13918/27 U.S. DEPARTMENT OF COMMERCE

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| Yasuhiro ONISHI,<br>Yuzuru KATO,<br>Eiichi YAMADA,  | Name: Japan Oil, Gas and Metals National Corporation Internal Address:                    |  |  |  |  |
| Atsushi MURATA,<br>Osamu WAKAMURA   |   |  |  |  |  |
| Execution Date(s) May 6, 2011  Additional name(s) of conveying party(ies) attached? Yes V No                                | Street Address:   |  |  |  |  |
| 3. Nature of conveyance:  | 1310, Omiya-cho, Saiwai-ku, Kawasaki-shi,   |  |  |  |  |
| ✓ Assignment  | City: Kanagawa  |  |  |  |  |
| Security Agreement Change of Name   | State:  |  |  |  |  |
| Government Interest Assignment Executive Order 9424, Confirmatory License   | Country: Japan Zip: 212-8554  |  |  |  |  |
| Other   | Additional name(s) & address(es) attached?  Yes No  |  |  |  |  |
| 4. Application or patent number(s):  A. Patent Application No.(s)  12/998,203  Additional numbers att                       | document is being filed together with a new application.  B. Patent No.(s)  ached? Yes No |  |  |  |  |
| 5. Name and address to whom correspondence concerning document should be mailed:  | 6. Total number of applications and patents involved:                                     |  |  |  |  |
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| 9. Signature: /Weining Wang/ Signature  | June 13, 2011  Date   |  |  |  |  |
| Weining Wang (Reg. No. 47,164)  Name of Person Signing  | Total number of pages including cover sheet, attachments, and documents:                  |  |  |  |  |

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# Addendum to Box 2: Names of Receiving Parties:

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#### **ASSIGNMENT**

IN CONSIDERATION of good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned hereby sell, assign, and transfer to (1) Japan Oil, Gas and Metals National Corporation; (2) INPEX CORPORATION; (3) JX Nippon Oil & Energy Corporation; (4)Japan Petroleum Exploration Co., Ltd.; (5) COSMO OIL CO., LTD. and (6) NIPPON STEEL ENGINEERING CO., LTD., a corporation of Japan, having a principal place of business at (1) 1310, Omiya-cho, Saiwai-ku, Kawasaki-shi, Kanagawa 212-8554 Japan; (2) 5-3-1, Akasaka, Minato-ku, Tokyo 107-6332 Japan; (3) 6-3, Otemachi 2-chome, Chiyoda-ku, Tokyo 100-8162 Japan; (4) 7-12, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-0005 Japan; (5)1-1-1, Shibaura, Minato-ku, Tokyo 105-8528 Japan and (6) 5-1, Osaki 1-chome, Shinagawa-ku, Tokyo 141-8604 Japan ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions and discoveries that are disclosed in the United States Patent Application entitled:

#### BUBBLE COLUMN REACTOR AND METHOD OF CONTROLLING BUBBLE COLUMN REACTOR

the specification of which is attached hereto unless the following is entered:

| Filed on          | as United States Application Number or PCT<br>International Application Number | and was amended on<br>(if applicable) |  |
|-------------------|--|---------------------------------------|--|
| 25/September/2009 | PCT/JP2009/004876  |                                       |  |

NOW, THEREFORE, we hereby, without reservations:

- 1. Assign, transfer, and convey to Assignee the entire right, title, and interest in and to said invention, said patent application for Letters Patent of the United States of America, any and all other applications for Letters Patent on said invention in any and all countries, including all divisional, renewal, substitute, continuation, and Convention applications based in whole or in part upon said invention, or upon said patent application, and any and all Letters Patent, reissues, and extensions of Letters Patent granted for said invention or upon said patent application, and every priority right that is or may be predicated upon or arise from said invention, said patent application, and said Letters Patent(s).
- 2. Authorize Assignee to file patent applications in any or all countries for said invention in our name or in the name of Assignee or otherwise as Assignee may deem advisable, under an International Convention or otherwise.
- 3. Authorize and request the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all said Letters Patent to Assignee, as Assignee of the entire right, title, and interest therein or otherwise as Assignee may direct.
- 4. Warrant that we have not conveyed to others any right, title, or interest in said invention, patent application, or patents or any license to use the same or to make, use, or sell anything embodying or utilizing any of said invention; that we have good right to assign the same to Assignee without encumbrance; and that we are aware of no claim to the contrary.
- 5. Bind our heirs, legal representatives, and assigns, as well as ourselves to do, upon Assignee's request and at Assignee's expense, but without additional consideration to us or them, all acts reasonably serving to assure that the said inventions and discoveries, the said patent applications, and the said Letters Patent shall be held and enjoyed by Assignee as fully and entirely as the same could have been held and enjoyed by us, our heirs, legal representatives, and assigns if this assignment had not been made; and particularly to execute and deliver to Assignee all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by Assignee; to communicate to Assignee all facts known to us relating to said inventions and discoveries or the history thereof; to furnish Assignee with any and all documents, photographs, models, samples, and other physical exhibits in our control or in the control of our heirs, legal representatives, or assigns which may be useful for establishing the facts of our conceptions, disclosures, and reduction to practice of said inventions and discoveries; and to testify to the same in any interference, arbitration, or litigation.

PATENT REEL: 026444 FRAME: 0393

| Inventor Signature | yazuhiro | Onishi | <b>Date</b> May 6, 2011 |
|--------------------|----------|--------|-------------------------|
| Witness Signature  |          |        | Date                    |
| Print Witness Name |          |        |                         |

## Inventor: Yuzuru KATO

| Inventor Signature Quyuru Kato | Date | May 6, 2011 |
|--------------------------------|------|-------------|
| Witness Signature              | Date |             |
| Print Witness Name             |      |             |

## Inventor: Eiichi YAMADA

| Inventor Signature | Eiichi | Yamacla | Date May 6, 2011 |
|--------------------|--------|---------|------------------|
| Witness Signature  |        |         | Date             |
| Print Witness Name |        |         |                  |

## Inventor: Atsushi MURATA

| Inventor Signature  Atsushi Murata | Date May 6, 2011 |
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| Witness Signature                  | Date             |
| Print Witness Name                 |                  |

## Inventor: Osamu WAKAMURA

| Inventor Signature | Date<br>May 6, 2011 |
|--------------------|---------------------|
| Witness Signature  | Date                |
| Print Witness Name |                     |

**RECORDED: 06/13/2011** 

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