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(71) Applicant: **BAYER CROPSCIENCE AG** [DE/DE]; Alfred-Noble-Str. 50, 40789 Monheim (DE).

(72) Inventors: **DÉCOR, Anne**; Solinger Str. 117, 40764 Langenfeld (DE). **HEILMANN, Eike Kevin**; Steinkribbenstr. 9, 40597 Düsseldorf (DE). **GREUL, Jörg**; Max-Schönenberg-Str. 6a, 53181 Leverkusen (DE). **DAHMEN, Peter**; Altebrücker Str. 61, 41470 Neuss (DE). **WACHENDORFF-NEUMANN, Ulrike**; Oberer Markenweg 85, 56566 Neuwied (DE). **TRAUTWEIN, Axel**; Gänsestr. 44, 40593 Düsseldorf (DE). **COQUERON, Pierre-Yves**; 22 Rue Masaryk, F-69009 Lyon (FR). **RINOLFI, Philippe**; 7 chemin du Coteau, F-69380 Châtillon d'Azergues (FR). **BRUNET, Stéphane**; 44 rue des Dombes, 01390 Saint André de Corcy (DE).

(74) Agent: **KOOPMANN, E.**; BIP, c/o Bayer Intellectual Property GmbH, Alfred-Nobel-Str. 10, 40789 Monheim am Rhein (DE).

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Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

Published:

— *with international search report (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:
3 December 2015

(54) Title: HETEROCYCLIC COMPOUNDS FOR THE CONTROL OF UNWANTED MICROORGANISMS

(57) Abstract: The present application relates to the use of heterocyclic compounds according to formula (I) for controlling harmful microorganisms in plants, compositions comprising these compounds and to processes for preparation these fungicidal compositions.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2015/056174

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-10(partially)

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2015/056174

A. CLASSIFICATION OF SUBJECT MATTER
INV. A01P3/00 A01N43/36 A01N43/54 A01N43/56 A01N43/58
A01N43/647 A01N43/82
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)
A01N

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, WPI Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2010 202649 A (SAGAMI CHEMICAL RES INST; TOSOH CORP; HOKKO CHEM IND CO) 16 September 2010 (2010-09-16) the whole document -----	1-10
X,P	WO 2014/053450 A1 (BAYER CROPSCIENCE AG [DE]) 10 April 2014 (2014-04-10) page 56, lines 10-16 page 57, lines 25-35 page 73, lines 6-26 Applied examples; page 234 - page 237 -----	6,9
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[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
27 April 2015	13/10/2015

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Davies, Maxwell

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Form PCT/ISA/210 (second sheet) (April 2005)

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2015/056174

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JOANNA MATYSIAK ET AL: "Synthesis and antimycotic activity of N-azolyl-2,4-dihydroxythiobenzamides", BIOORGANIC & MEDICINAL CHEMISTRY, vol. 11, no. 10, 1 May 2003 (2003-05-01), pages 2285-2291, XP055054430, ISSN: 0968-0896, DOI: 10.1016/S0968-0896(03)00110-X table 1; compound 2b -----	1-10

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/EP2015/056174

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 2010202649 A	16-09-2010	JP 5500582 B2	21-05-2014
		JP 2010202649 A	16-09-2010
WO 2014053450 A1	10-04-2014	AU 2013326600 A1	23-04-2015
		CA 2886895 A1	10-04-2014
		CR 20150182 A	12-05-2015
		EP 2903440 A1	12-08-2015
		TW 201427942 A	16-07-2014
		US 2015239847 A1	27-08-2015
		WO 2014053450 A1	10-04-2014

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-10(partially)

   The use of compounds of formula (I) to control unwanted microorganisms, wherein Q is Q-1.

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2. claims: 1-10(partially)

   The use of compounds of formula (I) to control unwanted microorganisms, wherein Q is Q-2.

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3. claims: 1-10(partially)

   The use of compounds of formula (I) to control unwanted microorganisms, wherein Q is Q-3.

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4. claims: 1-10(partially)

   The use of compounds of formula (I) to control unwanted microorganisms, wherein Q is Q-4.

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5. claims: 1-10(partially)

   The use of compounds of formula (I) to control unwanted microorganisms, wherein Q is Q-5.
