

**TRADEMARK ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

**CONVEYING PARTY DATA**

Name	Formerly	Execution Date	Entity Type
Sachem, Inc.		06/17/2010	CORPORATION: TEXAS
Sachem Asia, Inc.		06/17/2010	CORPORATION: DELAWARE

**RECEIVING PARTY DATA**

Name:	PNC Bank, National Association
Street Address:	249 Fifth Avenue
City:	Pittsburgh
State/Country:	PENNSYLVANIA
Postal Code:	15222
Entity Type:	Bank: UNITED STATES

**PROPERTY NUMBERS Total: 7**

Property Type	Number	Word Mark
Registration Number:	3782813	SACHEM
Registration Number:	3773573	SACHEM
Registration Number:	3681200	AVANTA AC
Registration Number:	3681201	ENVURE
Registration Number:	3681203	EXPELL
Registration Number:	3706589	PROPELL
Registration Number:	3706590	ISOLIS

**CORRESPONDENCE DATA**

Fax Number: (412)562-1041  
*Correspondence will be sent via US Mail when the fax attempt is unsuccessful.*  
 Phone: 412-562-1637  
 Email: vicki.cremonese@bipc.com  
 Correspondent Name: Michael L. Dever  
 Address Line 1: 301 Grant Street

**900165052**

**TRADEMARK  
 REEL: 004227 FRAME: 0742**

**CH \$190.00 3782813**

Address Line 2: 20th Floor  
Address Line 4: Pittsburgh, PENNSYLVANIA 15219

ATTORNEY DOCKET NUMBER:	0011046-301808
NAME OF SUBMITTER:	Michael L. Dever
Signature:	/Michael L. Dever/
Date:	06/18/2010

**Total Attachments: 29**

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**PATENT, TRADEMARK AND COPYRIGHT SECURITY AGREEMENT**

THIS PATENT, TRADEMARK AND COPYRIGHT SECURITY AGREEMENT (the "Agreement"), dated as of June 17, 2010, is entered into by and among **SACHEM, INC.**, a Texas corporation (the "Borrower"), and **EACH OF THE OTHER PERSONS LISTED ON THE SIGNATURE PAGES HERETO** (each, a "Pledgor" and collectively, the "Pledgors"), and **PNC BANK, NATIONAL ASSOCIATION**, as Administrative Agent for the Lenders referred to below (the "Administrative Agent").

WHEREAS, pursuant to that certain Second Amended and Restated Credit Agreement (as amended, restated, modified or supplemented from time to time, the "Credit Agreement") of even date herewith by and among the Borrower, the Dutch Borrower, the Guarantors party thereto, the Lenders party thereto, and the Administrative Agent (all as defined in the Credit Agreement), the Administrative Agent and the Lenders have agreed to provide certain Loans and grant other financial accommodations to the Loan Parties (as defined in the Credit Agreement), and the Pledgors have agreed, among other things, to grant a security interest to the Administrative Agent in certain patents, trademarks, copyrights and other property as security for such loans and other obligations as more fully described herein.

NOW, THEREFORE, intending to be legally bound hereby, the parties hereto agree as follows:

1. Defined Terms.

(a) Except as otherwise expressly provided herein, (i) capitalized terms used in this Agreement shall have the respective meanings assigned to them in the Credit Agreement, and (ii) the rules of construction set forth in Section 1.2 of the Credit Agreement shall apply to this Agreement. Where applicable and except as otherwise expressly provided herein, terms used herein (whether or not capitalized) shall have the respective meanings assigned to them in the Uniform Commercial Code as enacted in the State of New York, as amended from time to time (the "Code").

(b) "Debt" shall mean and include all now existing and hereafter arising Obligations (as defined in the Credit Agreement) of each and every Pledgor and other Loan Party to the Administrative Agent, the Lenders, or any of their respective Affiliates under the Credit Agreement or any of the other Loan Documents, together with any extensions, renewals, replacements or refundings thereof, and all costs and expenses of enforcement and collection, including reasonable attorneys' fees, and any sums advanced by the Administrative Agent or the Lenders or which may otherwise become due pursuant to the provisions of the Credit Agreement, the Notes, this Agreement, or any other Loan Documents or pursuant to any other document or instrument at any time delivered to the Administrative Agent in connection therewith, including

commitment, letter of credit, agent or other fees and charges, and indemnification obligations under any such document or instrument, together with all interest payable on any of the foregoing, whether such sums are advanced or otherwise become due before or after the entry of any judgment for foreclosure or any judgment on any Loan Document or with respect to any default under any of the Debt.

(c) "Patents, Trademarks and Copyrights" shall mean and include all of each Pledgor's present and future right, title and interest in and to the following: all trade names, patent applications, patents, trademark applications, trademarks and copyrights, whether now owned or hereafter acquired by any Pledgor, including those listed on Schedule A hereto, including all proceeds thereof (such as, by way of example, license royalties and proceeds of infringement suits), the right to sue for past, present and future infringements, all rights corresponding thereto throughout the world and all reissues, divisions, continuations, renewals, extensions and continuations-in-part thereof, and the goodwill of the business to which any of the patents, trademarks and copyrights relate.

2. To secure the performance and Payment in Full of all Debt, each Pledgor hereby grants and conveys a security interest to the Administrative Agent in the entire right, title and interest of such Pledgor in and to all of its Patents, Trademarks and Copyrights. Notwithstanding the foregoing and only with respect to Patents, Trademarks and Copyrights which exist on the Closing Date, if the foregoing grant of a security interest in favor of the Administrative Agent would cause such Patents, Trademarks and Copyrights to be void pursuant to the terms of such Patents, Trademarks and Copyrights (subject to any limitations in Article 9 of the Code with respect to the effect of such restrictions on the collateral assignment of such Patents, Trademarks and Copyrights), then the grant of a security interest in such Patents, Trademarks and Copyrights shall be postponed to the extent of such restrictions on collateral assignment until such time as the grant of the security interest would not cause such Patents, Trademarks and Copyrights to be void).

3. Each Pledgor jointly and severally covenants and warrants that:

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

(b) to the best of such Pledgor's knowledge, each of the Patents, Trademarks and Copyrights is valid and enforceable;

(c) such Pledgor is the sole and exclusive owner of the entire and unencumbered right, title and interest in and to each of its Patents, Trademarks and Copyrights, free and clear of any liens, charges and encumbrances, including pledges, assignments, licenses, shop rights and covenants by such Pledgor not to sue third persons other than (i) the liens of the Administrative Agent and the Lenders created hereunder and (ii) Permitted Liens;

(d) such Pledgor has the corporate, limited liability company, or partnership, as the case may be, power and authority to enter into this Agreement and perform its terms;

(e) no claim has been made to such Pledgor or, to the knowledge of such Pledgor, any other person that the use of any of the Patents, Trademarks and Copyrights material and necessary to the conduct of such Pledgor's business does or may violate the rights of any third party;

(f) such Pledgor has used, and will continue to use for the duration of this Agreement, consistent standards of quality in its manufacture of products sold under any of the Patents, Trademarks and Copyrights except with respect to those Patents, Trademarks and Copyrights that are hereafter allowed to lapse in accordance with Paragraph 10 hereof, following any such lapse;

(g) such Pledgor has used, and will continue to use for the duration of this Agreement, proper statutory notice in connection with its use of the Patents, Trademarks and Copyrights, except for those Patents, Trademarks and Copyrights that are hereafter allowed to lapse in accordance with Paragraph 10 hereof;

(h) such Pledgor will not change its chief executive office address or legal name without providing at least thirty (30) days prior written notice to the Administrative Agent; and

(i) subject to the terms of the Credit Agreement, such Pledgor shall permit the Administrative Agent, its officers, employees and agents to inspect all books and records related to the Patents, Trademarks and Copyrights.

4. Each Pledgor agrees that, until all of the Debt shall have been Paid in Full, it will not enter into any agreement (for example, a license agreement) which is inconsistent with such Pledgor's obligations under this Agreement, without the Administrative Agent's prior written consent which shall not be unreasonably withheld, conditioned or delayed, except such Pledgor may license technology in the ordinary course of business without the Administrative Agent's consent to suppliers and customers to facilitate the manufacture and use of such Pledgor's products and the provision of such Pledgor's services.

5. If, before the Debt shall have been Paid in Full, any Pledgor shall own any new trademarks or any new copyrightable or patentable inventions, or any patent application or patent for any reissue, division, continuation, renewal, extension, or continuation in part of any Patent, Trademark or Copyright or any improvement on any Patent, Trademark or Copyright, the provisions of this Agreement shall automatically apply thereto. Such Pledgor shall give the Administrative Agent prompt notice in writing of any such future patents, patent applications, trademark applications, statements of use or use or other change in the status of any intent-to-use trademark applications, trademark registrations, copyright applications and copyright registrations. The Pledgors and the Administrative Agent agree to modify this Agreement by amending Schedule A to include any future patents, patent applications, trademark applications, statements of use or use or other change in the status of any intent-to-use trademark applications, trademark registrations, copyright registrations or copyright applications and the provisions of this Agreement shall apply thereto.

6. The Administrative Agent shall have, in addition to all other rights and remedies given it by this Agreement and those rights and remedies set forth in the Credit Agreement, those allowed by applicable Law and the rights and remedies of a secured party under the Uniform Commercial Code as enacted in any jurisdiction in which the Patents, Trademarks and Copyrights may be located and, without limiting the generality of the foregoing, if an Event of Default has occurred and is continuing, the Administrative Agent may immediately, without demand of performance and without other notice (except as set forth below) or demand whatsoever to any Pledgor, all of which are hereby expressly waived, and without advertisement, sell at public or private sale or otherwise realize upon, in a city that the Administrative Agent shall designate by notice to the Pledgors, in New York, New York or elsewhere, the whole or from time to time any part of the Patents, Trademarks and Copyrights, or any interest which such Pledgor may have therein and shall apply such proceeds as provided in Section 9.2.4 of the Credit Agreement. Notice of any sale or other disposition of the Patents, Trademarks and Copyrights shall be given to the Pledgors at least ten (10) days before the time of any intended public or private sale or other disposition of the Patents, Trademarks and Copyrights is to be made, which each Pledgor hereby agrees shall be reasonable notice of such sale or other disposition. At any such sale or other disposition, the Administrative Agent may, to the extent permissible under applicable Law, purchase the whole or any part of the Patents, Trademarks and Copyrights sold, free from any right of redemption on the part of any Pledgor, which right is hereby waived and released.

7. Each Pledgor hereby authorizes and empowers the Administrative Agent to make, constitute and appoint any officer or agent of the Administrative Agent, as the Administrative Agent may select in its exclusive discretion, as such Pledgor's true and lawful attorney-in-fact, with the power to endorse such Pledgor's name on all applications, documents, papers and instruments necessary for the Administrative Agent to use the Patents, Trademarks and Copyrights, or to grant or issue, on commercially reasonable terms, any exclusive or nonexclusive license under the Patents, Trademarks and Copyrights to any third person, or necessary for the Administrative Agent to assign, pledge, convey or otherwise transfer title in or dispose, on commercially reasonable terms, of the Patents, Trademarks and Copyrights to any third Person. Each Pledgor 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 for the term of this Agreement; provided, however, that the Administrative Agent agrees that it will not exercise any right under this power of attorney except while an Event of Default exists.

8. It is contemplated by the parties hereto that there may be times when no Debt is outstanding, but notwithstanding such occurrences, this Agreement shall remain valid and shall be in full force and effect as to subsequent outstanding Debt. At such time as the Pledgors shall have Paid in Full all of the Obligations, this Agreement shall terminate and the Administrative Agent, will thereafter, upon any Pledgor's request and at such Pledgor's expense shall execute and deliver to the applicable Pledgor all deeds, assignments and other instruments as may be necessary or proper to remove the Administrative Agent's security interest in the Patents, Trademarks and Copyrights, subject to any disposition thereof which may have been made by the Administrative Agent pursuant to this Agreement.

9. Any and all fees, costs and expenses, of whatever kind or nature, including reasonable and documented attorneys' fees and expenses incurred by the Administrative Agent in connection with the preparation of this Agreement and all other documents relating hereto and the consummation of this transaction, the filing or recording of any documents (including all taxes in connection therewith) in appropriate public offices, the payment or discharge of any taxes, reasonable and documented attorneys' fees, maintenance fees or encumbrances, the protection, maintenance or preservation of the Patents, Trademarks and Copyrights, or the defense or prosecution of any actions or proceedings arising out of or related to the Patents, Trademarks and Copyrights, shall be borne and paid by the Pledgors within twenty (20) days of demand by the Administrative Agent, and if not paid within such time, shall be added to the principal amount of the Debt and shall bear interest at the highest rate prescribed in the Credit Agreement.

10. Each Pledgor shall have the duty, through counsel reasonably acceptable to the Administrative Agent, to prosecute diligently any patent applications of the Patents, Trademarks and Copyrights pending as of the date of this Agreement if commercially reasonable or thereafter until the Debt shall have been Paid in Full, to make application on unpatented but patentable inventions (whenever it is commercially reasonable in the reasonable judgment of such Pledgor to do so) and to preserve and maintain all rights in patent applications and patents included in the Patents, Trademarks and Copyrights that are necessary or beneficial to the conduct of such Pledgor's business as conducted from time to time, including the payment of all maintenance fees. Any expenses incurred in connection with such an application shall be borne by the Pledgors. Except (i) as permitted in the Credit Agreement, and (ii) Patents, Trademarks, and Copyrights that are no longer necessary or have become obsolete during the course of such Pledgor's business, no Pledgor shall abandon any of the Patents, Trademarks and Copyrights without the consent of the Administrative Agent, which shall not be unreasonably withheld, conditioned or delayed.

11. Each Pledgor shall have the right, with the consent of the Administrative Agent, which shall not be unreasonably withheld, conditioned or delayed, to bring suit, action or other proceeding in its own name, and to join the Administrative Agent, if necessary, as a party to such suit so long as the Administrative Agent is satisfied that such joinder will not subject it to any risk of liability, to enforce the Patents, Trademarks and Copyrights and any licenses thereunder. Each Pledgor shall promptly, upon demand, reimburse and indemnify the Administrative Agent for all damages, costs and expenses, including reasonable and documented legal fees, incurred by the Administrative Agent as a result of such suit or joinder by such Pledgor.

12. No course of dealing between the Pledgors and the Administrative Agent, nor any failure to exercise nor any delay in exercising, on the part of the Administrative Agent, any right, power or privilege hereunder or under the Credit Agreement or other Loan Documents shall operate as a waiver of such right, power or privilege, 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.

13. All of the Administrative Agent's rights and remedies with respect to the Patents, Trademarks and Copyrights, whether established hereby or by the Credit Agreement or by any

other agreements or by Law, shall be cumulative and may be exercised singularly or concurrently.

14. Each of the obligations of each Pledgor under this Agreement is joint and several. The Administrative Agent and the Lenders, or any of them, may, in their sole discretion, elect to enforce this Agreement against any Pledgor without any duty or responsibility to pursue the Borrower or any other Pledgor and such an election by the Administrative Agent and the Lenders, or any of them, shall not be a defense to any action the Administrative Agent and the Lenders, or any of them, may elect to take against any Pledgor. Each of the Lenders and the Administrative Agent hereby reserves all right against each Pledgor.

15. 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, then such invalidity or unenforceability shall affect only such clause or provision, or part thereof, in such jurisdiction, and shall not in any manner affect such clause or provision in any other jurisdiction, or any clause or provision of this Agreement in any jurisdiction.

16. This Agreement is subject to modification only by a writing signed by the parties, except as provided in Paragraph 5.

17. The benefits and burdens of this Agreement shall inure to the benefit of and be binding upon the respective successors and permitted assigns of the parties, provided, however, that no Pledgor may assign or transfer any of its rights or obligations hereunder or any interest herein and any such purported assignment or transfer shall be null and void.

18. This Agreement shall be deemed to be a contract under the Laws of the State of New York and shall, pursuant to New York General Obligations Law 5-1401, for all purposes be governed by and construed and enforced in accordance with the laws of the State of New York.

19. EACH PLEDGOR IRREVOCABLY AND UNCONDITIONALLY SUBMITS, FOR ITSELF AND ITS PROPERTY, TO THE NONEXCLUSIVE JURISDICTION OF THE COURTS OF THE STATE OF OHIO SITTING IN CUYAHOGA COUNTY AND OF THE UNITED STATES DISTRICT COURT OF THE NORTHERN DISTRICT OF OHIO, AND ANY APPELLATE COURT FROM ANY THEREOF, IN ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT, OR FOR RECOGNITION OR ENFORCEMENT OF ANY JUDGMENT, AND EACH OF THE PARTIES HERETO IRREVOCABLY AND UNCONDITIONALLY AGREES THAT ALL CLAIMS IN RESPECT OF ANY SUCH ACTION OR PROCEEDING MAY BE HEARD AND DETERMINED IN SUCH OHIO STATE COURT OR, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, IN SUCH FEDERAL COURT. EACH OF THE PARTIES HERETO AGREES THAT A FINAL JUDGMENT IN ANY SUCH ACTION OR PROCEEDING SHALL BE CONCLUSIVE AND MAY BE ENFORCED IN OTHER JURISDICTIONS BY SUIT ON THE JUDGMENT OR IN ANY OTHER MANNER PROVIDED BY LAW. NOTHING IN THIS AGREEMENT OR IN ANY OTHER LOAN DOCUMENT SHALL AFFECT ANY RIGHT THAT THE ADMINISTRATIVE AGENT, ANY LENDER OR THE ISSUING LENDER MAY OTHERWISE HAVE TO BRING ANY ACTION OR PROCEEDING



RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT AGAINST ANY PLEDGOR OR ITS PROPERTIES IN THE COURTS OF ANY JURISDICTION. EACH PLEDGOR IRREVOCABLY AND UNCONDITIONALLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY OBJECTION THAT IT MAY NOW OR HEREAFTER HAVE TO THE LAYING OF VENUE OF ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT IN ANY COURT REFERRED TO IN THIS SECTION. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, THE DEFENSE OF AN INCONVENIENT FORUM TO THE MAINTENANCE OF SUCH ACTION OR PROCEEDING IN ANY SUCH COURT AND AGREES NOT ASSERT ANY SUCH DEFENSE.

20. This Agreement may be executed in any number of counterparts, and by different parties hereto in separate counterparts, each of which, when so executed, shall be deemed an original, but all such counterparts shall constitute one and the same instrument. Each Pledgor acknowledges and agrees that a telecopy transmission to the Administrative Agent or any Lender of the signature pages hereof purporting to be signed on behalf of any Pledgor shall constitute effective and binding execution and delivery hereof by such Pledgor.

21. EXCEPT AS PROHIBITED BY LAW, EACH PLEDGOR HEREBY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY A JURY IN RESPECT OF ANY LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER, OR IN CONNECTION WITH THIS AGREEMENT OR ANY OTHER DOCUMENTS OR TRANSACTIONS RELATING THERETO.

22. All notices, requests, demands, directions and other communications (collectively, "notices") given to or made upon any party hereto under the provisions of this Agreement shall be as set forth in Section 11.5 of the Credit Agreement.

23. Each Pledgor acknowledges and agrees that, in addition to the other rights of the Administrative Agent hereunder and under the other Loan Documents, because the Administrative Agent's remedies at law for failure of such Pledgor to comply with the provisions hereof relating to the Administrative Agent's rights (i) to inspect the books and records related to the pledged Collateral, (ii) to receive the various notifications such Pledgor is required to deliver hereunder, (iii) to obtain copies of agreements and documents as provided herein with respect to the pledged Collateral, (iv) to enforce the provisions hereof pursuant to which the such Pledgor has appointed the Administrative Agent its attorney-in-fact, and (v) to enforce the Administrative Agent's remedies hereunder, would be inadequate and that any such failure would not be adequately compensable in damages, such Pledgor agrees that each such provision hereof may be specifically enforced.

24. Upon the execution and delivery by any other Person of a Guarantor Joinder, such Person (i) may become a "Borrower" under the Credit Agreement and the Notes, and/or (ii) shall become a "Pledgor" under this Agreement with the same force and effect as if such Person were originally a party thereto and/or to this Agreement and named as a "Pledgor" hereunder. The execution and delivery of any such Joinder Agreement shall not require the consent of any other


Pledgor hereunder, and the rights and obligations of each Pledgor hereunder shall remain in full force and effect notwithstanding the addition of any new Borrower or Pledgor as a party to this Agreement.

**[SIGNATURES APPEAR ON FOLLOWING PAGES]**

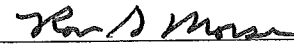
**[SIGNATURE PAGE TO PATENT, TRADEMARK  
AND COPYRIGHT SECURITY AGREEMENT]**

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective officers or agents thereunto duly authorized, as of the date first above written.

SACHEM, INC.

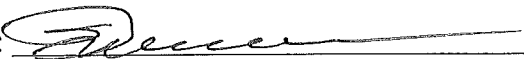
By:   
Name: Ron Morse  
Title: Chief Financial Officer

SACHEM ASIA, INC.

By:   
Name: Ron Morse  
Title: Chief Financial Officer

[SIGNATURE PAGE TO PATENT, TRADEMARK  
AND COPYRIGHT SECURITY AGREEMENT]

PNC BANK, NATIONAL ASSOCIATION, as  
Administrative Agent

By:   
Name: Christian S. Brown  
Title: Se Vice President

SCHEDULE A  
TO  
PATENT, TRADEMARK AND COPYRIGHT SECURITY AGREEMENT

LIST OF REGISTERED PATENTS, TRADEMARKS, TRADE NAMES, AND COPYRIGHTS

1. Patents

ROBS REF	TITLE	SERIAL NO	FILED	PATENT NO	ISSUED	STATUS	EXPIRES
SACHP0111US	THE USE OF REDOX COUPLES FOR ELECTROSYNTHESIS OF HIGH MOLECULAR WEIGHT QUAT ....	09/604,025	11/30/1992			CONTINUED	4/ 9/1993
SACHP0112US	QUATERNARY NITROGEN OR PHOSPHORUS CHIRATES	08/190,633	2/ 2/1994			CONTINUED	6/ 6/1995
SACHP0130US	ELECTROSYNTHESIS OF HYDROXYLAMINE SALTS AND HYDROXYLAMINE USING A MEDIATOR	60/055,823	8/15/1997			CONVERTED	8/13/1998
SACHP0135US	PROCESS FOR RECOVERING ONIUM HYDROXIDES OR ONIUM SALTS FROM SOLUTIONS CONTAININ ONIUM COMPOUNDS USING ELECTROCHEMICAL ION EXCHANGE	60/080,978	4/ 7/1998			CONVERTED	3/26/1999
SACHP0153US	SELECTIVE WET ETCHING OF OXIDES	60/680,685	5/13/2005			CONVERTED	5/14/2006
SACHP0154US	SELECTIVE WET ETCHING OF METAL NITRIDE	60/669,491	4/ 8/2005			CONVERTED	3/23/2006
SACHP0155US	HIGH REFRACTIVE INDEX FLUIDS WITH LOW ABSORPTION FOR IMMERSION LITHOGRAPHY	60/693,748	6/24/2005			CONVERTED	6/13/2006
SACHP0155USA	HIGH REFRACTIVE INDEX FLUIDS WITH LOW ABSORPTION FOR IMMERSION LITHOGRAPHY	60/735,912	11/10/2005			CONVERTED	6/13/2006
SACHP0160US	ANIONIC DISPLACEMENT CHROMATOGRAPHY COMPOUNDS AND METHODS	60/741,863	12/ 2/2005			CONVERTED	11/30/2006
SACHP0162US	METAL WET ETCH CHEMISTRY	60/866,239	11/17/2006			CONVERTED	11/19/2007
SACHP0169US	SILICATE SEMICONDUCTOR CLEANING COMPOSITION AND PROCESS	60/987,706	11/13/2007			CONVERTED	11/12/2008
SACHP0174US	PROCESS FOR PREPARING ADVANCED CERAMIC POWDERS USING ONIUM DICARBOXYLATES	61/042,173	4/ 3/2008			CONVERTED	4/ 3/2009
SACHP0100CA	METHOD FOR PRODUCING HIGH PURITY QUATERNARY AMMONIUM HYDROXIDES	541,849	7/10/1987	1,321,973	9/ 7/1993	ISSUED	9/ 7/2010

SACHP0109US	PROCESS FOR CLEANING QUARTZ AND SILICON SURFACES	07/830,688	2/ 3/1992	5,259,888	11/ 9/1993	ISSUED	2/ 3/2012
SACHP0110US	PROCESS FOR REDUCING THE ACID CONTENT OF HYDROXYLAMINE SALT SOLUTIONS AND FOR PREPARING HYDROXYLAMINES FROM HYDROXYLAMINE SALTS	07/907,391	7/ 1/1992	5,281,311	1/25/1994	ISSUED	7/ 1/2012
SACHP0112USA	QUATERNARY NITROGEN OR PHOSPHORUS CHIRATES	08/471,843	6/ 6/1995	5,576,459	11/19/1996	ISSUED	2/ 2/2014
SACHP0113BE	METHOD FOR PRODUCING HIGH PURITY HYDROXIDES AND ALKOXIDES	94117525.9	11/ 7/1994	0652041	9/ 1/1999	ISSUED	11/ 7/2014
SACHP0113CA	METHOD FOR PRODUCING HIGH PURITY HYDROXIDES AND ALKOXIDES	2,118,275	10/17/1994	2,118,275	9/20/2005	ISSUED	10/17/2014
SACHP0113DE	METHOD FOR PRODUCING HIGH PURITY HYDROXIDES AND ALKOXIDES	94117525.9	11/ 7/1994	69420356.4	9/ 1/1999	ISSUED	11/ 7/2014
SACHP0113EP	METHOD FOR PRODUCING HIGH PURITY HYDROXIDES AND ALKOXIDES	94117525.9	11/ 7/1994	0652041	9/ 1/1999	ISSUED	11/ 7/2014
SACHP0113FR	METHOD FOR PRODUCING HIGH PURITY HYDROXIDES AND ALKOXIDES	94117525.9	11/ 7/1994	0652041	9/ 1/1999	ISSUED	11/ 7/2014
SACHP0113GB	METHOD FOR PRODUCING HIGH PURITY HYDROXIDES AND ALKOXIDES	94117525.9	11/ 7/1994	0652041	9/ 1/1999	ISSUED	11/ 7/2014
SACHP0113IT	METHOD FOR PRODUCING HIGH PURITY HYDROXIDES AND ALKOXIDES	94117525.9	11/ 7/1994	0652041	9/ 1/1999	ISSUED	11/ 7/2014
SACHP0113JP	METHOD FOR PRODUCING HIGH PURITY HYDROXIDES AND ALKOXIDES	6-272720	11/ 7/1994	3,793,586	4/14/2006	ISSUED	11/ 7/2014
SACHP0113KR	METHOD FOR PRODUCING HIGH PURITY QUATERNARY AMMONIUM HYDROXIDES	94-27191	10/25/1994	0362493	11/13/2002	ISSUED	10/25/2014
SACHP0113NL	METHOD FOR PRODUCING HIGH PURITY HYDROXIDES AND ALKOXIDES	94117525.9	11/ 7/1994	0652041	9/ 1/1999	ISSUED	11/ 7/2014
SACHP0113SE	METHOD FOR PRODUCING HIGH PURITY HYDROXIDES AND ALKOXIDES	94117525.9	11/ 7/1994	0652041	9/ 1/1999	ISSUED	11/ 7/2014
SACHP0113US	METHOD FOR PRODUCING HIGH PURITY HYDROXIDES AND ALKOXIDES	08/148,925	11/ 8/1993	5,389,211	2/14/1995	ISSUED	11/ 8/2013
SACHP0119EPHK	PREPARATION OF ONIUM HYDROXIDES IN AN ELECTROCHEMICAL GEL	00101921.2	8/27/2007	HK1023374	4/ 4/2007	ISSUED	8/27/2027
SACHP0119IN	PREPARATION OF ONIUM HYDROXIDES IN AN ELECTROCHEMICAL CELL	2473/DEL/97	9/ 1/1997	230804	2/28/2009	ISSUED	9/ 1/2017

SACHP0119TW	PREPARATION OF ONIUM HYDROXIDES IN AN ELECTROCHEMICAL CELL	86112473	8/30/1997	123228	4/ 4/2001	ISSUED	8/29/2017
SACHP0119US	PREPARATION OF ONIUM HYDROXIDES IN AN ELECTROCHEMICAL CELL	08/704,898	8/30/1996	5,833,832	11/10/1998	ISSUED	8/30/2016
SACHP0119WOAT	PREPARATION OF ONIUM HYDROXIDES IN AN ELECTROCHEMICAL CELL	97940638.6	8/27/1997	0944747	1/ 3/2007	ISSUED	8/27/2017
SACHP0119WOCH	PREPARATION OF ONIUM HYDROXIDES IN AN ELECTROCHEMICAL CELL	97940638.6	8/27/1997	0944747	1/ 3/2007	ISSUED	8/27/2017
SACHP0119WOCN	PREPARATION OF ONIUM HYDROXIDES IN AN ELECTROCHEMICAL CELL	97198963.X	8/27/1997	ZL 97198963.X	11/24/2004	ISSUED	8/27/2017
SACHP0119WOEP	PREPARATION OF ONIUM HYDROXIDES IN AN ELECTROCHEMICAL CELL	97940638.6	8/27/1997	0944747	1/ 3/2007	ISSUED	8/27/2017
SACHP0119WOFR	PREPARATION OF ONIUM HYDROXIDES IN AN ELECTROCHEMICAL CELL	97940638.6	8/27/1997	0944747	1/ 3/2007	ISSUED	8/27/2017
SACHP0119WOIT	PREPARATION OF ONIUM HYDROXIDES IN AN ELECTROCHEMICAL CELL	97940638.6	8/27/1997	0944747	1/ 3/2007	ISSUED	8/27/2017
SACHP0119WOJP	PREPARATION OF ONIUM HYDROXIDES IN AN ELECTROCHEMICAL CELL	10-511878	8/27/1997	4,320,055	6/ 5/2009	ISSUED	8/27/2017
SACHP0119WOKR	PREPARATION OF ONIUM HYDROXIDES IN AN ELECTROCHEMICAL CELL	7001651/1999	8/27/1997	492103	5/20/2005	ISSUED	8/27/2017
SACHP0119WOMY	PREPARATION OF ONIUM HYDROXIDES IN AN ELECTROCHEMICAL CELL	PI 9703980	8/28/1997	MY-115681-A	8/30/2003	ISSUED	8/28/2017
SACHP0119WOSG	PREPARATION OF ONIUM HYDROXIDES IN AN ELECTROCHEMICAL CELL	9900772-6	8/27/1997	64069	6/20/2000	ISSUED	8/27/2017
SACHP0119ZA	PREPARATION OF ONIUM HYDROXIDES IN AN ELECTROCHEMICAL CELL	97/9012	10/ 8/1997	97/9012	7/29/1998	ISSUED	10/ 8/2017
SACHP0121TW	PROCESS FOR PURIFYING HYDROXIDE COMPOUNDS	86114599	10/ 4/1997	112892	7/12/2000	ISSUED	10/ 3/2017
SACHP0121US	PROCESS FOR PURIFYING HYDROXIDE COMPOUNDS	08/725,626	10/ 3/1996	5,753,097	5/19/1998	ISSUED	10/ 3/2016
SACHP0122CN	ELECTROCHEMICAL PROCESS FOR PURIFYING HYDROXIDE COMPOUNDS	97122771.3	10/ 5/1997	ZL 97122771.3	4/30/2003	ISSUED	10/ 5/2017
SACHP0122DE	ELECTROCHEMICAL PROCESS FOR PURIFYING HYDROXIDE COMPOUNDS	97307819.9	10/ 3/1997	0834345	3/24/2004	ISSUED	10/ 3/2017
SACHP0122EP	ELECTROCHEMICAL PROCESS FOR PURIFYING HYDROXIDE COMPOUNDS	97307819.9	10/ 3/1997	0834345	3/24/2004	ISSUED	10/ 3/2017

SACHP0122LI	ELECTROCHEMICAL PROCESS FOR PURIFYING HYDROXIDE COMPOUNDS	97307819.9	10/ 3/1997	0834345	3/24/2004	ISSUED	10/ 3/2017
SACHP0122TW	ELECTROCHEMICAL PROCESS FOR PURIFYING HYDROXIDE COMPOUNDS	86114598	10/ 4/1997	118365	12/ 6/2000	ISSUED	10/ 3/2017
SACHP0122US	ELECTROCHEMICAL PROCESS FOR PURIFYING HYDROXIDE COMPOUNDS	08/725,609	10/ 3/1996	5,709,790	1/20/1998	ISSUED	10/ 3/2016
SACHP0124TW	PROCESS FOR RECOVERING ORGANIC HYDROXIDES FROM WASTE SOLUTIONS	87101828	2/11/1998	NI-113576	8/ 1/2000	ISSUED	2/10/2018
SACHP0124US	PROCESS FOR RECOVERING ORGANIC HYDROXIDES FROM WASTE SOLUTIONS	08/800,229	2/12/1997	5,868,916	2/ 9/1999	ISSUED	2/12/2017
SACHP0124WOJP	PROCESS FOR RECOVERING ORGANIC HYDROXIDES FROM WASTE SOLUTIONS	10-535831	2/ 9/1998	4,024,310	10/12/2007	ISSUED	2/ 9/2018
SACHP0125US	PROCESS FOR RECOVERING ORGANIC HYDROXIDES FROM WASTE SOLUTIONS	08/815,382	3/11/1997	5,910,237	6/ 8/1999	ISSUED	3/11/2017
SACHP0126TWA	PROCESS FOR RECOVERING ORGANIC HYDROXIDES FROM WASTE SOLUTIONS	89115769	8/ 5/2000	1226876	1/21/2005	ISSUED	8/ 5/2020
SACHP0126USA	PROCESS FOR RECOVERING ORGANIC HYDROXIDES FROM WASTE SOLUTIONS	09/370,682	8/ 9/1999	6,217,743	4/17/2001	ISSUED	3/ 4/2017
SACHP0126WOAUA	PROCESS FOR RECOVERING ORGANIC HYDROXIDES FROM WASTE SOLUTIONS	68974/00	8/ 8/2000	773475	9/ 9/2004	ISSUED	8/ 8/2020
SACHP0126WOKRA	PROCESS FOR RECOVERING HYDROXIDES FROM WASTE SOLUTIONS	2002-7001787	8/ 8/2000	633215	9/29/2006	ISSUED	8/ 8/2020
SACHP0126WONZA	PROCESS FOR RECOVERING HYDROXIDES FROM WASTE SOLUTIONS	517085	8/ 8/2000	517085	5/12/2003	ISSUED	8/ 8/2020
SACHP0126WOSGA	PROCESS FOR RECOVERING HYDROXIDES FROM WASTE SOLUTIONS	200200858-9	8/ 8/2000	868821	5/31/2004	ISSUED	8/ 8/2020
SACHP0130USA	ELECTROSYNTHESIS OF HYDROXYLAMMONIUM SALTS AND HYDROXYLAMINE USING A MEDIATOR	09/133,851	8/13/1998	6,024,855	2/15/2000	ISSUED	8/13/2018
SACHP0131MY	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	PI 9900200	1/18/1999	MY-118215-A	9/30/2004	ISSUED	9/30/2019
SACHP0131TW	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	88100756	1/19/1999	164016	2/18/2003	ISSUED	1/19/2019
SACHP0131US	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM	09/009,319	1/20/1998	5,968,338	10/19/1999	ISSUED	1/20/2018



	COMPOUNDS						
SACHP0131WOBE	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	99903107.3	1/14/1999	1056686	6/20/2007	ISSUED	1/14/2019
SACHP0131WODE	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	99903107.3	1/14/1999	699 36 336.5	6/20/2007	ISSUED	1/14/2019
SACHP0131WOEP	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	99903107.3	1/14/1999	1056686	6/20/2007	ISSUED	1/14/2019
SACHP0131WOEPHK	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	01101598.3	1/14/1999	1030592	10/12/2007	ISSUED	1/14/2019
SACHP0131WOFR	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	99903107.3	1/14/1999	1056686	6/20/2007	ISSUED	1/14/2019
SACHP0131WOGB	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	99903107.3	1/14/1999	1056686	6/20/2007	ISSUED	1/14/2019
SACHP0131WOIT	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	99903107.3	1/14/1999	27860BE/2007	6/20/2007	ISSUED	1/14/2019
SACHP0131WOJP	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	2000-640083	1/14/1999	4,430,818	12/25/2009	ISSUED	1/14/2019
SACHP0131WOKR	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	2000-7007612	1/14/1999	462248	12/ 8/2004	ISSUED	1/14/2019
SACHP0131WONL	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	99903107.3	1/14/1999	1056686	6/20/2007	ISSUED	1/14/2019
SACHP0135USA	PROCESS FOR RECOVERING ONIUM HYDROXIDES OR ONIUM SALTS FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS USING ELECTROCHEMICAL ION EXCHANGE	09/277,560	3/26/1999	6,207,039	3/27/2001	ISSUED	3/26/2019
SACHP0138TW	ELECTROSYNTHESIS OF HYDROXYLAMMONIUM SALTS AND HYDROXYLAMINE USING A MEDIATOR,	87117217	8/14/1998	183275	12/ 4/2003	ISSUED	10/16/2018

	CATALYTIC FILM, METHODS OF MAKING THE CATALYTIC FILM, AND ELECTROSYNTHESIS OF COMPOUNDS USING THE CATALYTIC FILM						
SACHP0138US	CATALYTIC FILM, METHODS FOR MAKING THE CATALYTIC FILM, AND ELECTROSYNTHESIS OF COMPOUNDS USING THE CATALYTIC FILM	09/133,850	8/13/1998	6,165,341	12/26/2000	ISSUED	8/13/2018
SACHP0138WOCA	ELECTROSYNTHESIS OF HYDROXYLAMMONIUM SALTS AND HYDROXYLAMINE USING A MEDIATOR, A CATALYTIC FILM, METHODS OF MAKING THE CATALYTIC FILM, ELECTROSYNTHESIS	2,301,035	8/14/1998	2,301,035	1/13/2009	ISSUED	8/14/2018
SACHP0138WOJP	SYNTHESIS OF HYDROXYLAMMONIUM SALTS AND HYDROXYLAMINE USING A MEDIATOR, CATALYTIC FILM, METHODS OF MAKING THE CATALYTIC FILM AND ELECTROSYNTHESIS OF COMPOUNDS USING THE CATALYTIC FILM	2000-509888	8/14/1998	4,395,257	10/23/2009	ISSUED	8/14/2018
SACHP0139MY	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	PI 20014741	10/11/2001	MY-117670-A	7/31/2004	ISSUED	10/11/2021
SACHP0139TW	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	90125197	10/12/2001	I304795	1/ 1/2009	ISSUED	10/12/2021
SACHP0139US	ACTION EXCHANGE PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	09/693,293	10/20/2000	6,508,940	1/21/2003	ISSUED	11/17/2020
SACHP0139WOAT	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	01977876.0	9/27/2001	1337470	12/ 7/2005	ISSUED	9/27/2021
SACHP0139WOBE	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	01977876.0	9/27/2001	1337470	12/ 7/2005	ISSUED	9/27/2021
SACHP0139WOCA	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	2,424,110	9/27/2001	2,424,110	12/ 2/2008	ISSUED	9/27/2021
SACHP0139WOCH	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM	01977876.0	9/27/2001	1337470	12/ 7/2005	ISSUED	9/27/2021

	COMPOUNDS						
SACHP0139WOCN	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	01817646.1	9/27/2001	ZL 01817646.1	1/11/2006	ISSUED	9/27/2021
SACHP0139WODE	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	01977876.0	9/27/2001	60115704.4	12/ 7/2005	ISSUED	9/27/2021
SACHP0139WOEP	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	01977876.0	9/27/2001	1337470	12/ 7/2005	ISSUED	9/27/2021
SACHP0139WOES	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	01977876.0	9/27/2001	1337470	12/ 7/2005	ISSUED	9/27/2021
SACHP0139WOFR	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	01977876.0	9/27/2001	1337470	12/ 7/2005	ISSUED	9/27/2021
SACHP0139WOGB	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	01977876.0	9/27/2001	1337470	12/ 7/2005	ISSUED	9/27/2021
SACHP0139WOHK	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	04101820.0	9/27/2001	HK 1059770	8/25/2006	ISSUED	9/27/2021
SACHP0139WOIE	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	01977876.0	9/27/2001	1337470	12/ 7/2005	ISSUED	9/27/2021
SACHP0139WOIL	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	155496	9/27/2001	155496	10/ 6/2006	ISSUED	9/27/2021
SACHP0139WOIT	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	01977876.0	9/27/2001	1337470	12/ 7/2005	ISSUED	9/27/2021
SACHP0139WOJP	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	2002-537673	9/27/2001	4,142,432	6/20/2008	ISSUED	9/27/2021
SACHP0139WOKR	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	(PCT) 2003-7005516	9/27/2001	676590	1/24/2007	ISSUED	9/27/2021
SACHP0139WONL	PROCESS FOR RECOVERING ONIUM	01977876.0	9/27/2001	1337470	12/ 7/2005	ISSUED	9/27/2021

	HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS						
SACHP0139WOSG	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	200301788-6	9/27/2001	95909	7/29/2005	ISSUED	9/27/2021
SACHP0140TW	PURIFICATION OF ONIUM HYDROXIDES BY ELECTRODIALYSIS	091135015	12/3/2002	I230631	4/11/2005	ISSUED	12/3/2022
SACHP0140US	PURIFICATION OF ONIUM HYDROXIDES BY ELECTRODIALYSIS	10/038,537	1/3/2002	6,787,021	9/7/2004	ISSUED	8/5/2022
SACHP0140WOCA	PURIFICATION OF ONIUM HYDROXIDES BY ELECTRODIALYSIS	2,478,768	11/27/2002	2,478,768	10/21/2008	ISSUED	11/27/2022
SACHP0140WOCN	PURIFICATION OF ONIUM HYDROXIDES BY ELECTRODIALYSIS	02826702.8	11/27/2002	ZL 02826702.8	1/3/2007	ISSUED	11/27/2022
SACHP0140WOIL	PURIFICATION OF ONIUM HYDROXIDES BY ELECTRODIALYSIS	162691	11/27/2002	162691	4/1/2007	ISSUED	11/27/2022
SACHP0140WOSG	PURIFICATION OF ONIUM HYDROXIDES BY ELECTRODIALYSIS	200403491-4	11/27/2002	105204	2/28/2005	ISSUED	11/27/2022
SACHP0141MY	POLYMER GRAFTED SUPPORT POLYMERS	PI 20031003	3/24/2003	MY-129048-A	3/30/2007	ISSUED	3/24/2023
SACHP0141US	POLYMER GRAFTED SUPPORT POLYMERS	10/106,157	3/26/2002	6,849,688	2/1/2005	ISSUED	3/26/2022
SACHP0141WOCN	POLYMER GRAFTED SUPPORT POLYMERS	03809559.9	3/25/2003	ZL03809559.9	6/17/2009	ISSUED	3/25/2023
SACHP0141WOHK	POLYMER GRAFTED SUPPORT POLYMERS	06100592.6	3/25/2003	HK 1080882	4/23/2010	ISSUED	3/25/2023
SACHP0142TW	ELECTROCHEMICAL PROCESS FOR PRODUCING IONIC LIQUIDS	091133940	11/21/2002	I255205	5/21/2006	ISSUED	11/21/2022
SACHP0142US	ELECTROCHEMICAL PROCESS FOR PRODUCING IONIC LIQUIDS	09/990,651	11/21/2001	6,991,718	1/31/2006	ISSUED	2/7/2024
SACHP0142WOCN	ELECTROCHEMICAL PROCESS FOR PRODUCING IONIC LIQUIDS	02825144.X	11/18/2002	ZL 02825144.X	2/6/2008	ISSUED	11/18/2022
SACHP0142WOIL	ELECTROCHEMICAL PROCESS FOR PRODUCING IONIC LIQUIDS	162061	11/18/2002	162061	6/9/2007	ISSUED	11/18/2022
SACHP0146US	LEWIS ACID IONIC LIQUIDS	10/642,437	8/15/2003	7,053,232	5/30/2006	ISSUED	6/20/2024
SACHP0147US	CLEANING SOLUTIONS AND ETCHANTS AND METHODS FOR USING SAME	10/974,569	10/27/2004	7,192,910	3/20/2007	ISSUED	4/16/2025
SACHP0147WOSG	CLEANING SOLUTIONS AND ETCHANTS AND METHODS FOR USING SAME	200602843-5	10/27/2004	122150	10/31/2008	ISSUED	10/27/2024
SACHP0148US	SYNTHETIC MULTIPLE QUATERNARY AMMONIUM SALTS	10/795,772	3/8/2004	7,214,806	5/8/2007	ISSUED	8/4/2025
SACHP0148WODE	SYNTHETIC MULTIPLE QUATERNARY AMMONIUM SALTS	05724150.7	3/1/2005	60 2005 009 924.7	9/24/2008	ISSUED	3/1/2025
SACHP0148WOEP	SYNTHETIC MULTIPLE QUATERNARY AMMONIUM SALTS	05724150.7	3/1/2005	1720824	9/24/2008	ISSUED	3/1/2025

SACHP0148WOFR	SYNTHETIC MULTIPLE QUATERNARY AMMONIUM SALTS	05724150.7	3/ 1/2005	1720824	9/24/2008	ISSUED	3/ 1/2025
SACHP0148WGB	SYNTHETIC MULTIPLE QUATERNARY AMMONIUM SALTS	05724150.7	3/ 1/2005	1720824	9/24/2008	ISSUED	3/ 1/2025
SACHP0148WONL	SYNTHETIC MULTIPLE QUATERNARY AMMONIUM SALTS	05724150.7	3/ 1/2005	1720824	9/24/2008	ISSUED	3/ 1/2025
SACHP0152US	REMOVAL OF METAL IONS FROM ONIUM HDROXIDES AND ONIUM SALT SOLUTIONS	11/223,247	9/ 2/2005	7,572,379	8/11/2009	ISSUED	4/22/2028
SACHP0157USA	CATION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS AND CATIONIC ORGANIC COMPOUNDS FOR USE AS DISPLACER COMPOUNDS IN CATION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS	11/551,765	10/23/2006	7,632,409	12/15/2009	ISSUED	4/14/2027
SACHP0102WO	IMPROVED PROCESS FOR PREPARING QUATERNARY AMMONIUM HYDROXIDES	PCT/US89/02736	6/20/1989			NAT PHASE	
SACHP0103WO	METHOD FOR PURIFYING QUATERNARY AMMONIUM HYDROXIDES	PCT/US89/02737	6/20/1989			NAT PHASE	
SACHP0104WO	PRODUCTION OF QUATERNARY AMMONIUM BOROHYDRIDES	PCT/US90/00533	1/23/1990			NAT PHASE	
SACHP0111WOA	METHOD FOR PREPARING ORGANIC AND INORGANIC HYDROXIDES AND ALKOXIDES BY ...	PCT/US94/03430	4/ 6/1994			NAT PHASE	
SACHP0119WO	PREPARATION OF ONIUM HYDROXIDES IN AN ELECTROCHEMICAL CELL	PCT/US97/15071	8/27/1997			NAT PHASE	
SACHP0124WO	PROCESS FOR RECOVERING ORGANIC HYDROXIDES FROM WASTE SOLUTIONS	PCT/US98/02344	2/ 9/1998			NAT PHASE	
SACHP0126WOA	PROCESS FOR RECOVERING HYDROXIDES FROM WASTE SOLUTIONS	PCT/US00/21684	8/ 8/2000			NAT PHASE	
SACHP0129WO	SYNTHESIS OF ONIUM HYDROXIDES FROM ONIUM SALTS	PCT/US98/06434	3/31/1998			NAT PHASE	
SACHP0131WO	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	PCT/US99/00877	1/14/1999			NAT PHASE	
SACHP0135WO	PROCESS FOR RECOVERING ONIUM HYDROXIDES OR ONIUM SALTS FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS USING ELECTROCHEMICAL ION EXCHANGE	PCT/US99/07672	4/ 7/1999			NAT PHASE	

SACHP0138WO	ELECTROSYNTHESIS OF HYDROXYLAMMONIUM SALTS AND HYDROXYLAMINE USING A MEDIATOR, CATALYTIC FILM, METHODS OF MAKING THE CATALYTIC FILM, AND ELECTROSYNTHESIS OF COMPOUNDS USING THE CATALYTIC FILM	PCT/US98/16942	8/14/1998			NAT PHASE	
SACHP0139WO	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	PCT/US01/42429	9/27/2001			NAT PHASE	
SACHP0140WO	PURIFICATION OF ONIUM HYDROXIDES BY ELECTRODIALYSIS	PCT/US02/38159	11/27/2002			NAT PHASE	
SACHP0141WO	POLYMER GRAFTED SUPPORT POLYMERS	PCT/US03/009167	3/25/2003			NAT PHASE	
SACHP0142WO	ELECTROCHEMICAL PROCESS FOR PRODUCING IONIC LIQUIDS	PCT/US02/36907	11/18/2002			NAT PHASE	
SACHP0145WO	IONIC LIQUIDS CONTAINING A SULFONATE ANION	PCT/US03/25815	8/15/2003			NAT PHASE	
SACHP0146WO	LEWIS ACID IONIC LIQUIDS	PCT/US03/25816	8/15/2003			NAT PHASE	
SACHP0147WO	CLEANING SOLUTIONS AND ETCHANTS	PCT/US04/035544	10/27/2004			NAT PHASE	
SACHP0148WO	SYNTHETIC MULTIPLE QUATERNARY AMMONIUM SALTS	PCT/US05/06552	3/ 1/2005			NAT PHASE	
SACHP0152WO	PROCESS FOR REMOVING ALUMINUM FROM ALKALI SOLUTION	PCT/US06/33621	8/25/2006			NAT PHASE	
SACHP0153WO	SELECTIVE WET ETCHING OF OXIDES	PCT/US06/15372	4/25/2006			NAT PHASE	
SACHP0154WOA	SELECTIVE WET ETCHING OF METAL NITRIDE	PCT/US06/10478	3/23/2006			NAT PHASE	
SACHP0157WOA	CATIONIC ORGANIC COMPOUNDS FOR USE AS DISPLACERS IN CATION EXCHANGE DISPLACEMENT CHROMATOGRAPHY	PCT/US06/41328	10/23/2006			NAT PHASE	
SACHP0160WOA	ANIONIC DISPLACEMENT CHROMATOGRAPHY COMPOUNDS AND METHODS	PCT/US06/045872	11/30/2006			NAT PHASE	
SACHP0110KR	PROCESS FOR REDUCING THE ACID CONTENT OF HYDROXYLAMINE SALT SOLUTIONS AND FOR PREPARING HYDROXYLAMINES FROM HYDROXYLAMINE SALTS	93-7288	4/29/1993			PENDING	4/29/2013
SACHP0119WOCA	PREPARATION OF ONIUM HYDROXIDES IN AN ELECTROCHEMICAL CELL	2,264,086	8/27/1997			PENDING	8/27/2017
SACHP0126WOEPA	PROCESS FOR RECOVERING HYDROXIDES FROM	00957337.9	8/ 8/2000			PENDING	8/ 8/2020

	WASTE SOLUTIONS						
SACHP0126WOJPA	PROCESS FOR RECOVERING HYDROXIDES FROM WASTE SOLUTIONS	2001-515259	8/ 8/2000			PENDING	8/ 8/2020
SACHP0139WOIN	PROCESS FOR RECOVERING ONIUM HYDROXIDES FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS	00568/DELNP/2003	9/27/2001			PENDING	9/27/2021
SACHP0140WOEP	PURIFICATION OF ONIUM HYDROXIDES BY ELECTRODIALYSIS	02784647.6	11/27/2002			PENDING	11/27/2022
SACHP0140WOIN	PURIFICATION OF ONIUM HYDROXIDES BY ELECTRODIALYSIS	1891/DELNP/2004	11/27/2002			PENDING	11/27/2022
SACHP0140WOKR	PURIFICATION OF ONIUM HYDROXIDES BY ELECTRODIALYSIS	(PCT) 2004-7010494	11/27/2002			PENDING	11/27/2022
SACHP0141TW	POLYMER GRAFTED SUPPORT POLYMERS	092106796	3/25/2003			PENDING	3/25/2023
SACHP0141WOEP	POLYMER GRAFTED SUPPORT POLYMERS	03716827.5	3/25/2003			PENDING	3/25/2023
SACHP0141WOIN	POLYMER GRAFTED SUPPORT POLYMERS	2095/CHENP/2004	3/25/2003			PENDING	3/25/2023
SACHP0142WOKR	ELECTROCHEMICAL PROCESS FOR PRODUCING IONIC LIQUIDS	10-2004-7007671	11/18/2002			PENDING	11/18/2022
SACHP0147WOCA	CLEANING SOLUTIONS AND ETCHANTS	2,544,209	10/27/2004			PENDING	10/27/2024
SACHP0147WOCN	CLEANING SOLUTIONS AND ETCHANTS	200480039011.5	10/27/2004			PENDING	10/27/2024
SACHP0147WOEP	CLEANING SOLUTIONS AND ETCHANTS	04818297.6	10/27/2004			PENDING	10/27/2024
SACHP0147WOHK	CLEANING SOLUTIONS AND ETCHANTS	07104373.2	10/27/2004			PENDING	10/27/2024
SACHP0147WOIL	CLEANING SOLUTIONS AND ETCHANTS	175261	10/27/2004			PENDING	10/27/2024
SACHP0147WOIN	CLEANING SOLUTIONS AND ETCHANTS	2370/DELNP/2006	10/27/2004			PENDING	10/27/2024
SACHP0147WOJP	CLEANING SOLUTIONS AND ETCHANTS	2006-538193	10/27/2004			PENDING	10/27/2024
SACHP0147WOKR	CLEANING SOLUTIONS AND ETCHANTS	(PCT) 2006-7010393	10/27/2004			PENDING	10/27/2024
SACHP0147WOPH	CLEANING SOLUTIONS AND ETCHANTS	N/A	10/27/2004			PENDING	10/27/2024
SACHP0147WOVN	CLEANING SOLUTIONS AND ETCHANTS	N/A	10/27/2004			PENDING	10/27/2024
SACHP0148MY	SYNTHETIC MULTIPLE QUATERNARY AMMONIUM SALTS	PI 20050895	3/ 4/2005			PENDING	3/ 4/2025
SACHP0148WOCA	SYNTHETIC MULTIPLE QUATERNARY AMMONIUM SALTS	2,558,673	3/ 1/2005			PENDING	3/ 1/2025
SACHP0148WOCN	SYNTHETIC MULTIPLE QUATERNARY AMMONIUM SALTS	200580006555.6	3/ 1/2005			PENDING	3/ 1/2025
SACHP0148WOKR	SYNTHETIC MULTIPLE QUATERNARY AMMONIUM SALTS	(PCT) 2006-7020706	3/ 1/2005			PENDING	3/ 1/2025
SACHP0152TW	PROCESS FOR REMOVING ALUMINUM FROM ALKALI	095132407	8/22/2006			PENDING	8/22/2026

	SOLUTION						
SACHP0152WOCA	REMOVAL OF METAL IONS FROM ONIUM HYDROXIDES AND ONIUM SALT SOLUTIONS	2,594,866	8/25/2006			PENDING	8/25/2026
SACHP0152WOCN	REMOVAL OF METAL IONS FROM ONIUM HYDROXIDES AND ONIUM SALT SOLUTIONS	200680003987.6	8/25/2006			PENDING	8/25/2026
SACHP0152WOEP	PROCESS FOR REMOVING ALUMINUM FROM ALKALI SOLUTION	06790058.9	8/25/2006			PENDING	8/25/2026
SACHP0152WOIN	PROCESS FOR REMOVING ALUMINUM FROM ALKALI SOLUTION	5587/DELNP/2007	8/25/2006			PENDING	8/25/2026
SACHP0152WOKR	PROCESS FOR REMOVING ALUMINUM FROM ALKALI SOLUTION	(PCT) 2007-701777	8/25/2006			PENDING	8/25/2026
SACHP0152WOMY	REMOVAL OF METAL IONS FROM ONIUM HYDROXIDES AND ONIUM SALT SOLUTION	PI 20071272	8/25/2006			PENDING	8/25/2026
SACHP0152WOSG	REMOVAL OF METAL IONS FROM ONIUM HYDROXIDES AND ONIUM SALT SOLUTIONS	200705297-0	8/25/2006			PENDING	8/25/2026
SACHP0153WOKR	SELECTIVE WET ETCHING OF OXIDES	(PCT) 2007-7028296	4/25/2006			PENDING	4/25/2026
SACHP0153WOUS	SELECTIVE WET ETCHING OF OXIDES	11/914,241	11/13/2007			PENDING	4/25/2026
SACHP0157TW	CATIONIC ORGANIC COMPOUNDS FOR USE AS DISPLACERS IN CATION EXCHANGE DISPLACEMENT CHROMATOGRAPHY	095139567	10/26/2006			PENDING	10/26/2026
SACHP0157WOCA	CATIONIC-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS AND CATIONIC ORGANIC COMPOUNDS FOR USE AS DISPLACER COMPOUNDS IN CATION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY	2,628,086	10/23/2006			PENDING	10/23/2026
SACHP0157WOEP	CATIONIC ORGANIC COMPOUNDS FOR USE AS DISPLACERS IN CATION EXCHANGE DISPLACEMENT CHROMATOGRAPHY	06826489.4	10/23/2006			PENDING	10/23/2026
SACHP0157WOIL	CATION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS AND CATIONIC ORGANIC COMPOUNDS FOR USE AS DISPLACER COMPOUNDS IN CATION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS	191200	10/23/2006			PENDING	10/23/2026
SACHP0157WOKR	CATION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY	2008-7012498	10/23/2006			PENDING	10/23/2026



	PROCESS AND CATIONIC ORGANIC COMPOUNDS FOR USE AS DISPLACER COMPOUNDS IN CATION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS						
SACHP0160TWA	ANIONIC DISPLACEMENT CHROMATOGRAPHY COMPOUNDS AND METHODS	095145019	12/ 4/2006			PENDING	12/ 4/2026
SACHP0160USA	ANION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS AND ANIONIC ORGANIC COMPOUNDS FOR USE AS DISPLACER COMPOUNDS IN ANION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS	11/564,951	11/30/2006			PENDING	12/ 2/2025
SACHP0160WOCAA	ANION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS AND ANIONIC ORGANIC COMPOUNDS FOR USE AS DISPLACER COMPOUNDS IN ANION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS	2,630,806	11/30/2006			PENDING	11/30/2026
SACHP0160WOEPA	ELECTROCHEMICAL PROCESS FOR PRODUCING IONIC LIQUIDS	06844678.0	11/30/2006			PENDING	11/30/2026
SACHP0160WOILA	ANION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS AND ANIONIC ORGANIC COMPOUNDS FOR USE AS DISPLACER COMPOUNDS IN ANION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS	191717	11/30/2006			PENDING	11/30/2026
SACHP0160WOKRA	ANION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS AND ANIONIC ORGANIC COMPOUNDS FOR USE AS DISPLACER COMPOUNDS IN ANION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS	2008-7016157	11/30/2006			PENDING	11/30/2026
SACHP0169WOCNA	HIGH NEGATIVE ZETA POTENTIAL POLYHEDRAL SILSESQUOXANE COMPOSITION AND METHOD FOR DAMAGE FREE SEMICONDUCTOR WET CLEAN	N/A	11/12/2008			PENDING	11/12/2028
SACHP0169WOEPA	HIGH NEGATIVE ZETA POTENTIAL POLYHEDRAL SILSESQUOXANE COMPOSITION AND METHOD FOR DAMAGE FREE SEMICONDUCTOR	08849368.9	11/12/2008			PENDING	11/12/2028

	WET CLEAN						
SACHP0169WOJPA	HIGH NEGATIVE ZETA POTENTIAL POLYHEDRAL SILSESQUIOXANE COMPOSITION AND METHOD FOR DAMAGE FREE SEMICONDUCTOR WET CLEAN	N/A	11/12/2008			PENDING	11/12/2028
SACHP0169WOKRA	HIGH NEGATIVE ZETA POTENTIAL POLYHEDRAL SILSESQUIOXANE COMPOSITION AND METHOD FOR DAMAGE FREE SEMICONDUCTOR WET CLEAN	2010-7010520	11/12/2008			PENDING	11/12/2028
SACHP0170US	FRACTIONATED POLYMER TRANSFECTION AGENTS	61/261,519	11/16/2009			PENDING	
SACHP0172US	SELECTIVE SILICON ETCH PROCESS	12/609,692	10/30/2009			PENDING	10/30/2029
SACHP0174USA	PROCESS FOR PREPARING ADVANCED CERAMIC POWDERS USING ONIUM DICARBOXYLATES	12/417,793	4/3/2009			PENDING	4/3/2029
SACHP0118US	CHIRAL SINCHONIDINE DERIVATIVES					PROPOSED	
SACHP0123US	QUATERNARY AMMONIUM COMPOUNDS ...					PROPOSED	
SACHP0133US	ORGANIC HYDROXIDE DEVELOPERS					PROPOSED	
SACHP0134US	RECOVERY OF ONIUM HYDROXIDES USING LIQUID-LIQUID EXTRACTION					PROPOSED	
SACHP0135IN	PROCESS FOR RECOVERING ONIUM HYDROXIDES OR ONIUM SALTS FROM SOLUTIONS CONTAINING ONIUM COMPOUNDS USING ELECTROCHEMICAL ION EXCHANGE					PROPOSED	
SACHP0136US	SYNTHESIS OF HYDROXYLAMMONIUM SALTS AND HYDROXYLAMINE					PROPOSED	
SACHP0137US	METHOD TO PURIFY RECYCLED QUATERNARY COMPOUNDS USING CHELATING ION EXCHANGE RESINS					PROPOSED	
SACHP0147MY	CLEANING SOLUTIONS AND ETCHANTS					PROPOSED	10/27/2024
SACHP0147TH	CLEANING SOLUTIONS AND ETCHANTS					PROPOSED	10/27/2024
SACHP0147TW	CLEANING SOLUTIONS AND ETCHANTS					PROPOSED	10/27/2024
SACHP0147WOID	CLEANING SOLUTIONS AND ETCHANTS					PROPOSED	10/27/2024
SACHP0153TH	SELECTIVE WET ETCHING OF OXIDES					PROPOSED	

SACHP0153WOIN	SELECTIVE WET ETCHING OF OXIDES					PROPOSED	4/25/2026
SACHP0153WOPH	SELECTIVE WET ETCHING OF OXIDES					PROPOSED	4/25/2026
SACHP0153WOTH	SELECTIVE WET ETCHING OF OXIDES					PROPOSED	4/25/2026
SACHP0153WOVN	SELECTIVE WET ETCHING OF OXIDES					PROPOSED	4/25/2026
SACHP0156US	POST-ETCH CLEANING COMPOSITIONS					PROPOSED	
SACHP0158US	PROCESS FOR HIGH PURITY NaOH MANUFACTURE					PROPOSED	
SACHP0159US	PROCESS FOR LIQUID-LIQUID EXTRACTION OF MODERATELY HYDROPHOBIC SALTS					PROPOSED	
SACHP0161US	BIOCIDAL TEXTILE MATERIAL					PROPOSED	
SACHP0163US	BORONIUM HYDROXIDE MANUFACTURE AND USE AS ZEOLITE SDAs					PROPOSED	
SACHP0164US	NON-AQUEOUS ONIUM HYDROXIDES VIA ION-EXCHANGE PROCESSES					PROPOSED	
SACHP0165US	ONIUM HYDROXIDES AND SALTS AS PROCESSING AIDS FOR ADVANCED CERAMIC POWDERS AND FILMS					PROPOSED	
SACHP0166US	NON-AQUEOUS ONIUM HYDROXIDES VIA ION-EXCHANGE PROCESSES					PROPOSED	
SACHP0167US	METAL WET ETCH CHEMISTRY II					PROPOSED	
SACHP0171US	SELECTIVE OXIDE/NITRIDE ETCH WITH SURFACTANT SUPPRESSOR					PROPOSED	
SACHP0175US	CATIONIC Ph-BUFFER COMPOUNDS					PROPOSED	
SACHP0176US	AMINE-QUATERNARY AMMONIUM BIOBUFFER					PROPOSED	
SACHP0177US	REVERSE-PHASE DISPLACERS					PROPOSED	
SACHP0178US	2D HPLC MS DETECTION METHODS					PROPOSED	
SACHP0179US	BIOMARKERS					PROPOSED	
SACHP0152WOHK	REMOVAL OF METAL IONS FROM ONIUM HYDROXIDES AND ONIUM SALT SOLUTIONS	091007366.2	8/25/2006			PUBLISHED	8/25/2026
SACHP0152WOJP	PROCESS FOR REMOVING ALUMINUM FROM ALKALI SOLUTION	2008-529180	8/25/2006			PUBLISHED	8/25/2026
SACHP0157USB	POLYCATIONIC ORGANIC COMPOUNDS	12/630,985	12/4/2009			PUBLISHED	11/4/2025
SACHP0157WOCN	CATION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS AND CATIONIC ORGANIC COMPOUNDS FOR USE	200680048699.2	10/23/2006			PUBLISHED	10/23/2026

	A DISPLACER COMPOUNDS IN CATION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS						
SACHP0157WOHK	CATION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS AND CATIONIC ORGANIC COMPOUNDS FOR USE A DISPLACER COMPOUNDS IN CATION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS	09106085.4	10/23/2006			PUBLISHED	10/23/2026
SACHP0157WOINA	CATIONIC ORGANIC COMPOUNDS FOR USE AS DISPLACERS IN CATION EXCHANGE DISPLACEMENT CHROMATOGRAPHY	3754/DELNP/2008	10/23/2006			PUBLISHED	10/23/2026
SACHP0157WOJPA	CATION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS AND CATIONIC ORGANIC COMPOUNDS FOR USE AS DISPLACER COMPOUNDS IN CATION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS	2008-538916	10/23/2006			PUBLISHED	10/23/2026
SACHP0160WOCNA	ANION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS AND ANIONIC-ORGANIC COMPOUNDS OFR USE AS DISPLACER COMPOUNDS IN ANION- EXCHANGE DISPLACEMENT CHROMATOGRPAHY PROCESS	200680051935.6	11/30/2006			PUBLISHED	11/30/2026
SACHP0160WOHKA	ANION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS AND ANIONIC-ORGANIC COMPOUNDS OFR USE AS DISPLACER COMPOUNDS IN ANION- EXCHANGE DISPLACEMENT CHROMATOGRPAHY PROCESS	09105899.2	11/30/2006			PUBLISHED	11/30/2026
SACHP0160WOINA	ANIONIC DISPLACEMENT CHROMATOGRAPHY COMPOUNDS AND METHODS	4347/DELNP/2008	11/30/2006			PUBLISHED	11/30/2026
SACHP0160WOJPA	ANION-EXCHANGE DISPLACEMENT CHROMATOGRAPHY PROCESS AND ANIONIC ORGANIC COMPOUNDS OF USE AS DISPLACER COMPOUNDS IN ANIONI-EXCHANGE DISPLACEMENT	2008-543470	11/30/2006			PUBLISHED	11/30/2026
SACHP0169TWA	HIGH NEGATIVE ZETA POTENTIAL SILICATE COMPOSITION AND	97143846	11/13/2008			PUBLISHED	11/13/2028

	METHOD FOR DAMAGE FREE SEMICONDUCTOR WET CLEAN						
SACHP0169USA	HIGH NEGATIVE ZETA POTENTIAL POLYHEDRAL SILSESQUOXANE COMPOSITION AND METHOD FOR DAMAGE FREE SEMICONDUCTOR WET CLEAN	12/269,121	11/12/2008			PUBLISHED	11/12/2028
SACHP0169WOA	HIGH NEGATIVE ZETA POTENTIAL POLYHEDRAL SILSESQUOXANE COMPOSITION AND METHOD FOR DAMAGE FREE SEMICONDUCTOR WET CLEAN	PCT/US08/83161	11/12/2008			PUBLISHED	
SACHP0174TW	PROCESS FOR PREPARING ADVANCED CERAMIC POWDERS USING ONIUM DICARBOXYLATES	098111301	4/3/2009			PUBLISHED	4/3/2029
SACHP0174WO	PROCESS FOR PREPARING ADVANCED CERAMIC POWDERS USING ONIUM DICARBOXYLATES	PCT/US09/39389	4/3/2009			PUBLISHED	
SACHP0145US	IONIC LIQUIDS CONTAINING A SULFONATE ANION Selective Metal Wet Etch Composition and Process	10/642,438 11/942,157	8/15/2003 November 19, 2007			TRANSFER PUBLISHED (Publication No. 2008/0116170)	2/12/2009

## 2. Trade Names and Trademarks

ROBS REF	MARK	APPLN. NO	FILED	REG. NO	REG	STATUS
SACHT0101CN	SACHEM (WORD)	5368866	7/2/2009			PENDING
SACHT0101CNA	SACHEM (WORD)	5368865	5/23/2006	5368865	10/21/2009	REGISTERED
SACHT0101CNB	SACHEM (WORD)	5368864	5/23/2006			PENDING
SACHT0101EU	SACHEM (WORD)	005056007	4/18/2006	005056007	8/22/2007	REGISTERED
SACHT0101JP	SACHEM (WORD)	2006-044875	5/17/2006			PENDING
SACHT0101KR	SACHEM (WORD)	45-2006-0000613	2/18/2006	45-0025140	10/27/2008	REGISTERED
SACHT0101TW	SACHEM (WORD)	95008117	2/22/2006	01235579	11/1/2006	REGISTERED
SACHT0101US	SACHEM (WORD)	78/765,203	12/2/2005	3,782,813	4/27/2010	REGISTERED
SACHT0102CN	SACHEM (DESIGN)	5368863	7/2/2009			PENDING
SACHT0102CNA	SACHEM (DESIGN)	5368868	5/23/2006	5368868	10/21/2009	REGISTERED
SACHT0102CNB	SACHEM (DESIGN)	5368867	5/22/2006			PENDING

SACHT0102EU	SACHEM (DESIGN)	005056387	4/18/2006	005056387	7/11/2007	REGISTERED
SACHT0102JP	SACHEM (DESIGN)	2006-049662	3/17/2006			PENDING
SACHT0102KR	SACHEM (DESIGN)	45-2006-0000614	2/18/2006	45-0025141	10/27/2008	REGISTERED
SACHT0102TW	SACHEM (DESIGN)	95008118	2/22/2006	01235580	11/ 1/2006	REGISTERED
SACHT0102US	SACHEM (DESIGN)	78/765,207	12/ 2/2005	3,773,573	4/ 6/2010	REGISTERED
SACHT0103CN	MOBIUS SYSTEM (WORD)	6029991	4/29/2007	6029991	1/21/2010	REGISTERED
SACHT0103CNA	MOBIUS SYSTEM (WORD)	6029988	4/29/2007			PENDING
SACHT0103CNB	MOBIUS SYSTEM (WORD)	6040600	5/21/2009			PENDING
SACHT0103CNC	MOBIUS SYSTEM (WORD)	6322954	10/15/2007			PENDING
SACHT0103EU	MOBIUS SYSTEM (WORD)	005893268	4/27/2007	005893268	5/29/2008	REGISTERED
SACHT0103JP	MOBIUS SYSTEM (WORD)	2007-73364	7/ 2/2007	5161572	8/22/2008	REGISTERED
SACHT0103KR	MOBIUS SYSTEM (WORD)	45-2007-0001730	4/30/2007	45-0023901	7/15/2008	REGISTERED
SACHT0103SG	MOBIUS SYSTEM (WORD)	T07/09994E	5/ 9/2007	T07/09994E	5/ 9/2007	REGISTERED
SACHT0103SGA	MOBIUS SYSTEM (WORD)	T07/09995C	5/ 9/2007	T07/09995C	7/25/2008	REGISTERED
SACHT0103SGB	MOBIUS SYSTEM (WORD)	T07/09996A	5/ 9/2007	T07/09996A	7/25/2008	REGISTERED
SACHT0103SGC	MOBIUS SYSTEM (WORD)	T07/09997Z	5/ 9/2007	T07/00097Z	7/25/2008	REGISTERED
SACHT0103TW	MOBIUS SYSTEM (WORD)	96019122	4/26/2007	01316012	6/16/2008	REGISTERED
SACHT0103US	MOBIUS SYSTEM (WORD)	77/139,532	3/24/2007			PENDING
SACHT0104CN	MOBIUS SYSTEM (DESIGN)	6029990	4/29/2007	6029990	1/21/2010	REGISTERED
SACHT0104CNA	MOBIUS SYSTEM (DESIGN)	6029989	4/29/2007			PENDING
SACHT0104CNB	MOBIUS SYSTEM (DESIGN)	6040601	5/21/2009			PENDING
SACHT0104CNC	MOBIUS SYSTEM (DESIGN)	6322955	10/15/2007			PENDING
SACHT0104EU	MOBIUS SYSTEM (DEVICE)	005897855	4/30/2007	005897855	7/27/2009	REGISTERED
SACHT0104JP	MOBIUS SYSTEM (DESIGN)	2007-79990	7/ 2/2007	5161581	8/22/2008	REGISTERED
SACHT0104KR	MOBIUS SYSTEM (DESIGN)	45-2007-0001731	4/30/2007	45-0023902	7/15/2008	REGISTERED
SACHT0104SG	MOBIUS SYSTEM (DESIGN)	T07/09998H	5/ 9/2007	T07/09998H	7/25/2008	REGISTERED
SACHT0104SGA	MOBIUS SYSTEM (DESIGN)	T07/09999F	5/ 9/2007	T07/0999F	7/25/2008	REGISTERED
SACHT0104SGB	MOBIUS SYSTEM (DESIGN)	T07/10000E	5/ 9/2007	T07/10000E	7/25/2008	REGISTERED

SACHT0104SGC	MOBIUS SYSTEM (DESIGN)	T07/10001C	5/9/2007	T07/10001C	7/25/2008	REGISTERED
SACHT0104TW	MOBIUS SYSTEM (DESIGN)	96019125	4/26/2007	01316013	6/16/2008	REGISTERED
SACHT0104US	MOBIUS SYSTEM (DESIGN)	77/139,530	3/24/2007			PENDING
SACHT0105JP	MOBIUS SYSTEM (Word)	2009-007167	2/4/2009	5244302	8/4/2009	REGISTERED
SACHT0105KR	SACHEM DESIGN MARK	45-2008-0000447	1/30/2008	45-0025139	10/27/2008	REGISTERED
SACHT0106CN	AVANTA AC	6900828	8/15/2008			DROPPED
SACHT0106EU	AVANTA AC	007110257	7/23/2008	007110257	8/17/2009	REGISTERED
SACHT0106IN	AVANTA AC	1712694	7/21/2008			PENDING
SACHT0106JP	MOBIUS SYSTEM (DESIGN)	2009-007168	2/4/2009	5244303	8/4/2009	REGISTERED
SACHT0106KR	AVANTA AC	2008-40750	8/20/2008			DROPPED
SACHT0106SG	AVANTA AC	T08/09623J	7/21/2008	T08/09623J	3/12/2009	REGISTERED
SACHT0106TW	AVANTA AC	97038453	8/15/2008	01357317	4/16/2009	REGISTERED
SACHT0106US	AVANTA AC	77/549,375	8/18/2008	3,681,200	9/8/2009	REGISTERED
SACHT0107CN	ENVURE	6900827	8/15/2008			DROPPED
SACHT0107EU	ENVURE	007110216	7/23/2008	007110216	4/21/2009	REGISTERED
SACHT0107IN	ENVURE	1712695	7/21/2008			PENDING
SACHT0107JP	ENVURE	2008-59094	7/18/2008	5297928	1/29/2010	REGISTERED
SACHT0107KR	ENVURE	2008-40753	8/20/2008	798593	8/21/2009	REGISTERED
SACHT0107SG	ENVURE	20081458	7/21/2008	T08/096241	3/12/2009	REGISTERED
SACHT0107TW	ENVURE	97038454	8/15/2008	01357318	4/16/2009	REGISTERED
SACHT0107US	ENVURE	77/549,391	8/18/2008	3,681,201	9/8/2009	REGISTERED
SACHT0108CA	EXPELL	1409196	9/2/2008			PENDING
SACHT0108CN	EXPELL	6900826	8/15/2008			PENDING
SACHT0108EU	EXPELL	007110224	7/23/2008	007110224	4/20/2009	REGISTERED
SACHT0108IN	EXPELL	1712696	7/21/2008			PENDING
SACHT0108JP	EXPELL	2008-59095	7/18/2008	5297929	1/29/2010	REGISTERED
SACHT0108KR	EXPELL	2008-40755	8/20/2008			DROPPED
SACHT0108SG	EXPELL	20081459	7/21/2008	T08/09626E	3/12/2009	REGISTERED

TRADEMARK

RECORDED: 06/18/2010

REEL: 004227 FRAME: 0772