

PATENT ASSIGNMENT

Electronic Version v1.1  
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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY AGREEMENT

CONVEYING PARTY DATA

Name	Execution Date
ZeaChem, Inc.	03/15/2012

RECEIVING PARTY DATA

Name:	Venture Lending & Leasing VI, Inc.
Street Address:	104 La Mesa Drive, Suite 102
City:	Portola Valley
State/Country:	CALIFORNIA
Postal Code:	94028

PROPERTY NUMBERS Total: 27

Property Type	Number
Patent Number:	6509180
Patent Number:	6927048
Patent Number:	7351559
Patent Number:	7682812
Patent Number:	7964379
Patent Number:	7074603
Patent Number:	7507562
Patent Number:	7888082
Patent Number:	7601865
Patent Number:	8048655
Application Number:	13101900
Application Number:	61512964
Application Number:	61578101
Application Number:	13286998
Application Number:	12029321

OP \$1080.00 6509180

Application Number:	12368040
Application Number:	61586214
Application Number:	61588453
Application Number:	61588456
Application Number:	61588458
Application Number:	61588462
Application Number:	61588466
Application Number:	61525398
Application Number:	12437445
Application Number:	61510373
Application Number:	61576675
Application Number:	61576686

**CORRESPONDENCE DATA**

Fax Number: (415)777-4961  
Phone: 415 981 1400  
Email: gkiviat@grmslaw.com  
*Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.*  
Correspondent Name: Jeffrey T. Klugman  
Address Line 1: Four Embarcadero Center, Suite 4000  
Address Line 4: San Francisco, CALIFORNIA 94111

ATTORNEY DOCKET NUMBER:	47558/0011
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NAME OF SUBMITTER:	Jeffrey T. Klugman
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Total Attachments: 12  
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## INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement (this "Agreement") is made as of March 15, 2012, by and between ZEACHEM INC. a Delaware corporation ("ZCI"); ZEACHEM INTELLECTUAL PROPERTIES LLC, a Delaware limited liability corporation ("ZIP") (ZCI and ZIP sometimes referred to herein individually or together as "Grantor"), and VENTURE LENDING & LEASING VI, INC., a Maryland corporation ("Secured Party").

### RECITALS

A. Pursuant to that certain Loan and Security Agreement of even date herewith between Grantor, as borrower, and Secured Party, as lender, as such agreement may from time to time be amended, restated, supplemented or otherwise modified (the "Loan Agreement"), Secured Party has agreed to make certain advances of money and to extend certain financial accommodations to Grantor (the "Loans") in the amounts and manner set forth in the Loan Agreement. All capitalized terms used herein without definition shall have the meanings ascribed to them in the Loan Agreement.

B. Secured Party is willing to make the Loans to Grantor, but only upon the condition, among others, that Grantor shall grant to Secured Party a security interest in substantially all of Grantor's personal property whether presently existing or hereafter acquired. To that end, Grantor has executed in favor of Secured Party the Loan Agreement granting a security interest in all Collateral, and is executing this Agreement with respect to certain items of Intellectual Property, in particular.

NOW, THEREFORE, THE PARTIES HERETO AGREE AS FOLLOWS:

1. Grant of Security Interest. As collateral security for the prompt and complete payment and performance of all of Grantor's present or future Obligations, Grantor hereby grants a security interest to Secured Party, as security, in and to Grantor's entire right, title and interest in, to and under the following Intellectual Property, now owned or hereafter acquired by Grantor or in which Grantor now holds or hereafter acquires any interest (all of which shall collectively be called the "Collateral" for purposes of this Agreement):

(a) Any and all copyrights, whether registered or unregistered, held pursuant to the laws of the United States, any State thereof or of any other country; all registrations, applications and recordings in the United States Copyright Office or in any similar office or agency of the United States, and State thereof or any other country; all continuations, renewals, or extensions thereof; and any registrations to be issued under any pending applications, including without limitation those set forth on Exhibit A attached hereto (collectively, the "Copyrights");

(b) All letters patent of, or rights corresponding thereto in, the United States or any other country, all registrations and recordings thereof, and all applications for letters patent of, or rights corresponding thereto in, the United States or any other country, including, without limitation, registrations, recordings and applications in the United States Patent and Trademark Office or in any similar office or agency of the United States, any State thereof or any other country; all reissues, continuations, continuations-in-part or extensions thereof; all petty patents, divisionals, and patents of addition; and all patents to be issued under any such applications, including without limitation the patents and patent applications set forth on Exhibit B attached hereto (collectively, the "Patents");

(c) All trademarks, trade names, corporate names, business names, trade styles, service marks, logos, other source or business identifiers, prints and labels on which any of the foregoing have appeared or appear, designs and general intangibles of like nature, now existing or hereafter adopted or acquired, all registrations and recordings thereof, and any applications in connection therewith, including, without limitation, registrations,

recordings and applications in the United States Patent and Trademark Office or in any similar office or agency of the United States, any State thereof or any other country or any political subdivision thereof, and reissues, extensions or renewals thereof, and the entire goodwill of the business of Grantor connected with and symbolized by such trademarks, including without limitation those set forth on Exhibit C attached hereto (collectively, the "Trademarks");

(d) Any and all claims for damages by way of past, present and future infringement of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;

(e) All licenses or other rights to use any of the Copyrights, Patents or Trademarks, and all license fees and royalties arising from such use to the extent permitted by such license or rights;

(f) All amendments, renewals and extensions of any of the Copyrights, Trademarks or Patents; and

(g) All proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

Notwithstanding the foregoing the term "Collateral" shall not include: (a) "intent-to-use" trademarks at all times prior to the first use thereof, whether by the actual use thereof in commerce, the recording of a statement of use with the United States Patent and Trademark Office or otherwise, but only to the extent the granting of a security interest in such "intent to use" trademarks would be contrary to applicable law or (b) any contract, instrument or chattel paper in which Grantor has any right, title or interest if and to the extent such contract, instrument or chattel paper includes a provision containing a restriction on assignment such that the creation of a security interest in the right, title or interest of Grantor therein would be prohibited and would, in and of itself, cause or result in a default thereunder enabling another person party to such contract, instrument or chattel paper to enforce any remedy with respect thereto; provided, however, that the foregoing exclusion shall not apply if (i) such prohibition has been waived or such other person has otherwise consented to the creation hereunder of a security interest in such contract, instrument or chattel paper, or (ii) such prohibition would be rendered ineffective pursuant to Sections 9-407(a) or 9-408(a) of the UCC, as applicable and as then in effect in any relevant jurisdiction, or any other applicable law (including the Bankruptcy Code) or principles of equity); provided further that immediately upon the ineffectiveness, lapse or termination of any such provision, the term "Collateral" shall include, and Grantor shall be deemed to have granted a security interest in, all its rights, title and interests in and to such contract, instrument or chattel paper as if such provision had never been in effect; and provided further that the foregoing exclusion shall in no way be construed so as to limit, impair or otherwise affect Secured Party's unconditional continuing security interest in and to all rights, title and interests of Grantor in or to any payment obligations or other rights to receive monies due or to become due under any such contract, instrument or chattel paper and in any such monies and other proceeds of such contract, instrument or chattel paper.

2. Covenants and Warranties. Grantor represents, warrants, covenants and agrees as follows:

(a) Grantor is now the sole owner of, or has the right to use, the Collateral, except for Permitted Liens;

(b) During the term of this Agreement, Grantor will not transfer or otherwise encumber any interest in the Collateral, except for Permitted Liens and except as otherwise permitted in the Loan Agreement, except that the parties acknowledge and agree that ZCI is permitted to transfer ownership of the Collateral to ZIP a wholly owned subsidiary of ZCI, subject to Secured Party's first priority security interests thereon;

(c) To its knowledge, each of the issued patents included in the Patents is valid and enforceable, and no part of the Collateral has been judged by a court of competent jurisdiction to be invalid or unenforceable, in whole or in part, and no claim has been made that any part of the Collateral violates the rights of any third party, except for the following matter: Borrower entered into a Trademark Consent and Coexistence Agreement dated January 23, 2012, pursuant to which Borrower agreed to not use or apply for registration of any service mark or trademark consisting of or containing the term "ZEACHEM" or "ZEOCHEM" for molecular sieves or gel adsorbent products.

**(d) Grantor shall deliver to Secured Party within thirty (30) days of the last day of each fiscal quarter, a report signed by Grantor, in form reasonably acceptable to Secured Party, listing any applications or registrations that Grantor has made or filed in respect of any patents, copyrights or trademarks and the status of any outstanding applications or registrations. Grantor shall promptly advise Secured Party of any material change in the composition of the Collateral, including but not limited to any subsequent ownership right of the Grantor in or to any Trademark, Patent or Copyright not specified in this Agreement;**

(e) Grantor shall use reasonable commercial efforts to (i) protect, defend and maintain the validity and enforceability of the Trademarks, Patents and Copyrights material to Grantor's business, (ii) detect infringements of material Trademarks, Patents and Copyrights and promptly advise Secured Party in writing of material infringements detected and (iii) not allow any material Trademarks, Patents or Copyrights used or useful in Grantor's business to be abandoned, forfeited or dedicated to the public without the written consent of Secured Party, which consent shall not be unreasonably withheld, conditioned or delayed;

(f) Grantor shall promptly apply for registration with the United States Patent and Trademark Office or the United States Copyright Office of those intellectual property rights in addition to the intellectual property rights listed on Exhibits A, B and C hereto material to Grantor's business developed or acquired by Grantor from time to time in connection with any product or service, prior to the sale or licensing of such product or the rendering of such service to any third party (including without limitation revisions or additions to the intellectual property rights listed on such Exhibits A, B and C), except with respect to such rights that Grantor determines in its sole but reasonable commercial judgment need not be registered to protect its own business interests. Grantor shall, from time to time, execute and file such other instruments, and take such further actions as Secured Party may reasonably request from time to time to perfect or continue the perfection of Secured Party's interest in the Collateral. Grantor shall give Secured Party notice of all such material applications or registrations; and

(g) Grantor shall not enter into any agreement that would materially impair or conflict with Grantor's obligations hereunder without Secured Party's prior written consent, which consent shall not be unreasonably withheld, conditioned or delayed. Grantor shall not permit the inclusion in any material contract to which it becomes a party of any provisions that would prevent the creation of a security interest in Grantor's rights and interests in any property included within the definition of the Collateral acquired under such contracts.

3. Further Assurances; Attorney in Fact.

(a) On a continuing basis, Grantor will make, execute, acknowledge and deliver, and file and record in the proper filing and recording places in the United States, all such instruments, including appropriate financing and continuation statements and collateral agreements and filings with the United States Patent and Trademark Office and the Register of Copyrights, and take all such action as may reasonably be deemed necessary or advisable, or as reasonably requested by Secured Party, to perfect Secured Party's security interest in all Copyrights, Patents and Trademarks and otherwise to carry out the intent and purposes of this Agreement, or for assuring and confirming to Secured Party the grant or perfection of a security interest in all Collateral.

(b) Grantor hereby irrevocably appoints Secured Party as Grantor's attorney-in-fact, with full authority in the place and stead of Grantor and in the name of Grantor, from time to time in Secured Party's reasonable discretion (i) to modify, in its sole but reasonable discretion, this Agreement without first obtaining Grantor's approval of or signature to such modification by amending Exhibits A, B and C, hereof, as appropriate, to include reference to any right, title or interest in any Copyrights, Patents or Trademarks acquired by Grantor after the execution hereof or to delete any reference to any right, title or interest in any Copyrights, Patents or Trademarks in which Grantor no longer has or claims any right, title or interest, (ii) to file, in its sole discretion, one or more financing or continuation statements and amendments thereto, relative to any of the Collateral without the signature of Grantor where permitted by law, and (iii) after the occurrence and during the continuance of an Event of Default, to transfer the Collateral into the name of Secured Party or a third party to the extent permitted under the California Uniform Commercial Code.

4. Events of Default. The occurrence of any of the following shall constitute an Event of Default under this Agreement:

(a) An Event of Default under the Loan Agreement; or

(b) Grantor breaches any warranty or agreement made by Grantor in this Agreement and, as to any breach that is capable of cure, Grantor fails to cure such breach within thirty (30) days of the sooner to occur of Grantor's receipt of notice of such breach from Secured Party or the date on which such breach first becomes known to Grantor.

5. Accommodation. ZIP acknowledges that this Agreement secures all Indebtedness of ZCI to Secured Party, and ZIP is executing this Agreement as an accommodation to ZCI. Therefore, ZIP agrees as follows:

ZIP waives any right to require Secured Party to first proceed against ZCI or any guarantor, or proceed against or exhaust any security held from ZCI or any third party. Secured Party may, at its election, foreclose upon any such security by judicial or nonjudicial sale, without affecting or impairing in any way any liability of ZIP hereunder except to the extent the indebtedness has been paid, and ZIP waives all rights and defenses arising out of the absence, impairment or loss of any right or remedy of ZIP against ZCI, or any such security, if resulting from any event other than election by Secured Party. Until all Indebtedness of ZCI to Secured Party shall have been paid in full, ZIP shall have no right of subrogation, and waives any right to enforce any remedy which ZIP now has or may hereafter have against ZCI and waives any benefit of, and any right to participate in any security now or hereafter held by the Secured Party. ZIP waives all presentments, demands for performance, notices of nonperformance, protests, notices of dishonor, and notices of acceptance of this Agreement and of the existence, creation, or incurring of new or additional indebtedness.

6. Amendments. This Agreement may be amended only by a written instrument signed by both parties hereto, except for amendments permitted under Section 3 hereof to be made by Secured Party alone.

7. Termination and Release of Security Interest. This Agreement and the Secured Party's security interest and mortgage in the Collateral shall terminate upon the payment and performance in full of the Obligations secured by this Agreement. Upon termination, the Secured Party will make, execute, acknowledge and deliver, and file and record in the proper filing and recording places, all such instruments as may reasonably be deemed necessary or advisable, or as reasonably requested by Grantor, to release the Secured Party's security interest in all Collateral.

8. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute the same instrument.

*[Signature Pages Follow]*



*[Signature page to Intellectual Property Security Agreement]*

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

Address of Grantor:

165 South Union Blvd., Suite 380  
Lakewood, CO 80228  
Attn:

GRANTOR:

ZEACHEM INC.

By: \_\_\_\_\_

Name: \_\_\_\_\_

Its: \_\_\_\_\_

Address of Grantor:

165 South Union Blvd., Suite 380  
Lakewood, CO 80228  
Attn:

ZEACHEM INTELLECTUAL PROPERTY LLC

By: \_\_\_\_\_

Name: \_\_\_\_\_

Its: \_\_\_\_\_

Address of Secured Party:

104 La Mesa Dr., Suite 102  
Portola Valley, CA 94028  
Attn: Chief Financial Officer

VENTURE LENDING & LEASING VI, INC.

By:  \_\_\_\_\_

Name: David Wanek

Its: Vice President



EXHIBIT A

Copyrights

None.

**EXHIBIT B**

Patents

**ZeaChem Active Matter Status Report**

Updated 02/27/2012

Reference #	Country Name	Status	Filed Date	Serial #	Patent #	Issue Date
<b>Process for Producing Ethanol</b>						
4232-1-PROV	UNITED STATES	ABANDONED	3/11/1999	60/124,276		
4232-1-PCT	WIPO	PUBLISHED/ EXPIRED	3/10/2000	PCT/US2000/00649 8		
4232-1-PAU	AUSTRALIA	ISSUED	3/10/2000	38794/00	767876	3/11/2004
4232-1-PAU-DIV	AUSTRALIA	ISSUED	3/10/2000	2004200701	2004200701	5/31/2007
4232-1-PBR	BRAZIL	PENDING	3/10/2000	PI0010379-9		
4232-1-PCN	CHINA	ISSUED	3/10/2000	00804895.9	ZL00804895.9	11/16/2005
4232-1-PCN-DIV	CHINA	ISSUED	3/10/2000	200510099551.9	ZL200510099551.9	12/30/2009
4232-1-PCN-DIV-HK	HONG KONG	ISSUED	9/22/2006	06110620.1	HK1090026	3/5/2010
4232-1-PEP	EUROPEAN PATENT CONVENT	ISSUED	3/10/2000	00917888.0	1165820	8/20/2008
4232-1-PEP-1	EUROPEAN PATENT CONVENT	ABANDONED	3/10/2000	07008768.9		
4232-1-PEP-2	EUROPEAN PATENT CONVENT	PUBLISHED	9/11/2008	08164159.9		
4232-1-PEPDE	GERMANY	ISSUED	3/10/2000	00917888.0	1165820	8/20/2008
4232-1-PEPES	SPAIN	ISSUED	3/10/2000	00917888.0	1165820	8/20/2008
4232-1-PEPFI	FINLAND	ISSUED	3/10/2000	00917888.0	1165820	8/20/2008
4232-1-PEPFR	FRANCE	ISSUED	3/10/2000	00917888.0	1165820	8/20/2008
4232-1-PEPGB	UNITED KINGDOM	ISSUED	3/10/2000	00917888.0	1165820	8/20/2008
4232-1-PEPIE	IRELAND	ISSUED	3/10/2000	00917888.0	1165820	8/20/2008
4232-1-PEPSE	SWEDEN	ISSUED	3/10/2000	00917888.0	1165820	8/20/2008
4232-1-PJP	JAPAN	ISSUED	3/10/2000	2000-603412	4615126	10/29/2010
4232-1-PMX	MEXICO	ISSUED	3/10/2000	2001/009153	234906	3/15/2006
4232-1-PMX-DIV	MEXICO	ISSUED	11/23/2005	PA/a/2005/012649	263064	2/3/2010
4232-1-PMX-DIV-1	MEXICO	ALLOWED	12/11/2008	MX/a/2008/015895		
4232-1-PMX-DIV-2	MEXICO	PENDING	12/13/2010	MX/a/2010/013777		
4232-1-PNZ	NEW ZEALAND	ISSUED	3/10/2000	514253	514253	37900
4232-1-PPL	POLAND	ISSUED	3/10/2000	P 353 015	203207	3/26/2009
4232-1-PPL-1	POLAND	ISSUED	3/19/2009	P 387 518	207932	9/22/2010

Reference #	Country Name	Status	Filed Date	Serial #	Patent #	Issue Date
4232-1-PUS	UNITED STATES	ISSUED	12/29/2000	09/720,930	6,509,180	1/21/2003
4232-1-PUS-1	UNITED STATES	ISSUED	12/4/2002	10/310,552	6,927,048	8/9/2005
4232-1-PUS-2	UNITED STATES	ISSUED	6/29/2005	11/172,376	7,351,559	4/1/2008
4232-1-PUS-3	UNITED STATES	ISSUED	3/19/2008	12/051,668	7,682,812	3/23/2010
4232-1-PUS-4	UNITED STATES	ISSUED	1/26/2010	12/693,533	7,964,379	6/26/2011
4232-1-PUS-5	UNITED STATES	PUBLISHED	5/5/2011	13/101,900		
<b>Reactive Stripping Continuous Fermentation Process</b>						
4232-2-PROV-12	UNITED STATES	PENDING	7/29/2011	61/512,964		
<b>Process for Producing Ethanol From Corn Dry Milling</b>						
4232-3-PROV	UNITED STATES	ABANDONED	10/9/2001	60/328,258		
4232-3	UNITED STATES	ISSUED	10/9/2002	10/268,290	7,074,603	7/11/2006
4232-3-1	UNITED STATES	ISSUED	1/24/2006	11/339,238	7,507,562	3/24/2009
4232-3-2	UNITED STATES	ISSUED	11/26/2008	12/324,015	7,888,082	2/15/2011
<b>Production of Methyl Acetoxypropionate</b>						
4232-7-PROV-8	UNITED STATES	PENDING	12/20/2011	61/578,101		
<b>Recovery of Organic Acids</b>						
4232-8-PROV	UNITED STATES	ABANDONED	1/29/2004	60/540,606		
4232-8	UNITED STATES	ISSUED	1/28/2005	11/046,206	7,601,865	10/13/2009
4232-8-1	UNITED STATES	ISSUED	8/26/2009	12/548,312	8,048,655	11/1/2011
4232-8-2	UNITED STATES	PENDING	11/1/2011	13/286,998		
4232-8-PCT	WIPO	PUBLISHED/ EXPIRED	1/28/2005	PCT/US2005/03434		
4232-8-PAU	AUSTRALIA	ISSUED	1/28/2005	2005207970	2005207970	8/11/2011
4232-8-PAU-1	AUSTRALIA	PENDING	7/28/2011	2011205041		
4232-8-PBR	BRAZIL	PENDING	1/28/2005	PI-0506554-2		
4232-8-PCN	CHINA	ABANDONED	1/28/2005	200580008137.0		
4232-8-PEP	EUROPEAN PATENT CONVENT	PUBLISHED	1/28/2005	05712766.4		
4232-8-PJP	JAPAN	PUBLISHED	1/28/2005	2006-551619		
4232-8-PMX	MEXICO	ISSUED	1/28/2005	PA/a/2006/008573	279852	40459
4232-8-PMX-DIV	MEXICO	PENDING	10/4/2010	MX/a/2010/010946		
4232-8-PNO	NORWAY	PENDING	1/28/2005	20063608		
4232-8-PNZ	NEW ZEALAND	ISSUED	1/28/2005	549320	549320	2/9/2011
4232-8-PNZ-DIV1	NEW ZEALAND	PENDING	6/17/2010	596246		
<b>Energy Efficient Methods to Produce Products</b>						
4232-12	UNITED STATES	PUBLISHED	2/11/2008	12/029,321		
4232-12-PCT	WIPO	PUBLISHED/ EXPIRED	2/11/2008	PCT/US08/53611		
4232-12-PAU	AUSTRALIA	PENDING	2/11/2008	2008212826		
4232-12-PBR	BRAZIL	PENDING	2/11/2008	PI-0806417-2		

Reference #	Country Name	Status	Filed Date	Serial #	Patent #	Issue Date
4232-12-PCA	CANADA	PENDING	2/11/2008	2676982		
4232-12-PCN	CHINA	PUBLISHED	2/11/2008	200880010574.X		
4232-12-PEP	EUROPE	PUBLISHED	2/11/2008	08729556.4		
4232-12-PEPHK	HONG KONG	PUBLISHED	2/11/2008	9111655.4		
4232-12-PJP	JAPAN	PUBLISHED	2/11/2008	2009-549293		
4232-12-PMX	MEXICO	PUBLISHED	2/11/2008	MX/a/2009/008496		
4232-12-PNZ	NEW ZEALAND	PENDING	2/11/2008	578813		
<b>Indirect Production of Butanol and Hexanol</b>						
4232-17-PROV-1	UNITED STATES	ABANDONED	2/7/2008	61/026,910		
4232-17	UNITED STATES	PUBLISHED	2/9/2009	12/368,040		
4232-17-PCT	WIPO	PUBLISHED/ EXPIRED	2/9/2009	PCT/US09/33561		
4232-17-PAU	AUSTRALIA	PENDING	2/9/2009	2009212131		
4232-17-PBR	BRAZIL	PENDING	2/9/2009	PI-0905949-0		
4232-17-PCN	CHINA	PUBLISHED	2/9/2009	200980112342.X		
4232-17-PEP	EUROPE	PUBLISHED	2/9/2009	09709385.0		
4232-17-PJP	JAPAN	PUBLISHED	2/9/2009	2010-546092		
4232-17-PMX	MEXICO	PENDING	2/9/2009	MX/a/2010/008587		
4232-17-PNZ	NEW ZEALAND	PENDING	2/9/2009	587093		
<b>Dual Amine System to Recover Organic Acids</b>						
4232-18-PROV-5	UNITED STATES	PENDING	1/13/2012	61/586,214		
<b>Production of Ethyl Acetate from Amine Complex by Transesterification</b>						
4232-19-PROV-5	UNITED STATES	PENDING	1/19/2012	61/588,453		
<b>Hydrogenation of Acid:Amine Complex</b>						
4232-20-PROV-5	UNITED STATES	PENDING	1/19/2012	61/588,456		
<b>Bipolar Electrodialysis Recovery Process</b>						
4232-21-PROV-5	UNITED STATES	PENDING	1/19/2012	61/588,458		
<b>Ionic Liquid Extraction Recovery of Organic Acids</b>						
4232-22-PROV-5	UNITED STATES	PENDING	1/19/2012	61/588,462		
<b>Distributed Production Process</b>						
4232-23-PROV-5	UNITED STATES	PENDING	1/19/2012	61/588,466		
<b>High Chemical Energy Yield Method for Direct Production of Ethanol from Biomass Using Acetogenic Bacteria</b>						
4232-27-PROV-6	UNITED STATES	PENDING	8/19/2011	61/525,398		
<b>Decomposition of Amine Salts of Carboxylic Acids</b>						
4232-28-PROV	UNITED STATES	ABANDONED	5/7/2008	61/051,243		
4232-28	UNITED STATES	ALLOWED	5/7/2009	12/437,445		
4232-28-1	UNITED STATES	PENDING	2/13/2012	Forthcoming		

Reference #	Country Name	Status	Filed Date	Serial #	Patent #	Issue Date
4232-28-PCT	UNITED STATES	PUBLISHED/ EXPIRED	5/7/2009	PCT/US2009/04318 8		
4232-28-PAU	AUSTRALIA	PENDING	5/7/2009	2009244135		
4232-28-PBR	BRAZIL	PENDING	5/7/2009	PI-0908303-0		
4232-28-PCA	CANADA	PENDING	5/7/2009	2,722,735		
4232-28-PCN	CHINA	PUBLISHED	5/7/2009	200980126196.6		
4232-28-PEP	EUROPE	PUBLISHED	5/7/2009	9743694.3		
4232-28-PJP	JAPAN	PUBLISHED	5/7/2009	2011-508681		
4232-28-PMX	MEXICO	PUBLISHED	5/7/2009	MX/a/2010/012144		
4232-28-PNZ	NEW ZEALAND	APPROVED FOR ACCEPTANCE	5/7/2009	588804		
<b>Recovery of Organic Acids Using a Complex Extraction Solvent</b>						
4232-35-PROV	UNITED STATES	EXPIRED	10/18/2010	61/394,295		
4232-35-PROV-1	UNITED STATES	PENDING	7/21/2011	61/510,373		
4232-35-PCT	WIPO	PENDING	10/17/2011	PCT/US11/56568		
<b>Production of Jet Fuels from Alcohol</b>						
4232-36-PROV-1	UNITED STATES	PENDING	12/16/2011	61/576,675		
<b>Method for producing Propionic Acid</b>						
4232-37-PROV-1	UNITED STATES	PENDING	12/16/2011	61/576,686		

EXHIBIT C

Trademarks

ZEACHEM

U.S. Trademark Application Serial No. 77/956969