

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
HIROYUKI KISHIHARA	05/10/2018
TOSHINORI YOSHIMUTA	05/10/2018
SATOSHI TOKUDA	05/10/2018
YUKIHISA WADA	05/10/2018
MAKOTO MOTOYOSHI	05/10/2018
RECEIVING PARTY DATA	
Name:	SHIMADZU CORPORATION
Street Address:	1, NISHINOKYO-KUWABARACHO
Internal Address:	NAKAGYO-KU, KYOTO-SHI
City:	KYOTO
State/Country:	JAPAN
Postal Code:	604-8511
Name:	TOHOKU-MICROTEC CO., LTD.
Street Address:	T-BIZ203, 6-6-40 AZA-AOBA
Internal Address:	ARAMAKI, AOBA-KU
City:	SENDAI-SHI, MIYAGI
State/Country:	JAPAN
Postal Code:	980-8579
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	15775538
CORRESPONDENCE DATA	
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<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
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PATENT

ATTORNEY DOCKET NUMBER:	SHM-475MAS
NAME OF SUBMITTER:	PATRICK MUIR
SIGNATURE:	/Patrick Muir/
DATE SIGNED:	05/29/2018
Total Attachments: 4 source=ASSIGNMENT P15-53-1PC-1US (Shimadzu)#page1.tif source=ASSIGNMENT P15-53-1PC-1US (Shimadzu)#page2.tif source=ASSIGNMENT P15-53-1PC-1US (Tohoku-Microtec)#page1.tif source=ASSIGNMENT P15-53-1PC-1US (Tohoku-Microtec)#page2.tif	

ASSIGNMENT

The undersigned, hereinafter referred to collectively as "Assignor," has an interest in the invention(s) (the "Invention(s)") set forth in an application for patent of the United States or in an International application, entitled:

SEMICONDUCTOR DEVICE AND SEMICONDUCTOR DETECTOR, METHODS FOR MANUFACTURING SAME, AND SEMICONDUCTOR CHIP OR SUBSTRATE

which names the undersigned inventor(s) and is a:

- (1) ☐ Provisional Patent Application No. _____;
- (2) ☒ Non-Provisional Application
 - (a) ☐ along with a Declaration signed today with this assignment;
 - (b) ☐ where the Declaration was signed on _____; or
 - (c) ☒ filed on 11/12/2015, and assigned Serial No. _____ or PCT International Application No. PCT/JP2015/081891.

In consideration of promises and/or other good and valuable considerations, the receipt and sufficiency of which is hereby acknowledged, the undersigned, who have made a certain new and useful invention(s), hereby sell, assign and transfer unto

SHIMADZU CORPORATION

having an address at 1, Nishinokyo-Kuwabaracho, Nakagyo-ku, Kyoto-shi, Kyoto 604-8511 Japan; and

TOHOKU-MICROTEC CO., LTD.

Having an address at T-Biz203, 6-6-40 Aza-Aoba, Aramaki, Aoba-ku, Sendai-shi, Miyagi 980-8579 Japan, their 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 described in the application for patent identified in (1) or (2).

Assignor hereby confirms any prior assignment to Assignee, and to the extent that Assignor has not already done so, agrees to assign, and hereby does, sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and throughout the world, to:

- (a) the Invention(s);
- (b) the application for patent identified in (1) or (2) above;
- (c) the right to file applications for patent of the United States or other countries on the Invention(s), including the right to claim priority and all other rights under the laws of the United States, other countries, the Paris Convention for the Protection of Industrial Property and under the Patent Cooperation Treaty;
- (d) any application(s) for patent of the United States or other countries claiming the Invention(s);
- (e) any application(s) for patent of the United States or other countries claiming priority to the application for patent identified in (1) or (2) above, including any non-provisional application(s), international applications, division(s), continuation(s), and continuations-in-part;
- (f) any provisional or other right to recover damages, including royalties, for prior infringements of any application for patent identified in the preceding paragraphs (b)-(e); and
- (g) any patent(s) of the United States or other countries that may be granted for or on any application for patent identified in the preceding paragraphs (b)-(e), including any reissue(s) and extension(s) of said patent(s).

The above-granted rights, titles, and interests are to be held and enjoyed by the Assignees, for their own use and behalf and the use and behalf of its successors, legal representatives, and assigns, as fully and

entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made. 50% of the above-granted rights, titles, and interests are granted to Shimadzu Corporation and 50% of the above-granted rights, titles, and interests are granted to Tohoku-Microtec Co., Ltd.

Assignor hereby covenants that no assignment, sale, license, agreement or encumbrance has been or will be entered into which would conflict with this Assignment.

Assignor agrees to cooperate with Assignee and its successors and execute all instruments or documents requested for the making and prosecution of any applications of any type for patent in the United States and in all foreign countries including, but not limited to the following: provisional, continuation, continuation-in-part, divisional, renewal or substitute, reissue, re-examination, or extension. Assignor agrees to cooperate with Assignee and its successors in any litigation regarding the invention, patents or applications regarding the invention, and render all necessary assistance deemed essential to Assignee's or its successor's full protection and title in and to the invention hereby transferred without further or other compensation than that provided in this Assignment; the undersigned agree that the attorneys of record in said application shall hereafter act on behalf of said Assignee.

Assignor requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States of America to Assignee, and request that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications, issue said Letters Patent, Utility Model Registration or Inventor's Certificate to Assignee.

Assignor hereby grants the firm of MUIR PATENT LAW, PLLC the power to insert on this assignment any further identification that may be necessary or desirable in order to comply with the rules of any issuing authority, including the United States Patent and Trademark Office, for recordation of this document.

Inventor/Assignor Signature:

Hiroyuki Kishihara (signature)
Assignor: **Hiroyuki KISHIHARA**

10 / May , 2018
Date

Toshinori Yoshimuta (signature)
Assignor: **Toshinori YOSHIMUTA**

10 / May , 2018
Date

Satoshi Tokuda (signature)
Assignor: **Satoshi TOKUDA**

10 / May , 2018
Date

Yukihisa Wada (signature)
Assignor: **Yukihisa WADA**

10 / May , 2018
Date

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TOHOKU-MICROTEC CO., LTD.

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- (a) the Invention(s);
- (b) the application for patent identified in (1) or (2) above;
- (c) the right to file applications for patent of the United States or other countries on the Invention(s), including the right to claim priority and all other rights under the laws of the United States, other countries, the Paris Convention for the Protection of Industrial Property and under the Patent Cooperation Treaty;
- (d) any application(s) for patent of the United States or other countries claiming the Invention(s);
- (e) any application(s) for patent of the United States or other countries claiming priority to the application for patent identified in (1) or (2) above, including any non-provisional application(s), international applications, division(s), continuation(s), and continuations-in-part;
- (f) any provisional or other right to recover damages, including royalties, for prior infringements of any application for patent identified in the preceding paragraphs (b)-(e); and
- (g) any patent(s) of the United States or other countries that may be granted for or on any application for patent identified in the preceding paragraphs (b)-(e), including any reissue(s) and extension(s) of said patent(s).

The above-granted rights, titles, and interests are to be held and enjoyed by the Assignees, for their own use and behalf and the use and behalf of its successors, legal representatives, and assigns, as fully and

entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made. 50% of the above-granted rights, titles, and interests are granted to Shimadzu Corporation and 50% of the above-granted rights, titles, and interests are granted to Tohoku-Microtec Co., Ltd.

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Inventor/Assignor Signature:


Assignor: **Makoto MOTOYOSHI** (signature)

May 10, 2018
Date