506931109 10/20/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6977946

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
Mark Sunderland	04/24/2019

RECEIVING PARTY DATA

Name:	Thomas Jefferson University	
Street Address:	1020 Walnut Street	
City:	Philadelphia	
State/Country:	Pennsylvania	
Postal Code:	19107	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17248865

CORRESPONDENCE DATA

Fax Number:

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.

Email: patents@vos-ip.com, kevin@vos-ip.com

Correspondent Name: KEVIN DAUG

Address Line 1: 32 CONSHOHOCKEN STATE ROAD
Address Line 4: GLADWYNE, PENNSYLVANIA 19035

ATTORNEY DOCKET NUMBER: ECO01.0005.103	
NAME OF SUBMITTER:	KEVIN DAUG
SIGNATURE:	/Kevin Daug/
DATE SIGNED:	10/20/2021

Total Attachments: 6

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PATENT 506931109 REEL: 057843 FRAME: 0903

PATENT

ASSIGNMENT

WHEREAS, I, Mark Sunderland of Philadelphia, Pennsylvania, USA, hereinafter referred to as the assignor, am an inventor of certain inventions or improvements for which I have made application for Letters Patent to the United States Patent Office, identified as U.S. Provisional Patent Application No. 62/663,731, filed April 27, 2018 entitled "HIGH TEMPERATURE HYDRO-THERMAL OR CHEMO-THERMAL BIO-CHAR ACTIVATION OF HEMP STALK WITH POLYMER FUSION FOR CONDUCTIVE AND CAPACITANT FIBER AND YARN PRODUCTION".

WHEREAS, Thomas Jefferson University, hereinafter referred to as the assignee, of Innovation Pillar, 901 Walnut Street, 11th Floor, Philadelphia, Pennsylvania 19107, USA is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said applications, and in, to and under any and all Letters Patents which may be granted on or as a result thereof in any and all countries.

NOW, THEREFORE, for and in consideration of the sum of One Dollar (\$1.00) to me in hand paid by said assignee, and other good and valuable consideration, the receipt of which is hereby acknowledged, I, the said assignor, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over to said assignee, my entire right, title and interest in and to said inventions or improvements and said applications and any and all continuations, continuations-in-part, divisionals and renewals of and substitutes for said applications, including any reissue or continuation, continuation-in-part or divisional therefrom, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in my name applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patents respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me had this assignment, sale and transfer not been made.

AND I hereby covenant that I have full right to convey my entire interest herein assigned, and that I have not executed and will not execute any agreement in conflict herewith, and I further covenant and agree that I will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said applications and said Letters Patent to said assignee, its successors, assigns, nominees or legal representatives, and I agree to communicate to said assignee or to its nominee all known facts respecting said inventions or improvements, said applications and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all

HIGH TEMPERATURE HYDRO-THERMAL OR CHEMO-THERMAL BIO-CHAR ACTIVATION OF HEMP STALK WITH POLYMER FUSION FOR CONDUCTIVE AND CAPACITANT FIBER AND YARN PRODUCTION DOCKET No.: ECO01.0005.001

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rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND I hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue Letters Patent on applications as aforesaid, to issue to said assignee, as assignee of my entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the applications aforesaid, in accordance with the terms of this assignment.

AND this Assignment may be executed in multiple counterparts, each of which shall be deemed to be an original of this Assignment. Additionally, I hereby authorize my attorneys to collect the signature pages of each executed counterpart and to attach those signature pages to a single copy of this instrument, which single copy and attached signature pages together shall constitute an original of this Assignment.

This assignment is effective as of April 27, 2018.

IN WITNESS WHEREOF, I have hereunto set my hands.

Dated: <u>April 24, 2019</u>	Mallalala
	Mark Sunderland
State of Pennsylvania	
County of Philadelphia	- -
Notary Public for the state, personally appearme/proven to me on the basis of satisfactory foregoing Assignment and acknowledged to	before me, the undersigned, a gred Mark Sunderland, personally known to y evidence to be the person who subscribed the or me that he executed the same in his authorized ssignment the person, or the entity on behalf of which Signature of Notary

HIGH TEMPERATURE HYDRO-THERMAL OR CHEMO-THERMAL BIO-CHAR ACTIVATION OF HEMP STALK WITH POLYMER FUSION FOR CONDUCTIVE AND CAPACITANT FIBER AND YARN PRODUCTION DOCKET No.: ECO01.0005.001

PATENT

This assignment is accepted on behalf of Thomas Jefferson University by:

Dated: 1001124, 201

Robin Sheldon

Print Name

Print Title

ASSIGNMENT

WHEREAS, I, Mark Sunderland of Philadelphia, Pennsylvania, USA, hereinafter referred to as the assignor, am an inventor of certain inventions or improvements for which I have made application for Letters Patent to the United States Patent Office, identified as U.S. Provisional Patent Application No. 62/790,722, filed January 10, 2019 entitled "HIGH TEMPERATURE HYDRO-THERMAL OR CHEMO-THERMAL BIO-CHAR ACTIVATION OF HEMP STALK WITH POLYMER FUSION FOR CONDUCTIVE AND CAPACITANT FIBER AND YARN PRODUCTION".

WHEREAS, Thomas Jefferson University, hereinafter referred to as the assignee, of Innovation Pillar, 901 Walnut Street, 11th Floor, Philadelphia, Pennsylvania 19107, USA is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said applications, and in, to and under any and all Letters Patents which may be granted on or as a result thereof in any and all countries.

NOW, THEREFORE, for and in consideration of the sum of One Dollar (\$1.00) to me in hand paid by said assignee, and other good and valuable consideration, the receipt of which is hereby acknowledged, I, the said assignor, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over to said assignee, my entire right, title and interest in and to said inventions or improvements and said applications and any and all continuations, continuations-in-part, divisionals and renewals of and substitutes for said applications, including any reissue or continuation, continuation-in-part or divisional therefrom, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in my name applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patents respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me had this assignment, sale and transfer not been made.

AND I hereby covenant that I have full right to convey my entire interest herein assigned, and that I have not executed and will not execute any agreement in conflict herewith, and I further covenant and agree that I will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said applications and said Letters Patent to said assignee, its successors, assigns, nominees or legal representatives, and I agree to communicate to said assignee or to its nominee all known facts respecting said inventions or improvements, said applications and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all

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PATENT

rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND I hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue Letters Patent on applications as aforesaid, to issue to said assignee, as assignee of my entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the applications aforesaid, in accordance with the terms of this assignment.

AND this Assignment may be executed in multiple counterparts, each of which shall be deemed to be an original of this Assignment. Additionally, I hereby authorize my attorneys to collect the signature pages of each executed counterpart and to attach those signature pages to a single copy of this instrument, which single copy and attached signature pages together shall constitute an original of this Assignment.

This assignment is effective as of January 10, 2019.

IN WITNESS V	WHEREOF, I have her	eunto set my hands.	on the specimens
Dated: <u>April 24</u>	Jo4	Malea	alex
•		Mark Sunderlan	d
State of <u>Pennsy Ivo</u>	<u>aia.</u>		
County of <u>Philadel</u>	enia		
Notary Public for the some/proven to me on the foregoing Assignment	tate, personally appear to basis of satisfactory of and acknowledged to a s signature on the Ass	ed Mark Sunderla evidence to be the p me that he executed	before me, the undersigned, a nd, personally known to erson who subscribed the the same in his authorized or the entity on behalf of which
NOTAR JENNIFE NOTAR	I OF PENNSYLVANIA JAL SEAL PR L DAUG Y Public JA, PHILADELPHIA CNTY Expires Apr 14, 2020	Signature of Nota	4 Dug

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4835-9118-3237, v. 2

HIGH TEMPERATURE HYDRO-THERMAL OR CHEMO-THERMAL BIO-CHAR ACTIVATION OF HEMP STALK WITH POLYMER FUSION FOR CONDUCTIVE AND CAPACITANT FIBER AND YARN PRODUCTION DOCKET No.: ECQ01.0006.001

PATENT

This assignment is accepted on behalf of Thomas Jefferson University by:

Dated: 100 124 2019

RobinShelder

Print Title

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4835-9118-3237, v. 2

RECORDED: 10/20/2021

PATENT REEL: 057843 FRAME: 0909