

## 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>Mitsunori Watabe</td> <td>02/07/2012</td> </tr> <tr> <td>Yuichi Yamahata</td> <td>02/07/2012</td> </tr> <tr> <td>Shinya Eura</td> <td>02/07/2012</td> </tr> <tr> <td>Yuji Shirahama</td> <td>02/07/2012</td> </tr> </tbody> </table>		Name	Execution Date	Mitsunori Watabe	02/07/2012	Yuichi Yamahata	02/07/2012	Shinya Eura	02/07/2012	Yuji Shirahama	02/07/2012
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RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>JGC Catalysts and Chemicals Ltd.</td> </tr> <tr> <td>Street Address:</td> <td>580, Horikawa-cho</td> </tr> <tr> <td>City:</td> <td>Saiwai-ku, Kawasaki-shi, Kanagawa</td> </tr> <tr> <td>State/Country:</td> <td>JAPAN</td> </tr> <tr> <td>Postal Code:</td> <td>212-0013</td> </tr> </table>		Name:	JGC Catalysts and Chemicals Ltd.	Street Address:	580, Horikawa-cho	City:	Saiwai-ku, Kawasaki-shi, Kanagawa	State/Country:	JAPAN	Postal Code:	212-0013
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Application Number:	13261168										
CORRESPONDENCE DATA											
<p>Fax Number: (202)672-5399  Phone: (202) 672-5300  Email: kwalker@foley.com  <i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i></p> <p>Correspondent Name: Kristel Schorr  Address Line 1: Foley &amp; Lardner LLP  Address Line 2: 3000 K Street NW, 6th Floor  Address Line 4: Washington, DISTRICT OF COLUMBIA 20007</p>											
ATTORNEY DOCKET NUMBER:	097996-0104										
NAME OF SUBMITTER:	Kristel Schorr										
<p>Total Attachments: 3  source=097996-0104 JGC Executed Assignment#page1.tif  source=097996-0104 JGC Executed Assignment#page2.tif  source=097996-0104 JGC Executed Assignment#page3.tif</p>											

OP \$40.00 13261168

Atty. Dkt. No. 097996-0104

**ASSIGNMENT**

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor (hereinafter referred to singly and collectively as "ASSIGNOR") has sold, assigned, and transferred, and by these presents hereby sells, assigns, and transfers, unto

JGC Catalysts and Chemicals Ltd.  
580, Horikawa-cho  
Saiwai-ku, Kawasaki-shi  
Kanagawa, 2120013 Japan

(hereinafter referred to singly and collectively as "ASSIGNEE") its successors and assigns, the full and exclusive right, title and interest for the United States, its territories and possessions in and to this invention relating to

**HYDROCRACKING CATALYST FOR HEAVY OIL AND METHOD FOR HYDROTREATING HEAVY OIL USING SAME**

as set forth in this United States Patent Application

Check  executed concurrently herewith  
one  executed on \_\_\_\_\_  
 Serial No. \_\_\_\_\_ Filed \_\_\_\_\_  
and

as well as in and to (a) all improvements and modifications of the above-identified invention or inventions, (b) the above-identified application and all other applications for Letters Patent of the United States for above-identified invention or inventions and all improvements and modifications thereof, (c) all Letters Patent which may issue from said applications in the United States, (d) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (e) the right to claim for any of said applications the full benefits and priority rights under the Patent Cooperation Treaty, the Paris Convention and any other international agreement; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors and assigns, to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by ASSIGNOR had this Assignment not been made.

ASSIGNOR HEREBY AUTHORIZES AND REQUESTS the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee of the entire interest, for the sole use and benefit of ASSIGNEE, its successors and assigns.

ASSIGNOR HEREBY AGREES (a) to communicate to ASSIGNEE, its successors and assigns, or their representative or agents, all facts and information known or available to ASSIGNOR respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings, whenever requested by ASSIGNEE; (b) to testify in person or by affidavit as required by ASSIGNEE, its

Atty. Dkt. No. 097996-0104

successors and assigns, in any such proceeding in the United States; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, and declarations, depositions; and (d) to provide all reasonable assistance to ASSIGNEE, its successors and assigns, in obtaining and enforcing proper title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States and countries foreign thereto.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the law firm of **Foley & Lardner LLP** the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

ASSIGNOR UNDERSTANDS AND AGREES that the attorneys and agents of the law firm of **Foley & Lardner LLP** do not personally represent ASSIGNOR OR ASSIGNOR's legal interests, but instead represent the interests of ASSIGNEE; since said attorneys and agents cannot provide legal advice to ASSIGNOR with respect to this Assignment, ASSIGNOR acknowledges its right to seek its own independent legal counsel.

**NAME AND SIGNATURE OF INVENTOR**

NAME: Mitsunori WATABE      SIGNATURE: M. Watabe      DATE: FEB. -7, 2012

**NAME AND SIGNATURE OF WITNESSES**

NAME: \_\_\_\_\_      SIGNATURE: \_\_\_\_\_      DATE: \_\_\_\_\_

NAME: \_\_\_\_\_      SIGNATURE: \_\_\_\_\_      DATE: \_\_\_\_\_

**NAME AND SIGNATURE OF INVENTOR**

NAME: Yuichi YAMAHATA      SIGNATURE: Y. Yamahata      DATE: FEB. -7, 2012

**NAME AND SIGNATURE OF WITNESSES**

NAME: \_\_\_\_\_      SIGNATURE: \_\_\_\_\_      DATE: \_\_\_\_\_

NAME: \_\_\_\_\_      SIGNATURE: \_\_\_\_\_      DATE: \_\_\_\_\_

**NAME AND SIGNATURE OF INVENTOR**

Atty. Dkt. No. 097996-0104

NAME: Shinya EURA                      SIGNATURE: S. Eura                      DATE: FEB. -7, 2012

**NAME AND SIGNATURE OF WITNESSES**

NAME: \_\_\_\_\_                      SIGNATURE: \_\_\_\_\_                      DATE: \_\_\_\_\_

NAME: \_\_\_\_\_                      SIGNATURE: \_\_\_\_\_                      DATE: \_\_\_\_\_

**NAME AND SIGNATURE OF INVENTOR**

NAME: Yuji SHIRAHAMA                      SIGNATURE: Yuji Shirahama                      DATE: FEB. -7, 2012

**NAME AND SIGNATURE OF WITNESSES**

NAME: \_\_\_\_\_                      SIGNATURE: \_\_\_\_\_                      DATE: \_\_\_\_\_

NAME: \_\_\_\_\_                      SIGNATURE: \_\_\_\_\_                      DATE: \_\_\_\_\_

Note: *Prima facie* evidence of execution may optionally be obtained by execution before a U.S. Consul or before a local officer authorized to administer oaths whose authority is proved by a certificate from a U.S. Consul.