08/23/2019 505637479

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5684285

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

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------|----------------|
| Shunpei Yamazaki | 08/02/2019 |
| Satoshi Seo | 08/09/2019 |
| Hideko YOSHIZUMI | 08/09/2019 |
| Tomoya YAMAGUCHI | 08/09/2019 |
| Hiromitsu KIDO | 08/20/2019 |
| Takeyoshi Watabe | 08/21/2019 |
| Airi TOMIDA | 08/20/2019 |
| Keito FUKUDA | 08/19/2019 |

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: | 16488280 |

CORRESPONDENCE DATA

(877)769-7945 Fax Number:

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: | 12732-1964US1 |
|-------------------------|-------------------|
| NAME OF SUBMITTER: | SHARON M. ALLEN |
| SIGNATURE: | /Sharon M. Allen/ |

| DATE SIGNED: | 08/23/2019 |
|-----------------------------------|------------|
| Total Attachments: 4 | |
| source=12732-1964US1 Assgn #page1 | tif |
| source=12732-1964US1 Assgn #page2 | tif |
| source=12732-1964US1 Assgn #page3 | tif |
| source=12732-1964US1 Assgn #page4 | tif |

ASSIGNMENT

For valuable consideration, We, Shunpei YAMAZAKI of Setagaya, Tokyo, Japan, Satoshi SEO of Sagamihara, Kanagawa, Japan, Hideko YOSHIZUMI of Isehara, Kanagawa, Japan, Tomoya YAMAGUCHI of Atsugi, Kanagawa, Japan, Hiromitsu KIDO of Atsugi, Kanagawa, Japan, Takeyoshi WATABE of Isehara, Kanagawa, Japan, Airi TOMIDA of Sagamihara, Kanagawa, Japan and Keito FUKUDA 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 <u>LIGHT-EMITTING ELEMENT MATERIAL</u> , |
| LIGHT-EMITTING ELEMENT, LIGHT-EMITTING DEVICE, ELECTRONIC DEVICE, LIGHTING |
| DEVICE, AND ORGANOMETALLIC COMPLEX, filed August 23, 2019, and assigned U.S. |
| Serial Number 16/488,280 , 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 | Shrio Jumpho |
|-----------|------------------|
| Name: | Shunpei YAMAZAKI |
| Date: | 08/02/20/9 |
| Signature | |
| Name: | Satoshi SEO |
| Date: | |
| | |

| Signature | |
|-----------|------------------|
| Name: | Hideko YOSHIZUMI |
| Date: | |
| | |
| Signature | |
| Name: | Tomoya YAMAGUCHI |
| Date: | • |
| | |
| Signature | |
| Name: | Hiromitsu KIDO |
| Date: | |
| | |
| Signature | |
| Name: | Takeyoshi WATABE |
| Date: | |
| | |
| Signature | |
| Name: | Airi TOMIDA |
| Date: | |
| 2-14. | |
| Signature | |
| Name: | Keito FUKUDA |
| Date: | |
| | |

ASSIGNMENT

For valuable consideration, We, Shunpei YAMAZAKI of Setagaya, Tokyo, Japan, Satoshi SEO of Sagamihara, Kanagawa, Japan, Hideko YOSHIZUMI of Isehara, Kanagawa, Japan, Tomoya YAMAGUCHI of Atsugi, Kanagawa, Japan, Hiromitsu KIDO of Atsugi, Kanagawa, Japan, Takeyoshi WATABE of Isehara, Kanagawa, Japan, Airi TOMIDA of Sagamihara, Kanagawa, Japan and Keito FUKUDA 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 suc | accessors and assigns (collectively hereinafter call | ed "the Assignee"), the entire right, title and |
|--------------|---|---|
| interest thr | roughout the world in the inventions and improve | ments which are subject of an application for |
| United Sta | tates Patent signed by us this day, entitled L | IGHT-EMITTING ELEMENT MATERIAL. |
| LIGHT-EN | MITTING ELEMENT, LIGHT-EMITTING DEV | <u>/ICE, ELECTRONIC DEVICE, LIGHTING</u> |
| DEVICE, | AND ORGANOMETALLIC COMPLEX, filed | , and assigned U.S. |
| Serial Nur | ımber, and we authorize | and request the attorneys appointed in said |
| application | n to hereafter complete this assignment by inserting | above the filing date and serial number of said |
| application | n when known; this assignment including said app | lication, any and all United States and foreign |
| patents, uti | tility models, and design registrations granted for a | ny of said inventions or improvements, and the |
| right to cla | aim priority based on the filing date of said applica | tion under the International Convention for the |
| Protection | of Industrial Property, the Patent Cooperation Tr | eaty, the European Patent Convention, and all |
| other treati | ties of like purposes; and we authorize the Assigne | e to apply in all countries in our name or in its |
| own name | e for patents, utility models, design registrations a | nd like rights of exclusion and for inventors' |
| certificates | s for said inventions and improvements; and we ag | ee for ourselves and our respective heirs, legal |
| representat | tives and assigns, without further compensation t | o perform such lawful acts and to sign such |
| further app | plications, assignments, Preliminary Statements and | d other lawful documents as the Assignee may |
| reasonably | y request to effectuate fully this assignment. | |
| | | |
| Signature | | |
| Name: | Shunpei YAMAZAKI | |
| Date: | | |
| Signature | latoshi Sco | |
| Name: | Satoshi SEO | |
| Date: | 08/09/2019 | |

| Signature | Hideko Yoshizumi |
|-----------------------------------|--|
| Name: | Hideko YOSHIZUMI |
| Date: | 08/09/2019 |
| 2 | |
| Signature | Tomora Yamazuchi |
| Name: | Tomoya YAMAGUCHI |
| Date: | 08/09 /2019 |
| 24101 | 00,0,,2.,, |
| Signature | Hiromitsu Kido |
| Name: | Hiromitsu KIDO |
| | |
| Date: | 08/20/2019 |
| | |
| | |
| Signature | Takeyoshi Watabe |
| Signature Name: | Takeyoshi Watabe Takeyoshi WATABE |
| • | Takeyoshi WATABE |
| Name: | |
| Name: | Takeyoshi WATABE |
| Name: Date: Signature | Takeyoshi WATABE 08/21/2019 ATUTOMIDA |
| Name: Date: Signature Name: | Takeyoshi WATABE 08/21/2019 Airi TOMIDA |
| Name: Date: Signature | Takeyoshi WATABE 08/21/2019 ATUTOMIDA |
| Name: Date: Signature Name: Date: | Takeyoshi WATABE 08/21/2019 Airi TOMIDA 08/20 (2019 |
| Name: Date: Signature Name: | Takeyoshi WATABE 08/21/2019 Airi TOMIDA |
| Name: Date: Signature Name: Date: | Takeyoshi WATABE 08/21/2019 Airi TOMIDA 08/20 (2019 |

RECORDED: 08/23/2019