#### 505026327 07/30/2018

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5073077

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
YIN-SHUO CHU	02/02/2016
CHI-CHUNG YU	02/02/2016
LI-YEN FANG	02/02/2016
TAIN-SHANG CHANG	02/02/2016
YAO-HSIANG LIANG	02/02/2016
MIN-CHIH TSAI	02/02/2018

#### **RECEIVING PARTY DATA**

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
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City:	HSINCHU
State/Country:	TAIWAN
Postal Code:	300-78

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

Property Type	Number
Application Number:	16048780

#### **CORRESPONDENCE DATA**

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ATTORNEY DOCKET NUMBER:	24061-3443US02
NAME OF SUBMITTER:	JO EL MERCER
SIGNATURE:	/JO EI MERCER/
DATE SIGNED:	07/30/2018

**PATENT** REEL: 046500 FRAME: 0269 505026327

## **Total Attachments: 2**

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PATENT REEL: 046500 FRAME: 0270

Attorney Docket No.: 0941-3292PUS1

### ASSIGNMENT

WHEREAS, Yin-Shuo CHU, Chi-Chung YU, Li-Yen FANG, Tain-Shang CHANG, Yao-Hsiang LIANG, and Min-Chih TSAI

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: SEMICONDUCTOR DEVICE STRUCTURE WITH ANTI-ACID LAYER AND

METHOD FOR FORMING THE SAME

Filed: December 15, 2015

Serial No. 14/970,022

Executed on: February 2, 2016

WHEREAS, <u>Taiwan Semiconductor Manufacturing Co., Ltd.</u>, of <u>No. 8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu 300-78, 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.

PATENT REEL: 038800 FRAME: 0230 SN: 14/970,022

Filed on December 15, 2015

## **ASSIGNMENT**

2/2/2016	Yin Shuo CHU	
Date	Name: Yin-Shuo CHU	(Last name: CHU)
, , , , , , , ,		
)2/2/90/6 Date	Name: Chi-Chung YU	
Date	Name: Chi-Chung YU	(Last name: YU)
2/2/2016	Li Yen FANG.	
Date	Name: Li-Yen FANG	(Last name: FANG)
Date / Date	Name: Tain-Shang CHANG	SNG.
Date	Name: Tain-Shang CHANG	(Last name: CHANG)
	<i> </i>	
× 2016	Name: Yab-Hsiang LIANG	d'ans
Date	Name: Yao-Hsiang LIANG	(Last name: LIANG)
	•	(/
7/2/2016	Min-Chih TSAI	V
Date	Name: Min-Chih TSAI	(Last name: TSAI)

PATENT REEL: 036800 FRAME: 0232

RECORDED: 02/26/2016