

**ASSIGNMENT RECORDATION COVER SHEET  
-PATENTS ONLY-**

Commissioner of Patents:

Please record the attached document.

1. Name of conveying party:

- a) Chi-I Lang
- b) Judy H. Huang
- c) Michael Barnes
- d) Sunil Shanker

2. Name and address of receiving party:

- a) Name: Novellus Systems, Inc.
- Address: 3970 North First Street  
San Jose, California 95134

3. Nature of conveyance:

- |                                     |                    |                          |                   |
|-------------------------------------|--------------------|--------------------------|-------------------|
| <input checked="" type="checkbox"/> | Assignment         | <input type="checkbox"/> | Merger            |
| <input type="checkbox"/>            | Security Agreement | <input type="checkbox"/> | Change of Name    |
| <input type="checkbox"/>            | Other _____        | <input type="checkbox"/> | License Agreement |

Execution Date:

- a) February 8, 2006
- b) February 8, 2006
- c) May 9, 2006
- d) February 8, 2006

4. Application Number or Patent Number: 11/323,812

The title of the application is: CVD FLOWABLE GAP FILL

5. Please send all correspondence concerning this document to:

**Beyer Weaver & Thomas, LLP**  
**P.O. Box 70250**  
**Oakland, CA 94612-0250**  
**Customer Number: 022434**

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41): \$40.00

- Enclosed.
- Charge to Deposit Account No. 500388 (Order No. NOVLP143).
- Any additional fees are authorized to be charged to Deposit Account No. 500388 (Order No. NOVLP143).

Date: June 12, 2006

*Denise Bergin*  
 \_\_\_\_\_  
 Denise S. Bergin  
 Registration No. 50,581

Total number of pages including this cover sheet, attachments and documents: 7

Attorney Docket No. NOVLP143/NVLS-3099

**PATENT**

700270009

REEL: 017778 FRAME: 0593

CH \$40.00 500388 11323812

## ASSIGNMENT OF PATENT APPLICATION

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

### CVD FLOWABLE GAP FILL

(Atty. Docket No. NOVLP143/NVLS-3099), (check one)

- for which I have executed a U.S. patent application on even date herewith. (Accompanying)  
 which bears U.S. application No.11/323,812. (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: Chi-I Lang  
Chi-I Lang

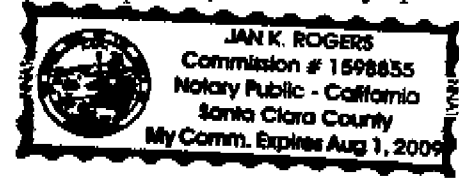
Date: 02/08/06

State of California )  
County of SANTA CLARA ) ss.

On this 8th day of FEBRUARY, in the year 2006, before me, JAN K. ROGERS, Notary Public, personally appeared Chi-I Lang, 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 JAN K. ROGERS



2. Inventor Signature: Judy H. Huang  
Judy H. Huang

Date: 2/08/06

State of California )  
County of SANTA CLARA ) ss.

On this 8th day of FEBRUARY, in the year 2006, before me, JAN K. ROGERS, Notary Public, personally appeared Judy H. Huang, 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 JAN K. ROGERS



3. Inventor Signature: \_\_\_\_\_  
Michael Barnes

Date: \_\_\_\_\_

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

On this \_\_\_\_\_ day of \_\_\_\_\_, in the year 2006, before me, \_\_\_\_\_, Notary Public, personally appeared Michael Barnes, 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 \_\_\_\_\_

*Sunil Shanker*

4. Inventor Signature: \_\_\_\_\_

Date: 02/08/2006

Sunil Shanker

State of California )

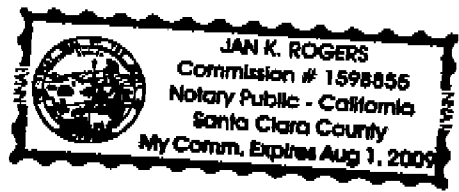
County of (SANTA CLARA) )

ss.

On this 8th day of FEBRUARY, in the year 2006, before me, JAN K. ROGERS, Notary Public, personally appeared Sunil Shanker, ~~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 *JAN K. ROGERS*



## ASSIGNMENT OF PATENT APPLICATION

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

### CVD FLOWABLE GAP FILL

(Atty. Docket No. NOVLP143/NVLS-3099), (check one)

- for which I have executed a U.S. patent application on even date herewith. (Accompanying)  
 which bears U.S. application No.11/323,812. (Not accompanying)  
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- 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:** \_\_\_\_\_

Chi-I Lang

State of California )

County of \_\_\_\_\_ )

ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, in the year 2006, before me, \_\_\_\_\_, Notary Public, personally appeared Chi-I Lang, 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 \_\_\_\_\_

2. **Inventor Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Judy H. Huang

State of California )

County of \_\_\_\_\_ )

ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, in the year 2006, before me, \_\_\_\_\_, Notary Public, personally appeared Judy H. Huang, 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 \_\_\_\_\_

3. **Inventor Signature:** \_\_\_\_\_ **Date:** 5/9/06

Michael Barnes

State of California )

County of \_\_\_\_\_ )

ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, in the year 2006, before me, \_\_\_\_\_, Notary Public, personally appeared Michael Barnes, 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 \_\_\_\_\_

4. **Inventor Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Sunil Shanker

State of California )

) ss.

County of \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, in the year 2006, before me, \_\_\_\_\_, Notary Public, personally appeared Sunil Shanker, 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 \_\_\_\_\_