orm PTO-1595 (Rev. 03-11) MB No. 0651-0027 (exp. 03/31/2012)	2012	U.S. DEPARTMENT OF COMMER United States Patent and Trademark O
To the Director of the U.S. Patent 103644	478	cuments or the new address(es) below
1. Name of conveying party(ies):	2. Name and addres	ss of receiving party(ies)
Hidekazu Tanaka	Name: SUMITOMO HEAVY INDUSTRIES, LTD.	
	Internal Address:	
Additional name(s) of conveying party(ies) attached? Yes X No	Street Address:	
3. Nature of conveyance/Execution Date(s):		
Execution Date(s): April 20, 2012	1-1 Osaki 2-chon	ne
x Assignment Merger Change of Name		
Security Agreement Joint Research Agreement	City:	Shinagawa-ku
Government Interest Assignment	State:	Tokyo
Executive Order 9424, Confirmatory License	Country:	Japan Zip: 141-6025
Other	Additional name(s) & attached?	address(es) Yes X No
4. Application or patent number(s):  A. Patent Application No.(s)  13/508,936	B. Patent No.(s)	1
	?   Yes   x	No
'Additional numbers attached'		
Additional numbers attached  i. Name and address to whom correspondence concerning document should be mailed:	6. Total number of a patents involved:	
i. Name and address to whom correspondence	6. Total number of a	
i. Name and address to whom correspondence concerning document should be mailed:  Name: RADER, FISHMAN & GRAUER PLLC  Internal Address: Atty. Dkt.: PRI-0021	6. Total number of a patents involved:	
i. Name and address to whom correspondence concerning document should be mailed:  Name: RADER, FISHMAN & GRAUER PLLC  Internal Address: Atty. Dkt.: PRI-0021  Street Address: 1233 20th Street, N.W.	6. Total number of a patents involved: 7. Total fee (37 CFR	
i. Name and address to whom correspondence concerning document should be mailed:	6. Total number of a patents involved: 7. Total fee (37 CFR	1.21(h) & 3.41) \$ 40.00
i. Name and address to whom correspondence concerning document should be mailed:  Name: RADER, FISHMAN & GRAUER PLLC  Internal Address: Atty. Dkt.: PRI-0021  Street Address: 1233 20th Street, N.W.  Suite 501	6. Total number of a patents involved: 7. Total fee (37 CFR  X Authorized to Enclosed	1.21(h) & 3.41) \$ 40.00
i. Name and address to whom correspondence concerning document should be mailed:  Name: RADER, FISHMAN & GRAUER PLLC  Internal Address: Atty. Dkt.: PRI-0021  Street Address: 1233 20th Street, N.W.	6. Total number of a patents involved: 7. Total fee (37 CFR  X Authorized to Enclosed	1.21(h) & 3.41) \$ 40.00  to be charged to deposit account  ed (government interest not affecting tit
i. Name and address to whom correspondence concerning document should be mailed:  Name: RADER, FISHMAN & GRAUER PLLC  Internal Address: Atty. Dkt.: PRI-0021  Street Address: 1233 20th Street, N.W. Suite 501  City: Washington  State: DC Zip: 20036	6. Total number of a patents involved:  7. Total fee (37 CFR  X Authorized to Enclosed  None require	1.21(h) & 3.41) \$ 40.00  to be charged to deposit account  ed (government interest not affecting tit
i. Name and address to whom correspondence concerning document should be mailed:  Name: RADER, FISHMAN & GRAUER PLLC  Internal Address: Atty. Dkt.: PRI-0021  Street Address: 1233 20th Street, N.W.  Suite 501  City: Washington	6. Total number of a patents involved:  7. Total fee (37 CFR  X Authorized to Enclosed  None require	1.21(h) & 3.41) \$ 40.00  to be charged to deposit account ed (government interest not affecting tit tion

Signature

Carl Schaukowitch - 29,211
Name of Person Signing

PATENT REEL: 028255 FRAME: 0510

May 10, 2012

Totล์เโกบ์<u>mิ</u>begof<sub>i</sub>pages including cover sheet, attachments, and documents: ปีผิ

Docket Number: .PRI-0021

## ASSIGNMENT

WHEREAS, I, as a below named inventor, residing at the address stated next to my name, am a sole inventor (if only one name is listed below) or a joint inventor (if plural names are listed below) of certain new and useful improvements in

## CRYOPUMP AND VACUUM PUMPING METHOD

for which application for Letters Patent of the United States of America was executed by me on the date indicated next to my name and address;

AND WHEREAS, SUMITOMO HEAVY INDUSTRIES, LTD., a Japanese corporation with offices at 1-1 Osaki 2-chome, Shinagawa-ku, Tokyo 141-6025, Japan, (hereinafter referenced as ASSIGNEES) is desirous of acquiring all interest in, to and under said invention, said application disclosing the invention and in, to and under any Letters Patent or similar legal protection which may be granted therefor in the United States and in any and all foreign countries;

NOW THEREFORE, in consideration of the sum of Ten Dollar (\$10.00), and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I, as a sole or joint inventor as indicated below, by these presents do hereby assign, sell and transfer unto the said ASSIGNEES, its successors, assigns, and legal representatives, the entire right, title and interest in the said invention, said application, including any divisions and continuations thereof, and in and to any and all Letters Patent of the United States, and countries foreign thereto, which may be granted for said invention, and in and to any all priority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and to any other benefits accruing or to accrue to me with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto, and I hereby authorize and request the Commissioner of Patents to issue the said United States Letters Patent to said ASSIGNEES, as the assignee of the whole right, title and interest thereto;

And I further agree to execute all necessary or desirable and lawful future documents, including assignments in favor of ASSIGNEES or its designee, as ASSIGNEES or its successors, assigns and legal representatives may from time-to-time present to me and without further remuneration, in order to perfect title in said invention, modifications, and improvements in said invention, applications and Letters Patent of the United States and countries foreign thereto;

PATENT REEL: 028255 FRAME: 0511

Docket Number: PRI-0021

And I further agree to properly execute and deliver and without further remuneration, such necessary or desirable and lawful papers for application for foreign patents, for filing subdivisions of said application for patent, and or, for obtaining any reissue or reissues of any Letters Patent which may be granted for my aforesaid invention, as the ASSIGNEE thereof shall hereafter require and prepare at its own expense;

And I further agree that ASSIGNEES will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to me and will testify as to the same in any interference or litigation related thereto;

And I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale.

And I hereby authorize and request my attorney(s) of record in this application to insert the serial number and filing date of this application in the spaces that follow:

Serial Number: 13/508,936

, Filing Date: 05/10/2012

This assignment executed on the dates indicated below.

lidekazu TANAKA Si

Signature

4/20/20/2

PATENT REEL: 028255 FRAME: 0512

RECORDED: 05/10/2012