

<b>PATENT ASSIGNMENT COVER SHEET</b>
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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
MITSURU MITSURU	05/24/2019
JAE-HOON HAN	05/24/2019
SHINICHI TAKAGI	05/24/2019
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	THE UNIVERSITY OF TOKYO
<b>Street Address:</b>	3-1, HONGO 7-CHOME, BUNKYO-KU,
<b>City:</b>	TOKYO
<b>State/Country:</b>	JAPAN
<b>Postal Code:</b>	113-8654
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16325895
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<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>	
<b>Phone:</b>	609-896-3600
<b>Email:</b>	ipdocket@foxrothschild.com
<b>Correspondent Name:</b>	FOX ROTHSCHILD LLP PRINCETON PIKE CORPOR
<b>Address Line 1:</b>	997 LENOX DRIVE
<b>Address Line 2:</b>	BLDG. #3
<b>Address Line 4:</b>	LAWRENCEVILLE, NEW JERSEY 08648
<b>ATTORNEY DOCKET NUMBER:</b>	111327.00029
<b>NAME OF SUBMITTER:</b>	KAREN TARAGOWSKI
<b>SIGNATURE:</b>	/KAREN TARAGOWSKI/
<b>DATE SIGNED:</b>	06/07/2019
<b>Total Attachments: 2</b>	
source=Assignment#page1.tif	
source=Assignment#page2.tif	

**ASSIGNMENT OF INVENTION**

In consideration of the payment by ASSIGNEE to ASSIGNOR(S) of the sum of One Dollar (\$1.00) and for other good and valuable consideration, the receipt of which is hereby acknowledged, by this document

ASSIGNOR(S):

Name	Address
Mitsuru TAKENAKA	c/o The University of Tokyo, 3-1, Hongo 7-chome, Bunkyo-ku, Tokyo 113-8654 Japan
Jae-Hoon HAN	c/o The University of Tokyo, 3-1, Hongo 7-chome, Bunkyo-ku, Tokyo 113-8654 Japan
Shinichi TAKAGI	c/o The University of Tokyo, 3-1, Hongo 7-chome, Bunkyo-ku, Tokyo 113-8654 Japan

assigns and transfers to:

ASSIGNEE:

Name	Address
The University of Tokyo	3-1, Hongo 7-chome, Bunkyo-ku, Tokyo 113-8654 Japan

the entire right, title and interest in and to the invention entitled:

**METAL-OXIDE-SEMICONDUCTOR (MOS) OPTICAL MODULATOR AND METHOD OF MANUFACTURING SAME**

and which is found in:

- the U.S. patent application filed with this assignment document
- U.S. patent application no., filed on
- International patent application no. PCT/JP2017/029548, filed on August 17, 2017
- U.S. patent no., issued

and, in and to

- all patent applications filed and letters patent obtained for the invention, whether foreign and domestic, and all continuations, continuation-in-part divisions, renewals, reissues, re-examinations, or substitutes of any such patent or patent application; and any patents and patent applications to which any such patent or patent application claims priority;
- all rights to any legal equivalent thereof in a foreign country such as patents of addition, utility models, patents of importation, revalidation patents and inventor certificates;

- the right to apply for patents and inventor certificates relating to the invention, and the right to claim priority to all applications throughout the world in respect of the invention; and
- the right to sue and recover any and all damages and profits, and any and all other remedies, for past, present, or future infringements of patents directed to the invention.

ASSIGNOR(S) authorizes ASSIGNEE or its legal representative to insert in this instrument the filing date, serial number, and any other information that may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office or any other domestic or foreign government entity for the recordation of this document.

ASSIGNOR(S) warrants and agrees that:

- no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;
- upon request, ASSIGNOR(S) will promptly provide ASSIGNEE with all pertinent facts and documents relating to the invention as may be known and accessible to ASSIGNOR(S);
- ASSIGNOR(S) will, at ASSIGNEE'S expense, testify as to the same in any interference, litigation or proceeding related to the invention; and
- ASSIGNOR(S) will promptly execute and deliver to ASSIGNEE, its assigns or its legal representatives, without further or additional consideration, any and all papers, instruments or affidavits required, render all necessary assistance, and do such additional acts as ASSIGNEE or its successors or assigns may deem necessary or desirable, to apply for, obtain, maintain, issue and enforce any resulting patents or patent applications.

ASSIGNOR(S) hereby authorize and request the Commissioner of Patents and Trademarks and any foreign counterpart to issue any and all letters patent for the invention to ASSIGNEE, for ASSIGNEE'S sole use and benefit, and for the use and benefit of ASSIGNEE'S successors and assigns, to the full end of the term for which such patent may be granted.

ASSIGNOR(S) agree that this document shall bind and inure to the benefit of the heirs, assigns and legal representatives of both ASSIGNOR(S) and ASSIGNEE.

Date: May 24, 2019 Signature: 竹中 充  
Mitsuru TAKENAKA

Date: May 24, 2019 Signature: 한민호  
Jae-Hoon HAN

Date: May 24, 2019 Signature: 高木 信一  
Shinichi TAKAGI