# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4896142

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

## **CONVEYING PARTY DATA**

Name	Execution Date
SUNGWON JUN	03/08/2018
SAURABH CHOPRA	03/22/2018
THOMAS JONGWAN KWON	03/12/2018
ER-XUAN PING	03/12/2018

# **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:	15881405

# **CORRESPONDENCE DATA**

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ATTORNEY DOCKET NUMBER:	024087US
NAME OF SUBMITTER:	RONALD G. EMBRY
SIGNATURE:	/Ronald G. Embry/
DATE SIGNED:	04/03/2018

# **Total Attachments: 2**

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> **PATENT REEL: 045420 FRAME: 0468** 504849404

Atty Dkt No.: 024087USA

## ASSIGNMENT FOR APPLICATION FOR PATENT

#### WHEREAS:

Names and Addresses of Inventors:

1)	Sungwon JUN 5137 Alan Avenue San Jose, California 95124	2)	Saurabh CHOPRA 684 Nicholson Avenue Santa Clara, California 95051
3)	Thomas Jongwan KWON 4417 Talle Way Dublin, California 94568	4)	Er-Xuan PING 39541 Canyon Heights Dr. Fremont, California 94539

(hereinafter referred to as Assignors), have invented a certain invention entitled:

#### SELF-ALIGNED NANODOTS FOR 3D NAND FLASH MEMORY

for which application for Letters Patent in the United States was filed on January 26, 2018, under Serial No. 15/881,405, executed on even date herewith; and

WHEREAS, Applied Materials, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Santa Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

- 1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a conventional, division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.
- 2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filling and prosecuting substitute, conventional, divisional, continuing or additional applications covering said Invention; (d) for filling and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefore and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.

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- 3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.
- 4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1)	3/8/2018	(DATE)	Sung Won Jun/	
			Sungwon JUN  Docusigned by:	
2)	3/22/2018	(DATE)	/Saurable Chopra/	
			Saurabh CHOPRA	
3)	3/12/2018	(DATE)	/thomas Jongwan Ewon/	
-			Thomas Jongwan KWON	
4)	2018/3/12	(DATE)	/Er-Xuan Ping/	
.,	***************************************	·····	Er-Xuan PING	