

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT5913761

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
HIROKAZU TAKAYAMA	01/10/2020
XIAOGANG LIN	01/10/2020
MINGYAO XU	01/09/2020
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SUMITOMO HEAVY INDUSTRIES, LTD.
<b>Street Address:</b>	1-1, OSAKI 2-CHOME, SHINAGAWA-KU,
<b>City:</b>	TOKYO
<b>State/Country:</b>	JAPAN
<b>Postal Code:</b>	141-6025
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16744201
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>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.</i>	
<b>Phone:</b>	5715509775
<b>Email:</b>	usptomail@hea-ip.com
<b>Correspondent Name:</b>	HEA LAW PLLC
<b>Address Line 1:</b>	1765 GREENSBORO STATION PLACE
<b>Address Line 2:</b>	9TH FLOOR
<b>Address Line 4:</b>	MCLEAN, VIRGINIA 22102
<b>ATTORNEY DOCKET NUMBER:</b>	SJK-0046
<b>NAME OF SUBMITTER:</b>	DENNIS M. HUBBS
<b>SIGNATURE:</b>	/Dennis M. Hubbs/
<b>DATE SIGNED:</b>	01/16/2020
This document serves as an Oath/Declaration (37 CFR 1.63).	
<b>Total Attachments: 4</b>	
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## COMBINED DECLARATION AND ASSIGNMENT

As the below named inventor, I hereby declare that this Combined Declaration and Assignment is directed to:

- (1)  U.S. application number or PCT application number \_\_\_\_\_ filed on \_\_\_\_\_, entitled \_\_\_\_\_; or
- (2)  the attached application entitled CRYOCOOLER AND CRYOGENIC SYSTEM.

### DECLARATION

As the below named inventor, I further declare that:

The above-identified application was made or authorized to be made by me.

I believe that I am the original sole inventor, or an original joint inventor, of a claimed invention in the above-identified patent application through which a patent is sought.

I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 and/or other applicable rules.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true

I hereby acknowledge that any willful false statement made in this declaration is punishable under Title 18, United States Code, § 1001 by fine or imprisonment of not more than five (5) years, or both, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

### ASSIGNMENT

THIS ASSIGNMENT, by the undersigned inventor (hereinafter referred to as "the Assignor"), respectively, submits:

WHEREAS, the Assignor has invented certain new and useful improvements set forth in the application for Letters Patent of the United States identified above;

WHEREAS, SUMITOMO HEAVY INDUSTRIES, LTD., a corporation duly organized under and pursuant to the laws of Japan and having a principal place of business at 1-1, Osaki 2-chome, Shinagawa-ku, Tokyo 141-6025, Japan (hereinafter referred to as "the Assignee"), wishes to acquire the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said

application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, in consideration of the payment by Assignee to Assignor of the sum of One Dollar (\$1.00) and for other good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignor assigns to Assignee all of Assignor's right, title and interest in the above-identified patent application, the invention(s) described and claimed in the above-identified patent application, and all patents that may issue based on the invention(s) and on the above-identified patent application, including any patent that issues from a divisional and/or continuing application claiming benefit of the above-identified patent application, in the United States and in every foreign country, including the right to enforce any rights for infringement that accrued prior to the effective date of this assignment.

AND Assignor further assigns to Assignee all priority rights in the above-identified patent application. In those countries where permitted, the Assignor authorizes the Assignee to apply for patents for the invention directly in Assignee's name. Assignor authorizes the Commissioner of Patents and Trademarks or other governmental authority to issue all patents for the invention directly to Assignee.

AND Assignor states that Assignor has the right to grant to Assignee the rights which are assigned by this assignment. Assignor will sign any additional documents as may be needed to carry out the purpose of this assignment. This assignment is binding on all parties who lawfully succeed to the rights of or take the place of Assignor or Assignee;

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

AND Assignor further covenants that Assignee will be promptly provided, upon Assignee's request, with all pertinent facts, documents, and recorded information relating to said invention and said Letters Patent and any legal equivalents thereof as may be known and accessible to Assignor and will testify the same in any interference, litigation, or other proceedings related thereto, and will promptly execute and deliver to Assignee, or its legal representatives, any and all papers, instruments, and/or affidavits required to apply for, obtain, maintain, issue, and/or enforce said patent application, said invention, and said Letters Patent, and any equivalents that may be necessary or desirable to carry out the purposes thereof.

<i>January 10, 2020</i>	Hirokazu TAKAYAMA	<i>Hirokazu Takayama</i>
Date	Name	Signature
<i>January 10, 2020</i>	Xiaogang LIN	<i>Xiaogang Lin</i>
Date	Name	Signature
	Mingyao XU	
Date	Name	Signature

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application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

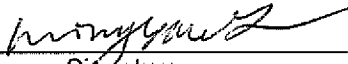
NOW, THEREFORE, in consideration of the payment by Assignee to Assignor of the sum of One Dollar (\$1.00) and for other good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignor assigns to Assignee all of Assignor's right, title and interest in the above-identified patent application, the invention(s) described and claimed in the above-identified patent application, and all patents that may issue based on the invention(s) and on the above-identified patent application, including any patent that issues from a divisional and/or continuing application claiming benefit of the above-identified patent application, in the United States and in every foreign country, including the right to enforce any rights for infringement that accrued prior to the effective date of this assignment.

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_____	Hirokazu TAKAYAMA	_____
Date	Name	Signature
_____	Xiaogang LIN	_____
Date	Name	Signature
January 9, 2020	Mingyao XU	
Date	Name	Signature