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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5779090

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KAMRAN B GHIASSI	10/01/2019
JAYDEN N GLOVER	10/07/2019
NEIL D REDEKER	10/07/2019
ALEXANDER T LONNECKER	10/09/2019

RECEIVING PARTY DATA

Name:	GOVERNMENT OF THE UNITED STATES, AS REPRESENTED BY THE SECRETARY OF THE AIR FORCE
Street Address:	2240 B STREET
Internal Address:	BLDG 11, RM AFMCLO/JAZ
City:	WRIGHT-PATTERSON AFB
State/Country:	OHIO
Postal Code:	45433

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16658489

CORRESPONDENCE DATA

Fax Number: (937)255-3733

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: 937-904-5077

Email: afmclo.jaz.1@us.af.mil

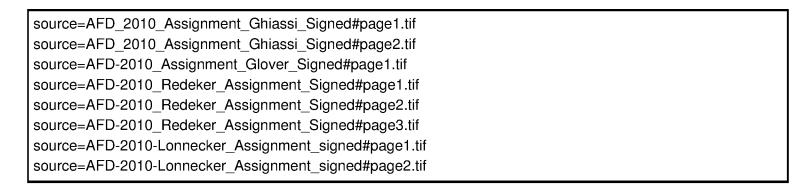
Correspondent Name: DEPARTMENT OF THE AIR FORCE AFMCLO/JAZ

Address Line 1: 2240 B STREET Address Line 2: BUILDING 11

Address Line 4: WRIGHT-PATTERSON AFB, OHIO 45433-7109

ATTORNEY DOCKET NUMBER:	AFD 2010
NAME OF SUBMITTER:	JAMES F. MCBRIDE
SIGNATURE:	/James F. McBride/
DATE SIGNED:	10/21/2019

Total Attachments: 8



ASSIGNMENT

(dovernment mentor)	
WHEREAS, I, KAMRAN B. GHIASSI, while employed by the Government contributed to an invention described in invention disclosure AFD 2010 entitled MAKING MONOMERS," to be filed as an application for Letters Patent of the U 16658489, filed 21 October 2019), and I hereby authorize and here in the above parentheses (Application Serial Number, filed) the filing date	d "MICROFLUIDIC FLOW PROCESS FOR Inited States (Application Serial Number request Air Force Patent Counsel to insert
application when known; WHEREAS, The above-identified application for Letters Patent was made whereas, I believe that I am an original joint inventor of a claimed invented whereas, I hereby acknowledge that any willful false statement punishable under 18 U.S.C. § 1001 by fine, imprisonment of not more than five WHEREAS, the conditions under which said invention was made are su	de or authorized to be made by me ; vention in the application; made in this Declaration/Assignment is (5) years, or both; and
United States as represented by the Secretary of the Air Force, under Paragrap entire right, title, and interest therein, including foreign rights. NOW, THEREFORE, to all whom it may concern, be it known that for ar other valuable considerations, I, KAMRAN B. GHIASSI: HEREBY HAVE SOLD, ASSIGNED, AND TRANSFERRED, and by these pre	h 1(a) of Executive Order 10096, to the nd in consideration of the premises and
the Government of the United States as represented by the Secretary of the Ai in and to the aforesaid invention described in the invention disclosure, all subs aforesaid invention, and the resulting application for Letters Patent of the Unit issuing thereon, and any continuations, continuations-in-part, divisions, and repriority resulting from the filing of the aforesaid application for patent in the U HEREBY AUTHORIZE AND REQUEST any official whose duty it is to issu	r Force, my entire right, title, and interest, equent information to support that ed States including all Letters Patent issues or extensions thereof; and all nited States;
the Government of the United States, as represented by the Secretary of the A my entire right, title, and interest in and to the same, for the sole use for the for and any continuations, continuations-in-part, divisions, and reissues or extensifully and entirely as the same would have been held by me had this Assignmen HEREBY ALSO GRANT to the Government of the United States, as represented.	ir Force, and his successors, as assignee of all term or terms for which said patents ons thereof are, or may be, granted as t not been made;
the option to take the entire right, title, and interest in the invention or all app countries or jurisdictions foreign to the United States in which the Governmen be filed, applications for Letters Patent, without payment to me of any further this grant of an option to take foreign rights in the invention must be exercised months of the first filing date of any application for United States Letters Pater months from the declassification of the invention, whichever is later, and that option are left to me, subject to a nonexclusive, irrevocable, royalty-free licens in any patent which may issue on said invention in any country or jurisdiction for power to issue sublicenses for use on behalf of the Government of the United foreign policies of the United States of America; and	lications for Letters Patent thereon in all t of the United States may file, or cause to consideration; provided, however, that I by written notice to me within eight at covering the invention or within eight all foreign rights not exercised under the to the Government of the United States oreign to the United States, including the States and/or in furtherance of the
HEREBY AGREE to execute any and all applications for Letters Patent, a to execute any papers which may be necessary or convenient for the preparati applications, except it is understood that I shall not be subject to any out-of-po	ion, filing, or prosecution of such
	KAMRAN B. GHIASSI
SUBSCRIBED AND ACKNOWLEDGED before me by KAMRAN B. GHIASSI this	
2019, at the city of	in the County of
and State of	
See attached	
Der 10/11,	Notary Public

PATENT REEL: 050776 FRAME: 0595 A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document. State of California County of Date personally appeared who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(les), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. I certify under PENALTY OF PERJURY under the SHELLEY ANN WHITE Hotary Public - California laws of the State of California that the foregoing Kern County paragraph is true and correct. Commission # 2764415 Ay Comm. Expires Oct 26, 2022 WITNESS my hand and official seal. Place Notary Seal and/or Stamp Above Signature of Notary Public -----OPTIONAL Completing this information can deter alteration of the document of fraudulent reattachment of this form to an unintended document. **Description of Attached Document** Title or Type of Document: Document Date: Number of Pages: _____ Signer(s) Other Than Named Above: Capacity(ies) Claimed by Signer(s) Signer's Name: Signer's Name: _____ ☐ Corporate Officer - Title(s); ≥ Corporate Officer – Title(s): _____ 🖸 Partner - 🖸 Limited 🗘 **G**eneral ☐ Partner - ☐ Limited ☐ General □ Individual Cl Attorney in Fact ☐ Individual Attorney in Fact □ Trustee ☐ Guardian of Conservator □ Trustee ☐ Guardian of Conservator □ Other: C Other: Signer is Representing: Signer is Representing:

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ASSIGNMENT (Government Inventor)

	(government mi	entory
an invention described in ir MONOMERS," to be filed a 16658489 , filed here in the above parenthe	ovention disclosure AFD 2010 entitled 's an application for Letters Patent of the 21 October 2019, and I hereby a	vernment of the United States, made or contributed to 'MICROFLUIDIC FLOW PROCESS FOR MAKING he United States (Application Serial Number uthorize and request Air Force Patent Counsel to insert he filing date and application number of said
WHEREAS, I believe WHEREAS, I herel punishable under 18 U.S.C.	e that I am an original joint inventor of by acknowledge that any willful fals § 1001 by fine, imprisonment of not n	itent was made or authorized to be made by me; a claimed invention in the application; e statement made in this Declaration/Assignment is sore than five (5) years, or both; and made are such as to entitle the Government of the
United States as represente	ed by the Secretary of the Air Force, un	der Paragraph 1(a) of Executive Order 10096, to the
	est therein, including foreign rights. , to all whom it may concern, be it kno	wn that for and in consideration of the premises and
other valuable consideration	ons, I, JAYDEN N.GLOVER:	,
		by these presents do sell, assign, and transfer unto
		tary of the Air Force, my entire right, title, and interest
		sure, all subsequent information to support that
•	-	nt of the United States including all Letters Patent
and the second of the second o		isions, and reissues or extensions thereof; and all
	filing of the aforesaid application for pa	
		ty it is to issue patents, to issue any patent thereon to etary of the Air Force, and his successors, as assignee o
		use for the full term or terms for which said patents
		es or extensions thereof are, or may be, granted as
	ne would have been held by me had th	
•		tates, as represented by the Secretary of the Air Force,
		ion or all applications for Letters Patent thereon in all
		Government of the United States may file, or cause to
be filed, applications for Le	tters Patent, without payment to me c	f any further consideration; provided, however, that
this grant of an option to ta	ake foreign rights in the invention mus	be exercised by written notice to me within eight
months of the first filing da	te of any application for United States	Letters Patent covering the invention or within eight
months from the declassifi	cation of the invention, whichever is la	ter, and that all foreign rights not exercised under the
option are left to me, subje	ect to a nonexclusive, irrevocable, roya	lty-free license to the Government of the United States
7		jurisdiction foreign to the United States, including the
power to issue sublicenses	for use on behalf of the Government of	of the United States and/or in furtherance of the
foreign policies of the Unit		
		ters Patent, and to furnish all data and documents and
		the preparation, filing, or prosecution of such
applications, except it is ur	derstood that I shall not be subject to	any out-of-pocket expense relative to such action.
		Order 1844 to -
		JAYDEN N.GLOVER
		V V SAIDLIN III COLOR
SUBSCRIBED AND ACKNO	WLEDGED before me by JAYDEN N.GLOV	ER this day of
C17064A	2019, at the city of USAF ACADA	
\$1 Pase	and State of	2
	VILOT A HEPPARD	
	A state of Columbus	1 / Aldra S
	Notary ID 20004027255 My Commission Expires Sep 15, 2020	Notary Public
	My Commission expires con 121	

PATENT REEL: 050776 FRAME: 0597

ASSIGNMENT

(Contractor Inventor)
WHEREAS, I, NEIL D. REDEKER, while employed by ERC Inc.Contractor ("Contractor"), jointly made or contributed to an invention under contract/subcontract number FA9300-15-C-004, as described in invention disclosure AFD 2010 entitled "MICROFLUIDIC FLOW PROCESS FOR MAKING MONOMERS," to be filed as an application for Letters Patent of the United States (Application Serial Number 16658489
date and application number of said application when known; WHEREAS, The above-identified application for Letters Patent was made or authorized to be made by me; WHEREAS, I believe that I am an original joint inventor of a claimed invention in the application; WHEREAS, I hereby acknowledge that any willful false statement made in this Declaration/Assignment is
WHEREAS, Contractor and/or I, Neil D. Redeker, has indicated its intention to NOT elect title and NOT file an application for Letters Patent on the aforesaid invention. NOW, THEREFORE, to all whom it may concern, be it known that in recognition of my obligation to the
Government of the United States under the above contract and by agreement, or in consideration of the premises and other valuable consideration, I, NEIL D. REDEKER, elect herein to: HEREBY HAVE SOLD, ASSIGNED, AND TRANSFERRED, and by these presents do sell, assign, and transfer unto the Government of the United States as represented by the Secretary of the Air Force, my entire right, title, and interest, in and to the aforesaid invention described in the invention disclosure, all subsequent information to support that
aforesaid invention, and the resulting application for Letters Patent of the United States including all Letters Patent issuing thereon, and any continuations, continuations-in-part, divisions, and reissues or extensions thereof; and all patent applications claiming priority resulting from the filing of the aforesaid application for patent in the United States in any jurisdiction throughout the world, subject to the reservation of any license to which Contractor and/or I, NEIL D.
HEREBY AUTHORIZE AND REQUEST any official whose duty it is to issue patents, to issue any patent thereon to the Government of the United States, as represented by the Secretary of the Air Force, and his successors, as assignee of my entire right, title, and interest in and to the same, for the sole use for the full term or terms for which said patents and any continuations, continuations-in-part, divisions, and reissues or extensions thereof are, or may be, granted as
Fully and entirely as the same would have been held by me had this Assignment not been made; and HEREBY AGREE to execute, and assist with executing, any and all applications for Letters Patent, to furnish all data and documents and to execute any papers which may be necessary or convenient for the preparation, filling, or prosecution of such applications, except it is understood that Contractor and/or I, NEIL D. REDEKER, shall not be subject to any out-of-pocket expense relative to such action.
Contractor Joins in and agrees to this assignment and, except for the reservation of any license under the above contract, relinquishes, and assigns to the Government of the United States, as represented by the Secretary of the Air Force its entire right, title, and interest throughout the world in and to such inventions, and further agrees to furnish to the Government of the United States, upon request, any available information and documents necessary for the timely preparation, filling, and prosecution of such applications; for Letters Patent.
Neil D. Redeker
SUBSCRIBED AND ACKNOWLEDGED before me by NEIL D. REDEKER this 7th day of OCTOBER 2019, at the city of Edwards AFB in the County of and State of California.

PATENT REEL: 050776 FRAME: 0598

Shalley White Wotary Public

CALIFORNIA ALL-PURPOSE ACKNOW! FOGMENT

CIVIL CODE \$ 1189

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A notary public or other officer completing this certificate veri to which this certificate is attached, and not the truthfulness	fies only the iden , accuracy, or val	tity of the individual who signed the document idity of that document.
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ounty of <u>Kan</u>		
on 001 7, 2019 before me, 51	idley	White Notary Publ
Date Na I Dadek.	Here Inst	ert Name and Title of the Officer
ersonally appeared NEV REACHE	<u> </u>	
,	Name(s) of Sigi	ner(s)
ho proved to me on the basis of satisfactory evidence the within instrument and acknowledged to me that athorized capacity(ies), and that by his/her/their signation from behalf of which the person(s) acted, executed the	t he/she/they i ature(s) on the	executed the same in his/her/their
SHELLEY ANN WHITE Notary Public - California Kern County	laws of the S	r PENALTY OF PERJURY under the tate of California that the foregoing true and correct.
Commission # 2264415 My Comm, Expires Oct 26, 2022	WITNESS my	hand and official seal.
Place Notary Seal and/or Stamp Above	Signature <u>X</u>	Signature of Notary Public
Completing this information can d	ONAL deter altera <u>tio</u>	n of the document of
fraudulent reattachment of this i	form topañ vou	ntended document.
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Title or Type of Document:		
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Signer(s) Other Than Named Above:		
Capacity(ies) Claimed by Signer(s)		
Signer's Name:	Signer's Na	me:
□ Corporate Officer – Title(s):	☐ Corporate	Officer - Title(s):
□ Partner – □ Limited □ General		☐ Limited ☐ General
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☐ Trustee ☐ Guardian of Conservator	4, 7, 20 M, 1997 FURS ()	
O Other:	Other:	
Signer is Representing:	signer is Re	presenting:
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CONTRACTOR CERTIFICATION

I certify that I am an Officer or Agent of Contractor herein, and that NEIL D. REDEKER, who signed this assignment on behalf of Contractor, was an employee of said Contractor at the time of invention (Docket No. AFD 2010) and was authorized to sign this assignment on his/her own behalf. Contractor, further, herein assigns its rights as the employer of NEIL D. REDEKER to the Government of the United States as represented by the Secretary of the Air Force, consistent with our rights and obligations under FA9300-15-C-004 and statute, subject to the reservation to Contractor of any license to which Contractor may be entitled under the above contract or statute. This assignment is duly signed below by Contractor's Officer or Agent for and on behalf of said Contractor by authority of its governing body, and is within the scope of the Officer's or Agent's corporate powers.

FOR CONTRACTOR	
Contractor:	ERC Inc. Contractor
Ву:	Chal L. Davis
	(Signature of officer or agent)
Date:	September 9, 2019
Printed Name:	Cheryl L. Davis
Title:	Contracts Administrator
Business Address:	308 Voyager Way, Suite 200, Huntsville, AL 35806
Business Phone:	256-327-9162

ASSIGNMENT (Government Inventor)

•	
WHEREAS, I, ALEXANDER T. LONNECKER, while employed by the Government of the United States, made or contributed to an invention described in invention disclosure AFD 2010 entitled "MICROFLUIDIC FLOW PROCESS FOR MAKING MONOMERS," to be filed as an application for Letters Patent of the United States (Application Serial Number 16658489 , filed 21 October 2019), and I hereby authorize and request Air Force Patent Counsel to insert	
here in the above parentheses (Application Serial Number, filed) the filing date and application number of said	
application when known;	
WHEREAS, The above-identified application for Letters Patent was made or authorized to be made by me; WHEREAS, I believe that I am an original joint inventor of a claimed invention in the application; WHEREAS, I hereby acknowledge that any willful false statement made in this Declaration/Assignment I punishable under 18 U.S.C. § 1001 by fine, imprisonment of not more than five (5) years, or both; and	S
WHEREAS, the conditions under which said invention was made are such as to entitle the Government of the	
United States as represented by the Secretary of the Air Force, under Paragraph 1(a) of Executive Order 10096, to the	
entire right, title, and interest therein, including foreign rights.	
NOW, THEREFORE, to all whom it may concern, be it known that for and in consideration of the premises and	
other valuable considerations, I, ALEXANDER T. LONNECKER:	
HEREBY HAVE SOLD, ASSIGNED, AND TRANSFERRED, and by these presents do sell, assign, and transfer unto	
	8.
the Government of the United States as represented by the Secretary of the Air Force, my entire right, title, and interest	
in and to the aforesaid invention described in the invention disclosure, all subsequent information to support that	
aforesaid invention, and the resulting application for Letters Patent of the United States including all Letters Patent	
issuing thereon, and any continuations, continuations-in-part, divisions, and reissues or extensions thereof; and all	
priority resulting from the filing of the aforesaid application for patent in the United States)	
HEREBY AUTHORIZE AND REQUEST any official whose duty it is to issue patents, to issue any patent thereon to	
the Government of the United States, as represented by the Secretary of the Air Force, and his successors, as assignee of	1
my entire right, title, and interest in and to the same, for the sole use for the full term or terms for which said patents	
and any continuations, continuations-in-part, divisions, and reissues or extensions thereof are, or may be, granted as	
fully and entirely as the same would have been held by me had this Assignment not been made;	
HEREBY ALSO GRANT to the Government of the United States, as represented by the Secretary of the Air Force,	E
the option to take the entire right, title, and interest in the invention or all applications for Letters Patent thereon in all	
countries or jurisdictions foreign to the United States in which the Government of the United States may file, or cause to	Ö
be filed, applications for Letters Patent, without payment to me of any further consideration; provided, however, that	
this grant of an option to take foreign rights in the invention must be exercised by written notice to me within eight	
This district of su obtain to take totake takes at the interest innoting exercises of source teams on which are an exercises of source teams on the source of a	
months of the first filing date of any application for United States Letters Patent covering the invention or within eight	
months from the declassification of the invention, whichever is later, and that all foreign rights not exercised under the	
option are left to me, subject to a nonexclusive, irrevocable, royalty-free license to the Government of the United States	Š
In any patent which may issue on said invention in any country or jurisdiction foreign to the United States, including the	
power to issue sublicenses for use on behalf of the Government of the United States and/or in furtherance of the	
foreign policies of the United States of America; and	
HEREBY AGREE to execute any and all applications for Letters Patent, and to furnish all data and documents and	3
to execute any papers which may be necessary or convenient for the preparation, filing, or prosecution of such	
applications, except it is understood that I shall not be subject to any out-of-pocket expense relative to such action.	
	,
(Alexander T. Lonnecxer	
SUBSCRIBED AND ACKNOWLEDGED before me by Alexander T. LONNECKER this	
- $ -$	
<u>DONDOX</u> 2019, at the city of <u>EAWORDS AFB</u> in the County of	
MMA and State of CALONA	
Natary Public	4

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

A notary public or other officer completing this certificate veri to which this certificate is attached, and not the truthfulness	fies only the identity of the individual who signed the document , accuracy, or validity of that document.
State of California	
County of <u>X E (</u>	W. ∀.
on <u>1049/19</u> before me. S	halfey White Notary 140
- I a contact I	DNCOUZ
personally appeared <u>FLIT_X42_VLd</u> /	Nome(s) of Signer(s)
who proved to me on the basis of satisfactory eviden- to the within instrument and acknowledged to me tha authorized capacity(jes), and that by his/her/their sign upon behalf of which the person(s) acted, executed the	ature(s) on the instrument the person(s), or the entity
Commission # 226445	I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.
My Cosses Selves Cos Se 1935	WITNESS my hand and official seal.
Place Natary Seal and/or Stomp Above	Signature <u>ANDA White</u> Signature St Natory Public
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Document Dates AX	Number of Pages:
Signer(s) Other Then Nemed Above:	7
Appendix 1	
Capacity(les) Claimed by Signer(s)	Same and a Stewart and
Signer's Name:	Signer's Name:
ti Corporate Officer - 1)M(s)	Destiner - D Limited D General
© Partner - © Limited © General	To a Market Control of the Control o
☐ Individual ☐ Attorney in Fact ☐ Trustee ☐ Guardian of Conservator	C) Individual C) Attorney in Fact C) Trustee C) Guardian of Conservator
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PATENT REEL: 050776 FRAME: 0602

RECORDED: 10/21/2019