

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT2865597

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
| NATURE OF CONVEYANCE: | ASSIGNMENT |
| CONVEYING PARTY DATA | |
| Name | Execution Date |
| Jun-ichi OZAKI | 04/21/2014 |
| Hiroki TAKAHASHI | 05/10/2014 |
| Takuya TAKAHASHI | 04/30/2014 |
| Naokatsu KANNARI | 04/21/2014 |
| Rieko KOBAYASHI | 04/27/2014 |
| Naoto SAITO | 04/14/2014 |
| RECEIVING PARTY DATA | |
| Name: | National University Corporation Gunma University |
| Street Address: | 2, Aramaki-machi 4-chome |
| City: | Maebashi-shi, Gunma |
| State/Country: | Japan |
| Postal Code: | 371-8510 |
| Name: | Nisshinbo Holdings Inc. |
| Street Address: | 2-31-11, Ningyo-cho, Nihonbashi, Chuo-ku |
| City: | Tokyo |
| State/Country: | Japan |
| Postal Code: | 103-8650 |
| PROPERTY NUMBERS Total: 2 | |
| Property Type | Number |
| Application Number: | 14359815 |
| CORRESPONDENCE DATA | |
| Fax Number: | (703)836-2787 |
| <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> | |
| Phone: | 703-836-6400 |
| Email: | email@oliff.com |
| Correspondent Name: | JAMES A. OLIFF |
| Address Line 1: | OLIFF PLC |
| Address Line 2: | P.O. BOX 320850 |
| Address Line 4: | ALEXANDRIA, VIRGINIA 22320-4850 |

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|---|--------------|
| ATTORNEY DOCKET NUMBER: | 160762 |
| NAME OF SUBMITTER: | SE JIN LEE |
| SIGNATURE: | /se jin lee/ |
| DATE SIGNED: | 05/21/2014 |
| Total Attachments: 4 source=160762_Assgn#page1.tif source=160762_Assgn#page2.tif source=160762_Assgn#page3.tif source=160762_Assgn#page4.tif | |

ASSIGNMENT (BEING FILED FOR DUAL PURPOSE UNDER 37 CFR 1.63(e))**For Application with Filing Date on or after September 16, 2012****(Two Assignees)**

| | | | | |
|----------------------------|-----|-------------------------|-----|-------------------------|
| Insert | (1) | <u>Jun-ichi OZAKI</u> | (2) | <u>Hiroki TAKAHASHI</u> |
| (1-8) Legal Name(s) | (3) | <u>Takuya TAKAHASHI</u> | (4) | <u>Naokatsu KANNARI</u> |
| of Inventor(s) | (5) | <u>Rieko KOBAYASHI</u> | (6) | <u>Naoto SAITO</u> |
| | (7) | <u></u> | (8) | <u></u> |

In consideration of the sum of one dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, the receipt and sufficiency of which are hereby acknowledged, each undersigned agrees to assign, and hereby does assign, transfer and set over to

| | | |
|--|-------|---|
| (9A) Insert Name of First Assignee | (9A) | <u>NATIONAL UNIVERSITY CORPORATION GUNMA UNIVERSITY</u> |
| (10A) Insert Address of First Assignee | (10A) | <u>2, Aramaki-machi 4-chome, Maebashi-shi, Gunma 371-8510 Japan</u> |
| (9B) Insert Name of Second Assignee | (9B) | <u>Nisshinbo Holdings Inc.</u> |
| (10B) Insert Address of Second Assignee | (10B) | <u>2-31-11, Ningyo-cho, Nihonbashi, Chuo-ku, Tokyo 103-8650 Japan</u> |

(hereinafter designated as the Assignees) and Assignees' heirs, successors, assigns and legal representatives, the entire right, title and interest for the United States of America as defined in 35 U.S.C. §100, in the invention, and in all applications for patent including any and all provisional, non-provisional, divisional, continuation, international, substitute and reissue application(s), and all Letters Patent, extensions, reissues and reexamination certificates that may be granted on the invention known as

| | | |
|---|--------------------------------------|--|
| (11) Insert Identification such as Title, Case Number, or Foreign Application Number | (11) | <u>SUPPORT FOR SUPPORTING METALS, METAL-SUPPORTED CATALYST,</u> <u>METHANATION REACTION APPARATUS, AND METHOD RELATING TO THESE</u> |
| | (Attorney Docket No. <u>160762</u>) | <u>, filed on even date herewith or as</u> |

| | | |
|---|-------|---|
| (12) Alternative Identification for filed applications | (12) | <u>U.S. Application Number 14/359,815</u> |
| | filed | <u>May 21, 2014</u> |

1) Each undersigned agrees to execute all papers necessary in connection with any application and/or patent for the invention and also to execute separate assignments in connection with such applications and patents as the Assignees may deem necessary.

2) Each undersigned agrees to execute all papers necessary in connection with any interference or post-grant proceeding which may be declared concerning any application or patents for the invention and to cooperate with the Assignees in every way possible in obtaining evidence and going forward with such interference or post-grant proceeding.

3) Each undersigned agrees to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

4) Each undersigned agrees to perform all affirmative acts which may be necessary to obtain, maintain or confirm by reissue or reexamination a grant of a valid United States patent to the Assignees.

5) Each undersigned authorizes and requests the Commissioner of the U.S. Patent and Trademark Office to issue any and all patents resulting from said application(s) to the said Assignees, as Assignees of the entire interest, and covenants that he or she has full right to convey the entire interest herein assigned, and that he or she has not executed, and will not execute, any agreement(s) in conflict herewith, and agrees that this assignment is binding on Assignor and Assignor's heirs, successors, assigns and legal representatives.

6) Each undersigned hereby grants the firm of **OLIFF PLC** the power to insert on this assignment any further identification that 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.

(13) Declaration

As an above named inventor, I hereby declare that:

I believe I am the original inventor or an original joint inventor of a claimed invention (or claimed design) in the above-identified application for which this declaration is being submitted.

The application was made or authorized to be made by me.

I have reviewed and understand the contents of the above-identified application, including the claims, and am aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 CFR §1.56.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date _____ Inventor Signature _____ (SEAL)

Date _____ Inventor Signature _____ (SEAL)

Date _____ Inventor Signature _____ (SEAL)

Date _____ Inventor Signature _____ (SEAL)

Date 2014. 4. 27 Inventor Signature Rieko Kobayashi (SEAL)

Date 2014. 4. 14 Inventor Signature Naoto Saito (SEAL)

Date _____ Inventor Signature _____ (SEAL)

Date _____ Inventor Signature _____ (SEAL)

This assignment should preferably be signed before: (a) a Notary Public if within the U.S.A. (b) a U.S. Consul if outside the U.S.A. If neither, then it should be signed before at least two witnesses who also sign here:

Date _____ Witness _____

Date _____ Witness _____

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| of Inventor(s) | (5) | <u>Rieko KOBAYASHI</u> | (6) | <u>Naoto SAITO</u> |
| | (7) | <u></u> | (8) | <u></u> |

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| (10A) Insert Address of First Assignee | (10A) | <u>2, Aramaki-machi 4-chome, Maebashi-shi, Gunma 371-8510 Japan</u> |
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| (10B) Insert Address of Second Assignee | (10B) | <u>2-31-11, Ningyo-cho, Nihonbashi, Chuo-ku, Tokyo 103-8650 Japan</u> |

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| | (Attorney Docket No. <u>160762</u>) | <u></u> , filed on even date herewith or as |

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- 1) Each undersigned agrees to execute all papers necessary in connection with any application and/or patent for the invention and also to execute separate assignments in connection with such applications and patents as the Assignees may deem necessary.
- 2) Each undersigned agrees to execute all papers necessary in connection with any interference or post-grant proceeding which may be declared concerning any application or patents for the invention and to cooperate with the Assignees in every way possible in obtaining evidence and going forward with such interference or post-grant proceeding.
- 3) Each undersigned agrees to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.
- 4) Each undersigned agrees to perform all affirmative acts which may be necessary to obtain, maintain or confirm by reissue or reexamination a grant of a valid United States patent to the Assignees.
- 5) Each undersigned authorizes and requests the Commissioner of the U.S. Patent and Trademark Office to issue any and all patents resulting from said application(s) to the said Assignees, as Assignees of the entire interest, and covenants that he or she has full right to convey the entire interest herein assigned, and that he or she has not executed, and will not execute, any agreement(s) in conflict herewith, and agrees that this assignment is binding on Assignor and Assignor's heirs, successors, assigns and legal representatives.
- 6) Each undersigned hereby grants the firm of **OLIFF PLC** the power to insert on this assignment any further identification that 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.

(13) Declaration

As an above named inventor, I hereby declare that:

I believe I am the original inventor or an original joint inventor of a claimed invention (or claimed design) in the above-identified application for which this declaration is being submitted.

The application was made or authorized to be made by me.

I have reviewed and understand the contents of the above-identified application, including the claims, and am aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 CFR §1.56.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date April 21, 2014 Inventor Signature *Junichi Gochi* (SEAL)

Date April 21, 2014 Inventor Signature *Naokatsu Kannari* (SEAL)

Date April 30, 2014 Inventor Signature *Takuya Takahashi* (SEAL)

Date May 10, 2014 Inventor Signature *Hiroki Takahashi* (SEAL)

Date _____ Inventor Signature _____ (SEAL)

Date _____ Inventor Signature _____ (SEAL)

Date _____ Inventor Signature _____ (SEAL)

Date _____ Inventor Signature _____ (SEAL)

This assignment should preferably be signed before: (a) a Notary Public if within the U.S.A. (b) a U.S. Consul if outside the U.S.A. If neither, then it should be signed before at least two witnesses who also sign here:

Date _____ Witness _____

Date _____ Witness _____