507277711 05/11/2022 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7324632

	NEW ASSIGNMENT	
CE:	ASSIGNMENT	
TA		
	Name Execution Date	
	08/28/2018	
	09/24/2018	
RT	10/03/2018	
ГА		
NORTHWESTERN UNIVERSITY		
633 CLAF	33 CLARK STREET	
EVANSTO	N	
ILLINOIS	INOIS	
60208	0208	
117	730710	
	730710	
ATA (60 sent to th rovided; in 60 cm CA	08)661-3594 The e-mail address first; if that is unsuccessful, it will be sent If that is unsuccessful, it will be sent via US Mail. 86613590 accommon@bellmanning.com, docketing@bellmanning.com ARMEN J. MCCOMMON 01 W. BELTLINE HWY	
ATA (60 e sent to th rovided; in 60 cm CA 28	08)661-3594 The e-mail address first; if that is unsuccessful, it will be sent f that is unsuccessful, it will be sent via US Mail. 86613590 Inccommon@bellmanning.com, docketing@bellmanning.com ARMEN J. MCCOMMON	
ATA (60 sent to th rovided; in 60 cm CA 28 SL	08)661-3594 The e-mail address first; if that is unsuccessful, it will be sent if that is unsuccessful, it will be sent via US Mail. 86613590 Inccommon@bellmanning.com, docketing@bellmanning.com ARMEN J. MCCOMMON 01 W. BELTLINE HWY	
ATA (60 sent to th rovided; in 60 cm CA 28 SL	08)661-3594 The e-mail address first; if that is unsuccessful, it will be sent if that is unsuccessful, it will be sent via US Mail. 86613590 nccommon@bellmanning.com, docketing@bellmanning.com NRMEN J. MCCOMMON 01 W. BELTLINE HWY JITE 210	
ATA (60 sent to th rovided; i 60 cm CA 28 SL MA	08)661-3594 be e-mail address first; if that is unsuccessful, it will be sent f that is unsuccessful, it will be sent via US Mail. 86613590 accommon@bellmanning.com, docketing@bellmanning.com ARMEN J. MCCOMMON 01 W. BELTLINE HWY UITE 210 ADISON, WISCONSIN 53713	
ATA (60 sent to th rovided; i 60 cm CA 28 SL MA	08)661-3594 De e-mail address first; if that is unsuccessful, it will be sent f that is unsuccessful, it will be sent via US Mail. 86613590 accommon@bellmanning.com, docketing@bellmanning.com ARMEN J. MCCOMMON 01 W. BELTLINE HWY JITE 210 ADISON, WISCONSIN 53713 00100-0092-CON	
ATA (60 sent to th rovided; i 60 cm CA 28 SL MA	08)661-3594 De e-mail address first; if that is unsuccessful, it will be sent f that is unsuccessful, it will be sent via US Mail. 86613590 Decommon@bellmanning.com, docketing@bellmanning.com ARMEN J. MCCOMMON 01 W. BELTLINE HWY JITE 210 ADISON, WISCONSIN 53713 00100-0092-CON CARMEN MCCOMMON	
ATA (60 sent to th rovided; in 60 cm CA 28 SL MA MBER:	08)661-3594 De e-mail address first; if that is unsuccessful, it will be sent f that is unsuccessful, it will be sent via US Mail. 86613590 nccommon@bellmanning.com, docketing@bellmanning.com ARMEN J. MCCOMMON 01 W. BELTLINE HWY JITE 210 ADISON, WISCONSIN 53713 00100-0092-CON CARMEN MCCOMMON /Carmen McCommon/	
	TA TA NORTHW 633 CLAF EVANSTO ILLINOIS 60208 Total: 1	

source=00100-0092-CON_Assignment#page4.tif source=00100-0092-CON_Assignment#page5.tif

Attorney Docket No. 00100-0092-02 NU Reference No. 2017-060-02

ASSIGNMENT

U.S. Serial No: PCT/US2018/039433 Filing Date: June 26, 2018 Inventors: Alan V. Sahakian; Koray Aydin; Francols Callewaert Title of U.S. Patent Application: ADDITIVE MANUFACTURING OF INVERSE-DESIGNED METADEVICES

For good and valuable consideration, the receipt and sufficiency of which are hereby agreed, each of the undersigned hereby assigns to Northwestern University, an Illinois not-for-profit corporation, having a place of business at 633 Clark Street, Evenston, Illinois 60208 and its successors and assigns ("Assignee") the entire right, title and interest in and to the inventions of such undersigned disclosed in the application listed above, and in any and all other applications anywhere in the world which the undersigned may file and/or be named as an inventor of, solely or jointly, on said inventions, in any and all patents which may be obtained on any of said applications and in any and all reissues, reexaminations, supplemental examinations, inter partes reviews, oppositions, post-grant reviews, supplementary protection certificates and/or seek other remedies for the past, present and future infringement of any of the foregoing, the right of priority, including without limitation to claim priority benefit of or to said patent applications, and request the Commissioner for Patents in the United States and similar authorities outside the United States to issue said patents to and in the name of the Assignee.

Each of the undersigned states that the application listed above is or was made or authorized to be made by him or her. Each of the undersigned believes himself or herself to be the original inventor or a joint inventor with another undersigned of a claimed invention in the application listed above. Each of the undersigned acknowledges that any willful false statement made by him or her in this paragraph is punishable under 18 U.S.C. §1001 by fine or imprisonment of not more than five years, or both.

Except in favor of Assignee, each of the undersigned warrants that: (i) he or she is the owner of all its rights, titles and interests herein assigned and has the right to make this unconditional and irrevocable assignment to Assignee without obtaining any approval or permission of a third party; and (ii) there are no outstanding encumbrances, liens, prior assignments, licenses, or other obligations or restrictions on the rights, titles and interests herein assigned.

Attorney Docket No. 00108-0092-02 NU Reference No. 2017-068-02

Upon the request of Assignee and at no expense to the undersigned, each of the undersigned hereby agrees to execute any and all applications on said inventions, including without limitation for the reissue, reexamination, supplementary protection certificate or extension thereof and any oath, declaration or affidavit relating thereto that said Assignee may deem necessary or expedient, and to cooperate to the best of the ability of the undersigned with and perform any and all affirmative acts requested by Assignee to prepare, file, prosecute, maintain, defend, enforce and vest in Assignee the rights, titles and interests assigned herein, including without limitation, preparing and executing statements and giving and producing evidence in support thereof, whereby said rights, titles and interests will be held and enjoyed by said Assignee to the full end of the term for which said patents may be granted as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment had not been made.

Undersigned (ASSIGNORS):

SS.

Inventor Name: Alan V. Sahakian

DATE

State of Tilinois

County of COOL

On this 2% day of <u>AUAUS</u>, <u>2018</u>, before me, a Notary Public in and for the County and State aforesaid, appeared, to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he or she executed said instrument as his or her free and voluntary act and for the uses and purposes therein expressed.

NOZARY POBLIC

[NOTARY SEAL]

My Commission Expires: 5/19/20

appression allas manista manni**st** NOTARY PURLIC, STATE OF ILLINOIS My Commission Expires May 19, 2020

(Continued on next page)

Page 2 of 5

PATENT REEL: 059890 FRAME: 0806

Attorney Docket No. 00108-0092-62 NU Reference No. 2017-060-02

U.S. Serial No: PCT/US2018/039433 Filing Date: June 26, 2018 Inventors: Alan V. Sahakian; Koray Aydin; Francois Callewaert Title of U.S. Patent Application: ADDITIVE MANUFACTURING OF INVERSE-DESIGNED METADEVICES

Undersigned (ASSIGNORS) continued:

88,

Invertor Name: Koray Aydin

DATE

09/24/2018

State of Illinois

County of Cook

On this 24 day of September 2018 before me, a Notary Public in and for the County and State aforesaid, appeared, to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he or she executed said instrument as his or her free and voluntary act and for the uses and purposes therein expressed.

NOTARY PUBLIC

[NOTARY SEAL]

My Commission Expires: 5/19/20

OFFICIAL SEAL MARINGA NAMABON Notary Public, state of Allinois My Commission Expires May 19, 2020

Attorney Docket No. 00100-0092-02 NU Reference No. 2017-060-02

U.S. Serial No: PCT/US2018/039433 Filing Date: June 26, 2018 Inventors: Alan V. Sahakian; Koray Aydin; Francois Callewaert Title of U.S. Patent Application: ADDITIVE MANUFACTURING OF INVERSE-DESIGNED METADEVICES

Undersigned (ASSIGNORS) continued:

10/03/201

SS.

Inventor Name: Fráncois Callewaert

State of NASHINGON

County of KING

On this <u>3</u> day of <u>OCTOBER2</u>, <u>7018</u>, before me, a Notary Public in and for the County and State aforesaid, appeared, to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he or she executed said instrument as his or her free and voluntary act and for the uses and purposes therein expressed.

GARRETT FURUTA Notary Public State of Weshington [NOTAR' SEALyAppointment Expires Apr 19, 2021

NOTARY PUBLIC

My Commission Expires: APRIL 19,2001

Page 4 of 5

Attorney Docket No. 00100-0092-02 NU Reference No. 2017-060-02

U.S. Serial No: PCT/US2018/039433 Filing Date: June 26, 2018 Inventors: Alan V. Sabakian; Korsy Aydin; Francois Callewaert Title of U.S. Patent Application: ADDITIVE MANUFACTURING OF INVERSE-DESIGNED METADEVICES

ASSIGNEE ACCEPTANCE: Northwestern University:

On behalf of Northwestern University, Assignee, the authorized signatory below, hereby confirms Assignee's acceptance of all rights, privileges, titles and interests conveyed by this Assignment.

1 siller Pallin____ Date:_ ! /____/___ Authorized Signature:

Printed Name

Lolita Buckingham, Invention Specialist or Heather Fletcher, Manager of INVO Docketing & Compliance

Department: Innovation and New Ventures Office (INVO)

Page 5 of 5