

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3176050

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
JINJUN SHI	06/14/2011
ARUNA ZHAMU	10/17/2009
BOR Z. JANG	10/26/2013
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	Nanotek Instruments, Inc.
<b>Street Address:</b>	1240 McCook Avenue
<b>City:</b>	Dayton
<b>State/Country:</b>	OHIO
<b>Postal Code:</b>	45404
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	12220651
<b>CORRESPONDENCE DATA</b>	
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<b>ATTORNEY DOCKET NUMBER:</b>	075213-00065US
<b>NAME OF SUBMITTER:</b>	MARK P. LEVY
<b>SIGNATURE:</b>	/Mark P. Levy/
<b>DATE SIGNED:</b>	01/09/2015
<b>Total Attachments: 25</b>	
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### ASSIGNMENT

This Assignment Agreement is made and entered by and between Jinjun Shi, a citizen of P. R. China, residing at 45475 Mumfords Dr., Canton, MI 48188 (the "Assignor") and Nanotek Instruments, Inc., an Ohio corporation whose address is 1240 McCook Avenue, Dayton, OH 45404 (the "Assignee").

**WHEREAS**, Assignor is an inventor or co-inventor of certain new and useful inventions related to new materials, including nano-scaled graphene plates, processes, energy technologies, and other technologies as more fully described herein (the "Inventions") and

**WHEREAS**, Assignee desires to acquire the entire right, title and interest in and to the Inventions.

**NOW, THEREFORE**, the parties agree as follows:

1. The term "Inventions" shall mean (1) the issued United States patents listed in Schedule "A" attached hereto and incorporated herein by reference and all corresponding rights to claim priority, (2) the patent applications listed in Schedule "A" and any and all improvements which are disclosed in any of the aforesaid patent applications, (3) all Letters Patent to be obtained for said Inventions by the above applications or any continuation, divisional, renewal, or substitute thereof and, as to Letters Patent, any reissue or re-examination thereof, (4) all know-how, trade secrets, discoveries, concepts, ideas, and technologies related to the same, (5) any and all copyrights, copyright registrations and copyrightable subject matter related to the same; and (6) any trademarks related to such patents and patent applications.

2. In consideration of the sum of one dollar (\$1.00) and other good and valuable consideration, the receipt of which is acknowledged, the Assignor hereby assigns, transfers and conveys to Assignee all of Assignor's right, title and interest in and to (a) the Inventions, (b) any U.S. or foreign Letters Patent which may issue from the Inventions, and (c) all divisions, continuations, reissues, re-examinations and extensions of the patents and applications listed on Schedule A.

3. Assignor further covenants that said Assignee will, upon its request, be provided promptly with all pertinent facts and documents relating to said Inventions and said Letters Patent and legal equivalents, as may be known and accessible to Assignor and he or she will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to said Assignee or its legal representatives any and all papers,

instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said Inventions and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purpose thereof.

In Witness Whereof, the undersigned has executed this document as of the 14th day of June, 2011

**INVENTOR**

Jinjun Shi (Signature)

Jinjun Shi (Print Name)

State of Michigan

County of Washtenaw ) SSN: 501-29-5864  
)

Before me personally appeared said Jinjun Shi and acknowledged the foregoing instrument to be his free act and deed, this 14th day of June, 2011.

Angelique Roberts  
Notary Public

ANGELIQUE ROBERTS  
Notary Public, State of Michigan  
County of Washtenaw  
My Commission Expires May 8, 2015  
Acting in the County of Washtenaw

# EXHIBIT "A"

## Assigned Patents

### Invention Patents and Applications

Name of Assigned Patent	Patent Registration No. or Application No.	Status: Registered (R), Applied for Registration (A), Abandoned Application (AA) and Status Not Available (NA)
Aruna Zhamu, Jinjun Shi, Guorong Chen, Qing Fang, and Bor Z. Jang, "Graphene-Enhanced Anode Particulates for Lithium Batteries,"	US Patent Application No. 12/807,635 (09/10/2010)	A
Aruna Zhamu, Bor Z. Jang, and Jinjun Shi, "Graphene Nanocomposites for Electrochemical cell Electrodes,"	U.S. Patent Appl. No. 12/220,651 (07/28/2008)	A

### ASSIGNMENT

This Assignment Agreement is made and entered by and between Aruna Zhamu, a citizen of P. R. China, residing at 765 Hidden Circle, Centerville, Ohio (the "Assignor") and Nanotek Instruments, Inc., an Ohio corporation whose address is 1240 McCook Avenue, Dayton, OH 45404 (the "Assignee").

**WHEREAS**, Assignor is an inventor or co-inventor of certain new and useful inventions related to the production and use of new materials, including nano-scaled graphene plates, processes, energy technologies, and other technologies as more fully described herein (the "Inventions"), and

**WHEREAS**, Assignee desires to acquire the entire right, title and interest in and to the Inventions.

**NOW, THEREFORE**, the parties agree as follows:

1. The term "Inventions" shall mean (1) the issued United States patents listed in Schedule "A" attached hereto and incorporated herein by reference and all corresponding rights to claim priority, (2) the patent applications listed in Schedule "A" and any and all improvements which are disclosed in any of the aforesaid patent applications, (3) all Letters Patent to be obtained for said Inventions by the above applications or any continuation, divisional, renewal, or substitute thereof and, as to Letters Patent, any reissue or re-examination thereof, (4) all know-how, trade secrets, discoveries, concepts, ideas, and technologies related to the same, (5) any and all copyrights, copyright registrations and copyrightable subject matter related to the same; and (6) any trademarks related to such patents and patent applications.

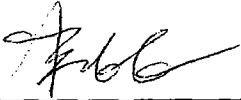
2. In consideration of the sum of one dollar (\$1.00) and other good and valuable consideration, the receipt of which is acknowledged, the Assignor hereby assigns, transfers and conveys to Assignee all of Assignor's right, title and interest in and to (a) the Inventions, (b) any U.S. or foreign Letters Patent which may issue from the Inventions, and (c) all divisions, continuations, reissues, re-examinations and extensions of the patents and applications listed on Schedule A.

3. Assignor further covenants that said Assignee will, upon its request, be provided promptly with all pertinent facts and documents relating to said Inventions and said Letters Patent and legal equivalents, as may be known and accessible to Assignor and he or she will testify as to the same in any interference, litigation or proceeding related thereto and will

promptly execute and deliver to said Assignee or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said Inventions and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purpose thereof.

In Witness Whereof, the undersigned has executed this document as of the 17<sup>th</sup> day of October, 2009

**INVENTOR**

 (Signature)

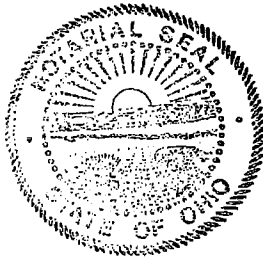
Aruna Zhamu (Print Name)

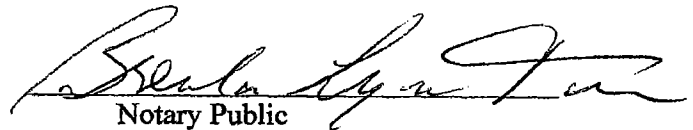
State of Ohio

County of Montgomery

)  
) SSN: 501-31-4061  
)

Before me personally appeared said Aruna Zhamu and acknowledged the foregoing instrument to be his free act and deed, this 17 day of October, 2009.



  
Notary Public

**BRENDA LYNN TURNER**  
Notary Public, State of Ohio  
My Commission Expires Aug. 29, 2011

**EXHIBIT "A"****Assigned Patents****Invention Patents and Applications**

<b>Name of Assigned Patent</b>	<b>Patent Registration No. or Application No.</b>	<b>Status: Registered (R), Applied for Registration (A), Abandoned Application (AA) and Status Not Available (NA)</b>
Nano-scaled Graphene Plate-Reinforced Composite Materials and Method of Producing Same	11/257,508 (10/26/05)	A
Electro-spinning of Nano-scaled Graphene Plate Composite	11/487,761 (07/17/06)	A
Hybrid Fiber Tow Containing Both Continuous Fibers and Nano-Fillers, Hybrid Composite, and Processes	11/491,657 (07/24/2006)	A
Process for Producing Nano-scaled Platelets and Nanocomposites	11/509,424 (08/25/2006)	A
Mass Production of Nano-scaled Platelets and Products	11/526,489 (09/26/2006)	A
Method of Producing Nano-scaled Graphene and Inorganic Platelets and Their Nanocomposites	11/709,274 (02/22/2007)	A
Nano-scaled Graphene Plate Films and Articles	11/784,606 (04/09/2007)	A
Low-Temperature Method of Producing Nano-scaled Graphene Platelets and Their Nanocomposites	11/787,442 (04/17/2007)	A
Method of Producing Exfoliated Graphite, Flexible Graphite, and Nano-Scaled Graphene Plates	11/800,728 (05/08/2007)	A
Method of Producing Ultra-thin Nano-Scaled Graphene Platelets	11/879,680 (07/19/2007)	A
Electrochemical Method of Producing Ultra-thin Nano-Scaled Graphene Platelets	11/881,388 (07/27/2007)	A
Environmentally Benign Chemical Method of Producing Exfoliated Graphite, Flexible Graphite, and Nano-Scaled Graphene Platelets	11/881,389 (07/27/2007)	A
Environmentally Benign Graphite Intercalation Compound Composition for Exfoliated Graphite, Flexible Graphite, and Nano-Scaled Graphene Platelets	11/881,390 (07/27/2007)	A
Method of Producing Nano-Scaled Graphene Platelets with a High Length-to-Width Ratio	12/002,278 (12/17/2007)	A
Production of Ultra-thin Nano-Scaled Graphene Platelets from Meso-Carbon Micro-Beads	12/005,015 (12/26/2007)	A
Nano Graphene Platelet-Based Conductive Inks	12/215,813 (07/01/2008)	A



Process for Producing Dispersible Nano Graphene Platelets from Non-oxidized Graphitic Materials	12/231,411 (09/03/2008)	A
Process for Producing Dispersible Nano Graphene Platelets from Oxidized Graphite	12/231,413 (09/03/2008)	A
Dispersible Nano Graphene Platelets	12/231,417 (09/03/2008)	A
Supercritical Fluid Process for Producing Nano Graphene Platelets	12/229,493 (08/25/2008)	A
Nano Graphene-Modified Curing Agents for Thermoset Resin	12/460,663 (07/23/2009)	A
Mass Production of Pristine Nano Graphene Materials	12/460,863 (07/27/2009)	A
Production of Chemically Functionalized Nano Graphene Materials	12/460,860 (07/27/2009)	A
Nano Graphene Modified Lubricant	12/583,320 (08/19/2009)	A
Pristine Nano Graphene Modified Tires	12/583,375 (08/20/2009)	A
Self-humidifying Membrane, Catalyst-Coated Membrane, Membrane Electrode Assembly, and Fuel Cell	11/257,601 (10/26/2005)	A
Organic Vapor Fuel Cell	11/257,528 (10/26/2005)	A
Method of Manufacturing Integrated Bipolar Plate/Diffuser Components for Proton Exchange Membrane Fuel Cells	11/293,690 (12/05/2005)	A
Integrated Bipolar Plate/Diffuser Components for Proton Exchange Membrane Fuel Cells	11/293,706 (12/05/2005)	A
Method for Producing Highly Conductive Sheet Molding Compound, Fuel cell Flow Field Plate, and Bipolar Plate	11/293,541 (12/05/2005)	A
Highly Conductive Composites for Fuel Cell Flow Field Plates and Bipolar Plates	11/324,370 (01/04/2006)	A
Highly Conductive Nano-scaled Graphene Plate Nanocomposites and Products	US Patent No. 7,566,410 (07/28/2009)	R
Controlled Release Vapor Fuel Cell	11/353,463 (02/15/2006)	A
Nano-scaled Graphene Plate Nanocomposites for Supercapacitor Electrodes	11/499,861 (08/07/2006)	A
Dissolved Fuel Direct Alcohol Fuel Cell	11/515,340 (09/05/2006)	A
Process for Producing Fuel Cell Electrode, Catalyst-Coated Electrode, and Membrane-Electrode Assembly	11/522,580 (09/19/2006)	A
Electro-catalyst Composition, Fuel Cell Electrode, and Membrane-Electrode Assembly	11/518,565 (09/11/2006)	A
Electro-catalyst Compositions for Fuel Cells	11/582,912 (10/19/2006)	A
Fuel Cell Electro-catalyst Composite Composition, Electrode, Catalyst-Coated Electrode, and Membrane-Electrode Assembly	11/699,176 (01/30/2007)	A
Conducting Polymer-Transition Metal Electro-catalyst Compositions for Fuel Cells	11/704,873 (02/12/2007)	A
Method of Producing Conducting Polymer-Transition Metal Electro-catalyst Compositions for Fuel Cells	11/879,679 (07/19/2007)	A
Home Hydrogen Fueling Station	11/636,666 (12/11/2006)	A

Hydrogen Generation and Storage Method for Personal Transportation Applications	11/636,706 (12/11/2006)	A
Process for Producing Carbon-Cladded Composite Bipolar Plates for Fuel Cells	11/644,477 (12/26/2006)	A
Carbon-Cladded Composite Flow Field Plate, Bipolar Plate, and Fuel Cell	11/644,122 (12/26/2006)	A
Highly Conductive, Multi-layer Precursor Composite Composition to Fuel Cell Flow Field Plate or Bipolar Plate	11/715,786 (03/09/2007)	A
Exfoliated Graphite Composite Compositions for Fuel Cell Flow Field Plates	11/800,729 (05/08/2007)	A
Method of Producing Exfoliated Graphite Composite Compositions for Fuel Cell Flow Field Plates	11/800,730 (05/08/2007)	A
Laminated Exfoliated Graphite Composite-Metal Compositions for Fuel Cell Flow Field Plate or Bipolar Plate Applications	11/807,379 (05/29/2007)	A
Carbon Anode Compositions for Lithium Ion Batteries	11/893,398 (08/17/2007)	A
Process for Producing Carbon Anode Compositions for Lithium Ion Batteries	11/906,984 (10/05/2007)	A
Graphite-Carbon Composite Electrodes for Supercapacitors	11/895,657 (08/27/2007)	A
Method of Producing Graphite-Carbon Composite Electrodes for Supercapacitors	11/895,588 (08/27/2007)	A
Recompressed Exfoliated Graphite Articles	11/899,009 (09/04/2007)	A
Method of Producing Less Anisotropic Flexible Graphite	11/899,008 (09/04/2007)	A
Method of Continuously Producing Laminated Exfoliated Graphite Composite-Metal Compositions for Fuel Cell Flow Field Plate Applications	12/002,279 (12/17/2007)	A
Continuous Production of Exfoliated Graphite Composite Compositions and Flow Field Plates	11/901,227 (09/17/2007)	A
Process for Producing Nano-scaled Graphene Platelet Nanocomposite Electrodes for Supercapacitors	11/906,786 (10/04/2007)	A
Hybrid Anode Compositions for Lithium Ion Batteries	11/982,662 (11/05/2007)	A
Nano Graphene Platelet-Based Composite Anode Compositions for Lithium Ion Batteries	11/982,672 (11/05/2007)	A
Anode Protective Layer Compositions for Lithium Metal Batteries	12/001,981 (12/14/2007)	A
Mixed Nano Filament Electrode Materials for Lithium Ion Batteries	12/008,118 (01/09/2008)	A
Hybrid Nano Filament Anode Compositions for Lithium Ion Batteries	12/006,209 (01/02/2008)	A
Hybrid Nano Filament Cathode Compositions for Lithium Ion and Lithium Metal Batteries	12/009,259 (01/18/2008)	A

Method of Producing Hybrid Nano Filament Electrodes for Lithium Metal or Lithium Ion Batteries	12/077,520 (03/20/2008)	A
Process for Producing Hybrid Nano Filament Electrodes for Lithium Batteries	12/150,096 (04/25/2008)	A
Conductive Nanocomposite-based Electrodes for Lithium Batteries	12/156,644 (06/04/2008)	A
Graphene Nanocomposites for Electrochemical cell Electrodes	12/220,651 (07/28/2008)	A
Method of Producing A Prelithiated Anode for Secondary Lithium Ion Battery	12/291689 (11/13/2008)	A
Nano Graphene Reinforced Nanocomposite for Lithium Battery Electrodes	12/315,555(12/04/2008)	A
Process for Producing Nano Graphene Reinforced Nanocomposite for Lithium Battery Electrodes	12/319,812 (01/13/2009)	A
Secondary Lithium Ion Battery Containing A Prelithiated Anode	12/319,114 (01/02/2009)	A
Bio-responsive and Electrically Conductive Polymer Compositions for Tissue Engineering and Methods for Production	11/543,413 (10/06/2006)	AA

1. Jiusheng Guo, A. Zhamu, and B. Z. Jang, "Nano-scaled Graphene Plate-Reinforced Composite Materials and Method of Producing Same," US Pat. Pending, 11/257,508 (10/26/05).
2. B. Z. Jang, A. Zhamu, and Jiusheng Guo, "Electro-spinning of Nano-scaled Graphene Plate Composite," US Pat. Pending, 11/487,761 (07/17/06).
3. B. Z. Jang, A. Zhamu, Jiusheng Guo, and Lulu Song "Hybrid Fiber Tow Containing Both Continuous Fibers and Nano-Fillers, Hybrid Composite, and Processes" US Pat. Pending, 11/491,657 (07/24/2006).
4. Bor Z. Jang, Aruna Zhamu, and Jiusheng Guo, "Process for Producing Nano-scaled Platelets and Nanocomposites," US Pat. Pending, 11/509,424 (08/25/2006).
5. Bor Z. Jang, Aruna Zhamu, and Jiusheng Guo, "Mass Production of Nano-scaled Platelets and Products," US Pat. Pending, 11/526,489 (09/26/2006).
6. Bor Z. Jang, Aruna Zhamu, and Jiusheng Guo, "Method of Producing Nano-scaled Graphene and Inorganic Platelets and Their Nanocomposites," US Pat. Pending, 11/709,274 (02/22/2007).
7. Bor Z. Jang, Aruna Zhamu, and Jiusheng Guo, "Nano-scaled Graphene Plate Films and Articles," US Pat. Pending, 11/784,606 (04/09/2007).
8. Aruna Zhamu, JinJun Shi, Jiusheng Guo, and Bor Z. Jang, "Low-Temperature Method of Producing Nano-scaled Graphene Platelets and Their Nanocomposites," US Pat. Pending, 11/787,442 (04/17/2007).
9. Aruna Zhamu, Jinjun Shi, Jiusheng Guo and Bor Z. Jang, "Method of Producing Exfoliated Graphite, Flexible Graphite, and Nano-Scaled Graphene Plates," US Pat. Pending, 11/800,728 (05/08/2007).
10. Aruna Zhamu, Joan Jang, Jinjun Shi, and Bor Z. Jang, "Method of Producing Ultra-thin Nano-Scaled Graphene Platelets," US Pat. Pending, 11/879,680 (07/19/2007). (2<sup>nd</sup> Int.)
11. Aruna Zhamu, Joan Jang, and Bor Z. Jang, "Electrochemical Method of Producing Ultra-thin Nano-Scaled Graphene Platelets," US Pat. Pending, 11/881,388 (07/27/2007).
12. Aruna Zham and Bor Z. Jang, "Environmentally Benign Chemical Method of Producing Exfoliated Graphite, Flexible Graphite, and Nano-Scaled Graphene Platelets," US Pat. Pending, 11/881,389 (07/27/2007).
13. Aruna Zham and Bor Z. Jang, "Environmentally Benign Graphite Intercalation Compound Composition for Exfoliated Graphite, Flexible Graphite, and Nano-Scaled Graphene Platelets," US Pat. Pending, 11/881,390 (07/27/2007).
14. Aruna Zhamu, Jiusheng Guo, and Bor Z. Jang, "Method of Producing Nano-Scaled Graphene Platelets with a High Length-to-Width Ratio," US Pat. App. No. 12/002,278 (12/17/2007).
15. Aruna Zhamu, Jiusheng Guo, and Bor Z. Jang, "Production of Ultra-thin Nano-Scaled Graphene Platelets from Meso-Carbon Micro-Beads," US Pat. Appl No. 12/005,015 (12/26/2007).
16. Bor Z. Jang and A. Zhamu, "Nano Graphene Platelet-Based Conductive Inks," US Pat. Application No. 12/215,813 (07/01/2008).
17. Bor Z. Jang and A. Zhamu, "Process for Producing Dispersible Nano Graphene Platelets from Non-oxidized Graphitic Materials," US Pat. Application No. 12/231,411 (09/03/2008).
18. Bor Z. Jang and A. Zhamu, "Process for Producing Dispersible Nano Graphene Platelets from Oxidized Graphite," US Pat. Application No. 12/231,413 (09/03/2008).

19. Bor Z. Jang and A. Zhamu, "Dispersible Nano Graphene Platelets," US Pat. Application No. 12/231,417 (09/03/2008).
20. Aruna Zhamu and Bor Z. Jang, "Supercritical Fluid Process for Producing Nano Graphene Platelets," US Pat. App. No. 12/229,493 (08/25/2008).
21. A. Zhamu and Bor Z. Jang, "Nano Graphene-Modified Curing Agents for Thermoset Resin," US Pat. Application No. 12/460,663 (07/23/2009).
22. A. Zhamu and Bor Z. Jang, "Mass Production of Pristine Nano Graphene Materials," US Pat. Application No. 12/460,863 (07/27/2009).
23. A. Zhamu and Bor Z. Jang, "Production of Chemically Functionalized Nano Graphene Materials," US Pat. Application No. 12/460,860 (07/27/2009).
24. A. Zhamu and Bor Z. Jang, "Nano Graphene Modified Lubricant," US Pat. Application No. 12/583,320 (08/19/2009).
25. A. Zhamu and Bor Z. Jang, "Pristine Nano Graphene Modified Tires," US Pat. Application No. 12/583,375 (08/20/2009).
26. A. Zhamu, Jiusheng Guo, and B. Z. Jang, "Self-humidifying Membrane, Catalyst-Coated Membrane, Membrane Electrode Assembly, and Fuel Cell," US Patent Pending, 11/257,601 (10/26/2005).
27. Jiusheng Guo, A. Zhamu, and B. Z. Jang, "Organic Vapor Fuel Cell," US Pat. Pending 11/257,528 (10/26/2005).
28. A. Zhamu and B. Z. Jang, "Method of Manufacturing Integrated Bipolar Plate/Diffuser Components for Proton Exchange Membrane Fuel Cells," U.S. Pat. Pending, 11/293,690 (12/05/2005).
29. A. Zhamu and B. Z. Jang, "Integrated Bipolar Plate/Diffuser Components for Proton Exchange Membrane Fuel Cells," U.S. Pat. Pending, 11/293,706 (12/05/2005).
30. Bor Z. Jang, A. Zhamu, Lulu Song, "Method for Producing Highly Conductive Sheet Molding Compound, Fuel cell Flow Field Plate, and Bipolar Plate," U.S. Pat. Pending, 11/293,541 (12/05/2005).
31. Bor Z. Jang, A. Zhamu, and Lulu Song, "Highly Conductive Composites for Fuel Cell Flow Field Plates and Bipolar Plates," U.S. Pat. Pending, 11/324,370 (01/04/06).
32. Lulu Song, Jiusheng Guo, A. Zhamu, and Bor Z. Jang, "Highly Conductive Nano-scaled Graphene Plate Nanocomposites and Products" US Patent No. 7,566,410 (07/28/2009).
33. Lulu Song, Jiusheng Guo, A. Zhamu, and Bor Z. Jang, "Controlled Release Vapor Fuel Cell" US Pat Pending, 11/353,463 (02/15/2006).
34. Lulu Song, A. Zhamu, Jiusheng Guo, and B. Z. Jang "Nano-scaled Graphene Plate Nanocomposites for Supercapacitor Electrodes" US Pat. Pending, 11/499,861 (08/07/2006).
35. Bor Z. Jang, Aruna Zhamu, and Jiusheng Guo, "Dissolved Fuel Direct Alcohol Fuel Cell," US Pat. Pending, 11/515,340 (09/05/2006).
36. Bor Z. Jang, Aruna Zhamu, and Jiusheng Guo, "Process for Producing Fuel Cell Electrode, Catalyst-Coated Electrode, and Membrane-Electrode Assembly," US Pat. Pending 11/522,580 (09/19/2006).
37. Bor Z. Jang, Aruna Zhamu, and Jiusheng Guo, "Electro-catalyst Composition, Fuel Cell Electrode, and Membrane-Electrode Assembly," US Pat. Pending 11/518,565 (09/11/2006).
38. Bor Z. Jang, Aruna Zhamu, and Jiusheng Guo, "Electro-catalyst Compositions for Fuel Cells," US Pat. Pending 11/582,912 (10/19/2006).

39. Bor Z. Jang, Aruna Zhamu, and Jiusheng Guo, "Fuel Cell Electro-catalyst Composite Composition, Electrode, Catalyst-Coated Electrode, and Membrane-Electrode Assembly," US Pat. Pending, 11/699,176 (01/30/2007).
40. Bor Z. Jang and Aruna Zhamu, "Conducting Polymer-Transition Metal Electro-catalyst Compositions for Fuel Cells," US Pat. Pending, 11/704,873 (02/12/2007).
41. Bor Z. Jang and Aruna Zhamu, "Method of Producing Conducting Polymer-Transition Metal Electro-catalyst Compositions for Fuel Cells," US Pat. Pending, 11/879,679 (07/19/2007).
42. Bor Z. Jang and Aruna Zhamu, "Home Hydrogen Fueling Station," US Pat. Pending 11/636,666 (12/11/2006).
43. Bor Z. Jang and Aruna Zhamu, "Hydrogen Generation and Storage Method for Personal Transportation Applications," US Pat. Pending, 11/636,706 (12/11/2006).
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## ASSIGNMENT

This Assignment Agreement is made and entered by and between Bor Z. Jang, a citizen of USA, residing at 9436 Parkside Drive, Centerville, Ohio (the "Assignor") and Nanotek Instruments, Inc., an Ohio corporation whose address is 1240 McCook Avenue, Dayton, OH 45404 (the "Assignee").

**WHEREAS**, Assignor is an inventor or co-inventor of certain new and useful inventions related to the production and use of new materials, including nano-scaled graphene plates, processes, energy technologies, and other technologies as more fully described herein (the "Inventions"), and

**WHEREAS**, Assignee desires to acquire the entire right, title and interest in and to the Inventions.

**NOW, THEREFORE**, the parties agree as follows:

1. The term "Inventions" shall mean (1) the issued United States patents listed in Schedule "A" attached hereto and incorporated herein by reference and all corresponding rights to claim priority, (2) the patent applications listed in Exhibit "A" and any and all improvements which are disclosed in any of the aforesaid patent applications, (3) all Letters Patent to be obtained for said Inventions by the above applications or any continuation, divisional, renewal, or substitute thereof and, as to Letters Patent, any reissue or re-examination thereof, (4) all know-how, trade secrets, discoveries, concepts, ideas, and technologies related to the same, (5) any and all copyrights, copyright registrations and copyrightable subject matter related to the same; and (6) any trademarks related to such patents and patent applications.

2. In consideration of the sum of one dollar (\$1.00) and other good and valuable consideration, the receipt of which is acknowledged, the Assignor hereby assigns, transfers and conveys to Assignee all of Assignor's right, title and interest in and to (a) the Inventions, (b) any U.S. or foreign Letters Patent which may issue from the Inventions, and (c) all divisions, continuations, reissues, re-examinations and extensions of the patents and applications listed on Schedule A.

3. Assignor further covenants that said Assignee will, upon its request, be provided promptly with all pertinent facts and documents relating to said Inventions and said Letters Patent and legal equivalents, as may be known and accessible to Assignor and he or she will testify as to the same in any interference, litigation or proceeding related thereto and will



promptly execute and deliver to said Assignee or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said Inventions and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purpose thereof.

In Witness Whereof, the undersigned has executed this document as of the 26 day of October, 2013

**INVENTOR**

Bor Z. Jang (Signature)

Bor Z. Jang (Print Name)

State of Ohio

)

) SSN: 303 80 5885

County of Montgomery

)

Before me personally appeared said Bor Z. Jang and acknowledged the foregoing instrument to be his free act and deed, this 26<sup>th</sup> day of October, 2013.



ROBERT ROCKWELL  
Notary Public, State of Ohio  
My Comm. Expires June 27, 2017

Robert Rockwell

Notary Public

**EXHIBIT "A": Assigned Patents**  
**Invention Patents and Applications**

1. Jiusheng Guo, A. Zhamu, and B. Z. Jang, "Nano-scaled Graphene Plate-Reinforced Composite Materials and Method of Producing Same," US Patent No. 7,662,321 (02/16/2010) (US Pat. Appl No.11/257,508 (10/26/05)).
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