PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TOSHIMITSU KANEKO	03/30/2018
TAKUYA FUJII	03/29/2018
MASAMI ISHIURA	03/29/2018
TARO HASEGAWA	03/29/2018
TOSHIYUKI TAGUCHI	10/30/2018

RECEIVING PARTY DATA

Name:	SUMITOMO ELECTRIC INDUSTRIES, LTD.	
Street Address:	5-33, KITAHAMA 4-CHOME, CHUO-KU	
City:	OSAKA-SHI, OSAKA	
State/Country:	JAPAN	
Postal Code:	541-0041	
Name:	SUMITOMO ELECTRIC DEVICE INNOVATIONS, INC.	
Street Address:	1, KANAI-CHO, SAKAE-KU	
City:	YOKOHAMA-SHI, KANAGAWA	
City: State/Country:		

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15876966

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: 043132.425564

> **PATENT REEL: 047755 FRAME: 0218**

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NAME OF SUBMITTER: KAILIE R. MACKEVERICAN	
SIGNATURE:	/Kailie R. MacKeverican/
DATE SIGNED:	12/12/2018
Total Attachments: 5	
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PATENT REEL: 047755 FRAME: 0219

ASSIGNMENT BY INVENTOR

THIS ASSIGNMENT, made by <u>Toshimitsu KANEKO</u> (hereinafter referred to as Assignor), residing at <u>Yokohama-shi, Kanagawa, Japan</u> and by <u>Takuya FUJII</u> (hereinafter referred to as Assignor) residing at <u>Yokohama-shi, Kanagawa, Japan</u> and <u>Masami ISHIURA</u> (hereinafter referred to as Assignor) residing at <u>Yokohama-shi, Kanagawa, Japan</u> and <u>Taro HASEGAWA</u> (hereinafter referred to as Assignor) residing at <u>Yokohama-shi, Kanagawa, Japan</u> and <u>Toshiyuki TAGUCHI</u> (hereinafter referred to as Assignor), residing at <u>Yokohama-shi, Kanagawa, Japan</u>;

WHEREAS, Assignor has invented certain new and useful improvements in	
PROCESS OF FORMING EPITAXIAL SUBSTRATE AND SEMICONDUCTOR OPTICAL	
<u>DEVICE</u> , set forth in a patent application for Letters Patent of the United States,	
filed concurrently herewith;	
filed on <u>January 22, 2018</u> as U.S. Patent Application No. <u>15/876,966</u> and	_;

WHEREAS, 1)SUMITOMO ELECTRIC INDUSTRIES, LTD. having its principal place of business at 5-33, Kitahama 4-chome, Chuo-ku, Osaka-shi, Osaka 541-0041 Japan (hereinafter referred to as Assignee), and 2) SUMITOMO ELECTRIC DEVICE INNOVATIONS, INC. having its principal place of business at 1, Kanai-cho, Sakae-ku, Yokohama-shi, Kanagawa 244-0845 Japan (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents does sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and

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PATENT REEL: 047755 FRAME: 0220 interest in and to the above-mentioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuations-in-part of said application, and any and all Letters Patent in the United States which may be granted therefore and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.

AND for the same consideration, Assignor hereby represents and warrants to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignor is the sole and lawful owners of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND for the same consideration, Assignor hereby covenants and agrees to and with Assignee, its successors, legal representatives and assigns, that Assignor will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said Patent application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

AND Assignor hereby requests the Commissioner of Patent and Trademarks to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the

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Letters Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns.

AND Assignor hereby grants the following individuals the power to insert on this Assignment any further identification 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:

VENABLE LLP

All practitioners at Customer Number 26694

AND Assignor acknowledges an obligation of assignment of this invention to Assignee at the time the invention was made.

Executed on:	Mar. 30,2018
	Date
Assignor:	
Toshimitsu KANEKO	Tostimism Coure 60
Assignor Name	Signature
Witness:	
Witness Name	Signature
Witness Address	

Attorney Docket No.

Executed on:	3.29,2018
Assignor: Takuya FUJII Assignor Name	Date Jahryn Tupn Signature
Witness:	
Witness Name	Signature
Witness Address	
Executed on:	Mar. 29. 2018 Date
Assignor:	
Masami ISHIURA	Masami Ishiura
Assignor Name	Signature
Witness:	
Witness Name	Signature
Witness Address	

Executed on:	Mar. 29, 2018	
	Date	
Assignor:	Taro Hasegawa	
Taro HASEGAWA	[000 / 1000-70000]	
Assignor Name	Signature	
Witness:		
Witness Name	Signature	
Witness Address		
Executed on:	0ctobew 0, 2018	
	Date	
Assignor:		
Toshiyuki TAGUCHI	Toskiyuki TAGUCHI	
Assignor Name	Signature	
Witness:		
Witness Name	Signature	
		
Witness Address		

DC2-978377

Venable LLP

RECORDED: 12/12/2018

REEL: 047755 FRAME: 0224