

PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
| NATURE OF CONVEYANCE: | ASSIGNMENT |
| CONVEYING PARTY DATA | |
| Name | Execution Date |
| KIYOSHI KATO | 03/29/2017 |
| YUTAKA SHIONOIRI | 03/31/2017 |
| TAKANORI MATSUZAKI | 03/30/2017 |
| 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: | 15482985 |
| CORRESPONDENCE DATA | |
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| <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> | |
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| ATTORNEY DOCKET NUMBER: | 12732-1823001 |
| NAME OF SUBMITTER: | JANELLE A. JACKSON |
| SIGNATURE: | /Janelle A. Jackson/ |
| DATE SIGNED: | 04/12/2017 |
| Total Attachments: 2 | |
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| source=12732-1823001 Assignment#page2.tif | |

ASSIGNMENT

For valuable consideration, We, Kiyoshi KATO of Atsugi, Kanagawa, Japan, Yutaka SHIONOIRI of 839-11, Ishida, Isehara-shi, Kanagawa-ken, 259-1116, Japan and Takanori MATSUZAKI 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 OPERATING THE SEMICONDUCTOR DEVICE, filed April 10, 2017, and assigned U.S. Serial Number 15/482,985, 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 Kiyoshi Kato
Name: Kiyoshi KATO
Date: 03/29/2017

Signature _____
Name: Yutaka SHIONOIRI
Date: _____

Signature Takanori MATSUZAKI
Name: Takanori MATSUZAKI
Date: 03/30/2017

ASSIGNMENT

For valuable consideration, We, Kiyoshi KATO of Atsugi, Kanagawa, Japan, Yutaka SHIONOIRI of 839-11, Ishida, Isehara-shi, Kanagawa-ken, 259-1116, Japan and Takanori MATSUZAKI of Atsugi, Kanagawa, Japan hereby assign to Semiconductor Energy Laboratory Co., Ltd., a Japanese corporation having a place of business at:

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Signature _____
Name: Kiyoshi KATO
Date: _____

Signature Yutaka SHIONOIRI
Name: Yutaka SHIONOIRI
Date: 03/31/2017

Signature _____
Name: Takanori MATSUZAKI
Date: _____