505582840 07/22/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT5629639

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SCOTT P. WHITE	08/22/2018
C. DANIEL FRISBIE	08/27/2018
KEVIN DAVID DORFMAN	08/21/2018

RECEIVING PARTY DATA

Name:	REGENTS OF THE UNIVERSITY OF MINNESOTA	
Street Address:	200 OAK STREET SE	
Internal Address:	SUITE 600 MCNAMARA ALUMNI CENTER	
City:	MINNEAPOLIS	
State/Country:	MINNESOTA	
Postal Code:	55455	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15503277

CORRESPONDENCE DATA

Fax Number: (651)735-1102

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: 6517351100

Email: pairdocketing@ssiplaw.com **Correspondent Name:** SHUMAKER & SIEFFERT 1625 RADIO DRIVE Address Line 1:

Address Line 2: SUITE 300

Address Line 4: WOODBURY, MINNESOTA 55125

ATTORNEY DOCKET NUMBER:	1008-143US01/20140298	
NAME OF SUBMITTER:	ALIYA R. KHAZON	
SIGNATURE:	/Aliya R. Khazon/	
DATE SIGNED:	07/22/2019	

Total Attachments: 9

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> **PATENT REEL: 049823 FRAME: 0786** 505582840

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PATENT REEL: 049823 FRAME: 0787



University of Minnesota ASSIGNMENT

WHEREAS, I, Scott P. White, have invented certain new and useful improvements in ELECTROLYTE-GATED TRANSISTORS FOR DETECTION OF MOLECULES, for which applications for Letters Patents of the United States have been made, said applications being filed as follows: PCT/US2015/045108 on August 13, 2015; and Utility application no. 15/503,277 on August 13, 2015 (the "Application(s)");

Whereas, REGENTS OF THE UNIVERSITY OF MINNESOTA ("Assignee"), having offices at 600 McNamara Alumni Center, 200 Oak Street SE, Minneapolis, Minnesota 55455-2020, is desirous of documenting the acquisition of the entire right, title and interest in and to said invention, said Application(s) and in, to and under any and all Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, and to the extent that I have not done so already via a prior agreement with the Assignee, or if I have already done so via a prior agreement with the Assignee then in confirmation of said prior agreement, I have sold, assigned, transferred and set over and by these presents do sell, assign, transfer and set over unto Assignee, its successors and assigns, the entire right, title and interest in and to the inventions set forth hereinabove and the entire right, title and interest in and to any and all Letters Patent of the United States and any foreign countries which may be granted therefor on the Application(s) including my rights under the Paris Convention for the Protection of Industrial Property, and in and to any and all extensions, divisions, continuations, continuations-in-part or reissues of said Application(s) and Letters Patent that may be granted, including all rights to claim priority therefrom, and specifically including the right to enforce such Letters Patent in the name of Assignee and to recover damages for past infringement of the rights conveyed herein, the same to be held and enjoyed by Assignee for its own use and benefit and use and benefit of its successors and assigns to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.

I hereby authorize said Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent, in its own name if desired, in any and all foreign countries, and additionally to claim the filing date of any the Application(s) and/or otherwise take advantage of the provisions of the Paris Convention.

Attorney Docket Number 1008-143US01 UM Case No. 20140298

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Upon said consideration I do hereby covenant and agree with said Assignee, its successors and assigns, that I will not execute in writing or do any act whatsoever conflicting with these presents, and that I or my executors or administrators will at any time upon request, without further or additional consideration, but at the expense of said Assignee, its successors and assigns, execute such additional writings and do such additional acts as said Assignee, its successors and assigns, may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, reissues or extended Letters Patent of the United States, or of any and all foreign countries on said invention, and in enforcing any rights occurring as a result of such application or patents, by giving testimony in any proceedings or transactions involving such applications or patents.

I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Assignee in accordance with this instrument.

1N W August	TINESS WHEREOF, I 2018.	have hereunto set my hand on thisday of
	388	See als
4	2 20	Cott P. White
STATE OF	Indiana)
COUNTRY	-T)

On this day of the time to me known to be the person described in and who executed the foregoing instrument and acknowledged that s/he executed the same as his/her free act and deed

IN WITNESS WHEREOF, I have hereunto affixed my official signature with the seal of my office, the day and year above written.

Attorney Docket Number 1008-143US01 UM Case No. 20140298

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munitary and a second a second and a second	have hereunto set my hand on this day of all of Assignee Regents of the University of Minnesota
accepting this assignment.	
	REGENTS OF THE UNIVERSITY OF MINNESOTA
	Paul B. Savereide
	Senior Associate General Counsel
	per Presidential Delegation DA_028016
STATE OF MINNESOTA))
COUNTY OF HENNEPIN) , j
A STATE OF THE STA	Aims const.
· · · · · · · · · · · · · · · · · · ·	2018, before me personally appeared be the person described in and who executed the foregoing the executed the same as his/her free act and deed.
IN WITNESS WHEREOF, I my office, the day and year above wr	have hereunto affixed my official signature with the seal of itten.
	Notary Public
	ANDREW M. MIKROT Notary Public Minnesots My Commission Expires Jan 31, 2023



University of Minnesota <u>ASSIGNMENT</u>

WHEREAS, I, C. Daniel Frisbie, have invented certain new and useful improvements in ELECTROLYTE-GATED TRANSISTORS FOR DETECTION OF MOLECULES, for which applications for Letters Patents of the United States have been made, said applications being filed as follows: PCT/US2015/045108 on August 13, 2015; and Utility application no. 15/503,277 on August 13, 2015 (the "Application(s)");

Whereas, REGENTS OF THE UNIVERSITY OF MINNESOTA ("Assignee"), having offices at 600 McNamara Alumni Center, 200 Oak Street SE, Minneapolis, Minnesota 55455-2020, is desirous of documenting the acquisition of the entire right, title and interest in and to said invention, said Application(s) and in, to and under any and all Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, and to the extent that I have not done so already via a prior agreement with the Assignee, or if I have already done so via a prior agreement with the Assignee then in confirmation of said prior agreement, I have sold, assigned, transferred and set over and by these presents do sell, assign, transfer and set over unto Assignee, its successors and assigns, the entire right, title and interest in and to the inventions set forth hereinabove and the entire right, title and interest in and to any and all Letters Patent of the United States and any foreign countries which may be granted therefor on the Application(s) including my rights under the Paris Convention for the Protection of Industrial Property, and in and to any and all extensions, divisions, continuations, continuations-in-part or reissues of said Application(s) and Letters Patent that may be granted, including all rights to claim priority therefrom, and specifically including the right to enforce such Letters Patent in the name of Assignee and to recover damages for past infringement of the rights conveyed herein, the same to be held and enjoyed by Assignee for its own use and benefit and use and benefit of its successors and assigns to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.

I hereby authorize said Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent, in its own name if desired, in any and all foreign countries, and additionally to claim the filing date of any the Application(s) and/or otherwise take advantage of the provisions of the Paris Convention.

Attorney Docket Number 1008-143US01 UM Case No. 20140298

PATENT

REEL: 049823 FRAME: 0791

Upon said consideration I do hereby covenant and agree with said Assignee, its successors and assigns, that I will not execute in writing or do any act whatsoever conflicting with these presents, and that I or my executors or administrators will at any time upon request, without further or additional consideration, but at the expense of said Assignee, its successors and assigns, execute such additional writings and do such additional acts as said Assignee, its successors and assigns, may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, reissues or extended Letters Patent of the United States, or of any and all foreign countries on said invention, and in enforcing any rights occurring as a result of such application or patents, by giving testimony in any proceedings or transactions involving such applications or patents.

I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Assignee in accordance with this instrument.

IN WITNESS WHEREOF, I have	ce hereunto set my hand on this day of day of
<i>*</i>	C. Daniel Frisbie
STATE OF Minnesota)	
COUNTY OF Hennepin)	
appeared, C. Daniel Frisbie, to me known	August , 2018, before me personally own to be the person described in and who executed the that s/he executed the same as his/her free act and deed.
IN WITNESS WHEREOF, I ha	ave hereunto affixed my official signature with the seal

and animous my district signature with the soun

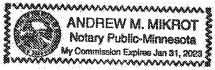
Notary Public

GAYLE MARIE GABRIELSKI Notary Public Minnesota My Commission Expires Jan 31, 2023

Attorney Docket Number 1008-143US01 UM Case No. 20140298

of my office, the day and year above written.

IN WITNESS WHEREOF, I 2018, on behaccepting this assignment.	have hereunto set my hand on this 27 day of nalf of Assignee Regents of the University of Minnesota
	Paul B. Savereide Senior Associate General Counsel per Presidential Delegation DA_028016
STATE OF MINNESOTA)
COUNTY OF HENNEPIN	
	, 2018, before me personally appeared be the person described in and who executed the foregoing ne executed the same as his/her free act and deed.
IN WITNESS WHEREOF, I my office, the day and year above wr	have hereunto affixed my official signature with the seal of itten.
	Notary Public 1
	ANDREW M. MIKROT



Attorney Docket Number 1008-143US01 UM Case No. 20140298



University of Minnesota ASSIGNMENT

WHEREAS, I, Kevin D. Dorfman, have invented certain new and useful improvements in ELECTROLYTE-GATED TRANSISTORS FOR DETECTION OF MOLECULES, for which applications for Letters Patents of the United States have been made, said applications being filed as follows: PCT/US2015/045108 on August 13, 2015; and Utility application no. 15/503,277 on August 13, 2015 (the "Application(s)");

Whereas, REGENTS OF THE UNIVERSITY OF MINNESOTA ("Assignee"), having offices at 600 McNamara Alumni Center, 200 Oak Street SE, Minneapolis, Minnesota 55455-2020, is desirous of documenting the acquisition of the entire right, title and interest in and to said invention, said Application(s) and in, to and under any and all Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, and to the extent that I have not done so already via a prior agreement with the Assignee, or if I have already done so via a prior agreement with the Assignee then in confirmation of said prior agreement, I have sold, assigned, transferred and set over and by these presents do sell, assign, transfer and set over unto Assignee, its successors and assigns, the entire right, title and interest in and to the inventions set forth hereinabove and the entire right, title and interest in and to any and all Letters Patent of the United States and any foreign countries which may be granted therefor on the Application(s) including my rights under the Paris Convention for the Protection of Industrial Property, and in and to any and all extensions, divisions, continuations, continuations-in-part or reissues of said Application(s) and Letters Patent that may be granted. including all rights to claim priority therefrom, and specifically including the right to enforce such Letters Patent in the name of Assignee and to recover damages for past infringement of the rights conveyed herein, the same to be held and enjoyed by Assignee for its own use and benefit and use and benefit of its successors and assigns to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.

I hereby authorize said Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent, in its own name if desired, in any and all foreign countries, and additionally to claim the filing date of any the Application(s) and/or otherwise take advantage of the provisions of the Paris Convention.

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PATENT

REEL: 049823 FRAME: 0794

Upon said consideration I do hereby covenant and agree with said Assignee, its successors and assigns, that I will not execute in writing or do any act whatsoever conflicting with these presents, and that I or my executors or administrators will at any time upon request, without further or additional consideration, but at the expense of said Assignee, its successors and assigns, execute such additional writings and do such additional acts as said Assignee, its successors and assigns, may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, reissues or extended Letters Patent of the United States, or of any and all foreign countries on said invention, and in enforcing any rights occurring as a result of such application or patents, by giving testimony in any proceedings or transactions involving such applications or patents.

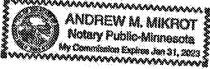
I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Assignee in accordance with this instrument.

IN WITNESS WHEREOF, I have hereunto so 2018.	et my hand on this 21 day of
	Kan D Dolan
	Kevin D. Dorfman
STATE OF Minnes, 47	
county of Hennepin	
On this 2 day of August appeared, Kevin D. Dorfman, to me known to be the foregoing instrument and acknowledged that s/he exe	2018, before me personally person described in and who executed the cuted the same as his/her free act and deed.
IN WITNESS WHEREOF, I have hereunto of my office, the day and year above written.	affixed my official signature with the seal

GAYLE MARIE GABRIELSKI Notary Public Minnesota My Commission Expires Jan 31, 2023 <u> Marie Haliselak:</u> Notary Publik

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IN WITNESS WHEREOF, I have hereunto set my hand on this , 2018, on behalf of Assignee Regents of the University of Minnesota accepting this assignment. REGENTS OF THE UNIVERSITY OF MINNESOTA Paul B. Savereide Senior Associate General Counsel per Presidential Delegation DA 028016 STATE OF MINNESOTA COUNTY OF HENNEPIN On this _____ day of 3 2018, before me personally appeared Paul B. Savereide, to me known to be the person described in and who executed the foregoing instrument and acknowledged that s/he executed the same as his/her free act and deed. IN WITNESS WHEREOF, I have hereunto affixed my official signature with the seal of my office, the day and year above written. Notary Public



Attorney Docket Number 1008-143US01 UM Case No. 20140298

REEL: 049823 FRAME: 0796