

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
CHUN-YI CHOU	03/18/2020
PO-HSIEN CHENG	03/20/2020
TSE-AN CHEN	03/20/2020
MIIN-JANG CHEN	03/19/2020
RECEIVING PARTY DATA	
Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
Street Address:	NO.8, LI-HSIN RD.6
Internal Address:	SCIENCE-BASED INDUSTRIAL PARK
City:	HSINCHU
State/Country:	TAIWAN
Postal Code:	300
Name:	NATIONAL TAIWAN UNIVERSITY
Street Address:	NO.1, SEC. 4, ROOSEVELT ROAD
City:	TAIPEI
State/Country:	TAIWAN
Postal Code:	10617
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	16837580
CORRESPONDENCE DATA	
Fax Number:	
<i>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.</i>	
Email:	kcale@mabr.com
Correspondent Name:	R. BURNS ISRAELSEN
Address Line 1:	MASCHOFF BRENNAN
Address Line 2:	1389 CENTER DRIVE, SUITE 300
Address Line 4:	PARK CITY, UTAH 84098
ATTORNEY DOCKET NUMBER:	T1516.10679US01

NAME OF SUBMITTER:	R. BURNS ISRAELSEN
SIGNATURE:	/R. Burns Israelsen, Reg. No. 42685/
DATE SIGNED:	04/03/2020
Total Attachments: 2 source=T1516.10679US01 Assignment#page1.tif source=T1516.10679US01 Assignment#page2.tif	

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XP-24425-US/P201901610800

Inventor(s) or Assignor

ASSIGNMENT

This assignment agreement is applicable to an invention entitled (Invention Title) SEMICONDUCTOR DEVICE AND MANUFACTURING METHOD THEREOF

The PATENT RIGHTS referred to in this agreement are:

(check one) [X] a patent application for this invention, executed by the ASSIGNOR(S) concurrently with this assignment.

[X] U.S. patent application Serial No. 16/837,580, filed April 1, 2020

[] a U.S. patent application based on PCT International Application No. filed on (date) (U.S. patent application Serial No. if known).

[] U.S. patent No. issued

The PATENT RIGHTS also include all divisions, reissues, continuations and extensions of the patents and patent applications identified above.

The PATENT RIGHTS assigned under this agreement are:

[X] U.S. patent rights only.

The ASSIGNOR(S) referred to in this agreement is (or are) the inventor(s) whose signatures appear on page 2 of this Assignment and any Supplemental Sheet(s).

The ASSIGNEE referred to in this agreement is:

(Name of Assignee) 1. TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.

2. NATIONAL TAIWAN UNIVERSITY

(Address) 1. NO. 8, LI-HSIN RD. 6, SCIENCE-BASED INDUSTRIAL PARK, HSINCHU, TAIWAN 300, R.O.C.

2. NO. 1, SEC. 4, ROOSEVELT ROAD, TAIPEI 10617, TAIWAN, R.O.C.

The ASSIGNEE is:

(check one) [] An individual.

[] A Partnership.

[X] 1. A Corporation of TAIWAN, R.O.C.

[X] 2. A University of TAIWAN, R.O.C.

[] (other)

The ASSIGNOR(S), in consideration of \$10.00 paid by the ASSIGNEE, and other good and valuable consideration, receipt of which is acknowledged, hereby assign(s) the following rights to the ASSIGNEE, its successors and assigns:

the full and exclusive right to the invention;

the entire right, title and interest in and to the PATENT RIGHTS;

the right to sue and recover for any past infringement; and

the right to claim priority under 35 USC 119, 35 USC 120, or any other applicable provisions, based on any earlier patent applications for this invention.

THIS IS PAGE 2 OF AN ASSIGNMENT FROM THE INVENTOR(S) TO
 ASSIGNEE: 1. TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
2. NATIONAL TAIWAN UNIVERSITY
 INVENTION TITLE: SEMICONDUCTOR DEVICE AND MANUFACTURING
METHOD THEREOF.

As to all U.S. patent applications assigned under this agreement, the ASSIGNOR(S) hereby authorize(s) and request(s) the Commissioner of Patents and Trademark to issue all Letters Patent to the ASSIGNEE as the assignee of the entire right, title and interest, for the sole use and enjoyment of said ASSIGNEE, its successors and assigns.

Further, the ASSIGNOR(S) agree(s) to communicate to said ASSIGNEE, or its representatives, any fact known to the ASSIGNOR(S) with respect to said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal, reexamination and reissue applications, execute all necessary assignment papers to cause and all Letter Patent to be issued to said ASSIGNEE, make all rightful oaths and generally do everything necessary or desirable to aid said ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for said invention.

The ASSIGNOR(S) authorize(s) the attorneys and agents who have the power of attorney in this application to check any appropriate boxes and to insert the Serial Number and filing date in this document after it has been executed.

<u>Chun-Yi CHOU</u> Name of sole or first inventor	<u>Chun-Yi CHOU</u> Signature	<u>2020/3/18</u> Date
<u>Po-Hsien CHENG</u> Name of second inventor, if any	<u>Po-Hsien CHENG</u> Signature	<u>2020/3/20</u> Date
<u>Tse-An CHEN</u> Name of third inventor, if any	<u>Tse-An Chen</u> Signature	<u>2020/03/20</u> Date
<u>Miin-Jang CHEN</u> Name of fourth inventor, if any	<u>Miin-Jang Chen</u> Signature	<u>2020/3/19</u> Date