

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Gerard M. Schmid</td> <td>02/05/2013</td> </tr> <tr> <td>Richard A. Farrell</td> <td>02/04/2013</td> </tr> <tr> <td>Ji Xu</td> <td>02/04/2013</td> </tr> <tr> <td>Jason R. Cantone</td> <td>02/04/2013</td> </tr> <tr> <td>Moshe E. Preil</td> <td>02/04/2013</td> </tr> </tbody> </table>		Name	Execution Date	Gerard M. Schmid	02/05/2013	Richard A. Farrell	02/04/2013	Ji Xu	02/04/2013	Jason R. Cantone	02/04/2013	Moshe E. Preil	02/04/2013
Name	Execution Date												
Gerard M. Schmid	02/05/2013												
Richard A. Farrell	02/04/2013												
Ji Xu	02/04/2013												
Jason R. Cantone	02/04/2013												
Moshe E. Preil	02/04/2013												
RECEIVING PARTY DATA													
<table border="1"> <tr> <td>Name:</td> <td>GLOBALFOUNDRIES Inc.</td> </tr> <tr> <td>Street Address:</td> <td>Maples Corporate Services Limited</td> </tr> <tr> <td>Internal Address:</td> <td>PO Box 309, Ugland House</td> </tr> <tr> <td>City:</td> <td>Grand Cayman</td> </tr> <tr> <td>State/Country:</td> <td>CAYMAN ISLANDS</td> </tr> <tr> <td>Postal Code:</td> <td>KY1-1104</td> </tr> </table>		Name:	GLOBALFOUNDRIES Inc.	Street Address:	Maples Corporate Services Limited	Internal Address:	PO Box 309, Ugland House	City:	Grand Cayman	State/Country:	CAYMAN ISLANDS	Postal Code:	KY1-1104
Name:	GLOBALFOUNDRIES Inc.												
Street Address:	Maples Corporate Services Limited												
Internal Address:	PO Box 309, Ugland House												
City:	Grand Cayman												
State/Country:	CAYMAN ISLANDS												
Postal Code:	KY1-1104												
PROPERTY NUMBERS Total: 1													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13764051</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13764051								
Property Type	Number												
Application Number:	13764051												
CORRESPONDENCE DATA													
Fax Number: 7139347011 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i> Phone: 7139344055 Email: mpaul@wmalaw.com Correspondent Name: J. Mike Amerson Address Line 1: 10333 Richmond, Suite 1100 Address Line 4: Houston, TEXAS 77042													
ATTORNEY DOCKET NUMBER:	2162.223000												
NAME OF SUBMITTER:	J. Mike Amerson												

CH \$40.00 13764051

This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 5

source=Declaration_and_Assignment#page1.tif

source=Declaration_and_Assignment#page2.tif

source=Declaration_and_Assignment#page3.tif

source=Declaration_and_Assignment#page4.tif

source=Declaration_and_Assignment#page5.tif

**COMBINED DECLARATION and ASSIGNMENT (37 CFR 1.63) FOR UTILITY OR DESIGN
APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)**

**Title of
Invention**

CHEMICAL AND PHYSICAL TEMPLATES FOR FORMING PATTERNS USING DIRECTED SELF-
ASSEMBLY MATERIALS

DECLARATION

As the below named inventor, I hereby declare that:

This declaration
is directed to:



The attached application, or



United States application or PCT international application number _____ filed on

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 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 have reviewed and understand the contents of the application and am aware of the duty to disclose to the US Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR § 1.56.

ASSIGNMENT

For good and valuable consideration, the receipt, sufficiency and adequacy of which are hereby acknowledged, I hereby sell, assign, transfer, to GLOBALFOUNDRIES Inc. having a business address of PO Box 309, Ugland House, Grand Cayman KY1-1104 its successors and assigns, absolutely and forever, my entire right, title and interest in and to the invention listed above, together with the Application, any and all Patents that may issue in the United States and/or any foreign countries, and any reissues, re-examinations, renewals, continuations, continuation-in-parts, divisionals or extensions thereof that may be issued or granted, and all right, title and interest to the inventions contained in said Patents and Applications, for the United States and all foreign countries, and all the rights and privileges relating thereto including but not limited to the priority rights arising from said Applications, the right to recover and take all such proceedings as may be necessary for the recovery of damages or otherwise in respect of past, present and future infringement, and the right to apply for, take and maintain patents on said inventions.

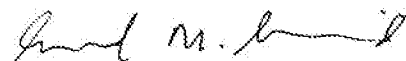
If any portion of this Combined Declaration or Assignment is held unenforceable, then remaining portions hereof shall nevertheless remain in full force and effect.

LEGAL NAME OF INVENTOR

Inventor: GERARD M. SCHMID

Date: 2/5/2013

Signature:



Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form.
Use an additional form for each additional inventor.

PATENT

REEL: 029789 FRAME: 0633

**COMBINED DECLARATION and ASSIGNMENT (37 CFR 1.63) FOR UTILITY OR DESIGN
APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)**

**Title of
Invention**

CHEMICAL AND PHYSICAL TEMPLATES FOR FORMING PATTERNS USING DIRECTED SELF-
ASSEMBLY MATERIALS

DECLARATION

As the below named inventor, I hereby declare that:

This declaration
is directed to:



The attached application, or



United States application or PCT international application number _____ filed on

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 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 have reviewed and understand the contents of the application and am aware of the duty to disclose to the US Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR § 1.56.

ASSIGNMENT

For good and valuable consideration, the receipt, sufficiency and adequacy of which are hereby acknowledged, I hereby sell, assign, transfer, to GLOBALFOUNDRIES Inc. having a business address of PO Box 309, Ugland House, Grand Cayman KY1-1104 its successors and assigns, absolutely and forever, my entire right, title and interest in and to the invention listed above, together with the Application, any and all Patents that may issue in the United States and/or any foreign countries, and any reissues, re-examinations, renewals, continuations, continuation-in-parts, divisionals or extensions thereof that may be issued or granted, and all right, title and interest to the inventions contained in said Patents and Applications, for the United States and all foreign countries, and all the rights and privileges relating thereto including but not limited to the priority rights arising from said Applications, the right to recover and take all such proceedings as may be necessary for the recovery of damages or otherwise in respect of past, present and future infringement, and the right to apply for, take and maintain patents on said inventions.

If any portion of this Combined Declaration or Assignment is held unenforceable, then remaining portions hereof shall nevertheless remain in full force and effect.

LEGAL NAME OF INVENTOR

Inventor: RICHARD A. FARRELL

Date :

02/04/2013

Signature: *Richard A. Farrell*

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional form for each additional inventor.

PATENT

REEL: 029789 FRAME: 0634

**COMBINED DECLARATION and ASSIGNMENT (37 CFR 1.63) FOR UTILITY OR DESIGN
APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)**

**Title of
Invention**

CHEMICAL AND PHYSICAL TEMPLATES FOR FORMING PATTERNS USING DIRECTED SELF-
ASSEMBLY MATERIALS

DECLARATION

As the below named inventor, I hereby declare that:

This declaration
is directed to:



The attached application, or



United States application or PCT international application number _____ filed on

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 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 have reviewed and understand the contents of the application and am aware of the duty to disclose to the US Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR § 1.56.

ASSIGNMENT

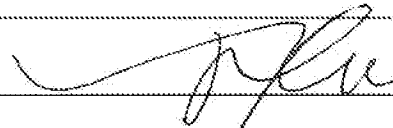
For good and valuable consideration, the receipt, sufficiency and adequacy of which are hereby acknowledged, I hereby sell, assign, transfer, to GLOBALFOUNDRIES Inc. having a business address of PO Box 309, Ugland House, Grand Cayman KY1-1104 its successors and assigns, absolutely and forever, my entire right, title and interest in and to the invention listed above, together with the Application, any and all Patents that may issue in the United States and/or any foreign countries, and any reissues, re-examinations, renewals, continuations, continuation-in-parts, divisionals or extensions thereof that may be issued or granted, and all right, title and interest to the inventions contained in said Patents and Applications, for the United States and all foreign countries, and all the rights and privileges relating thereto including but not limited to the priority rights arising from said Applications, the right to recover and take all such proceedings as may be necessary for the recovery of damages or otherwise in respect of past, present and future infringement, and the right to apply for, take and maintain patents on said inventions.

If any portion of this Combined Declaration or Assignment is held unenforceable, then remaining portions hereof shall nevertheless remain in full force and effect.

LEGAL NAME OF INVENTOR

Inventor: JI XU

Date: 2/4/13

Signature: 

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional form for each additional inventor.

PATENT

REEL: 029789 FRAME: 0635

**COMBINED DECLARATION and ASSIGNMENT (37 CFR 1.63) FOR UTILITY OR DESIGN
APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)**

**Title of
Invention**

CHEMICAL AND PHYSICAL TEMPLATES FOR FORMING PATTERNS USING DIRECTED SELF-
ASSEMBLY MATERIALS

DECLARATION

As the below named inventor, I hereby declare that:

This declaration
is directed to:



The attached application, or



United States application or PCT international application number _____ filed on

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 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 have reviewed and understand the contents of the application and am aware of the duty to disclose to the US Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR § 1.56.

ASSIGNMENT

For good and valuable consideration, the receipt, sufficiency and adequacy of which are hereby acknowledged, I hereby sell, assign, transfer, to GLOBALFOUNDRIES Inc. having a business address of PO Box 309, Ugland House, Grand Cayman KY1-1104 its successors and assigns, absolutely and forever, my entire right, title and interest in and to the invention listed above, together with the Application, any and all Patents that may issue in the United States and/or any foreign countries, and any reissues, re-examinations, renewals, continuations, continuation-in-parts, divisionals or extensions thereof that may be issued or granted, and all right, title and interest to the inventions contained in said Patents and Applications, for the United States and all foreign countries, and all the rights and privileges relating thereto including but not limited to the priority rights arising from said Applications, the right to recover and take all such proceedings as may be necessary for the recovery of damages or otherwise in respect of past, present and future infringement, and the right to apply for, take and maintain patents on said inventions.

If any portion of this Combined Declaration or Assignment is held unenforceable, then remaining portions hereof shall nevertheless remain in full force and effect.

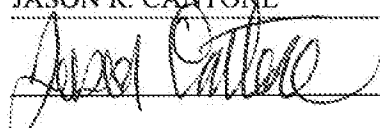
LEGAL NAME OF INVENTOR

Inventor: JASON R. CANTONE

Date:

2-4-13

Signature:



Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form.
Use an additional form for each additional inventor.

PATENT

REEL: 029789 FRAME: 0636

**COMBINED DECLARATION and ASSIGNMENT (37 CFR 1.63) FOR UTILITY OR DESIGN
APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)**

Title of Invention	CHEMICAL AND PHYSICAL TEMPLATES FOR FORMING PATTERNS USING DIRECTED SELF-ASSEMBLY MATERIALS
-------------------------------	---

DECLARATION

As the below named inventor, I hereby declare that:

This declaration is directed to: ☒ The attached application, or

☐ United States application or PCT international application number _____ filed on _____

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 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 have reviewed and understand the contents of the application and am aware of the duty to disclose to the US Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR § 1.56.

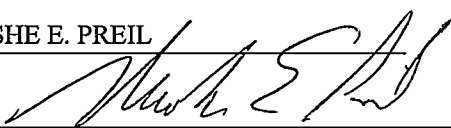
ASSIGNMENT

For good and valuable consideration, the receipt, sufficiency and adequacy of which are hereby acknowledged, I hereby sell, assign, transfer, to GLOBALFOUNDRIES Inc. having a business address of PO Box 309, Ugland House, Grand Cayman KY1-1104 its successors and assigns, absolutely and forever, my entire right, title and interest in and to the invention listed above, together with the Application, any and all Patents that may issue in the United States and/or any foreign countries, and any reissues, re-examinations, renewals, continuations, continuation-in-parts, divisionals or extensions thereof that may be issued or granted, and all right, title and interest to the inventions contained in said Patents and Applications, for the United States and all foreign countries, and all the rights and privileges relating thereto including but not limited to the priority rights arising from said Applications, the right to recover and take all such proceedings as may be necessary for the recovery of damages or otherwise in respect of past, present and future infringement, and the right to apply for, take and maintain patents on said inventions.

If any portion of this Combined Declaration or Assignment is held unenforceable, then remaining portions hereof shall nevertheless remain in full force and effect.

LEGAL NAME OF INVENTOR

Inventor: MOSHE E. PREIL Date: 2/4/13

Signature: 

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional form for each additional inventor.

PATENT

RECORDED: 02/11/2013

REEL: 029789 FRAME: 0637