

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>Ramaswamy Nagarajan</td> <td>02/05/2010</td> </tr> <tr> <td>Sharavanan Balasubramaniam</td> <td>05/24/2010</td> </tr> <tr> <td>Julie Chen</td> <td>01/21/2010</td> </tr> <tr> <td>Joey Mead</td> <td>02/12/2010</td> </tr> </tbody> </table>		Name	Execution Date	Ramaswamy Nagarajan	02/05/2010	Sharavanan Balasubramaniam	05/24/2010	Julie Chen	01/21/2010	Joey Mead	02/12/2010		
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<table border="1"> <tr> <td>Name:</td> <td>University of Massachusetts Lowell</td> </tr> <tr> <td>Street Address:</td> <td>600 Suffolk Street</td> </tr> <tr> <td>Internal Address:</td> <td>Second Floor South</td> </tr> <tr> <td>City:</td> <td>Lowell</td> </tr> <tr> <td>State/Country:</td> <td>MASSACHUSETTS</td> </tr> <tr> <td>Postal Code:</td> <td>01854</td> </tr> </table>		Name:	University of Massachusetts Lowell	Street Address:	600 Suffolk Street	Internal Address:	Second Floor South	City:	Lowell	State/Country:	MASSACHUSETTS	Postal Code:	01854
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CORRESPONDENCE DATA													
<p>Fax Number: (978)341-0136</p> <p>Phone: 978-341-0036</p> <p>Email: kelley.farr@hbsr.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: N. Scott Pierce, Esq.</p> <p>Address Line 1: Hamilton, Brook, Smith & Reynolds, P.C.</p> <p>Address Line 2: P.O. Box 9133, 530 Virginia Road</p> <p>Address Line 4: Concord, MASSACHUSETTS 01742</p>													
ATTORNEY DOCKET NUMBER:	0813.2015-001												
NAME OF SUBMITTER:	Kelley Farr												

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Total Attachments: 4

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PATENT

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Joint

ASSIGNMENT

WHEREAS, we, **Ramaswamy Nagarajan, Sharavanan Balasubramaniam, Julie Chen and Joey Mead**, have invented a certain improvement in **CONDUCTIVE FORMULATIONS FOR USE IN ELECTRICAL, ELECTRONIC AND RF APPLICATIONS** described in an application for Patent,

- ☐ the specification of which is about to be filed in the United States Patent Office *(use for utility (37 CFR § 1.53(b)) and design filings only)*;
- ☐ is about to be filed in the United States Patent Office as a Provisional Application;
- ☒ the specification of which is United States Application No. 12/628,566, filed December 1, 2009;
- ☐ the specification of which is a Patent Cooperation Treaty Application, International Application No. [], filed [], which designates the United States of America [and assigned United States Application No. []];
- ☐ which was patented under United States Patent No. [].

WHEREAS, **University of Massachusetts Lowell** (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the **Commonwealth of Massachusetts**, and having a usual place of business at **600 Suffolk Street, Second Floor South, Lowell, Massachusetts, 01854** desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue on said invention; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for 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 convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein; we hereby expressly authorize the filing of an International Patent Application under the Patent

Cooperation Treaty which corresponds to and claims the priority of the above-identified application;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of any future applications including substitution, reissue, divisional or continuation applications, and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request each Patent Office and the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said invention to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals the date set forth below.

Inventor's Signature: _____

Ramaswamy Nagarajan

State/Commonwealth

of Massachusetts

County of Middlesex

On this 5th day of February 20 10, before me, the undersigned notary public, personally appeared **Ramaswamy Nagarajan**,

☒ personally known to me, or

☐ proved to me through satisfactory evidence of identification, which was

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)

Notary Public _____

Diana L. Holey (print name)

My Commission expires 04 / 01 / 2018

Inventor's Signature: Sharavanan B.
Sharavanan Balasubramaniam

State/Commonwealth
of Massachusetts
County of Middlesex

On this 24th day of May 20 10, before me, the undersigned notary public, personally appeared **Sharavanan Balasubramaniam**,

- ☒ personally known to me, or
☐ proved to me through satisfactory evidence of identification, which was

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)

Notary Public Diana L. Locey
Diana L. Locey (print name)

My Commission expires 04 / 01 / 2018

Inventor's Signature: Julie Chen
Julie Chen

State/Commonwealth
of Massachusetts
County of Middlesex

On this 31st day of January 20 10, before me, the undersigned notary public, personally appeared **Julie Chen**,

- ☒ personally known to me, or
☐ proved to me through satisfactory evidence of identification, which was

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)

Notary Public Diana L. Locey
Diana L. Locey (print name)

My Commission expires 04 / 01 / 2018

Inventor's Signature: Joey Mead
Joey Mead

State/Commonwealth
of Massachusetts
County of Middlesex

On this 12th day of February 2010, before me, the undersigned notary
public, personally appeared **Joey Mead**,

- ☒ personally known to me, or
☐ proved to me through satisfactory evidence of identification, which was

to be the person whose name was signed on the foregoing instrument in my presence, and
acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)

Notary Public Diana L. Looney
Diana L. Looney (print name)

My Commission expires 04/01/2018