

## PATENT ASSIGNMENT COVER SHEET

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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>
Tetsuhiro Tanaka	03/30/2016
Mitsuhiro Ichijo	03/25/2016
Toshiya Endo	03/24/2016
Akihisa Shimomura	03/27/2016
Yuji EGI	03/24/2016
Sachiaki Tezuka	03/25/2016
Shunpei Yamazaki	03/31/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SEMICONDUCTOR ENERGY LABORATORY CO., LTD.
<b>Street Address:</b>	398, HASE
<b>City:</b>	ATSUGI-SHI, KANAGAWA-KEN
<b>State/Country:</b>	JAPAN
<b>Postal Code:</b>	243-0036
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16044600
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(877)769-7945
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<b>Phone:</b>	(202) 626-6430
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<b>Address Line 1:</b>	FISH & RICHARDSON P.C.
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<b>ATTORNEY DOCKET NUMBER:</b>	12732-1677002
<b>NAME OF SUBMITTER:</b>	SHARON M. ALLEN
<b>SIGNATURE:</b>	/Sharon M. Allen/
<b>DATE SIGNED:</b>	07/25/2018

PATENT

**Total Attachments: 8**

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**ASSIGNMENT**

For valuable consideration, We, Tetsuhiro TANAKA of 1-1-5-401, Shitajuku, Kiyose-shi, Tokyo-to, 204-0001, Japan, Mitsuhiro ICHIJO of Zama, Kanagawa, Japan, Toshiya ENDO of Atsugi, Kanagawa, Japan, Akihisa SHIMOMURA of 559-2, Aina, Atsugi-shi, Kanagawa-ken, 243-0038, Japan, Yuji EGI of Isehara, Kanagawa, Japan, Sachiaki TEZUKA of Atsugi, Kanagawa, Japan and Shunpei YAMAZAKI of Setagaya, Tokyo, Japan hereby assign to Semiconductor Energy Laboratory Co., Ltd., a Japanese corporation having a place of business at:

398, Hase, Atsugi-shi, Kanagawa-ken, 243-0036 Japan

and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent signed by us this day, entitled SEMICONDUCTOR DEVICE AND MANUFACTURING METHOD THEREOF, filed April 7, 2016, and assigned U.S. Serial Number 15/092,956, and we authorize and request the attorneys appointed in said application to hereafter complete this assignment by inserting above the filing date and serial number of said application when known; this assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

Signature Tetsuhiro TANAKA  
Name: Tetsuhiro TANAKA  
Date: 3/30/2016

Signature \_\_\_\_\_  
Name: Mitsuhiro ICHIJO  
Date: \_\_\_\_\_

Signature \_\_\_\_\_  
Name: Toshiya ENDO \_\_\_\_\_  
Date: \_\_\_\_\_

Signature \_\_\_\_\_  
Name: Akihisa SHIMOMURA \_\_\_\_\_  
Date: \_\_\_\_\_

Signature \_\_\_\_\_  
Name: Yuji EGI \_\_\_\_\_  
Date: \_\_\_\_\_

Signature \_\_\_\_\_  
Name: Sachiaki TEZUKA \_\_\_\_\_  
Date: \_\_\_\_\_

Signature \_\_\_\_\_  
Name: Shunpei YAMAZAKI \_\_\_\_\_  
Date: \_\_\_\_\_

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Signature \_\_\_\_\_  
Name: Tetsuhiro TANAKA  
Date: \_\_\_\_\_

Signature MITSUHIRO ICHJO  
Name: Mitsuhiro ICHJO  
Date: 03/25/2016

Signature Toshiya ENDO  
Name: Toshiya ENDO  
Date: 03/24/2016

Signature \_\_\_\_\_  
Name: Akihisa SHIMOMURA  
Date: \_\_\_\_\_

Signature Yuji Egi  
Name: Yuji EGI  
Date: 03/24/2016

Signature Sachiaki TEZUKA  
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Date: \_\_\_\_\_

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Name: Toshiya ENDO  
Date: \_\_\_\_\_

Signature Akihisa SHIMOMURA  
Name: Akihisa SHIMOMURA  
Date: 03/27/2016

Signature \_\_\_\_\_  
Name: Yuji EGI  
Date: \_\_\_\_\_

Signature \_\_\_\_\_  
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Signature \_\_\_\_\_

Name: Tetsuhiro TANAKA

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

Signature \_\_\_\_\_

Name: Mitsuhiro ICHIJO

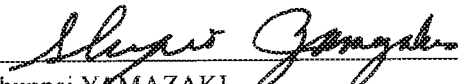
Date: \_\_\_\_\_

Signature \_\_\_\_\_  
Name: Toshiya ENDO \_\_\_\_\_  
Date: \_\_\_\_\_

Signature \_\_\_\_\_  
Name: Akihisa SHIMOMURA \_\_\_\_\_  
Date: \_\_\_\_\_

Signature \_\_\_\_\_  
Name: Yuji EGI \_\_\_\_\_  
Date: \_\_\_\_\_

Signature \_\_\_\_\_  
Name: Sachiaki TEZUKA \_\_\_\_\_  
Date: \_\_\_\_\_

Signature  \_\_\_\_\_  
Name: Shunpei YAMAZAKI \_\_\_\_\_  
Date: 05/31/2016 \_\_\_\_\_