

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Christopher Vineis</td> <td>02/06/2012</td> </tr> <tr> <td>James Carey</td> <td>02/06/2012</td> </tr> <tr> <td>Xia Li</td> <td>02/06/2012</td> </tr> </tbody> </table>		Name	Execution Date	Christopher Vineis	02/06/2012	James Carey	02/06/2012	Xia Li	02/06/2012		
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RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>SiOnyx, Inc.</td> </tr> <tr> <td>Street Address:</td> <td>100 Cummings Ctr., Suite 243-F</td> </tr> <tr> <td>City:</td> <td>Beverly</td> </tr> <tr> <td>State/Country:</td> <td>MASSACHUSETTS</td> </tr> <tr> <td>Postal Code:</td> <td>01915-6506</td> </tr> </table>		Name:	SiOnyx, Inc.	Street Address:	100 Cummings Ctr., Suite 243-F	City:	Beverly	State/Country:	MASSACHUSETTS	Postal Code:	01915-6506
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PROPERTY NUMBERS Total: 1											
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CORRESPONDENCE DATA											
<p>Fax Number: (801)566-0750</p> <p>Phone: 801-566-6633</p> <p>Email: solomon@tnw.com</p> <p><i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i></p> <p>Correspondent Name: Todd B. Alder</p> <p>Address Line 1: 8180 South 700 East, Suite 350</p> <p>Address Line 2: Thorpe North & Western, LLP</p> <p>Address Line 4: Sandy, UTAH 84070</p>											
ATTORNEY DOCKET NUMBER:	3035-022.NP										
NAME OF SUBMITTER:	Todd B. Alder										
Total Attachments: 5											

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WHEN RECORDED RETURN TO:
Todd B. Alder, Ph.D.
Thorpe North & Western, LLP
P.O. Box 1219
Sandy, UT 84091-1219

Docket No. 3035-022.NP

A S S I G N M E N T

WHEREAS, we, Christopher Vineis (resident of the State of MA, whose postal mailing address is 471 N. Arsenal St., Watertown, MA 02472), James Carey (resident of the State of MA, whose postal mailing address is 117 Vernon Unit 2, Waltham, MA 02453), and Xia Li (resident of the State of MA, whose postal mailing address is 15 Trask Court, Unit 31, Beverly, MA 01915), (hereinafter "Assignors") have invented a certain new and useful improvement in a **SEMICONDUCTOR DEVICES HAVING REDUCED SUBSTRATE DAMAGE AND ASSOCIATED METHODS** for which an application for United States Letters was filed on December 21, 2011 as THORPE NORTH & WESTERN, LLP Docket No. 3035-022.NP, and given U.S. Patent Application Serial No. 13/333,482; (Thorpe North & Western, LLP is hereby authorized to insert the specified data, when known) and:

WHEREAS, SiOnyx, Inc., a corporation, organized and existing under the laws of the State of Delaware, having a business address of 100 Cummings Ctr., Suite 243-F, Beverly, MA 01915-6506, (hereinafter "Assignee"), is desirous of acquiring Assignor's entire right, title, and interest in the same;

NOW, THEREFORE, in consideration of one dollar (\$1.00) and other good and valuable consideration paid to us by the Assignee, the receipt and sufficiency whereof is hereby acknowledged, we the said Assignors, hereby grant and assign unto the said Assignee, our entire right, title and interest in said invention and in all patent applications based thereon, including but not limited to the above identified United States Patent Application and in all provisionals, divisions, continuations, and continuations-in-part of said application, or reissues or extensions of Letters Patent or Patents granted thereon, and in all corresponding applications filed in countries foreign to the United States, and in all patents issuing thereon in the United States and

foreign countries; the right, power and authority to file and prosecute U.S. and foreign patent applications on said invention, and to do so in its own name wherever such right may be legally exercised, and including the right to claim the priority and benefits of the International Convention for such applications; and the right to bring actions for infringement of any right in said invention in its own name, including past infringement, in any jurisdiction.

We hereby authorize and request the United States Commissioner of Patents and Trademarks, and such Patent Office officials in foreign countries as are duly authorized by their patent laws to issue patents, to issue any and all Letters Patent on said invention to the said Assignee as the owner of our entire interest, for the sole use and behoof of the said Assignee, its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by us had this assignment and sale not been made.

We hereby agree, without further consideration and without expense to us, to sign all lawful papers and to perform all other lawful acts which the Assignee may request of us to make this Assignment fully effective, including, by way of example but not of limitation, the following: prompt execution of all original, divisional, substitution, reissue, and other United States and foreign patent applications on said invention, and all lawful documents as requested by the Assignee to further the prosecution of any of such patent applications; and cooperation to the best of our ability including, but not limited to, the execution of all lawful documents, the production of evidence in any actions or proceedings concerning the invention, including, but not limited to, nullification, reissue, extension, and infringement proceedings involving said invention.

This assignment and agreement shall be binding upon our heirs and legal representatives.

Executed this 6th day of February, 2012 at _____
Beverly, MA (City, State).



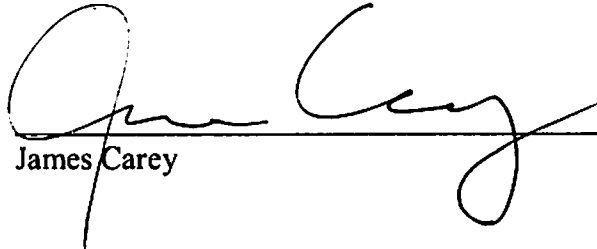
Christopher Vineis

STATE OF _____)
: ss
County of _____)

Before me personally appeared Christopher Vineis and acknowledged the foregoing
instrument to be his free act and deed this _____ day of _____, 2012.

Notary Public

Executed this 6th day of February, 2012 at _____
Beverly, MA (City, State).


James Carey

STATE OF _____)
: ss
County of _____)

Before me personally appeared James Carey and acknowledged the foregoing instrument
to be his free act and deed this _____ day of _____, 2012.

Notary Public

Executed this 6th day of February, 2012 at Beverly, MA (City, State).

Xia Li

STATE OF _____) : ss
County of _____)

Before me personally appeared Xia Li and acknowledged the foregoing instrument to be his free act and deed this _____ day of _____, 2012.

Notary Public