

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT3691957

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
SEAN W. EWART	05/20/2013
TERESA P. KARJALA	05/20/2013
MICHAEL J. ZOGG JR.	05/20/2013
SARAT MUNJAL	05/20/2013
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	DOW GLOBAL TECHNOLOGIES LLC
<b>Street Address:</b>	2040 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>
<b>Application Number:</b>	14404876
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(989)636-3237
<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>	989-636-7934
<b>Email:</b>	kswertz@dow.com
<b>Correspondent Name:</b>	KATHY WERTZ
<b>Address Line 1:</b>	2040 DOW CENTER
<b>Address Line 4:</b>	MIDLAND, MICHIGAN 48674
<b>ATTORNEY DOCKET NUMBER:</b>	72813-US-PCT
<b>NAME OF SUBMITTER:</b>	KATHY WERTZ
<b>SIGNATURE:</b>	/Kathy Wertz/
<b>DATE SIGNED:</b>	01/12/2016
<b>Total Attachments: 5</b>	
source=72813-US-PCT 20160112 KSW Inventors to DGTL Assignment#page1.tif	
source=72813-US-PCT 20160112 KSW Inventors to DGTL Assignment#page2.tif	
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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: **FREE-RADICAL PROCESSES TO MAKE ETHYLENE-BASED POLYMERS USING ALKLYATED PHENOLS**

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:

**Dow Global Technologies LLC**  
 2040 Dow Center  
 Midland, Michigan 48674  
 United States of America

a limited liability company 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
PCT/US2013/029875	March 8, 2013	PCT (International)

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: Freeport, Texas 77541 USA  
 this 30<sup>th</sup> day of May, 20 13  
 Effective as of March 8, 2013  
 Signature: Sean W Ewart  
 Full Name: Sean W. Ewart  
 Residence: 3015 Chance Court  
 Pearland, Texas 77584  
 Country: United States of America  
 Citizenship: Canada  
 P.O. Address: Same as Residence  
 Employed By: The Dow Chemical Company  
 Of Country: United States of America

At: Freeport, Texas 77541 USA  
 this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_  
 Effective as of March 8, 2013  
 Signature: \_\_\_\_\_  
 Full Name: Teresa P. Karjala  
 Residence: 56 Mandevilla Court  
 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: Freeport, Texas 77541 USA  
 this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_  
 Effective as of March 8, 2013  
 Signature: \_\_\_\_\_  
 Full Name: Michael J. Zogg, Jr.  
 Residence: 1518 Blodgett Street  
 Houston, Texas 77004  
 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: Freeport, Texas 77541 USA  
 this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_  
 Effective as of March 8, 2013  
 Signature: \_\_\_\_\_  
 Full Name: Sarat Munjal  
 Residence: 106 Thyme Trail  
 Lake Jackson, Texas 77566  
 Country: \_\_\_\_\_  
 Citizenship: United States of America  
 P.O. Address: Same as Residence  
 Employed By: The Dow Chemical Company  
 Of Country: United States of America

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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: **FREE-RADICAL PROCESSES TO MAKE ETHYLENE-BASED POLYMERS USING ALKLYLATED PHENOLS**

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:

**Dow Global Technologies LLC**  
 2040 Dow Center  
 Midland, Michigan 48674  
 United States of America

a limited liability company 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

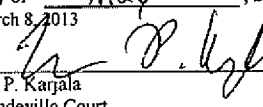
Priority Number	Filing Date	Filing Country
PCT/US2013/029875	March 8, 2013	PCT (International)

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:

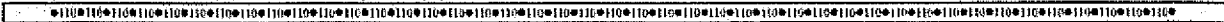
At: <u>Freeport, Texas 77541 USA</u> this _____ day of _____, 20____ Effective as of <u>March 8, 2013</u>  Signature: _____ Full Name: <u>Sean W. Ewart</u> Residence: <u>3015 Chance Court</u> <u>Pearland, Texas 77584</u>  Country: <u>United States of America</u> Citizenship: <u>Canada</u> P.O. Address: <u>Same as Residence</u> Employed By: <u>The Dow Chemical Company</u> Of Country: <u>United States of America</u>
--

At: <u>Freeport, Texas 77541 USA</u> this <u>20th</u> day of <u>May</u> , 20 <u>13</u> Effective as of <u>March 8, 2013</u>  Signature:  Full Name: <u>Teresa P. Kargala</u> Residence: <u>56 Mandevilla Court</u> <u>Lake Jackson, Texas 77566</u>  Country: <u>United States of America</u> Citizenship: <u>United States of America</u> P.O. Address: <u>Same as Residence</u> Employed By: <u>The Dow Chemical Company</u> Of Country: <u>United States of America</u>
---

At: <u>Freeport, Texas 77541 USA</u> this _____ day of _____, 20____ Effective as of <u>March 8, 2013</u>  Signature: _____ Full Name: <u>Michael J. Zogg, Jr.</u> Residence: <u>1518 Blodgett Street</u> <u>Houston, Texas 77004</u>  Country: <u>United States of America</u> Citizenship: <u>United States of America</u> P.O. Address: <u>Same as Residence</u> Employed By: <u>The Dow Chemical Company</u> Of Country: <u>United States of America</u>
---

At: <u>Freeport, Texas 77541 USA</u> this _____ day of _____, 20____ Effective as of <u>March 8, 2013</u>  Signature: _____ Full Name: <u>Sarat Munjal</u> Residence: <u>106 Thyme Trail</u> <u>Lake Jackson, Texas 77566</u>  Country: <u>United States of America</u> Citizenship: <u>United States of America</u> P.O. Address: <u>Same as Residence</u> Employed By: <u>The Dow Chemical Company</u> Of Country: <u>United States of America</u>
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FORM 110 (R. 5/97)

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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:

**Dow Global Technologies LLC**  
2040 Dow Center  
Midland, Michigan 48674  
United States of America

a limited liability company 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
PCT/US2013/029875	March 8, 2013	PCT (International)

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.

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Subscribed and Declared by me/us:

At: <u>Freeport, Texas 77541 USA</u> this _____ day of _____, 20____ Effective as of <u>March 8, 2013</u>  Signature: _____ Full Name: <u>Sean W. Ewart</u> Residence: <u>3015 Chance Court</u> <u>Pearland, Texas 77584</u>  Country: <u>United States of America</u> Citizenship: <u>Canada</u> P.O. Address: <u>Same as Residence</u> Employed By: <u>The Dow Chemical Company</u> Of Country: <u>United States of America</u>
--

At: <u>Freeport, Texas 77541 USA</u> this _____ day of _____, 20____ Effective as of <u>March 8, 2013</u>  Signature: _____ Full Name: <u>Teresa P. Karjala</u> Residence: <u>56 Mandevilla Court</u> <u>Lake Jackson, Texas 77566</u>  Country: <u>United States of America</u> Citizenship: <u>United States of America</u> P.O. Address: <u>Same as Residence</u> Employed By: <u>The Dow Chemical Company</u> Of Country: <u>United States of America</u>
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At: <u>Freeport, Texas 77541 USA</u> this <u>20</u> day of <u>May</u> , 20 <u>13</u> Effective as of <u>March 8, 2013</u>  Signature: <u>[Handwritten Signature]</u> Full Name: <u>Michael J. Zogg, Jr.</u> Residence: <u>1518 Blodgett Street</u> <u>Houston, Texas 77004</u>  Country: <u>United States of America</u> Citizenship: <u>United States of America</u> P.O. Address: <u>Same as Residence</u> Employed By: <u>The Dow Chemical Company</u> Of Country: <u>United States of America</u>
--

At: <u>Freeport, Texas 77541 USA</u> this _____ day of _____, 20____ Effective as of <u>March 8, 2013</u>  Signature: _____ Full Name: <u>Sarat Munjal</u> Residence: <u>106 Thyme Trail</u> <u>Lake Jackson, Texas 77566</u>  Country: _____ Citizenship: <u>United States of America</u> P.O. Address: <u>Same as Residence</u> Employed By: <u>The Dow Chemical Company</u> Of Country: <u>United States of America</u>
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FORM 110 (R.5.97)

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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:

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 2040 Dow Center  
 Midland, Michigan 48674  
 United States of America

a limited liability company 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

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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>Freeport, Texas 77541 USA</u> this _____ day of _____, 20____ Effective as of March 8, 2013
Signature: _____ Full Name: Sean W. Ewart Residence: 3015 Chance Court Pearland, Texas 77584
Country: United States of America Citizenship: Canada P.O. Address: Same as Residence Employed By: The Dow Chemical Company Of Country: United States of America

At: <u>Freeport, Texas 77541 USA</u> this <u>20</u> day of <u>May</u> , 20 <u>13</u> Effective as of March 8, 2013
Signature: _____ Full Name: Teresa P. Karjala Residence: 56 Mandevilla Court 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, Texas 77541 USA</u> this _____ day of _____, 20____ Effective as of March 8, 2013
Signature: _____ Full Name: Michael J. Zogg, Jr. Residence: 1518 Blodgett Street Houston, Texas 77004
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 77541 USA</u> this <u>20</u> day of <u>May</u> , 20 <u>13</u> Effective as of March 8, 2013
Signature: <u>Sarat Munjal</u> Full Name: Sarat Munjal Residence: 106 Thyme Trail 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

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: **DOW GLOBAL TECHNOLOGIES LLC**  
**2040 Dow Center**  
**Midland, Michigan 48674**  
**United States of America**

hereby accept the ASSIGNMENT attached hereto which is dated: May 20, 2013; May 20, 2013; May 20, 2013; and May 20, 2013; effective as of March 8, 2013

From, the ASSIGNOR: Teresa P. Karjala, 56 Mandevilla Court, Lake Jackson, Texas 77566, United States of America, Citizen of United States of America; Sean W. Ewart, 3015 Chance Court, Pearland, Texas 77584, United States of America, Citizen of Canada; Michael J. Zogg, Jr., 1518 Blodgett Street, Houston, Texas 77004, United States of America, Citizen of United States of America; and Sarat Munjal, 106 Thyme Trail, Lake Jackson, Texas 77566, United States of America, Citizen of United States of America

of the invention entitled:

**FREE-RADICAL PROCESSES TO MAKE ETHYLENE-BASED POLYMERS USING ALKLYATED PHENOLS**

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 3 day of October, 20 13



**DOW GLOBAL TECHNOLOGIES LLC**

By: Susan M Zerull  
**SUSAN M. ZERULL**  
**Authorized Representative**

### NOTARIAL CERTIFICATE

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

On this 3 day of October, 2013, personally appeared before me, **SUSAN M. ZERULL, 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 entity organized and existing under the laws of **the State of Delaware, United States of America**.

I further certify that said authority, dated **June 1, 2012**, is based on

**A delegation of signature authority of said Limited Liability Company**

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

SEAL

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