

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4053875

<b>SUBMISSION TYPE:</b>	CORRECTIVE ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	Corrective Assignment to correct the INCORRECT ASSIGNOR PAMELA J. BAKER AND TO CORRECT INCORRECT EXECUTION DATE 06/27/2016 OF ASSIGNOR MERLIN L. BRUENING previously recorded on Reel 039588 Frame 0347. Assignor(s) hereby confirms the ASSIGNMENT. DOCUMENT ID NUMBER 503984154.
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
MERLIN L. BRUENING	06/27/2013
PAMELA J. BAKER (LEGAL REPRESENTATIVE FOR GREGORY L. BAKER)	06/24/2013
SOMNATH BHATTACHARJEE	06/28/2013
YIDING MA	06/29/2013
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	BOARD OF TRUSTEES OF MICHIGAN STATE UNIVERSITY
<b>Street Address:</b>	450 ADMINISTRATION BUILDING
<b>City:</b>	EAST LANSING
<b>State/Country:</b>	MICHIGAN
<b>Postal Code:</b>	48824-1046
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15251628
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(312)474-0448
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	312-474-6300
<b>Email:</b>	docket@marshallip.com, kkrahn@marshallip.com
<b>Correspondent Name:</b>	MARSHALL, GERSTEIN & BORUN LLP
<b>Address Line 1:</b>	233 S. WACKER DRIVE
<b>Address Line 2:</b>	6300 WILLIS TOWER
<b>Address Line 4:</b>	CHICAGO, ILLINOIS 60606-6357
<b>ATTORNEY DOCKET NUMBER:</b>	32213/930B
<b>NAME OF SUBMITTER:</b>	KARIN KRAHN
<b>SIGNATURE:</b>	/Karin Krahn/
<b>DATE SIGNED:</b>	09/15/2016

**Total Attachments: 6**

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## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4030810

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
MERLIN L. BRUENING	06/27/2016
PAMELA J. BAKER	06/24/2013
SOMNATH BHATTACHARJEE	06/28/2013
YIDING MA	06/29/2013
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	BOARD OF TRUSTEES OF MICHIGAN STATE UNIVERSITY
<b>Street Address:</b>	450 ADMINISTRATION BUILDING
<b>City:</b>	EAST LANSING
<b>State/Country:</b>	MICHIGAN
<b>Postal Code:</b>	48824-1046
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15251628
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(312)474-0448
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	312-474-6300
<b>Email:</b>	docket@marshallip.com, kkrahn@marshallip.com
<b>Correspondent Name:</b>	MARSHALL, GERSTEIN & BORUN LLP
<b>Address Line 1:</b>	233 S. WACKER DRIVE
<b>Address Line 2:</b>	6300 WILLIS TOWER
<b>Address Line 4:</b>	CHICAGO, ILLINOIS 60606-6357
<b>ATTORNEY DOCKET NUMBER:</b>	32213/930B
<b>NAME OF SUBMITTER:</b>	KARIN KRAHN
<b>SIGNATURE:</b>	/Karin Krahn/
<b>DATE SIGNED:</b>	08/30/2016
<b>Total Attachments: 5</b>	
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## ASSIGNMENT

As a below-named inventor, I hereby declare that:

My post office address is as stated below under my signature and I am named as an inventor of the inventions (herein INVENTIONS) as described in the patent application (herein APPLICATION) identified below.

**Title:** Functionalization of a Porous Membrane with an Adsorbed Polyacid

**Inventors:** Merlin L. Bruening, Gregory L. Baker (Deceased; Legal Representative - Pamela J Baker); Somnath Bhattacharjee, and Yiding Ma

**Serial Number:** 13/799,380

**Filing Date:** March 13, 2013

**Attorney Docket:** 59910-2930

In view of valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and further in view of my obligations respecting "University Inventions" as set forth in the current version of the MSU Faculty Handbook, I do hereby assign and transfer unto the BOARD OF TRUSTEES OF MICHIGAN STATE UNIVERSITY, 450 Administration Building, East Lansing, MI 48824-1046 (herein ASSIGNEE), my entire right, title and interest in and to the INVENTIONS, the APPLICATION and the right of priority thereto, and all related applications (including provisional applications, non-provisional regular applications, divisions, reissues, continuations, international patent applications, and extensions thereof, whether or not claiming priority to the APPLICATION) and all counterparts in other countries and any and all Letters Patent (and certificates of invention or similar certificates) (herein PATENTS) which may be granted based upon the INVENTIONS or the APPLICATION or related applications or counterparts in other countries, this assignment being applicable throughout the world; and I do hereby agree to assign and transfer unto ASSIGNEE, its successors or assigns, on like terms as set forth in this Assignment, my entire right, title and interest in and to any continuation-in-part applications related to the APPLICATION or to any other related applications related to the APPLICATION herein assigned (including non-provisional regular applications, divisions, reissues, continuations, international patent applications, and extensions thereof claiming priority to the APPLICATION).

I agree that I will communicate ASSIGNEE or its designated representatives any material facts known to me respecting the INVENTIONS and/or the APPLICATION; testify in any legal proceedings respecting the INVENTIONS; and execute any and all papers deemed necessary by ASSIGNEE, its successors or assigns, to secure the rights herein assigned.

Atty. Docket No. 59910-2930  
Bruening et al. "FUNCTIONALIZATION OF A POROUS MEMBRANE WITH AN ADSORBED POLYACID"

I authorize ASSIGNEE or its representatives to complete the Application Serial Number and Filing Date of the APPLICATION, once known, if that information is not specified above as of the date of my signature hereto.

I hereby represent and warrant that I have not granted any rights inconsistent with the rights granted herein.

FULL NAME OF INVENTOR : Merlin L. Bruening  
Inventor's signature : Merlin L. Bruening Date: 06/27/2013  
Residence : East Lansing, Michigan  
Citizenship : US  
Mailing Address : 1220 Chartwell Carriage Way South  
East Lansing, Michigan 48823

Signed and witnessed in the presence of:

Rebecca P. Townsend

Rebecca P. Townsend  
(Typed or printed name of witness)

**REBECCA P. TOWNSEND**  
**Notary Public, Ingham County, MI**  
**My Commission Expires 11/24/2013**

06-27-2013

FULL NAME OF INVENTOR : Gregory L. Baker (Deceased)

\_\_\_\_\_  
Legal Representative  
(please print)

Legal Representative's signature : \_\_\_\_\_ Date: \_\_\_\_\_  
Residence : \_\_\_\_\_

Citizenship : \_\_\_\_\_  
Mailing Address : \_\_\_\_\_

Signed and witnessed in the presence of:

\_\_\_\_\_  
\_\_\_\_\_  
(Typed or printed name of witness)

I authorize ASSIGNEE or its representatives to complete the Application Serial Number and Filing Date of the APPLICATION, once known, if that information is not specified above as of the date of my signature hereto.

I hereby represent and warrant that I have not granted any rights inconsistent with the rights granted herein.

FULL NAME OF INVENTOR : Merlin L. Bruening

Inventor's signature : \_\_\_\_\_ Date: \_\_\_\_\_  
Residence : East Lansing, Michigan  
Citizenship : US  
Mailing Address : 1220 Chartwell Carriage Way South  
East Lansing, Michigan 48823

Signed and witnessed in the presence of:

\_\_\_\_\_

(Typed or printed name of witness)

FULL NAME OF INVENTOR : Gregory L. Baker (Deceased)

Pamela J. Baker  
Legal Representative  
(please print)

Legal Representative's signature Pamela J. Baker Date: 6-24-13  
Residence 9600 Deer Trail  
Citizenship Haslett MI 48840  
Mailing Address USA citizenship  
same

Signed and witnessed in the presence of:

Rebecca P. Townsend Rebecca P. Townsend  
6-24-2013

**REBECCA P. TOWNSEND**  
(Typed or printed name of witness)  
**Notary Public, Ingham County, MI**  
**My Commission Expires 11/24/2013**

FULL NAME OF INVENTOR : Somnath Bhattacharjee

Inventor's signature

Residence

Citizenship

Mailing Address

: Somnath Bhattacharjee Date: 28<sup>th</sup> June, 2013  
: East Lansing, Michigan  
: DURHAM, NORTH CAROLINA B

: India

: 1544 Spartan Village, Apt. L  
: East Lansing, Michigan 48823

1103 ROSE GARDEN LANE  
DURHAM, NORTH CAROLINA  
27707 B.

Signed and witnessed in the presence of:

[Signature]  
Jeffrey L. School  
(Typed or printed name of witness)

FULL NAME OF INVENTOR : Yiding Ma

Inventor's signature

Residence

Citizenship

Mailing Address

: \_\_\_\_\_ Date: \_\_\_\_\_  
: Ann Arbor, Michigan

: China

: 610 Hidden Valley Club Dr., Apt. 216  
: Ann Arbor, Michigan 48104

Signed and witnessed in the presence of:

\_\_\_\_\_  
\_\_\_\_\_  
(Typed or printed name of witness)

FULL NAME OF INVENTOR : Somnath Bhattacharjee

Inventor's signature : \_\_\_\_\_ Date: \_\_\_\_\_  
Residence : East Lansing, Michigan

Citizenship : India  
Mailing Address : 1544 Spartan Village, Apt. L  
East Lansing, Michigan 48823

Signed and witnessed in the presence of:

\_\_\_\_\_

\_\_\_\_\_  
(Typed or printed name of witness)

FULL NAME OF INVENTOR : Yiding Ma

Inventor's signature : *Yiding Ma* Date: 06/29/2013  
Residence : Ann Arbor, Michigan

Citizenship : China  
Mailing Address : 610 Hidden Valley Club Dr., Apt. 216  
Ann Arbor, Michigan 48104

Signed and witnessed in the presence of:

*Yifan Ma*

YIFAN MA  
(Typed or printed name of witness)