

TRADEMARK ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	Security Agreement		
CONVEYING PARTY DATA			
Name	Formerly	Execution Date	Entity Type
TWIN CREEKS TECHNOLOGIES, INC.		09/14/2012	CORPORATION: DELAWARE
RECEIVING PARTY DATA			
Name:	SILICON VALLEY BANK		
Street Address:	3003 Tasman Drive		
City:	SANTA CLARA		
State/Country:	CALIFORNIA		
Postal Code:	95054		
Entity Type:	CORPORATION: CALIFORNIA		
PROPERTY NUMBERS Total: 1			
Property Type	Number	Word Mark	
Serial Number:	85306329	TWINCREEKS	
CORRESPONDENCE DATA			
Fax Number:	8004947512		
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>			
Phone:	2023704761		
Email:	tfahey@nationalcorp.com		
Correspondent Name:	Thomas Fahey		
Address Line 1:	1100 G Street NW, Suite 420		
Address Line 2:	National Corporate Research, Ltd.		
Address Line 4:	Washington, DISTRICT OF COLUMBIA 20005		
ATTORNEY DOCKET NUMBER:	L066877		
NAME OF SUBMITTER:	Catherine C. Fisk		
Signature:	/Catherine C. Fisk/		

OP \$40.00 85306329

Date:

09/28/2012

Total Attachments: 14

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

THIS INTELLECTUAL PROPERTY SECURITY AGREEMENT (the "Agreement") is executed and effective this 14th day of September, 2012 (the "Effective Date"), by and between SILICON VALLEY BANK, a California corporation ("Bank") with its principal place of business of 3003 Tasman Drive, Santa Clara, California 95054 and TWIN CREEKS TECHNOLOGIES, INC., a Delaware corporation ("Grantor") with its principal place of business of 3930 N. 1st Street, San Jose, California 95134.

RECITALS

A. Bank, Gold Hill Venture Lending 03, LP ("Gold Hill") and Grantor have entered into that certain Loan and Security Agreement, dated as of May 13, 2008 (as the same has been and may from time to time be amended, modified, supplemented or restated, the "Loan Agreement"). The Loan Agreement was amended pursuant to that certain Second Amendment to Loan and Security Agreement dated May 27, 2010 (the "Second Amendment") pursuant to which Bank agreed to provide Grantor with a term loan in the original principal amount of Three Million Dollars (\$3,000,000) (the "Term Loan") and is being further amended concurrently herewith to reflect, among other things, that Gold Hill is no longer a Lender under the Loan Agreement.

B. Grantor is currently in default of the Loan Agreement and Grantor has requested that Bank forbear from exercising its rights and remedies under the Loan Agreement as a result of such defaults, and Bank has agreed pursuant to, and in accordance with, that certain Forbearance Agreement by and between Grantor and Bank of even date herewith (the "Forbearance Agreement").

C. As a condition to the Bank's agreement to enter into the Forbearance Agreement, the Grantor has agreed to grant Bank a security interest in certain Copyrights, Trademarks, Patents, and Mask Works (as each term is described below) to secure the Obligations (as such term is defined in the Loan Agreement as amended through and including the amendment being entered into on or about the date hereof).

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 its obligations under the Forbearance Agreement and the Term Loan, Grantor hereby represents, warrants, covenants and agrees as follows:

AGREEMENT

To secure the payment and performance in full of all of the Obligations (as defined in the Loan Agreement as referred to in Recital C above), Grantor hereby grants and pledges to Bank a continuing security interest in all of Grantor's right, title and interest in, to and under its intellectual property wherever located, whether now owned or hereafter acquired or arising, and all proceeds and products thereof (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 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 secrets, 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 that 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 servicemark rights, 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 works 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 licenses 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;

(i) All amendments, extensions, 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.

This security interest is granted in conjunction with the Forbearance Agreement. The rights and remedies of Bank with respect to the security interest granted hereby are in addition to those set forth in the Forbearance Agreement, the Loan Agreement, the other Loan Documents, and all the other instruments and agreements evidencing all other Obligations, and those which are now or hereafter available to Bank as a matter of law or equity. Each right, power and

remedy of Bank provided for herein or in the Forbearance Agreement, the Loan the Loan Documents, or otherwise available, or now or hereafter existing at law or in equity shall be cumulative and concurrent and shall be in addition to every right, power or remedy provided for herein and the exercise by Bank of any one or more of the rights, powers or remedies provided for in this Agreement, the Forbearance Agreement, the Loan Agreement or any of the other Loan Documents, or now or hereafter existing at law or in equity, shall not preclude the simultaneous or later exercise by any person, including Bank, of any or all other rights, powers or remedies.

[Signature Page Follows.]

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

Address of Grantor:

3930 N. 1st Street
San Jose, California 95134

Attn: _____

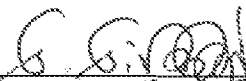
Address of Bank:

3003 Tasman Drive
Santa Clara, CA 95054-1191

Attn: _____

GRANTOR:

TWIN CREEKS TECHNOLOGIES, INC.

By: 
Name: SIVARAM SIVA
Title: CEO

BANK:

SILICON VALLEY BANK

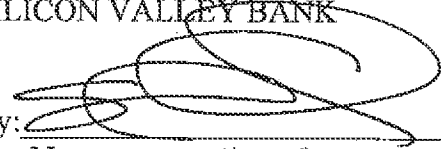
By: 
Name: Sheila Colson
Title: Senior Advisor

EXHIBIT A

Copyrights

Description

Registration/
Application
Number

Registration/
Application
Date

None

EXHIBIT B

Patents

<u>Description</u>	<u>Registration/ Application Number</u>	<u>Registration/ Application Date</u>
ISOLATION CIRCUIT FOR TRANSMITTING AC POWER TO A HIGH-VOLTAGE REGION	8,227,763 12/411,048	July 24, 2012
APPARATUS AND METHOD FOR SIMULTANEOUS TREATMENT OF MULTIPLE WORKPIECES	8,207,047 12/636,490	June 26, 2012
METHOD TO TEXTURE A LAMINA SURFACE WITHIN A PHOTOVOLTAIC CELL	8,178,419 12/343,420	May 15, 2012
METHOD TO FORM A DEVICE BY CONSTRUCTING A SUPPORT ELEMENT ON A THIN SEMICONDUCTOR LAMINA	8,173,452 12/980,424	May 8, 2012
BONDING APPARATUS AND METHOD	8,151,852 12/495,114	April 10, 2012
FORMED CERAMIC RECEIVER ELEMENT ADHERED TO A SEMICONDUCTOR LAMINA	8,148,189 12/826,762	April 3, 2012
PHOTOVOLTAIC CELL COMPRISING A THIN LAMINA HAVING LOW BASE RESISTIVITY AND METHOD OF MAKING	8,129,613 12/189,157	March 6, 2012
HYDROGEN IMPLANTATION WITH REDUCED RADIATION	8,101,488 12/978,558	January 24, 2012
METHOD TO FORM A DEVICE INCLUDING AN ANNEALED LAMINA AND HAVING AMORPHOUS SILICON ON OPPOSING FACES	8,101,451 12/980,427	January 24, 2012
METHOD AND APPARATUS FOR MODIFYING A RIBBON-SHAPED ION BEAM	8,089,050 12/621,689	January 3, 2012
METHOD AND APPARATUS FOR MODIFYING A RIBBON-SHAPED ION BEAM	8,058,626 12/703,194	November 15, 2011
INTERMETAL STACK FOR USE IN A	8,049,104	November 1, 2011

PHOTOVOLTAIC CELL	12/571,415	
ION IMPLANTATION APPARATUS	8,044,374	October 25, 2011
	12/494,269	
SELECTIVE ETCH FOR DAMAGE AT EXFOLIATED SURFACE	7,994,064	August 9, 2011
	12/484,271	
ION IMPLANTATION APPARATUS AND A METHOD	7,989,784	August 2, 2011
	12/494,270	
ION IMPLANTATION APPARATUS AND A METHOD FOR FLUID COOLING	7,982,197	July 19, 2011
	12/494,268	
METHODS OF TRANSFERRING A LAMINA TO A RECEIVER ELEMENT	7,967,936	June 28, 2011
	12/335,479	
METHOD TO MAKE ELECTRICAL CONTACT TO A BONDED FACE OF A PHOTOVOLTAIC CELL	7,964,431	June 21, 2011
	12/407,064	
ION SOURCE ASSEMBLY FOR ION IMPLANTATION APPARATUS AND A METHOD OF GENERATING IONS THEREIN	7,939,812	May 10, 2011
	12/494,272	
ASYMMETRIC SURFACE TEXTURING FOR USE IN A PHOTOVOLTAIC CELL AND METHOD OF MAKING	7,915,522	March 29, 2011
	12/130,241	
HYDROGEN ION IMPLANTER USING A BROAD BEAM SOURCE	7,897,945	March 1, 2011
	12/237,963	
METHOD FOR MAKING A PHOTOVOLTAIC CELL COMPRISING CONTACT REGIONS DOPED THROUGH A LAMINA	7,858,430	December 28, 2010
	12/339,032	
METHOD TO FORM A PHOTOVOLTAIC CELL COMPRISING A THIN LAMINA	7,842,585	November 30, 2010
	12/208,392	
METHODS OF FORMING A PHOTOVOLTAIC CELL	7,754,519	July 13, 2010
	12/465,351	
ION IMPLANTER FOR PHOTOVOLTAIC CELL FABRICATION	7,750,322	July 6, 2010
	12/418,237	
ION IMPLANTER FOR NONCIRCULAR WAFERS	7,687,786	March 30, 2010
	12/122,108	
BACK-CONTACT PHOTOVOLTAIC CELL COMPRISING A THIN LAMINA	13/425,870	March 21, 2012

HAVING A SUPERSTRATE RECEIVER ELEMENT		
METHOD AND APPARATUS FOR FORMING A THIN LAMINA	13/331,915	December 20, 2011
METHOD AND APPARATUS FOR FORMING A THIN LAMINA	13/331,909	December 20, 2011
D.C. CHARGED PARTICLE ACCELERATOR AND A METHOD OF ACCELERATING CHARGED PARTICLES	13/186,513	July 20, 2011
ASSYMETRIC SURFACE TEXTURING FOR USE IN A PHOTOVOLTAIC CELL AND METHOD OF MAKING	13/048,955	March 16, 2011
ZENER DIODE WITHIN A DIODE STRUCTURE PROVIDING SHUNT PROTECTION	13/020,849	February 4, 2011
ENHANCED SPATIALIZATION SYSTEM WITH SATELLITE DEVICE	13/020,949	February 4, 2011
A D.C. CHARGED PARTICLE ACCELERATOR, A METHOD OF ACCELERATING CHARGED PARTICLES USING D.C. VOLTAGES AND A HIGH VOLTAGE POWER SUPPLY APPARATUS FOR USE THEREWITH	12/962,723	December 8, 2010
ION SOURCE AND A METHOD OF GENERATING AN ION BEAM USING AN ION SOURCE	12/917,510	November 2, 2010
SEMICONDUCTOR ASSEMBLY WITH A METAL OXIDE LAYER HAVING INTERMEDIATE REFRACTIVE INDEX	12/894,254	September 30, 2010
ION IMPLANTATION APPARATUS	12/894,229	September 30, 2010
METHOD TO ADHERE A LAMINA TO A RECEIVER ELEMENT USING GLASS FRIT PASTE	12/872,629	August 31, 2010
FORMED CERAMIC RECEIVER ELEMENT ADHERED TO A SEMICONDUCTOR LAMINA	12/826,762	June 30, 2010
ION IMPLANTER FOR PHOTOVOLTAIC CELL FABRICATION	12/824,426	June 28, 2010
CREATION AND TRANSLATION OF LOW-RELIEFF TEXTURE FOR A	12/750,635	March 30, 2010

PHOTOVOLTAIC CELL

CREATION OF LOW-RELIEF TEXTURE FOR A PHOTOVOLTAIC CELL	12/729,878	March 23, 2010
METHOD AND APPARATUS FOR MODIFYING A RIBBON-SHAPED ION BEAM	12/703,194	February 10, 2010
APPARATUS AND METHOD FOR SIMULTANEOUS TREATMENT OF MULTIPLE WORKPIECES	12/636,490	December 11, 2009
MICROWAVE ANNEAL OF A THIN LAMINA FOR USE IN A PHOTOVOLTAIC CELL	12/636,704	December 11, 2009
TWO-CHAMBER SYSTEM AND METHOD FOR SERIAL BONDING AND EXFOLIATION OF MULTIPLE WORKPIECES	12/636,410	December 11, 2009
APPARATUS AND METHOD FOR SIMULTANEOUS TREATMENT OF MULTIPLE WORKPIECES	12/636,328	December 11, 2009
METHOD AND APPARATUS FOR MODIFYING A RIBBON-SHAPED ION BEAM	12/621,689	November 19, 2009
ION IMPLANTATION APPARATUS	12/568,923	September 29, 2009
PHOTOVOLTAIC CELL COMPRISING A THIN LAMINA HAVING EMITTER FORMED AT LIGHT-FACING AND BACK SURFACES	12/568,940	September 29, 2009
METHOD FOR PREPARING A DONOR SURFACE FOR REUSE	12/557,379	September 10, 2009
INTERMETAL STACK FOR USE IN PHOTOVOLTAIC DEVICE	12/540,463	August 13, 2009
MIRROR-IMAGE VOLTAGE SUPPLY	12/537,022	August 6, 2009
METHOD TO FORM A PHOTOVOLTAIC CELL COMPRISING A THIN LAMINA	12/499,294	July 8, 2009
ION SOURCE ASSEMBLY FOR ION IMPLANTATION APPARATUS AND A METHOD OF GENERATING IONS THEREIN	12/494,272	June 30, 2009
ION IMPLANTATION APPARATUS AND A METHOD	12/494,270	June 30, 2009
ION IMPLANTATION APPARATUS	12/494,269	June 30, 2009

TRADEMARK

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ION IMPLANTATION APPARATUS AND A METHOD FOR FLUID COOLING	12/494,268	June 30, 2009
THIN SEMICONDUCTOR LAMINA ADHERED TO A FLEXIBLE SUBSTRATE	12/493,197	June 27, 2009
METHOD TO FORM A THIN SEMICONDUCTOR LAMINA ADHERED TO A FLEXIBLE SUBSTRATE	12/493,195	June 27, 2009
SELECTIVE ETCH FOR DAMAGE AT EXFFOLIATED SURFACE	12/484,271	June 15, 2009
ISOLATION CIRCUIT FOR TRANSMITTING AC POWER TO A HIGH-VOLTAGE REGION	12/411,048	March 25, 2009
BACK-CONTACT PHOTOVOLTAIC CELL COMPRISING A THIN LAMINA HAVING A SUPERSTRATE RECEIVER ELEMENT	12/403,187	March 12, 2009
PHOTOVOLTAIC CELL COMPRISING AN MIS-TYPE TUNNEL DIODE	12/399,065	March 6, 2009
DOUBLE-SIDED DONOR FOR PREPARING A PAIR OF THIN LAMINAE	12/347,690	December 31, 2008
METHOD TO TEXTURE A LAMINA SURFACE WITHIN A PHOTOVOLTAIC CELL	12/343,420	December 23, 2008
PHOTOVOLTAIC CELL COMPRISING CONTACT REGIONS DOPED THROUGH LAMINA	12/339,038	December 18, 2008
METHOD FOR MAKING A PHOTOVOLTAIC CELL COMPRISING CONTACT REGIONS DOPED THROUGH A LAMINA	12/339,032	December 18, 2008
METHODS OF TRANSFERRING A LAMINA TO A RECEIVER ELEMENT	12/335,479	December 15, 2008
FRONT CONNECTED PHOTOVOLTAIC ASSEMBLY AND ASSOCIATED METHODS	12/331,376	December 9, 2008
HYDROGEN ION IMPLANTER USING A BROAD BEAM SOURCE	12/237,963	September 25, 2008
METHOD TO FORM A PHOTOVOLTAIC CELL COMPRISING A THIN LAMINA	12/209,364	September 12, 2008
METHOD TO FORM A PHOTOVOLTAIC CELL COMPRISING A THIN LAMINA	12/208,396	September 11, 2008

METHOD TO FORM A PHOTOVOLTAIC CELL COMPRISING A THIN LAMINA	12/208,392	September 11, 2008
METHOD TO FORM A PHOTOVOLTAIC CELL COMPRISING A THIN LAMINA	12/208,298	September 10, 2008
PHOTOVOLTAIC MODULE COMPRISING THIN LAMINAE CONFIGURED TO MITIGATE EFFICIENCY LOSS DUE TO SHUNT FORMATION	12/189,159	August 10, 2008
PHOTOVOLTAIC CELL COMPRISING A THIN LAMINA HAVING A REAR JUNCTION AND METHOD OF MAKING	12/189,158	August 10, 2008
PHOTOVOLTAIC CELL COMPRISING A THIN LAMINA HAVING LOW BASE RESISTIVITY AND METHOD OF MAKING	12/189,157	August 10, 2008
METHOD TO MITIGATE SHUNT FORMATION IN A PHOTOVOLTAIC CELL COMPRISING A THIN LAMINA	12/189,156	August 10, 2008
ASYMMETRIC SURFACE TEXTURING FOR USE IN A PHOTOVOLTAIC CELL AND METHOD OF MAKING	12/130,241	May 30, 2008
PHOTOVOLTAIC ASSEMBLY INCLUDING A CONDUCTIVE LAYER BETWEEN A SEMICONDUCTOR LAMINA AND A RECEIVER ELEMENT	12/057,274	March 27, 2008
METHOD TO FORM A PHOTOVOLTAIC CELL COMPRISING A THIN LAMINA BONDED TO A DISCRETE RECEIVER ELEMENT	12/057,265	March 27, 2008
METHOD TO FORM A PHOTOVOLTAIC CELL COMPRISING A THIN LAMINA	12/026,530	February 5, 2008
A METHOD AND APPARATUS FOR FORMING A THIN LAMINA	PCT/US2011/066195	December 20, 2011
A METHOD TO FORM A DEVICE BY CONSTRUCTING A SUPPORT ELEMENT ON A THIN SEMICONDUCTOR LAMINA	PCT/US2011/066957	December 22, 2011
A D.C. CHARGED PARTICLE ACCELERATOR, A METHOD OF ACCELERATING CHARGED PARTICLES USING D.C. VOLTAGES AND A HIGH VOLTAGE POWER SUPPLY APPARATUS FOR USE THEREWITH	PCT/US2011/062531	November 30, 2011

MIRROR-IMAGE VOLTAGE SUPPLY	PCT/US2010/043793	July 29, 2010
ION IMPLANTATION APPARATUS AND METHOD	PCT/US2010/039191	June 18, 2010
PHOTOVOLTAIC CELL COMPRISING A THIN LAMINA HAVING A REAR JUNCTION AND METHOD OF MAKING	PCT/US2009/052020	July 29, 2009
METHOD TO FORM A PHOTOVOLTAIC CELL COMPRISING A THIN LAMINA BONDED TO A DISCRETE RECEIVER ELEMENT	PCT/US2009/038141	March 24, 2009
METHOD TO FORM A PHOTOVOLTAIC CELL COMPRISING A THIN LAMINA	PCT/US2009/032647	January 30, 2009

EXHIBIT C

Trademarks

<u>Description</u>	Registration/ Application <u>Number</u>	Registration/ Application <u>Date</u>
TWINCREEKS	85306329	April 27, 2011
TWINCREEKS	EC010222966	August 26, 2011

EXHIBIT D

Mask Works

Description

Registration/
Application
Number

Registration/
Application
Date

None