506478861 02/01/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6525637

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YUSUKE NONAKA	08/21/2020
NORITAKA ISHIHARA	05/01/2018
TOMOKI HIRAMATSU	08/20/2020
RYUNOSUKE HONDA	08/27/2020
TOMOYO KAMOGAWA	08/16/2020
RYOTA HODO	09/01/2020
KATSUAKI TOCHIBAYASHI	09/11/2020
SHUNPEI YAMAZAKI	08/28/2020

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:	16961976

CORRESPONDENCE DATA

(703)766-2394 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: (571) 434-6789 Email: uspto@riplo.com **Correspondent Name:** ERIC J. ROBINSON

Address Line 1: ROBINSON IP LAW OFFICE, P.C.

Address Line 2: 3975 FAIR RIDGE DRIVE, SUITE 20 NORTH

Address Line 4: FAIRFAX, VIRGINIA 22033

ATTORNEY DOCKET NUMBER:	0756-11978
NAME OF SUBMITTER:	ERIC J. ROBINSON
SIGNATURE:	/Eric J. Robinson/

REEL: 055090 FRAME: 0642 506478861

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DATE SIGNED:	02/01/2021
Total Attachments: 9	
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ASSIGNMENT

Serial No. 16/961,976

Filed July 14, 2020

WHEREAS, Yusuke NONAKA, Noritaka ISHIHARA, Tomoki HIRAMATSU, Ryunosuke HONDA, Tomoyo KAMOGAWA, Ryota HODO, Katsuaki TOCHIBAYASHI and Shunpei YAMAZAKI

(hereinafter designated as the undersigned) has (have) invented certain new and useful improvements in <u>SEMICONDUCTOR DEVICE</u> for which an application for Letters Patent of the United States of America has been executed by the undersigned on and;

WHEREAS, <u>Semiconductor Energy Laboratory Co.</u>, <u>Ltd.</u> of <u>398</u>, <u>Hase</u>, <u>Atsugi-shi</u>, <u>Kanagawa-ken</u>, <u>243-0036 Japan</u> and its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to the undersigned in hand paid, the receipt of which is hereby acknowledged, and other good and valuable consideration, the undersigned has (have) sold, assigned and transferred, and by these presents do sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America and its territories and for all foreign countries, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America and its territories, dependencies and possessions, and in and to any and all divisions, reissues, continuations and extensions thereof for the full term or terms for which the same may be granted.

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or any continuation, division or reissue thereof or Letters Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims under or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) and request(s) the Commissioner of Patents and

Trademarks to issue any and all Letters Patents of the United States of America resulting from said application or any division or divisions or continuing or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby convenants that he has (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the law firm of ROBINSON INTELLECTUAL PROPERTY LAW OFFICE the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

In witness thereof, this Assignment has been executed by the undersigned on the date(s) opposite the undersigned name(s).

Date Signature	Date	Signature
Name Noritaka ISHIHARA Date 08/10/2020 Signature Tomoki HIRAMATSU Date Signature Name Ryunosuke HONDA Date 08/16/2020 Signature Tomoyo KAMOGAWA Date 09/01/2020 Signature Ryunosuke HONDA Date 09/01/2020 Signature Ryunosuke HONDA		Name Yusuke NONAKA
Name Noritaka ISHIHARA Date 08/10/2020 Signature Tomoki HIRAMATSU Date Signature Name Ryunosuke HONDA Date 08/16/2020 Signature Tomoyo KAMOGAWA Date 09/01/2020 Signature Ryunosuke HONDA Date 09/01/2020 Signature Ryunosuke HONDA	Date	Signature
Date Signature Name Ryunosuke HONDA Date 08/16/2020 Signature To mo yo KAMOGAWA Name Tomoyo KAMOGAWA Date 09/0 /2020 Signature Ryunosuke HONDO Date 09/0 /2020 Signature Ryunosuke HONDO Signature Ryunosuke HONDO		Name Noritaka ISHIHARA
Date 08/16/2020 Signature To mo yo KAMOGAWA Date 09/01/2020 Signature Ryota Hodo Name Ryota HODO Date 09/01/2020 Signature Ryota HODO	Date 08/20/2020	Signature Tomok, HIRAMATSU
Date 08/16/2020 Signature To mo yo KAMOGAWA Name Tomoyo KAMOGAWA Date 09/01/2020 Signature Ryota Nodo Name Ryota HODO Date Signature		Name Tomoki HIRAMATSU
Date 08/16/2020 Signature To mo yo KAMOGAWA Name Tomoyo KAMOGAWA Date 09/01/2020 Signature Ryota Nodo Name Ryota HODO Date Signature	Date	Signature
Name Tomoyo KAMOGAWA Date 09/01/2020 Signature Ryota HODO Date Signature		Name Ryunosuke HONDA
Date 09/0 /2020 Signature Ryota HODO Date Signature	Date 08/16/2020	Signature Tomoyo KAMOGAWA
DateSignature		
DateSignature	Date 09/01/2020	Signature Ryota Hodo
DateSignature		Name Ryota HODO
	Date	Signature

Date 08/28/2010	Signature	Shipit	Que	zles
•	Name	Shunpei YAMAZAKI		

This assignment should preferably be acknowledged before a United States Consul or Notary Public. If not, then the execution by the Inventor(s) should be witnessed has (have) invented certain new and useful improvements in by at least two other persons who should sign here.

Witness	Signature
Witness	Signature
Witness	Signature

ASSIGNMENT

Serial No. <u>16/961,976</u>

Filed July 14, 2020

WHEREAS, Yusuke NONAKA, Noritaka ISHIHARA, Tomoki HIRAMATSU, Ryunosuke HONDA, Tomoyo KAMOGAWA, Ryota HODO, Katsuaki TOCHIBAYASHI and Shunpei YAMAZAKI

(hereinafter designated as the undersigned) has (have) invented certain new and useful improvements in <u>SEMICONDUCTOR DEVICE</u> for which an application for Letters Patent of the United States of America has been executed by the undersigned on and;

WHEREAS, <u>Semiconductor Energy Laboratory Co.</u>, <u>Ltd.</u> of <u>398</u>, <u>Hase</u>, <u>Atsugi-shi</u>, <u>Kanagawa-ken</u>, <u>243-0036 Japan</u> and its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to the undersigned in hand paid, the receipt of which is hereby acknowledged, and other good and valuable consideration, the undersigned has (have) sold, assigned and transferred, and by these presents do sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America and its territories and for all foreign countries, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America and its territories, dependencies and possessions, and in and to any and all divisions, reissues, continuations and extensions thereof for the full term or terms for which the same may be granted.

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or any continuation, division or reissue thereof or Letters Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims under or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) and request(s) the Commissioner of Patents and

Trademarks to issue any and all Letters Patents of the United States of America resulting from said application or any division or divisions or continuing or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby convenants that he has (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the law firm of ROBINSON INTELLECTUAL PROPERTY LAW OFFICE the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

In witness thereof, this Assignment has been executed by the undersigned on the date(s) opposite the undersigned name(s).

Date 78/בל/إב/	Signature Casho Nonda Name Yusuke NONAKA
Date	SignatureName Noritaka ISHIHARA
Date	SignatureName Tomoki HIRAMATSU
Date 08/27/2020	Signature Ryunosuke HONDA
Date	SignatureName Tomoyo KAMOGAWA
Date	SignatureName Ryota HODO
Date_09/11/2020	Signature KATSUAKI TOUHI BATASHI Name Katsuaki TOCHIBAYASHI

Date	Signatu	re
	Name	Shunpei YAMAZAKI
Notary Public. If not, th	en the exec	ably be acknowledged before a United States Consul or cution by the Inventor(s) should be witnessed has (have) provements in by at least two other persons who should
Witness		Signature
Witness		Signature
Witness		Signature

Attorney Docket No

ASSIGNMENT

Serial No	Filed	
WHEREAS, Yusuke	NONAKA, Noritaka ISHIHARA, Tomoki HIRAMATSU,	
Ryunosuke HONDA, Tomoy	o KAMOGAWA, Ryota HODO, Katsuaki TOCHIBAYASHI	and
Shunpei YAMAZAKI (here	einafter designated as the undersigned) has (have) invented certa	in
new and useful improvement	s in SEMICONDUCTOR DEVICE for which an application for	or
Letters Patent of the United S	States of America has been executed by the undersigned	
on, and;		

WHEREAS, Semiconductor Energy Laboratory Co., Ltd. of 398, Hase, Atsugi-shi, Kanagawa-ken 243-0036 Japan its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefore in the United States of America;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to the undersigned in hand paid, the receipt of which is hereby acknowledged, and other good and valuable consideration, the undersigned has (have) sold, assigned and transferred, and by these presents do sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America and its territories and for all foreign countries, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America and its territories, dependencies and possessions, and in and to any and all divisions, reissues, continuations and extensions thereof for the full term or terms for which the same may be granted.

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The undersigned hereby grant(s) the Assignee or any agent of the Assignee the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

In witness thereof, this Assignment has been executed by the undersigned on the date(s) opposite the undersigned name(s).

Signature

Date

U i E i i i i i i i i i i i i i i i i i	. •	
Name	Yusuke NONAKA	
Signatui	e Notitaka ISHIHARA	
Name	Noritaka ISHIHARA	
Signatu	re	
Name	re	
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Name	reRyunosuke HONDA	
Signatu	re	
Name	Tomoyo KAMOGAWA	
Signatu	e	
~	Ryota HODO	
Signatur	·e	
Name	Katsuaki TOCHIBAYASHI	
Signatu	Signature	
Name	Shunpei YAMAZAKI	
should prefera	ably be acknowledged before a United States Consul or	
1	tion by the Inventor(s) should be witnessed by at least two	
	Signature	
	Signature	
	Name Signatur Name	

Witness	Signature

RECORDED: 02/01/2021