

## PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT																		
NATURE OF CONVEYANCE:	ASSIGNMENT																		
CONVEYING PARTY DATA																			
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Manchao Xiao</td> <td>11/29/2012</td> </tr> <tr> <td>Xinjian Lei</td> <td>11/29/2012</td> </tr> <tr> <td>Mark Leonard O'Neill</td> <td>12/10/2012</td> </tr> <tr> <td>Bing Han</td> <td>12/17/2012</td> </tr> <tr> <td>Ronald Martin Pearlstein</td> <td>11/29/2012</td> </tr> <tr> <td>Haripin Chandra</td> <td>12/03/2012</td> </tr> <tr> <td>Heather Regina Bowen</td> <td>12/03/2012</td> </tr> <tr> <td>Agnes Derecskei-Kovacs</td> <td>12/17/2012</td> </tr> </tbody> </table>		Name	Execution Date	Manchao Xiao	11/29/2012	Xinjian Lei	11/29/2012	Mark Leonard O'Neill	12/10/2012	Bing Han	12/17/2012	Ronald Martin Pearlstein	11/29/2012	Haripin Chandra	12/03/2012	Heather Regina Bowen	12/03/2012	Agnes Derecskei-Kovacs	12/17/2012
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RECEIVING PARTY DATA																			
<table border="1"> <tr> <td>Name:</td> <td>Air Products and Chemicals, Inc.</td> </tr> <tr> <td>Street Address:</td> <td>7201 Hamilton Blvd.</td> </tr> <tr> <td>Internal Address:</td> <td>Patent Dept.</td> </tr> <tr> <td>City:</td> <td>Allentown</td> </tr> <tr> <td>State/Country:</td> <td>PENNSYLVANIA</td> </tr> <tr> <td>Postal Code:</td> <td>18195-1501</td> </tr> </table>		Name:	Air Products and Chemicals, Inc.	Street Address:	7201 Hamilton Blvd.	Internal Address:	Patent Dept.	City:	Allentown	State/Country:	PENNSYLVANIA	Postal Code:	18195-1501						
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Application Number:	13622117																		
CORRESPONDENCE DATA																			
Fax Number:	6104817083																		
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>																			
Phone:	610-481-8761																		
Email:	borstra@airproducts.com																		
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Address Line 1:	7201 Hamilton Blvd.																		
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CH \$40.00 13622117

Address Line 4: Allentown, PENNSYLVANIA 18195-1501	
ATTORNEY DOCKET NUMBER:	07560ZP USA/CAS
NAME OF SUBMITTER:	Rosaleen P. Morris-Oskanian
	This document serves as an Oath/Declaration (37 CFR 1.63).
<b>Total Attachments: 3</b> source=07560ZPUSA-Assignment#page1.tif source=07560ZPUSA-Assignment#page2.tif source=07560ZPUSA-Assignment#page3.tif	

## Halogenated Organoaminosilane Precursors and Methods for Depositing Films Comprising Same

**ASSIGNMENT**

For value received, we, **Manchao Xiao, Xinjian Lei, Mark Leonard O'Neill, Bing Han, Ronald Martin Pearlstein, Haripin Chandra, Heather Regina Bowen and Agnes Derecskei-Kovacs**, hereby sell, assign, and transfer to **AIR PRODUCTS AND CHEMICALS, INC.**, a corporation of the State of Delaware, having an office at 7201 Hamilton Boulevard, Allentown, PA 18195-1501, the entire right, title, and interest in and to the invention relating to

**Halogenated Organoaminosilane Precursors and  
Methods for Depositing Films Comprising Same**

described in our application for Letters Patent of the United States (identified by Docket No. 07560ZP USA) executed of even date herewith, in and to all Letters Patent which may be issued upon said application, in and to any divisional or reissue applications based thereon, and in and to all Letters Patent upon said invention or improvements which may be granted in foreign countries. We hereby also assign and convey to said **AIR PRODUCTS AND CHEMICALS, INC.**, all the rights accruing to us by virtue of the International Convention for the Protection of Industrial Property (Art. 4), including the right to apply for and to have patents issued in its own name.

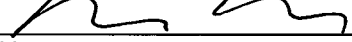
And we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and the Officials of the Patent Offices of all other countries to issue the Letters Patent of their respective countries to said **AIR PRODUCTS AND CHEMICALS, INC.**, as assignee of the entire right, title, and interest in and to the same.

And we hereby promise and agree to execute all papers and perform all acts necessary to secure to and vest in said **AIR PRODUCTS AND CHEMICALS, INC.**, its successors and assigns, the rights conveyed as herein set forth.

And we hereby declare that  
The above-identified application was made or authorized to be made by me.  
I believe I am the original inventor or an original joint inventor of a claimed invention in the application.  
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

_____(L.S.) Machao Xiao	_____(L.S.) Xinjian Lei
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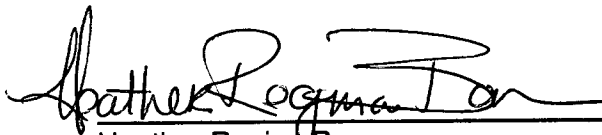
_____ Date	_____ Date
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_____(L.S.) Mark Leonard O'Neill	_____(L.S.)  Bing Han
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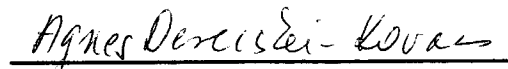
_____ Date	_____ Date
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_____(L.S.) Ronald Martin Pearlstein	_____(L.S.) Haripin Chandra
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_____ Date	_____ Date
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 (L.S.)  
Heather Regina Bowen

Dec 3, 2012  
Date

 (L.S.)  
Agnes Derecskei-Kovacs

Dec. 17, 2012.  
Date