

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT4412433

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
NANOCOMP TECHNOLOGIES, INC.	05/12/2017

RECEIVING PARTY DATA

Name:	PIVOTAL CAPITAL FUND, LP
Street Address:	2882 SAND HILL ROAD, SUITE 100
City:	MENLO PARK
State/Country:	CALIFORNIA
Postal Code:	94025

PROPERTY NUMBERS Total: 35

Property Type	Number
Patent Number:	7611579
Patent Number:	7898079
Patent Number:	7714798
Patent Number:	7993620
Patent Number:	8999285
Patent Number:	8057777
Patent Number:	9061913
Patent Number:	8246886
Patent Number:	9236669
Patent Number:	8847074
Patent Number:	9396829
Patent Number:	9198232
Patent Number:	8354593
Patent Number:	8722171
Application Number:	14633765
Application Number:	15071726
Application Number:	12038408
Application Number:	13546285
Application Number:	14955575
Application Number:	14230527

PATENT

Property Type	Number
Application Number:	13859607
Application Number:	14244177
Application Number:	14952427
Application Number:	15014579
Application Number:	15299763
Application Number:	62400213
Application Number:	15401507
Application Number:	15440213
Application Number:	15351912
PCT Number:	US2014032827
PCT Number:	US2015062740
PCT Number:	US2016016362
PCT Number:	US2016058190
PCT Number:	US2017012722
PCT Number:	US2017019039

CORRESPONDENCE DATA

Fax Number: (858)638-5130

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 858-677-1400

Email: susan.reynholds@dlapiper.com

Correspondent Name: DLA PIPER LLP (US)

Address Line 1: 4365 EXECUTIVE DRIVE, SUITE 1100

Address Line 4: SAN DIEGO, CALIFORNIA 92121

NAME OF SUBMITTER:	MATT SCHWARTZ
SIGNATURE:	/s/ Matt Schwartz
DATE SIGNED:	05/12/2017

Total Attachments: 19

source=IPSA#page1.tif
source=IPSA#page2.tif
source=IPSA#page3.tif
source=IPSA#page4.tif
source=IPSA#page5.tif
source=IPSA#page6.tif
source=IPSA#page7.tif
source=IPSA#page8.tif
source=IPSA#page9.tif
source=IPSA#page10.tif
source=IPSA#page11.tif
source=IPSA#page12.tif

source=IPSA#page13.tif
source=IPSA#page14.tif
source=IPSA#page15.tif
source=IPSA#page16.tif
source=IPSA#page17.tif
source=IPSA#page18.tif
source=IPSA#page19.tif

INTELLECTUAL PROPERTY SECURITY AGREEMENT

This INTELLECTUAL PROPERTY SECURITY AGREEMENT (this “**Agreement**”), dated as of May 12, 2017, is entered into by and between **NANOCOMP TECHNOLOGIES, INC.**, a Delaware corporation (the “**Grantor**”), and **PIVOTAL CAPITAL FUND, LP**, a Delaware limited partnership (the “**Lender**”).

RECITALS

A. Pursuant to the Loan and Security Agreement, dated as of May 12, 2017, by and between the Grantor and the Lender (as amended, modified, supplemented or restated and in effect from time to time, the “**Loan Agreement**”), the Lender has agreed to make loans to the Grantor (collectively, the “**Loans**”).

B. In order to induce the Lender to enter into the Loan Agreement and other Loan Documents and to make Loans and other Credit Extensions to the Grantor upon the terms and subject to the conditions contained in the Loan Agreement, the Grantor has agreed, upon the terms contained in the Loan Agreement, to grant to the Lender continuing security interests in and Liens upon all Intellectual Property Collateral (as hereinafter defined) of the Grantor in order to secure all of the Obligations (as defined below).

C. The Grantor has granted to the Lender continuing security interests in and Liens upon all of the Intellectual Property Collateral of the Grantor pursuant to and upon the terms and conditions contained in the Loan Agreement.

D. Upon the terms contained in the Loan Agreement, the Grantor has agreed to execute and deliver to the Lender this Agreement, which is supplemental to the Loan Agreement and the other Loan Documents.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants contained herein and the other Loan Documents, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Grantor hereby absolutely, unconditionally and irrevocably agrees with the Lender as follows:

1. Definitions. All capitalized terms used but not otherwise defined herein shall have the meanings given to them in the Loan Agreement and the following terms shall have (unless otherwise provided elsewhere in this Agreement) the following respective meanings (such meanings being equally applicable to both the singular and plural forms of the terms defined):

(a) “**Intellectual Property Collateral**” means all of the rights, title and interests of the Grantor in, to and under all of the following, whether presently existing or at any time or from time to time hereafter created, arising or acquired:

(i) all Trademarks, including, without limitation, all of those referred to in Schedule I hereto;

(ii) all Patents, including, without limitation, all of those referred to in Schedule II hereto;

(iii) all Copyrights, including, without limitation, all of those referred to in Schedule III hereto;

(iv) all trade secrets and trade secret rights, including, without limitation, any rights to unpatented inventions, know-how, and operating manuals;

(v) all source code;

- (vi) all design rights;
- (vii) all licenses and license rights with respect to any or all of the foregoing;
- (viii) all goodwill of the businesses of the Grantor connected with the use of, or otherwise symbolized by, any or all of the foregoing; and
- (ix) all income, products and proceeds of each of the foregoing, including, without limitation, all royalties and all claims by the Grantor against third parties for past, present or future (A) infringement, misappropriation, breach or dilution of any Copyright, Patent or Trademark, and (B) injury to any goodwill associated with any Copyright, Patent or Trademark, with the right, but not the obligation to sue for and collect, or otherwise recover damages.

Notwithstanding the foregoing, the term "Intellectual Property Collateral" shall not include any "intent-to-use" trademark at any 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" trademark would render invalid Grantor's rights to such trademark under applicable law.

- (b) **"Loan Agreement"** have the meanings given to such terms in the Recitals above.

All other terms contained in this Agreement shall, unless the context shall indicate otherwise, have the meanings provided for by the Code to the extent that such other terms are used or defined therein and are not otherwise defined in the Loan Agreement. References to the Loan Agreement include any amendment, modification, supplement, restatement, replacement or refinancing (in whole or in part) thereof, whether by way of increase or reduction to any of the commitments or the principal amount of any of the Credit Extensions, addition or elimination of any credit facilities thereunder, extension of any term, addition or deletion of any party thereto, or otherwise.

2. **Grant of Security Interests.** To secure the prompt and complete payment and performance of all and each of the Obligations, as and when the same shall become due and payable, whether at stated maturity, by required prepayment, declaration, acceleration, demand or otherwise (including the payment of amounts that would become due and payable but for the operation of the automatic stay under the Bankruptcy Code), the Grantor hereby grants to the Lender a continuing security interest in and Lien upon all of the rights, title and interests of the Grantor to, in and under the Intellectual Property Collateral. The Grantor authorizes and requests that the Register of Copyrights, the Commissioner of Patents and Trademarks and any other applicable government officer record this Agreement.

3. **Right to Sue.** From and after an Event of Default, subject to the terms of the Loan Agreement, Lender shall have the right, but shall in no way be obligated, to bring suit in its own name or on behalf of Grantor, to enforce Grantor's rights in the Intellectual Property Collateral. If Lender commences any such suit, Grantor shall, at the request of Lender, do all lawful acts and execute and deliver all proper documents or information that may be necessary or desirable to aid and support Lender in such enforcement. Grantor shall promptly, upon demand, reimburse and indemnify Lender for all of Lender's costs and expenses, including reasonable attorney's fees, related to Lender's exercise of the above mentioned rights.

4. **Representations and Warranties.** The Grantor represents and warrants to the Lender that the Grantor does not have any ownership interest in, or title to, any registered Trademark, registered Patent or registered Copyright or any applications therefor, **except** as set forth in Schedule I, Schedule II and Schedule III hereto. This Agreement is effective to create valid and continuing security interests in and Liens upon, and, upon the recording hereof with the United States Patent and Trademark Office and the United States Copyright Office, and the filing of appropriate financing statements, perfected Liens in favor of the Lender on, the Grantor's Intellectual Property Collateral, to the extent such perfection can be achieved by making such filings; and such perfected security interests and Liens shall be enforceable as such as against any and all creditors of or purchasers from the Grantor.

5. Loan Agreement. The security interests and Liens granted by the Grantor to the Lender pursuant to this Agreement are granted in conjunction with the security interests and Liens granted by the Grantor to the Lender pursuant to the Loan Agreement and the other Loan Documents. The Grantor and the Lender expressly agree that each of the security interests and Liens granted under this Agreement and the Loan Agreement in the Intellectual Property Collateral are intended to be treated as a single security interest for purposes of Division 9 of the Code and other applicable law. The exercise by the Lender of any rights or remedies with respect to any of the Intellectual Property Collateral shall be deemed to be an exercise of such rights or remedies in connection with both this Agreement and also the Loan Agreement. In the event of any inconsistency between the terms and conditions of this Agreement and the Loan Agreement, then the terms and conditions of the Loan Agreement shall prevail.

6. Reinstatement. This Agreement shall remain in full force and effect and continue to be effective in the event that any petition shall be filed by or against the Grantor for liquidation or reorganization, should the Grantor become insolvent or make an assignment for the benefit of any creditor or creditors or should a receiver or trustee be appointed for all or any significant part of the Grantor's assets, and shall continue to be effective or be reinstated, as the case may be, if at any time payment and performance of the Obligations, or any part thereof, is, pursuant to applicable law, rescinded or reduced in amount, or must otherwise be restored or returned, whether as a "voidable preference," "fraudulent conveyance," or otherwise, all as though such payment or performance had not been made. In the event that any payment, or any part thereof, is rescinded, reduced, restored or returned, the Obligations shall be reinstated and shall be deemed reduced only by such amount paid in cash and not so rescinded, reduced, restored or returned.

7. Notices. Except as otherwise provided herein, whenever it is provided herein that any notice, demand, request, consent, approval, declaration or other communication shall or may be given to or served upon any of the parties hereto by any other party hereto, or whenever any of the parties hereto desires to give and serve upon any other party hereto any communication with respect to this Agreement, each such notice, demand, request, consent, approval, declaration or other communication shall be in writing and shall be given in the manner, and deemed received, as provided for in the notice provisions of the Loan Agreement.

8. Choice Of Law And Venue; Jury Trial Waiver. THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF CALIFORNIA WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW. EACH OF THE GRANTOR AND THE LENDER HEREBY SUBMITS TO THE EXCLUSIVE JURISDICTION OF THE STATE AND FEDERAL COURTS LOCATED IN THE COUNTY OF SANTA CLARA, STATE OF CALIFORNIA; PROVIDED, HOWEVER, THAT NOTHING IN THIS AGREEMENT SHALL BE DEEMED TO OPERATE TO PRECLUDE LENDER FROM BRINGING SUIT OR TAKING OTHER LEGAL ACTION IN ANY OTHER JURISDICTION TO REALIZE ON THE COLLATERAL OR ANY OTHER SECURITY FOR THE OBLIGATIONS, OR TO ENFORCE A JUDGMENT OR OTHER COURT ORDER IN FAVOR OF LENDER. EACH OF THE PARTIES HERETO HEREBY AGREES TO BE BOUND BY THE REFERENCE PROVISION SET FORTH IN SECTION 11 OF THE LOAN AGREEMENT, WHICH REFERENCE PROVISION IS HEREBY INCORPORATED HEREIN WITH THE SAME FULL FORCE AND EFFECT AS IF SET FORTH HEREIN IN FULL.

EACH OF LENDER AND GRANTOR ACKNOWLEDGE THAT THE RIGHT TO TRIAL BY JURY IS A CONSTITUTIONAL ONE, BUT THAT IT MAY BE WAIVED UNDER CERTAIN CIRCUMSTANCES. TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, GRANTOR AND LENDER EACH WAIVE THEIR RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION ARISING OUT OF OR BASED UPON THIS AGREEMENT, THE LOAN DOCUMENTS OR ANY CONTEMPLATED TRANSACTION, INCLUDING CONTRACT, TORT, BREACH OF DUTY AND ALL OTHER CLAIMS. THIS WAIVER IS A MATERIAL INDUCEMENT FOR BOTH PARTIES TO ENTER INTO THIS AGREEMENT. EACH PARTY HAS REVIEWED THIS WAIVER WITH ITS COUNSEL.

9. Delivery by Facsimile, etc. This Agreement may be executed in one or more counterparts, each of which, when executed and delivered, shall be deemed an original, and all of which, when taken together, shall constitute but one and the same Agreement. Delivery of the signature pages to this Agreement by facsimile or by electronic mail in portable document format (.pdf) shall be as effective as delivery of manually executed counterparts of this Agreement. Any party delivering an executed counterpart of this Agreement by facsimile also

shall deliver a manually executed counterpart of this Agreement, but the failure to deliver such manually executed counterpart shall not affect the validity, enforceability, or binding effect hereof.

[Remainder of Page Left Blank]

IN WITNESS WHEREOF, the Grantor and the Lender have caused this Agreement to be executed and delivered by its duly authorized officer or other representative as of the date first set forth above.

The Grantor:

NANOCOMP TECHNOLOGIES, INC.

By: 

Name: Paul D. Hallee

Title: Chief Financial Officer

Address for notices:

57 Daniel Webster Highway

Merrimack, NH 03054


Fax: 603-689-2703

IN WITNESS WHEREOF, the Grantor and the Lender have caused this Agreement to be executed and delivered by its duly authorized officer or other representative as of the date first set forth above.

The Lender:

PIVOTAL CAPITAL FUND, LP

By: PIVOTAL GP PARTNERS, LLC
Its: General Partner

By: 
Name: Thomas E. Niehaus
Title: Manager

Address for notices:

2882 Sand Hill Road, Suite 100
Menlo Park, CA 94025

[Signature Page to Intellectual Property Security Agreement]

PATENT
REEL: 042364 FRAME: 0287

SCHEDULE I

TRADEMARKS AND TRADEMARK APPLICATIONS

Trademarks and Service Marks and Applications Therefor

<u>Description</u>	<u>Serial/Registration No.</u>	<u>File Date</u>
MIRALON™	86247965	4/10/14
Bexite™	86247967 (ABANDONED)	4/10/14

Trade Names

None

SCHEDULE II
PATENTS AND PATENTS APPLICATIONS

See attached

Docket Number	Country	Title	Serial #/ Filing Date	Publication #/ Pub Date	Status	Comments
083608-010102/EP	Europe	SYSTEMS AND METHODS FOR SYNTHESIS OF EXTENDED LENGTH NANOSTRUCTURES	05761083.4 1/14/2005	1709213 10/11/2006	PENDING Published	Response to Examination Report due 8/7/17
083608-010609/EP/DIV	Europe	NANOSTRUCTURED ANTENNAS AND METHODS OF MANUFACTURING SAME	13160060.3 12/20/2013	2607518 06/26/2013	PENDING Published	Rule 71(3) EPC Comm. - Intention to Grant deadline 5/10/17
083608-011012/EP/DIV2	Europe	APPARATUS AND METHOD FOR FORMATION AND COLLECTION OF NANOFIBROUS NON-WOVEN SHEET	14193087.5 11/13/2014	2860153 04/15/2015	PENDING Published	
083608-011013/DIV2	United States of America	SYSTEMS AND METHODS FOR FORMATION AND HARVESTING OF NANOFIBROUS MATERIALS	14633,765 2/27/2015	2015-0176163-A1 6/25/2015	PENDING Published	Restriction Requirement due 6/10/17, ext 10/10/17
083608-011015/CON	United States of America	SYSTEMS AND METHODS FOR FORMATION AND HARVESTING OF NANOFIBROUS MATERIALS	15071,726 3/16/16	2016-0250823-A1 9/1/2016	PENDING Published	
083608-011301/US	United States of America	MATERIALS FOR THERMAL PROTECTION AND METHODS OF MANUFACTURING SAME	12038,408 2/27/2008	2009-0047513-A1 02/19/2009	PENDING Published	Final OA due 5/8/17, ext 8/8/17
083608-011307/EP/DIV	Europe	MATERIALS FOR THERMAL PROTECTION AND METHODS OF MANUFACTURING SAME	15178317.2 7/24/15	2962986 1/6/2016	Allowed	National Validation deadline 7/5/17
083608-011705/EP	Europe	CHEMICALLY-ASSISTED ALIGNMENT OF NANOTUBES WITHIN EXTENSIBLE STRUCTURES	08828283.5 7/9/2008	2173655 4/14/2010	PENDING Published	
083608-011707/DIV	United States of America	CHEMICALLY-ASSISTED ALIGNMENT OF NANOTUBES WITHIN EXTENSIBLE STRUCTURES	13546,285 7/11/2012	2012-0276799 11/1/2012	PENDING Published	Final OA due 7/7/17, ext 10/7/17

083608-011809/DIV	United States of America	ELECTRICALLY AND THERMALLY NON-METALLIC CONDUCTIVE NANOSTRUCTURE-BASED ADAPTERS	14/955,575 12/1/15	2016-0086695-A1 3/24/2016	PENDING Published	
083608-012105/EP	Europe	CARBON NANOTUBE-BASED COAXIAL ELECTRICAL CABLES AND WIRING HARNESS	09743708.1 5/7/2009	2279512 02/02/11	PENDING Published	
083608-012318/JP/DIV	Japan	NANOSTRUCTURE COMPOSITE SHEETS AND METHODS OF USE	2015-100293 5/15/2015	2015-187077 10/29/2015	PENDING	OA due due 5/10/17
083609-012319/JP/DIV2	Japan	NANOSTRUCTURE COMPOSITE SHEETS AND METHODS OF USE	2015-214158 10/30/2015	2016-074594 5/12/2016	PENDING	
083608-012406/EP	Europe	NANOSTRUCTURE-BASED HEATING DEVICES AND METHODS OF USE	09743711.5 5/7/2009	2279522 02/02/2011	Allowed	Per 4/25/17 - Validated in France, Germany, Italy, Netherlands and UK
083608-012705/EP	Europe	HYBRID CONDUCTORS AND METHOD OF MAKING SAME	10797843.9 7/8/2010	2451635 05/16/2012	PENDING Published	Response to Search Report due 6/2/17
083608-013003/EP	Europe	CARBON NANOTUBE BASED SUPER INSULATOR	12732279.0 1/4/2012	2661369 11/13/2013	PENDING Published	
083608-013005/US	United States of America	CARBON NANOTUBE BASED SUPER INSULATOR	14/230,527 3/31/2014		PENDING	
083608-013201/US	United States of America	NANOTUBE MATERIAL HAVING CONDUCTIVE DEPOSITS TO INCREASE CONDUCTIVITY	13/859,607 4/9/2013	US-2013-0264116-A1 10/10/2013	PENDING Published	Non-Final OA due 4/10/17, ext 7/10/17
083608-013207/EP	Europe	NANOTUBE MATERIAL HAVING CONDUCTIVE DEPOSITS TO INCREASE CONDUCTIVITY	13774950.3 4/9/2013	2837005 2/18/2015	PENDING National Phase	
083608-013208/JP	Japan	NANOTUBE MATERIAL HAVING CONDUCTIVE DEPOSITS TO INCREASE CONDUCTIVITY	2015-505858 4/9/2013		PENDING National Phase	OA due due 6/29/17
083608-013401/US	United States of America	EXFOLIATING-DISPERSING AGENTS FOR NANOTUBES, BUNDLE AND FIBERS	14/244,177 4/3/2014	US-2014-0366773-A1 12/18/2014	PENDING Published	Non-Final OA due 5/17/17, ext 8/1/17
083608-013402/PCT	PCT	EXFOLIATING-DISPERSING AGENTS FOR NANOTUBES, BUNDLE AND FIBERS	PCT/US14/032827 4/3/2014	WO 2014/204561 12/24/2014	PENDING Published	

083608-013403/EP	Europe	EXFOLIATING-DISPERSING AGENTS FOR NANOTUBES, BUNDLE AND FIBERS	14812969.5 4/3/2014	EP3010853 4/27/16	PENDING Published	Response to Search Report due 7/19/17
083608-013404/JP	Japan	EXFOLIATING-DISPERSING AGENTS FOR NANOTUBES, BUNDLE AND FIBERS	2016-521402 4/3/2014	2016-524586 8/18/2016	PENDING Published	
083608-013901/US	United States of America	HIERARCHICALLY STRUCTURED CARBON NANOTUBE MATERIALS AND METHODS FOR PRODUCTION THEREOF	14/952.427 11/25/2014	2016-0145784-A1 5/26/2016	PENDING Published	
083608-013902/PCT	United States of America	HIERARCHICALLY STRUCTURED CARBON NANOTUBE MATERIALS AND METHODS FOR PRODUCTION THEREOF	PCT/US15/062740 11/25/2014	WO 2016-086166 6/2/2016	PENDING Published	30M National Phase deadline 5/26/2017 Instructed to nationalize in EP and JP on 3/15
083608-014101/US	United States of America	CARBON NANOTUBE STRUCTURES AND METHODS FOR PRODUCTION THEREOF	15/014.579 2/3/16	2016-0222536-A1 8/4/2016	PENDING Published	
083608-014102/PCT	United States of America	CARBON NANOTUBE STRUCTURES AND METHODS FOR PRODUCTION THEREOF	PCT/US16/016362 2/3/16	WO 2016-126818 8/11/2016	PENDING Published	30M National Phase deadline 8/3/17
083608-014201/US	United States of America	Directed Infrared Radiator Article	15/299.763 10/21/16		PENDING	
083608-014202/PCT	United States of America	Directed Infrared Radiator Article	PCT/US16/058190 10/21/16		PENDING	30M National Phase deadline 4/23/18
083608-014203/PRO	United States of America	Bolt Rope Construction for Directed Infrared Radiator	62/400.213 9/27/2016		PENDING	Domestic/Foreign Filing Deadline 9/27/2017
083608-014300/PRO	United States of America	Intumescant Nanostructured Materials and Methods of Manufacturing Same	15/401.507 1/9/2017		PENDING	Domestic/Foreign Filing Deadline 1/9/2018
083608-014301/PCT	United States of America	Intumescant Nanostructured Materials and Methods of Manufacturing Same	PCT/US17/12722 1/9/2017		PENDING	Response to pay add'l fees due 4/29/17 Domestic/Foreign Filing Deadline 1/9/2018

083608-013403/EP	Europe	EXFOLIATING-DISPERSING AGENTS FOR NANOTUBES, BUNDLE AND FIBERS	14812969.5 4/3/2014	EP3010853 4/27/16	PENDING Published	Response to Search Report due 7/19/17
083608-013404/JP	Japan	EXFOLIATING-DISPERSING AGENTS FOR NANOTUBES, BUNDLE AND FIBERS	2016-521402 4/3/2014	2016-524586 8/18/2016	PENDING Published	
083608-013901/US	United States of America	HIERARCHICALLY STRUCTURED CARBON NANOTUBE MATERIALS AND METHODS FOR PRODUCTION THEREOF	14/952.427 11/25/2014	2016-0145784-A1 5/26/2016	PENDING Published	
083608-013902/PCT	United States of America	HIERARCHICALLY STRUCTURED CARBON NANOTUBE MATERIALS AND METHODS FOR PRODUCTION THEREOF	PCT/US15/062740 11/25/2014	WO 2016-086166 6/2/2016	PENDING Published	30M National Phase deadline 5/26/2017 Instructed to nationalize in EP and JP on 3/15
083608-014101/US	United States of America	CARBON NANOTUBE STRUCTURES AND METHODS FOR PRODUCTION THEREOF	15/014.579 2/3/16	2016-0222536-A1 8/4/2016	PENDING Published	
083608-014102/PCT	United States of America	CARBON NANOTUBE STRUCTURES AND METHODS FOR PRODUCTION THEREOF	PCT/US16/016362 2/3/16	WO 2016-126818 8/11/2016	PENDING Published	30M National Phase deadline 8/3/17
083608-014201/US	United States of America	Directed Infrared Radiator Article	15/299.763 10/21/16		PENDING	
083608-014202/PCT	United States of America	Directed Infrared Radiator Article	PCT/US16/058190 10/21/16		PENDING	30M National Phase deadline 4/23/18
083608-014203/PRO	United States of America	Bolt Rope Construction for Directed Infrared Radiator	62/400.213 9/27/2016		PENDING	Domestic/Foreign Filing Deadline 9/27/2017
083608-014300/PRO	United States of America	Intumescent Nanostructured Materials and Methods of Manufacturing Same	15/401.507 1/9/2017		PENDING	Domestic/Foreign Filing Deadline 1/9/2018
083608-014301/PCT	United States of America	Intumescent Nanostructured Materials and Methods of Manufacturing Same	PCT/US17/12722 1/9/2017		PENDING	Response to pay add'l fees due 4/29/17 Domestic/Foreign Filing Deadline 1/9/2018

Bucket Number	Country	Title	Serial #/ Filing Date	Patent #/ Grant Date	Status	Comments
083608-010101/AU	Australia	SYSTEMS AND METHODS FOR SYNTHESIS OF EXTENDED LENGTH NANOSTRUCTURES	2005230961 1/14/2005	2005230961 02/24/2011	ISSUED	
083608-010110/US	United States of America	SYSTEMS AND METHODS FOR SYNTHESIS OF EXTENDED LENGTH NANOSTRUCTURES	11/035,471 1/14/2005	7,611,579 11/3/2009	ISSUED	
083608-010305/JP	Japan	CARBON COMPOSITES MATERIALS AND METHODS OF MANUFACTURING SAME	2008-510112 5/2/2006	5,349,042 8/30/2013	ISSUED	
083608-010402/US	United States of America	SYSTEMS AND METHODS FOR THERMAL MANAGEMENT OF ELECTRONIC COMPONENTS	11/413,512 4/28/2006	7,898,079 03/01/2011	ISSUED	
083608-010404/AU	Australia	SYSTEMS AND METHODS FOR THERMAL MANAGEMENT OF ELECTRONIC COMPONENTS	2006249601 4/28/2006	2006249601 11/24/2011	ISSUED	
083608-010405/CA	Canada	SYSTEMS AND METHODS FOR HEAT TRANSFER	2,609,712 4/28/2006	2,609,712 4/7/2015	ISSUED	
083608-010407/JP	Japan	SYSTEMS AND METHODS FOR THERMAL MANAGEMENT OF ELECTRONIC COMPONENTS	2008-513499 4/28/2006	4972640 4/13/2012	ISSUED	
083608-010602/US	United States of America	NANOSTRUCTURED ANTENNAS AND METHODS OF MANUFACTURING SAME	11/592,894 11/3/2006	7,714,798 5/11/2010	ISSUED	
083608-010604/AU	Australia	NANOSTRUCTURED ANTENNAS AND METHODS OF MANUFACTURING SAME	2006350110 11/3/2006	2006350110 6/16/2011	ISSUED	

083608-010605/CA	Canada	NANOSTRUCTURED ANTENNAS AND METHODS OF MANUFACTURING SAME	2627977 11/3/2006	2627977 8/12/2014	ISSUED	
083608-010606/EP	Europe	NANOSTRUCTURED ANTENNAS AND METHODS OF MANUFACTURING SAME	6851749.9 11/3/2006	1,966,851 03/20/2013	ISSUED	Validated in Switzerland, Germany, France, United Kingdom, Italy, Netherlands and Japan
083608-010607/JP	Japan	NANOSTRUCTURED ANTENNAS AND METHODS OF MANUFACTURING SAME	2008-540155 11/3/2006	5072854 8/31/2012	ISSUED	
083608-011000/US	United States of America	SYSTEMS AND METHODS FOR FORMATION AND HARVESTING OF NANOFIBROUS MATERIALS	11/488,387 7/17/2006	7,993,620 8/9/2011	ISSUED	
083608-011003/AU	Australia	SYSTEMS AND METHODS FOR FORMATION AND HARVESTING OF NANOFIBROUS MATERIALS	2006345024 7/17/2006	2006345024 7/19/2012	ISSUED	
083608-011004/CA	Canada	SYSTEMS AND METHODS FOR FORMATION AND HARVESTING OF NANOFIBROUS MATERIALS	2616151 7/17/2006	2,616,151 11/3/2015	ISSUED	
083608-011005/EP/D IV	Europe	APPARATUS AND METHOD FOR FORMATION AND COLLECTION OF NANOFIBROUS NO- WOVN SHEET	11168621.8 7/17/2006	2,365,117 12/31/2014	ISSUED	Validated in Belgium, Switzerland, Germany, France, United Kingdom, Netherlands
083608-011006/JP	Japan	SYSTEMS AND METHODS FOR FORMATION AND HARVESTING OF NANOFIBROUS MATERIALS	2008-535518 7/17/2006	4864093 10/11/2011	ISSUED	
083608-011008/DIV	United States of America	SYSTEMS AND METHODS FOR FORMATION AND HARVESTING OF NANOFIBROUS MATERIALS	13/191,109 7/26/2011	8,999,285 04/17/2015	ISSUED	Reissue Due 4/7/17
083608-011009/AU/D IV	Australia	SYSTEMS AND METHODS FOR FORMATION AND HARVESTING OF NANOFIBROUS MATERIALS	2012201641 7/17/2006	2012201641 08/16/2012	ISSUED	

083608-011010/AU/D IV2	Australia	SYSTEMS AND METHODS FOR FORMATION AND HARVESTING OF NANOFIBROUS MATERIALS	2012205268 7/20/2012	2012205268 7/24/2014	ISSUED	
083608-011303/AU	Australia	MATERIALS FOR THERMAL PROTECTION AND METHODS OF MANUFACTURING SAME	2008219693 2/27/2008	2008219693 7/26/2012	ISSUED	
083608-011305/EP	Europe	MATERIALS FOR THERMAL PROTECTION AND METHODS OF MANUFACTURING SAME	08726128.5 2/27/2008	EP2125359 7/27/2016	ISSUED	Renewal due 7/27/17
083608-011306/JP	Japan	MATERIALS FOR THERMAL PROTECTION AND METHODS OF MANUFACTURING SAME	2009-551705 2/27/2008	5595737 9/24/2014	ISSUED	
083608-011501/US	United States of America	SYSTEMS AND METHODS FOR CONTROLLING CHIRALITY OF NANOTUBES	12/180,300 7/25/2008	8,057,777 11/15/2011	ISSUED	
083608-011506/JP	Japan	SYSTEMS AND METHODS FOR CONTROLLING CHIRALITY OF NANOTUBES	2010-518417 7/25/2008	5496887 5/21/2014	ISSUED	
083608-011601/US	United States of America	INJECTOR APPARATUS AND METHODS FOR PRODUCTION OF NANOSTRUCTURES	12/140,263 6/16/2008	9,061,913 6/23/2015	ISSUED	Reissue Due 6/23/17
083608-011701/US	United States of America	CHEMICALLY-ASSISTED ALIGNMENT FOR NANOTUBES WITHIN EXTENSIBLE STRUCTURES	12/170,092 7/9/2008	8,246,886 8/21/2012	ISSUED	
083608-011802/US	United States of America	ELECTRICALLY AND THERMALLY NON-METALLIC CONDUCTIVE NANOSTRUCTURE-BASED ADAPTERS	12/187,278 8/6/2008	9,236,669 12/22/2015	ISSUED	Reissue fee due 1/12/18

083608-012101/US	United States of America	CARBON NANOTUBE-BASED COAXIAL ELECTRICAL CABLES AND WIRING HARNESS	12/437,537 5/7/2009	8,847,074 09/30/2014	ISSUED	
083608-012106/JP	Japan	CARBON NANOTUBE-BASED COAXIAL ELECTRICAL CABLES AND WIRING HARNESS	2011-508687 5/7/2009	5674642 2/25/2015	ISSUED	
083608-012107/CON	United States of America	CARBON NANOTUBE-BASED COAXIAL ELECTRICAL CABLES AND WIRING HARNESS	14/472,850 8/29/2014	9,396,829 7/19/2016	ISSUED	Reissue due 7/19/2018
083608-012306/JP	Japan	NANOSTRUCTURE COMPOSITE SHEETS AND METHODS OF USE	2011-508688 5/7/2009	5,864,253 1/8/2016	ISSUED	
083608-012402/US	United States of America	NANOSTRUCTURE-BASED HEATING DEVICES AND METHODS OF USE	12/437,535 5/7/2009	9,198,232 11/24/2015	ISSUED	Reissue due 11/24/17
083608-012407/JP	Japan	NANOSTRUCTURE-BASED HEATING DEVICES AND METHODS OF USE	2011-508689 5/7/2009	5968621 7/15/2016	ISSUED	
083608-012701/US	United States of America	HYBRID CONDUCTORS AND METHOD OF MAKING SAME	12/580,994 10/16/2009	8,354,593 1/15/2013	ISSUED	Reissue due 7/19/18
083608-012706/JP	Japan	HYBRID CONDUCTORS AND METHOD OF MAKING SAME	2012-519729 7/8/2010	5934643 5/13/2016	ISSUED	
083608-013001/US	United States of America	NANOTUBE BASED SUPER INSULATOR	13/343,366 1/4/2012	8,722,171 5/13/2014	ISSUED	
083608-013004/JP	Japan	CARBON NANOTUBE BASED SUPER INSULATOR	2013-548480 1/4/2012	6014603 9/30/2016	ISSUED	
083608-013106/JP	Japan	SYSTEMS AND METHODS FOR NANOSCOPICALLY ALIGNED CARBON NANOTUBES	2014-523088 7/27/2012	5,980,327 8/5/2015	ISSUED	

NANOCOMP

ISSUED

083608- 012406/EP	Europe	NANOSTRUCTURE-BASED HEATING DEVICES AND METHODS OF USE	09743711.5 5/7/2009		Allowed	Per 4/25/17 - Validated in France, Germany, Italy, Netherlands and UK
----------------------	--------	---	-------------------------------	--	---------	---

PATENT
REEL: 042364 FRAME: 0299

BOS 47579831v8

SCHEDULE III
COPYRIGHTS AND COPYRIGHT APPLICATIONS

None.