

TRADEMARK ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	SECURITY INTEREST		
CONVEYING PARTY DATA			
Name	Formerly	Execution Date	Entity Type
Crystal Systems, Inc.		05/01/2009	CORPORATION: DELAWARE
RECEIVING PARTY DATA			
Name:	Middlesex Savings Bank		
Street Address:	6 Main Street		
City:	Natick		
State/Country:	MASSACHUSETTS		
Postal Code:	01760		
Entity Type:	Banking Corporation: MASSACHUSETTS		
PROPERTY NUMBERS Total: 3			
Property Type	Number	Word Mark	
Registration Number:	1084417		
Serial Number:	77376592	FAST	
Registration Number:	3523763	HEM	
CORRESPONDENCE DATA			
Fax Number:	(617)502-5162		
	<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>		
Phone:	6172485000		
Email:	kschoff@choate.com		
Correspondent Name:	Choate, Hall & Stewart LLP		
Address Line 1:	Two International Place		
Address Line 2:	Attn: Kell L. Schoff		
Address Line 4:	Boston, MASSACHUSETTS 02110		
ATTORNEY DOCKET NUMBER:	2009108-0001		
NAME OF SUBMITTER:	Kell L. Schoff		

OP \$90.00 1084417

900151229

**TRADEMARK
 REEL: 004124 FRAME: 0391**

Signature:	/Kell L. Schoff/
Date:	01/05/2010
<p>Total Attachments: 12</p> <p>source=Crystal Systems IP Security Agreement#page1.tif source=Crystal Systems IP Security Agreement#page2.tif source=Crystal Systems IP Security Agreement#page3.tif source=Crystal Systems IP Security Agreement#page4.tif source=Crystal Systems IP Security Agreement#page5.tif source=Crystal Systems IP Security Agreement#page6.tif source=Crystal Systems IP Security Agreement#page7.tif source=Crystal Systems IP Security Agreement#page8.tif source=Crystal Systems IP Security Agreement#page9.tif source=Crystal Systems IP Security Agreement#page10.tif source=Crystal Systems IP Security Agreement#page11.tif source=Crystal Systems IP Security Agreement#page12.tif</p>	

**COLLATERAL PATENT, TRADEMARK,
COPYRIGHT AND LICENSE ASSIGNMENT**

COLLATERAL PATENT, TRADEMARK, COPYRIGHT AND LICENSE ASSIGNMENT, dated as of May 1, 2009, among Crystal Systems, Inc., a Delaware corporation (the "*Assignor*"), to Middlesex Savings Bank (in such capacity, the "*Assignee*").

W I T N E S S E T H:

WHEREAS, the Assignor and the Assignee have entered into a Loan and Security Agreement dated as of May 1, 2009 (as amended, modified, supplemented and/or extended from time to time, the "*Credit Agreement*"; capitalized terms used herein and not otherwise defined shall have the same meanings herein as in the Credit Agreement); and

WHEREAS, it is a condition to the effectiveness of the Credit Agreement that, among other things, Assignor execute and deliver to the Assignee this Agreement.

NOW, THEREFORE, in consideration of the willingness of the Assignee subject to the terms and conditions set forth in the Credit Agreement, to make the Loans to the Assignor pursuant thereto, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor agrees as follows:

1. ***Incorporation of Loan Documents.*** The Loan Documents and the terms and provisions therein are hereby incorporated herein in their entirety by this reference thereto.

2. ***Collateral Assignment of Patents, Trademarks, Copyrights and Licenses.*** To secure the complete and timely satisfaction of all of the obligations of Assignor to the Assignee under the Credit Agreement, the Notes and all other documents, instruments and agreements delivered by Assignor in connection therewith (collectively, the "*Obligations*"), the Assignor hereby mortgages, pledges and assigns to the Assignee, as and by way of a mortgage and security interest having priority over all other security interests, with power of sale upon the occurrence of an Event of Default, and grants the Assignee a security interest in, all of Assignor's right, title and interest in and to all of the following, whether now existing or hereafter arising:

(i) patents and patent applications, including, without limitation, the inventions and improvements described and claimed therein, and those patents and patent applications listed on Schedule A attached hereto and made a part hereof, and (a) the reissues, divisions, continuations, renewals, extensions and continuations-in-part thereof, (b) all income, royalties, damages and payments now and hereafter due and/or payable under and with respect thereto, including, without limitation, damages and payments for past or future infringements thereof, (c) the right to sue for past, present and future infringements thereof, and (d) all rights corresponding thereto throughout the world (all of the foregoing patents and applications, together with the items described in clauses (a) through

(d), inclusive, in which Assignor now or hereafter has any right, title or interest are sometimes hereinafter individually and/or collectively referred to as the “*Patents*”);

(ii) all service marks, trademarks, trademark or service mark registrations, trademark or service mark applications, trade names, copyrights, copyright registrations and copyright applications including, without limitation, the registered trademarks, service marks, copyrights and applications for registration listed on Schedule B attached hereto and made a part hereof, and (a) renewals thereof, (b) all income, royalties, damages and payments now and hereafter due and/or payable with respect thereto, including, without limitation, damages and payments for past or future infringements thereof, (c) the right to sue for past, present and future infringements thereof, and (d) all rights corresponding thereto throughout the world (all of the foregoing service marks, trademarks, registrations, applications and trade names, together with the items described in clauses (a) through (d), inclusive, with respect thereto in which Assignor now or hereafter has any right, title or interest are sometimes hereinafter individually and/or collectively referred to as the “*Marks*” and all of the foregoing copyrights, copyright registrations and copyright applications, together with the items described in clauses (a) through (d), inclusive, in which Assignor now or hereafter has any right, title or interest are sometimes hereinafter individually and/or collectively referred to as the “*Copyrights*”);

(iii) all Assignor’s rights and obligations pursuant to its license agreements with any other persons or entities with respect to any Patents, Marks and Copyrights, to the extent assignable under the terms of the such license agreements, whether Assignor is a licensor or licensee under any such license agreements, including, without limitation, the licenses listed on Schedule C attached hereto and made a part hereof, and, subject to the terms of such licenses, the right to prepare for sale, sell and advertise for sale, all inventory now or hereafter owned by the Assignor and now or hereafter covered by such licenses (all of the foregoing is hereinafter referred to collectively as the “*Licenses*”); and

(iv) the goodwill of Assignor’s business connected with and symbolized by the Marks;

Provided, however, that there shall be excluded from the foregoing collateral assignment and grant of a security interest any of the existing Licenses to which Assignor is a licensor or licensee (and any Patents, Marks and Copyrights currently licensed by others to or from Assignor pursuant to such Licenses), in each case to the extent (but only to the extent) that the applicable License lawfully prohibits such collateral assignment or grant of a security interest; provided further, however, that, upon the Assignee’s request, Assignor will use its best efforts to obtain any consent needed to subject any such property to this collateral assignment and grant of a security interest. Unless an Event of Default shall have occurred, the Assignee agrees to release its lien on and security interest in the following items if and to the extent that the Assignee’s lien breaches the agreements set forth below:

- (i) (ii) United States Patent No. 7,344,596 B2, dated March 18, 2008 and any foreign PCT patent filings and applications based on said patent; within five (5) days of confirmation of receipt by Borrower of the Confirmation, as defined in and pursuant to the terms of the Technology Purchase Agreement dated February 17, 2009 between the Borrower and SPX Corporation, if (a) there exists no Event of Default under either of the Loans, and (b) the outstanding principal due under the Term Loan does not exceed \$2,710,000; and
- (ii) Patents that Assignor has licensed to Dow Corning Corporation under the license Agreement between Assignor and Dow dated January 8, 2003, as follows, United States Patent Nos.:
 - a. 5,972,107 entitled "Method for Purifying Silicon" issued October 26, 1999;
 - b. 6,368,403 B1 entitled "Method and Apparatus for Purifying Silicon" issued April 9, 2002; and
 - c. 4,256,530 entitled "Crystal Growing" issued March 17, 1981.
- (iii) United States Patent No. 5,394,825 A Assignor has licensed on a non-exclusive basis to Siltronic AG pursuant to the Technology and License Agreement effective as of June 2, 2008 between Siltronic AG and Assignor.

3. *Restrictions on Future Agreements.* Assignor agrees and covenants that, until the Obligations shall have been satisfied in full and the Credit Agreement shall have been terminated, Assignor will not, without the Assignee's prior written consent, take any action or enter into any agreement, including, without limitation, entering into any license agreement, which is inconsistent with Assignor's obligations under this Agreement, and Assignor further agrees and covenants that without the Assignee's prior written consent it will not take any action, or permit any action to be taken by others subject to its control, including its licensees, or fail to take any action which would affect the validity or enforcement or nature of the rights transferred to the Assignee under this Agreement.

4. *Certain Covenants, Representations and Warranties of Assignor.* Assignor covenants, represents and warrants (to the best of Assignor's knowledge with respect to any Patents, Marks and Copyrights which are licensed by third parties to Assignor) that: (i) the Patents, Marks, Copyrights and Licenses are subsisting, have not been adjudged invalid or unenforceable in whole or in part, and, to the best of Assignor's knowledge, are not currently being challenged in any way; (ii) none of the Patents, Marks, Copyrights and Licenses have lapsed or expired or have been abandoned (other than due to the expiration of the term of registration), whether due to any failure to pay any maintenance or other fees or make any filing or otherwise; (iii) each of the Patents, Marks, Copyrights and Licenses is valid and enforceable, and Assignor is unaware of any invalidating prior act (including public uses and sales) relative to the Patents, and is

unaware of any impairments to the Patents, Marks, Copyrights or Licenses which would have a material adverse effect on the validity and/or enforceability of the Patents, Marks, Copyrights or Licenses; (iv) to the best of Assignor's knowledge, no claim has been made that the use of any of the Patents, Marks, Copyrights or Licenses constitutes an infringement; (v) Assignor owns the entire right, title and interest in and to each of the Patents, Marks and Copyrights (other than those being licensed to Assignor pursuant to the Licenses), free and clear of any liens and encumbrances of every kind and nature, and the Licenses are valid and subsisting licenses with respect to the Patents, Marks, Copyrights described therein, free and clear of any liens and encumbrances of every kind and nature arising by, through or under Assignor, in each case except for (A) rights granted by Assignor pursuant to the applicable licenses listed on Schedule C, (B) liens and encumbrances in favor of the Assignee pursuant to this Agreement or the other Loan Documents, and (C) liens and encumbrances otherwise permitted under the Credit Agreement; (vi) the Patents, Marks and Copyrights and Licenses listed on Schedules A, B and C, respectively, constitute all such items in which Assignor has any right, title or interest; (vii) Assignor has the unqualified right to enter into this Agreement and perform its terms; (viii) Assignor will continue to use proper statutory notice in connection with its use of the Patents, Marks and Copyrights; and (ix) Assignor will use standards of quality in its manufacture of products sold under the Marks consistent with those currently employed by it.

5. *New Patents, Marks, Copyrights and Licenses.* If, before the Obligations shall have been satisfied in full and the Credit Agreement shall have been terminated, Assignor shall (i) obtain rights to any new patentable inventions, trademarks, service marks, trademark or service mark registrations, copyrights, copyright registrations, trade names or licenses, or (ii) become entitled to the benefit of any patent, trademark or service mark application, trademark, service mark, trademark or service mark registration, copyrights, copyright registrations, license or license renewal, or patent for any reissue, division, continuation, renewal, extension, or continuation-in-part of any Patent or any improvement on any Patent, the provisions of Section 2 above shall automatically apply thereto, and Assignor shall give to the Assignee prompt written notice thereof. Assignor hereby authorizes the Assignee to modify this Agreement by noting any future acquired Patents, Marks or Copyrights on Schedule A or B and any Licenses and licensed Patents, Marks or Copyrights on Schedule C, as applicable; provided, however, that the failure of the Assignee to make any such notation shall not limit or affect the obligations of Assignor or rights of the Assignee hereunder.

6. *Royalties; Terms.* Assignor hereby agrees that the use by the Assignee of all Patents, Marks, Copyrights and Licenses as described above shall be for the geographical area and the use(s) specified in the appropriate Patent, Trademark or Copyright registration (or in the case of the Patents, Marks and Copyrights licensed to Assignor such smaller geographic location if any is specified for Assignor's use in the applicable License) and without any liability for royalties or other related charges from the Assignee to Assignor. The term of the assignments granted herein shall extend until the earlier of (i) the expiration of each of the respective Patents, Marks, Copyrights and Licenses assigned hereunder, or (ii) satisfaction in full of the Obligations and termination of the Credit Agreement.

7. ***Grant of License to the Assignor.*** Unless and until an Event of Default shall have occurred and notice given as provided in the following sentence, the Assignee hereby grants to Assignor (but only to the extent the same was lawfully granted to the Assignee by Assignor pursuant to this Agreement) the royalty-free, exclusive, nontransferable right and license for Assignor's own benefit and account and no other to use the Marks and all materials covered by the Copyrights, to exercise the Assignee's rights under the Licenses, and to make, have made, use and sell products conforming to the inventions disclosed and claimed in the Patents for Assignor's own benefit and account and for none other. From and after the occurrence of an Event of Default and notice to such effect from the Assignee to the Assignor, Assignor's license with respect to the Patents, Marks, Copyrights and Licenses as set forth in this Section 7 shall terminate forthwith.

8. ***Right to Inspect.*** The Assignee shall have the right, at any time and from time to time, to inspect Assignor's premises, books, records and operations to the extent permitted under the Credit Agreement.

9. ***Termination of the Assignor's Security Interest.*** This Agreement is made for collateral purposes only. Upon satisfaction in full of the Obligations and termination of the Credit Agreement, title to the Patents, Marks, Copyrights and Licenses shall automatically revert to Assignor. The Assignee shall, at Assignor's expense, execute and deliver to Assignor all termination statements and other instruments as may be necessary or proper to terminate the Assignee's security interest in, and to revest in Assignor all right, title and interest in and to, the Patents, Marks, Copyrights, and Licenses transferred to the Assignee, subject to any disposition thereof which may have been made by the Assignee pursuant hereto or pursuant to any of the other Loan Documents. Any such termination statements and instruments shall be without recourse upon or warranty by the Assignee.

10. ***Duties of the Assignor.*** Assignor shall have the duty, in each case in a manner consistent with reasonably responsible business and legal practices as determined by Assignor, (i) to prosecute diligently any patent application of the Patents, any application respecting the Marks, and any copyright application of the Copyrights pending as of the date hereof or thereafter, (ii) to make application on unpatented but patentable inventions and on registerable but unregistered trademarks, service marks and copyrights, and (iii) to preserve, maintain and enforce against infringement all rights in patent applications and patents constituting the Patents, in trademark or service mark applications, trademarks, service marks, and trademark or service mark registrations constituting the Marks, and in copyright applications, copyrights and copyright registrations constituting the Copyrights. Any expenses incurred in connection with the foregoing shall be borne by Assignor. Assignor shall not abandon any pending patent application, trademark application, copyright application, service mark application, patent, trademark, service mark or copyright without the written consent of the Assignee.

11. ***Assignee's Right to Sue.*** From and after the occurrence of an Event of Default, the Assignee shall have the right, but shall in no way be obligated, to bring suit in its own name to enforce the Patents, the Marks, the Copyrights and the Licenses, and

any licenses thereunder, and, if the Assignee shall commence any such suit, Assignor shall, at the request of the Assignee, do any and all lawful acts and execute any and all proper documents reasonably requested by the Assignee in aid of such enforcement, and Assignor shall promptly, upon demand, reimburse and indemnify the Assignee for all reasonable costs and expenses incurred by the Assignee in the exercise of its rights under this Section 11.

12. *Waivers.* No course of dealing between Assignor and the Assignee nor any failure to exercise, nor any delay in exercising, on the part of the Assignee, any right, power or privilege hereunder shall operate as a waiver thereof; nor shall any single or partial exercise of any right, power or privilege hereunder or thereunder preclude any other or further exercise thereof or the exercise of any other right, power or privilege.

13. *Severability.* The provisions of this Agreement are severable, and if any clause or provision shall be held invalid and unenforceable in whole or in part in any jurisdiction, then such invalidity or unenforceability shall affect only such clause or provision, or part thereof, in such jurisdiction, and shall not in any manner affect such clause or provision in any other jurisdiction, or any other clause or provision of this Agreement in any jurisdiction.

14. *Modification.* This Agreement cannot be altered, amended or modified in any way, except as specifically provided in Section 5 hereof or by a writing signed by the Assignor and the Assignee.

15. *Further Assurances.* Assignor shall execute and deliver to the Assignee at any time or times hereafter at the request of the Assignee, all papers (including, without limitation, any as may be deemed reasonably desirable by the Assignee for filing or recording with any Patent and Trademark Office, and any successor thereto) and take all such actions (including, without limitation, paying the cost of filing or recording any of the foregoing in all public offices reasonably deemed desirable by the Assignee), as the Assignee may request, to evidence the Assignee's interest in the Patents, Marks, Copyrights and Licenses and the goodwill associated therewith and enforce the Assignee's rights under this Agreement.

16. *Cumulative Remedies; Power of Attorney; Effect on Loan Documents.* All of the Assignee's rights and remedies with respect to the Patents, Marks, Copyrights and Licenses, whether established hereby, by any of the Loan Documents or otherwise, or by any other agreements or by law, shall be cumulative and may be exercised singularly or concurrently. Assignor hereby constitutes and appoints the Assignee as Assignor's true and lawful attorney-in-fact, with full power of substitution in the premises, with power at any time after the occurrence of an Event of Default, to (i) endorse Assignor's name on all applications, documents, papers and instruments determined by the Assignee in its sole discretion as necessary or desirable for the Assignee in the use of the Patents, Marks, Copyrights and Licenses, (ii) take any other actions with respect to the Patents, Marks, Copyrights and Licenses as the Assignee deems in good faith to be in the best interest of the Assignee, (iii) grant or issue any exclusive or non-exclusive license under the Patents, Marks or Copyrights to any Person, or (iv) assign, pledge, convey or otherwise transfer

title in or dispose of the Patents, Marks, Copyrights or Licenses to any person or entity, provided that in each such case, Assignor shall provide notice of such assignment to Assignee. Assignor hereby ratifies all that such attorney shall lawfully do or cause to be done by virtue hereof. This power of attorney shall be irrevocable until the Obligations shall have been satisfied in full and the Credit Agreement shall have been terminated. Assignor acknowledges and agrees that this Agreement is not intended to limit or restrict in any way the rights and remedies of the Assignee under the Credit Agreement or any of the Loan Documents but rather is intended to facilitate the exercise of such rights and remedies. The Assignee shall have, in addition to all other rights and remedies given it by the terms of this Agreement, all rights and remedies allowed by law and the rights and remedies of a secured party under the Uniform Commercial Code as enacted in any jurisdiction in which the Patents, Marks, Copyrights or Licenses may be enforced. Assignor hereby releases the Assignee from any and all claims, causes of action and demands at any time arising out of or with respect to any actions taken or omitted to be taken by the Assignees under the powers of attorney granted herein.

17. ***Binding Effect; Benefits.*** This Agreement shall be binding upon the Assignor and its respective successors and assigns and shall inure to the benefit of the Assignee and its respective successors, assigns and nominees.


18. ***Governing Law.*** THIS COLLATERAL PATENT, TRADEMARK, COPYRIGHT AND LICENSE ASSIGNMENT AGREEMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY, AND CONSTRUED AND INTERPRETED IN ACCORDANCE WITH, THE INTERNAL LAWS OF THE COMMONWEALTH OF MASSACHUSETTS.

[Signature page follows]

IN WITNESS WHEREOF, the undersigned has duly executed this Collateral Patent, Trademark, Copyright and License Agreement as of the date first above written.

ASSIGNOR:

CRYSTAL SYSTEMS, INC.

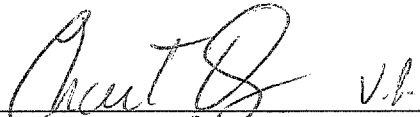
By: 

Name:

Title:

ASSIGNEE:

MIDDLESEX SAVINGS BANK

By: 

Name: Charles T. Dwyer

Title: Vice President

SCHEDULE A

See attached.

Crystal Systems' United States Patents

Patent No.	Date Issued	Title	Inventor(s)
3,898,051	08/05/75	Crystal Growing	F. Schmid
4,092,972	06/06/78	Process of Cutting Wafers	F. Schmid
4,178,670	12/18/79	Process of Forming a Wirepack	F. Schmid
4,187,828	02/12/80	Cutting	F. Schmid
4,218,418	08/19/80	Process of Casting an Ingot and Making a Silica Container	F. Schmid, C. P. Khattak
4,256,079	03/17/81	Wire Blades	F. Schmid
4,256,530	03/17/81	Crystal Growing	F. Schmid, C. P. Khattak
4,287,869	09/08/81	Charging System for Cutting Blade	F. Schmid
4,349,178	09/14/82	Wire Blades	F. Schmid
4,384,564	05/24/83	Process of Forming a Plated Wirepack with Abrasive Particles Only in the Cutting Surface with Controlled Kerf	M. B. Smith, F. Schmid, C. P. Khattak
4,646,710	03/03/87	Multi-Wafer Slicing with a Fixed Abrasive	F. Schmid, C. P. Khattak, M. B. Smith
4,727,852	03/01/88	Multi-Wafer Slicing with a Fixed Abrasive (sic)	F. Schmid, C. P. Khattak, M. B. Smith
4,840,699	06/20/89	GaAs Crystal Growth	C. P. Khattak, V. E. White, F. Schmid, J. H. Wohlgemuth
5,394,825	03/07/95	Method and Apparatus for Growing Shaped Crystals	F. Schmid, C. P. Khattak, V. Gorbulev
5,438,973	08/08/95	Shaped Blades	F. Schmid, M. B. Smith, C. P. Khattak
5,842,462	12/01/98	Method and Apparatus to Produce a Radial Cut Profile	F. Schmid, M. B. Smith
5,972,107	10/26/99	Method for Purifying Silicon	F. Schmid, C. P. Khattak
6,368,403	04/09/02	Method and Apparatus for Purifying Silicon	F. Schmid, C. P. Khattak, D. B. Joyce
6,418,921	07/16/02	Method and Apparatus for Cutting Workpieces	F. Schmid, M. B. Smith, C. P. Khattak
7,344,596	03/18/08	System and Method for Crystal Growing	F. Schmid, C. P. Khattak, D. B. Joyce
61/110,814	Appl. 11/03/08	Process for Refining MG Silicon to Produce SoG Silicon	F. Schmid, D. B. Joyce
61/239,228	09/02/09	High Temperature Process Improvements Using Helium under Regulated Pressure	F. Schmid, D. B. Joyce, J. Brouillette

SCHEDULE B

See attached.

Crystal Systems, Inc.

Trademark Report by Mark

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Page

COUNTRY STATUS	REFERENCE# CLASSES	FILED	APPL#	REGDT	REG#
Design (Logo)					
UNITED STATES REGISTERED	9130-34 01	6/30/1976	73/092,027	2/7/1978	1,084,417
01 - Synthetic sapphire components intended for general industrial use					
FAST					
UNITED STATES ALLOWED	9130-28 07	1/21/2008	77/376,592		
07 - Industrial machines for industrial wafer slicing of ceramic materials					
HEM					
UNITED STATES REGISTERED	9130-29 14	3/6/2008	77/415,220	10/28/2008	3,523,763
14 - Synthetic sapphires intended for general industrial use					

END OF REPORT

TOTAL ITEMS SELECTED =