

**PATENT ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	SECURITY AGREEMENT

**CONVEYING PARTY DATA**

Name	Execution Date
NanoMas Technologies, Inc.	05/17/2011

**RECEIVING PARTY DATA**

<b>Name:</b>	BASF Venture Capital GmbH
<b>Street Address:</b>	BVC--Building Z025
<b>City:</b>	Ludwigshafen
<b>State/Country:</b>	GERMANY
<b>Postal Code:</b>	67063

<b>Name:</b>	Earthrise Capital Fund, L.P.
<b>Street Address:</b>	11 Penn Plaza, 5th Floor
<b>City:</b>	New York
<b>State/Country:</b>	NEW YORK
<b>Postal Code:</b>	10001

<b>Name:</b>	Nano Materials Investors, LLC
<b>Street Address:</b>	450 Plaza Drive
<b>City:</b>	Vestal
<b>State/Country:</b>	NEW YORK
<b>Postal Code:</b>	13850

**PROPERTY NUMBERS Total: 11**

Property Type	Number
Application Number:	60791325
Patent Number:	7850933
PCT Number:	US0709013
Application Number:	60980146
Application Number:	60978655

**OP \$440.00 60791325**

Application Number:	12247998
PCT Number:	US0879249
Application Number:	61061076
Application Number:	12483190
PCT Number:	US0947120
Application Number:	61362588

**CORRESPONDENCE DATA**

Fax Number: (585)258-2821  
*Correspondence will be sent via US Mail when the fax attempt is unsuccessful.*  
Phone: (585) 258-2818  
Email: lormaechea@underbergkessler.com  
Correspondent Name: Luis E. Ormaechea  
Address Line 1: 300 Bausch & Lomb Place  
Address Line 4: Rochester, NEW YORK 14604

NAME OF SUBMITTER:	Luis E. Ormaechea, #66,025
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**Total Attachments: 14**  
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## GENERAL SECURITY AGREEMENT

Dated: May \_\_\_\_, 2011

**Debtor:** NanoMas Technologies, Inc., a Delaware corporation with an address at 1093 Clark Street, Endicott, New York 13760 ("Debtor")

**Creditors:** Each of the creditors listed on Schedule A hereto and each of the other creditors who have executed a joinder agreement in the form of Exhibit A hereto (each a "Creditor" and together, the "Creditors").

In consideration of the investment by the Creditors in the issue of 15% Secured Convertible Debentures of the Debtor (the "Debentures"), which issue is in the aggregate principal amount of up to One Hundred Fifty Thousand Dollars (\$150,000), Debtor hereby agrees as follows:

1. **Grant of Security Interest.** Debtor hereby pledges and grants to Creditors a first priority security interest in the Collateral as more fully described in Section 2 of this Agreement to secure payment of the Obligations as more fully described in Section 3 of this Agreement. This grant of a security interest is intended as continuing and collateral security for all Obligations of Debtor to Creditors whether now existing or hereafter or arising.

2. **Collateral.** The Collateral shall consist of all now owned or existing or hereafter acquired or arising property of Debtor as described below (collectively, the "Collateral")

All accounts, equipment (including machinery, furniture, and vehicles), fixtures, investment property, letter-of-credit rights, inventory, general intangibles (including payment intangibles, trademarks, service marks, trade names, patents, patent applications, copyrights, licenses and franchises), chattel paper (including electronic chattel paper), documents (including documents of title), money, supporting obligations, instruments (including promissory notes), any commercial tort claims and any other property specified in Schedule B hereto, together with all proceeds of all of the foregoing and all substitutions, additions, replacements and accessions therefor or thereto and the proceeds thereof.

3. **Obligations.** Obligations includes all debts, liabilities and obligations of Debtor to Creditors now existing or hereafter arising under and pursuant to the Debentures.

4. **Definitions.** The following terms shall have the following meanings for purposes of this Agreement:

4.1 **"Agreement"** means this Security Agreement as the same may be amended or supplemented from time to time pursuant to the terms of this Agreement.

4.2 "Financing Statements" means all UCC-1 financing statements and other documents that may be filed or to be filed in any public office to perfect the security interest granted under this Agreement.

4.3 "Person" means any natural person, corporation, limited liability company, trust, joint venture, association, partnership, governmental authority or other entity.

4.4 "UCC" means the Uniform Commercial Code, as in effect in the State of New York, as amended from time to time.

4.5 The words "it" and "its" as used herein shall be deemed to refer both to individuals and to business entities.

## 5. Rank and Perfection of Security Interest.

5.1 Equal Priority. Notwithstanding anything herein or in any other documents or instrument related to the issue of Debentures, the security interests granted hereunder and held by each of the Creditors are of equal priority. This equal priority shall apply irrespective of the time, order or method of attachment or perfection of security interests, the time or order of the filing of financing statements or the giving or failure to give notices. Any recovery in respect of these equal priority security interests shall be shared ratably among the Creditors, pro rata to their respective outstanding Obligations under the Debentures.

5.2 Perfection. Debtor authorizes Creditors to file a Financing Statement describing the Collateral.

5.3 Further Assurances. Debtor will take all action required to, or requested by any Creditor to perfect, continue, evidence, preserve, protect or validate the security interest of Creditors hereunder as a first priority perfected Security Interest in all of the Collateral or to enable Creditors to exercise and enforce its rights hereunder.

5.4 Attorney-in-Fact. Debtor irrevocably appoints each of the Creditors as its lawful attorney-in-fact with respect to Debtor's responsibilities hereunder and the rights of Creditors. The power of attorney given pursuant to the preceding sentence is coupled with an interest in favor of each of the Creditors. Each of the Creditors may, in exercising their rights as attorney-in-fact, file and execute: (a) Financing Statements in Debtor's name and on Debtor's behalf, (b) amendments to Financing Statements, and (c) other writings necessary or convenient to perfect or give notice with respect to Creditors' rights in the Collateral.

6. **Representations, Warranties and Agreements.** Debtor hereby represents, warrants and agrees that:

6.1 Name/Organizational Matters. Debtor's full legal name, organizational structure, state of registration and chief executive office address are stated accurately in this Agreement. Debtor shall not change its legal name, or its organizational structure, without thirty (30) days prior written notice to Creditors.

6.2 Good Standing. Debtor is duly organized, validly existing and in good standing under the laws of the State of Delaware.

6.3 Authority. Debtor has the full power and authority to grant the security interest granted hereunder and to execute, deliver and perform its obligations in accordance with the terms of this Agreement. The execution and delivery of this Agreement will not contravene, or constitute a default under or result in a lien upon any property of Debtor (other than the liens created by this Agreement) pursuant to any applicable law or regulation or any contract, agreement, judgment, order, decree, or other instrument binding upon or affecting Debtor.

6.4 Enforceability. This Agreement constitutes the legal, valid and binding obligation of Debtor, enforceable in accordance with its terms (except as enforceability may be affected by Bankruptcy, insolvency, or other similar laws affecting the enforcement of creditor's rights), and this Agreement grants to Creditors a valid and enforceable lien on the Collateral.

7. **Further Covenants and Agreements of Debtor.** Debtor hereby covenants and agrees as follows:

7.1 Preservation of Collateral. To do all acts that may be necessary to maintain, preserve and protect the Collateral.

7.2 Compliance with Laws/Use of Collateral. Not to use or permit any Collateral to be used unlawfully or in violation of any provision of this Agreement, any other agreement with Creditors, any applicable statute, regulation, or ordinance, or any policy of insurance covering or relating to the Collateral.

7.3 Defense of Litigation. To appear in and defend any action or proceeding that may affect its title to or Creditors' interest in the Collateral and promptly advise Creditors of such action or proceeding.

8. **Events of Default.** The occurrence of any of the following events shall be deemed an Event of Default ("Event of Default"): (a) Debtor defaults in the payment when due of any of the Obligations; (b) Debtor fails to comply with any provision of this Agreement or otherwise defaults in the performance of any of the Obligations, (c) any representation or warranty made by Debtor to Creditors hereunder or otherwise in connection with any Obligations proves to have been incorrect or misleading in any

material respect when made; (d) Debtor or any Guarantor becomes insolvent or unable to meet its debts as they mature, or is generally not paying its debts as they become due, or suspends or ceases its present business, or a custodian of all or substantially all of its property shall have been appointed; (e) a case or proceeding under any federal or state Bankruptcy, insolvency or other law relating to the relief of Debtors, the readjustment, composition or extension of indebtedness or reorganization, is commenced by or against Debtor or any Guarantor; or (f) the Security Interest granted hereunder shall cease to be a first priority perfected Security Interest in all of the Collateral.

**9. Rights and Remedies.** Upon the occurrence of an Event of Default and at any time or from time to time thereafter, each of the Creditors may exercise the rights and remedies described in this Section, and the exercise by any Creditor of any such right or remedy shall be deemed an exercise by all Creditors of such right or remedy.

**9.1 Obligations Immediately Due.** In the case of any Event of Default, other than an Event of Default referred to in clauses (d) or (e) of Section 8, Creditors may declare, by notice to Debtor, any and all of the Obligations immediately due and payable, and in the case of any Event of Default referred to in clauses (d) or (e) of Section 8, all of the Obligations shall automatically be and become due and payable, in either case without any other presentment, demand, protest or notice of any kind.

**9.2 Cumulative Rights and Remedies.** Creditors shall have all rights and remedies of a secured party under the UCC and shall have the right to pursue such remedies separately, successively or simultaneously without notice to Debtor, all of which rights shall be cumulative.

**10. Enforcement Procedures.**

**10.1 No Waiver.** No delay or omission by Creditors to exercise any right or remedy accruing upon any Event of Default shall: (a) impair any right or remedy, (b) waive any default or operate as an acquiescence to the Event of Default, or (c) affect any subsequent default of the same or of a different nature.

**10.2 Notice of Disposition.** Creditors shall give Debtor reasonable notice of the time and place of any public sale or disposition of Collateral or reasonable notice of the time after which any private sale or any other disposition of Collateral is to be made. Such notice shall be deemed reasonable and proper if given at least ten (10) business days before such sale or disposition. Notwithstanding the foregoing, if the Collateral is perishable or threatens to decline speedily in value or is the type customarily sold on a recognized market, the notice requirements of this Section 10.2 shall not apply, and whatever notice (if any) is reasonable, taking into consideration the aforementioned circumstances, shall be deemed reasonable and proper.

**10.3 Condition of the Collateral.** Creditors have no obligation to clean up or otherwise prepare the Collateral for sale.

10.4 No Obligation to Pursue Others. Creditors have no obligation to attempt to satisfy the Obligation by collecting it from any other person liable for it and Creditors may release, modify, or waive any collateral provided by any other person to secure any of the Obligations, all without affecting Creditors' rights against Debtor.

10.5 Warranties. Creditors may sell the Collateral without giving any warranties as to the Collateral. Creditors may specifically disclaim any warranties of title or the like. This procedure will not be considered adversely to affect the commercial reasonableness of any sale of the Collateral.

11. **No Waivers of Rights Hereunder; Changes in Writing.** No delay by Creditors in exercising any right hereunder, or under any of the other Obligations, shall operate as a waiver thereof, nor shall any single or partial exercise of any right preclude other or further exercise thereof or the exercise of any other right. No waiver or amendment of any provision of this Agreement or of any of the other Obligations shall be enforceable against Creditors unless such waiver or amendment is in writing, specifically refers to the provision hereof to be amended or waived and is signed by an officer of Creditors. participation.

12. **Continuing Agreement; Termination.** This Agreement shall continue in full force and effect until written notice of termination shall have been received by Creditors at their respective addresses determined in accordance with Section 13, but notwithstanding any such notice, this Agreement shall continue in full force and effect until all Obligations then outstanding (whether absolute or contingent) shall have been paid in full and all rights of Creditors hereunder shall have been satisfied or other arrangements for the securing of such rights satisfactory to Creditors shall have been made.

13. **Notices.** Any notice or request hereunder may be given to Debtor or to Creditors at their respective addresses set forth in this Agreement or at such other address as may hereafter be specified in a notice designated as a notice of change of address under this Section. Any notice or request hereunder may be given by mail or hand delivery, or by telephone or facsimile if subsequently confirmed in writing and delivered by mail or hand delivery.

14. **General Provisions.**

14.1 Successor and Assigns. This Agreement shall be binding upon the heirs, executors, administrators, assigns or successors of the undersigned and shall inure to the benefit of and be enforceable by Creditors, their respective successors, transferees and assigns.

14.2 Severability. Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction, shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining

provisions hereof in that jurisdiction or affecting the validity or enforceability of such provision in any other jurisdiction.

14.3 Headings. The headings used in this Agreement are for convenience only and are not intended to be of substantive effect.

15. **Governing Law.** This Agreement shall be governed by and interpreted and enforced in accordance with the laws of the State of New York excluding its conflict of laws rules.

**SIGNATURE PAGE TO FOLLOW**



IN WITNESS WHEREOF, this General Security Agreement has been executed  
as of the date first above written.

DEBTOR:

NanoMas Technologies, Inc.

By:   
Name: John Hannafin  
Title: President

CREDITORS:

BASF Venture Capital GMBH

By: \_\_\_\_\_  
Dr. Josef R. Wunsch, CTO

By: \_\_\_\_\_  
Dirk Nachtigal, CFO

Earthrise Capital Fund, L.P.  
By: Earthrise Capital Partners LLC

By: \_\_\_\_\_  
Ann Partlow, Managing Member

Nano Materials Investors, LLC

By: \_\_\_\_\_  
Lawrence J. Schorr, Managing Member

IN WITNESS WHEREOF, this General Security Agreement has been executed  
as of the date first above written.

DEBTOR:

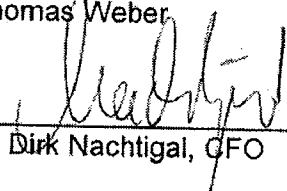
NanoMas Technologies, Inc.

By: \_\_\_\_\_  
Name: John Hannafin  
Title: President

CREDITORS:

BASF Venture Capital GMBH

By: ppa.   
Dr. Thomas Weber

By:   
Dirk Nachtigal, CFO

Earthrise Capital Fund, L.P.  
By: Earthrise Capital Partners LLC

By: \_\_\_\_\_  
Ann Partlow, Managing Member

Nano Materials Investors, LLC

By: \_\_\_\_\_  
Lawrence J. Schorr, Managing Member

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By: \_\_\_\_\_  
Name: John Hannafin  
Title: President

CREDITORS:

BASF Venture Capital GMBH

By: \_\_\_\_\_  
Dr. Josef R. Wunsch, CTO

By: \_\_\_\_\_  
Dirk Nachtigal, CFO

Earthrise Capital Fund, L.P.  
By: Earthrise Capital Partners LLC

By:   
Ann Partlow, Managing Member

Nano Materials Investors, LLC

By: \_\_\_\_\_  
Lawrence J. Schorr, Managing Member

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as of the date first above written.

DEBTOR:

NanoMas Technologies, Inc.

By: \_\_\_\_\_  
Name: John Hannafin  
Title: President

CREDITORS:

BASF Venture Capital GMBH

By: \_\_\_\_\_  
Dr. Josef R. Wunsch, CTO

By: \_\_\_\_\_  
Dirk Nachtigal, CFO

Earthrise Capital Fund, L.P.  
By: Earthrise Capital Partners LLC

By: \_\_\_\_\_  
Ann Partlow, Managing Member

Nano Materials Investors, LLC

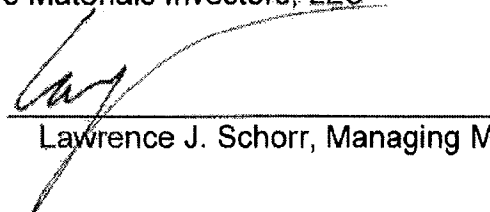
By:  \_\_\_\_\_  
Lawrence J. Schorr, Managing Member

EXHIBIT A

Joinder Agreement

Effective as of the date of issuance of the undersigned's 15% Secured Convertible Debenture issued by NanoMas Technologies, Inc. ("NanoMas"), the undersigned hereby agrees to become a party to that certain General Security Agreement, dated as of May 17, 2011 (the "Agreement"), by and among NanoMas and each of the Creditors (as defined therein). The undersigned, by executing this counterpart signature page, shall be entitled to all of the rights and subject to all of the obligations of a "Creditor" under the General Security Agreement. Capitalized terms used herein and not otherwise defined shall have the meanings assigned thereto in the General Security Agreement.

Date: \_\_\_\_\_, 2011

CREDITOR: [NAME OF PARTY]


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

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

Title: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

DEBTOR: NANOMAS TECHNOLOGIES, INC.

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

John Hannafin, President

Schedule A

**Name of Creditor**  
**and Address for Notice**

BASF Venture Capital GmbH  
BVC – Building Z025  
67063 Ludwigshafen, Germany  
Attn: Dirk Nachtigal  
E: [dirk.nachtigal@basf.com](mailto:dirk.nachtigal@basf.com)  
T: +49-621-60-76813  
F: +49-621-60-76819

Earthrise Capital Fund, L.P.  
11 Penn Plaza, 5<sup>th</sup> Floor  
New York, NY 10001  
Attn: Ann Partlow  
E: [apartlow@earthrisecapital.com](mailto:apartlow@earthrisecapital.com)  
T: 212-757-1007  
F: 917-414-8325

Nano Materials Investors, LLC  
450 Plaza Drive  
Vestal, NY 13850  
Attn: Lawrence J. Schorr  
E: [LSchorr@binghamtonlaw.com](mailto:LSchorr@binghamtonlaw.com)  
T: 607-761-5783

Schedule B

Specific Collateral

See Attachment

NanoMass Invs	Invention Scope	Attorney Docket	Document Filed	Filing #	Date filed	Title	Publications	Status
NMTI-0001		087553-0102	US Provisional	60791,325	4/12/2006	Method of synthesizing inorganic nanoparticles and applications using the same		Non-Provisional on 4/12/2007
NMTI-0001	Low cost inorganic nanoparticle synthesis method	087553-0103	US	11734,692	4/12/2007	Nanoparticles, methods of making, and applications using same	US 7,850,933	Granted 12/14/2010
NMTI-0001		087553-0104	PCT	US2007/009013	4/12/2007	Nanoparticles, methods of making and applications using the same	WO 2007/120756-A2	National stage filed in Europe, Japan, China, Korea, Israel, Canada, and Singapore. Office action at EP done.
NMTI-0001		087553-0105	Taiwan	#09611288.2	4/11/2007	Nanoparticles, methods of making and applications using the same		
NMTI-0002	Use silver and palladium nanoparticle ink coatings to make hydrogen sensors	087553-0106	US Provisional	60998,888	10/15/2007	Hydrogen purification membrane filters		Not pursue to non-provisional
NMTI-0003		087553-0107		60978,655	10/9/2007	Conductive nanoparticle inks and pastes and applications of using the same		Non-Provisional on 10/8/2008
NMTI-0003	Method for forming ohmic contact with silicon semiconductors with metal nanoparticle inks and paste at lower temperature	087553-0109	US	12247,998	10/8/2008	Conductive nanoparticle inks and pastes and applications of using the same	US 2009/0159121-A1	
NMTI-0003		087553-0110	PCT	US2008/079248	10/8/2008	Conductive nanoparticle inks and pastes and applications of using the same		National stage filed in Europe, Japan, China, Korea, Israel, Canada, and Australia
NMTI-0003		087553-0111	Taiwan		10/8/2008	Conductive nanoparticle inks and pastes and applications of using the same		
NMTI-0004	Conductive ink and paste formulation using nanoparticles and micro-flakes	087553-0121	US Provisional	61061,076	6/12/2009	Conductive silver nanoparticle inks and pastes		Non-Provisional on 6/11/2009
NMTI-0004		087553-0122	US	12483,190	6/11/2009	Conductive inks and pastes	US 2010/0008153-A1	
NMTI-0004		087553-0123	PCT	US2009/047120	6/11/2009	Conductive inks and pastes		
NMTI-0004		087553-0123	Taiwan		6/11/2009	Conductive inks and pastes		
NMTI-0005	Nano silver based thermal management formulations and applications	087553-0132	US Provisional		7/8/2010	Ultrafine nanoparticle based materials and applications using the same		

