

PATENT ASSIGNMENT

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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>Kazuaki Hirasawa</td> <td>07/04/2012</td> </tr> <tr> <td>Hiroshi Satoh</td> <td>07/04/2012</td> </tr> <tr> <td>Hisashi Yoneda</td> <td>07/04/2012</td> </tr> <tr> <td>Tetsuhisa Yata</td> <td>07/04/2012</td> </tr> <tr> <td>Mitsutoshi Azuma</td> <td>07/04/2012</td> </tr> </tbody> </table>		Name	Execution Date	Kazuaki Hirasawa	07/04/2012	Hiroshi Satoh	07/04/2012	Hisashi Yoneda	07/04/2012	Tetsuhisa Yata	07/04/2012	Mitsutoshi Azuma	07/04/2012
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<table border="1"> <tr> <td>Name:</td> <td>JX Nippon Oil & Energy Corporation</td> </tr> <tr> <td>Street Address:</td> <td>6-3, Otemachi 2-chome</td> </tr> <tr> <td>Internal Address:</td> <td>Chiyoda-ku</td> </tr> <tr> <td>City:</td> <td>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	Internal Address:	Chiyoda-ku	City:	Tokyo	State/Country:	JAPAN	Postal Code:	100-8162
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PROPERTY NUMBERS Total: 1													
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CORRESPONDENCE DATA													
Fax Number:	3029846399												
Phone:	302-984-6300												
Email:	rsipple@mccarter.com												
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>													
Correspondent Name:	McCarter & English, LLP												
Address Line 1:	405 N. King Street, 8th Floor												
Address Line 4:	Wilmington, DELAWARE 19801												
ATTORNEY DOCKET NUMBER:	119244-00030												

NAME OF SUBMITTER:

Basil S. Krikelis

Total Attachments: 2

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Assignment of Application

WHEREAS, I (WE) _____
Kazuaki HIRASAWA, Hiroshi SATOH, Hisashi YONEDA, Tetsuhisa YATA and
Mitsutoshi AZUMA of all
c/o JX Nippon Oil & Energy Corporation, 6-3, Otemachi 2-chome, Chiyoda-ku,
Tokyo 100-8162 Japan _____, respectively,
have invented certain new and useful improvements in: METHOD FOR PRODUCING
ASTAXANTHIN BY FERMENTATION

for which an application for Letters Patent was executed on _____
(Application No. PCT/JP2011/056033 _____, filed March 15, 2011 _____), and

WHEREAS, JX NIPPON OIL & ENERGY CORPORATION
(hereinafter referred to as "ASSIGNEE") having a place of business at:
6-3, Otemachi 2-chome, Chiyoda-ku, Tokyo 100-8162 Japan
is desirous of acquiring the entire right, title and interest in and to said invention and in and to
any Letters Patent that may be granted therefore in the United States and its territorial
possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the
receipt whereof is hereby acknowledged, and for other good and valuable consideration, I
(WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and
exclusive right to the said invention in the United States and its territorial possessions and in
all foreign countries and the entire right, title and interest in and to any and all Letters Patent
which may be granted therefor in the United States and its territorial possessions and in any
and all foreign countries and in and to any and all divisions, reissues, continuations,
substitutions and renewals thereof.

I (WE) hereby authorize and request the Patent Office Officials in the United States and
its territorial possessions and any official of any and all foreign countries to issue any and all
of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire
right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its
(his) successors and assigns, to the full end of the term for which said Letters Patent may be
granted, as fully and entirely as the same would have been held by me (us) had this
Assignment and sale not been made.

Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its legal representatives and assigns covenant and any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of **McCARTER & ENGLISH, LLP** of **Renaissance Centre, 405 N. King Street, 8th Floor Wilmington, DE 19801 U.S.A.** the power to insert on this assignment any further identification, including the application number and filing date, which 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.

Date: Jul. 4, 2012 Kazuaki Hirasawa
(Signature of inventor) **Kazuaki HIRASAWA**

Date: Jul. 4, 2012 Hiroshi Satou
(Signature of inventor) **Hiroshi SATOH**

Date: Jul - 4, 2012 Hisashi Yoneda
(Signature of inventor) **Hisashi YONEDA**

Date: Jul. 4, 2012 Tetsuhisa Yata
(Signature of inventor) **Tetsuhisa YATA**

Date: Jul. 4, 2012 Mitsutoshi Azuma
(Signature of inventor) **Mitsutoshi AZUMA**