## 503921949 07/19/2016

# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date	
MR. BRIAN T. CUNNINGHAM	03/28/2016	
MS. GLORIA G. SEE	04/15/2016	
MR. PETER TREFONAS III	08/09/2015	
JONG KEUN PARK	08/05/2015	
MS. JIEQIAN ZHANG	08/06/2015	
JAEBUM JOO	08/04/2015	

### **RECEIVING PARTY DATA**

Name:	ROHM AND HAAS ELECTRONIC MATERIALS LLC
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State/Country:	MASSACHUSETTS
Postal Code:	01752
Name:	DOW GLOBAL TECHNOLOGIES LLC
Street Address:	2040 DOW CENTER
City:	MIDLAND
State/Country:	MICHIGAN
Postal Code:	48674
Name:	THE BOARD OF TRUSTEES OF THE UNIVERSITY OF ILLINOIS
Street Address:	352 HENRY ADMINISTRATION BUILDING
Internal Address:	506 SOUTH WRIGHT STREET
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## **PROPERTY NUMBERS Total: 1**

Property Type	Number	
Application Number:	14723433	

## **CORRESPONDENCE DATA**

**Fax Number:** (617)542-2241

PATENT REEL: 039190 FRAME: 0956

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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:** (617) 348-1859

Email: IPDocketingBOS@mintz.com

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ATTORNEY DOCKET NUMBER:	58726-118001US
NAME OF SUBMITTER:	PETER F. CORLESS
SIGNATURE:	/Peter F. Corless/
DATE SIGNED:	07/19/2016

**Total Attachments: 8** 

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#### ASSIGNMENT BY INVENTORS

THIS ASSIGNMENT, by Brian T. Cunningham and Gloria G. See (hereinafter referred to as Assignors), residing at 1705 Brighton Court, Champaign, Illinois 61822; and 411 W. Bradley Ave., Champaign, Illinois 61820, respectively;

WHEREAS, Assignors have invented certain new and useful improvements in NANOSTRUCTURE MATERIAL METHODS AND DEVICES, set forth in a Patent application for Letters Patent of the United States, filed on May 27, 2015 and assigned United States Non-Provisional Patent Application Serial No. 14/723,433 which application corresponds to and claims priority of United States Provisional Application filed on May 27, 2014 as U.S. Application No. 62/003,258; and

WHEREAS, The Board of Trustees of the University of Illinois, having its principal place of business at 352 Henry Administration Building, 506 South Wright Street, Urbana, Illinois 61801 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

NOW, THEREFORE, in consideration of other good and sufficient consideration, the receipt of which is hereby acknowledged, Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the abovementioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuations-in-part of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefore and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignors, had this sale and assignment not been made.

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AND for the same consideration, Assignors hereby represent and warrant to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignors are the sole and lawful owners of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND for the same consideration, Assignors hereby covenant and agree to and with Assignee, its successors, legal representatives and assigns, that Assignors will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said Patent application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

AND Assignors hereby request the Commissioner for Patents and Trademarks to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the Letters Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns.

AND Assignors hereby grant the following individuals the power to insert on this Assignment any further identification 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:

MINTZ LEVIN COHN FERRIS GLOVSKY AND POPEO, P.C.

58726-118P01US

All practitioners at Customer Number 14324

AND Assignors acknowledge an obligation of assignment of this invention to Assignee at the time the invention was made.

DATE 3/28/16  BRIAN CUNNINGHAM  BRIAN CUNNINGHAM	
STATE OF ILLINOIS)	
COUNTY OF CHAMPAIGN)	
I, Trace A. Hunter, a Notary Public in and for the County and State afore	esaid,
do hereby certify that Brian Cunningham, personally known to me to be the same person whose n	ame is
subscribed to the foregoing instrument, appeared before me this day in person and acknowledged	that
(s)he signed, sealed and delivered the said instrument as his/her free and voluntary act for the uses	and
purposes therein set forth.	
IN WITNESS WHEREOF, I have hereunto set my hand and Notarial Seal, this 28 day o	f
March 2016.	
Notary Public (SEAL)	<i>*</i> ***********************************
OFFICIAL SEAL TRACY A HUNTER Motsity Public - State of Illinois Commission Expires Jul 29, 2018	γM
My Commission Expires: July 29, 2018	~~~
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OFFICIAL SEAL TRACY A HUNTER	
Notary Public - State of Illinois My Commission Expires Jul 29, 20	10
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DATE	16	Mova Je. ORIA G. SEE	<u> </u>	<del>- Andrews - A</del>	
STATE OF		Gedegna.		And the second s	
COUNTY OF	CHAMPATGN)	EULTON.			
Ι,	, a No	otary Public in and fo	r the County and	State afore	esaid,
do hereby certify that	Gloria G. See, personally k	mown to me to be the	same person wh	ose name is	S
subscribed to the foreg	oing instrument, appeared	before me this day in	ı person and ackn	iowledged (	that
(s)he signed, sealed an	d delivered the said instru	ment as his/her free a	nd voluntary act	for the uses	and
purposes therein set fo					
in witness	WHEREOF, I have hereu	nto set my hand and l	Notarial Scal; this	: <u>15</u> day o	<b>£</b>
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Kevin W	ooster	Notary-Publ	Функтисичей		
(SEAL)		WITHE	<b>\$</b> .		
My Commission Expi	res:				100 (100 (100 (100 (100 (100 (100 (100

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#### ASSIGNMENT

WHEREAS, I, Peter TREFONAS, III, of Medway, Massachusetts, I, Jong Keun PARK of Westborough, Massachusetts, I, Jieqian ZHANG of Southborough, Massachusetts, I, Jaebum JOO of Somerville, Massachusetts (hereinafter referred to as "Assignors"), have invented certain new and useful improvements in "NANOSTRUCTURE MATERIAL METHODS AND DEVICES", for which an application for United States Letters Patent with the same title was filed with the United States Patent and Trademark Office on MAY 27, 2015 and assigned United States Non-Provisional Patent Application Serial No. 14/123,433, which application corresponds to and claims priority of United States Provisional Application Serial No. 62/003258, filed May 27, 2014 and

WHEREAS, Rohm and Haas Electronic Materials LLC, located at 455 Forest Street, Marlborough, Massachusetts 01752, (hereinafter referred to as the "Assignee"), is desirous of acquiring the entire right, title and interest in and to the same invention, and in and to the said application, and any Letters Patent that may issue thereon;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that for the above consideration, the Assignors have assigned and transferred, and do hereby assign and transfer to the Assignee, its successors and assigns, their entire right, title and interest for the United States in and to the said invention and in and to the said application and all patents which may be granted therefore, and all divisions, reissues, substitutions, continuations, in whole or in part, reexaminations, and extensions thereof, and all applications claiming priority therefrom; and the Assignors hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patents resulting therefrom, insofar as their interest is concerned, to the Assignee; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for which any and all of said Letters Patent for said invention may issue, to the same extent as the Assignors would hold and enjoy if this Assignment had not been made.

The Assignors also have assigned and transferred, and do hereby assign and transfer to the Assignee, its successors and assigns, their entire right, title and interest in and to the invention disclosed in said application, in all countries of the world foreign to the United States, including the right to file applications and obtain patents for said invention in its own name in said countries and including all rights of priority in said countries under the terms of any applicable international convention; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for which any and all of said Letters Patent for said invention may issue, to the same extent as the Assignors would hold and enjoy if this Assignment had not been made.

The Assignors further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights, and also agree, at the request of the Assignee, to testify in any legal proceedings, sign all lawful papers, make all lawful oaths, and generally do everything possible to aid said Assignee, its successors and assigns, to obtain, maintain and enforce patent protection for said invention in all countries.

The Assignors also hereby grant the Patent Law Department of Rohm and Haas Electronic Materials LLC the power to insert on this Assignment any further identification that 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.

IN WITNESS WHEREOF, the Assignors have caused this Assignment to be executed.

Effective from the date of: May 27, 2014.

Signatures

1. Ita laforer, II

Peter TREFONAS, III

reter individual, iii

Ibnokenn PAKK

~7

Jiequan ZHANG

Tackum IOO

Date

08-09-2015

08-05-2015

08/06/2015

# Aug at 2015

### ASSIGNMENT

WHEREAS, I, Kishori DESHPANDE of Lake Jackson, Texas, (hereinafter referred to as "Assignors"), have invented certain new and useful improvements in "NANOSTRUCTURE MATERIAL METHODS AND DEVICES", for which an application for United States Letters Patent with the same title was filed with the United States Patent and Trademark Office on May 27, 2015 and assigned United States Non-Provisional Patent Application Serial No. 14/723/43 , which application corresponds to and claims priority of United States Provisional Application Serial No. 62/003258, filed May 27, 2014 and

WHEREAS, Dow Global Technologies LLC, located at 2040 Dow Center, Midland, Michigan 48674, United States of America, (hereinafter referred to as the "Assignee"), is desirous of acquiring the entire right, title and interest in and to the same invention, and in and to the said application, and any Letters Patent that may issue thereon;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that for the above consideration, the Assignors have assigned and transferred, and do hereby assign and transfer to the Assignee, its successors and assigns, their entire right, title and interest for the United States in and to the said invention and in and to the said application and all patents which may be granted therefore, and all divisions, reissues, substitutions, continuations, in whole or in part, reexaminations, and extensions thereof, and all applications claiming priority therefrom; and the Assignors hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patents resulting therefrom, insofar as their interest is concerned, to the Assignee; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for which any and all of said Letters Patent for said invention may issue, to the same extent as the Assignors would hold and enjoy if this Assignment had not been made.

The Assignors also have assigned and transferred, and do hereby assign and transfer to the Assignee, its successors and assigns, their entire right, title and interest in and to the invention disclosed in said application, in all countries of the world foreign to the United States, including the right to file applications and obtain patents for said invention in its own name in said countries and including all rights of priority in said countries under the terms of any applicable international convention; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for which any and all of said Letters Patent for said invention may issue, to the same extent as the Assignors would hold and enjoy if this Assignment had not been made.

The Assignors further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights, and also agree, at the request of the Assignee, to testify in any legal proceedings, sign all lawful papers, make all lawful oaths, and generally do everything possible to aid said Assignee, its successors and assigns, to obtain, maintain and enforce patent protection for said invention in all countries.

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The Assignors also hereby grant the Patent Law Department of Rohm and Haas Electronic Materials LLC the power to insert on this Assignment any further identification that 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.

IN WITNESS WHEREOF, the Assignors have caused this Assignment to be executed.

Effective from the date of: May 27, 2014.

Signatures

Kishori DESHPANDE

Date

Aug-10, 2015

PATENT REEL: 039190 FRAME: 0965

**RECORDED: 07/19/2016**