505928846 02/21/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5975564

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KAI ZHU	02/14/2020
MENGJIN YANG	02/14/2020
DONGHOE KIM	02/16/2020

RECEIVING PARTY DATA

Name:	ALLIANCE FOR SUSTAINABLE ENERGY, LLC		
Street Address:	15013 DENVER WEST PARKWAY, RSF 406		
City:	GOLDEN		
State/Country:	COLORADO		
Postal Code:	80401		

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	16640903	

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: RSF-406

Address Line 4: GOLDEN, COLORADO 80401-3305

ATTORNEY DOCKET NUMBER:	NREL 17-100
NAME OF SUBMITTER:	REINA R. BERNFELD
SIGNATURE:	/Reina R. Bernfeld/
DATE SIGNED:	02/21/2020
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3

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PATENT REEL: 051887 FRAME: 0594 505928846

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PATENT REEL: 051887 FRAME: 0595

Inventor:

Kai Zhu

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

(For Use with Signed Application Data Sheet)

Title of Invention:

ORGANIC-INORGANIC PEROVSKITE MATERIALS AND METHODS OF MAKING THE SAME

This assignment and de	claration are directed to (chec	k one):	
	dentified above by the attorne		
PCI Internation	al Application Number, filed	, filed	
L. Chined States A	ppmeanouritor	***************************************	
	<u>A</u>	<u>SSIGNMENT</u>	
	consideration, the receipt and d assigned, and by these prese		eby acknowledged, as a below-named nto:
Name of Assignee:	Alliance for Sustainable En	iergy, LLC	
Address of Assignee:	15013 Denver West Parkw	ay, Golden, CO 80401	
embodiment thereof, ir and all countries of the including any and all a and all patents granted said invention, includin successors, or assigns t	world and through the Patent pplications claiming priority the in the United States and all co ag any and all reissues or exter	ign countries, including app Cooperation Treaty and/or thereto such as divisions or countries of the world that mand isions thereof, to be held another for which any and all su	lications for patents in the United States the European Patent Convention, ontinuations thereof, and in and to any y issue on any such applications or for d enjoyed by said ASSIGNEE, its uch patents may be granted as fully and
	request the Director of the U.S d ASSIGNEE, its successors,		nce to issue any and all Letters Patent of ewith.
	that I have the full and unencouted and will not execute any		sign the interests herein sold and assigned conflict herewith.
all information known make all rightful oaths, by said ASSIGNEE, its including divisions and reissues or extensions,	to me relating to said invention testify in any legal proceeding successors, legal representati continuations thereof and to a	n or patent application and t gs, and perform all other lav ves, or assigns to perfect titl any and all patents that may sors, or assigns, or to assist	ressors, legal representatives, or assigns hat I will execute and deliver any papers, whil acts deemed necessary or desirable to said invention, to said application be granted therefor or thereon, including said ASSIGNEE, its successors, legal wention.
DECLARATION			
As a below named inve	entor, I hereby declare that:		**************************************
The above-identified a	oplication was made or author	ized to be made by me.	
I believe that I am the	original inventor or an original	l joint inventor of a claimed	invention in the application.
I hereby acknowledge or imprisonment of not	that any willful false statement more than five (5) years, or b	t made in this declaration is oth.	punishable under 18 U.S.C. 1001 by fine
Signature:	Lo		2/14/2020

PATENT REEL: 051887 FRAME: 0596

DATE

PATENT REEL: 051887 FRAME: 0597

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

(For Use with Signed Application Data Sheet)

Title of Invention:

Signature: _ Inventor:

ORGANIC-INORGANIC PEROVSKITE MATERIALS AND METHODS OF MAKING THE SAME

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.			
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.			

NREL 17-100 Worldwide Rights

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

(For Use with Signed Application Data Sheet)

Title of Invention:

RECORDED: 02/21/2020

ORGANIC-INORGANIC PEROVSKITE MATERIALS AND METHODS OF MAKING THE SAME

the application i	claration are directed to (check one dentified above by the attorney doct all Application Number	ket no, and title of invention	
United States A	al Application Number	·········	
	ASSIC	GNMENT	
	consideration, the receipt and suffic I assigned, and by these presents he	iency of which are hereby ac	knowledged, as a below-named
Name of Assignce:	Alliance for Sustainable Energy,	LLC	
Address of Assignee:	15013 Denver West Parkway, G	olden, CO 80401	
embodiment thereof, in and all countries of the including any and all of and all patents granted said invention, includin successors, or assigns to	E) all my right, title and interest in a the United States and all foreign co world and through the Patent Coope oplications claiming priority thereto in the United States and all countrie g any and all reissues or extensions o the full end of the term or terms fo been held and enjoyed by me had th	nuntries, including application eration Treaty and/or the Europe such as divisions or continutes of the world that may issue thereof, to be held and enjoyor which any and all such pat	ns for patents in the United States ropean Patent Convention, ations thereof, and in and to any con any such applications or for yed by said ASSIGNEE, its lents may be granted as fully and
I hereby authorize and the United States to said	request the Director of the U.S. Pate I ASSIGNEE, its successors, or ass	int and Trademark Office to igns in accordance herewith.	issue any and all Letters Patent of
	that I have the full and unencumber ruted and will not execute any docur		
all information known t make all rightful oaths, by said ASSIGNEE, its including divisions and reissues or extensions, i	igree that I will communicate to said o me relating to said invention or pot testify in any legal proceedings, and successors, legal representatives, or continuations thereof and to any an in said ASSIGNEE, its successors, on ons in obtaining, reissuing, or enforce	stent application and that I will deperform all other lawful act assigns to perfect title to said all patents that may be grant assigns, or to assist said A	rill execute and deliver any papers, ts deemed necessary or desirable id invention, to said application nted therefor or thereon, including SSIGNEE, its successors, legal
<u>DECLARATION</u>	, •		
As a below named inve	ntor, I hereby declare that:		
The above-identified ap	plication was made or authorized to) be made by me.	
I believe that I am the o	riginal inventor or an original joint	inventor of a claimed invent	ion in the application.
I hereby acknowledge to or imprisonment of not	hat any willful false statement made more than five (5) years, or both.	in this declaration is punish	able under 18 U.S.C. 1001 by fine
Signature:			16.02, 2020
Inventor: Dongh	NAME OF THE STATE		DATE

PATENT REEL: 051887 FRAME: 0598