

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>Ilija N. Ivanov</td> <td>02/07/2012</td> </tr> <tr> <td>John T. Simpson</td> <td>02/07/2012</td> </tr> </tbody> </table>		Name	Execution Date	Ilija N. Ivanov	02/07/2012	John T. Simpson	02/07/2012
Name	Execution Date						
Ilija N. Ivanov	02/07/2012						
John T. Simpson	02/07/2012						
RECEIVING PARTY DATA							
Name:	UT-Battelle, LLC						
Street Address:	One Bethel Valley Road						
Internal Address:	4500N, MS-6258						
City:	Oak Ridge						
State/Country:	TENNESSEE						
Postal Code:	37831-6258						
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>13287461</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13287461		
Property Type	Number						
Application Number:	13287461						
CORRESPONDENCE DATA							
Fax Number:	(865)574-0381						
Phone:	(865) 574-0393						
Email:	bowmanke@ornl.gov						
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>							
Correspondent Name:	Edna I. Gergel						
Address Line 1:	One Bethel Valley Road						
Address Line 2:	4500N, MS-6258						
Address Line 4:	Oak Ridge, TENNESSEE 37831-6258						
ATTORNEY DOCKET NUMBER:	2245						
NAME OF SUBMITTER:	Karen E. Bowman						
Total Attachments: 4 source=2245 Assignment#page1.tif source=2245 Assignment#page2.tif source=2245 Assignment#page3.tif source=2245 Assignment#page4.tif							

CH \$40.00 13287461

RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)
 Iliia N. Ivanov
 John T. Simpson

Additional name(s) of conveying party(ies) attached? Yes No

2. Name and address of receiving party(ies)
 Name: UT-Battelle, LLC
 Internal Address: 4500N, MS-6258
 Street Address: One Bethel Valley Road
 City: Oak Ridge
 State: TN
 Country: USA Zip: 37831-6258

Additional name(s) & address(es) attached? Yes No

3. Nature of conveyance/Execution Date(s):
 Execution Date(s) 02/07/2012

Assignment Merger
 Security Agreement Change of Name
 Joint Research Agreement
 Government Interest Assignment
 Executive Order 9424, Confirmatory License
 Other _____

4. Application or patent number(s): This document is being filed together with a new application.

A. Patent Application No.(s)
13/287,461

B. Patent No.(s)

Additional numbers attached? Yes No

5. Name and address to whom correspondence concerning document should be mailed:
 Name: Edna I. Gergel
 Internal Address: UT-Battelle, LLC
 Street Address: One Bethel Valley Road
4500N, MS-6258
 City: Oak Ridge
 State: TN Zip: 37831-6258
 Phone Number: (865) 574-0393
 Fax Number: (865) 574-0381
 Email Address: gergelei@ornl.gov

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00

Authorized to be charged by credit card
 Authorized to be charged to deposit account
 Enclosed
 None required (government interest not affecting title)

8. Payment Information

a. Credit Card Last 4 Numbers _____
 Expiration Date _____

b. Deposit Account Number 13-1958
 Authorized User Name Karen E. Bowman

9. Signature: _____ /Edna I. Gergel/ _____ 02/08/2012
 Signature Date

Edna I. Gergel, Reg. No. 50819
 Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 4

ASSIGNMENT

WHEREAS, we the below-named inventors whose residences are as stated below, have an interest in an invention entitled:

LARGE AREA CONTROLLED ASSEMBLY OF TRANSPARENT CONDUCTIVE NETWORKS

(hereinafter referred to as "Subject Invention") for which are described in United States Patent Application No. 13/287,461 filed on November 2, 2011, and

WHEREAS, UT-BATTELLE, LLC, a limited liability company of the State of Tennessee, having an office at One Bethel Valley Road, P. O. Box 2008, Oak Ridge, Tennessee 37831-6258, hereinafter referred to as "ASSIGNEE," is desirous of acquiring our entire right, title and interest of the undersigned in the same;

NOW, THEREFORE, in accordance with the terms of our employment agreement with ASSIGNEE and for good and valuable consideration, the receipt of which is hereby acknowledged, we hereby assign and transfer to ASSIGNEE and its successors in interest our entire right, title and interest in the Subject Invention to all rights of priority thereto pursuant to the International Convention for the Protection of Industrial Property, and in any Letters Patent on the Subject Invention that may be granted in the United States of America and in any and all foreign countries, including any and all Letters Patent that are divisions, reissues, continuations, substitutions or extensions of any Letters Patent or patent applications therefor on the Subject Invention.

We hereby authorize and request the Commissioner of the United States Patent and Trademark Office and the officials of any and all foreign countries to issue any and all of said Letters Patent, when granted, to the ASSIGNEE.

Further, we hereby agree to communicate to said ASSIGNEE or its representatives any facts known to us respecting said Subject Invention, to testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, substitution, renewal and reissue applications, to execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, and to make all rightful oaths and generally do everything possible to aid said ASSIGNEE and its representatives to obtain and enforce proper protection for said Subject Invention in the United States of America and in any and all foreign countries.

We further agree that the terms, covenants and conditions of this assignment shall inure to the benefit of ASSIGNEE, its successors, assigns, and legal representatives, and shall be binding on us, our heirs, legal representatives, and assigns.

Full Name of First Inventor: Ilia N. Ivanov

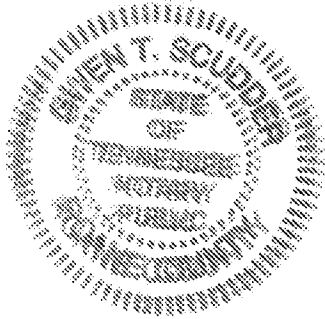
Signature: Ilia N. Ivanov Date: 2-7-2012

Residence: 2007 Marshy Swamp, Knoxville, Tennessee 37932

State of Tennessee)
County of ROANE)

On this 7 day of February, 2012, before me, a Notary Public in and for the County and State aforesaid, appeared ILIA N. IVANOV to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act and for the uses and purposes therein expressed.

WITNESS my hand and seal the day and year last above given.



Charles T. Scudder
Notary Public

SEAL

My Commission Expires:

My Commission Expires Thursday, August 14, 2012.

Full Name of First Inventor: John T. Simpson

Signature: John T. Simpson Date: 7 Feb 2012

Residence: 1224 Ridgeview Drive, Clinton, Tennessee 37716

State of Tennessee)
County of)

On this 7th day of February, 2012, before me, a Notary Public in and for the County and State aforesaid, appeared JOHN T. SIMPSON to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act and for the uses and purposes therein expressed.

WITNESS my hand and seal the day and year last above given.

Elizabeth Warfield
Notary Public



SEAL

My Commission Expires: My Commission Expires Sunday, May 31, 2015