505792278 11/26/2019

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Shunpei Yamazaki	11/18/2019
Tatsuya Onuki	11/19/2019
Katsuaki Tochibayashi	11/18/2019

RECEIVING PARTY DATA

Name:	SEMICONDUCTOR ENERGY LABORATORY CO., LTD.
Street Address:	398, HASE
City:	ATSUGI-SHI, KANAGAWA-KEN
State/Country:	JAPAN
Postal Code:	243-0036

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16695385

CORRESPONDENCE DATA

Fax Number: (877)769-7945

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.

(202) 783-5070 Phone: Email: apsi@fr.com JOHN F. HAYDEN **Correspondent Name:**

Address Line 1: FISH & RICHARDSON P.C.

Address Line 2: P.O.BOX 1022

Address Line 4: MINNEAPOLIS, MINNESOTA 55440-1022

ATTORNEY DOCKET NUMBER: 12732-1982001 NAME OF SUBMITTER: APRIL K. SAUNDERS-FULLER SIGNATURE: /April K. Saunders-Fuller/ **DATE SIGNED:** 11/26/2019

Total Attachments: 2

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> **PATENT REEL: 051115 FRAME: 0508** 505792278

ASSIGNMENT

For valuable consideration, We, <u>Shunpei YAMAZAKI of Setagaya</u>, <u>Tokyo, Japan. Tatsuya ONUKI of Atsugi, Kanagawa, Japan and Katsuaki TOCHIBAYASHI of Isehara, Kanagawa, Japan hereby assign to <u>Semiconductor Energy Laboratory Co., Ltd.</u>, a <u>Japanese</u> corporation having a place of business at:</u>

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 <u>SEMICONDUCTOR DEVICE AND</u>
MANUFACTURING METHOD OF SEMICONDUCTOR DEVICE, filed November 26, 2019 , and
assigned U.S. Serial Number 16/695,385 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	Shiper Janyer	
Name:	Shunpel YAMAZAKI	
Date:	11/18/2019	
Signature		
Name:	Tatsuya ONUKI	
Date:		
Signature		
Name:	Katsuaki TOCHIBAYASHI	
Date:		

PATENT REEL: 051115 FRAME: 0509

Attorney Docket No. 12732-1982001 Client Reference No. US29245 Page 2 of 2

ASSIGNMENT

For valuable consideration, We, <u>Shunpei YAMAZAKI of Setagaya</u>, <u>Tokyo</u>, <u>Japan</u>, <u>Tatsuya</u> <u>ONUKI of Atsugi</u>, <u>Kanagawa</u>, <u>Japan and Katsuaki TOCHIBAYASHI of Isehara</u>, <u>Kanagawa</u>, <u>Japan hereby</u> assign to <u>Semiconductor Energy Laboratory Co., Ltd.</u>, a <u>Japanese</u> 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

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assigned 1	U.S. Serial Numb	oer <u>l</u>	6/695,385 <u> </u>	, ar	d we author	ize and request	t the attorneys	
appointed	in said applicatio	n to hereaf	ter complet	te this assigr	ment by inse	rting above the	filing date and	
serial num	iber of said applica	ition when l	known; this	s assignment	ncluding said	application, any	y and all United	
States and	l foreign patents,	utility mod	lels, and de	esign registra	tions granted	for any of said	d inventions or	
improvem	ents, and the rig	ht to clain	ı priority l	based on the	filing date	of said applica	ntion under the	
Internation	nal Convention fo	or the Prot	tection of	Industrial Pr	operty, the P	'atent Cooperati	ion Treaty, the	
European	Patent Convention	, and all ot	her treaties	of like purp	oses; and we	authorize the As	signee to apply	
in all coun	ntries in our name o	or in its ow	n name for	patents, utili	y models, des	sign registrations	s and like rights	
of exclusion	on and for invento	rs' certifica	tes for said	inventions as	nd improveme	ents; and we agree	ee for ourselves	ė.
and our re	espective heirs, le	gal represe	ntatives and	d assigns, wi	thout further	compensation to	o perform such	
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RECORDED: 11/26/2019

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