

## PATENT ASSIGNMENT

Electronic Version v1.1  
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Union Carbide Chemicals & Plastics Technology LLC	01/19/2010
RECEIVING PARTY DATA	
Name:	The Dow Chemical Company
Street Address:	2030 Dow Center
City:	Midland
State/Country:	MICHIGAN
Postal Code:	48674
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	12846984
CORRESPONDENCE DATA	
Fax Number:	(989)636-3237
Phone:	989-636-0960
Email:	plkipfmiller@dow.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:	Pattie Kipfmiller
Address Line 1:	The Dow Chemical Company
Address Line 2:	2040 Dow Center
Address Line 4:	Midland, MICHIGAN 48674
ATTORNEY DOCKET NUMBER:	62397A US CNT[3]
NAME OF SUBMITTER:	Pattie Kipfmiller
Total Attachments: 3 source=62397A US CNT3 20120109 LKR UCC to TDCC Assign#page1.tif source=62397A US CNT3 20120109 LKR UCC to TDCC Assign#page2.tif source=62397A US CNT3 20120109 LKR UCC to TDCC Assign#page3.tif	

CH \$40.00 12846984

PATENT

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This Assignment 440 is in the ENGLISH language and has the same meaning in other languages with the same 440 number.



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FORM 440

# ASSIGNMENT (with Priority Rights) and INVENTORSHIP DECLARATION

We, ASSIGNOR, of: **UNION CARBIDE CHEMICALS & PLASTICS  
TECHNOLOGY LLC  
2020 Dow Center  
Midland, Michigan 48674  
United States of America**

a corporation organized and existing under the laws of the State of Delaware, United States of America do hereby claim and declare that we hold the invention and all patent and other rights and powers obtainable or exercisable in respect thereof from the sole, true and first inventor(s):

Juliana G. Serafin, 1534 Quarrier Street, Charleston, West Virginia 25311, United States of America, Citizen of United States of America; Albert C. Liu, 1534 Quarrier Street, Charleston, West Virginia 25311, United States of America, Citizen of United States of America; Seyed R. Seyedmonir, 111 Woodbridge Drive, Charleston, West Virginia 25311, United States of America, Citizen of United States of America; Hwaili Soo, 116 East Ridge Road, Charleston, West Virginia 25314, United States of America, Citizen of United States of America; and Thomas Szymanski, 2705 Blue Heron Drive, Hudson, Ohio 44236, United States of America, Citizen of United States of America

by an Assignments dated: October 12, 2004 and November 24, 2004 and of an invention relating to and entitled:

## CATALYSTS HAVING ENHANCED STABILITY, EFFICIENCY AND/OR ACTIVITY FOR ALKYLENE OXIDE PRODUCTION

We do hereby declare, for good and valuable consideration, received, sell, assign, and transfer unto:

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

a corporation organized and existing under the laws of the State of Delaware, United States of America our entire right, title and interest throughout the world, in and to the invention and all rights and powers to make application for Letters Patent in its own name, or in the name of its nominee; and all rights and powers to file any reissue, divisional, continuing or substitute application and any corresponding applications in any and all countries, including all rights to claim priority under all International Conventions and Treaties in the name of said Assignee, and do hereby authorize said Assignee to insert here the Priority Number, Filing Date, and Filing Country

Priority Number	Filing Date	Filing Country
60/511,975	October 16, 2003	United States of America

of the application on which the priority will be based; and in and to any Letters Patent that may be issued for said invention in any and all countries; and we do hereby agree to assist said Assignee in the prosecution of the said applications and in any interference, conflict, opposition or litigation which may arise involving said invention or the patent or patents thereon, and to execute any reissue, divisional, continuing or substitute application and assent to their making any applications in other countries corresponding to the above and below specifically identified application, as may be requested by said Assignee; and we do hereby authorize said Assignee to insert here the corresponding Application Number, Filing Date, and Filing Country

Application Number	Filing Date	Filing Country

of the corresponding application in any country where that patent property must be entered for recordal of this Assignment; and we do hereby authorize and request that any such Letters Patent be issued to said Assignee in accordance herewith, and consent to the recordal of this Assignment being under covenant, not only that 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 Sworn by us at Midland, Michigan 48674, USA

this 19th day of January, 20 10

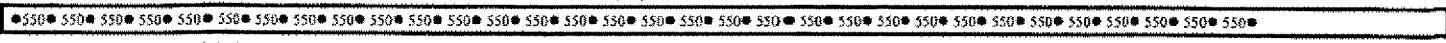
**UNION CARBIDE CHEMICALS & PLASTICS  
TECHNOLOGY LLC**

CORP.  
SEAL

By: Charles J. Maurer III  
**CHARLES J. MAURER III**  
Secretary

Attach Notarial Certificate (Corporation)

This Notarial Certificate 550 is in the ENGLISH language and has the same meaning in other languages with the same 550 number.



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FORM 550

### NOTARIAL CERTIFICATE (Corporation)

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

On this 10<sup>th</sup> day of January, 2010, personally appeared before me, **CHARLES J. MAURER III, Secretary**, 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 **December 31, 2007**, is based on

**Authorization Policy of said Limited Liability Company**

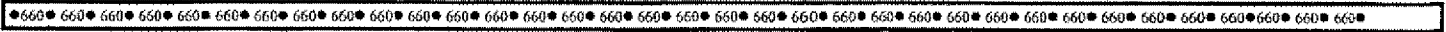
which I have seen, appointing the said individual with full power to sign the foregoing document on behalf of the said corporation and that the purposes for which said document is granted are within the scope of the objects or activities of said corporation.

*Rebecca Sue Hollingshead*  
SEAL

*Rebecca Sue Hollingshead*  
NOTARY PUBLIC, MIDLAND COUNTY, MICHIGAN  
MY COMMISSION EXPIRES NOVEMBER 25, 2012

TLP

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: January 19, 2010

From, the ASSIGNOR:  
**UNION CARBIDE CHEMICALS & PLASTICS TECHNOLOGY LLC**  
2020 Dow Center  
Midland, Michigan 48674  
United States of America

of the invention entitled:  
**CATALYSTS HAVING ENHANCED STABILITY, EFFICIENCY AND/OR ACTIVITY FOR ALKYLENE OXIDE PRODUCTION**

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 20 day of January, 20 10

CORP. SEAL  
**THE DOW CHEMICAL COMPANY**  
By: Michael L. Glenn  
**MICHAEL L. GLENN**  
Authorized Representative

## NOTARIAL CERTIFICATE (Corporation)

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

On this 20 day of January, 20 10, personally appeared before me, **MICHAEL L. GLENN, Authorized Representative**, 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 **February 9, 2006**, is based on  
**an authority of a Resolution by the Board of Directors**

which I have seen, appointing the said individual Authorized Representative 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  
Kathy Sue Wertz  
Kathy Sue Wertz  
NOTARY PUBLIC, MIDLAND COUNTY, MICHIGAN  
MY COMMISSION EXPIRES APRIL 07, 2012

**PATENT**