

10-07-2003



ASSIG

102568737
-PATENTS ONLY-

R SHEET

22154 U.S. PTO
10/670660
09/24/03

To: Honorable Commissioner of Patents and Trademarks:

Please record the attached original document(s) or copy thereof.

1. Name of conveying party(ies)

9-24-03

- a) Yongsik Yu
- b) Karen Billington
- c) Robert Hepburn
- d) Michael Carris
- e) William Crew

2. Name and address of receiving party(ies):

- a) Name: Novellus Systems, Inc.
- Address: 3970 North First Street, San Jose, CA 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) 9/18/03
- b) 9/19/03
- c) 9/19/03
- d) 9/22/03
- e) 9/23/03

4. Application Number(s) or Patent Number(s): NEW

10670660

The title of the (new) application is:

NOVEL FILM FOR COPPER DIFFUSION BARRIER

5. Please send all correspondence concerning this (these) documents to:

Beyer Weaver & Thomas, LLP
 P.O. Box 778
 Berkeley, CA 94704-0778
 Ph: (510) 843-6200
 Fax: (510) 843-6203
 (Customer Number: 022434)

6. Total number of applications and patents involved: 1

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

- Enclosed
- Any additional fees are authorized to be charged to Deposit Account No. 500388 (Order No. NOVLP078)

8. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Date: September 24, 2003

Roger S. Sampson
 Registration No. 44,314

Attorney Docket No. NOVLP078/NVLS-2856

(Revised 12/01)

10/01/2003 HWRZ11 0000058 10670660 40.00 OP
 04 FC:8021

ASSIGNMENT OF PATENT APPLICATION

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

NOVEL FILM FOR COPPER DIFFUSION BARRIER

(Atty. Docket No. NOVLP078/NVLS-2856), (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: *Yu Yongsik*
Yongsik Yu

Date: 9/18/2003

State of Oregon)
County of Clackamas) ss.

On this ____ day of _____, in the year 200__, before me, _____, Notary Public, personally appeared Yongsik Yu, 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: *Karen Billington*
Karen Billington

Date: 09/19/2003

State of Oregon)
County of _____) ss.

On this ____ day of _____, in the year 200__, before me, _____, Notary Public, personally appeared Karen Billington, 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: Robert Hepburn Date: 9/19/03
Robert Hepburn

State of Oregon)
County of Washington) ss.

On this ____ day of _____, in the year 200__, before me, _____, Notary Public, personally appeared Robert Hepburn, 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: Michael Carris Date: 09/22/03
Michael Carris

State of Oregon)
County of _____) ss.

On this ____ day of _____, in the year 200__, before me, _____, Notary Public, personally appeared Michael Carris, 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: William W. Crew
William Crew

Date: 9/23/03

State of Oregon)
County of Washington) ss.

On this 23 day of September, in the year 2003, before me, William W. Crew, Notary Public, personally appeared Michael Crew, 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)