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| <b>PATENT ASSIGNMENT COVER SHEET</b> |
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 Stylesheet Version v1.2

EPAS ID: PAT5061551

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| <b>SUBMISSION TYPE:</b>   | NEW ASSIGNMENT                     |
| <b>NATURE OF CONVEYANCE:</b>  | ASSIGNMENT                         |
| <b>CONVEYING PARTY DATA</b>   |                                    |
| <b>Name</b>   | <b>Execution Date</b>              |
| GOWRI KRISHNAMURTHY   | 07/12/2018                         |
| MARK JULIAN ROBERTS   | 07/09/2018                         |
| <b>RECEIVING PARTY DATA</b>   |                                    |
| <b>Name:</b>  | Air Products and Chemicals, Inc.   |
| <b>Street Address:</b>  | 7201 Hamilton Blvd.                |
| <b>Internal Address:</b>  | Patent Dept.                       |
| <b>City:</b>  | Allentown                          |
| <b>State/Country:</b>   | PENNSYLVANIA                       |
| <b>Postal Code:</b>   | 18195-1501                         |
| <b>PROPERTY NUMBERS Total: 1</b>  |                                    |
| <b>Property Type</b>  | <b>Number</b>                      |
| <b>Application Number:</b>  | 15964377                           |
| <b>CORRESPONDENCE DATA</b>  |                                    |
| <b>Fax Number:</b>  | (610)481-7083                      |
| <i>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.</i> |                                    |
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| <b>ATTORNEY DOCKET NUMBER:</b>  | 08051 USA                          |
| <b>NAME OF SUBMITTER:</b>   | ERIC J. SCHAAL                     |
| <b>SIGNATURE:</b>   | /Eric J. Schaal/                   |
| <b>DATE SIGNED:</b>   | 07/23/2018                         |
| This document serves as an Oath/Declaration (37 CFR 1.63).  |                                    |
| <b>Total Attachments: 1</b>   |                                    |
| source=08051USA-Assign#page1.tif  |                                    |

**ASSIGNMENT & DECLARATION**

For value received, we, Gowri Krishnamurthy and Mark Julian Roberts, hereby sell, assign, and transfer to **AIR PRODUCTS AND CHEMICALS, INC.**, a corporation of the State of Delaware, having an office at 7201 Hamilton Boulevard, Allentown, PA 18195-1501, the entire right, title, and interest in and to the invention relating to

**Method and System for Cooling a Hydrocarbon Stream Using a Gas Phase Refrigerant**

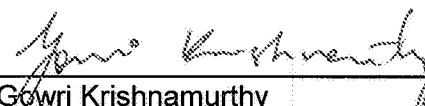
described in our application for Letters Patent of the United States (identified by Docket No. 08051 USA; and/or Appl. No. 15/964,377 filed on April 27, 2018), in and to all Letters Patent which may be issued upon said application, in and to any divisional or reissue applications based thereon, and in and to all Letters Patent upon said invention or improvements which may be granted in foreign countries. We hereby also assign and convey to said **AIR PRODUCTS AND CHEMICALS, INC.**, all the rights accruing to us by virtue of the International Convention for the Protection of Industrial Property (Art. 4), including the right to apply for and to have patents issued in its own name.

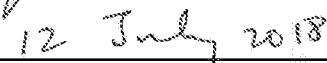
And we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and the Officials of the Patent Offices of all other countries to issue the Letters Patent of their respective countries to said **AIR PRODUCTS AND CHEMICALS, INC.**, as assignee of the entire right, title, and interest in and to the same.

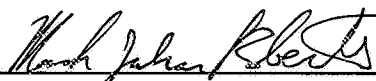
And we hereby promise and agree to execute all papers and perform all acts necessary to secure to and vest in said **AIR PRODUCTS AND CHEMICALS, INC.**, its successors and assigns, the rights conveyed as herein set forth.

And I hereby authorize the above-mentioned Assignee or its legal representative to insert in the instrument the application serial number of aforesaid application or any other information that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office.

And we hereby declare that the above-identified application was made or authorized to be made by me. I believe I am the original inventor or an original joint inventor of a claimed invention in the application. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

  
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Gowri Krishnamurthy (L.S.)

  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Mark Julian Roberts (L.S.)

  
\_\_\_\_\_  
Date