01/14/2016 503650147

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3696782

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ANTHONY P. BURGARD	12/18/2015
ROBIN E. OSTERHOUT	12/02/2015
STEPHEN J. VAN DIEN	12/04/2015
CARA ANN TRACEWELL	12/03/2015
PRITI PHARKYA	12/02/2015
STEFAN ANDRAE	12/04/2015

RECEIVING PARTY DATA

Name:	GENOMATICA, INC.
Street Address:	4757 NEXUS CENTER DRIVE
City:	SAN DIEGO
State/Country:	CALIFORNIA
Postal Code:	92121

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14424404

CORRESPONDENCE DATA

Fax Number: (858)314-1150

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: 858-314-1200

cquatrino@jonesday.com, MVdiaz@jonesday.com Email:

JONES DAY **Correspondent Name:**

Address Line 1: **222 41ST STREET**

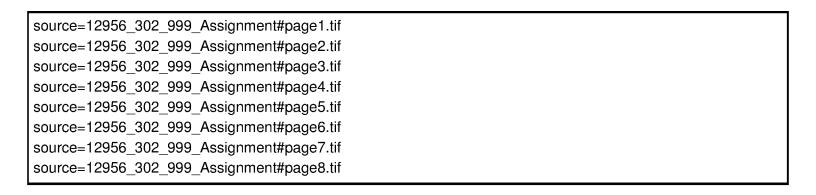
Address Line 4: **NEW YORK, NEW YORK 10017-6702**

ATTORNEY DOCKET NUMBER:	12956-302-999/871943-302
NAME OF SUBMITTER:	CHRISTINA QUATRINO
SIGNATURE:	/Christina Quatrino/
DATE SIGNED:	01/14/2016

Total Attachments: 8

PATENT REEL: 037494 FRAME: 0962

503650147



PATENT REEL: 037494 FRAME: 0963

ASSIGNMENT

WHEREAS, WE, Anthony P. BURGARD, citizen of the United States, having a mailing address of 4757 Nexus Center Drive, San Diego, CA 92121 residing at Bellefonte, PA, Robin E. OSTERHOUT, citizen of the United States, having a mailing address of 4757 Nexus Center Drive, San Diego, CA 92121 residing at San Diego, CA, Stephen J. VAN DIEN, citizen of the United States, having a mailing address of 4757 Nexus Center Drive, San Diego, CA residing at Encinitas, CA, Cara Ann TRACEWELL, citizen of the United States, having a mailing address of 4757 Nexus Center Drive, San Diego, CA residing at Solana Beach, CA, Priti PHARKYA, citizen of the United States, having a mailing address of 4757 Nexus Center Drive, San Diego, CA 92121 residing at San Diego, CA and Stefan ANDRAE, citizen of the United States, having a mailing address of 4757 Nexus Center Drive, San Diego, CA 92121 residing at San Diego, CA, ASSIGNORS, are the inventors of the invention in MICROORGANISMS AND METHODS FOR ENHANCING THE AVAILABILITY OF REDUCING EQUIVALENTS IN THE PRESENCE OF METHANOL, AND FOR PRODUCING 1.4-BUTANEDIOL RELATED THERETO for which we have executed an application for a Patent of the United States

- which is identified by Jones Day docket no. 12956-302-999/871956-999302
- which was filed on February 26, 2015, Application No. 14/424,404

and WHEREAS, Genomatica, Inc., a corporation organized and existing under the laws of the state of Delaware, and having an office for the transaction of business at 4757 Nexus Center Drive, San Diego, CA92121, ASSIGNEE, is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and all right to sue for infringement including past infringement.

AND WE HEREBY authorize and request the Commissioner for Patents and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

IN TESTIMONY WHEREOF, We hereunto set our hands and seals the day and year set opposite our respective signatures.

Date	12/18/15	, 2015	anthy P Buch	L.S
	•		Anthony P. BURGARD	,
Date	12/2/15	,2015	12-2/	L.S
	, , , , , , , , , , , , , , , , , , ,		Robin E. OSTERHOUT	

U.S. Application No. 14/424,404			
Date 1714	, 2015	Stephen J. VAN DIEN	L.S.
Date 1/2/3	,2015	Cara Ann TRACEWELL	L.S.
Date 12/2	, 2015	Priti PHARKYA	L.S.
Date	, 2015	Stefan ANDRAE	L.S.
A notary public or other officer compertificate is attached, and not the tru		cate verifies only the identity of the individual who signed ty, or validity of that document.	he document to which this
STATE OF CALIFORNI	A)	
)	
COUNTY OF <u>SAV 1915G</u> On 12/18/29/5		MVA OUTHU N. CHINAUNAK Notary Public, person	ally appeared Anthony P.
On Als Joy S BURGARD, who proved to me on instrument and acknowledged to me signature(s) on the instrument the per WITNESS my hand and official seal,	before me the basis of satist that he/she/they rson(s), or the enti-	Notary Public, person sfactory evidence to be the person(s) whose name(s) is/are executed the same in his/her/their authorized capacity(ies ty upon behalf of which the person(s) acted executed the interpretation of the person (s) whose name(s) is/are executed the same in his/her/their authorized capacity(ies ty upon behalf of which the person (s) acted executed the interpretation of the person (s) acted executed the person (s) acted executed the interpretation of the person (s) act	z subscribed to the within), and that by his/her/their inscription 08 CHARGUALAF 2089494 California county
On A/B/2015 BURGARD, who proved to me on instrument and acknowledged to me signature(s) on the instrument the per WITNESS my hand and official seal Signature	before me fithe basis of satisficient that he/she/they rson(s), or the entire for the pleting this certific	executed the same in his/her/their authorized capacity(ies' ty upon behalf of which the person(s) acted executed the instance of the person (s) acted executed the instance of the person (s) acted executed the instance of the instance of the person (s) acted executed the instance of the instance of the instance of the instance of the individual who signed to the	z subscribed to the within), and that by his/her/their icrument ios Changual af 2089494 California iounty Nov 9, 2018
On	before me he he hasis of satiste that he/she/they son(s), or the entire he hasis of satiste that he/she/they has been son(s), or the entire he has been son the hasis of the h	executed the same in his/her/their authorized capacity(ies' ty upon behalf of which the person(s) acted executed the instance of the person (s) acted executed the instance of the person (s) acted executed the instance of the instance of the person (s) acted executed the instance of the instance of the instance of the instance of the individual who signed to the	z subscribed to the within), and that by his/her/their icrument ios Changual af 2089494 California iounty Nov 9, 2018

certificate is attached, and not the truthfulness, accuracy, or validity of that document,

STATE OF CALIFORNIA COUNTY OF SM SUGS On 18/14/2015 before me, M4410 UPHIN 11 CHINGUM, Notary Public, personally appeared Stephen J. VAN DIEN, 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(ies), 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 laws of the State of California that MARIA CYNTHIA NISPEROS CHARGUALA Commission # 2089494 WITNESS my hand and official seal. Notary Public - California San Diego County Signature My Comm. Expires Nov 9, 2018 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 Notary Public, personally appeared Cara Ann TRACEWELL, 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(ies), 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 laws of the State of California that the foregoing paragraph is true and correct. MARIA CYNTHIA NISPEROS CHARGUALAR WITNESS my hand and official/seal MULONALY Commission # 2089494 Notary Public - California Signature San Diego County

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this

My Comm. Expires Nov 9, 2018

certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA COUNTY OF SAN DIEGO _ before me, MALLA CHATHA N. CHANGU , Notary Public, personally appeared Priti PHARKYA, 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(ies), 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 laws of the State of California that the foregoing paragraph is see MARIA CYNTHIA NISPEROS CHARGUALAI Commission # 2089494 WITNESS my hand and official seal Notary Public - California San Diego County My Comm. Expires Nov 9, 2018 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 _____ , Notary Public, personally appeared Stefan instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), 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 laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal. ACCEPTED AND AGREED TO BY SSIGNEE, Genomatica, Inc.: Signature:

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this

ASSIGNMENT

WHEREAS, WE, Anthony P. BURGARD, citizen of the United States, having a mailing address of 4757 Nexus Center Drive, San Diego, CA 92121 residing at Bellefonte, PA, Robin E. OSTERHOUT, citizen of the United States, having a mailing address of 4757 Nexus Center Drive, San Diego, CA 92121 residing at San Diego, CA, Stephen J. VAN DIEN, citizen of the United States, having a mailing address of 4757 Nexus Center Drive, San Diego, CA residing at Encinitas, CA, Cara Ann TRACEWELL, citizen of the United States, having a mailing address of 4757 Nexus Center Drive, San Diego, CA residing at Solana Beach, CA, Priti PHARKYA, citizen of the United States, having a mailing address of 4757 Nexus Center Drive, San Diego, CA 92121 residing at San Diego, CA and Stefan ANDRAE, citizen of the United States, having a mailing address of 4757 Nexus Center Drive, San Diego, CA 92121 residing at San Diego, CA, ASSIGNORS, are the inventors of the invention in MICROORGANISMS AND METHODS FOR ENHANCING THE AVAILABILITY OF REDUCING EQUIVALENTS IN THE PRESENCE OF METHANOL, AND FOR PRODUCING 1.4-BUTANEDIOL RELATED THERETO for which we have executed an application for a Patent of the United States

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and WHEREAS, Genomatica, Inc., a corporation organized and existing under the laws of the state of Delaware, and having an office for the transaction of business at 4757 Nexus Center Drive, San Diego, CA92121, ASSIGNEE, is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and all right to sue for infringement including past infringement.

AND WE HEREBY authorize and request the Commissioner for Patents and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

IN TESTIMONY WHEREOF, We hereunto set our hands and seals the day and year set opposite our respective signatures.

Date	, 2015		 L.S.
		Anthony P. BURGARD	
Date	, 2015		L.S.
		Robin E. OSTERHOUT	

Date	_ ,2015	Stephen J. VAN DIEN	L.S.
		Siepaidia. Wal Brasil	
Date	_ , 2015	Cara Ann TRACEWELL	L.S.
Date	_ ,2015	Priti PHARKYA	L.S.
Date	_ ,2015	Stefan Andit	L.S.
A notary public or other officer completing certificate is attached, and not the truthfuling	ng this certifi ness, accurac	cate verifies only the identity of the individual who signed the documenty, or validity of that document.	t to which this
STATE OF)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
COUNTY OF)	
signature(s) on the instrument the person(WITNESS my hand and official seal.	t he/she/they s), or the enti	, Notary Public, personally appears sfactory evidence to be the person(s) whose name(s) is/are subscribed executed the same in his/her/their authorized capacity(ies), and that but upon behalf of which the person(s) acted, executed the instrument.	d Anthony P. to the within by his/her/their
Signature		(Seal)	
	ng this certifi	cate verifies only the identity of the individual who signed the documer	t to which this
STATE OF CALIFORNIA)	
COUNTY OF)	
instrument and acknowledged to me that	it he/she/they	. Notary Public, personally appertisfactory evidence to be the person(s) whose name(s) is/are subscriber executed the same in his/her/their authorized capacity(ies), and that lity upon behalf of which the person(s) acted, executed the instrument.	ared Robin E. d to the within by his/her/their
I certify under PENALTY OF PERJURY	under the lar	ws of the State of California that the foregoing paragraph is true and corr	ect.
WITNESS my hand and official seal.			
Signature		(Seal)	

U.S. Application No. 14/424,404

A notary public or other officer complete certificate is attached, and not the truthful			ndividual who sig	ned the document to	which this
STATE OF CALIFORNIA)			
COUNTY OF).			
On VAN DIEN, who proved to me on the instrument and acknowledged to me tha signature(s) on the instrument the person(I certify under PENALTY OF PERJURY	t he/she/they executed the same (s), or the entity upon behalf of w	in his/her/their a hich the person(s)	uthorized capacit acted, executed the	y(ies), and that by I he instrument.	nis/her/their
WITNESS my hand and official seal.					Eq. (1)
Signature	· · · · · · · · · · · · · · · · · · ·	_(Seal)			
A notary public or other officer completic certificate is attached, and not the truthful	ng this certificate verifies only the last accuracy, or validity of that	ne identity of the li t document.	ndividual who sig	med the document to	which this
STATE OF CALIFORNIA)			
COUNTY OF				Santa Carlos Santa	
On	t he/she/they executed the same	in his/her/their a	uthorized capacit	v(ies), and that by I	Cara Ann the within his/her/their
I certify under PENALTY OF PERJURY		alifornia that the fo	oregoing paragrap	h is true and correct.	
WITNESS my hand and official scal. Signature are had some yested yested yested one had a control of the contro		_(Seal)		. *	

A notary public or other officer completing this certificate verifies only the certificate is attached, and not the truthfulness, accuracy, or validity of that	
STATE OF CALIFORNIA)
COUNTY OF)
On before me, PHARKYA, who proved to me on the basis of satisfactory evidence to instrument and acknowledged to me that he/she/they executed the same signature(s) on the instrument the person(s), or the entity upon behalf of w	in his/her/their authorized capacity(ies), and that by his/her/their hich the person(s) acted, executed the instrument.
I certify under PENALTY OF PERJURY under the laws of the State of Ca	lifornia that the foregoing paragraph is true and correct.
WITNESS my hand and official seal.	
Signature	(Seal)
A notary public or other officer completing this certificate verifies only the certificate is attached, and not the truthfulness, accuracy, or validity of that	
STATE OF CALIFORNIA)
COUNTY OF San Diego)
On December 4, 2015 before me, Maricaa D ANDRAE, who proved to me on the basis of satisfactory evidence to instrument and acknowledged to me that he/she/they executed the same signature(s) on the instrument the person(s), or the entity upon behalf of w	in his/her/their authorized capacity(ies), and that by his/her/their
I certify under PENALTY OF PERJURY under the laws of the State of Co	
WITNESS my hand and official seal.	MARLENA D. RODRIGUEZ Commission # 1960518
Signature Malena D. Rodriguez	(Seal) Notary Public - California San Diego County My Comm. Expires Dec 11, 2015
ACCEPTED AND AGREED TO BY ASSIGNEE, Genomatica, Inc.:	
Signature:	Date:
Printed Name: MarySusan Howard	
Title: Vice President, Legal Affairs	·

Page 4 of 4