PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

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

RECEIVING PARTY DATA

Name:	Novellus Systems, Inc.
Street Address:	3970 North First Street
City:	San Jose
State/Country:	CALIFORNIA
Postal Code:	95134

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12723504

CORRESPONDENCE DATA

(510)663-0920 Fax Number:

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

5106631100 Phone: Email: lervin@wavsip.com Correspondent Name: Denise Bergin/WAVS LLP

Address Line 1: P.O. Box 70250

Address Line 4: Oakland, CALIFORNIA 94612-0250

ATTORNEY DOCKET NUMBER:	NOVLP193D1/NVLS003234D1
NAME OF SUBMITTER:	Denise Bergin

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

PATENT REEL: 024076 FRAME: 0053

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

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.

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

Revised 01/02, Assign US Notary

1. Inventor Signature: Date: Date:
State of Oregon)
County of County
On this Shaper day of Market 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 Authority Public OFFICIAL SEAL LAURA L JOHNSON NOTARY PUBLIC OREGON NOTARY PUBLIC OREGON MISSION NO. 408918 MY COMMISSION EXPIRES AUG. 18, 2010
2. Inventor Signature: Xingyuan Tang Date: 11/15/06
State of Oregon
County of washington ss.
On this of day of 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 anthorized 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 Aura (Johnson Notary Public - OREGON Signature Aura (Jo
3. Inventor Signature: Date: Date:
Jason Tian
State of Oregon)
County of
On this day of, in the year 2006, before me,
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

PATENT REEL: 024076 FRAME: 0055

4. Inventor Signature: Kevin Gerber Date: 11/15/04
State of Oregon County of Ss.
On this day of Notary Public personally appeared Kevin Gerber, personally known to me (or proved to me on the bisis 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 OFFICIAL SEAL LAURAL L JOHNSON NOTARY PUBLIC - OREGON SE COMMISSION NO. 408918 MY COMMISSION EXPIRES AUG. 19, 2010
5. Inventor Signature: Date: Date:
State of Oregon
County of Washington ss.
On this day of Derber, in the year 2006, before me, 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 Commission No. 408918 NOTARY PUBLIC - OREGON COMMISSION NO. 408918 NY COMMISSION EXPIRES AUG., 18, 2010

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 cknowledged, 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.

NOVLP193/NVLS-3234

1. Inventor Signature:				[)ate:		
Jo	on Henri						
State of Oregon)	SS.				
County of)					
	. Notary I	ublic, pe	rsonally a	appeared	Jon H	year 2006, before m Ienri, personally known	LU
me (or proved to me on the to the within instrument, authorized capacity(ies), an behalf of which the person WITNESS my hand	basis of satis and acknow d that by his/l acted, execute	factory ev ledged to ner signated the inst	ridence) to me that ure on the	o be the p it he/she	person : exect	whose name is subscribe uted the same in his/h	er
Notary Signature				<u> </u>		(\$8.4L)	
2. Inventor Signature:	Kingyuan Tang]	Date:		
	cingyoun rang	1					
State of Oregon)	SS.				
County of)					
On this	day of	Public	nersonally	, in	the	year 2006, before m ingyuan Tang, personal	ie, llv
known to me (or proved to subscribed to the within his/her authorized capacity entity upon behalf of which WITNESS my hand	o me on the bainstrument, and that y(ies), and that the person a	sis of sat nd acknow nt by his/ cted, exec	isfactory wledged her signa	evidence to me th ture on (to be the he/ the ins	the person whose name she executed the same	is in
Notary Signature						(E) (A)	
3. Inventor Signature	Jason Tian	m		<u>-</u>	Date:	4/24/2007	
State of Oregon)	SS.				
County of		نـــ					
	. Notary	Public pe	rsonally a	appeared	Jason	year 2006, before n Tian, personally known	ŧΟ
me (or proved to me on the	e basis of satis	sfactory e	vidence) to me th	to be the at he/sh	persor e exec	n whose name is subscrib cuted the same in his/h	ea ner
authorized capacity(ies), as behalf of which the person WITNESS my han	nd that by his/ acted, execut	her signa ed the ins	ture on th	e instrun	nent th	e person, or the entity up	on
Notary Signature						·福兴满处等	
Revised 01/02, Assign US Notary			2		NO	VLP193/NVLS-3234	

PATENT REEL: 024076 FRAME: 0058

4. Inventor Signature:	Da	ite:
Kevin Gerber		
State of Oregon)) ss.	
County of		
, Nota	ry Public personally appeared K is of satisfactory evidence) to	be the person whose name is
subscribed to the within instrument, his/her authorized capacity(ies), and entity upon behalf of which the person WITNESS my hand and official	, and acknowledged to me that that by his/her signature on the n acted, executed the instrument.	t he/she executed the same in instrument the person, or the
Notary Signature		(SEAL)
5. Inventor Signature: Arul N. Dhas	Da	ate:
State of Oregon)) ss.	
County of		
On this day of, Nota to me (or proved to me on the bas subscribed to the within instrument his/her authorized capacity(ies), and entity upon behalf of which the person WITNESS my hand and office	, and acknowledged to me that that by his/her signature on the n acted, executed the instrument	be the person whose name in t he/she executed the same in e instrument the person, or the
Notary Signature	_	(SFA)

NOVLP193/NVLS-3234

Revised 01/02, Assign US Notary

RECORDED: 03/12/2010

3