503400123 07/21/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3446750

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

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------------|----------------|
| JOSEPH MICHAEL FEDEYKO | 05/23/2012 |
| HAI-YING CHEN | 05/23/2012 |
| PAUL JOSEPH ANDERSEN | 05/23/2012 |

RECEIVING PARTY DATA

| Name: | JOHNSON MATTHEY PUBLIC LIMITED COMPANY |
|-------------------|--|
| Street Address: | 5TH FLOOR |
| Internal Address: | 25 FARRINGDON STREET |
| City: | LONDON |
| State/Country: | UNITED KINGDOM |
| Postal Code: | EC4A 4AB |

PROPERTY NUMBERS Total: 2

| Property Type | Number | | |
|---------------------|----------|--|--|
| Application Number: | 14124075 | | |
| Application Number: | 14685793 | | |

CORRESPONDENCE DATA

Fax Number: (610)971-3022

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: 610.971.3165

Email: LINDA.REMER@JMUSA.COM
Correspondent Name: JIMMIE D. JOHNSON, JR.
Address Line 1: 435 DEVON PARK DRIVE

Address Line 2: SUITE 600

Address Line 4: WAYNE, PENNSYLVANIA 19087

| ATTORNEY DOCKET NUMBER: | 2044USW-2 |
|-------------------------|------------------|
| NAME OF SUBMITTER: | LINDA J. REMER |
| SIGNATURE: | /Linda J. Remer/ |
| DATE SIGNED: | 07/21/2015 |
| | |

Total Attachments: 2

PATENT REEL: 036139 FRAME: 0492 source=2044USP_Executed_Assignment#page1.tif source=2044USP_Executed_Assignment#page2.tif

PATENT REEL: 036139 FRAME: 0493

| ASSIGNMENT - Patent Application | | Do | Docket Number: WYN/2044USP/JDJ | |
|--|-------------|-------------------------|--------------------------------|------------------|
| Whereas, the Assignor, comprising the following named inventors: | | | | |
| ASSIGNOR(s)/ INVENTOR(s) | 1. Jose | Joseph Michael FEDEYKO | | 2. Hai-Ying CHEN |
| | 3. Pau | . Paul Joseph ANDERSEN | | 4. |
| | 5. | | | 6. |
| made an inventior | n entitled: | SMALL PORE MOLECULAR SI | EVE | S |
| for which a Provisional Application for Patent: (Select one of the following): | | | | |
| ☐ is executed concurrently herewith Mark was filed in the U.S. Patent and Trademark Office on June 5, 2011 Bas U.S. Provisional Patent Application No.: 61/493,465 | | | | |
| Johnson Matthey Public Limited Company ASSIGNEE (Full Name and Address) London EC4A 4AB United Kingdom | | ompany | | |

is desirous of acquiring the entire interest in and to said invention, the Provisional Application for Patent, and all Letters Patent to be obtained therefor,

Now, therefore, in consideration of the payment by Assignee to Assignor of a sum corresponding to One Dollar (\$1.00), and for other good and valuable consideration, the receipt of which is hereby acknowledged, Assignor, intending to be legally bound, hereby sells, assigns and transfers to Assignee, its successors and assigns, the full and exclusive right, title and interest in and to said invention, the Provisional Application for Patent, all other applications for Letters Patent for said invention, and all divisions, continuations, and continuations-in-part thereof, all rights to claim priority based thereon, and all Letters Patent, including reissues, to be obtained therefor, including any and all foreign patent rights in this invention corresponding thereto.

Assignor hereby warrants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this Assignment.

Assignor agrees it shall be legally bound, upon request of the Assignee or its successors or assigns or a legal representative thereof, to supply all information and evidence of which the Assignor has knowledge or possession, relating to the making and practice of said invention, to testify in any legal proceeding relating thereto, to execute all instruments proper to patent the invention in the United States of America and foreign countries in the name of the Assignee, and to execute all instruments proper to carry out the intent of this instrument.

If the invention requires a biological deposit, Assignor also grants to Assignee such control over any deposit made by Assignor as may be necessary to the validity of the patent rights assigned herein.

REEL: 036139 FRAME: 0494

ASSIGNMENT - Patent Application

Docket Number: WYN/2044USP/JDJ

Assignor authorizes Assignor's attorney to insert at the end hereof, the serial number and filing date of the aforesaid application for United States Letters Patent and/or the Attorney Docket or file designation for this application if not identified above.

If the Assignor includes more than one individual, these obligations shall apply to these individuals both individually and collectively.

In witness whereof, this Assignment is executed on the day indicated below.

| | ypea or Prin | ited ivame | Signature | Date |
|----------------------------------|------------------|-------------------|---------------------------------------|-----------------------------|
| | 1. Joseph Michae | I FEDEYKO | Trul Market * Witness to Assignor #1 | 05/23/12 |
| | 2. Hai-Ying CHEN | 1 | Hair Harry | 5/23/12 |
| 96 83 | | | * Willhard to Accionar # 7 | 5/03//2- |
| | 3. Paul Joseph A | NDERSEN | Delenser | _5/23/12 |
| SIGNATURE | | | * Wingess to Assignor #3 | 5/23/2012 |
| N. | 4. | | | |
| | .: | | * Witness to Assignor #4 | |
| | 5. | | | |
| | · | - K | * Witness to Assignor #5 | \$ 1.00 miles |
| | 6. | | | |
| | | | * Witness to Assignor #6 | |
| Provisional App | lication Patent: | | | |
| Serial No.: | | <u>61/493,465</u> | | |
| Filed: | | June 5, 2011 | | |
| Attorney Docket Number: | | WYN/2044USP | <u>/101</u> | |
| Total Number of Assignment Pages | | 2 | * Witness signature recommended, ma | indatory for some countries |
| | | | | |

REEL: 036139 FRAME: 0495