PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the Assignee previously recorded on Reel 020935 Frame 0700. Assignor(s) hereby confirms the Taiwan Semiconductor Manufacturing Company, Ltd

CONVEYING PARTY DATA

Name	Execution Date	
Cheng-Tung Lin	05/07/2008	
Yung-Sheng Chiu	05/07/2008	
Hsiang-Yi Wang	05/07/2008	
Chia-Lin Yu	05/07/2008	
Chen-Hua Yu	05/07/2008	

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 R.O.C.

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12118919

CORRESPONDENCE DATA

Fax Number: (972)732-9218

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 972-732-1001

Email: colgrove@slater-matsil.com

Correspondent Name: Slater & Matsil, L.L.P.

Address Line 1: 17950 Preston Road

Address Line 2: Suite 1000

Address Line 4: Dallas, TEXAS 75252

PATENT

REEL: 025549 FRAME: 0684

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ATTORNEY DOCKET NUMBER:	TSM08-0054		
NAME OF SUBMITTER: Sherry L. Colgrove			
Total Attachments: 12			
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PATENT REEL: 025549 FRAME: 0685

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1 05/12/2008 500537357

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Cheng-Tung Lin	05/07/2008
Yung-Sheng Chlu	05/07/2008
Hsiang-Yi Wang	05/07/2008
Chia-Lin Yu	05/07/2008
Chen-Hua Yu	05/07/2008

RECEIVING PARTY DATA

Name:	Futurewei Technologies, Inc.	
Street Address:	1700 Alma Drive	
City:	Plano	
State/Country:	TEXAS	
Postal Code:	75075	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12118919

CORRESPONDENCE DATA

Fax Number:

(972)732-9218

Correspondence will be sent via US Mall when the fax attempt is unsuccessful.

Phone:

972-732-1001

Emall:

smith@slater-matsil.com

Correspondent Name:

Slater & Matsil, LLP

Address Line 1:

17950 Preston Road, Suite 1000

Address Line 4:

Dallas, TEXAS 75252

ATTORNEY DOCKET NUMBER:	TSM08-0054
NAME OF SUBMITTER:	Joanna Smith

PATENT REEL: 025549 FRAME: 0686

ATTORNEY DOCKET NO. TSM08-0054

ASSIGNMENT

WHEREAS, 1, 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, the said application having been executed on the date set forth below; and

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd. (TSMC), a corporation organized and existing under the laws of Taiwan, the Republic of China, with its principal office at No. 8, Li-Hain Rd. 6, Science-Based Industrial Park, Hain-Chu, Taiwan 300-77, R.O.C., is desirous of acquiring my entire right, title and interest in and to the said invention, and to the 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 the said TSMC, its successors and assigns, my entire right, title and interest in and to the said invention and in to the said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner for Petents to Issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to the said TSMC, 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 TSMC, 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 TSMC, 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 assignes company, testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, release and substitute applications, make all lawful oaths, and generally do everything possible to aid said TSMC, its successors, assigns and nominees 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	MOSFETS Having Stacked Metal Gate Electrodes and Method						
SIGNATURE OF INVENTOR AND NAME	Charg-Tung Lin Cheng-Tung Lin	Myry Sheng Chin	Hsiang-Yi Wang Hslang-Yi Wang	Chia-Lin Yu Chia-Lin Yu			
DATE	05/07/2008	05/07/2008	65/07/2008	05/07/2008			
RESIDENCE (City, County, State)	Jhudong Township, Talwan	Hsin-Chu, Taiwan	Hsin-Chu, Taiwan	Sigang, Taiwan			

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Page 1 of 2

A.ssignment

PATENT REEL: 025549 FRAME: 0687

ATTORNEY DOCKET NO. TSM08-0054

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, the said application having been executed on the date set forth below; and

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd. (TSMC), 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, Taiwan 300-77, R.O.C., is desirous of acquiring my entire right, title and interest in and to the said invention, and to the 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 the said TSMC, its successors and assigns, my entire right, title and interest in and to the said invention and in to the said application and all patents which may be granted therefor, and all 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 the said TSMC, 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 TSMC, 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 TSMC, 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 company, 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 TSMC, its successors, assigns and nominees 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	Method and Tool Concept to Make a Metal Gate Stack with Minimized Damage and Interfacial Layer Regrowth					d Plasma
SIGNATURE OF INVENTOR AND NAME	Chen-Hua Yu					
DATE	5/7/28					,
RESIDENCE (City, County, State)	Hsin-Chu, Taiwan	·				

Assignment

0021

ATTORNEY DOCKET NO. TSM08-0054

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, the said application having been executed on the date set forth below; and

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd. (TSMC), 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, Taiwan 300-77, R.O.C., is desirous of acquiring my entire right, title and interest in and to the said invention, and to the 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 the said TSMC, its successors and assigns, my entire right, title and interest in and to the said invention and in to the said application and all patents which may be granted therefor, and all 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 the said TSMC, 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 TSMC, 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 TSMC, 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 company, 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 TSMC, its successors, assigns and nominees 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	Method and Tool Concept to Make a Metal Gate Stack with Minimized Plasma Damage and Interfacial Layer Regrowth					
SIGNATURE OF INVENTOR AND NAME	Chen-Hua Yu					
DATE	5/7/28					
RESIDENCE (City, County, State)	Hsin-Chu, Taiwan	·				

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Assignment

PATENT TOTAL P. 05

REEL: 025549 FRAME: 0689

RECORDED: 12/22/2010