

**PATENT ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
Christian Perry Ridley	02/04/2011
Nikos Basil Reppas	02/04/2011
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	Joule Unlimited, Inc.
<b>Street Address:</b>	83 Rogers Street
<b>City:</b>	Cambridge
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	02142
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	12821107
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(650)938-5200
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
<b>Phone:</b>	4158752405
<b>Email:</b>	cullspenger@fenwick.com
<b>Correspondent Name:</b>	Chris Ullsperger
<b>Address Line 1:</b>	801 California Street
<b>Address Line 4:</b>	Mountain View, CALIFORNIA 94041
<b>ATTORNEY DOCKET NUMBER:</b>	26139-17030 US
<b>NAME OF SUBMITTER:</b>	Chris Ullsperger, Reg. No. 48,006
<b>Total Attachments: 3</b> source=17030_US_Assignment#page1.tif source=17030_US_Assignment#page2.tif source=17030_US_Assignment#page3.tif	

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## ASSIGNMENT

WHEREAS, We, **Christian Perry Ridley** and **Nikos Basil Reppas**, have invented one or more inventions described in a utility application for Letters Patent of the United States entitled:

### **Biosynthesis of 1-Alkenes in Engineered Microorganisms**

and identified by Docket No. **JBT-248.1** and Serial No. **12/821,107**, filed in the United States Patent Office on April 13, 2010.

and

WHEREAS, Joule Unlimited, Inc., (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the State of Delaware, and having a usual place of business at 83 Rogers Street, Cambridge, MA 02142, desires to acquire an interest therein, in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, our entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with our entire right, title and interest in and to said application and such Letters Patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such Letters Patent, and any right, title and interest we may have in provisional applications to which said application claims priority; said invention(s), applications and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all of our rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. We hereby acknowledge that this assignment, being of our entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all Letters Patent to ASSIGNEE in its own name as assignee of our entire right, title and interest therein;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications;

AND, we hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved;

26139/17030/SF/5302827.1

**PATENT**  
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AND, we hereby authorize ASSIGNEE or its attorneys or agents to insert the correct serial number and filing date into this assignment, if none is indicated on the date of our execution of this assignment;

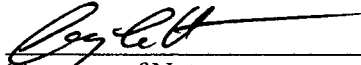
AND, we hereby authorize and request the Director of the United States Patent and Trademark Office and the empowered officials of all other governments to issue such Letters Patent as shall be granted upon said application, or applications based thereon, to said ASSIGNEE, its successors, assigns, or legal representatives.

**IN TESTIMONY WHEREOF**, we have hereunto set our hands and affixed our seals on the date(s) set forth below.

Inventor:   
Christian Perry Ridley

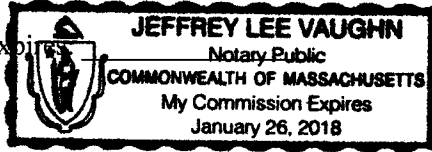
Commonwealth of Massachusetts )  
County of Middlesex ) ss

On this 4 day of February, 2010, before me, the undersigned Notary Public, personally appeared **Christian Perry Ridley**, proved to me through satisfactory evidence of identification, which was/were MASS Drivers License, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

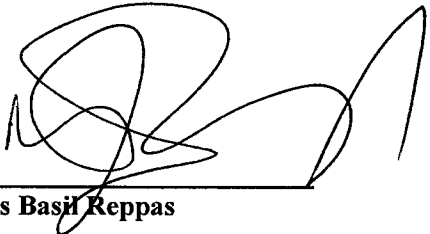
  
Signature of Notary

(Seal)

My Commission Expires




Inventor:

  
\_\_\_\_\_  
**Nikos Basil Reppas**

Commonwealth of Massachusetts     )  
County of *Middlesex*                     ) ss

On this 4 day of February, 2010, before me, the undersigned Notary Public, personally appeared **Nikos Basil Reppas**, proved to me through satisfactory evidence of identification, which was/were Mr. Nikos Reppas, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

  
\_\_\_\_\_  
Signature of Notary

(Seal)

My Commission Expires:

