502494679 09/13/2013

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Robert D Clark	08/08/2013
Steven P Consiglio	09/13/2013

RECEIVING PARTY DATA

Name:	Tokyo Electron Limited
Street Address:	Akasaka Biz Tower, 3-6 Akasaka 5-chome
City:	Minato-ku, Tokyo
State/Country:	JAPAN
Postal Code:	107-6325

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13941429

CORRESPONDENCE DATA

Fax Number: 4805392100

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 4805392106

Email: audunn.ludviksson@us.tel.com

Correspondent Name: Audunn Ludviksson
Address Line 1: 2545 W. Frye Road

Address Line 2: Suite 1

Address Line 4: Chandler, ARIZONA 85224

ATTORNEY DOCKET NUMBER:	TTCA-403
NAME OF SUBMITTER:	Audunn Ludviksson
Signature:	/Audunn Ludviksson/
Date:	09/13/2013

Total Attachments: 3

 $source = TTCA-403_ExecAssignment_Consiglio_Clark \#page 1.t if$

source=TTCA-403_ExecAssignment_Consiglio_Clark#page2.tif

source=TTCA-403_ExecAssignment_Consiglio_Clark#page3.tif

PATENT REEL: 031201 FRAME: 0535

ASSIGNMENT OF PATENT APPLICATION

Title of Invention: NITRIDATION OF ATOMIC LAYER DEPOSITED HIGH-K DIELECTRICS USING TRISILYLAMINE

This assignment is directed to:		
The attached application, or X United States application number 13/941,429	or PCT into	ernational application number July 12, 2013

Assignor(s): The Assignor(s) is/are the undersigned inventor(s). The undersigned inventor(s) has/have made certain inventions, improvements, and/or discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application.

Assignee: The Assignee is Tokyo Electron Limited, a corporation of Japan having a place of business at Tokyo, Japan (herein referred to as the "ASSIGNEE"). The term "ASSIGNEE" used herein includes successors, legal representatives, and assigns of the ASSIGNEE. The ASSIGNEE desires to acquire the entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents obtained from the Invention.

As an undersigned inventor, I hereby assign to the ASSIGNEE my entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefrom in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, I hereby authorize and request the Director of the United States Patent and Trademark Office to issue any United States Patent, granted for the invention, to the ASSIGNEE, and I authorize and request foreign patent authorities to issue any foreign patent, granted for the Invention, to the ASSIGNEE. The entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made. I agree to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, for the ASSIGNEE, whenever requested by the ASSIGNEE.

As an undersigned inventor, I acknowledge prior and ongoing obligations to sell, assign, and/or transfer my rights in the Invention to the ASSIGNEE. I have not sold, assigned, or otherwise transferred my rights in the Invention to another, and I am under no obligation to sell, assign, or otherwise transfer my rights in the Invention to another. I also hereby grant the ASSIGNEE, the right to insert in this Declaration and Assignment any further identification (including, but not limited to, patent application number and filing date) which may be necessary or desirable for recording this Declaration and Assignment.

(1) Legal name of Inventor:	Steven P. Consiglio	
Inventor's Signature:	Date: 9/13/13	
Residence City/State/Country:	Albany/NY/USA	
Mailing Address:	81 Forest Ave, Albany, NY 12208, USA	
Citizenship:	US	
(2) Legal name of Inventor:	Robert D. Clark	
Inventor's Signature:	Date:	
Residence City/State/Country:	Livermore/CA/USA	
Mailing Address:	5812 Edelweiss Way, Livermore, CA 94551, USA	
Citizenship:	LIS	

(1) Legal name of Inventor:	Steven P. Consiglio
Inventor's Signature:	Date:
Residence City/State/Country:	Albany/NY/USA
Mailing Address:	81 Forest Ave, Albany, NY 12208, USA
Citizenship:	US
(2) Legal name of Inventor:	Robert D. Clark
Inventor's Signature:	Milt 9. Ch Date: 8/8/2013
Residence City/State/Country:	Livermore/CA/USA
Mailing Address:	5812 Edelweiss Way, Livermore, CA 94551, USA
Citizenship:	US