#### 505550811 06/28/2019

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5597612

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
KUO-CHENG CHIANG	06/17/2019
CHUNG-WEI HSU	06/18/2019
LUNG-KUN CHU	06/18/2019
MAO-LIN HUANG	06/18/2019
JIA-NI YU	06/18/2019
CHIH-HAO WANG	06/19/2019

#### **RECEIVING PARTY DATA**

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
Street Address:	NO. 8, LI-HSIN RD. 6, HSINCHU SCIENCE PARK
City:	HSINCHU
State/Country:	TAIWAN
Postal Code:	300-78

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16454598

### **CORRESPONDENCE DATA**

Fax Number: (703)205-8050

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: 703-205-8000

Spencer.Garth@bskb.com, Mailroom@BSKB.com Email: BIRCH, STEWART, KOLASCH & BIRCH, LLP **Correspondent Name:** 

8110 GATEHOUSE ROAD Address Line 1:

Address Line 2: SUITE 100E

Address Line 4: FALLS CHURCH, VIRGINIA 22042

ATTORNEY DOCKET NUMBER:	0941-4020PUS1
NAME OF SUBMITTER:	SPENCER GARTH
SIGNATURE:	/spencer garth/
DATE SIGNED:	06/28/2019

**PATENT** REEL: 049626 FRAME: 0498 505550811

## **Total Attachments: 2**

source=2019-06-28\_AssgnAsFiled\_0941-4020PUS1#page1.tif source=2019-06-28\_AssgnAsFiled\_0941-4020PUS1#page2.tif

PATENT REEL: 049626 FRAME: 0499

T7 (3

## ASSIGNMENT

Attorney Docket No. 0941-4020PUS1

WHEREAS, Kuo-Cheng CHIANG, Chung-Wei HSU, Lung-Kun CHU, Mao-Lin HUANG, Jia-Ni YU and Chih-Hao WANG

hereafter referred to as ASSIGNOR, has/have invented certain new and useful improvements as described and set forth in the below identified application for United States Letters Patent:

# Title: METHODS OF FABRICATING SEMICONDUCTOR DEVICES FOR TIGHTENING SPACING BETWEEN NANOSHEETS IN GAA STRUCTURES AND STRUCTURES FORMED THEREBY

Filed: June 27, 2019 Serial No. 16/454,598

Executed on: June 17, 2019, June 18, 2019 and June 19, 2019

WHEREAS, <u>Taiwan Semiconductor Manufacturing Co., Ltd.</u>, of <u>No. 8, Li-Hsin Rd. 6, Hsinchu Science Park</u>, <u>Hsinchu 300-78</u>, <u>Taiwan R.O.C.</u>, hereinafter referred to as ASSIGNEE, is desirous of acquiring ASSIGNOR'S interest in the said invention and application and in any U.S. Letters Patent which may be granted on the same;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for good and valuable consideration, receipt of which is hereby acknowledged by Assignor, Assignor has/have sold, assigned and transferred, and by these presents does/do sell, assign and transfer unto the said Assignee, and Assignee's successors and assigns, all his/her/their rights, title and interest in and to the said invention and application and all future improvements thereon, and in and to any Letters Patent which may hereafter be granted on the same in the United States, the said interest to be held and enjoyed by said Assignee as fully and exclusively as it would have been held and enjoyed by said Assignor had this Assignment and transfer not been made, to the full end and term of any Letters Patent which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignor further agrees/agree that he/she/they will, without charge to said Assignee, but at Assignee's expense, cooperate with Assignee in the prosecution of said application and/or applications, execute, verify, acknowledge and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof, and will perform such other acts as Assignee lawfully may request, to obtain or maintain Letters Patent for said invention and improvement, and to vest title thereto in said Assignee, or Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignor has/have signed his/her/their name(s) on the date(s) indicated.

P20183814US00/0503-B35314-US

Page 1 of 2

PATENT REEL: 049626 FRAME: 0500

## ASSIGNMENT

2019.6.17	to-anding
Date	Name: Kuo-Cheng CHIANG
2019, 6, 18 Date	Mung - Wei Mu Name: Chung-Wei HSU
2019.6.18 Date	Name: Lung-Kum Chu
2019.06.18	Mao Lin Huang Name: Mao-Lin HUANG
Date	Name: Mao-Lin HUANG
>>19. 6. , 18 Date	Tra Ni Gu Name: Jia-Ni YU
	Chih-Hao Wang
Date	Name: Chih-Hao WANG

\*cwisesci 1989818 11:39:55