

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT								
NATURE OF CONVEYANCE:	ASSIGNMENT								
CONVEYING PARTY DATA									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Byungchul Jang</td> <td>07/21/2008</td> </tr> <tr> <td>Youngsu Jiong</td> <td>07/21/2008</td> </tr> <tr> <td>Youngtaek Kim</td> <td>07/21/2008</td> </tr> </tbody> </table>		Name	Execution Date	Byungchul Jang	07/21/2008	Youngsu Jiong	07/21/2008	Youngtaek Kim	07/21/2008
Name	Execution Date								
Byungchul Jang	07/21/2008								
Youngsu Jiong	07/21/2008								
Youngtaek Kim	07/21/2008								
RECEIVING PARTY DATA									
Name:	Hanwha Chemical Corporation								
Street Address:	Hanwha Building, 1 Janggyo-dong, Jung-gu								
City:	Seoul								
State/Country:	REPUBLIC OF KOREA								
Postal Code:	100-797								
PROPERTY NUMBERS Total: 1									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12282087</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	12282087				
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Application Number:	12282087								
CORRESPONDENCE DATA									
Fax Number:	(412)471-4094								
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>									
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Address Line 4:	PITTSBURGH, PENNSYLVANIA 15219								
ATTORNEY DOCKET NUMBER:	5038-082871								
NAME OF SUBMITTER:	Richard L. Byrne								

Total Attachments: 3
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PATENT
REEL: 021496 FRAME: 0477

OP \$40.00 12282087

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RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)
Byungchul JANG
Youngsu JIONG
Youngtaek KIM

Additional name(s) of conveying party(ies) attached? Yes No

2. Name and address of receiving party(ies)
Name: Hanwha Chemical Corporation
Internal Address: _____

Street Address: Hanwha Building, 1 Janggyo-dong
Jung-gu, Seoul
City: _____
State: _____
Country: REPUBLIC OF KOREA Zip: 100-797
Additional name(s) & address(es) attached? Yes No

3. Nature of conveyance/Execution Date(s):
Execution Date(s) July 21, 2008

Assignment Merger
 Security Agreement Change of Name
 Joint Research Agreement
 Government Interest Assignment
 Executive Order 9424, Confirmatory License
 Other _____

4. Application or patent number(s): This document is being filed together with a new application.
A. Patent Application No.(s)
12/282,087
B. Patent No.(s)

Additional numbers attached? Yes No


5. Name and address to whom correspondence concerning document should be mailed:
Name: Richard L. Byrne
Internal Address: The Webb Law Firm

Street Address: 436 Seventh Avenue
700 Koppers Building
City: Pittsburgh
State: PA Zip: 15219
Phone Number: 412-471-8815
Fax Number: 412-471-4094
Email Address: webblaw@webblaw.com

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00
 Authorized to be charged by credit card
 Authorized to be charged to deposit account
 Enclosed
 None required (government interest not affecting title)

8. Payment Information
a. Credit Card Last 4 Numbers 1059
Expiration Date 08/2010
b. Deposit Account Number 23-0650
Authorized User Name _____

9. Signature:  September 8, 2008
Signature Date
Richard L. Byrne, Registration No. 28,498 Total number of pages including cover sheet, attachments, and documents: 3
Name of Person Signing

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

ASSIGNMENT

WHEREAS We,

1 [JANG, Byungchul]

of [305-104, Dongyang Paragon Apt., Taeyeong2-dong, Jung-gu, Daejeon 301-784 ,
Republic of Korea],

2 [JIONG, Youngsu]

of [102-706, Daerimdurae Apt., Sinseong-dong, Yuseong-gu, Daejeon 305-720 ,
Republic of
Korea],

3 [KIM, Youngtaek]

of [#204, Seongjin Joon Villart., 48-5 Jamwon-dong, Seocho-gu, Seoul 137-906,
Republic of Korea],

(hereinafter referred to as "ASSIGNORS");

have invented certain new and useful improvements in:

**PROCESS FOR THE ELECTROCHEMICAL CATALYSTS OF FUEL CELLS
BASED ON POLYMER ELECTROLYTES**

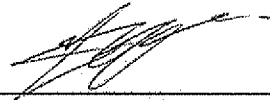
WHEREAS, [HANWHA CHEMICAL CORPORATION] (hereinafter referred to as "ASSIGNEE"), a research institute organized and existing under the laws of the Country of [Republic of Korea], having a place of business at [1 Janggyo-dong, Jung-gu, Seoul 100-797, Republic of Korea], is desirous of acquiring an interest in the United States and all foreign countries, in and to the said invention and Letters Patent to be obtained therefore;

NOW THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, the receipt of which is hereby acknowledged, We, the said ASSIGNORS have assigned and transferred, and hereby assign and transfer unto the said ASSIGNEE, the entire right, title and interest in and to said invention in the United States and in all foreign countries, including priority rights, as fully set forth and described in said application; and We do hereby authorize and request the Commissioner of Patents to issue said Letters Patent on said application, and any and all Letters Patent that may be issued upon any and all revivals, refilings, continuations, continuations-in-part, divisions and reissues thereof,

to the said ASSIGNEE, an assignee of the entire right, title and interest in and to the same, for the sole use and behalf of ASSIGNEE, its successors and assigns; and We do hereby agree that the said ASSIGNEE, may apply for foreign Letters Patent on said invention and that We will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by the said ASSIGNEE, its successors or assigns, and that We will, at the cost and expense of the said ASSIGNEE fully assist and cooperate in all matters in connection with the United States and foreign applications and patents issuing thereon.

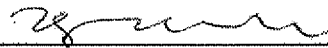
The undersigned declare that all statements made herein of their own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: July 21, 2008



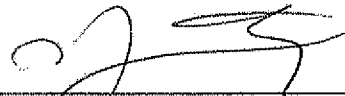
JANG, Byungchul

Date: July 21, 2008



JIONG, Youngsu

Date: July 21, 2008



KIM, Youngtaek