OCT. 17. 2014 5:08PM

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10/17/2014 10/02/2014

NO. 6011 P. 2

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3048678

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the ASSIGNEE previously recorded on Reel 020841 Frame 0096. Assignor(s) hereby confirms the ASSIGNMENT.

CONVEYING PARTY DATA

Name	Execution Date
Francis Boodoo	10/01/2014
Fabio Chaves Sousa	10/01/2014
James A. Dale	08/15/2014
Carmen Mihaela lesan	10/01/2014

RECEIVING PARTY DATA

Name:	BROTECH CORP., DOING BUSINESS AS THE PUROLITE COMPANY
Street Address:	150 MONUMENT ROAD
City:	BALA CYNWYD
State/Country:	PENNSYLVANIA
Postal Code:	19004

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12015429

CORRESPONDENCE DATA

Fax Number:

(877)769-7945

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.

Phone:

(212) 765-5070

Email:

apsi@fr.com

Correspondent Name:

ROBERT C. SULLIVAN

Address Line 1:

FISH & RICHARDSON P.C.

Address Line 2:

P.O.BOX 1022

Address Line 4:

MINNEAPOLIS, MINNESOTA 55440-1022

NAME OF SUBMITTER:	CAROL TYRRELL
SIGNATURE:	/Carol Tyrrell/
DATE SIGNED:	10/02/2014

Total Attachments: 12

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Form **PTO-1595** (Rev. 08/05) OMB No. 0651-0027 (exp. 6/30/2008) U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office

RECORDATION FOR	M COVER SHEET
PATENTS	ONLY
To the Director of the U.S. Patent and Trademark Office: Please	record the attached documents or the new address(es) below.
1. Name of conveying party(ies):	2. Name and address of receiving party(ies)
Francis Boodoo (04/10/2008), Fabio Chaves De	Name: The Purolite Company
Sousa (03/31/2008), James A. Dale (03/29/2008), and Carmen Mihaela lesan (03/28/2008)	Internal Address:
Additional name(s) of conveying party(ies) attached? Yes X No	Street Address:
3. Nature of conveyance/Execution Date(s):	
	150 Monument Road
Execution Date(s): in parentheses after Inventor name	190 Monatholy Coda
X Assignment Merger Change of Name	
Security Agreement Joint Research Agreement	City: Bala Cynwyd
Government Interest Assignment	State: Pennsylvania
Executive Order 9424, Confirmatory License	Country: United States of America Zip: 19004
Other	Additional name(s) & address(es) Yes X No attached?
A. Patent Application No.(s) 12/015,429	? Yes X No
Additional numbers attached 5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:
Name: Lvdia G. Olson, Ph.D.	40.00
DÁRBY & DARBY P.C.	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00
Internal Address: Atty. Dkt.: 20349/1205899-US1	Authorized to be charged by credit card
Street Address: P. O. Box 770 Church Street Station	Authorized to be charged to deposit account
Official officer official	Enclosed
	None required (government interest not affecting title
City: New York	8. Payment Information
State: NY Zip: 10008-0770	a. Credit Card Last 4 Numbers 1009
Phone Number: (206) 262-8913	Expiration Date 12/11
Fax Number: (212) 527-7701	b. Deposit Account Number
Email Address:patent@darbylaw.com	Authorized User Name
9. Signature:	April 22, 2008
Signature Signature	
Lydia G. Olson, Ph.D 48,487 Name of Person Signing	Total number of pages including cover sheet, attachments, and documents:

REEL: 033969 FRAME: 0349

ASSIGNMENT

- I, Francis Boodoo, a citizen of the United States of America, residing at 150 Monument Road; Bala Cynwyd, Pennsylvania; 19004; UNFTED STATES; and
- l, Fabio Chaves De Sousa, a citizen of Brazil, residing at Rua Xavier de Almeida n 918; ap 31 B - CEP; 04211-001 Sao Paulo, : BRAZIL; and
- I, James A. Dale, a citizen of United Kingdom, residing at 12 Pontosma Court; Cardiff Road; CARDIFF; CF5 2AS; UNITED KINGDOM; and
- I, Carmen Mihaela Iesan, a citizen of Romania, residing at Str. Negoiu pr. 28; Fagaras 505200; ROMANIA;

and each of us, if more than one person is identified above (hereinafter "ASSIGNOR") in consideration of the sum of Ten Dollars (\$10.00), or the equivalent thoreof, and other good and valuable consideration, the sufficiency of which and receipt of which are hereby acknowledged paid to ASSIGNOR by

Francis Bouler

The Purolite Company Dated 10/1/2014

Brutesh Carp., doing business as The Puroline Company

a Corporation organized under the laws of Delaware, located at 150 Monument Road, Bala Cynwyd, Pennsylvania 19004 (horeinafter "ASSIGNEE"), do hereby sell and assign to said ASSIGNEE, its successors and assigns, the below indicated right, title, and interest, throughout the world in and to my invention entitled:

REDUCED FOULING OF REVERSE OSMOSIS MEMBRANES

invented by me and described in Patent Application No. 12/015,429, filled on January 16, 2008, in the United States of America; and all patents, divisions, reissues, continuations and any extensions thereof and rights of priority therein, said interest being my entire ownership interest in the same, to be held and enjoyed by said ASSIGNEE, its successors, assigns, or other legal representatives, to the full and of the term thereof, as fully and entirely as the same would have

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been held and enjoyed by me if this assignment and sale had not been made, including all rights of Assignor to recover for past infringement thereof:

And for the consideration aforesaid, I hereby covenant and agree to and with said ASSIGNEE, its successors and assigns, that whenever ASSIGNEE, its counsel or representative, or the counsel or representative of its successors or assigns, shall advise that an amendment to, or a division of, or any other proceeding or action in connection with an application concerning said invention, including interference proceedings, is lawful and desirable, or that a reissue or continuation or extension of such application or patent issuing therefrom is lawful and desirable, I will sign all papers and drawings, take all rightful oaths and affidavits, and do all acts necessary or required to be done for the procurement of all lawful rights associated with the Invention, or for the reissue or continuation or extension of the same, will do all acts necessary or required to secure in said ASSIGNEE, its successors or assigns, the title to and full benefit of all rights hereby assigned, without charge to said ASSIGNEE or its successors or assigns, but at its or their expense; and I hereby appoint every present or future officer of said ASSIGNEE as my agent to sign all such papers and to do all such necessary acts on my behalf, to the fullest extent permitted by law;

And I hereby authorize and request the Commission of Patents and Trademarks and any other granting authority to issue any Letters Patent resulting from said Invention and application(s) concerning same to said ASSIGNEE.

This assignment shall have an effective date corresponding to the last date of execution.

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I declare under penalty of perjury under the laws of the United States of America, and under penalty of the laws of any other jurisdiction before which this document may be presented, that I have signed this document as my own free act and that all of the foregoing is true and correct,

Dated:	04/10/2008	Francis Boodoo, Inventor
Dated:		Fabio Chaves De Sousa, Inventor
Dated:		James A. Dale, Inventor
Dated:		Carmen Mihaela Iesan, Inventor

ASSIGNMENT

- I, Francis Boodoo, a citizen of the United States of America, residing at 150 Monument Road; Bala Cynwyd, Pennsylvania; 19004; UNITED STATES; and
- I, Fabio Chaves De Sousa, a citizen of Brazil, residing at Rua Xavier de Almeida n 918; ap 31 B - CEP; 04211-001 Sao Paulo, : BRAZIL; and
- I, James A. Dale, a citizen of United Kingdom, residing at 12 Pontesma Court; Cardiff Road; CARDIFF; CF5 2AS; UNITED KINGDOM; and
- I, Carmen Mihasia Iesan, a citizen of Romania, residing at Str. Negoni or. 28; Fagans 505200; ROMANIA;

and each of us, if more than one person is identified above (hereinafter "ASSIGNOR") in consideration of the sum of Ten Dollars (\$10.00), or the equivalent thereof, and other good and valuable consideration, the sufficiency of which and receipt of which are hereby acknowledged, paid to ASSIGNOR by

Brotech Carpy Loing business as The Purolite Company

a Corporation organized under the laws of Delaware, located at 150 Monument Road, Bala Cynwyd, Pennsylvania 19004 (hereineffer "ASSIGNEE"), do hereby sell and assign to said ASSIGNEE, its successors and assigns, the below indicated right, title, and interest, throughout the world in and to my invention entitled:

REDUCED FOULING OF REVERSE OSMOSIS MEMBRANES

invented by me and described in Patent Application No. 12/015,429, filed on Jamusry 16, 2008, in the United States of America; and all patents, divisions, reissues, confinuations and any extensions thereof and rights of priority therein, said interest being my entire ownership interest in the same, to be held and enjoyed by said ASSIGNEE, its successors, assigns, or other legal representatives, to the full and of the term thereof, as fully and entirely as the same would have

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been held and enjoyed by me if this assignment and sale had not been made, including all rights of Assignor to recover for past infringement thereof;

And for the consideration aforesaid, I hereby covenant and agree to and with said ASSIGNEE, its successors and assigns, that whenever ASSIGNEE, its counsel or representative, or the counsel or representative of its successors or assigns, shall advise that an amendment to, or a division of, or any other proceeding or action in connection with an application concerning said invention, including interference proceedings, is lawful and desirable, or that a reissue or continuation or extension of such application or patent issuing therefrom is lawful and desirable, I will sign all papers and drawings, take all rightful oaths and affidavits, and do all acts necessary or required to be done for the procurement of all lawful rights associated with the Invention, or for the reissue or continuation or extension of the same, will do all acts necessary or required to secure in said ASSIGNEE, its successors or assigns, the title to and full benefit of all rights hereby assigned, without charge to said ASSIGNEE or its successors or assigns, but at its or their expense; and I hereby appoint every present or future officer of said ASSIGNEE as my agent to sign all such papers and to do all such necessary acts on my behalf, to the fullest extent permitted by law;

And I hereby authorize and request the Commission of Patents and Trademarks and any other granting authority to issue any Letters Patent resulting from said Invention and application(s) concerning same to said ASSIGNEE.

This assignment shall have an effective date corresponding to the last date of execution

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I declare under penalty of perjury under the laws of the United States of America, and under penalty of the laws of any other jurisdiction before which this document may be presented, that I have signed this document as my own free act and that all of the foregoing is true and correct.

Dated:		Francis Boodoo, Inventor
Dated:	3/31/2008	Fabio Chaves De Sobsa, Inventor
Dated:		James A. Dale, Inventor
Dated:		Carmen Mihaela Iesan, Inventor

REEL: 033969 FRAME: 0355

ASSIGNMENT

- I, Francis Boodoo, a citizen of the United States of America, residing at 150 Monument Road; Bala Cynwyd, Permsylvania; 19004; UNITED STATES; and
- 1, Fabio Chaves De Sousa, a citizen of Brazil, residing at Rua Xavier de Almeida n 918; ap 31 B - CEP: 04211-001 Sao Paulo, : BRAZIL; and
- I, James A. Dale, a citizen of United Kingdom, residing at 12 Pontcanna Court; Cardiff Road; CARDIFF; CF5 2AS; UNITED KINGDOM; and
- I, Carmen Mihaela Iesan, a citizen of Romania, residing at Str. Negoiu nr. 28; Fagaras 505200; ROMANIA;

and each of us, if more than one person is identified above (hercinafter "ASSIGNOR") in consideration of the sum of Ten Dollars (\$10.00), or the equivalent thereof, and other good and valuable consideration, the sufficiency of which and receipt of which are hereby acknowledged, paid to ASSIGNOR by

51946.

Brotech Carp, doing business The Purolite Company

Signed: Bury J. Mollar Deuted: 15/8/2014

name:

Company Executor of estecte of

James A. Dede, detended.

a Corporation organized under the laws of Delaware, located at 150 Monument Road, Bala Cynwyd, Pennsylvania 19004 (hereinafter "ASSIGNEE"), do hereby soll and assign to said ASSIGNEE, its successors and assigns, the below indicated right, title, and interest, throughout the world in and to my invention entitled:

REDUCED FOULING OF REVERSE OSMOSIS MEMBRANES

invented by me and described in Patent Application No. 12/015,429, filed on January 16, 2008, in the United States of America; and all patents, divisions, reissues, continuations and any extensions thereof and rights of priority therein, said interest being my entire ownership interest in the same, to be held and enjoyed by said ASSIGNEE, its successors, assigns, or other legal representatives, to the full end of the term thereof, as fully and entirely as the same would have

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been held and enjoyed by me if this assignment and sale had not been made, including all rights of Assignor to recover for past infringement thereof:

And for the consideration aforesaid, I hereby covenant and agree to and with said ASSIGNEE, its successors and assigns, that whenever ASSIGNEE, its counsel or representative, or the counsel or representative of its successors or assigns, shall advise that an amendment to, or a division of, or any other proceeding or action in connection with an application concerning said Invention, including interference proceedings, is lawful and desirable, or that a reissue or continuation or extension of such application or patent issuing therefrom is lawful and desirable, I will sign all papers and drawings, take all rightful oaths and affidavits, and do all acts necessary or required to be done for the procurement of all lawful rights associated with the Invention, or for the reissue or continuation or extension of the same, will do all acts necessary or required to secure in said ASSIGNEE, its successors or assigns, the title to and full benefit of all rights hereby assigned, without charge to said ASSIGNEE or its successors or assigns, but at its or their expense; and I hereby appoint every present or future officer of said ASSIGNEE as my agent to sign all such papers and to do all such necessary acts on my behalf, to the fullest extent permitted by law;

And I hereby authorize and request the Commission of Patents and Trademarks and any other granting authority to issue any Letters Patent resulting from said Invention and application(s) concerning same to said ASSIGNEE.

This assignment shall have an effective date corresponding to the last date of execution

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I declare under penalty of perjuty under the laws of the United States of America, and under penalty of the laws of any other jurisdiction before which this document may be presented, that I have signed this document as my own free act and that all of the foregoing is true and correct.

Dated: _	A A SHI THE W	Francis Boodoo, Inventor
Dated:		Fabio Chaves De Sousa, Inventor
Dared: =	29 MANON BANG	Tames A. Dale, Inventor
Dated: _	·	Carmon Mihaela Iesan, Inventor

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Attorney Docket No.: 20349/1205899-US1

ASSIGNMENT

- I, Francis Boodon, a citizen of the United States of America, residing at 150 Monument Road; Bala Cynwyd, Pennsylvaniu, 19004; UNTTED STATES; and
- I, l'abre Chaves De Souse, a citizen of Brazil, residing at Kua Xavict de Almeida n 918, ap 31 B - CEP, 04211-001 Sec Paulo, : BRAZIL; and
- I, James A. Date, a citizen of United Kingdom, residing at 12 Pontcama Court; Cardiff Road; CARDIFF, CF5 2AS, UNITED KINCDOM; and
- 1. Carmon Mibaela Issan, a citizen of Romania, residing at Str. Negon, m. 28: Fagaras 505200; ROMANIA;

and each of us, if more than one person is identified above (hereinafter "ASSIGNOR") in consideration of the sum of Ten Dollars (\$10.00), or the equivalent thereof, and other good and valuable consideration, the sufficiency of which and second of which are hereby acknowledge Brotech Corp., Loing business as The Purolite Company Letter 10/01/2014

a Corporation organized under the laws of Delaware, located at 150 Monument Road, Hain Cymwyd, Pennsylvania 19004 (heremafter "ASSIGNEE"), do hereby sell and assign to said ASSIGNEE, its successors and assigns, the below indicated right, title, and interest, throughout the world in and to my invention enotied:

REDUCED FOULING OF REVERSE OSMOSIS MAMBRANES

invented by me and described in Patent Application No. 12/015,429, filed on January 16, 2008. in the United States of America; and all patents, divisions, reasures, continuations and any extensions thereof and rights of priority therein, said interest being my entire ownership misrest in the same, to be held and enjoyed by said ASSIGNEE, its successors, asvigns, or other legal representatives, to the full and of the term thereof, as fully and contrally as the same would have

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been held and enjoyed by me if this assignment and sale had not been made, including all rights of Assignor to recover for past infringement thereof:

And for the consideration aforesaid, I hereby covenant and agree to and with said ASSIGNEE, its successors and assigns, that whenever ASSIGNEE, its counsel or representative, or the counsel or representative of its successors or assigns, shall advise that an amendment to, or a division of, or any other proceeding or action in connection with an application concerning said Invention, including interference proceedings, is lawful and desirable, or that a reissue or continuation or extension of such application or patent issuing therefrom is lawful and desirable, I will sign all papers and drawings, take all rightful oaths and affidavits, and do all acts necessary or required to be done for the procurement of all lawful rights associated with the Invention, or for the reissue or commutation or extension of the same, will do all acts necessary or required to secure in said ASSIGNEE, its successors or assigns, the title to and full benefit of all rights hereby assigned, without charge to said ASSIGNEE or its successors or assigns, but at its or their expense; and I hereby appoint every present or future officer of said ASSIGNEE as my agent to sign all such papers and to do all such necessary acts on my behalf, to the fullest extent permitted by law;

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I declare under penalty of perjury under the laws of the United States of America, and under penalty of the laws of any other jurisdiction before which this document may be presented, that I have signed this document as my own free act and that all of the foregoing is true and correct.

Dated:		Francis Boodoo, Inventor
Dated:		Fabio Chaves De Sousa, Inventor
Dated:		James A. Dale, Inventor
Dated:	28th of March 2003	Carmen Mihaela Issan, Inventor

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