

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>Klaus S. Lackner</td> <td>07/06/2011</td> </tr> <tr> <td>Alan C. West</td> <td>06/08/2011</td> </tr> <tr> <td>Jennifer L. Wade</td> <td>07/07/2011</td> </tr> </tbody> </table>		Name	Execution Date	Klaus S. Lackner	07/06/2011	Alan C. West	06/08/2011	Jennifer L. Wade	07/07/2011
Name	Execution Date								
Klaus S. Lackner	07/06/2011								
Alan C. West	06/08/2011								
Jennifer L. Wade	07/07/2011								
RECEIVING PARTY DATA									
Name:	The Trustees of Columbia University in the City of New York								
Street Address:	110 Low Memorial Library								
Internal Address:	535 West 116th Street								
City:	New York								
State/Country:	NEW YORK								
Postal Code:	10027								
PROPERTY NUMBERS Total: 1									
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13052392</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13052392				
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Application Number:	13052392								
CORRESPONDENCE DATA									
Fax Number:	(203)782-2889								
Phone:	203-498-4447								
Email:	lblair@wiggins.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:	Wiggins and Dana LLP ATTN: Patent Docket								
Address Line 1:	One Century Tower								
Address Line 2:	P.O. Box 1832								
Address Line 4:	New Haven, CONNECTICUT 06508-1832								
ATTORNEY DOCKET NUMBER:	102943-303								
NAME OF SUBMITTER:	Anthony P. Gangemi								

CH \$40.00 13052392

Total Attachments: 6

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ASSIGNMENT

WHEREAS, We, Klaus S. Lackner, residing at 140 Southlawn Drive, Dobbs Ferry, NY 10522, Alan C. West, residing at 115 Newcomb Road, Tenafly, NJ 07670, and Jennifer L. Wade, residing at 542 West 112 Street, Apartment 20, New York, NY 10025, have invented certain new and useful improvements in CARBON DIOXIDE PERMEABLE MEMBRANE for which we:

- have executed an application for Letters Patent of the United States of even date herewith;
- have filed an application for Letters Patent of the United States on March 21, 2011 under Serial No. 13/052,392; and

WHEREAS, The Trustees of Columbia University in the City of New York, organized under the laws of the State of New York, having its principal place of business at 110 Low Memorial Library, 535 West 116th Street, New York, NY 10027, is desirous of obtaining the entire right, title, and interest in, to and under the said improvements and the said application;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned, transferred and set over, and by these presents to hereby sell, assign, transfer and set over, unto the said The Trustees of Columbia University in the City of New York, its successors, legal representatives, and assigns the entire right, title, and interest in, to and under the said improvements, and the said application and all divisions, renewals, and continuations thereof, and all Letters Patent of the United States which may be granted thereon or claim priority therefrom and all reissues and extensions thereof, and all applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, renewals, and reissues thereof; and we hereby authorize and request the Commissioner of Patents of the United States and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for

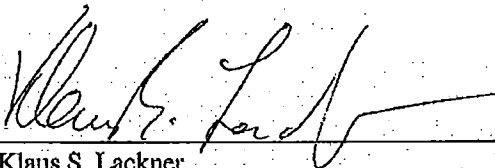
said improvement to the said The Trustees of Columbia University in the City of New York, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to said The Trustees of Columbia University in the City of New York, its successors, legal representatives and assigns, any facts known to us respecting said improvements, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths, and generally do everything possible to aid said The Trustees of Columbia University in the City of New York, its successors, legal representatives and assigns to obtain and enforce proper patent protection for said improvements in all countries.

IN TESTIMONY WHEREOF, We hereunto set our hands and seals the day and year set opposite our signatures.

Date: July 6, 2014


Klaus S. Lackner

Date: _____

Alan C. West

Date: _____

Jennifer L. Wade

ASSIGNMENT

WHEREAS, We, Klaus S. Lackner, residing at 140 Southlawn Drive, Dobbs Ferry, NY 10522, Alan C. West, residing at 115 Newcomb Road, Tenafly, NJ 07670, and Jennifer L. Wade, residing at 542 West 112 Street, Apartment 20, New York, NY 10025, have invented certain new and useful improvements in CARBON DIOXIDE PERMEABLE MEMBRANE for which we:

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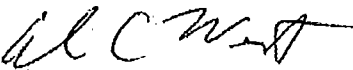
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IN TESTIMONY WHEREOF, We hereunto set our hands and seals the day and year set opposite our signatures.

Date: _____

Klaus S. Lackner

Date: 6-8-11



Alan C. West

Date: _____

Jennifer L. Wade

1866732560630.1

ASSIGNMENT

WHEREAS, We, Klaus S. Lackner, residing at 140 Southlawn Drive, Dobbs Ferry, NY 10522, Alan C. West, residing at 115 Newcomb Road, Tenafly, NJ 07670, and Jennifer L. Wade, residing at ~~542 West 112 Street, Apartment 20, New York, NY 10025~~ ^{182 Stockton St, Hightstown NJ 08520 ju 7/2/2011}, have invented certain new and useful improvements in CARBON DIOXIDE PERMEABLE MEMBRANE for which we:

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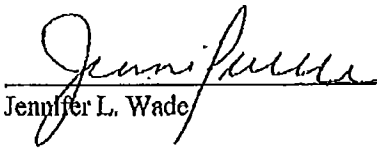
Date: _____

Klaus S. Lackner

Date: _____

Alan C. West

Date: 7/7/2011



Jennifer L. Wade

18667312560630.1