

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/EP2018/083052	International filing date (day/month/year) 29.11.2018	Priority date (day/month/year) 04.12.2017
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International Patent Classification (IPC) or both national classification and IPC
INV. C07D305/06 C07D307/06 C07D307/20 C07D333/12 A01N37/52

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:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Fax: +49 89 2399 - 4465	Date of completion of this opinion see form PCT/ISA/210	Authorized Officer Traegler-Goeldel, M Telephone No. +49 89 2399-0	
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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:

Box No. V Reasoned statement under Rule 43bis.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>1-15</u>
	No: Claims	
Inventive step (IS)	Yes: Claims	<u>1-15</u>
	No: Claims	
Industrial applicability (IA)	Yes: Claims	<u>1-15</u>
	No: Claims	

2. Citations and explanations

see separate sheet

re item V:

1. Prior art

D1 WO 2017/102635 A1 (SYNGENTA PARTICIPATIONS AG [CH]) 22 June 2017 (2017-06-22)

2. Novelty

The claimed phenylamidine derivatives bear a 4- or 5-membered saturated heterocycle substituted by a trifluormethyl in 2-position in position 4 of the phenylresidue, whereas the phenylamidine derivatives according to D1 bear a 1-hydroxy-1-trifluormethyl substituted alkyl residue in position 4 of the phenyl ring. Thus the subject matter of claims 1 to 15 is considered to be novel in accord with Art. 33 (2) PCT.

3. Inventive step

Document D1 as well as the present application is concerned with phenylamidine derivatives which are potent microbicides, especially against phytopathogenic fungi. The compounds of the present application differ structurally considerably from those according to D1, as set out under item 2, above.

Therefore, the problem underlying the present application is to be seen in the provision of further phenylamidine derivatives as microbicides especially against phytopathogenic fungi. As can be seen from the biological examples as given in the specification, this problem has been solved. The solution of this problem is considered to involve an inventive step with respect to the cited document, since the skilled man, faced with said problem would not have been lead by document D1 to modify the known 1-hydroxy-1-trifluormethyl substituted alkyl residue in position 4 of the phenyl residue by the heterocyclic 2-trifluormethyl substituted tetrahydrofuran-2-yl or -oxetanyl residue (or tetrahydrothienyl, pyrrolidinyl) as to result with the claimed phenylamidine derivatives with a saturated heterocycle in position 4 of the phenyl residue. Therefore, the compounds of present claims 1 to 12 are considered to fulfil the requirement of inventive step according to Art. 33 (3) PCT. The same applies for the corresponding claims 13 to 15.

4. Industrial applicability

The claimed compounds are industrially applicable since they may be used for the production of industrial products.