504669645 12/04/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4716367

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
PRZEMYSLAW RUPNOWSKI	11/16/2017
MICHAEL JOSEPH ULSH	11/17/2017

RECEIVING PARTY DATA

Name:	ALLIANCE FOR SUSTAINABLE ENERGY, LLC
Street Address:	15013 DENVER WEST PARKWAY
Internal Address:	MS 5231
City:	GOLDEN
State/Country:	COLORADO
Postal Code:	80401

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15830585

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: 303-384-7551

Email: ipdocketing@nrel.gov

ALLIANCE FOR SUSTAINABLE ENERGY, LLC **Correspondent Name:**

Address Line 1: 15013 DENVER WEST PARKWAY

Address Line 2: MS 5231

Address Line 4: GOLDEN, COLORADO 80401-3305

ATTORNEY DOCKET NUMBER:	NREL 16-96	
NAME OF SUBMITTER:	REINA R. BERNFELD	
SIGNATURE:	/Reina R. Bernfeld/	
DATE SIGNED:	12/04/2017	
	This document serves as an Oath/Declaration (37 CFR 1.63).	

Total Attachments: 2

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> **PATENT** REEL: 044288 FRAME: 0721 504669645

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

(For Use with Signed Application Data Sheet)

Title of Invention:

Inventor: Przemyslaw Rupnowski

THICKNESS MAPPING USING MULTISPECTRAL IMAGING
This assignment and declaration are directed to (check one): the application identified above by the attorney docket no. and title of invention PCT International Application Number, filed United States Application No, filed
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
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.

PATENT REEL: 044288 FRAME: 0722

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

(For Use with Signed Application Data Sheet)

Title of Invention:

Inventor: Michael Joseph Ulsh

RECORDED: 12/04/2017

THICKNESS MAPPING USING MULTISPECTRAL IMAGING
This assignment and declaration are directed to (check one): the application identified above by the attorney docket no. and title of invention PCT International Application Number, filed United States Application No, filed
<u>ASSIGNMENT</u>
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
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.
<u>DECLARATION</u>
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 tive (5) years or both.

PATENT REEL: 044288 FRAME: 0723

DATE