505189601 11/14/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5236370

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------------------------|----------------|
| DR. SEBASTIAN HOFFMANN | 11/25/2017 |
| DR. HENDRIK HELMKE | 01/15/2018 |
| DR. PETER DAHMEN | 12/05/2017 |
| DR. ULRIKE WACHENDORFF-NEUMANN | 12/06/2017 |
| DAVID BERNIER | 12/12/2017 |
| RICARDA MILLER | 12/27/2017 |
| PIERRE-YVES COQUERON | 12/21/2017 |
| PIERRE GENIX | 12/13/2017 |
| DR. SVEN WITTROCK | 12/06/2017 |
| JEAN-PIERRE VORS | 12/21/2017 |
| PHILIPPE KENNEL | 12/07/2017 |
| STEPHANE BRUNET | 12/12/2017 |
| SEBASTIEN NAUD | 12/12/2017 |
| DR. RUTH MEISSNER | 12/05/2017 |

RECEIVING PARTY DATA

| Name: | BAYER CROPSCIENCE AKTIENGESELLSCHAFT |
|-----------------|--------------------------------------|
| Street Address: | ALFRED-NOBEL-STR. 50 |
| City: | MONHEIM AM RHEIN |
| State/Country: | GERMANY |
| Postal Code: | 40789 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 16190285 |

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 3014536105

Email: docketing@mmwvlaw.com, hfallow@mmwvlaw.com

PATENT REEL: 047494 FRAME: 0655

505189601

Correspondent Name: MCBEE MOORE WOODWARD AND VANIK IP, LLC

Address Line 1: 510 SOUTH MARKET STREET
Address Line 4: FREDERICK, MARYLAND 21701

| ATTORNEY DOCKET NUMBER: | 2923343-384001 |
|-------------------------|-----------------|
| NAME OF SUBMITTER: | HILARY FALLOW |
| SIGNATURE: | /Hilary Fallow/ |
| DATE SIGNED: | 11/14/2018 |

Total Attachments: 8

source=2923343-384001_Executed_Assignment-Declaration#page1.tif source=2923343-384001_Executed_Assignment-Declaration#page2.tif source=2923343-384001_Executed_Assignment-Declaration#page3.tif source=2923343-384001_Executed_Assignment-Declaration#page4.tif source=2923343-384001_Executed_Assignment-Declaration#page5.tif source=2923343-384001_Executed_Assignment-Declaration#page6.tif source=2923343-384001_Executed_Assignment-Declaration#page7.tif source=2923343-384001_Executed_Assignment-Declaration#page8.tif

PATENT REEL: 047494 FRAME: 0656

Docket No.:

ASSIGNMENT WITH DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

ASSIGNMENT

Whereas, I/We, the undersigned inventor(s) hereinafter called assignor(s), have invented certain improvements described in the application identified below; and

Whereas, 1) BAYER CROPSCIENCE AKTIENGESELLSCHAFT of 1) Alfred-Nobel-Str. 50, 40789 Monheim am Rhein, DE, (assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/We, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors, legal representatives, and assigns, my/our entire right, title and interest, if any, in the invention and the application for the United States of America, including all direct and indirect divisions, continuations, and continuations-in-part thereof, and all original, extended, reissued, reviewed, and reexamined Letters Patent of the United States, and all countries foreign thereto, that may be granted thereon, including rights of priority under the International Convention of Paris (1883) as amended, including the right to claim priority under 35 U.S.C. §119, and I/we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we hereby agree that the assignee may apply for foreign Letters Patent on the invention and I/we will without further consideration, communicate all facts know to me/us and execute without further consideration all papers deemed necessary by the assignee in connection with the United States and foreign applications when called upon to do so by the assignee, its successors, legal representatives, or assigns. I/We further represent and warrant that I/We have the full right to convey the interest assigned by this assignment, and that I/We have not granted any rights inconsistent with the rights granted herein. I/We further acknowledge an obligation of assignment of this invention to assignee at the time the invention was made.

(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261)

DECLARATION

| As a below nar | ned inventor, I hereby | decla | re tha | t this assignment with declaration is directed to: |
|----------------|------------------------|-------|-------------|--|
| ☐ The | attached application, | OR | \boxtimes | United States Application or PCT International Application Number PCT/EP2016/056764 filed on 2016-03-29 (Confirmation No). |

PRE-AIA

My residence, mailing address, and citizenship are as stated below next to my name.

I believe the inventor(s) named below to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention titled:

NOVEL 5-SUBSTITUTED IMIDAZOLE DERIVATIVES

I hereby state that I have reviewed and understand the contents of the above identified application, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POST-AIA

The above identified application was made or was authorized to be made by me.

I believe I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this assignment with declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both.

Authorization To Permit Access To Application by Participating Office

□ If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified application is filed access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified application is filed to have access to the application.

PATENT REEL: 047494 FRAME: 0657

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Office.

| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 1. Dr. Sebastian HOFFMANN 41470 Neuss, DE Zypressenweg 12; 41470 Neuss, DE DE 25 16 2012 |
|--|--|
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | Dr. Hendrik HELMKE 65835 Liederbach, DE Zum Morgengraben 22, 65835 Liederbach, DE DE |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 3. Dr. Peter DAHMEN 41470 Neuss, DE Altebrücker Str. 61, 41470 Neuss, DE DE LL 2017/42/05 |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 4. Dr. Ulrike WACHENDORFF-NEUMANN 56566 Neuwied, DE Oberer Markenweg 85, 56566 Neuwied, DE DE |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 5. DAVID BERNIER 69004 LYON, FR QUALJOSEPH GILLET 38, 69004 LYON, FR FR |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 6. RICARDA MILLER 69002 LYON, FR rue de la République 61, 69002 LYON, FR DE |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 7. PIERRE-YVES COQUERON 69009 LYON, FR Rue Masaryk 22, 69009 LYON, FR FR |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 8. PIERRE GENIX 69004 LYON, FR RUE JANIN 10, 69004 LYON, FR FR |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: | 9. Dr. Sven WITTROCK 10117 Berlin, DE Schumannstraße 9, 10117 Berlin, DE DE |

BCS153010 PCT-US

SIGNATURE / DATE

[Page 2]

PATENT REEL: 047494 FRAME: 0658

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Office.

| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 1. Dr. Sebastian HOFFMANN 41470 Neuss, DE Zypressenweg 12, 41470 Neuss, DE DE |
|--|--|
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 2. Dr. Hendrik HELMKE 65835 Liederbach, DE Zum Morgengraben 22, 65835 Liederbach, DE DE **Note: The company of |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 3. Dr. Peter DAHMEN 41470 Neuss, DE Altebrücker Str. 61, 41470 Neuss, DE DE |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 4. Dr. Ulrike WACHENDORFF-NEUMANN 56566 Neuwied, DE Oberer Markenweg 85, 56566 Neuwied, DE DE |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 5. DAVID BERNIER 69004 LYON, FR QUAI JOSEPH GILLET 38, 69004 LYON, FR FR |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 6. RICARDA MILLER 69002 LYON, FR rue de la République 61, 69002 LYON, FR DE |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 7. PIERRE-YVES COQUERON 69009 LYON, FR Rue Masaryk 22, 69009 LYON, FR FR |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 8. PIERRE GENIX 69004 LYON, FR RUE JANIN 10, 69004 LYON, FR FR |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 9. Dr. Sven WITTROCK 10117 Berlin, DE Schumannstraße 9, 10117 Berlin, DE DE |

[Page 2] **PATENT REEL: 047494 FRAME: 0659**

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Office.

| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 1. Dr. Sebastian HOFFMANN 41470 Neuss, DE Zypressenweg 12, 41470 Neuss, DE DE |
|--|---|
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 2. Dr. Hendrik HELMKE 65835 Liederbach, DE Zum Morgengraben 22, 65835 Liederbach, DE DE |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 3. Dr. Peter DAHMEN 41470 Neuss, DE Altebrücker Str. 61, 41470 Neuss, DE DE |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 4. Dr. Ulrike WACHENDORFF-NEUMANN 56566 Neuwied, DE Oberer Markenweg 85, 56566 Neuwied, DE DE Mik Mail M-M 2017-12-06 |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 5. DAVID BERNIER 69004 LYON, FR QUAI JOSEPH GILLET 38, 69004 LYON, FR FR |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 6. RICARDA MILLER 69002 LYON, FR rue de la République 61, 69002 LYON, FR DE |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 7. PIERRE-YVES COQUERON 69009 LYON, FR Rue Masaryk 22, 69009 LYON, FR FR |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 8. PIERRE GENIX 69004 LYON, FR RUE JANIN 10, 69004 LYON, FR FR |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 9. Dr. Sven WITTROCK 10117 Berlin, DE Schumannstraße 9, 10117 Berlin, DE DE |

[Page 2]

BCS153010 PCT-US

PATENT

REEL: 047494 FRAME: 0660

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Office.

FULL NAME OF INVENTOR: 1. Dr. Sebastian HOFFMANN RESIDENCE: 41470 Neuss, DE Zypressenweg 12, 41470 Neuss, DE POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE/DATE 2. Dr. Hendrik HELMKE FULL NAME OF INVENTOR: 65835 Liederbach, DE RESIDENCE: POST OFFICE ADDRESS: Zum Morgengraben 22, 65835 Liederbach, DE CITIZENSHIP: SIGNATURE / DATE 3, Dr. Peter DAHMEN FULL NAME OF INVENTOR: 41470 Neuss, DE RESIDENCE: Altebrücker Str. 61, 41470 Neuss, DE POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE/DATE 4. Dr. Ulrike WACHENDORFF-NEUMANN FULL NAME OF INVENTOR: 56566 Neuwied, DE RESIDENCE: Oberer Markenweg 85, 56566 Neuwied, DE POST OFFICE ADDRESS: CITIZENSHIP: DE SIGNATURE / DATE 5. DAVID BERNIER FULL NAME OF INVENTOR: 69004 LYON, FR RESIDENCE: QUALIOSEPH GILLET 38, 69004 LYON, FR. POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE FULL NAME OF INVENTOR: 6, RICARDA MILLER. 69002 LYON, FR. RESIDENCE: rue de la République 61, 69002 LYON, FR POST OFFICE ADDRESS: CITIZENSHIP: DE Milly Dec 17, 1017 SIGNATURE / DATE 7. PIERRE-YVES COQUERON FULL NAME OF INVENTOR: 69009 LYON, FR RESIDENCE: Rue Masaryk 22, 69009 LYON, FR
FR
Dec 217717 POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE 8. PIERRE GENIX FULL NAME OF INVENTOR: 69004 LYON, FR RESIDENCE: RUE JANIN 10, 69004 LYON, FR POST OFFICE ADDRESS: PR (1) CITIZENSHIP: 12, 2017 SIGNATURE / DATE 9. Dr. Sven WITTROCK FULL NAME OF INVENTOR: 10117 Berlin, DE RESIDENCE:

[Page 2]

Schumannstraße 9, 10117 Berlin, DE

PATENT REEL: 047494 FRAME: 0661

CITIZENSHIP: SIGNATURE / DATE

POST OFFICE ADDRESS:

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Office.

| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | I. Dr. Sebastian HOFFMANN 41470 Neuss, DE Zypressenweg 12, 41470 Neuss, DE DE |
|--|--|
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | Dr. Hendrik HELMKE 65835 Liederbach, DE Zum Morgengraben 22, 65835 Liederbach, DE DE |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 3. Dr. Peter DAHMEN 41470 Neuss, DE Altebrücker Str. 61, 41470 Neuss, DE DE |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 4. Dr. Ulrike WACHENDORFF-NEUMANN 56566 Neuwied, DE Oberer Markenweg 85, 56566 Neuwied, DE DE |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 5. DAVID BERNIER 69004 LYON, FR QUAI JOSEPH GILLET 38, 69004 LYON, FR FR |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 6. RICARDA MILLER 69002 LYON, FR rue de la République 61, 69002 LYON, FR DE |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 7. PIERRE-YVES COQUERON 69009 LYON, FR Rue Masaryk 22, 69009 LYON, FR FR |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 8. PIERRE GENIX 69004 LYON, FR RUE JANIN 10, 69004 LYON, FR FR |
| FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE | 9. Dr. Sven WITTROCK 10117 Berlin, DE Schumannstraße 9, 10117 Berlin, DE |
| 2153010 PCT-HS | [Page 2] PATENT |

REEL: 047494 FRAME: 0662

BCS153010 PCT-US

FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE

FULL NAME OF INVENTOR: RESIDENCE: POST OPFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE

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FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE

FULL NAME OF INVENTOR: RESIDENCE: POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE

10, JEAN-PIERRE VORS 69110 SAINTE FOY LES LYON, FR. ALLEE ADANSON 6, 69110 SAINTE FOY LES LYON, FR. 11. PHILIPPE KENNEL 06410 BIOT, FR. AVENUE SAINT PHILIPPE 45, 06410 BIOT, FR Dec. 7, 2017 12. STEPHANE BRUNET 01390 ST ANDRE DE CORCY, FR RUE DES DOMBES 44, 01390 ST ANDRE DE CORCY, FR 42 12 12 14) 13. Sebastien NAUD 69003 LYON, FR cours Lafayette 272, 69003 LYON, FR 18-12, 2012 14, Dr. Ruth MEISSNER 51375 Leverkusen, DE

4. Dr. Ruth MEISSNER
51375 Leverkusen, DE
Kuhlmannweg 35, 51375 Leverkusen, DE
DE

FULL NAME OF INVENTOR: 10. JEAN-PIERRE VORS 69110 SAINTE FOY LES LYON, FR. RESIDENCE: ALLEE ADANSON 6, 69110 SAINTE FOY LES LYON, FR POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE 11. PHILIPPE KENNEL FULL NAME OF INVENTOR: 06410 BIOT, FR. RESIDENCE: AVENUE SAINT PHILIPPE 45, 06410 BIOT, FR POST OPFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE 12. STEPHANE BRUNET FULL NAME OF INVENTOR: 01390 ST ANDRE DE CORCY, FR RESIDENCE: POST OFFICE ADDRESS: RUE DES DOMBES 44, 01390 ST ANDRE DE CORCY, FR CITIZENSHIP: SIGNATURE / DATE 13. Sebastien NAUD FULL NAME OF INVENTOR: 69003 LYON, FR RESIDENCE: cours Lafayette 272, 69003 LYON, FR POST OFFICE ADDRESS: CITIZENSHIP: SIGNATURE / DATE FULL NAME OF INVENTOR: 14, Dr. Ruth MEISSNER. RESIDENCE: 51375 Leverkusen, DE POST OFFICE ADDRESS: Kuhlmannweg 35, 51375 Leverkusen, DE

DE.

BCS153010 PCT-US RECORDED: 11/14/2018

CITIZENSHIP:

SIGNATURE / DATE

PATENT REEL: 047494 FRAME: 0664

2017-12-05