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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE: NEW ASSIGNMENT NATURE OF CONVEYANCE: ASSIGNMENT

EPAS ID: PAT6394505

CONVEYING PARTY DATA

Name	Execution Date
SHICH-CHANG SUEN	12/31/2013
LI-CHIEH WU	12/31/2013
CHI-JEN LIU	12/31/2013
HE HUI PENG	01/02/2014
LIANG-GUANG CHEN	12/31/2013
YUNG-CHUNG CHEN	12/31/2013

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.
Street Address:	NO. 8, LI-HSIN RD. 6
Internal Address:	SCIENCE-BASED INDUSTRIAL PARK
City:	HSIN-CHU
State/Country:	TAIWAN
Postal Code:	300-77

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17094563

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ATTORNEY DOCKET NUMBER:	2013-1007/24061.2641US04
NAME OF SUBMITTER:	MARCY OGADO
SIGNATURE:	/Marcy Ogado/
DATE SIGNED:	11/10/2020

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Total Attachments: 3

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PATENT REEL: 054328 FRAME: 0225

Docket No.: 2013-1007/24061.2641 Customer No.: 000042717

ASSIGNMENT

	Lane 175, Wuling Road, , Hsinchu City 300, Taiwan
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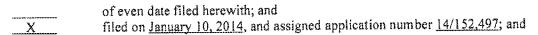
- (2) Li-Chieh Wu of 16F.-5, No.1, Lane 175, Wuling Road, North District, Hsinchu City 300, Taiwan (R.O.C.)
- (3) Chi-Jen Liu of Rm.3, 13F., No.6, Alley. 62, Lane 411, Sec. 1 Neihu Road, Neihu District, Taipei City 114, Taiwan (R.O.C)
- (4) He Hui Peng of No.10, Lane 38, Xishi Street, Changhua City, Changhua County 500, Taiwan (R.O.C.)
- (5) Liang-Guang Chen of No.393, Sec. 2, Gongdao 5th Road, East District, Hsinchu City 300, Taiwan (R.O.C.)
- (6) Yung-Chung Chen of No.55, Alley. 18, Lane 85, Fuqun Street, Xiangshan District, Hsinchu City 300, Taiwan (R.O.C.)

have invented certain improvements in

WHEREAS, we,

METHOD FOR METAL GATE SURFACE CLEAN

for which we have executed an application for Letters Patent of the United States of America,



WHEREAS, we authorize the attorney of record to update this document to include Patent Office information as deemed necessary (i.e., filing date, serial number, etc.);

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd., ("TSMC"), No. 8, Li-Hsin Rd. 6, Science-Based Industrial Park Hsin-Chu, Taiwan 300-77, Republic of China. is desirous of obtaining the entire right, title, and interest in, to and under the said invention and the said application in the United States of America and in any and all countries foreign thereto;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and other good and valuable consideration, we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said TSMC, its successors, legal representatives, and assigns, the entire right, title, and interest in, to and under the said invention, and the said application, and all divisional, renewal, substitutional, and continuing applications thereof, and all Letters Patent of the United States of America which may be granted thereon and all reissues and extensions thereof, and all

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applications for Letters Patent which may be filed for said invention in any country or countries foreign to the United States of America, and all extensions, renewals, and reissues thereof, and all prior patents and patent applications from which a filing priority of the above-described patent application may be obtained, including the right to collect past damages; and we hereby authorize and request the Commissioner of Patents of the United States of America, and any official of any country or countries foreign to the United States of America, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said invention to the said TSMC, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to said TSMC, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, renewal, substitutional, continuing, and reissue applications, make all rightful declarations and/or oaths and generally do everything possible to aid the said TSMC, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention in all countries.

Inventor Name:	Shich-Chang Suen	
Residence Address:	21F1, No.2, Lane 175, Wuling Road, North District, Hsinchu City 300, Taiwan (R.O.C.)	
Dated: 20/3.	12-31 Shich-Champ Suen Inventor Signature	
Октивност на придужение и при при при при при при при при при п		
Inventor Name:	Li-Chieh Wu	
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Dated: 2013-12	-3 V Lì-Chieh Wu Inventor Signature	
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Dated: >0/3. /3	2.31 CR: - Jen CTu Inventor Signature	

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Inventor	Nama:
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He Hui Peng

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Dated: 3014/01/02

Inventor Signature

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Dated: Yung - Chung Chun

Towardor Signature

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