502062166 09/14/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Mingyao XU	09/14/2012
Takaaki MORIE	09/14/2012

RECEIVING PARTY DATA

Name:	SUMITOMO HEAVY INDUSTRIES, LTD.	
Street Address:	1-1, Osaki 2-chome, Shinagawa-ku	
City:	Tokyo	
State/Country:	JAPAN	
Postal Code:	141-6025	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13616385

CORRESPONDENCE DATA

 Fax Number:
 2027978188

 Phone:
 202 797 4181

Email: IPUSA@IPUSAPAT.COM, ips@itohpat.co.jp

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US

Mail.

Correspondent Name: IPUSA, P.L.L.C

Address Line 1: 1054 31ST STREET, N.W.

Address Line 2: Suite 400

Address Line 4: Washington, DISTRICT OF COLUMBIA 20007

ATTORNEY DOCKET NUMBER:	12SJ-010
NAME OF SUBMITTER:	Chris Tanner

Total Attachments: 3

source=12SJ-010AssignmentRecordation#page1.tif source=12SJ-010AssignmentRecordation#page2.tif source=12SJ-010AssignmentRecordation#page3.tif

> PATENT REEL: 028973 FRAME: 0816

\$40.00 13616385

Form PTO-1595 (Rev. 07/05) OMB No. 0651-0027 (exp. 6/30/2008)	U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Offi ORM COVER SHEET
	TS ONLY
To the Director of the U.S. Patent and Trademark Office; Plea	ise record the attached documents or the new address(es) below.
1. Name of conveying party(ies)	2. Name and address of receiving party(ies)
Mingyao XU, Takaaki MORIE	Name: SUMITOMO HEAVY INDUSTRIES, LTD.
	Internal Address:
Additional name(s) of conveying party(ies) attached? Yes V	
3. Nature of conveyance/Execution Date(s):	Street Address: 1-1, Osaki 2-chome, Shinagawa-ku,
Execution Date(s) September 14, 2012	Outdot / todaress. 1-1, Osaki z-Cribnie, Shiriagawa-ku,
✓ Assignment Merger	
Security Agreement Change of Name	City: Tokyo
Joint Research Agreement	State:
Government Interest Assignment	State.
Executive Order 9424, Confirmatory License	Country: Japan Zip: 141-6025
Other	Additional name(s) & address(es) attached? Yes V No
4. Application or patent number(s):	document is being filed together with a new application.
A. Patent Application No.(s)	B. Patent No.(s)
Additional acceptance of	
Additional numbers at 5. Name and address to whom correspondence	
concerning document should be mailed:	6. Total number of applications and patents involved: 1
Name: IPUSA, PLLC	
Internal Address:	7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00
	I L Authorized to be charged by credit card

4. Application or patent number(s): A. Patent Application No.(s)	document is being filed together with a new application. B. Patent No.(s)
Additional numbers at	│ tached?
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: 1
Name: IPUSA, PLLC	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00
Internal Address:	Authorized to be charged by credit card
Street Address: 1054 31st Street, N.W., Suite 400	Authorized to be charged to deposit account Enclosed None required (government interest not affecting title)
City: Washington	8. Payment Information
State: DC Zip:20007	a. Credit Card Last 4 Numbers Expiration Date
Phone Number: 202-797-4181	
Fax Number: 202-797-8188	b. Deposit Account Number <u>50-4424</u>
Email Address: ipusa@ipusapat.com	Authorized User Name Christopher M. Tanner
9. Signature: M T cm. Signature	Sep 14, 2012 Date
Christopher M. Tanner Name of Person Signing	Total number of pages including cover sheet, attachments, and documents:
Documents to be recorded (including cover sheet	should be faxed to (571) 273-0140, or wailed to:

Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

ASSIGNMENT

THIS ASSIGNMENT, by (1) Mingyao XU and (2) Takaaki MORIE (hereinafter referred to as "Assignors"), residing at (1) Nishitokyo-shi, Tokyo Japan and (2) Nishitokyo-shi, Tokyo Japan respectively;

WHEREAS, Assignors have invented certain new and useful improvements in

CRYOGENIC REFRIGERATOR

set forth in a patent application for Letters Patent of the United States, executed concurrently herewith; and

WHEREAS, SUMITOMO HEAVY INDUSTRIES, LTD. (hereinafter referred to as "Assignee"), having offices at 1-1, Osaki 2-chome, Shinagawa-ku, Tokyo 141-6025 Japan, is desirous of acquiring the entire right, title and interest in and to said inventions and said application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefor and thereon;

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuation-in-part of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefor and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignors, had this sale and Assignment not been made;

AND for the same consideration, Assignors hereby represent and warrant to Assignee, its successors legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights titles, and or interests that have arisen to Assignee under the law or that have already been transferred to Assignee, Assignors are the sole and lawful owners of the entire right, title and interest in and to said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, Assignors hereby covenant and agree to and with Assignee, its successors, legal representatives and assigns, that Assignors will sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives, and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns shall advise; that any proceeding in connection with said inventions, or said patent application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable;

AND Assignors hereby request that the Director of the United States Patent and Trademark Office to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the said Letters Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns;

AND Assignors hereby grant the following individuals 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 United States Patent and Trademark Office for recordation of this document: All practitioners associated with the Customer Number 77464

AND Assignors acknowledge an obligation of assignment of this invention to Assignee at the time the invention was made.

September 14, 2012	mym
Date	Mingyao XU
September 14, 2012	T. Morie
Date	Takaaki MORIE