

## PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT2716251

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>HSIN WANG</td> <td>02/03/2014</td> </tr> <tr> <td>SREEKANTH PANNALA</td> <td>02/04/2014</td> </tr> <tr> <td>SRIKANTH ALLU</td> <td>02/03/2014</td> </tr> </tbody> </table>		Name	Execution Date	HSIN WANG	02/03/2014	SREEKANTH PANNALA	02/04/2014	SRIKANTH ALLU	02/03/2014
Name	Execution Date								
HSIN WANG	02/03/2014								
SREEKANTH PANNALA	02/04/2014								
SRIKANTH ALLU	02/03/2014								
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>14150154</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	14150154				
Property Type	Number								
Application Number:	14150154								
CORRESPONDENCE DATA									
Fax Number:	(865)574-0381								
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ATTORNEY DOCKET NUMBER:	3121.1								
NAME OF SUBMITTER:	KAREN E. VANCE								

Signature:	/KE Vance/
Date:	02/06/2014
Total Attachments: 5 source=3121.1 Assignment#page1.tif source=3121.1 Assignment#page2.tif source=3121.1 Assignment#page3.tif source=3121.1 Assignment#page4.tif source=3121.1 Assignment#page5.tif	

# 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)**  
 Hsin Wang  
 Sreekanth Pannala  
 Srikanth Allu

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) 02/04/2014

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)  
14/150,154

B. Patent No.(s)

Additional numbers attached?  Yes  No

**5. Name and address to whom correspondence concerning document should be mailed:**  
 Name: Joseph A. Marasco  
 Internal Address: UT-Battelle, LLC  
 Street Address: One Bethel Valley Road  
4500N, MS-6258  
 City: Oak Ridge  
 State: TN Zip: 37831-6258  
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 Fax Number: (865) 574-0381  
 Email Address: marascoja@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:** \_\_\_\_\_ /Joseph A. Marasco/ \_\_\_\_\_ 02/06/2014  
 Signature Date

Joseph A. Marasco, Reg. No. 32,798  
 Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 5

## ASSIGNMENT

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

### **Thermal Management for High-Capacity Large Format Li-Ion Batteries**

(hereinafter referred to as "Subject Invention") for which are described in United States Patent Application No. 14/150,154 filed on January 8, 2014, 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.

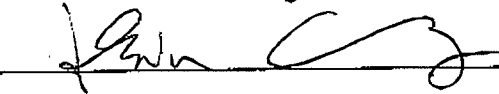
We hereby authorize and request the Commissioner of the United States Patent and Trademark Office and the officials of any and all foreign countries to issue any and all of said Letters Patent, when granted, to the ASSIGNEE.

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. 3121.1

Name of Inventor: **Hsin Wang**

Signature:  Date: 2/3/2014

Residence: 1233 Eagle Nest Lane, Knoxville, Tennessee 37922

Name of Inventor: **Sreekanth Pannala**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: 12043 Butternut Lane, Knoxville, Tennessee 37934

Name of Inventor: **Srikanth Allu**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: 10820 Snapdragon Way, Apt. 427, Knoxville, Tennessee 37931

Name of Inventor: **Hsin Wang**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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Name of Inventor: **Sreekanth Pannaia**

Signature: *Sreekanth Pannaia* Date: 02/04/2014

Residence: 12043 Butternut Lane, Knoxville, Tennessee 37934

Name of Inventor: **Srikanth Allu**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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Name of Inventor: **Hsin Wang**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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Name of Inventor: **Sreekanth Pannala**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: 12043 Butternut Lane, Knoxville, Tennessee 37934

Name of Inventor: **Srikanth Allu**

Signature: A. Srikanth Date: 2/3/14

Residence: 10820 Snapdragon Way, Apt. 427, Knoxville, Tennessee 37931