506286809 10/02/2020

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
STEPHEN A ROWLAND	10/31/2016
CHRIS MALLALIEU	10/26/2016
RYAN TAYLOR	10/26/2016
ZIYAD RAHME	11/04/2016

RECEIVING PARTY DATA

Name:	IOGEN ENERGY CORPORATION
Street Address:	310 HUNT CLUB ROAD EAST
City:	OTTAWA, ONTARIO
State/Country:	CANADA
Postal Code:	K1V 1C1

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15779001

CORRESPONDENCE DATA

Fax Number: (212)218-2200

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 2122182100

Email: ssdelponte@venable.com

Correspondent Name: VENABLE LLP

Address Line 1: 1290 AVENUE OF THE AMERICAS
Address Line 4: NEW YORK, NEW YORK 10104

ATTORNEY DOCKET NUMBER:	04372.028000 (449924)
NAME OF SUBMITTER:	STEPHANIE S. DELPONTE
SIGNATURE:	/Stephanie S. DelPonte/
DATE SIGNED:	10/02/2020

Total Attachments: 4

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PATENT REEL: 053962 FRAME: 0767

ASSIGNMENT

FOR VALUE RECEIVED, we,

- Stephen A. ROWLAND of 1381 des Outaouais, Brownsburg-Chatham, QC J8G 172, Canada
- b. Chris MALLALIEU of 1189 Tara Drive, Ottawa, ON K2C 2H4, Canada
- c. Rysn TAYLOR of 22 Trinity Drive, Nepean, ON K2H 6H2, Canada
- d. Ziyad RAHME of 35 Hime Crescent, Ottawa, ON K1G 4R9, Canada

citizens of Canada

hereby sell, assign, transfer and convey unto Iogen Energy Corporation

a corporation of Canada

having a place of business at 310 Hunt Club Road East, Ottawa, Ontario, Canada KIV 1C1

its successors, assigns and legal representatives (hereinafter called the "Assignee"), the entire right, title and interest, for all countries, in and to certain inventions relating to SYSTEM AND METHOD FOR COOLING PRETREATED BIOMASS and described in PCT Application No. PCT/CA20 16/ 06 1382, which claims priority to United States Provisional Patent Application No. 62/259,830 filed on November 25, 2015, and in and to said application, and all applications claiming priority to said application for Letters Patent and all divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted, thereon, and all reissues and extensions thereof, and all applications for Letters Patent or other grants of protection of proprietary rights (collectively "application" or "inventions"); including, but not limited to, inventor's certificate, utility model, utility certificate, patent of importation, registration of patent and industrial design registration which may be filed, and which may be granted, upon said inventions in any countries or regions foreign to the United States, and all reissues, renewals and extensions thereof; and we hereby authorize and request the Commissioner for Patents of the United States, and all officials of countries or regions foreign to the United States having authority so to do, to issue all such Letters Patent or other grants of protection upon said inventions to the Assignee or to such nominees as it may designate.

AND we authorize and empower the said Assignee of said application or nominees to invoke and claim for any application for such Letters Patent or other grams of protection ensuing from said provisional application for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by a convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from me.

AND we hereby consent that a copy of this assignment shall be deemed a full and formal equivalent of any assignment, consent to file or like document which may be required in any country or region for any purpose and more particularly in proof of the right of the said Assignee or nominees to claim the aforesaid benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it.

AND we hereby covenant that we have the full right to convey the entire right, title and interest herein assigned and that we have not executed and will not execute any agreement in conflict herewith.

AND we hereby covenant and agree that we will communicate to said Assignee or nominees all facts known to me pertaining to said inventions, and testify in all legal proceedings, sign all lawful

l of I Form #7 papers, execute all divisional, continuing and reissue applications, make all rightful oaths and declarations and in general perform all lawful acts necessary or proper to aid said Assignee or nominees in obtaining, maintaining and enforcing all lawful patent or other grants of protection of said inventions in any and all countries and regions.

IN TESTIMONY WHEREOF, we hereunto set my hand:

Name	Sympature	Date	
Assignor: <u>Stephen A. ROWLAND</u> Witness: <u>Cheq I. Rowland</u>	<u>Akrile</u> Lej Baila	<u>1 October 3</u> 1 20 ad <u>October 3</u> 1	
Name Assignor: Chris MALLALIEU	Signature	Date	
Witness:			
Name	Signature	Date	
Assignor: <u>Ryan TAYLOR</u> Witness:			
Name	Signature	Date	
Assignor: Ziyad RAHME			
Witness:			

PATENT REEL: 053962 FRAME: 0769 papers, execute all divisional, continuing and reissue applications, make all rightful oaths and declarations and in general perform all lawful acts necessary or proper to aid said Assignee or nominees in obtaining, maintaining and enforcing all lawful patent or other grants of protection of said inventions in any and all countries and regions.

IN TESTIMONY WHEREOF, we hereunto set my hand:

Name	Signature	Date
Assignor: Stephen A. ROWLAND		
Witness:		
Name	Signature	Date
Assignor: Chris MALLALIEU		<u>-26-01-2016</u>
Witness: <u>Sandra 14e.114</u>	Daoly-	<u>Dda6.ac</u> 16
Name	Signature	Date
Assignor: <u>Ryan TAYLOR</u>	May a Julium	26-24-2016
Witness: <u>Saylakelly</u>	GANNULL	<u> </u>
Name	Signature	Date
Assignor: Ziyad RAHME		
Witness:		

papers, execute all divisional, continuing and reissue applications, make all rightful oaths and declarations and in general perform all lawful acts necessary or proper to aid said Assignee or nominees in obtaining, maintaining and enforcing all lawful patent or other grants of protection of said inventions in any and all countries and regions.

IN TESTIMONY WHEREOF, we hereunto set my hand:

Name	Signature	Date
Assignor: Stephen A. ROWLAND	A	
Witness:		
Name	Signature	Date
Assignor: Chris MALLALIEU	•	20
Witness:		
Name	Signature	Date
Assignor: Ryan TAYLOR		
Witness:		
Name	Signature	Date
Assignor: Zivad RAHME		200 4, 20C
Witness: 1940 40 1	Calla a 1d	, , ,

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RECORDED: 10/02/2020