

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>George Liu</td> <td>12/18/2006</td> </tr> <tr> <td>Kuei Shun Chen</td> <td>12/23/2006</td> </tr> <tr> <td>Norman Chen</td> <td>01/27/2007</td> </tr> <tr> <td>Vencent Chang</td> <td>02/05/2007</td> </tr> <tr> <td>Chin-Hsiang Lin</td> <td>02/02/2007</td> </tr> </tbody> </table>		Name	Execution Date	George Liu	12/18/2006	Kuei Shun Chen	12/23/2006	Norman Chen	01/27/2007	Vencent Chang	02/05/2007	Chin-Hsiang Lin	02/02/2007
Name	Execution Date												
George Liu	12/18/2006												
Kuei Shun Chen	12/23/2006												
Norman Chen	01/27/2007												
Vencent Chang	02/05/2007												
Chin-Hsiang Lin	02/02/2007												
RECEIVING PARTY DATA													
Name:	Taiwan Semiconductor Manufacturing Company, 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" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>11677693</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	11677693								
Property Type	Number												
Application Number:	11677693												
CORRESPONDENCE DATA													
Fax Number:	(214)200-0853												
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>													
Phone:	972-739-8660												
Email:	bonnie.boyle@haynesboone.com												
Correspondent Name:	Bonnie Boyle												
Address Line 1:	901 Main Street												
Address Line 2:	Suite 3100												
Address Line 4:	Dallas, TEXAS 75202												
ATTORNEY DOCKET NUMBER:	24061.789												

CH \$40.00 11677693

NAME OF SUBMITTER:

Brandi W. Sarfatis

Total Attachments: 4

source=789Assignment#page1.tif

source=789Assignment#page2.tif

source=789Assignment#page3.tif

source=789Assignment#page4.tif

ASSIGNMENT

WHEREAS, we,

- | | | | |
|-----|-----------------|----|---|
| (1) | George Liu | of | 4F, No. 70, Ren-ai Street
Sin-Chu City, Taiwan, R.O.C. |
| (2) | Kuei Shun Chen | of | 5F, 22 634 LN Nan-Da Rd.
Hsin-Chu 300, Taiwan, R.O.C. |
| (3) | Norman Chen | of | 13-2 Floor, No. 16, Lane 107, Science-Park Road
HsinChu City, Taiwan, R.O.C. |
| (4) | Vencent Chang | of | No. 8, Lane 111, Ziqiang 5th Road
Hsin-Chu 300, Taiwan, R.O.C. |
| (5) | Chin-Hsiang Lin | of | No. 37, Lane 393, Min-hu Road
Hsin-Chu, Taiwan, R.O.C. |

have invented certain improvements in

**METHODOLOGY FOR IMPLEMENTING ENHANCED OPTICAL LITHOGRAPHY
FOR HOLE PATTERNING IN SEMICONDUCTOR FABRICATION**

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 February 22, 2007 and assigned application number 11/677,693; 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 Company, Ltd., ("TSMC"), No. 8, Li-Hsin Rd. 6, Science-Based Industrial Park Sin-Chu City, , 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 One Dollar (\$1.00) and other 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: George Liu
Residence Address: 4F, No. 70, Ren-ai Street
Shin-chu City, Taiwan, R.O.C.

Dated: 2006'12'18 George Liu
Inventor Signature

Inventor Name: Kuei Shun Chen
Residence Address: 5F, 22 634 LN Nan-Da Rd.
Hsin-Chu 300, , Taiwan, R.O.C.

Dated: 2006'12'23 Kuei Shun Chen
Inventor Signature

Inventor Name: Norman Chen

Residence Address: 13-2 Floor, No. 16, Lane 107, Science-Park Road
Hsinchu City 300, Taiwan, R.O.C.

Dated: _____

Inventor Signature

Inventor Name: Vincent Chang

Residence Address: No. 8, Lane 111, Ziqiang 5th Road
Hsin-Chu 300, Taiwan, R.O.C.

Dated: 2.5.2007

Vincent

Inventor Signature

Inventor Name: Chin-Hsiang Lin

Residence Address: No. 37, Lane 393, Min-hu Road
Hsin-chu, Taiwan, R.O.C.

Dated: 2.2.2007

Chin Hsiang Lin

Inventor Signature

Docket No.: 2006-0320 / 24061.789
Customer No.: 42717

Inventor Name: Norman Chen

Residence Address: 13-2 Floor, No. 16, Lane 107, Science-Park Road
Hsinchu City 300, Taiwan, R.O.C.

Dated: 1/27/2007

Norman Chen
Inventor Signature

Inventor Name: Vencent Chang

Residence Address: No. 8, Lane 111, Ziqiang 5th Road
Hsin-Chu 300, Taiwan, R.O.C.

Dated: _____

Inventor Signature

Inventor Name: Chin-Hsiang Lin

Residence Address: No. 37, Lane 393, Min-hu Road
Hsin-chu, Taiwan, R.O.C.

Dated: _____

Inventor Signature