

PATENT ASSIGNMENT

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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>Chun-Hsiung Tsai</td> <td>08/13/2013</td> </tr> <tr> <td>Chen-Feng Hsu</td> <td>08/13/2013</td> </tr> <tr> <td>Yi-Tang Lin</td> <td>08/13/2013</td> </tr> <tr> <td>Clement Hsingjen Wann</td> <td>08/19/2013</td> </tr> </tbody> </table>		Name	Execution Date	Chun-Hsiung Tsai	08/13/2013	Chen-Feng Hsu	08/13/2013	Yi-Tang Lin	08/13/2013	Clement Hsingjen Wann	08/19/2013
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<table border="1"> <tr> <td>Name:</td> <td>Taiwan Semiconductor Manufacturing Company Limited</td> </tr> <tr> <td>Street Address:</td> <td>No. 8, Li-Hsin Road, VI</td> </tr> <tr> <td>Internal Address:</td> <td>Hsinchu Science Park</td> </tr> <tr> <td>City:</td> <td>Hsinchu</td> </tr> <tr> <td>State/Country:</td> <td>TAIWAN</td> </tr> </table>		Name:	Taiwan Semiconductor Manufacturing Company Limited	Street Address:	No. 8, Li-Hsin Road, VI	Internal Address:	Hsinchu Science Park	City:	Hsinchu	State/Country:	TAIWAN
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CORRESPONDENCE DATA											
Fax Number: 2127557306 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i> Phone: 212-326-3939 Email: erosenfelder@JonesDay.com Correspondent Name: JONES DAY Address Line 1: 222 EAST 41ST ST Address Line 4: NEW YORK, NEW YORK 10017											
ATTORNEY DOCKET NUMBER:	181877-625029										
NAME OF SUBMITTER:	Matthew W. Johnson										
Signature:	/Matthew W. Johnson/										

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PATENT
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CH \$40.00 13973015

Date:

08/22/2013

Total Attachments: 2

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JOINT

ASSIGNMENT

WHEREAS, WE, CHUN HSIUNG TSAI, CHEN-FENG HSU, YI-TANG LIN, and CLEMENT HSINGJEN WANN citizen of the Republic of China and United States of America, having the mailing addresses listed as below.

CHUN HSIUNG TSAI citizen of the Republic of China, having a mailing address of No.7, Daxiang Rd., Xinpu Township, Hsinchu County 305, Taiwan residing at Hsinchu County, Taiwan;

CHEN-FENG HSU citizen of the Republic of China, having a mailing address of No.168, Park Ave. II, Hsinchu Science Park, Hsinchu, Taiwan residing at Hsinchu, Taiwan;

YI-TANG LIN citizen of the Republic of China, having a mailing address of 3F., No.7, Jinshan 11th St., East Dist., Hsinchu City 300, Taiwan residing at Hsinchu City, Taiwan;

CLEMENT HSINGJEN WANN citizen of United States of America, having a mailing address of 1179 Barrett Circle West, Carmel, NY, USA residing at New York, USA,

ASSIGNORS, are the inventors of the invention in "Systems and Methods for Dopant Activation Using Pre-amorphization Implantation and Microwave Radiation" for which we have executed an application for a Patent of the United States

- ☒ which is executed on ☒ even date herewith or ☐ [DATE]
☒ which is identified by Jones Day docket no. 181877-625029
☐ which was filed on August __, 2013, Application No. _____
☐ We hereby authorize and request attorney(s) at Jones Day, to insert here in parentheses (Application number _____, filed _____) the filing date and application number of said application when known.

and WHEREAS, Taiwan Semiconductor Manufacturing Company Limited, a corporation organized and existing under the laws of Republic of China, and having an office for the transaction of business at No. 8, Li-Hsin Rd. VI, Hsinchu Science Park, Hsinchu, Taiwan, ASSIGNEE, is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and all right to sue for infringement including past infringement.

AND WE HEREBY authorize and request the Commissioner for Patents and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree 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 the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

Date 08/13, 2013 Chun Hsiung Tsai L.S.
CHUN HSIUNG TSAL

Date 08/13, 2013 CHEN-FENG HSU L.S.
CHEN-FENG HSU

Date 08/13, 2013 Yi-Tang Lin L.S.
YI-TANG LIN

Date 8/19/2013, 2013 Clement Hsingjen Wann L.S.
CLEMENT HSINGJEN WANN