

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

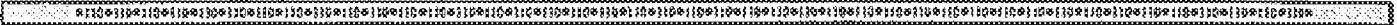
EPAS ID: PAT2946540

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
PHILLIP D. HUSTAD	08/27/2012
XINYU GU	08/24/2012
JEFFREY D. WEINHOLD	08/24/2012
SHIH-WEI CHANG	08/28/2012
PETER TREFONAS	08/27/2012
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	Rohm and Haas Electronic Materials LLC
<b>Street Address:</b>	455 Forest Street
<b>City:</b>	Marlborough
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	01752
<b>Name:</b>	DOW GLOBAL TECHNOLOGIES LLC
<b>Street Address:</b>	2040 DOW CENTER
<b>City:</b>	MIDLAND
<b>State/Country:</b>	MICHIGAN
<b>Postal Code:</b>	48674
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	13547230
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(302)283-2144
<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>	302-456-6622
<b>Email:</b>	pconnell@dow.com
<b>Correspondent Name:</b>	PATRICIA CONNELL
<b>Address Line 1:</b>	451 BELLEVUE ROAD
<b>Address Line 4:</b>	NEWARK, DELAWARE 19713
<b>ATTORNEY DOCKET NUMBER:</b>	73309
<b>NAME OF SUBMITTER:</b>	PATRICIA CONNELL

PATENT

<b>SIGNATURE:</b>	/patricia connell/
<b>DATE SIGNED:</b>	07/21/2014
<b>Total Attachments: 5</b> source=73309AssignmentsExecuted#page1.tif source=73309AssignmentsExecuted#page2.tif source=73309AssignmentsExecuted#page3.tif source=73309AssignmentsExecuted#page4.tif source=73309AssignmentsExecuted#page5.tif	

This Assignment 110 is in the English language and has the same meaning in other languages with the same 110 number and R/Date.



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FORM 110 (R 5/97)

## INDIVIDUAL ASSIGNMENT AND INVENTOR'S DECLARATION

(with Priority Rights)

I/we verily believe I am/we are the original, first and sole/joint inventor(s) of the subject matter which is embraced by and for which a patent is sought on the invention entitled: **Thermal Annealing Process**

which invention was made and invented by me/us out of and in the course of my/our employment with my/our respective employers as stated below my/our name(s). I/we acknowledge that I/we hold the invention and all patent and other rights and powers obtainable or exercisable in respect thereof in trust for our respective employers. As trustee(s), and for good and valuable consideration and/or the remuneration received for my/our work, I/we sell, assign and transfer unto:

Dow Global Technologies LLC  
2640 Dow Center  
Midland, Michigan 48674  
United States of America

a limited liability company organized and existing under the laws of the State of DELAWARE, U.S.A. (hereinafter referred to as the "Assignee"); my/our entire right, title and interest throughout the world, in and to the invention and all rights and powers to make applications, including provisional applications when permitted by law, for Letters Patent in its own name, or in the name of its designee (or nominee(s)); and all rights and powers to file any corresponding or equivalent applications in any and all countries, including all rights to claim priority under all United States domestic laws, International Convention(s) and Treaties in the name of Assignee, and do hereby authorize Assignee or its designee to insert here the Priority Number, Filing Date, and Filing Country

Priority Number	Filing Date	Filing Country
13/547,230	07/12/2012	United States of America

of the application, on which the claim for priority will be based; and in and to any Letters Patent that may be issued for the invention in any and all countries. I/we do hereby agree to assist Assignee in the prosecution of the application(s) and in any interference, conflict, opposition or litigation which may arise involving the invention or the patent or patents thereon, and to execute for any and all countries any document relating to applications derived from, corresponding to or equivalent to the above identified application as Assignee may request.

I/we authorize Assignee or its designee to translate this Assignment into all languages necessary; and we request that any such Letters Patent be issued to Assignee; and consent to the recording of this Assignment, or a Notarial True Copy thereof, being under covenant not only that I/we have full power to make the same, but also that such assigned rights are not encumbered by any grant, license, or other right heretofore given.

Subscribed and Declared by me/us:

At: <u>Freeport, Texas</u>
this <u>27</u> day of <u>August</u> , 20 <u>12</u>
Effective as of <u>July 12, 2012</u>
Signature:
Full Name: <u>Phillip D. Hugad</u>
Residence: <u>3618 Rose Water Ct.</u> <u>Manvel, TX 77578</u>
Country: <u>United States of America</u>
Citizenship: <u>United States of America</u>
P.O. Address:
Employed By: <u>The Dow Chemical Company</u>
Of Country:

At: _____
this _____ day of _____, 20 <u>12</u>
Effective as of <u>July 12, 2012</u>
Signature: _____
Full Name: <u>Jeffrey D. Weinhold</u>
Residence: <u>110 Zinnia</u> <u>Lake Jackson, TX 77566</u>
Country: <u>United States of America</u>
Citizenship: <u>United States of America</u>
P.O. Address:
Employed By: <u>The Dow Chemical Company</u>
Of Country:

At: _____
this _____ day of _____, 20 <u>12</u>
Effective as of <u>July 12, 2012</u>
Signature: _____
Full Name: <u>Xinyu Gu</u>
Residence: <u>127 Plantation Dr. W 1602</u> <u>Lake Jackson, TX 77566</u>
Country: <u>United States of America</u>
Citizenship: <u>China</u>
P.O. Address:
Employed By: <u>The Dow Chemical Company</u>
Of Country:

At: _____
this _____ day of _____, 20 <u>12</u>
Effective as of _____
Signature: _____
Full Name: _____
Residence: _____
Country: _____
Citizenship: _____
P.O. Address: _____
Employed By: _____
Of Country: _____

( ) Additional names and signatures are attached.



This Assignment 110 is in the English language and for use printing in the English language in the case of 110 numbers and 117 lines  
 This Assignment 110 is in the English language and for use printing in the English language in the case of 110 numbers and 117 lines  
 FORM 110 (10-5-97)

## INDIVIDUAL ASSIGNMENT AND INVENTOR'S DECLARATION (with Priority Rights)

I/we verify believe I am/we are the original, first and sole/joint inventor(s) of the subject matter which is embraced by and for which a patent is sought on the invention entitled: **Thermal Annealing Process**

which invention was made and invented by me/us out of and in the course of my/our employment with my/our respective employers as stated below my/our name(s). I/we acknowledge that I/we hold the invention and all patent and other rights and powers obtainable or exercisable in respect thereof in trust for our respective employers. As trustee(s), and for good and valuable consideration and/or the remuneration received for my/our work, I/we sell, assign and transfer unto:

Dow Global Technologies LLC  
 2040 Dow Center  
 Midland, Michigan 48674  
 United States of America

a limited liability company organized and existing under the laws of the State of DELAWARE, U.S.A. hereinafter referred to as the "Assignee"; my/our entire right, title and interest throughout the world, in and to the invention and all rights and powers to make applications, including provisional applications when permitted by law, for Letters Patent in its own name, or in the name of its designee (or nominees); and all rights and powers to file any corresponding or equivalent applications in any and all countries, including all rights to claim priority under all United States domestic laws, International Convention(s) and Treaties in the name of Assignee, and do hereby authorize Assignee or its designee to insert here the Priority Number, Filing Date, and Filing Country

Priority Number	Filing Date	Filing Country
13547,230	07/12/2012	United States of America

of the application, on which the claim for priority will be based; and in and to any Letters Patent that may be issued for the invention in any and all countries. I/we do hereby agree to assist Assignee in the prosecution of the application(s) and in any interference, conflict, opposition or litigation which may arise involving the invention or the patent or patents thereon, and to execute for any and all countries any document relating to applications derived from, corresponding to or equivalent to the above identified application as Assignee may request.

I/we authorize Assignee or its designee to translate this Assignment into all languages necessary, and we request that any such Letters Patent be issued to Assignee, and consent to the recording of this Assignment, or a Notarial True Copy thereof, being under covenant not only that I/we have full power to make the same, but also that such assigned rights are not encumbered by any grant, license, or other right heretofore given.

Subscribed and Declared by me/us:

At: \_\_\_\_\_  
 this \_\_\_\_\_ day of \_\_\_\_\_, 20 12  
 Effective as of July 12, 2012

Signature: \_\_\_\_\_  
 Full Name: Phillip D. Hustad  
 Residence: 3618 Rose Water Ct.  
 Manvel, TX 77578  
 Country: United States of America  
 Citizenship: United States of America  
 P.O. Address: \_\_\_\_\_  
 Employed By: The Dow Chemical Company  
 Of Country: \_\_\_\_\_

At: Freeport, TX  
 this 21st day of August, 20 12  
 Effective as of July 12, 2012

Signature: Jeffrey D. Weisbold  
 Full Name: Jeffrey D. Weisbold  
 Residence: 110 Zimola  
 Lake Jackson, TX 77566  
 Country: United States of America  
 Citizenship: United States of America  
 P.O. Address: \_\_\_\_\_  
 Employed By: The Dow Chemical Company  
 Of Country: \_\_\_\_\_

At: \_\_\_\_\_  
 this \_\_\_\_\_ day of \_\_\_\_\_, 20 12  
 Effective as of July 12, 2012

Signature: \_\_\_\_\_  
 Full Name: Xinyu Gu  
 Residence: 127 Plantation Dr. W 1602  
 Lake Jackson, TX 77566  
 Country: United States of America  
 Citizenship: China  
 P.O. Address: \_\_\_\_\_  
 Employed By: The Dow Chemical Company  
 Of Country: \_\_\_\_\_

At: \_\_\_\_\_  
 this \_\_\_\_\_ day of \_\_\_\_\_, 20 12  
 Effective as of \_\_\_\_\_

Signature: \_\_\_\_\_  
 Full Name: \_\_\_\_\_  
 Residence: \_\_\_\_\_  
 Country: \_\_\_\_\_  
 Citizenship: \_\_\_\_\_  
 P.O. Address: \_\_\_\_\_  
 Employed By: \_\_\_\_\_  
 Of Country: \_\_\_\_\_

( ) Additional names and signatures are attached.

ASSIGNMENT

WHEREAS, I, Shih-Wei Chang of Natick, Massachusetts; and I, Peter Trefonas of Medway, Massachusetts; (hereinafter referred to as "Assignors"), have invented certain new and useful improvements in "Thermal Annealing Process", for which an application for United States Letters Patent with the same title was filed with the United States Patent and Trademark Office on July 12, 2012 and assigned United States Non-Provisional Patent Application Serial No. 13/547,230; 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, re-examinations, 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.

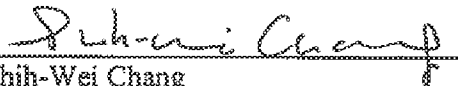
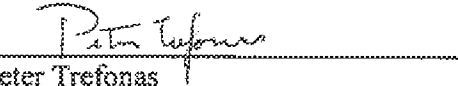
The Assignors also have assigned and transferred, and do hereby assign and transfer to the Assignee, its successors and assigns, their entire right, title and interest in and to the invention disclosed in said application, in all countries of the world foreign to the United States, including the right 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:

	Signatures	Date
1.	 Shih-Wei Chang	<u>8/28/2012</u>
2.	 Peter Trefonas	<u>29 August 2012</u>