PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3296230

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SRINIVAS D. NEMANI	04/16/2014
JEREMIAH T. PENDER	04/16/2014
QINGJUN ZHOU	04/21/2014
DMITRY LUBOMIRSKY	04/02/2015
SERGEY G. BELOSTOTSKIY	04/22/2014

RECEIVING PARTY DATA

Name:	Applied Materials, Inc.
Street Address:	3050 Bowers Avenue
City:	Santa Clara
State/Country:	CALIFORNIA
Postal Code:	95054

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14059996

CORRESPONDENCE DATA

Fax Number: (503)439-6073

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: (503) 439-8778

Email: gigi_hoover@bstz.com
Correspondent Name: JUSTIN K. BRASK

Address Line 1: 1279 OAKMEAD PARKWAY

Address Line 4: SUNNYVALE, CALIFORNIA 94085-4040

ATTORNEY DOCKET NUMBER:	4887.P1068
NAME OF SUBMITTER:	JUSTIN K. BRASK
SIGNATURE:	/Justin K. Brask/
DATE SIGNED:	04/03/2015

Total Attachments: 6

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PATENT REEL: 035328 FRAME: 0301

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> PATENT REEL: 035328 FRAME: 0302

Attorney's Docket No.: 017499USA/ETCH/DRIE/MDD

ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we, the below-named inventor(s):

Srinivas D. Nemani; Jeremiah T. Pender; Qingjun Zhou; Dmitry Lubomirsky; Sergey G. Belostotskiy

hereby sell, assign, and transfer to

Applied Materials, Inc.

a Corporation of Delaware, having a principal place of business at 3050 Bowers Avenue, Santa Clara, California 95054 United States ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which for the non-provisional application may have a declaration executed by the undersigned prior hereto or concurrently herewith and which application (provisional or non-provisional) is entitled

METHOD OF PATTERNING A LOW-K DIELECTRIC FILM

said patent application also identified as follows (when known):

[l/we hereby authorize an attorney or agent for said	Assignee t	to insert below the	application	number	and
filing date of said patent application when known.]					

United States Patent Application Number	14/059.996	filed	October 22 2013	
Dinieu diales Falent Abuncandi Nondei	Carl Markey, events	1117711		

and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said Inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful daths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof, and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

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Page 1 of 2

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Each Inventor: Please Sign and Date Below:

4/16/14	N. br
Date	Name: Srinivas D. Nemani
+ 116(14 Date	Name: Jeremiah T. Pender
	Gario. Visionali III endo
<u>4/21/14</u> Date	Name: Qingjun Zhou
Date	Name: Dmitry Lubomirsky
Date	Name: Sergey G. Belostotskiy
Date	Name:
Date	Name;
Date	Name:
Date	Name:

Assignment Document Return Address:

APPLIED MATERIALS, INC.
Patent Counsel
P.O. Box 450A
Santa Clara, CA 95052

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Page 2 of 2

Attorney's Docket No.: 017499USA/ETCH/DRIE/MDD

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METHOD OF PATTERNING A LOW-K DIELECTRIC FILM

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[I/we hereby authorize an attorney filing date of said patent application when k	• •	to ins	ert below the application number and
United States Patent Application Number _	14/059,996	filed	October 22, 2013

and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

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covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Each Inventor: Please Sign and Date Below:

Date	Name: Srinivas D. Nemani
Date	Name: Jeremiah T. Pender
Date	Name: Qingjun Zhou
<u>4/2/20</u> Date	Name: Dmitry Lubomirsky
Date	Name: Sergey G. Belostotskiy
Date	Name:

Assignment Document Return Address:

APPLIED MATERIALS, Inc. Patent Counsel P.O. Box 450A Santa Clara, CA 95052

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Page 2 of 2

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filing date of said patent application when known.)			
United States Patent Application Number	14/059,996	filed <u>October 22</u>	<u>2. 2013 </u>
and in and to said application (provisional applications, utility applications, design app prosecution applications, continuation-in-parapplications, reexaminations, extensions, ar United States and all foreign countries on patents, reissued patents, reexamination or United States and all foreign countries on regulting from the filling of said United States	lications, divisional a rt applications, subst nd all other patent ap any of said inventio ertificates, and extens said inventions or in	pplications, continuation a itute applications, renewal plications that have been on ns or improvements; and sions, that have been or s	pplications, continued applications, reissue or shall be flied in the in and to all origina shall be issued in the

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Page 1 of 2

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Date	Name: Srinivas D. Nemani	
Date	Name: Jeremiah T. Pender	
Date	Name: Qingjun Zhou	
Date	Name: Dmitry Lubomirsky	
04/22/2014		
Date	Name: Sergey G. Belostotskiy	• • • • • • • • • • • • • • • • • • • •
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Applied Materials, Inc.

Patent Counsel P.O. Box 450A Santa Clara, CA 95052

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Page 2 of 2

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