501950596 06/11/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

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

CONVEYING PARTY DATA

| Name | Execution Date |
|---------------|----------------|
| Sud-Chemie AG | 04/20/2012 |

RECEIVING PARTY DATA

| Name: | Lurgi GmbH |
|-----------------|-------------------|
| Street Address: | Lurgiallee 5 |
| City: | Frankfurt am Main |
| State/Country: | GERMANY |
| Postal Code: | 60439 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13509087 |

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| ATTORNEY DOCKET NUMBER: | P-1552 |
|-------------------------|--------------|
| NAME OF SUBMITTER: | Scott R. Cox |

Total Attachments: 3

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<u>PATENT</u>

REEL: 028351 FRAME: 0598

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| Practitioner's Docket No. | P-1552 | PATENT |
|--|----------------------------------|--|
| | F | or: ☑ U.S. and/or 冱 Foreign Rights |
| | Fo | or. 🖾 U.S. Application or |
| | | ☐ U.S. Provisional Application |
| | | or: ☐ U.S. Patent |
| | | r: PCT Application |
| | B | r: ☐ Inventor(s) or 🖾 Present Owner |
| ASSI | GNMENT O | FINVENTION |
| In consideration of the payme (\$1.00), the receipt of which is consideration, | nt by ASSIGN hereby ackno | EE to ASSIGNOR of the sum of One Dollar wledged, and for other good and valuable |
| ASSIGNOR: | | |
| inventor(s) or person(s) or | S | id-Chemie AG |
| entity(ies) who own the | (1)/ | e or print name(s) of ASSIGNOR(S)) |
| invention | _L | enbachplatz 6 |
| | Ad | iress |
| | 8 | 0333 München, Germany |
| | D | 3 |
| | Na | ionality |
| (if assignment is by person and this was | or entity to wi recorded in P | om invention was previously assigned TO, add the following) |
| Recorded on | Re | |
| | Fra | me |
| hereby sells, assigns and transfer | ers to | • |
| ASSIGNEE: | L | rgi GmbH |
| ASSIGNEE. | (tyr | e or print name(s) of ASSIGNEE(S)) |
| | L | rgiallee 5 |
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| | 60 | 439 Frankfurt am Main, Germany |
| | Di | |
| | Na | ionality |
| and the successors, assigns and | d legal represe | ntatives of the ASSIGNEE |

(Assignment of Invention [16-3]—page 1 of 3)

PATENT REEL: 028351 FRAME: 0599

| (camplete one of the following) |
|--|
| ☐ the entire right, title and interest |
| an undivided <u>Fifty</u> percent (<u>50</u> %) interest |
| for the United States and its territorial possessions |
| (check the following box, if foreign rights are also to be assigned) |
| and in all foreign countries, including all rights to claim priority, |
| in and to any and all improvements which are disclosed in the invention entitled: |
| Spherical zeolitic catalyst for converting methanol into olefins |
| Name of inventor(s) Dr. Gotz Burgfels, Manfred Frauenrath, Nadine Fromm, |
| Angelika Glienke, Dr. Martin Rothamel, Dr. Sven Pohl |
| (check and complete (a), (b), (c), (d), (e), (f), or (g)) |
| and which is found in (37 C.F.R. § 3.21) |
| (a) U.S. patent application executed on even date herewith |
| (b) U.S. patent application executed on |
| (c) U.S. provisional application naming the above inventor(s) for the above-entitled invention. |
| Express mail label no.: |
| Malled: |
| To comply with 37 C.F.R. § 3.21 for recordal of this assignment, I, an ASSIGNOR signing below, hereby authorize and request my attorney to insert below the filing date and application number when they become known. |
| (d) 🗵 U.S. application no. 13 / 509,087 |
| filed on <u>May 10</u> , 2012 |
| (e) International application no. PCT/// |
| (f) U.S. patent no issued |
| A change of address to which correspondence is to be sent regarding patent maintenance fees is being sent separately. |
| (also check (g), if foreign application(s) is also being assigned) |
| (g) and any legal equivalent thereof in a foreign country, including the right to claim priority |
| and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuation, division, renewal, or substitute thereof, and as to letters patent any reissue or re-examination thereof. |
| ASSIGNOR hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment. |

(Assignment of invention [16-3]—page 2 of 3)

PATENT REEL: 028351 FRAME: 0600 ASSIGNOR further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

| IN W | /ITNESS WHEREOF, I/We | have hereunto set hand and seal this day |
|---------|--|---|
| of | | SÜD-CHEMIE AC |
| | Date of signing | Lenbachplatz 6 - 80333 Müncher |
| WARN | IING: The date of signing must checked above. | t be the same as the date of execution of the application, if item (a) was |
| Date: | | Signature of ASSIGNOR(S) |
| Date: 1 | The 20th of April, 2012 | Doris Etter Dr. Karin Jung |
| Date: | | (Chairman of the Managing Board) (Authorized Officer) |
| Date: | | |
| | (If ASSIGNOR is a le | gal entity, complete the following information) |
| NOTE; | it will only be prima facie eviden | legalization is necessary, if the assignment is notarized or legalized, then ce of execution, 35 U.S.C. § 261. Use next page if notarization is desired. cation or Legalization Page Added. |
| | | (Assignment of invention [16-3]page 3 of 3) |

PATENT REEL: 028351 FRAME: 0601

RECORDED: 06/11/2012