

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

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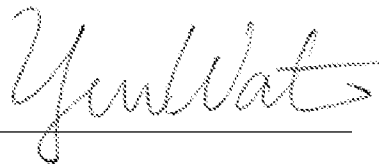
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|---|---|
| <b>SUBMISSION TYPE:</b>   | NEW ASSIGNMENT  |
| <b>NATURE OF CONVEYANCE:</b>  | ASSIGNMENT  |
| <b>CONVEYING PARTY DATA</b>   |   |
|   |   |
| <b>Name</b>   | <b>Execution Date</b>   |
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| MITSUHARU NUMATA  | 05/16/2022  |
| TOMOKI HIROKAWA   | 05/28/2022  |
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| <b>Postal Code:</b>   | 530-8323  |
| <b>PROPERTY NUMBERS Total: 1</b>  |   |
|   |   |
| <b>Property Type</b>  | <b>Number</b>   |
| <b>Application Number:</b>  | 17885168  |
| <b>CORRESPONDENCE DATA</b>  |   |
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| <b>ATTORNEY DOCKET NUMBER:</b>  | 18423-016001  |
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| <b>DATE SIGNED:</b>   | 08/25/2022  |
| <b>Total Attachments: 4</b>   |   |
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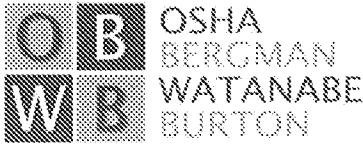
**DECLARATION REGARDING VERIFICATION OF TRANSLATION**

I, Yuichi Watanabe, at Osha Bergman Watanabe & Burton LLP, located at 909 Fannin St., Suite 3500, Houston, TX 77010, hereby declare as follows:

- (1) I am fluent in both Japanese and English languages; and
- (2) To the best of my knowledge and belief, the attached English language translation of the Japanese language assignment contained within the Assignment form, a copy of which is attached hereto, is a true and correct translation.

By: 

Date: October 5, 2020



U.S. Patent Application No. 17/885,168  
Filing Date: August 10, 2022  
Our Ref.: 18423-016001

宣誓書及び譲渡証 - 米国のみ  
**DECLARATION AND ASSIGNMENT - U.S. RIGHTS ONLY**

本証末尾に署名した者（以下、「発明者」という）は次の出願にかかる発明を行った。  
Whereas, the undersigned individual(s) (referred to herein as the "INVENTOR(S)") has/have invented:

米国出願として出願されるか、若しくは PCT 国際出願である添付の出願、又は、  
 The attached application to be filed as a United States application or PCT international application, or

米国出願、若しくは（目付） \_\_\_\_\_ に出願された PCT 国際出願番号 \_\_\_\_\_ と  
して出願されているものであって、次の名称を有するもの。

United States application or PCT international application number \_\_\_\_\_ filed on \_\_\_\_\_;  
and, entitled: (発明の名称)

**HEAT EXCHANGER AND HEAT PUMP SYSTEM HAVING SAME**

その出願に関し、各発明者は次のことを宣言する。  
Regarding that application, each of the INVENTOR(S) declares the following:

- 上記の出願は私自身、又は私が権限を授与したのものによって行われた。
- The above-identified application was made or authorized to be made by me.
- 私は本出願書に記載された本来の発明者、又は本来の共同発明者である。
- I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.
- 本宣誓書において故意に虚偽の申し立てを行った場合は 18 U.S.C. 1001 により、罰金あるいは最高五(5)年の禁固刑、あるいはその両方による罰則の対象となることを認める。
- I hereby acknowledge 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.

「発明者」は、適正・相当な対価を受領しており、それが十分な対価であることを認めた上で、  
For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the INVENTOR(S) hereby assign, transfer, and set over to:  
(氏名または組織名)

**DAIKIN INDUSTRIES, LTD.**

having the following address:  
(住所)

**Umeda Center Building, 4-12, Nakazaki-nishi 2-chome, Kita-ku,  
Osaka-shi, Osaka 530-8323, Japan**

上記の者（以下、「会社」という）、その承継人、及び譲受人に、上記の特許出願に記載された発明（以下、「発明」という）について、同特許出願、その分割、継続、一部継続、再発行、及びそれらの延長、並びに、それらに対して与えられる米国で発行される全ての特許証とともに米国（その領土及び所有地を制限なく含む）における全ての権利、権原、利権を譲渡する。

かかる利権とは、「会社」、その承継人、又はそれらの法的代理人の上記出願に対する、及び、特許証が与えられたときにはそれに対する、本譲渡が行われなかった場合に「発明者」に対して特許証が与えられ、又延長されることにより享受し得るものと同一の期間に亘る全ての所有権を意味する。

(referred to herein as "COMPANY"), its successors, and assigns, the entire right, title, and interest for the United States of America (including without limitation its territories and possessions) in and to the invention



described in the patent application identified above (referred to herein as INVENTION), together with said patent application, all divisions, continuations, continuations-in-part, reissues, and extensions thereof, and all United States Letters Patent which may be granted therefor. Such interest represents the entire ownership of said applications and Letters Patent when granted and is to be owned by COMPANY, its successors, and assigns, or their legal representatives, for the full and entire term for which such Letters Patent may be granted or extended, as fully and entirely as the same would have been enjoyed by the INVENTOR(S) if this assignment had not been made.

さらに、「発明者」は以下のことに同意する。

In addition, the undersigned INVENTOR(S) each hereby agrees:

1. 米国においてなされた「発明」に対する特許に関する全ての出願との関連において、必要とされ、望ましく、合法で、且つ、適切な書面であって、上記出願、分割、継続、一部継続、これらの補正、これらに関する抵触手続き、又は、「会社」の権利を保護する為に必要な又は望ましいものを含む、全ての書面に、制限なく署名すること。

To sign and execute any further documents that may be necessary or desirable, lawful, and proper in connection with the prosecution of all applications for patent(s) on the INVENTION in the United States, including without limitation said application and all divisions, continuations, continuations-in-part, amendments thereof, and all interference proceedings associated therewith, or otherwise necessary or desirable to secure the title thereto to COMPANY;

2. 全ての書面に署名し、優先権の主張に関連する、又は工業所有権の保護に関する国際条約若しくはこれに類似の条約或いは協定の下、合法で且つ適切な行為をすること。

To execute all papers and documents and to perform all lawful acts that may be necessary in connection with claims to priority or otherwise under the International Convention for the Protection of Industrial Property or similar treaties or agreements;

3. 「会社」に対し有効で且つ行使可能な特許が付与される為に必要であると認められる合法的行為を積極的に行うこと。

To perform all lawful affirmative acts that may be necessary to obtain the grant of valid and enforceable patents to COMPANY.

「発明者」の各人は、分割、継続、一部継続、又は再発行を含む上記出願に基づく如何なる、そして全ての特許証が「会社」に対して発行されるよう、米国特許商標庁長官に権限を認め、要請する。

The undersigned INVENTOR(S) each hereby authorizes and requests the Commissioner of Patents and Trademarks in the United States to issue any and all Letters Patent resulting from said application, including without limitation any division, continuation, continuation-in-part, or reissue thereof to COMPANY.

本証末尾に署名した「発明者」は、各々、本証の登記にあたり米国特許商標庁の規則に従い、必要な、又は望ましい識別情報を本譲渡証に挿入する権限をオーシャ・バーグマン・渡辺 & パートン法律事務所 (OSHA BERGMAN WATANABE & BURTON LLP) に与える。

The undersigned INVENTOR(S) each hereby grants to the firm of OSHA BERGMAN WATANABE & BURTON LLP the power to insert on this Assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for the recordation of this document.



以上の証として、この譲渡証は本証末尾に署名した各人により、各署名の左欄に記された日に執行された。

IN WITNESS WHEREOF, this Assignment has been executed by each of the undersigned individuals on the date appearing by such individual's signature:

May 16, 2022  
日付 Date

第一発明者の署名  
1<sup>st</sup> Inventor Signature: Yutaka Shibata  
氏名 Yutaka SHIBATA  
Print or Type Name: \_\_\_\_\_

May 16, 2022  
日付 Date

第二発明者の署名  
2<sup>nd</sup> Inventor Signature: Mitsuharu Numata  
氏名 Mitsuharu NUMATA  
Print or Type Name: \_\_\_\_\_

May 28, 2022  
日付 Date

第三発明者の署名  
3<sup>rd</sup> Inventor Signature: Tomoki Hirokawa  
氏名 Tomoki HIROKAWA  
Print or Type Name: \_\_\_\_\_

May 17, 2022  
日付 Date

第四発明者の署名  
4<sup>th</sup> Inventor Signature: Hirokazu Fujino  
氏名 Hirokazu FUJINO  
Print or Type Name: \_\_\_\_\_