PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5609196

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DAREN CHEN	07/02/2019
HONG ZHAO	07/09/2019

RECEIVING PARTY DATA

Name:	VIRGINIA COMMONWEALTH UNIVERSITY
Street Address:	800 EAST LEIGH STREET
Internal Address:	SUITE 3000
City:	RICHMOND
State/Country:	VIRGINIA
Postal Code:	23219

PROPERTY NUMBERS Total: 1

Property Type	Number		
Application Number:	16476676		

CORRESPONDENCE DATA

Fax Number: (703)787-7557

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.

Phone: 7037879400

Email: bryce@wcc-ip.com

Correspondent Name: W&C IP

Address Line 1: 11491 SUNSET HILLS ROAD

Address Line 2: **SUITE 340**

Address Line 4: **RESTON, UNITED STATES 20190**

ATTORNEY DOCKET NUMBER:	02941171US
NAME OF SUBMITTER:	T. BRYCE MILLER
SIGNATURE:	/T. Bryce Miller/
DATE SIGNED:	07/09/2019
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3

source=02941171US dec assign#page1.tif source=02941171US_dec_assign#page2.tif

> **PATENT REEL: 049700 FRAME: 0545**

505562399

source=02941171US_dec_assign#page3.tif

PATENT REEL: 049700 FRAME: 0546

Attorney Docket: 02941171US

DECLARATION (37 C.F.R. 1.63) FOR PATENT APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76) AND ASSIGNMENT

Title of Invention: **ELECTROHYDRODYNAMIC (EHD) JET PRINTING WITH MULTI- CHANNEL JETTING APPARATUSES AND SYSTEMS**

As a below named inventor, I hereby declare that:			
This declaration and assignment document is directed to:			
[x] the attached application;			
[] United States application number filed on;			
[x] PCT international application number <u>PCT/US2018/017323</u> filed on <u>February 8, 2018</u> .			
This declaration and assignment document shall be governed by U.S. federal laws and laws of the State of Virginia .			
The above-identified application was made or authorized to be made by me.			
I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.			
I have reviewed and understand the contents of the application, including the claims.			
I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR Section 1.56.			
Whereas, the undersigned inventor(s) has/have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application;			

Whereas, Virginia Commonwealth University, having a place of business at 800 East Leigh Street Suite 3000 Richmond, VA 23219 (herein referred to as "ASSIGNEE"), desires to acquire, and each undersigned inventor desires to grant to ASSIGNEE, the entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, each undersigned inventor ("ASSIGNOR") hereby sells or has sold, assigns or has assigned, and otherwise transfers or has transferred to the ASSIGNEE, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and

Attorney Docket: 02941171US

extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, each undersigned inventor hereby authorizes and requests the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to ASSIGNEE, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the same to be held and enjoyed by ASSIGNEE, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made; and each undersigned inventor agrees to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in ASSIGNEE, its successors, legal representatives, and assigns, whenever requested by ASSIGNEE, its successors, legal representatives, or assigns.

Each undersigned inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to ASSIGNEE and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned inventor also hereby grants ASSIGNEE, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment.

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.

(1) Legal Name of Inventor: Daren Chen

I hereby authorize and request any attorney of W&C IP, Customer No. 30743, to insert or correct any information concerning the identity of ASSIGNOR, ASSIGNEE, or the above-mentioned application (including the serial no. and the filing date).

Signature: Chan Chan (2) Legal Name of Inventor: Hong Zhao	Date: 7/02/2019
Signature:	Date:

Attorney Docket: 02941171US

extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, each undersigned inventor hereby authorizes and requests the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to ASSIGNEE, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the same to be held and enjoyed by ASSIGNEE, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made; and each undersigned inventor agrees to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in ASSIGNEE, its successors, legal representatives, and assigns, whenever requested by ASSIGNEE, its successors, legal representatives, or assigns.

Each undersigned inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to ASSIGNEE and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned inventor also hereby grants ASSIGNEE, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment.

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.

I hereby authorize and request any attorney of W&C IP, Customer No. 30743, to insert or correct any information concerning the identity of ASSIGNOR, ASSIGNEE, or the above-mentioned application (including the serial no. and the filing date).

(1)	Legai Name	of inventor:	Daren Chen			
	Signature:	·			Date:_	
(2)	Legal Name	of Inventor:	Hong Zhao			
	Signature:	Her	JV/	la	Date:_	07/09/2019