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Act: 444 RESPUESTAREQUE Folios: 10

Clarke, Modet & C^o
COLOMBIA

ESCOBAR-URIBE ASOCIADOS
Intellectual Property

3112/P

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIVISION DE NUEVAS CREACIONES
E. S. D.

Ref: Expediente No. 08.031.510
Solicitud de Patente a nombre de
SYNGENTA PARTICIPATIONS AG

Yo, JIMENA ESCOBAR URIBE, identificada como aparece al pie de mi firma, domiciliada en la Carrera 11 No. 86-53 Piso 6, obrando como apoderada de la sociedad **SYNGENTA PARTICIPATIONS AG**, domiciliada en Basilea, Suiza, solicitante de la patente de la referencia, en respuesta al auto No. 10868 del 29 de agosto de 2008, me permito informar lo siguiente:

El solicitante desea aclarar que la solicitud en estudio corresponde al capítulo II del PCT.

En este sentido, dirijo la atención del señor examinador a las reivindicaciones actuales (1 a 12) que fueron presentadas ante la Superintendencia de Industria y Comercio el 31 de marzo de 2008 junto con la descripción y las antiguas reivindicaciones 1 a 14. Dichas reivindicaciones fueron modificadas en fase internacional el 30 de enero de 2007 y se encuentran de acuerdo con los razonamientos establecidos en la opinión escrita.

No obstante, debido a un error administrativo involuntario en la OMPI, las reivindicaciones enmendadas 1 a 12 no fueron consideradas en el Reporte Preliminar Internacional sobre la Patentabilidad.

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Sobre el particular, el solicitante desea manifestar que las reivindicaciones enmendadas 1 a 12 modificadas en fase internacional, versan sobre las anotaciones establecidas en el punto 4 del Reporte Preliminar Internacional sobre la Patentabilidad.

Finalmente, me permito adjuntar copia informal de dicho reporte donde consta que la solicitud corresponde al capítulo II del Tratado de Cooperación de Patentes (PCI).

Espero con esto haber dado cabal cumplimiento a lo solicitado por ese despacho y de conformidad con lo indicado en los artículos 3º, inciso 3, 35 inciso 2 y 59 inciso 2 del CCA, al analizar este memorial, atentamente solicito se traten todas las cuestiones planteadas con motivo del mismo.

Señor Superintendente,


JIMENA ESCOBAR URIBE
C.C. 39.779.452 DE Usaquén
T.P. No. 68228
Cód. 5376

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 70753WO/PCT		FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/EP2006/008398		International filing date (day/month/year) 28.08.2006		Priority date (day/month/year) 30.08.2005
International Patent Classification (IPC) or national classification and IPC INV. C07C209/62				
Applicant SYNGENTA PARTICIPATIONS AG				
1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of <u>8</u> sheets, including this cover sheet. 3. This report is also accompanied by ANNEXES, comprising: a. ☐ sent to the applicant and to the International Bureau a total of sheets, as follows: ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in Item 4 of Box No. I and the Supplemental Box. b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).				
4. 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 or 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				
Date of submission of the demand 2007-01-30		Date of completion of this report 16.07.2007		
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523856 epmu d Fax: +49 89 2399 - 4465		Authorized officer GRENOUILLAT, N Telephone No. +49 89 2399-0 		

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2006/008398

Box No. I Basis of the report

1. With regard to the **language**, this report is based on
- ☒ 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 (under Rules 12.3(a) and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4(a))
 - ☐ international preliminary examination (under Rules 55.2(a) and/or 55.3(a))
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

Description, Pages

1-26 as originally filed

Claims, Numbers

1-14 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

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**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2006/008398

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	<u>1-14</u>
	No: Claims	
Inventive step (IS)	Yes: Claims	<u>1-14</u>
	No: Claims	
Industrial applicability (IA)	Yes: Claims	<u>1-14</u>
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VI Certain documents cited

1. Certain published documents (Rule 70.10)

and / or

2. Non-written disclosures (Rule 70.9)

see separate sheet

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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:

D1: WO03/074491 (cited by the applicant)

D2: J. Org. Chem., 2002, 67, 5553-5566

2. Novelty (Art. 33(2)PCT)

The present application refers to a process for the preparation of ortho-bicyclopropyl-substituted primary anilines of formula I comprising the steps of

- a) reacting an ortho-bicyclopropyl-substituted phenyl chloride or bromide (II) with a substituted benzylamine (III) in the presence of a base and a catalytic amount of a palladium complex compound, and
- b) reducing the obtained compound to form the ortho-bicyclopropyl-substituted primary aniline of formula I.

D1 discloses (claim 8, steps 3 and 4 of example 3 on page 29):

- a process for production of 2-bicyclopropyl-2-yl-phenylamine comprises the steps of
- a) reacting 2-(2-bromophenyl)bicyclopropyl with benzophenone imine, in the presence of sodium tertiary butoxide, a catalytic amount of Pd_2dba_3 and BINAP, and
- b) converting this benzhydrylidene (2-bicyclopropyl-2-yl-phenyl)amine using hydroxylamine hydrochloride into 2-bicyclopropyl-2-yl-phenylamine.

D2 discloses (paragraph 2 page 5555 and entry 5 of table 6 page 5557) the use of palladium complexes of Q-phos for the coupling of aryl bromides and chlorides with both primary and secondary aromatic and aliphatic amines, e.g for the coupling 2-bromo-toluol with benzylamine.

In view of D1 and D2, the subject-matter of claim 1 is novel in the sense of Article 33(2) PCT.

3. Inventive step (Art. 33(3) PCT)

The document D1 is regarded as being the closest prior art to the subject-matter of claim 1.

The subject-matter of claim 1 differs from this known D1 in that the bromophenyl derivate (II) reacts with a benzylamine derivate and not with benzophenone imine.

According to the examples disclosed in the present application, such a process works on different ortho-bicyclopropyl-substituted phenyl chloride or bromide (II) and with different type of palladium complex compounds. In view of D1, the problem to be solved by the present invention may be regarded as providing an alternative process for the preparation of ortho-bicyclopropyl-substituted primary anilines.

Although the reaction of aryl bromides and chlorides with primary aromatic and aliphatic amines is well known for various arylhalides (see D2), it has neither been disclosed nor suggested for ortho-bicyclopropyl-substituted phenyl halides or analogous compounds. Therefore the skilled person would not consider the amination of ortho-bicyclopropyl-

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**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

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substituted phenyl halides with benzylamine derivatives as a reasonable alternative method to prepare ortho-bicyclopropyl-substituted primary anilines.
The subject-matter of the present claim 1, as well as the subject-matter of dependent claims 2-14 is therefore considered as involving an inventive step (Article 33(3) PCT).

4. Further remarks

- 4.1 Claim 4 refers to a compound of formula A-3, without indicated the structure of this formula A-3. Therefore claim 4 is not clear and does not meet the requirement of Article 6 PCT.
- 4.2 Claim 5 is identical as claim 4, as well claim 6 is identical as claim 3. The aforementioned claims therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.
- 4.3 Claim 12 refers to a ratio between the ligand and compound of formula II, but fails to define if it is a molar or a weight ratio. Therefore claim 12 is not clear and does not meet the requirement of Article 6 PCT.
- 4.4 In the description on pages 11-12, it is not clear if the ratios between compounds of formula II and palladium complex compounds, palladium precursors and ligands are molar or weight ratios.

Re Item VI

Certain documents cited

Certain published documents

Application No Patent No	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
WO2006/061226	15.06.2006	08.12.2005	10.12.2004

This document refers to a process for the preparation of ortho-bicyclopropyl-substituted primary anilines of formula I comprising the reaction of an ortho-bicyclopropyl-substituted phenyl chloride or bromide (II) with ammonia in the presence of a catalytic amount of a copper-containing compound.

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability;

**INTERNATIONAL PRELIMINARY
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International application No.

PCT/EP2006/008398

citations and explanations supporting such statement

1. Reference is made to the following documents:

D1: WO03/074491 (cited by the applicant)
D2: J. Org. Chem., 2002, 67, 5553-5566

2. Novelty (Art. 33(2)PCT)

The present application refers to a process for the preparation of ortho-bicyclopropyl-substituted primary anilines of formula I comprising the steps of

- a) reacting an ortho-bicyclopropyl-substituted phenyl chloride or bromide (II) with a substituted benzylamine (III) in the presence of a base and a catalytic amount of a palladium complex compound, and
- b) reducing the obtained compound to form the ortho-bicyclopropyl-substituted primary aniline of formula I.

D1 discloses (claim 8, steps 3 and 4 of example 3 on page 29):

a process for production of 2-bicyclopropyl-2-yl-phenylamine comprises the steps of
a) reacting 2-(2-bromophenyl)bicyclopropyl with benzophenone imine, in the presence of sodium tertiary butoxide, a catalytic amount of Pd_2dba_3 and BINAP, and
b) converting this benzhydrylidene (2-bicyclopropyl-2-yl-phenyl)amine using hydroxylamine hydrochloride into 2-bicyclopropyl-2-yl-phenylamine.

D2 discloses (paragraph 2 page 5555 and entry 5 of table 6 page 5557) the use of palladium complexes of Q-phos for the coupling of aryl bromides and chlorides with both primary and secondary aromatic and aliphatic amines, e.g. for the coupling 2-bromo-toluol with benzylamine.

In view of D1 and D2, the subject-matter of claim 1 is novel in the sense of Article 33(2) PCT.

3. Inventive step (Art. 33(3) PCT)

The document D1 is regarded as being the closest prior art to the subject-matter of claim 1.

The subject-matter of claim 1 differs from this known D1 in that the bromophenyl derivate (II) reacts with a benzylamine derivate and not with benzophenone imine.

According to the examples disclosed in the present application, such a process works on different ortho-bicyclopropyl-substituted phenyl chloride or bromide (II) and with

**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

International application No.

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different type of palladium complex compounds. In view of D1, the problem to be solved by the present invention may be regarded as providing an alternative process for the preparation of ortho-bicyclopropyl-substituted primary anilines.

Although the reaction of aryl bromides and chlorides with primary aromatic and aliphatic amines is well known for various arylhalides (see D2), it has neither been disclosed nor suggested for ortho-bicyclopropyl-substituted phenyl halides or analogous compounds. Therefore the skilled person would not consider the amination of ortho-bicyclopropyl-substituted phenyl halides with benzylamine derivatives as a reasonable alternative method to prepare ortho-bicyclopropyl-substituted primary anilines. The subject-matter of the present claim 1, as well as the subject-matter of dependent claims 2-14 is therefore considered as involving an inventive step (Article 33(3) PCT).

4. Further remarks

- 4.1 Claim 4 refers to a compound of formula A-3, without indicated the structure of this formula A-3. Therefore claim 4 is not clear and does not meet the requirement of Article 6 PCT.
- 4.2 Claim 5 is identical as claim 4, as well claim 6 is identical as claim 3. The aforementioned claims therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.
- 4.3 Claim 12 refers to a ratio between the ligand and compound of formula II, but fails to define if it is a molar or a weight ratio. Therefore claim 12 is not clear and does not meet the requirement of Article 6 PCT.
- 4.4 In the description on pages 11-12, it is not clear if the ratios between compounds of formula II and palladium complex compounds, palladium precursors and ligands are molar or weight ratios.

Re Item VI

Certain documents cited

Certain published documents

Application No Patent No	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
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International application No.

PCT/EP2006/008398

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This document refers to a process for the preparation of ortho-bicyclopropyl-substituted primary anilines of formula I comprising the reaction of an ortho-bicyclopropyl-substituted phenyl chloride or bromide (II) with ammonia in the presence of a catalytic amount of a copper-containing compound.

REPUBLICA DE COLOMBIA
SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

Folio 95

2020
Bogotá D.C.,

Doctor(a)
ESCOBAR URIBE JIMENA
Apoderado(a) y/o Representante de
SYNGENTA PARTICIPATIONS AG

REFERENCIA	Radicación No.	8 31510
	Solicitud internacional	PCT/EP2006/008398
	Fecha inicio fase nacional	30/03/2008
	Trámite	11
	Evento	378
	Actuación	416
	Oficio No.	7919
	Folios	1

Teniendo en cuenta que la solicitud de privilegio de patente que se tramita bajo el expediente indicado en la referencia, reúne los requisitos de forma establecidos en la Decisión 486 de la Comisión de la Comunidad Andina, el Tratado de Cooperación en Materia de Patentes (PCT), el Reglamento y la Circular Única de la Superintendencia de Industria y Comercio, se envía el extracto de la solicitud a la Oficina de Comunicaciones para efecto de su publicación en la Gaceta de Propiedad Industrial.

Cúmplase
Dado en Bogotá DC,

17 ABR. 2009

ALIX CARMENZA CESPEDES DE VERGEL
Jefe de la división de Nuevas Creaciones

jfernand