

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6730003

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
SEAN R. KIRKPATRICK	05/24/2021
KIET A. CHAU	05/24/2021
THY YAM	05/24/2021
MICHAEL J. WALSH	05/24/2021
RECEIVING PARTY DATA	
Name:	EXOGENESIS CORPORATION
Street Address:	20 FORTUNE DRVIE
City:	BILLERICA
State/Country:	MASSACHUSETTS
Postal Code:	01821
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	17225272
CORRESPONDENCE DATA	
Fax Number:	(617)345-3299
<i>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.</i>	
Phone:	6173453000
Email:	docketing@burnslev.com, ptedesco@burnslev.com
Correspondent Name:	BURNS & LEVINSON LLP
Address Line 1:	125 HIGH STREET
Address Line 4:	BOSTON, MASSACHUSETTS 02110
ATTORNEY DOCKET NUMBER:	31198-169G CIP
NAME OF SUBMITTER:	JERRY COHEN
SIGNATURE:	/Jerry Cohen/
DATE SIGNED:	05/26/2021
Total Attachments: 9	
source=31198-169GCIP-Assignment#page1.tif	
source=31198-169GCIP-Assignment#page2.tif	
source=31198-169GCIP-Assignment#page3.tif	

source=31198-169GCIP-Assignment#page4.tif
source=31198-169GCIP-Assignment#page5.tif
source=31198-169GCIP-Assignment#page6.tif
source=31198-169GCIP-Assignment#page7.tif
source=31198-169GCIP-Assignment#page8.tif
source=31198-169GCIP-Assignment#page9.tif

ASSIGNMENT

WHEREAS, we, **Sean R. Kirkpatrick**, a resident of **Littleton, MA**, **Kiet A. Chau**, a resident of **North Reading, MA**, **Thy Yam**, a resident of **Billerica, MA** and **Michael J. Walsh**, a resident of **Middleton, MA** (hereinafter referred to as "Assignors"), have made an invention entitled **METHOD AND APPARATUS FOR FORMING SUBSTRATE SURFACES WITH EXPOSED CRYSTAL LATTICE USING ACCELERATED NEUTRAL ATOM BEAM** for which a continuation application for patent was filed in the United States on **April 8, 2021** and accorded U.S. Serial No. **17/225,272**.

WHEREAS, **Exogenesis Corporation**, a corporation organized and existing under the laws of **Delaware**, having its principal place of business at **20 Fortune Drive, Billerica, MA 01821** (hereinafter referred to as "Assignee"), is desirous of acquiring right, title and interest in said invention.

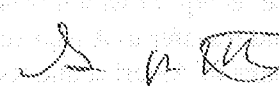
NOW, THEREFORE, in consideration of One Dollar (\$1.00), and other good and valuable consideration, the receipt of which is hereby acknowledged, Assignors by these presents, do sell, assign and transfer to Assignee, Assignors' entire right, title and interest, for the United States of America and its possessions and territories and for all foreign countries, in and to said invention, including all rights of priority created and conferred by any treaty or international convention which is available in connection with said invention, including the right to apply for patent rights, U.S. or foreign, and in any provisionals, utilities, continuations, continuations-in-part, divisions, substitutes, renewals, reissues or other applications filed in the U.S. or abroad (including multinational filing arrangements of all kinds), and in any U.S. or foreign patents issued on any such applications and reissues, extensions and renewals thereof, to be held and enjoyed by Assignee, for its own use and behalf and for its successors and assigns, to the full ends of the terms or extended terms for which any Letters Patents or the like may be granted, as fully and entirely as the same would have been held by Assignors had this sale, assignment and transfer not been made.

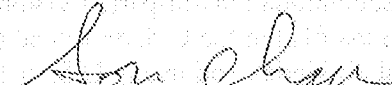
Assignors hereby authorize and request the Commissioner of Patents of the United States, and any official of any country or countries (including multinational filing arrangements of all kinds), whose duty it is to receive and/or examine applications for patents or similar intellectual/industrial property, issue patents or other evidence or forms of intellectual/industrial property protection on applications as aforesaid, to issue the same to Assignee, its successors and assigns, in accordance with the terms of this instrument.

Assignors covenant with Assignee, its successors, assigns, and legal representatives that Assignors have full right to convey the entire interest herein assigned, and that Assignors have not executed any agreement in conflict herewith and will not execute any agreement or conveyance in conflict herewith.

Assignors further covenant and agree to communicate to Assignee, its successors, legal representatives and assigns, any facts known to Assignors respecting said invention, and testify in any legal proceeding, sign all lawful papers, including, without limitation, application papers, assignments, powers of attorney, declarations, and other instruments, execute all divisional, continuing, substitute, reissue, renewal and foreign applications, make all truthful oaths, declarations and statements, and generally do everything reasonably requested of Assignors by Assignee, or its successors or assigns to aid Assignee, its successors or assigns, to obtain, enforce and/or exploit said invention.

Executed this 24th day of May, 2021.


Sean R. Kirkpatrick

Witness 1 Signature: 

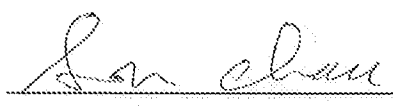
Witness 1 Print Name: SON CHAN

Witness 2 Signature: 

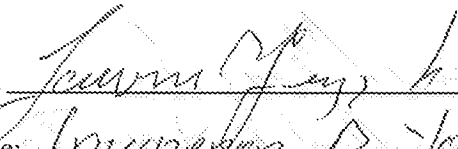
Witness 2 Print Name: LAWRENCE P. JENG, JR.

Executed this 24th day of May, 2021.


Kiet A. Chau

Witness 1 Signature: 

Witness 1 Print Name: SON CHAU

Witness 2 Signature: 

Witness 2 Print Name: LAWRENCE B. JOROY JR.

Executed this 24 day of 8, 2021.

Thy Vam

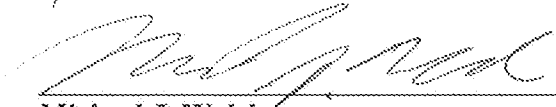
Witness 1 Signature:

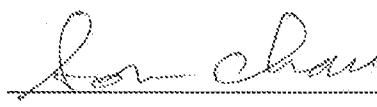
Witness 1 Print Name:

Witness 2 Signature: _____

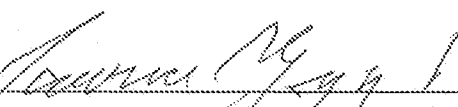
Witness 2 Print Name:

Executed this 24 day of May, 2021.


Michael J. Walsh

Witness 1 Signature: 

Witness 1 Print Name: SON CHAU

Witness 2 Signature: 

Witness 2 Print Name: LAURENCE R YORGE JR

4847-5500-8221

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of
Invention

METHOD AND APPARATUS FOR FORMING SUBSTRATE SURFACES WITH EXPOSED CRYSTAL LATTICE USING ACCELERATED NEUTRAL ATOM BEAM

As the below named inventor, I hereby declare that:

This declaration
is directed to:

☐

The attached application, or

☒

United States application or PCT international application number 17/255,272

filed on April 8, 2021

The above-identified application was made or authorized to be made by me

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: Sean R. Kirkpatrick

Date (Optional): 5/24/2021

Signature: 

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN
APPLICATION DATA SHEET (37 CFR 1.76)****Title of
Invention****METHOD AND APPARATUS FOR FORMING SUBSTRATE SURFACES WITH
EXPOSED CRYSTAL LATTICE USING ACCELERATED NEUTRAL ATOM BEAM**

As the below named inventor, I hereby declare that:

This declaration
is directed to:☐

The attached application, or


☒United States application or PCT international application number 17/255,272filed on April 8, 2021

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001
by fine or imprisonment of not more than five (5) years, or both.**WARNING:**

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTORInventor: Kiet A. ChauDate (Optional) 5/24/2021Signature: 

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 and select option 2.

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of
Invention

METHOD AND APPARATUS FOR FORMING SUBSTRATE SURFACES WITH
EXPOSED CRYSTAL LATTICE USING ACCELERATED NEUTRAL ATOM BEAM

As the below named inventor, I hereby declare that:

This declaration
is directed to:

☐

The attached application, or

☒

United States application or PCT international application number 17/225,272

filed on April 8, 2021

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: Michael J. Walsh

Date (Optional):

5/24/2021

Signature:

Michael J. Walsh

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PATENT

REEL: 056356 FRAME: 0257

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of
Invention

METHOD AND APPARATUS FOR FORMING SUBSTRATE SURFACES WITH
EXPOSED CRYSTAL LATTICE USING ACCELERATED NEUTRAL ATOM BEAM

As the below named inventor, I hereby declare that:

This declaration
is directed to:

☐

The attached application, or

☒

United States application or PCT international application number 17/225,272

filed on April 8, 2021

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

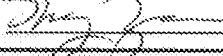
WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: Thy Yam

Date (Optional) 5/24/2021

Signature: 

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PATENT

RECORDED: 05/26/2021

REEL: 056356 FRAME: 0258