

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT | | | | | | | | | | | | |
|---|------------------------|---------------|----------------|---------------------|------------------------|---------------------|-------------------|-------|-------------|----------------|----------|--------------|-------|
| NATURE OF CONVEYANCE: | ASSIGNMENT | | | | | | | | | | | | |
| CONVEYING PARTY DATA | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Steven S.M. Struyf</td> <td>02/15/2012</td> </tr> <tr> <td>William C Rooney</td> <td>02/14/2012</td> </tr> </tbody> </table> | | Name | Execution Date | Steven S.M. Struyf | 02/15/2012 | William C Rooney | 02/14/2012 | | | | | | |
| Name | Execution Date | | | | | | | | | | | | |
| Steven S.M. Struyf | 02/15/2012 | | | | | | | | | | | | |
| William C Rooney | 02/14/2012 | | | | | | | | | | | | |
| RECEIVING PARTY DATA | | | | | | | | | | | | | |
| <table border="1"> <tr> <td>Name:</td> <td>UOP LLC</td> </tr> <tr> <td>Street Address:</td> <td>25 EAST ALGONQUIN ROAD</td> </tr> <tr> <td>Internal Address:</td> <td>PATENT DEPARTMENT</td> </tr> <tr> <td>City:</td> <td>DES PLAINES</td> </tr> <tr> <td>State/Country:</td> <td>ILLINOIS</td> </tr> <tr> <td>Postal Code:</td> <td>60017</td> </tr> </table> | | Name: | UOP LLC | Street Address: | 25 EAST ALGONQUIN ROAD | Internal Address: | PATENT DEPARTMENT | City: | DES PLAINES | State/Country: | ILLINOIS | Postal Code: | 60017 |
| Name: | UOP LLC | | | | | | | | | | | | |
| Street Address: | 25 EAST ALGONQUIN ROAD | | | | | | | | | | | | |
| Internal Address: | PATENT DEPARTMENT | | | | | | | | | | | | |
| City: | DES PLAINES | | | | | | | | | | | | |
| State/Country: | ILLINOIS | | | | | | | | | | | | |
| Postal Code: | 60017 | | | | | | | | | | | | |
| PROPERTY NUMBERS Total: 2 | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>61470188</td> </tr> <tr> <td>Application Number:</td> <td>13372682</td> </tr> </tbody> </table> | | Property Type | Number | Application Number: | 61470188 | Application Number: | 13372682 | | | | | | |
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| Application Number: | 61470188 | | | | | | | | | | | | |
| Application Number: | 13372682 | | | | | | | | | | | | |
| CORRESPONDENCE DATA | | | | | | | | | | | | | |
| <p>Fax Number: (847)391-2387</p> <p>Phone: 847-391-2040</p> <p>Email: ROSE.NAGEL@UOP.COM</p> <p><i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i></p> <p>Correspondent Name: Honeywell International Inc</p> <p>Address Line 1: 101 Columbia Road P. O. Box 2245</p> <p>Address Line 2: Mail Stop AB/2B Patent Services</p> <p>Address Line 4: Morristown, NEW JERSEY 07962</p> | | | | | | | | | | | | | |
| ATTORNEY DOCKET NUMBER: | H0030966-01-8222 | | | | | | | | | | | | |
| NAME OF SUBMITTER: | Rose A Nagel | | | | | | | | | | | | |

CH \$80.00 61470188

Total Attachments: 4

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WHEREAS, the undersigned inventor(s) (hereinafter individually and collectively referred to as "ASSIGNOR") has invented new and useful improvements in:

PROCESS FOR PURIFYING A GAS IN A TEMPERATURE SWING ADSORPTION UNIT

for which application for patent in the United States:

_____ has been executed on even date herewith;

_____ was executed on _____;

X was filed on February 14, 2012 and assigned U.S. Application No. 13/372,682;

AND WHEREAS, the "Assigned Property" shall mean (i) the above-identified United States application for patent (the "Application"), (ii) all inventions disclosed in the Application, (iii) any and all applications for patent throughout the world directed to the subject matter of the Application, (iv) the right of priority arising from the Application or from such other applications, under the Paris Convention for the Protection of Industrial Property or under relevant laws, treaties, conventions or bilateral and multilateral agreements, in any jurisdiction, (v) any and all patents throughout the world resulting from the Application or such other application(s) for patents, and (vi) any and all claims against third parties in connection with any of the rights assigned by this Agreement;

AND WHEREAS, UOP LLC, a Delaware Limited Liability Company having a place of business at 25 East Algonquin Road, Des Plaines, IL 60017-5017, its successors and assigns (hereinafter individually and collectively referred to as "ASSIGNEE"), is desirous of acquiring ASSIGNOR's entire right, title, and interest in and to and resulting from said Assigned Property and in general all property rights included therein;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR does hereby irrevocably and unconditionally assign and transfer unto ASSIGNEE ASSIGNOR's entire right, title and interest in and to and resulting from the Assigned Property, and hereby authorizes and requests the Commissioner of Patents to issue said patent to ASSIGNEE for the sole use and benefit of ASSIGNEE; ASSIGNEE hereby accepts such transfer and assignment;

AND ASSIGNOR FURTHERMORE authorizes ASSIGNEE, or anyone it may properly designate, to insert on each page of this instrument (where indicated) the filing date and application number of said Application when known;

AND ASSIGNOR AGREES, FURTHERMORE, upon request of ASSIGNEE, and without further remuneration, but at no expense to ASSIGNOR, that ASSIGNOR or ASSIGNOR'S heirs, executors, or administrators will provide all reasonable assistance to obtain, maintain, and assert the fullest measure of legal protection that ASSIGNEE desires to obtain or assert for the Assigned Property, including executing any and all papers desired by ASSIGNEE for the filing and granting of patent rights in the Assigned Property, the perfecting of title in ASSIGNEE, and in enforcing any rights in the Assigned Property.

This instrument is executed by, and shall be binding upon ASSIGNOR, and ASSIGNOR's heirs, executors and administrators, for the uses and purposes above set forth and referred to and shall inure to the benefit of ASSIGNEE or anyone it may properly designate.

If any provision of this assignment is held by any court to be unenforceable, such provision shall be interpreted to accomplish the objectives of the original provision to the fullest extent allowed by law and the remainder of this assignment shall remain in full force and effect.

This assignment shall be construed, governed, interpreted and applied in accordance with the laws of the State of Delaware, United States of America.

U.S. Provisional Application No. 61/470,188 filed March 31, 2011

(Rev.05/25/2011)

EXECUTED on behalf of ASSIGNEE and effective as of the latest date of the ASSIGNOR signature(s) below:



Maryann Maas
Assistant Secretary – Intellectual Property (UOP)
UOP LLC

EXECUTED as of the date(s) set forth below on behalf of the ASSIGNOR:

Steven S.M. Struyf
Steven S. M. Struyf

Date: 15/02/2012

William C. Rooney

Date: _____

WHEREAS, the undersigned inventor(s) (hereinafter individually and collectively referred to as "ASSIGNOR") has invented new and useful improvements in:

PROCESS FOR PURIFYING A GAS IN A TEMPERATURE SWING ADSORPTION UNIT

for which application for patent in the United States:

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NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR does hereby irrevocably and unconditionally assign and transfer unto ASSIGNEE ASSIGNOR's entire right, title and interest in and to and resulting from the Assigned Property, and hereby authorizes and requests the Commissioner of Patents to issue said patent to ASSIGNEE for the sole use and benefit of ASSIGNEE; ASSIGNEE hereby accepts such transfer and assignment;

AND ASSIGNOR FURTHERMORE authorizes ASSIGNEE, or anyone it may properly designate, to insert on each page of this instrument (where indicated) the filing date and application number of said Application when known;

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U.S. Provisional Application No. 61/470,188 filed March 31, 2011

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ASSIGNMENT

EXECUTED on behalf of ASSIGNEE and effective as of the latest date of the ASSIGNOR signature(s) below:

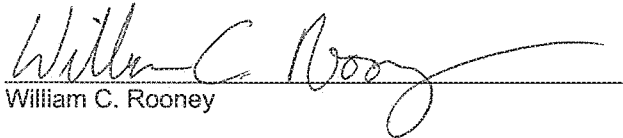


Maryann Maas
Assistant Secretary – Intellectual Property (UOP)
UOP LLC

EXECUTED as of the date(s) set forth below on behalf of the ASSIGNOR:

Steven S. M. Struyf

Date: _____



William C. Rooney

Date: 2-14-2012

U.S. Provisional Application No. 61/470,188 filed March 31, 2011

(Rev. 05/25/2011)