

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>Chi-Ming CHEN</td><td>10/07/2011</td></tr><tr><td>Po-Chun LIU</td><td>10/07/2011</td></tr><tr><td>Hung-Ta LIN</td><td>10/07/2011</td></tr><tr><td>Chin-Cheng CHANG</td><td>10/07/2011</td></tr><tr><td>Chung-Yi YU</td><td>10/07/2011</td></tr><tr><td>Chia-Shiung TSAI</td><td>10/07/2011</td></tr><tr><td>Ho-Yung David HWANG</td><td>10/12/2011</td></tr></tbody></table>		Name	Execution Date	Chi-Ming CHEN	10/07/2011	Po-Chun LIU	10/07/2011	Hung-Ta LIN	10/07/2011	Chin-Cheng CHANG	10/07/2011	Chung-Yi YU	10/07/2011	Chia-Shiung TSAI	10/07/2011	Ho-Yung David HWANG	10/12/2011
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<table border="1"><tr><td>Name:</td><td>TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.</td></tr><tr><td>Street Address:</td><td>No. 8, Li-Hsin Rd. VI, Hsinchu Science Park</td></tr><tr><td>City:</td><td>Hsinchu</td></tr><tr><td>State/Country:</td><td>TAIWAN</td></tr><tr><td>Postal Code:</td><td>300</td></tr></table>		Name:	TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.	Street Address:	No. 8, Li-Hsin Rd. VI, Hsinchu Science Park	City:	Hsinchu	State/Country:	TAIWAN	Postal Code:	300						
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PROPERTY NUMBERS Total: 1																	
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Application Number:	13277692																
CORRESPONDENCE DATA																	
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OP \$40.00 13277692

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PATENT
REEL: 027094 FRAME: 0081

NAME OF SUBMITTER:

Randy A. Noranbrock

Total Attachments: 2

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ASSIGNMENT

In consideration of the premises and other good and valuable consideration in hand paid, the receipt and sufficiency of which is hereby acknowledged, the undersigned,

- | | |
|---------------------|------------------------|
| 1) Chi-Ming CHEN | 5) Chung-Yi YU |
| 2) Po-Chun LIU | 6) Chia-Shung TSAI |
| 3) Hung-Ta LIN | 7) Ho-Yung David HWANG |
| 4) Chin-Cheng CHANG | |

who has made a certain new and useful invention, hereby sells, assigns and transfers unto

TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD. having a place of business at **No. 8, Li-Hsin Rd. VI, Hsinchu Science Park, Hsinchu 300, Taiwan (R.O.C.)**

its successors and assigns (hereinafter designated "ASSIGNEE") the entire right, title and interest for the United States of America as defined in 35 U.S.C. 100 in the invention entitled

SUBSTRATE BREAKDOWN VOLTAGE IMPROVEMENT FOR GROUP III-NITRIDE ON A SILICON SUBSTRATE

- (a) for which an application for United States Letters Patent was filed on 10-20-2011, and identified by United States Patent Application No. 13/277,692; or
- (b) for which an application for United States Letters Patent was executed on _____,

and the undersigned hereby authorizes and requests the United States Commissioner of Patents and Trademarks to issue any and all United States Letters Patent which may be granted therefore and any and all extensions, divisions, reissues, continuations, or continuations-in-part thereof, and the right to all benefits under the International Convention for the Protection of Industrial Property to the said ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives; the undersigned agrees that the attorneys of record in said application shall hereafter act on behalf of said ASSIGNEE;

AND the undersigned hereby agrees to transfer a like interest, and to render all necessary assistance in making application for and obtaining original, divisional, reissued or extended Letters Patent of the United States, upon request of the said ASSIGNEE, its successors, assigns and legal representatives, and without further remuneration, in and to any improvements, and applications for patent based thereon, growing out of or related to the said invention; and to execute any papers by the said ASSIGNEE, its successors, assigns and legal representatives, deemed essential to ASSIGNEE's full protection and title in and to the invention hereby transferred.

SIGNED on the date indicated aside my signature:

1) ✓ Chi Ming Chen
Name: Chi-Ming CHEN

2) ✓ Po Chun Liu
Name: Po-Chun LIU

3) ✓ Hung-Ta Lin
Name: Hung-Ta LIN

✓ 2011/10/17
Date:

✓ 2011/10/17
Date:

✓ 2011/10/17
Date:

4) ✓ Chin-Cheng CHANG
Name: Chin-Cheng CHANG

✓ 2011.10.7
Date:

5) ✓ Chung-Yi YU
Name: Chung-Yi YU

✓ 2011.10.7
Date:

6) ✓ Chung-Yi YU, Chia-Shung TSAI
Name: Chia-Shung TSAI

✓ 2011.10.7
Date:

7) ✓ Ho-Yung David HWANG
Name: Ho-Yung David HWANG

✓ 2011.10.12
Date: