

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT								
NATURE OF CONVEYANCE:	ASSIGNMENT								
CONVEYING PARTY DATA									
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Po-Jen WANG</td> <td>03/29/2012</td> </tr> <tr> <td>Hsiang-Hui TSAI</td> <td>03/29/2012</td> </tr> <tr> <td>Ying-Chen CHIU</td> <td>03/29/2012</td> </tr> </tbody> </table>		Name	Execution Date	Po-Jen WANG	03/29/2012	Hsiang-Hui TSAI	03/29/2012	Ying-Chen CHIU	03/29/2012
Name	Execution Date								
Po-Jen WANG	03/29/2012								
Hsiang-Hui TSAI	03/29/2012								
Ying-Chen CHIU	03/29/2012								
RECEIVING PARTY DATA									
Name:	Taiwan Semiconductor Manufacturing Co., Ltd.								
Street Address:	No. 8, Li-Hsin Road 6								
Internal Address:	Science-Based Industrial Park								
City:	Hsin-Chu								
State/Country:	TAIWAN								
Postal Code:	300-77								
PROPERTY NUMBERS Total: 1									
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13420194</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13420194				
Property Type	Number								
Application Number:	13420194								
CORRESPONDENCE DATA									
Fax Number:	(215)689-4905								
Phone:	215-979-1000								
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Correspondent Name:	DUANE MORRIS LLP (TSMC) IP DEPARTMENT								
Address Line 1:	30 SOUTH 17TH STREET								
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ATTORNEY DOCKET NUMBER:	N1085-00993								
NAME OF SUBMITTER:	Mark J. Marcelli								
Total Attachments: 2 source=executedAssign#page1.tif source=executedAssign#page2.tif									

CH \$40.00 13420194

Serial No. 13/420,194
filed March 14, 2012

ATTORNEY DOCKET NO.: 2011.1659/1085.993

ASSIGNMENT AND AGREEMENT

For value received, we, **Po-Jen WANG, Hsiang-Hui TSANG and Ying-Chen CHIU**, hereby transfer to **Taiwan Semiconductor Manufacturing Co., Ltd.**, with its principal place of business located at No. 8, Li-Hsin Road 6, Science-Based Industrial Park, Hsin-Chu, Taiwan 300-77, Republic of China, and its successors, assigns and legal representatives, the entire right, title and interest, for the United States of America, in and to certain inventions related to **PROCESS CONTROL METHODS FOR CMP (CHEMICAL MECHANICAL POLISHING) AND OTHER POLISHING METHODS USED TO FORM SEMICONDUCTOR DEVICES**, described in a non-provisional patent application Serial No. 13/420,194 filed March 14, 2012, and under any and all Letters Patent and any divisions, continuations, continuations-in-part, reexamination certificates, reissues, and extensions thereof, or claiming priority therefrom that may be granted in the United States for said inventions; and we also concurrently hereby sell, assign and transfer to Taiwan Semiconductor Manufacturing Co., Ltd. the entire right, title and interest in and to said inventions for all countries foreign to the United States, including all rights of priority arising from the application aforesaid, and all the rights and privileges under any and all forms of protection, including Letters Patent, that may be granted in said countries foreign to the United States for said inventions.

We authorize Taiwan Semiconductor Manufacturing Co., Ltd. to make application for such protection in its own name and maintain such protection in any and all countries foreign to the United States, and to invoke and claim for any application for patent or other form of protection for said inventions, without further authorization from us, any and all benefits, including the right of priority provided by any and all treaties, conventions, or agreements.

We hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of Taiwan Semiconductor Manufacturing Co., Ltd. to apply for patent or other form of protection for said inventions and to claim the aforesaid benefit of the right of priority.

We request that any and all patents for said inventions be issued to Taiwan Semiconductor Manufacturing Co., Ltd. in the United States and in all countries foreign to the United States, or to such nominees as Taiwan Semiconductor Manufacturing Co., Ltd. may designate.

ATTORNEY DOCKET NO.: 2011.1659/1085.993

We agree that, when requested, we shall, without charge to Taiwan Semiconductor Manufacturing Co., Ltd. but at its expense, sign all papers, and do all acts which may be necessary, desirable or convenient in connection with said applications, patents, or other forms of protection.

Inventor No. 1

Dated: 2012 3/29

Po-Jen Wang
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Inventor No. 2

Dated: 2012 3/29

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No. 3

Dated: 2012 3/29

Ying-Chen Chiu
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