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| To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below. | | |
| 1. Name of conveying party(ies) Shiguang LI, Travis PYRZYNSKI, Howard MEYER, Naomi KLINGHOFFER and | 2. Name and address of receiving party(ies) Name: GAS TECHNOLOGY INSTITUTE Internal Address: | |
| Timothy TAMALE Additional name(s) of conveying party(les) attached? Yes No 3. Nature of conveyance/Execution Date(s): Execution Date(s) 13 March 2019 | Street Address: 1700 SOUTH MOUNT PROSPECT ROAD | |
| Assignment Merger Security Agreement Change of Name Joint Research Agreement Government Interest Assignment | City: DES PLAINES State: ILLINOIS Country: US Zip: 60018 | |
| Executive Order 9424, Confirmatory License Other | Additional name(s) & address(es) attached? Yes No | |
| 4. Application or patent number(s): A. Patent Application No.(s) | document serves as an Oath/Declaration (37 CFR 1.63). B. Patent No.(s) | |
| 16/353,079 Additional numbers at | ached? Yes No | |
| 5. Name and address to whom correspondence concerning document should be mailed: Name: KEVIN D. ERICKSON | 6. Total number of applications and patents Involved: ONE (1) | |
| Internal Address: PAULEY ERICKSON & KOTTIS | 7. Total fee (37 CFR 1.21(h) & 3.41) \$50.00 | |
| Street Address: 2800 WEST HIGGINS ROAD SUITE 365 | Authorized to be charged to deposit account Enclosed None required (government interest not affecting title) | |
| City: HOFFMAN ESTATES | 8. Payment Information | |
| State: ILLINOIS Zip: 60169 | | |
| Phone Number: (847) 490-1400 Docket Number: GTI-2107 Email Address: pto@pauleyip.com | Deposit Account Number <u>19-3550</u> Authorized User Name Pauley Erickson & Kottis | |
| 9. Signature: | 15 Marsh 249 | |
| Signature Nick C. Kottis Name of Person Signing Documents to be recorded (Including cover shee | Total number of pages including cover sheet, attachments, and documents: 3 t) should be faxed to (571) 273-0140, or mailed to: f the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450 | |

PATENT REEL: 048952 FRAME: 0158

CUSTOMER No.: 42419

ASSIGNMENT

WHEREAS, We the following inventors

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5. Name: Timothy TAMALE

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Schaumburg, Illinois 60194

hereinafter referred to as ASSIGNORS, have invented certain new and useful improvements in an invention entitled:

MEMBRANE ABSORPTION PROCESS FOR CO₂ CAPTURE

which is described and claimed in an application for Letters Patent of the United States executed by ASSIGNORS on even date herewith, and naming as inventors Shiguang LI, Travis PYRZYNSKI, Howard MEYER, Naomi KLINGHOFFER and Timothy TAMALE; said improvements as described and claimed in said application for Letters Patent of the United States, being hereinafter referred to as said "Invention"; and

WHEREAS, Gas Technology Institute, an Illinois not-for-profit corporation duly organized and existing under and by virtue of the laws of the State of Illinois and having its principal office and place of business at 1700 South Mount Prospect Road, Des Plaines, Illinois 60018, hereinafter referred to as ASSIGNEE, is desirous of acquiring ASSIGNORS' entire rights, title and interest in and to said Invention, and in, to and under Letters Patent therefor in the United States and countries foreign thereto;

GTI-2107 1 NCK/mjm

> PATENT REEL: 048952 FRAME: 0159

ASSIGNMENT

NOW THEREFORE BE IT KNOWN THAT, for and in consideration of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, ASSIGNORS have sold, assigned, transferred and set over and by these presents do hereby sell, assign, transfer and set over to and unto ASSIGNEE, its successors and assigns ASSIGNORS' entire rights, title and interest in and to said Invention, and in, to and under the above-identified application and all other applications for Letters Patent of the United States and countries foreign thereto, and in, to and under all divisions, reissues, continuations, extensions and reexaminations thereof, and covenant that ASSIGNORS have the full right so to do; and the Commissioner of Patents is hereby authorized and requested to issue all United States Letters Patent on said Invention included herein to ASSIGNEE, as assignee of ASSIGNORS' entire interest.

ASSIGNORS further agree to communicate to ASSIGNEE or its representatives or agents all facts and information known or available to ASSIGNORS regarding said Invention including evidence for interference purposes or for other legal proceedings, whenever requested; to testify in any interference or other proceedings; to execute and deliver, on request, all lawful papers including original, divisional, continuing and reissue applications, renewals, assignments, powers of attorney, declarations, oaths, affidavits, depositions, etc.; and to generally do everything possible to aid ASSIGNEE, its successors and assigns, but at the expense of ASSIGNEE, in obtaining and enforcing proper protection for said Invention, in the United States and countries foreign thereto.

| 3/13/19 | |
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| 3/13/19 | , |

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Date