

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:
see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43*bis*.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2019/067266

International filing date (day/month/year)
27.06.2019

Priority date (day/month/year)
29.06.2018

International Patent Classification (IPC) or both national classification and IPC
INV. C07D401/14 A01N43/647 C07D401/04 C07D403/04

Applicant
SYNGENTA PARTICIPATIONS AG

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA:



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Date of completion of
this opinion

see form
PCT/ISA/210

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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed.
 - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:
 - a. ☐ forming part of the international application as filed:
 - ☐ in the form of an Annex C/ST.25 text file.
 - ☐ on paper or in the form of an image file.
 - b. ☐ furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
 - c. ☐ furnished subsequent to the international filing date for the purposes of international search only:
 - ☐ in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
 - ☐ on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2019/067266

Box No. II Priority

1. ☐ The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43*bis*.1 and 64.1) is the claimed priority date.
2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

see separate sheet

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	<u>1-18</u>
	No: Claims	
Inventive step (IS)	Yes: Claims	<u>2-18</u>
	No: Claims	<u>1</u>
Industrial applicability (IA)	Yes: Claims	<u>1-18</u>
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item I

Basis of the report

Azole-amide compounds according to main claim 1, a composition according to claim 14 comprising such a compound, methods for the protection of plant material according to claim 16 as well as seed treated with a compound as defined in claim 1 or dependent claims thereon.

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Re Item II

Priority

The validity of the priority claim has been considered because the ISA has in its possession a copy of the priority application.

The relevant valid date (Rules 43bis.1 and 64.1) is the claimed priority date.

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Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents; the numbering will be adhered to in the rest of the procedure.

D1 WO 2017/192385 A1 (ELANCO TIERGESUNDHEIT AG [CH]; LILLY CO ELI [US]) 9 November 2017 (2017-11-09)

D2 WO 2012/080376 A1 (SYNGENTA PARTICIPATIONS AG [CH]; JUNG PIERRE JOSEPH MARCEL [CH]; HUETE) 21 June 2012 (2012-06-21)

2. Novelty and inventive step (Art.33(2) and (3) PCT):

Document D1= WO 2017/192385 A1, cited on page 1 of the present description, also concerning polycyclic triazole-amide compounds useful for controlling ectoparasites on animals (see relevant passages indicated in the SR), is considered to represent the closest prior art. Document D2 describes derivatives which show the same "building" blocks as present in present formula (I) differently combined and has mainly importance as technical background.

2.1 Having regard for the substantial structural modifications compared with the known active compounds described in D1 (in the formula of claim 1 of D1, the substituents at the phenyl, pyridine, pyrimidine, pyrazine or pyridazine R² moiety is replaced by a moiety different than H also defined as present group R²), the preparation of the compound of claim 1 of the present application with the aim of providing new, alternative agents for controlling ectoparasites on animals was not obvious, and the obtention of the desired properties could not be predicted.

2.2 However, the derivatives provided and tested in the present application are always 1,2,4-triazoles (as also D1's compounds), R₃ and R₁ always mean CH₃ and cyclopropylmethyl respectively and R₄ only means pyridimin-2-yl.

In this respect the Applicant is reminded that the question as to what extent the structure of a chemical compound can be modified whilst retaining activity (obvious to try) and the question as to whether or not it is credible that all members of a certain group of chemical compounds solve a particular technical problem (breadth of the claims), must be answered on the basis of the same considerations and the same general knowledge must be taken into account (see Decision T0964/92).

2.2.1 In other words with respect to the lack of incentive in the teaching of D1 for the presence of cyclic substituent(s) at group Q, no support either (no teaching that the structure would retain the activity) can be found for the very broad definitions given for the substituents referred to supra.

2.3 The applicant is thus invited to reflect the technical contribution offered by the invention in the claims which must be restricted to a reasonable generalisation of what has been indeed provided and tested (in the description many passages, as well as many dependent claims, offer further, more reasonable definitions of the groups).

Hence, the subject-matter of claims 1-18 can be recognised as novel and only in part inventive (claims 1 combined with claims 2,3,5,7 and 11) vis-à-vis this state of the art (Article 33 PCT).

Re Item VIII

Certain observations on the international application

The subject-matter described on p.14 l.18 - 24, the control of any kind of parasites, not only on but also in an animal, does not fall within the scope of the claims. This

inconsistency between the claims and the description leads to doubt concerning the matter for which protection is sought, thereby rendering the claims unclear. Said subject-matter should be deleted since it is not supported by test data.