504298832 03/30/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4345513

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

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------------|----------------|
| LARRY G. FELIX | 07/07/2014 |
| MARTIN B. LINCK | 07/02/2014 |
| TERRY L. MARKER | 07/02/2014 |
| MICHAEL J. ROBERTS | 07/02/2014 |

RECEIVING PARTY DATA

| Name: | GAS TECHNOLOGY INSTITUTE | |
|-----------------|--------------------------------|--|
| Street Address: | 1700 SOUTH MOUNT PROSPECT ROAD | |
| City: | DES PLAINES | |
| State/Country: | ILLINOIS | |
| Postal Code: | 60018 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15474245 |

CORRESPONDENCE DATA

Fax Number: (202)824-3001

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.

bwptopat@bannerwitcoff.com, dholbert@bannerwitcoff.com Email:

Correspondent Name: BANNER & WITCOFF, LTD. Address Line 1: 1100 13TH STREET, N.W. Address Line 4: WASHINGTON, D.C. 20005

| ATTORNEY DOCKET NUMBER: | 008123.00199 |
|-------------------------|-------------------------|
| NAME OF SUBMITTER: | BENJAMIN C. SPEHLMANN |
| SIGNATURE: | /Benjamin C. Spehlmann/ |
| DATE SIGNED: | 03/30/2017 |

Total Attachments: 3

source=00199ASN#page1.tif source=00199ASN#page2.tif source=00199ASN#page3.tif

> **PATENT REEL: 041799 FRAME: 0918** 504298832

ASSIGNMENT

WHEREAS, WE, Larry G. FELIX, residing in the United States; Martin B. LINCK, residing in the United States; Terry L. MARKER, residing in the United States; and Michael J. ROBERTS, residing in the United States (ASSIGNORS), are the inventors of certain inventions and improvements described in a U.S. patent application identified by having the title:

HYDROPYROLYSIS OF BIOMASS-CONTAINING FEEDSTOCKS

which application was filed as U.S. Application Serial Number 14/321,147 on July 1, 2014;

and WHEREAS

GAS TECHNOLOGY INSTITUTE (ASSIGNEE)

1700 South Mount Prospect Road Des Plaines, IL 60018

desires to acquire the entire right, title and interest in and to the said application, inventions and improvements and any patents that may be granted on or as a result thereof in the United States of America (U.S.) and in any and all foreign countries;

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged,

We hereby assign, to the above named ASSIGNEE, its successor(s), assign(s) and legal representative(s) (NOMINEES) the entire right, title and interest in and to said application, inventions and improvements throughout the world and to any and all patents, petty patents and utility model patents which may be granted therefor, and all continuations, continuations-in-part, divisionals, reissues, extensions, renewals, and any non-provisional based on a provisional thereof (LETTERS PATENT).

And we covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement or do anything in conflict herewith;

And we further covenant and agree that we will without undue delay execute without further consideration all such papers as may be necessary to perfect the title to said application, inventions and improvements, and LETTERS PATENT in said ASSIGNEE or its NOMINEES, and we agree to communicate to said ASSIGNEE or its NOMINEES all known facts respecting said application, inventions, improvements, and LETTERS PATENT, to testify in any legal proceedings, to sign all lawful papers, and generally to do all things necessary to aid said ASSIGNEE or its NOMINEES to obtain and enforce for their own benefit patent protection for said application, inventions and improvements in any and all countries, all at the expense, however, of said ASSIGNEE or its NOMINEES;

Page 1 of 2

And we authorize said ASSIGNEE or its NOMINEES to file in our names or their own, as appropriate, application for LETTERS PATENT in any and all countries of the world, and we authorize and request the Commissioner of Patents and Trademarks of the United States, and any proper official of any country, to issue to said ASSIGNEE or its NOMINEES any and all LETTERS PATENT for said application, inventions and improvements, for their sole use, to the full end of the term for which such LETTERS PATENT may be granted.

| Date: 7/7/14 | Inventor: G. FELIX Larry G. FELIX | ······································ |
|--------------|------------------------------------|--|
| Date: | Inventor: Martin B. LINCK | |
| Date: | Inventor: | |
| Date: | Inventor: Michael J. ROBERTS | |

Note: No legalization or other witness required.

And we authorize said ASSIGNEE or its NOMINEES to file in our names or their own, as appropriate, application for LETTERS PATENT in any and all countries of the world, and we authorize and request the Commissioner of Patents and Trademarks of the United States, and any proper official of any country, to issue to said ASSIGNEE or its NOMINEES any and all LETTERS PATENT for said application, inventions and improvements, for their sole use, to the full end of the term for which such LETTERS PATENT may be granted.

| Date: | Inventor: | |
|---|-----------|-------------------------------|
| | | Larry G. FELIX |
| Date: <u>] </u> | Inventor: | All B. Enk |
| | | Martin B. LINCK |
| Date: 11/12/2019 | Inventor: | Duyh Marly Terry L. MARKER |
| - | | Terry L. MARKER |
| Date: <u>July 1,</u> 2014 | Inventor: | michaeld tolerte |
| | | Michael I RORFRTS |

Note: No legalization or other witness required.