

10-31-2003



102589028

ASSIGNMENT R
-P

Commissioner of Patents:

10-20-03

Please record the attached document.

22154 U.S. PTO
10/690084
102003

1. Name of conveying party:
 - a) Daniel A. Koos
 - b) Steven T. Mayer
 - c) Heung L. Park
 - d) Timothy Patrick Cleary
 - e) Thomas Mountsier
2. Name and address of receiving party:
 - 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) 10/6/03
 - b) 10/7/03
 - c) 10/13/03
 - d) 10/6/03
 - e) 10/6/03
4. Application Number or Patent Number: NEW

10690084

The title of the application is:

METHOD FOR FABRICATION OF SEMICONDUCTOR INTERCONNECT STRUCTURE WITH REDUCED CAPACITANCE, LEAKAGE CURRENT, AND IMPROVED BREAKDOWN VOLTAGE

5. Please send all correspondence concerning this document 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. NOVLP068).

Date: October 20, 2003

Jeffrey K. Weaver
Registration No. 31,314

10/24/2003 EAREGAY1 00000033 10690084

03 FEB2004

40.00 00

Attorney Docket No. NOVLP068/NVLS-000818

(Revised 9/03)

PATENT
REEL: 014636 FRAME: 0503

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 FOR FABRICATIONS OF SEMICONDUCTOR INTERCONNECT STRUCTURE WITH REDUCED CAPACITANCE, LEAKAGE CURRENT, AND IMPROVED BREAKDOWN VOLTAGE

(Atty. Docket No. NOVLP068/NVLS-000818), (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: Daniel A. Koos
Daniel A. Koos

Date: 10/6/03

State of Arizona)
County of Maricopa) ss.

On this 8th day of October, in the year 2003, before me, Debbie Simpson, Notary Public, personally appeared Daniel A. Koos, 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 Debbie Simpson



DEBBIE SIMPSON
Notary Public - Arizona
Maricopa County
Expires 02/15/06

2. Inventor Signature: Steven T. Mayer
Steven T. Mayer

Date: 10/7/03

State of Oregon)
County of Clackamas) ss.

On this 8th day of October, in the year 2003, before me, Debbie Simpson, Notary Public personally appeared Steven T. Mayer, 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 Debbie Simpson



DEBBIE SIMPSON
Notary Public - Arizona
Maricopa County
Expires 02/15/06

3. Inventor Signature: _____
Heung L. Park

Date: _____

State of Oregon)
County of _____) ss.

On this _____ day of _____, in the year 200__, before me, _____, Notary Public, personally appeared Heung L. Park, 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:

Timothy Patrick Cleary
Timothy Patrick Cleary

Date: 10-6-03

State of Oregon

County of _____)

ss.

On this _____ day of _____, in the year 200__, before me, _____, Notary Public, personally appeared Timothy Patrick Cleary, 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: _____

Thomas Mountsier

Date: _____

State of California

County of _____)

ss.

On this _____ day of _____, in the year 200__, before me, _____, Notary Public, personally appeared Thomas Mountsier, 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)

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 FOR FABRICATIONS OF SEMICONDUCTOR INTERCONNECT STRUCTURE WITH REDUCED CAPACITANCE, LEAKAGE CURRENT, AND IMPROVED BREAKDOWN VOLTAGE

(Atty. Docket No. NOVLP068/NVLS-000818), (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:** _____
Daniel A. Koos

Date: _____

State of Arizona)
)
County of _____) ss.

On this _____ day of _____, in the year 200__, before me, _____, Notary Public, personally appeared Daniel A. Koos, 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:** _____
Steven T. Mayer

Date: _____

State of Oregon)
)
County of _____) ss.

On this _____ day of _____, in the year 200__, before me, _____, Notary Public personally appeared Steven T. Mayer, 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:** _____
Heung L. Park

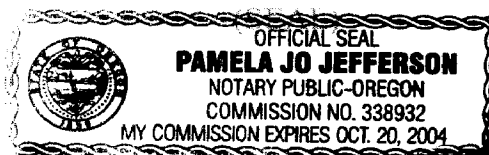
Date: 10-13-03

State of Oregon)
)
County of Washington) ss.

On this 13 day of October, in the year 2003, before me, Pamela Jo Jefferson, Notary Public, personally appeared Heung L. Park, 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 Pamela Jo Jefferson



4. **Inventor Signature:** _____ **Date:** _____
Timothy Patrick Cleary

State of Oregon

County of _____) ss.

On this _____ day of _____, in the year 200__, before me, _____, Notary Public, personally appeared Timothy Patrick Cleary, 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:** _____
Thomas Mountsier

State of California

County of _____) ss.

On this _____ day of _____, in the year 200__, before me, _____, Notary Public, personally appeared Thomas Mountsier, 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)

ASSIGNMENT OF PATENT APPLICATION

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(Atty. Docket No. NOVLP068/NVLS-000818), (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.
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- 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:** _____

Daniel A. Koos

State of Arizona)
)
County of _____) ss.

On this _____ day of _____, in the year 200__, before me, _____, Notary Public, personally appeared Daniel A. Koos, 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:** _____

Steven T. Mayer

State of Oregon)
)
County of _____) ss.

On this _____ day of _____, in the year 200__, before me, _____, Notary Public personally appeared Steven T. Mayer, 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:** _____

Heung L. Park

State of Oregon)
)
County of _____) ss.

On this _____ day of _____, in the year 200__, before me, _____, Notary Public, personally appeared Heung L. Park, 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: _____
Timothy Patrick Cleary

Date: _____

State of Oregon

County of _____) ss.

On this _____ day of _____, in the year 200__, before me, _____, Notary Public, personally appeared Timothy Patrick Cleary, 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: _____
Thomas Mountsier

Date: 10/6/03

State of California

County of Santa Clara) ss.

On this 9th day of October, in the year 2003, before me, Celia Buchinski, Notary Public, personally appeared Thomas Mountsier, 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 Celia Buchinski

(SEAL)

