, aminocarbonil, (C₁-C₄)alquiloaminocarbonil, Di-(C₁-C₄)alquilo-aminocarbonil, (C₁-C₄)alquilsulfonilamino, (C₁-C₄)alquiloamino, Di-(C₁-C₄)alquiloamino, aminosulfonil, (C₁-C₄)alquiloaminosulfonil, Di-(C₁-C₄)alquiloaminosulfonil, (C₁-C₄)alquilocarbonilamino,

R³ representa hidrógeno, halógeno, (C₁-C₄)alquilo, (C₁-C₄)haloalquilo, (C₁-C₄)halógenoalcoxi, (C₁-C₄)alquiltio, (C₁-C₄)alquilsulfinil, (C₁-C₄)alquilsulfonil, (C₁-C₄)haloalquiltio, (C₁-C₄)haloalquilsulfinil o (C₁-C₄)haloalquilsulfonil,

R⁴ representa hidrógeno, halógeno, ciano o (C₁-C₄)alquilo,

R⁵ representa (C₁-C₄)alquilo o (C₁-C₄)alcoxi-(C₁-C₄)alquilo,

n representa 0, 1 o 2.

2 Compuestos de la fórmula (I) según reivindicación 1, en los cuales

A¹ representa nitrógeno o =C-R⁴,

A² representa -N-R⁵ o oxígeno,

A³ representa oxígeno,

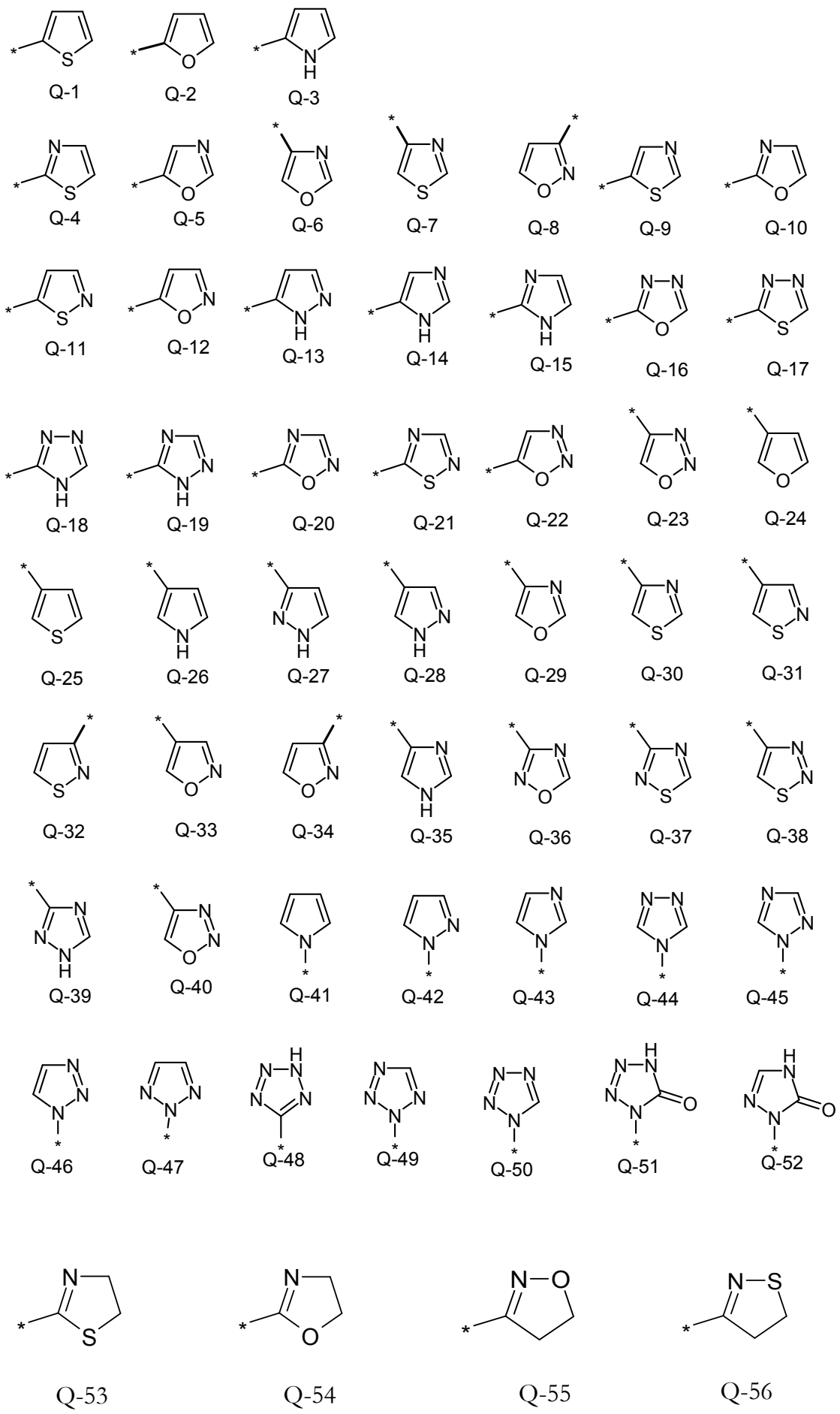
A⁴ representa nitrógeno o =C-H,

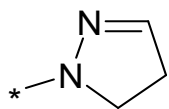
R¹ representa metilo, etilo, n-propilo, i-propilo, ciclo-propilo, n-butilo, i-butilo, tert.-butilo, ciclo-butilo, fluorometilo, difluormetilo, trifluormetilo, fluoroetilo, difluoroetilo, trifluoroetilo, tetrafluoroetilo o pentafluoroetilo,

R^{2a} representa hidrógeno, ciano, metilo, etilo, fluorometilo, difluormetilo,

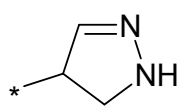
trifluormetilo, fluoroetilo, difluoroetilo, trifluoroetilo, tetrafluoroetilo, pentafluoroetilo, trifluormetoxi, difluormetoxi, diclorofluormetoxi, trifluormetilotio, trifluormetilosulfonil, trifluormetilosulfinil, flúor o cloro,

R^{2b} representa en cada caso un anillo de 5 o 6 miembros saturado, parcialmente saturado o heteroaromático, sustituido en forma simple, doble o triple, idéntico o diferente, de la serie Q1 a Q104, donde en cada caso puede contener uno o más grupo carbonilo y/o donde como sustituyentes se pueden considerar: ciano, (C₁-C₄)cianoalquilo, (C₁-C₄)alcoxi-(C₁-C₄)alquilo, halógeno, amino, (C₁-C₄)alquilo, (C₁-C₄)haloalquilo, (C₂-C₄)alquenilo, (C₂-C₄)halógenoalquenilo, (C₂-C₄)alquinilo, (C₂-C₄)halógenoalquinilo, (C₃-C₆)cicloalquilo, (C₃-C₆)cicloalquilo-(C₃-C₆)cicloalquilo, (C₁-C₄)alquilo-(C₃-C₆)cicloalquilo, (C₁-C₄)alcoxi, (C₁-C₄)halógenoalcoxi, (C₁-C₄)alcoxiimino, -C(H)=N-O(C₁-C₄)alquilo, (C₁-C₄)alquiltio, (C₁-C₄)haloalquiltio, (C₁-C₄)alquilsulfinil, (C₁-C₄)haloalquilsulfinil, (C₁-C₄)alquilsulfonil, (C₁-C₄)haloalquilsulfonil, (C₁-C₄)alquilsulfoniloxi, (C₁-C₄)alquilocarbonil, (C₁-C₄)haloalquilocarbonil, aminocarbonil, (C₁-C₄)alquiloaminocarbonil, Di-(C₁-C₄)alquilo-aminocarbonil, (C₁-C₄)alquilsulfonilamino, (C₁-C₄)alquiloamino, Di-(C₁-C₄)alquiloamino, aminosulfonil, (C₁-C₄)alquiltio-(C₁-C₄)alquilo, (C₁-C₄)alquilsulfinil-(C₁-C₄)alquilo, (C₁-C₄)alquilsulfonil-(C₁-C₄)alquilo, (C₁-C₄)alquiloaminosulfonil, Di-(C₁-C₄)alquiloaminosulfonil, (C₁-C₄)alquilocarbonilamino,

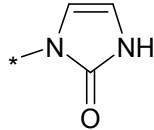




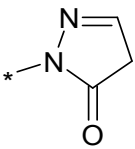
Q-57



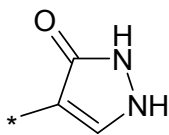
Q-58



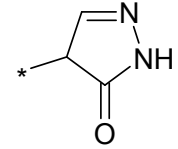
Q-59



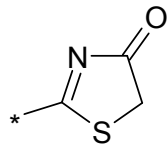
Q-60



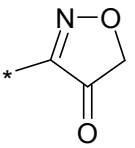
Q-61



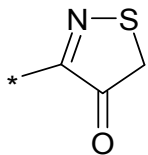
Q-62



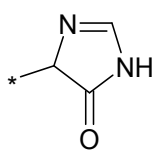
Q-63



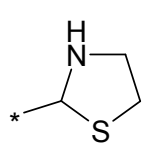
Q-64



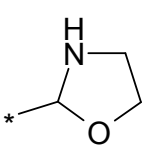
Q-65



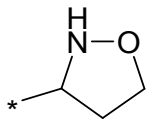
Q-66



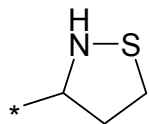
Q-67



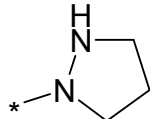
Q-68



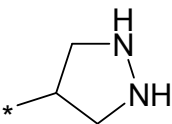
Q-69



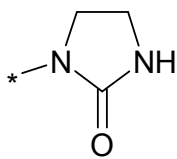
Q-70



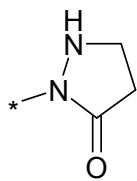
Q-71



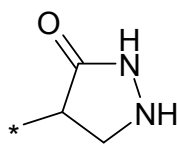
Q-72



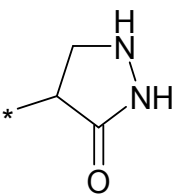
Q-73



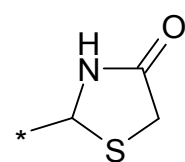
Q-74



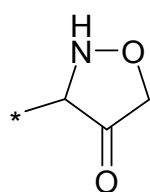
Q-75



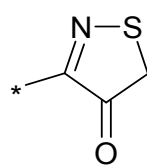
Q-76



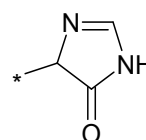
Q-77



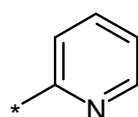
Q-78



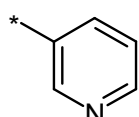
Q-79



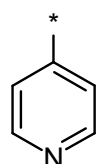
Q-80



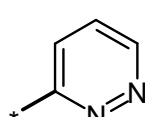
Q-81



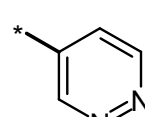
Q-82



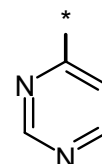
Q-83



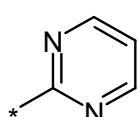
Q-84



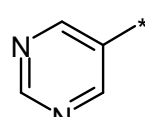
Q-85



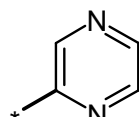
Q-86



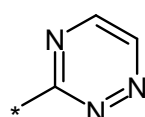
Q-87



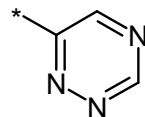
Q-88



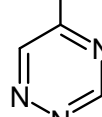
Q-89



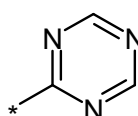
Q-90



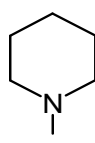
Q-91



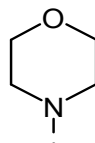
Q-92



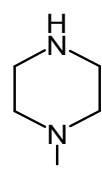
Q-93



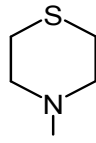
Q-94



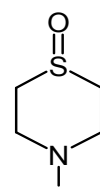
Q-95



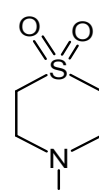
Q-96



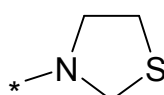
Q-97



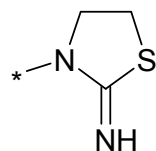
Q-98



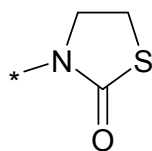
Q-99



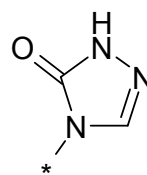
Q-100



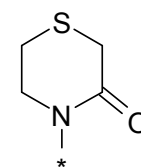
Q-101



Q-102



Q-103



Q-104

donde la unión con la molécula residual está marcada con un asterisco *,

R^3 representa flúor, cloro, fluorometilo, difluormetilo, trifluormetilo, fluoroetilo, difluoroetilo, trifluoroetilo, tetrafluoroetilo, pentafluoroetilo, trifluormetoxi, difluormetoxi, diclorofluormetoxi, trifluormetilotio, trifluormetilosulfonil o trifluormetilosulfinil ,

R^4 representa hidrógeno, flúor, cloro, bromo o ciano,

R^5 representa metilo, etilo, i-propilo, metoximetilo o metoxietilo,

n representa 0, 1 o 2.

3. Compuestos de la fórmula (I) según reivindicación 1, en los cuales

A^1 representa nitrógeno,

A^2 representa $-N-R^5$,

A^3 representa oxígeno,

A^4 representa $=C-H$,

R^1 representa metilo, etilo, n-propilo, i-propilo, n-butilo, i-butilo o tert.-butilo,

R^{2a} representa hidrógeno,

R^{2b} representa un anillo de 5 o 6 miembros saturado, parcialmente saturado o heteroaromático de la serie Q-1, Q-2, Q-3, Q-9, Q-13, Q-14, Q-24, Q-25, Q-26, Q-28, Q-41, Q-42, Q-43, Q-45, Q-46, Q-47, Q-49, Q-51, Q-52, Q-59, Q-73, Q-81, Q-82, Q-83, Q-95, Q-97, Q-99, Q-100, Q-101, Q-102, Q-103, Q-104, no sustituido o sustituido en forma simple, doble o triple, idéntico o diferente, donde como sustituyentes se pueden considerar en cada caso: ciano, (C_1-C_4) cianoalquilo, (C_1-C_4) alcoxi- (C_1-C_4) alquilo, halógeno, (C_1-C_4) alquilo, (C_2-C_4) alquinilo, (C_1-C_4) alcoxi, (C_1-C_4) haloalquilo, (C_3-C_6) cicloalquilo, (C_1-C_4) alquiltio, (C_1-C_4) haloalquiltio, (C_1-C_4) alquilsulfonil, (C_1-C_4) alquiltio- (C_1-C_4) alquilo, (C_1-C_4) alquilsulfinil- (C_1-C_4) alquilo, (C_1-C_4) alquilsulfonil- (C_1-C_4) alquilo, (C_1-C_4) alquiloaminocarbonil, (C_1-C_4) alquilocarbonilamino,

R^3 representa fluorometilo, difluormetilo, trifluormetilo, fluoroetilo, difluoroetilo, trifluoroetilo, tetrafluoroetilo o pentafluoroetilo,

R⁵ representa metilo, etilo o i-propilo,

n representa 2.

4. Compuestos de la fórmula (I) según reivindicación 1, en los cuales

A¹ representa nitrógeno,

A² representa -N-R⁵,

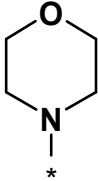
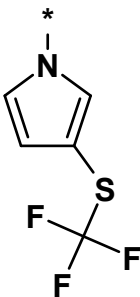
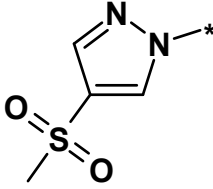
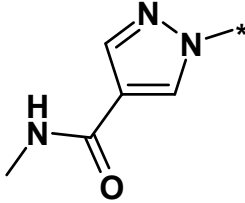
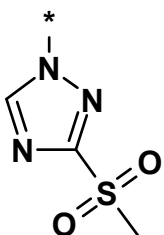
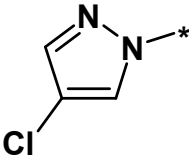
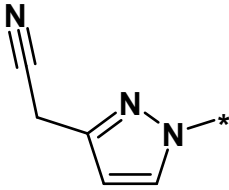
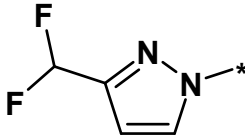
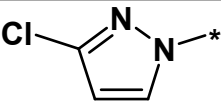
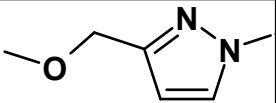
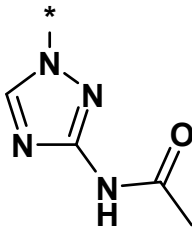
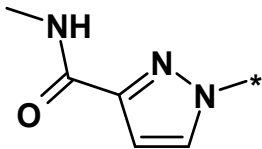
A³ representa oxígeno

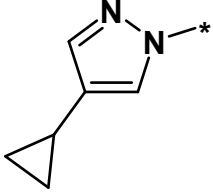
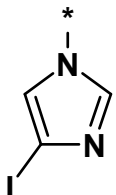
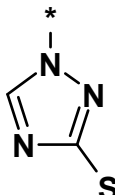
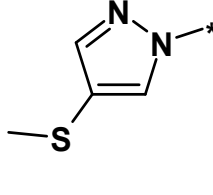
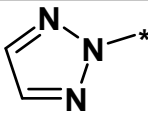
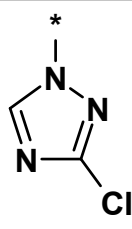
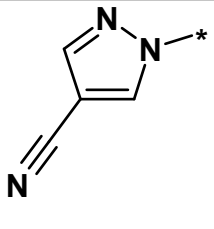
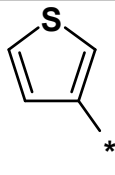
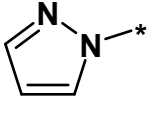
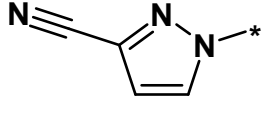
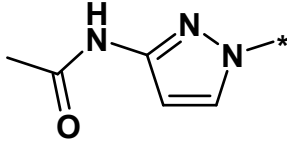
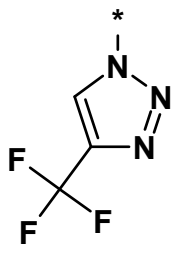
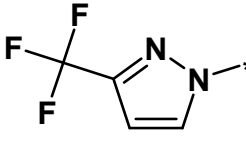
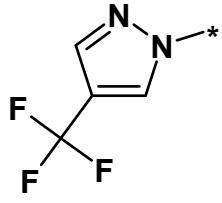
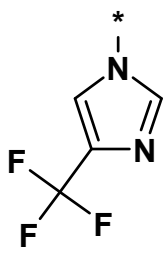
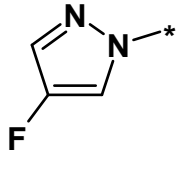
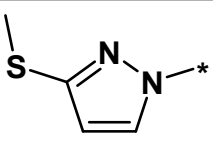
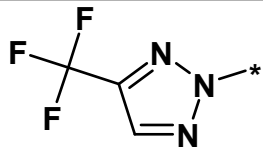
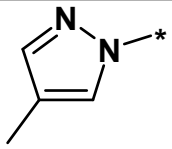
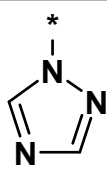
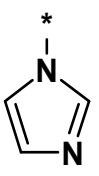
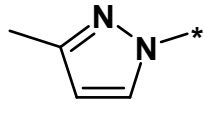
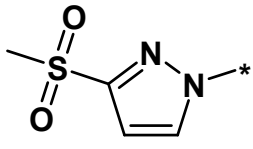
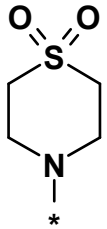
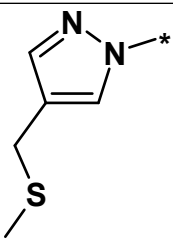
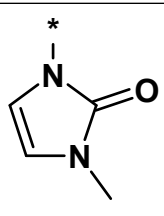
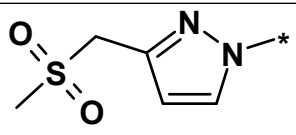
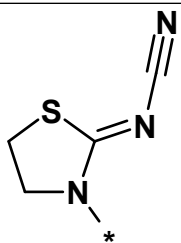
A⁴ representa =C-H ,

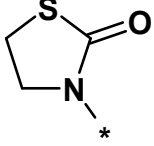
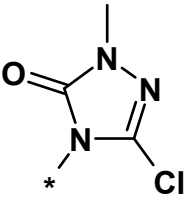
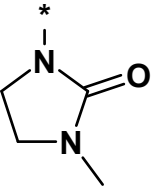
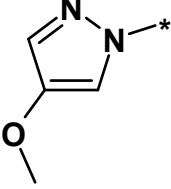
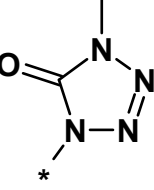
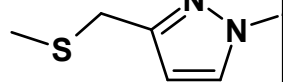
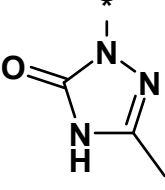
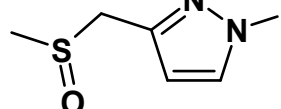
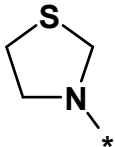
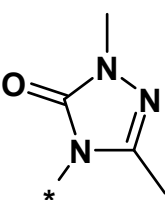
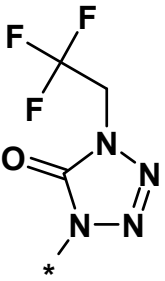
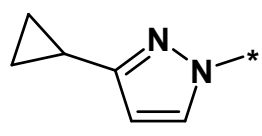
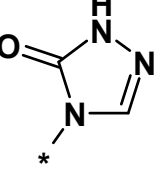
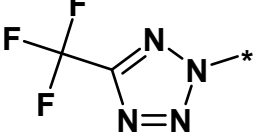
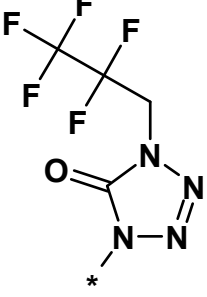
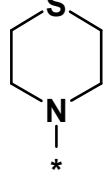
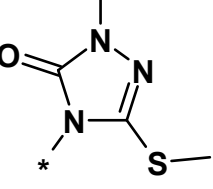
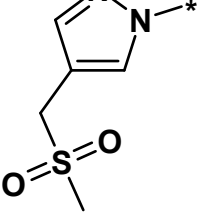
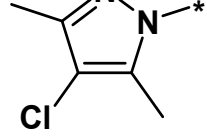
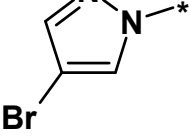
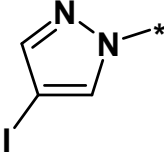
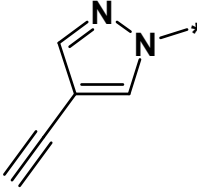
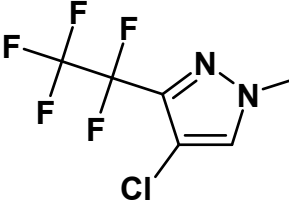
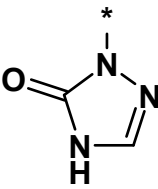
R¹ representa metilo, etilo, n-propilo, i-propilo, n-butilo, i-butilo o tert.-butilo,

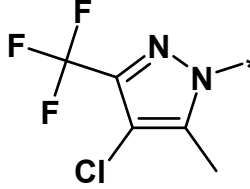
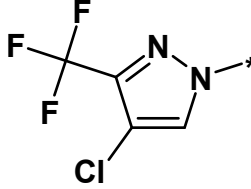
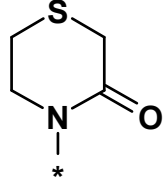
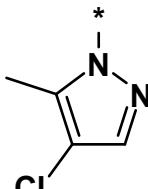
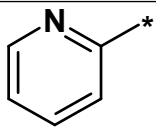
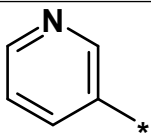
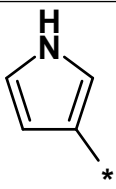
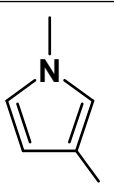
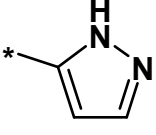
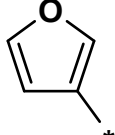
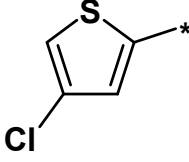
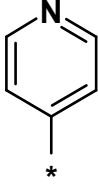
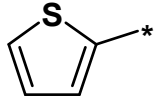
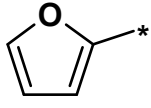
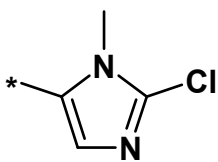
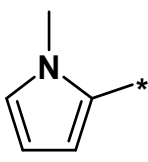
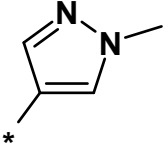
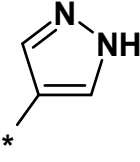
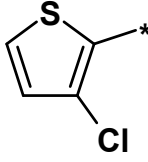
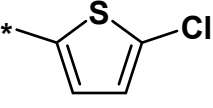
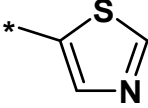
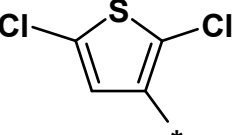
R^{2a} representa hidrógeno,

R^{2b} representa uno de los siguientes anillos:

R³ representa fluorometilo, difluormetilo, trifluormetilo, fluoroetilo, difluoroetilo, trifluoroetilo, tetrafluoroetilo o pentafluoroetilo,

R⁵ representa metilo, etilo o i-propilo,

n representa 2.

5. Compuestos de la fórmula (I) según reivindicación 1, en los cuales

A¹, A², A³, A⁴, R^{2a}, R^{2b} y n tienen los significados indicados en la reivindicación 4

y

R¹ representa etilo,

R³ representa trifluormetilo o pentafluoroetilo,

R⁵ representa metilo.

6. Formulación agroquímica que contiene compuestos de la fórmula (I) según reivindicación 1, así como sustancias diluyentes y/o surfactantes.

7. Formulación agroquímica según reivindicación 6 conteniendo como principio activo un agroquímico adicional.