

## 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>Akinobu TERAMOTO</td> <td>05/23/2013</td> </tr> <tr> <td>Hiroshi KAMBAYASHI</td> <td>05/27/2013</td> </tr> <tr> <td>Hirokazu UEDA</td> <td>07/11/2013</td> </tr> <tr> <td>Yuichiro MOROZUMI</td> <td>06/24/2013</td> </tr> <tr> <td>Katsushige HARADA</td> <td>07/08/2013</td> </tr> <tr> <td>Kazuhide HASEBE</td> <td>07/17/2013</td> </tr> <tr> <td>Tadahiro OHMI</td> <td>05/23/2013</td> </tr> </tbody> </table>		Name	Execution Date	Akinobu TERAMOTO	05/23/2013	Hiroshi KAMBAYASHI	05/27/2013	Hirokazu UEDA	07/11/2013	Yuichiro MOROZUMI	06/24/2013	Katsushige HARADA	07/08/2013	Kazuhide HASEBE	07/17/2013	Tadahiro OHMI	05/23/2013
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<table border="1"> <tr> <td>Name:</td> <td>TOHOKU UNIVERSITY</td> </tr> <tr> <td>Street Address:</td> <td>2-1-1, Katahira, Aoba-ku</td> </tr> <tr> <td>City:</td> <td>Sendai-shi, Miyagi</td> </tr> <tr> <td>State/Country:</td> <td>JAPAN</td> </tr> <tr> <td>Postal Code:</td> <td>980-8577</td> </tr> </table>		Name:	TOHOKU UNIVERSITY	Street Address:	2-1-1, Katahira, Aoba-ku	City:	Sendai-shi, Miyagi	State/Country:	JAPAN	Postal Code:	980-8577						
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<table border="1"> <tr> <td>Name:</td> <td>Advanced Power Device Research Association</td> </tr> <tr> <td>Street Address:</td> <td>2-4-3, Okano, Nishi-ku</td> </tr> <tr> <td>City:</td> <td>Yokohama-shi, Kanagawa</td> </tr> <tr> <td>State/Country:</td> <td>JAPAN</td> </tr> <tr> <td>Postal Code:</td> <td>220-0073</td> </tr> </table>		Name:	Advanced Power Device Research Association	Street Address:	2-4-3, Okano, Nishi-ku	City:	Yokohama-shi, Kanagawa	State/Country:	JAPAN	Postal Code:	220-0073						
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<table border="1"> <tr> <td>Name:</td> <td>TOKYO ELECTRON LIMITED</td> </tr> <tr> <td>Street Address:</td> <td>3-1, Akasaka 5-chome, Minato-ku</td> </tr> <tr> <td>City:</td> <td>Tokyo</td> </tr> <tr> <td>State/Country:</td> <td>JAPAN</td> </tr> <tr> <td>Postal Code:</td> <td>107-6325</td> </tr> </table>		Name:	TOKYO ELECTRON LIMITED	Street Address:	3-1, Akasaka 5-chome, Minato-ku	City:	Tokyo	State/Country:	JAPAN	Postal Code:	107-6325						
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PROPERTY NUMBERS Total: 1																	
Property Type	Number																
	PATENT																

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OP \$40.00 13981048

Application Number:

13981048

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NAME OF SUBMITTER:

Adel Samuel

Signature:

/Adel Samuel/

Date:

07/25/2013

**Total Attachments: 5**

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## Assignment of Application

INSERT NAMES  
AND RESIDENCE  
ADDRESS OF  
THE INVENTORS.

WHEREAS, I (WE) Akinobu TERAMOTO

c/o TOHOKU UNIVERSITY, 2-1-1, Katahira, Aoba-ku, Sendai-shi, Miyagi 980-8577 Japan

Hiroshi KAMBAYASHI

c/o Advanced Power Device Research Association, 2-4-3, Okano, Nishi-ku, Yokohama-shi,  
Kanagawa 220-0073 Japan

Hirokazu UEDA

c/o TOKYO ELECTRON TECHNOLOGY DEVELOPMENT INSTITUTE, INC., 2-1,  
Osawa 3-chome, Izumi-ku, Sendai City, Miyagi 981-3137 Japan

Yuichiro MOROZUMI

c/o TOKYO ELECTRON TOHOKU LIMITED, 650, Mitsuzawa, Hosaka-cho,  
Nirasaki City, Yamanashi 407-0192 Japan

Katsushige HARADA

c/o TOKYO ELECTRON TOHOKU LIMITED, 650, Mitsuzawa, Hosaka-cho,  
Nirasaki City, Yamanashi 407-0192 Japan

Kazuhide HASEBE

c/o TOKYO ELECTRON TOHOKU LIMITED, 650, Mitsuzawa, Hosaka-cho,  
Nirasaki City, Yamanashi 407-0192 Japan

Tadahiro OHMI

c/o TOHOKU UNIVERSITY, 2-1-1, Katahira, Aoba-ku, Sendai-shi,  
Miyagi 980-8577 Japan

, respectively,

INSERT TITLE OF  
INVENTION:

have invented certain new and useful improvements in: METHOD FOR FABRICATING SEMICONDUCTOR  
DEVICE AND THE SEMICONDUCTOR DEVICE

(Application No. 13/981,048 , filed July 22, 2013 ), and

INSERT NAME  
AND ADDRESS OF  
COMPANY OR  
OTHER ASSIGNEE

WHEREAS, 1) TOHOKU UNIVERSITY 2) Advanced Power Device Research Association  
3) TOKYO ELECTRON LIMITED

(hereinafter referred to as "ASSIGNEES") having places of business at: 1) 2-1-1, Katahira, Aoba-ku, Sendai-shi,  
Miyagi 980-8577 Japan 2) 2-4-3, Okano, Nishi-ku, Yokohama-shi, Kanagawa 220-0073 Japan 3) 3-1, Akasaka 5-  
chome, Minato-ku, Tokyo 107-6325 Japan, respectively are desirous of jointly acquiring interests in the entire right,  
title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United  
States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEES, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application(s)) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEES as the assignees of my (our) entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEES, their successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

Further, I (WE) agree that I (WE) will communicate to said ASSIGNEES or their representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEES, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEES, their successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of Oblon, Spivak, McClelland, Maier & Neustadt, L.L.P. of 1940 Duke Street, Alexandria, Virginia 22314 the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Date: May 23, 2013

Akinobu Teramoto  
(Signature of Inventor) Akinobu TERAMOTO

Date: \_\_\_\_\_

\_\_\_\_\_  
(Signature of Inventor) Hiroshi KAMBAYASHI

Date: \_\_\_\_\_

\_\_\_\_\_  
(Signature of Inventor) Hirokazu UEDA

Date: \_\_\_\_\_

\_\_\_\_\_  
(Signature of Inventor) Yuichiro MOROZUMI

Date: \_\_\_\_\_

\_\_\_\_\_  
(Signature of Inventor) Katsushige HARADA

Date: \_\_\_\_\_

\_\_\_\_\_  
(Signature of Inventor) Kazuhide HASEBE

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Date: \_\_\_\_\_  
(Signature of Inventor) Akinobu TERAMOTO

Date: 05/27/2013  
(Signature of Inventor) Hiroshi KAMBAYASHI

Date: \_\_\_\_\_  
(Signature of Inventor) Hirokazu UEDA

Date: \_\_\_\_\_  
(Signature of Inventor) Yuichiro MOROZUMI

Date: \_\_\_\_\_  
(Signature of Inventor) Katsushige HARADA

Date: \_\_\_\_\_  
(Signature of Inventor) Kazuhide HASEBE

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Date: _____	_____ (Signature of Inventor) Akinobu TERAMOTO
Date: _____	_____ (Signature of Inventor) Hiroshi KAMBAYASHI
Date: <u>July 11th, 2013</u>	<u>Hirokazu Ueda</u> _____ (Signature of Inventor) Hirokazu UEDA
Date: <u>Jun. 24, 2013</u>	<u>Yuichiro Morozumi</u> _____ (Signature of Inventor) Yuichiro MOROZUMI
Date: <u>July, 8, 2013</u>	<u>Katsushige Harada</u> _____ (Signature of Inventor) Katsushige HARADA
Date: <u>July, 17, 2013</u>	<u>Kazuhide Hasebe</u> _____ (Signature of Inventor) Kazuhide HASEBE

07/09

Date: May 23, 2013

Tadahiro Ohmi  
(Signature of Inventor) Tadahiro OHMI

**OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.**  
ATTORNEYS AT LAW  
1940 DUKE STREET  
ALEXANDRIA, VIRGINIA 22314

07/09