505966234 03/13/2020

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JEREMY LORETZ	02/20/2020
HELEN ELIZABETH VANBENSCHOTEN	03/12/2020
SRIVATSAVA VENKATARANGA PURANAM	02/25/2020

RECEIVING PARTY DATA

Name:	LOCKHEED MARTIN ENERGY, LLC
Street Address:	6801 ROCKLEDGE DRIVE
City:	BETHESDA
State/Country:	MARYLAND
Postal Code:	20817-1877

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16743599

CORRESPONDENCE DATA

Fax Number: (215)568-3439

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: 2155683100

Email: assignments@woodcock.com

Correspondent Name: BAKERHOSTETLER Address Line 1: 2929 ARCH STREET

Address Line 2: 12TH FLOOR

Address Line 4: PHILADELPHIA, PENNSYLVANIA 19104

ATTORNEY DOCKET NUMBER:	106412.300568 /AE-73-USD1	
NAME OF SUBMITTER:	FAITH A. POORE	
SIGNATURE:	/Faith A. Poore/	
DATE SIGNED:	03/13/2020	

Total Attachments: 6

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> **PATENT REEL: 052106 FRAME: 0696** 505966234

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PATENT REEL: 052106 FRAME: 0697 DOCKET NO.: 106412.300568 / AE-00073-US-D1

ASSIGNMENT

WHEREAS, I, Jeremy Loretz, a citizen of United States, residing at 102 Calumet Street, Apt. 1, Boston, Massachusetts 02120, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number 106412.300568 / AE-00073-US-D1 ("the invention"), assigned application number 16/743,599 filed on January 15, 2020, entitled FLOW BATTERIES HAVING AN ELECTRODE WITH DIFFERING HYDROPHILICITY ON OPPOSING FACES AND METHODS FOR PRODUCTION AND USE THEREOF ("the subject application"); which claims benefit of application number 15/297,071 filed October 18, 2016 ("the priority application");

AND WHEREAS, Lockheed Martin Energy, LLC, ASSIGNEE, having a place of business at 6801 Rockledge Drive, Bethesda, Maryland 20817-1877, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the ASSIGNOR, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, my entire right, title, and interest in, to, and under the invention, and all applications for industrial property protection, including without limitation, all applications for patents, utility models, inventors' certificates, and designs that have been filed, and that may hereafter be filed, in any country, that disclose, describe, and/or claim the invention, including, without limitation, the subject application and the priority application, and all extensions, renewals, and reissues of such applications, including all divisions and continuations in whole or in part; all patents granted on such applications in any country, and all extensions, renewals, and reissues of such patents, including all divisions and continuations in whole or in part; the right to file such applications in any country; and the right to claim for such applications in any country the priority rights derived from the priority application and the subject application under the International Convention for the Protection of Industrial Property, the Patent Laws of the United States, any other international agreement or protection, or the domestic laws of any country in which any such application is filed, as may be applicable.

AND I HEREBY covenant and agree 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 HEREBY further covenant and agree that I will communicate to the ASSIGNEE, its successors, legal representatives, and assigns, any facts known to me respecting the invention, and testify in any legal proceeding, sign all lawful papers, execute all disclaimers and all divisional, continuing, reissue, and foreign applications, make all rightful oaths, deliver upon request all papers, documents, affidavits, or other instruments that may be necessary or helpful in the prosecution of any application for industrial property protection describing and/or claiming the invention, and generally do everything possible to aid the ASSIGNEE, its successors, legal

described in such document.

representatives, and assigns, to obtain and enforce proper protection for the invention in all countries. IN TESTIMONY WHEREOF, I have signed my name below on the date indicated above my signature. Executed this 20 day of February, year of 2020. STATEMENT OF WITNESS SIGNED at Walkham MA VSA (City) (State) (Country) This 25 day of february 2020.

1 Lea Deffey whose full residence address is day of February, 20 30, and such assignor is personally known to me to be the person

ASSIGNMENT

WHEREAS, I, Helen Elizabeth Vanbenschoten, a citizen of United States, residing at 7 Orchard Avenue, Wakefield, Massachusetts 01880, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number 106412.300568 / AE-00073-US-D1 ("the invention"), assigned application number 16/743,599 filed on January 15, 2020, entitled FLOW BATTERIES HAVING AN ELECTRODE WITH DIFFERING HYDROPHILICITY ON OPPOSING FACES AND METHODS FOR PRODUCTION AND USE THEREOF ("the subject application"); which claims benefit of application number 15/297,071 filed October 18, 2016 ("the priority application");

AND WHEREAS, Lockheed Martin Energy, LLC, ASSIGNEE, having a place of business at 6801 Rockledge Drive, Bethesda, Maryland 20817-1877, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the ASSIGNOR, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, my entire right, title, and interest in, to, and under the invention, and all applications for industrial property protection, including without limitation, all applications for patents, utility models, inventors' certificates, and designs that have been filed, and that may hereafter be filed, in any country, that disclose, describe, and/or claim the invention, including, without limitation, the subject application and the priority application, and all extensions, renewals, and reissues of such applications, including all divisions and continuations in whole or in part; all patents granted on such applications in any country, and all extensions, renewals, and reissues of such patents, including all divisions and continuations in whole or in part; the right to file such applications in any country; and the right to claim for such applications in any country the priority rights derived from the priority application and the subject application under the International Convention for the Protection of Industrial Property, the Patent Laws of the United States, any other international agreement or protection, or the domestic laws of any country in which any such application is filed, as may be applicable.

AND I HEREBY covenant and agree 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 HEREBY further covenant and agree that I will communicate to the ASSIGNEE, its successors, legal representatives, and assigns, any facts known to me respecting the invention, and testify in any legal proceeding, sign all lawful papers, execute all disclaimers and all divisional, continuing, reissue, and foreign applications, make all rightful oaths, deliver upon request all papers, documents, affidavits, or other instruments that may be necessary or helpful in the prosecution of any application for industrial property protection describing and/or claiming the

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ASSIGNMENT

WHEREAS, I, Srivatsava Venkataranga Puranam, a citizen of United States, residing at 15 Fayette Street, Apt. 3, Cambridge, Massachusetts 02139, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number 106412.300568 / AE-00073-US-D1 ("the invention"), assigned application number 16/743,599 filed on January 15, 2020, entitled FLOW BATTERIES HAVING AN ELECTRODE WITH DIFFERING HYDROPHILICITY ON OPPOSING FACES AND METHODS FOR PRODUCTION AND USE THEREOF ("the subject application"); which claims benefit of application number 15/297,071 filed October 18, 2016 ("the priority application");

AND WHEREAS, Lockheed Martin Energy, LLC, ASSIGNEE, having a place of business at 6801 Rockledge Drive, Bethesda, Maryland 20817-1877, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the ASSIGNOR, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, my entire right, title, and interest in, to, and under the invention, and all applications for industrial property protection, including without limitation, all applications for patents, utility models, inventors' certificates, and designs that have been filed, and that may hereafter be filed, in any country, that disclose, describe, and/or claim the invention, including, without limitation, the subject application and the priority application, and all extensions, renewals, and reissues of such applications, including all divisions and continuations in whole or in part; all patents granted on such applications in any country, and all extensions, renewals, and reissues of such patents, including all divisions and continuations in whole or in part; the right to file such applications in any country; and the right to claim for such applications in any country the priority rights derived from the priority application and the subject application under the International Convention for the Protection of Industrial Property, the Patent Laws of the United States, any other international agreement or protection, or the domestic laws of any country in which any such application is filed, as may be applicable.

AND I HEREBY covenant and agree 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 HEREBY further covenant and agree that I will communicate to the ASSIGNEE, its successors, legal representatives, and assigns, any facts known to me respecting the invention, and testify in any legal proceeding, sign all lawful papers, execute all disclaimers and all divisional, continuing, reissue, and foreign applications, make all rightful oaths, deliver upon request all papers, documents, affidavits, or other instruments that may be necessary or helpful in the prosecution of any application for industrial property protection describing and/or claiming the

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invention, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives, and assigns, to obtain and enforce proper protection for the invention in all countries.

IN TESTIMONY WHEREOF, I have signed my name below on the date indicated above

my signature.				
Executed this	25 th day o	if Feb		
Signature – Sriv	atsava Venkataranga	Puranam		
*****	********	*********	****************	举举举举举
STATEMENT	OF WITNESS			
SIGNED at	Canbridge (City)	/na	us a	
	(City) 6	(State)	(Country)	
This 25 day	of February	, 20 <u>2.</u> ø.		
I, <u>Kare</u>	1 Thomas-,	اامحم	whose full residence addres	s is
	park St.,	Aug.	MB 02476	
was personally	present and did se	e Srivatsava V	enkataranga Puranam execute th	e above
assignment on	the <u>23′</u> day of _	February	_, 20 <u>_20</u> and such assignor is pe	ersonally
	be the person descri	, No.		

Keren & Thomas of Signature of Witness

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