

## PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Seunghun EU</td> <td>08/17/2013</td> </tr> <tr> <td>Tsuyoshi ASANO</td> <td>08/21/2013</td> </tr> <tr> <td>Itaru OSAKA</td> <td>08/22/2013</td> </tr> <tr> <td>Kazuo TAKIMIYA</td> <td>08/22/2013</td> </tr> </tbody> </table>		Name	Execution Date	Seunghun EU	08/17/2013	Tsuyoshi ASANO	08/21/2013	Itaru OSAKA	08/22/2013	Kazuo TAKIMIYA	08/22/2013
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<table border="1"> <tr> <td>Name:</td> <td>JX Nippon Oil &amp; Energy Corporation</td> </tr> <tr> <td>Street Address:</td> <td>6-3, Otemachi 2-chome</td> </tr> <tr> <td>City:</td> <td>Chiyoda-ku, Tokyo</td> </tr> <tr> <td>State/Country:</td> <td>JAPAN</td> </tr> <tr> <td>Postal Code:</td> <td>100-8162</td> </tr> </table>		Name:	JX Nippon Oil & Energy Corporation	Street Address:	6-3, Otemachi 2-chome	City:	Chiyoda-ku, Tokyo	State/Country:	JAPAN	Postal Code:	100-8162
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PROPERTY NUMBERS Total: 1											
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CORRESPONDENCE DATA											
Fax Number:	7038367419										
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>											
Phone:	7038366620										
Email:	robin.copeland@bipc.com										
Correspondent Name:	Buchanan Ingersoll & Rooney PC										
Address Line 1:	P.O. Box 1404										

OP \$40.00 14016749

Address Line 4: Alexandria, VIRGINIA 22313-1404

ATTORNEY DOCKET NUMBER: 0079558-000016

NAME OF SUBMITTER: James A. LaBarre

Signature: /James A. LaBarre/

Date: 09/03/2013

This document serves as an Oath/Declaration (37 CFR 1.63).

**Total Attachments: 4**

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## COMBINED DECLARATION AND ASSIGNMENT (JOINT)

As one of the below named inventors, I hereby declare that this Combined Declaration and Assignment is directed to:

- (1)  U.S. application number or PCT application number \_\_\_\_\_ filed on \_\_\_\_\_, entitled \_\_\_\_\_; or
- (2)  the attached application entitled POLYMER AND PHOTOELECTRIC CONVERSION ELEMENT.

### DECLARATION

As one of the below named inventors, I further declare that:

The above-identified application was made or authorized to be made by me.

I believe that I am an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the above-identified specification, including the claims.

I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, § 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.

### ASSIGNMENT

THIS ASSIGNMENT, by the undersigned inventors (hereinafter referred to as "the Assignors"), respectively, witnesseth:

WHEREAS, the Assignors have invented certain new and useful improvements set forth in an application for Letters Patent of the United States, which is a nonprovisional application;

WHEREAS, JX Nippon Oil & Energy Corporation and National University Corporation of Hiroshima University, corporations duly organized under and pursuant to the laws of Japan and having a principal place of business at 6-3, Otemachi 2-chome, Chiyoda-ku, Tokyo 100-8162 Japan and 3-2, Kagamiyama 1-chome, Higashi-Hiroshima-shi, Hiroshima 739-8511 Japan (hereinafter referred to as "the Assignees"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignors have sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over, unto the Assignees, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on

said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignees, for its own use and behoof and the use and behoof of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignors had this sale and assignment not been made;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignees, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the 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, the Assignors hereby covenant and agree to and with the Assignees, its successors, legal representatives, and assigns that the Assignors will, whenever counsel of the Assignees, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, 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 Letters Patent or Patents for said inventions, without charge to the Assignees, its successors, legal representatives, and assigns, but at the cost and expense of the Assignees, its successors, legal representatives, and assigns;

AND the Assignors hereby request the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignees as the Assignees of said inventions, the Letters Patent to be issued for the sole use and behoof of the Assignees, its successors, legal representatives, and assigns.

<i>Aug 17, 2013</i> Date	EU, Seunghun Name	<i>Seunghun Lee</i> Signature
<i>Aug 21, 2013</i> Date	ASANO, Tsuyoshi Name	<i>Tsuyoshi Asano</i> Signature
Date	OSAKA, Itaru Name	Signature
Date	TAKIMIYA, Kazuo Name	Signature

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WHEREAS, JX Nippon Oil & Energy Corporation and National University Corporation of Hiroshima University, corporations duly organized under and pursuant to the laws of Japan and having a principal place of business at 6-3, Otemachi 2-chome, Chiyoda-ku, Tokyo 100-8162 Japan and 3-2, Kagamiyama 1-chome, Higashi-Hiroshima-shi, Hiroshima 739-8511 Japan (hereinafter referred to as "the Assignees"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignors have sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over, unto the Assignees, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on

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EU, Seunghun

Date	Name	Signature

ASANO, Tsuyoshi

Date	Name	Signature

OSAKA, Itaru

22, Aug., 2013

Date	Name	Signature

TAKIMIYA, Kazuo

22. Aug., 2010

Date	Name	Signature