PATENT ASSIGNMENT COVER SHEET

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

<table>
<thead>
<tr>
<th>Name</th>
<th>Execution Date</th>
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</thead>
<tbody>
<tr>
<td>YUTA ENDO</td>
<td>12/12/2013</td>
</tr>
</tbody>
</table>

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

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<td>Application Number:</td>
<td>15584064</td>
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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: (202) 783-5070
Email: APSI@fr.com
Correspondent Name: JOHN F. HAYDEN
Address Line 1: FISH & RICHARDSON P.C.
Address Line 2: P.O.BOX 1022
Address Line 4: MINNEAPOLIS, MINNESOTA 55440-1022

ATTORNEY DOCKET NUMBER: 12732-1268002
NAME OF SUBMITTER: JANELLE A. JACKSON
SIGNATURE: /Janelle A. Jackson/
DATE SIGNED: 06/07/2017

Total Attachments: 1
source=12732-1268002 Assignment#page1.tif
ASSIGNMENT

For valuable consideration, I, Yuta ENDO 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 me this day, entitled SEMICONDUCTOR DEVICE AND MANUFACTURING METHOD THEREOF, filed 12/27/2013, and assigned U.S. Serial Number 14/141,806, and I authorize and request the Assignee or 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 I authorize the Assignee to apply in all countries in my 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 I agree for myself and my 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  Yuta Endo
Name: Yuta ENDO
Date: 12/12/2013

RECORDER: 06/07/2017
PATENT
REEL: 042639 FRAME: 0676