PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7236897

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KOUSUKE HIRAI	10/05/2020
AKIYOSHI YAMAMOTO	10/02/2020
GAKUTO SAKAI	10/16/2020
TOORU FUJIMOTO	10/02/2020
YOSHITAKA MATSUGI	10/02/2020

RECEIVING PARTY DATA

Name:	DAIKIN INDUSTRIES, LTD.
Street Address:	UMEDA CENTER BUILDING
Internal Address:	4-12, NAKAZAKI-NISHI 2-CHOME, KITA-KU
City:	OSAKA-SHI, OSAKA
State/Country:	JAPAN
Postal Code:	530-8323

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17700617

CORRESPONDENCE DATA

Fax Number: (703)205-8050

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: 703-205-8000

tu.t.tan@bskb.com, mailroom@bskb.com Email: BIRCH, STEWART, KOLASCH & BIRCH, LLP **Correspondent Name:** Address Line 1: 8110 GATEHOUSE ROAD, SUITE 100E

Address Line 4: FALLS CHURCH, VIRGINIA 22042

ATTORNEY DOCKET NUMBER:	4731-0283PUS1
NAME OF SUBMITTER:	TAN T. TU
SIGNATURE:	/TAN T. TU/
DATE SIGNED:	03/22/2022

Total Attachments: 6

PATENT REEL: 059338 FRAME: 0071

507190048

PATENT REEL: 059338 FRAME: 0072

Application No.: 17700617 filed 03/22/2022

Attorney Docket No.: 4731-0283PUS1

BIRCH, STEWART, KOLASCH & BIRCH, LLP

8110 Gatehouse Road, Suite 100 East, Falls Church, Virginia 22042-1248 Telephone: (703) 205-8000 • Facsimile: (703) 205-8050 • Email: mailroom@bskb.com

DECLARATION AND ASSIGNMENT FOR PATENT AND DESIGN APPLICATIONS

UNITED STATES PATENT RIGHTS, OR UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

Title of Invention ⇒

Check Box if

Appropriate

As a below named inventor (hereinafter designated as the undersigned), I hereby declare that: This declaration is directed to the application attached hereto. If the application is not attached hereto, the application is as identified by the attorney docket number as Application not Attached set forth above and/or the following: Enter Appln. No.

→ United States Application Number or PCT International Appln. No. PCT/JP2020/035477 Enter Filing Date ⇒ filed on September 18, 2020 The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed invention in the application. I have reviewed and understand the contents of the above-identified application, including the claims. I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations § 1.56. WHEREAS, the undersigned has invented certain new and useful improvements described in the application identified. Insert Name ⇒ WHEREAS, DAIKIN INDUSTRIES, LTD. of Assignee Insert Address 🦈 of Umeda Center Building, 4-12, Nakazaki-Nishi 2-chome, Kita-ku, Osaka-shi, Osaka 530-8323, Japan, of Assignee 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 and

territories, 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, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; including all rights under the International Convention for the Protection of Industrial Property or similar agreements as well as the right to claim benefit from the priority of the above-mentioned application; and to any and all divisions

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has sold, assigned and transferred, and by these presents does (do) sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its

right to claim benefit from the priority of the above-mentioned application; and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

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BSKB-DEC-ASSIGN (11-18)

in any foreign countries.

The undersigned agrees to execute all papers necessary in connection with this application and any continuing, divisional, conversion 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 agrees to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion 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 agrees to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agrees to perform all affirmative acts which may be necessary to obtain a grant of (a) valid United States of America and any foreign 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 authorizes and requests the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patent(s) resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has the full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grants the law firm of Birch, Stewart, Kolasch & Birch, LLP the power to insert any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

The undersigned hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

The undersigned hereby acknowledges that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

LEGAL N	AME OF INVENTOR			
Inventor's Name ⇒ Inventor:	Kousuke HIRAI	Date:	October 05,	2020
Inventor's Signature ⇒ Signature:	Kousuke Hiraj			
	PTO/SB/14 or equivalent), including naming the entire in inventor; or check the box below and complete the attached pa			his form.
Additional inventors are b	being named on the 1 supplemental sheet(s) attached heret	Э.		

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SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

ADDITIONAL INVENTOR(S)
Supplemental Sheet Page 1 of 1

	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name □ □	Inventor:	Akiyoshi YAMAMOTO	Date:	October 02,2020
Inventor's Signature ⇔	Signature:	Akiyoshi JAMAMO70		-
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name ⇒	Inventor:	Gaguto SAKAI	Date:	October 05.2020
Inventor's Signature ⇒	Signature:	galento Safan-		
		V		
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY		; ;
Inventor's Name ⇔	Inventor:	Tooru FUJIMOTO	Date:	October 02,2020
Inventor's Signature ⇒	Signature:	Toory Fujimoto		
		V		
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY		•
Inventor's Name ⇒	Inventor:	Yoshitaka MATSUGI	Date:	October 02,2020
Inventor's Signature ⇒	Signature:	Yoshitalea Matsagi		

BIRCH, STEWART, KOLASCH & BIRCH, LLP

8110 Gatehouse Road, Suite 100 East, Falls Church, Virginia 22042-1248 Telephone: (703) 205-8000 • Facsimile: (703) 205-8050 • Email: mailroom@bskb.com

DECLARATION AND ASSIGNMENT FOR PATENT AND DESIGN APPLICATIONS

UNITED STATES PATENT RIGHTS, OR UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

Titla	of.	Invention	⇔

Title of Invention	5	
		As a below named inventor (hereinafter designated as the undersigned), I hereby declare that:
		This declaration is directed to the application attached hereto.
Application not Attached	⇔	If the application is not attached hereto, the application is as identified by the attorney docket number as set forth above and/or the following:
Enter Appln. No.	⇔	United States Application Number or PCT International Appln. No. PCT/JP2020/035477
Enter Filing Date	⇔	filed on September 18, 2020 .
		The above-identified application was made or authorized to be made by me.
		I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.
		I have reviewed and understand the contents of the above-identified application, including the claims.
		I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations \S 1.56.
		WHEREAS, the undersigned has invented certain new and useful improvements described in the application identified.
Ínsert Name of Assignee	⇔	WHEREAS, DAIKIN INDUSTRIES, LTD.
Insert Address of Assignee	⇔	of Umeda Center Building, 4-12, Nakazaki-Nishi 2-chome, Kita-ku, Osaka-shi, Osaka 530-8323, 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 therefor in the United States of America and
Check Box if Appropriate	⇒	in any foreign countries.
		NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has sold, assigned and transferred, and by these presents does (do) sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, 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, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; including all rights under the International Convention for the Protection of Industrial Property or similar agreements as well as the right to claim benefit from the priority of the above-mentioned application; and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

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The undersigned agrees to execute all papers necessary in connection with this application and any continuing, divisional, conversion 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 agrees to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion 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 agrees to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agrees to perform all affirmative acts which may be necessary to obtain a grant of (a) valid United States of America patent(s) or a grant of (a) valid United States of America and any foreign 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 authorizes and requests the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patent(s) resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has the full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grants the law firm of Birch, Stewart, Kolasch & Birch, LLP the power to insert any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office

The undersigned hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

The undersigned hereby acknowledges that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

LEGAL NAME OF INVENTOR

Inventor's Name	⇔	Inventor:	Kousuke HIRAI	Date:
Inventor's Signature	⇔	Signature:	· · · · · ·	
Use a separate	for	m for each i	TO/SB/14 or equivalent), including naming the entire involventor; or check the box below and complete the attached pagering named on the 1 supplemental sheet(s) attached hereto	ge(s) to list additional inventors.

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SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

ADDITIONAL INVENTOR(S) Supplemental Sheet Page 1 of 1

		LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇒	Inventor:	Akiyoshi YAMAMOTO	Date:	
Inventor's Signature	.	Signature:			
		LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name			Gakuto SAKAI	Date: _	October 16,2020
Inventor's Signature	; \$	Signature:	Jokete Sakai		
		LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔	Inventor:	Tooru FUJIMOTO	Date:	
Inventor's Signature	⇔	Signature:		٠	
		LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔	Inventor:	Yoshitaka MATSUGI	Date: _	
Inventor's Signature	. =>	Signature			

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RECORDED: 03/22/2022

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