505278045 01/15/2019

PATENT ASSIGNMENT COVER SHEET

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

CONVEYING PARTY DATA

| Name | Execution Date |
|---------------------------|----------------|
| SANDRA CHOUZIER | 01/14/2019 |
| FABIEN OCAMPO | 01/14/2019 |
| SERGIO MASTROIANNI | 01/14/2019 |
| AVELINO CORMA | 01/14/2019 |
| MERCEDES BONONAT | 01/14/2019 |
| JAVIER TIRSO LOPEZ AUSENS | 01/11/2019 |

RECEIVING PARTY DATA

| Name: | RHODIA OPERATIONS | |
|-----------------|-------------------|--|
| Street Address: | 25, RUE DE CLICHY | |
| City: | PARIS | |
| State/Country: | FRANCE | |
| Postal Code: | 75009 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15538582 |

CORRESPONDENCE DATA

Fax Number: (609)860-5451

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: 609-860-3374

Email: tina.wisbeski@solvay.com

Correspondent Name: SOLVAY USA INC.

Address Line 1: 504 CARNEGIE CENTER

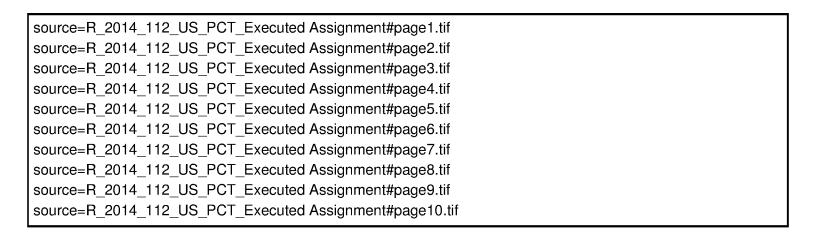
Address Line 4: PRINCETON, NEW JERSEY 08540

| ATTORNEY DOCKET NUMBER: | R 2014/112-US-PCT |
|-------------------------|--------------------|
| NAME OF SUBMITTER: | TINA M. WISBESKI |
| SIGNATURE: | /Tina M. Wisbeski/ |
| DATE SIGNED: | 01/15/2019 |
| | • |

Total Attachments: 10

PATENT REEL: 048001 FRAME: 0489

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PATENT REEL: 048001 FRAME: 0490

WHEREAS I, (WE)

- Sandra CHOUZIER, 154 rue des lavoirs 30360 Deaux FRANCE;
- Fabien OCAMPO, 4 rue du Plateau 57390 AUDUN-LE-TICHE- FRANCE;
- Sergio MASTROIANNI, 39, rue Félix Jacquier 69006 Lyon-FRANCE;
- Avelino CORMA, Carrer de Daniel Balaciart, 6-46 46020 VALENCIA SPAIN
- Mercedes BORONAT, C/ Pintor Segrelles, 3, 46691 Vallada, VALENCIA SPAIN
- López Ausens Javier Tirso, Calle Hoz de Jaca 16, Sabiñanigo 22600 (Huesca) Spain

respectively, have invented certain new and useful improvements in:
"Cycloalkane oxidation catalysts and method to produce alcohols and ketones."

(Application No. 15/538582, filed on June 21, 2017), and

WHEREAS, RHODIA OPERATIONS

(hereinafter referred to as "ASSIGNEE") having a place of business at : 25, rue de Clichy 75009 PARIS FRANCE (FRANCE)

is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries and all rights under the International Convention for the Protection of Industrial Property, and the entire right, title and interest in and to any and all Letters Patent which may be granted therefore in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I(WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully

Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its (his) representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the patent practitioner(s) of SOLVAY USA Inc., 504 Carnegie Center, Princeton, NJ 08540 the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

| Date : 🕹 | 410112019 | Charles Alexander |
|----------|------------|--|
| | MM/DD/YYYY | (Signature of inventor) —Sandra CHOUZIER |
| Date: | | |
| | MM/DD/YYYY | (Signature of inventor) Fabien OCAMPO |
| Date : | •••• | |
| | MM/DD/YYYY | (Signature of inventor) -Sergio MASTROIANNI |
| Date : | | - |
| | MM/DD/YYYY | (Signature of inventor) - Aveline CORMA |
| Date: | | |
| | MM/DD/YYYŸ | (Signature of inventor) - Mercedes BORONAT |
| Date : | | |
| | MM/DD/YYYY | (Signature of inventor) - LOPEZ AUSENS, Javier Tirso |

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| MM/DD/YYYY | (Sig | nature of inventor)Sandra CHOUZIER |
|------------|---|--|
| 01/14/20 | 19 | |
| MM/DD/YYYY | (Sig | nature of inventor) —Fabien OCAMPO |
| | | |
| MM/DD/YYYY | (Sign | nature of inventor) -Sergio MASTROIANNI |
| | | |
| MM/DD/YYYY | (Sig | nature of inventor) - Avelino CORMA |
| | *************************************** | |
| MM/DD/YYYY | (Sig | nature of inventor) - Mercedes BORONAT |
| | | |
| MM/DD/YYYY | (Sign | nature of inventor) - LOPEZ AUSENS, Javier Tir |

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| Date: | ······ | |
|-------|--------------------------|--|
| | MM/DD/YYYY | (Signature of inventor) Sandra CHOUZIER |
| Date: | | |
| | MM/DD/YYYY | (Signature of inventor) - Fabien OCAMPO |
| Date: | 01/14/2013 MM/DD/YYYY | |
| | MM/DD/YYYY | (Signature of inventor) -Sergio MASTROIANNI |
| | | |
| Date: | | |
| | MM/DD/YYYY | (Signature of inventor) - Avelino CORMA |
| | | |
| Date: | | · · · · · · · · · · · · · · · · · · · |
| | MM/DD/YYYY | (Signature of inventor) - Mercedes BORONAT |
| | | |
| Date: | | 4 |
| | MM/DD/YYYY | (Signature of inventor) - LOPEZ AUSENS, Javier Tirso |

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| Date: | | |
| | | (Signature of inventor) —Fabien OCAMPO |
| Date: | | |
| | MM/DD/YYYY | (Signature of inventor) -Sergio MASTROIANNI |
| Date: | 14-1-19 | Akelia Onua |
| nate . " | MM/DD/YYYY | (Signature of inventor) - Avelino CORMA |
| Date: | 14-1-19 | /_Waat |
| | MM/DD/YYYY | (Signature of inventor) - Mercedes BORONAT |
| Date: | | |
| and the first of the | MM/DD/YYYY | (Signature of inventor) - LOPEZ AUSENS, Javier Tirso |

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and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its (his) representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

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| Date : | | |
| | MM/OD/YYYY | (Signature of inventor) - Avelino CORMA |
| Date : | | |
| contain 1 | MM/DD/YYYY | (Signature of inventor) - Mercedes BORONAT |
| Date: 9 | 0/11/2019 | A CONTRACTOR OF THE PARTY OF TH |
| | MM/DD/YYYY | (Signature of pressure) - LOPEZ AUSENS, Javier Tirsu |

SOLVAY USA Inc., Member of the Solvay Group c/o Intellectual Assets Management 504 Carnegie Center, Princeton, NJ 08540

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