

**PATENT ASSIGNMENT**

Electronic Version v1.1  
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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT								
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT								
<b>CONVEYING PARTY DATA</b>									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Arthur J. Frank</td> <td>02/19/2009</td> </tr> <tr> <td>Kai Zhu</td> <td>02/19/2009</td> </tr> <tr> <td>Qing Wang</td> <td>02/24/2009</td> </tr> </tbody> </table>		Name	Execution Date	Arthur J. Frank	02/19/2009	Kai Zhu	02/19/2009	Qing Wang	02/24/2009
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Arthur J. Frank	02/19/2009								
Kai Zhu	02/19/2009								
Qing Wang	02/24/2009								
<b>RECEIVING PARTY DATA</b>									
<b>Name:</b>	Alliance for Sustainable Energy, LLC								
<b>Street Address:</b>	1617 Cole Blvd.								
<b>Internal Address:</b>	MS 1734								
<b>City:</b>	Golden								
<b>State/Country:</b>	COLORADO								
<b>Postal Code:</b>	80401								
<b>PROPERTY NUMBERS Total: 1</b>									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12389895</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	12389895				
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Application Number:	12389895								
<b>CORRESPONDENCE DATA</b>									
<b>Fax Number:</b>	(303)384-7499								
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>									
<b>Phone:</b>	303-384-7575								
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<b>Address Line 2:</b>	MS 1734								
<b>Address Line 4:</b>	GOLDEN, COLORADO 80401-3393								
<b>ATTORNEY DOCKET NUMBER:</b>	NREL 08-01								
<b>NAME OF SUBMITTER:</b>	Paul J. White								
Total Attachments: 3									

**CH \$40.00 12389895**

**500793039**

**PATENT  
 REEL: 022322 FRAME: 0526**

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## ASSIGNMENT

WHEREAS, we, Arthur J. Frank, Kai Zhu, and Qing Wang ("Inventors"), having invented a certain new and useful invention entitled **ORIENTED NANOTUBE ELECTRODES FOR LITHIUM ION BATTERIES AND SUPERCAPACITORS**, an application for Letters Patent for which was filed on February 20, 2009, Application No. 12/389,895, said application also being identified as NREL IR No. 08-01 ("Invention"), and;

WHEREAS, the Alliance for Sustainable Energy, LLC, of 1617 Cole Boulevard, Golden, CO 80401 USA ("Alliance"), a corporation fully organized and existing under the laws of the State of Delaware is desirous of securing the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to the application for United States Letters Patent on this invention and the Letters Patent to be issued upon this application;

NOW THEREFORE, be it known that we, the said Inventors, for and in consideration of good and valuable consideration, the receipt of which from Alliance is hereby acknowledged, at the request of Alliance do hereby sell, assign, transfer, and set over unto the Alliance, its lawful successors, legal representatives and assigns, our entire right, title, and interest in and to this invention, provisional application (if any), and this application, and all divisions, continuations and continuations-in-part thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues or reexaminations thereof, and all rights to claim priority on the basis of any provisional application describing the invention, as well as all rights to claim priority on the basis of this application, and all applications for Letters Patent, Invention Registrations and Utility Models that may hereafter be filed for this invention in any foreign country and all Letters Patent, Invention Registrations and Utility Models that may be granted on this invention in any foreign country, and all extensions, renewals, and reissues thereof; and we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all Letters Patent for this invention to Alliance, its successors, legal representatives and assigns, in accordance with the terms of this Assignment;

AND, WE HEREBY covenant that we have the full right to convey the interest assigned by this Assignment, that we are under no obligation to make any assignment of the invention to any other party, and that we have not executed and will not execute any agreement in conflict with this Assignment;

AND, WE HEREBY further covenant and agree that we will, without further consideration, communicate with Alliance, its successors, legal representatives and assigns, any facts known to us respecting this invention, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in Alliance, its successors, legal representatives and assigns, execute all divisional, continuation, continuation-in-part and reissue applications, make all rightful oaths and generally do everything possible to aid Alliance, its successors, legal representatives and assigns, to obtain, sustain and enforce proper patent protection for this invention in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by Alliance, its successors, legal representatives and assigns;

AND, WE HEREBY authorize Alliance, its successors, legal representatives and assigns, to fill in the information above concerning the application number and filing date of the patent application filed for this invention after the execution of this Assignment.

IN TESTIMONY WHEREOF, we have hereunto set our hands below.

Arthur J. Frank  
Arthur J. Frank

2/19/09  
Date

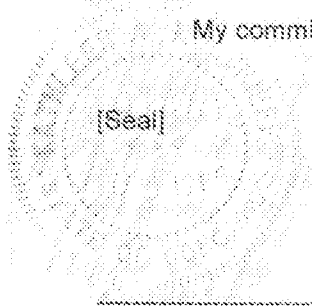
IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal on the date set forth hereinafter.

COUNTY OF JEFFERSON )  
STATE OF COLORADO )

Before me, a Notary Public in and for the said County and State, personally appeared Arthur J. Frank who is known to me to be the person whose name is subscribed to the foregoing, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office, this 19<sup>th</sup> day of February 2009.

My commission expires: 1/13/13



[Seal]

Kathleen A. Monroff  
Kathleen A. Monroff, Notary Public

Kai Zhu  
Kai Zhu

02/19/2009  
Date

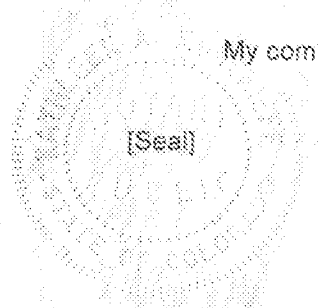
IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal on the date set forth hereinafter.

COUNTY OF JEFFERSON )  
STATE OF COLORADO )

Before me, a Notary Public in and for the said County and State, personally appeared Kai Zhu who is known to me to be the person whose name is subscribed to the foregoing, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office, this 19<sup>th</sup> day of February 2009.

My commission expires: 1/13/13



[Seal]

Kathleen A. Monroff  
Kathleen A. Monroff, Notary Public

Q. Wang 24.02.2009

Qing Wang Date  
Department of Materials Science and Engineering  
Faculty of Engineering  
616 E3A, 7 Engineering Drive 1  
#04-10, Singapore 117574

IN WITNESS WHEREOF, I have hereunto set my hand on the date set forth hereinafter.

National University of Singapore  
Singapore, 117574

Before me, as witness, personally appeared Qing Wang, who is known to me to be the person whose name is subscribed to the foregoing, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

Witnessed this 24 day of February 2009.

[Signature]  
Manager MCE(AMS) WITNESS