PATENT ASSIGNMENT

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SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Tadahiro OHMI	02/22/2010
Akinobu TERAMOTO	02/22/2010
Tomoyuki SUWA	02/22/2010
Rihito KURODA	02/22/2010
Hideo KUDO	02/19/2010
Yoshinori HAYAMIZU	02/19/2010

RECEIVING PARTY DATA

Name:	TIONAL UNIVERSITY CORPORATION TOHOKU UNIVERSITY		
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City:	Sendai-shi, Miyagi		
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Postal Code:	980-8577		

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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12681576

CORRESPONDENCE DATA

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PATENT S01140467 REEL: 024192 FRAME: 0816

JP \$40.00 12681576

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George C. Beck

Total Attachments: 4

NAME OF SUBMITTER:

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> PATENT REEL: 024192 FRAME: 0817

ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor (hereinafter referred to as "ASSIGNOR") has sold, assigned, and transferred, and by these presents hereby sells, assigns, and transfers, unto

NATIONAL UNIVERSITY CORPORATION TOHOKU UNIVERSITY 1-1, Katahira 2-chome, Aoba-ku, Sendai-shi, Miyagi 980-8577, Japan; and

SHIN-ETSU HANDOTAI CO., LTD. 6-2, Ohtemachi 2-chome, Chiyoda-ku, Tokyo 100-0004, Japan

ant family in this I Inited States Detaut Application

(hereinafter ASSIGNEE) its successors and assigns, the full and exclusive right, title and interest for the United States, its territories and possessions in and to this invention relating to

SEMICONDUCTOR SUBSTRATE AND SEMICONDUCTOR DEVICE

as set fortil ill	uns Officed States Patent Application
Check	executed concurrently herewith
one	executed on
	[X] filed as International Patent Application No. PCT/JP2008/068183 on Oct. 6, 2008
	and

as well as in and to (a) all improvements and modifications of the above-identified invention or inventions, (b) the above-identified application and all other applications for Letters Patent of the United States for above-identified invention or inventions and all improvements and modifications thereof, (c) all Letters Patent which may issue from said applications in the United States, (d) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (e) the right to claim for any of said applications the full benefits and priority rights under the International Convention and any other international agreement to which the United States adheres; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors and assigns, to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by ASSIGNOR had this Assignment not been made.

ASSIGNOR HEREBY AUTHORIZES AND REQUESTS the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee of the entire interest, for the sole use and benefit of ASSIGNEE, its successors and assigns.

ASSIGNOR HEREBY AGREES (a) to communicate to ASSIGNEE, its successors and assigns, or their representative or agents, all facts and information known or available to ASSIGNOR respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings, whenever requested by ASSIGNEE; (b) to testify in person or by affidavit as required by ASSIGNEE, its successors and assigns, in any such proceeding in the United States; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, and declarations, depositions; and (d) to provide all reasonable assistance to ASSIGNEE, its

Page 1 of 2

successors and assigns, in obtaining and enforcing proper title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the law firm of Foley & Lardner LLP the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

ASSIGNOR UNDERSTANDS AND AGREES that the attorneys and agents of the law firm of Foley & Lardner LLP do not personally represent ASSIGNOR OR ASSIGNOR's legal interests, but instead represent the interests of ASSIGNEE; since said attorneys and agents cannot provide legal advice to ASSIGNOR with respect to this Assignment, ASSIGNOR acknowledges its right to seek its own independent legal counsel.

NAME AND SIGNATURE OF INVENTOR(S)

NAME:	Tadahiro OHMI	SIGNATURE:	Tadalo Olan) DATE:	Feb.	22,	2010
NAME: _	Akinobu TERAMOTO	SIGNATURE:	deinetu Terombo	DATE:	Feb.	22,	2010
NAME: _	Tomoyuki SUWA	SIGNATURE:	Tomoyuki Suwa	DATE:	Feb.	22,	2010
NAME:	Rihito KURODA	SIGNATURE:	Rohit Twode	DATE:	Feb.	22,	2010
NAME: _	Hideo KUDO	SIGNATURE:		DATE:			
NAME: _	Yoshinori HAYAMIZU	SIGNATURE:		DATE:		· · · · · · · · · · · · · · · · · · ·	
NAME AND SIGNATURE OF WITNESSES							
NAME: S	Shigemichi NIDAIRA	_ SIGNATURE	Thy Mille	DATE	: <u>Feb.</u>	22,	2010
			Tai Mattend				

Note: *Prima facie* evidence of execution may optionally be obtained by execution of this document before a U.S. Consul or before a local officer authorized to administer oaths whose authority is proved by certificate from a U.S. Consul.

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SEMICONDUCTOR SUBSTRATE AND SEMICONDUCTOR DEVICE

as set forth in	this United States Patent Application
Check one	executed concurrently herewith executed on filed as International Patent Application No. PCT/JP2008/068183 on Oct. 6, 2008 and

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NAME AND SIGNATURE OF INVENTOR(S)

RECORDED: 04/06/2010

NAME:	Tadahiro OHMI	_SIGNATURE: _		DATE:	
NAME:	Akinobu TERAMOTO	_SIGNATURE: _		DATE:	
NAME:	Tomoyuki SUWA	_SIGNATURE: _		DATE:	
NAME:	Rihito KURODA	_SIGNATURE: _		DATE:	
NAME:	Hideo KUDO	_SIGNATURE: _	H. Kudo	DATE: <u>Fob. 19, 2010</u>	
NAME:	Yoshinori HAYAMIZU	_SIGNATURE: _	y. Hazamizu	DATE: Feb. 19, 2010	
NAME	AND SIGNATURE OF V	VITNESSES			
NAME:	Takeshi KOBAYASHI	_ SIGNATURE:	D. Hobayashi	DATE: <u>Feb. 19, 201</u>	٥
NAME:	Hisashi MASUMURA	_ SIGNATURE:	24 - masumur A	DATE: <u>Feb. 19.20/</u>	O

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Page 2 of 2