506711574 06/11/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6758392

		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT	
CONVEYING PARTY DA	TA			
		Name	Execution Date	
HE REN			09/13/2019	
AMRITA B. MULLICK			09/13/2019	
REGINA FREED			10/09/2019	
MEHUL NAIK			09/13/2019	
UDAY MITRA			10/09/2019	
RECEIVING PARTY DAT				
Name:	MICRO	MATERIALS LLC		
Street Address:	271 1 C	ENTERVILLE ROAD		
Internal Address:	SUITE 4	400		
City:	WILMINGTON			
State/Country:	DELAWARE			
Postal Code:	19808			
PROPERTY NUMBERS	Total: 1	Number		
		17345683		
F F				
CORRESPONDENCE DA Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone:	sent to rovided	<i>the e-mail address first; if that is uns</i> <i>; if that is unsuccessful, it will be sen</i> 7328150404		
CORRESPONDENCE DA Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email:	sent to rovided	; if that is unsuccessful, it will be sen 7328150404 slewis@dsiplaw.com		
CORRESPONDENCE DA Fax Number: <i>Correspondence will be using a fax number, if pl</i> Phone: Email: Correspondent Name:	sent to rovided	; if that is unsuccessful, it will be sen 7328150404 slewis@dsiplaw.com SERVILLA WHITNEY LLC	t via US Mail.	
CORRESPONDENCE DA Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1:	sent to rovided	; if that is unsuccessful, it will be sen 7328150404 slewis@dsiplaw.com	t via US Mail.	
CORRESPONDENCE DA Fax Number: <i>Correspondence will be</i> <i>using a fax number, if p</i>	sent to rovided	<i>; if that is unsuccessful, it will be sen</i> 7328150404 slewis@dsiplaw.com SERVILLA WHITNEY LLC 33 WOOD AVENUE SOUTH, SUITE 83	t via US Mail.	
CORRESPONDENCE DA Fax Number: <i>Correspondence will be using a fax number, if pa</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 4:	sent to rovided	<i>; if that is unsuccessful, it will be sen</i> 7328150404 slewis@dsiplaw.com SERVILLA WHITNEY LLC 33 WOOD AVENUE SOUTH, SUITE 834 ISELIN, NEW JERSEY 08830	t via US Mail.	
CORRESPONDENCE DA Fax Number: <i>Correspondence will be using a fax number, if pa</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 4:	sent to rovided	<i>; if that is unsuccessful, it will be sen</i> 7328150404 slewis@dsiplaw.com SERVILLA WHITNEY LLC 33 WOOD AVENUE SOUTH, SUITE 834 ISELIN, NEW JERSEY 08830 44014868US03DIV	t via US Mail.	
CORRESPONDENCE DA Fax Number: <i>Correspondence will be using a fax number, if pa</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 4: ATTORNEY DOCKET NUM	sent to rovided	<i>; if that is unsuccessful, it will be sen</i> 7328150404 slewis@dsiplaw.com SERVILLA WHITNEY LLC 33 WOOD AVENUE SOUTH, SUITE 834 SELIN, NEW JERSEY 08830 44014868US03DIV REBECCA A. SMIRK	t via US Mail.	

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS: Names and Addresses of Inventors

l	
1)	He Ren 2658 La Salle Way San Jose, CA 95130 United States of America
2)	Amrita B. Mullick 3585 Monroe Street, Apt 263 Santa Clara, CA 95051 United States of America
3)	Regina Freed 1133 Russell Ave Los Altos, CA 94024 United States of America

4)	Mehul Naik 3088 Valleywood Court San Jose, CA 95148 United States of America
5)	Uday Mitra 21031 Hazelbrook Drive Cupertino, CA 95014 United States of America

(hereinafter referred to as Assignors), have invented a certain invention entitled:

"Methods For Controllable Metal And Barrier-Liner Recess"

for which application for Letters Patent in the United States was filed on Dec 10, 2018,

under Serial No. 16214522, executed on even date herewith; and

WHEREAS, Micromaterials LLC, a corporation of the State of Delaware, having a place of business at 2711 Centerville Road, Suite 400, Wilmington,, DE 19808 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as the Application), and the invention disclosed therein (hereinafter referred to as the Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as the Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

PATENT REEL: 056516 FRAME: 0591

Attorney Docket No. 44014868US02

2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefore and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.

4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1)	<u>9773</u> , 2019	(INVENTOR) He Ren
2)	, 2019	(INVENTOR) Amrita B. Mullick
3)	, 2019	(INVENTOR) Regina Freed
4)	9/13] 2019	(INVENTOR) Mabu Maik

Attorney Docket No. 44014868US02

2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and any application therefore and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.

 Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1)		(INVENTOR) He Ren
2)	<u>01.13</u> 2019	Awritz B. Sellick . (INVENTOR) Amrita B. Mullick
3)		(INVENTOR) Regina Freed
4)		(INVENTOR) Mehul Naik

PATENT REEL: 056516 FRAME: 0593

Attorney Docket No. 44014868US02

2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignee.

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IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1)	, 2019	(INVENTOR) He Ren
2)	, 2019	(INVENTOR) Amrita B. Mullick
3)	<u>_10_14</u> 2019	(INVENTOR) Regina Freed
4)		(INVENTOR) Mehul Naik

Attorney Docket No. 440148 68US02

10/9____2019 ____ 5)

(INVENTOR) Uday Mitra

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RECORDED: 06/11/2021