

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

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>Kurt L. Barth</td><td>06/08/2011</td></tr><tr><td>Robert A. Enzenroth</td><td>06/06/2011</td></tr><tr><td>Walajabad S. Sampath</td><td>06/04/2011</td></tr></tbody></table>	Name	Execution Date	Kurt L. Barth	06/08/2011	Robert A. Enzenroth	06/06/2011	Walajabad S. Sampath	06/04/2011			
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<table border="1"><tr><td>Name:</td><td>Colorado State University Research Foundation</td></tr><tr><td>Street Address:</td><td>601 South Howes</td></tr><tr><td>City:</td><td>Fort Collins</td></tr><tr><td>State/Country:</td><td>COLORADO</td></tr><tr><td>Postal Code:</td><td>80521</td></tr></table>	Name:	Colorado State University Research Foundation	Street Address:	601 South Howes	City:	Fort Collins	State/Country:	COLORADO	Postal Code:	80521	
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PROPERTY NUMBERS Total: 1											
<table border="1"><thead><tr><th>Property Type</th><th>Number</th></tr></thead><tbody><tr><td>Application Number:</td><td>12861391</td></tr></tbody></table>	Property Type	Number	Application Number:	12861391							
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CORRESPONDENCE DATA											
Fax Number: (202)842-7899 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>											
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Address Line 4: Washington, DISTRICT OF COLUMBIA 20001											
ATTORNEY DOCKET NUMBER:	AVAS-006/01US 307834-2025										
NAME OF SUBMITTER:	Eamonn Gardner										
Total Attachments: 5 source=AVAS00601US-Assignment2CSU#page1.tif source=AVAS00601US-Assignment2CSU#page2.tif source=AVAS00601US-Assignment2CSU#page3.tif source=AVAS00601US-Assignment2CSU#page4.tif source=AVAS00601US-Assignment2CSU#page5.tif											

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PATENT
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ASSIGNMENT

Kurt L. Barth, residing at 3075 Headwater Drive, Fort Collins, CO 80521, Fort Collins, CO 80521, Robert A. Enzenroth, residing at 1214 Niagara Drive, Fort Collins, CO 80525 and Walajabad S. Sampath, residing at 1612 Faraday Circle, Fort Collins, CO 80525 (each referred to as "Assignor") have made an invention (the "Invention") set forth in an application for patent of the United States, entitled **APPARATUS AND METHOD FOR RAPID COOLING OF LARGE AREA SUBSTRATES IN VACUUM**, and which is a

- (1) ☐ provisional application
 - (a) ☐ to be filed herewith; or
 - (b) ☐ bearing Application No. , and filed on ; or
- (2) ☒ non-provisional application bearing Application No. 12/861,391, filed on August 23, 2010.

WHEREAS, COLORADO STATE UNIVERSITY RESEARCH FOUNDATION, having its principal place of business at 601 South Howes, Fort Collins, CO 80521 (the "Assignee"), is desirous of acquiring the entire right, title, and interest in: the Invention; the application for patent identified in paragraph (1) or (2); the right to file applications for patent of the United States or other countries on the Invention; any application for patent of the United States or other countries claiming priority to these application; any provisional or other right to recover damages, including royalties, for prior infringements of these applications; and any patent of the United States or other countries that may be granted therefor or thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, and to the extent that the Assignor has not done so already via a prior agreement with the Assignee, or if the Assignor has already done so via a prior agreement with the Assignee then in confirmation of any obligation to do so in said prior agreement, the Assignor has sold, assigned, transferred, and set over, and by these presents does sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns, the Assignor's entire right, title, and interest in:

- (a) the Invention;
- (b) the application for patent identified in paragraph (1) or (2);
- (c) the right to file applications for patent of the United States or other countries on the Invention, including all rights under the Paris Convention for the Protection of Industrial Property and under the Patent Cooperation Treaty;
- (d) any application for patent of the United States or other countries claiming the Invention;

(e) any application for patent of the United States or other countries claiming priority to the application for patent identified in paragraph (1) or (2) or any application for patent claiming the Invention, including any division, continuation, and continuation-in-part; and

(f) any provisional or other right to recover damages, including royalties, for prior infringements of any application for patent identified in the preceding paragraphs (b)-(e); and

(g) any patent of the United States or other countries that may be granted for or on any application for patent identified in the preceding paragraphs (b) -- (e), including any reissue and extension of said patent.

The above-granted rights, titles, and interests are to be held and enjoyed by the Assignee, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made.

The Assignor hereby represents to the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, or if applicable, at such time said prior agreement was executed, the Assignor is a lawful owner of an undivided interest in the entire right, title, and interest in and to the Invention, that the Invention are unencumbered, except, if applicable, by obligation to assign in accordance with said prior agreement, and that the Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth herein.

The Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns, that the Assignor will sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done in connection with any and all proceedings for the procurement, maintenance, enforcement and defense of the Invention, said applications, and said patents, including interference proceedings, without charge to the Assignor, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns.

The Assignor hereby requests the Commissioner of Patents to issue said patents of the United States to the Assignee for the sole use and behalf of the Assignee, its successors, legal representatives, and assigns.

Date: 6/8/11By: [Signature]

Kurt L. Barth

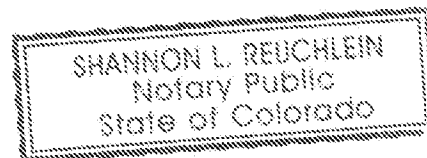
State of Colorado,
County of Larimer ss.

On June 8, 2011 before me, Shannon L. Reuchlein Notary Public, personally appeared Kurt L. Barth, personally known to me or proved to me on the basis of satisfactory evidence, to be the person whose name is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Shannon L. Reuchlein

Signature of Notary Public



Place Notary Seal Above

My Commission Expires: 1/13/2013

Date: 6/6/2011By: Robert A. Enzenroth

Robert A. Enzenroth

State of Colorado)
County of Larimer) ss.
On June 6, 2011, before me, Shannon L. Reuchlein Notary
Public, personally appeared Robert A. Enzenroth, personally known
to me or proved to me on the basis of satisfactory evidence, to be the person whose name is/are
subscribed to the within instrument and acknowledged to me that he/she/they executed the same
in his/her/their authorized capacity(ies), and that by his/her/their signature on the instrument the
person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

SHANNON L. REUCHLEIN
Notary Public
State of Colorado

Shannon L. Reuchlein

Signature of Notary Public

Place Notary Seal Above

My Commission Expires: 1/13/2013

My Commission Expires January 13, 2013

Date: 6/4/11

By: Walajabad S. Sampath
Walajabad S. Sampath

State of Colorado

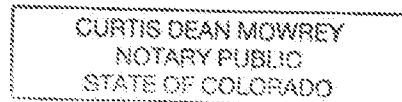
County of LaRimer ss.

On 4/6/11, before me, Curtis Mowrey, Notary Public, personally appeared Walajabad S. Sampath, personally known to me or proved to me on the basis of satisfactory evidence, to be the person whose name is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

[Signature]

Signature of Notary Public



MY COMMISSION EXPIRES MARCH 4, 2014

Place Notary Seal Above

My Commission Expires: 3-4-2014