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PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------|----------------|
| Yuichi Sato | 06/21/2019 |
| Ryota Hodo | 06/25/2019 |
| Yuta lida | 07/03/2019 |
| Tomoaki Moriwaka | 06/25/2019 |

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: | 16478532 |

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.

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Address Line 4: MINNEAPOLIS, MINNESOTA 55440-1022

| ATTORNEY DOCKET NUMBER: | 12732-1956US1 |
|-------------------------|----------------------------|
| NAME OF SUBMITTER: | APRIL K. SAUNDERS-FULLER |
| SIGNATURE: | /April K. Saunders-Fuller/ |
| DATE SIGNED: | 07/17/2019 |

Total Attachments: 4

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> PATENT REEL: 049778 FRAME: 0688

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ASSIGNMENT

For valuable consideration, We, Yuichi SATO of Isehara, Kanagawa, Japan, Ryota HODO of Atsugi, Kanagawa, Japan, Yuta IIDA of Riburipurandorurara305, 3951-3, Ikonobe-cho, Tsuzuki-ku, Yokohama-shi, Kanagawa-ken, 224-0053, Japan and Tomoaki MORIWAKA of Isehara, Kanagawa, Japan hereby assign to Scmiconductor 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 <u>CAPACITOR, SEMICONDUCTOR DEVICE, AND</u> |
| MANUFACTURING METHOD OF SEMICONDUCTOR DEVICE, filed July 17, 2019, and |
| assigned U.S. Serial Number <u>16/478.532</u> , 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 | Ywicki SATU | |
|-----------|--------------|--|
| Name: | Yuichi SATO | |
| Date: | 06 /21 /2019 | |
| Signature | Rudo Hofo | |
| Name: | Ryota HODO | |
| Date: | 06/25/2019 | |

Attorney Docket No. 12732-1956US1 Client Reference No. PCTUS25955

| Signature | | |
|-----------|------------------|--|
| Name: | Yuta HDA | |
| Date: | | |
| | | |
| Signature | Towaki MODIWALA | |
| Name: | Tomoaki MORIWAKA | |
| Date: | 06/25/2019 | |
| | | |

ASSIGNMENT

For valuable consideration, We, Yuichi SATO of Isehara, Kanagawa, Japan, Ryota HODO of Atsugi, Kanagawa, Japan, Yuta IIDA of Riburipurandorurara305, 3951-3, Ikonobe-cho, Tsuzuki-ku, Yokohama-shi, Kanagawa-ken, 224-0053, Japan and Tomoaki MORIWAKA of Isehara, 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

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| MANUFACTURING METHOD OF SEMICONDUCTOR DEVICE, filed July 17, 2019 and |
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| 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: Yuichi SATO |
| Date: |
| |
| Signature |
| Name: Ryota HODO |
| Date: |

| Signature | Yuta IIDA | |
|-----------|------------------|--|
| Name: | Yuta IIDA | |
| Date: | 07/03/2019 | |
| | | |
| Signature | | |
| Name: | Tomoaki MORIWAKA | |
| Date: | | |
| | | |

PATENT REEL: 049778 FRAME: 0693

RECORDED: 07/17/2019