PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Anand Chandrashekar	07/27/2009
Raashina Humayun	07/27/2009
Michal Danek	07/29/2009
Aaron R. Fellis	07/30/2009
Sean Chang	07/29/2009

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:	12534566

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	NOVLP316
NAME OF SUBMITTER:	Vlad Gusev

PATENT REEL: 023099 FRAME: 0084

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Total Attachments: 4

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> PATENT REEL: 023099 FRAME: 0085

ASSIGNMENT OF PATENT APPLICATION

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

DEPOSITING TUNGSTEN INTO HIGH ASPECT RATIO FEATURES

(Atty. Docket No. NOVLP315/NVLS-3463), (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.

- 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.
- Warrant and represent that I have not entered and will not enter into any assignment, contract, or understanding that conflicts with this assignment.
- 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.

PATENT

Revised 01/02, Assign US Notary

1. Inventor Signature: Anand Chandrashekar Date: $07/27/2009$.
State of California)
County of Savra Clara
On <u>VIJ 27, 2009</u> before me, <u>VAN K. ROGERS, NOTARY PUBLIC</u> personally appeared Anand Chandrashekar , who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.
I certify under PENALTY OF PERJURY under the laws of the State of ALFORNA that the foregoing paragraph is true and correct.
WITNESS my hand and official seal. JAN K. ROGERS
Signature flux K. Regers Commission # 1598855 Notary Public - California Santa Clara County My Comm. Expires Aug 1, 2009
2. Inventor Signature: Raashina Humayun Date: 7/27/09
State of California
County of Savra CLARA SS.
On <u>low 27, 2009</u> before me, <u>Man K. Rogers</u> Normey Poblic personally appeared Raashina Humayun, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.
I certify under PENALTY OF PERJURY under the laws of the State of <u>JALIBRAJA</u> that the foregoing paragraph is true and correct.
WITNESS my hand and official seal. JAN K. ROGERS Commission # 1598855 Notary Public - California Santa Clara County
Signature TANK. Reacts Santa Clara County Santa Clara County

3. Inventor Signature: Date: 7/19/09 Michal Danek
State of California)
County of Santa Clara
On <u>luy 29, 200</u> before me, <u>law k. Rosses Normal Tublic</u> personally appeared Michal Danek , who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are-subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.
I certify under PENALTY OF PERJURY under the laws of the State of Laurent that the foregoing paragraph is true and correct.
WITNESS my hand and official seal. JAN K. ROGERS Commission # 1598855 Notary Public - Collfornia
Signature Flux K. Ragrus My Comm. Expires Aug 1, 2009
4. Inventor Signature: Aaron R. Fellis Date: 7.30.07
State of California)
County of Santa Clara) ss.
On <u>Tuly 30, 2009</u> before me, <u>Vicky Baron</u> , <u>Notary</u> , personally appeared Aaron R. Fellis, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.
I certify under PENALTY OF PERJURY under the laws of the State of <u>Californet</u> hat the foregoing paragraph is true and correct.
WITNESS my hand and official seal.
VICKY BARON Commission # 1818594

5. Inventor Signature: Sean Chang	A	<u>-</u> -	Date:	7/29/09
State of California)			
County of Sawa Clasa)	SS.		
			a	

On <u>Vuly 29 2009</u> before me, <u>I AN IL ROGERS</u>, <u>Normey Public</u> personally appeared **Sean Chang**, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of MIPORIA that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Luke Regus

JAN K. ROGERS
Commission # 1598855
Notary Public - California
Santa Clara County
My Comm. Expires Aug 1, 2009

Revised 01/02, Assign US Notary

PATENT REEL: 023099 FRAME: 0089

RECORDED: 08/13/2009