

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT4366394

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
MR. MARK H. MCADON	05/29/2012
MS. LIPING ZHANG	05/11/2012
MR. ERNEST R. FRANK	05/11/2012
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	THE DOW CHEMICAL COMPANY
<b>Street Address:</b>	2030 DOW CENTER
<b>City:</b>	MIDLAND
<b>State/Country:</b>	MICHIGAN
<b>Postal Code:</b>	48674
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	14366058
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(248)504-4213
<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>	248-504-4849
<b>Email:</b>	srh@hanseniplaw.com
<b>Correspondent Name:</b>	HANSEN IP LAW PLLC
<b>Address Line 1:</b>	P.O. BOX 300069
<b>Address Line 4:</b>	WATERFORD, MICHIGAN 48330
<b>ATTORNEY DOCKET NUMBER:</b>	71486-US-PCT (5011-0089)
<b>NAME OF SUBMITTER:</b>	STEVEN R. HANSEN
<b>SIGNATURE:</b>	/Steven R. Hansen/
<b>DATE SIGNED:</b>	04/13/2017
<b>Total Attachments: 3</b>	
source=McAdon, Zhang, Frank-TDCC#page1.tif	
source=McAdon, Zhang, Frank-TDCC#page2.tif	
source=McAdon, Zhang, Frank-TDCC#page3.tif	

This Assignment Form is in the English language and has the same meaning in other languages with the same US number and filing date.

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FORM 110 (R. 5/97)

# INDIVIDUAL ASSIGNMENT AND INVENTOR'S DECLARATION

(with Priority Rights)

I/we verily believe I am/we are the original, first and sole/joint inventor(s) of the subject matter which is embraced by and for which a patent is sought on the invention entitled: **METHOD OF FORMULATING ALKYLENE OXIDE CATALYST IN RELATION TO CATALYST REFERENCE PROPERTIES**

which invention was made and invented by me/us out of and in the course of my/our employment with my/our respective employers as stated below my/our name(s). I/we acknowledge that I/we hold the invention and all patent and other rights and powers obtainable or exercisable in respect thereof in trust for our respective employers. As trustee(s), and for good and valuable consideration and/or the remuneration received for my/our work, I/we sell, assign and transfer unto:

**The Dow Chemical Company**  
 2030 Dow Center  
 Midland, Michigan 48674  
 United States of America

a corporation organized and existing under the laws of **Delaware** (hereinafter referred to as the "Assignee"); my/our entire right, title and interest throughout the world, in and to the invention and all rights and powers to make applications, including provisional applications when permitted by law, for Letters Patent in its own name, or in the name of its designee (or nominee(s)); and all rights and powers to file any corresponding or equivalent applications in any and all countries, including all rights to claim priority under all United States domestic laws, International Convention(s) and Treaties in the name of Assignee, and do hereby authorize Assignee or its designee to insert here the Priority Number, Filing Date, and Filing Country


Priority Number	Filing Date	Filing Country
61/377,219	December 19, 2011	United States of America

of the application, on which the claim for priority will be based; and in and to any Letters Patent that may be issued for the invention in any and all countries. I/we do hereby agree to assist Assignee in the prosecution of the application(s) and in any interference, conflict, opposition or litigation which may arise involving the invention or the patent or patents thereon, and to execute for any and all countries any document relating to applications derived from, corresponding to or equivalent to the above identified application as Assignee may request.

I/we authorize Assignee or its designee to translate this Assignment into all languages necessary; and we request that any such Letters Patent be issued to Assignee; and consent to the recordal of this Assignment, or a Notarial True Copy thereof, being under covenant not only that I/we have full power to make the same, but also that such assigned rights are not encumbered by any grant, license, or other right heretofore given.

Subscribed and Declared by me/us

At: Midland, Michigan 48674 USA  
 this 29 day of May, 2012  
 Effective as of December 19, 2011

Signature: 

Full Name: Mark H. McAdon  
 Residence: 705 Stillmeadow Ln  
 Midland, Michigan 48642-3389  
 Country: United States of America  
 Citizenship: United States of America  
 P.O. Address: Same as Residence  
 Employed By: The Dow Chemical Company  
 Of Country: United States of America

At: \_\_\_\_\_  
 this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_  
 Effective as of December 19, 2011

Signature: \_\_\_\_\_

Full Name: Liping Zhang  
 Residence: 306 Arrowhead Dr.  
 Lake Jackson, Texas 77566  
 Country: United States of America  
 Citizenship: United States of America  
 P.O. Address: Same as Residence  
 Employed By: The Dow Chemical Company  
 Of Country: United States of America

At: \_\_\_\_\_  
 this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_  
 Effective as of December 19, 2011

Signature: \_\_\_\_\_

Full Name: Ernest R. Frank  
 Residence: 741 Hess Drive  
 Charleston, West Virginia 25311  
 Country: United States of America  
 Citizenship: United States of America  
 P.O. Address: Same as Residence  
 Employed By: The Dow Chemical Company  
 Of Country: United States of America

At: \_\_\_\_\_  
 this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_  
 Effective as of December 19, 2011

Signature: \_\_\_\_\_

Full Name: \_\_\_\_\_  
 Residence: \_\_\_\_\_  
 Country: \_\_\_\_\_  
 Citizenship: \_\_\_\_\_  
 P.O. Address: \_\_\_\_\_  
 Employed By: \_\_\_\_\_  
 Of Country: \_\_\_\_\_

( ) Additional names and signatures are attached.

This Assignment 110 is in the ENGLISH language and has the same meaning in other languages with the same 110 number and R/Date.



This Assignment 110 is in the ENGLISH language and has the same meaning in other languages with the same 110 number and R/Date.

FORM 110 (R 5/97)

# INDIVIDUAL ASSIGNMENT AND INVENTOR'S DECLARATION

(with Priority Rights)

I/we verily believe I am/we are the original, first and sole/joint inventor(s) of the subject matter which is embraced by and for which a patent is sought on the invention entitled: **METHOD OF FORMULATING ALKYLENE OXIDE CATALYST IN RELATION TO CATALYST REFERENCE PROPERTIES**

which invention was made and invented by me/us out of and in the course of my/our employment with my/our respective employers as stated below my/our name(s). I/we acknowledge that I/we hold the invention and all patent and other rights and powers obtainable or exercisable in respect thereof in trust for our respective employers. As trustee(s), and for good and valuable consideration and/or the remuneration received for my/our work, I/we sell, assign and transfer unto:

**The Dow Chemical Company**  
 2030 Dow Center  
 Midland, Michigan 48674  
 United States of America

a corporation organized and existing under the laws of **Delaware** (hereinafter referred to as the "Assignee"); my/our entire right, title and interest throughout the world, in and to the invention and all rights and powers to make applications, including provisional applications when permitted by law, for Letters Patent in its own name, or in the name of its designee (or nominee(s)); and all rights and powers to file any corresponding or equivalent applications in any and all countries, including all rights to claim priority under all United States domestic laws, International Convention(s) and Treaties in the name of Assignee, and do hereby authorize Assignee or its designee to insert here the Priority Number, Filing Date, and Filing Country

Priority Number	Filing Date	Filing Country
61/577,219	December 19, 2011	United States of America

of the application, on which the claim for priority will be based; and in and to any Letters Patent that may be issued for the invention in any and all countries. I/we do hereby agree to assist Assignee in the prosecution of the application(s) and in any interference, conflict, opposition or litigation which may arise involving the invention or the patent or patents thereon, and to execute for any and all countries any document relating to applications derived from, corresponding to or equivalent to the above identified application as Assignee may request.

I/we authorize Assignee or its designee to translate this Assignment into all languages necessary; and we request that any such Letters Patent be issued to Assignee; and consent to the recordal of this Assignment, or a Notarial True Copy thereof, being under covenant not only that I/we have full power to make the same, but also that such assigned rights are not encumbered by any grant, license, or other right heretofore given.

Subscribed and Declared by me/us:

At: <u>Midland, Michigan 48674 USA</u> this _____ day of _____, 20____ Effective as of December 19, 2011
Signature: _____ Full Name: Mark H. McAdon Residence: 705 Stillmeadow Ln Midland, Michigan 48642-3389 Country: United States of America Citizenship: United States of America P.O. Address: Same as Residence Employed By: The Dow Chemical Company Of Country: United States of America

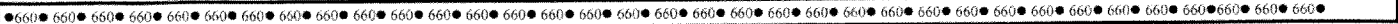
At: <u>Freeport, Texas 77561 US</u> this <u>11</u> day of <u>May</u> , 20 <u>12</u> Effective as of December 19, 2011
Signature: <u>[Handwritten Signature]</u> Full Name: Liping Zhang Residence: 306 Arrowhead Dr. Lake Jackson, Texas 77566 Country: United States of America Citizenship: United States of America P.O. Address: Same as Residence Employed By: The Dow Chemical Company Of Country: United States of America

At: <u>Freeport, TX</u> this <u>11</u> day of <u>May</u> , 20 <u>12</u> Effective as of December 19, 2011
Signature: <u>[Handwritten Signature]</u> Full Name: Ernest R. Frank Residence: 514 That Way #1111 Lake Jackson, TX 77566 Country: United States of America Citizenship: United States of America P.O. Address: Same as Residence Employed By: The Dow Chemical Company Of Country: United States of America

At: _____ this _____ day of _____, 20____
Signature: _____ Full Name: _____ Residence: _____ Country: _____ Citizenship: _____ P.O. Address: _____ Employed By: _____ Of Country: _____

( ) Additional names and signatures are attached.

This Assignee Acceptance 660 is in the ENGLISH language and has the same meaning in other languages with the same 660 number.



This Assignee Acceptance 660 is in the ENGLISH language and has the same meaning in other languages with the same 660 number.  
FORM 660

# ASSIGNEE ACCEPTANCE

WE, the ASSIGNEE: **THE DOW CHEMICAL COMPANY**  
**2030 Dow Center**  
**Midland, Michigan 48674**  
**United States of America**

hereby accept the ASSIGNMENT attached hereto which is dated: May 11, 2012 and May 29, 2012, respectively

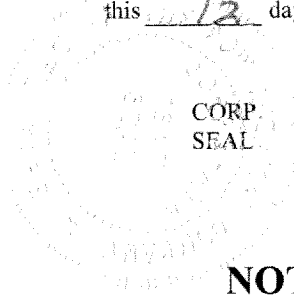
From, the ASSIGNOR: Mark H. McAdon, 705 Stillmeadow Ln, Midland, Michigan 48642-3389, United States of America, Citizen of United States of America; Liping Zhang, 306 Arrowhead Dr., Lake Jackson, Texas 77566, United States of America, Citizen of United States of America; and Ernest R. Frank, 741 Hess Drive, Charleston, West Virginia 25311, United States of America, Citizen of United States of America

of the invention entitled:

**METHOD OF FORMULATING ALKYLENE OXIDE CATALYST IN RELATION TO CATALYST REFERENCE PROPERTIES**

without any restrictions and with all rights and obligations deriving therefrom and declare that this confirmation of acceptance shall be deemed a part of the said ASSIGNMENT.

Signed at Midland, Michigan 48674, USA  
this 12 day of September, 2012



**THE DOW CHEMICAL COMPANY**

By: *D.P. Frickey*  
**DARRYL P. FRICKEY**  
Assistant General Counsel – IP Law

## NOTARIAL CERTIFICATE (Corporation)

UNITED STATES OF AMERICA )  
STATE OF MICHIGAN ) SS  
County/Parish of Midland )

On this 12 day of September, 2012, personally appeared before me, **DARRYL P. FRICKEY, Assistant General Counsel – IP Law**, known or identified to me to be the individual described in and who executed the foregoing document and acknowledged the same as a free act and deed for uses and purposes therein expressed by authority of the said Corporation incorporated under the laws of **the State of Delaware, United States of America**.

I further certify that said authority, dated **April 6, 2011**, is based on  
**a Certified Resolution**

which I have seen, appointing the said individual Assistant General Counsel – IP Law with full power to sign the foregoing document on behalf of the said corporation and that the purposes for which said document is granted are within the scope of the objects or activities of said corporation.

SEAL

*Ker*

*Kathy Sue Wertz*  
NOTARY PUBLIC, MIDLAND COUNTY, MICHIGAN  
MY COMMISSION EXPIRES APRIL 07, 2018

**PATENT**