507855154 04/14/2023

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7902292

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ADAM FEIST	04/05/2023
ELSAYED THARWAT TOLBA MOHAMED	04/10/2023

RECEIVING PARTY DATA

Name:	ALLIANCE FOR SUSTAINABLE ENERGY, LLC		
Street Address:	15013 DENVER WEST PARKWAY		
City:	GOLDEN		
State/Country:	COLORADO		
Postal Code:	80401		

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	17184580	

CORRESPONDENCE DATA

Fax Number: (303)384-7499

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: 3033847571

Email: ipdocketing@nrel.gov

Correspondent Name: ALLIANCE FOR SUSTAINABLE ENERGY, LLC

Address Line 1: 15013 DENVER WEST PARKWAY
Address Line 4: GOLDEN, COLORADO 80401

ATTORNEY DOCKET NUMBER:	NREL 20-48
NAME OF SUBMITTER:	NANCY RONZONE
SIGNATURE:	/Nancy Ronzone/
DATE SIGNED:	04/14/2023
This document serves as an Oath/Declaration (37 CFR 1.63).	

Total Attachments: 8

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PATENT 507855154 REEL: 063328 FRAME: 0503

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ASSIGNMENT AND DECLARATION UNDER 37 C.F.R. § 1.63

(For Use with Signed Application Data Sheet)

Title of Invention:

MICROORGANISMS ENGINEERED FOR MUCONATE PRODUCTION

This assignment and declaration are directed to the application identified above by the attorney docket no. and title of invention United States Application No. 17/184,580, filed February 24, 2021

ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, as a below-named inventor I have sold and assigned, and by these presents hereby sell and assign, unto:

Name of Assignee:

Alliance for Sustainable Energy, LLC (hereinafter "Alliance")

Address of Assignee: 15013 Denver West Parkway, Golden, CO 80401

(hereinafter ASSIGNEE) all my right, title and interest in and to the above-identified invention in any form or embodiment thereof, in the United States and all foreign countries, including applications for patents in the United States and all countries of the world and through the Patent Cooperation Treaty and/or the European Patent Convention, including any and all applications claiming priority thereto such as divisions or continuations thereof, and in and to any and all patents granted in the United States and all countries of the world that may issue on any such applications or for said invention, including any and all reissues or extensions thereof, to be held and enjoyed by said ASSIGNEE, its successors, or assigns to the full end of the term or terms for which any and all such patents may be granted as fully and entirely as would have been held and enjoyed by me had this Assignment not been made.

I hereby authorize and request the Director of the U.S. Patent and Trademark Office to issue any and all Letters Patent of the United States to said ASSIGNEE, its successors, or assigns in accordance herewith.

I warrant and covenant that I have the full and unencumbered right to sell and assign the interests herein sold and assigned and that I have not executed and will not execute any document or instrument in conflict herewith.

I further covenant and agree that I will communicate to said ASSIGNEE, its successors, legal representatives, or assigns all information known to me relating to said invention or patent application and that I will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings, and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives, or assigns to perfect title to said invention, to said application including divisions and continuations thereof and to any and all patents that may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors, or assigns, or to assist said ASSIGNEE, its successors, legal representatives, or assigns in obtaining, reissuing, or enforcing patents for said invention.

DECLARATION

As a below named inventor, I hereby declare that:

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Signature: Inventor:

04/05/23

ATTACHMENT A: ROYALTY SHARING AGREEMENT ("AGREEMENT")

This Agreement between Adam Feist ("Assignor") and Alliance for Sustainable Energy, LLC ("Assignee") is entered into as of the date this Agreement is fully executed ("Effective Date").

ARTICLE I. BACKGROUND

ASSIGNEE manages and operates the National Renewable Energy Laboratory ("NREL") under authority of its Prime Contract No. DE-AC36-08G028308 with the United States Government as represented by the Department of Energy. Assignor has assigned Patents as more fully described in this Agreement, all in accordance with the terms and conditions of this Agreement.

ARTICLE II. ADDITIONAL DEFINITIONS

- 2.1 "License" means an agreement between ASSIGNEE and an ASSIGNEE Licensee, and includes an option to acquire a license.
- 2.2 "Party" shall generically identify ASSIGNEE or Assignor on an individual basis while "Parties" shall generically identify ASSIGNEE and Assignor on a collective basis.
- 2.3 "Patents" means the U.S. provisional patent application no. 17/184,580, "MICROORGANISMS ENGINEERED FOR MUCONATE PRODUCTION" (NREL 20-48) and all patent applications and any patents resulting therefrom, including without limitation, any reissues, reexamination certificates, extensions, divisional or continuation applications of the inventions disclosed and claimed therein.
- 2.4 "Consideration" means the gross consideration or remuneration received by ASSIGNEE expressly as a result of granting rights to the Patents, whether characterized as royalties, license fees, or equity.
- 2.5 "ASSIGNEE Licensee" means a third party with whom ASSIGNEE has entered into a licensing arrangement with respect to a Patent that provides for payment of Consideration to ASSIGNEE.

ARTICLE IIL ASSIGNMENT

- Assignor hereby transfers, grants, conveys and assigns to ASSIGNEE, all right title and interest in and to the Patents. From and after the Effective Date, ASSIGNEE shall have all rights as owner of the Patents, including, but not limited to the sole right to file, prosecute and maintain the Patents and the right to determine, whether or not, and where, to file a patent application, to abandon prosecution of any patent or patent application, or to discontinue the prosecution or maintenance of any patent or patent application.
- 3.2 From and after the Effective Date, Assignee shall be solely responsible for and shall directly pay all costs and expenses, including all legal and other fees and costs that are necessary for the preparation, filing, prosecution, maintenance and defense of the Patents ("Costs").
- 3.3 Each Party will promptly notify the other Party in writing of; (i) any suspected infringement of the Patents; or (ii) the assertion by any entity of the invalidity, unenforceability, or non-infringement of the Patents or the threat or filing of any lawsuit or other proceeding by any entity related to the Patents. Notwithstanding any other provision of this Agreement, ASSIGNEE shall not have any duty or obligation to the Assignor under this Agreement to either initiate any action against an alleged infringer of the Patents or to defend lawsuit or action related to the Patents.

ARTICLE IV. ADVANCEMENT OF COMMERCIALIZATION

- 4.1 ASSIGNEE will engage in commercially reasonable efforts to advance the commercialization of the Patents. In furtherance thereof, ASSIGNEE may perform such tasks related to commercialization of the Patents as ASSIGNEE shall, in its sole discretion, determine is appropriate.
- As owner of the Patents, ASSIGNEE may from time to time enter into agreements with any third party, upon such terms and conditions and of such duration as determined appropriate by ASSIGNEE, with respect to any aspect of the development or commercialization of the Patents, including but not limited to agreements for the protection, research, development, manufacture and licensing (exclusive or nonexclusive) of the Patents.

ARTICLE V. PAYMENTS

- All Consideration received by ASSIGNEE shall first be retained by ASSIGNEE. Thereafter, four point one six seven percent (4.167%) of the Consideration received by ASSIGNEE shall be provided to Assignor. If the Consideration received by ASSIGNEE is in the form of equity or other property, all the equity shall be owned by ASSIGNEE until such time as ASSIGNEE recovers in cash, whether from other Consideration or from cash paid to ASSIGNEE by virtue of its ownership of the equity.
- If and when ASSIGNEE enters into a License for the Patents and Technical Information, ASSIGNEE shall, no later than sixty (60) days after the end of each calendar year after the effective date of that License, provide to Assignor a written statement specifying the Consideration received by ASSIGNEE during the period, and the amount due Assignor, if any, under this Agreement.
- ASSIGNEE shall pay any amounts due Assignor under Section 5.1 of this Agreement per ASSIGNEE's regular Consideration distribution process, but no later than sixty (60) days after the end of the calendar year for which payment is due.
- 5.4 ASSIGNEE shall keep complete and accurate records pertaining to the ASSIGNEE Agreement Expenses and the Consideration.

ARTICLE VI. TERM AND TERMINATION

- 6.1 The obligation of ASSIGNEE to provide reports and make payments to Assignor under Article V shall continue until such time as ASSIGNEE no longer receives any Consideration.
- 6.2 If either Party is in default of any obligation hereunder, the other Party may terminate this Agreement by giving thirty (30) days' written notice to the other Party specifying the basis for termination. If within thirty (30) days after the receipt of such notice, the Party receiving the notice remedies the condition forming the basis for such termination, such notice shall cease to be operative, and this Agreement will continue in full force.

ARTICLE VII. MISCELLANEOUS

- 7.1 The following miscellaneous provisions shall apply with respect to this Agreement:
 - (a) this Agreement may not be amended, supplemented or otherwise modified except by an instrument in writing signed by both Parties;
 - (b) neither Party may assign this Agreement without the prior written approval of the other Party, except in connection with the transfer of the management and operation contract between NREL and DOE to a successor manager and operator;

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(c) ASSIGNEE and Assignor agree that neither will use the other's name, either expressed or implied, in its publicity, advertising, promotional literature, without the other's prior written consent;

IN WITNESS WHEREOF, each of the Parties has caused this Agreement to be executed by each Party's duly authorized representative.

ASSIG	NOR	ASSIGNEE DocuSigned by:		
Ву:	Alin Fost	Onne Miller 52B278BC98374C3		
Name:	Adam Frist	Name: Anne Miller		
Title:	Resul Schiff	Trike:Technology Transfer Direc		
Date: .	04/05/23	Date: 4/13/2023		

ASSIGNMENT AND DECLARATION UNDER 37 C.F.R. § 1.63

(For Use with Signed Application Data Sheet)

Title of Invention:

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ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, as a below-named inventor I have sold and assigned, and by these presents hereby sell and assign, unto:

Name of Assignee: Alliance for Sustainable Energy, LLC (hereinafter "Alliance")

Address of Assignee: 15013 Denver West Parkway, Golden, CO 80401

(hereinafter ASSIGNEE) all my right, title and interest in and to the above-identified invention in any form or embodiment thereof, in the United States and all foreign countries, including applications for patents in the United States and all countries of the world and through the Patent Cooperation Treaty and/or the European Patent Convention, including any and all applications claiming priority thereto such as divisions or continuations thereof, and in and to any and all patents granted in the United States and all countries of the world that may issue on any such applications or for said invention, including any and all reissues or extensions thereof, to be held and enjoyed by said ASSIGNEE, its successors, or assigns to the full end of the term or terms for which any and all such patents may be granted as fully and entirely as would have been held and enjoyed by me had this Assignment not been made.

I hereby authorize and request the Director of the U.S. Patent and Trademark Office to issue any and all Letters Patent of the United States to said ASSIGNEE, its successors, or assigns in accordance herewith.

I warrant and covenant that I have the full and unencumbered right to sell and assign the interests herein sold and assigned and that I have not executed and will not execute any document or instrument in conflict herewith.

I further covenant and agree that I will communicate to said ASSIGNEE, its successors, legal representatives, or assigns all information known to me relating to said invention or patent application and that I will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings, and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives, or assigns to perfect title to said invention, to said application including divisions and continuations thereof and to any and all patents that may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors, or assigns, or to assist said ASSIGNEE, its successors, legal representatives, or assigns in obtaining, reissuing, or enforcing patents for said invention.

DECLARATION

As a below named inventor, I hereby declare that:

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The above-identified application was made or authorized to be made by me.

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I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Signature:	LISAYALU	10-April-2023
Inventor:	Elsayed/Tharwat Tolba Mohamed	DATE

ATTACHMENT A: ROYALTY SHARING AGREEMENT ("AGREEMENT")

This Agreement between Elsayed Tharwat Tolba Mohamed ("Assignor") and Alliance for Sustainable Energy, LLC ("Assignee") is entered into as of the date this Agreement is fully executed ("Effective Date").

ARTICLE I. BACKGROUND

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(c) ASSIGNEE and Assignor agree that neither will use the other's name, either expressed or implied, in its publicity, advertising, promotional literature, without the other's prior written consent;

IN WITNESS WHEREOF, each of the Parties has caused this Agreement to be executed by each Party's duly authorized representative.

ASSIGNOR	ASSIGNEE DocuSigned by:
By: Elsayed Mohamed	ASSIGNEE DocuSigned by: Anne Meller By:
Name: Elsayed Tharwat Tolba Mohamed	Name:
Title:	Title:Technology Transfer Director
Date: 10-April-2023	Date:

PATENT REEL: 063328 FRAME: 0512

RECORDED: 04/14/2023