

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 82933-WO-REG-ORG-P-1	FOR FURTHER ACTION See item 4 below	
International application No. PCT/EP2024/059875	International filing date (<i>day/month/year</i>) 11 April 2024 (11.04.2024)	Priority date (<i>day/month/year</i>) 13 April 2023 (13.04.2023)
International Patent Classification (IPC) or national classification and IPC See relevant information in Form PCT/ISA/237		
Applicant SYNGENTA CROP PROTECTION AG		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).
2. This REPORT consists of a total of 6 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

☒	Box No. I	Basis of the report
☐	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 Article 35(2) 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
4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

	Date of issuance of this report 08 October 2025 (08.10.2025)
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Agnès Wittmann-Regis e-mail pct.team6@wipo.int

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/EP2024/059875

International filing date (day/month/year)
11.04.2024

Priority date (day/month/year)
13.04.2023

International Patent Classification (IPC) or both national classification and IPC
INV. C07D487/04 A01N43/60 A01N47/08 A01N47/18 A01P3/00 A01N43/90

Applicant
SYNGENTA CROP PROTECTION 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

Date of completion of
this opinion

see form
PCT/ISA/210

Authorized Officer

Hanisch, Inken

Telephone No. -0



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.
 - b. ☐ furnished subsequent to the international filing date for the purposes of international search (Rule 13ter.1(a)),
 - ☐ accompanied by a statement to the effect that the sequence listing does not go beyond the disclosure in the international application as filed.
4. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, this opinion has been established to the extent that a meaningful opinion could be formed without a WIPO Standard ST.26 compliant sequence listing.
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>1-18</u>
	No: Claims	
Inventive step (IS)	Yes: Claims	<u>1-18</u>
	No: Claims	
Industrial applicability (IA)	Yes: Claims	<u>1-18</u>
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

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

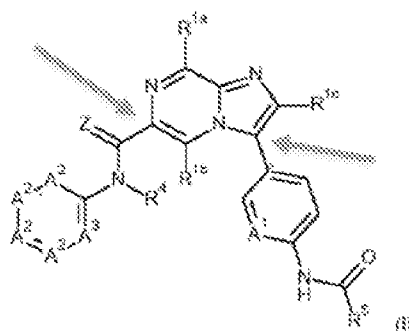
Re Item V

Reference is made to the following document:

D1 WO 02/48146 A2 (BASF AG [DE]; CULLMANN OLIVER [DE] ET AL.) 20 June 2002 (2002-06-20)

Novelty

The compounds of current formula (I) claimed in claim 1 are novel over D1 essentially due to the significantly different substitution of the core heterobicycle in the two positions marked by an arrow below. Claims 2-15 are novel by consequence.



D1 does not disclose the current intermediate compounds claimed in claims 16-18 either.

The requirements of Article 33(2) PCT are therefore fulfilled.

Inventive step

D1, which relates to fungicidal compounds having the same heterobicyclic structure, is considered to be the closest prior art.

The current compounds have fungicidal activity as well (see current pages 107f, particularly table A). No unexpected improved result has been disclosed so that they are considered to solve the problem of providing further fungicidal compounds.

The skilled person neither had any incentive to replace the amino substituent on the imidazo-ring of D1 by the current ring comprising A¹, substituted as claimed, nor to replace R⁵ of the D1 compounds (which can be hydrogen, halogen, cyano, nitro, hydroxy, alkyl, cycloalkyl etc) by the current (thio)amide group having an aromatic ring system on the nitrogen. There was thus no hint at the current solution. As a consequence, an inventive step in the sense of Article 33(3) PCT may be acknowledged for those current compounds which are shown to actually have the desired activity.

The currently claimed intermediate compounds claimed in current claims 16-18 all share one of the non-obvious substituents of the compounds of formula (I) and are thus considered to be non-obvious as well.

Re Item VII.

D1 is not yet cited and briefly discussed.

Re Item VIII.

Current claim 10 contains an inconsistency as it relates to compounds wherein all A^2 are CR^2 , but the preferred embodiment of said claim discloses a formula still having two A^2 s which are not yet depicted as CR^2 , thus relating to a broader scope and consequently casting a doubt as to the scope of protection sought.