503515096 10/08/2015

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHENG-HSIEN CHOU	08/31/2015
HSIAO-HUI TSENG	08/31/2015
CHIH-YU LAI	08/31/2015
SHIH PEI CHOU	08/31/2015
YEN-TING CHIANG	08/31/2015

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:	14840944	

CORRESPONDENCE DATA

Fax Number: (972)732-9218

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: 972-732-1001

Email: docketing@slater-matsil.com **Correspondent Name:** SLATER & MATSIL, L.L.P.

17950 PRESTON ROAD, SUITE 1000 Address Line 1:

Address Line 4: DALLAS, TEXAS 75252

ATTORNEY DOCKET NUMBER:	TSM15-0373
NAME OF SUBMITTER:	WENDY SAXBY
SIGNATURE:	/Wendy Saxby/
DATE SIGNED:	10/08/2015

Total Attachments: 2

PATENT REEL: 036756 FRAME: 0761

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> PATENT REEL: 036756 FRAME: 0762

ATTORNEY DOCKET NO. TSM15-0373

ASSIGNMENT

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made; and

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd. ("Assignee"), a corporation organized and existing under the laws of Taiwan, the Republic of China, with its principal office at No. 8, Li-Hsin Rd. 6 Science-Based Industrial Park, Hsin-Chu 300-77 Taiwan, R.O.C., is desirous of acquiring my entire right, title and interest in and to said invention, and to said application and any Letters Patent that may issue thereon in the United States and all other countries throughout the world;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign to said Assignee, its successors and assigns, my entire right, title and interest in and to said invention and in and to said application and all patents which may be granted therefor, and all future non-provisional applications including divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner for Patents to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to said Assignee, as assignee of my entire right, title and interest. I declare that I have not executed and will not execute any agreement in conflict herewith.

I also hereby sell and assign to Assignee, its successors and assigns, my foreign rights to the invention disclosed in said application, in all countries of the world, including, but not limited to, the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

I hereby further agree that I will communicate to said Assignee, or to its successors, assigns, and legal representatives, any facts known to me respecting said invention or the file history thereof, and at the expense of said Assignee, its legal representatives, successors, or assigns, will testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid said Assignee, its legal representatives, successors, and assigns, to obtain and enforce proper patent protection for said invention in all countries.

IN WITNESS WHEREOF, I hereunto set my hand and seal this day and year;

TITLE OF INVENTION	Deep Trench Isolations and Methods of Forming the Same			
SIGNATURE OF INVENTOR AND NAME	Chang-Histon Chan Cheng-Histon Chou	HSTOW-HUM (serve) Hstao-Hui Tseng	Chih-Yn Ln Chih-Yu Lai	Shih Pei Chou Shih Pei Chou
DATE	2015/08/31		12015/08/31	~>015,8,31.
RESIDENCE	Tainan City, Taiwan	Tainan City, Taiwan	Tainan City, Taiwan	Tainan City, Taiwan

ATTORNEY DOCKET NO. TSM15-0373

ASSIGNMENT

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made; and

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd. ("Assignee"), a corporation organized and existing under the laws of Taiwan, the Republic of China, with its principal office at No. 8, Li-Hsin Rd. 6 Science-Based Industrial Park, Hsin-Chu 300-77 Taiwan, R.O.C., is desirous of acquiring my entire right, title and interest in and to said invention, and to said application and any Letters Patent that may issue thereon in the United States and all other countries throughout the world;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign to said Assignee, its successors and assigns, my entire right, title and interest in and to said invention and in and to said application and all patents which may be granted therefor, and all future non-provisional applications including divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner for Patents to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to said Assignee, as assignee of my entire right, title and interest. I declare that I have not executed and will not execute any agreement in conflict herewith.

I also hereby sell and assign to Assignee, its successors and assigns, my foreign rights to the invention disclosed in said application, in all countries of the world, including, but not limited to, the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

I hereby further agree that I will communicate to said Assignee, or to its successors, assigns, and legal representatives, any facts known to me respecting said invention or the file history thereof, and at the expense of said Assignee, its legal representatives, successors, or assigns, will testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid said Assignee, its legal representatives, successors, and assigns, to obtain and enforce proper patent protection for said invention in all countries.

IN WITNESS WHEREOF, I hereunto set my hand and seal this day and year;

TITLE OF INVENTION	Deep Trench Isolations and Methods of Forming the Same			
SIGNATURE OF INVENTOR AND NAME	Yen. Ting Chiang			
DATE	12015.08.31			
RESIDENCE	Tainan City, Taiwan			· · · · · · · · · · · · · · · · · · ·

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Assignment

PATENT REEL: 036756 FRAME: 0764