PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------------------------|----------------|
| Oak Ridge Associated Universities | 07/01/2013 |

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

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13833834 |

CORRESPONDENCE DATA

Fax Number: 8655740381

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: (865) 574-0393 Email: vanceke@oml.gov 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: | 2323 ORAU TO UTB |
|-------------------------|------------------|
| NAME OF SUBMITTER: | Karen E. Vance |
| Signature: | /KE Vance/ |
| Date: | 07/12/2013 |
| | PATENT |

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Total Attachments: 4

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PATENT REEL: 030784 FRAME: 0560 Form **PTO-1595** (Rev. 07/05) OMB No. 0651-0027 (exp. 6/30/2008)

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) 2. Name and address of receiving party(ies) Name: UT-Battelle, LLC Oak Ridge Associated Universities Internal Address: 4500N, MS-6258 Additional name(s) of conveying party(ies) attached? 🔲 Yes 🗹 No 3. Nature of conveyance/Execution Date(s): Street Address: One Bethel Valley Road Execution Date(s) 07/01/2013 Merger ✓ Assignment City: Oak Ridge State: TN Government Interest Assignment Country: <u>USA</u> <u>Zip:37831-6258</u> Executive Order 9424, Confirmatory License Other Additional name(s) & address(es) attached? L Yes V No 4. Application or patent number(s): This document is being filed together with a new application. A. Patent Application No.(s) B. Patent No.(s) 13/833,834 Additional numbers attached? Yes V No 5. Name and address to whom correspondence 6. Total number of applications and patents concerning document should be mailed: involved: 1 Name: Edna I. Gergel **7. Total fee** (37 CFR 1.21(h) & 3.41) \$ 40.00 Internal Address: UT-Battelle, LLC Authorized to be charged by credit card Authorized to be charged to deposit account **Enclosed** Street Address: One Bethel Valley Road None required (government interest not affecting title) 4500N, MS-6258 8. Payment Information City: Oak Ridge a. Credit Card Last 4 Numbers _____ State: TN Zip:37831-6258 Expiration Date Phone Number: (865) 574-0393 b. Deposit Account Number 13-1958 Fax Number: (865) 574-0381 Authorized User Name Karen E. Bowman Email Address: gergelei@ornl.gov 9. Signature: /Edna I. Gergel/ 07/12/2013 Signature Date Total number of pages including cover Edna I. Gergel, Reg. No. 50,819 sheet, attachments, and documents: Name of Person Signing

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to: Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

REEL: 030784 FRAME: 0561

ASSIGNMENT AGREEMENT BETWEEN UT-BATTELLE, LLC AND ORAU

THIS AGREEMENT is by and between UT-Battelle, LLC a limited liability company organized and existing under the laws of the State of Tennessee (hereinafter "UT-BATTELLE") in accordance with its prime contract No. DE-AC05-00OR22725 (hereinafter "UT-Battelle's Prime Contract") with the U.S. Department of Energy (hereinafter DOE) and Oak Ridge Associated Universities (hereinafter "ORAU"), the not-for-profit operating contractor of the DOE's Oak Ridge Institute for Science and Education (hereinafter "ORISE") under its prime contract No. DE-AC05-06OR23100 (hereinafter "ORAU's Prime Contract") with the DOE, both being hereinafter jointly referred to as the "Parties" and singularly as a "Party."

WHEREAS:

- A. The Parties have developed technology identified in the invention disclosures, patent applications, and/or patents listed in Exhibit A (hereinafter Proprietary Rights); and
- **B.** The Parties desire that ORAU assign its undivided right, title, and interest to the Proprietary Rights to UT-BATTELLE to place ownership of all Proprietary Rights in a single Party, thereby promoting effective and successful commercialization of Proprietary Rights.

NOW THEREFORE THE PARTIES AGREE AS FOLLOWS:

- 1. In consideration of good and valuable consideration--including, but not limited to the promises contained in the Memorandum of Agreement between UT-BATTELLE and ORAU executed September 20, 2001--the receipt and sufficiency of such consideration being hereby acknowledged, ORAU by these presents does hereby sell, assign, transfer and set over unto UT-BATTELLE, its successors, legal representatives and assigns, its entire right, title, and interest (if any) in, to, and under the Proprietary Rights.
- 2. UT-BATTELLE shall share with ORAU portions of royalties UT-BATTELLE receives from licensees, if any, of the Proprietary Rights in accordance with the aforesaid Memorandum of Agreement.
- 3. UT-BATTELLE shall obligate any licensees of the Proprietary Rights to indemnify ORAU for any liability arising from the making, using, importing or selling of a product, process or service by or on behalf of the Licensee, its assignees or licensees which was derived from the Proprietary Rights, except for any negligent acts or omissions of ORAU.
- 4. UT-BATTELLE shall obligate any licensees of the Proprietary Rights as listed in Exhibit A to comply with all U. S. export control laws and regulations applicable to the export of the Proprietary Rights.
- 5. ORAU makes no warranties or representations of any kind regarding the Proprietary Rights.
- 6. The effective date of this agreement is June 24, 2013 and it shall run to and terminate upon the end of the life of the last-to-expire Proprietary Rights of Exhibit A.

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In witness whereof the Parties have executed this agreement below:

| UT-BAT | TELLE, LLC |
|---------|-----------------------------|
| By: | Jadom R. H. Stown |
| Name: | Judson R. Hightower |
| Title: | IP Managing Attorney |
| Date: | 6/24/2013 |
| | / / |
| OAK RII | DGE ASSOCIATED UNIVERSITIES |
| By: | M. Prun |
| Name: | Ivan A. Boatner |
| Title: | General Counsel |
| Date: | 7/1/13 |

EXHIBIT A, PROPRIETARY RIGHTS

| UT-B | | Contract | Inventors | | |
|------------|--------------------------------------|--------------------|---------------------|--------------|---------------------|
| Docket No. | Title (Patent Appl. No., Patent No.) | Type & No. | UT-Battelle | ORAU | Others |
| 2323.0 | Magneto-Carbonization Method for | DE-AC05-00OR22725, | Amit K. Naskar | Soydan Ozcan | Mohamed G. Abdallah |
| | Production of Carbon Fiber, and High | DE-AC05-06OR23100 | Claude Eberle | | |
| | Performance Carbon Fibers Made | | Gail M. Ludtka | j | |
| | Thereby | | Gerard M. Ludtka | | |
| | Patent Appl. No.: 13/833,834 | | Felix L. Paulauskas | | |
| | | | John D. Rivard | | |

v. 02/27/2003

RECORDED: 07/12/2013

PATENT

REEL: 030784 FRAME: 0564