Electronic Version v1.1 Stylesheet Version v1.1

 SUBMISSION TYPE:
 NEW ASSIGNMENT

 NATURE OF CONVEYANCE:
 SECURITY AGREEMENT

CONVEYING PARTY DATA

Name	Execution Date	
GT Equipment Technologies, Inc.	04/28/2006	

RECEIVING PARTY DATA

Name:	Silicon Valley Bank				
Street Address:	003 Tasman Drive				
City:	Santa Clara				
State/Country:	CALIFORNIA				
Postal Code:	95054				

PROPERTY NUMBERS Total: 13

Property Type	Number
Patent Number:	6841728
Patent Number:	6651014
Patent Number:	6620645
Patent Number:	6581415
Patent Number:	6491971
Patent Number:	6479108
Patent Number:	6365225
Patent Number:	6284312
Patent Number:	6165425
Patent Number:	6019841
Application Number:	60667857
Application Number:	11394970
Application Number:	10413774

CORRESPONDENCE DATA

PATENT REEL: 017606 FRAME: 0234

500103423

Fax Number: (703)415-1557

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 703-415-1555

Email: mail@specializedpatent.com

Correspondent Name: Christopher E. Kondracki

Address Line 1: 2001 Jefferson Davis, Hwy., Suite 1007

Address Line 4: Arlington, VIRGINIA 22202

ATTORNEY DOCKET NUMBER: 6040119

NAME OF SUBMITTER: Christopher E. Kondracki

Total Attachments: 10

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PATENT REEL: 017606 FRAME: 0235

INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement (this "IP Agreement") is made as of the 28th day of April, 2006, by and between GT EQUIPMENT TECHNOLOGIES, INC., a Delaware corporation with its principal place of business at 243 Daniel Webster Highway, Merrimack, New Hampshire 03054 ("Grantor"), and SILICON VALLEY BANK, a California corporation, with its principal place of business at 3003 Tasman Drive, Santa Clara, California 95054 and with a loan production office located at One Newton Executive Park, Suite 200, 2221 Washington Street, Newton, Massachusetts 02462 ("Lender").

RECITALS

- A. Lender has agreed to make advances of money and to extend certain financial accommodations to Grantor (the "Loan"), pursuant to: (a) that certain Loan and Security Agreement dated as of the date hereof, between Grantor, GT EQUIPMENT HOLDINGS, INC. and Lender (the "Domestic Agreement"), and (b) that certain Export-Import Bank Loan and Security Agreement dated as of the date hereof, between Grantor, GT EQUIPMENT HOLDINGS, INC., and Lender (the "Exim Agreement") (as amended, restated, or otherwise modified from time to time, the Domestic Agreement and the Exim Agreement are, individually and collectively, the "Loan Agreement"). The Loan is secured pursuant to the terms of the Loan Agreement. Lender is willing to enter into certain financial accommodations with Grantor, but only upon the condition, among others, that Grantor shall grant to Lender a security interest in certain Copyrights, Trademarks, Patents, and Mask Works, and other assets, to secure the obligations of Grantor under the Loan Agreement. Defined terms used but not defined herein shall have the same meanings as in the Loan Agreement.
- B. Pursuant to the terms of the Loan Agreement, Grantor has granted to Lender a security interest in all of Grantor's right title and interest, whether presently existing or hereafter acquired in, to and under all of the Collateral (as defined therein).
- NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged and intending to be legally bound, as collateral security for the prompt and complete payment when due of Grantor's Indebtedness (as defined below), Grantor hereby represents, warrants, covenants and agrees as follows:
- 1. Grant of Security Interest. As collateral security for the prompt and complete payment and performance of all of Grantor's present or future indebtedness, obligations and liabilities to Lender (hereinafter, the "Indebtedness"), including, without limitation, under the Loan Agreement, Grantor hereby grants a security interest in all of Grantor's right, title and interest in, to and under its registered and unregistered intellectual property collateral (all of which shall collectively be called the "Intellectual Property Collateral"), including, without limitation, the following:
 - (a) Any and all copyright rights, copyright applications, copyright registrations and like protections in each work or authorship and derivative work thereof, whether published or unpublished, registered or unregistered, and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held, including without limitation those set forth on **EXHIBIT A** attached hereto (collectively, the "Copyrights");
 - (b) Any and all trade secret rights, including any rights to unpatented inventions, know-how, operating manuals, license rights and agreements, and confidential information, and any and all intellectual property rights in computer software and computer software products now or hereafter existing, created, acquired or held;
 - (c) Any and all design rights which may be available to Grantor now or hereafter existing, created, acquired or held;
 - (d) All patents, patent applications and like protections including, without limitation, improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the

same, including without limitation the patents and patent applications set forth on **EXHIBIT B** attached hereto (collectively, the "Patents");

- (e) Any trademark and service mark rights, slogans, trade dress, and tradenames, trade styles, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Grantor connected with and symbolized by such trademarks, including without limitation those set forth on **EXHIBIT C** attached hereto (collectively, the "Trademarks");
- (f) All mask work registrations or similar rights available for the protection of semiconductor chips, now owned or hereafter acquired, including, without limitation those set forth on **EXHIBIT D** attached hereto (collectively, the "Mask Works");
- (g) Any and all claims for damages by way of past, present and future infringements of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;
- (h) All of Borrower's licenses rights or other rights to use any of the Copyrights, Patents, Trademarks, or Mask Works and all license fees and royalties arising from such use to the extent permitted by such license or rights, including, without limitation those set forth on **EXHIBIT E** attached hereto (collectively, the "Licenses"); and
- (i) All amendments, renewals and extensions of any of the Copyrights, Trademarks, Patents, or Mask Works; and
- (j) All proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

The Intellectual Property Collateral does not include any "intent to use" applications for trademark registrations filed pursuant to Section 1(b) of the Lanham Act (15 U.S.C. 1051 et seq.), unless and until an Amendment to Allege Use or a Statement of Use under Sections 1(c) and 1(d) of the Lanham Act (15 U.S.C. 1051 et seq.) has been filed and accepted by the United States Patent and Trademark Office.

- 2. <u>Authorization and Request.</u> Grantor authorizes and requests that the Register of Copyrights and the Commissioner of Patents and Trademarks record this IP Agreement, and any amendments thereto, or copies thereof.
 - 3. <u>Covenants and Warranties</u>. Grantor represents, warrants, covenants and agrees as follows:
 - (a) Performance of this IP Agreement does not conflict with or result in a breach of any material agreement to which Grantor is bound.
 - (b) To its knowledge, except for, and upon, the filing of UCC financing statements, or other notice filings or notations in appropriate filing offices, if necessary to perfect the security interests created hereunder, no authorization, approval or other action by, and no notice to or filing with, any U.S. governmental authority or U.S. regulatory body is required either (a) for the grant by Grantor of the security interest granted hereby, or for the execution, delivery or performance of this IP Agreement by Grantor in the U.S. or (b) for the perfection in the United States or the exercise by Lender of its rights and remedies thereunder;
 - (c) Grantor shall not enter into any agreement with respect to the Intellectual Property Collateral that would materially impair or conflict with Grantor's obligations hereunder without Lender's prior written consent, which consent shall not be unreasonably withheld.

4. <u>Lender's Rights</u>. Lender shall have the right, but not the obligation, to take, at Grantor's sole expense, any actions that Grantor is required under this IP Agreement to take but which Grantor fails to take, after fifteen (15) days' written notice to Grantor. Grantor shall reimburse and indemnify Lender for all reasonable costs and reasonable expenses incurred in the reasonable exercise of its rights under this Section 4.

Further Assurances: Attorney in Fact.

- (a) On a continuing basis, Grantor will, upon reasonable request by Lender, subject to any prior licenses, encumbrances and restrictions and prospective licenses, make, execute, acknowledge and deliver, and file and record in the proper filing and recording places in the United States, all such instruments, including appropriate financing and continuation statements and collateral agreements and filings with the United States Patent and Trademarks Office and the Register of Copyrights, and take all such action as may reasonably be deemed necessary or advisable, or as requested by Lender, to perfect Lender's security interest in all Copyrights, Patents, Trademarks, and Mask Works, or for assuring and confirming to Lender the grant or perfection of a security interest in all Intellectual Property Collateral.
- (b) Grantor hereby irrevocably appoints Lender as Grantor's attorney-in-fact, with full authority in the place and stead of Grantor and in the name of Grantor, Lender or otherwise, from time to time in Lender's discretion, solely upon Grantor's failure or inability to do so, to take any action and to execute any instrument which Lender may deem necessary or advisable to accomplish the purposes of this IP Agreement, including:
 - (i) To modify, in its sole discretion, this IP Agreement without first obtaining Grantor's approval of or signature to such modification solely by amending Exhibit A, Exhibit B, Exhibit C, and Exhibit D hereof, as appropriate, solely to include reference to any right, title or interest in any Copyrights, Patents, Trademarks or Mask Works acquired by Grantor after the execution hereof or solely to delete any reference to any right, title or interest in any Copyrights, Patents, Trademarks, or Mask Works in which Grantor no longer has or claims any right, title or interest; and
 - (ii) To file, in its sole discretion, one or more financing or continuation statements and amendments thereto, or other notice filings or notations in appropriate filing offices, relative to any of the Intellectual Property Collateral, without notice to Grantor, with all appropriate jurisdictions, as Lender deems appropriate, in order to further perfect or protect Lender's interest in the Intellectual Property Collateral.
- 6. Events of Default. The occurrence of any of the following shall constitute an Event of Default under this IP Agreement:
 - (a) An Event of Default occurs under the Loan Agreement; or any document from Grantor to Lender; or
 - (b) Grantor breaches any warranty or agreement made by Grantor in this IP Agreement.
- 7. Remedies. Upon the occurrence and continuance of an Event of Default, Lender shall have the right to exercise all the remedies of a secured party under the Massachusetts Uniform Commercial Code, including without limitation the right to require Grantor to assemble the Intellectual Property Collateral and any tangible property in which Lender has a security interest and to make it available to Lender at a place designated by Lender. Lender shall have a nonexclusive, royalty free license to use the Copyrights, Patents, Trademarks, and Mask Works to the extent reasonably necessary to permit Lender to exercise its rights and remedies upon the occurrence of an Event of Default. Grantor will pay any expenses (including reasonable attorney's fees) incurred by Lender in connection with the exercise of any of Lender's rights hereunder, including without limitation any expense incurred in disposing of the Intellectual Property Collateral. All of Lender's rights and remedies with respect to the Intellectual Property Collateral shall be cumulative.

- 8. <u>Indemnity.</u> Grantor agrees to defend, indemnify and hold harmless Lender and its officers, employees, and agents against: (a) all obligations, demands, claims, and liabilities claimed or asserted by any other party in connection with the transactions contemplated by this IP Agreement, and (b) all losses or expenses in any way suffered, incurred, or paid by Lender as a result of or in any way arising out of, following or consequential to transactions between Lender and Grantor, under this IP Agreement (including without limitation, reasonable attorneys fees and reasonable expenses), except for obligations, demands, claims, liabilities, and losses arising from or out of Lender's gross negligence or willful misconduct.
- 9. <u>Termination</u>. At such time as Grantor shall completely satisfy all of the obligations secured hereunder, Lender shall execute and deliver to Grantor all releases, terminations, and other instruments as may be necessary or proper to release the security interest hereunder.
- 10. Course of Dealing. No course of dealing, nor any failure to exercise, nor any delay in exercising any right, power or privilege hereunder shall operate as a waiver thereof.
- 11. <u>Amendments</u>. This IP Agreement may be amended only by a written instrument signed by both parties hereto.
- 12. <u>Counterparts.</u> This IP Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute the same instrument.
- Law and Jurisdiction. This IP Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts. GRANTOR ACCEPTS FOR ITSELF AND IN CONNECTION WITH ITS PROPERTIES, UNCONDITIONALLY, THE NON-EXCLUSIVE JURISDICTION OF ANY STATE OR FEDERAL COURT OF COMPETENT JURISDICTION IN THE COMMONWEALTH OF MASSACHUSETTS IN ANY ACTION, SUIT, OR PROCEEDING OF ANY KIND, AGAINST IT WHICH ARISES OUT OF OR BY REASON OF THIS AGREEMENT; PROVIDED, HOWEVER, THAT IF FOR ANY REASON LENDER CANNOT AVAIL ITSELF OF THE COURTS OF THE COMMONWEALTH OF MASSACHUSETTS, GRANTOR ACCEPTS JURISDICTION OF THE COURTS AND VENUE IN SANTA CLARA COUNTY, CALIFORNIA. NOTWITHSTANDING THE FOREGOING, THE LENDER SHALL HAVE THE RIGHT TO BRING ANY ACTION OR PROCEEDING AGAINST THE GRANTOR OR ITS PROPERTY IN THE COURTS OF ANY OTHER JURISDICTION WHICH THE LENDER DEEMS NECESSARY OR APPROPRIATE IN ORDER TO REALIZE ON THE COLLATERAL OR TO OTHERWISE ENFORCE THE LENDER'S RIGHTS AGAINST THE GRANTOR OR ITS PROPERTY.

GRANTOR AND LENDER EACH HEREBY WAIVE THEIR RESPECTIVE RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF ANY OF THE LOAN DOCUMENTS OR ANY OF THE TRANSACTIONS CONTEMPLATED THEREIN, INCLUDING CONTRACT CLAIMS, TORT CLAIMS, BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW OR STATUTORY CLAIMS. EACH PARTY RECOGNIZES AND AGREES THAT THE FOREGOING WAIVER CONSTITUTES A MATERIAL INDUCEMENT FOR IT TO ENTER INTO THIS AGREEMENT. EACH PARTY REPRESENTS AND WARRANTS THAT IT HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL AND THAT IT KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

Onfidentiality. In handling any confidential information, Lender shall exercise the same degree of care that it exercises for its own proprietary information, but disclosure of information may be made: (a) to Lender's Subsidiaries or Affiliates involved in the administration of this loan; (b) to prospective transferees or purchasers of any interest in the Credit Extensions (provided, however, Lender shall use commercially reasonable efforts to obtain such prospective transferee's or purchaser's agreement to the terms of this provision); (c) as required by law, regulation, subpoena, or other order; (d) to Lender's regulators or as otherwise required in connection with Lender's examination or audit; and (e) as Lender considers appropriate in exercising remedies under this Agreement. Confidential information does not include information that either: (i) is in the public domain or in Lender's possession when disclosed to Lender, or becomes part of the public domain after disclosure to Lender

(other than because of Lender's disclosure); or (ii) is disclosed to Lender by a third party, if Lender does not know that the third party is subject to a confidentiality obligation regarding the information.

ddress of Grantor:	GRANTOR:
	GT EQUIPMENT TECHNOLOGIES, INC.
	Ву:
	Name: JUSO T. Smid
	Title:
	SILICON VALLEY BANK
	Ву:
	Name:
	Title:

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ddress of Grantor:	GRANTOR:
	GT EQUIPMENT TECHNOLOGIES, INC.
	By:
•	Name: Hu40 D
	Tide: CFO
	SILICON VALLEY BANK
	By: Micrael James
	Name: Michael Tromaste
	Title: Vice President

(signature page to Intellectual Property Security Agreement)

Exhibits to Intellectual Property Security Agreement INTELLECTUAL PROPERTY

1. Issued Patents (To be inserted into Exhibit B)

Title	Country	Patent No.	Issue Date	Applic, No.	Filing Date	Owner
Solar cell stringing machine	U.S.	6,841,728	1/11/2005	10/125,329	4/18/2002	G.T. Equipment Technologies, Inc.
Apparatus for automatically measuring the resistivity of semiconductor boules by using the method of four probes	U.S.	6,651,014	11/18/2003	10/138,835	5/3/2002	G.T. Equipment Technologies, Inc.
Making and connecting bus bars on solar cells	U.S.	6,620,645	9/16/2003	09/993,587	11/16/2001	G.T. Equipment Technologies, Inc.
Method of producing shaped bodies of semiconductor materials	. U.S.	6,581,415	6/24/2003	09/933,342	8/20/2001	G.T. Equipment Technologies, Inc.
Release coating system for crucibles	U,S.	6,491,971	12/10/2002	09/827,540	4/6/2001	G.T. Equipment Technologies, Inc.
Protective layer for quartz crucibles used for silicon crystallization	U.S.	6,479,108	11/12/2002	09/944,790	8/31/2001	G.T. Equipment Technologies, Inc.
Cold wall reactor and method for chemical vapor deposition of bulk polysilicon	U.S.	6,365,225	4/2/2002	09/642,735	8/17/2000	G.T. Equipment Technologies, Inc.
Method and apparatus for chemical vapor deposition of polysilicon	u.s.	6,284,312	9/4/2001	09/507,711	2/18/2000	G.T. Equipment Technologies, Inc.
Melting pot with silicon protective layers, method for applying said layer and the use thereof	U.S.	6,165,425	12/26/2000	09/355,813	8/4/1999	G.T. Equipment Technologies, Inc.
Method and apparatus for synthesis and growth of semiconductor crystals 1	U.S.	6,019,841	2/1/2000	09/046,917	3/24/1998	G.T. Equipment Technologies, Inc.
Melting pot with silicon protective layers, method for applying said layer and the use thereof	EPO (Patents in Germany, France and Italy)	963464	7/18/2001	98904116.5	1/22/1998	Deutsche Solar GmbH ²

¹ License to U.S. Air Force dated 3/1/1999

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2. Patent Applications (To be inserted into Exhibit B)

Title			Issue			
44R	Country	Patent No.	Date	Applic No.	Filing Date	Owner
N/A	U.S.	N/A	N/A	60/667,857	4/1/2005	G.T. Equipment Technologies, Inc.
N/A	u.s.	N/A	N/A	11/394,970	3/31/2006	G.T. Equipment Technologies, Inc.
N/A	PCT	N/A	N/A	PCT/US200 6/012017	3/31/2006	G.T. Equipment Technologies, Inc.
N/A	U.S.	N/A	N/A	10/413,774	4/15/2003	G.T. Equipment Technologies, Inc.
Solar cell stringing machine	Germany	N/A	N/A	10297633.3	4/18/2002	G.T. Equipment Technologies, Inc.
Method and apparatus for chemical vapor deposition of polysilicon	Czech Republic	N/A	N/A	202-1297	8/17/2000	G.T. Equipment Technologies, Inc.
Method and apparatus for chemical vapor deposition of polysilicon	EPO	Pub. no. 1257684	N/A	00955754.7	8/17/2000	G.T. Equipment Technologies, Inc.
Method and apparatus for chemical vapor deposition of polysilicon	Japan	N/A	N/A	2001- 559903	8/17/2000	G.T. Equipment Technologies, Inc.
Method and apparatus for chemical vapor deposition of polysilicon	Slovakia	N/A	N/A	587-2002	8/17/2000	G.T. Equipment Technologies, Inc.
Melting pot with silicon protective layers, method for applying said layer and the use thereof	Japan	N/A	N/A	533687-98	NA	Detusche Solar AG ³
Melting pot with silicon protective layers, method or applying said layer and the use thereof	Norway	N/A	N/A	993466	N/A	Detusche Solar AG

² This patent was assigned to G.T. Equipment Technologies, Inc. pursuant to a Patent Transfer Agreement dated May 27, 2005 and a Patent Assignment Agreement dated August 8, 2005 by and between G.T. Equipment Technologies, Inc. and Deutsche Solar AG. The recordation of the Assignment with the appropriate governmental agencies has been or will be requested by G.T. Equipment Technologies, Inc.

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³ This patent application was assigned to G.T. Equipment Technologies, Inc. pursuant to a Patent Transfer Agreement dated May 27, 2005 and a Patent Assignment Agreement dated August 8, 2005 by and between G.T. Equipment Technologies, Inc. and Deutsche Solar AG. The recordation of the Assignment with the appropriate governmental agencies has been or will be requested by G.T. Equipment Technologies, Inc.

3. Trademark Registrations (To be inserted into Exhibit C)

Merk	Coun	rry Reg. No.	Reg Date	Serial No.	Filing Date	Gwner ,
GT SOLAR	U.S.	2,612,767	8/27/2002	78/036,356	11/22/2000	G.T. Equipment Technologies, Inc.
		1				inc.

4. Trademark Applications (To be inserted into Exhibit C)

None

5. Copyright Registrations and Applications (To be inserted into Exhibit A)

None

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RECORDED: 05/12/2006

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