

PATENT ASSIGNMENT

Electronic Version v1.1  
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| SUBMISSION TYPE:           | NEW ASSIGNMENT           |
| NATURE OF CONVEYANCE:      | ASSIGNMENT               |
| CONVEYING PARTY DATA       |                          |
| Name                       | Execution Date           |
| QuantumSphere, Inc.        | 09/24/2010               |
| RECEIVING PARTY DATA       |                          |
| Name:                      | Bricoleur Partners, L.P. |
| Street Address:            | 16236 San Dieguito Rd.   |
| Internal Address:          | Building 2, Suite 2-22   |
| City:                      | Rancho Santa Fe          |
| State/Country:             | CALIFORNIA               |
| Postal Code:               | 92067                    |
| PROPERTY NUMBERS Total: 48 |                          |
| Property Type              | Number                   |
| Patent Number:             | 7282167                  |
| Application Number:        | 11687496                 |
| Application Number:        | 10983993                 |
| Application Number:        | 11525469                 |
| Patent Number:             | 7803295                  |
| Application Number:        | 11254629                 |
| Application Number:        | 11482290                 |
| Application Number:        | 12608940                 |
| Application Number:        | 12724848                 |
| Application Number:        | 11591731                 |
| Application Number:        | 11394456                 |
| Application Number:        | 11781909                 |
| Patent Number:             | 7713043                  |
| Application Number:        | 11716375                 |

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| Application Number: | 12045625  |
| Application Number: | 11706899  |
| Application Number: | 12625459  |
| Application Number: | 12625462  |
| Application Number: | 12625488  |
| Patent Number:      | 7709127   |
| Application Number: | 12717830  |
| Application Number: | 12114718  |
| Application Number: | 11829843  |
| Application Number: | 11868152  |
| Application Number: | 11951223  |
| Application Number: | 12266477  |
| Application Number: | 12418356  |
| Application Number: | 12752018  |
| Application Number: | 12427221  |
| Application Number: | 12687795  |
| Application Number: | 12820937  |
| Application Number: | 12338997  |
| Application Number: | 12624864  |
| Patent Number:      | 6444337   |
| PCT Number:         | US0871845 |
| PCT Number:         | US1029508 |
| PCT Number:         | US0941300 |
| PCT Number:         | US1021085 |
| PCT Number:         | US0968592 |
| Patent Number:      | 6824914   |
| Application Number: | 12924136  |
| PCT Number:         | US0783542 |
| PCT Number:         | US0783541 |
| PCT Number:         | US0870929 |
| PCT Number:         | US0708182 |
| PCT Number:         | US0856444 |
| PCT Number:         | US0878858 |
| PCT Number:         | US0882682 |

**CORRESPONDENCE DATA****Fax Number:** (949)760-9502*Correspondence will be sent via US Mail when the fax attempt is unsuccessful.***Phone:** 9497600404**Email:** efiling@kmob.com**Correspondent Name:** Knobbe, Martens, Olson & Bear LLP**Address Line 1:** 2040 Main Street**Address Line 2:** 14th Floor**Address Line 4:** Irvine, CALIFORNIA 92614**ATTORNEY DOCKET NUMBER:**

QSINC.000GEN

**NAME OF SUBMITTER:**

Bridget A. Smith

**Total Attachments: 14**

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## COLLATERAL ASSIGNMENT

This Collateral Assignment (the "Agreement") is entered into as of this \_\_\_ day of September 2010, by and between QuantumSphere, Inc., a California corporation having a principal place of business at 2905 Tech Center Dr., Santa Ana, California 92705 ("ASSIGNOR"), on the one hand, and Bricoleur Partners, L.P., a Delaware limited partnership having a principal place of business at 16236 San Dieguito Rd., Building 2, Suite 2-22, Rancho Santa Fe, CA 92067 ("ASSIGNEE") on behalf of itself and for the benefit of each of the parties listed in Attachment 1 hereto ("ADDITIONAL ASSIGNEES"), on the other hand. ASSIGNOR and ASSIGNEE are collectively referred to herein as the "Parties."

## RECITALS

WHEREAS, ASSIGNOR owns all rights, title and interest in and to certain new and useful improvements for which applications for utility patents have been filed in and outside the United States, including some that have already been allowed and/or issued, as well as several registered trademarks (collectively, "QSI IP"), all of which are identified in Attachment 2 hereto;

WHEREAS, on even date herewith, (i) ASSIGNEE and ASSIGNOR entered into, inter alia, a Note Purchase Agreement, Security Agreement, and Intercreditor and Collateral Agent Agreement, and (ii) ASSIGNOR issued a Senior Secured Convertible Promissory Note in favor of ASSIGNEE in the original principal amount of Two Hundred Thousand Dollars (US\$200,000), and entered into a Deposit Account Control Agreement with City National Bank (the foregoing agreements in this recital are collectively referred to herein as the "Transaction Agreements");

WHEREAS, prior to or on or about the date hereof, (i) ADDITIONAL ASSIGNEES and ASSIGNOR entered into, inter alia, a Note Purchase Agreement, Security Agreement, and Intercreditor and Collateral Agent Agreement, and (ii) ASSIGNOR issued a Senior Secured Convertible Promissory Note in favor of each of the ADDITIONAL ASSIGNEES in an amount equal to the respective investment made by each ADDITIONAL ASSIGNEE; and

WHEREAS, the Transaction Agreements, and specifically the Senior Secured Convertible Promissory Note, govern the condition upon which an automatic transfer of all of ASSIGNOR'S rights, title and interest in QSI IP shall be made to ASSIGNEE, for itself and for the benefit of the ADDITIONAL ASSIGNEES.

NOW, THEREFORE, in consideration of the premises and the mutual covenants hereinafter set forth, the Parties hereby agree as follows:

1. Capitalized Terms. All capitalized terms not otherwise defined herein shall have the meaning ascribed to them in the applicable Transaction Agreements.
2. Agreement. In consideration for the loans made by ASSIGNEE AND ADDITIONAL ASSIGNEES to ASSIGNOR, and only upon the occurrence of an Event of Default as defined in

Section 4(a) of the Senior Secured Convertible Promissory Note which is not otherwise cured within the applicable cure period, if any, specified therein, ASSIGNOR does hereby:

a. Sell, assign and transfer to the ASSIGNEE, for itself and for the benefit of the ADDITIONAL ASSIGNEES, their respective successors, legal representatives and assigns, the entire right, title, and interest throughout the world in, to and under said QSI IP, and any future patent and trademark applications filed within or without the United States by or on behalf of ASSIGNOR or otherwise acquired by ASSIGNOR during the term of said Transaction Agreements, including all patents and trademarks that may be granted thereon, and all reissues, extensions, renewals, divisions, continuations and continuations-in-part of any of the foregoing, together with all proceeds thereof (such as, by way of example, license royalties) and other rights corresponding thereto;

b. Authorize and request the Commissioner of Patents and the Commissioner of Trademarks of the United States, and any official of any country or countries foreign to the United States, whose duty it is to issue patents and trademarks on applications as aforesaid, to record this assignment and issue all patents and trademarks constituting the QSI IP to ASSIGNEE, for itself and for the benefit of the ADDITIONAL ASSIGNEES, their respective successors, legal representatives and assigns, in accordance with the terms of this instrument; and

c. Sell, assign, transfer, and convey to ASSIGNEE, for itself and for the benefit of the ADDITIONAL ASSIGNEES, their respective successors, legal representatives, and assigns, all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEE, for itself and for the benefit of the ADDITIONAL ASSIGNEES, or that which may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of said patents, trademarks and applications thereof, constituting QSI IP before or after issuance.

3. Termination. Should the Transaction Agreements properly terminate as a result of ASSIGNOR's satisfaction of all of its obligations thereunder without the occurrence of any condition that would otherwise trigger automatic assignment between ASSIGNOR and ASSIGNEE, all rights, title and interest in and to QSI IP shall remain entirely with ASSIGNOR, and no assignment to ASSIGNEE shall occur.

4. Appointment as Attorney-In-Fact. In the event of the occurrence of an Event of Default under the Senior Secured Convertible Promissory Note, ASSIGNOR hereby irrevocably authorizes and empowers ASSIGNEE to make, constitute and appoint any officer or agent of ASSIGNEE, as ASSIGNEE may select in its exclusive discretion, as ASSIGNOR's true and lawful attorney-in fact, with the power to endorse ASSIGNOR's name on all applications, documents, papers and instruments necessary to assign, pledge, convey or otherwise transfer or dispose of all of ASSIGNOR's right, title and interest in and to the QSI IP to ASSIGNEE or any other party, or to grant or issue any exclusive or nonexclusive license under the QSI IP to any third person, or necessary for ASSIGNEE to assign, pledge, convey or otherwise transfer title in or dispose of the QSI IP to any third person. ASSIGNOR hereby ratifies all that such attorney shall lawfully do or cause to be done by virtue hereof. This power of attorney is a power coupled with an interest and shall be irrevocable for the life of this Agreement. The rights and powers conferred upon ASSIGNEE under this Agreement are solely to protect its interests in the QSI IP and shall not impose any duty upon ASSIGNEE to exercise any such rights or powers. ASSIGNEE shall be

accountable only for amounts that ASSIGNEE actually receives as a result of the exercise of such rights and powers and neither ASSIGNOR nor any of its officers, directors, employees or agents shall be responsible to ASSIGNOR for any act or failure to act, except for ASSIGNEE's own gross negligence or willful misconduct.

5. Duties of Assignor. ASSIGNOR agrees that, until all of its obligations under the Transaction Agreements have been satisfied in full, it will not enter into any agreement which is inconsistent with ASSIGNOR's obligations under this Agreement (for example, any other assignment or pledge of the QSI IP), without ASSIGNEE's prior written consent. ASSIGNOR further agrees that at any time and from time to time, at the expense of ASSIGNOR, ASSIGNOR will promptly execute and deliver all further instruments and documents, and take all further action, that may be necessary or desirable, or that ASSIGNEE may in good faith request, in order to perfect and protect the security interest and collateral assignment granted or purported to be granted hereby or to enable ASSIGNEE to exercise its rights and remedies hereunder. ASSIGNOR shall have the duty to prosecute diligently any applications of the QSI IP pending as of the date of this Agreement or thereafter until ASSIGNOR's obligations shall have been paid in full and to preserve and maintain all rights in the QSI IP, including without limitation the payment of all maintenance fees. Any expenses incurred in connection with such activities shall be borne by ASSIGNOR.

6. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original instrument, but all of which collectively shall constitute one and the same agreement.

7. Assignment. This Agreement and the rights and obligations hereunder shall not be assignable or transferable by any party hereto without the prior written consent of the other party; *provided*, that notwithstanding the foregoing, the ASSIGNEE may assign this Agreement to the following permitted transferees: whether ASSIGNEE is a partnership, limited liability company, corporation or other entity to (i) a partner or former partner of such partnership, a member or former member of such limited liability company or a shareholder of such corporation, (ii) the estate of any such partner, member or shareholder, or (iii) any other Affiliate (as defined below) of such holder; or to any ADDITIONAL ASSIGNEE, or an Affiliate of an ADDITIONAL ASSIGNEE. As used herein, "Affiliate" means any person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a person as such terms are used in and construed under Rule 144 under the Securities Act; and with respect to ASSIGNEE, any investment fund or managed account that is managed on a discretionary basis by the same investment manager as ASSIGNEE will be deemed to be an Affiliate of ASSIGNEE. Any instrument purporting to make an assignment in violation of this Section 5 shall be void.

8. Governing Law. This agreement shall be governed by, and construed in accordance with, the laws of the State of California (without giving effect to any choice or conflict of laws provisions).

9. **CONSENT TO JURISDICTION.** EACH OF THE PARTIES HEREBY IRREVOCABLY AND UNCONDITIONALLY SUBMITS TO THE NON-EXCLUSIVE JURISDICTION OF THE COURTS OF THE STATES OF CALIFORNIA AND OF THE FEDERAL COURTS SITTING IN THE STATE OF CALIFORNIA. EACH OF THE PARTIES AGREES THAT ALL ACTIONS OR PROCEEDINGS ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED

**HEREBY MUST BE LITIGATED EXCLUSIVELY IN ANY SUCH STATE OR FEDERAL COURT, AND ACCORDINGLY, EACH PARTY IRREVOCABLY WAIVES ANY OBJECTION WHICH IT MAY NOW OR HEREAFTER HAVE TO THE LAYING OF THE VENUE OF ANY SUCH LITIGATION IN ANY SUCH COURT.**

**10. WAIVER OF JURY TRIAL. EACH PARTY HERETO HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT. EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANOTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT THE OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT, BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION 9.**

11. Attorneys' Fees. In the event that any suit or action is instituted to enforce any provision in this Agreement, the prevailing party in such dispute shall be entitled to recover from the losing party all fees, costs and expenses of enforcing any right of such prevailing party under or with respect to this Agreement, including without limitation, such reasonable fees and expenses of attorneys and accountants, which shall include, without limitation, all fees, costs and expenses of appeals.

IN WITNESS WHEREOF, the undersigned has executed this Agreement of the date first written above.

**QUANTUMSPHERE, INC.**

By: \_\_\_\_\_  
Kevin D. Maloney  
Chief Executive Officer & President

**BRICOLEUR PARTNERS, L.P.,**  
**on behalf of itself and the Additional Assignees**

**By: Bricoleur Capital Management, LLC,**  
**Its General Partner**

By: \_\_\_\_\_  
Robert Poole, Member of Management Board

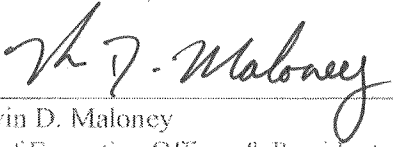
PARTIES AGREES THAT ALL ACTIONS OR PROCEEDINGS ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY MUST BE LITIGATED EXCLUSIVELY IN ANY SUCH STATE OR FEDERAL COURT, AND ACCORDINGLY, EACH PARTY IRREVOCABLY WAIVES ANY OBJECTION WHICH IT MAY NOW OR HEREAFTER HAVE TO THE LAYING OF THE VENUE OF ANY SUCH LITIGATION IN ANY SUCH COURT.

10. WAIVER OF JURY TRIAL. EACH PARTY HERETO HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT. EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANOTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT THE OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT, BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION 9.

11. Attorneys' Fees. In the event that any suit or action is instituted to enforce any provision in this Agreement, the prevailing party in such dispute shall be entitled to recover from the losing party all fees, costs and expenses of enforcing any right of such prevailing party under or with respect to this Agreement, including without limitation, such reasonable fees and expenses of attorneys and accountants, which shall include, without limitation, all fees, costs and expenses of appeals.

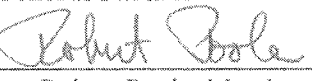
IN WITNESS WHEREOF, the undersigned has executed this Agreement of the date first written above.

QUANTUMSPHERE, INC.

By:   
Kevin D. Maloney  
Chief Executive Officer & President

BRICOLEUR PARTNERS, L.P.,  
on behalf of itself and the Additional Assignees

By: Bricoleur Capital Management, LLC,  
Its General Partner

By:   
Robert Poole, Member of Management Board



**ATTACHMENT 1**

**ADDITIONAL ASSIGNEES**

1. Ireneusz Kotula
2. Fortino and Bertha Alicia Rivera
3. Steven R. Young
4. Haye Family Trust (January 31, 2003)
5. Steven S. Myers, Trustee, FBO Steven S. Myers Revocable Trust DTD 12/01/2000
6. Harris Family Trust
7. Bricoleur Enhanced, L.P.

Application Nos.: See Attachment 2  
Filing Date: See Attachment 2

Client Code: QSINC

## **ATTACHMENT 2**

**QSI IP**

Application Nos.: See Attachment 2  
Filing Date: See Attachment 2

Client Code: QSINC

## QuantumSphere, Inc. Intellectual Property Status Report - PRIVILEGED and CONFIDENTIAL

STATUS as of July 29, 2010: 21 Patent Families; 12 Cases in Office Action; 8 Patents Issued or Allowed. Blue = Issued/Allowed, Yellow = In Office Action

| Case No.     | Title of Invention                                                                       | Colloquial Name                                             | Document No.                                                       | Document Date                                               | Inventors                | Status                                   |
|--------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------|--------------------------|------------------------------------------|
| QSINC.002A   | METHOD AND APPARATUS FOR FORMING NANO-PARTICLES                                          | VAPOR CONDENSATION OF NANO-SIZED PARTICLES                  | App. No. 10/840409<br>Publ. No. 06/0226564<br>Patent No. 7,282,167 | Filed: 5/06/04<br>Published: 10/12/06<br>Patented: 10/16/07 | Carpenter                | Issued                                   |
| QSINC.002C1  | METHOD AND APPARATUS FOR FORMING NANO-PARTICLES                                          | VAPOR CONDENSATION OF NANO-SIZED PARTICLES                  | App. No. 11/687496                                                 | Filed: 3/16/2007                                            | Carpenter                | Office action response due 9/16/10       |
| QSINC.003A   | NANO-MATERIAL CATALYST DEVICE                                                            | SINTERED ELECTRODE                                          | App. No. 10/983993<br>Publ. No. 06-0269823                         | Filed: 11/8/2004<br>Published: 11/30/2006                   | Carpenter                | Office action response due 7/14/10       |
| QSINC.003CP1 | NANO-MATERIAL CATALYST DEVICE                                                            | SINTERED ELECTRODE WITH PREFERRED NANO MATERIALS            | App. No. 11/525469                                                 | Filed: 9/22/2006                                            | Carpenter, Dopp, McGrath | Office action response filed 6/3/10      |
| QSINC.007A   | METHOD AND APPARATUS FOR FORMING NANO-PARTICLES                                          | FEEDING OF MATERIAL FOR VAPOR CONDENSATION OF NANO CATALYST | App. No. 11/591787<br>Publ. No. 08-0108005                         | Filed: 11/2/2006<br>Published: 5/8/2008                     | Carpenter                | Issue fee paid                           |
| QSINC.008A   | GAS DIFFUSION CATHODE USING NANOMETER SIZED PARTICLES OF TRANSITION METALS FOR CATALYSIS | GAS DIFFUSION ELECTRODE USING CARBON SUBSTRATE              | App. No. 11/254629<br>Publ. No. 07-0092784                         | Filed: 10/20/2005<br>Published: 4/26/2007                   | Dopp, Carpenter, McGrath | Office action response submitted 6/22/10 |
| QSINC.008CP1 | ELECTROCHEMICAL CATALYSTS                                                                | NANO CATALYST SUPPORTED ON CARBON FOR ELECTRODES            | App. No. 11/482290<br>Publ. No. 2008-0280190                       | Filed: 7/7/2006<br>Published: 11/13/2008                    | Dopp, McGrath, Carpenter | Office action response due 9/7/10        |

Application Nos.: See Attachment 2  
Filing Date: See Attachment 2

Client Code: QSINC

|                             |                                                    |                                                           |                                                  |                                       |                          |                                                 |
|-----------------------------|----------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------|---------------------------------------|--------------------------|-------------------------------------------------|
| QSINC.008CP1DV1             | ELECTROCHEMICAL CATALYSTS                          | METHOD OF MAKING NANO CATALYST SUPPORTED POROUS SUBSTRATE | App. No. 12/608940<br>Publ. No. 2010-0159348 A1  | Filed: 10/29/2009                     | Dopp, McGrath, Carpenter | Pending                                         |
| QSINC.008CP1DV2             | ELECTROCHEMICAL CATALYSTS                          | METHOD OF MAKING NANO CATALYST SUPPORTED POROUS SUBSTRATE | App. No. 12/724,848<br>Publ. No. 2010-0167175 A1 | Filed: 3/16/2010                      | Dopp, McGrath, Carpenter | Pending                                         |
| QSINC.008QAU<br>(Australia) | ELECTROCHEMICAL CATALYSTS                          | NANO CATALYST SUPPORTED ON CARBON FOR ELECTRODES          | App. No. 2007340313                              | Filed: 1/27/2009                      | Dopp, McGrath, Carpenter | Pending                                         |
| QSINC.008QCA<br>(Canada)    | ELECTROCHEMICAL CATALYSTS                          | NANO CATALYST SUPPORTED ON CARBON FOR ELECTRODES          | App. No. 2656661                                 | Filed: 12/30/2008                     | Dopp, McGrath, Carpenter | Pending                                         |
| QSINC.008QCN<br>(China)     | ELECTROCHEMICAL CATALYSTS                          | NANO CATALYST SUPPORTED ON CARBON FOR ELECTRODES          | App. No. 200780025623.2                          | Filed: 1/6/2009                       | Dopp, McGrath, Carpenter | Pending                                         |
| QSINC.008QEP<br>(Europe)    | ELECTROCHEMICAL CATALYSTS                          | NANO CATALYST SUPPORTED ON CARBON FOR ELECTRODES          | App. No. 07 872 239.4<br>Publ. No. 2044640       | Filed: 2/6/2009<br>Published: 4/08/09 | Dopp, McGrath, Carpenter | Pending                                         |
| QSINC.008QIN<br>(India)     | ELECTROCHEMICAL CATALYSTS                          | NANO CATALYST SUPPORTED ON CARBON FOR ELECTRODES          | App. No. 826/DELNP/2009                          | Filed: 2/3/2009                       | Dopp, McGrath, Carpenter | Pending                                         |
| QSINC.008QJP<br>(Japan)     | ELECTROCHEMICAL CATALYSTS                          | NANO CATALYST SUPPORTED ON CARBON FOR ELECTRODES          | App. No. 2009-518652                             | Filed: 1/5/2009                       | Dopp, McGrath, Carpenter | Pending                                         |
| QSINC.008QKR<br>(Korea)     | ELECTROCHEMICAL CATALYSTS                          | NANO CATALYST SUPPORTED ON CARBON FOR ELECTRODES          | App. No. 10-2009-7002552                         | Filed: 2/6/2009                       | Dopp, McGrath, Carpenter | Pending                                         |
| QSINC.009A                  | METHOD AND APPARATUS FOR COLLECTING NANO-PARTICLES | NANOPARTICLE COLLECTION                                   | App. No. 11/591731                               | Filed: 11/2/2006                      | Robinson                 | Pending, response to office action filed 3/4/10 |

Application Nos.: See Attachment 2  
Filing Date: See Attachment 2

Client Code: QSINC

|                          |                                                                                                              |                                                  |                                                       |                                           |                    |                                                                      |
|--------------------------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-------------------------------------------------------|-------------------------------------------|--------------------|----------------------------------------------------------------------|
| QSINC.011A               | COMPOSITIONS OF NANOMETAL PARTICLES CONTAINING A METAL OR ALLOY AND PLATINUM PARTICLES FOR USE IN FUEL CELLS | AD MIXTURE OF PLATINUM AND METAL NANOPARTICLES   | App. No. 11/394456<br>Publ. No. 07-0227300            | Filed: 3/31/2006<br>Published: 10/04/2007 | McGrath, Carpenter | Pending, response to office action filed 3/4/10, some allowed claims |
| QSINC.011VCA<br>(Canada) | COMPOSITIONS OF NANOMETAL PARTICLES CONTAINING A METAL OR ALLOY AND PLATINUM PARTICLES FOR USE IN FUEL CELLS | AD MIXTURE OF PLATINUM AND METAL NANOPARTICLES   | App. No. 2647174                                      | Filed: 9/23/2008                          | McGrath, Carpenter | Voluntary amendment filed 11/30/09                                   |
| QSINC.011VCN<br>(China)  | COMPOSITIONS OF NANOMETAL PARTICLES CONTAINING A METAL OR ALLOY AND PLATINUM PARTICLES FOR USE IN FUEL CELLS | AD MIXTURE OF PLATINUM AND METAL NANOPARTICLES   | App. No. 200780017384.6<br>Publ. No. CN 101454931     | Filed: 10/6/08<br>Published: 06/10/09     | McGrath, Carpenter | Office action response due 10/25/10                                  |
| QSINC.011VEP<br>(Europe) | COMPOSITIONS OF NANOMETAL PARTICLES CONTAINING A METAL OR ALLOY AND PLATINUM PARTICLES FOR USE IN FUEL CELLS | AD MIXTURE OF PLATINUM AND METAL NANOPARTICLES   | App. No. 07 835 722.5<br>Publ. No. 2008328            | Filed: 10/30/08<br>Published: 12/31/08    | McGrath, Carpenter | Pending, amended claims OK                                           |
| QSINC.011VIN (India)     | COMPOSITIONS OF NANOMETAL PARTICLES CONTAINING A METAL OR ALLOY AND PLATINUM PARTICLES FOR USE IN FUEL CELLS | AD MIXTURE OF PLATINUM AND METAL NANOPARTICLES   | App. No. 9027/DELNP/2008<br>Publ. No. 9027/DELNP/2008 | Filed: 10/27/08<br>Published: 3/27/09     | McGrath, Carpenter | Pending                                                              |
| QSINC.011VJP<br>(Japan)  | COMPOSITIONS OF NANOMETAL PARTICLES CONTAINING A METAL OR ALLOY AND PLATINUM PARTICLES FOR USE IN FUEL CELLS | AD MIXTURE OF PLATINUM AND METAL NANOPARTICLES   | App. No. 2009-503067                                  | Filed: 9/24/08                            | McGrath, Carpenter | Pending, amended claims OK                                           |
| QSINC.011VKR<br>(Korea)  | COMPOSITIONS OF NANOMETAL PARTICLES CONTAINING A METAL OR ALLOY AND PLATINUM PARTICLES FOR USE IN FUEL CELLS | AD MIXTURE OF PLATINUM AND METAL NANOPARTICLES   | App. No. 10-2008-7026711                              | Filed: 10/30/08                           | McGrath, Carpenter | Pending                                                              |
| QSINC.011CP1             | COMPOSITIONS OF NANOMETAL PARTICLES CONTAINING A METAL OR ALLOY AND PLATINUM PARTICLES                       | CATALYST INK WITH PLATINUM AND NANOPARTICLES     | App. No. 11/781909                                    | Filed: 7/23/2007                          | McGrath, Carpenter | Pending, office action Expected 3/2010                               |
| QSINC.011OEP<br>(Europe) | COMPOSITIONS OF METAL NANOPARTICLES                                                                          | PLATINUM-FREE INK CONTAINING METAL NANOPARTICLES | App. No. 08796506.7                                   | Filed: 2/9/2010                           | McGrath, Carpenter | Pending                                                              |

Application Nos.: See Attachment 2  
Filing Date: See Attachment 2

Client Code: QSINC

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| QSINC.011QJP<br>(Japan)  | COMPOSITIONS OF METAL NANOPARTICLES                                            | PLATINUM-FREE INK CONTAINING METAL NANOPARTICLES        | App. No. xxxxxx                                                    | Filed:                                    | McGrath, Carpenter | Pending                                                   |
| QSINC.011QKR<br>(Korea)  | COMPOSITIONS OF METAL NANOPARTICLES                                            | PLATINUM-FREE INK CONTAINING METAL NANOPARTICLES        | App. No. xxxxxx                                                    | Filed:                                    | McGrath, Carpenter | Pending                                                   |
| QSINC.011QCA<br>(Canada) | COMPOSITIONS OF METAL NANOPARTICLES                                            | PLATINUM-FREE INK CONTAINING METAL NANOPARTICLES        | App. No. xxxxxx                                                    | Filed:                                    | McGrath, Carpenter | Pending                                                   |
| QSINC.013A               | APPARATUS FOR UNIFORM FEEDING OF POWDERS                                       | POWDER FEEDING APPARATUS FOR MAKING ELECTRODES          | App. No. 11/254627<br>Publ. No. 07-0092593<br>Patent No. 7,713,043 | Filed: 10/20/2005<br>Published: 4/26/2007 | Dopp, Nettleton    | Issued                                                    |
| QSINC.015A               | HIGH RATE ELECTROCHEMICAL DEVICE                                               | FLUIDIZED BED ELECTRODE                                 | App. No. 11/716375<br>Publ. No. 2008-0220278 A1                    | Filed: 3/9/2007<br>Published: 9/11/08     | Dopp               | Pending, office action expected 05/2010                   |
| QSINC.015CP1             | HIGH RATE ELECTROCHEMICAL DEVICES                                              | SYSTEM DESIGNS FOR FLUIDIZED BED ELECTRODE              | App. No. 12/045625<br>Publ. No. 2008-0277287                       | Filed: 3/10/2008<br>Published: 11/13/2008 | Dopp               | Pending, office action expected 11/2010                   |
| QSINC.016A               | COMPOSITION AND METHOD OF PREPARING NANOSCALE THIN FILM PHOTOVOLTAIC MATERIALS | CIGS/CIGSS FROM NANOPARTICLES - METHOD OF MAKING DEVICE | App. No. 11/706899<br>Publ. No. 2008-0190483 A1                    | Filed: 2/13/2007<br>Published: 08/14/08   | Carpenter, Maloney | Office action response submitted 5/8/10                   |
| QSINC.016DV1             | COMPOSITION AND METHOD OF PREPARING NANOSCALE THIN FILM PHOTOVOLTAIC MATERIALS | CIGS/CIGSS - PHOTOVOLTAIC CELL                          | App. No. 12/625459                                                 | Filed: 11/24/2009                         | Carpenter, Maloney | Office action response due 7/13/10 Green Petition Granted |
| QSINC.016DV2             | COMPOSITION AND METHOD OF PREPARING NANOSCALE THIN FILM PHOTOVOLTAIC MATERIALS | CIGS/CIGSS - PHOTOVOLTAIC CELL                          | App. No. 12/625462                                                 | Filed: 11/24/2009                         | Carpenter, Maloney | Office action response due 7/13/10                        |
| QSINC.016DV3             | COMPOSITION AND METHOD OF PREPARING NANOSCALE THIN FILM PHOTOVOLTAIC MATERIALS | CIGS/CIGSS - PHOTOVOLTAIC CELL                          | App. No. 12/625488                                                 | Filed: 11/24/2009                         | Carpenter, Maloney | Pending, Green Petition granted                           |
| QSINC.016VPC             | COMPOSITION AND METHOD OF PREPARING NANOSCALE THIN FILM PHOTOVOLTAIC MATERIALS | CIGS/CIGSS FROM NANOPARTICLES                           | App. No. US2008/71845                                              | Filed: 7/31/2008                          | Carpenter, Maloney | National Phase Decision Due 11/31/11                      |

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| QSINC.018A   | ELECTRO-CATALYTIC RECHARGING COMPOSITION                                                | FLUIDIZED BED FUEL CELL                           | App. No. 11/745957<br>Publ. No. 2008-0280172<br>Patent No. 7,709,127 | Filed: 5/8/2007<br>Published: 11/13/2008<br>Issued: 5/4/2010 | Maloney,<br>Dopp                   | Issued                                          |
| QSINC.018DV1 | ELECTRO-CATALYTIC RECHARGING COMPOSITION                                                | FLUIDIZED BED FUEL CELL                           | App. No. 12/717,830<br>Publ. No. 2010-0159348                        | Filed: 3/4/2010                                              | Maloney,<br>Dopp                   | Pending in Green Tech Pilot review              |
| QSINC.019A   | DEVICE AND METHOD FOR PHOTOLYSIS-ASSISTED ELECTROLYSIS                                  | FLUIDIZED BED PHOTOLYZER                          | App. No. 12/114718<br>Publ. No. 2009-0032391                         | Filed: 5/2/2008<br>Published: 2/5/2009                       | Dopp,<br>McGrath                   | Pending, office action expected 1/2011          |
| QSINC.021A   | RAPID ELECTROCHEMICAL EVALUATION APPARATUS                                              | ELETRODE TESTER                                   | App. No. 11/829843<br>Publ. No. 2009-0026077 A1                      | Filed: 7/27/2007<br>Published: 1/29/2009                     | Dopp                               | Pending, response to office action filed 3/9/10 |
| QSINC.022A   | NANOPARTICLE COATED ELECTRODE AND METHOD OF MANUFACTURE                                 | TWO-LAYER ELECTRODE COATING WITH NANOMETALS       | App. No. 11/868152<br>Publ. No. 2009-0092887 A1                      | Filed: 10/5/2007<br>Published: 4/09/2009                     | McGrath,<br>Dopp,<br>Carpenter     | Pending in Green Tech Pilot review              |
| QSINC.023A   | CONDUCTIVE NANOPARTICLE SUBSTRATE AND METHOD OF MANUFACTURE                             | TWO-LAYER ELECTRODE COATING WITH CELLULOSE AND AG | App. No. 11/951223<br>Publ. No. 2009-0148689 A1                      | Filed: 12/5/2007<br>Published: 06/11/09                      | Carpenter,<br>Winn                 | Pending, office action expected 08/2010         |
| QSINC.024A   | SYSTEM AND METHOD FOR AMMONIA SYNTHESIS                                                 | AMMONIA SYNTHESIS USING IRON NANOPARTICLES        | App. No. 12/266477<br>Publ. No. 2009-0117014                         | Filed: 11/6/2008<br>Published: 5/7/2009                      | Carpenter                          | Pending in Green Tech Pilot review              |
| QSINC.024QPC | SYSTEM AND METHOD FOR AMMONIA SYNTHESIS                                                 | AMMONIA SYNTHESIS USING IRON NANOPARTICLES        | App. No. PCT/US/2010/029508<br>Publ. No.                             | Filed: 3/31/10 Published:                                    | Carpenter                          | Filed 3/31/10                                   |
| QSINC.024CP1 | SYSTEM AND METHOD FOR AMMONIA SYNTHESIS                                                 | AMMONIA SYNTHESIS USING IRON ON IRON              | App. No. 12/418,356<br>Publ. No. 2009-0202417 A1                     | Filed: 4/3/2009<br>Published: 08/13/09                       | Carpenter                          | Pending in Green Tech Pilot review              |
| QSINC.024CP2 | SYSTEM AND METHOD FOR AMMONIA SYNTHESIS                                                 | AMMONIA SYNTHESIS USING IRON ON IRON              | App. No. 12/752,018                                                  | Filed: 3/31/2010                                             | Carpenter,<br>Maloney              | Pending                                         |
| QSINC.026A   | COMPOSITION OF AND METHOD OF USING NANOSCALE MATERIALS IN HYDROGEN STORAGE APPLICATIONS | NANOPARTICLES DISPERSED IN HYDROGEN STORAGE ALLOY | App. No. 12/427,221<br>Publ. No. 2009-0261305-A1                     | Filed: 4/21/2009<br>Published: 10/22/09                      | Carroll,<br>McGrath,<br>and Kepler | Pending in Green Tech Pilot review              |

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| QSINC.026VPC | COMPOSITION OF AND METHOD OF USING NANOSCALE MATERIALS IN HYDROGEN STORAGE APPLICATIONS                                         | NANOPARTICLES DISPERSED IN HYDROGEN STORAGE ALLOY         | App. No. PCT/US09/041300<br>Publ. No. WO/09/132036 A1               | Filed: 4/21/2009<br>Published: 10/29/09                            | Carroll, McGrath, Kepler | Pending, National Phase decision due 10/21/10 |
| QSINC.033A   | METHOD OF MAKING A CATALYTIC MATERIAL BY SELECTIVE AND CONTROLLED DISPERSION OF DRY NANO-PARTICLES ONTO A DRY SUPPORT STRUCTURE | SELECTIVE DISPERSION OF NANO-PARTICLES ON THERMO-CATALYST | App. No. 12/687,795                                                 | Filed: 01/14/2010                                                  | Rinaldi                  | Pending                                       |
| QSINC.033CP1 | METHOD OF MAKING A CATALYTIC MATERIAL BY SELECTIVE AND CONTROLLED DISPERSION OF DRY NANO-PARTICLES ONTO A DRY SUPPORT STRUCTURE | SELECTIVE DISPERSION OF NANO-PARTICLES ON THERMO-CATALYST | App. No. 12/820,937                                                 | Filed: 06/22/2010                                                  | Rinaldi                  | Pending                                       |
| QSINC.033VPC | METHOD OF MAKING A CATALYTIC MATERIAL BY SELECTIVE AND CONTROLLED DISPERSION OF DRY NANO-PARTICLES ONTO A DRY SUPPORT STRUCTURE | SELECTIVE DISPERSION OF NANO-PARTICLES ON THERMO-CATALYST | App. No. PCT/US10/021085                                            | Filed: 01/14/2010                                                  | Rinaldi                  | Pending                                       |
| QSINC.035A   | LITHIUM NANOPARTICLE COMPOSITIONS FOR USE IN ELECTROCHEMICAL APPLICATIONS                                                       | LITHIUM ALLOY NANOPARTICLES                               | App. No. 12/338997<br>No. 2010-0156353 A1                           | Filed: 12/18/2008                                                  | Iyer, Carpenter, McGrath | Pending, office action expected 12/2010       |
| QSINC.035VPC | LITHIUM NANOPARTICLE COMPOSITIONS FOR USE IN ELECTROCHEMICAL APPLICATIONS                                                       | LITHIUM ALLOY NANOPARTICLES                               | App. No. PCT/US09/68592                                             | Filed: 12/17/2009                                                  | Iyer, Carpenter, McGrath | Pending                                       |
| QSINC.036A   | A METAL HYDRIDE FUEL CELL CARTRIDGE AND ELECTROLYZER ELECTRODE                                                                  | UNIFIED FUEL CELL ELECTROLYZER                            | App. No. 12/624,864                                                 | Filed: 11/24/2009                                                  | Iyer, Canuso             | Pending, allowed claims                       |
| QSINC.037A   | FUEL CELL WITH LOW CATHODIC POLARIZATION AND HIGH POWER DENSITY                                                                 | FUEL CELL                                                 | App. No. 09/961,116<br>Publ. No. 02-0037446<br>Patent No. 6,824,914 | Filed: 08/20/2002<br>Published: 03/28/2002<br>Patented: 11/30/2004 | Iyer                     | Issued                                        |
| QSINC.038A   | AMINE-BASED FUEL CELL/BATTERY WITH HIGH SPECIFIC ENERGY DENSITY                                                                 | FUEL CELL                                                 | App. No. 10/224,669<br>Publ. No. 03-0059655<br>Patent No. 6,824,914 | Filed: 11/24/2009                                                  | Iyer                     | Issued                                        |



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| TRADEMARK | QSI-NANO                                          | App. No. 78/476053<br>Reg. No. 3160151 | Filed: 8/30/2004<br>10/17/2006 | Registered:         | Registered |
| TRADEMARK | QUANTUMSPHERE                                     | App. No. 78/476063<br>Reg. No. 3072883 | Filed: 8/30/2004<br>3/28/2006  | Registered:         | Registered |
| TRADEMARK | QUANTUMSPHERE<br>(stylized and/or with<br>design) | App. No. 78/476060<br>Reg. No. 3072882 | Filed: 8/30/2004               | Registered: 3/28/06 | Registered |