

## PATENT ASSIGNMENT

Electronic Version v1.1  
 Stylesheet Version v1.1

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>Bruce E Dale</td> <td>09/04/2013</td> </tr> <tr> <td>Derek Marshall</td> <td>08/29/2013</td> </tr> <tr> <td>Bryan Ritchie</td> <td>08/30/2013</td> </tr> </tbody> </table>		Name	Execution Date	Bruce E Dale	09/04/2013	Derek Marshall	08/29/2013	Bryan Ritchie	08/30/2013		
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RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>BOARD OF TRUSTEES OF MICHIGAN STATE UNIVERSITY</td> </tr> <tr> <td>Street Address:</td> <td>450 Administration Building</td> </tr> <tr> <td>City:</td> <td>East Lansing</td> </tr> <tr> <td>State/Country:</td> <td>MICHIGAN</td> </tr> <tr> <td>Postal Code:</td> <td>48824</td> </tr> </table>		Name:	BOARD OF TRUSTEES OF MICHIGAN STATE UNIVERSITY	Street Address:	450 Administration Building	City:	East Lansing	State/Country:	MICHIGAN	Postal Code:	48824
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PROPERTY NUMBERS Total: 1											
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CORRESPONDENCE DATA											
Fax Number: <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i> Email: clark_docketing@cardinal-ip.com Correspondent Name: Barbara J. Clark Address Line 1: 1631 Crestwood Circle Address Line 4: Ames, IOWA 50010											
ATTORNEY DOCKET NUMBER:	3000.008US2CIP										
NAME OF SUBMITTER:	Jeanne Burdette										
Signature:	/Jeanne Burdette/										
Date:	09/06/2013										

OP \$40.00 13835382

**Total Attachments: 5**

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## ASSIGNMENT

WHEREAS, We, Bruce E. Dale, residing at 2865 Hagadorn Road, Mason, MI 48854; Derek Marshall, residing at 1603 N. Harrison Avenue, East Lansing, MI 48823; Bryan Ritchie, having an address at University of Utah, 615 Arapeen Drive, Suite 310, Salt Lake City, UT 84108 made certain new and useful inventions and improvements which are described in an application for U.S. Letters Patent on March 15, 2013, which application was assigned U.S. Patent Application Serial Number 13/835,382, and is entitled DENSIFIED BIOMASS PRODUCTS CONTAINING PRETREATED.

WHEREAS, We are governed by Michigan State University (hereinafter "MSU") Patent Policy ([www.hr.msu.edu/documents/facacadhandbooks/facultyhandbook/patents.htm](http://www.hr.msu.edu/documents/facacadhandbooks/facultyhandbook/patents.htm)), and therefore understand that, in exchange for GOOD AND VALUABLE CONSIDERATION provided by MSU, the receipt, sufficiency and adequacy of which are hereby acknowledged, the aforementioned new and useful inventions and improvements are considered "University Inventions." As such, the undersigned does hereby:

SELL, ASSIGN AND TRANSFER to BOARD OF TRUSTEES OF MICHIGAN STATE UNIVERSITY (the "Assignee"), a corporation of the State of Michigan, having a place of business at 450 Administration Building, East Lansing, MI 48824-1046, the entire right, title and interest for the United States and all foreign countries in and to: any and all inventions and improvements which are disclosed in the identified application for U.S. Letters Patent, and which may be further identified below; such application and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries on any of such inventions and/or improvements (including any applications for utility models); all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such inventions and/or improvements; and specifically including the right to file foreign applications under the provisions of any convention or treaty and to claim priority based on the identified application;

AUTHORIZE AND REQUEST that any attorney associated with U.S. PTO Customer No. 102038 may (directly or through his/her designee) delete, insert, or alter any information identifying this application, or any related application, below, after execution of this Assignment;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and/or property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

COVENANT, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the undersigned will (1) execute all provisional, non-provisional, divisional, continuing, substitute,

**ASSIGNMENT**

Client Ref. No. TEC2009-0052-01CIP1

Assignors: Bruce E. Dale et al.

Title: DENSIFIED BIOMASS PRODUCTS CONTAINING PRETREATED

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Docket No: 3000.008US2CIP

Serial Number: 13/835,382

renewal, reissue, and all other patent applications on any and all such improvements; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers; (3) communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for such improvements; and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to such improvements in the Assignee, or for securing, maintaining and enforcing proper patent protection for such improvements;

THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives and successors of the undersigned, and is to extend to the benefit of the successors, assigns and nominees of the Assignee.

AGREED as of the date of my signature below:

**ASSIGNMENT**

Client Ref. No. TEC2009-0052-01CIP1

Assignors: Bruce E. Dale et al.

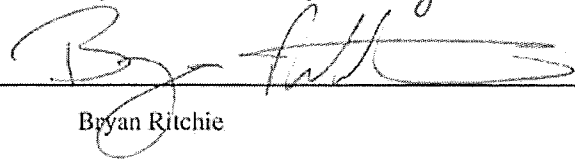
Title: DENSIFIED BIOMASS PRODUCTS CONTAINING PRETREATED

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Docket No: 3000.008US2CIP

Serial Number: 13/835,382

IN TESTIMONY WHEREOF, I have hereunto set  
my hand this 30 day of Aug, 2013.

  
Bryan Ritchie

ASSIGNMENT

Client Ref. No. TEC2009-0052-01CIP1

Assignors: Bruce E. Dale et al.

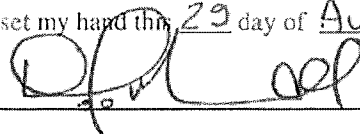
Title: DENSIFIED BIOMASS PRODUCTS CONTAINING PRETREATED

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Docket No: 3000,008US2CIP

Serial Number: 13/835,382

IN TESTIMONY WHEREOF, I have hereunto  
set my hand this 29 day of Aug., 2013.

A handwritten signature in black ink, appearing to read 'D. Marshall', is written over a horizontal line.

Derek Marshall

ASSIGNMENT

Client Ref. No: TFC2009-0052-01CIP1

Assignors: Bruce E. Dale et al.


Title: DENSIFIED BIOMASS PRODUCTS CONTAINING PRE-TREATED

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Docket No: 200910081S2CIP  
Serial Number: 13835382

IN TESTIMONY WHEREOF, I have hereunto

set my hand this 4<sup>th</sup> day of SEPTEMBER 2013.



Bruce E. Dale