

**PATENT ASSIGNMENT**

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SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
<b>CONVEYING PARTY DATA</b>													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Takeshi Ishihara</td> <td>07/27/2011</td> </tr> <tr> <td>Satoshi Miyaoka</td> <td>07/26/2011</td> </tr> <tr> <td>Koichi Kono</td> <td>07/27/2011</td> </tr> <tr> <td>Donna J. Crowther</td> <td>08/01/2011</td> </tr> <tr> <td>Patrick Brant</td> <td>08/17/2011</td> </tr> </tbody> </table>		Name	Execution Date	Takeshi Ishihara	07/27/2011	Satoshi Miyaoka	07/26/2011	Koichi Kono	07/27/2011	Donna J. Crowther	08/01/2011	Patrick Brant	08/17/2011
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Patrick Brant	08/17/2011												
<b>RECEIVING PARTY DATA</b>													
Name:	Toray Tonen Specialty Separator Godo Kaisha												
Street Address:	1190-13, Iguchi												
City:	Nasushiobara, Tochigi												
State/Country:	JAPAN												
Postal Code:	329-2763												
<b>PROPERTY NUMBERS Total: 1</b>													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13260643</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13260643								
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Application Number:	13260643												
<b>CORRESPONDENCE DATA</b>													
Fax Number:	(215)656-2498												
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Email:	pto.phil@dlapiper.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:	IP GROUP OF DLA PIPER LLP (US)												
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Address Line 4:	PHILADELPHIA, PENNSYLVANIA 19103												
ATTORNEY DOCKET NUMBER:	TTS-10-1583WO2-US												
NAME OF SUBMITTER:	Victorine B. Meise												
Total Attachments: 2 source=Assignment#page1.tif source=Assignment#page2.tif													

**CH \$40.00 13260643**

ASSIGNMENT

WHEREAS, we, Takeshi Ishihara, Satoshi Miyaoka, Koichi Kono, Donna J. Crowther and Patrick Brant, citizens of Japan, Japan, Japan, United States and United States, respectively, residing at c/o Nasu Plant, Toray Tonen Specialty Separator Godo Kaisha, 1190-13, Iguchi, Nasushiobara-shi, Tochigi-ken, 329-2763, Japan; c/o Nasu Plant, Toray Tonen Specialty Separator Godo Kaisha, 1190-13, Iguchi, Nasushiobara-shi, Tochigi-ken, 329-2763, Japan; c/o Nasu Plant, Toray Tonen Specialty Separator Godo Kaisha, 1190-13, Iguchi, Nasushiobara-shi, Tochigi-ken, 329-2763, Japan; 2725 Moss Court, Seabrook, Texas 77586 and 1038 Shorewood Drive, Seabrook, Texas 77586, respectively, (hereinafter referred to as "the undersigned"), having made an invention entitled MICROPOROUS MEMBRANES, METHODS FOR MAKING SUCH MEMBRANES, AND THE USE OF SUCH MEMBRANES AS BATTERY SEPARATOR FILM, identified in International Application No. PCT/US2010/026422, and in US Application No. 13/260/643, (DLA Piper is authorized to insert the Serial No. when known),

WHEREAS, Toray Tonen Specialty Separator Godo Kaisha, with offices located at 1190-13, Iguchi, Nasushiobara-shi, Tochigi, 329-2763 Japan (hereinafter referred to as "the assignee"), is desirous of acquiring the entire right, title and interest in said invention, said US application and all letters patent issuing for said invention,

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and of other good and valuable consideration, receipt of which is hereby acknowledged, the undersigned, intending to be legally bound, do hereby sell, assign and transfer to the assignee the entire right, title and interest, for the United States of America, its territories and possessions, and for all foreign countries, in said invention, including said US application, all divisions and continuations thereof, all rights to claim priority based thereon, all rights to file foreign applications on said invention, and all letters patent and reissues thereof, issuing for said invention in the United States of America and in any and all foreign countries.

It is agreed that the undersigned shall be legally bound, upon request of the assignee, or its successors or assigns or a legal representative thereof, to supply all information and evidence of which the undersigned has knowledge or possession, relating to the making and practice of said invention, to testify in any legal proceeding relating thereto, to execute all instruments proper to patent the invention in the United States of America and foreign countries in the name of the assignee, and to execute all instruments proper to carry out the intent of this instrument. If the undersigned includes more than one individual, these obligations shall apply to all of the undersigned both individually and collectively.

The rights and property herein conveyed by the undersigned are free and clear of any encumbrance.

EXECUTED on the date(s) set forth below.

July 27, 2011  
Date  
July 26, 2011  
Date  
July 27, 2011  
Date  
8-1-11  
Date  
\_\_\_\_\_  
Date

T. Ishihara  
Takeshi Ishihara  
石原 隆  
Satoshi Miyaoka  
Koichi Kono  
Koichi Kono  
Donna J. Crowther  
Donna J. Crowther  
\_\_\_\_\_  
Patrick Brant

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EXECUTED on the date(s) set forth below.

July 27, 2011  
Date

July 26, 2011  
Date

July 27, 2011  
Date

\_\_\_\_\_  
Date

August 17, 2011  
Date

T. Ishihara  
Takeshi Ishihara

三田 聡  
Satoshi Miyaoka

Koichi Kono  
Koichi Kono

Donna J. Crowther  
Donna J. Crowther

Patrick Brant  
Patrick Brant