## 507426465 08/08/2022

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7473394

| SUBMISSION TYPE:                  |            | NEW ASSIGNMENT  | NEW ASSIGNMENT       |            |  |  |
|-----------------------------------|------------|---|----------------------|------------|--|--|
| NATURE OF CONVEYANCE:             |            | ASSIGNMENT  | ASSIGNMENT           |            |  |  |
| CONVEYING PARTY                   | ΟΑΤΑ       |   |                      |            |  |  |
|                                   |            | Name  | Name Execution D     |            |  |  |
| SHENG DAI                         |            |   |                      |            |  |  |
| HUIMIN LUO                        |            |   |                      | 02/28/2022 |  |  |
| RECEIVING PARTY D                 | ΑΤΑ        |   |                      |            |  |  |
| Name:                             | UT-Batt    | UT-Battelle, LLC  |                      |            |  |  |
| Street Address:                   | One Bet    | One Bethel Valley Road  |                      |            |  |  |
| Internal Address:                 | 4500N,     | 4500N, MS-6258  |                      |            |  |  |
| City:                             | Oak Rid    | Oak Ridge   |                      |            |  |  |
| State/Country:                    | TENNE      | TENNESSEE   |                      |            |  |  |
| Postal Code:                      | 37831-6    | 37831-6258  |                      |            |  |  |
| PROPERTY NUMBER                   | S Total: 1 |   |                      |            |  |  |
| ГГ                                |            | Number  |                      |            |  |  |
| Property Type Application Number: |            | 17580851  |                      |            |  |  |
| ••                                |            |   |                      |            |  |  |
| CORRESPONDENCE                    | DATA       |   |                      |            |  |  |
| •                                 |            | 865)574-0381  |                      |            |  |  |
|                                   |            | the e-mail address first; in<br>; if that is unsuccessful, it |                      |            |  |  |
|                                   |            | 865) 574-0393   |                      |            |  |  |
| Email:                            | N          | anceke@ornl.gov   | ,                    |            |  |  |
|                                   |            | EDNA I. GERGEL  | IA I. GERGEL         |            |  |  |
|                                   |            |   | E BETHEL VALLEY ROAD |            |  |  |
|                                   |            | 500N, MS-6258   | ,                    |            |  |  |
| Address Line 4:                   | (          | DAK RIDGE, TENNESSEE  | 37831-6258           |            |  |  |
| ATTORNEY DOCKET NUMBER:           |            | 4576.1 (UTB)  | 4576.1 (UTB)         |            |  |  |
| NAME OF SUBMITTER:                |            | KAREN E. VANCE  | KAREN E. VANCE       |            |  |  |
| SIGNATURE:                        |            | /KE Vance/  | /KE Vance/           |            |  |  |
| DATE SIGNED:                      |            | 08/08/2022  | 08/08/2022           |            |  |  |
| Total Attachments: 4              |            |   |                      |            |  |  |
| source=4576.1 UTB Ass             | -          |   |                      |            |  |  |
| source=4576.1 UTB Ass             | •          |   |                      |            |  |  |
| source=4576.1 UTB Ass             | ignment fo | r EPAS#page3.tif  |                      |            |  |  |

PATENT REEL: 060742 FRAME: 0308

| RECORDATION FORM COVER SHEET<br>PATENTS ONLY  |   |  |  |  |
|---|---|--|--|--|
| To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.   |   |  |  |  |
| <b>1. Name of conveying party(ies)</b><br>Sheng Dai<br>Huimin Luo   | 2. Name and address of receiving party(ies)<br>Name: UT-Battelle, LLC<br>Internal Address: 4500N, MS-6258                 |  |  |  |
| Additional name(s) of conveying party(ies) attached? Yes No<br><b>3. Nature of conveyance/Execution Date(s):</b><br>Execution Date(s) 08/04/2022<br>Assignment Merger             | Street Address: One Bethel Valley Road  |  |  |  |
| Security Agreement       Change of Name         Joint Research Agreement         Government Interest Assignment         Executive Order 9424, Confirmatory License         Other  | City: Oak Ridge<br>State: Tennessee<br>Country: USA Zip: 37831-6258<br>Additional name(s) & address(es) attached? Yes No  |  |  |  |
| <ul> <li><b>4. Application or patent number(s):</b> This</li> <li>A. Patent Application No.(s)</li> <li>17/580,851</li> <li>Additional numbers att</li> </ul>                     | document serves as an Oath/Declaration (37 CFR 1.63).<br>B. Patent No.(s)<br>ached?                                       |  |  |  |
| 5. Name and address to whom correspondence concerning document should be mailed:  | 6. Total number of applications and patents involved: 1   |  |  |  |
| Name: Edna I. Gergel<br>Internal Address: UT-Battelle, LLC  | <ul> <li>7. Total fee (37 CFR 1.21(h) &amp; 3.41) \$40.00</li> <li>Authorized to be charged to deposit account</li> </ul> |  |  |  |
| Street Address: One Bethel Valley Road<br>4500N, MS-6258  | Enclosed<br>None required (government interest not affecting title)   |  |  |  |
| City: Oak Ridge<br>State: Tennessee Zip: 37831-6258   | 8. Payment Information  |  |  |  |
| Phone Number: (865) 574-0393<br>Docket Number: 4576.1<br>Email Address: gergelei@ornl.gov   | Deposit Account Number <u>13-1958</u><br>Authorized UserName <u>Karen E. Vance</u>  |  |  |  |
| 9. Signature:/Edna L Gergel/  | 08/08/2022  |  |  |  |
| Signature<br>Edna I. Gergel, Reg. No. 50819<br>Name of Person Signing<br>Documents to be recorded (including cover shee<br>Mail Stop Assignment Recordation Services, Director of | the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450  |  |  |  |
|   | PATENT<br>REEL: 060742 FRAME: 0309  |  |  |  |

## ASSIGNMENT

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

## Plasticized Melt Spinning Process Using Ionic Liquids for Production of Polyacrylonitrile Fibers

(hereinafter referred to as "Subject Invention") for which are described in United States Patent Application No. 17/580,851 filed on January 21, 2022, 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.

Docket No. 4576.1

| Name of Inventor: | Sheng Dai                                       |            |        |
|-------------------|---|------------|--------|
| Signature:        | Loopi   | Date:      | 814122 |
| Residence:        | 698 Brochardt Blvd., Knoxville, Tennessee 37934 |            |        |
|                   |   |            |        |
|                   |   |            |        |
| Name of Inventor: | Huimin Luo                                      |            |        |
| Signature:        |   | Date:      |        |
| Residence:        | 698 Brochardt Blvd., Knoxville, Tenn            | essee 3793 | 4      |

| Name of Inventor: | Sheng Dai                                       |
|-------------------|---|
| Signature:        | Date:   |
| Residence:        | 698 Brochardt Blvd., Knoxville, Tennessee 37934 |
| Name of Inventor: | Huimin Luo                                      |
| Signature:        | Heamin Luo Date: 02/28/2022                     |
| Residence:        | 698 Brochardt Blvd., Knoxville, Tennessee 37934 |