## PATENT ASSIGNMENT

**SUBMISSION TYPE:** NEW ASSIGNMENT  
**NATURE OF CONVEYANCE:** ASSIGNMENT

### CONVEYING PARTY DATA

<table>
<thead>
<tr>
<th>Name</th>
<th>Execution Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Katsuya TAKIGAWA</td>
<td>01/28/2013</td>
</tr>
<tr>
<td>Masanori SAITO</td>
<td>01/28/2013</td>
</tr>
<tr>
<td>Takeshi OKIDO</td>
<td>01/28/2013</td>
</tr>
<tr>
<td>Kuniko TAKAHASHI</td>
<td>01/28/2013</td>
</tr>
</tbody>
</table>

### RECEIVING PARTY DATA

- **Name:** JX Nippon Oil & Energy Corporation  
- **Street Address:** 6-3, Otemachi 2-chome, Chiyoda-ku  
- **City:** Tokyo  
- **State/Country:** JAPAN  
- **Postal Code:** 100-8162

### PROPERTY NUMBERS Total: 1

<table>
<thead>
<tr>
<th>Property Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Number</td>
<td>13818170</td>
</tr>
</tbody>
</table>

### CORRESPONDENCE DATA

- **Fax Number:** 7037161180  
  *Correspondence will be sent via US Mail when the fax attempt is unsuccessful.*  
- **Phone:** 7037161191  
- **Email:** gbp@gbpatent.com  
- **Correspondent Name:** Greenblum & Bernstein P.L.C.  
- **Address Line 1:** 1950 roland clarke place  
- **Address Line 4:** Reston, VIRGINIA 20191

### ATTORNEY DOCKET NUMBER:

- **P43415**

### NAME OF SUBMITTER:

- **Sean Myers-Payne**

### Signature:

- /Sean Myers-Payne/

### Date:

- 04/24/2013

**Total Attachments:** 1

source=P43415_ASSIGN#page1.tif
ASSIGNMENT

Whereas, I/we,

Name

1) Katsuya TAKIGAWA

2) Masanori SAITO

3) Takeshi OKIDO

4) Kuniko TAKAHASHI

Address

c/o JX Nippon Oil & Energy Corporation,
6-3, Otemachi 2-chome,
Chiyoda-ku, Tokyo 100-8162 Japan

c/o JX Nippon Oil & Energy Corporation,
6-3, Otemachi 2-chome,
Chiyoda-ku, Tokyo 100-8162 Japan

c/o JX Nippon Oil & Energy Corporation,
6-3, Otemachi 2-chome,
Chiyoda-ku, Tokyo 100-8162 Japan

c/o JX Nippon Oil & Energy Corporation,
6-3, Otemachi 2-chome,
Chiyoda-ku, Tokyo 100-8162 Japan

hereinafter called assignor(s), have invented certain improvements in
REFRIGERATING MACHINE OIL AND WORKING FLUID COMPOSITION FOR REFRIGERATING MACHINES

and executed an application for Letters Patent of the United States of America thereon on even date herewith unless otherwise indicated below:

fled on February 21, 2013, Serial No. 13/818,710 ; and

Whereas

JX Nippon Oil & Energy Corporation
6-3, Otemachi 2-chome,
Chiyoda-ku, Tokyo 100-8162 Japan

(assignee), desires to acquire the entire right, title and interest in the application and invention, and to any United States patents to be obtained therefor;

NOW THEREFORE, be it known that, for good and valuable consideration from assignee, the receipt of which is hereby acknowledged, I/W, as assignor(s), have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the assignee, its lawful successors and assigns, MY/OUR entire right, title, and interest in and to this invention and this application, and all divisions, and continuations thereof, and all Letters Patent of the United States which may be granted thereon, and all reissues thereof; and I/W hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue all Letters Patent for this invention to assignee, its successors and assigns, in accordance with the terms of this Assignment;

AND, I/W HEREBY further covenant and agree that I/W will, without further consideration, communicate with assignee, its successors and assigns, any facts known to ME/US respecting this invention and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver all papers that may be necessary or desirable to perfect the title to this invention in said assignee, its successors and assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid assignee, its successors and assigns, to obtain and enforce proper patent protection for this invention in the United States, it being understood that any expense incident to the execution of such papers shall be borne by the assignee, its successors and assigns.

INVENTORS

1): Name: Katsuya TAKIGAWA

2): Name: Masanori SAITO

3): Name: Takeshi OKIDO

4): Name: Kuniko TAKAHASHI

DATE SIGNED

Jan 28, 2013

Jan 29, 2013

Jan 28, 2013

Jan 28, 2013

(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261)

RECORDED: 04/24/2013

PATENT

REEL: 030279 FRAME: 0218