503443195 08/19/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

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EPAS ID: PAT3489819

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------|----------------|
| CHRISTOPH REITH | 07/23/2015 |
| MICHAEL SEYLER | 07/28/2015 |

RECEIVING PARTY DATA

| Name: | UMICORE AG & CO. KG | |
|-----------------|------------------------|--|
| Street Address: | RODENBACHER CHAUSSEE 4 | |
| City: | HANAU-WOLFGANG | |
| State/Country: | GERMANY | |
| Postal Code: | 63457 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 14768961 |

CORRESPONDENCE DATA

Fax Number: (202)263-4329

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: 202.263.4300

Email: dcdocketing@sgrlaw.com

Correspondent Name: SMITH, GAMBRELL & RUSSELL, LLP Address Line 1: 1055 THOMAS JEFFERSON STREET

Address Line 2: SUITE 400

Address Line 4: WASHINGTON, D.C. 20007

| ATTORNEY DOCKET NUMBER: 034166.248 | | |
|------------------------------------|-----------------------------|--|
| NAME OF SUBMITTER: | DENNIS C. RODGERS | |
| SIGNATURE: | MATURE: /Dennis C. Rodgers/ | |
| DATE SIGNED: | 08/19/2015 | |

Total Attachments: 3

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PATENT 503443195 REEL: 036363 FRAME: 0589

ASSIGNMENT

This assignment agreement is applicable to an invention entitled:

SCR CATALYTIC CONVERTER HAVING IMPROVED NOX CONVERSION

| and v | vhich is found in (check one):: | |
|---|---|--|
| | A patent application for this invention, executed by the ASSIGNOR(S) concurrently with this assignment (U.S. Application No. | |
| | U.S. Patent Application No, filed _; | |
| | A U.S. Patent Application based on PCT International Application No filed on _(U.S. Application No); | |
| \boxtimes | PCT International Application No. <u>PCT/EP2014/053464</u> filed on <u>21 February 2014</u> (U.S. Application No; and/or | |
| | U.S. Patent No, Issued _ (date). | |
| The PATENT PROPERTY assigned under this agreement is (check one): | | |
| | U.S. Patent Property only: The entire right, title and interest for the United States and its territorial possessions in and to the invention identified above, any and all improvements thereof, the right to claim priority including the right to claim priority to any earlier patent applications for said invention, and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuation, division, continuation-in-part, extension, conversion to 35 U.S.C. 111(a), or substitute thereof, and any reissue, reexamination, or extension of said Letters Patent, and the right to sue and recover for any past infringement, the right to file and/or prosecute any applications for said invention as Applicant, and the right to have said Letters Patent Issue with the Assignee as named Applicant, or | |
| | Worldwide Patent Property: The entire right, title and interest for the United States and its territorial possessions and in all foreign countries in and to the invention identified above, any and all improvements thereof, and any legal equivalent thereof in a foreign country, the right to claim priority including the right to claim priority to any earlier patent applications for said invention, and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuation, division, continuation-in-part, extension, conversion to 35 U.S.C. 111(a), or substitute thereof, and any relssue, reexamination, or extension of said Letters Patent, and all rights under all international Conventions for the Protection of Industrial Property, and the right to sue and recover for any past infringement, and where applicable, the right to file and/or prosecute any applications for said invention as Applicant and/or the right to have said Letters Patent issue with the Assignee as named Applicant. | |

The following ASSIGNEE is the recipient of the PATENT PROPERTY:

UMICORE AG & CO. KG Rodenbacher Chaussee 4 Hanau-Wolfgang, GERMANY 63457

> PATENT REEL: 036363 FRAME: 0590

| This ASSIGNEE is (check one): | | |
|-------------------------------|--|--|
| | An Individual; | |
| | A Partnership; | |
| Ø | A Corporation/Entity of <u>Germany</u> (specify state or country); or | |
| | (other) | |
| CONTOW | ideration of the premises hereof, and other good and valuable consideration, receipt of which is ledged, the ASSIGNOR(S) hereby sell, assign and transfer to the ASSIGNEE, its successors, , and legal representatives, the PATENT PROPERTY. | |

As to all U.S. Patent Property assigned under this agreement, the ASSIGNOR(S) hereby authorize and request the Director of the U.S. Patent & Trademark Office to issue said Letters Patent and any reissue or extension thereof to the ASSIGNEE.

The ASSIGNOR(S) hereby agree that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

Further, the ASSIGNOR(S) hereby agree to communicate to said ASSIGNEE, its successors, assigns, and legal representatives, any facts known to the ASSIGNOR(S) respecting said invention, promptly provide upon request all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR(s), testify in any interference, derivation, post grant review, inter parties review, litigation, or legal proceeding relating to the PATENT PROPERTY, sign all lawful papers, execute all divisional, continuation, continuation-in-part, substitute, renewal, reexamination and reissue applications, execute all necessary assignment papers to cause any and all Letters Patent to be issued to said ASSIGNEE, make all rightful cattle and generally do everything necessary or desirable to ald said ASSIGNEE, its successors, assigns, and legal representatives, to obtain and enforce proper protection for said invention.

The ASSIGNOR(S) authorize any attorneys and agents of record and/or who have a power of attorney in this application to check any appropriate boxes and to insert the Serial Number and filing date in this document after it has been executed.

PATENT REEL: 036363 FRAME: 0591

Inventors-to-Assignee

IN WITNESS WHEREOF, the below designated ASSIGNOR(S) and ASSIGNEE have executed this ASSIGNMENT:

| ASSIGNORIS) | |
|-------------------------------|---|
| Signature: C ((/ | Date: 23 07 24/5 |
| Name: Christoph REITH | * |
| Signature: 9,03 | Date: <u>28.04.3045</u> |
| Name: Michael SEYLER | |
| | |
| | |
| ASSIGNEE | |
| T Sty XA | 25 55 3 4 |
| Signature: O'eg - Deg (Q) | Date: <u>29.07, 2016</u> |
| Name: <u>Dr. Stefan Rette</u> | এন্ট্র acting in official capacity on behalf of UMICORE AG & CO, KG |
| 1. 1 | |
| Signature: MMM | Date: 28,07.20/15 |
| Name: Dr. Ralf Multip | acting in official capacity on behalf of |
| | UMICORE AG & CO. KG |

PATENT REEL: 036363 FRAME: 0592

RECORDED: 08/19/2015