

# PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT												
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT												
<b>CONVEYING PARTY DATA</b>													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Name</th> <th style="width: 30%;">Execution Date</th> </tr> </thead> <tbody> <tr> <td>Jon Henri</td> <td>11/15/2006</td> </tr> <tr> <td>Xingyuan Tang</td> <td>11/15/2006</td> </tr> <tr> <td>Jason Tian</td> <td>04/24/2007</td> </tr> <tr> <td>Kevin Gerber</td> <td>11/15/2006</td> </tr> <tr> <td>Arul Dhas</td> <td>11/15/2006</td> </tr> </tbody> </table>		Name	Execution Date	Jon Henri	11/15/2006	Xingyuan Tang	11/15/2006	Jason Tian	04/24/2007	Kevin Gerber	11/15/2006	Arul Dhas	11/15/2006
Name	Execution Date												
Jon Henri	11/15/2006												
Xingyuan Tang	11/15/2006												
Jason Tian	04/24/2007												
Kevin Gerber	11/15/2006												
Arul Dhas	11/15/2006												
<b>RECEIVING PARTY DATA</b>													
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;"><b>Name:</b></td> <td>Novellus Systems, Inc.</td> </tr> <tr> <td><b>Street Address:</b></td> <td>3970 North First Street</td> </tr> <tr> <td><b>City:</b></td> <td>San Jose</td> </tr> <tr> <td><b>State/Country:</b></td> <td>CALIFORNIA</td> </tr> <tr> <td><b>Postal Code:</b></td> <td>95134</td> </tr> </table>		<b>Name:</b>	Novellus Systems, Inc.	<b>Street Address:</b>	3970 North First Street	<b>City:</b>	San Jose	<b>State/Country:</b>	CALIFORNIA	<b>Postal Code:</b>	95134		
<b>Name:</b>	Novellus Systems, Inc.												
<b>Street Address:</b>	3970 North First Street												
<b>City:</b>	San Jose												
<b>State/Country:</b>	CALIFORNIA												
<b>Postal Code:</b>	95134												
<b>PROPERTY NUMBERS Total: 1</b>													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Property Type</th> <th style="width: 70%;">Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12723504</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	12723504								
Property Type	Number												
Application Number:	12723504												
<b>CORRESPONDENCE DATA</b>													
<p>Fax Number: (510)663-0920</p> <p><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 5106631100</p> <p>Email: lervin@wavsip.com</p> <p>Correspondent Name: Denise Bergin/WAVS LLP</p> <p>Address Line 1: P.O. Box 70250</p> <p>Address Line 4: Oakland, CALIFORNIA 94612-0250</p>													
<b>ATTORNEY DOCKET NUMBER:</b>	NOVLP193D1/NVLS003234D1												
<b>NAME OF SUBMITTER:</b>	Denise Bergin												

CH \$40.00 12723504

501118331

**PATENT**  
**REEL: 024076 FRAME: 0052**

**Total Attachments: 6**

source=NOVLP193D1\_NVLS3234\_Assignment#page1.tif

source=NOVLP193D1\_NVLS3234\_Assignment#page2.tif

source=NOVLP193D1\_NVLS3234\_Assignment#page3.tif

source=NOVLP193D1\_NVLS3234\_Assignment#page4.tif

source=NOVLP193D1\_NVLS3234\_Assignment#page5.tif

source=NOVLP193D1\_NVLS3234\_Assignment#page6.tif

## ASSIGNMENT OF PATENT APPLICATION

Whereas I, an undersigned inventor, have invented certain new and useful improvements as set forth in the patent application entitled:

### METHOD OF ELIMINATING SMALL BIN DEFECTS IN HIGH THROUGHPUT TEOS FILMS

(Atty. Docket No. NOVLP193/NVLS-3234), (check one)

- ☒ for which I have executed a U.S. patent application on even date herewith. (Accompanying)  
☐ which bears U.S. application No. \_\_\_\_\_. (Not accompanying)  
☐ which is a U.S. provisional application. (Accompanying)

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, an undersigned inventor, hereby:

- 1) Sell, assign and transfer to Novellus Systems, Inc., a California corporation having a place of business at 3970 North First Street, San Jose, California 95134 ("ASSIGNEE"), the entire right, title and interest in any and all improvements and inventions disclosed in, applications based upon, and patents granted upon (including foreign patents and the right to claim priority), the above-referenced application.
- 2) Authorize and request the Commissioner of Patents to issue any and all United States Patents resulting from said application or any division, continuation, substitute, renewal, re-examination or reissue thereof to the ASSIGNEE.
- 3) Agree to execute all papers and documents and, entirely at the ASSIGNEE's expense, perform any acts which are reasonably necessary in connection with the prosecution of said application, as well as any derivative applications thereof, foreign applications based thereon, and/or the enforcement of patents resulting from such applications.
- 4) Agree that the terms, covenants and conditions of this assignment shall inure to the benefit of the ASSIGNEE, its successors, assigns and other legal representatives, and shall be binding upon the inventor, as well as the inventor's heirs, legal representatives and assigns.
- 5) Warrant and represent that I have not entered and will not enter into any assignment, contract or understanding that conflicts with this assignment.
- 6) Authorize and request my attorney/agent to insert above the application No. in order to assist with recordal of this assignment.

Signed on the date indicated beside my signature.

1. Inventor Signature: Jon Henri  
Jon Henri

Date: 11/15/06

State of Oregon )  
County of Washington ) ss.

On this 15<sup>th</sup> day of November, in the year 2006, before me, Laura L. Johnson, Notary Public, personally appeared Jon Henri, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed the same in his/her authorized capacity(ies), and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Notary Signature Laura L. Johnson



2. Inventor Signature: Xingyuan Tang  
Xingyuan Tang

Date: 11/15/06

State of Oregon )  
County of Washington ) ss.

On this 15<sup>th</sup> day of November, in the year 2006, before me, Laura L. Johnson, Notary Public personally appeared Xingyuan Tang, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed the same in his/her authorized capacity(ies), and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Notary Signature Laura L. Johnson



3. Inventor Signature: Jason Tian  
Jason Tian

Date: 11/26/2006

State of Oregon )  
County of \_\_\_\_\_ ) ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, in the year 2006, before me, \_\_\_\_\_, Notary Public personally appeared Jason Tian, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed the same in his/her authorized capacity(ies), and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Notary Signature \_\_\_\_\_

(SEAL)

Revised 01/02, Assign US Notary

4. Inventor Signature:

Kevin Gerber

Date:

11/15/06

State of Oregon

County of

Washington

ss.

On this 15<sup>th</sup> day of November, in the year 2006, before me, Laura L. Johnson Notary Public personally appeared Kevin Gerber, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed the same in his/her authorized capacity(ies), and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Notary Signature

Laura L. Johnson



5. Inventor Signature:

Arul N. Dhas

Date:

11/15/06

State of Oregon

County of

Washington

ss.

On this 15<sup>th</sup> day of November, in the year 2006, before me, Laura L. Johnson Notary Public personally appeared Arul N. Dhas, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed the same in his/her authorized capacity(ies), and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Notary Signature

Laura L. Johnson



## ASSIGNMENT OF PATENT APPLICATION

Whereas I, an undersigned inventor, have invented certain new and useful improvements as set forth in the patent application entitled:

### METHOD OF ELIMINATING SMALL BIN DEFECTS IN HIGH THROUGHPUT TEOS FILMS

(Atty. Docket No. NOVLP193/NVLS-3234), (check one)

- ☐ for which I have executed a U.S. patent application on even date herewith. (Accompanying)  
☒ which bears U.S. application No. 11/602,564 . (Not accompanying)  
☐ which is a U.S. provisional application. (Accompanying)

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, an undersigned inventor, hereby:

- 1) Sell, assign and transfer to **Novellus Systems, Inc.**, a California corporation having a place of business at 3970 North First Street, San Jose, California 95134 ("ASSIGNEE"), the entire right, title and interest in any and all improvements and inventions disclosed in, applications based upon, and patents granted upon (including foreign patents and the right to claim priority), the above-referenced application.
- 2) Authorize and request the Commissioner of Patents to issue any and all United States Patents resulting from said application or any division, continuation, substitute, renewal, re-examination or reissue thereof to the ASSIGNEE.
- 3) Agree to execute all papers and documents and, entirely at the ASSIGNEE's expense, perform any acts which are reasonably necessary in connection with the prosecution of said application, as well as any derivative applications thereof, foreign applications based thereon, and/or the enforcement of patents resulting from such applications.
- 4) Agree that the terms, covenants and conditions of this assignment shall inure to the benefit of the ASSIGNEE, its successors, assigns and other legal representatives, and shall be binding upon the inventor, as well as the inventor's heirs, legal representatives and assigns.
- 5) Warrant and represent that I have not entered and will not enter into any assignment, contract, or understanding that conflicts with this assignment.
- 6) Authorize and request my attorney/agent to insert above the application No. in order to assist with recordal of this assignment.

Signed on the date indicated beside my signature.

1. Inventor Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Jon Henri

State of Oregon )  
 )  
County of \_\_\_\_\_ ) ss.

On this \_\_\_\_ day of \_\_\_\_\_, in the year 2006, before me, \_\_\_\_\_, Notary Public, personally appeared Jon Henri, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed the same in his/her authorized capacity(ies), and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Notary Signature \_\_\_\_\_ (SEAL)

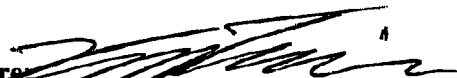
2. Inventor Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Xingyuan Tang

State of Oregon )  
 )  
County of \_\_\_\_\_ ) ss.

On this \_\_\_\_ day of \_\_\_\_\_, in the year 2006, before me, \_\_\_\_\_, Notary Public personally appeared Xingyuan Tang, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed the same in his/her authorized capacity(ies), and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Notary Signature \_\_\_\_\_ (SEAL)

3. Inventor Signature:  Date: 4/24/2007  
Jason Tian

State of Oregon )  
 )  
County of \_\_\_\_\_ ) ss.

On this \_\_\_\_ day of \_\_\_\_\_, in the year 2006, before me, \_\_\_\_\_, Notary Public personally appeared Jason Tian, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed the same in his/her authorized capacity(ies), and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Notary Signature \_\_\_\_\_ (SEAL)

4. Inventor Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Kevin Gerber

State of Oregon )  
 )  
County of \_\_\_\_\_ ) ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, in the year 2006, before me, \_\_\_\_\_, Notary Public personally appeared Kevin Gerber, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed the same in his/her authorized capacity(ies), and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Notary Signature \_\_\_\_\_ (SEAL)

5. Inventor Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Arul N. Dhas

State of Oregon )  
 )  
County of \_\_\_\_\_ ) ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, in the year 2006, before me, \_\_\_\_\_, Notary Public personally appeared Arul N. Dhas, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed the same in his/her authorized capacity(ies), and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Notary Signature \_\_\_\_\_ (SEAL)