

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
ANTHONY LIN	04/27/2016
PEI-REN JENG	04/28/2016
TZE-LIANG LEE	04/28/2016
CHING-LUN LAI	05/23/2016
RECEIVING PARTY DATA	
Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., 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:	15876445
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ATTORNEY DOCKET NUMBER:	2015-1236/24061.3316US02
NAME OF SUBMITTER:	YILUN WANG
SIGNATURE:	/Yilun Wang/
DATE SIGNED:	01/22/2018
Total Attachments: 2	

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ASSIGNMENT

WHEREAS, we,

- | | | | |
|-----|---------------|----|---|
| (1) | Anthony Lin | of | Hsin-Chu, Taiwan, Republic of China |
| (2) | Pei-Ren Jeng | of | Hsinchu County, Taiwan, Republic of China |
| (3) | Tze-Liang Lee | of | Hsinchu, Taiwan, Republic of China |
| (4) | Ching-Lun Lai | of | Taichung City, Taiwan, Republic of China |

have invented certain improvements in

APPARATUS AND METHOD FOR SPATIAL ATOMIC LAYER DEPOSITION

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

 of even date filed herewith; and
 X filed on 06-01-2016 and assigned application number 15/169,999; and

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 Co., 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 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: Anthony Lin

Residence Address: No. 8, Li-Hsin Road. 6, Science-Based Industrial Park
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Dated: 4/27/2016

Anthony Lin
Inventor Signature

Inventor Name: Pei-Ren Jeng

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Dated: 4/28/2016

Pei-Ren Jeng
Inventor Signature

Inventor Name: Tze-Liang Lee

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Dated: 4/28, 2016

Tze-Liang Lee
Inventor Signature

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Dated: 5/27, 2016

Ching Lun Lai
Inventor Signature