

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5380296

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
XIANGYU GUO	02/15/2019
JAMES ROYER	02/18/2019
VENKATESWARA R. PALLEM	02/15/2019
NATHAN STAFFORD	02/15/2019
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	AMERICAN AIR LIQUIDE, INC.
<b>Street Address:</b>	46409 LANDING PARKWAY
<b>City:</b>	FREMONT
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	94538
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16265782
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(713)624-8950
<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>	
<b>Phone:</b>	713-624-8953
<b>Email:</b>	NEVA.DARE-SC@AIRLIQUIDE.COM
<b>Correspondent Name:</b>	AIR LIQUIDE USA LLC
<b>Address Line 1:</b>	9811 KATY FREEWAY
<b>Address Line 2:</b>	SUITE 100
<b>Address Line 4:</b>	HOUSTON, TEXAS 77024
<b>ATTORNEY DOCKET NUMBER:</b>	2018P00415
<b>NAME OF SUBMITTER:</b>	NEVA DARE
<b>SIGNATURE:</b>	/Neva Dare/
<b>DATE SIGNED:</b>	02/18/2019
<b>Total Attachments: 2</b>	
source=2018P00415_US_Assignment signed All#page1.tif	
source=2018P00415_US_Assignment signed All#page2.tif	

*Assignment of Invention*

WHEREAS WE, Xiangyu GUO, James ROYER, Venkateswara R. PALLEM and Nathan STAFFORD, have invented certain new and useful improvements documented in a patent application entitled, METHOD TO IMPROVE PROFILE CONTROL DURING SELECTIVE ETCHING OF SILICON NITRIDE SPACERS, for which a United States patent application was filed on February 1, 2019, having Application No. 16/265,782;

WHEREAS, American Air Liquide, Inc. (hereinafter referred to as "ASSIGNEE") having a place of business at 46409 Landing Parkway, Fremont, CA. 94538, U.S.A., desires to acquire from Xiangyu GUO, James ROYER, Venkateswara R. PALLEM and Nathan STAFFORD, the entire right, title and interest WE have in and to said invention and in and to any Letters Patent that may be granted thereof in the United States and its territorial possessions and in any and all foreign countries;


NOW, THEREFORE, for valuable consideration, the receipt whereof is hereby acknowledged, WE, by these presents do sell, assign and transfer unto said ASSIGNEE, effective as of the first priority date, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries, including the right to claim priority of the above-mentioned patent application(s) in patent applications filed in or for any such foreign country, and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all subsequent provisionals, non-provisionals, divisions, reissues, continuations, continuations-in-part, reexaminations, substitutions and renewals thereof.

WE hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of the entire right, title and interest in and to the same, for the sole use and benefit of said ASSIGNEE, its successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this Assignment and sale not been made.

Further, WE agree that WE will communicate to said ASSIGNEE or its representatives any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all non-provisional, divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grants authorized representatives of the above identified ASSIGNEE the power to insert on this assignment any further identification, **INCLUDING ANY SUBSEQUENT DATE OF APPLICATION FILING AND THE APPLICATION SERIAL NUMBER**, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.


Date: 2/15/19

  
Xiangyu GUO (Inventor)

Date: \_\_\_\_\_

James ROYER (Inventor)

Date: 2/15/19

  
Venkateswara R. PALLEM (Inventor)

Date: 2/15/19

  
Nathan STAFFORD (Inventor)

*Assignment of Invention*

WHEREAS WE, Xiangyu GUO, James ROYER, Venkateswara R. PALLEM and Nathan STAFFORD, have invented certain new and useful improvements documented in a patent application entitled, METHOD TO IMPROVE PROFILE CONTROL DURING SELECTIVE ETCHING OF SILICON NITRIDE SPACERS, for which a United States patent application was filed on February 1, 2019, having Application No. 16/265,782;

WHEREAS, **American Air Liquide, Inc.** (hereinafter referred to as "ASSIGNEE") having a place of business at 46409 Landing Parkway, Fremont, CA. 94538, U.S.A., desires to acquire from Xiangyu GUO, James ROYER, Venkateswara R. PALLEM and Nathan STAFFORD, the entire right, title and interest WE have in and to said invention and in and to any Letters Patent that may be granted thereof in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, for valuable consideration, the receipt whereof is hereby acknowledged, WE, by these presents do sell, assign and transfer unto said ASSIGNEE, effective as of the first priority date, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries, including the right to claim priority of the above-mentioned patent application(s) in patent applications filed in or for any such foreign country, and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all subsequent provisionals, non-provisionals, divisions, reissues, continuations, continuations-in-part, reexaminations, substitutions and renewals thereof.

WE hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of the entire right, title and interest in and to the same, for the sole use and benefit of said ASSIGNEE, its successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this Assignment and sale not been made.


Further, WE agree that WE will communicate to said ASSIGNEE or its representatives any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all non-provisional, divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grants authorized representatives of the above identified ASSIGNEE the power to insert on this assignment any further identification, **INCLUDING ANY SUBSEQUENT DATE OF APPLICATION FILING AND THE APPLICATION SERIAL NUMBER**, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Date: \_\_\_\_\_

\_\_\_\_\_  
Xiangyu GUO (Inventor)

Date: 2/18/19

  
\_\_\_\_\_  
James ROYER (Inventor)

Date: \_\_\_\_\_

\_\_\_\_\_  
Venkateswara R. PALLEM (Inventor)

Date: \_\_\_\_\_

\_\_\_\_\_  
Nathan STAFFORD (Inventor)

**PATENT**