

**PATENT ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
Nerissa S. Draeger	05/10/2005
Gary William Ray	06/04/2005
<b>RECEIVING PARTY DATA</b>	
<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>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	12369384
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(510)663-0920
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
<b>Phone:</b>	5106631100
<b>Email:</b>	lervin@wavsip.com
<b>Correspondent Name:</b>	Denise Bergin/WAVS LLP
<b>Address Line 1:</b>	P.O. Box 70250
<b>Address Line 4:</b>	Oakland, CALIFORNIA 94612-0250
<b>ATTORNEY DOCKET NUMBER:</b>	NOVLP100X1D1/NVLS-3040D1
<b>NAME OF SUBMITTER:</b>	Denise Bergin

Total Attachments: 4  
 source=NOVLP100X1D1\_Assignment#page1.tif  
 source=NOVLP100X1D1\_Assignment#page2.tif  
 source=NOVLP100X1D1\_Assignment#page3.tif

**500870283**

**PATENT  
 REEL: 022741 FRAME: 0643**

**CH \$40.00 12369384**



## ASSIGNMENT OF PATENT APPLICATION

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

### CREATION OF POROSITY IN LOW-K FILMS BY PHOTO-DISSOCIATION OF IMBEDDED NANOPARTICLES

(Atty. Docket No. NOVLP100X1/NVLS-3040), (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.

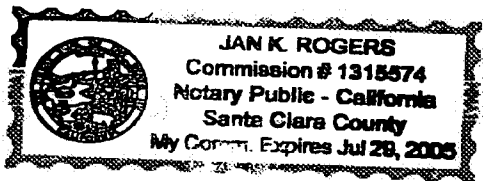
1. Inventor Signature: Nerissa S. Draeger  
Nerissa S. Draeger

Date: 5/10/05

State of California )  
County of Santa Clara ) ss.

On this 10<sup>th</sup> day of May, in the year 2005, before me, JAN K. ROGERS, Notary Public, personally appeared Nerissa S. Draeger, ~~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: \_\_\_\_\_  
Gary William Ray

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

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

On this \_\_\_\_\_ day of \_\_\_\_\_, in the year 2005, before me, \_\_\_\_\_, Notary Public personally appeared Gary William Ray, 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 \_\_\_\_\_

## ASSIGNMENT OF PATENT APPLICATION

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

### CREATION OF POROSITY IN LOW-K FILMS BY PHOTO-DISSOCIATION OF IMBEDDED NANOPARTICLES

(Atty. Docket No. NOVLP100X1/NVLS-3040), (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: Nerissa S. Draeger Date: \_\_\_\_\_

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

On this \_\_\_\_ day of \_\_\_\_\_, in the year 2005, before me, \_\_\_\_\_, Notary Public, personally appeared Nerissa S. Draeger, 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: Gary W. Ray Date: 6-4-05  
Gary William Ray

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

On this \_\_\_\_ day of \_\_\_\_\_, in the year 2005, before me, \_\_\_\_\_, Notary Public personally appeared Gary William Ray, 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 \_\_\_\_\_