12/19/2019 505830451

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Junichi Koezuka	11/14/2013
Yukinori Shima	11/14/2013
Hajime Tokunaga	11/14/2013
Toshinari Sasaki	11/10/2013
Keisuke Murayama	11/10/2013
Daisuke Matsubayashi	11/13/2013

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:	16720296

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.

Phone: (214) 292-4040 Email: apsi@fr.com DAVID B. HARDY **Correspondent Name:**

FISH & RICHARDSON P.C. Address Line 1:

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ATTORNEY DOCKET NUMBER:	12732-1252004
NAME OF SUBMITTER:	SHARON M. ALLEN
SIGNATURE:	/Sharon M. Allen/
DATE SIGNED:	12/19/2019

Total Attachments: 6 source=12732-1252004 Assgn #page1.tif source=12732-1252004 Assgn #page2.tif source=12732-1252004 Assgn #page3.tif source=12732-1252004 Assgn #page4.tif source=12732-1252004 Assgn #page5.tif

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ASSIGNMENT

For valuable consideration, We, <u>Junichi KOEZUKA of Tochigi</u>, <u>Japan, Yukinori</u> SHIMA of Tatebayashi, <u>Gunma</u>, <u>Japan, Hajime TOKUNAGA of Gureisuwadamachi505</u>, 3-9-6, <u>Hoshikawa</u>, <u>Hodogaya-ku</u>, <u>Yokohama-shi</u>, <u>Kanagawa-ken</u>, <u>240-0006</u>, <u>Japan</u>, <u>Toshinari SASAKI of C/O Tomita</u>, <u>5-8-15-405</u>, <u>Kitashinagawa</u>, <u>Shinagawa-ku</u>, <u>Tokyo-to</u>, <u>141-0001</u>, <u>Japan</u>, <u>Keisuke MURAYAMA of GurankasaH103</u>, <u>7-3-46</u>, <u>Kagawa</u>, <u>Chigasaki-shi</u>, <u>Kanagawa-ken</u>, <u>253-0082</u>, <u>Japan and Daisuke MATSUBAYASHI of Atsugi</u>, <u>Kanagawa</u>, <u>Japan</u> hereby assign to <u>Semiconductor Energy Laboratory Co.</u>, <u>Ltd.</u>, 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 METHOD FOR MANUFACTURING THE SAME, filed October 23, 2012, and assigned U.S. Serial Number 14/061.510. 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	Junichi	KOEZUKA
Name:	Junichi KOEZUK/	4
Date:	11/14/20	13
Signature	- Kalinari	Shone
Name:	Yukinori SHIMA	
Date:	11/14	/ 2013

Attorney Docket No. 12732-1252002 Client Ref. US17820-C1 Page 2

Signature	
Name:	Hajime TOKUNAGA
Date:	
Signature	Todinari SASAKI
Name:	Toshinari SASAKI
Date:	11/10/2013
Signature	`
Name:	Keisuke MURAYAMA
Date:	
Signature	
Name:	Daisuke MATSUBAYASHI
Date:	

<u>ASSIGNMENT</u>

For valuable consideration, We, Junichi KOEZUKA of Tochigi, Tochigi, Japan, Yukinori SHIMA of Tatebayashi, Gunma, Japan, Hajime TOKUNAGA of Gureisuwadamachi505, 3-9-6, Hoshikawa, Hodogaya-ku, Yokohama-shi, Kanagawa-ken, 240-0006, Japan, Toshinari SASAKI of C/O Tomita, 5-8-15-405, Kitashinagawa, Shinagawa-ku, Tokyo-to, 141-0001, Japan, Keisuke MURAYAMA of GurankasaIII03, 7-3-46, Kagawa, Chigasaki-shi, Kanagawa-ken, 253-0082, Japan and Daisuke MATSUBAYASHI of Atsugi, Kanagawa, 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 METHOD FOR MANUFACTURING THE SAME, filed October 23, 2013, and assigned U.S. Serial Number 14/061,510, 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		
Name:	Junichi KOEZUKA	
Date:		
Signature		
Name:	Yukinori SHIMA	
Date:		

Attorney Docket No. 12732-1252002 Client Ref. US17820-C1 Page 4

Signature	tagune Johnaga Hajime TOKUNAGA
Name:	Hajime TOKUNAGA
Date:	11/14/2013
Signature	
Name:	Toshinari SASAKI
Date:	
Signature	
Name:	Keisuke MURAYAMA
Date:	
Signature	
Name:	Daisuke MATSUBAYASHI
Date:	

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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 METHOD FOR MANUFACTURING THE SAME, filed October 23, 2013, and assigned U.S. Serial Number 14/061.510. 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	
Name:	Junichi KOEZUKA
Date:	
Signature	
Name:	Yukinori SHIMA
Date:	

Attorney Docket No. 12732-1252002 Client Ref. US17820-C1

Signature	
Name:	Hajime TOKUNAGA
Date:	
Signature	
Name:	Toshinari SASAKI
Date:	
Signature	11/10/2013
Name:	Keisuke MURAYAMA
Date:	Kersuke Murayama
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Signature	Daisuke Matsulogashi
Name:	Daisuke MATSUBAYASHI
Date:	11/13/2013

RECORDED: 12/19/2019