

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT4047494

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT	
NATURE OF CONVEYANCE:	Corrective Assignment to correct the ASSIGNOR AND ASSIGNEE NAMES previously recorded on Reel 027941 Frame 0846. Assignor(s) hereby confirms the SECURITY AGREEMENT.	
CONVEYING PARTY DATA		
Name		Execution Date
SIO2 MEDICAL PRODUCTS, INC.		03/15/2012
RECEIVING PARTY DATA		
Name:	THE TEACHERS' RETIREMENT SYSTEM OF ALABAMA	
Street Address:	201 SOUTH UNION STREET	
City:	MONTGOMERY	
State/Country:	ALABAMA	
Postal Code:	36104	
PROPERTY NUMBERS Total: 20		
Property Type	Number	
Application Number:	61452518	
Application Number:	61452526	
Application Number:	61417056	
Application Number:	61471059	
Application Number:	61542014	
Application Number:	61545508	
Application Number:	61558885	
Application Number:	12779007	
Application Number:	13169811	
Application Number:	13211917	
Application Number:	13240797	
PCT Number:	US1034568	
PCT Number:	US1034571	
PCT Number:	US1034576	
PCT Number:	US1034577	
PCT Number:	US1034582	
PCT Number:	US1034586	
PCT Number:	US1136097	
PCT Number:	US1136358	

PATENT

Property Type	Number
PCT Number:	US1144215

CORRESPONDENCE DATA

Fax Number: (205)254-1999
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: 205-254-1036

Email: tebbert@maynardcooper.com

Correspondent Name: C. BRANDON BROWNING

Address Line 1: 1901 SIXTH AVENUE NORTH

Address Line 2: SUITE 2400

Address Line 4: BIRMINGHAM, ALABAMA 35203

ATTORNEY DOCKET NUMBER:	00211.0075
NAME OF SUBMITTER:	C. BRANDON BROWNING
SIGNATURE:	/CBBROWNING/
DATE SIGNED:	09/12/2016

Total Attachments: 12

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PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY AGREEMENT
CONVEYING PARTY DATA	
Name	Execution Date
The Teachers' Retirement System of Alabama	03/15/2012
RECEIVING PARTY DATA	
Name:	SiO2 Medical Products, Inc.
Street Address:	2250 Riley Street
City:	Auburn
State/Country:	ALABAMA
Postal Code:	36822
PROPERTY NUMBERS Total: 20	
Property Type	Number
Application Number:	61452518
Application Number:	61452526
Application Number:	61471056
Application Number:	61471059
Application Number:	61542014
Application Number:	61545508
Application Number:	61558885
Application Number:	12779007
Application Number:	13169811
Application Number:	13211917
Application Number:	13240797
PCT Number:	US2010034568
PCT Number:	US2010034571
PCT Number:	US2010034576
PCT Number:	US2010034577

OP \$800.00 61452518

PATENT SECURITY AGREEMENT

THIS PATENT SECURITY AGREEMENT (this "Agreement") is made on March 15, 2012, by and among each party identified on the signature page of this Agreement (collectively, together with each other party that now or hereafter becomes a grantor under this Agreement, referred to herein as "Grantors" and individually as a "Grantor" in favor of **THE TEACHERS' RETIREMENT SYSTEM OF ALABAMA**, an instrumentality of the State of Alabama ("TRS"), in its capacity as Agent ("Agent") for the Lenders (as defined below) under that certain Master Loan Agreement dated as of March 15, 2012 (as amended or supplemented from time to time, the "Loan Agreement") by and among SiO₂ Medical Products, Inc., a Delaware corporation ("Borrower"), TRS, as such Agent for itself and the other lenders party to the Loan Agreement (collectively, the "Lenders"). The address of the Agent is 201 South Union Street, Montgomery, Alabama 36104.

Recitals

A. Pursuant to the terms of the Loan Agreement, the Lenders have provided a loan facility to or for the benefit of Borrower. To secure the payment and performance of all of the Obligations under (and as such term is defined in) the Loan Agreement, Borrower has granted to the Agent, a security interest in and lien upon its real and personal property.

B. A condition to the Lenders' willingness to provide such loan under the Loan Agreement is each Grantor's execution and delivery of this Agreement. To induce the Lenders to provide such loan pursuant to the Loan Agreement, each Grantor has agreed to enter into this Agreement.

Agreement

NOW, THEREFORE, for Ten and No/100 Dollars (\$10.00) in hand paid and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each Grantor hereby agrees with the Agent as follows:

1. Capitalized terms used herein (including, without limitation, those used in the Recitals hereto), unless otherwise defined, shall have the meanings ascribed to them in the Loan Agreement. As used herein, (i) the term "UCC" shall mean the Uniform Commercial Code as in effect from time to time in the State of Alabama, and (ii) the term "Secured Obligations" means (A) with respect to Borrower, all of the Obligations under (and as defined in) the Loan Agreement, and (B) with respect to each Grantor, all indebtedness and obligations of each Grantor under this Agreement.

2. To secure the prompt payment and performance of all of the Secured Obligations, each Grantor hereby grants, assigns and pledges to the Agent, a continuing security interest in and Lien upon all of the following property of such Grantor, whether now existing or hereafter created or acquired (collectively, the "Patent Collateral"):

(a) the entire right, title and interest of such Grantor in and to the patent applications and patents listed in Exhibit A attached hereto (as the same may be amended from time to time), and all re-issues, divisions, continuations, renewals, extensions and continuations-in-part thereof, including, without limitation, the right to sue for past, present and future infringements and rights corresponding thereto throughout the world (all of the foregoing being herein collectively referred to as the "Patents");

(b) the entire right, title and interest of such Grantor in and to any and all agreements to which such Grantor is a party that relate to the ownership or licensing of intellectual property

rights concerning the Patents, the subject matter of the Patents or any processes contemplated to make, use, or sell syringes and vials, including, without limitation, all consultant agreements, employee agreements, development agreements and license agreements; and

(c) all proceeds of the foregoing (such as, by way of example, license royalties and proceeds of infringement suits).

3. Each Grantor covenants with and warrants to the Agent that:

(a) The Patents are subsisting and have not been adjudged invalid or unenforceable, in whole or in part;

(b) Such Grantor is now and shall continue to be the sole and exclusive owner of the entire and unencumbered right, title and interest in and to each of the Patents, free and clear of any Liens other than Permitted Encumbrances;

(c) Such Grantor has the unqualified right to enter into this Agreement and perform its terms;

(d) Such Grantor has used, and will continue to use for the duration of this Agreement, proper statutory notice in connection with its use of the Patents and has made, and will continue to make, in such Grantor's reasonable business judgment, all appropriate filings with the United States Patent and Trademark Office and any applicable foreign filing offices to maintain the Patents in existence, including, without limitation, filing all necessary documents with the United States Patent and Trademark Office and any applicable foreign filing offices for each Patent to maintain it without loss of protection therefore; and

(e) Such Grantor will maintain a pending patent application that includes the entire disclosure of and properly claims priority to U.S. Pat. Appl. Ser. No. 12/779,007.

4. Until payment in full of the Secured Obligations, no Grantor shall enter into any license agreement relating to any of the Patents with any Person except non-exclusive licenses to customers, vendors, suppliers, agents or other service providers of the Grantors in the regular and ordinary course of the Grantors' business as presently conducted and for reasonable and customary compensation and shall not become a party to any agreement with any Person that is inconsistent with any Grantor's obligations under this Agreement.

5. If, before payment in full of all of the Secured Obligations, any Grantor shall obtain rights to any new patentable inventions, or become entitled to the benefit of any patent application or patent for any reissue, division, continuation, renewal, extension or continuation-in-part of any Patent or any improvement on any Patent, the provisions of paragraph 2 shall automatically apply thereto and the Grantor shall give to the Agent prompt notice thereof in writing.

6. Each Grantor irrevocably authorizes and empowers the Agent to modify this Agreement by amending Exhibit A to include any future patents and patent applications.

7. Each Grantor hereby grants to the Agent, and its employees and agents, the visitation, audit, and inspection rights with respect to such Grantor and the Collateral as set forth in the Loan Agreement.

8. At any time that an Event of Default exists, the Agent shall have, in addition to all other rights and remedies given it by this Agreement and the other Loan Documents, all rights and remedies of

a secured party under the UCC and all other rights and remedies of a secured party under applicable laws. Without limiting the generality of the foregoing, the Agent may immediately without demand of performance and without other notice (except as described in the next sentence, if required by applicable laws) or demand whatsoever to any Grantor, each of which each Grantor hereby expressly waives, and without advertisement (except as otherwise provided by applicable laws), collect directly any payments due any Grantor in respect of the Patent Collateral, or sell at public or private sale or otherwise realize upon the whole or from time to time any of the Patent Collateral, or any interest which any Grantor may have therein. Each Grantor hereby agrees that ten (10) days notice to such Grantor of any public or private sale or other disposition of any of the Patent Collateral shall be reasonable notice. At any such public or, if permitted by applicable laws, private sale or disposition, the Agent may, to the extent permitted by applicable laws, purchase the whole or any part of the Patent Collateral sold, free from any right of redemption on the part of any Grantor, which right each Grantor hereby waives and releases. After deducting from the proceeds of such sale or other disposition of the Patent Collateral all reasonable costs and expenses incurred by the Agent in enforcing its rights hereunder (including, without limitation, all reasonable attorneys' fees), the Agent shall apply the remainder of such proceeds to the payment of the Secured Obligations, in such order or manner as may be authorized or required by the Loan Agreement. Any remainder of the proceeds after payment in full of all of the Secured Obligations shall be paid over to the Grantors. If any deficiency shall arise, Borrower and the Grantor shall remain jointly and severally liable therefor.

9. Each Grantor hereby makes, constitutes and appoints the Agent, and any officer or agent of the Agent as the Agent may select, as such Grantor's true and lawful attorney-in-fact, with full power to do any or all of the following if an Event of Default with respect to any Grantor shall exist: to endorse such Grantor's name on all applications, documents, papers and instruments necessary for the Agent to continue the maintenance of or to use the Patents, or to grant or issue any exclusive or nonexclusive license under the Patents to any other Person, or to assign, pledge, convey or otherwise transfer title in or dispose of any Patent Collateral to any other Person. Each Grantor hereby ratifies all that such attorney shall lawfully do or cause to be done by virtue hereof. This power of attorney, being coupled with an interest, shall be irrevocable until payment in full of all of the Secured Obligations.

10. Any and all reasonable fees, costs and expenses, of whatever kind or nature, (including, without limitation, reasonable attorneys' fees and legal expenses) incurred by the Agent in connection with the filing or recording of any documents (including, without limitation, all taxes in connection therewith) with the United States Patent and Trademark Office or in other public offices, the payment or discharge of any taxes, counsel fees, maintenance fees or Liens, or otherwise, in protecting, maintaining and preserving any Patent Collateral or in defending or prosecuting any actions or proceedings arising out of or related to any Patent Collateral, shall be borne and paid by the Grantors (it being the intent of each Grantor and the Agent that the Grantors shall be responsible for the payment of all sums, fees, costs and expenses, including, without limitation, all maintenance fees payable with respect to the Patents) or, if paid by the Agent in its sole discretion, shall be reimbursed by the Grantors to the Agent **on demand** by the Agent and until so paid shall be added to the principal amount of the Secured Obligations and shall bear interest at the Default Rate.

11. Each Grantor shall use commercially reasonable efforts to detect any infringers of the Patents and shall notify the Agent in writing of material infringements detected. Each Grantor shall have the duty, through its current patent counsel or other counsel reasonably acceptable to the Agent, to prosecute diligently any patent application for a Patent pending as of the date of this Agreement or thereafter until payment in full of the Secured Obligations to make application on unpatented but patentable inventions (subject to such Grantor's reasonable discretion in the ordinary course of business, or, during the existence of an Event of Default, promptly upon the Agent's request), to file and prosecute opposition and cancellation proceedings, to file and prosecute lawsuits to protect each Patent and to do any and all acts which are deemed necessary or desirable by the Agent to preserve and maintain all rights

in patent applications for each Patent, unless in any such case any Grantor has determined that such Patent is no longer material to the conduct of its business. Any expenses incurred in connection with such an application or proceedings shall be borne by the Grantors. No Grantor shall expressly abandon any pending patent application or Patent, without the prior written consent of the Agent, unless such Grantor has determined that such patent application or Patent is no longer material to the conduct of its business.

12. Notwithstanding anything to the contrary contained in paragraph 11 hereof, the Agent shall have the right, at any time that an Event of Default exists, but shall in no way be obligated, to bring suit in its own name to enforce the Patents and any license hereunder, or to defend any suit or counterclaim in its own name to protect any Patents or license hereunder, in either of which events each Grantor shall at the request of the Agent do any and all lawful acts (including bringing suit) and execute any and all proper documents required by the Agent in aid of such enforcement or defense and each Grantor shall promptly, upon demand, reimburse and indemnify the Agent for all reasonable costs and expenses incurred by the Agent in the exercise of its rights under this paragraph 12.

13. If any Grantor fails to comply with any of its obligations hereunder and at the time of such failure or as a result thereof an Event of Default exists, then to the extent permitted by applicable laws, the Agent may discharge such obligations in such Grantor's name or in the Agent's name, in the Agent's sole discretion, but at the Grantors' expense, and the Grantors agree to reimburse the Agent in full for all expenses, including, without limitation, reasonable attorneys' fees, incurred by the Agent in prosecuting, defending or maintaining the Patents or the Agent's interest therein pursuant to this Agreement.

14. Grantors hereby warrant that, to the extent of their current knowledge (as of the effective date of this Agreement), the portion of the claimed subject matter of the Patents that relates to proposed processes as currently contemplated to make, use, or sell syringes and vials will not infringe upon any valid intellectual property rights of any third party. Grantors agree to indemnify the Agent against liability to any third party from any bona fide settlement or final judgment award, including without limitation reasonable attorney's fees and other expenses awarded, arising from any claim that the proposed processes as currently contemplated to make, use, or sell syringes and vials violates valid intellectual property rights of the third party.

15. No course of dealing between the Grantors and the Agent, nor any failure to exercise, nor any delay in exercising, on the part of the Agent, any right, power or privilege hereunder or under any of the other Loan Documents shall operate as a waiver thereof; nor shall any single or partial exercise of any right, power or privilege hereunder or thereunder preclude any other or further exercise thereof or the exercise of any other right, power or privilege.

16. All of the Agent's rights and remedies with respect to the Patent Collateral, whether established by this Agreement or any of the other Loan Documents, or by any other agreements or by applicable laws, shall be cumulative and may be exercised singularly or concurrently.

17. The provisions of this Agreement are severable, and if any clause or provision shall be held invalid and unenforceable, in whole or in part, in any jurisdiction, the same shall be deemed severed herefrom and shall not in any manner affect such clause or provision in any other jurisdiction, or any other clause or provision of this Agreement in any jurisdiction.

18. This Agreement, together with the other Loan Documents, constitutes and expresses the entire understanding of the parties hereto with respect to the subject matter hereof, and supersedes all prior agreements and understandings, inducements or conditions, whether express or implied, oral or written. This Agreement is subject to modification only by writing signed by the parties, except as provided in paragraph 6 hereof.

19. The benefits and burdens of this Agreement shall inure to the benefit of and be binding upon the successors and assigns of the Agent and upon the successors and permitted assigns of each Grantor. No Grantor shall assign its rights or delegate its rights or assign its duties hereunder without the prior written consent of the Agent.

20. Each Grantor hereby waives notice of the Agent's acceptance hereof.

21. This Agreement shall be governed by and construed in accordance with the internal laws of the State of Alabama.

22. This Agreement may be executed in any number of counterparts and by different parties to this Agreement on separate counterparts, each of which, when so executed, shall be deemed an original, but all such counterparts shall constitute one and the same agreement. Any signature delivered by a party by facsimile transmission or electronic mail shall be deemed to be an original signature hereto.

[Remainder of page intentionally left blank; signatures appear on following page.]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement under seal on the day and year first written above.

GRANTORS:

SiO₂ MEDICAL PRODUCTS, INC.

By: Robert S. Abrams

Name: Robert S. Abrams

Title: President

Robert S. Abrams
Robert S. Abrams

EXHIBIT A

<u>Title</u>	<u>Country</u>	<u>Patent No.</u>	<u>Serial No.</u>	<u>Patent Phase</u>	<u>Application Date</u>
Detection of Mechanical Stress on Coated Articles	US		61/452,518	Application	14-Mar-11
Technical Book	US		61/452,526	Application	14-Mar-11
VESSELS, CONTACT SURFACES, AND COATING AND INSPECTION APPARATUS AND METHODS	US		61/471,056	Application	1-Apr-11
ANTIMICROBIAL TREATMENT OF MEDICAL DEVICE SURFACES	US		61/471,059	Application	1-Apr-11
VESSEL COATING INSPECTION APPARTUS AND METHODS EMPLOYING SCHLEREN IMAGING	US		61/542,014	Application	30-Sep-11
VESSEL COATING INSPECTION APPARTUS AND METHODS EMPLOYING SCHLEREN X-RAY, GAMMA RAY, OR ELECTRON BEAM IMAGING	US		61/545,508	Application	10-Oct-11
PROTECTIVE LAYER FOR BARRIER COATING OF PHARMACUETICAL PACKAGING, COATING PROCESS AND APPARATUS	US		61/558,885	Application	11-Nov-11
Vessel, Coating, Inspection and Processing	US	7,985,188	12/779,007	Patent	12-May-10
Vessels and Vessel Coating	US		13/169,811	Application	12-May-10
Vessels and Vessel Coating Methods Involving Barrier Laminates Having a Spacer Layer	US		13/211,917	Application	17-Aug-11
CYCLIC OLEFIN POLYMER VESSELS AND VESSEL COATING METHODS	US		13/240,797	Application	22-Sep-11

<u>Title</u>	<u>Country</u>	<u>Patent No.</u>	<u>Serial No.</u>	<u>Patent Phase</u>	<u>Application Date</u>
Vessel Processing	EP		10162755.2	Application	12-May-10
Vessel Coating and Inspection	EP		10162760.2	Application	12-May-10
Vessel Holder	EP		10162757.8	Application	12-May-10
PECVD Apparatus for Vessel Coating	EP		10162756.0'	Application	12-May-10
Outgassing Method for Inspecting a Coated Surface	EP		10162758.6	Application	12-May-10
PECVD Coating Using an Organosilicon Precursor	EP		10162761.0'	Application	12-May-10
Vessel Processing	PCT		PCT/US10/34568	Application	12-May-10
Vessel Coating and Inspection	PCT		PCT/US10/34571	Application	12-May-10
Vessel Holder	PCT		PCT/US10/34576	Application	12-May-10
PEVCD Apparatus for Vessel Coating	PCT		PCT/US10/34577	Application	12-May-10
Outgassing Method for Inspecting a Coated Surface	PCT		PCT/US10/34582	Application	12-May-10
PECVD Coating Using an Organosilicon Precursor	PCT		PCT/US10/34586	Application	12-May-10

<u>Title</u>	<u>Country</u>	<u>Patent No.</u>	<u>Serial No.</u>	<u>Patent Phase</u>	<u>Application Date</u>
VESSEL OUTGASSING INSPECTION METHODS	PCT		PCT/US11/36097	Application	11-May-11
VESSEL OUTGASSING INSPECTION METHODS	PCT		PCT/US11/36358	Application	11-May-11
INJECTION MOLDING PROCESS AND PRODUCT PRODUCED USING THE SAME	PCT		PCT/US11/44215	Application	15-Jul-11
VESSELS AND VESSEL COATING AND INSPECTION APPARATUS AND METHODS	AR		20110102901	Application	11-May-11
VESSELS AND VESSEL COATING AND INSPECTION APPARATUS AND METHODS	TW		100128240	Application	11-May-11
Outgassing Method for Inspecting a Coated Surface	AU			Application	11-May-11
PECVD Coating Using an Organosilicon Precursor	AU			Application	11-May-11
Outgassing Method for Inspecting a Coated Surface	BR			Application	11-May-11
PECVD Coating Using an Organosilicon Precursor	BR			Application	11-May-11
Outgassing Method for Inspecting a Coated Surface	CA			Application	11-May-11
PECVD Coating Using an Organosilicon Precursor	CA			Application	11-May-11
Outgassing Method for Inspecting a Coated Surface	CN			Application	11-May-11

<u>Title</u>	<u>Country</u>	<u>Patent No.</u>	<u>Serial No.</u>	<u>Patent Phase</u>	<u>Application Date</u>
PECVD Coating Using an Organosilicon Precursor	CN			Application	11-May-11
Outgassing Method for Inspecting a Coated Surface	IL			Application	11-May-11
PECVD Coating Using an Organosilicon Precursor	IL			Application	11-May-11
Outgassing Method for Inspecting a Coated Surface	IN			Application	11-May-11
PECVD Coating Using an Organosilicon Precursor	IN			Application	11-May-11
Outgassing Method for Inspecting a Coated Surface	JP			Application	11-May-11
PECVD Coating Using an Organosilicon Precursor	JP			Application	11-May-11
Outgassing Method for Inspecting a Coated Surface	KR			Application	11-May-11
PECVD Coating Using an Organosilicon Precursor	KR			Application	11-May-11
Outgassing Method for Inspecting a Coated Surface	MX			Application	11-May-11
PECVD Coating Using an Organosilicon Precursor	MX			Application	11-May-11
Outgassing Method for Inspecting a Coated Surface	MY			Application	11-May-11

<u>Title</u>	<u>Country</u>	<u>Patent No.</u>	<u>Serial No.</u>	<u>Patent Phase</u>	<u>Application Date</u>
PECVD Coating Using an Organosilicon Precursor	MY			Application	11-May-11
Outgassing Method for Inspecting a Coated Surface	NZ		596997	Application	11-May-11
PECVD Coating Using an Organosilicon Precursor	NZ			Application	11-May-11
Outgassing Method for Inspecting a Coated Surface	RU			Application	11-May-11
PECVD Coating Using an Organosilicon Precursor	RU			Application	11-May-11
Outgassing Method for Inspecting a Coated Surface	SG			Application	11-May-11
PECVD Coating Using an Organosilicon Precursor	SG			Application	11-May-11
Outgassing Method for Inspecting a Coated Surface	TH		1101003095	Application	11-May-11
PECVD Coating Using an Organosilicon Precursor	TH			Application	11-May-11
Outgassing Method for Inspecting a Coated Surface	ZA			Application	11-May-11
PECVD Coating Using an Organosilicon Precursor	ZA			Application	11-May-11